Inside Corus Radio Montreal. Page 22

A New Tower for Lansing

Mid Michigan Radio Group completes installation of a new transmitter, antenna and tower atop a landmark building.

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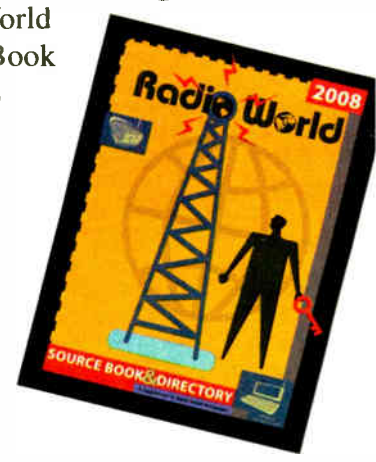
Data at Your Fingertips

Your Radio World 2008 Source Book & Directory is enclosed with this issue.



Radio World

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Don't miss our wrapup coverage of the 2008 International CES show in an upcoming issue.

FIRST PERSON

Pitfalls, Procedures of HD-R Measurement

by Benjamin H. Brinitzer

As I travel around different facilities, I find there is confusion on the proper way to confirm and measure IBOC mask and spectrum compliance.

The most common mistakes in completing spectrum measurements are employing improper tools, choosing an improper measurement location and using improper spectrum analyzer configuration.

Improper power calculations and modulation levels also may result in inaccurate measurements.

Some of the biggest and easiest mistakes relate to measurement in space and high-level systems. Measurement is not simply a matter of taking a spectrum

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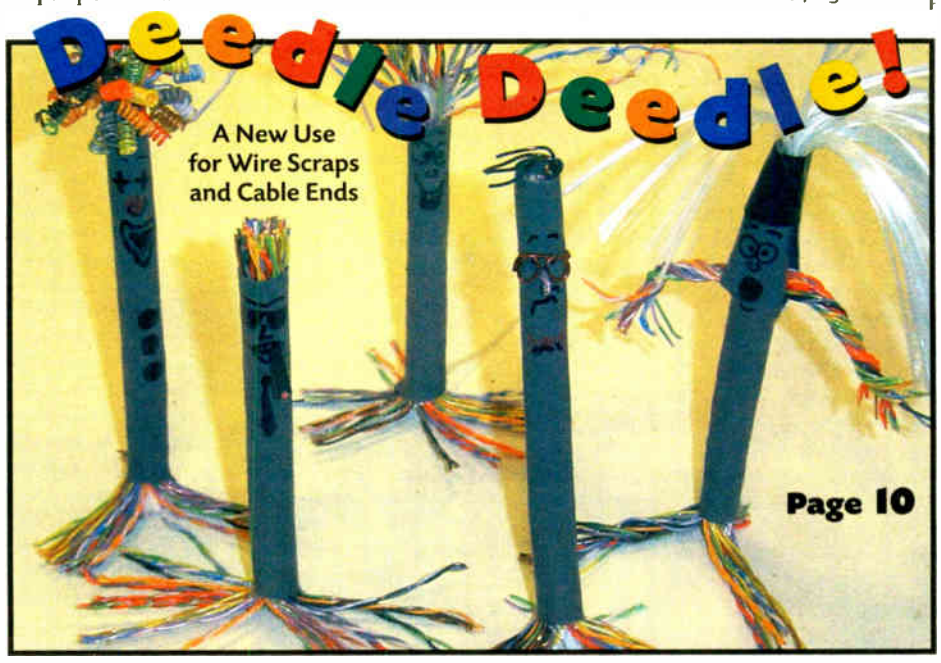

SBE to Launch Education Initiative

by Randy J. Stine

INDIANAPOLIS Saying it wants to "ramp up" a more comprehensive educational program, the Society of Broadcast Engineers expects to add to its training efforts with new course work that eventually could lead to additional certifications.

The mission of the non-profit group has always been rooted in educational opportunities, most tied to its certification program; in 2007 the group began offering a series of RF safety courses via Webcast, and its leadership envisions launching similar courses.

SBE leaders say discussion of additional education programs is in the preliminary stages, with the SBE Education Committee hoping to pitch ideas to the full board sometime this spring.

"A lot of the detail is still a work in progress. But there is consensus that this is a role the SBE should be dominant in," said SBE president Barry Thomas.

"Mostly it's about providing the needed

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Will 24/7 Station Staffing Be Required?

Broadcasters Oppose Potential Change in Rules Covering Unattended Operation

The FCC is reviewing public comments in the IBOC proceeding with an eye towards changing or adding to public interest obligations for digital broadcasters.

One of the proposals on which the commission sought comment applies to both digital and analog stations: whether the agency should cut back on the number of hours a station may be operated unattended, or even repeal the rule entirely and require 24/7 staffing.

In 1987, the commission eliminated the former rule requiring a station to originate the majority of its non-network programming from its main studio. It said technical advances in program production and distribution prompted the action.

In 1995, as the stability of station monitoring and transmission equipment improved, the agency authorized unattended technical station operation and expanded the ability of facilities to control and monitor technical operations from remote locations.

The Emergency Alert System was designed around unattended operations. Yet in the text of its IBOC rules released earlier this year, the FCC asked whether the "widespread reliance on automated operations" limits the ability to effectively distribute EAS alerts.

What follows are excerpts of public comments regarding unattended operations.

Richard Cornwell, GM, WTBO-WKGO Corp., Cumberland, Md.:

The commission is considering requiring stations to be staffed 24 hours a day, 7 days a week because of EAS problems. The problem with EAS is *not* the radio station operator's fault. It is inferior equipment used by EAS.

The system and its execution [need] a serious overhaul. Requiring stations to staff around the clock is basically making radio stations babysit a failed government system at station expense.

If the governments get the signal out to properly working equipment, the radio industry does a great job of getting the important warnings on the air. I have to say though, that the kind of tones and the delayed low level of voice audio used by EAS is part of the problem, in addition to the poor equipment problems.

In addition, expanding the staffing on thousands of small market radio stations will have a serious impact [on] the ability for many, many of those stations to continue to operate in a profitable manner. Increased staff and more tha[n] likely another round of new EAS equipment to have to purchase will put some stations out of business.

Public Interest Coalition — Benton Foundation, Campaign Legal Center, Center for Governmental Studies, Common Cause, Office of Communication of the United Church of Christ Inc., and Prometheus Radio Project, Washington:

The commission must ensure that automated broadcast operations are relevant during emergencies. Automated broadcast operations must be automatically overridden in an emergency. ...

The commission seeks comment on issues relating to automated broadcast operations, rules governing them and their effect on "the ability of law enforcement and public safety officials to use radio broadcast stations effectively during emergencies." The Public Interest Coalition recommends that automated broadcast operations be automatically overridden in the event of an emergency. The commission must also require sta-

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Unattended

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tions to report during what times the stations rely on automated broadcasting.

Native American Christian Voice Attorney Jeffrey D. Southmayd, Washington:

The commission has on many occasions granted licenses for satellite operation waivers to numerous non-commercial stations in small communities to allow their main studios to be located at the studio of a co-owned, non-commercial station. These waivers have been granted to stations located both in contiguous communities to, and at a great distance from, the "parent station." ...

These satellite stations operate without any local staff in place and are fully automated, with the "parent station" monitoring the operation of the satellite. The commission has consistently found "good cause" to exist for granting a main studio waiver and allowing unmanned, satellite stations in instances based upon the economic benefits to non-commercial stations that are provided by such centralized operations from a single studio. ...

Based on this, Native submits that the commission should not act in a manner that would modify the licenses for these main studio waiver satellite stations by requiring them to be locally staffed.

Such an action is unnecessary under the public interest standard, and would result in numerous satellite stations ceasing their operation due to the expense involved in local staffing of stations serving small communities. Rather, any action the commission takes in this regard should relate solely to the operation of the parent station and its main studio, not the unmanned satellite station. ...

Native's experience as a non-commercial station operator is that the technical advances in automated equipment allow its stations to respond to an EAS situation just as quickly as a fully staffed station. Each station has individualized EAS equipment located at the transmitter site.

The equipment instantly interrupts regular programming, and relays each essential local EAS message to the local population without delay. This efficient system is often superior to the delays that might be created while waiting for local staff to review the EAS information, decide on an appropriate course of action, rewrite the information, record the information, and then transmit the information over the air. ...

EAS gear never leaves the station early, never has family emergencies, or stays home with the flu, and is always ready to instantly break into network programming with EAS warnings and messages. This level of reliability is tracked by computer files and tape at any time. Moreover, nothing inherent in the change over to a digital system will have any effect on the reliability of the present automation systems in effect.

EAS gear never leaves the station early, never has family emergencies, or stays home with the flu, and is always ready to instantly break into network programming with EAS warnings and messages.

— Native American Christian Voice

NPR, Washington:

[W]e do not believe that now is the time nor this the proceeding to revisit, let alone fundamentally alter, existing commission rules allowing stations to automate station functions.

We are unaware of any systemic problems that would justify restricting the flexibility to automate broadcast operations.

If the commission believes there are specific issues that warrant attention, it is incumbent upon the commission to identify those issues. We understand that, with respect to EAS activation, the system is designed for auto-triggering, but many stations employ a manual trigger to maintain licensee programming control.

To the extent that situation warrants further commission consideration, the ongoing EAS proceeding is a better context in which to address the issue.

Otherwise, given the expense of the digital conversion, including developing new programming, and the uncertainty regarding the public's adoption of the technology, increasing station costs by restricting automation is more likely to obstruct than advance the digital radio transition.

Nickolaus Leggett, Reston, Va.:

It is clear that automatic operation limits the ability of a radio broadcast station to respond to localized emergencies. Many immediate emergencies are local events that are not visible to distant organizations operating automated radio stations. ...

[B]roadcast radio can provide a very major community service by providing warning and ongoing information about local emergencies. However, this service can only be provided when the radio stations are manned by local personnel.

These local personnel can be immediately informed of the local emergency and they can redirect the operation of the station to serve the local emergency. Since they are local residents, they will likely be familiar with the particular areas impacted by the emergency and can respond intelligently to the situation. ...

Humans can provide emergency services that no automated system can provide. They can directly broadcast emergency messages from local emergency personnel, provide continuously updated information on the local situation, and improvise the provision of electric power to the station as needed.

I was without power for a week during a hurricane in New England. I listened to a manned local station on a battery-powered radio that provided continuous updates on the situation and the efforts to restore the electric power. ...

The commission should require every radio broadcast station to be manned at all times that the radio station is on the air.

— Nickolaus Leggett

The commission should require every radio broadcast station to be manned at all times that the radio station is on the air. This should apply to all stations from the largest full-power broadcast station to the smallest low-power FM (LPFM) broadcast station.

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Their Words Make Up Our Pages

These are the people whose articles, letters, tips, white papers, photos and opinions made up the editorial content of Radio World and RW Engineering Extra this past year. Hundreds more not listed here contributed ideas, advice and quotes.

Without them, there would be no RW. And these are only a small part of the greater community of readers, advertisers and staff who make up Radio World. My thanks to them as we enter our 32nd year of RW.

Stanley Adams, Cris Alexander, Amanda Alexander, Tom Ammons, Brian Anderson, Bruce Anderson, Jeffrey Andrulonis, David Antoine, Andrew Armstrong, John Arndt, Jerry Arnold, Bruce Atchison, Allan Augustyn.

Scott Bailey, Craig Baker, Ivo Bankovs, Frank Baptista, Roberta Barmore, Mark Battersby, William Bauer, Fred Baumgartner, Linda Baun, Frank Beacham, Meredith Beal, Gary Begin, Ernie Belanger, Frank Bellina, Angelo Bello, Ray Benedict, Jon Bennett, Rocco Bennett, Larry Berger, Michael Bergman, Kevin Berlen, Harry Bingaman, SBE Educator of the Year John Bisset, Dennis Blais, Barry Blesser, Phil Boersma, Josh Bohn, Scott Bourne, Wes Boyd, Danny Ray Boyer, Tom Boyhan, Michael Bradford, Allen Branch, Edwin Brand, Mike Breitenstein, Dave Breithaupt, Johnny Bridges, Bob Brigham, Ben Brinitzer, Wayne Brissette, Jackie Broo, Kelly Brooks, Strother Bullins, Richard Burden, Read Burgan, Dave Burns, Alex Byrne.

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From the Editor

Paul J. McLane

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Unattended

▶ Continued from page 3

Clear Channel Radio, San Antonio, Texas:

Clear Channel continues to urge the commission to refrain from using broadcasters' voluntary transition to DRB as a basis for imposing additional obligations on broadcasters that are not germane to the transition. ... The DRB transition should not occasion revisitation of the automation rules. ...

As many [commenters] point out, the dramatic technological advances that have been made since the commission first issued its automation rule in 1995 have strengthened the EAS system and continue to improve service to smaller communities. Broadcasters have been able to harness these advances to maximize scarce resources to enable further investment in unique programming, news and information services.

Broadcasting is not unique in employing automation. Every sector of the American economy has enjoyed enhanced productivity, permitting more rational allocation of people's talents and skills, as a consequence of automation. Now is certainly not the time to turn back the clock.

Clear Channel agrees with NPR's final analysis that, given the expense of the conversion to DRB and the uncertainty surrounding the public's adoption of the technology, any effort to restrict automation is more likely to obstruct, rather than advance, the transition to digital radio.

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

Correction

In the Dec. 5 issue, Barry McLarnon wrote of an AM IBOC primary digital sideband that "there are 25 carriers, and each is set at –28 dBc." Each carrier is actually set at –30 dBc.

To calculate the total power in a primary digital sideband, therefore, one should add the 10log(25) = 14 dB factor to –30 dBc, arriving at the –16 dBc figure that was previously stated. The –28 dBc figure (or, more exactly, –27.8 dBc) mentioned in both the Oct. 10 article by Cris Alexander and McLarnon's article is the power in a 300 Hz bandwidth, the power that would be measured with a spectrum analyzer set to 300 Hz resolution bandwidth on a NRSC-5A-compliant AM IBOC system. This power is higher than the power per carrier, since a 300 Hz measurement bandwidth will encompass more than one carrier.

The error does not affect other figures given in McLarnon's article and has no bearing on the conclusions reached, he said.

Measurement

▶ Continued from page 1

plot at a modulation sample of the digital transmitter. There is more involved.

Some manufacturers have employed spectrum analyzer options in their modulation monitoring equipment. While these are great visual aids in troubleshooting, they unfortunately are not very helpful for verifying compliance with the mask.

Typically signal-to-noise levels exceed the minimum levels of IBOC mask compliance (–80 dB). Multipath and location within any FM pattern if separate radiators are employed and if you are taking an off-air sample can adversely affect results.

The tools required to make the measurements are:

• A good spectrum analyzer (Agilent 4402b or like specifications)

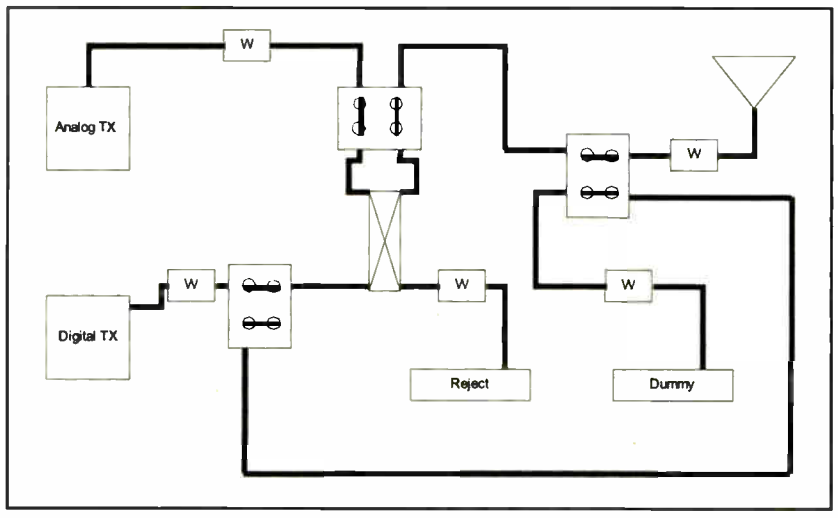

Fig. 1: High-level IBOC/Analog Transmission System

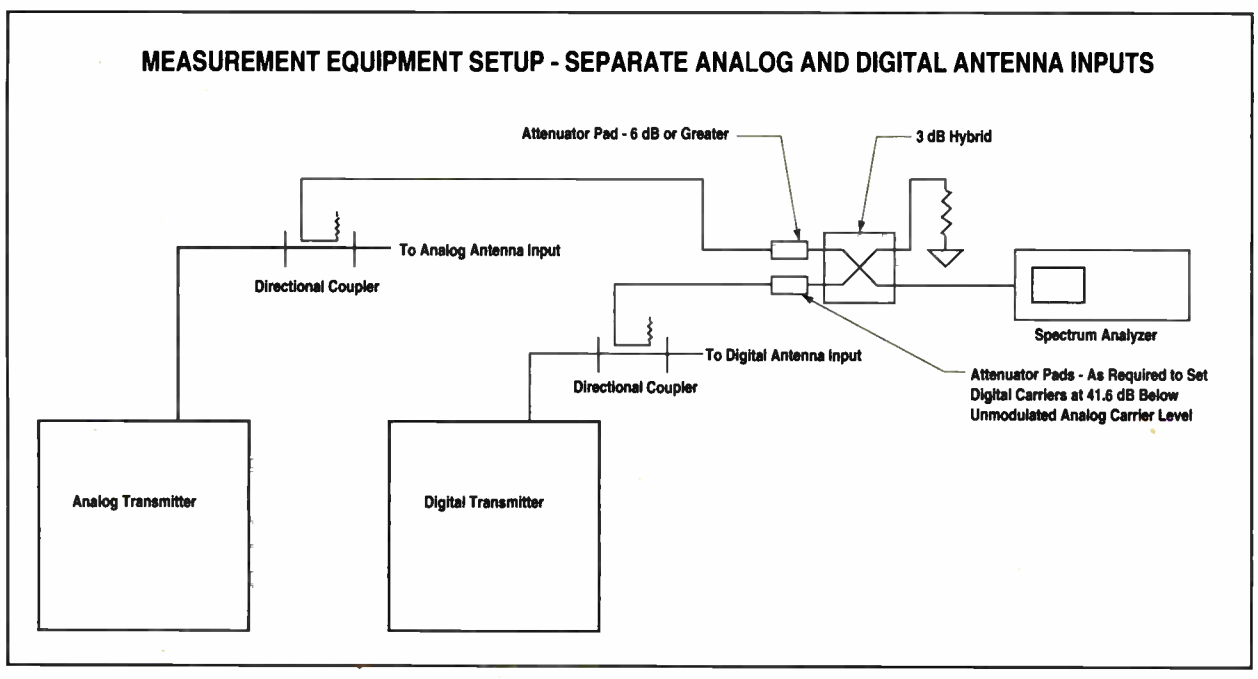

Fig. 2

• Directional Sample and appropriate RF line sections (When measuring for spectrum compliance you must use a directional sample to avoid the effects of the return path signals interfering with your measurements.)

• 2 or more fixed 3 dB or larger RF pads

• A Variable RF attenuator (typically with 30 dB of selectable step attenuation)

• Test cables and a splitter/combiner like the mini-circuits ZFSC-2-2.

High-level methods

High-level, also referred to as "separate amplification," employs independent digital and analog transmitters. The output of each is later combined using RF combiner.

Common combiner ratios are 8 and 10 dB. Fig. 1 is representative of a well-designed high-level deployment, where separate transmitters are used for HD-R and analog signals. Three switches are employed to allow you to bypass the combiner/injector or use the digital transmitter as a back-up analog transmitter.

The "Ws" represent sample port line sections or wattmeter sections with slug ports. Common models are the Bird Electronics BPME or standard 4610. Without these sections, there is no way to sample RF properly for IBOC mask compliance.

You must measure using a directional sample with at least 30 dB directivity at the last location before the antenna. Coupling does not matter as levels will be set using fixed or variable external pads.

Split-level is trademarked by Harris Broadcast and is only available from that company. The method splits off some of the analog RF into the digital transmitter. The primary advantage is that your analog transmitter does not have to make the 10 percent headroom for high-level operation.

You can avoid an analog transmitter replacement by shifting some of the analog into the digital transmitter. Split-level is measured at the same location and using the same method as high-level, just before the transmission line leaves the building and after any filters, but before the antenna.

Low-level is exciter-based injection. Where low-level HD Radio RF is injected into either a linear RF amplifier and/or pre-correction is employed to assist. In low-level systems, place a line section between the transmitter and antenna and after any filters in the system, such as the low pass filter.

To summarize high-, split- and low-level systems: Sample via directional coupler with at least 30 dB directivity on the output, *after* any filters in the system and before the antenna. Place sample sections in the output line, in the dummy load line for testing and sample purposes.

Do *not* use modulation monitor samples on your transmitters. They frequently have no directivity and are located *before* the low pass filters. (We only care about what makes it to the antenna and is radiated, right?)

Do *not* measure an off-air sample for IBOC FM mask compliance. There will be antenna effects on received signal, possible signal corruption from multipath and differences in antenna patterns. All will cause non-linear measurements across the channel. Also the SNR is typically higher than the mask minimums of –80 dB.

Separate or dual-feed

Space systems are a challenge to measure. It is not sufficient to measure just the digital signal. You must measure the analog and digital together to allow them to mix and generate IM products.

Hopefully your analog and digital antenna patterns are similar. However, if separate antennas are employed, the coverage will never be exactly the same in any location due to reflections from the mounting structure, differences in HAAT and number of elements employed, and therefore, differences in elevation pattern.

Dual-fed antennas frequently are counter-polarized, which may change the multipath performance for the two signals under test. Frequently the signal received at your studio or measurement location, will vary widely when the measured source is on the digital antenna vs. the analog antenna. It is possible to make a measurement in a minima of the digital antenna and a maxima of the analog depending on location; however this will cause the ratio of digital to analog to suffer.

So what's the solution? Combine and measure *before* the antennas.

In the procedure shown in Fig. 2, we see there are two directional couplers, one placed in the analog line and one in the digital line, along with a few pads and a 3 dB hybrid, such as the Mini-circuits ZFSC-2-2. You can verify IM products are compliant with the IBOC mask by combining the signals from the directional couplers in the mini-circuits combiner.

This method cannot be used to verify digital injection/transmission levels vs. the analog. We need to depend on power loss and gain calculations given the different losses and gains most likely employed in any space system.

Under the current rules — that feels good to say; we have rules now! — the digital ERP is injected at a level of 1 percent of the analog. In space systems, you will have separate transmission lines and maybe two antennae, thus your gains and losses may be different between the systems.

To figure those, we take the ERP required and divide it by the power gain of the antenna. (You also can do a dB conversion.) Then subtract the line and other system losses. Examples of other losses encountered are switches and any combiners and filters.

Since losses will be different between systems, so will the TPO and therefore the measured level at the directional couplers. In the procedure shown, we reference the analog signal level and then adjust the variable RF pad on the digital feed to set the digital reference level to 20 dB below the analog.

First, we need to calibrate the analog reference by removing the digital signal cable. We leave the pad on the digital side to maintain the hybrid isolation of the mini-circuits combiner.

Measurement is not simply a matter of taking a spectrum plot at a modulation sample of the digital transmitter.

Now, set the resolution and video bandwidth to 1 MHz and peak the carrier to some level, typically the top of the display. The result is the level to which all other measurements will reference.

Next, we mark the analog level with a delta marker and then we remove the analog and place the digital signal in the mini-circuits combiner and set the resolution and video bandwidth to 1 MHz again. This time we will add pads to drop the "line" (level) to 20 dB below your analog reference. You should adjust the variable RF pad on the digital feed to set the digital level.

In a recent measurement, the analog reference level of approximately –10 dBm was measured without the digital connected to the mini-circuits combiner. Then the digital reference level was measured at –24 dBm.

The difference between the signals is 14 dB, thus 6 dB of additional attenuation should be placed on the digital side of the splitter combiner so that the digital reference level will be –20 dB below the analog reference level. The actual level is –22.6 dB down from analog. You should not reference the "top of the skirts" on the limits screen if loaded. You will cheat yourself out of a few dB of headroom.

Once the digital reference is set using the external pads we reconnect the analog signal and change your resolution bandwidth to 1 kHz and make the measurement. For FM measurements your analyzer should be configured with the following settings:

See MEASUREMENT, page 8 ▶

Shark, shown interviewing BERT MCCRACKEN, lead singer for THE USED, says: "When Comrex told me that their internal code name for ACCESS was "THE NEXT BIG THING" I got it right away. This IS BIG – I was live, on the air, in places I could NEVER have gone with regular old technology. THANKS COMREX!"

ACCESS

Impossible Remote? Nah, You've Got ACCESS.

Meet Another Real-World Super Hero...

Live coverage of *Next Big Thing 7*, Tampa's 15-band, two-stage, 20,000 screaming fan concert, seemed daunting. But it couldn't have gone smoother for *Shark*, Cox Radio's 97X Program Director and afternoon host. When covering an event like this, *Shark* would normally be battling for a frequency with all the wireless mics, and getting back stage to interview all 15 bands with a live wired mic was just impossible. ACCESS pulled it off without a hitch. *Shark* went live with the push of a button and not a care in the world. Covering even the gnarliest live event is a natural for ACCESS.

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NEWS ANALYSIS

Congress Probes FCC Process

Legislators Explore Charges That Martin Keeps Information From Colleagues

by Leslie Stimson

WASHINGTON The FCC ended 2007 chaotically with more than the typical end-of-year political jockeying, as Congress opened an investigation to the agency's decision-making process based on perceived disorganization within the commission.

The findings of the probe will be interesting as the agency moves into the 2008 election year.

During oversight hearings in December, lawmakers urged FCC Chairman Kevin Martin to slow efforts to relax media ownership rules until he gets his agency under control.

Observers noted that a delay could mean a vote drags on until a new administration, and perhaps a different political party, is in the White House, thereby giving the issue of whether and how to relax media ownership rules a different outcome.

In an unprecedented move, the FCC in December also began publishing on its Web site a list of items circulating among the commissioners for a vote, saying it did so to provide more transparency to its decisions.

Complaints, delays

Delays in monthly agenda meetings, complaints from communications professionals and public sniping among commissioners about access to information prompted Rep. John Dingell, D-Mich., chairman of the House Commerce Committee to begin an inquiry. The goal, he said, is ensure that the agency's processes are fair, open and serving the public interest.

Rep. Bart Stupak, D-Mich., chairman of the subcommittee that will conduct the inquiry, said, "It is one thing to be an aggressive leader, but many of the allegations indicate possible abuse of power and an attempt to intentionally keep fellow commissioners in the dark."

In a letter to Martin, Dingell asked for a commitment to publishing proposed rules in advance of meetings, providing sufficient time to review proposed orders and rules, and providing commissioners with relevant information on which proposed decisions are based.

At a hearing of the Telecom and Internet Subcommittee about FCC oversight, Dingell said, "The FCC appears to be broken. The real loser is the public interest and the consumer. When this happens the public confidence in the agency is shaken. We can't allow this to continue."

Democratic FCC Commissioner Michael Copps, a frequent commission critic, agreed and said the agency was "lurching dangerously off-course and only congressional oversight can help put us back on track."

Dingell sternly warned the assembled commissioners that while the chairman ultimately is responsible for the FCC, it requires all of the commissioners, "including the Democrats," to work together.

However sniping among commissioners is nothing new. Chairman Reed Hundt and Commissioner Jim Quello used to have public spats, for example.

Martin said the agency is run the same as it was when he worked on the staff of Commissioner Harold Furchtgott-Roth and as a commissioner under Chairman Michael Powell.

During the FCC's November public meeting, Commissioners Robert McDowell, a Republican, and Jonathan Adelstein, a Democrat, complained that they had not received the FCC's own data on a cable item from Martin until the night before. Adelstein accused Martin of suppressing the information.

How to improve?

Asked about this by lawmakers, Martin said he provided ample time for his colleagues to see the information and adequate time for the public to comment; that much of the cable item in question had been proposed several months before the meeting, he argued.

Lawmakers pursued Martin on what could be done to improve agency processes; he suggested allowing more than two commissioners to meet outside of public meetings, which is prohibited by "sunshine" laws.

Copps said he has concerns about how much notice he and his colleagues receive on items to be voted on and that "some of these frictions could be significantly ameliorated" with the suspension of the closed meeting rule.

In the days leading up to a separate hearing in the Senate in December, the Senate Commerce Committee passed a bill that would require the FCC to delay action on media ownership rules.

The measure, introduced by Sens. Byron Dorgan, D-N.D., and outgoing member Trent Lott, R-Miss., would require the commission to complete its localism proceeding and allow for a 90-day public comment period before proposing any media ownership rule changes.

The move gives the emotionally-charged issue a higher profile closer to a presidential election and would presumably delay a vote until a new administration takes over, observers believe. The bill wasn't expected to pass both houses of Congress by year-end but was intended to send a message that Martin should delay a planned December vote on his proposal to relax the cross-ownership ban, which prevents one company from owning both a newspaper and either a radio or a TV station in the same market.

Education

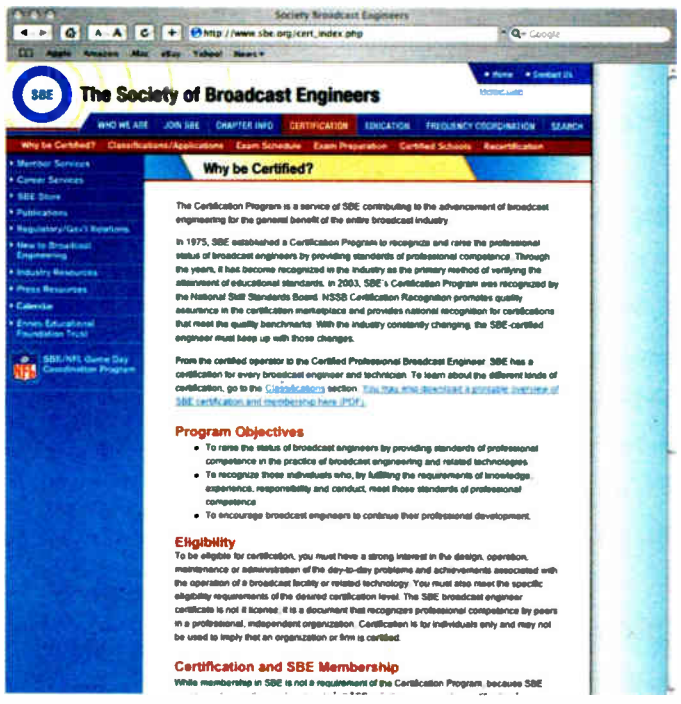
▶ Continued from page 1

educational resources so we can all do our jobs better."

Thomas, vice president of engineering of the radio division for Lincoln Financial Media, said SBE is looking into developing courses on AM/FM allocation, event coordination, remote truck operation and lightning suppression and grounding, among others.

More certification courses

"The immediate mission is to develop materials that will help the men and women who do this job and help develop the next generation of broadcast engineers," Thomas said.



Some of the new education programs will be developed as a "path to increase certification" offerings through SBE, Thomas added.

SBE's Education Committee is refining its goals, said Cris Alexander, SBE Education Committee chair.

"Our goal is to author course material that broadcast engineers need for use in a medium that is universally available. The Internet seems like a good engine to use. Specifically Webcasting," he said.

Alexander, director of engineering for Crawford Broadcasting and an RW contributor, said in addition to Webcasting, he envisions a time when broadcast engineers simply go online to select a course, complete the work and take the test.

"I think we can do that for a nominal fee," he said.

The education committee will identify contractors that specialize in packaging educational material online, he added.

Alexander said education in HD Radio conversion and transmission system design is a critical area of concern for SBE membership.

"There is a huge need for newcomers to our profession to learn RF. We have people entering our field out of college who sure know their Unix and can network like crazy, but are lost at AM and FM transmitter sites," he said.

"We need to provide some of the stuff that have been staples to our industry but are not being taught in college or tech school."

Educational opportunities

Once specific needs are identified and course work material generated, Alexander said the subject list could grow quickly to include specialties such as computer antenna modeling and network audio over IP.

SBE continues work on several other fronts to expand educational opportunities for broadcast engineers. Officials are working with grant writers in an effort to find programs to secure funding to add a staff member to direct the new education initiative.

Thomas also pointed out SBE's arrangement with Excelsior College in Albany, N.Y., which offers distance learning opportunities. The current SBE certification qualifies for credit towards a degree completed online or via CD-ROM.

SBE hopes to use the model for expansion of joint efforts between SBE and additional educational institutions.

The society already certifies approximately 15 technical schools that offer broadcast and broadcast related training and hopes to expand that number, officials say.

"The SBE considers education to be critical to the long term well-being of our trade," Alexander said. "Going forward, we want to focus a good part of our attention and energies in accomplishing those things."

Measurement

▶ Continued from page 6

- Resolution Bandwidth: 1 kHz
- Span 2 MHz
- Detect Peak = Off or Sample
- Average = ON 100 samples
- Sweep: auto
- Sample points = 400 to tune 8000 to measure
- Marker set to peak delta
- Marker set to reference level
- Average type PWR

A couple of notes on spectrum analyzer configuration: There are differing points of view among manufacturers relating to the "average type setting" to employ. The "average type" conservative setting is PWR.

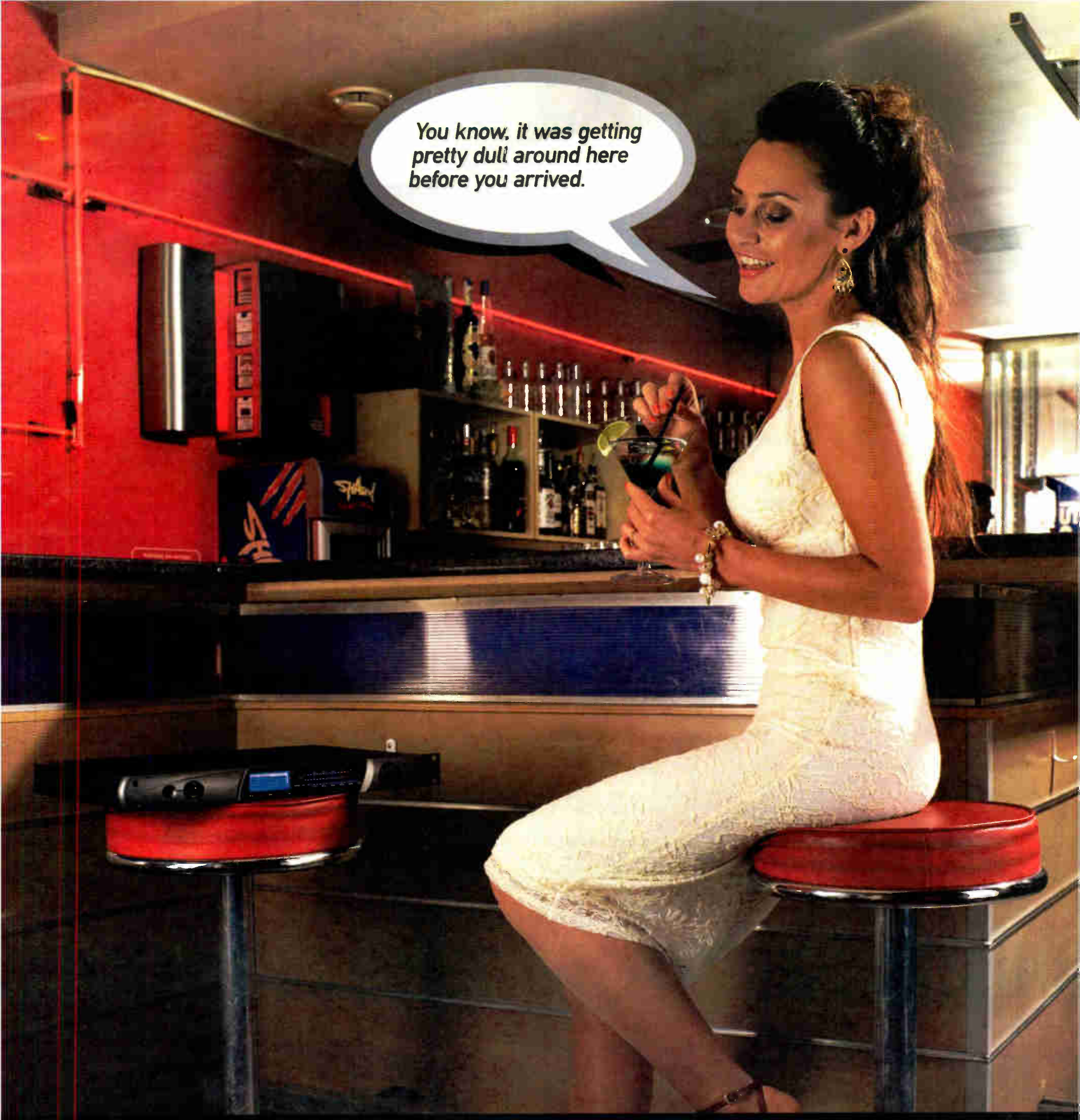
Typically video sampling will return readings approximately 1 to 1.5 dB lower than when power sampling is employed and therefore power sampling is recommended as it will return worst-case levels. Most transmitter manufacturers are using video sampling in their built-in displays, as the power sampling is a recent technology advancement.

You should decide whether a fixed or slug option is best for your installation.

I will cover AM measurements in a future article.

The author is regional vice president of engineering for Clear Channel Radio's Mid-South region.

This article includes information from "FM HD Radio Measurements Dual-Input Antenna Systems or Separate Analog and Digital Antennas (Space Combined)" by Randy Mullinax, 2006 white paper; "FM-IBOC RF Output Signal Viewing Agilent 4402B Spectrum Analyzer Setup," Harris 2004 white paper; "Use Correct Size Directional Sample," Randy Mullinax 2005 PowerPoint.



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John Bisset SBE Educator of the Year

Deedleheads Are Wiry & Scrappy

by John Bisset

Al Peterson writes that when studio construction was completed some months ago at the new Radio America Network facility in Arlington, Va., engineers were left with hundreds of useless little wire scraps and cable ends everywhere.

Too small to actually work for anything, yet so many that no one felt right to just throw them away. Thus was born the "Deedlehead" desktop mascot.

This collection of 25-pair CAT-5 Deedleheads lives on the desktop of Meg Buenting, a producer for the network's syndicated "Greg Knapp Show." Among her mascots are a cigar-chomping tough guy with a military haircut, a circus clown and a white-haired mad professor, the only Deedlehead with arms and a headband. Some of the mascots are shown in Fig. 1.

The name was more or less coined by Buenting. During studio construction, she helped chase down dozens of wire pairs with an inductive signal tracer, and became adept at listening for the characteristic two-tone deedle-deedle when the probe was jammed deep into cable bundles.

The act of signal tracing became informally known as "deedling" during the buildout, and the name eventually worked its way to the mascots.

Every now and again on a Monday morning, a new Deedlehead may appear on Buenting's desk, depending on how bored or creative the engineering staff was feeling over the weekend. Make your own and send me a photo to *jbisset@bdcast.com*, and we'll publish it.

Alan Peterson can be reached at *apeterson@radioamerica.org*.

★ ★ ★

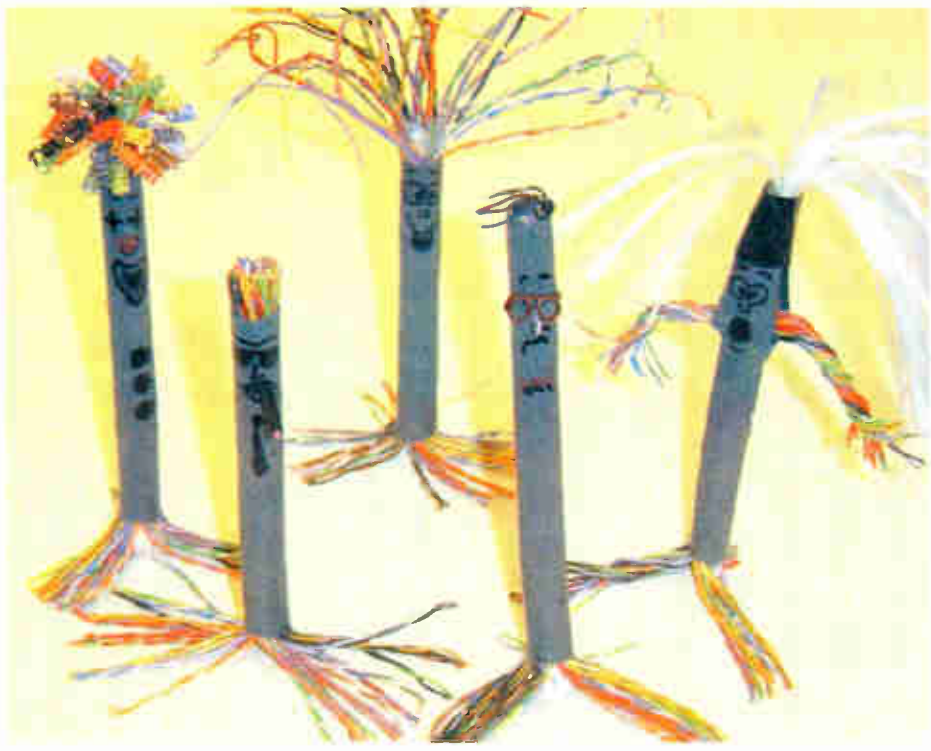

Fig. 1: The Deedleheads

Paul Sagi in Kuala Lumpur reminds us to be cautious in using nail polish remover to remove permanent marker from coils or components. The liquid usually contains acetone, which can damage plastic parts.

An alternative is correction fluid thinner, but again, caution around plastic supports or spacers. Some plastics can withstand it, and Paul has used correction fluid thinner to remove permanent marks from equipment.

He adds that it should go without saying to use solvents in a well-ventilated area away from sources of ignition.

Paul had a situation where he needed to get the speaker wires across a ceiling.

The trucks with the big wheels navigate over the tile supports nicely, and the radio controller allows you to dodge pipes or support wires.

from one side of the room to another. He removed some ceiling tiles and used a bow and arrow to carry a string above the dropped ceiling.

If you're not a bowhunter, another choice is to secure a large bolt or dud transformer to the string and throw it. I've tried that method, and it seems the bolt always gets stuck on either the pipes or supporting ceiling hangers. It works, but removing all the extra ceiling tiles is time-consuming.

There's one other method that I've not tried, but I understand it works well. Borrow your child's remote-controlled car or truck. Tie a string to the rear bumper and let it run over the ceiling tiles to the other end of the room. The trucks with the big wheels navigate over the tile supports nicely, and the radio controller allows you to dodge pipes or support wires. Write to me if you've done this.

Once the string reached the ceiling/wall junction, Paul needed to run the cable down the wall to a patch panel. This posed a difficulty, as the wall was filled by dense fiberglass. The fiberglass resisted his poking the wires, and then a broom handle, through it.

Paul's solution was to take a chain about 10 feet long, made of welded links of 3/8-inch steel, and tie the wires to it. He dropped the chain into the void between the studs over the patch panel opening. The heavy chain ripped through the fiberglass and carried the wires to the patch panel opening.

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

★ ★ ★

Stuart Engelke is the engineering manager for New York AM stations WWDJ and WMCA. A new Austin ring transformer was installed at one of his towers, and during the next rain, the station kept getting transmitter VSWR trips.

See DEEDLES, page 12 ▶

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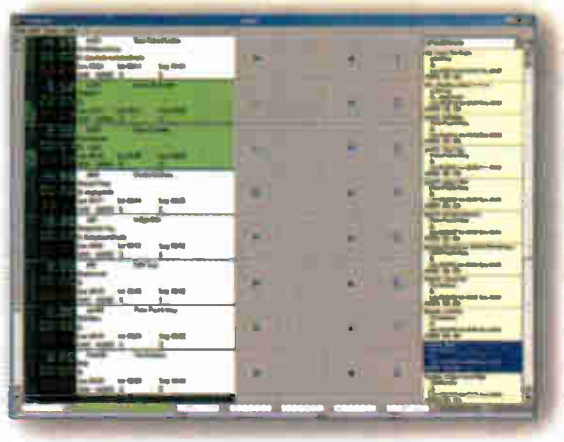

WaveCart - the original on-screen cart machine replacement.

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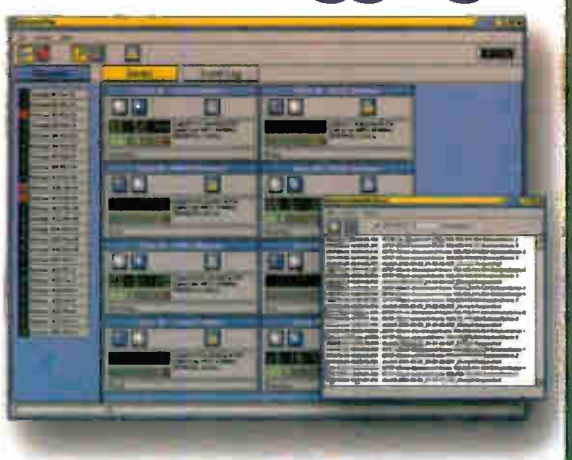

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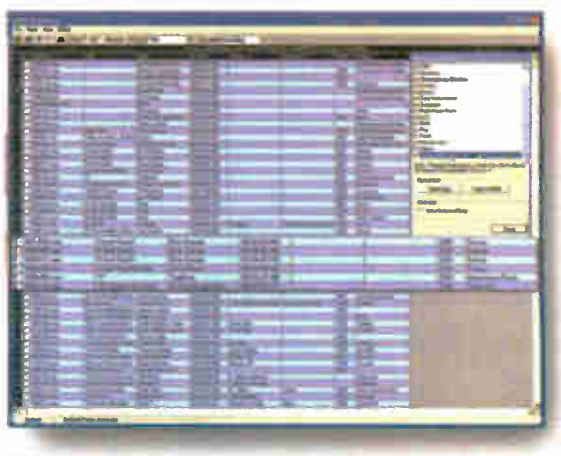

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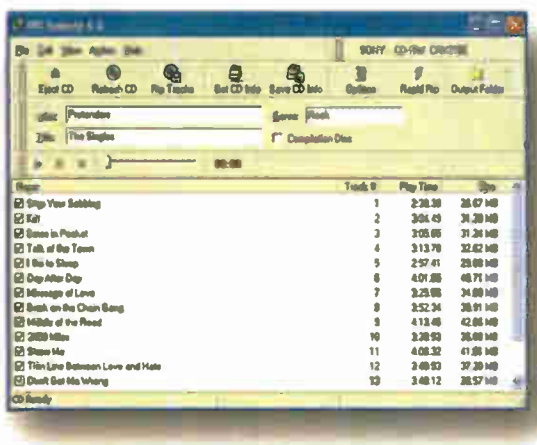

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BSI

WJZL Pumps Up The Signal in Lansing

Mid Michigan Radio Group completed installation of a new transmitter, antenna and tower to serve station WJZL(FM) atop the landmark 25-story Boji Tower, formerly the Michigan National Tower, in downtown Lansing. The station shifted its frequency as well.

The photos show the installation and helicopter crews at work.

The old 92.7 site was about 15 miles southwest of downtown Lansing and was licensed to Charlotte. The new 92.9 site is in downtown Lansing with Grand Ledge as the city of license. "Smooth Jazz 92.9" is now on the air at 5,400 watts, almost four times as much as its old 1,500 watt signal at 92.7.

The station is served by a new Nautel V5 transmitter and a Jampro five-bay, half-wave-spaced antenna with fiberglass radomes and fine matching section. Forward power from the transmitter is 3,500 watts while reflected power is only 1 or 2 watts, according to Chief Engineer Kevin Larke.

"The antenna has more gain than needed for analog operation. The additional gain will be needed if the transmitter is used in hybrid HD + analog mode in the future."

The project also involved a new Moseley Starlink 9003Q uncompressed digital STL.

The old tower was not strong enough for the new installation so it was removed piecemeal in several helicopter flights, Larke said. Construction Helicopters Inc. out of Ypsilanti flew a Sikorsky S-58T turbine-powered helicopter capable of lifting 4,600 pounds. The tower crew had to prepare the old structure for easier removal by taking out bolts as old as 77 years.

The chopper came back the following Sunday for installation of the new tower and antenna. "The helicopter flew up the mast, with antenna and beacon pre-mounted. It was a strange sight seeing the pipe with five-bay, radome-equipped antenna floating through the sky," Larke said.

Engineers designed the custom Valmont Structures tower to look like an earlier structure dating from the late 1920s. The new one is about three times stronger to meet new requirements, Larke said.

"It also has a new LED beacon on top. The old original incandescent beacon is in the Boji Tower building manager's office as a decoration. The old tower didn't have sidelights, but the new structure has two new Dialight LED units for additional visibility."

The consultant for the project was Al Warmus of Warmus and Associates in Bath, Ohio; Warmus' son Brian supervised the tower crew and antenna tuning.

"It wasn't an easy project," Larke said. "Those tower guys are amazing. You need to be brave to be up there trying to bolt down a huge steel pipe blowing around in the wind hanging from a helicopter."

Tell RW about your project. E-mail radioworld@imaspub.com.

— Paul McLane

Deedles

▶ Continued from page 10

The Austin ring transformer is a method of coupling voltage for tower lights across the base of a series-fed or "hot" AM tower. This method is more commonly used for higher-power (50 kW) stations.

The reason for the VSWR trips? Take a look at Fig. 2. The contractor installed the transformer with the arc gap balls above and below each other. Each drop of rain briefly shorted the tower, causing the VSWR trip.

Fig. 3 shows a complete view of the improperly installed transformer. A couple of wrenches fixed the problem — with the station off the air, of course.

Stuart's project included a new LED beacon assembly. The beacon output can be seen eerily illuminating the phasors of the transmitter room in Fig. 4.

What is interesting is the narrow beam of light — hard to see from the ground, directly under the tower, but very bright from a mile away, as the light beam is focused.

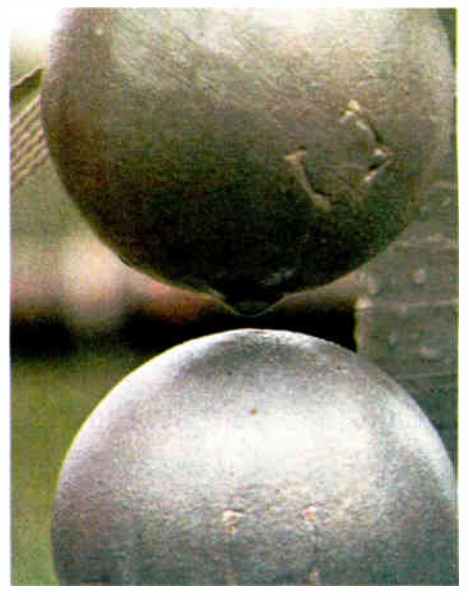

Fig. 2: A rain drop prepares to take a station down.

Fig. 3: The incorrectly mounted Austin Ring Transformer.

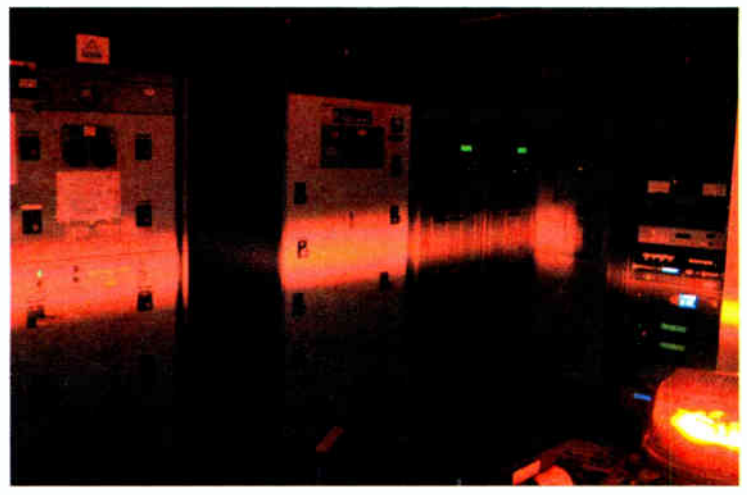

Fig. 4: An example of the focused LED beacon as it bathes a transmitter room.

Austin Insulators provides a range of base and guy insulators, as well as the Austin ring isolation transformers that Stuart used. Head to the site at *www.austin-insulators.com/radio/product.html* for more information.

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

John Bisset has worked as a chief engineer and contract engineer for 39 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.

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You think *we* have a lot to say? You should hear our clients.

When we asked our clients which Element features they liked best — well, you see the results. And this is the *edited* version. (Good thing we bought two pages.)

Go (con)figure • The folks at MPR say they really love being able to configure their Elements and keep tabs on their entire Axia network using standard Web browsers. You can set up and administer an entire building full of consoles from the comfort of your own office (where there's plenty of Cheetos and Pepsi). Put an Internet gateway in your Axia network and you can even log into Element remotely, from home or anywhere else there's a Net connection. Great for handling those 6 P.M. Sunday "help me!" phone calls from the new weekend jock.

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.

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

Perfect timing • You can't have too much time. That's why Element's control display contains **four different chronometers** to help keep talent in sync: a digital time-of-day readout that you can slave to an NTP (Network Time Protocol) server, an elapsed-time event timer, a countdown timer talent can set for any interval they choose... and there's also that big, honkin' analog clock right in the center of the screen. (Big Ben chimes not included.) We wanted to make it even bigger, but our screen designers charge us by the pixel.

Where's Waldo? • Hide-and-seek is a pretty fun game. But not when you're in a hurry, and definitely not when you're on the air. So every Element fader comes with a big, **bold** 10-character LED display right above it to show talent, at a glance, exactly what source is assigned to that fader. If it's music from a digital playout system provided by one of our partners, the display can even show the title or artist of the song that's active. Talent tells us that these displays are at the perfect angle for either sit-down or stand-up studios.

Options • Clients say they love Element's uncluttered worksurface. We kept it clean by placing an "Option" key over each fader to give instant access to all the advanced goodies. It makes customizing settings easier than selling fudge cake to Dom DeLuise.

Black velvet • What's 100 mm long, silky smooth, goes up and down all day and **lasts forever**? Our super-quality conductive-plastic faders, of course. (This time, it's dirty mind, mister. Shame on you!) We sourced the most durable, reliable, premium faders and used them for Element. And we added extra touches, like the custom-molded plastic fences that protect on-off switches from accidental activation and neglect. Because we know how tough jocks can be on equipment — some of us were jocks, not tough. And because we also know there's nothing more embarrassing than a sudden case of broadcast interruption.

Audio cards • Well, yes, there actually aren't any. Not in Element, or anywhere else in an Axia network, why not? Think about how your production guy spends hours crafting exciting, finely-tuned bits of broadcast magic, only to blow them through a card sitting in a noisy, RF-filled PC. It's like washing a wedding dress in the Hudson River. Not only that, broadcast audio cards are *expensive*. And they only work in *PCI* slots... how many of those are you seeing on new PCs? The **Axia IP-Audio Driver** installs on any Windows® PC to send and receive pure digital audio right through the PC's Ethernet port — no sound card required. You get better, cleaner PC audio that's sharable right to the network. And you save tons of cash on sound cards, and on the audio inputs you would have needed for that PC card audio — more than enough to buy that cool new network tester you've been lusting after.

Great Phones • We wanted the phones on Element to work like an extension of the board-ops there selves. Unfortunately, talent objected to having Ethernet ports implanted in their skulls, so we came up with the next best thing. 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 it really clicks with the Telos Series 2101, TWO×12, or the new NX-12, which connects four hybrids plus control with a *single Ethernet cable*. Status Symbols™ (those cool little information icons) tell talent at a glance whether a line is in use, busy, pre-screened, locked on-air, etc. You can even dial the phone right from the board using the integrated keypad.

Fried Chicken • Conductive aluminum bullnose is connected to a 40 kilovolt storage capacitor™ that can be activated with a GPIO closure. Set up a hotline remote trigger for the PD to give the jocks a little "positive feedback."

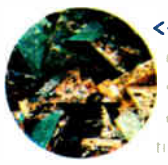
Shown: 20-position Element, nicely equipped, $16,557.00 US MSRP. Not shown but available: 4-, 8-, 12-, 16-, 24- and 28-position Element. Dual exhaust and whitewalls optional at extra cost.

Element

<< "Necessity is the mother of invention." So we invented IP Audio for broadcasting, realtime, low latency routing where logic & mix minus follow audio. Thanks, Mom!

<< Those other guys are really proud that they've built a couple dozen routers. We use Cisco switches to power our networks. Guess how many *they've* built?

<< At Axia, "remote" is our favorite word. As in "remote control," "remote maintenance," "remote diagnostics." So your life doesn't have to go on without you.



<< Soundcards? How quaint. Our IP Audio driver for Windows sucks audio right out of computer NICs like pimientos from martini olives. Mmmm... olives.

Meter reader • LED program meters? How very 1990's. Element's SVGA display has lots of room for timers, meters, annunciators (*there's* a five dollar word), and more — enough to show meters for all four main buses at once. Reboot the console to 5.1 surround mode and the light show is even cooler. Any more bling and those fast 'n furious types'll want it for their dashboards.

Status Symbols • There are those icons again. (We're in love with icons. It's the Telos way.) These Status Symbols alert talent to phone lines ringing, mix-minuses minusing, talkback channels talking, etc. They can even display fader numbers, like you see here. Just one more way Element makes it easy for talent to do a fast, clean show.

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

Swap meet • Element modules are easy to hot-swap. Remove two screws and a cable or two, and they're out. In fact, you can hot swap the **entire console** — unplug it and the audio keeps going, because mixing is done in an external Studio Engine.

Can I play with your knobs? • Twist 'em, push 'em, make 'em click. Element comes standard with some pretty powerful production features, like per-fader EQ, voice processing and aux sends and returns. 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.)

Memory enhancer • We know how forgetful jocks can be, so 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. 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. Sweeeet.

Coffee? •
No console is spill-proof, but Element is easy to service and has no motherboard to damage in the event of stupidity.

Mixmaster •
Does the thought of constructing a complicated mix-minus on-the-fly bring a big grin to your face? If so, you're excused. (Masochism 101 is down the hall). But if you hate building mix-minuses manually as much as we do, you'll love the fact that Element does them for you. No more using all your buses for a four-person call-in; no more scrambling to set up clean feeds for last-minute interviews. When you put remote codecs or phone calls on the air, Element **automagically** figures out who should hear what and gives it to 'em – as many custom mix-minuses as you have faders.

It's already in there • Element comes standard with a lot of cool goodies you'd pay extra for with other consoles. Like custom voice processing by Omnia™ that lets you 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. (There's even a secret "Big Balls" setting that makes wimpy interns sound like John Leader. A fifth of Chivas to the first guy who finds it.)

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.

Push my buttons • You can program these custom button panels with any macro you want, from recorder start/stop to one-touch activation of complex routing switches and scene changes using PathfinderPC™ software. You can probably even program one to start the coffee machine (black, no sugar, thank you).

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Processing Gurus Clear the Static

by Scott Fybush

With HD Radio moving to commercial reality at many stations around the country, the designers of audio processing gear are learning just as rapidly how to make the most out of the bit-rate-reduced digital audio that stations are now delivering on HD2/HD3 subchannels and on AM HD Radio.

"There's a degrading, ghost-like quality to the audio" coming through a conventional "static" signal processor, said Omnia Audio President Frank Foti during his presentation at this fall's NAB Radio Show.

Busting the ghosts

Foti says the "ghost-like" audio wasn't present at the output of the processor during tests he ran; instead, he says the issue is what happens to the audio as it goes through the Ibiquity codec.

"We've got a lot of funny stuff going on," he said.

The secret, Foti believes, lies in careful pre-processing of audio before it hits the codec. In addition to Omnia's established Sensus algorithm, which looks ahead to the rest of the transmission chain to condition audio accordingly (reducing audio bandwidth, for instance, for material that will go out through low-bitrate streams), the company has now introduced a LoIMD clipper meant to reduce intermodulation distortion, which Foti blames for much of the "ghost-like" effect he hears on low-bitrate audio.

Greg Ogonowski, vice president of new product development for Orban/CRL, says there's another culprit as well: a change in the very nature of the audio that most radio stations are programming.

Ogonowski said too many end users have become accustomed to the sound of compressed music played through tiny, tinny laptop speakers.

Ogonowski says recorded music contains far more high-frequency content than it did a generation ago — and that makes the noise-reduction scheme used in analog FM obsolete.

"Pre-emphasis and de-emphasis were used to overcome inherent noise in the FM system," he said, "with high-frequency roll-off used to achieve loudness. This was possible in the day when audio didn't contain as much high-frequency content as it does in modern recordings."

Agreeing with Foti that intermodulation distortion is a problem, Ogonowski argues that much of it comes from the enhanced high-frequency content in today's audio.

He says that at least in theory, the move to digital should help reduce the problem, since by its nature, digital audio doesn't require the pre-emphasis/de-emphasis curves that analog FM demands.

There's a catch, though — even though the pre-emphasis/de-emphasis curves mean that, as Ogonowski puts it, "by definition, FM is not high-fidelity," listeners' ears are accustomed to the "warm, round analog sound" that the curves yield, even if that sound is really the result of an aural compromise made decades ago.

The days of analog

Of course, that warm, round analog sound is history now, anyway, thanks to changes in the way listeners experience most of their music, and the way that music is produced.

On the listener end, Ogonowski said too many end users have become accustomed to the sound of compressed music played through tiny, tinny laptop speakers. He joked about the "half-inch subwoofer option" on his own laptop, and noted that the sound through most computer audio cards is actually pretty good, when a decent pair of headphones is substituted for the on-board speakers.

"It will blow you away," he said.

In the real world, though, Ogonowski said so many people have become accustomed to low-end laptop sound that they don't realize there's anything better out there. That, in turn, affects the on-air sound of their stations.

"Not only do they not know what audio signal processing is, they don't even know they have a problem," he said. "They don't know what an Optimod does."

He points the finger of blame back beyond radio programmers, to the producers of the music they're playing.

"What many of these CD producers are doing is far worse than what Frank or I are doing to HD Radio audio," Ogonowski said.

Tips for success

In a world where so much audio is being aurally abused before it even reaches the processing chain, Foti and Ogonowski say there are still steps that stations can take to make their air product as clean as possible.

Foti says it's vitally important to maintain lots of headroom in the audio chain before digital audio reaches the processor and codec. Because codecs tend to overshoot, Foti recommends keeping levels no higher than –3 dBfs to avoid clipping.

"With digital, we don't have +6 dBfs to play with. Zero is zero, and it's a tight ceiling," he says.

Avoiding multiple layers of compression in the audio chain is important as well. Foti shared the story of a client whose music library was encoded as highly compressed MP3 files, which were then pitch-shifted to speed up the music. By the time the audio passed through processing and the HD codec, "needless to say, the output wasn't pretty," he said.

"For your air product, it's got to be linear audio," Foti said.

International Datacasting Corp. received an order from **CBS-Westwood One** to overhaul and modernize its radio network using IDC SuperFlex Pro Audio products including its Datacast XD Content Management and Delivery system.

The contract is an expansion of the sports network IDC installed in 2005 for Westwood One which enabled ad insertion on a regional basis during live sporting events. The ability to do regional insertion or "copy-splitting" lets advertisers target specific markets in their national advertising, the manufacturer said.

The expansion will provide that functionality and other benefits to 2,000 sites as well as consolidating various services into a single streamlined network. Conrad Trautmann is Westwood One senior VP of engineering and broadcasting. ...

Clear Channel Communications in Asheville, N.C., is using the **HHB** FlashMic for gathering audio. Ken Ray is engineer at the six-station cluster. ...

Yahoo! this summer completed a technical upgrade and redesign of the main audio production and post -production studio at its Santa Monica, Calif., facility. It included the installation of a dozen **A-Designs Audio** 500 Series-format microphone preamplifier modules purchased from **GC Pro**. ...

Nassau Broadcasting is using **Burk Technology's** Watchband remote receiver to remotely monitor audio and signal parameters. Chris Verdi is director of engineering for Nassau in Vermont and monitors a dozen or so stations. ...

Three **Clear Channel** FM stations in New Orleans ordered **Broadcast Electronics** FMi 25T tube HD Radio transmitters; they are WRNO, WNOE and KYRK. The chief engineer is Tom Courtenay.

Separately, **WUSC(FM)** in Columbia, S.C., added a Broadcast Electronics AudioVault digital media system. The public station at the University of South Carolina is student-run; the AudioVault replaces a BE AV100 system and is part of a conversion that includes a BE transmitter and multicasting. BE noted that the system is being used to manage the station's alternative music format as well as for a new HD2 international "Jack" format developed and support by USC students. John George is chief engineer. ...

Audemat-Aztec won a contract from **Wisconsin Public Radio** for seven Goldeneagle HD monitors and one Broadcast Manager for centralized management of alarms and measurements. Steve Johnston is director of engineering and operations for WPR; Terrence Baun is director of engineering and operations and administrator of the Wisconsin Educational Communications Board Delivery Division, which designs and operates the broadcast RF delivery systems for Wisconsin Public Radio and Television. ...

The Clear Channel cluster in Asheville, N.C., is a user of the HHB FlashMic.

Transmitter company **Ecreso** made sales to three private Moroccan FM stations. The company, part of the Audemat-Aztec group, sold a total of 20 FM systems with 1, 2 and 3 kW outputs to **Radio Aswat**, a national chain, and to two regional stations, **MFM** and **Hit Radio**.

Separately, Ecreso won a $300,000 contract with the Ministry of Communications from **Togo** to equip two public radio stations. ...

Barix AG said **SneakerRadio** of Wilmington, Del., standardized on its IP audio decoders to make its IP in-store media program available in New Balance retail outlets. SneakerRadio is an in-store service that airs promotional advertising messages customized for New Balance retail stores. ...

Marketron Broadcast Solutions said it won a multi-year contract to provide broadcast management solutions to **New Northwest Broadcasters**. The group operates 36 stations in the Pacific Northwest. NNB radio stations will manage their advertising inventory and billing with the Marketron Traffic software.

Marketron is an affiliate of The Wicks Group of Companies, which also owns NewBay Media, publisher of Radio World. ...

Netia said **WQXR(FM)** in New York is using RadioAssist 7.5 digital audio software programs and Isilon Systems' Isilon IQ clustered storage system.

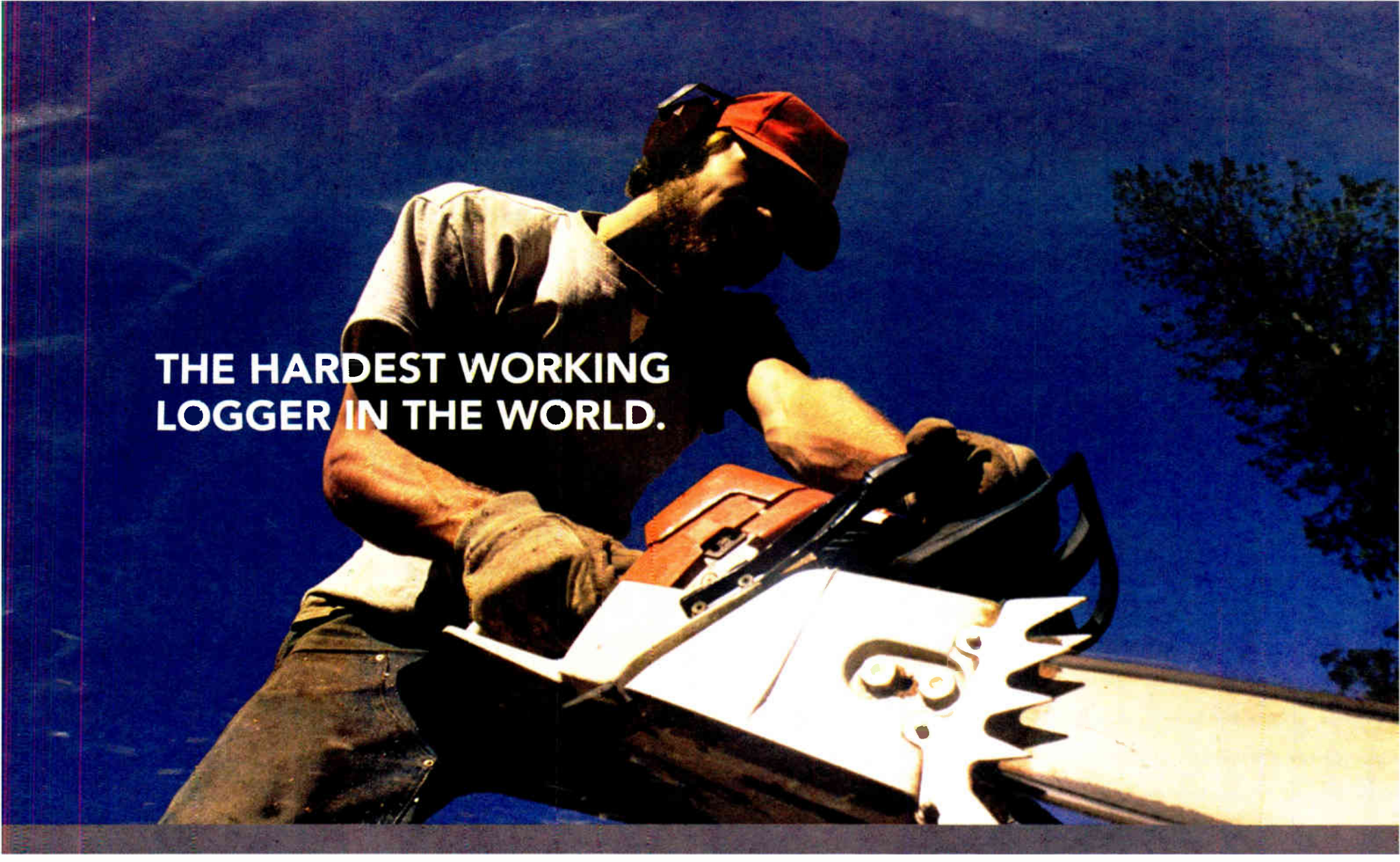
The commercial classical station is doing a studio improvement project. The Netia and Isilon system will enable conversion of the CD library to a hard-disk system and eventually provide a production environment capable of creating additional content for a variety of distribution platforms, Netia stated.

Harold F. Chambers III is director of operations and production at WQXR. ...

WHEB(FM) in Portsmouth, N.H., placed an order with **Wheatstone** for a third Generation 4 control surface. The order also included a Bridge router to expand the facility's existing networked audio control system. The station is owned by Clear Channel. ...

Calrec said the **YES Network** deployed a Sigma audio console with Bluefin High Density Signal Processing. The installation was part of an HD renovation of YES Network's control room at its broadcast center in Stamford, Conn. The studio is used for live pre- and post-game shows and for simulcast of WFAN Radio's top-rated "Mike and the Mad Dog" show.

Send news of notable equipment purchases or sales to radioworld@imaspub.com, *attention Who's Buying What.*



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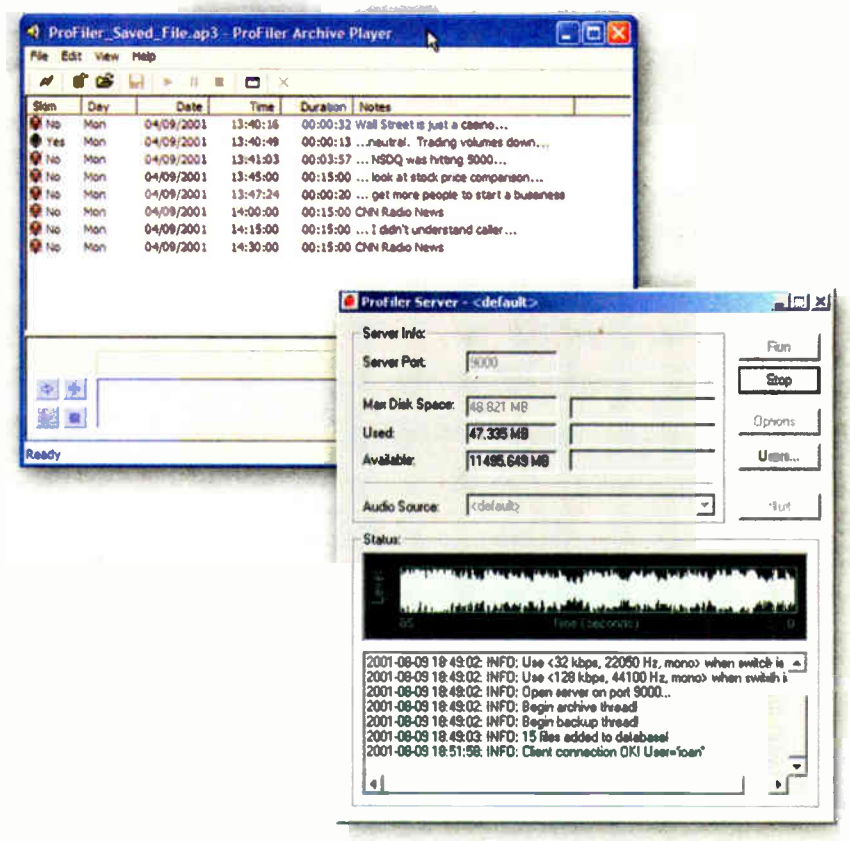

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The Mystery of the Missing Days

The Arrival of the New Year Provides a Good Opportunity to Ponder the Calendar

The Big Picture

Photo: Gary Hayes, BBC

by Skip Pizzi

Frequent readers of this column know that it occasionally finds an interest in chronology (such as the series on time zones in the Dec. 18, 2002 and Jan. 1, 2003 issues).

Perhaps the link may seem tenuous, but radio has always been a timekeeper of sorts for its listeners. Moreover, radio's product exists solely in the temporal dimension — to the extent that its business model is based on the monetization of strictly measured periods of time. Such is the fundamental importance of time and its metrics to our industry.

So it's appropriate to dip once again into the annals of human efforts to index the cycles of our planetary mechanics, and make them manageable for our daily life processes.

Time itself is an elusive concept, and while discovering its true nature keeps the physicists busy, its simple measurement is something the rest of us deal with all the time (no pun intended).

Since so many social and business processes depend on properly coordinated timing, a common understanding of time's measurement processes worldwide is critical, as well.

Let me count the days

Early observations in time measurement were based on celestial movement of the sun, moon and stars.

Before TV, the sky won the viewership ratings every night (and attention spans were longer), so a pretty good understanding of these cycles eventually resulted.

In later times, humans developed devices and shortcuts that eliminated the need for direct, continuous celestial observation in order to "tell time," but those early attempts provided the rough approximations that were later refined into the systems we have today.

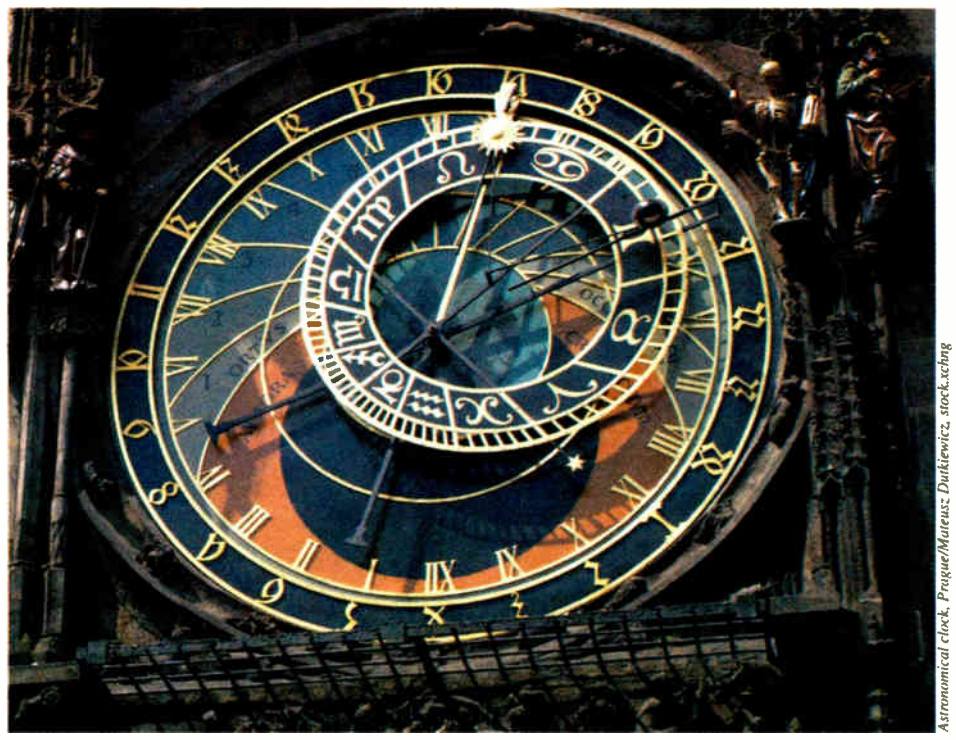
The day and month were, of course, accommodations of the respective motions of the sun and moon, as observed by earthbound humans. Subdivisions of the day into hours, minutes and seconds came later. Today we have the ability to globally synchronize this chronometry down to a fraction of a second.

This doesn't just involve technology, of course — it also requires political agreement to use the same scales and a common reference.

Such coordination and true synchronization of worldwide time is a relatively recent development, starting only in the late 19th century. Previously, each town or region set its own time, based on local solar observation, the master reference for which was kept by the closest clock tower. Like many other similar processes, such preference for localism was strongly held, and in this case ultimately gave way only for reasons of public safety (to avoid train collisions, for one thing).

You might be surprised to learn that a similar common reference for the counting of *days* was also a struggle to achieve, and only came about relatively recently, as well.

The coordinated agreement worldwide on today's date hearkens back to the 16th century, but it was not globally accepted until much later in some countries — even the U.S. It's actually quite a story ...



Astronomical clock, Prague/Mateusz Dutkiewicz, stock.xchng

A non-integral relationship

As noted above, celestial observations had reached relatively high accuracy even in ancient times, and by the time of the Roman Empire, a calendar that accurately accommodated days, weeks and months had been developed.

This Roman calendar served as the basis of all the Western calendars that followed, even up to today. It was of the same general structure as our current calendar in terms of months, although it originally began its year on April 1. (Our April Fool's Day is an artifact of this change.)

The length of the solar year did not cooperate with any such reckoning, however, given its duration that was not evenly divisible by the other units. This caused any fixed calendar to gradually slip against the seasons, and given the importance of agriculture at the time, this was not happily accepted.

The Romans had made numerous attempts to correct for this discrepancy, but none of them really solved the problem consistently until in 45 BCE, Julius Caesar adopted a system devised by the astronomer Sosigenes of Alexandria that added a leap year on the 29th of February in every fourth year.

This so-called Julian calendar was promulgated by the Romans (whose empire was at the peak of its influence at the time), and eventually served as a near-globally uniform calendar for many centuries thereafter.

The average length of the Julian year was 365.25 days, but even this was a bit off from the actual solar (or "mean tropical") year's length of 365.24219 days.

Thus even the Julian calendar eventually suffered some seasonal shift, and so in 1582, a calendar developed by an Italian doctor and astronomer named Aloysius Lilius was published in a papal bull issued by Pope Gregory XIII.

It made a small but important change to the Julian calendar that allowed it to remain synchronized more closely to the true solar year on average, by making every year ending in 00 (which would normally be a leap year) *not* be a leap year, except for those divisible by 400, which would remain leap years. Thus 1600 and 2000 were leap years, but 1700, 1800 and 1900 were not.

The other, more interesting element of the Gregorian calendar was its attempt to correct for the seasonal shift that had accumulated during recent use of the Julian calendar. It accomplished this by simply "canceling" 10 days.

(Lilius had originally proposed a gradual correction by skipping the leap days every leap year for 40 years, but the pope preferred immediate gratification, and ordered the quick fix instead.)

So Thursday Oct. 4, 1582 was followed by Friday Oct. 15, 1582 — the first day of the Gregorian calendar's use.

'What happened on Oct. 5, 1582? Answer: Nothing!'

Great trivia question: What happened on Oct. 5, 1582? Answer: Nothing! (The day didn't exist, nor did the 6th through 14th — except as noted below, where it *really* gets historically interesting.)

Politics über alles

Remember when I mentioned the importance of political will to achieving international consensus? Well, the fact that the Gregorian calendar was sponsored by a pope meant that it had effect on the Catholic Church's ecclesiastical calendar, but no impact upon the civil calendars of any country without being adopted by local governments.

Naturally, this took some time to organize, but the situation was made worse by the alignment of various countries toward or against the Catholic religion, which was seen as the new calendar's developer and champion.

As it turned out, only four countries (Spain, Portugal, most of Italy and the Polish-Lithuanian Commonwealth — all Catholic) adopted the Gregorian calendar on its origination day in October 1582, with a few other countries — and somewhat later, their colonies — coming on board in the next several months.

Many non-Catholic countries resisted the Gregorian calendar, some keeping to their old calendars for many decades, but

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PEOPLE NEWS

Josh Bohn left his position as chief engineer, Cumulus, Huntsville, Ala., to join **Radio One** in Cincinnati in the newly created position of assistant chief engineer under CE John Takach. Bohn's wife, Dana Ryan, also made the move to Cincinnati radio as part-time/fill-in host for Bonneville's WKRQ(FM).

Dana Ryan and Josh Bohn

Klotz Digital promoted **Scott Johnson** to director of engineering. He has been with the company for six years, starting as sales engineer in March 2001. His most recent position was systems engineer. ... **Charles Brown**, project engineer, also is now handling some customer support responsibilities.

Scott Johnson

The company also appointed **Maria Xithalis** to director of sales, Americas, replacing Larry Howard. Xithalis had formerly served as vice president of Studer North America Inc.

Broadcast Electronics appointed **Debra Huttenburg** to vice president of business development and marketing. She had been vice president and general manager of the radio group for Harris Corp.

Debra Huttenburg

BE also appointed **Charles Miklich** to the new position of vice president, operations. He joins the company after serving as director of operations for Harris Broadcast. Prior to Harris, he was vice president of operations for Stahl.

Dolby Engineering named **Michael Rockwell** senior vice president, worldwide engineering. He had been senior vice president and chief technology officer at Avid Technology. Prior to that, he served as chief architect of software engineering at Digidesign, as the technical lead for Pro Tools.

Chuck Miklich

Dr. Lance Griffiths was appointed to the position of radome design engineer for **MFG Galileo Composites**. He most recently served as a senior engineer, RF design, for L-3 Communications in Salt Lake City.

CBS Radio made several changes. **Marc Rayfield** was named senior vice president/market manager of CBS Radio's five stations in Philadelphia. In addition to serving as vice president and general manager of WIP(AM), Rayfield took on the same responsibility at WPHT(AM), and oversees the direction of the cluster of stations in the market.

Jim Loftus, VP/GM of WOGL(FM), assumed the additional role of director of sales, working with CBS Radio's Philadelphia stations. **David Yadgaroff** continues as VP/GM of KYW(AM) and WYSP(FM). **Jeff Hedges** was appointed VP/director of sales for the five stations in the Washington market. He had been VP of sales for the cluster's WJFK(FM), WLZL(FM) and WTGB(FM).

And Radio vet **Rolf Pepple** returns to CBS Radio after a five-year absence as SVP/market manager for its five-station cluster in West Palm Beach. He was most recently VP/market manager of NextMedia's stations in North Carolina.

Calendar

▶ Continued from page 18

eventually, all joined the fold.

For example, most of Scandinavia and the Protestant states of Germany converted in 1700, with Britain and its Empire (including the American colonies) switching over in 1752. By then, the sync-error correction needed to be larger (the Julian year 1700 had been a leap year), so these countries canceled *11* days upon adoption.

Thus the dates Sept. 3 to Sept. 13, 1752 do not exist in U.S. history. Russia didn't change until 1918, the year following its revolution, and Greece finally adopted the Gregorian calendar in 1923, when it jumped from Wednesday, Feb. 15 to Thursday, March 1.

Of course, there were plenty of local exceptions and variations along the way. One of the most interesting was Sweden, which opted to use Lilius' original idea of a gradual, 40-year correction when it converted in 1700, but realized after a few years of following this course that it would be out of sync with its neighbors for a long time to come, and still not fully correct the seasonal drift problem until the transition was completed, while suffering plenty of confusion in the meanwhile.

For some reason, though, the Swedish king decided that the proper fix was to return to the Julian calendar in 1712. Ultimately, Sweden made a second transition to the Gregorian calendar, this time with an overnight switch (from Feb. 17 to March 1) in 1753.

Alaska presented another interesting anomaly. It converted after its 1867 purchase from Russia (still on Julian calendar at the time) by the U.S., but instead of the appropriate 12-day conversion at the time, only 11 days were skipped because the (then recently instituted) International Date Line was moved on the same day from its original position at the state's eastern boundary to offshore on the west of the state — the new U.S.-Russian border.

Historians obviously have a heck of a time figuring out valid dates in the various countries given all this variation. This also implies that the trivia question above needs to be fixed to a location ("What happened in Rome on Oct. 5, 1582?").

Next time you think keeping time is boring, look into its fascinating history to see how what we take for granted today actually came about. It's a great example of humanity's ability — or at least its attempts — to apply order to its environment.

Skip Pizzi is contributing editor of Radio World.

Studio Sessions

Radio World — Resource for Radio On-Air, Production and Recording — January 2, 2008

PRODUCT EVALUATION

If You Liked the D1, You'll Love the D50

Journalists Will Appreciate Sony's PCM-D50, A Lighter, More Compact, Less Expensive Recorder

by Frank Beacham

Over the past three years, the marketplace has been flooded with digital audio recorders that use Flash memory for storage. In the rapid fire introduction of new models, the one constant has been progressively lower prices. We've now reached the point that digital sound recording is available for less than $200.

However, the old adage that you "get what you pay for" most certainly applies here. For heavy users of field audio recorders, such as radio journalists, buying at too low a price can be akin to making a deal with the devil.

The low-cost compromise usually comes in two areas: sound quality and durability. Cheap mics and preamps — a staple of many low-end recorders — can be very noisy. User interfaces can be clunky and hard to see in low light. Poorly made battery compartments break after the repeated changing of cells. And a single drop to a concrete floor can easily end the life of a recorder housed in a thin plastic case.

The best choices for serious audio field recordists cost about as much as a decent laptop computer, in the range of $2,000. They include the excellent Sound Devices 702 field recorder ($2,195 retail, $1,875 street) and the Sony PCM-D1 ($1,999.95 retail, $1,749 street).

Though each of these recorders represents excellence for its design type, the Sony — because of its built-in microphones, user simplicity and rugged titanium body — has been the Rolls-Royce of digital recorders for "one-man-bands."

That is until now. Hip to the fact that the PCM-D1 was out of the price range for many broadcasters and audio recordists, Sony did something smart. It took many of the best parts of the D1 design and built a smaller, lower-cost version.

But what's really smart about the new Sony PCM-D50 ($599 retail, $500 street) is that the engineers at Sony didn't get caught up in the race to build it cheap. They built it right.

Ready for the pros

As the owner and user of a PCM-D1 since it came on the market in 2005, I am accustomed to the D1's sonic quality, intuitive user interface, rugged design and quick-change cartridge battery system. Combined, these essential features make the recorder dependable for daily professional use.

All of these features migrated to the D50. It's the same user interface and rock-solid operating software; the same four

Product Capsule:

Sony PCM-D50 Digital Field Recorder

Thumbs Up

- ✓ Excellent sound quality
- ✓ Simple user interface
- ✓ Flexible digital and analog I/Os
- ✓ Rugged, aluminum case
- ✓ 4 GB built-in flash memory
- ✓ Pro-quality quick-change battery compartment
- ✓ Good balance of performance for price

Thumbs Down

- ✓ Consumer-type I/O connectors
- ✓ XLR adapter is expensive and bulky
- ✓ Essential windscreen for outdoor use is optional accessory
- ✓ Memory expansion requires proprietary memory stick

PRICE: $599 MSRP

CONTACT: *Sony at (800) 686-SONY (7669) or visit* www.sony.com/professional

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Sony

▶ Continued from page 20

gigabytes of internal memory (expandable to 8 GB with an optional memory stick); and the identical battery system. Rather than using one millimeter-thick pure titanium, Sony chose aluminum for the D50 case. No cheap plastic.

What you don't get with the D50 is the D1's superior Analog Devices AD797 low-distortion preamps, high-grade microphone capsules and other premium components. If the application is live music recording and you're willing to pay for the quality, the D1 is still the best choice. However, for general-purpose field recording and radio applications, the D50's sonic quality is just fine.

The D50, at 2.7 x 6.1 x 1.5 inches, is lighter and more compact than the D1. Where the D1 weighs in at 18.5 ounces, the D-50 lightens the load to 12.8 ounces (including battery). The D1 may not seem much smaller and lighter, but it makes a huge difference when you carry an audio recorder in your bag all day.

The D50 also adds some desirable features missing from the D1. Most notably, it has optical digital inputs and outputs in addition to the standard mic and line I/Os. It also adds switchable 2.71 volt plug-in power at the mini microphone connector, which can be used for powering low-voltage condenser microphones.

As with the D1, the D50 is a 96 kHz/24 bit recorder. However, with the typical radio usage being at 44.1 kHz/16 bits, the D50 can provide up to 14 hours of operation on four AA alkaline batteries. Rechargeables also can be used.

Unique to the D50 is a new two-position stereo mic array for 90 degree (X-Y) or 120 degree wide recording; a pre-record buffer that captures five seconds of audio before hitting the record switch; and a variable digital pitch control (DPC).

Other features include the ability to divide a recorded track; synchronized recording via digital connection from CD, MD or DAT; and playback of MP3 files copied from a computer.

One of the nice carryovers from the D1 is that the D50 also acts as a removable storage device on computers. That means you simply turn it on and connect the recorder via USB to a Macintosh or PC. Within seconds, it shows up on the desktop as a hard drive. Then it's just a matter of dragging the standard WAV files to the computer. No conversion software or drivers are needed.

Other D50 refinements include hard switches on the back of the recorder for controlling the limiter and low-cut filter. The DPC switch is on the recorder's side, along with mic/line and mic attenuator switches.

In the menu, however, the limiter can be set at 150 milliseconds, one second or one minute. Low-cut options include 75 Hz and 150 Hz. Also available in the menu is Sony Super Bit Mapping for 44.1/16 recording, a feature designed to increase the dynamic range acoustically by reducing noise.

Another difference with the D1 is the D50's omission of the analog VU meters. Some felt these meters were redundant with the LCD metering on the D1, but I like them because they are easy to see from a distance and offer old-school reassurance when recording interviews.

The D50, made more compact by omission of these meters, offers a visual assurance in the form of a pair of LEDs for each channel. A green light signals that the recording level is in the range between –12 and –1 dB. A red light alerts that the record level exceeds –1 dB.

Essential accessories

My field tests found that the new recorder lives up to the excellent pedigree established by the D1. As a handheld recorder for spoken word interviews and other radio applications, the PCM-D50 is the new sweet spot for price-performance in the digital audio market.

Serious users will require some optional accessories essential for professional use. One is Sony's Model ADPCM1 furry wind screen. The D50's mics come unprotected in the basic configuration and this custom-fitting windscreen is absolutely necessary for outdoor work. There's no way around it.

Another critical accessory is the REPCM1 remote control. It allows use of D50's controls in record without generating mechanical noise through the built-in mics.

Neither of these accessories was available for our evaluation, but Sony promised their availability at the same time the D50 recorder reaches retail stories (it is now shipping). If you buy a D50, it is best to include these accessories in the original purchase.

Both the D1 and D50 have a 1/4-20 (1/40 inch diameter, 20 threads per inch)

See SONY, page 23 ▶

FIRST LOOK

D&M Adds PMD620 to Field Recorder Line

by Carl Lindemann

D&M Professional is shipping the Marantz PMD620 SD (Secure Digital) field recorder as the follow-up to the PMD660.

Brian Gorman, brand manager for Marantz products, provided a sneak preview on the eve of the its first public showing at the 2007 Podcast and New Media Expo in Ontario, Calif. A hands-on review will follow as production units become available. In the meantime, here's a "first look" at a worthy contender in the burgeoning ultra-portable field recorder category.

No replacement

First, it's important to note that the PMD620 does not replace the PMD660. The PMD660 achieved instant-classic status when it appeared at the NAB Show more than two years ago, and enjoys ongoing popularity in an arena driven by novelty.

What the new unit offers is a smaller, more economical option to the lineup that should fit the bill for many sound-gathering applications. Some may keep it handy as their personal recorder, or it may be a nice addition to a news operation's fleet.

According to Gorman, the PMD620 was developed in response to the flood of new solid-state mini-recorders that have been popping up on the prosumer and musician market. Gorman claims credit, along with his colleagues, for spec-ing out the new model and making sure it's up to snuff for the pro market.

Another advantage for the new display technology is flexibility. OLEDs can be configured to show information in a wider variety of ways.

The result is a cigarette-pack sized unit that records to SD memory cards. It incorporates an omni stereo mic with a selectable –10 and –20 dB pad suited to gathering sound at conferences, interviews and the like. Headphones and an external mic use 1/8-inch connectors. PMD620 also incorporates a built-in speaker and runs on dual AA batteries.

Like the PMD660, the PMD620 records in uncompressed WAV format as well as in a range of MP3 compression. The SD card maximum capacity of 2 GB is sufficient to yield up to 90 minutes of stereo recording time at the highest-quality 24-bit, 48 kHz uncompressed WAV setting. Using the maximum compression at the 64 kbps MP3 setting in mono gives a maximum of 70 hours recording. An AC adapter is included for extended, uninterrupted recording or playback sessions.

Enter OLEDs

Battery life is reported to be up to five hours. The longevity is due, in part, to the next-generation OLED (Organic Light Emitting Diode) display. OLEDs use less power than traditional displays and do not require backlighting. Information stands in sharp contrast with white letters on a dark background.

Another advantage for the new display technology is flexibility. OLEDs can be configured to show information in a wider variety of ways. Older technologies require that characters be etched in, limiting the number of possible options. What that translates to in the PMD620 is more options to show information the way you want it, such as with larger lettering or metering.

Will radio reporters be willing to trade the PMD660's XLRs for the PMD620's portability with a 1/8-inch I/O? For those who grew accustomed to using palm-sized MiniDisc recorders, this may fit the bill.

Carl Lindemann writes about new media and broadcast technology, and is a frequent contributor to Radio World.

TOP STUDIO BUILDOUTS

Corus Radio Montreal

Studio buildout projects continue at a blistering pace, and the scale and complexity of operations appear to grow as well. Some buildouts require quick turnaround times, others force designers to think out of the box.

Here and in upcoming issues, RW will profile facilities that we noticed due to size, complexity or innovation.

It is one of the largest consolidation projects in Canada.

When Corus Radio acquired six stations in the Montreal market, efficiency, economy and best practice suggested they be brought together under one roof. The result is a 55,000-square-foot plant employing 200 to 300 broadcasters. The operation takes one floor of Montreal's historic Place Bonaventure. The Corus operation has 40 studios, along with engineering, sales news and administrative offices.

Home to CFQR(FM), CKOI(FM), CHMP(FM), CINF(AM), CKAC(AM) and CINW(AM), the complex was designed by Montreal-based Lemay and Associates. Pageau Morel and Associates served as project engineers, while Avicor construction was the general contractor. Engineering was handled by Corus National Director of Engineering Jack Hoeppner, based in Winnipeg, and the company's Montreal-based Gilbert Cerat.

Console and routing gear were provided by Wheatstone, which shipped 18 G-6 control surfaces, one each of a G6 and G9 EQ series console, along with 29 Bridge routers, two WheatNet Superswitches and one I/O channel AOIP driver interface.

One of 20 Wheatstone 5200 D digital news mixers.

Wheatstone Techline Furniture in CHMP 98.5 FM Talk Studio.

Additional gear provided by the company includes 43 rooms of Techline studio furniture, 29 rooms of prewire, eight 5200D news mixers, 16 desk turrets and 16 Ethernet programmable button panels. Darren Paley, a company sales rep who worked on the project, said, "It is the largest Wheatstone networked audio installation in Canada, and one of our largest systems in North America."

Four of the six stations in the Corus cluster are news/talk, so a Burli radio news production system was selected to enable journalists to gather, edit and present the news with multi-lingual support, to better serve the French/English language requirements.

Automation and master control functions are provided by the RCS Sound Software's Master Control Automation Suite.

Documenting such a large installation is a task unto itself, and that duty fell upon Gilles Guimont, who also did the acoustic design for the Corus facility. When the final tally was complete, there were more than 400,000 feet of Cat-6 cable deftly fished, strung and hung in the complex. While construction was going on, Guimont updated the "as-built" drawings, ensuring that every pair was labeled and the documentation was fully complete.

Tell us about your new studio buildout or renovation. E-mail radioworld@imaspub.com.

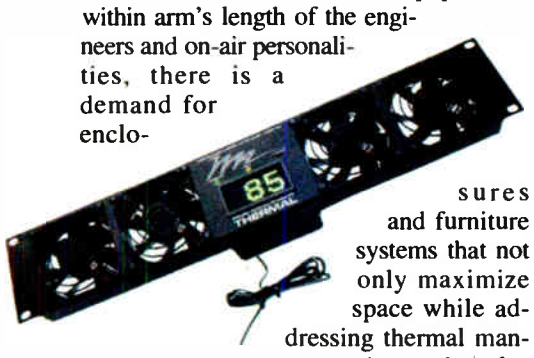
— Tom Vernon

PRODUCT GUIDE

Middle Atlantic UQFPs Minimize Fan Noise

Middle Atlantic says its Ultra Quiet Fan Panels occupy two rack spaces and feature a choice of two or four fans that emit 27 dB of noise or less. A digital processor varies fan speed proportionate to internal cabinet temperature, and a remote notification system provides local and remote alerts when high heat levels occur or if a fan stops operating. An alphanumeric display screen shows the enclosure's temperature and provides instant scrolling alert messages.

"Because many broadcast facilities operate in small studios where the equipment is within arm's length of the engineers and on-air personalities, there is a demand for enclosures and furniture systems that not only maximize space while addressing thermal management issues, but also keep the overall noise level of these components to a minimum," said David Amoscato, broadcast sales manager, Middle Atlantic Products.



For more information, contact Middle Atlantic at (800) 266-7225 or visit www.middleatlantic.com.

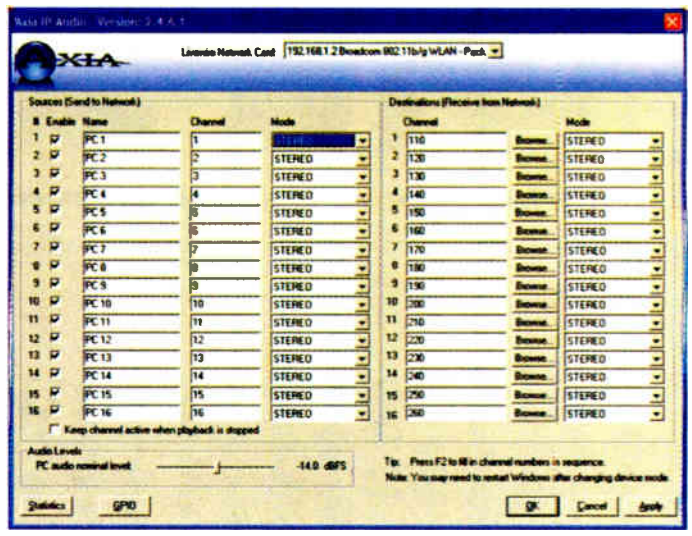
IP-Audio Driver Supports More Streams for OEMs

Axia Audio released what it calls version 2.4.8.12 of its IP-Audio Driver for Windows.

Features include 24 stereo audio streams for multichannel OEM users (up from 16); new audio metering, clipping and silence detection functions; and enhanced real-time monitoring of audio stream statistics.

The Axia IP-Audio Driver comes in two versions: a one-input, one-output version for use with audio editing workstations, and a 24-in/24-out version available from Axia Delivery System partners. Users of the single-stream IP-Audio Driver may download a software update from *www.axiaaudio.com/downloads*; users with the multi-stream version can obtain the update from their delivery system provider.

For more information, contact Axia Audio at (216) 241-7225 or visit www.axiaaudio.com.



Sony

▶ Continued from page 21

screw socket on the bottom. These are the same sockets used on popular SLR digital cameras. These recorders are self-contained with microphones, so recordists will at times want to mount them on a camera tripod or microphone stand for live performances.

Though Sony sells a tabletop tripod stand (VCTPCM1) as an accessory for the D50, any standard camera tripod will do the job. Adapters also are available at photographic supply houses that allow the mounting of these recorders on standard microphone stands.

Finally, there's the issue of XLR connectors. It's a sad commentary that after all these years the pro audio industry has failed to standardize on a miniature balanced connector to supplement the standard XLR connector. But that's the reality and the D50, like the D1, uses consumer-type mini connectors.

Sony offers an expensive accessory, the XLR-1, which adds 48 volt phantom-powered XLR connectors to both recorders. However, when sandwiched together with the recorder, it is a bulky solution requiring separate batteries. It's enough to make one continue to put up with the compromises of mini connectors.

Sony's introduction of the PCM-D50 changes the landscape for mid-range digital audio recorders. Having personally owned and used most of the lower-end recorders at one time or another, I can say without doubt that the D50 sets a new price-performance standard and is a candidate to become the next workhorse field recorder of the radio industry. It is that good.

GM Journal

Radio World | Resource for Business, Programming & Sales | January 2, 2008

Honors for 'Idiot's Delight'
Page 28

COLE'S LAW

Tolling: Escrows Ad Infinitum

Selling a Station? There's a New (Arm) Twist in the Tolling Saga

by Harry Cole

We here at *Cole's Law* would like to report that an end to the Tolling Agreement/Escrow saga is in sight.

Instead, we can report only that the tolling regime is in place and, if you can imagine this, is getting even more out of control.

Here's the latest. This story may affect you if you plan to sell a station.

We all know that, when there happen to be one or more outstanding indecency complaints pending against a station that is the subject of an assignment application, the commission ordinarily just sits on the assignment application pending the outcome of the complaints.

This situation could affect you if you are trying to sell your only station with the ultimate goal of closing up and dissolving your company.

But let's say that you are attempting to sell your only station, with the ultimate goal of closing up and dissolving your company and moving on to something else.

You want to get the deal done ASAP — maybe in the next couple of months, but for sure *not* in the next couple of decades, which is how long it could take the commission to dispose of the complaints that happen to be pending.

The commission might be willing to act on your application now, rather than some time in the (likely) distant future. But to get the commission to do so, here's what you can expect them to require of you:

- You will have to enter into an *indefinite* Tolling Agreement with the FCC (which, as the adjective "indefinite" clearly indicates, gives the FCC an *indefinite* period of time to act on any indecency complaints currently pending against the station);

- You will have to enter into an Escrow Agreement for an *indefinite* period naming the FCC as third-party beneficiary. How much money goes into the escrow? That's an easy arithmetical calculation: the total number of complaints multiplied by the total maximum forfeiture amount.

For example, let's say that the FCC has four complaints pending against your station, each alleging the broadcast of indecency at a time when the maximum fine for that kind of thing was $32,500. The necessary amount to be escrowed (for an *indefinite* period, mind you) would be 4 x $32,500, or $130,000. (If you are unfortunate enough to be the target of indecency complaints relating to broadcasts *after* the maximum fine for such misbehavior was raised ten-fold — to $325,000 a pop — then the escrow amount would be inflated by the same factor per violation — ouch!)

Any way you slice it, the bottom line is that you would have to place in escrow a large chunk of coin just to get the FCC to act on your sale application.

- You of course might think that after suffering this — er, how can we say this politely without using the disagreeable term "extortion"? — fiscal inconvenience at the hands of the commission, you could then close up shop.

You would be wrong. The model Escrow Agreement (which the FCC insists be used) requires that the licensee business entity stay in place during the term of the Escrow Agreement — and in case you need reminding, that term is "indefinite."

If the business entity dissolves, the model Escrow Agreement calls for the escrow agent to pay the escrowed funds as directed by the FCC. (Call us crazy, but we suspect that the FCC would direct the funds right into Uncle Sam's pockets.)

- You should eventually get your money (or at least some of it) back, but only if: (a) the FCC settles with you; or (b) the FCC notifies you that it has closed the investigation and directs the Escrow Agent to release the funds; or (c) the FCC issues a forfeiture for one or more of the violations in question *and*, after you decline to pay it, the FCC convinces the Department of Justice to sue you in Federal District Court, *and* after that trial the court directs the disposition of the escrowed funds in your direction, *and* that decision is upheld if appealed.

This government-sanctioned, um, arrangement — "blackmail" is such an unpleasant word — is likely to continue until such time as the indecency litigation working its way through the courts is resolved (possibly at least two years away) or until someone goes to court and successfully seeks a *writ of mandamus*.

We hope that our next report to you will announce the end of the Tolling/Escrow saga . . . but don't count on it.

The author is a member of the law firm of Fletcher, Heald & Hildreth PLC in Arlington, Va. This column appeared in slightly different form in the firm's newsletter.

Comment on this or any article. E-mail radioworld@imaspub.com.

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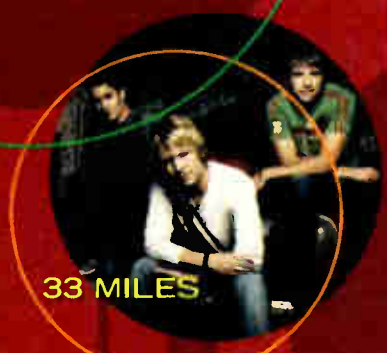

33 MILES

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— Dick Jenkins, CEO EMF Broadcasting

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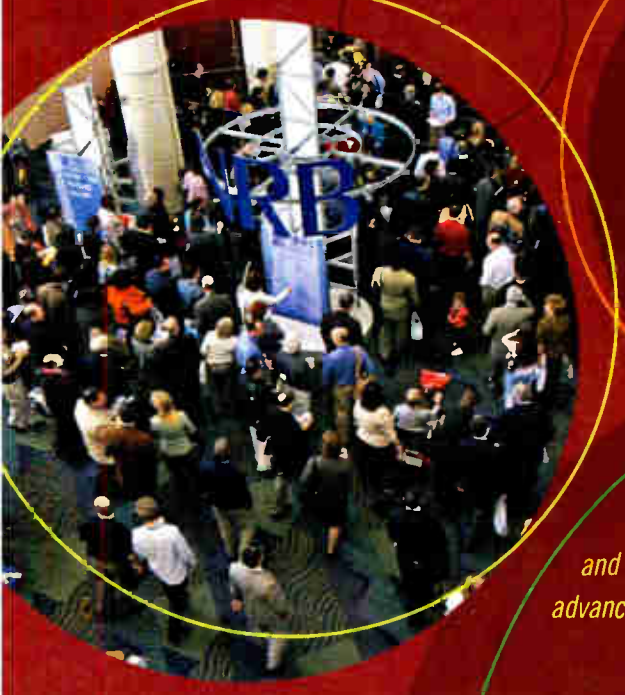
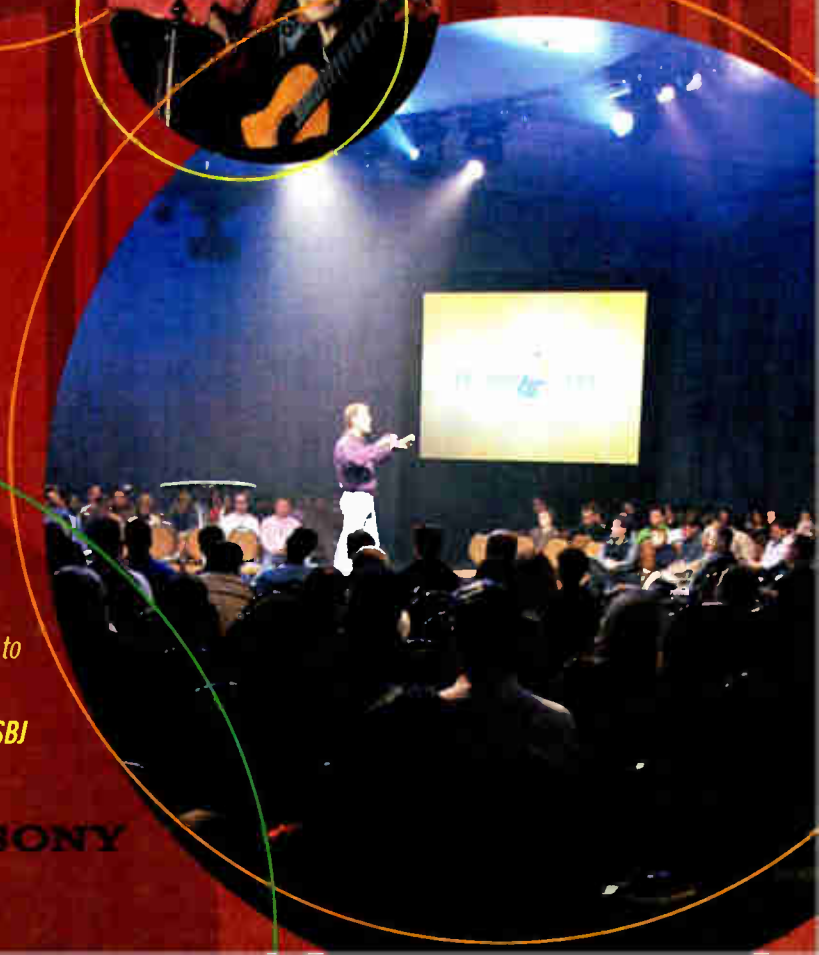


I look forward to NRB each year as it is a fantastic opportunity to rub shoulders with people who are also involved in the ministry of media. It's a worthwhile investment of my time and energy to be educated by and to fellowship with the people who are leading the way in this arena of ministry.

— Mark Zschech, Hillsong Church



What makes going to NRB so worthwhile is interacting with other decision makers. My peers are there and I am always amazed how much I can immediately get done to advance this radio ministry by attending NRB.

— Tim McDermott, President/General Manager, KSBJ

Panasonic HARRIS TEAC SONY

Puerto Rico Says 'Hello, Radio Joe!'

Resurrected and Moved After a Hurricane, WVIS Is an Island Family Affair

by Ken R. Deutsch

Puerto Rico can seem a land of contradictions. In the capital city of San Juan, crime forces people to bar their windows and 200 vehicles per mile of highway create traffic jams that rival those in Los Angeles. In smaller towns like Luquillo, life is more serene, although there are random power outages, poverty and unemployment.

For those who don't live there, Puerto Rico may not seem an ideal place to build a station; but soon its east coast will have a new local outlet on the dial to add to the 126 stations in this U.S. territory.

Broadcaster Will Sims is majority owner of KLVF(FM) in Las Vegas, N.M., and a transplanted statesider now living in San Juan. He and the family of the former owner fought hard to regain the license of WVIS(FM), which had lapsed in the aftermath of Hurricane Georges in 1998.

"The station had originally been licensed to the U.S. Virgin Islands," he said. "The owner, Joseph Bahr, couldn't get it back on the air quickly enough after the damage, so in 2000 the FCC rescinded his license. In 2004 Mr. Bahr died holding a construction permit to move the station to Puerto Rico, an American territory. Bahr's family and I were finally able to get it back on track after seven years."

Bahr's children own 60 percent of the station, their FCC attorney owns 30 percent and Sims received 10 percent for his consulting efforts.

"We have our board meetings around the dinner table," said Sims.

Most of the residents of Puerto Rico speak Spanish, so "Radio Joe" will use that language for commercials, liners and promos as well as music. But the adult AC station will also play plenty of music in English for the owners and managers of local businesses who are bilingual. The station, Sims said, is choosing to program to potential ad buyers.

"The family is lucky in that it doesn't have to take out loans to get the station on the air. But it will probably cost about $150,000 to build. The transmitter alone was $40,000 and the antenna was about $12,000.

"Our transmitter will be on the island of Culebra, population 3,000, which is one of the two other inhabited islands of Puerto Rico. We'll still put our required city-grade signal over Vieques, our community of license, even though our studios will be 24 miles from there," in Luquillo.

See RADIO JOE, page 27 ▶

The board of directors of V.I. Stereo Communications Corp., licensee of WVIS(FM), meets around the dining room table at home in San Juan. From left: President Michael Bahr, Director Will Sims, Corporate Secretary/Chairwoman Gabriela Ortiz, Vice President Stephanie Bahr and Corporate Treasurer Christine Bahr. Not shown: Director James Oyster.

WVIS Chronology

1973 WVIS(FM) signs on, licensed to St. Croix, U.S. Virgin Islands

1998 Hurricane Georges destroys WVIS

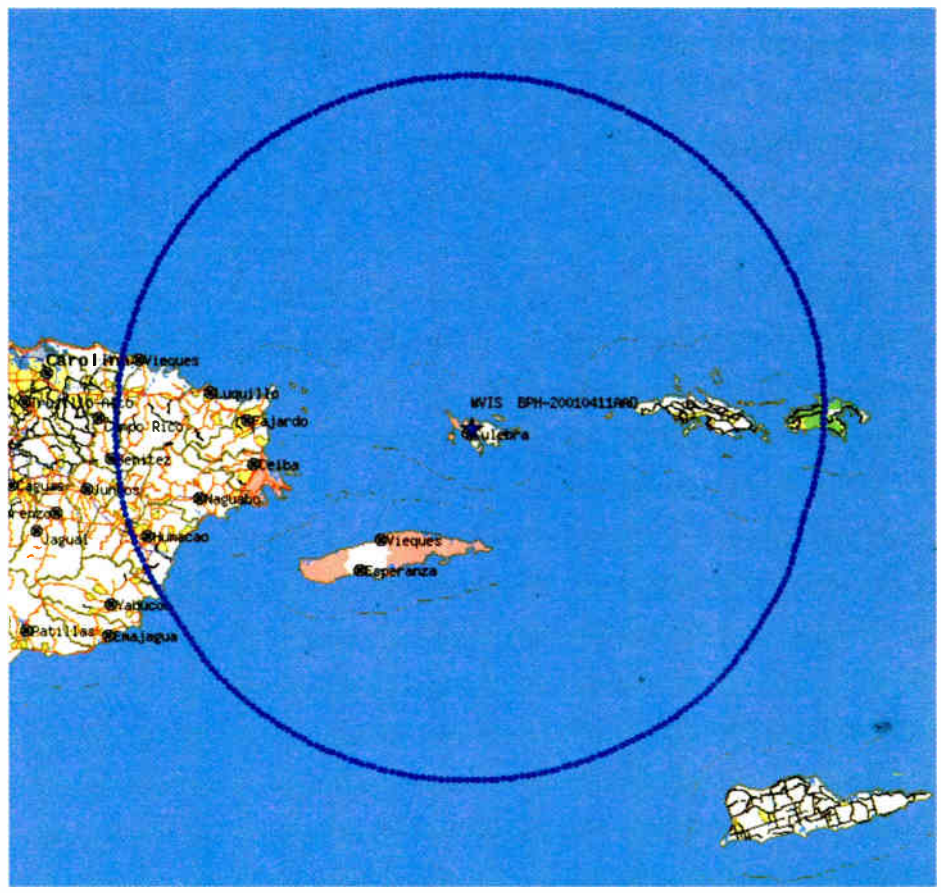
2000 FCC pulls the station license because it was unable to broadcast

2004 Joseph Bahr dies

2005 Will Sims moves from Santa Fe, N.M., to San Juan, Puerto Rico

2006 Station license reinstated

2007 (December) WVIS scheduled to resume broadcasting



The station's 54 dBu predicted coverage, shown via the FCC Web site. The star indicates the tower site at Culebra; to the east is St. Thomas in the U.S. Virgin Islands and at lower right is St. Croix. The San Juan metro is in yellow at the left edge of the map

The new WVIS will be rechristened "Radio Joe" in honor of its only former owner. After turning on briefly in St. Croix, it will move to Puerto Rico in February, a Class B with 32 kW ERP.

Say it both ways

Sims knew Joseph Bahr and his wife Gabriela Ortiz for many years. After Bahr's death, Sims and Ortiz became a couple. She and one of her three children, Michael Bahr, will run the day-to-day operations of the new station.

Radio Joe

▶ Continued from page 26

"Our signal will be heard in San Juan, especially in car radios. But because San Juan probably has 50 other stations on the dial, we're going to focus on serving the eastern side of Puerto Rico, where our studios are. 'Radio Joe' will cover about a million people and we have hopes of raising our power from 32,000 watts to 50,000 watts in the future." He said the east coast has only about a half-dozen stations selling spots.

The new home of "Radio Joe" will be a suite of offices in a shopping plaza. There will be a total of four full-time employees including Gabriela Ortiz and Michael Bahr. A contract engineer will work part time and Sims will continue as an unpaid consultant.

"I don't want a day job so I won't be working full time," said Sims. "I'm semi-retired. My main job is to be the 'honey' of Gabriela. She's going to run the station as manager and chairman of the board of V.I. Stereo Communications Corp.

"Gaby was married to Joe Bahr for 18 years and worked at the station in St. Croix for 10 years. She says she loves the friends that come from being in radio and wants to restore what Joe created with a legacy for their children."

The station will be automated at first, with the possibility of adding a live personality in the morning if finances make that feasible. Software used by this start-up will include BSI's Natural Music, Natural Log and WaveStation. A remote control monitoring system with an alarm and standard EAS gear will be used, allowing the station to run unattended.

"We didn't pay a focus group," said Sims. "Our family is the focus group. Michael is program director and president of the corporation and he is very interested in doing good radio."

Puerto Rico challenges

Getting the license back took years. But once "Radio Joe" is on the air, the battle is still not over.

In addition to overcrowding on the island, there are other problems. The per-family income is about 1/3 of the mainland's. Unemployment is 12 percent. And Puerto Rico has a murder rate comparable to that of New York. Between Jan. 1 and mid-November, the island had 600 of them. And making a profit in an economy like Puerto Rico's may not be easy.

"I feel challenged by this place," said Sims. "It's a sad truth that everyone has gates around their houses or guards in their communities if they can afford them. But those same factors make radio more important here.

"There is no satellite radio in Puerto Rico so people listen to terrestrial radio all the time. You hear it everywhere! Stations are often quoted in newspapers, unlike in the States. We just hope the communities support us."

Sims believes that putting "Radio Joe" on the air will be a rewarding experience.

"The most wonderful thing about it is Gabriela and her family," he said. "I am a very lucky man."

STATION SERVICES

'Keith Sweat Hotel' Has Success in Its First Year

"The Keith Sweat Hotel" has passed 20 affiliate stations with the addition of two in Greenville-New Bern-Jacksonville, N.C., and another in Huntsville, Ala.

The program launched in February 2007. It is a music-intensive program with 10 to 12 songs an hour, R&B and "slow jamz" from the 1970s to current. Also featured are guests, in-studio musical performances and listener "confessions, apologies and dedications."

The program airs Sunday through Friday from 7 p.m. to midnight. It is syndicated by Premiere Radio Networks.

Born in Harlem, New York, Sweat worked in the commodities market at the New York Stock Exchange before he was discovered singing at a nightclub in 1987. He released his debut album that year which sold 4 million copies. He also has worked in production, discovering and debuting groups such as Silk, Kut Klose and LSG; he has produced songs for artists such as Men At Large, Dru Hill and The Isley Brothers. Sweat broadcasts live from Atlanta.

For affiliate information contact Martin Melius at (818) 461-5453.

Scelsa Makes a Career of Smart Radio

His Show 'Idiot's Delight' Is Honored By ASCAP as an Important Tastemaker

by Donna Halper

Vin Scelsa still loves radio. It's a love he has maintained during a 40-year career as an announcer.

Many things about broadcasting may have changed in those decades, but Scelsa continues to believe that radio matters. In a broadcasting environment some see as dominated by voice-tracking, tight playlists and the same songs over and over, his popular program "Idiot's Delight," which airs Saturday evenings on WFUV(FM) at 90.7 MHz in New York, is heard by many as a welcome relief.

What Scelsa does so well is what used to be called "free-form" radio — an eclectic blend of new music, rock classics that aren't heard often enough, interviews with musicians and chats with authors of interesting new books.

Given his creativity and range of knowledge, it's no surprise that the American Society of Composers, Authors and Publishers has named him the recipient of its Deems Taylor Award.

Like Scelsa's career, the award dates to 1967. ASCAP says it "recognizes books, articles, broadcasts and Web sites on the subject of music, selected for their excellence." It was named after a former president of the organization, a composer, critic and commentator.

"Vin Scelsa ... is one of the last true free-form radio hosts," ASCAP stated. "He is a sharp raconteur, a champion of new and unusual music and, with his devoted listening public, an important tastemaker."

Free form

Scelsa, 61, still does the kind of radio he grew up listening to, where a host does much more than just "play the hits."

In that era when the personality disc jockey was king, Scelsa, who grew up in New Jersey, recalls doing what many young fans liked to do: pretending he was on the air.

"I had a turntable in my room," he said, "with a pretend microphone, and a radio kit that you could build yourself."

His parents were avid radio listeners. "My parents gave me a combination of radio influences." His mother Ann had grown up listening to soap operas, his dad Vince was a jazz buff who also played the fiddle. They introduced him to the talk shows on New York's WOR (AM). He was impressed with Long John Nebel and became a big fan of Jean Shepherd: "I loved his style ... he was a rebellious raconteur."

Nebel and Shepherd made each show unique, with guests from all walks of life. Scelsa knew this was the kind of radio he wanted to do.

He got his start in college radio, where in November 1967 he did the free-form show "The Closet" at WFMU(FM), licensed at the time to Upsala College in East Orange, N.J., where Scelsa studied for two years. After that, it was on to WBAI(FM) and WABC(FM), later known as WPLJ; then in 1973, he joined the air staff at New York's progressive rock giant WNEW(FM), where he stayed for nearly 10 years as an announcer, doing weekends and fill-in shifts. For a short time he also was music director.

For a brief time, he left radio, which he felt was becoming too formatted and predictable; but he returned in 1985, working at Infinity's WXRK(FM), "K-Rock." He started with a Sunday morning shift, then moved to Sunday evenings.

Vin Scelsa

It was there he created "Idiot's Delight." Rock critics, musicians and listeners gave the show plenty of praise. Scelsa had long been known for taking chances on new music and giving unfamiliar artists exposure, but by the mid-'80s, fewer stations were doing that, and he was one of a declining number of announcers keeping free-form radio alive.

Mixed blessings

When K-Rock changed its format from classic to modern rock, Scelsa returned to WNEW, doing his show every Sunday night from January 1996 until New Year's Eve 2001, a tenure terminated by another format change.

After that he found a place in public radio, joining Fordham University's WFUV in February 2001. This was a good fit from the beginning.

"I told them when I went there that I don't do a format. I do 'Idiot's Delight.'" The station's management agreed. Also on the staff are several of his former WNEW colleagues including Pete Fornatale and Dennis Elsas.

Scelsa recognizes that it's a different world today, especially in the area of technology.

Everything today is formatted, and there are only a handful of us who still do this kind of radio. The franchise dies with us.

— Vin Scelsa

In 2000 he experimented with Internet radio, doing a show three times a week. It was called "Live at Lunch," but despite having a dedicated group of fans, "Vinternet radio" was a little ahead of its time. Unable to make enough money, it was cancelled in 2001.

Scelsa has had more success with satellite. Since 2004, he has been doing a show twice a week for the Sirius Disorder channel in addition to his program on WFUV.

"Change happened more slowly back when I was starting out," he recalls. For example, it took a long time for FM to overtake AM. When he first went on the air in 1967, most people didn't even own an FM receiver.

"But today, new technologies are almost instant, and change happens rapidly."

This has been a mixed blessing. "There isn't a sense of community anymore. We no longer share the same things the way we did in the '60s. iPods have changed that. And with the wide-open world of the Internet, it's so humongous that you can hardly find anything — it's hard to stand out."

Obstacles

But Scelsa has certainly found a way to stand out on terrestrial radio. He keeps himself relevant by listening to lots of new music and reading plenty of books.

"Doing free-form radio is harder than it looks," he said. He still gets excited about discovering new bands; among his current favorites are the Avett Brothers.

"When I fall in love with something, I want to expose it to the world." Over the years, he has given many new bands and authors that kind of exposure, in addition to interviewing such luminaries as Yoko Ono, Elvis Costello, Leonard Cohen and Kurt Vonnegut.

Despite critical acclaim, Scelsa has suffered from depression; he also has beaten prostate cancer. He does not hide those facts from his listeners; rather, he has used his experiences to reach out.

"I think by being able to talk about depression, for example, I've helped people. I've let people know that I survived it."

Scelsa recently saluted several people who have worked with him on "Idiot's Delight" including former K-Rock and WNEW Producer Kara Manning, WFUV Music Director Rita Houston, WFUV Producer Kim Ferdinando and Sirius Disorder Program Director (and former WFUV on-air host) Meg Griffin.

He is also grateful that he works for a station that doesn't put limitations on how he does his show.

"WFUV allows me to be political when I want to be, or to talk about my personal life." And while he says that Sirius is a great place to work, his heart is still in local radio.

"Pay radio is an elite service, you only talk to the people who subscribe. WFUV is broadcast radio. It's real radio. It's the logical place for me."

A WFUV announcement said his program is "revered as one of the few radio destinations where the playing field is leveled and new artists receive the same respect, encouragement and air time as their established counterparts."

But Scelsa sometimes wonders if he is among the last of the free-form announcers.

"Everything today is formatted, and there are only a handful of us who still do this kind of radio," he says. "The franchise dies with us."

STATION SERVICES

A Plunge For a Cause

KDKA(AM) talker Kevin Miller pledged he'd sit in a dunk tank if Pittsburgh Mayor Luke Ravenstahl won re-election.

So he did. Miller took the plunge during a live broadcast at Market Square.

The CBS station promoted it: "Amid temperatures in the mid-40s, passersby will get a chance to toss footballs and dunk Kevin in a 500-gallon tank in exchange for a donation to Special Olympics Allegheny County."

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StoryCorps Chronicles American Life

Four Years In, the Oral History Project Now Has Recorded 14,000+ Stories

by Ken Deutsch

"My name is Obadiah Samuels and I was born in Tecumseh, Michigan, on January 17, 1822."

Unfortunately there were no microphones or flash recorders during the formative years of our country, but wouldn't it have been great if such individual stories could have been preserved for future generations to hear?

That is the idea behind StoryCorps, the brainchild of Dave Isay, founder and executive director. His company's mission is to record the oral history of our country and archive it for later generations.

Some of these stories can be heard on National Public Radio's "Morning Edition" and "News Notes," and all of the material eventually is housed at the American Folklife Center at the Library of Congress. The public can hear and search for content on the StoryCorps Web site.

"This project grew out of my non-profit Sound Portraits Productions, where we created radio documentaries about disenfranchised Americans," said Isay. "We worked to shine a light on places people never got to go, and we found the poetry in the words of people living on the margins.

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And that simple idea has grown.

"When we started StoryCorps four years ago, we had a staff of five or six people and a budget of about a half million dollars a year," said Isay. "We now have 80 employees and raise about $6 million a year. Our challenge is to continue to grow without collapsing under our own success."

Out of StoryCorps' annual budget, about $835,000 comes from corporate sponsors, $245,000 from individual donations, $425,000 from earned income, $200,000 from other public funding and the rest from a foundation and the Corporation for Public Broadcasting.

Isay sees this project as a public service to America.

"We celebrate the American voice and try to expand the role that radio can play in people's lives," he said.

"It's a part of democracy, giving a forum to the people. Radio has been vastly underutilized for this. It's hard to tell what's real and what's a commercial, but when you listen to StoryCorps you know you are hearing something authentic."

StoryCorps has permanent recording facilities called "StoryBooths" in New York, Milwaukee and Nashville. There are three traveling "MobileBooths" crisscrossing the country.

Photo by Tony Rinaldo

Kathrina and Breanna Proscia in a StoryCorps booth. Participants interview each other for 40 minutes, with a facilitator sitting nearby.

Photo by Harvey Wang

StoryCorps Founder and Executive Director David Isay

"We request a $10 donation from the people who want to come into our booths and record these stories, but if they can't pay, they can record anyway," Isay said.

Organizations can also sponsor a "Door-to-Door" on-site recording session for a fee; StoryCorps staff will bring the equipment to the sponsor's location and can record up to six 40-minute interviews per day.

"We want their stories to become part of the fabric of society. We want everyone to know about StoryCorps and have access to the process. This is about people talking to one another and creating a culture of listening, as opposed to the screaming you hear through a lot of the media."

Nick Yulman is StoryCorp's facilities and archive manager; Dalton Rooney is Webmaster and Mike Garofalo is senior producer.

Isay sees StoryCorps as an alternative voice on the air.

In the Booth

StoryCorps records simultaneously to flash card and CDR using Pro Tools.

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Neumann Mics (TLM 103, TLM 127, KMS 104)
Sound Devices 302 mixer
ATI Distribution Amp
Marantz Flash recorder
TASCAM CDR recorders

Door to Door:
Neumann Mics (KMS 105)
Sound Devices 722 recorder
Marantz CDR recorder

"Our stories come from everyday people, which I think is more interesting than the crap we're fed about celebrities 24 hours a day. StoryCorps reminds us of the value of taking time to listen to family and friends. It honors their lives by listening to what they have to say, and tells them that they won't be forgotten."

Epiphany

Isay's own story might make an interesting recording. When he was in college and headed to medical school he experienced an epiphany.

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"Instantly I knew that this is what I would be doing for the rest of my life. The story aired on WBAI and (former NPR producer) Gary Covino heard it and picked it up for the weekend version of 'All Things Considered.' I dropped out of med school and spent the next 18 years making documentaries for NPR. The whole trajectory of my life changed in 24 hours."

Isay also was the recipient of a "no-strings" MacArthur Fellowship, money that he put into Sound Portraits and eventually into StoryCorps. "The grant helped give me the confidence to launch something this crazy," he said.

Now these American stories have been translated to the printed page. StoryCorps released its first book in November, "Listening Is an Act of Love." There is also a companion CD as well as an edition of the book that will be sold at Starbucks. "Listening" contains 50 stories selected from the 14,000 or so that had been recorded as of late in 2007.

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"That feels really good."

Ken Deutsch is a former broadcaster. He says not even his wife is interested in hearing his personal story. Learn more about StoryCorps at www.storycorps.net.

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BROADCAST WAREHOUSE

StoryCorps Chronicles American Life

Four Years In, the Oral History Project Now Has Recorded 14,000+ Stories

by Ken Deutsch

"My name is Obadiah Samuels and I was born in Tecumseh, Michigan, on January 17, 1822."

Unfortunately there were no microphones or flash recorders during the formative years of our country, but wouldn't it have been great if such individual stories could have been preserved for future generations to hear?

That is the idea behind StoryCorps, the brainchild of Dave Isay, founder and executive director. His company's mission is to record the oral history of our country and archive it for later generations.

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The Band Scanner is a tool to evaluate FM broadcast band congestion and to log station identification parameters. The system is powered by the USB port of any Windows PC. Supplied free of charge Windows software sweeps the receiver across the FM band, logging every carrier and generating a spectrum display of carrier level vs. frequency. It then analyzes each carrier and creates a station list. Stations with an RDS presence are further refined to show all the radio data groups being transmitted. Its interface is like a portable radio. It may be tuned manually through the receiver screen or by double-clicking a point on the spectrum plot or an entry on the station list. Spectrum plots may be saved as jpg or bmp files. The RDS data error level is graphed in a separate window on the receiver screen. The program can be monitored with headphones plugged into a standard 1/8" jack.

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IN THE NEWS

Newberry: The Law As It Stands Works

Speaking for NAB, Broadcast Executive Tells Congress to Avoid a 'Performance Tax'

NAB Radio Board Vice Chairman Steven Newberry, president and CEO of Commonwealth Broadcasting Corp., testified this fall before the Senate Judiciary Committee regarding an RIAA-backed effort to levy a fee on local radio stations for the airplay of music.

Here are excerpts of his prepared testimony as provided by NAB.

With regard to the issue of creating a new performance royalty fee for sound recordings — which local broadcasters consider a "performance tax" — NAB strongly opposes any such proposal. We oppose a performance tax because compensation to the record labels and performers is already provided under the current system.

The existing model works for one very simple and significant reason: the promotional value that the record labels and performers receive from free airplay on local radio stations drives consumers to purchase music.

A survey done by Critical Mass Media shows that 85 percent of listeners identify FM radio as the place they first heard music they purchased. With an audience of 232 million listeners a week, there is no better way to expose and promote talent.

Beyond just playing music, consider that local radio stations give away free concert tickets, conduct on-air interviews with bands releasing a new CD, or hype a newly discovered artist.

Radio drives sales

Without question, local radio is the engine that drives music sales. The recording industry knows that music sales soar with radio airplay.

Just last week at the Country Music Awards, Carrie Underwood, Kenny Chesney, Sugarland and Rascal Flatts all specifically thanked country radio for their success. Taylor Swift, who was named Best New Artist of the Year, said "I want to thank country radio. I'll never forget the chance you took on me."

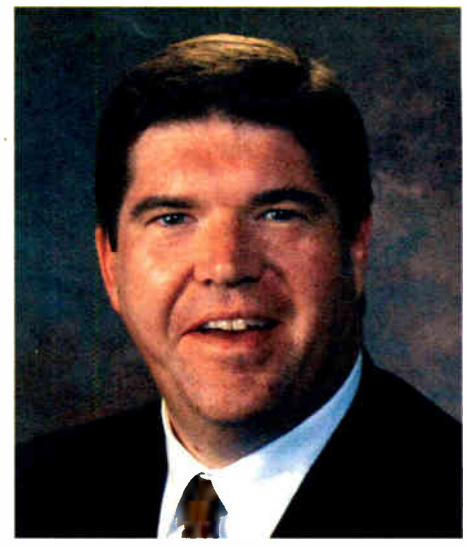
While it is true that the recording industry has seen its revenues dip in this new digital world, in no way can that decline be attributed to local radio. Just the opposite, local radio is essentially free advertising for record labels and performers and provides the best and most direct way to reach consumers.

While it is true that the recording industry has seen its revenues dip in this new digital world, in no way can that decline be attributed to local radio. Just the opposite.

— Steven Newberry

In 1995 when Congress last examined this issue, lawmakers opted to require satellite and Internet radio to pay performance fees because these platforms are often available by subscription and both offer consumers true interactivity to download songs.

Local radio, however, is an entirely different platform. We are free. There is



Steven Newberry

no subscription. It is not interactive. Between disk jockey lead-ins and commercials, no one is stealing music from over-the-air radio.

Congress came to this same conclusion in 1995 — namely that local radio airplay does not threaten music sales. In fact, local radio directly and positively promotes the sale of music.

What I fail to understand after nearly 30 years in the radio industry is why the recording industry is willing to essentially bite the hand that feeds it. The "free airplay for free promotion" concept has established a natural symbiotic relationship between local radio and the recording industry. Both grow and flourish together.

But a new performance tax takes this mutually beneficial system and transforms it into an unfair, one-sided scheme that financially benefits only the recording industry — and to the detriment of the local radio stations.

The negative effect of such a dramatic increase in radio station costs will be felt by radio stations and their listeners across the country and in every one of the states you represent. Many radio stations across the country are struggling to be profitable since most of our operating costs are fixed. The money to pay for this new performance fee has to come from somewhere.

No justification

So what are my options?

Do I reduce the community affairs programming, including essential news and weather in times of emergency? Because I can't reduce my electric bill.

Am I forced to layoff staff or cut the employee benefits at my stations? Because I can't reduce my FCC regulatory fees.

Do I move to a non-music format, which will have the effect of playing less music, which will ultimately harm the performers?

There's a reason the National Religious Broadcasters, the National Association of Black Owned Broadcasters, the National Association of Farm Broadcasters and the Independent Spanish Broadcasters Association all oppose the imposition of any new performance fees. The answers are not simple and the consequences of this debate will hit both industries in unanticipated ways.

There is simply no justification for changing a system that has worked for the music industry as a whole for so many years.

The United States has the most prolific and successful music industry that is the envy of all the world. The law as it stands today works. Upsetting the careful balance that Congress struck by imposing a new performance tax on local radio broadcasters would be a shift of seismic proportions. Congress has consistently recognized the mutually beneficial relationship between local radio and the recording industry, and there is no reason to change the law now.

STATION SERVICES

Pay-Per-Click Is Part of Scher Group NTR

Scher Group announced an online offering that it says will increase non-traditional revenue, Web traffic and time spent listening and use of station sites.

The Ohio-based company believes other NTR revenue offerings "are losing popularity among radio and television stations because they are time-consuming and lacking originality."

Scher Group Media Programs allow radio and TV stations to offer pay-per-click and online interactive games.

"The media revenue opportunities also help maximize existing revenue relationships by offering advertising premiums during high-traffic events, conversion of non-spending prospects into revenue and national revenue opportunities," it stated.

Advantages cited include online chatting and social networking, e-mail, text, RSS marketing, turnkey online fulfillment, training and no out-of-pocket expenditure.

Michael Seligman is national sales director. Scher Group was founded in 1994. Scher Group's Media Programs launched in October.

For information call the company at (440) 542-2785 or visit www.schergroup.com.

Excuse Me, Were You Saying Something?

Promo Power

by Mark Lapidus

Our attention spans have grown so short that you're already anxious for me to get to the point.

There likely are numerous reasons for the massive scale of, uh, whatever I was just talking about. Oh, yeah, short attention spans.

We expect instant replies to e-mails. When people don't answer their mobile phones, most of us figure they must be in a very important meeting, or perhaps ill.

I'm guessing that husbands who listen closely to wives are also at an all-time low, but don't quote me (or show my bride this article).

I'm sure this lack of focus must be having an impact on radio listeners and I'd like to speculate a bit about it.

What are you saying?

More than ever, disc jockeys have got to get to the point.

There are still people on the air blabbing as if nothing has changed. Hello! The world is different. We have numerous entertainment options and mobile phones in our pockets.

Sure, many of the voices sound great — some with amazing pipes — but they aren't saying anything!

Listeners don't care about: 1) Your health. 2) Your kids. 3) Your favorite out-of-town team. 4) What you had for dinner last night. 5) Music trivia that's so complicated it's like hearing a lecture.

What do they care about? Things that are emotional — funny, happy, sad, humorous — and it helps to have story line that can be expressed simply.

I had figured that once automation became the norm, we'd have better stuff happening on the air. Not long ago, a DJ would spend lots of time finding CDs (or records), lining up commercials, pushing buttons, taking meter readings, etc.

Since the automation process puts songs and commercials in-cue, this arguably allows talent more time to think of something to interesting to say, or record calls, or research information that could be interesting to relate.

Why hasn't it produced a positive result? Perhaps PDs expect too little of their talent. Air-check sessions are tough business and require time, which is difficult to find when you're the PD for two or three or four stations.

Salaries for air talent could be another cause for the spread of mediocrity. Aside from a handful of highly-paid morning show hosts in major markets, DJs have become a voice-tracking commodity, at less than $10,000 a year for a shift in many cases.

Sure, many of the voices sound great — some with amazing pipes — but they aren't saying anything!

Quick response

Not only that, the short attention span of our nation does no favors for ratings when stations promote too many things at once.

While overall clutter on stations seems to have improved in recent years, I still hear too many things being promoted on stations in any given week.

Some stations are now running live promos into recorded promos. Death! Who can remember all that information? Who wants to?

Focus is the key to success. Want your audience to listen to something, attend an event, go to your Web site? Focus on it for a few days with lots of announcements and watch the action.

Promotion works when the message is brief, easy to understand and hits the audience with plenty of frequency. You score extra points when that message is also creative and fun. (Give your creative service director a raise!)

How fast are you responding to e-mails sent to your station? If listeners who are writing you aren't receiving an auto-response within minutes and a more in-depth response within a day, you're missing the boat. They've forgotten about you already. Moved on. Hasta la vista!

How fast are you answering the phone in the control room? Wait — you don't answer it at all because you're voice-tracking? Not even with a recording? You lose!

How long do listeners wait in your lobby to pick up prizes? Have an intern hang out near reception and surreptitiously time your prize pickup. (Better make sure it's a smart intern, or the receptionist will kill you.)

Try averaging about 10 pick-ups see how you score. Is it more than five minutes? Have *you* ever waited in a doctor's office? That's what it feels like to your prize winners.

How did I even get started on this? Oh, yeah, short attention spans... see, I was already moving on to the next thing — and I'm the one writing the article!

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

PEOPLE NEWS

Harris Corp. named **Joe Meleski** district sales manager, mid-Atlantic region, for its Broadcast Communications radio business. Meleski previously was with ERI for 12 years, where he served as director of the installations division and also supported ERI's sales force.

Joe Meleski

AZCAR appointed **Greg Hoskin** to managing director of Megahertz Broadcast Systems, its U.K.-based subsidiary. He recently served as vice president, sales and operations, EMEA (Europe, Middle East and Africa) for Omneon Video Networks.

Bob Heil received the Parnelli Audio Innovator Award from **Sound Image** President Dave Shadoan at a ceremony on Nov. 16 for his work with such performers as The Who, Humble Pie, Peter Frampton and Joe Walsh. Heil said the award is dubbed the "Grammy" of the sound industry.

Bob Heil receives the Parnelli Audio Innovator Award.

Tom Bender was named senior vice president and general manager of **Greater Media Interactive**. He had been the market manager for the company's three Detroit-based properties since 1986, and will continue to hold this position until a replacement is named.

Dielectric promoted **Les Kutasi** to the position of director, mobile media business development. He has 17 years of experience with the company, and has held positions in production, project management, customer service and sales.

Peter Smyth, president and CEO of **Greater Media**, was named the "roastee" for the Bayliss Broadcast Foundation's annual Radio Roast, April 2 in New York. Smyth is the chair of the Radio Advertising Bureau's board of directors, and is a past president of the New England Media Association.

Anton Guitano has been named senior executive vice president of finance and operations and chief financial officer of **CBS Radio**. He most recently served as executive vice president of operations and CFO of the CBS Television Stations Group. Guitano succeeds Walter Berger, who remains with CBS Radio working on special projects under the direction of Fredric G. Reynolds, executive vice president and CFO of CBS.

Mike Glickenhaus

Mike Glickenhaus was named market manager for **Beasley Broadcasting**'s five stations in Las Vegas. He replaces Tom Davis, who returns to his previously held position of director of sales for the Las Vegas cluster.

Glickenhaus comes to Las Vegas from San Diego where he was the founder, president and CEO of Finest City Broadcasting, which was established in September of 2004 to acquire three San Diego radio stations from Clear Channel Communications.

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GUEST COMMENTARY

FM-Based Broadcast, WiFi Key to EAS

Wireless Carriers Could Help Safeguard Public By Activating FM Chip in Most Cellular Handsets

by Matthew Straeb

The author is vice president of sales and marketing for Global Security Systems.

In recent years, local emergency management personnel have used radio and television broadcast stations, cable and wireless cable systems along with land mobile radio and cell dispatches to distribute information to local responders.

While the Department of Homeland Security, along with state and local emergency operation, are working to provide organization and resources to promote the development of an improved platform for emergency alert messaging, the recent Minneapolis bridge collapse is a reminder that traditional communication systems simply don't hold up under catastrophic conditions.

Most people are still surprised when cell networks can't handle the extra load during emergencies. The reality is that cell phone networks are switched (point-to-point) and were not designed to handle the loads put on them today.

Even more alarming is the lack of awareness that wireless carriers could further safeguard individuals and communities by activating a standard FM receiver chip that exists in most cellular handsets today.

The chip receives personal alert messages from a standard FM radio tower without interfering with normal cell phone usuage.

The FM chip is one key to the interoperability of Global Security Systems' FM-based digital alert and messaging system, Alert FM.

This single-to-multi-point radio broadcast system uses Radio Broadcast Data System subcarrier datacasting, layered in "need to know" groupings based on an existing communication infrastructure — the country's nationwide FM broadcasting network.

Be alarmed

Targeted alerts and messages are delivered by satellite to FM transmission towers and can be received on Alert FM receivers and other mobile devices, including PDAs and other specialized receivers equipped with FM chips.

Millions of Americans, including countless first responders and public safety workers, have the potential to receive alerts and time-critical information with the activation of the standard FM chip.

Alert FM is a powerful switchless solution because messages will not clog up existing switched wireless networks, and the broadcast signal is more robust than cellular signals. Overlapping signals from different stations help to ensure that there is always a signal that can be received.

Another Alert FM efficiency: the system does not require recurring fees. The radio broadcasters are stakeholders in providing emergency information and they have been doing this public service for more than 50 years in communities across the country.

Emergencies are local, as is broadcasting. Therefore, the broadcasters are cooperating across the country to provide the spectrum to allow these lifesaving messages to be delivered.

As officials and the general public consider alternatives to cellular voice calls, text messaging frequently is discussed as a safe alternative during emergency situations.

Text messaging, including applications based on Short Message Service protocol, is its own worst enemy during a perceived or real emergency. Network overload and inoperability are problematic, and there also is a security issue due to the dependence on Internet connectivity to interconnect the communications channel.

The cell network infrastructure is vulnerable, connected to a maze of landline telephone switches, and encryption is not supported all the way to the wireless receiver.

In comparison, Alert FM uses a dedicated satellite and secured channels so there is no possibility of public access to the network. In a crisis, Alert FM has a guaranteed channel that offers protective umbrella coverage for certified command and controlled messages to be delivered with a guaranteed source and encryption all the way to the receiver.

Consider FM

As emergency communication channels continue to receive close scrutiny, the role of broadcasters will advance as the FM network infrastructure is considered to provide efficient support for the delivery of time critical, life-saving messages.

FM networks are well positioned to address the dynamics of the future broadcast audio market. That said, the Alert FM system will not conflict with the demand for more features on handsets, higher-quality music players or feature-rich devices in increasingly smaller sizes.

In fact, an added plus for broadcasters are the projected music opportunities available on cell handsets over the next three years, which complement the deployment of Alert FM.

Case in point, a legislative bill is in committee called the "Broadcasters First Responders Act" to protect the FM broadcasters' fuel resources and other operating assets during an emergency. To date, FM broadcasters' fuel was confiscated by local FEMA officials for their own use. This rendered the FM station useless even if the equipment was operable. This bill will ensure continuous audio and alert data from Alert FM when it passes in Congress later this session.

As broadcasters remain on the front lines of providing emergency information to their audiences, it is exciting for stations to be a part of the existing EAS as well as new initiatives designed to provide a more comprehensive solution for emergency communication.

The deployment of GSS's Alert FM gives first responders, the general public and broadcasters across the country a new opportunity to expedite emergency communication during crisis situations.

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NewBay Media

On LPFM, FCC Acts Wisely But Raises More Questions

Low-power FM stations fill a public service niche. As small, decidedly local stations, they are free to experiment in ways well beyond what a commercial station would consider prudent, and to program to ever-smaller subsets of local populations.

For these reasons and others, we have consistently supported the service even as some industry groups have been opposed, some stridently so. We suspected that once LPFMs began broadcasting, the worst of the early doom-and-gloom predictions — "enormous interference," lots of short-spacing problems, "part-time people who want to turn their [stations] on any time they feel like playing," to quote comments filed in 1998 — would be seen as overwrought. So far we've been right.

We're glad LPFM now has garnered support from FCC chairmen past and present on both sides of the political aisle.

The commission recently acted to fine-tune LPFM rules, essentially tightening the assurances that LPFM would be "local" from both the ownership and programming standpoints. Among other steps it also reestablished an earlier limit of one station per LPFM licensee.

It took these steps saying it hopes to foster and protect a service that "creates opportunities for new voices on the airwaves and to allow local groups, including schools, churches and other community-based organizations, to provide programming responsive to local community needs and interests."

RW thinks these are excellent changes to preserve the independent, local nature of the service.

The FCC also recommended that Congress remove the requirement that LPFMs protect full-power stations operating on third-adjacents. We concur in that, as we've written before.

The commission also laid out other possible future changes and enhancements regarding LPFM and asked for comment; in doing so it raised numerous important questions.

Just to cite one, the FCC tentatively has concluded that full-service stations must provide technical and financial assistance to LPFMs when implementation of a full-service station facility proposal would cause interference to an LPFM station.

The idea behind this certainly is to make sure any subsequent facility upgrade by one of the "big boys" won't essentially squash an LPFM. But while we support responsible expansion of LPFM, we hope the FCC will proceed cautiously in this area. We remain leery of any rule that could place an onus of unreasonable cost on existing broadcasters.

We also anticipate there will be scenarios that could be difficult to resolve; for instance, a full-power may wish to expand to produce service to many more people than the LPFM can serve but might be precluded or discouraged by such a rule. Also, it will be difficult to assess what to do in the event an LPFM claims interference. The FCC may need to weigh the "greater good" benefit and treat such situations case by case.

There is much more to digest in the detailed report on LPFM, which was published in mid-December as we went to press. We will watch with interest and hope that any planned system of mitigating conflict not place undue restrictions on full-service stations.

More broadly, should the industry be concerned about the apparent elevation of LPFM to a primary — or at least better-than-secondary — status?

The public notice certainly seems to indicate a more protective stance toward LPFMs against full-service stations. Will "LoPos" soon be in a position to block full-service stations that want to add a station or change a city of license? Full-service stations will not be eager to hand over such bargaining power.

There is much to be discussed in the questions the FCC raises (including its apparently heightened, and overdue, awareness of broad problems with how it treats FM translator applications). We'll be writing more about that.

But looking at things broadly, what the commission seems to be doing with LPFM is similar to what it did with LPTVs: started them as a secondary service and, as the industry matured, created a subset (Class A TV) which, because it met certain criteria, would be entitled to at least some protection.

However, there are important differences. LPFM is still a nascent service; also it's not clear whether the FCC is going to impose additional regulatory requirements on them that might justify the additional protection; and the FM allotment system is still in a state of development, as we have seen with the recent revision of process to change a city of license.

On the TV side there has not been much change in the basic channel allocation scheme for a long time and stations had pretty much become static in facilities. By contrast, for years there has been FM re-allotment activity that has entailed moving channels, transmitter sites and so forth. That activity is likely to increase (or at least not decrease) with the change-in-city-of-license process.

If such changes are now going to depend at least to some degree on protecting LPFMs, we see potential for problems.

— RW

GUEST COMMENTARY

Why Does SBE Subsidize the NFL?

Game Day Coordinators Are Critical to NFL Events But Are Virtually Donating Their Services

by Mario Hieb

Recently, the SBE sent out a press release announcing the renewal of its contract with the National Football League to provide game-day frequency coordination services for the 2007/2008 football season. The one-year renewal marks the ninth year of the partnership.

Frequency coordination is critical to the smooth operation of any event that involves broadcasters, team communications and public safety. I should know; I worked for two years as the frequency coordinator of the 2002 Olympic Winter Games in Salt Lake City.

So it's a good thing that SBE is involved in Game Day Coordination (GDC) for the NFL? From the surface it may seem so, but let's take a closer look.

Share the wealth

The NFL is not a poverty-stricken entity. They receive $3.1 billion each year from network broadcasters for television rights. The television networks make hundreds of thousands of dollars for each commercial they air. Football players often get millions of dollars each year to play.

It would seem reasonable that SBE Game Day Coordinators, who play a critical role in the smooth operation of the event and broadcast, would be paid well too. But they aren't. These individuals are virtually donating their services to the NFL and the broadcast networks.

Sure, they get a parking space, gas money and maybe a free hot dog, but they are not being paid a professional rate; and this is with the blessing of our professional organization, the SBE.

What about other professionals? Do the NFL team doctors work for free parking and hot dogs? NFL team lawyers? Accountants? How about the network TV directors, TDs, camera people, runners, etc?

No, they are all paid appropriately, as professionals should be. Why then does SBE subsidize the deep-pockets NFL?

A college engineering professor of mine once told me that an engineer does not give away his/her professional services. It is in the best interest of a profession that the professional be paid and paid well. It also is a core principal in the SBE Canon of Ethics, cited in Section 21:

"The Broadcast Engineer will uphold the appropriate and adequate compensation for those engaged in broadcast work ... as being in the public interest and maintaining the standards of the profession."

It seems that the SBE leaders who first implemented this policy hadn't read the SBE code of ethics nor have any concern for the standards of the profession.

The SBE policy of volunteer coordination also takes work away from people who do it for a living. When I worked on the non-profit Olympics, I was paid well for something the SBE does for free. Why then does the SBE provide free professional services in competition with its own members?

Does the American Medical Association practice medicine? Does the American Bar Association practice law? Does the National Society of Professional Engineers offer engineering services in competition with their members?

No, because these organizations understand the scope of their organization and operate in the best interest of their membership.

The SBE should be the last organization to support the current policy of subsidizing the super-wealthy, for-profit NFL by offering free engineering services. It makes no business sense. It makes no ethical sense. It makes no professional sense.

Mario Hieb, P.E., is a contributor to Radio World. Opinions are his own.

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with the New Vorsis® HD-P3

What Is It?

A four-band parametric equalizer feeding a three-band limiter with adjustable crossover points, AGC and selectable filters for FM, AM or streaming audio formats. The HD-P3 includes a variable de-esser, an expander and dual digital outputs (one with user selectable HD latency FM delay), plus high pass, low pass and notch filters, *and* a signal de-correlator to optimize bass content. All this controlled by an ethernet protocol computer interface that lets you run one or many HD-P3s from your office or internet based locations.

What It's For:

Processing for your new HD signal, improving your existing FM or AM signal chain, preprocessing streaming audio-over-internet, a standalone HD processor or a realtime DJ monitor feed—and finally—a KILLER studio production tool.

What's It Like?

"PERFORMANCE WITH OVERDRIVE"

VORSIS®

It's What's Next in Processing

a division of Wheatstone