



# RADIO WORLD

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## Media Ownership Has FCC's Attention

Comments fly on radio limits and lifting of cross-ownership bans

BY LESLIE STIMSON

**WASHINGTON** — The FCC is sorting through several thousand filings on its media ownership rules. Some 10,000 public filings were made between mid-June and early January, for example.

An item to eliminate the newspaper/broadcast and TV/radio cross-ownership ban has been circulating among the commissioners. When Chairman Julius Genachowski started circulating a draft order late in 2012, the agency also released a study that showed media ownership among minorities was stagnant at 8 percent of radio and 3.6 percent of TV stations.

The chairman had been aiming to complete a vote on media ownership by year-end, however pressure from Commissioner Mignon Clyburn, Sen. Maria Cantwell, D-Wash., civil rights groups and consumer watchdog groups succeeded in a postponement until after comments were received on the study on minority ownership.

What follows are excerpts of public filings regarding some of the more pertinent issues.

### NO NEWSPAPER/RADIO CROSS-OWNERSHIP BAN

*Cox Media Group  
Submitted by its attorneys at  
Dow Lohnes:*

The commission should reverse its tentative proposal and abolish the newspaper/radio cross-ownership rule in its entirety. The commission's tentative conclusion that "radio stations are not the primary outlets that contribute to local viewpoint diversity" has been recognized by the commission for many

years, so the rule cannot be supported as necessary to promote the commission's diversity policy. ... [T]he commission has explicitly recognized that radio advertising constitutes its own product market for antitrust analysis; that radio is not a substitute for television or newspapers; and that radio stations do not make substantial contributions to original local news reporting. ...

Abolition of the newspaper/radio cross-ownership prohibition would provide both newspapers and radio stations an opportunity to revitalize local news on radio. While the Pew News

(continued on page 6)

Sixty years after it was built, the BBC's "crown jewel," its Broadcasting House, had fallen into disrepair. Now, after a decade of rebuilding and expanding, the House can shine once more. Mel Lambert guides us through Britain's renewed and re-envisioned epicenter of media communications. Page 24



The large open-plan BBC News Room within the eight-story atrium.

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World Radio History



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

## HD RADIO TRAFFIC DATA TESTING BEGINS IN CANADA

For years, HD Radio proponents have hoped both Canada and Mexico would adopt the digital radio technology, giving device makers and automakers a common platform in both North and South America.

That may be closer to reality now that mobile field testing of HD Radio data services has begun in Canada.

While Mexico has approved the voluntary use of HD Radio in the entire country, after first limiting the use of the technology to the area near the U.S. border, Canada has been a harder sell.

Our neighbor to the north had chosen DAB as its digital radio technology. Stations purchased DAB transmission equipment but a lack of promotion resulted in lackluster receiver sales from consumers.

Afterwards, whenever I spoke with Canadian broadcasters about digital radio, they said the DAB experience had been expensive and stations were reluctant to dive into that

with the installation of HD Radio transmission equipment on loan from Nautel for the testing, including an exciter, importer and exporter. Corus already has some Nautel gear; and Nautel's Nova Scotia location is convenient for the project as well, according to Brenner.

## HD Radio is effectively dipping its toe in 'the digital waters' up there.

In February, the BTC will invite automakers and handheld device makers to come to Canada and conduct their own testing, Brenner said. At the end of the six-month test period, BTC will send its report back to Industry Canada.

An assessment of the results will define the future investments of HD Radio in Canada, at least for BTC purposes, Brenner tells me.

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pool again, even with a different technology.

Now, HD Radio is effectively dipping its toe in "the digital waters" up there.

The Broadcaster Traffic Consortium, Nautel and iBiquity Digital are combining resources and personnel with Corus Media and Entertainment to test HD Radio-delivered traffic data on CING(FM), Hamilton, Ontario, which is the Toronto market. CING is a 100,000 watt classic hits station with the slogan "Vinyl 95.3."

The news is noteworthy because while some FM HD Radio technology tests were conducted in Canada years ago, before the government chose DAB as the country's official digital radio technology, these are the first tests of HD Radio's advanced data capabilities in that country.

Industry Canada approved an experimental license for the traffic data testing, BTC President Paul Brenner tells me.

The testing is focused primarily on the HD Radio signal coverage and data service capability. Brenner says, "Canadian data services testing with HD Radio technology is at the request of automakers and device makers. Given the past experience with digital radio via DAB and a receiver market that never matured, an ROI model like the HD Radio data services we are building is the key motivator for Canadian broadcasters."

The BTC asked Cox Radio engineer Roz Clarke to help

BTC is managing the project along with Corus, and a "select group of current and future customers" that he declined to name.

The impetus behind the experimental license and testing largely is based on the success of HD Radio data services in the U.S., says Brenner, who points to Garmin as an example of one device maker that could benefit from the extension of digital radio into Canada. Adding Canadian stations to the HD Radio portion of its data services network could also make those services attractive to other device makers.

"Several automakers" as well as Garmin "really want Canada lit up in HD Radio," he tells me.

Corus has been a BTC partner for FM RDS-delivered traffic reports from the BTC's inception in 2007. That's when BTC formed to build a nationwide terrestrial broadcasting network to distribute local traffic and other map-related data using analog FM and HD radio technology. Founding members are Beasley Broadcast Group, Bonneville International Corp., Cox Radio Inc., Emmis Communications, Entercom Communications Corp., Greater Media, NPR and Radio One. BTC has grown to include more than 20 broadcast groups.

Some 1,500 stations are available to the BTC through the broadcast groups, covering some 80 to 90 markets. Brenner says the group plans to add another 20 or so cities in the next six months.

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# It Matters When You Test Your Generator

Do your state laws prevent you from prepping your genset when it matters most?

BY **THOMAS G. OSENKOWSKY**

The purpose of the article is to make you aware that state environmental regulations may limit use of your station's generator in certain circumstances, and how that issue is playing out in one particular state.

Most broadcasters are familiar with FCC Rules and Regulations. The FAA maintains jurisdiction over tower construction. These two agencies are familiar to broadcast engineers. Other government agencies regulate disposal of PCB-laden components and hazardous materials. Facilities must adhere to Americans With Disabilities (ADA) regulations and building, fire and electrical codes.

Generators used during commercial power outages must be wired in accordance with the National Electrical Code (NEC) by a licensed electrician and installed in compliance with local regulations. The fuel supply must adhere to state and local codes. The generator must be located a certain distance from an occupied structure and protected

from accidental vehicular contact. The same considerations apply to propane or above-ground fuel storage tanks.

Generators employed by broadcasters can vary widely in generating capacity. A studio site generator may only power sufficient equipment to remain on the air or it can power the entire facility, inclusive of heat and air conditioning. Facilities with multiple stations can further increase the need for a larger generator. A transmitter site generator may be sized to accommodate one or more transmitters, environmental machinery, tower lights, etc. Sites with more than one station may share a generator or there may be individual generators for each broadcaster. Different fuel types may also be used. Some generators also exercise at half-speed on no load.

Generators must be at the ready to supply power when the commercial power fails. One common method to ensure proper operation is to exercise the generator on a regular basis. This may or may not involve placing a load on the generator. At unattended trans-

mitter sites this process is usually automated by a timer in the transfer switch. The generator is programmed to start and run for a period of time. Typical periods are weekly for 30 to 60 minutes. The generator's voltage and frequency can be locally or remotely monitored.

## UNINTENDED CONSEQUENCES

In July 2012, Michael C. Rice, president of the Connecticut Broadcasters Association, received an inquiry from the chief engineer of a station.

The engineer related how he had been in the process of starting up the transmitter site emergency generator, in anticipation of power outages likely to be caused by severe thunderstorms heading into the area, when he received a visit from a Connecticut Department of Energy and Environmental Protection field inspector.



Keep this bad boy tuned up ... and check your state regulations to make sure you don't encounter unexpected limitations in running it.

The DEEP inspector informed the engineer that on days for which the DEEP forecasts "ozone air quality index levels classified as unhealthy for sensitive groups (USG, or worse) anywhere in Connecticut," an emergency generator can only be operated — whether in anticipation of outages or for routine testing — when there is an emergency, e.g., when there is in fact a power loss. The inspector also informed him the station should be keeping logs on its generator operation.

Research confirmed the field inspector's assertions to be generally correct, though generators with less than 3 million BTU hours' output are exempt from record-keeping and compliance plan requirements. (Much of the information here is from minutes of the CBA board meetings.)

In October, a public hearing was held to consider amendments to Section 22A-

## FROM THE EDITOR

*I'll be back next issue. Here, our longtime friend and contributor Tom Osenkowsky writes that environmental rules in Connecticut may restrict the operation of station generators in unexpected ways, and why you should care.*

— Paul McLane

174-22 of the regulations of Connecticut State Agencies.

The proposed amendments would permit nuclear and healthcare facilities (and construction sites when construction interrupts power supply to the site) to operate their generators on days with unhealthy air quality index levels in order to maintain proper power levels. However, the proposed amendments do

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**GENERATOR**

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be exempt from the restriction on gen use during bad air days.

In light of these facts the CBA proposed the following amendment:

*Add to Section 2 as Section 22a-174-22(c)(2)(D) the following:*

*(D) To test and anticipatorily start up emergency power for production operations and transmission of Federal Communications Commission-licensed radio and television operators (whether broadcast, cable or satellite) so as to assure such operators suffer no interruption in production or transmission if a power outage occurs.*

According to Elizabeth McAuliffe of the Connecticut DEEP, "At this point the proposal is still just that, unless and until it is approved by the Legislative Regulation Review Committee and the Secretary of State's Office."

It would be wise for Radio World readers to investigate their state regulations to see if similar restrictions are in place. If so, consider seeking relief through state broadcasters association.

Officials rely on the media to advise the public of hazardous materials incidents, road closures, weather hazards and other safety issues as well as Amber and Silver alerts. Broadcasters must have power to be able to broadcast under all conditions. Exercising power generators is an essential ingredient to ensuring this equipment is up to the task.

*Tom Osenkowsky is a radio engineering consultant in Brookfield, Conn., and a longtime RW contributor.*

**NEWS****NEWSROUNDUP**

**FEMA-IPAWS:** Slowly, more emergency managers are using FEMA's Integrated Public Alert and Warning System to send emergency alerts. FEMA IPAWS Chief Engineer Mark Lucero says at some 234,000 alerts, the National Weather Service has used IPAWS to send the most emergency messages. Subtracting NWS, the system has received a total of some 566 other messages. According to the latest figures, some 20 messages were sent over CMAS and 81 were sent using EAS. Of the EAS messages, many of those were required weekly or monthly tests. FEMA has invited developers and alert originators to use FEMA test laboratory at the Joint Interoperability Test Command in Indian Head, Md. Using the lab remotely or on-site, alert originators can receive help crafting a message, and seeing how that message is displayed on a variety of devices.

**BRAZIL DIGITAL:** Brazil will conduct more tests of the HD Radio and Digital Radio Mondiale systems in 2013, according to members of the Digital Radio Advisory Board, which met at the Ministry of Communications recently in Brasilia. Tests done in July 2012 did not meet all of the coverage requirements, so Ministry of Communications Director of Monitoring and Evaluation of Grants Octavio Pieranti stated on the ministry website that the government wants to conduct a new round of tests in 2013. "So far, according to the results of the tests carried out, the digital systems do not produce a quality far superior to that of the analog systems," stated the general director of the Brazilian Association of Radio and Television Broadcasters, Luis Roberto Antonik. "Both DRM and HD Radio have the same coverage area of approximately 70 percent of the analog signal." Brazil did not set equal parameters to test both systems; the new tests will. The power levels for FM HD Radio were tested at -20 dBc. DRM+ was tested at a variety of power levels.

**FM AUCTION:** The FCC says five broadcast groups owe a total of more than \$2 million in a case involving auction bids. Cumulus Media, Connoisseur Media, College Creek Broadcasting, Nassau Broadcasting and New Hampshire station owner Barry Lunderville all bid on FMs in Auction 37 in 2004 and Auction 62 in 2006, but withdrew for various reasons. The agency requires a bidder that withdraws a provisionally winning bid to pay the difference between the withdrawn bid and the subsequent winning bid if the subsequent bid is less money than the original withdrawn bid. The groups wanted the outcome reversed. Fluctuating license values are a risk all bidders face, the FCC said in upholding its original decision.

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## OWNERSHIP

(continued from page 1)

Media Usage Study shows that significant numbers of local residents turn to radio for news, evidence also suggests that much of that news is not locally gathered or produced.

Thus, radio news has a ready-made audience for local news, and daily newspapers have the newsgathering resources to provide high-quality content. The result of repeal should be that local newspapers' acquisition of radio stations is limited only by the commission's local radio ownership rules.

### REPEAL RADIO/TELEVISION CROSS-OWNERSHIP BAN

*CBS Corp.*

*Submitted by its attorneys at Wiley Rein:*

In the Notice of Proposed Rulemaking, the commission tentatively concludes that elimination of the radio/television cross-ownership rule is appropriate because the rule is no longer "necessary to promote the public interest." ...

The NPRM recognizes that the radio/television cross-ownership rule is not necessary to protect competition because neither advertisers nor consumers consider radio stations and television stations to be good substitutes for one another. This conclusion is amply justified, particularly because, as the FCC notes, the Department of Justice has long considered the radio advertising market to be a separate antitrust market, and the commission itself has found "that the video programming market is distinct from the radio listening market."

Although CBS is committed to delivering high-quality local news through its radio stations, these findings undermine any attempt by the agency to justify the local radio ownership rule based on localism concerns. ...

Freely allowing radio stations and television stations to combine their operations, moreover, will *enhance* competition, localism and diversity. Such station combinations will operate more efficiently, and have natural incentives to pass along the resulting cost savings to consumers in the form of better programming.

### DON'T RELAX NBCO

*Free Press*

*S. Derek Turner, research director:*

Free Press urges the commission to abandon its proposal to relax its newspaper broadcast cross-ownership (NBCO) rule. A nearly identical relaxation of this rule adopted in 2007 (and vacated by the Third Circuit on notice grounds) was roundly rejected by the public and policy makers. The NBCO rule remains necessary to promote access to independent and diverse local news sources, and allowing more cross-ownership leads to a curtailment of local news at the market level. ...

Free Press urges the FCC to approach with caution its proposal to repeal the radio/television broadcast rule. Evidence suggests that consolidation disproportionately affects opportunities for women and people of color to become and remain broadcast stations owners. It is especially important not to reduce entry points for these groups in the radio industry, with its relatively low barriers to entry at least as compared to television ownership.

Free Press supports the FCC's conclusion that it should retain its other media ownership limits, including the local radio rule and local television rule. These rules remain necessary to promote the public's access to independent and competing sources of local news and information.

### LOCAL RADIO LIMITS ARE OBSOLETE

*National Association of Broadcasters:*

Radio broadcasters compete against many broadcast and non-broadcast audio outlets for audience share and advertising revenues and the number of new non-broadcast audio outlets continues to grow. Technologies that did not

even exist when Congress set the current radio ownership limits, such as Internet radio, satellite radio and various mobile devices, have not only emerged as competitors to local radio broadcasters, but now permeate the audio marketplace. ...

Moreover, as listeners, especially younger listeners increasingly turn to new non-broadcast audio platforms, local radio broadcasters struggle to maintain their audience shares and, thus, their advertising revenue. These decreased revenues, in turn, make it increasingly challenging for local radio broadcasters to continue providing high quality programming and local services.

### ELIMINATE AM/FM SUBCAPS

*National Association of Broadcasters:*

The NPRM concludes that the AM/FM subcaps are necessary to protect competition in local radio markets because of technical and marketplace differences between AM and FM stations, apparently assuming that AM stations are not competitive. That assumption is not valid. Not only are five AM stations ranked in the top 10 radio stations in the country by revenue, but 187 AM stations are ranked in the top five radio stations in their local markets in terms of audience share across the day.

Further, recent changes to the FM translator rules and the growth of digital audio broadcasting, HD radio technology and online streaming all provide new opportunities for AM stations to compensate for technical difficulties relative to FM stations and enhance their already strong presence in the audio marketplace.

NAB also disagrees with the conclusion that the subcaps increase diversity by promoting new entry into broadcast radio ownership. Elimination of the subcaps could well spur market activity

through the divestiture of stations, creating ownership opportunities for new market participants, including small businesses and minority- and women-owned businesses.

*CBS Corp.:*

If the commission ... determines that it should continue to restrict local radio ownership, it should eliminate the "subcaps" on ownership of AM and FM stations. The subcaps were historically premised upon supposed technological and marketplace disparities between AM and FM stations which have been eradicated by the increasing competitiveness of AM stations and the advent and increasing utilization of digital radio technology. As the record compiled in response to the initial Notice of Inquiry in this proceeding conclusively demonstrated, the subcaps have long been unsustainable, are even more so now, and cannot lawfully be maintained as an aspect of any local radio ownership rule that might be left in place.

### ELIMINATE OR RELAX LOCAL RADIO OWNERSHIP LIMITS

*CBS Corp.:*

[T]he explosion of alternatives to radio and the ever-expanding nature of the contemporary audio programming marketplace has eviscerated any competition- or diversity-based justification for restricting local radio ownership. Today, radio competes with a plethora of new media, many of which did not exist or were in their infancy when the agency last revised the rule. To say that the rule remains necessary to promote competition in these market circumstances simply makes no sense.

By maintaining outmoded restrictions on the number of over-the-air stations

(continued on page 8)

## NEWSROUNDUP

**DENVER NONCOMS:** Public television and radio serving the Denver area, plus a statewide news network, are sharing resources, with two of the entities, Rocky Mountain PBS and FMs KUVU/KVJZ, formally merging. Public media observers say to expect more of these moves as pubcasters adjust to a new normal in these times of limited dollars. Rocky Mountain PBS, I-News and FMs KUVU/KVJZ said they are expanding their existing partnerships to "redefine public media" for Colorado's viewers, readers and listeners. The parties anticipate the merger between KUVU/KVJZ and Rocky Mountain PBS to close in April.

**RFE/RL:** Kevin Klose will return to Radio Free Europe/Radio Liberty as acting president and CEO while the Broadcasting Board of Governors looks for a permanent replacement for Steven Korn, who resigned effective Jan.

25. Klose was president of RFE/RL from 1994-1997. A tenured professor at the Philip Merrill College of Journalism at the University of Maryland, Klose was dean of the journalism college from April 2009 to July 2012. He will be on leave from his faculty position while working at RFE/RL.

**ART WHITE:** Engineer and equipment salesman Art White passed away in January, according to his friend and SCMS colleague Bob Cauthen. White was 71. At one time White had his own engineering and sales firm where he repped Sparta and Cetec gear among other lines, according to Cauthen. During his career White also represented Cetec-Schaffer Corp. in the Middle Atlantic states, and worked as a sales manager for Register Data Systems. In 2003, SCMS named Art White as its south-Atlantic representative for broadcast products, according to a Radio World story. White had requested that there be no service and that he be cremated.





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## OWNERSHIP

(continued from page 6)

that can be owned in a local market, the commission's current regulatory regime also singles out radio alone for regulation. Restricting a single entity from owning more than eight stations in the largest markets — when a single satellite radio licensee can operate a system with hundreds of channels that serve every market in the country — is unjustifiable. ...

### TIGHTEN RADIO OWNERSHIP LIMITS

*musicFirst Coalition*

*Submitted by Ted Kalo, executive director. The organization consists of the American Federation of Television and Radio Artists, The Recording Academy & American Federation of Musicians:*

In its NPRM, the commission seeks comment on whether to change numerical ownership limits for local radio. These ownership limits should certainly not be weakened. In fact, it is our firm view that the FCC should tighten these ownership limits to reverse the rampant homogenization and impoverishment of radio programming in recent decades

and to restore radio's public interest service. ...

Now, powerful national radio groups own numerous stations around the country and exercise unreasonable control over the airwaves. For example, one entity — Clear Channel — currently operates more than 850 radio stations, reaching more than 110 million listeners every week. Now merged with Citadel, Cumulus Broadcasting owns 570 stations in 120 U.S. cities and distributed network programming to 4,500 affiliates nationwide. ...

The issue of homogenized nationwide playlists has been substantially aired before the commission. Yet despite commission consent decrees with the nation's four largest broadcasters mandating more airplay of artists on independent record labels, radio stations have not measurably diversified their playlists — the radio landscape remains a wasteland of homogeneity.

We vehemently object to any further loosening of the current numerical limits on the number of radio stations that can be owned by one entity in a given market — including the largest markets — and we believe that the public interest in competition, diversity and localism would best be served by *decreasing* the number of radio stations that one

entity can own in any given market. For creators and distributors of recorded music, radio consolidation has created bottlenecks that block new artists from reaching radiol listeners.

### CONSOLIDATION HAS BROKEN RADIO IN AMERICA

*musicFirst Coalition:*

Thanks to widespread consolidation among broadcasters that push narrow, safe, national playlists, radio in America provides no appreciable benefit to up-and-coming artists or listeners interested in anything outside the top 10 hits from the last 50 years. Giant radio conglomerates even use their outsized strength to squeeze the few artists who receive airplay. It is self-evident that loosening the number of stations owned in any given market, including the largest markets, would exacerbate the harms consolidation had caused to the public interest and to music creators.

Radio in America is broken. We urge the FCC to impose stricter ownership limits on the broadcast radio industry to reaffirm radio's commitment to the public interest.

### REDUCE THE SUBCAPS

*Saul Levine, President, Mt. Wilson FM broadcasters, Los Angeles:*

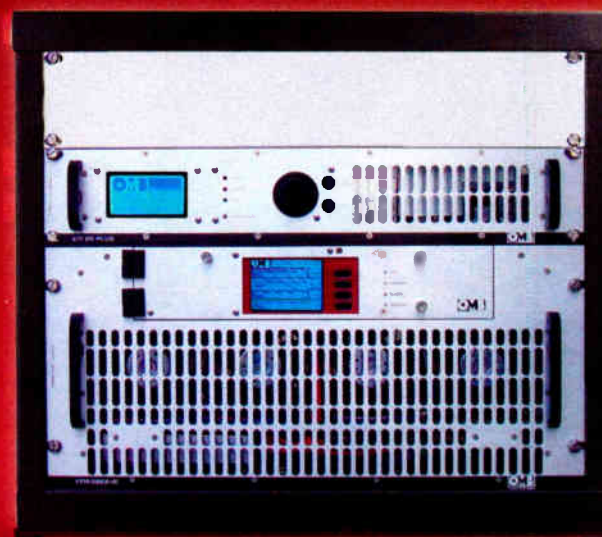
The 1996 Telecommunications Act is not an obstacle to reducing caps and subcaps. The Act allows the commission to repeal or modify rules which are no longer in the public interest. The 39 percent radio ownership decline through 2007 (and an obvious further decline through 2011) is not in the public interest as is defined by the commission's policy goals. The matter of size, the noted outside factors, the failure not to count commonly owned out-of-market HD Radio stations carried in a distant market constitute factors which adversely affect the policy goals. ...

If the policy goals are truly intended to foster a healthy and competitive public interest structure, i.e., survival, competition, localism, diversity and jobs, then reduce the caps and subcaps. Absent affirmative modification of the rules, the only beneficiary is Wall Street (not to be confused with the public interest). Insofar as the future of the independent owner, the status quo equates to the last-minute extension of a death sentence.

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# FCC Should OK Smaller LPFMs

'Let The Cities In' wants LP10 to LP50 stations authorized in big radio markets

## COMMENTARY

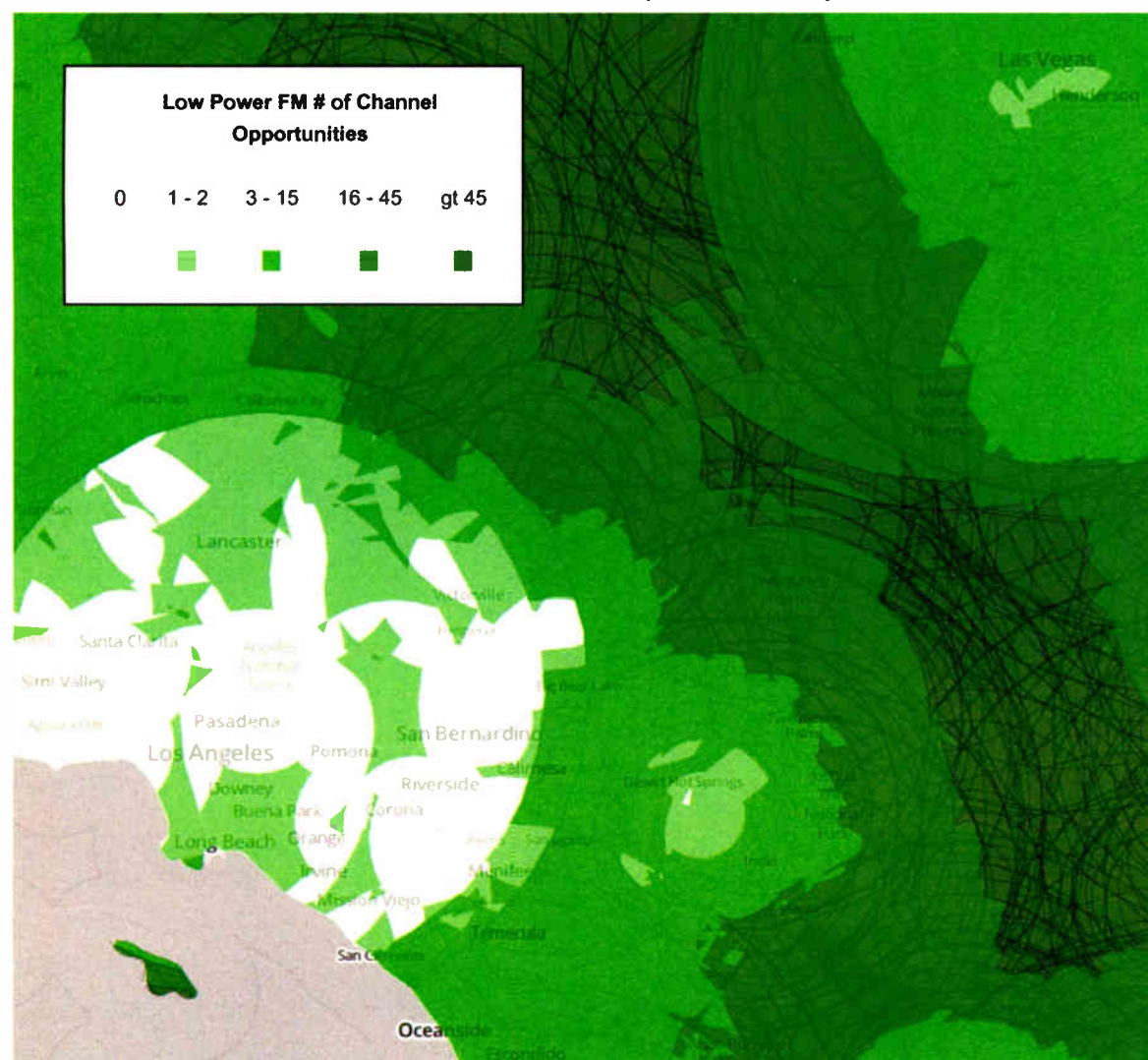
BY DON SCHELLHARDT

A newly formed citizens' group, Let The Cities In, has filed a Petition for Reconsideration of the FCC's final rule on low-power FM implementation. The petition asks the commission to allow LPFM stations below 50 watts in the most urban 1 percent of America's land area.

stations operate in large markets. With today's vote, we are fully realizing the vision of creating an opportunity to bring the diverse voices of community radio to Americans across the country, including those in large urban areas."

These do not sound like the words of a man who knows he has just voted to ban *all* LPFM stations in New York City and Detroit. That is: By voting to allow *only* LP100 stations (50 to 100 watts) in *all* locations, he has left these cities with no LPFM stations at all, we believe.

Commissioner Mignon Clyburn addressed Pennsylvania Democrat Rep. Michael Doyle and Nebraska Republican Rep. Lee Terry, the two leading LPFM advocates in the House who were present. She stated: "Special thanks are due to you, for none of this would be possible without your tireless efforts. Now, more



This closeup of an FCC map shows potential availability for new LPFM stations based on rules adopted in November. This does not assume protection of other second-adjacent FM stations. Find the link to the full map at [radioworld.com/links](http://radioworld.com/links).

The sources cited [see box] will confirm that only LPFM stations below 50 watts are small enough to "fit" into the spectrum in certain metropolitan areas. However, written statements made by commissioners on Nov. 30, when the final LPFM rule was adopted, indicate they may not have been informed of this fact.

For example, at the meeting, Chairman Julius Genachowski stated: "These stations are doing fantastic things, but now only a handful of low-power FM

constituents in Pittsburgh and Omaha may have their voices heard, and their interests expressed."

Unfortunately, Commissioner Clyburn — a sincere and fervent friend of LPFM — was only halfway correct. According to REC's "My LPFM Channel Search Tool," Omaha will have 13 frequencies for LPFM stations. However, Pittsburgh will have only one.

Perhaps the commissioners overestimated the positive impact of allowing second-adjacent channel spac-

## SPECTRUM SCARCITY

Docket 99-25 is the LPFM rulemaking file in the public comments portion of [www.fcc.gov](http://www.fcc.gov). There, posted on Dec. 11, find the text of the final rule and statements by individual commissioners as well as reply comments by The Amherst Alliance of Connecticut and separate reply comments by myself as an individual. Both documents contain, in the appendices, an LPFM frequency analysis titled "Dealing With Spectrum Scarcity in LPFM Licensing."

Also see the website for REC Networks of Maryland, led by Michelle Eyre, at [www.recnet.com/lpfm](http://www.recnet.com/lpfm). In her "My LPFM Channel Search Tool," check out what Eyre believes to be the availability of frequencies for new LPFM stations nationwide. Readers can select specific locations to determine how many frequencies may really be available under the FCC's new rule.

— Don Schellhardt

ing waivers. In some cases, the waivers are decisive. They are the *only* reason for LPFM frequencies in Seattle (nine), Philadelphia (three), Los Angeles (two), Chicago (two), San Francisco (two), Washington (two), Boston (one) and Pittsburgh (one). Also, waivers increased frequencies from three to 11 in Phoenix, three to 13 in Omaha and two to 13 in Houston. Still, the impact of waivers is uneven, and some cities lack any LPFM at all. Even with waivers, America's three largest cities have four frequencies between them, while the country as a whole has thousands.

Someone at the FCC apparently did not apprise the commissioners that they were approving a seriously truncated version of urban LPFM.

### THE RECONSIDERATION PETITION

The remedy for flawed commission consideration is a Petition for Reconsideration. I filed such a petition in December, asking for stations below 50 watts in "urban core" portions of the Top 100 Arbitron Radio Markets. I added that the LPFM filing window should be suspended *only* in these highly urban areas.

I acted as attorney for the newly formed citizens' group behind the petition called "Let The Cities In."

Our group asserted that the commissioners evidently were under-informed when they voted. However, our most important argument is constitutional. As the FCC was already apprised in earlier written comments, the "LP100s only" policy, when applied to highly urban areas, violates the constitution's "Equal Protection of the Laws" clause. The policy disproportionately disempowers our cities, which means — in practice — that it disproportionately disempowers racial and ethnic minorities. Case law establishes that government policies with a racially discriminatory *effect*, even if there was no racially discriminatory intent, are unconstitutional unless a "compelling state interest" can be shown. There is *no* "compelling" reason to ban urban LPFM stations below 50 watts.

*Don Schellhardt, a former Washington attorney, is a grassroots activist for media reform. He co-founded the advocacy group The Amherst Alliance and represents other "under-represented" causes including reform of homeowners' associations and equipment shielding against an electromagnetic pulse. Contact him at [djlaw@gmail.com](mailto:djlaw@gmail.com).*



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# Find Exactly the Lighting Aid You Need

Now in all shapes, sizes, models and colors, LED light strips have come a long way, baby

**L**ED lighting is really hitting its stride. Look at the assortment of flashlights now available. Most of us can remember when portable lighting meant an Eveready flashlight with two D cells to light the way.

## WORKBENCH

by John Bisset

Read more Workbench articles online at [radioworld.com](http://radioworld.com)

Sunbury Broadcasting's Chief Engineer Harry Bingaman was doing a project that required some under-counter lighting. Harry made a trip to the local electrical distributor to see what was available. Companies now make LED strip lighting that runs on 12 VDC, and can be purchased in different lengths. You even have a choice of bright white or warm white. Interconnecting cable harnesses and Y-adapters to do the branching of the strips are available, too.

It was exactly what Harry was look-

ing for, until he totaled the price. Yikes. Time for a Plan B!

On the Internet, Harry found



**Fig. 1: A closeup of the LED strip, with built-in dropping resistor.**

CitiPower. See [citipower.co](http://citipower.co), and once there, click on CitiPower LED Product. Or do an eBay search under LED strip lighting.

You'll find more choices than you can imagine. These strips can be ordered as waterproof or non-waterproof, depending on your application. They run on 12 VDC and have a 3M self-adhesive strip

on the back of them for easy mounting to any surface. They can be cut every three LEDs, and every cut-point has a copper donut pad to solder your power connections as seen in Fig. 1. They come in almost every conceivable color.

Harry ordered a roll of waterproof

be driven by a wall-wart power supply.

In fact, your imagination is the limit when using this type of lighting. I visited the website and agree with Harry. Take a look at their new product, the LED net light, which is coming. Imagine fishing net made of LEDs — ideal for a studio ceiling!

Reach Harry Bingaman at [kc3qhmb@aol.com](mailto:kc3qhmb@aol.com).

**G**raham Brock Inc. consultant Stu Graham has just the ticket for ensuring a good RF connection. Pictured in Fig. 3 is a tube of silver conductive grease, manufactured by MG Chemicals ([www.mgchemicals.com](http://www.mgchemicals.com)). You can buy this grease in hypodermic tubes, as pictured.



**Fig. 2: The LED light strip in action. Boy, these are bright.**

This silver grease provides both anti-static conductivity and maximum thermal conductivity between sliding surfaces, while providing protection from moisture and corrosion. Typical applications include lubrication of rotary coils in AM phasors and tuning units. The grease can also be applied to the moving slider assemblies in older FM trans-



**Fig. 3: Silver conductive grease, a great RF lubricant.**

and non-waterproof in bright white. The rolls contain 300 LEDs and the length is 5 meters. The cost was \$7.90, and they worked great, providing tons of light. See an example in Fig. 2. Harry had to drop the voltage, because when fully powered, the light washed out the camera!

One thing Harry discovered is that the non-waterproof version is easier to cut and solder to the pads. The waterproof series has a clear silicone coating and needs to be peeled away to make your connections, but this is not a horrible task.

Harry also used the LED strips to light some areas in the transmitter rooms that were a little cramped for any type of incandescent or fluorescent lighting. Depending on the number of LEDs in your application, the strip can



**Fig. 4: Improve bullet conductivity using MG Chemicals' silver grease.**

mitter tuning and loading controls, or applied to RF bullets, as seen in Fig. 4.

The grease is available from Allied and Mouser, and runs about \$20 per syringe. It's not cheap, but preventive maintenance using this grease is cheap insurance.

Stu Graham can be reached at [rsg@grahambrock.com](mailto:rsg@grahambrock.com).

*Contribute to Workbench. You'll help your fellow engineers, and qualify for SBE recertification credit. Send Workbench tips to [johnpbisset@gmail.com](mailto:johnpbisset@gmail.com). Fax to (603) 472-4944.*

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### Stays Locked

Loss of power, loss of signal, loss of audio, you name it. The 632 won't revert from HD Radio back to analog FM, or forget what HD channel it's tuned to. Ever.



### Essential Alarms

Alarm closures to ground for Carrier Loss, Digital Loss and Audio Loss, so you can connect directly to your remote control system. Eliminate the guess work and know exactly what's going on.



### Scalable

Buy as many or as few as you need for your multicast setup. Up to three 632's can be mounted in a single 19-inch rack space with our optional 19-inch rack adaptor\*

\*Optional 19" rack adaptor holds up to three units.



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# Giddyap! For NATE Convention

The National Association of Tower Erectors to hold annual gathering



A view of the Fort Worth Convention Center, courtesy of the Fort Worth Convention and Visitors Bureau

BY ALEXIS HAUKE

From Feb. 18–21, the National Association of Tower Erectors will hold its 18th annual convention in Fort Worth, Texas, at the Fort Worth Convention Center, a space that boasts 253,226 square feet of exhibit space.

Founded on March 31, 1995, NATE is a non-profit trade association headquartered in Watertown, S.D. It focuses on tower erection, maintenance and service companies.

Since the mid-'90s, NATE has grown to reach 580 member companies not just in the United States but also the Bahamas, Canada, India, Guam, Jamaica, Romania, Saudi Arabia, Singapore, South Africa, Sweden, Trinidad, United Arab Emirates and the United Kingdom.

In a statement, Jim Coleman, NATE chairman, encouraged anyone who is interested in the world of tower erectors to attend: "If you are not a NATE member and are interested in joining, come check us out. We believe you will like what you find."

According to the NATE website, the conference will include two tracks of focused educational sessions: "Technical" and "Leadership."

NATE promises access to new products and technology; a networking opportunity; discussions of new technological advancements and recent standards issues; and an opportunity to strengthen your company's commitment to safety, always a big topic among people in the tower business.

Any NATE member who is registered for the NATE 2013 Conference & Exposition can register for OSHA's 10-hour training course, which hones in on "unique hazards and concerns facing the telecommunications industry," according to the description on NATE's website.

Class size for the \$65 course is limited to 100 people and will be first-come, first-serve.

The convention will also offer workshops and courses on RF safety, PIM testing, proper microwave antennae installations, new regulations and standards, and more.

High-profile speakers at the conference will include Steve Largent, president and CEO of CTIA-The Wireless Association, a position the former NFL player has held since 2003.

Largent has donned many hats in his varied career. Prior to his position with CTIA, Largent served for more than seven years as a member of Congress, representing Oklahoma's First Congressional District.

NATE Executive Director Todd Schlekeway said in a statement that, "Mr. Largent's accomplished background as an executive in the wireless communications industry, as a former member of Congress, and as a Hall of Fame NFL receiver will be subjects of immense interest to our conference attendees."

Another highlighted speaker will be Jonathan Adelstein, president and CEO of PCIA – The Wireless Infrastructure Association, familiar to radio readers as a commissioner of the Federal Communications Commission from 2002 to 2009.

Adelstein took on the title of president & chief executive officer of PCIA – The Wireless Infrastructure Association in September, following a stint as 17th

## IF YOU GO

**What:** NATE 2013 Conference & Exposition

**Who:** Companies and individuals involved with or interested in the broadcast and telecommunications tower erection, service and maintenance industry

**Where:** Fort Worth Convention Center, Fort Worth, Texas

**When:** Feb. 18–21

**How:** [natehome.com](http://natehome.com)

**How Much:** \$259–\$599 (less before Feb. 8)

administrator of the U.S. Department of Agriculture's Rural Utilities Service, a position for which he was nominated by President Obama and unanimously confirmed by the U.S. Senate in July 2009.

After Feb. 8, the registration fee will be \$259 for members, \$599 for non-members. Discounts apply before Feb. 8.

A list of exhibitors, schedule and speaker bios can be found at the NATE website, [natehome.com](http://natehome.com).



## PROGRAM SAMPLER

- OSHA 10-Hour Training Course
- RF Safety Course
- PIM Testing
- Proper Microwave Antenna Installations
- TIA Inspections
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- Controlling Hazardous Energy at Cell Sites and Radio Towers



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**Meet the LX-24...Wheatstone's flagship, multi-award-winning advanced modular networkable console control surface**

The design initiative behind the LX-24 was to create the world's finest control surface. The result is a console that redefines the entire genre. The LX-24 is an intelligent surface that can store and recall all your settings. Its totally modular design lets you configure it exactly as you like - you can even hot-swap modules at any time without having to reconfigure.

Assign any source of any type anywhere on your network to any fader. Each input channel can be assigned to four stereo busses, plus four pre/post-selectable aux sends, a stereo CUE bus, four mix-minuses and the panel's own bus-minus. Full Voris EQ and Dynamics let you sculpt and control your sound with the quality of the finest dedicated outboard

processors. The visually-stunning meter bridge features up to four sets of bright, high resolution LED meters, as well as circular LED displays for auxiliary send levels and pan control. A digital count-up/count-down timer is also included.

The LX-24 is advanced in ways that can make a HUGE difference in your capabilities. But it's also immediately familiar to anyone who has ever sat behind a board at a radio station. Use it to make your programming the best it can be. Just plug it into your WheatNet-IP Intelligent Network - with it and the BLADES across the page, you can, dare we say it, rule the world.

**THE LX-24 CONSOLE CONTROL SURFACE FEATURES**

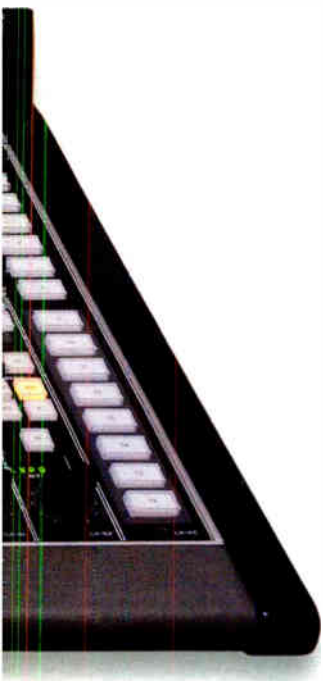
- Low-profile** table-top design - no cutout required
- Meter bridge** with up to four bright, high-res LED meter sets
- Control room and headphone outputs** with level control and source selection
- Two independent studio outputs**
- Stereo cue speakers and amplifier** built into meter bridge
- Onboard VGA and USB-Mouse connectors**
- Event storage** (snapshots) and recall

- Each input channel features:**
- Four stereo bus assigns
  - Four pre/post-fader aux sends
  - Four mix-minuses
  - Bus-Minus<sup>®</sup>
  - Source name display
  - A/B source selector
  - 2 programmable buttons
  - Voris EQ and Dynamics including 4-band parametric EQ, High- and Low-Pass filters, Compressor and Expander/Noise gate





price. it's called The WheatNet-IP Intelligent Network, and it rules.



**Our BLADES carry out your orders network-wide at Gigabit Ethernet speeds - no bottlenecks**

As an integral part of the WheatNet-IP Intelligent Network, BLADES interface, move, bend, shape, route and control everything you want to do with your audio. If it's audio, a BLADE will handle it - at lightning speed.

Use them organically with our control surfaces, run them from our Glass-E software wherever you have internet access, or control them from the front panels. BLADES make your life incredibly easy and secure.

As you need more functionality, just plug in more BLADES - they come in configurations to handle whatever you need (analog, digital, a/d, mic, MADI). Each BLADE is self-configuring and has the DNA of the entire self-healing network.

With BLADES, you can do everything from a simple (or complex, if you like) snake to STL-over-IP to full-on multi-studio/facility networking - even processing. And because of Wheatstone's partnership with the top suppliers of automation and remote gear, you'll have control over your entire system right from WheatNet-IP. Ruling the world has never been easier.

**And this is ALL the extra stuff you need to wire-up the Intelligent Network:**

Four CAT-6 cables and a low-cost switch that handles the gigabit speed WheatNet-IP runs at.

Let's do the math - plug in eight connectors, power up a console and three BLADES, add your audio and you are ready to rock, roll and rule the radio world. Brilliant, you ask? Nah - just really, really intelligent.



**Want to know more?**

WheatNet-IP outperforms the other AoIP systems exponentially and is, by far, the most reliable network you can get. Log onto [wheatip.com](http://wheatip.com). There is a world of *real* information there. Or, give us a call. There's nothing we like better than talking about this stuff.



**EVERY BLADE FEATURES**

**Two 8x2 stereo virtual Utility Mixers** that can be used for a wide range of applications; for example, using Wheatstone's ACI Automation Control Interface, your automation system can control the mix for satellite or local insertion switching

**Front panel bar graph meters** switchable to display source input level or destination output level after gain trim

**Front panel routing control** - any system source to any destination on that BLADE

**Front panel headphone jack** with source select and level control - monitor any system source

**Flexible GPI logic** - 12 universal logic ports, programmable as inputs or outputs, routable throughout the entire system

**Built-in web server** so you can configure and control locally or remotely without having to run dedicated software

**SNMP messaging** for alerts

**Silence detection** on each output that can trigger alarms or make a routing change

**Silent - no fans** - can safely be located in a studio with live mics



# 50 Kilowatts at WJJD

BY JOHN SCHNEIDER

In this August 1947 image, Walter F. Myers, chief engineer of WJJD(AM) in Chicago, is checking the meters of his station's brand-new RCA BTA-50F 50 kW transmitter.

## ROOTS OF RADIO

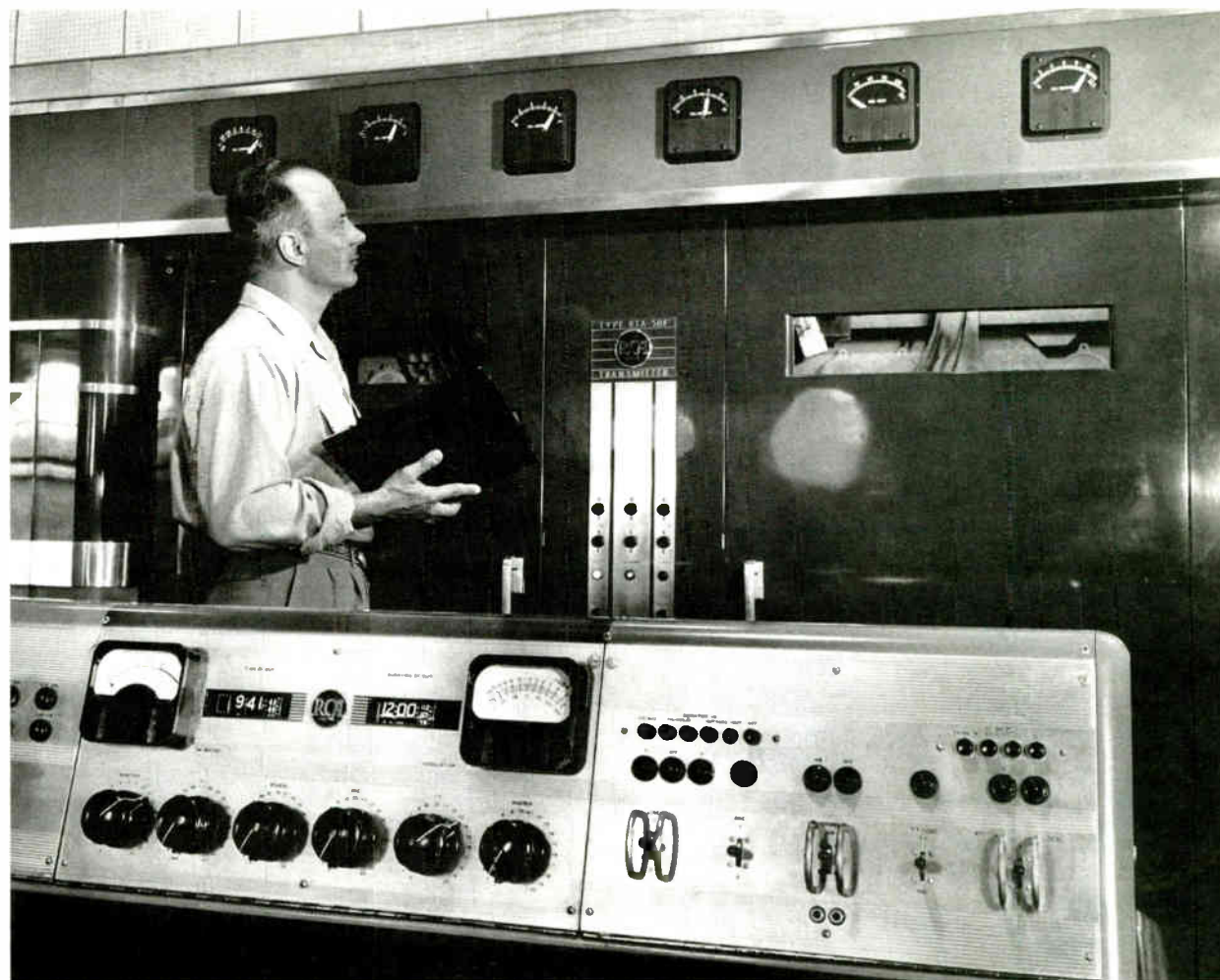
This was the first post-war 50 kW unit delivered by RCA, at a cost in excess of \$250,000 (more than \$2.5 million in today's dollars).

After completing its power increase from 20 kW to 50 kW, WJJD became Chicago's most powerful independent station. The station owner at the time was Marshall Field, the Chicago department store magnate.

WJJD operated with 50 kW on 1160 kHz as a daytime-only station, signing off at sunset to protect clear-channel KSL in Salt Lake City. WJJD started broadcasting full time in 1980 and is now known as WYLL.

The high-level plate-modulated BTA-50F replaced the pre-war BTA-50E and utilized new technologies developed by RCA during the war. Its impressive lineup of six cabinets, painted in RCA's signature glossy umber gray, filled up an entire wall, including the front entry door which provided access to the inside of the transmitter. Separate rooms in the transmitter building housed the transformers, blowers and AC control circuits.

The BTA-50F was the first high-powered transmitter to use air-cooled tubes, utilizing two RCA 9C22 modulators and two more as finals. Additional tube sockets were provided for three hot-standby tubes. A hand-operated forklift was



used to change the tubes. The transmitter consumed a breath-taking 156 kW at 90 percent modulation.

Production of the BTA-50F started 1947. In addition to WJJD, the first units went to KOMO in Seattle, WCFL in Chicago and WFAA in Dallas. Because of its excellent sound quality, KOMO kept theirs on the air into the 1990s.

The June 1947 issue of the RCA Broadcast News fea-

tured an extensive promotional article about the BTA-50F, which can be found at [radioworld.com/links](http://radioworld.com/links).

John Schneider is a lifelong radio history researcher. Write him at [jschneid93@gmail.com](mailto:jschneid93@gmail.com).

This is one in a series of photo features from his collection. See past images under *Columns/Roots of Radio* at [radioworld.com](http://radioworld.com).

## PEOPLENEWS

Tieline Technology has appointed **Mary Ann Seidler** as its vice president of sales for the Americas, to assist with developing sales opportunities for the company throughout the U.S.A., Canada and Latin America. She returns to the company after a stint with Elenos.

**Lamar Smith** of KDWN(AM) in Las Vegas has been elected to the board of directors of PEPAC (the Primary Entry Point Advisory Committee). Smith will serve

in the role as board secretary.

**Rich McLaughlin** has been named director of digital music programming for the **Clear Channel Music and Entertainment** National Programming Platforms team, which also has chosen sports programming executive **Bruce Gilbert** to fill the

newly-created role of senior vice president of sports operations.

**Clear Channel Greensboro** has tapped **Jeff Berry** as its new director of sales, overseeing the sales efforts of the North Carolina station cluster made up of WMAG(FM), WMKS(FM), WPTI(FM), WTQR(FM) and WVBZ(FM). **Clear Channel Minneapolis** says **Todd Kalman** has been



**Bruce Gilbert**



**Jeff Berry**

named general sales manager for KTCZ(FM) and KQQL(FM).

Sports radio programming syndicator **Sports USA Media** has signed **Bob Moore** to be its president.

**Charles Osgood**, known for his "The Osgood File" TV and radio stories, recently celebrated his 80th birthday. Osgood's radio program syndicator, **Dial Global**, presented the new octogenarian with a commemorative plaque.

**Dial Global** also named **Greg Clancy** as its new vice president of creative for custom station jingle creators TM Studios. He will lead and direct the develop-



**Kim Bryant**



**Caroline Beasley**

ment of jingles, imaging and production music services marketed by the company.

**Cumulus Media** has appointed **Kim Bryant** as its New York market manager.

**Entercom Boston** has appointed **Adam Ralston** as its new director of marketing. He will oversee all marketing efforts for Entercom Boston's station: WAAF(FM), WEEI(AM/FM) and WRKO(AM).

The **Alliance for Women in Media Foundation** has named **Caroline Beasley** as its newest honorary trustee.



**Greg Clancy**





# MEET AXIA'S NEW, SMALLER IP CONSOLES. THEY'RE BIG WHERE IT COUNTS.

Plastic labels? Not on these consoles. High-res OLED displays on each channel tell talent exactly what source is assigned.

Just a push on the Options knob lets board ops assign new sources, adjust gain trim, source EQ and more.

Razor-sharp OLED Program meter with overload warning, VU or PPM ballistics? The choice is yours.

Inside this 2RU chassis beats the heart of a giant, with power to run two RAQ or DESQ consoles. Or maybe one of each? It's okay, we don't judge.

QOR.16 console engine doesn't just look cool - it stays cool thanks to beefy heat-sinks and fanless design.

Built-in Ethernet switch lets you easily network devices and studios. Plenty of professional, balanced analog, AES and Livewire I/O, too.

Rugged, built-in, auto-ranging power supply. No line lumps or wall-warts on Axia gear.

Four Show Profiles for instant recall of console configurations. Try that on a PA mixer.

Event timer has manual and auto-reset options.

Time-of-day clock can slave to your NTP server.

Onboard headphone control with Preview option. Cheesy outboard amps need not apply.

Four-position monitor selector lets you switch between Program or External monitor feeds on the fly.

OLED channel displays have an audio confidence meter, too.

Smooth 100mm. premium faders are side-loading to foil dirt and debris.

Machined-aluminum work surfaces are made tough, to stand up to what jocks dish out.

Avionics-grade switches with LED lighting.

Can a super-duty, high-performance rotary gain control still be called a fader? Just don't call it a "pot" - that's old tech.

The more you saw, the more convinced you were that IP consoles made sense for your station. Problem was, you had small spaces to work in. Some behemoth board that looks like a '78 Oldsmobile just wouldn't fit. But there was no way you'd settle for some cheap plastic PA mixer that looked like a refugee from the church basement. "Wouldn't it be great," you thought, "if someone made an IP console that didn't take up a whole room?"

Then you saw the new RAQ and DESQ consoles from Axia, and your problems were solved. With the power and features of a big console, but minus the ginormous space requirements. RAQ will drop right into those turrets in your news station's bullpen -

the reporters can send their finished stories right to the studio. And DESQ is perfect for the auxiliary production rooms.

But what sealed the deal was finding out you could run two RAQ or DESQ consoles with just one Axia QOR.16 mixing engine — you know, the one with all of the audio I/O, the power supply and the Ethernet switch built in. That brought the cost down so low that when you told your GM the price, he actually didn't swear at you (for once). Make another decision like this, and you might just be changing the sign on your door from "Chief Engineer" to "Genius."

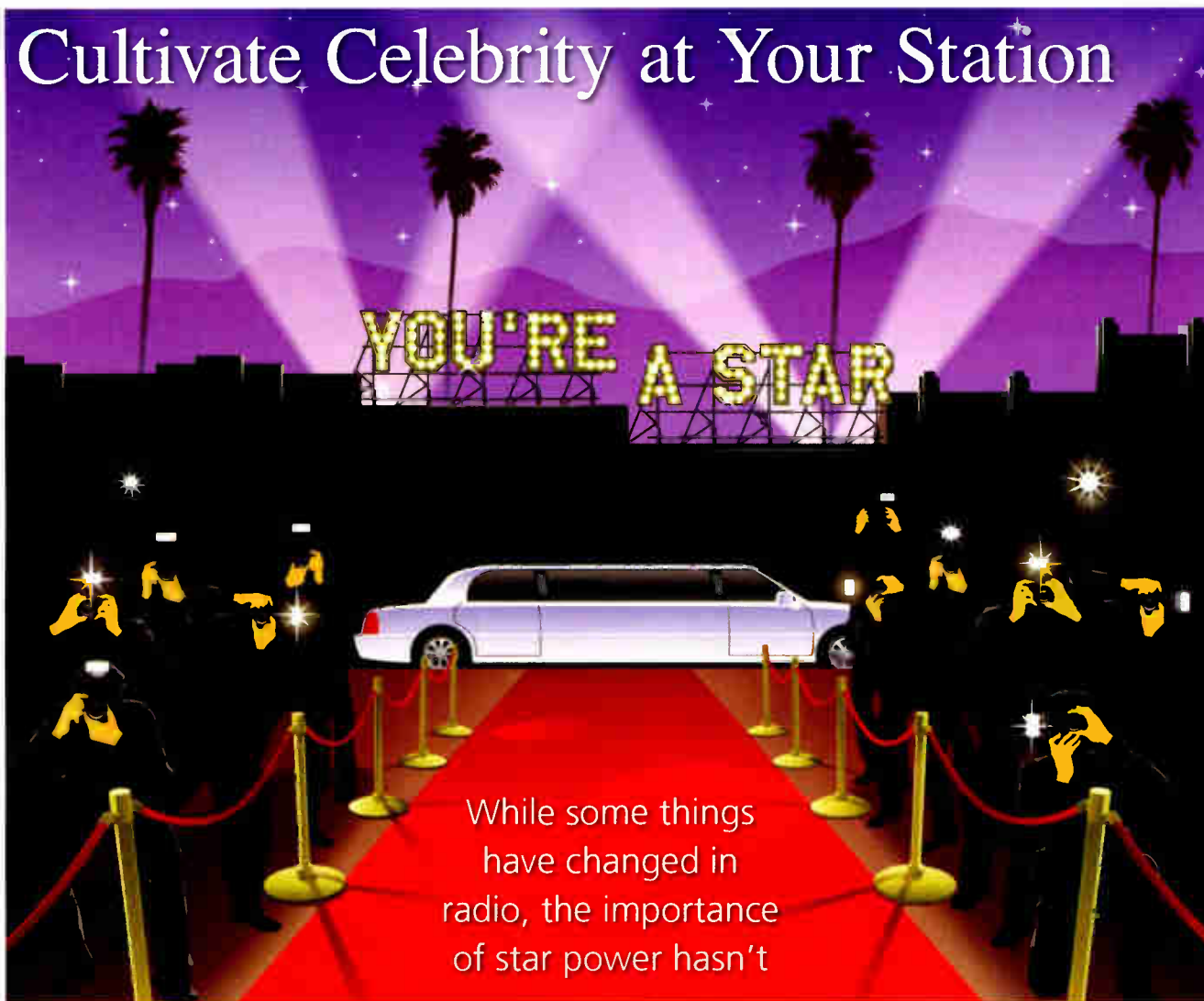
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[AxiaAudio.com/RAQ](http://AxiaAudio.com/RAQ) | [AxiaAudio.com/DESQ](http://AxiaAudio.com/DESQ)



# Cultivate Celebrity at Your Station



While some things have changed in radio, the importance of star power hasn't

While radio brands for specific formats can be difficult to establish and grow, the cult of individual personality on radio airwaves arguably is more vibrant than ever. When stations are able to establish radio personalities as celebrities, the rewards are huge in terms of ratings and revenue.

As we all know, when you go for the gold, the action almost always requires risk. In order for stations to develop personalities, they must commit to larger salaries for talent, superb program directors, significant marketing effort and a willingness to fail and try again.

Because of the risk, the semi-auto-

mated jukebox has become the fallback position for too many music stations. How can you convince your owner or corporate structure to take the risk for personality development?

First, you must be willing to put your job on the line based on performance. Next, remind the powers-that-be about the benefits of having a star in-house.

Here's what a true personality for your morning, mid-day, afternoon or evening show buys you:

### Relationships with your listeners

People relate to and bond with someone they like or find fascinating. Once that voice and name are embedded as a memory, listeners pay attention to what your station is broadcasting. You are no longer background noise. Your personality will drive action.

Listeners will attend your events to feel like part of the family. They will take part in your fundraisers for charity. They will relate to each other as having your personality in common. They will join your personality on Facebook and follow him or her on Twitter to glean as much as they can about that person and to feel a sense of belonging in a fun community.

## PROMO POWER



Mark Lapidus

### Relationships with your clients

Personalities can endorse products in a way that will actually sell them. A simple live-read — even without actual endorsement — can be very effective for clients. When clients meet and bond with personalities at your private parties or at their place of business, it will make a difference in the size of the order you receive, and for how long that schedule will be broadcast.

### Ratings

While people can and will set a DVR for TV shows, no such product exists for radio — and live personalities with a following can create consistent, habit forming tune-in. The only TV equivalent is live sports. Stations that run as jukeboxes are now competing with a plethora of live streaming services online, many of which are now used on mobile in cars.

The competition is ramped up every year, whether it's giving people exactly what they want or sounds that are similar to what they already like. I've got six apps on my mobile phone right now that deliver everything from rare live concerts to on-demand songs.

### Publicity

Once upon a time, there were rare stations that could generate buzz based simply on their call letters or name. That time has passed. Now it takes names of personalities to make the news, get a pop in social media or be discussed around the coffee machine at work. "Did you hear what so-and-so said this morning on the air?"

Again, I urge you to focus on this particular reality: It's a rare personality who can thrive without a great program director (or series of program directors). Most of these performers — whether projecting their own personality on-air or devising another — require a manager who is part psychiatrist, part motivator, part expert in the culture of the locale and, above all, an excellent listener and problem solver.

Hiring, managing and promoting air personalities bring great risk and tremendous reward. Are you ready for the challenge?

Next month: How to find the right personality for your station.

Mark Lapidus is president of Lapidus Media. He can be reached at marklapidus@verizon.net.

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**GM JOURNAL**

# From WFNX to Radio BDC

How an alternative weekly's radio crew found new life with a boost from the Boston Globe

BY PAUL RIISMANDEL

It is a story now familiar in these times of format and market volatility. In May last year, Boston's dominant alternative weekly newspaper, The Boston Phoenix, announced the sale of its alternative rock station, WFNX(FM) at 107.1 MHz, to Clear Channel.

Because WFNX often is credited as the first commercial alternative station on the East Coast, news that the station's format would be changing with the sale immediately triggered an outpouring of loss and grief from listeners, many of whom shared their pain on social networks like Facebook and Twitter.

On July 20, WFNX joined the list of pioneering commercial alt rock stations to leave the air in the last decade. The list includes Oxford, Ohio's WOXY(FM), Long Island's WLIR(FM) and Chicago's WKQX(FM).

While these stations may have departed the broadcast airwaves, several have found homes on the Internet, continuing versions of their broadcast schedules online.

## DOT-COM RADIO

The continuing legacy of WFNX unfolded a little differently than the rest.

Before WFNX had even signed off, the Boston Globe newspaper announced that it would hire several station staff members in order to start its own online alternative rock station, RadioBDC — which stands for Radio Boston Dot Com — is named for the Globe's flagship Web property, Boston.com. Both are owned by the New York Times Co.

Paul Driscoll, former WFNX program director, and Julie Kramer, its former music director, joined former WFNX staffers DJ Adam 12 and news director Henry Santoro to build RadioBDC, which launched on Aug. 13.

Unlike many Internet stations, it features live hosts, and has from the beginning, weekdays from 7 a.m. to 10 p.m., in a style similar to the former WFNX. Live weekend hosts were added in November.

At launch, Boston Globe publisher Christopher Mayer said, "We believe RadioBDC is the soundtrack for Boston.com."

Kramer had worked at WFNX for 25 years, serving as both music director and midday host, roles she resumed at RadioBDC. "Three weeks after the start of meetings [about building a new station], we started," she said. "Because we'd all worn so many hats at WFNX, we were ready."

She agreed to join RadioBDC because it takes radio "to a whole new level." For one thing, size and reach of Boston.com give the associated radio station a natural advantage.

Driscoll says that when he moved to Boston 10 years ago, "Boston.com was the homepage to start my day. It has 6 to 7 million uniques a month. It's been huge for us to launch on that platform."

Kramer admits that, "At the end of the run at 'FNX, there were five of us, and we were lucky to have our

jobs." So the opportunity to make the move with her WFNX colleagues was a "dream come true." Now, in joining Boston.com, the radio team works with "all walks of life — the media lab staff [and] the people who print the paper."

They also have a great deal of access due to their association with the Globe and its prestigious writers, she said. "During the presidential race, we had [political editor] Glen Johnson on the air all the time from the floor of the conventions."

City Editor Stephen Smith, sports-writer Bob Ryan and popular music reporter Sarah Rodman have made appearances.

Many of the live segments are recorded for podcasts, in addition to artist interviews and other features, which are available at RadioBDC's blog. Videos from the station's live music series,



Staff of Radio BDC. Left to Right: Mike Snow, Adam Champman, Julie Kramer, Paul Driscoll, Johnny L and Henry Santoro

"Live from the Lab," are posted online.

The Globe's Media Lab is a small studio equipped for both live audio and video streams, where bands like the Dropkick Murphys, Bloc Party and the Gaslight Anthem play stripped-down, often acoustic, sets to a small in-studio audience. Kramer says, "Twelve hundred people signed up to see the Dropkick Murphys live in the lab," though only a small percentage of that can fit. Others can catch the live or archived stream.

In November, RadioBDC debuted a fall schedule featuring new specialty shows. Driscoll, the PD, said, "We're really proud to offer such an eclectic mix, giving local and emerging artists around the globe critical exposure."

He hosts two of these shows. Sunday morning's "RadioBDC Brunch" focuses on "acoustic, stripped-down tracks," including live recordings from "Live in the Lab." Driscoll says his other show, "The Brink," is very "current-leaning," and "a testing ground" for new music, where he plays imports and "deeper album tracks."

Other new programs include "Grrl Power" with Steph Mangan, playing music from female artists and their influences, and "Mmmmmaven" with Alex Maniatis and David Day (former editor at another Boston "alt weekly," The Dig), which presents live DJ and other sets recorded at local nightclubs. The fall schedule also introduces six new weekend hosts.

Comparing old terrestrial broadcast with the new online-only RadioBDC, Kramer says her approach "really hasn't changed, to be honest. My show is still my show. I still talk about the music, which is what I've always done." She adds, "We have more leeway at BDC. We're playing music we like, we believe in, [and] the music of tomorrow."

Another big change is who can listen. Even though her program is no longer heard over the air on car radios, Kramer says, "Some people are still listening in their car, streaming through their phones."

She acknowledges that the technology is different, too, especially the ability to stream the "Live at the Lab" sets.

Another advantage to joining Boston.com is access to the company's promotional talent. The station is running print ads in the Globe and on billboards. A new television commercial campaign is running on CBS affiliate WBZ(TV) and regional cable networks, and before movies at

Massachusetts AMC theaters.

RadioBDC's new campaign brands the station as "Radio. Reinvented." Kramer says the station benefits from Boston.com's analytic team, which delivers more specific audience data than when they only had broadcast ratings.

"It's almost real-time," says Paul Driscoll. "It's been interesting to see the tune-in and tune-out data." He says that the tune-in numbers already have started going up for the new specialty shows in the weekend daypart. Even though they do not stray too far from RadioBDC's format, Driscoll sees the specialty programs as "appointment programming," that may attract new listeners to the station.

In terms of overall listenership Driscoll says, "We passed 500,000 connections at the end of November," ahead of expectations. "Our TSL is at about an hour and 10 minutes." The station's time spent listening is capped at two hours because that's when the Web player resets, to make sure there is an active listener.

## PHOENIX RETURN

However, RadioBDC has some new competition — and from a familiar source.

Phoenix Media, the former owner of WFNX(FM), may have sold its FM signal, but in October it went live with WFNX.com. Former Program Director Kurt St. Thomas is the station's executive producer. (His earlier tenure at WFNX ended in 1995, when he left to become senior director of A&R at Arista Records; he also was a host and producer at KROQ(FM) in Los Angeles.)

WFNX.com and RadioBDC are separate entities with different owners, even though both have roots in the old WFNX. So as of the end of October, the city of Boston has two live, hosted online alternative rock stations. Meanwhile, Clear Channel Media and Entertainment subsequently began airing an electronic dance music format on WFNX(FM)'s old frequency, now branded Evolution 101.7.

*Paul Riisman del is a veteran of more than 20 years in community and college radio. He is co-founder and technology editor for RadioSurvivor.com and covers educational media for Streaming Media Magazine.*



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on-air feed as the trio traversed the winding roads of Perth. How did it all work out? Absolutely flawlessly – the show went on without as much as a speed bump!

Dan Jackson, engineer for 92.9 FM in Perth, Australia was faced with a unique challenge. Breakfast hosts Paul Hogan and Lisa Fernandez would be cycling for hours in strong winds and pouring rain as part of the 92.9 Kids Appeal for Telethon.

The unique solution was to equip Dan's bike as a mobile production facility. The talent wore wireless mics AND in-the-ear monitors which communicated with receivers and transmitters in a rack bag on Dan's bike.



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# BBC Radio Gets a Facelift

New Broadcasting House presents unique acoustic challenges for open-plan design

## FACILITY PROFILE

BY MEL LAMBERT

**LONDON** — The British Broadcasting Corporation operates a number of radio and TV networks throughout the U.K. The jewel in the BBC's crown is Broadcasting House, once described as "that elegant stone battleship sailing proudly down Regent Street" — a reference to its striking architecture and imposing edifice. But time moves on.

Built in 1932 (a decade after the BBC was founded), Broadcasting House was considered to be in dire need of repair by the late 1990s. So the decision was made to close BH, and transform it into an all-digital broadcast center for the 21st century.

Over the past 10 years, Broadcasting House has undergone extensive redevelopment, seeing the addition of a major new extension and new East Wing — now known as The Peel Wing, in memory of the late John Peel, the highly-popular disc jockey.

The striking 860,000 square foot structure now provides digital-capable facilities for network broadcast and global staff working within the BBC's

TV, radio and World Service news and online services.

### CHALLENGES

At the heart of the new building is a large, open-plan newsroom and production area beneath an eight-story atrium, with acres of glass as the dominant architectural feature. "We have restored our original home and expanded it to create the largest live broadcast center ever," said former BBC Director-General Mark Thompson just after the new building was opened.

The complex contains six TV studios and 140 acoustic spaces, as well as specially conceived zones for discussion and interaction.

But the numerous glass surfaces, which provide an open, airy atmosphere with excellent sight lines between newsroom staff on various floors, posed a number of acoustical challenges. The floor that houses BBC World Service's news preparation areas and on-air studios — recently relocated from its longtime home in nearby Bush House — contains a variety of different-sized production and air studios designed by London-based Munro Associates.

As Andy Munro, the firm's founder and chief designer, recalls, "We were given the task of developing a complete-



Exterior of the new Broadcasting House and new East Wing.



The original Broadcasting House's 'stone battleship' façade. The building was built in 1932, a decade after the BBC's founding.

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dio areas in just six months, he opted for a modular construction technique. "Several companies offer interlocking, pod-type constructions but none of them could achieve the sound insulation and complete transparency that, from the start, was the client brief," the seasoned designer continued.

"The only option was a completely new design from the ground up. It was also decided to build several prototypes and test every element of the structure before going into full production."

In addition to several standalone areas, a total of 18 larger facilities are built into clusters of two and three studios with integral control systems that allow them to function independently or interact with one another to accommodate different program formats.

Two main design obstacles immediately presented themselves: sound insulation and acoustic conditioning. "These are difficult to perfect at the best of times," Munro acknowledged, "but we had to achieve broadcast quality in a room with all glass walls, glass doors and without physical support from the main building."

His solution was to construct a rigid floor platform with sufficient strength to support a steel frame that contains sealed-glass panels for the surrounding walls. "Ceiling panels would be



A look at one of the New Broadcasting House's Studer-equipped on-air studios.

locked into place by jacking them up to the underside of the frame beams, which allowed access to the various pipes and cabling located in the main ceiling voids."

To avoid sound transmission into the production spaces from the surrounding newsrooms and control centers, each modular structure was floated on anti-vibration mounts.

For ventilation, a plenum system pulls cool air from the ceiling and circulates it within the space. "The main building has the chilled-beam ceiling with a water supply temperature of 61 degrees Fahrenheit that mixes incoming fresh air and ambient air to give an

inflow to the glass boxes of around 65 degrees," he said.

"We expect the rooms to work at 70 degrees Fahrenheit, with a heat load of the equipment and bodies being 400-700 watts. Since that means we have to pull in enough air to give the required cooling effect, our fan speed can be varied accordingly. Fan noise is the limiting factor and we designed our plenums to reduce this to NR25."

Because most of the heat-producing equipment racks are located outside each studio, Munro said, the heat load of each room is no more than the same space occupied by the news teams. "So the net demand on the building

is unchanged. To install these studios with no gain in energy demand was an achievement of which we are particularly proud."

To balance the acoustic performance of each room and achieve "neutrality" without impacting the available views into or out of the studio areas, Munro came up with an innovative solution. "We opted to use trapezoid geometry," he said, "whereby all the internal reflections are guided to a single row of hanging 'sausages' that have very high absorption. They also hang inside the room and so absorb reflections back from the glass, as well as the initial impact."

The result, Munro reports, is a "very even, diffused sound with a RT60 of less than 0.2 seconds."

Audio monitoring is handled by Dynaudio BM5A systems.

Enhanced flexibility was a design criterion for the new space. Munro noted, "accomplished by transforming dark cellular offices of the past into open plan workspaces with creative links nurtured by the close proximity of production teams to studios."

**WORKFLOW**

The current workflow for radio material produced and aired throughout the new complex is completely digital, with

*(continued on page 26)*









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## READER'S FORUM

### 'EXTENDED' VERSION OF GENESIS FLOPPED

Sure enjoyed Joe Lasmane's article, "How About a Little Bathroom Humor" (Jan. 2).

As a former "rock jock," I remember those days. For me, the fun of being on the air kind of went away when we went to computer automation and you no longer pulled LPs, CDs and carts.

No more pride in a great "beat-on-beat" segue, and a lot of looking at a computer screen and waiting for the opportunity to say something (hopefully witty, clever or at least "not dumb").

Though I'm sure the list could go on and on, I had to add a few more "bathroom songs":

"Alice's Restaurant Massacre" (also known as just "Alice's Restaurant") by Arlo Guthrie. This was an interesting song, but you could probably only get away with using it on a classic rocker — or on Thanksgiving Day.

"The End" by The Doors — Man, what a downer song. But at more than 10 minutes long, it was bathroom time.

There's "Sun King Medley" by the Beatles, comprising "Sun King," "Mean Mr. Mustard," "Polythene Pam" and "She Came In Through the Bathroom Window" (almost apropos for the topic). What a great group of songs that sweep into each other.

And so many more ...

Of course, on "the flip side" (pun intended), you would never want to play "The Letter" by The Box Tops (even for a run to the pop machine), because you had less than two minutes to accomplish anything!

And on the classic rock side, the aca-

PELLA "Mercedes Benz" by Janis Joplin was the shortest (never "walk the ramp," since she talks about "doing a song of great social and political import").

By the way, "Mercedes Benz" segueing into "Love Stinks" by J. Geils Band was a great mix!

Finally, in 1985, in the earliest days of CDs, I made the fatal mistake of thinking a CD could never skip. I was working at WONE(FM) in Akron/Cleveland/Canton, Ohio, (which was sister station with WAKR(AM) 1590 radio and WAKR TV-23).

It was about 3 a.m. and snowing outside.

I started the song "Mama" by Genesis, then headed down the hall to look at the color weather radar in the TV control room. The song was 6:49, so I had plenty of time.

Before I left, I did something I rarely did, and that was to turn down the control room monitor (WAKR's studio was right next door and I frequently "rocked too loud" and had complaints from "the neighbors").

As I came back in (about six minutes later), I noticed all my phone lines flashing in unison (not common for "the weeee hours of the morning") and looked at the countdown on the controller of our two Sony commercial CD players. The time said I had about 6:20 left, so I figured it had just swept into the next song ... that is, until I turned up the control room monitor to hear "dadadadadadadadada."

Apparently no sooner had I walked out of the control room, than the CD locked in and it had been skipping on the air for six minutes!

Being a "good rock jock," I swept into my next song by "mixing" into it.

After that song faded, I back-announced my set with the words "97.5, W-O-N-E with some Floyd, the extended version of 'Mama' by Genesis, and something new from Suzanne Vega."

Then I started to answer the phones.

In short, most people did not like that "extended version." I can say that I never, ever left the control room without an FM Walkman after that. I also never killed the control room monitor.

So, though the fun of being a jock is gone for me (because of automation), at least the chance of "skipping CDs" and inattentive jocks has diminished.

Thanks to Joe for rekindling the old memories.

Dan Slentz

Former DJ, WONE(FM)  
Albuquerque, N.M.

### A ONE-MAN SHOW

Responding to "How About a Little Bathroom Humor," I was "the guy."

In 1968, I did a two-week fill-in for a "one-man-band" guy: Phil Bailey at WMPI(FM) in Scottsburg, Ind.

Shift on-air from 6 a.m. to 3:30 p.m. No breaks. Just 30–60 minutes of uninterrupted "Noon News."

Big mistake.

Nothing worked in the control room. I repaired every item while on the air. There was a standing desk, but it was built 13 inches too high, even for me.

By Friday, the staff had designed a new desk, which I installed Friday night (midnight to 7 a.m.). This one was a sit-down desk and solved the problem with the 16-year-old kids who had to kneel on the stool to reach the mic.

Remote on both carts and turntables just below the Bauer eight-channel slide fader board ... and another set of remotes in the bathroom.

Louis Bornwasser

Retired engineer  
WKRX(FM)/WVVEZ(FM)  
Prospect, Ky.



Wikimedia Commons

Looking for a longer song? Avoid Janis's 'Mercedes Benz.'

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# HD Voice: A Real Alternative

## Why HD Voice can be a real cost-effective remote option

### COMMENTARY

BY MARC WILSON

*The author is U.K. sales and marketing manager for Glensound.*

Regarding Radio World's feature "Let's Talk About Codec Trends" (Jan. 2), I think it is important to state the role that HD Voice is playing in the broadcast world on the mobile phone networks (as opposed to fixed line codecs), as compliment to the options stated in your feature.

HD Voice devices are not an alternative to stereo full-bandwidth codecs in just the same way that stereo full-bandwidth codecs are not the solution in all applications. If the requirement is single-channel voice reporting for news and sports, HD Voice on 3G networks offers significant benefits, for several reasons.

#### 1. Access

In countries that offer HD Voice on their 3G mobile networks, the ability to get signals on air is greatly increased. In congested environments (stadiums, sport events, concerts, film premieres, etc.) there is a high demand on the IP network.

In these environments, HD Voice offers a reliable and simple connection option, just using a battery powered, portable mobile phone. In the U.K., the BBC used our own HD Voice version for audio broadcasts following the Olympic torch relay, as there was low availability of IP bandwidth due to people taking pictures and posting them to Facebook (for example).

Within the mobile telephone world, it is important to realize that HD Voice is just a voice call on the mobile network, so it does not need to use the mobile data service — a normal voice SIM is all that is required. This means that it is separated from all data issues of bandwidth availability and fluctuation.

Once the call is connected, it will stay connected in the same way as a mobile phone. The only exception to this is if you are travelling and move out of the network area, but most broadcast-



ers will be stationary for reports.

A phone call is always much easier to establish and maintain than an IP codec connection.

#### 2. Quality

If the requirement is single-channel voice, then HD Voice will give you a 7 kHz link. It's not stereo, and it isn't suitable for music; but for voice broadcasting, it's all that is needed.

It is also very effective at suppressing background noise so that news reporters can be heard clearly.

#### 3. Ease of Use

It's a phone. Calls are as simple to establish as a normal mobile, and no setup or configuration is required. Non-technical reporters or announcers love this fact.

#### 4. Price

HD Voice is G722.2 or AMR-wideband. There is no need to pay the prices for codecs that give multichannel, or the high-quality, high-bandwidth algorithms, if all you are going to use it for is single-channel voice.

#### 5. Delay

The delay is the same as a normal mobile phone call, so it is perfect for two-way conversations. You do not need to allow buffering on a HD Voice system. Indeed, on tests in the U.K. on the Orange network, on the same cell, the HD Voice delay was actually less than a normal mobile phone call.

#### DOWNSIDE?

HD Voice is still fairly new and it is not available everywhere (it's not yet in the U.S. for example, but it'll be there soon). So far, HD Voice is available in about 39 countries and this is increasing all the time.

At the moment, the call has to be on the same network, within the same country (with one recent exception). For most broadcasters, this is not a problem. All current systems are on the 3G network, but versions for the 4G network are expected to follow.

The example given in the codecs article, about Italy, was interesting. At Glensound, we supplied 40 HD Voice 7 kHz Broadcasters' Mobile Phones recently to Rai. Giovanni Ridolfi, head of RAI Radio Engineering, commented on the high audio quality, low latency and robust connectivity and said that RAI's journalists found the unit intuitive to use.

If a broadcaster has access to HD Voice on mobile networks, it is a real cost-effective alternative for remote broadcasting.

*Glensound provides solutions for remote news and sport reporting. Marc Wilson has been working in audio for 23 years. Comment on this or any story; email radioworld@nbmedia.com.*

## WHAT IS HD VOICE?

The mobile phone networks are upgrading the audio quality of their voice networks. This upgrade uses AMR wideband (AMR-WB), rather than the 3.4kHz AMR narrow band (AM-NB) used on traditional 2G GSM systems.

The commercial wrapping for this upgrade is called "HD Voice." On compatible networks, HD Voice enabled mobile devices, such as the Glensound Broadcasters' Mobile Phones, and even the iPhone 5, will achieve a 7kHz audio bandwidth.

It is important to note that this is an upgrade to the voice call system — normal mobile voice calls. It is not a data service, just a higher quality voice call. HD Voice is being enabled largely on 3G networks, and is expected to follow on LTE.

HD Voice on the mobile networks is completely different to a HD Voice algorithm on a traditional data-driven IP codec. Although the algorithm may be the same, IP codecs are not using the mobile phone networks for the audio link, but the data within an IP connection.

— Marc Wilson

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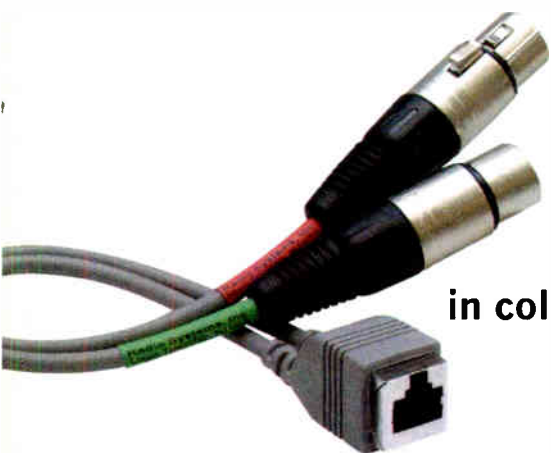




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