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Your guide to radio technology

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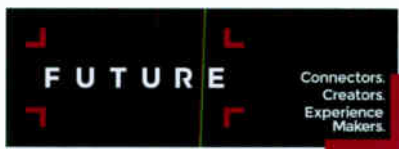
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Let's talk about mono

David Bialik challenges a common practice



Paul McLane
Editor in chief

D

avid Bialik poses a question: Why do talk radio stations broadcast in stereo rather than mono?

In a commentary on the Radio World website, Bialik writes, "Many FM broadcasters are sending the programming out on both the left and the right channel, plus lighting the FM pilot. Why? They can send the audio out as mono and not have the

penalties of L-R. Reception in the Grade B contour would be improved. Nothing would change RF wise, but you would have a stronger signal. You have half the audio chain to deal with! No phase issues!"

Bialik is a veteran engineer and former director of stream operations for CBS Radio and Entercom. Now a consultant, he co-chairs the AES Technical Committee for Broadcast and Online Delivery, and he chairs the Metadata Usage Working Group at the National Radio Systems Committee.

He points out that the question also applies in streaming. Bialik quotes Bob Orban: "Streaming mono instead of stereo eliminates the bitstream overhead required to encode stereo. For a given bitrate, mono therefore provides higher subjective quality with fewer audible codec artifacts."

Bialik believes that by eliminating the stereo signal in OTA broadcasts, the "pure" FM signal will generally be receivable cleanly over about an area about 25% greater than before. "It's not turning off the pilot that makes the difference, it is getting rid of the stereo difference signal," he reminds us.

In a subsequent article, Bialik discussed the topic with Mike Byrnes, recently retired as chief engineer of WETA(FM) in Washington, who dealt with this issue when he was chief at WAMU(FM). "I don't think anyone today would even notice whether the [pilot] light is on or off — or even if there is one," Byrnes said, adding, "As I recall, the noise penalty incurred in broadcasting stereo is about 20 dB."

You can read both of those commentaries at radioworld.com, search "let's talk about mono."

"A human only has one desirable audio output: the mouth," Bialik concludes. "True mono will sound great for talk radio and improve your coverage. What better argument do you need?"

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More Radio Filings Will Go Through LMS

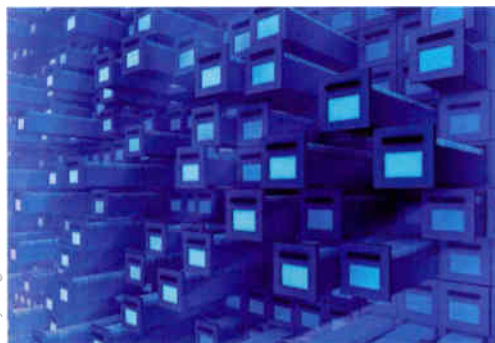
The next time you need to file for an engineering STA with the FCC, take note: The request — and numerous other common radio station filings — will have to go through the LMS system.

The commission's Media Bureau this month expanded the list of radio station filings that must be handled through its Licensing and Management System rather than the old Consolidated Database System or CDBS.

This continues a process that has been ongoing. The majority of Media Bureau applications and submissions now have transitioned from CDBS to LMS.

The following were added to the list as of May 17:


- FM Engineering Special Temporary Authorizations (STAs). This includes STAs for FM stations, FM translators, LPFMs and boosters.
- Request for Silent STA (AMs and FMs)
- Extension of STA — Silent. (You can't use LMS to file for an extension of an STA originally filed in CDBS. You have to make an original STA request in LMS and attach an explanation.)



Getty Images/3alexnd

- Extension of STA — Engineering
- Suspension of Operations Notification
- Resumption of Operations
- AM/FM Digital Notification (LMS Form 2100, Schedules 335-AM and 335-FM)
- Modulation Dependent Carrier Level (MDCL) Notification (LMS Form 2100, Schedule 338)
- Change of Primary Station Notification
- Tolling Notification (LMS Form 2100, Schedule 337)
- Reduced Power Notification
- Withdraw Pending Applications

Applicants must log into LMS using an FCC Registration Number (FRN) and associated password. The commission website has an LMS help center that includes relevant details. It includes a link called "How Do I submit Common Filings to the Audio Division."

The Media Bureau also said the LMS system now lets you search by frequency or channel using the "Frequency/Channel" option in Public Search. Existing STA and silent notification records have been added to LMS from the Consolidated Database System (CDBS). 

4

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At KTL, a passing of the baton

Tom King reflects on transition to family's third generation

Tom King has led Kintronic Labs since 1983 and is considered one of the industry's leading experts on AM radio transmission technology. After news came this winter that his son Joshua had been named president/CEO, we decided to check in with Tom about what comes next.

That interview is below.

In 1949 Tom's father Louis King left the Radio Corporation of America to pursue his own business in RF. Kintronic subsequently was formed in 1962 and has become one of the industry's most respected technology suppliers. It is based in Bristol, Tenn. Louis received the Radio Engineering Achievement Award from the National Association of Broadcasters in 2007, and Tom received the same award eight years later.

Third-generation Joshua began work with the company in 2018 as a project engineer. Earlier he was a project engineer for systems integrator Affinity Energy.

According to a bio on the KTL website, "Joshua is excited to be involved in RF engineering and looks forward to building on Kintronic Lab's foundation of excellence in medium-wave antenna systems and expanding the company's expertise in the VLF, LF, HF and ISM bands, while

continuing to maintain a reputation of high-quality work and great customer service." (See box on page 8 for more on his background.)

RW **What change will this mean in your business and how customers might interact with you?**

Tom King: Joshua has taken the role of administrative leadership on a day-to-day basis. I've been sharing various responsibilities with him for three years toward that end.

Josh is a people person. He is working closely with our engineering staff and manufacturing personnel to streamline our operations and to enable us to be more responsive to customers on a broader basis.

My role is to be supportive of them in projects and working with customers; that can still involve being involved in travel. But Josh will be the primary go-to guy for anything from design engineering proposal work to HR.

My wife and I are loving the role of grandparenting and are doing a lot more of that.

RW **I'm sure your father would be proud. But you work in an area that often is described as challenging, at least the AM radio side of it.**

Above
Tom and Joshua
King at the
Kintronic booth
at the 2022 NAB
Show.

King: We have been diversifying more, realizing the nature of the AM broadcast business worldwide. But we're still actively involved. Thankfully we have not been impacted significantly by COVID, so we have been able to maintain our manpower. We've been doing more international business, which has been a mainstay. We are seeing more business here in the U.S. too, a lot of it is in the sale of transmitter sites — stations being moved to multiplex on other sites in the same market.

We're providing equipment to put telecom services on AM towers; we're building AM and FM dummy loads. We're doing more government and defense work.

“We work with broadcasters from small to large, in any size market, who are successful because they're meeting needs.”

RW **How many employees do you have these days?**
King: Around 32 employees right now. We had up to 55 at one time. We've been hiring more people.

RW **What kind of work has Josh been doing?**
King: It's interesting. He started in January of 2018. Five years earlier, when he was an intern at Trans World Radio Bonaire, they were just starting to talk about upgrading their station to its original power. *[The Caribbean broadcaster decided to rebuild to boost from 100 kW to 440 kW. It is heard on 800 kHz with "the largest AM transmitter in the Western Hemisphere." At radioworld.com, search "Bonaire makeover" to read our 2018 profile.]*

Josh was involved in all the planning and designing of the tuning-house buildings and planning the site for the power upgrade.

Then lo and behold, he comes [to Kintronic] in January 2018

— and his first responsibility was to go with me to Bonaire, to commission the patterns of the station! That was his first foray working with me in the field.

Josh has been working on as a principal investigator on various government projects, working in product development, helping

streamline our manufacturing process here. In March we also launched a new e-commerce site.

RW **I would think most of what you sell wouldn't lend itself to e-commerce.**

King: There are products that people want fast. They want to be able to place orders by their cellphone or online, any time of day or night.

Broadcast is 365 days a year, 24 hours a day. When people are off the air, they're off the air. We're trying to be in a position to respond whenever we can, wherever we can.

As Josh put it, we've tried to take some of the complexity out of the ordering process. We tried to take a "McMaster-Carr-like approach," as everyone knows that site is easy to navigate. We'll continue to add items to the site throughout the year.

RW **Many conversations I've had with engineers about AM radio have been, frankly, depressing. Do you have words of encouragement for broadcasters who know and respect your opinions about AM?**

King: This is what I tell AM broadcasters: Number one, it needs to be live. Number two, it needs to be local. Number three, it needs to be relevant.

If they can adhere to those three things, they're going to be successful.

We work with broadcasters from small to large, in any size market, who are successful because they're meeting needs. We talk about Pandoras and all these other services, but people want to know where the deals are. They want to know where they can buy a car. Advertisers are still seeing the benefits of radio, with people listening to radio in their cars.

I know there's the battlefield of the dash now. Frankly I think the dash is getting too complicated for people to drive and be able to function safely. It really concerns me. It's still gotta be simple, guys! People don't want to get in their car and spend 10 minutes trying to figure out what to do.

I'm thankful to be involved with the National Radio Systems Committee and AM Improvement Working Group. Those are dedicated folks who really care about AM radio and are looking at it from the standpoint of improvement in receivers, reducing the ambient noise and making the fidelity and quality of AM, even in analog, still competitive with FM.

We're certainly in favor of new technologies like HD Radio all-digital AM and DRM. We've worked worldwide with these digital services. It all comes down to receiver penetration in the market.

RW **Are you surprised about what's been going on with shortwave? It seems to me shortwave has**



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been more resilient than had been predicted 10 or 20 years ago.

King: In certain parts of the world shortwave is still widely listened to medium. China is a large shortwave user; they're the largest shortwave DRM broadcaster in the world. India has shortwaves in DRM and analog, and there are shortwaves in Africa.

VOA has largely gone to internet delivery versus terrestrial, which I think is a big mistake in terms of reaching the most people, but obviously it has great attraction from the standpoint of low cost.

AM on shortwave, from the standpoint of distance and mass audience coverage, is still a very effective medium. Atmospheric properties lend itself to those services, and folks like Trans World Radio and Far East Broadcasting want to reach their audiences from a distance because the countries are closed to inside broadcasting.



Have you had supply chain issues?

King: Yes, with some components — for instance resistors and some accessories that we use in dummy loads. We had some items that we ordered last summer that we took delivery on in January. Thankfully we're still able to get our metal raw materials.

A new engineer we hired last year has helped us reduce our costs in manufacture of RF components, and we've incorporated new equipment that is going to allow us to reduce our production time substantially.



What else should we know?

King: Our company is dedicated to providing the best service and the best products over the price range. For people who need something in a hurry, if somebody's off the air, we have surplus components in stock to make equipment available in a hurry. We're striving toward better delivery and turnaround and having more items in stock. We're here for the industry and we're not going anywhere. 🌐

About Joshua King



The grandson of Kintronic founder Louis Arthur King, Joshua earned his BSEE at Clemson University in 2015. After graduating he joined systems integrator Affinity Energy, in Charlotte, N.C., where his work involved utility scale solar monitoring and controls design, installation, programming and testing. He joined the engineering staff at Kintronic Labs as a project engineer in 2018 and has been involved in aspects of operations from human resources to field

installation and commissioning. In January 2021, he passed the Professional Engineering Electrical and Computer: Power exam and obtained his Professional Engineering License. In January 2022 he assumed the role of president and CEO.



Newswatch Xperi Advocates for Emergency Role

Xperi Corp. believes its HD Radio platform should be a central part of any plan to enhance EAS in the United States.

The company was among those filing comments when the FCC opened a notice of inquiry asking stakeholders to brainstorm what the future of emergency alerting might look like.

"The FCC should look to digital emergency alerting as a model for modernizing the legacy EAS and, in addition, should actively incorporate the HD Radio emergency alerting protocol into its emergency alerting plans," Xperi wrote.

It noted that broadcast radio is not subject to network congestion delays and outages imposed by natural disasters on LTE and 5G cell networks. The company estimates that HD Radio emergency alerting is utilized over 321 radio stations in the U.S. already. And there is a visual component to it.

"HD Radio services today support text and image transmission. While the images are low-resolution (200px by 200px), this would be sufficient to send hazard-symbol images to all radios equipped with HD Radio Artist Experience," it wrote. "For HD Radio products, the visual text message can be incorporated into standard program fields for as the text of an emergency alert message for pop-up display."

HD Radio, which already formats CAP alerts, can also transmit non-real-time files to support additional messaging capability. "Audio clips or text transcripts may be efficiently transmitted in support of alert messaging services," Xperi commented.

In addition, it says HD Radio receivers currently deliver limited multimedia content, such as thumbnail images, and soon those capabilities will expand to allow over-the-air transmission of graphics, images, pictures and maps, as well as URL links, which can provide enhanced critical information about threats.

Xperi, which conducted secondary tests for HD Radio in August 2021 when the commission and FEMA jointly coordinated a nationwide test of the IPAWS network, said it also is developing service validation protocols to address the potential for EAS message spoofing. The company says it is attuned to the concerns of auto manufacturers about "potential cybersecurity vulnerabilities" that bad actors could exploit to compromise vehicle computers and other critical subsystems.

Read those and other comments in the FCC's ECFS system; search Docket 15-94. 🌐

— by Randy J. Stine

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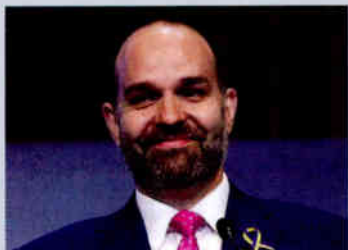
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LeGeyt Throws Open the Doors

New NAB President/CEO Curtis LeGeyt welcomed the broadcast industry back to the spring NAB Show after three years.

His opening remarks suggested a continuation of themes and priorities that the association has emphasized under Gordon Smith: that Congress should pass legislation to rein in the market power of big tech platforms; that lawmakers and regulators must modernize media ownership laws to reflect realities of the marketplace; that “the FCC must recognize that the broadcast industry’s ability to function in the public interest is fundamentally premised on its economic viability”; and that NAB strongly opposes a new performance fee on local radio stations.

“We can grow the pie for creators while ensuring an economically viable broadcast industry. But a one-sided standalone performance fee on local radio stations will undermine our service.”

He expressed excitement at the evolution of radio. “Radio in the car is becoming a screen-driven experience. The data capabilities of HD Radio and the connected car give broadcasters powerful new ways to build and extend their listener relationships.”

NAB Show Draws 52,500

The National Association of Broadcasters announced preliminary registered attendance for the convention of approximately 52,500. That compares to 91,500 in 2019.

Most of the attendees and exhibitors who talked to Radio World gave the convention positive reviews, describing a welcome energy, consistent traffic for most of the first three days, and a predominance of serious rather than casual equipment shoppers.

Though international attendance was down, the show still drew about 22% of its audience from countries outside U.S. borders, compared to 26% three years ago.

There were around 900+ exhibitors, compared to around 1,600 in 2019.



This was the first NAB Show in person since 2019 and the first since NAB decided to shift the exhibit floor opening to Sunday through Wednesday. It also was the first for President/CEO Curtis LeGeyt.

“The enthusiasm and engagement on the show floor, in sessions and throughout the entire event have been invigorating,” said LeGeyt in the announcement.

NAB also announced that the 2023 show, to be held April 15 to 19, will mark the convention’s centennial.

Thomson to Acquire GatesAir

In a deal involving two manufacturers with deep radio and TV roots, Thomson Broadcast will acquire GatesAir from the Gores Group.

Terms were not made public. The transaction is expected to close in the second half, pending regulatory approvals.

In 2012 Gores purchased Harris Broadcast Communications from Harris Corp. for \$225 million. In 2014 Harris Broadcast then was split into Imagine Communications and GatesAir.

GatesAir is a manufacturer of products for over-the-air radio and television broadcasting;

it is celebrating its 100th anniversary. It is headquartered in Mason, Ohio, with manufacturing in Quincy, Ill.

Thomson Broadcast is based in Paris, France, with U.S. operations in West Palm Beach, Fla. Thomson too is more than 100 years old and has been through multiple ownerships. Most recently it was acquired in 2018 by Group Siptomad of Madagascar.

Thomson said the acquisition will help it meet its goal to establish itself in the U.S. market.

NRSC Adopts EAS Guidelines

The National Radio Systems Committee adopted a new EAS guideline during the NAB Show in Las Vegas.

It sets forth recommendations regarding how broadcasters can best implement EAS functionality at their facilities. The committee is jointly sponsored by the National Association of Broadcasters and the Consumer Technology Association.

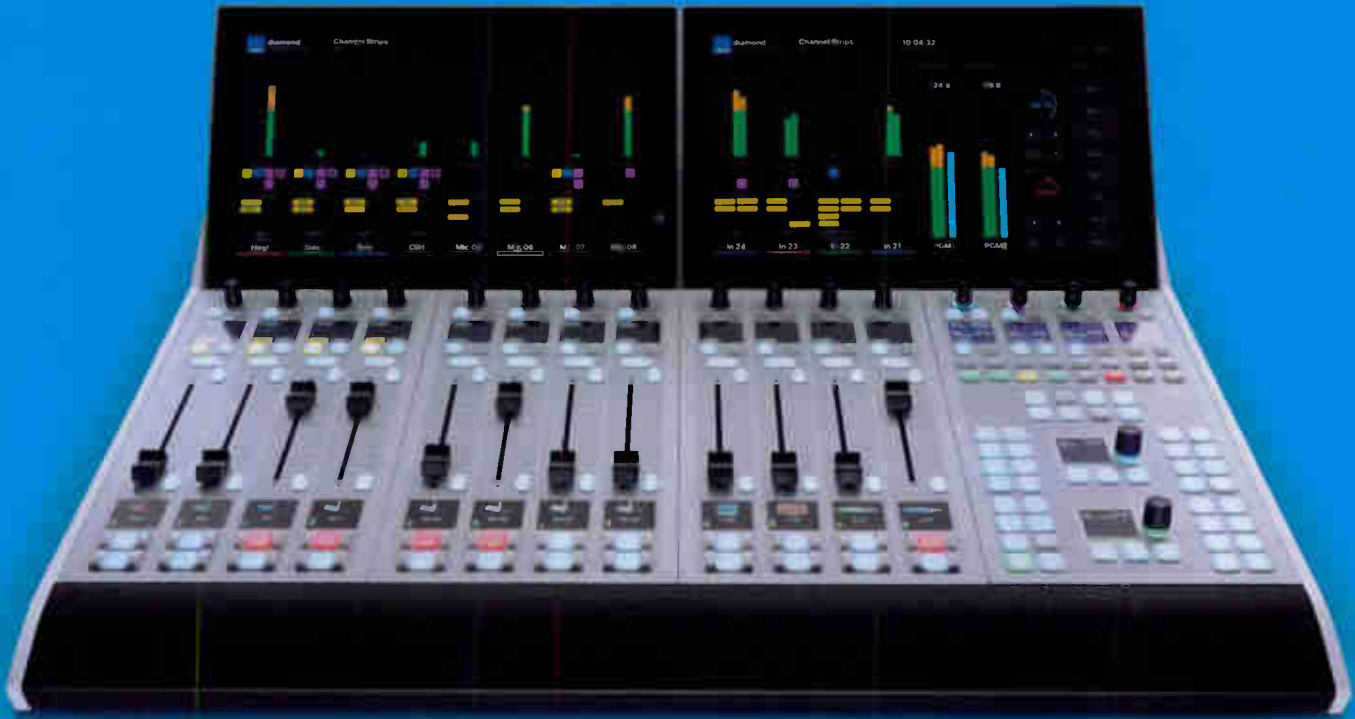


The guideline will not represent a requirement for compliance to a standard, but the group hopes broadcasters, automation software vendors,

transmission equipment manufacturers and consumer electronics manufacturers will find the recommendations useful.

Radio World will have more detailed coverage of the document soon.

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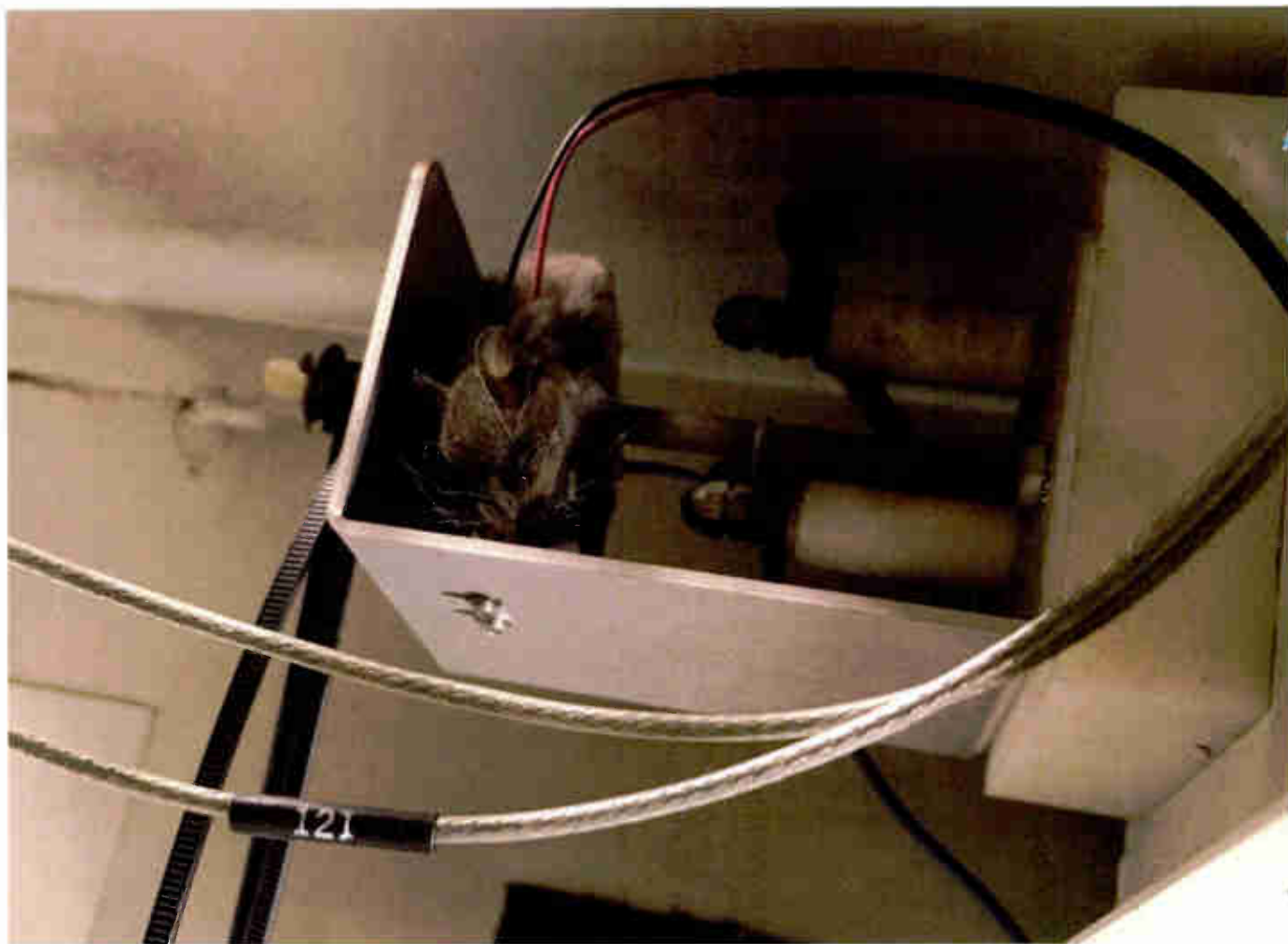
CPBE

With more than 50 years in broadcasting, the author is in his 32nd year writing *Workbench*. He handles western U.S. radio sales for the Telos Alliance and is a past recipient of the SBE's Educator of the Year Award.



Tip Line

Workbench submissions are encouraged and qualify for SBE recertification credit. Email johnpbisset@gmail.com



A shocking discovery (it's not the mouse)

The transmitter should never be left with this important safety feature defeated

Frank Hertel was called to a customer's site because a 10 kW FM transmitter had failed and would not restart.

After powering everything down, Frank looked in the back. The photo above shows the upper right high-voltage (HV) interlock, just inside the door opening.

This type of interlock is known as a "guillotine," because when the back door is opened, the sliding fiber rod is supposed to slide back and its attached metal plate drops across the two "acorn nuts," shorting the high-voltage supply to ground.

The idea is that by shorting the HV supply, if the door is opened while the transmitter is on the air, or if there is

any stored energy in the HV filter capacitors, the energy will be shunted to ground, thus preventing someone from a dangerous or deadly electric shock. It permits working safely inside the transmitter.

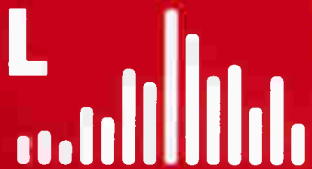
The picture shows what Frank discovered. The dead mouse in the center of the assembly was bad, but that's not what made Frank angry or why we share the photo.

You will see two black zip or cable ties, wrapped around the fiber rod, near the vertical part of the angle bracket. The two black things at left are ends of the cable ties that were not cut off; they were left attached and hanging.

To be sure, the dead mouse is what initially shorted out the supply and caused the transmitter to fail. But, Frank writes, defeating the HV interlock with those cable ties is

Above
Forget the mouse. Wire ties installed by a previous engineer could be a deadly surprise.

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TUNE IN
ON AIR

Writer



Randy J. Stine

Radio World's lead news contributor wrote in April about the proposed legislation to make Daylight Saving Time permanent.

TuneIn's Stern on why he's bullish on radio

"We are in the radio content distribution business"

Streaming and on-demand audio provider TuneIn is playing a central role in the so-called "audio renaissance" in the United States as COVID has transformed radio listening habits.

The company, founded by Bill Moore in 2002 as RadioTime, has apps for iPhone and Android and streams 100,000+ radio stations from around the world. It's also available via Apple CarPlay and Android Auto, has desktop apps for Windows and MacOS and recently announced a partnership with Harman by Samsung.

TuneIn also has agreements with entertainment brands like the NHL, NBA and ESPN. The platform, which offers a free and pay premium service, says it reaches over 80 million listeners monthly worldwide, with 30 million of those in the U.S.

In late 2020 the San Francisco-based company appointed Richard Stern, former chief product officer at Audible, as CEO. Stern's stated goal: "to reinvent radio as a digital medium and continue to drive the live audio streaming revolution well into the future." At that time the company also announced that it had received new financial support from investor Innovation Endeavors.

More recently it launched TuneIn On Air, a platform designed for independent podcasters and other long-tail content creators. It costs \$249 per quarter for commercial

entities, with reduced rates to nonprofit organizations and academic institutions.

Stern, who also has held leadership roles at Sony PlayStation and Amazon, recently discussed TuneIn's strategies and product development plans, and broadcast radio's rollout of digital platforms.

RW Assess the intricacies of the relationship between TuneIn and radio broadcasters.

Richard Stern: Our mission is to work with radio broadcasters to ready the radio business for the connected world. And what that means for us is being a partner to broadcasters as they transition from the legacy business model and the terrestrial distribution capabilities into a full stack digital distribution model and monetization model in the future.

We are in the radio content distribution business. That's means going from AM and FM radio tuners to being ubiquitous as to how a customer may choose to listen and engage with radio's digital content. TuneIn is an open platform so we work with any licensed broadcaster to help them distribute and monetize their content.

RW What are some of the ways you work with radio broadcasters to monetize their content?

Stern: We have the ability to let our broadcast partners engage in multiple explorations, whether that be

Above
A logo for the new TuneIn On Air platform, which "gives emerging broadcasters access to the same tools and distribution used by the biggest broadcasters in the world."

monetizing listening through advertising to helping them explore subscription. We have a subscription offering that broadcasters can participate in if they would like to.

And there's the data, which really helps them understand who their audience is and where their audience is listening to help them connect more meaningfully. We want to partner as deeply as possible with broadcasters.

RW How do radio stations make themselves available on the TuneIn app?

Stern: There are several ways to work with us. Broadcasters can simply ask us to have their streams listed in our directory, which makes the content searchable and accessible on the app. Some broadcasters also want a monetization relationship with us, so as we bring in new listening to them we are able to create new monetization opportunities and we rev share on that.

Some content creators and broadcasters want to license their content to us. So in the case of simulcast, for instance with the NBCUniversal family of properties; those deals are licensed, so we license that content and don't share in

“ We don't create content or have radio stations, but we love radio and hope to chart a new future together. ”

revenue. This is something we have focused on the past 22 months. But we want to remain flexible with broadcasters and find a fit that works for them and us.

RW TuneIn has a free app version and an ad-free platform. Describe the differences.

Stern: So on the free listening side we put pre-rolls before the stream starts and we have the play advertising inside of our app. In those cases the broadcasters in turn make money on in-stream advertising when a customer listens. Sometimes we rev-share against that pre-roll and display inventory with stations we have closer relationships with. We may also include other considerations in those deals like promotion and prominence in exchange for that.

Our subscription product doesn't have any advertising in it, but has recurring revenue from subscribers. In certain cases we share that revenue with partners who have decided to work with us around that product.

Right
Richard Stern



RW TuneIn is privately held with approximately 100 employees at its San Francisco headquarters. Is the company profitable?

Stern: We don't release financials, but we are growing. We are profitable. In fact, we just finished our first full year of profitable operations in the company's 20-year history in 2021. And we see a big opportunity to help accelerate the digital transformation of radio.

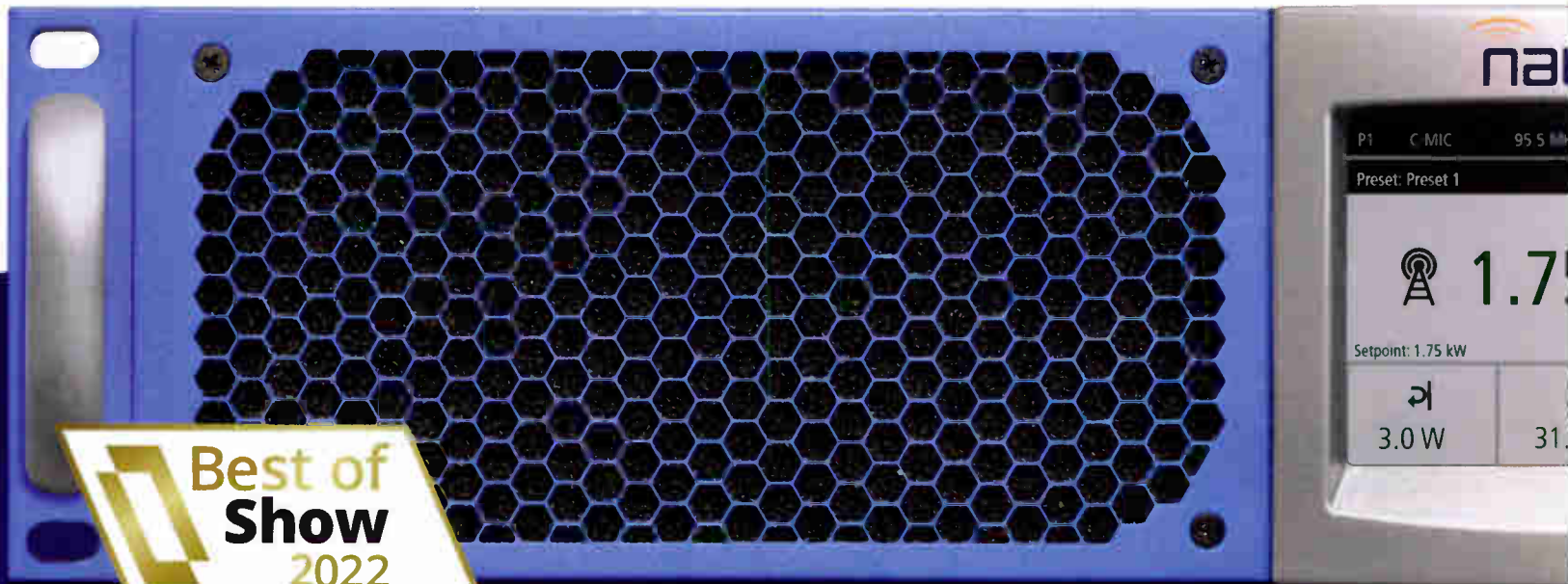
Because of the pandemic the global radio audience stopped listening to radio in their cars since everybody was staying at home. They instead discovered the world of radio on a variety of consumer electronic devices in their homes. And I think that started a conversation with many of our radio partners that even with terrestrial radio listening diminished they discovered digital was very viable. That accelerated the digital transformation.

From our standpoint, COVID presented opportunities for us and our broadcast partners. Radio broadcasters make great content and they need a technology partner who can be turn-key to take advantage of the digital growth and TuneIn was there to answer the call.

RW You sound optimistic about the future of radio and how it fits into the world of digital audio streaming.

Stern: I'm incredibly bullish on radio as a medium and how it fits into digital and audio streaming. Broadcast

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radio looking at a digital incarnation. The challenge for radio lies in the fragmentation of the industry. There are so many voices in the room trying to determine how this crossover into digital will happen. The industry hasn't perhaps been as focused as it needed to be for a whole host of reasons.

But how much has television changed as it crossed over to digital? Or how much has film changed as a medium? And music? The actual medium hasn't changed that much. What has changed is the sophistication of the distribution, the data and the monetization model. My hope is we can enable a broadcast medium, which is just as relevant today as it ever has been, to crossover to digital.

It's true that new players have emerged, but there is more consumer appetite for entertainment. Just look at the growth of Netflix on the video side. We would have never dreamed of that platform 20 years ago. A lot of that growth is because of the digital transformation and the ability of customers to engage with content anyway they want.

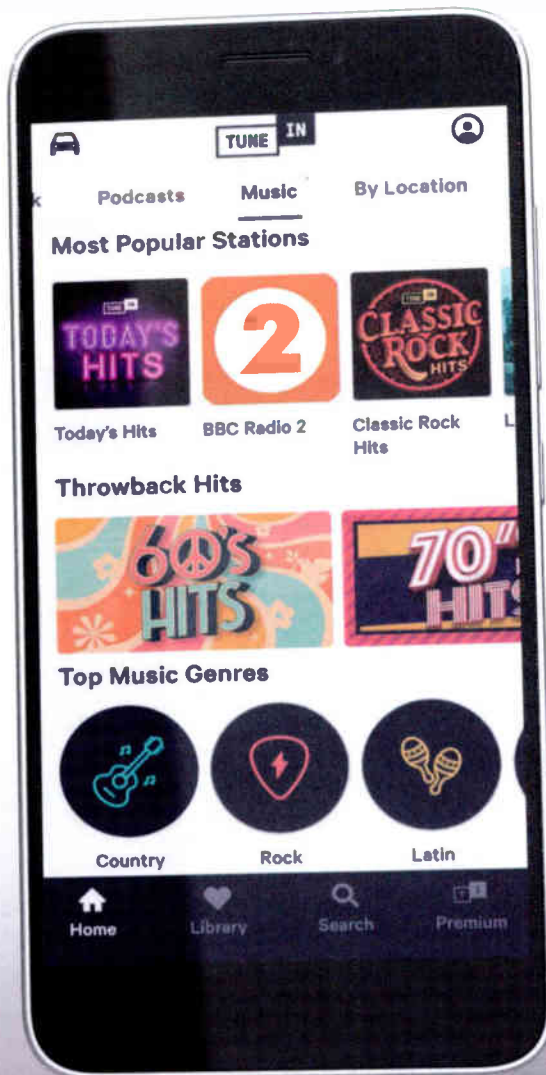
I don't think radio is there yet. Radio still has a lot of friction from customers wanting to listen to them being able to listen to whatever they want. I think TuneIn can be a valuable part of their portfolio as they step into the digital world.

RW **What do you think is the next step for radio in the world of digital audio streaming?**

Stern: What we are preparing for is a world where AM and FM tuners just are not in the hands of customers. The last bastion that most folks have for radio is in their cars, but if you look at the relationships we have with Tesla, Rivian or Lucid, which are EV startups, or more legacy auto manufacturers moving toward EV, the radio is being replaced with a software-based infotainment system.

The system will be like an Android-based tablet that has in-car streaming capabilities. The question for the broadcast industry is how to achieve prominence such that people can find your app in that environment and engage with your content.

TuneIn is already being pre-installed in many connected vehicles, like Tesla, along with most of the GM vehicles and Volvo and Mercedes. I think that is one of the values of our platform and scale. We can work directly with the auto manufacturers and ensure we are there and accessible. Much like the relationship we have with Amazon and Google and other consumer electronics manufacturers.



Above
An image from the
TuneIn app.

And our customers can benefit from that integration.

Some radio broadcasters have gone the direct route and have their own apps and can integrate some of these vehicles. But I think they should also be on TuneIn and hedge their bets.

RW **What business strategies is TuneIn investing in?**

Stern: So from a streaming perspective we are investing significantly to be able to say any radio broadcaster that wants to step into global distribution and the advantages of that with either an ad-based model or subscription-based model, we have multiple opportunities. And we are able to give them deep insights and data about those listeners the likes of which they have never seen before. And our sense is that as those elements come together, there are going to be real opportunities for growth in the industry.

One thing I see happening right now to people who listen to a variety of audio is that they are drowning in curation. If I want a specific type of music I need to go find that. If a person wants to create a listening experience with podcasts it takes a lot of time to figure out which podcasts they like. I believe a strength of radio is letting the customer just tune in and consume a lot of great content without a lot of curation. All our customers need to do is open the app.

RW **You mentioned podcasts. TuneIn carries over 5.5 million of them. You recently launched TuneIn On Air as a means to put emerging content producers on equal footing with major broadcasters across the U.S. What is it?**

Stern: I think it is part of living our mission. We want to work both with established broadcasters who have an existing audience, but we recognized we were not doing enough for emerging broadcasters. And they might be with educational institutions, college radio stations, community radio stations, not for profit or podcasters. This program is really a way to create a front door for those emerging voices and helping cultivate the next generation of talent within the broadcast industry using the TuneIn platform.

This is the freeway really for those emerging voices. They'll have the same access to all the digital distribution channels and hopefully find it easier to gain an audience with a more turnkey solution.

RW What has surprised you the most about the business of Tuneln?

Stern: I came in right at the start of the pandemic. As I reached out and connected with our broadcast partners. And I'm talking all over the world. I thought perhaps as a company we had not led with enough vision and provided enough partnership to broadcasters in the process. So I rolled up my sleeves and met with as many broadcast partners as possible and attended trade events sharing the story of Tuneln. We don't create content or have radio stations, but we love radio and hope to chart a new future together.

RW You were formerly chief product officer at Audible. What kind of insights did you bring to your leadership role at Tuneln?

Stern: I've spent the last 15 years of my career working at companies focused on making this digital transformation of various mediums. I was at Amazon Studios, the film and television arm of the company; and Audible the spoken word digital audiobooks publishing arm of that company. And at Sony where I focused on media products for PlayStation.

The reality is we didn't reinvent those mediums in any significant way. The content is largely the same, but we did make everything around the medium easier for the

“ The challenge for radio lies in the fragmentation of the industry. There are so many voices in the room trying to determine how this crossover into digital will happen. ”

customer to use. Digital distribution literally takes all of the friction out of discovery and consumption from a customers' standpoint. Data allows content producers to better understand who their listeners are and how to serve them better.

So I think a lot of that parallels the radio industry right now. We are not out to change radio. I think a much better thesis to start from is we are going to take what people love and make it better. **2**



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Writer



Dick Pust

Former general manager of KGY(AM) in Olympia, Wash., now retired



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Four tips for better listener engagement

When stations get creative, Bugs and seagulls can turn into wins

My name is Dick Pust. I spent 51 years at 1,000-watt KGY AM 1240 in Olympia, Wash., starting as receptionist and rising to the position of general manager. I also did the morning show for 43 of those years.

In response to Paul McLane's recent "Station Hacks" column in the March 16 issue, I'd like to share four of my favorite tricks for surviving in the shadow of Seattle, which was only 60 miles away.

1 Instead of asking listeners to come to the station to pick up prizes such as tee shirts and tickets, they would pick them up during a remote at a sponsor location.


This guaranteed people would show up during the remote and provided potential customers for the sponsor.

2 Contest winners and others were always identified by both first AND last name, along with their approximate address. It was "names,

names, names" that listeners loved to hear — especially if it was their own.

3 On one occasion, the station traded out an old VW "Bug" and drove it to different sponsor locations where people were given markers to write the KGY call letters on the car. Once the car was completely covered, the "Bug" was again taken to sponsor locations where people guessed the number of "KGYS" on the car. The person coming the closest got the car.

4 Some contests had no prize at all, other than the satisfaction of "winning." The station received hundreds of entries in its "Name the Seagull" contest where the winner named the bird that regularly perched on the railing just outside the control room window. The winning entry was "Jockette." She became the talk of the town.

You're invited to read my book "AM 1240 Life at a Small-Town Radio Station," at Amazon.com. Its 321 pages include hundreds of pictures and countless stories. Or if you prefer a signed copy, drop a note to am1240book@comcast.net. 

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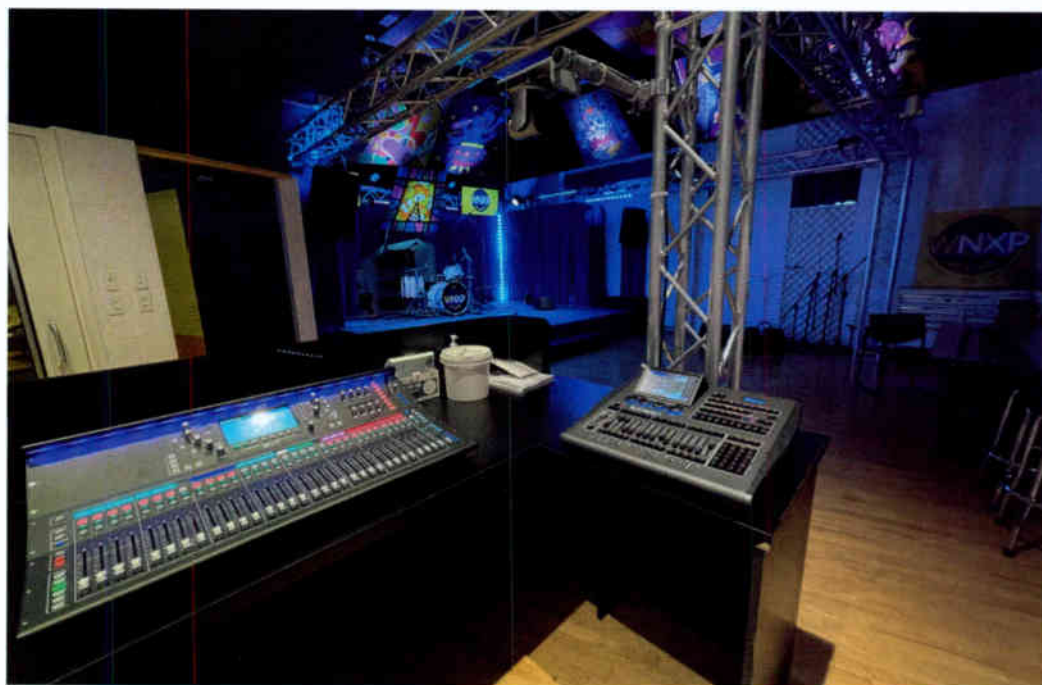
The stations: WNXP(FM) and WPLN(FM), Nashville Public Radio

The mission: Create a state-of-the-art video and audio recording studio for the purpose of producing live music videos as part of NPR Music.

"As radio broadcast engineers, we know how to build facilities and studios for broadcasting audio on the air," said Jeff Schroeder of Schroeder Services, the primary installation engineer.

"This studio was audio, video and lighting. Venturing into video switching, DMX lighting, and Dante audio routing and switching is a different world. Different, yet the same," he said.

You can read about this studio and numerous others in the Radio World ebook "Spectacular Radio Studios." Find it at radioworld.com/ebooks.



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Hey ... pay attention to this!

Advertisers want to know if consumers are engaged

26



Mark Lapidus

is a veteran multi-platform media and marketing executive.

There's a buzzword gaining traction in the advertising world, and your hip clients are probably already asking your salespeople for perspective.

Spoiler Alert: Radio does well in providing results for ... *Attentiveness*.

Simply put, agencies are asking: Are consumers paying attention to ads? And how much does this vary by platform?

Familiar concept

There's an interesting research analysis piece recently released by Cumulus Media / Westwood One Audio Active Group, headlined: "New advertiser and consumer studies on media attentiveness and ad skipping." I advise catching

the highlight video expertly narrated by radio research guru Pierre Bouvard, chief insights officer for Cumulus. At YouTube, search "media attentiveness."

As background: I admit being cynical about the developing cottage industry that tends to present "attentiveness" as something new to be measured and solved. Google launched their attention research in 2015 with a study in Australia to explore attention and ad effectiveness. Many others have since appeared.

In fact, questions concerning attentiveness probably go back to at least 1704, when ads started appearing in newspapers. The person spending money has always wanted to know if anyone is paying attention. I once proved this point during a live remote at car dealer by giving away \$5 bills to the first 20 people who stopped by. You should've seen the crowd and the owner's expression!

How important is attentiveness to advertisers and agencies? Bouvard cites a study conducted by Advertiser Perceptions of 300 agencies. It indicates that two-thirds of those respondents feel attentiveness is important to measure when deciding media investments. They also rank platforms in terms of what they feel consumers concentrate on: Social media posting 62%, Podcasts 60%; Checking news 61%, Watching shows 58%, Checking weather 54%, Watching short video 52%, Checking social media 52%, Listening



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to music 37%, Listening to AM-FM radio 30%, Ad-supported Spotify 30%, AM-FM streaming 28% and Ad supported Pandora 25%. (The study doesn't mention audio on Apple, YouTube or Amazon.)

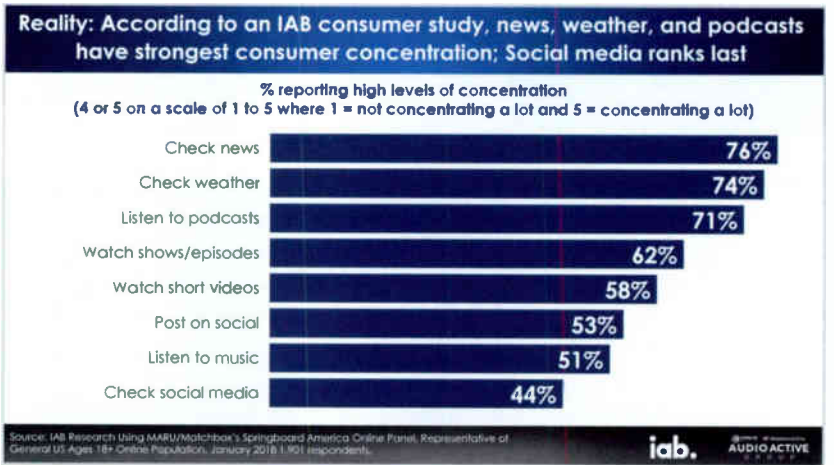
From the IAB consumer study: Similar results as above, with one extremely glaring difference: Social media has some of the lowest scores regarding attentiveness.

To reiterate: Advertisers believe consumers concentrate most on social media, podcasts, news, TV shows, and weather, but in reality news, weather and podcasts have the strongest consumer concentration, while social media ranks last.

A Maru/Matchbox study concentrating more on consumer audio indicates that attentiveness to podcasting and AM-FM radio is the audio winner over Spotify and Pandora. Regarding ad skipping, this study shows that skipping happens the most with digital ads — pop-ups, banner ads, social media and online video.

The ads consumer skip the least? Traditional media: AM-FM, podcasts and print. Maybe because they can't for the most part?

So ... let's imagine that consumers are paying attention to your client's specific ad on your radio station. The elephant in the room is that attentiveness doesn't mean much if a consumer doesn't act on purchasing the product or service. Regardless of platform, to drive consumer action, creative and engaging messaging is required. When we've got the attention on broadcast radio, we must be vigilant in keeping creative standards high, so there is no doubt that local radio must be part of any smart advertising mix. 



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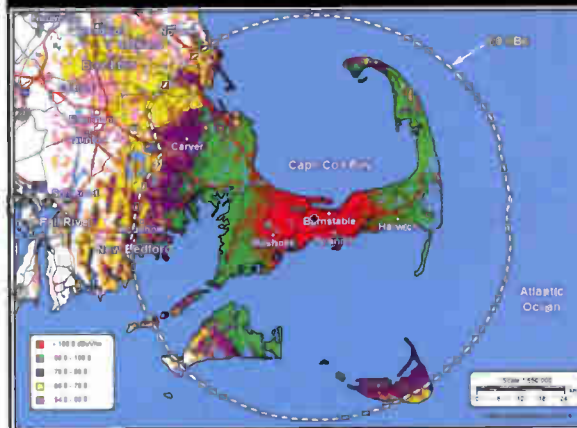
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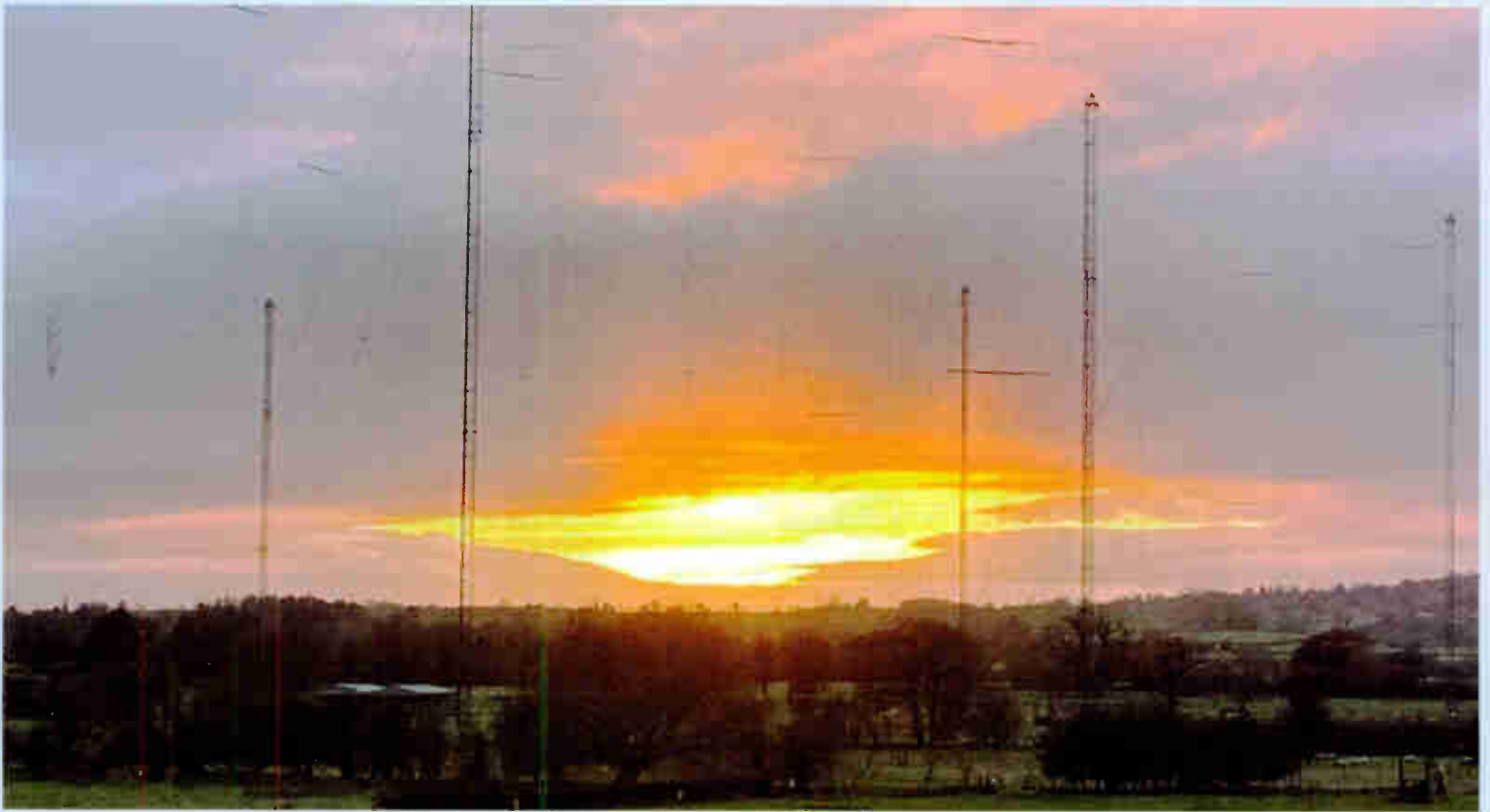
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Writer



Ruxandra Obreja

DRM is part of the BBC World Service story

The iconic broadcaster has been supportive of the standard for over 20 years

Our old friend James Careless studiously ignores DRM once more in his well-researched, but to our minds incomplete article "BBC World Service Turns 90" in the March 30 issue.

As an ex-BBC senior manager and chairman of the DRM Consortium I would like to complete the story now that the hectic NAB Show is over.

Having lived through and experienced at close quarters the decision to reduce the BBC shortwave about 20 years ago, I can confirm that the BBC World Service decision to cut back on its shortwave footprint — especially in North America, where reliable, easy-to-receive daily broadcasts ceased — has generated much listener unhappiness over the years.

In hindsight, the decision was probably right, especially in view of the many rebroadcasting deals with public FM and medium-wave stations in the U.S. (and later other parts of the world like Africa and Europe) that would carry news and programs of interest to the wide public.

But BBC World Service in its long history never underestimated the great advantages of shortwave: wide coverage, excellent audio in some important and populous key BBC markets (like Nigeria) and the anonymity of shortwave, an essential attribute in countries with undemocratic regimes.

BBC World Service still enjoys today about 40 million listeners worldwide nowadays.

A tool for today

Shortwave listening received a boost recently when broadcasters rapidly reinstated shortwave broadcasts to provide information and support to dislocated people and those eager to access uncensored external information in Ukraine and Russia.

The BBC World Service ended its shortwave broadcasts to Eastern Europe in 2008, but in 2022 after the banning of its popular Russian-language websites and the persecution of journalists in Russia, the BBC quickly increased transmissions of the BBC World Service via shortwave radio

Above
Encompass Digital Media's Woofferton site in the United Kingdom beams BBC World Service content in shortwave DRM to Europe and beyond.



How to submit

Radio World welcomes comment on all relevant topics. Email radioworld@futurenet.com with "Letter to the Editor" in the subject field.

to four hours per day to ensure that people in affected parts of Russia and Ukraine can access its news service.

The U.K. government has just allocated an additional £4 million pounds (€4.2 million) funding for the BBC World Service to provide such services.

Shortwave never disappeared in most of the world. However, in Europe, with its dense population and excellent infrastructure, the technique is considered power-hungry and unnecessary in times of peace and stability.

Even so, BBC World Service, as one of the developers and users of the only open, all-band digital broadcasting technology Digital Radio Mondiale (DRM), is still broadcasting in DRM shortwave to Europe (for short times daily) and is testing DRM from Cyprus, as we speak, though in medium-wave.

Dr. Simon Keens, sales and business development manager at Ampegon Power Electronics AG of Switzerland, a supplier of shortwave transmitters, believes this perception of "tech from the past," particularly shortwave, may have obscured the great advantages of modern shortwave.

"Since shortwave transmissions can propagate over intercontinental distances, broadcasters with minimal infrastructure can be remote from a practically infinite number of receivers in undefined locations," he said.

He also sees increased interest in shortwave and its digital potential: "Current shortwave transmitters are not limited to the distorted, crackly broadcasts of the past: All our transmitters are factory-fitted for Digital Radio Mondiale. DRM shortwave gives broadcasters the possibility to broadcast crystal-clear FM quality stereo sound, and even deliver images and videos simultaneously. This can provide enormous benefits when broadcasting to displaced people or populations under censorship."

Support for DRM

BBC World Service has been interested and supportive of the DRM standard for over 20 years. It maintains shortwave transmissions from Middle East and the UK or Africa using the services of Encompass Media Services. It has done the most complete and very successful DRM for FM trial in Edinburgh. It has trialed DRM medium-wave from Cyprus

“BBC World Service in its long history never underestimated the great advantages of shortwave.”

and continues its daily DRM shortwave transmissions to Europe and Asia.

Within the DRM consortium, as one of its key members, and pursuing separately its own strategy, the BBC World Service is also trying to stimulate the thinking about how to make the advantages of digital radio DRM (not only good audio, but also data with applications for distance learning or emergency warning) available to parts of the world that need relatively simple, cheap, maybe solar-powered, receivers.

The solutions are within grasp and there are digital shortwave receivers available. Today, analog receivers are still plentiful, as are digital SDR solutions — the currently affordable phone and tablet dongles provide other ways of receiving shortwave in both analog and DRM. And technology already exists for affordable DRM receivers: Manufacturers are simply awaiting bulk orders.

After 90 years the BBC has proven its resilience and success by weaving the new IP technologies with the simple and effective ones that have new digital clothes and can offer so much more than analog at a fraction of the energy costs. 🎧



Readers' Forum

Old tech is best tech

I am "shocked, shocked" to hear that BBC is using shortwave to get news and information into Ukraine and Russia.

After abandoning shortwave as outdated and not necessary, one only has to look at the current conflict in Eastern Europe to see the value of shortwave.

We've all embraced the modern technologies as they come online, but they're fragile. Between the damage to the public internet infrastructure in the Ukraine, to Russia pulling the "plug" on citizens' ability to access news networks outside of Russia, to the BBC trying to get people to use VPN (seriously?), it's the antiquated, outdated shortwave that gets the message through. There is a lesson to be learned here: Old tech is reliable, it is cost-effective, and it gets the message through when nothing else does. The same can be said of AM here in the USA.

All of those "high tech" solutions, whether they are cellphones or the public internet, are prone to failure when you really need them the most. Let's not abandon the tried and true "outdated" modes.

Mike Pappas |



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