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CONTENT

Managing Director, Content & Editor in Chief Paul J. McLane,
paul.mclane@futurenet.com, 845-414-6105

Senior Content Producer — Technology Brett Moss, brett.moss@futurenet.com

Technical Advisors Thomas R. McGinley, Doug Irwin

Technical Editor, RW Engineering Extra W.C. "Cris" Alexander

Contributors: Susan Ashworth, John Bisset, James Careless, Ken Deutsch, Mark Durenberger, Charles Fitch, Travis Gilmour, Donna Halper, Craig Johnston, Alan Jurison, Paul Kaminski, John Kean, Peter King, Larry Langford, Mark Lapidus, Jim Peck, Mark Persons, Stephen M. Poole, James O'Neal, Rich Rarey, Jeremy Ruck, John Schneider, Randy Stine, Tom Vernon, Jennifer Waits, Chris Wygal

Production Manager Nicole Schilling

Managing Design Director Nicole Cobban

Senior Design Directors Lisa McIntosh and Will Shum

ADVERTISING SALES

Senior Business Director & Publisher, Radio World

John Casey, john.casey@futurenet.com, 845-678-3839

Publisher, Radio World International

Raffaella Calabrese, raffaella.calabrese@futurenet.com, +39-320-891-1938

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Head of Print Licensing Rachel Shaw licensing@futurenet.com

MANAGEMENT

Senior Vice President, B2B Rick Stamberger

Vice President, Sales & Publishing, B2B Aaron Kern

Vice President, B2B Tech Group Carmel King

Vice President, Sales, B2B Tech Group Adam Goldstein

Head of Production US & UK Mark Constance

Head of Design Rodney Dive

FUTURE US, INC.

11 West 42nd Street, 15th Floor, New York, NY 10036



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Radio World (ISSN: 0274 8541) is published bi-weekly with additional issues in February, April, June, August, October and December by Future US, Inc., 11 West 42nd Street, 15th Floor, New York, NY 10036-8002. Phone: (703) 852-4600. Fax: (703) 852-4583. Periodicals postage rates are paid at New York, NY and additional mailing offices. POSTMASTER: Send address changes to Radio World, PO Box 1051, Lowell, MA 01853



Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR)
www.futureplc.com

Chief executive Zillah Byng-Thorne
Non-executive chairman Richard Huntingford
Chief financial officer Rachel Addison
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NAB prepares a smooth hand-off

Broadcasting is about to get a new top lobbyist



Paul McLane
Editor in chief

We devote some extra space to our newsmaker interview in this issue so that you have a chance to

get to know Curtis LeGeyt, who will lead the National Association of Broadcasters starting in January when Gordon Smith steps down as president/CEO.

In choosing LeGeyt to lead them, broadcasters opted for a candidate who

has experience both in helping to make policy within the walls of Congress and in lobbying that body from the outside. He is someone whose face is already very familiar on the Hill.

Whereas Smith is a Republican, LeGeyt's career began on the Democratic side of the political aisle; but he seems to be cut from the same cloth as Smith in that he gives the impression of being a skilled, member-focused pragmatist, not a partisan bomb thrower, despite Washington's predilection for the latter lately.

He worked his way up the NAB command chain over 10 years by being an effective advocate, then became chief operating officer, so he already knows both the issues that matter to U.S. commercial broadcasters, as well as how the association works internally. He'll need very little on-the-job training.

Which is a good thing, because this is a challenging time. The pandemic kept radio listeners out of their cars, it forced broadcasters from their studios and it cut deeply into radio's ad revenue. Competing digital media continue to proliferate, especially audio platforms that are fighting radio for every ad dollar and every set of ears.

Meanwhile NAB saw its annual moneymaker, the NAB Show, yanked out from under it in 2020. We'll find out in three months how the 2021 version does, but no one I know is expecting 90,000 people to descend on Las Vegas this fall. I imagine it will take a while for NAB and the rest of our industry to learn what the post-pandemic convention cycle looks like. But the manner in which the association resumes — or reinvents — its physical or hybrid events will be another way people judge success for Curtis LeGeyt.

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FCC Adopts Alerting Rule Changes

The commission in June adopted changes to its rules for emergency alerting that we told you about earlier.

For mobile phones, the FCC doesn't want people to opt out of receiving critical information, so it combined the "Presidential Alerts" category, which is non-optional on devices that receive Wireless Emergency Alerts, with alerts from the FEMA administrator to create a new non-optional alert class called "National Alerts."

On the EAS front, the commission is requiring State Emergency Communications Committees to meet at least annually and submit plans for FCC approval. Also it is encouraging states to review the composition and governance of their SECCs (or to form one, if it doesn't exist).

The FCC plans to provide a checklist of information that should be included in annual state EAS plans, and will tighten up its process for reviewing those plans.

The order specifies that government agencies may report false emergency alerts to the FCC's 24/7 Operations Center. And it clarifies how alert originators can repeat their alert transmissions.

The next national EAS test is scheduled for August. 

NAB Reiterates Opposition to LP-250


Proponents can point to hundreds of comments in favor of raising the maximum power level for many LPFM stations to 250 watts. But the NAB continues to express strong opposition.



The FCC took comments on a proposal from REC Networks for an LP-250 class with an effective service contour of about 4-1/2 miles, in addition to the current LP-100 service. It also would set a maximum HAAT for new or modified LP-100 facilities of about 1,480 feet.

The commission modified its low-power FM rules in 2020 to allow for engineering improvements that improved reception of some LPFMs and opened up options for station relocation. At that time it rejected a bid to allow 250 watts, and a recent FCC decision affirmed that order.

REC Networks in the meantime submitted a fresh proposal that it believes resolves the FCC's earlier concerns. The vast majority of filed comments favored an increase, citing the benefit to local communities.

However, NAB said it is similar to petitions that have already been rejected on technical and policy grounds. It says the idea would risk significant overcrowding of the congested FM band, cause increased interference and take LPFM beyond its original intention as a hyperlocal service. 

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LeGeyt brings Hill savvy to his new role

"I am in it because of the belief I have in the value of this industry"

Writer

Paul
McLane
Editor in Chief
Radio World

W

hen Gordon Smith drops the mic at the end of December, Curtis LeGeyt will be there to pick it up.

The chief operating officer of the National Association of Broadcasters will assume the role of president and CEO on Jan. 1, 2022. Smith will transition to an "advisory and advocacy role."

LeGeyt — pronounced "LUH-jet" — is an experienced lobbyist with a background in Democratic politics; but he has been with the NAB since 2011, including five years as executive VP of government relations, a key lobbying post at the association.

Radio World Editor in Chief Paul McLane interviewed LeGeyt in June via video conference.



Define the purpose of the NAB, its central mission.

Curtis LeGeyt: More than anything, our mission is to ensure that our members, both radio and television, can continue to serve communities across this country with a vibrant but viable means of communication, with locally focused content, in a time of tremendous media disruption.

For broadcast radio in particular, the competitive threats — between streaming, what's going on in the dashboard, what's going on with smart speakers — have never been more pronounced. But radio, it has been demonstrated throughout the pandemic, has never been more important.

NAB is ensuring that that medium is going to be able to continue to thrive amidst all of this disruption in the marketplace and also, frankly, disruption in Washington.



Leaders of NAB have had their public personas — Eddie Fritts, the classic effective lobbyist;

David Rehr, who was "elbows and knees" in Washington. Gordon Smith is known as a pragmatist — "working quietly behind the scenes" would be his public persona. What can we expect from you?

LeGeyt: I think the public persona is very much one of continuing that leadership style that has been a hallmark of Gordon's success.



We going to know the issues that matter to our membership better than anyone else. We are going to continue to stay on the ground, get outside of Washington and ensure that we understand how what's happening in Washington is impacting our radio members' businesses — ensuring that we're not fighting yesterday's fights tomorrow but we've got our pulse on what's going on in the industry.

My leadership style is one of inclusiveness, wanting to hear opposing viewpoints, wanting to get a sense of what matters — in terms of our advocacy, our focus in our technology initiatives, our programming. Laying out a transparent game plan as to what we view as the industry's challenges and how we're going to execute on real-world solutions.

RW **Is it a coincidence that the Republican is leaving the job, and a Democrat — you having come up with Patrick Leahy and working on the Obama campaign years ago — how important is it that the new U.S. president is a Democrat and the leader at NAB is a Democrat?**

LeGeyt: I don't think it's that important. What I mean is, we are a bipartisan organization in our DNA. We work with members on both sides of the aisle.

About LeGeyt

Curtis LeGeyt received his J.D. from Cornell University Law School and his B.A. in quantitative economics from Providence College. He began his career as a management consultant for Putnam Associates and worked on the staff of the 2008 Obama For America presidential campaign.

He is a former associate at Howrey LLP, a law firm in Washington, where he worked on antitrust litigation and merger reviews.

Before NAB, LeGeyt was senior counsel to then-Senate Judiciary Chairman Patrick Leahy of Vermont, advising Leahy and the committee on intellectual property, antitrust and First Amendment issues.

As chief operating officer of NAB, LeGeyt is involved in all aspects of the association's work. He was executive vice president of government relations before being named to his current position in 2020. He is also general counsel for the NAB Leadership Foundation.

NAB said that during his tenure he has led successful efforts including permanent reauthorization of the Satellite Television Extension and Localism Act Reauthorization, inclusion of \$1 billion in RAY BAUM's Act to reimburse stations affected by the spectrum auction repack, and successful passage of the Music Modernization Act.

LeGeyt is on the boards of Tracy's Kids, a nonprofit helping children with cancer, and Musicians On Call, an organization that uses music to help at children's hospitals and elsewhere. He is an alum of Leadership Music, a Nashville-based program that fosters community and collaboration among music industry leaders.

He lives in Alexandria, Va., with his wife Kacey and their three children.

We rely on those members of Congress who, because of their experience in their home districts, understand the importance of local radio.

On any number of the legislative initiatives where we've been successful over the course of the last few years — whether it was COVID-19 enhanced relief for local broadcasters, the performance tax, beating back a change in the business advertising deduction on Capitol Hill — we have been successful because we've had bipartisan support from both the Chuck Schumers of the world and the Mitch McConnells of the world.

The hallmark is the ability to work across the aisle. Gordon certainly had that when he was in the Senate, and he carried over that skill set.

And if you can't stop something, you're going to want to shape it; and in order to shape it, you're going to need to work with legislators. That's a bipartisan approach that we take at NAB.

We've got champions on both sides of the aisle, because there are local broadcasters that both Republicans and Democrats want to fight for.

RW **And yet the Hill has never been so bifurcated, at least from a public perception, everybody yelling at everybody else. You've worked there as a lawyer and a lobbyist, you've seen it up close. So how do you get anything done?**

LeGeyt: That is the real challenge for us right now.

We did our annual fly-in — where we normally get 500 local radio and television station GMs in town — we did it virtually this year because of COVID. That was a big theme as we prepared our members for meetings on Capitol Hill: to not get caught up in the divisiveness. It's so easy to get swept up in the politics and everything that's going on up there.

There's no question it is a very, very divided landscape. But for us, the issues our industry needs help on are too important to get caught up in that partisanship. We're going to need champions on both sides of the aisle.

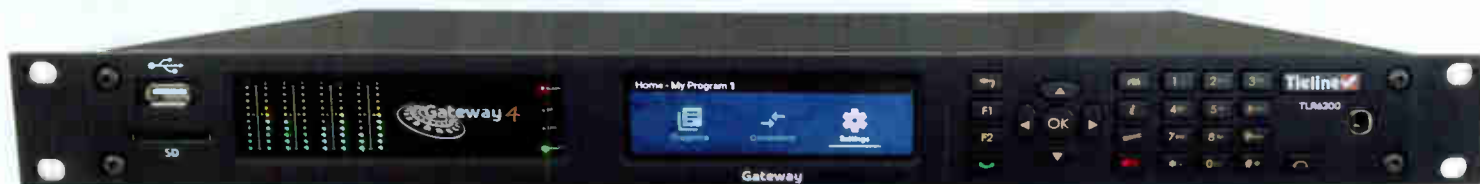
So we're reminding folks of the role that local radio is playing. "Hey, businesses were closing, schools were closing; where were these members' constituents relying when they needed up-to-the-minute information on how they were going to navigate through this pandemic?"

It was local radio. Vaccine education. "Where am I going? What are the safety concerns?"

There's all this distrust right now of the social media platforms, of the very politicized cable news outlets. Where can you rely? It's local radio.

Yeah, you've got to frame it a little bit differently depending on whether you're talking to a Democrat or a Republican, there's obvious reasons for that; but I think once you get below the surface, that core understanding of the trust communities have in radio is bipartisan.

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RW Looking at NAB's goals on the Hill, what are you advocating for or working on next?

LeGeyt: Our focus is on ensuring that this industry can reemerge from this pandemic as strong, if not stronger, than going in.

[Also] there's so much focus right now on Capitol Hill on the role of the tech platforms in undermining public trust, the degree of power that these platforms have as gatekeepers to every type of media. That's very important for local radio.

When you think about how radio is being accessed — whether it's through streaming platforms on the dashboard, smart speakers, online — these platforms have major gatekeeping roles. [Given] all the content that our members are investing in that sits alongside their traditional streams, our success is at the behest of these platforms.

Members of Congress understand that. There's a concerted effort to do something, especially as it relates to local journalism and local news. I would pay attention to the conversation that's taking place in the House Judiciary Committee, the Journalism Competition and Preservation Act in particular, where there's a real focus on ensuring that local media can compete on a level playing field, negotiate on a level playing field for fair terms when our programming is being used. We want to ensure that policymakers understand that radio is a part of this conversation.

The second piece is that we need to ensure radio doesn't end up saddled with new costs as a result of some action that Congress or the FCC takes. This is not the moment for increased costs of doing the same business.

I do think you're going to see a reinvigoration around the performance tax discussion.

We've already seen that MusicFIRST, the record labels' advocacy machine, has hired a new spokesperson, a former member of Democratic congressional leadership, Joe Crawley, to spearhead their efforts this Congress. It puts the onus on us to ensure that the support we have in opposing any new royalty on local broadcasters continues to be affirmed through support of the Local Radio Freedom Act in a way that says to the House Judiciary Committee, "Yes, the other side is invigorated in their advocacy; but there's such a disproportionate amount of support for local radio in this fight, it's not something you ought to use bandwidth on."

The third is again to the costs element. [With] everything that is happening in localities around the country with regard to local ad taxes, in Washington

there's going to be, I think, a real focus on how you generate funds to pay for what President Biden and Congress want to do on infrastructure.

We've got to ensure that there are no changes to the advertising deduction or any new ad taxes that are going to disincentive businesses from advertising on local radio.

RW Broadcasters obviously had a lot of interest in what the Supreme Court did in the Prometheus/FCC case. What are your thoughts about the impact in the marketplace now that the rule change has been upheld?

LeGeyt: I think clarity is important here. For the last 20 years we've been living in this seesaw — an FCC that goes in one direction, and the Third Circuit throws its decision back in its face.

Having certainty as to the rules of the road for local radio ownership will probably lead to some additional scale in

certain markets in a way that I think is just necessary in this time and place to compete with these tech platforms that have unbridled ability to offer both a nationwide and also a very locally focused advertising product.

I think it will have some impact there. I also think, though, that the certainty will help lead to more investment in localism.

RW You think we'll see the FCC lift those ownership subcaps per market?

LeGeyt: I hope so, because for certain of our members, it is needed.

The competitive landscape is so different now than it was two decades ago. The idea that the type of scale we're asking for would even give regulators pause relative to what's

happening with our tech competitors — it just seems very antiquated.

At the same time, we need to be cognizant that in a Democratic FCC, even those commissioners who over the years have been very supportive of local broadcasting have had significant pause when it comes to consolidation and what that might mean for our ability to serve our communities.

There's a different philosophical underpinning, but that's a conversation we're going to continue to have at the FCC.

RW What is your read on how the acting chairwoman is doing in that role?

LeGeyt: I think she's doing very well in that role. One thing you're seeing from her is finding those areas where she can get unanimity and support from the Republican commissioners, and acting on them. That is a wise

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approach that is buoyed by her years of experience at the FCC and understanding how to get things done.

And the fact that in a 2-2 commission, she has been able to advance as many measures as she has — at a time and place where the American people really need the FCC to work for them — speaks very well to her political instincts.

RW You mentioned localism. Now that there's no main studio rule, and now that companies have the ability to do so much in the cloud, we see regionalization and centralization among bigger broadcast groups, leading to less of a physical footprint in markets. Doesn't that go against localism?

LeGeyst: I think it's all dependent on the content. I would not measure a particular station's commitment to a particular community based on any sort of physical question.

“On any number of the legislative initiatives where we've been successful ... we've had bipartisan support from both the Chuck Schumers of the world and the Mitch McConnells of the world.”

The fact that I'm sitting in my home right now rather than being at the NAB office where I was yesterday, am I any more or less committed to the NAB? No, I'm not.

Technology has enabled me to do my job very well and to lead our organization very well remotely. I'm cognizant of the fact that those same concepts apply to local radio. Our members will be judged by how well they serve their audiences with locally focused programming, particularly at moments when communities rely on radio the most.

We will see who stands out in that environment, but I'll be very surprised if physical presence has a lot to do with it.

RW I imagine that your Radio Board meetings were interesting over the last year. Is it, "Oh my God, this has been

the worst year in recent memory for our businesses, just do anything you can to help us." Is it that kind of a vibe?

LeGeyst: What I've been so impressed by with our radio members is a recognition that yes, the industry has been disrupted by the pandemic, but there are other industries that have been disrupted a heck of a lot more. Their focus is, "How can we serve our communities and help them build out on the other side of this?"

I've been awed that, at a time where our industry has been under the most financial stress, we've actually done our best work.

The trust that communities are [putting] in local radio stations, especially in rural areas, is tremendous. The resources that our stations are putting into boots on the ground, local coverage, ensuring that their personalities are out in the community, is unparalleled. And they're doing that at a time when it's more difficult to afford those things.

Our members' focus is on the community service and letting the finances build from there — [there's] confidence that if they can maintain that trust as a lifeline through the pandemic, it is going to pay off in terms of the service to their audience, the audience commitment.

RW There's been a proposal to allow FM broadcasters to use boosters to do super-localized geo-targeted content. The NAB came out pretty strongly against that. What would it take for the NAB to have a different opinion?

LeGeyst: Well, without getting into that specific issue, what we are cognizant of is ensuring that those members who are investing in the FM band have the ability to reach their audiences unencumbered.

We're open to any proposal that is going to allow for better service options and allow our members the ability to be more creative, more innovative. But if the consequence of that is going to be more congestion, more interference on the band in a way that is picking winners and losers, it is going to give us pause.

I'm not weighing in on that specific issue. We're taking a lot of guidance from our members on that; but I think top of mind as we look at a lot of these issues around boosters and translators is: How do we ensure that we're innovating for our members, and supporting proposals that will allow them to do more hyper-localized things, without the unintended consequence of more interference for current programming?

RW The association took a real financial hit when you weren't able to have in-person events, and you had a special assessment for members. There's a physical show coming back in the fall, but have you recovered from the revenue stream being stopped there for a while?

LeGeyst: We feel really positive about where the association is right now, but that is in large part to the trust and the

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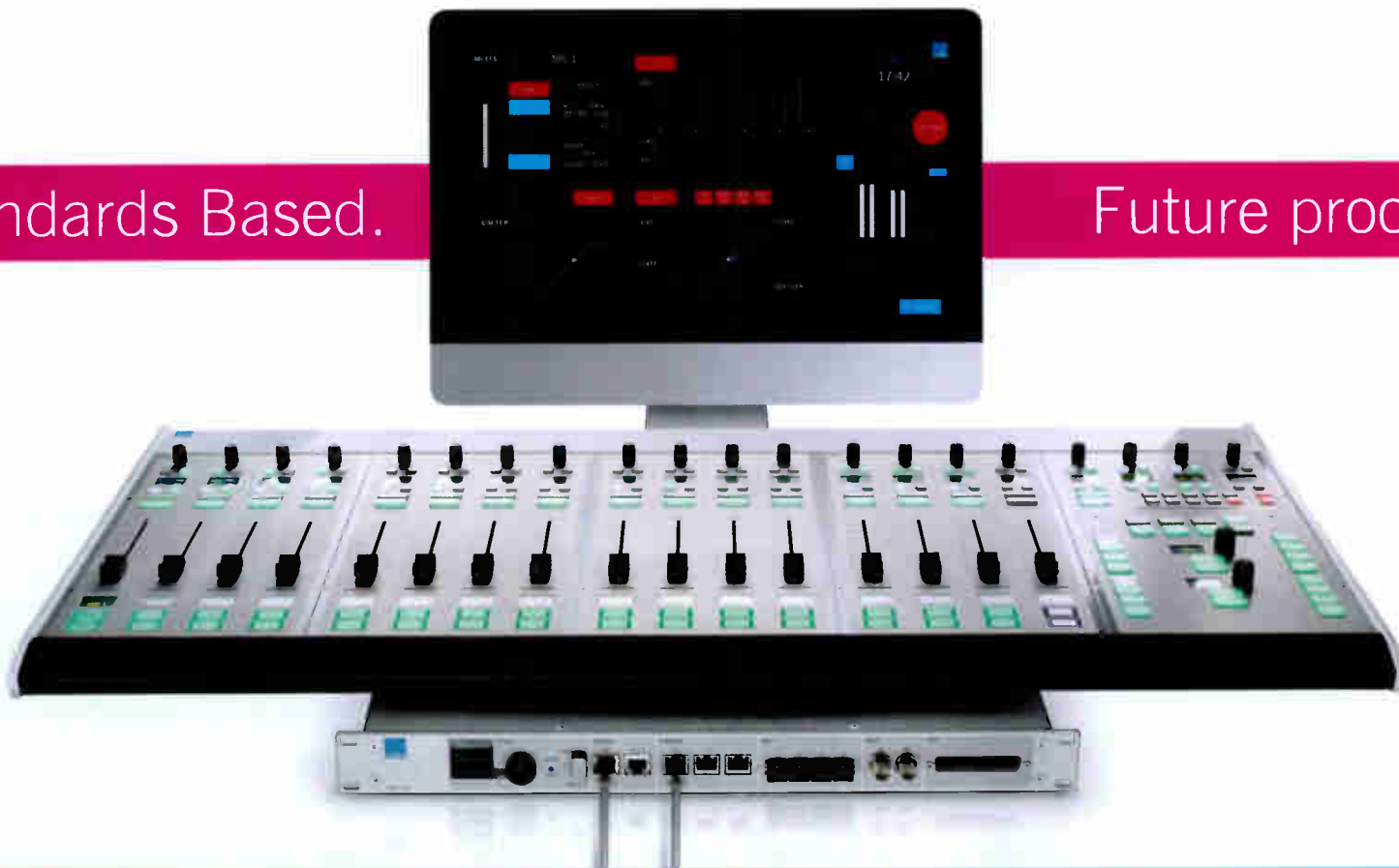
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importance that our members and our board placed in us, in supporting an assessment.

What we attempted to demonstrate to our members was the value of what we provide as a trade association — as it relates to advocacy, to technological innovations for the industry, to our programming — and to ask the question, “At what level would you like us to continue to do this as we manage through this pandemic and a road back to physical trade shows?”

The decision was that they wanted our association operating at the highest level. And an assessment helped to ensure we could stay there.

The NAB managed through that. We had to make tough decisions internally on our own to meet our membership halfway.

We certainly understood how difficult a time it was to go to our members and ask for financial help, humbled by the fact that many of them wanted to provide that but also cognizant that we needed to do everything within our own power to manage through and be responsible financially as well.

Now we’re on the upside. We’re really optimistic as to what this NAB Show is going to look like in October. It could not be better timed in terms of the demand that we’re feeling from our exhibitors to be back in person and to go and do some face-to-face commerce from attendees.

We are pacing very strongly several months out from the show. And then we’ll build right on top of that to a second show in April of next year. So we’re optimistic about where we go from here.

RW **And life at NAB headquarters? You’ve got a new building that most people haven’t seen, are people going in? Are you going in?**

LeGeyt: I have been going in regularly, a couple of times a week at a minimum, and over the last month with even more frequency. That’s what we’re seeing from our staff as well.

We recognize that people have childcare obligations, that there are still health care concerns, so we have a flexible arrangement that those who want to avail themselves to the benefits of the new building are able to do it. But we’ve also been very successful in working remotely, so we want to continue to give our employees the opportunity to do that.

Then we will continue to scale up and by the fall have the opportunity to showcase this new building externally.

RW **Our readers are interested in technology initiatives of NAB PILOT, which has been paying a**

“ **What we are cognizant of is ensuring that those members who are investing in the FM band have the ability to reach their audiences unencumbered.** ”

lot of attention to radio in the context of the evolving car dashboard. Thoughts about where radio is going in terms of maintaining a foothold there?

LeGeyt: I don’t know that there’s a more existential question for radio than the one that you just posed. That’s something that guides our work, both on the technology front, in terms of how we can be a leader to ensure that the industry is best positioned to appeal to consumers through the dashboard, and to ensure that the automakers understand our value proposition.

We are spending a lot of time ensuring that we’ve got a centralized voice in articulating the unique benefits of terrestrial radio in the dash. Advocacy, the same guideposts.

Think about the importance of the performance tax issue, of ensuring that we’ve got streaming royalties

that are affordable for local stations, that allow for innovations for them to compete in the dash in a different way. We’re thinking about members of Congress, affirming the importance of local radio relative to other platforms. That’s guiding everything we’re doing on the business front.

A huge piece of our advocacy is ensuring that we’re putting our best foot forward in terms of radio’s place in the dash.

RW **Is there anything else you would like radio people to know about your views on radio or where the industry is going?**

LeGeyt: The most important thing I’d like your readers to know is

that I started at the NAB 10 years ago as a copyright lawyer and an antitrust lawyer who had advocacy experience in Capitol Hill and was very compelled by the substance of the issues. I’ve grown into someone who is compelled by the importance of the industry and the business.

Those business owners who are familiar with me know the degree to which I have dug into getting to know local station owners and understand and push an agenda that is going to allow for their ability to innovate, while preserving their ability to maintain a terrestrial signal that’s unique in this media landscape because it’s local and it’s free.

I am in it because of the belief I have in the value of this industry. It has just been demonstrated doubly over the course of the events of the last year. I’m someone who’s not new to any of this, and look forward and am very proud to lead the industry. **RW**

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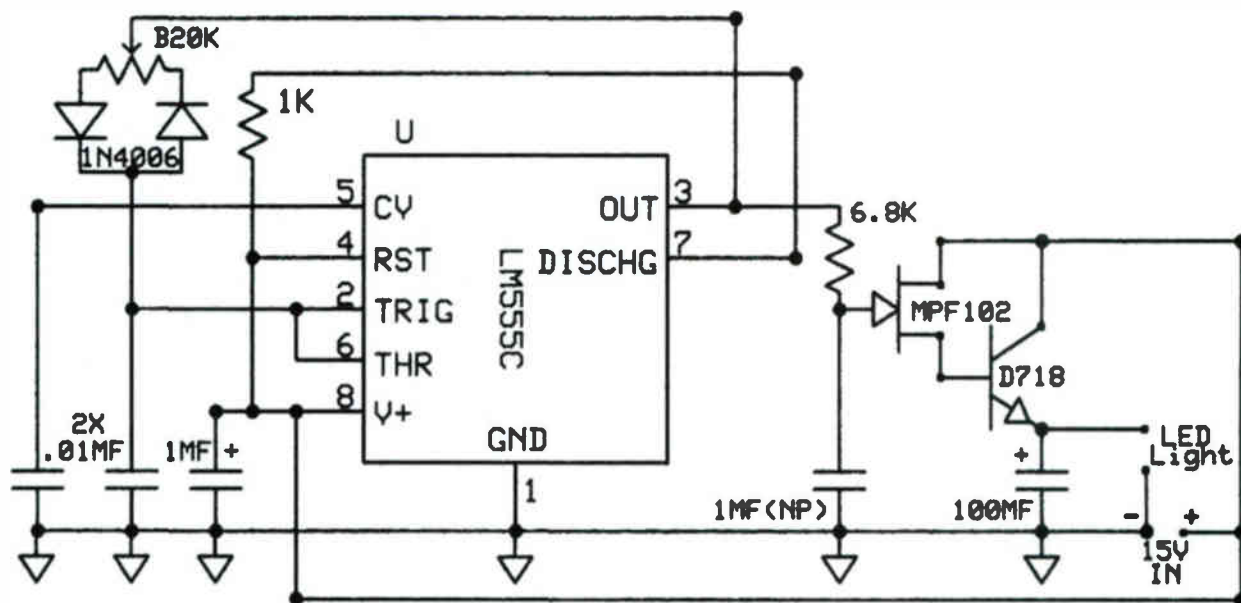
World Radio History



John Bisset

CPBE

Fifty years in the broadcasting industry and 31 years of 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.



Capacitors damp square wave output

Frank Hertel follows up on a question about his LED dimmer project



Your ideas

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

Rob Atkinson, KSUJ, is an engineer out of Saint Charles, Ill., and one of the many readers who enjoy the DIY projects we feature from time to time in Workbench.

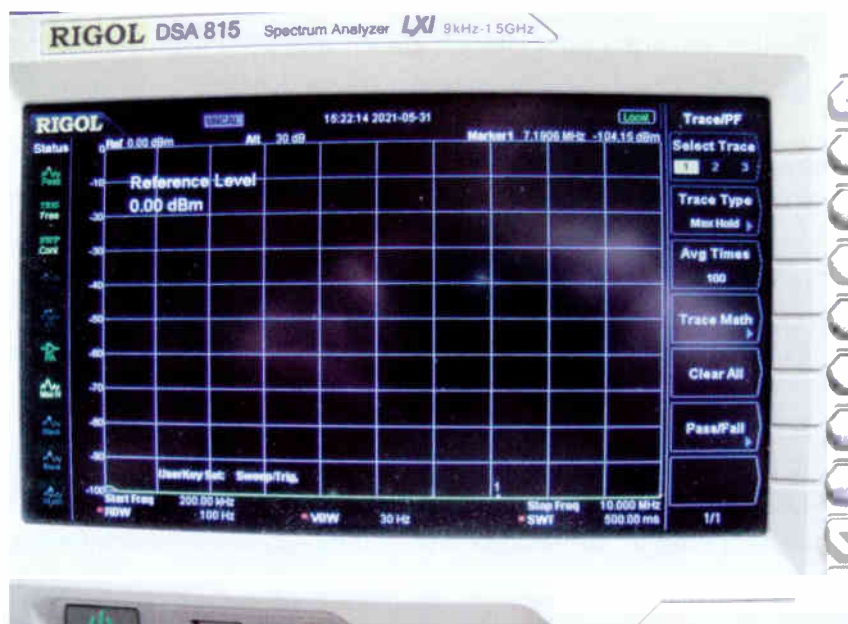
He writes in to say that he admires Frank Hertel's ingenuity in

home-brewing the LED dimmer circuit that we told you about in the May 26 issue (accessible at radioworld.com/digital-editions). However, as a ham Rob is concerned about the RFI that variable square waves cause and that there was no mention of RFI mitigation measures in Frank's submission.

Rob points out that any kind of control circuit based on square waves can be a terrible spectrum polluter, especially if the leads to the device being controlled are long and unshielded. His concern is that these ideas often end up on the internet, where they are repurposed by unsuspecting

shortwave or medium-wave hobbyists.

Frank Hertel responded: "Since hams sometimes work with receiving weak signals" — which, by the way, Frank does when measuring distant AM and FM signals — "I can relate to Mr. Atkinson's concerns."



Top
The dimmer circuit schematic showing the filtering capacitors.

Right
A spectral picture at 0.00% illumination.

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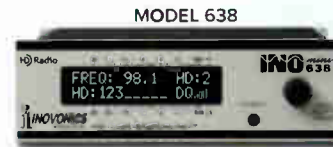
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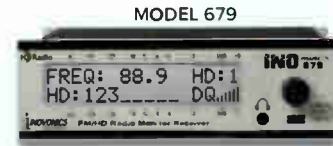
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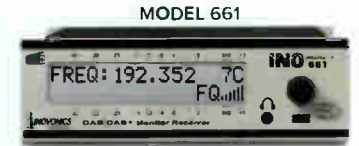
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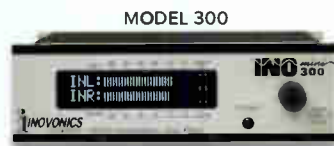
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World Radio History

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**BLADE-4
COMPATIBLE**

Top
The 'scope showing 0.00% illumination.

Middle
The output at 20% illumination. Note the non-symmetrical sine wave, shaped by the filter caps.

Bottom
The 'scope measurement at 70% illumination.

Frank says Rob is right. See the dimmer schematic above. The 555 Timer IC does produce a fairly square wave output, so filtering is important. However, the 6.8 K resistor that is in a series with the 555's output to the MPF102 mosfet's gate is bypassed to ground with a 1 MFD (non-polarized) capacitor and does a pretty good job of turning the square wave into a semi-sine wave (non-symmetrical shaping).

Finally, an additional damping filter capacitor, the 100 MFD capacitor at the D718 emitter to ground that connects to the LED light fixture, does a bit more filtering.

Frank realizes that he could have fabricated a more sophisticated output filter network, but he found that any emissions from the dimmer circuit were consistent with the emissions of commercial dimmers and commercial dimmable LED lamps, so that is where he decided to leave it, as you see in the schematic.

In these scope photos and spectrum analyzer shots, the probe is connected across the 555 output/LED fixture at different LED intensities.

The enemy of LEDs

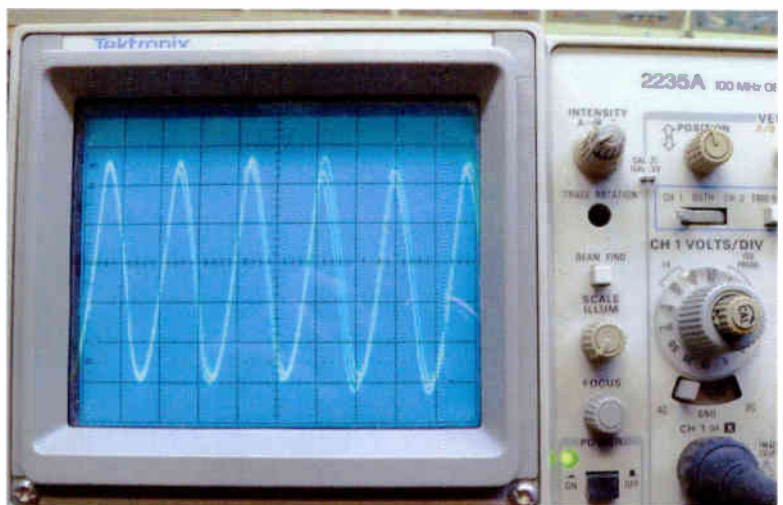
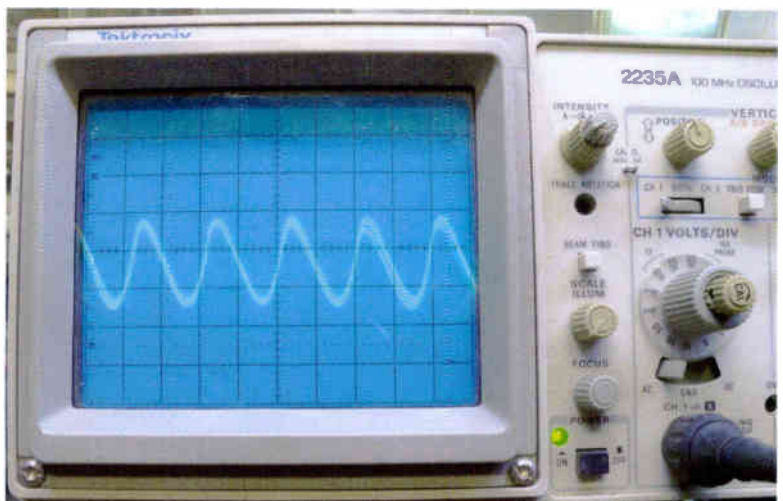
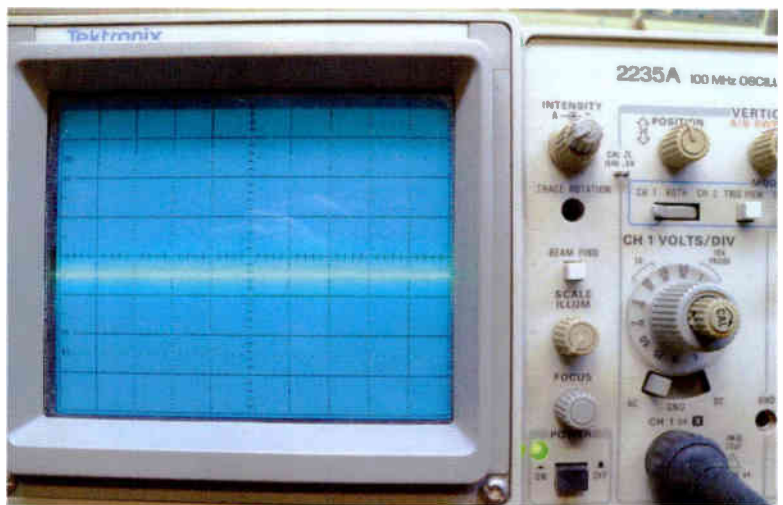
San Francisco contract and project engineer Bill Ruck found Frank's dimmer circuit interesting, but even more so in the super-flexible silicone wire used. At Amazon.com, type "B07K9R9LBV" in the search field to find this 22-awg silicone electrical wire. Frank used 22 gauge but other gauges are available.

Bill inquired because most of the "zip" red/black cables that he has seen are relatively stiff. He points out that most LED fixtures have a built-in regulated current switching supply. If the fixture just had a current limiting resistor, it would dim gradually.

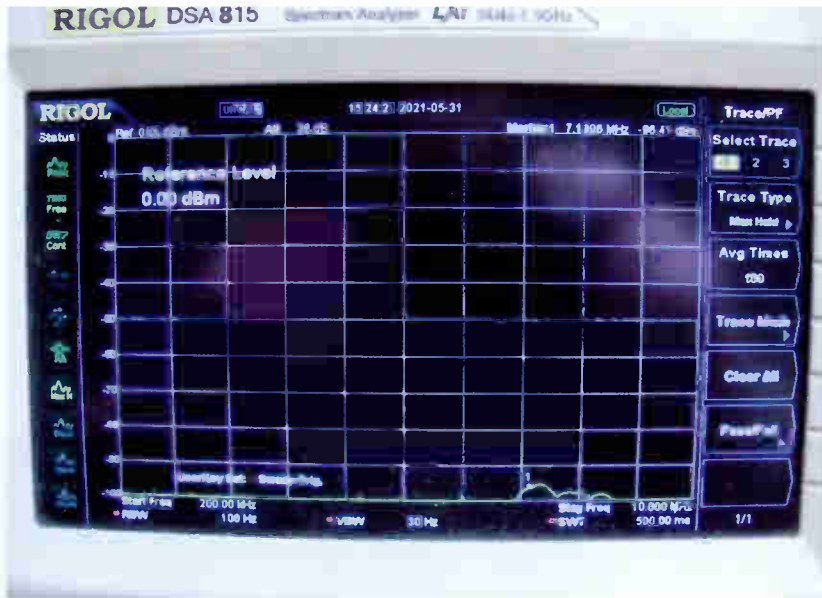
Bill related a personal experience in which he replaced his circular kitchen "dome" fixture with LEDs. It has been his experience that round "Circline" bulbs don't seem to have the lifespan of LED equivalents, so Bill bought a "2600 Lumen 30W Super Bright Cool White

LED" from MJPA (Item #31327 OP at mjpa.com) with the appropriate power supply. He then used the fixture can to build a LED-based lamp.

The lamp worked great for about six months, then failed. This time, he spaced the LED assembly below



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Left
The spectrum at 100% illumination.



Right
Here's the super-flexible silicone wire that Frank Hertel used.

the ceiling with an extension box. This, too, failed in time. The repair saw Bill adding heat sinks around the LEDs.

The moral to the story? Heat is the enemy of long-life LEDs! Next time, Bill will rebuild the fixture and put the heat sinks on the outside of the can to better dissipate the heat. 

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KFM takes leap of faith with virtual mixing

We wanted the ability to “do radio” without a “physical radio station”

Writer
Curtis
Belcher
President
of the KFM
Network



More info

Cam Eicher
at The Telos
Alliance at
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7225 or www.telosalliance.com.

from any remote location.

Remote control of on-air programming has been around a long time, so that was no issue. Remote operation of control room mixers has been around a little while, and remained an option. But to truly give full control of the entire radio station (and network) to all our on-air staff consecutively narrowed things down to only a few options.

We wanted the ability to “do radio” without a “physical radio station.”

One of them was a clear winner. We took the leap and ordered the Axia iQs virtual mixing console. In a nutshell, the iQs is a 1RU computer that is routed to a central switch. It utilizes as many xNode Livewire digital network interface units that you may require, each capable of four inputs and four outputs of digital or analog audio signals along with

Over the last 24 years our little local radio station grew from serving a single city to having a network of 13 radio stations with studios in five cities.

Whether we were doing a live remote down at a local car dealership or trying to air live content from another city, it always involved having an operator in a local studio monitor levels and turn channels on or off on the board.

Then COVID hit, and addressing concerns that had lingered for a very long time became urgent. Fortunately, we had been researching options that would afford multiple personnel the flexibility to monitor, operate and execute full control of the network



GPIO options all routed to the switch.

Once set up, you have a virtual mixer that you can operate from a touchscreen monitor in a traditional radio studio, or from a laptop in your house, or from a cellphone on your boat. At your disposal are all of the capabilities of a large-scale studio (or network of studios), and you are able to configure and control them from anywhere.

The xNodes have a proven track record of reliability, but having a small one-rack unit replace a four-foot radio console with 300 wires attached to it was a bit of a stretch. And to think that the only cable attached to this “virtual console” was a single about the width of a straw.

Removing the miles of cables running to our studio and replacing a \$20,000 18-fader digital console with a touchscreen monitor took a little faith.

We anticipated a steep learning curve and were prepared to spend a month converting our main studio, four sister studios and 13 broadcast locations. But the engineers at Telos Alliance have made this system so user-friendly that we were using it within seven days of installation.

Axia has made this system user-definable and expandable. iQs has our staff amazed at its simplicity, our engineer thrilled with its flexibility and our accountant happy as a clam with the price. 🍷

Above
Mixing without a physical mixer. Such practice has become much more popular in the wake of the COVID pandemic.

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Nova Entertainment rebuilds anew in Sydney

Lawo tech package shows the way for facility renovations across Australia

When the 2000-vintage Klotz audio systems at Nova Entertainment Australia came up for replacement, the Technology & Content teams joined forces to design and deliver new spaces that more effectively captured, distributed and monetized content for multiple platforms.

Nova Entertainment operates stations in all major Australian capital cities. Because the Sydney site was the oldest and busiest, it was chosen first. The former system's configurations were rigid by today's standards and custom-designed only for live broadcast radio content. Due to capabilities, some studios went days without use, while others worked round the clock.

In recent years, content like podcasts have emerged as a major contributor to ongoing success as well as the now-inseparable video integration. Inspiration was therefore taken from numerous international TV studios as well as radio. Jago Design in the U.K. was engaged to help develop the initial concepts.

In the end, the technology chosen was Lawo Ruby consoles and Power Core IP audio I/O and DSP nodes, Arista switches, Lawo VisTool and VSM, Riedel's MediorNet video router, the Riedel Artist comms system, Philips Commercial Displays, Scala digital signage players, and Panasonic PTZ cameras.

The Lawo ecosystem was chosen for its suite of relevant products under the one roof. As well as that, the Power Core, the building block of the system, was at an exciting point in its development and unrivalled for density and customization.

To maximize studio utilization and flexibility, each new space is designed as a blank canvas. Functionality is defined by settings saved in user snapshots, accessible by swiping an RFID building access card. Different scenarios are recalled in seconds. Control for audio, video, signage, lighting, KVM and more is through a single Lawo VisTool touch interface. When not in use, all settings are cleared and studios are turned off. When automated or network content is playing out, studios are bypassed.

System control is shared between Lawo's VisTool, VSM and Line Scheduler systems. Studio touchscreen interfaces and user snapshot database management are handled by VisTool.

Writer
John Pearce

Senior Solutions Architect, Nova Entertainment



More info

Jochen Richter in the U.S. at 1-888-810-4468 or for international queries +49-7222-1002-0 or visit www.lawo.com.



VSM glues the discrete components of the system together, and Line Scheduler performs clever tricks to stitch studios together, as well as managing resources like codecs and interstate audio and video tielines.

The power of the integration between VisTool and VSM is put to good use, cross points controlled by VSM are visible to VisTool and able to be stored in user snapshots. This allows user snapshots to store settings for systems well outside its normal scope.

Now that Sydney is complete, the focus has shifted to other sites in the NOVA Entertainment network. Once rolled-out further, the technology will connect sites together like never before with audio, video, intercom and control.

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Writer
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Wheatstone tools facilitate streamlining

Great Eastern Radio had to move quickly last March

What a difference a year makes.

Before COVID-19, the ideal console was one that could fit every conceivable studio permutation from here to the next decade. In fact, that's what we got when we purchased the Wheatstone D75 consoles and TDM router system for Great Eastern Radio's regional studios in West Lebanon, N.H.

That worked until last March, when we sent our staff home and discovered that we didn't need all the studio space we thought we did. We decided to rent out half of our three-story facility to a bank and consolidate studios for eight stations into a little over a floor.

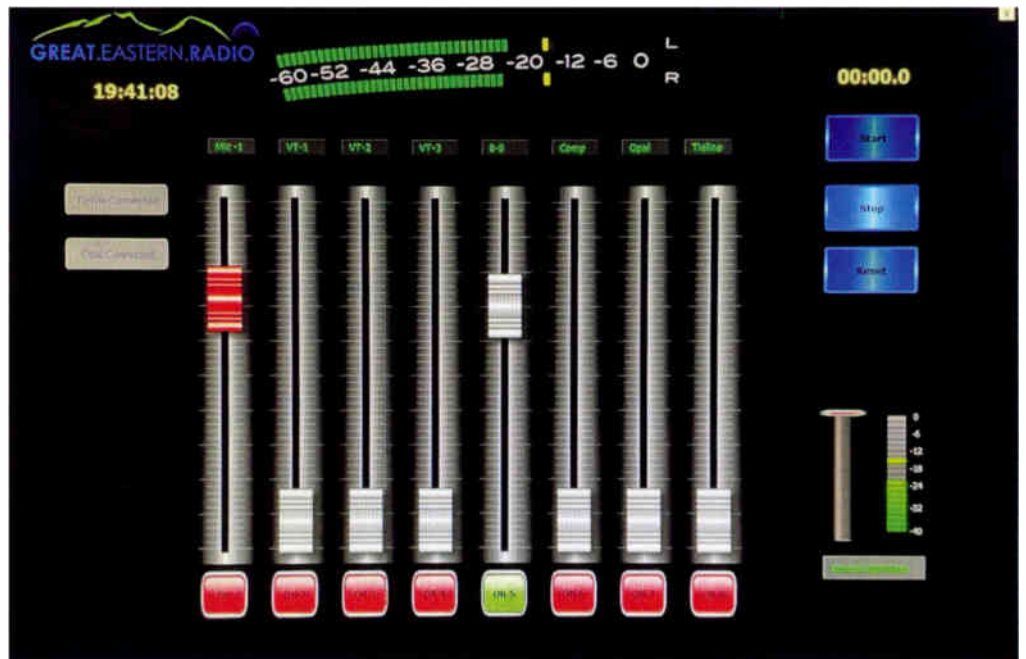
I had 30 days to move six studios into half the space.

Custom interfaces

Those big, capable D75s had to go, along with miles and hundreds of pounds of wiring, which would be replaced by one Cat-5 cable.

I have been buying WheatNet-IP I/O Blades one or two at a time over the years to manage HD Radio audio, figuring the TDM router would eventually be replaced by WheatNet-IP audio networking. I already had one foot firmly in the IP world, so it was a simple matter of adding to that world with an IP-12 console for the main studio.

The IP-12 is a nice entry-level IP audio console that takes up a lot less space than the D75, but because it is self-contained, it has a similar feel as the D75.



I ordered the IP-12, plugged it into my existing Blades, and an AoIP studio was born. For talent, the change was minimal, which was great, because I had some big changes in store for the rest of the move.

Due to COVID it had become increasingly evident that talent could do a lot from home, but at times they still needed to be able to voicetrack or produce a show in an acoustically treated room with all the right mixing and processing tools.

So we purchased 4 x 8-foot WhisperRoom with a small dropdown table where our talent could park their laptops or tablets, plug into the WheatNet-IP through an Ethernet connection and call up sources and route audio and processing from a virtual mixer on their laptops that I created using ScreenBuilder.

The idea of setting up "glass" consoles in Whisper Rooms was

partially borne out of the necessity to save space and partly because these could serve a real need. Wheatstone's ScreenBuilder made making a custom "glass" console with a touchscreen interface fast and easy.

ScreenBuilder is an app for building your own interfaces into WheatNet-IP. In my case, I was able to drop and drag metering, faders and buttons onto a screen and script them to tie into the elements in the studio.

For example, I tied in virtual tallies to the Comrex Opal codec gateways in the main studio/rack room so that when a guest joins a show remotely, our talent will be able to see that he's connected.

Most of the scripting was done using ScreenBuilder's Wizard although I did create a few lines of code myself and "borrow" a few lines from a Wheatstone integrator (thanks, Danny Teunissen) for a few minor customizations. 🎯

More info
Jay Tyler at
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North Carolina
at 1-252-
638-7000 or
visit www.wheatstone.com.

Tech Update

New Distribution Amplifier From Broadcast Tools

Broadcast Tools says its latest distribution amplifier, the 2x16 DA/RJ, makes analog audio distribution easier.

The 2x16 DA/RJ has a stereo line-level high-Z input, which accepts either a balanced (+4 dBu) or an unbalanced (-10 dBV) audio source, eliminating the need for external audio input level conversion. An RJ-45 audio input jack is used for balanced sources, and RCA audio input jacks are used for unbalanced sources.

The 2x16 DA/RJ features eight RJ45 audio output jacks for plug-and-play wiring using Cat-5/ Cat-6 cabling. The 2x16 DA/RJ's outputs can be configured for stereo (2x8) or monaural (1x16) operation. Each output pair is independently configurable via internal jumpers. Sixteen front-panel 12-turn adjustment trimmers provide level control for each output channel. A surge-protected universal switching desktop power supply with an IEC AC inlet is included. Up to three units may be mounted on the optional Broadcast Tools "RA-1" 1RU rack shelf.

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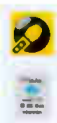
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Tech Update

Vibez.Live Likes User-Friendly Calrec Type R

Calrec's AoIP-based Type R for Radio system is in use at Vibez.Live in South Africa. The retro internet station was launched by John Badenhorst and Valerie Jacobs in 2019.

"Having used a variety of older equipment over the first 18 months of our existence, including an analog desk, we knew that we needed to upgrade to keep expanding and to benefit from enhanced capabilities," Badenhorst said.

They chose the Type R on the recommendation of Wild & Marr, Calrec's partner in South Africa. They use a six-fader Type R with dual layer functionality, which provides an extra six faders at the touch of a button. They also added a Type R large soft panel with feature sets preloaded for more control.

"While the Type R core has enough I/O for our current needs, we also purchased a Type R analog I/O box that provides an additional 16 mic/line inputs and six GPIO interfaces," he said. "Being able to add more surfaces on the same core was cost-effective for us."



In U.S., Chris Fichera at Calrec/Group One at 1-310-927-7788; international, Anthony Harrison at Calrec at +44-7832-487565; or visit www.calrec.com.



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Writer
Paul
Stewart
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Group

WJEH goes DARC for remote control of AoIP

Summit Technology integrates Arrakis Line for West Virginia Station



More info
Ben Palmer
at Arrakis
Systems at
1-970-461-
0730 or visit
www.arrakis-systems.com.

When deciding to modernize, WJEH(FM) owner Tom Susman found himself faced with a litany of powerful and versatile AoIP options.

The Charleston, W.Va.-based broadcaster considered the workflows in place, and the mix of satellite and local programming aired on the station, before deciding upon the Arrakis DARC Surface.


Summit Technology Group was contracted to, among other projects, install the DARC Surface in late May. The setup includes various presets, all recalled with a touchscreen gesture to allow board operators to easily switch between satellite and live assist as well as configure the console for local baseball remotes.

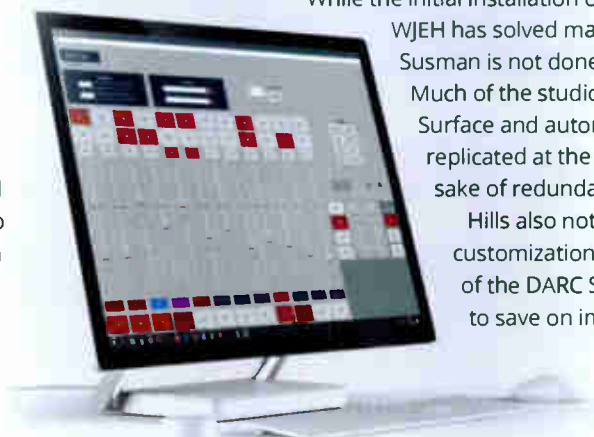
"The ability to control levels and call a preset remotely makes the

DARC Surface an invaluable tool for broadcasters with unattended studios," said Dan Hills, senior broadcast and RF engineer for Summit Technology Group.

"Not only is this good for a remote air staff, but it makes supporting the product a trivial task."

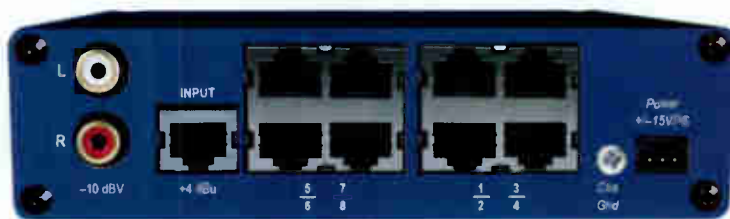
While the initial installation of the DARC Surface at WJEH has solved many workflow challenges, Susman is not done improving the station. Much of the studio gear, including the DARC Surface and automation equipment, will be replicated at the transmitter site for the sake of redundancy.

Hills also notes that the various customization features make installation of the DARC Surface intuitive and helps to save on implementation costs. 



Right
DARC Surface on a
touchscreen.

Plug & Play Distribution



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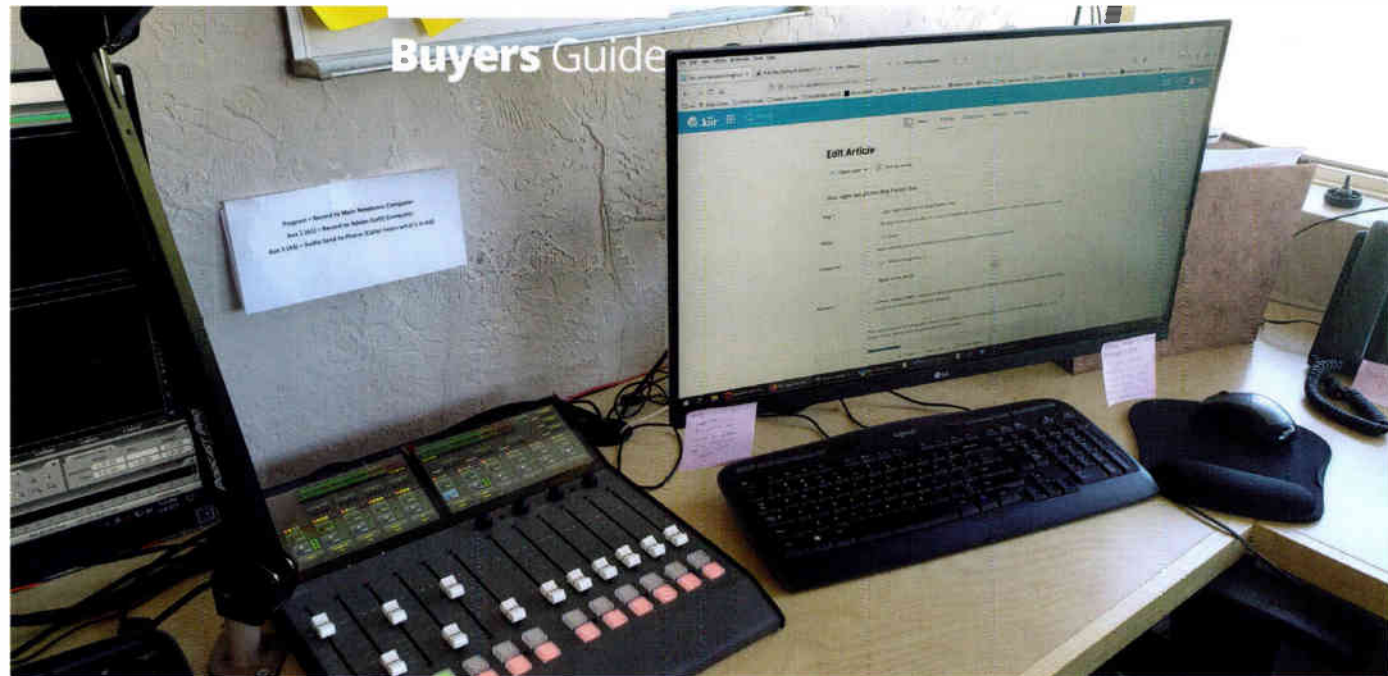


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Houlihan
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 and IT
 Manager,
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More info
 John Davis
 at Logitek
 Electronic
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 Texas at 1-713-
 664-4470 or
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Logitek brings compact AoIP to Alaska broadcaster

mixIT's size and powerful package appeal to Frontier

Frontier Media operates radio centers in Alaska and Texas, and we've had quite a bit of experience with Logitek equipment over the years.

Our move into AoIP operation began when our Texarkana radio center had a lightning strike that took out basically everything in that studio and we needed brand new everything. With that rebuild, we selected Logitek JetStream Minis and Pilot consoles.

After seeing the advantages and possibilities of what that system can do, it had always been in the back of our minds to transition our Juneau stations to a similar setup one day.

That "day" arrived in late 2020 when we bought our first Jet67 and mixIT-12 for a new studio we were building out for a brand-new station in the Juneau center.

We completed that installation in January 2021. A couple months later we began working on a renovation of our Juneau newsroom.

Since we'd already gotten one Jet67-mixIT

combination, we figured we'd keep building out our AoIP system and get another set for the newsroom. This was also the first studio I'd personally built out from the ground up. The installation of the mixIT and Jet67 in that studio was completed over one weekend in April 2021.

Both installations in Juneau went smoothly, with everything working as I had anticipated. I have experience with the JetStream Server programs, which are also used to configure the Jet67 and mixIT, so I had no major hiccups or obstacles.

Cable management is minimal in these installations because you only have to run one single Ethernet cable to the mixIT, which means you've only got one cable coming out of the table and connecting to your console, whereas with traditional consoles you might have dozens of cables coming out of your console that can be a hassle to tie all together and make it not look like a rat's nest.

With a little planning I was able to mount the Jet67 right next to

the punchdown block with all its audio sources.

The mixIT packs a punch for its size. We've got mixers that are about the same size that don't do half as much as the mixIT. We've also got mixers that can rival what the mixIT can do but they're a lot bigger, and I imagine cost a good deal more.

Getting up to 16 total analog/mic inputs, up to 16 analog outputs, plus two digital ins and outs, and four total output busses (Program/A1/A2/A3), for the price you're paying is impressive. Even if you're not yet tapping into the AoIP networking potential, for the number of inputs and output busses you're getting solid value for what you're paying.

On the control surface, all the fader sources are clearly labeled so users know what is where, and it's easy to switch sources with a couple taps on the touch screen display. Which to me is another advantage of the mixIT; for all the possibilities it offers and how complex you can make it, you can also set it up to be simple from a usability standpoint. 🍷

Above
 Frontier Media's
 newsroom. The
 Logitek mixIT fits
 into a small space.



Tech Update

Guest Pod II Offers Talent Control, Easy Installation

Henry Engineering's MultiPhones Guest Pod II is a headphone listening station for broadcast studios and other professional audio installations.

According to the company, the Guest Pod II improves upon the original Guest Pod, with the addition of two talent buttons, often used for cough (mic mute) and talkback functions. The design is compact and can be mounted on a tabletop, under a counter or in studio cabinetry by using the optional cabinet mounting plate.

The Guest Pod II has an active headphone amplifier that features audiophile-grade performance and easy installation. Multiple units can be daisy-chained using Cat-5 cabling to form a multiple listener network.



It can be used with the MultiPhones II Master unit or as a standalone headphone listening station.

The Guest Pod II is in stock at Henry Engineering dealers. List price is \$230.

For information, contact Henry Engineering at 1-562-493-3589 or visit www.henryeng.com.

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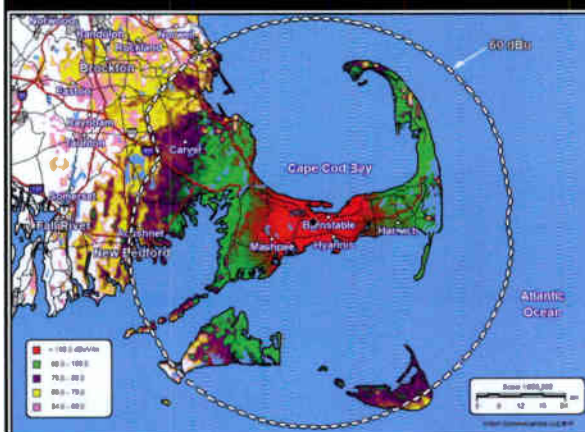
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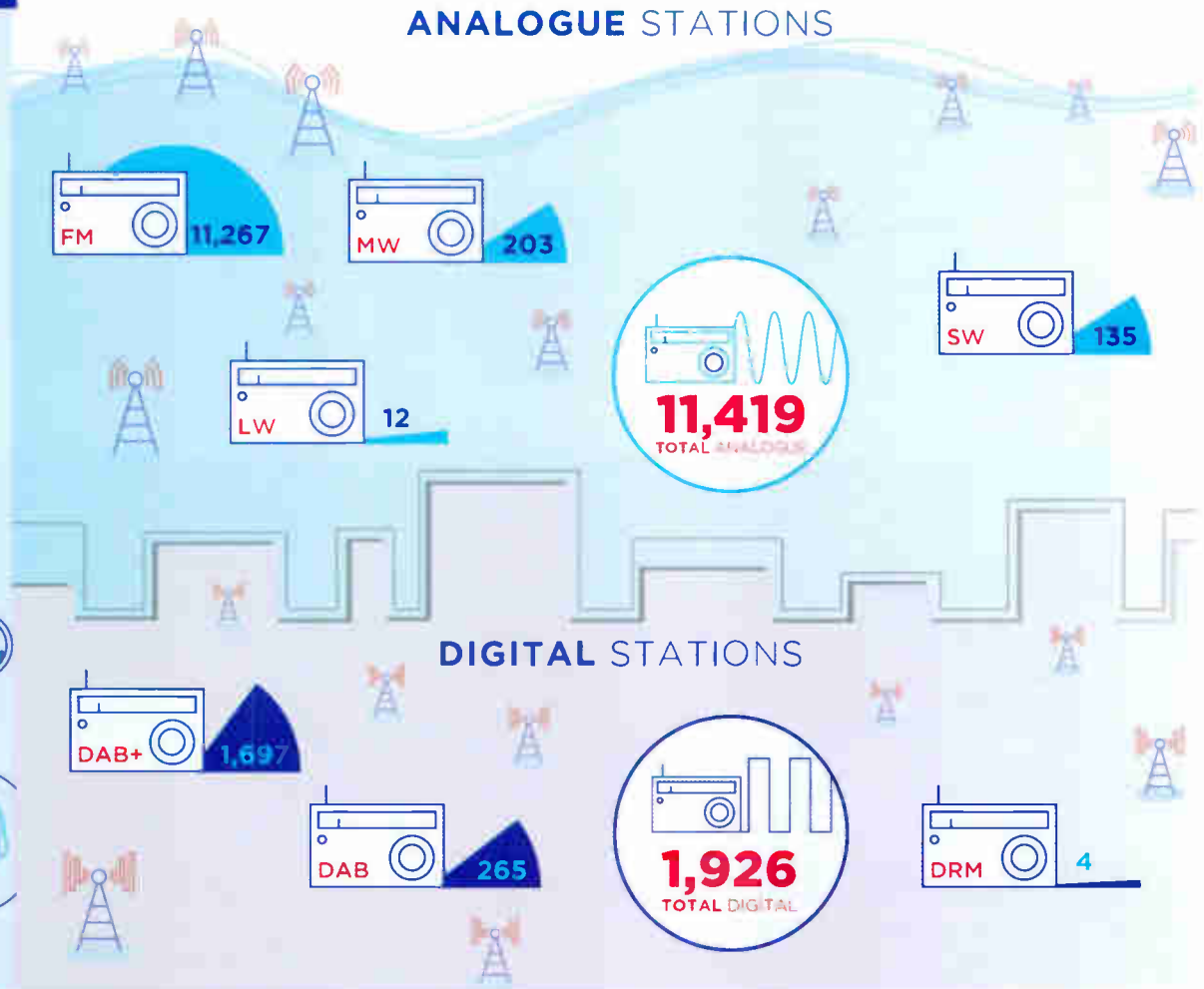
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RADIO STATIONS ACROSS THE EBU AREA



David Fernández Quijada
 Manager of Media Intelligence Service, European Broadcasting Union

Above
 An infographic from EBU's Media Intelligence Service shows data about the distribution of the 12,044 radio stations broadcasting across the EBU area.

Radio is in the air

EBU market research finds that nearly 90% of radio consumption is to linear stations transmitted via broadcast networks

In these days of flashy audio innovations — with professionals, the trade press and dedicated events and conferences often focusing on podcasts, vocal assistants and social audio — we tend to forget the central role that old-fashioned and resilient broadcast radio plays in peoples' lives.

At the EBU, we estimate that broadcast radio still represents between 85 and 90% of total radio consumption, which remains the bulk of audio consumption.

To understand the situation of broadcast radio, we have recently conducted research on the distribution networks used by radio services in Europe and the northern African territories that form part of the EBU, i.e. in 56 countries with a total population of more than 1 billion.

Many readers will no doubt be surprised to learn that our census found more than 12,000 radio services across the area. These are services operating each under their own brand, independently from the number of frequencies or transmitters.

Less surprisingly, 95% of those services broadcast in FM. This sends out a strong signal showing how prevalent FM remains.

Of course, the picture on the ground is more diverse, from Southern Europe where dials are typically overcrowded to Algeria, the sole remaining public radio monopoly in the area, and on to Norway, the only country to have shut down analog FM radio nationwide. Although some countries still grant FM licences, the total number of services in this band is on the decrease.

The future looks darker for other analog networks, medium- and longwave. There are already 19 countries with no medium-wave services, although the U.K. still operates 69 services in that band, nearly as many as all 27 countries of the European Union taken together, where 74 services were identified.

There are only 12 services available in longwave, down from 21 in 2017 and 18 in 2019. Those originate in 10 countries, with public radio in Algeria and Iceland broadcasting two different signals. The LW band is only used for radio in Region 1 of the ITU, and outside the area covered by our study, in Mongolia and Turkmenistan.

As the reader may guess, digital radio broadcast networks are the fastest-growing. In 2021 nearly 2,000 different services were identified, a 23% increase in only two years, with no sign of slowing down short term. Again, the U.K. is an outlier here, with 80% of the 265 DAB stations identified. Meanwhile, DAB+ continues gaining ground.

And what about international radio? More shortwave services are appearing, but often at a high cost: large, well-known broadcasters are turning away from a bandwidth that is increasingly being taken over by religious denominational and other niche services. DRM, for its part, has not been embraced so far as a viable digital alternative to shortwave. 📻

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Readers Forum

Where we go from here

Regarding "So Where Does We Go From Here?" in the Feb. 17 issue:

On losing younger listeners: If you can't beat 'em (Spotify, etc), join 'em. As I believe in local news, I also believe in a local music mix.

The point about older employees at radio stations hits home; they don't relate to young people's music.

Solution: Encourage local stations to hire high school speech students for part-time disk jockey jobs or paid internships, and train them to perform a request show from 6 to 8 p.m. for one or two nights a week — request show with a playback countdown at the end with what's number one.

You can guess what the benefits to radio can be, including local music marketing information, developing local listenership, developing local talent and developing possible future employees.

Tony Colloff
Forest City, Iowa

Don't forget home listening

The over-the-air radio business seems to do nothing to increase at-home listening. Early in the pandemic, when everyone was at home, I was shocked that none suggested this was a way to bring back listeners who formerly listened only while commuting.

When was the last time you saw a "radio" for the home? They are nonexistent! Why don't station owners realize they have left money on the table and get some type of inexpensive off-air receivers into homes?

I simply want a USB or WiFi-connected FM/HD Radio to put on my network and listen around my house. Not a digital internet stream, but the real thing over the air.

These receivers can't be more than \$10 to produce, yet I see none available and/or promoted. Have the stations do a promotion and subsidize these to listeners. This would get people back into the habit of knowing the local radio stations and understanding what is available for free out there.

Jim Stenberg
Portland, Maine

Getty Images/MirageC and Westend61

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