

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

April 2020

Volume 26 Issue 04



MEETING/ ACTIVITY NOTES

Reported by
Marv Beeferman

The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. Over 180 of your fellow NJARC members have already subscribed, saving the club a significant amount of money and your editor extra work. Interested? Send your e-mail address to mbeeferman@verizon.net. Be sure to include your full name.

I hope this April issue finds all our members in good spirits and health after what has been a few trying weeks. As suggested by member Dave Sica, maintaining "one 150 MHz wavelength from each other" still remains good advice.

President Richard Lee will continue to keep you in the loop via our Communicator on constantly changing developments regarding all things "radio" and especially how our club events have been affected. For the time being, a few members have pitched in to take the edges off a lack of "radio buzz."

Our Technical Coordinator Al Klase has conducted a few video conferences using Zoom which have proved quite successful. Impressed with the technology, member Dave Sica commented that he hadn't envisioned its use as a "virtual coffee klatch." Dave said that "this was another great idea, especially as many people seem to be developing cabin fever and are looking for a little social interaction that doesn't involve fighting over the last package of toilet paper at Costco."

The success of Al's conferences has also inspired him to perhaps conduct them on a regular basis. In preparation (if not already done so) for these conferences and our upcoming monthly meeting, he suggests familiarizing yourself with Zoom by:

1. Going to <https://www.zoom.us/>
2. Clicking on the "Resources" tab (upper



MEETING NOTICE

The next NJARC meeting will take place on Friday, April 10th, at 7:30 PM. The meeting will be conducted "on-line" via the video conferencing app Zoom. Information may be found at the club's website (<http://www.njarc.org>) and will also be provided via the NJARC Communicator. At this month's meeting, Dr. Michael Littman will offer a presentation titled "44 Years Before Hertz: Experimental Demonstration of Electromagnetic Waves by Prof. Joseph Henry." Considering present circumstances, I'm sure many additional topics will be discussed.

right

3. Downloading Zoom Clinet
4. Signing up for a free account.

For those members still having trouble with the app, Dave Sica is working with Bill Sloma on a Zoom guide that will be sent out prior to the April meeting. Dave provides some additional information in this month's *Broadcaster*. He will also conduct a test broadcast a half-hour before the meeting so everyone can confirm that they can participate or note any problems. A help desk will be also available to call into for anyone having trouble.

Thanks also to those members who are doing their part with their suggestions and amusing stories to help take some of the edge off of being isolated at home. Marsha Simkin suggested some radio-related puzzles and the movie "The House on 92nd Street." John Ruccolo calls it the "Boatanchor Movie" with "lots of classic WWII-era radios that helped us win the war."

<https://www.youtube.com/watch?v=Z-BwyzbF7E4>

Among our contributors was member Bill Liers who was at home tearing his shop apart to add bench space and get rid of lower level junk. His wife Mary took a picture as he was rebuilding one of his Scotts noting that "the boys need a radio lesson." Dave Sica wrote: "Who says those old vacuum tube Tek' scopes don't still have value? The side panel I salvage from one made an excellent new bottom for my rusted-out mailbox." (Dave told us not to worry about the destruction of a classic scope...he still has three 500-series examples if he ever decides to use one.)



The boys need a radio lesson.



A unique mailbox fix.

Membership secretary Marsha Simkin reports that there are still an unacceptable 70 members who have not paid their dues for 2020. Normally, we would drop these members from our club rolls at the end of March, but, considering the circumstances, we will be extending the cutoff date by at least one month. We would appreciate that you mail a check made out to the "NJARC" to:

Marsha Simkin
33 Lakeland Drive
Barnegat, NJ 08005

THE JERSEY BROADCASTER is the newsletter of the New Jersey Antique Radio Club (NJARC) which is dedicated to preserving the history and enhancing the knowledge of radio and related disciplines. Dues are \$25 per year and meetings are held the second Friday of each month at InfoAge or Princeton University. The Editor or NJARC is not liable for any other use of the contents of this publication other than information.

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Payment via PayPal is also available at the club's website but it will cost us a fee.

There has been a good response to our efforts to reduce the number of hardcopy Broadcasters sent out each month. As of this date, we are down to 30 from a high of 47. However, 21 members have not provided their response to two consecutive requests to consider a change to email delivery. As a result, these members who have an active address will be contacted by email. If there is no response after a reasonable amount of time, they will be automatically switched to email delivery. Note that email delivery is not mandatory but appreciated to reduce club costs.

The March presentation by Professor Michael Littman delivered by Zoom promises to be just as interesting as if delivered in person. Here's Dr. Littman's description of what to expect:

Lord Kelvin, in his 1893 Preface to the English Edition of Heinrich Hertz's book on Electric Waves, calls attention to the importance of "old experiments" by Joseph Henry of Princeton College. In 1842, Joseph Henry reports to the American Philosophical Society in Philadelphia that he has magnetized steel needles in a magnetizing spiral in a secondary circuit 30 feet away from a Leyden Flask that was discharged through a wire loop. We recognize that the Leyden Flask and the wire loop are an LC resonator. Prof. Henry proved that the discharge was oscillatory but he did not know the frequency. From calculations and from recreation of the experiments, we know that he was sending and receiving radio frequency electromagnetic waves. So the origin of radio is not in Karlsruhe Germany, where Heinrich Hertz lived and worked, rather it was in Princeton New Jersey.

While being subjected to an ever-increasing bombardment of facts, opinions and outright falsehoods during these unsettling times, it is interesting to look at radio as an information source. Research firm Nielsen recently released the findings of a study about American attitudes surrounding the COVID-19 crisis and radio listening. The survey was conducted online over three days during the second week of March among a weighted sample of 1,000 adults 18+ in the U.S.

The study showed that consumers hold radio in high regard with 60% of adults saying that they trust radio to give timely information about the coronavirus. Eighty-three percent of American adults

also report spending the same or more time with radio as a result of the COVID outbreak. Managing Director Brad Kelly stated that at a time of heightened uncertainty and disrupted routines, "consumers are turning to radio as a trusted source of information and community connection, mirroring patterns observed during past regional and national disasters and weather events."

Among further findings, the survey found that more than half of American adults said that radio is a good source of information about the coronavirus and associated restrictions, trust that what they hear on the radio is accurate, and trust information they get from favorite radio hosts. About 42% of consumers reported that radio has helped them deal with the outbreak; a slightly higher percentage indicated that radio helps them know what stores are open and where to shop.

Unfortunately, on a more somber note and not related to the above survey, many radio stations (KUOW out of Washington state for example) have decided not to air the White House press briefings live on the coronavirus due to a pattern of false or misleading information that cannot be fact checked in real time.

On the other end of the spectrum, the media regulator Ofcom has found that smart speakers such as Amazon's Alexa have overtaken radio for the first time among children. It has also found that children under 16 now prefer to listen to something that answers back in the form of jokes or help with homework. The research was conducted with 3,500 interviews of parents and children nationwide. The report into children's media habits also found their age of "digital independence" generally now came at 10 when there was a huge spike in the numbers of parents giving them their own smartphone.

Upcoming Events (Tentative Schedule)

May 15 - Monthly meeting at InfoAge room 9032A; Show & Tell and Hints & Kinks

May 23 - Spring Repair Clinic at InfoAge room 9032A

June 3 - E Board meeting at the RTM at InfoAge

June 12 - Monthly meeting at Princeton's Bowen Hall; Joe Jesson presents "What You Didn't Know About the AR-88"

June 27-28 - ARRL Field Day on InfoAge grounds

July 25 - Summer Tailgate/Hamfest on InfoAge Grounds

INFOAGE HELPS FIGHT COVID-19

The following was issued by Mike Ruane as an electronic update from InfoAge...Ed

On Thursday, March 19, InfoAge, home of the NJARC Radio Technology Museum, donated over 1000 N-95 Healthcare Particulate Respirator masks to Riverview Hospital and another 400+ to Wall Township to help them fight the onslaught of the corona virus. The masks were a leftover from Super Storm Sandy when a Volunteer Center was built on the InfoAge campus.

The excess masks were held in the event that there would be a need for them again. That need has arrived and InfoAge was there to support its community.



InfoAge business coordinator Dan Jacobs with Jersey Shore nurses.

InfoAge contacted Tim Hogan, President, Riverview Hospital, and asked by text if he would be interested in a donation of the masks. He immediately texted back: "Yes! Absolutely!" and within one hour he drove through the InfoAge gates in his own SUV. Less than twenty minutes later, he was headed north on Route 18 to Red Bank.

At the same time, a Sergeant from the Wall Police Department picked up several cases of the masks after InfoAge had contacted Jeff Bertrand, the Wall Township Administrator, who stated they were well needed and would be put to good use. The masks will put Wall and Riverview emergency responders and team members in a better place with respect to their personal safety and ultimately their family's safety.

THE FATE OF CAR RADIO

Edited by Marv Beferman

The following is based on March articles in "Radio World" (RW) by Emily M. Reigart and the RW staff...Ed

Radio broadcasters have long feared that self-driving cars would threaten their dashboard dominance. A new optional "infotainment" system upgrade from car-maker Tesla proves that these concerns are well-founded. The older Tesla Model S and Model X owners are now able to purchase a \$2,500 update that the company says improves user experience, enables video streaming and supplies an expanded Tesla Arcade but will remove broadcast AM/FM radio and Sirius/XM reception.



In response to this news, Strategy Analytics Global Automotive Associate Director Roger Lanctot wrote, in a LinkedIn article *Technology Tyranny and the End of Radio*: "Once again, Silicon Valley is asking us to surrender one thing for another. Yesterday it was our privacy. Today it is the radio. Tomorrow it will be our freedom."

Perhaps a little hyperbolic, but Lanctot concedes that the strategy has a logical side. He argues that "it is quite possible that Tesla has leveraged user data from its own vehicles to determine that radio listening in its vehicles was sufficiently minimal to be worth risking some minor resistance." Lanctot also suggests that the "upgrade" may be a market research project to determine customer demand for over-the-air radio while preparing for a 5G rollout.

In other developments, the 2020 Tesla Model 3 does not offer AM radio. But Tesla isn't alone in its efforts - in 2014, BMW removed AM reception from its electric 13 models. This was to the chagrin of organizations like the National Association of Broadcasters and AM enthusiasts.

Roger Lanctot has not been the only individual who has been worried about a future without radio in the car dash, especially from a safety standpoint. Former FEMA administrator Brock Long, in a commentary for the *Detroit News*, implored the car manufacturing community to understand the importance of radio in the context of disaster readiness and response. Long compares car radios to life

jackets and says that taking them out puts consumers at risk. Additionally, Long feels that these broadcasts are the only method the government has to reach every point in the country.

Why? First, Long says that in-car listening adds a level of redundancy to our alerting system because cars are not connected to the electric grid, and more than 95% of U.S. households own a car, which means the vast majority of the country can receive information this way. Also, the Federal Emergency Management Administration has spent \$100 million to ensure radio stations have adequate backup infrastructure, including generators.

FEMA continues to put its money behind radio, adding more stations and backup facilities at great expense in order to strengthen the National Public Warning System. Aside from those monetary investments, radio's manpower is critical; Long cites several instances of broadcasters taking their duties seriously as first informers and responders. However, these efforts are diminished when carmakers remove radio from new vehicles.

Finally, Long emphasizes that understanding radio's role is crucial to the success of future governmental disaster relief efforts.

ODE TO THE CAR RADIO AND BEYOND

By Joe Milineaux

Continuing with our car radio theme, the following appeared in the March 12th "Current," part of the "Press of Atlantic City." It was later reproduced in "Radio World Newsbytes" for March 16th. Permission for use has been submitted and is expected...Ed

I was recently listening to a favorite song of mine in the car. It was "Windfall" by the band Son Volt and I heard the following lyrics: "Switching it over to AM, Searching for a truer sound, Can't recall the call letters, Steel guitar and settle down, Catching an all-night station, Somewhere in Louisiana, It sounds like 1963, But for now it sounds like heaven." The lyrics struck me as I thought back over my lifetime enjoyment of music and listening to music in the car and on the road. Music has been a part of my travel, I am guessing, since my parents brought me home from the hospital in 1968. Were my folks listening to the number one hit of

the time, Otis Redding's "Sitting on the Dock of the Bay," or perhaps a top hit from the end of '67 such as the Monkees' "Daydream Believer," or perhaps "Hello Goodbye" by the Beatles was still in heavy radio rotation.

While I have no way to confirm any of those theories, one thing is certain. The car radio in our car and for that matter almost every car I have ever ridden in or driven has for the majority of the time had a radio or musical device playing music.



While some of the history of when the car radio was first introduced is surrounded by a bit of "static," we know that way before Don McClean "drove his Chevy to the levy," the car radio was in almost every automobile produced. Some say the first one was introduced in 1922 by Chevrolet.

Rob Siegel at Hagerty.com points to "newspaper accounts of Chevrolet offering the "Radio Sedan" in 1922, apparently including a Westinghouse radio that utilized a rooftop antenna, batteries beneath the front seats and large horn speakers behind the rear seats, but it's unclear whether it was actually produced or was a one-off publicity stunt. The first radio as a factory-installed option in a regular production car may have been in 1923 by the Springfield Body Corporation, but it, too, was likely a hodge-podge adapted from a house radio.

"There is also debate over which manufacturer deserves the distinction of being the first to offer a car-specific radio," Siegel wrote. "William Heina, of the U.S. Heinaphone Company, appears to have been granted the first patent for the installation of radios in cars. Heinaphone's car radios were called 'Transitones.' In 1927, the Automobile Radio Corporation (ARC) bought Heinaphone."

Of course, the country was so tuned into enjoying radio in their homes, listeners wanted to take this new way to listen up to radio with them on the road. So the success and growth in commercial radio broadcasting helped the first car radios begin to appear in many vehicles.

In 1930, Galvin Manufacturing introduced the first car radio as the "Motorola," Siegel wrote. It was one of

the first commercially successful car radios, and the first major product for the company that later became the much more familiar business Motorola, he said.

Following is a short timeline of the history, advancements and milestones as researched. An internet search led me to "The History of the Car Radio: From Morse Code to Mixtapes" by Anne Le Tran. The information in that piece filled in the history of the car radio that I did not experience firsthand and helped me to compile the years 1952 to the late 1960s and into the early 1970s.

1952: "Edwin Howard Armstrong invented FM radio in 1933," Le Tran wrote. Most people were still listening to AM radio. In 1979, FM audience levels surpassed AM audience listeners. Then in 1953, the "Searchers" start searching and the first luxury car radio featured both AM/FM and included the first fully automated "seek" feature.

1965: Although I have seen a few photos and references to a 45 RPM player installed in a few cars, the more popular way to play music (non-radio) in the car was the 8-track. The technology was developed by Learjet Corp. The 8-track tape housed in its plastic cartridge was a continuous loop that held a total of 8 tracks.

1960s and into the 1970s: "Phillips introduced the cassette in 1964, it was in the 1970s that car cassette players became a standard feature," according to Le Tran. This also brought us a cool way to introduce a captive audience to your favorite songs — the mixtape!

1980s to 1990s: Over this time period, the cassette player slowly disappeared from almost all new car models. The creation of the compact disc again changed the way drivers listened to music, enabling them to enjoy their favorite songs at the simple push of a button.

2000s to Present: According to Meaghan Garvey of complex.com, listeners welcomed the digital revolution with mp3s on the rise, and CD sales began to steadily decline. "It took a while for in-car audio capabilities to catch up to the digital revolution. Initially, there were very few options to connect the influx of MP3 players to car stereo systems until the mid-2000s," Garvey wrote. Then, satellite radio arrived. With its 2000 launch of three satellites, "Sirius Satellite Radio effectively created the satellite radio industry single-handedly. XM Satellite

Radio launched its first two satellites the year after, effectively altering the way we experience radio. Today, the service offers a wide variety of music, talk, news, and sports stations," she wrote. The two eventually merged to become Sirius XM. Finally, streaming services joined the mix of options. The services are satellite radio's main competitors. In recent years internet streaming services such as Spotify, Pandora and Apple Music have been integrated into the car audio listener's world.

I hope you enjoyed this brief car radio and beyond history. After some of the research, I hope we are both a little more in tune with the ever-evolving history of car audio and the development of ways that we listen to music in our vehicles.

REMEMBERING HUGO PICCIANI

By
Robert Forte



I am sad to report the death of my friend Hugo Picciani who peacefully passed away in his sleep on Monday, March 2nd, at the age of 92. Hugo was also a good friend of the NJARC, opening up his collection of many of his unique radio artifacts for display at the Radio Technology Museum.

Hugo was born on January 15, 1928 and grew up to be a self-taught master mechanic. He served in the U.S. Army Air Force until 1945 as a mechanic whose job it was, among other duties, to determine the cause of an airplane crash; engine failure, pilot error, etc. After the war, he opened store fronts in Newark, NJ and eventually partnered in a company called "Mechani-Technics in Brooklyn which specialized in anything mechanical.

Eventually, Hugo went out on his own, forming a solo company "Hugo Picciani - Custom Machinery." In 1967, he bought a building at 314 7th Street in Brooklyn for \$20,000 which he owned for 47 years.

It's easy to miss this building in the busy part of Park Slope - dark windows covered in a black, chain link fence; no sign, almost forbidding. But inside once existed a treasure trove of antique radios from WW I, 1917 crystal radios from Marconi and RCA, WW I aircraft receivers, transmitters and reproductions of early wireless items.



Scattered about were parts, motors, panel meters, vintage mechanical and electrical ephemera of all sorts - everything had been saved over the shop's 47 year history. All this was surrounded by lathes, brakes, milling machines and a huge assortment of hand tools - and anything else needed to repair or fabricate a host of mechanical marvels. The basement was reserved for the storage of pipe, tubing, metal stock, wire, fasteners, switches and sockets - all cataloged in Hugo's memory. Upstairs were two apartments - one for Hugo and one that was rented out.



So how did I come to meet Hugo? I had collected some old National dials (MCN, SCN, ACN, ICN) which I used for homebrew projects when I was a kid

at Brooklyn Tech high school in Brooklyn. But one dial was missing, a ceramic insulating coupler. A want ad in Antique Radio Classified brought a letter back from Hugo saying he had one. When I called him back to ask him how much he was asking, he replied "leave something in the poor box when you go to church on Sunday."

He then invited me to his shop which started a long, warm friendship. With my trips to New York City, I would take the "R" or "D" line to visit him and spend a few hours of learning, watching and conversing. I eventually became a member of the "7th Street Irregulars," a member of the folks who would stop by his shop to chat, ask for some help, buy stuff or bring food.

In his twice daily walks, he met everyone on 5th Avenue and repaired their equipment or appliances. In return, the shopkeepers and neighbors kept him supplied with food. Anything I bought from him or for payment for a repair was billed as a donation of my choice. Hugo would say "Anything you pay me goes to charity - give me what you want."

Hugo was kind to everyone and offered his help with no strings attached. He was funding a young lady through college. When a P-51 fighter was not starting at Floyd Bennett Field in Brooklyn, they called Hugo. He diagnosed the problem (broken booster coil), just happened to have one, replaced it and the plane was back in service!

In 2013, Hugo told me that age was taking its toll and he had to divest himself of all his shop's inventory, which included his collection of vintage electronics. I mentioned the club's Radio Technology Museum at InfoAge and its historical significance. As a result, with a small monetary "thank you" from the club, the majority of the collection was donated.

On October 8, 2013, with Ray Chase as driver and me riding shotgun, we were on our way back to Belmar with about \$28,000 worth of radio treasures that Al Klase, Harry Klancer and Richard Lee had helped load. Eventually, it was all inventoried by Ray and Al and part is now on display at the museum.



The building was eventually sold and Hugo moved in with his ex-wife, Joan Miller, in Farmingdale, New Jersey. He always regretted this move, missing the people, his walks and the socializing that was always a part of his life. Hugo was occasionally able to visit the museum and attend a few of our meetings later in life.



Much more of Hugo's life can be found in articles in the *New York Times* or in PBS interviews; just Google his name or check it out on YouTube. Personally, I will remember him as a good friend - intuitive, bright, charitable, funny, loquacious, social, charming, and opinionated. I will sorrowfully miss the sounds of WQXR radio in the background as we discussed life.

**REMEMBERING
BOB
MASTERSON**

By
Marv Beeferman



We sadly note the passing of NJARC member Bob Masterson on the weekend of March 15. Bob was a parishioner at Christ Episcopal Church in Suffern, New York and as rector Rev. Dale Cranston (a fellow radio collector) wrote me:

"Bob was silent about his personal life. My parishioners were stunned when they heard of his death; he was always polite and helpful at Christ Church and was loved by everyone. Bob would do anything you asked him to do. Whenever we had a parish picnic, he would come early and set up his tent. He would always lug food I cooked and helped with the cleanup. He wanted to serve others and was supremely kind and welcoming to our gay community at Christ Church."

We do know that Bob had a sister, Katherine Kirm Masterson, in upstate New York and a brother in Long Island where he grew up. He earned a living by painting interior walls of homes under Bob's Cornerstone Painting in Riverdale, New Jersey. However, most of us knew Bob through the many radio clubs that he was a member of like the NJARC, HARPS, and the NEARC (now known as the NEVEC, New England Vintage Electronics Club). Bob was a constant fixture at our club swapmeets, meetings and repair sessions.

Thanks to club member Joe Devonshire, I was able to obtain Bob's remembrance that appeared in the RAVEN (Radio and Vintage Electronics News), the newsletter of the NEVEC. It was written by past president of the NEARC/NEVEC Bruce Phillips:

I was saddened to hear a week after NEVEE 3 that NEVEC Director Bob Masterson passed away. Bob and I lived 300 miles apart, but we were friends for over 25 years going back to AWA meets in Rochester, NY in the 1990s. I believe we both have been to almost all of the Kutztown, PA radio shows.

Bob joined NEARC/NEVEC shortly after I became President and he and girlfriend Anita started coming to our Brookline and NEVEE shows. Our collecting interests were very much alike ranging from Art Deco thru Machine Age, to Mid-Century Modern. But what I enjoyed most about Bob was his understanding that there is a lot more that has to happen for a successful radio meet than just buying and selling vintage electronics. He was always ready to help. He did the video work for Tom Perera's Enigma presentation at Brookline a few years back, and he has always submitted pictures from the shows for us to enjoy.

Bob lived in New Jersey but he ran for

and became Director of the New England Vintage Electronics Club. He always donated to the NEVEE raffles, and had planned to work on the raffles at NEVEE 3. Even though he was in the hospital at the time, he sent Anita to NEVEE with his raffle donation and other stuff. He was in constant contact with Anita during the show.

Many long time NEARC/NEVEC members could take a lesson from Bob in his willingness to give more than he took. My next raffle donation will be in memory of Bob Masterson.

Rev. Dale Cranston wrote me that he plans to do a Memorial Mass at some point when he can get clearance to hold services again. He will let me know the details if anyone would like to attend. Rev. Cranston also added that "Bob was a mystery to all of us." For those of us that knew him as part of the radio collecting community, this couldn't be farther from the truth.



JOIN OUR NJARC VIRTUAL MEETING

By
Dave Sica



For the duration of the COVID 19 Coronavirus health emergency, we'll be conducting our monthly meetings online-only on Zoom Cloud Meetings. Zoom has emerged as the tool of choice for many organizations that have had to transition from in-person meetings to online "virtual" meetings. It works well and we think you'll enjoy the experience of attending our Virtual Meetings, although you'll have to brew your own "radio coffee."

You can join the meeting from a computer (PC or Mac), a tablet or smartphone (IOS or Android) and even by telephone. Full instructions may be found at:

http://njarc.org/documents/NJARC_Zoom_Meeting_Quickstart_Guide.pdf

To join us in our Virtual Meeting, you'll need to download the app to your phone or tablet or install the Zoom program on your computer. So please don't leave that for the last minute or you might end up being late for the meeting! After that, just look for the link to the meeting, which will be sent to you in an email via The NJARC Communicator. Click on the link to join the meeting. We will have a help desk available to call for advice if you have trouble getting into the meeting.

Please read the Quickstart Guide ahead of time so you know how the meeting will be conducted and where all the buttons are that you might need to push. PLEASE keep your microphone muted during the meeting unless you are actively speaking to the attendees. Otherwise, background noise and feedback can ruin the experience for everyone.

IMPORTANT: A significant number of first-time users have reported being unable to successfully join a meeting on their first try. Hopefully we've addressed most of these pitfalls in the New User Quick-

start Guide, so please read that to head off any disappointment. But, we'll be scheduling a "dress rehearsal" meeting a half hour before the actual meeting. If you're new to using Zoom, please make a point of joining us on this test meeting. If you have difficulty at that time, we'll have the time and manpower to help talk you through it. If you try to join the regular meeting at 7:30 and have trouble, you could find yourself out of luck and we wouldn't want that.

USING HORN SPEAKERS WITH AN IPOD

Edited by
Marv Beeferman

At the February meeting, Technical Coordinator Al Klase gave a talk on connecting a Bluetooth device to an antique radio. Following up on the theme of combining old and new technologies, I thought you might be interested (and perhaps inspired to improve upon) an article that appeared in the Autumn 2019 *AWA Journal*, quarterly bulletin of the Antique Wireless Association.

Author Dan Merz recently surveyed some of his horn speakers and was curious about trying them with some more modern equipment to compare their performance. (Al Klase has already anticipated this question with a display at our Radio Technology Museum.)



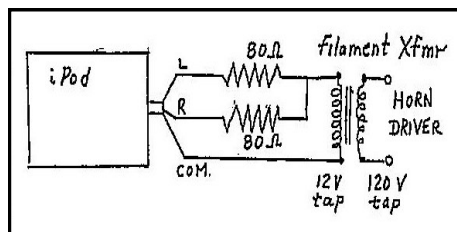
Speaker comparison display at the RTM at InfoAge.

He first connected one to the phone jack of a transistor radio that used headphones only, being sure that the higher impedance of a horn would not damage the transistor radio. It worked pretty well

Merz was then intrigued with the possibility of connecting his iPod with many recordings but without a built-in speaker to a horn speaker. His first experiment

gave no response so he decided that was needed was to introduce a transformer between the iPod and speaker to better match their impedances. He used a stereo plug jumper cable but could not get a response between any combination of the three lines into the speaker, even with a transformer.

Merz used a transformer that he found in his stash that had about an 8:1 turns ratio which he thought might be about right with the low turns side connected to the iPod. After doing a little online research, he decided that a resistive divider on the output of the iPod might combine the stereo output better for the monaural input to the speaker. This was achieved with a simple arrangement using an 80 ohm resistor in line with each channel with a single output between the junction and ground. The output from this was fed to the leg of an interstage transformer with a turns ratio of about 8:1 with the high turns side connected to the horn speaker.



The above arrangement seemed to work well and Merz increased the volume a bit by going to a 16:1 ratio transformer. He experimented with an ordinary 12-volt filament transformer and it worked well using the 12-volt transformer leads on the iPod output and the 120-volt leads attached to the horn speaker driver. The center tap lead on the 12-volt side worked almost as well so a 6-volt filament transformer would also be OK.

Merz main conclusion was that, when connected electrically to its driver, none of his horns approached the sound quality of a set of cheap headphones. Therefore, don't expect much quality using old horn drivers. But, despite the poor audio quality, it might be entertaining to use the old horn speakers with a modern device.

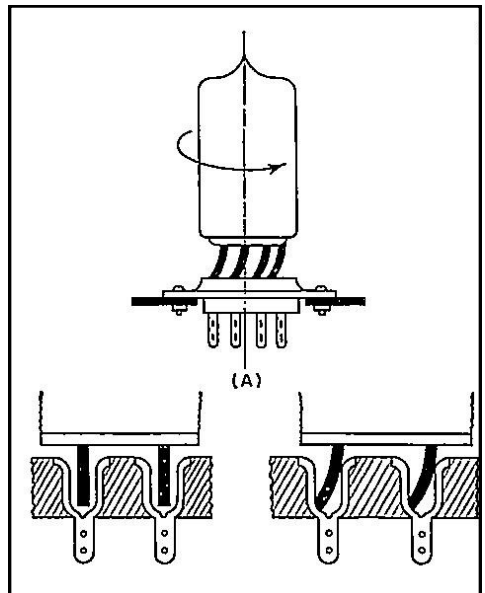
As an aside, Merz noted that online YouTube videos have exhibited the use of horn speakers with iPods that have "built-in" speakers. Such speakers are referred to as acoustic amplifiers or passive amplifiers. This might appeal to collectors that might be shy about making electrical connections to the output of a device they fear damaging. Also, the response of this arrangement seems to be much better than direct connection to the horn's driver.

OUTSMARTING LOOSE TUBE SOCKETS

The following tip was found in the October, 1962 issue of "Electronics World."

Sockets for miniature tubes occasionally lose their gripping power, with the result that the tubes are not securely seated and contact with the pins is not reliable. An obvious remedy is replacement of the socket, but this chore can be avoided.

Partially insert the tube itself in a tube straightener or the loose socket so that the tips of all the tube pins are just barely engaged. Then give the tube a slow, discreet twist as shown below so that the pins are slightly spiraled rather than straight. While the socket may not be tight enough to grip straight pins, the slight spread should provide tightness.



IT WAS EASIER WITH A KWIKETTE

By
Marv Beeferman

In 1965, Sprague filed a federal trademark registration for something called a Kwikette. The registration expired in 1987. I'm not sure if the patent is still viable, but anyone who could cheaply produce this little gem could probably clean up with the electronic restoration set.

The Kwikette was a small, solenoid-wound coil of copper clad wire that was tightly wound. The wire had a heavy sol-

der coating and the coil ID was about equivalent to an 18 gauge piece of wire.

KWIKETTE SOLDERING AIDS...
 the revolutionary new connectors that make **QUICK** work of parts replacement!

WIRE + FLUX + SOLDER, ALL in One!
 The 3-in-1 KWIKETTE is *not just another wire spring connector...* Copperweld wire inner core, a layer of flux, and an outer jacket of solder... all you need is heat!



Once again, Sprague helps the TV-radio service industry by solving difficult servicing problems . . . parts replacement on printed wiring boards, in "inaccessible" chassis nooks, and on crowded terminal lugs. Mechanically sturdy and electrically reliable, the KWIKETTE provides *quick*, expert, "one-handed" soldered connections as easy as A-B-C!

Ten times actual size

Installation was easy. The leads of the defective part were snipped about 3/16" from its terminal. Tarnished or dirty stubs were scraped or cleaned with Acetone. The Kwikette connector was slipped over the stud. The leads of the new part were cut to proper length and inserted into the Kwikette. Fine wire leads were overlapped and thick leads were butted to get a snug fit; a gentle squeeze with pliers helped hold the Kwikette in place until heat was applied. The Kwikette was heated until solder flowed - no flux or added solder was required.

Sprague packed Kwiketets with their Atom capacitors and you can still find some around. However, the old solder and flux may not provide a reliable connection. Kwiketets without the self-contained solder and flux are sometimes referred to as "quigs." Tools to construct them can be found on the internet at Al Klase's "skywaves" web page and You Tube:

<https://www.youtube.com/watch?v=V8aetLCfKq>

DIGITAL AM UPDATE

By
Marv Beeferman

As previously reported in the *Broadcaster*, AM radio station operators in the United States may soon have the option of switching their transmissions to all-digital. Docket 19-311, "All-Digital AM Broadcasting" was recently opened allowing comments to be taken on whether to allow AM band licensees to make the switch if they want.

Allowing stations to use all-digital transmission is an idea that some broadcasters feel could give business-challenged AM stations in the United States new life or at least another option. Turning off their analog signals would mean that most existing receivers could no longer pick up that signal; but many AM broadcasters are currently heard on FM translator simulcast now. And adding the all-digital AM option could open up new possibilities for them as the number of digital receivers in the marketplace continues to grow.

- The California and Broadcasters Associations urged the FCC to adopt the MA3 digital operation rules as promptly as possible. The associations said they believe that this proceeding is especially important to small towns and diverse communities where local AM remains the most relevant source of local news and information.

Their filing noted a recent study that found that when a station switched to digital, its previously hard-to-hear analog signal became solid with no dropouts. With all-digital, there was no additional, environmental noise. The groups also said that the AM all-digital MA3 mode can produce a respectable HD2 signal that has the ability to support a second local translator with a second, independent stream of programming, a benefit that HD Radio developer Xperi has recently been emphasizing.

- Hubbard Radio has been test driving all-digital AM broadcasting on its WWFD(AM) just outside Washington, D.C. since July 2018. The station, which broadcasts at 820 KHz and is licensed to Frederick, Md., has seen ratings gains since launching the all-digital signal. The company told the FCC that it is fully supportive of a proposal to permit AM licensees, on a voluntary individual basis, to operate in an all-digital format 24/7.

Hubbard says that the MA3 signal of WWFD has proven to be much more robust than the hybrid mode of HD AM broadcasting, and with improved signal coverage. The company says it has received positive feedback from listeners about the fidelity and reliability of their all-digital signal.

- National Public Radio (NPR) said it "generally supports" allowing stations to transition, if they wish, to all-digital AM transmission using HD radio in the United States. But it believes the commission needs to go further on how it would handle interference complaints from neighboring analog stations in the band. (Discussion of all-digital on the AM band has often centered around worries over

interference.) About 80 AM public radio stations are affiliated with NPR or receive operational funding from the Corporation for Public Broadcasting which includes WNYC(AM) in New York City (which also covers New Jersey). NPR also agrees that adopting the NRSC-5-D standard for all digital audio broadcast operations is appropriate.

- The National Association of Broadcasters (NAB) says the FCC should allow individual radio stations on the AM band to convert to all-digital HD Radio transmissions if they wish to do so. The NAB says experimental testing has demonstrated the viability of all-digital AM and that broadcaster interest in pursuing the technology is evident. The NAB wrote: "Allowing stations to voluntarily transition to all-digital AM service will benefit listeners with enhanced AM service and improve AM broadcasters' ability to succeed in the increasingly competitive audio marketplace."

In addition to better sound quality, the NAB argues that all-digital will provide other benefits to listeners. The MA3 digital mode allows AM broadcasters to provide auxiliary data such as song and artist information and emergency notifications that include text and images. Also, any loss of listeners due to all-digital operation migration would likely be mitigated by the fact that so many AM stations now employ FM translators. To remedy complaints about interference with neighboring analog stations, the NAB proposed that "the station operating in the all-digital mode may reduce power or reach some other arrangement with an aggrieved co-channel station." The NAB also supports the FCC's proposal to incorporate the NRSC-5-D standard.

LATE MINUTE NEWS

The Delaware Valley Historic Radio Club has received word from Rennigers that the Spring Kutztown meet has been cancelled. There will be no rescheduled date; instead, the September show will be held on the regularly scheduled days of Sept. 18th and 19th.

Membership Secretary Marsha Simkin reports that the checks sent to pay dues in the last month or so have not been deposited and might not for some time. Although it costs the club a fee, payment by PayPal may be a better option at this time. Send any questions to mhsimkin@comcast.net.