The Jersey Broadcaster is distributed to members of the New Jersey Antique Radio Club via email as a PDF file. Back issues of many of our newsletters are available on the club’s website: www.njarc.org/broadcaster/

Meeting Notice

Our June meeting will take place on Friday, 6/14 at Bowen Hall, Princeton. The topic will “Show & Tell” (so please bring an interesting item from your collection to discuss) and “Hints & Kinks” where members share tips regarding radio restoration.

We plan to livestream the meeting on our YouTube channel which can be found at https://www.youtube.com/user/NJARC

Meeting Review

At our May meeting, guest speaker Bill Burns gave a presentation about the history of the Transatlantic Cable. If you missed the meeting, a recording of the presentation is available on our the club’s YouTube channel at https://bit.ly/3XkkojC.

Recordings of many of our meetings are on YouTube. https://bit.ly/3yZ5yoR

From the President’s Workbench

Greetings Fellow Enthusiasts!

On Wednesday, May 22nd, the New Jersey Antique Radio Club awarded, for the second year in a row, its scholarship award to a meritorious student from Wall Township High School.

The contestants had to apply, first by touring our Radio Technology Museum at InfoAge Science and History Museums. Afterwards, they were required to write an essay on “How old technologies affect present and future technologies” in the STEM curriculum the entrants will be studying at university.

The award recipient was chosen from a number of students attending Wall High School’s Pre-Engineering Academy by their instructor, Daniel Leonard. Mr. Leonard contacted me 2 weeks before the Awards night to inform me that the NJARC 2024 Scholarship Award winner would be Kiele Trainor, a young woman with a GPA of 4.25 and a class ranking of 8 out of 217 graduating Seniors.

It was my pleasure to present the $1,000 NJARC Scholarship Award to Kiele and I was delighted to know she will be attending Princeton University in the Fall, so I invited her to attend one of our upcoming club meetings at Princeton’s Bowen Hall.

A short ad hoc video of my presentation can be found on the njarc.org YouTube Channel https://bit.ly/3KIbgOe.

– Richard Lee, President, NJARC

A copy of Kiele’s winning essay can be found here.

(Photos on next page.)

Calendar of Events

June 14: NJARC monthly meeting, Princeton
June 21: ARRL Field Day, InfoAge
June 21: HARS monthly meeting, Suffern NY
July 12: NJARC monthly meeting, Princeton
July 19: HARS monthly meeting, Suffern NY
July 27: NJARC Summer Hamfest/Swapmeet, InfoAge
August 9: NJARC monthly meeting, Princeton
August 16: HARS monthly meeting, Suffern NY
August 24: NJARC Summer Repair Clinic, InfoAge
September 13: NJARC monthly meeting, InfoAge
September 20: HARS monthly meeting, Suffern NY
September 19-21: Kutztown Radio Show
October 1-5: AWA Annual Conference, Henrietta NY
October 11: NJARC monthly meeting, Princeton
October 18: HARS monthly meeting, Suffern NY
October 26: Fall Repair Clinic, InfoAge
November 8: NJARC monthly meeting, Princeton
November 15: HARS monthly meeting, Suffern NY
Nov. 16: NJARC Fall Hamfest/Swapmeet, Parsippany
December 14: NJARC Holiday Party, Jackson
December 20: HARS Holiday Party, Suffern NY

(Continued on next page)
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 on the second Friday of each month either at InfoAge or at Princeton University. Neither the editor nor NJARC is liable for any other use of the contents of this publication other than for information.

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Last Autumn, our Radio Technology Museum was contacted by our friend Melissa Ziobro* regarding one of her challenges as Curator of the Bruce Springsteen Archives & Center for America Music that is being established at Monmouth University. Melissa was putting together a travelling tour - “Music America: Iconic Objects from America’s History” - to announce this new Archives and Museum. Since the medium of Broadcast Radio was a major factor in delivering music to the public, Melissa asked if we could loan some appropriate artifacts to this tour. She had some specific items in mind, so we checked our stored items and were able to help her without taking anything from a radio museum display.

Included was a radio from the 1920s, when radio listening was growing rapidly, a studio microphone, a transistor radio from the 1950s, when teenagers were glued to their new pocked radios and finally an early FM radio tuner to show homage to our favorite inventor Howard Armstrong who introduced the world to wideband FM radio that was a major improvement in delivering static-free programming and hi-fidelity music. Suggested signage and artifact interpretation was included. We also helped by adding some Edison cylinder records to go with an early Edison phonograph that had been supplied by another donor.

We cleaned up and polished the items, Melissa picked them up and coordinated their packing and delivery. The first stop for the tour is the LBJ Presidential Library in Austin, TX. That display opened on February 15th and will run until August 11th. The tour will then travel to other presidential libraries and museums. Melissa reported that the opening in Austin was highly praised. This tour should help give InfoAge and RTM some added wide-ranging exposure.

*Melissa was the former Historian for the Army Signal Corps at Fort Monmouth, is now an adjunct Professor at Monmouth Collage, and is a board member of InfoAge.
The 25th annual NJARC Broadcast Band DX Contest is in the books. We had a record total of 29 logs submitted by 20 contestants. Here are the overall results by score:

<table>
<thead>
<tr>
<th>SCORE</th>
<th>CAT</th>
<th>AWARD</th>
<th>NAME</th>
<th>RADIO</th>
<th>ANT</th>
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<tbody>
<tr>
<td>10,153</td>
<td>F-Comm RX</td>
<td>1st-F</td>
<td>Joe Devonshire</td>
<td>Hallicrafters SX25</td>
<td>160 m dipole,</td>
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<tr>
<td>9,733</td>
<td>Open</td>
<td>1st-K</td>
<td>Frank Feczko</td>
<td>Sangean ATS-803A</td>
<td>internal loop,</td>
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<tr>
<td>9,481</td>
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<td>1st-K</td>
<td>AL Klae</td>
<td>Hammarlund HQ 120</td>
<td>Skywaves Loop</td>
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<td>AL Klae</td>
<td>Collins 51J-4</td>
<td>Tecsun loop</td>
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<td>8,734</td>
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<td>Gary Berg</td>
<td>Malachite SDR DSP V5</td>
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<td>8,694</td>
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<td>Bill Sloma</td>
<td>Tecsun PL 990</td>
<td>Tecsun loop</td>
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<tr>
<td>8,599</td>
<td>J-Transistor</td>
<td>1st-J</td>
<td>Owen Gerboth</td>
<td>Zenith Royal 2000</td>
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<td>Frank Feczko</td>
<td>Zenith 6S527</td>
<td>Wave Magnet</td>
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<td>J-Transistor</td>
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<td>GE Super Radio 7-2880 B</td>
<td>internal loop,</td>
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<td>G-Ultralight</td>
<td>1st-G</td>
<td>Steve Boracchia</td>
<td>C Crane Pocket Radio</td>
<td>internal ferrite</td>
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<td>loop ant.</td>
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<td>1st-H</td>
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<td>Wollaroc 3-1A</td>
<td>Tecsun Loop</td>
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<td>7,966</td>
<td>C-20's Battery</td>
<td>1st-C</td>
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<td>Rich Lee</td>
<td>General Electric 423</td>
<td>external loop</td>
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<td>Tecsun loop,</td>
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<td>A-XTAL Set</td>
<td>1st-A</td>
<td>Mario Volpe</td>
<td>Air Wave Explorer</td>
<td>200+ ft long wire</td>
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<td>Doug Poray</td>
<td>ICOM IC-718</td>
<td>dipole</td>
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<td>Carl Nord</td>
<td>PGXS</td>
<td>280 ft. long wire</td>
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<td>Carl Nord</td>
<td>Crosley 51</td>
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<td></td>
<td>John Ruccolo</td>
<td>Kent radio</td>
<td>long wire</td>
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</tbody>
</table>

Complete results follow: *(MDS = Most Distant Station)*

**Category A: Crystal Radios**

**First Place**
Mario Volpe 5,554 pts. Air Wave Explorer reproduction (The original Air Wave Explorer was made in 1919) using 200+ ft long wire. MDS 570 kHz Radio Reloj (morse code RR) Havana, Cuba 1,279 mi.

**Second Place**
Carl Nord 3,776 pts. Home built PGXS (Klase Pretty Good Crystal Set) using 280 ft. long wire MDS 1090 kHz WBAL Baltimore, Maryland 494 mi. *Carl was DXing from Damariscotta, Maine*
2024 NJARC DX Contest
(Continued)

Category B: Primitive tube receivers- 1 or 2 tube

First Place

Second Place
Carl Nord 3,334 pts. Crosley 51 (1924) using two UV 199 tubes, using a 280 ft long wire MDS 1170 kHz WWVA Wheeling, West Virginia 636 mi.

(Carl was DXing from Damariscotta, Maine)

Third Place
John Ruccolo 1,585 pts. Kent radio (Arvin 402) (1939-1940) TRF/Reflex two tubes plus rectifier tube using long wire, MDS 1000 kHz WMVP Chicago, IL 708 mi.

Category C: 1920’s Battery sets

First Place
Neville Greenough 7,966 pts. Atwater-Kent Model 20 (1926) using 40 m dipole/ connected as flat top, MDS 600 kHz CMKA San German, Cuba 1,347 mi.

Second Place
Dan Gervais 3,264 pts. Crosley Trirdyne having three 201A tubes (two were used with phones) using 75 ft. wire 20 ft. up, MDS 1110 kHz WBT Charlotte, North Carolina 998 mi.

(Dan was DXing from St-Hubert Quebec, Canada)

(Continued on next page)
Category D: Tuned-Radio-Frequency (TRF) non-superhet radios produced before 1940

First Place
(Joe was DXing from Jefferson, Maine)

Second Place

Category E: Other tube radios sold for home entertainment

First Place
(Frank was DXing from Leesburg, Florida)
Category E: Other tube radios sold for home entertainment (continued)

Second Place
Rich Mueller 7,817 pts. Zenith 6G001YX (1946) battery/AC using internal Wave Magnet antenna, MDS 1040 kHz WHO Des Moines, Iowa 1,014 mi.

Third Place
Aaron Hunter 7,520 pts. Majestic 21 (1935) using Klase plywood loop, MDS 600 CMKA San German, Cuba 1,347 mi.
Category F: Amateur, Commercial and Military tube-type communications receivers introduced before 1945

First Place

(Joe was DXing from Jefferson, Maine.)

Second Place
Al Klase 9,481 pts. Hammarlund HQ 120 (1938-1944) using Skywaves Loop, MDS 600 kHz CMKA Radio Rebelde, San German, Cuba 1,347 mi.

Third Place
Mark Hilliard 8,063 pts RME 69 (1936-1940) using Kaito AN 100 loop, MDS 670 kHz CMBC Arroyo, Arena, Cuba 1,271 mi.

(Mark was DXing from Allentown, Pennsylvania)
Category F: Amateur, Commercial and Military tube-type comm receivers introduced before 1945 (continued)

Fourth Place


Category G: Ultralight “Shirt pocket” radios, max. volume 20 cubic inches, original retail cost not more than $100

First Place

Steve Boracchia 8,290 pts. C Crane Pocket Radio using internal ferrite antenna, MDS 670 kHz CMBC Arroyo Arena, Cuba 1,271 mi.

Category H: AA 4, 5 or 6 tube AC/DC radios using heater type tubes, sold for home entertainment

First Place

Aaron Hunter 8,040 pts. Wollaroc 3-1A (1946) using internal loop and Tecsun AN200 loop, MDS 570 kHz Radio Reloj Havana, Cuba 1,279 mi.
Category H: AA 4, 5 or 6 tube AC/DC radios using heater type tubes, sold for home entertainment (continued)

Second Place
Rich Lee 7,064 pts. General Electric 423 (1951) using internal and external loops, MDS 870 kHz WWL New Orleans, Louisiana 1,128 mi.

Category J: Classic Transistor radios, sold for home entertainment, analog only.

First Place

Second Place
Steve Boracchia 8,408 pts. General Electric Super Radio 7-2880 B (1980?) using internal loop, MDS 670 kHz CMBC Arroyo Arena, Cuba 1,271 mi.

Third Place
Mark Hilliard 8,258 pts. Westinghouse RPM-5010A (1970?) using internal loop, MDS 820 kHz WBAP Fort Worth, Texas 1,379 mi.

(Mark was DXing from Allentown, Pennsylvania.)
Category K: Any radio of your choosing

First Place
Frank Feczko 9,733 pts Sangean ATS-803A digital portable (1989-1995) using internal loop, MDS 1030 kHz WBZ Boston, Massachusetts 1,118 mi.
(Frank was DXing from Leesburg, Florida.)

Second Place
Al Klase 9,216 pts. Collins 51J-4 tube ham receiver (1957-1963) using Tecsun loop, MDS 600 kHz CMKA San German, Cuba, 1,347 mi.

Third Place

Fourth Place
Bill Sloma 8,694 pts. Tecsun PL 990 digital portable using internal ferrite ant. and Tecsun loop, MDS 530 kHz CMBR Radio Cyclopedia, Cuba, 1,271 mi.

Fifth Place
Joe Sarafin 8,135 pts. Raddy RF320 digital portable using loop antenna, MDS 850 kHz KOA Denver, Colorado 1,615 mi.

Sixth Place
Henry Sonntag 6,724 pts Tecsun PL 990 digital portable using Tecsun loop, MDS 1,540 kHz KXEL Waterloo, Iowa 950 mi.

Seventh Place
Doug Poray 4,881 pts. ICOM IC-718 digital transceiver (2000) using dipole antenna MDS 750 kHz WSB Atlanta, Georgia 717 mi.
Most of us are aware of the old adage “looks can be deceiving”, but we all need a reminder of this once and awhile. At the March NJARC Repair Clinic I got a reminder of the adage with one of the devices I brought to fix. This one happened to be a Sears Silvertone model 1994 tombstone radio. I picked this radio up at our January 2023 NJARC meeting’s auction of items that were donated to the club. This particular radio looked to have been restored – the wood cabinet looked great (save for a small veneer chip missing) and had a new line cord, The chassis had a fresh coat of gold paint, and came with some extras – extra knobs, and what looked to be the original operating manual for the radio. There were many radios there that night and nobody bid against me on this one, so I became the new owner for the princely sum of ten dollars!

When I got it home, I plugged it in and lo and behold, it did not work. Bummer. I set it aside for a future project, assuming that whatever was wrong with it might be minor. It was at this time I noticed that the manual didn’t match the radio’s model number tag. Oh well, who needs the manual anyway? It’s still very nice looking, and hopefully will be easy to fix. At the time I got it, I had other projects ahead in line, so it waited patiently for its turn.

I brought it to the March 2024 NJARC Repair Clinic as one of multiple projects I thought would be quick fixes. Unfortunately, my first project took most of the day (we’ve all been there…). The Silvertone was the last thing I got to that day, and fortunately we did not have enough time to tear into it very far. We had powered it up on a variable AC Transformer with a current meter and noticed nothing out of the ordinary. When we had it up to full power, we did not see any red flags, but also get any radio stations. The radio would make a “bzzzt” sound, repeating at a regular interval.

We turned it off, and I started poking around. One thing I did notice was the rectifier tube didn’t match the label- it was a 5Y3 instead of a 5Z4. Quick research from substitution manuals did not list these as a direct replacement. I borrowed a 5Z4 from the club stock to see if it made a difference. It made the “bzzt” sound louder but it still repeated at a regular interval, and still we had no radio stations. It was nearly the end of the Clinic, so we did not tear into it further. That would wait until I got home.

I started tearing into the “patient” the next day to find interesting surprises. The first surprise was that it initially appeared that the radio had not been electrically repaired AT ALL (save for the new power cord). On closer inspection, I noticed that the can electrolytic capacitors’ mounting hardware was nice and shiny and did not match the color of the oxidized metal around it. Evidently these caps were replaced at some point in the radio’s life. It was not easy to tell before tearing into it, because someone had spray painted not only the chassis, but the coil cans and capacitor cans with gold paint, covering up any labels/etched information up.

Normally I don’t bother to test electrolytic cans to see if they are good (I just assume bad and replace), but since there was obvious signs they were replaced, I tested both of them (fortunately they were each single.
value cans, which made identification easier) with a vintage capacitor analyzer with Magic Eye tube. One of them was fine, the other was leaking fairly badly, despite leaving the cap on the tester to form for 30 minutes or so. I wasn’t interested in trying to push it into service if it didn’t come up relatively quickly so I simply bypassed this cap with a new part under the chassis.

Replacing the leaky cap seemed to solve the “bzzzt” sound. Onward I went replacing all the wax paper capacitors. Not too long after starting this process signs of radio reception were coming in. I kept going until all of them were replaced. At this point the radio was reliably playing but there were still some other faults to clear up. The 6E5 was so dim you couldn’t see it, so I replaced that. Next, there was no light coming from the pilot lamps. The sockets were broken and not connected correctly. It also looked like a modification was attempted to change the original illumination to a different style. The type of bulb was not on the Riders schematic, and the Sears-Silvertone service manual listed a house part number rather than a common number.

Fortunately, I had picked up a book from a free pile at one of our meetings that I am finding myself using more often than I ever expected - Sylvania Tube complement book with IF Peaks and Panel Lamp Data. Unfortunately, my specific radio was not listed in the book, but the chassis was shared across a few different models, and the other models were in it. I assumed that the sockets were changed, based on the fact that the other two chassis used a bayonet bulb, whereas my chassis had two E10 screw-in bulb sockets (which weren’t working anyway). According to the schematic of the radio, the bulbs were powered with a separate winding right off the transformer, which read about 5v. I saw value in having two sockets to illuminate the dial like the previous owner had attempted, so I replaced the E10 sockets with the proper bayonet sockets. The layout book said the original chassis used a #44 bulb, which draws about .25amps, I replaced it with two #47 lamps, which draw .15amp each. It’s slightly more draw but I think it will be tolerated ok, as I don’t tend to listen to my radios for very long in one sitting.

As I was doing some final touch-ups here and there electrically it occurred to me to check the line fuse to make sure there was no funny business going on. After all, I had just done a lot of stuff to restore this radio that had appeared to have already been in working order. There indeed was a fuse in there, but the glass cartridge fuse was rated for 15 amperes instead of the ¾ ampere referenced in the service manual! At that rating, it might have well have been a nail.

All of this should serve as a reminder to be aware of your purchases, even if they seem like they have been restored at least some point in the past! The repairs might not have held up with the time that has passed, or they might not have been done correctly (or at all!). The shiny paint on the chassis and the nice-looking cabinet might have made it look nice as a static display but it was far from working order. It’s working now, and if I were ever to sell it, even if I said it was working, check it when you get home. I wouldn’t intentionally lead you astray, but working is always a temporary condition!
New Jersey Antique Radio Club's

Summer Tailgate Swap Meet and Ham Fest

Infoage Science History
Learning Center and Museum
2201 Marconi Road
Wall, New Jersey 07719

Saturday, July 27, 2024

Refreshments Available
40 spaces available
$25.00 for members
$30.00 for non members
Bring your own tables

Open to the Public
8am to 12 noon
Vendor setup at 7:15 AM
$5.00 ENTRANCE FEE
CLUB DONATION

For Directions
Visit our website: www.njarc.org
or Mapquest
2201 Marconi Road, Wall NJ 07719

Vendors Make Your Reservations Now!

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