

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

December 2019

Volume 25 Issue 12



MEETING/ ACTIVITY NOTES

Reported by
Marv Beeferman



MEETING NOTICE

**NO MEETING THIS MONTH - HOLIDAY PARTY
AT WEST LAKE GOLF AND COUNTRY CLUB -
MAKE YOUR RESERVATION TODAY!**

The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. Over 160 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.

Three major club events in November has turned this month's *Broadcaster* into a photo montage that left no room for historical or technical articles - our repair clinic, winter swapmeet and homebrew contest. In fact, additional homebrew photos will have to be carried over to the December issue. Perhaps the photos are a little overkill, but since this newsletter is primarily dedicated to our members, maintaining a historical record of such handsome faces and their accomplishments seems more appealing than the history of some obscure radio.

The results of the homebrew contest are in! Bruce Ingraham takes first place (\$50 gift certificate) with his 5-tube, all-wave "Black Widow" regen receiver. In second place is Nevell Greenough's take on Al Klase's "Skywaves" crystal set and the winner of a \$25 gift certificate. There were three entries tied for third place - Jerry Dowgin's single-tube regen, Al Klase's "Pretty Good" crystal set and John Rucolo's rectifier-based regen. Each receives an NJARC golf shirt and hat.

Besides the homebrew contest, the November meeting featured some giveaways, a sale of "overstocked" items from our club's donation inventory and an auction of some nice communication and 20's receivers. Thanks to president Richard Lee and Ray Chase for the hard work involved in making our meetings a little more to look forward to.



A happy member gets a chance to fill in some holes in his bookcase with the clubs' overstocked Riders.



"Boy...just what I needed for my next project. And it was free!"

Up for Auction



December 14th is creeping up on us very quickly so it's about time you made a decision if you will be attending our **Holiday Party**. A reservation response form is included in this month's *Broadcaster*. It's imperative that you respond as quickly as possible since member Bill Zukowski must give the venue a final head count a week before the event. Since we are getting so close, I'll allow you to get in touch with me by phone or email. If you respond by phone and get my message machine, please ensure you speak clearly and include the full names and status (member/non-member) of all people attending.

609-693-9430
mbeeferman@verizon.net

This is also a good time to consider your radio-related entry (\$25 value suggested) in our Mystery Grab Bag game. Please don't wait to the last minute to wrap up whatever is lying around.

Upcoming Events

December 4 - E-Board meeting at InfoAge
December 14 - Annual Holiday Party at West Lake Golf & Country Club
March 28th - Spring swapmeet/hamfest at Parsippany PAL

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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IT WAS A COLD, DARK AND WINDY DAY...

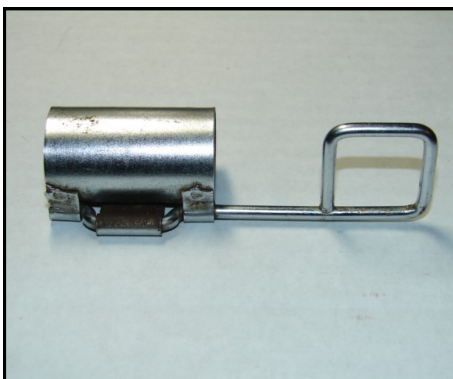
By
Marv Beeferman

No, not the introduction to a gothic novel, but the conditions that a group of hardy NJARC radio restorers faced on the morning of our November 17th repair clinic at InfoAge. But as Radiowild producer Bob Bennett noted, "glowing tubes and soldering irons helped to warm things up." Bob's YouTube video capturing the highlights of the day can be found at the following link:

https://www.youtube.com/user/Radiowild?disable_polymer=true

We received an interesting comment from a "watcher" of Bob's video who noticed Jon Butz Fiscina's comment on what was described as a "pin straightener." The viewer said that this "little device that you guys think is supposed to fit on your finger is actually used to pull out hot tubes from television power transformer sets so that you did not burn your fingertips. If you look inside the hole where you think your finger would go, there should be a thick rubber sleeve that grips the hot vacuum tube while the set is still playing and a cold one put in."

I'm not sure about the troubleshooting circumstances where you would want to switch out a "hot" tube with a cold one during operating conditions, but I'm sure at least some club members are probably familiar with the actual use of the device. Some years ago, a donation of a similar "puller" made its way into our repair shop and I mentioned it in the *Broadcaster*. Here's the photos that went along with its short, descriptive article:



Thanks to all who filled out a "Repair Clinic Feedback Form" (noted in Bob's video) on which the following activities were based:

- Jon Butz Fiscina, Bob Bennett and your editor worked on Jon's Philco 38-7. The radio featured Cone-Centric automatic tuning and two-band coverage (540-1720 KHz and 5.7-18.2 MHz). The console version of this radio offered a "No Stoop, No Squat, No Squint" inclined control panel. The radio could receive only a limited number of AM stations, had significant static (especially on the low end) and the volume control was scratchy and non-linear. The volume control was sprayed with DeoxIT and various paper capacitors were replaced. Bob checked alignment and no adjustments were required. As a result, reception seemed to improve with more stations being received and volume control noise eliminated. However, static on the low end did not improve.

After returning home, Jon wrote the following: "On a hunch, I ran a wire from chassis ground to a grounding rod and 95% of the noise disappeared. Who knew."

- Bob Bennett tackled Owen Gerboth's 1951 Zenith H-500. The radio featured the AM band, two weather bands and four shortwave bands and the iconic Zenith WaveMagnet. It was the last of the transoceanics manufactured with 5 tubes with a 3V4 doing the work of three tubes that was used in the older models. The radio was found to be quiet on most bands up to about 12 MHz and no stations could be received on any bands. It was reported that the radio initially worked but then stopped receiving. Testing found that the 2nd IF suffered from "silver mica disease" so it went home with Bob for further work.

Not much progress was also experienced with Owen's 1940 Model 304AN Detrola AC/DC set. It suffered from low audio and could not receive any stations. Originally, the radio had some replaced components so Bob decided to take the

radio home to check that initial repairs were accurately performed.

- Phil Vourtsis and Al Klase worked on a 1940 Transitone PT-25 owned by David Smith. The radio was dead on arrival and an open IF coil was located. The connection was restored and an alignment was performed. The radio played for a while but went dead again. Time restraints did not allow further troubleshooting.

- Phil Vourtsis tackled his 1951 Hickok tube tester. The unit suffered from a lack of "shorts" indication and a jamming paper roll. By cleaning the rotary switch that controls its function, the shorts indication was returned to service. While re-taping the ends of the paper roll, Phil discovered that there was a tooth missing on its thumbwheel. Although the tester is working electrically, the paper roll still remains a problem.

- Ted Copp (N2KP3) worked on his WRL Labs Globe Chief 90A transmitter and Heathkit T-3 signal tracer. The 1958 crystal controlled transmitter covered the 160, 80, 40, 20, and 10 meter amateur bands. Tightening up the crystal socket contacts was all that was required to get the unit working. A replaced power cord, tube replacement and spraying controls with DeoxIT brought the signal tracer back to operation.

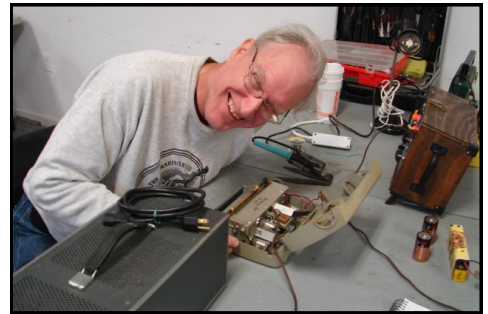
- Bill Zukowski continued the task of restoring Len Newman's Zenith 10H571 1940 chassis that goes to his "Spinet" model radio. On-going work involves the replacement of capacitors, out-of-tolerance resistors and deteriorated rubber insulated wire.

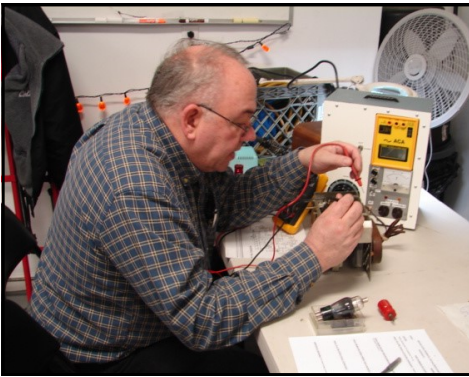
- Jim Doran teamed with Tom Provost to work on Jim's RCA 1940, T62 radio and Eico 625 tube tester. I found it interesting that the T62 has three power supply ratings: 105-125V @ 50-60 cycles, 105-125V @ 25-60 cycles and 100-130, 140-160, and 195-250V @ 40-60 cycles. The radio needed its speaker wire replaced and IF alignment. Since the IF's were found to be "way off," Tom took the radio home so alignment could be performed in a quieter environment. The Eico tube tester required adjustment to test tubes accurately and the chart light was repaired.

- Paul Hart took on Irwin Sobelman's 1946 Westinghouse model H126. It is sometimes referred to as the "refrigerator radio" since it resembles an appliance and has spurred the myth that it was given as a premium to customers who purchased a Westinghouse refrigerator. The radio suffered from distortion but Paul found a bad resistor in the plate circuit of the first AF amp. With resistor replacement, the distortion was cured.

- Bob Masterson tackled his 1952 Motorola model 5X11U radio. The "airplane propeller" dial, colorful dials and curved metal stand gives this AC/DC set a great look. The radio was dead on arrival with a bad line cord, some poor wiring and a broken dial cord. After these problems were addressed and the radio recapped, it left in good, playing condition.

- Paul Hart worked on Bob Masterson's 1955 Westinghouse H436T5. This AC/DC set has a beautiful burgundy finish and two speakers. It suffered from hum but replacement of the filter capacitors solved the problem.





OVERSTOCKED

By
Ray Chase

Overstocked is a familiar advertising claim in retail market advertising but it also applies to our Radio Technology Museum (RTM) at InfoAge. The RTM is fortunate to have large storage space at InfoAge, but it can be both a blessing and

a burden. The museum has become a drop off point for people wishing to donate "stuff" they are cleaning out of their attics or basements. Unfortunately, they often arrive at our front door unannounced and it is assumed that we need all their castoffs. Sometimes, the stuff is even left on our doorstep when we are closed.

Occasionally, good items actually do show up, but more often they are of little value and it just adds to an excess of items that must be sorted out and dealt with. Of course, we set aside the more interesting and valuable items for future displays and museum expansion or to help raise funds at a future auction. Usable vacuum tubes and parts are saved for our tube stock or for the repair shop. That leaves us with a remainder that is not worthy of saving for auction but is potentially usable for restoration or repair, or parts scavenging for your workshops.

Those of you who have lately attended monthly club meetings at InfoAge have seen me offering items in the above category either for free or at very minimal prices. It's all part of an effort to better organize our storage and clear out stuff that should not tie up our space. To start with, items are tagged with low prices. If they sell, fine...if not, at the next meeting at InfoAge, the prices will be reduced or cut in half. Items that do not sell at the reduced price are offered free at the following InfoAge meeting. If they still have no takers, they go to the dumpster.

It is important that we take cleaning out our storage area seriously; unfortunately, in some cases, the dumpster needs to be the end of the line. So look for some generous deals on club "overstock" at our next monthly meeting at InfoAge.



When it comes to choosing "free stuff," sometimes it's hard to make a decision.



Rider manuals offered at the November meeting at a bargain price.

"BEST PARSIPPANY MEET YET!"

By
Marv Beeferman

"The best yet..." and who can argue with member Bob Bennett of the Internet's "Radiowild" fame? If you don't believe it, just take a look of his YouTube video of our November 2nd Parsippany swapmeet at the following link:

<https://www.youtube.com/watch?v=bxQN2iHeoIA>

It was a complete sellout and Bob reported "the best selection of radio and ham radio related offerings yet! I also saw many happy faces of both buyers and sellers."

President Richard Lee would like to give a shout-out to those people and members who helped make the show such a success...Rob Dusel, Loren Neuman, Vince Meyer, Fred Wara and Jerry Ingordo. A special thanks goes out to Dave Terwilliger for taking on the job of "gatekeeper" throughout the show.

The PAL Events Director had promised Richard an "improved rental experience" as compared to previous years. Unfortunately, it was not! After having our event at the PAL building for over 16 years and paying for setup, she failed to tell her crew to set up our show. Richard showed up at 6:30 and saw the following:



But with the help of Larry, the PAL building opener, who happens to be 83 years old, and later member Vince Meyer, the venue was put in order before the vendors entered. After a meeting with the Events Director, Richard received a guarantee that the problem will not occur again. Let's hope this is the case; our Spring show is scheduled for March 28th.



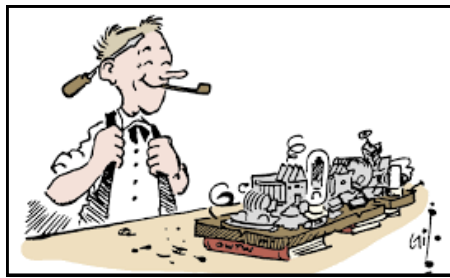


Thanks to member Dave Sica for updating our swapmeet signage.

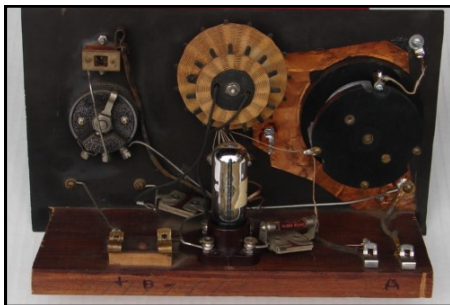
WHAT'S BREWING?

By Marv Beeferman

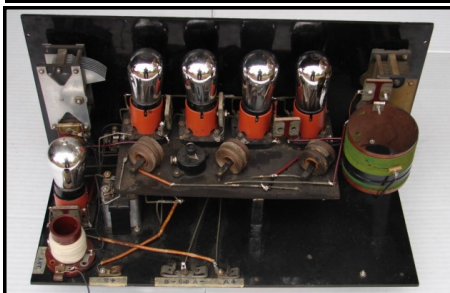
Our November meeting featured a homebrew radio presentation and contest that turned out to be quite successful. Members were asked to display homebrews in their collections and to participate in a contest of recently built examples. Some very interesting radios made their appearance and are described and pictured in the following article.



Your editor gave a short introduction to "the joy of homebrew" that included what defines a homebrew (as compared to a kit radio), how they became popular but eventually died out, what makes them interesting to collect and what are their restoration disadvantages. A simple regenerative set and early superhet were shown.



A simple homebrew regen featuring a 199 tube, Crosley-type push-pull feedback control, bus-bar wiring and a sheet copper shield to inhibit hand capacity. The cabinet cover was made from a wooden Sherwin Williams paint box.



An early 5-tube homebrew superhet featuring a Pressley-type oscillator-detector with a range of 600-1200 KHz. Note the interesting IF's.

Technical Coordinator Al Klase gave a talk on an early (1921-23) homebrew Reinartz and 1933 "rationalized autodyne." He explained that the Reinartz receiver was designed to oscillate to whatever frequency the grid was tuned. Once set in oscillation, the C.W. code stations were immediately audible as the operator tuned across the spectrum using a single control.

The design for the "rationalized autodyne" was first published in the January 1933 issue of QST. The term "autodyne" referred to the oscillating state of this three-tube regen. When it is oscillating, it is in the "autodyne" mode. Front-end RF stage tuning mechanically tracks oscillator-stage tuning so that once set up for a given band, you do not have to make any adjustments to tune across the band.



This regen, described by Pete Grave, was built by John Kelley and used plug-in coils.



Nevell Greenough was curious about this homebrew crystal set that, in addition to its galena detector, had a copper metal spring and screw point which resembled a copper oxide detector.

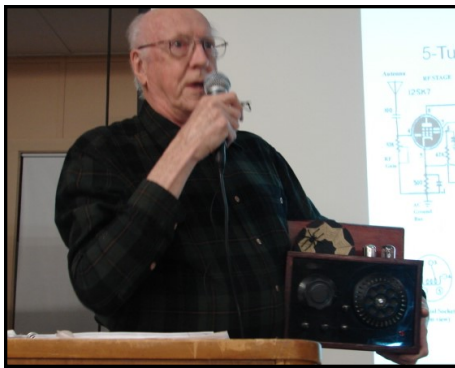


Jerry Dowgin spent over a year hunting for parts for his first homebrew - a one-tube, 201-based regen. He had difficulty finding a variocoupler that would tune to WOR so he turned one on his lathe and guessed on the turns from a drawing. Finally, one turned up on ebay and he's ready to install it.

In the 60's, Motorola's two-way radios were a little too pricey so Robert Forte built his own 6 meter, 1/2 watt transceiver using a commercial subassembly and transistor radio.



Aaron Hunter retrieved this regen homebrew from his aunt's attic. He would like to think that it was built by his uncle who worked for station WLW.



Bruce Ingraham entered a 5-tube, AC/DC, all-wave (plug-in coils) regen receiver. He calls it a "Black Widow" based on the spider coil made from a pancake flipper. It's a basic AA5 with only a change in the detector tube; no IF cans are used. Notice the tuning dial on the left. Bruce feels that if you lay out your radio controls in the same way as the schematic circuit, there is no requirement to label them.



Unfortunately, I failed to get close-ups of Al Klase's crystal set entries. One was a take on Al's "Pretty Good" design and the other was his "City Mouse" built into a small package as a "Pocket Mouse." Both may be found at skywaves.ar88.net. Al noted that he has found that imported Chinese earbuds using rare earth magnets seem to work very well (although a transformer is required).



John Ruccolo experimented with a 6AX5 full wave rectifier acting as a triode ("gridless triode") to build this regen. Only 6AX5's with a specific geometry will work - the two plates must closely face each other over the full length of the tube. Rectifiers such as the 80 and 5U4 will not work. John found that the heater "sweet spot" is about 4.5 volts to prevent overheating.



Nevell Greenough reproduced Al Klase's "Skywaves" crystal set. Built with toroid coils, Nevell says that the radio is a great performer using a 1N34A detector and won first place in the crystal set category of our last DX contest.

Limited space prevents showing all the homebrews from the November meeting. We'll show the rest next month.

NJARC Annual Holiday Party

Date: Saturday, December 14th, 2019
Time: 5:00 PM – Cocktail Hour/6:15 PM - Dinner
Place: West Lake Golf & Country Club
1 Pine Lake Circle, Jackson NJ 08527

Members \$25 each
Non-Member Adults and Children over 12: \$25 each
Children under 12: \$5 each

Cocktail Hour, Dinner Buffet, Mystery Grab Bag, Surprises
*******RESERVATIONS REQUIRED*******

If you plan to attend, please fill out the attached coupon, detach it and mail it with a check to:

Marvin Beeferman
2265 Emerald Park Drive
Forked River, NJ 08731
609-693-9430/mbeeferman@verizon.net

by December 7th. **Everyone who plans to attend must send back a response form with the full name(s) of attendees.** Reservations must be made via the form below; please refrain from telephone or email reservations unless absolutely necessary! Payment must accompany the form. Please indicate member (M), non-member (NM) or child (C).

-----Please Cut Here -----

Name(s): _____

Telephone or email: _____

Number of **Members**: _____ X \$25 = \$ _____
Number of **Children** under 12: _____ X \$5 = \$ _____
Number of **Non-Members**: _____ X \$25 = \$ _____

TOTAL: \$ _____

Make checks out to **NJARC**, enclose with this form and **mail before 12/07/19.**