

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

November 2011

Volume 17 Issue 11



Reported by
Marv Beeferman

The ON-LINE Broadcaster

The New Jersey Broadcaster is now on-line. To date, over 100 of your fellow NJARC members have subscribed, saving the club nearly \$2000 a year and a significant amount of work for your editor. Interested? To subscribe, send your e-mail address to mbeeferman@verizon.net. Be sure to include your full name.

Some very interesting pieces showed up at October's Show & Tell that prompted both lively and in-depth discussions. Hopefully, enough was captured in this month's *Broadcaster* to inspire even more contributors at our next scheduled event. Also included is a short story about a Tube Party held the same month. As you will see, we had an acceptable turnout and made good progress in dealing with our inventory. But we can always use some extra help and you might want to consider attending our next one. We had a lot of fun and it's a great way for novice collectors to learn a little about tube types, tube value and tube testing.

Our Holiday Party is scheduled for Friday, December 9th. It's great fun and I hope you can fit it into your season's plans. We tried our best to pick our usual Saturday, but availability of the Marconi Hotel was limited; hopefully, this won't be too much of an inconvenience. Of course, a regular club meeting will not take place in December.

To get a head start on things and avoid numerous last minute calls, I've included a reservation sheet on page 7 of this month's *Broadcaster*. Please try your best to re-



MEETING NOTICE (InfoAge)

The next NJARC meeting will take place on Friday, November 11th at 7:30 PM at InfoAge. Directions may be found at the club's website (<http://www.njarc.org>). Please join us at InfoAge for another "Members Only Auction." President Richard Lee asks that you bring your Catalins, shutter-dial Zeniths, Hammarlands, or anything else you've become tired of and want to put on the block...but please, "no junque." Remember; you must be a dues paying member to sell or bid!

turn it as soon as possible so we can get an accurate head count. I'll also be sending out reservations by mail including a note about our Mystery Grab Bag. Not that I think that the *Broadcaster* hasn't 100% readership, but I don't want to leave anyone out.

The club would like to thank member Peter Olin for his donation of four working and refurbished radios to our Museum of Radio Technology...an AK 33, 35 and 36 and a Philco 511 (the first radio manufactured by the company). They are truly a fine addition to the museum and reflect Pete's excellent workmanship and attention to detail.

Member Ray Chase has challenged the club's resources with an interesting problem. At the last Kutztown swapmeet, we obtained a huge Tesla coil to make even bigger and better sparks for our hands-on (or more appropriately, hands-off) room at the museum. It came from a high school that was being demolished and was saved from the dumpster. It's over 6' tall with a nice motor-driven rotary spark gap. The secondary (the hardest part to fabricate or find) is well made and in good shape. It still has its primary coil form but unfortunately the copper that formed the coil is gone, probably to the scarp yard.

The secondary was formed from 15 turns of a 2" wide, spiral-wound copper strip. So, the call is out to obtain a copper strip 2 to 2.5" wide and 1/32" thick or less with a total length of 135' (yes, it is a BIG coil). We might be able to splice a few pieces together or perhaps even aluminum might work. Any ideas? Please

contact Ray at raydio862@verizon.net.

We had some nice comments regarding Matt Reynold's Makers Faire article. John Dilks notes that in his younger days, he held a national personal computing convention in Philadelphia in 1978 and hosted the IEEE micro-mouse contest where home made, micro-controlled robots ran a maze. In 2003, John built a Wright 1903 flyer flight simulator for the 100th anniversary of flight and held a fly off contest among representatives of home rooms at the middle school where he worked. John says that "I wish I were younger, I still have ideas, but not the ability to follow through any more."



Member Rob Flory, also in attendance, was glad to see InfoAge represented. He said that the faire proved that technical hobbies still live on among the young. He saw one individual who made a Morse sounder to sound out RSS feeds from his computer. He also saw another who was doing aerial photography using a kite, disposable camera and an ingenious timer using bubble gum and toothpicks with great results.

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 \$20 per year and meetings are held the second Friday of each month. The Editor or NJARC is not liable for any other use of the contents of this publication.

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AN ADIRONDACK HAMFEST

By
Robert Forte

*Attended any radio swapmeets or hamfests lately or plan to in the future? Club members might be interested in how you rate them; perhaps they'll make a good addition to next year's date book. Make sure you bring a camera to capture the action. Robert's article presents a good example how simple it is to become a **Broadcaster** contributor...Ed*

For those of you who want to explore the Saratoga area of the Southern Adirondacks after the crowd has departed, and also want to partake of a small but great hamfest at the same time, I suggest you consider attending the Saratoga County's annual event. It's held the first

weekend after Labor Day. The \$5 admission entitles you to parking, covered venues much like Kutztown, an indoor barn area, a foxhunt, volunteer exam test sessions, equipment testing and a chance to mingle with some old timers. The site is the Saratoga fairgrounds, just three miles south of Saratoga Springs, and the area is rich in history (battle of Saratoga), good restaurants and beautiful scenery with Lake George and the Great Escape Amusement Park about twelve miles north.

Enigma machine guru, Tom Perera, W1TP, is usually in attendance with interesting exhibits. This year he showed a beat up, rifle butt kicked, shot at enigma machine. The meet also draws people from miles around while the weather is still warm and sunny. The real value of this meet is the laid back setting and a chance to pick up small parts and old equipment. You will not find the usual retailers typical of Kutztown but regular hams and hobbyists wanting to thin out their collections.



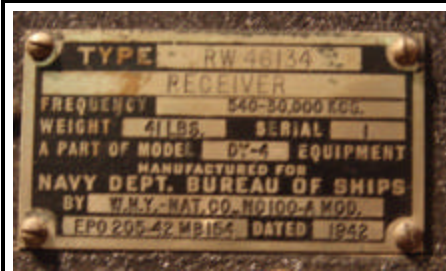
SHOW & TELL - OCTOBER 2011

Ray Chase - Ray talked about a display he titled a "Mystery Find and Strange NC-100 Radio." The National NC-100 was part of an SCR-255 semi-portable ground radio direction finder station which covered 550 KHz to 30 MHz and operated as an aural null sensor employing an Adcock antenna system. The receiver and batteries were located in a cupola that topped a 15-foot structure and the operator sat 8 feet below. A hand-wheel was used to operate the antenna and power was supplied by 6-volt lead acid batteries via a vibrator.

Ray noted that it was important to avoid any metallic links between the operator and the antenna to prevent interference. A headphone and pilot light interface had to be discarded and replaced by a flashlight for just this reason. The turning shaft and remote control rods were made from phenolic.

The receiver was located at the Ferris Instrument Company when it was being torn down. Ferris was contracted by the Army to evaluate WW II equipment; this NC-100 (serial No. 1) was possibly a Navy unit being tested by Ferris for just this purpose.

Ray noted that the Adcock antenna system was interesting. Loop antennas had been used for many years to achieve directional sensitivity but due to atmospheric disturbances and reflections, the detected waves included horizontally polarized signals contaminating the signal of interest and reducing the accuracy of the measurement. Frank Adcock, who was serving as a British Army officer in WW I, solved this problem by replacing the loop antennas with vertical monopole or dipole antennas of equal length. This created the equivalent of square loops, but without their horizontal members, thus eliminating sensitivity to much of the horizontally polarized distortion.



Notice that this unit is serial No. 1.

Ted Sonderman - You could probably spend hours going through the 5R4/5U4 rectifier debates on audiophile web sites, "mushy" sound and all. Ted has come across an interesting example of an RCA 5U4, the earlier and lower peak voltage version of the 5R4. The bottom is marked with a date code of June 1939 and the glass is marked "5R4." Ted speculates this might be an early prototype for testing in military equipment requiring a more powerful tube; he has donated it to the club.



Darren Hoffman - Dumont was the theme that drove Darren's items. His toy truck from the late 40's or early 50's could have been a promotional item or it could have been used by TV dealers to entertain the kiddies while the folks shopped for their latest offerings. The

truck has go-cart steering and could actually be ridden. It is stamped with the name "Roberts" but Darren isn't sure if this was a dealer name or the name of the manufacturer. The truck seems to be somewhat rare since information and availability is limited. Also displayed was a group of Dumont advertising banners.



Walter Heskes - Walter's display of plastic radios was intended to illustrate that nice radios can be acquired at reasonable prices if you are willing to do a little electronic and cosmetic repair work. A Japanese tube portable and RCA 36QP had quite a few electronic issues; the 36QP blew numerous 3V4 tubes before the problem could be located. However, Walt got them playing and went on to case repairs, using two products that fit the bill.

PLAS-T-PAIR is a plastic repair kit that can be either used as an extremely strong, fast setting, water proof glue that can be mixed and poured into a crack or break or molded on as a plastic putty. Although the material does not have much affinity for Bakelite or other thermosetting materials, it will still work effectively if you roughen up the repair area and drill a few holes for the material to lock into. A source for PLAS-T-PAIR is Radio Daze.

Used for bathtub refinishing, Micro-Mesh surface repair buffing material is



used to repair surface imperfections on refinished surfaces. You can purchase a kit from Hawk Labs that consists of various gritted sanding cloths that allow you to sand down to remove imperfections and then polish the repaired area to a gloss that is equal to the surrounding refinished surface.



Al Klase - Dubbed the "Pilot's Preference," Al described a pre-war and post-war "LearAvian" radio found at our Info-Age swapmeet and at Kutztown. The Lear Corporation is probably best known for its private jets. However, Bill Lear was an avid enthusiast of electronic technology, which, among other things, gave us the 8-track tape cartridge system and the Motorola car radio.

The LearAvian series of radios was equipped with three bands and designed for pilots of propeller driven planes. Up

until the mid 1950's, the only reliable means of radio navigation was by use of a directional antenna and a receiver tuned to either commercial AM broadcast stations or special low-power beacons.

On the LearAvians, the AM Broadcast band provided entertainment, the "Marine" Shortwave band was used to obtain time signals, ship-to-shore communications and US Coast Guard services and the "Airways" Longwave band was used for weather and navigation beacons and airport communications. Al's post-war radio was also equipped with a microphone jack so that it could be used as an intercom between an instructor and student pilot.



Sal Brisindi - Sal's attraction to Dynakit/Dynaco was well-represented in a display of various pre-amplifiers which included a PS-2, PS-3, PAS-4 and the Mark VI power amplifier. Not to make them look too shabby, Sal also included a Motorola

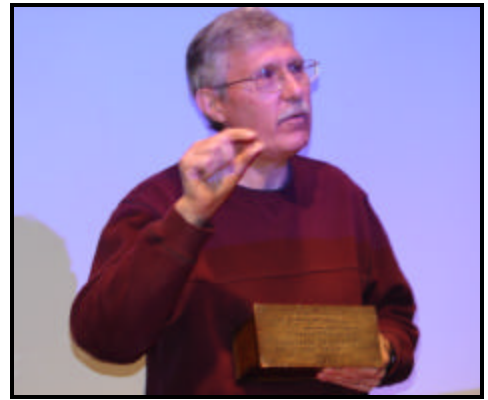
plastic radio which was explained as typical of the quality (no cracks, perfect finish, etc.) that Sal prefers for his collection.

Sal called the Mark VI the last of the real Dynacos and perhaps one of the most collectable; only some 2000 were produced. It originally sold for \$500 in kit form and \$725 assembled. It uses the rare, expensive and unique 8417 tube; there is no tube that can be directly plugged in to replace it. Sal was lucky to locate four of these; two built (which he owns) and two kits which he sold. Sal also keeps an inventory of 8417's.



Pete Olin - Westinghouse introduced the WD-11 tube in 1922 for their Aeriola, Sr. (Model RF). They needed a tube which could be heated with dry cells instead of storage batteries. The WD-11 was also used in the RS, Regenoflex, Radiola X, Radiola III and Radiola III-A, sets made for RCA by Westinghouse. Those who want to play these early sets have a tube problem. RCA quit stocking WD-11 tubes 70 years ago. Today they are prohibitively expensive, being worth more than the radios using them. Because of their value, those who have WD-11s are reluctant to put them into service. The 864 (VT-24), developed for aircraft use, is a popular substitute because it has the same filament requirements and similar characteristics. However, because of its different base configuration, it takes a little work to get it to fit a standard WD-11 socket.

Pete described his method for adapting the 864 for WD-11 use. Delron rod was cut and bored out to create a base template to drill the new holes. A fixture was made to mount the pins which were made from brass stock. A wooden fixture was used to absorb heat and prevent the pins from sagging in their plastic base during soldering.



Marv Beeferman - Your editor showed off a miniature, battery-operated clock radio that was made to duplicate the colors and shape of a Fada bullet. Also, two items described in the October *Broadcaster* were displayed for a closer look - a Radiola 513 imported from Vegas and an early wireless spark coil that was manufactured in Elizabeth, New Jersey.

TUBE PARTY AT INFOAGE

By
Marv Beeferman

We had a very nice turnout for our latest tube party at InfoAge. Hopefully, the draw wasn't Marv Beeferman's world famous "radio bagels" or the free pizza lunch. In attendance were Richard Lee, Gary D'Amico, Harry Klancer, Matt Reynolds, Ray Chase, Steve Goulart, Dave Sica, Darren Hoffman, Marv Beeferman and Walt Heskes and son.

President Richard Lee opened the session with a heartfelt "thank you" to Gary D'Amico who has skillfully and basically single-handedly championed our tube program since its transfer from *Tube Lore* author and tube wizard Lubwell Sibley. Now the reins have been passed to Darren Hoffman who has taken on the additional burden of organizing and storing our huge

tube inventory besides maintaining a desirable stock for our tube program. Darren has promised to re-stock tubes offered to members in tube caddies to make them more portable for bringing them to monthly meetings. We wish Darren the best of luck and success in his new position and for picking up the load of a very popular club program.

Generally, we made reasonable progress in meeting Darren's goals. For a first cut, tubes were sorted into general categories such as big 4-pin, big 5-8 pin, miniatures with 1/6/12 prefixes, rectifiers, locktels, metal, specials, etc. Tubes were packed into standardized boxes provided by Dave Sica which made stowing them in our new tube storage facility very efficient. At a later date, these tubes will be further separated into individual tube types, cleaned (if required) and tested.

Besides the mechanics of sorting, members also learned a little about identifying tube types and engaged in some interesting discussions of some unrecognizable tubes. Some also learned not to place a round tube on a flat, sloping table.





One of the Halloween players at InfoAge's "Base of Terror" reacts to rare tube finds by Dave and Darren.

A FORT MONMOUTH HERO

By Marv Beferman

On September 15th, amid the rain and wind, the final retreat ceremony was held at InfoAge's technological "cousin," Fort Monmouth. A victim of the 2005 Base Realignment and Closure round, most of the fort's research and engineering mission has been transferred to Aberdeen Proving Ground, Md.

Among many of the fort's heroes, who earned their status with a slide rule rather than a rifle, was Moe Abramson of Long

Branch, New Jersey, who worked as a civilian engineer for the Army. Abramson and his partner, Stanislaus F. Danko of Neptune, led a team that developed a method to assemble electrical circuits on a board that was credited with having saved the Army untold amounts of money.

The printed circuit was invented in 1936 by Paul Eisler, an Austrian engineer, and the technology began to be used on a large scale in 1943 to make proximity fuses using a method called through-hole construction. In 1949, Abramson and his team developed the Auto-Sembly process in which component leads were inserted into a copper foil interconnection pattern and dip soldered. With the development of board lamina-

tion and etching techniques, this concept evolved into the standard printed circuit board fabrication process in use today.

The development earned Abramson and Danko a \$10,000 bonus, the largest civilian award ever from the Department of the Army.

In a recent interview in the *Asbury Park Press*, his daughter Jane said that "He was obsessed by the concept. I remember him being in our unfinished basement all the time, soldering. I remember he picked up the soldering iron at the wrong end and we had to race him to the hospital with a burned hand."

Moe Abramson retired in the 1970s after a more than 30-year career as an engineer at the fort and died in 1985.

NJARC Holiday Party

Date: Friday, December 9th, 2011
Time: 5:00 PM – Cocktail Hour at the Museum
 6:15 PM – Dinner at the Hotel
Place: InfoAge – Marconi Hotel
 2201 Marconi Road
 Wall, NJ

Members: \$5 each
Non-Member Adults and Children over 12: \$10 each
Children under 12: \$5 each

Dinner Buffet, Surprises

A wonderful evening of fun, good food and fellowship with a radio theme.

*******RESERVATIONS ARE A MUST *******

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

by November 30th. Space is limited. Everyone who plans to attend must send back a response form. Reservations must be made via the form below; no telephone or email reservations will be accepted! Payment must accompany the form.

-----Cut here -----

Name(s): _____

Telephone or email: _____

Number of **Members**: _____ X \$5 = \$ _____
 Number of **Children** under 12: _____ X \$5 = \$ _____
 Number of **Non-Members**: _____ X \$10 = \$ _____

TOTAL: \$ _____

Make checks out to **NJARC**, enclose with this form and **mail before 11/30/11.**



New Jersey Antique Radio Club's — FALL SWAP MEET —



Parsippany PAL Building
Smith Field
Route 46 & 33 Baldwin Road
Parsippany, New Jersey 07054



Saturday, November 19, 2011

**Walk around auction
starts at 11:30 am.
Bring in your attic
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8 AM to 12 noon

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\$25.00 for non-members**

Reserved Additional Tables \$15.00

At the Door \$20.00

FOR DIRECTIONS

VISIT OUR WEBSITE: WWW.NJARC.ORG

OR MAPQUEST.

(33 Baldwin Rd., Parsippany, NJ 07054)

Vendors Make Your Reservations Now!

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