

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

August 2013

Volume 19 Issue 8



**MEETING/
ACTIVITY
NOTES**

Reported by
Marv Beeferman

The ON-LINE Broadcaster

The New Jersey Broadcaster is now on-line. To date, over 120 of your fellow NJARC members have subscribed, saving the club and your editor a significant amount of money and work. Interested? Send your e-mail address to mbeeferman@verizon.net. Be sure to include your full name.

My apologies for a shortened (6 pages) and late Broadcaster this month, influenced by some vacation time and a limited input of new material. I'll try to make up for it with the next issue.

Good news from InfoAge. The township has approved a new 1000 KVA transformer to be installed by High-Energy Electric for a cost of \$61,000. Once the contracts are created and signed, delivery, installation and testing is expected to take about three weeks.

As reported in the InfoAge "Electronic Update," InfoAge volunteers have recently acquired a Lightweight Counter Mortar Radar (LCMR) developed by the Army for use in Iraq and Afghanistan. The radar was donated by the Tobyhanna Army Depot. It was developed jointly between the Army (Fort Monmouth, NJ) and the Syracuse Research Corporation for use by airborne forces. The lightweight LCMR (120 lbs) is transportable and can be deployed by a crew of two.

The radar has an interesting connection to InfoAge. During WWII and the campaign in the Pacific, a message was sent from General MacArthur's staff to the Signal Corps for help in dealing with a mortar threat from Japanese soldiers who had refused to surrender to U.S. troops. Dr. John Marchetti, Camp Evans radar pio-



MEETING NOTICE

The next NJARC meeting will take place on Friday, August 9th at 7:30 PM at Princeton's Bowen Hall (70 Prospect Ave.). Directions may be found at the club's website (<http://.njarc.org>). This month's program will include a compilation of radio-related movie shorts.

neer, and his staff initiated a rush development to modify an existing Camp Evans radar, successfully testing it on Long Beach Island, and then shipping it immediately to the Pacific theater where it saved many lives.

Fifty years later, General Franks, head of the U.S. ground forces in Iraq, sent a letter to U.S. Army CECOM requesting the immediate production of the LCMR currently under development for the Special Forces, by the successor division to Dr. Marchetti's team. The threat was truck-mounted mortars that were attacking U.S. forces in urban and semi-urban areas.



Volunteers Bob Pericelli, John Cervini and Bruce Williams stand near the LCMR.

\$5 donation requested. The weekend will feature dioramas, displays, and a special Waterhouse Art Exhibit of prints of WWII action. Also featured will be detailed WWII National Archives 50th anniversary posters covering the entire conflict.

In addition, there will be a fascinating lecture on the WWII "Spy Radio" developed at the Fort Monmouth Coles Area, which stood off Exit 109 of the Garden State Parkway. Special videos will be shown on Radar development, much of which took place at Camp Evans, and

"The Secret War" which turned the tide during the Battle of Britain.

While we're on the subject of radar, you can find an expanded version of member Ray Chase's article on the AN/TPS-1D radar in the August issue of the *Tube Collector* (bulletin of the Tube Collectors Association, edited by honorary member Ludwell Sibley). The original article first appeared in the May-August 2013 issue of the *InfoAge Marconigraph*.

Although I was on vacation and unable to attend, weather was perfect for our annual tailgate swapmeet at InfoAge. President Richard Lee reported that it was nice to see a few new vendors and he wants to give a big "thank you" to member John Tyminski for climbing on the InfoAge lawn mowing tractor and providing a green carpet of freshly cut grass. As usual, you can see a video of the event courtesy of member Bob Bennett's "Radiowild" on "youtube" (<http://www.youtube.com/user/Radiowild>).



Member Dave Snellman enjoys the idyllic setting of our InfoAge tailgate. What looks like an R390 in the back of Dave's vehicle winds up with a "sold" tag in Bob Bennett's video.

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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John Tyminski shows off his wares. John is responsible for the nice green carpet they sit on.

Two months ago, I included a request in the *Broadcaster* regarding delivery format that didn't seem too burdensome, but unfortunately it resulted in zero responses. With the hope that there are at least a few takers out there, let's try it again:

Dues renewals for 2013 were excellent and I'm happy to report that we are still maintain a strong membership base. However, club membership still comes with a little responsibility for all of us. As with most clubs, 10% to 15% participation in keeping the club active is pretty standard. We do realize that the responsibilities of many club members and traveling restrictions make it difficult for many people to volunteer and help out on a frequent basis. However, there is one thing that you can do that takes virtually little effort.

Over the years, the cost of producing and mailing the NJARC *Broadcaster* has been steadily rising. Even with some 120 members receiving our newsletter via the internet, production costs still take a large chunk out of our dues receipts. It would be a great service to the club if those of you receiving the *Broadcaster* by mail could consider switching to e-mail delivery.

It is understandable why some members might insist on being mailed a physical copy. Perhaps they desire to collect past copies. However, with a relatively inexpensive printer, a copy can easily be obtained in black and white or better yet, living color! Receiving the newsletter requires no computer expertise or expensive software; just click on the link that is sent out each month and the Adobe reader version quickly downloads.

(Adobe Reader is free software available on the internet.)

The club is quite willing to make exceptions for those of you who have problems using a computer and we consider this understandable. But for the rest, in today's digital environment, it is hard to conceive of any reason not to receive online versions of our newsletter.

Won't you consider participating? - every little bit helps. Just send your request to mbeeferman@verizon.net.

Upcoming Events

September 13th: Monthly meeting at InfoAge - Tech-talk by Al Klase (to be announced)

September 20-21: Kutztown Antique Radio Meet

October 11th: Monthly meeting at Princeton - Talk by Steve Klose on Armstrong plaque project (tentative)

November 8th: Monthly meeting at InfoAge - Talk by Joe Taylor on the history of the moon bounce project (tentative)

December 7th: Holiday Party at InfoAge (no meeting this month)

NJARC OBSERVES ARMSTRONG DAY

By
Al Klase

The New Jersey Antique Radio Club's Radio Technology Museum (RTM) held its first Armstrong Day observance on July 27th and 28th at the InfoAge Science History Learning Center in Wall Township. The event honored the 101st anniversary of Edwin Armstrong's introduction of the regenerative radio receiver.

Armstrong was arguably radio's most important inventor and the concept of regeneration brought the industry forward from the early "wireless" era dominated by buzzing spark-gap Morse code transmitters and nearly deaf crystal receivers into the vacuum tube-based electronic age. This also enabled the long distance communications and voice broadcasting that we enjoy today.

InfoAge enjoys an important connec-

tion with the Armstrong story. It was here, in January 1914, at the then under-construction Marconi Belmar station, that Armstrong demonstrated his device to Marconi Wireless Telegraph Company of America's chief inspector David Sarnoff. Sarnoff would go on to become president of RCA and Armstrong to pioneer and develop FM broadcasting and two-way mobile communications.

In keeping with the museum's principle that antique radios need to be heard as well as seen, a number of vintage regenerative receivers, spanning the years from 1912 forward, were in operation for auditioning by visitors. These included a recreation of Armstrong's original experimental receiver tuned to a simulated spark signal from the Marconi station on Cape Cod, a 1918 maritime receiver listening to continuous-wave Morse code and several early broadcast and short-wave sets.



Visitors mastering the operation of a basic regenerative receiver.

NJARC TALKS TO DOVER HISTORIANS

By Ray Chase

On the hot, steamy Tuesday evening of July 16, Harry Klancer and I presented the "History of Radio Broadcasting" to about 25 members of the Dover, New Jersey Historical Society. We were invited by George Laurie, the museum curator. Richard Lee also dropped in to also represent the NJARC.

As usual, we transmitted the audio through vintage radios. Since we were in Dover, home of member Joe Bentrovato, we did not have to transport any radios since it would be akin to "carrying coal to Newcastle." Joe helped greatly by supplying several working radios from his rather extensive collection, including a Zenith table model shutter dial (that I had sold to him quite a few years ago), a Wards "movie dial" console and a nice Stronberg Carlson.

Joe had already placed a Philco console in the museum with the intention of broadcasting vintage radio programs when the museum is open. Presently, the museum does not have regular hours but hopes to open one day a week.

The Dover Historical Society is housed in a 19th century frame house in downtown Dover but the rooms are small so it was a tight fit with the number of attendees that showed up. As you may know, the same location is the intended home of the New Jersey Radio Museum, although it is only virtual at this time. Its

president, Rich Phoenix, was also present. The presentation was well-received and inspired the society to consider hiring a bus in the near future to take a trip to see the club's museum at InfoAge.

Dover was just another typical stop on the club's traveling road show. In October, we are scheduled to set up a small display in the Mercer County Library in Lawrenceville, NJ.

A tip of the hat to Ray, Harry, Joe and all those who help spread the "radio" word throughout the state, creating interest, goodwill and perhaps a few additions to the museum's inventory...Ed



"It was a hot, steamy Tuesday evening"... but Ray Chase was still able to maintain his radio cool at the Dover Historical Society.

TESLA LAB SAVED

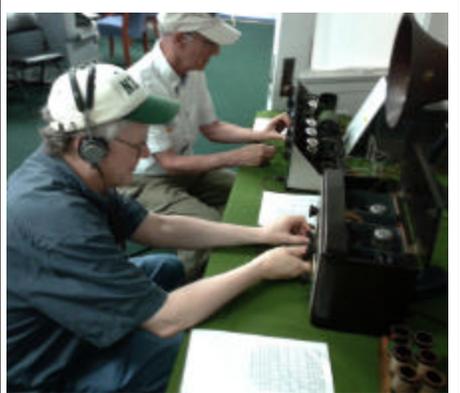
The following is based on a CNN report from May 10th, 2013...Ed

Through some highly successful crowdfunding and skillful negotiation, the last remaining laboratory of futurist inventor Nikola Tesla is now in the hands of a nonprofit group that wants to preserve the site and make it a museum honoring one who is sometimes referred to as "the father of the electric age." The Tesla Science Center announced that it has completed the purchase of the building and land of Wardenclyffe Tower in Shoreham, New York, after trying for more than 18 years. The original asking price was \$1.6 million, but the deal closed for \$850,000.

The Wardenclyffe Tower was to be



Al Klase explains the finer points of Armstrong's invention.



Tuning in to the AM broadcast and amateur bands.



The Tesla Lab today.

tions to society to join in helping to make this dream a reality."

Similar to the early days of InfoAge, the Tesla Science Center has called on volunteers to assist in the cleanup along the perimeter of the site. Those interested can sign up using VolunteerSpot.com.

Largely forgotten for decades in the shadows of inventors like Thomas Edison,

son, Tesla has emerged in recent years as a sort of an unsung hero among the science-minded. Tesla foresaw the need for wireless transmissions in the late 1800s - a hundred years before anyone picked up a cell phone. But Tesla's work lost much of its financial backing after Guglielmo Marconi sent radio signals across the Atlantic Ocean, and the lab site was lost in 1915. Now, the Tesla Science Center hopes to soon be welcoming visitors who can understand and appreciate all the accomplishments and ideas envisioned by the inventor.

where Tesla would realize his dream of developing wireless communications and clean, free energy for the world. It was never completed, and the building was later used by a photo processing company, leaving the area tainted with chemicals.

Last year, the nonprofit made a plea on the Internet for donors. Tesla fan Matthew Inman, creator of the Web cartoon "The Oatmeal," started an IndieGoGo crowdfunding effort irreverently titled "Let's Build A Goddamn Tesla Museum." Fans of Tesla responded, raising more than \$1 million in about a week before wrapping up with \$1.37 million. The money left over after the purchase will be used to clean up and renovate the property. The ultimate goal, an interactive science museum honoring Tesla, will require much more cash.

On his website, Inman thanked donors and said an event is planned this summer in Shoreham to help finance the science center. Musical performances, lectures, interactive exhibits and tours - with Inman as one of the guides - are planned during the two-day event. Inman also plans a special Tesla demonstration during the event:

"I own a fully functional Tesla coil cannon and I plan to BBQ some Srirachabacon sandwiches by shooting them with its 20,000 volt electric arc, so the event will be both scientific and delicious."

Mary Daum, treasurer of the Tesla Science Center, said in a statement:

"We estimate that we will need to raise about \$10 million to create a science learning center and museum worthy of Tesla and his legacy. We invite everyone who believes in science education and in recognizing Tesla for his many contribu-

The following photo by Lewis Hine showed up on the historical photo archive website Shorpy and was noted by NJARC member W2JL.



The caption reads as follows: "RCA Victor Final Inspector - testing radio frequency alignment and making final test of chassis. This takes place in a room entirely surrounded by copper screening in order to protect testing from any interference. This is the job requiring the highest skill. Even technical training, such as an electrical engineering course, must be supplemented by a course of training at the plant for this particular work."

In the photo (can anyone identify the model number?), the technician appears to be holding one of the control shafts in one hand and the base of one of two pilot lights in the other. What exactly is he testing for? Here are a few of the comments posted with the picture:

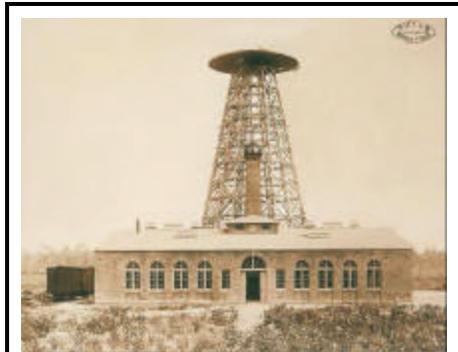
"He's checking for voltage tingle, holding the lamp base and grounding himself to the chassis, possibly because he likes it or perhaps it's a posed photograph."

"Nice watch...but he should take it off with all the high voltage hazards in the area."

"I see a power transformer, so probably not a live chassis."

"Can you imagine having to wear those headphones all day? Heavy, and no cushioning? No thanks!"

"As has already been noted, the chassis is equipped with a power transformer - so the chassis would never be live, no matter what the orientation of the mains (line), AC connected to it. Amongst other things, safety concerns were a major reason for having a mains transformer."



Wardencliffe in its prime.

More information about fundraising events and the Wardencliffe site can be found on the Tesla Science Center website.

FINAL INSPECTOR:

1936, CAMDEN NEW JERSEY

AUGUST REPAIR CLINIC

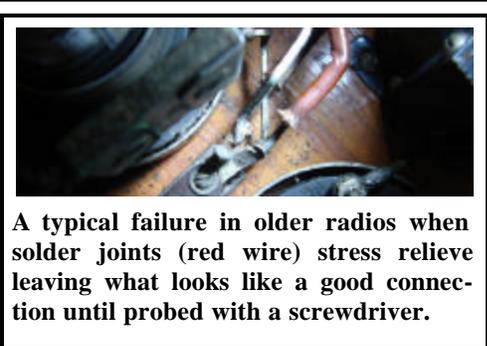
By
Marv Beeferman

Our Summer repair clinic was held on Saturday, August 3rd at InfoAge. As expected, vacation time cut down a little on attendance and we had only one walk-in requesting a radio evaluation. However, this provided plenty of table space and allowed our members to work on some of their own projects. The following activities were noted:

• Steve Goulart handled our only walk-in, a 1957, 4-tube E-672 Philco AM portable. (This was the year Philco introduced its first all-transistor radio and ended its "Transitone" line.) Steve replaced the filter capacitor and repaired a few traces and the elderly lady who owned the radio was quite pleased to take home a working unit.

- Harry Klancer and Marty Friedman worked on a Lafayette 1938, 5-tube model SB7 AM table radio. It took some time to replace the dial cord and tuning was noisy so the variable capacitor plates needed adjustment. Also, the sound was scratchy and it was found that the speaker cone was unglued from its rim. With these fixes, the radio was brought back to life.
- Ray Chase worked on changing the filter caps and recapping a homebrew broadcast band superhet that showed amazing workmanship.
- Chuck Paci, Marty Friedman and Tom Cawley found multiple problems with an RCA 45X11, 1940 Bakelite table radio including a bad power cord connector, bad solder connections, shorted IF coil lead, and miswired filter caps and antenna lead (from previous owner). Once these problems were solved, a working radio was reborn.
- Dick Hurff has been scratching his head for some time with the inability to

- get a homebrew, 4-dial neutrodyne working. (An interesting radio pointed out by Ray Chase with a total of 5 audio stages.) But with a little probing with a screwdriver by Aaron Hunter, a typical failure of these older radios was discovered - a wire that appeared connected but had actually separated as a result of stress relief at the solder joint. It was nice to hear one of these older battery sets playing once again through a "loud talker."
- Matt Reynolds, Marty Friedman, Al Klase and Sal Brisindi joined forces to get Matt's miniature two-channel oscilloscope working (a \$1.00 flea market buy). Just by cleaning the spring connectors between the circuit boards, both channels came to life with one channel fully functional.
- John Tyminski started work on a Philco 46-200 but an open field coil stopped him dead in his tracks.
- Your editor continued work on restoring an Atwater Kent Model E-145.



A typical failure in older radios when solder joints (red wire) stress relieve leaving what looks like a good connection until probed with a screwdriver.



Nothing like a breakfast of radio bagels.



A well-constructed homebrew.





Not the best workbench conditions maintained by your editor.



Here's some additional 1920's original artwork courtesy of Ray Chase; its use and artist are unknown.

