



# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

December 2012

Volume 18 Issue 12



Reported by  
Marv Beeferman

## The ON-LINE Broadcaster

The New Jersey Broadcaster is now on-line. To date, 130 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](mailto:mbeeferman@verizon.net). Be sure to include your full name.

I hope this issue finds all of you safe and well. Damage reports from our membership resulting from Sandy's wrath seemed mostly benign and hopefully this is true for the majority. Ray Chase reports that InfoAge lost several trees and many branches but fortunately all the trees fell in the right direction and no buildings were damaged. The storm surge inundated the power substation down the road but InfoAge was high enough to avoid any water damage. The "eagle tree" was spared and the nest is still intact so it looks like we'll still have to share the property with our feathered neighbors.



InfoAge Cottage #2 - "all the trees fell in the right direction." (Photo courtesy of Ray Chase.)



## MEETING NOTICE

### NO DECEMBER MEETING - HOLIDAY PARTY

Hope you made your reservations for our annual Holiday Party and 20th Anniversary Celebration at InfoAge on December 8th. Festivities start at 5:00 PM with a social hour in the museum; a buffet dinner begins at 6:15. Don't forget your Mystery Grab Bag gift if you care to participate. If you receive the *Broadcaster* in time and have a last minute change of mind, call me (or leave a clear message) at 609-693-9430; we might be able to fit you in.

The storm did not deter any buyers and sellers from attending our Parsippany swapmeet (what else?) and it turned out to be very successful. A few photos of the event may be found in this month's *Broadcaster*. We had to postpone the November meeting until the 30th but we still had a nice turnout and a few interesting items turned up for our show & tell. Again, photos and descriptions may be found in this month's issue.

Sandy also resulted in the rescheduling of InfoAge's Armstrong Day to January 26th and 27th from 1 to 5 PM. The event celebrates the 100th anniversary of the development of the regenerative radio circuit by Edwin Howard Armstrong and is sponsored by the NJARC at our Radio Technology Museum. Working receivers on display will include a mock-up of Armstrong's original circuit receiving a simulated spark radio-telegraph transmission, a WWI era naval receiver, early regenerative broadcast receivers, more sophisticated "regens" that dominated amateur radio and the early phases of the short-wave-broadcast craze in the 1920's and 30's, and a naval RAL receiver that served throughout WWII.

Technical Coordinator Al Klase has also distributed information regarding Armstrong's Alpine station:

As some of you know, WA2XMN is an experimentally licensed, wide-band FM station at the Armstrong tower in Alpine, N.J. operating on 42.8 MHz in what was the original FM broadcast band. (See <http://www.wa2xmn.ar88.net/>) Due to operational realities, this historic

station is on the air only sporadically. When it is on the air, it can be heard as much as 100 miles from Alpine. To give you a better chance of logging WA2XMN, we have established an e-mail reflector to provide notification and feedback. The reflector is on qth.net, the same organization that hosts the DVHRC and NJARC reflectors. To subscribe, visit <http://mailman.qth.net/mailman/listinfo/wa2xmn>.

Al has also announced the 2013 Broadcast Band (BCB) DX contest which will run between January 18th and 27th. Contest rules are included on page 4 of this month's *Broadcaster* and more details may be found at <http://www.njarc.ar88.net/contest.html>. In conjunction with the contest, we'll hold another popular DX-pedition as part of the January meeting.

Finally, it's no secret that president Richard Lee has his Scott Special communications receiver up on ebay. I took a look Monday night and bidding was up to \$11,000 with the reserve not yet met. If you would like to see a demonstration of this amazing set, go to You Tube and search on E H Scott Radio - Special.

### Upcoming Events

December 8th: NJARC Holiday Party and 20th Anniversary celebration; no meeting in December  
December 10th: NJARC Board meeting, 5PM at InfoAge  
January 11th: Monthly meeting at InfoAge; DX-pedition  
January 26th, 27th: Armstrong Day at InfoAge

**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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## WAR OF THE WORLDS: KEARNY STYLE

By  
Richard Lee

*Richard says he tried to get this article to me a little earlier in tune with Halloween, but a little glitch called "Sandy" prevented it...ED.*

You know how it goes - one antique radio fixed for a friend turns into another and the friend just happens to be involved in a North Jersey theater group. The next thing you know, you're in the play yourself! That's the way it happened on October 26th and 27th when the Kearny theater company, known as W.H.A.T., (West Hudson Arts & Theater Co.) put on their re-creation of the Orson Welles 1938 radio play *War of the Worlds*.

The director, Jerry Ficeto, a Kearny native and local educator, was instrumental in putting W.H.A.T. together. He contacted me through a fellow teacher who had a Philco restored by NJARC member Dave Terwilliger. Jerry and I put our heads together and planned placing eight pre-1939 radios on stage in front of the performers.

Three radios were "live" while the others were just for display. I used a K-488 wireless, 1-tube (12SA7GT) AM transmitter built by club member Lou Ciaffi. The design mimics the 1939 Zenith S-7000 phono-oscillator, and it worked quit well. The instructions say not to use an aerial more than six feet, but I had to be sure the signal frequency [1310] was getting out to the working

radios. Therefore, I added a 15 foot section of hookup wire; I'm sure the neighborhood enjoyed the show too!

Via a mixer patch panel, we transmitted a 1936 Benny Goodman CD and the John Callaway prologue of *War of the Worlds*. This was broadcast before the show, at intermission, and after the show while exiting. Many audience members asked about the radios and the NJARC.



The performance was covered by *The Kearny Weekly* which noted that one of its unique aspects was in the use of antique radios "which gave the audience the ability to hear the performance as it was first heard in 1938." Director Jerry Ficeto said he was fascinated with the concept of using old time radios. "We wanted to bring the radio broadcast that changed America and rebroadcast it to our West Hudson audiences in a very special way." One of the actors, Tim Firth, noted that "the actual site where the 'aliens landed' is literally about a mile and a half from where I grew up."

Our club was featured in the performance brochures (i.e., "presented in association with the New Jersey Antique Radio Club") and a playing Philco 38-10T greeted attendees at the entrance. The acting troupe did a fine job, the show was well received by the audience, and they loved the antique radios!



Parsippany Swapmeet - November, 2012



**The 2013 NJARC BCB DX Contest - January 18-27, 2013****Official Contest Rules**

**THE OBJECT:** To use vintage radios receivers to receive broadcast-band signals from the greatest possible distance. Performance will be judged by the total mileage for your ten best loggings during a 24-hour session. You will be competing against competitors using similar receivers.

**ELIGIBILITY:** The contest is open only to members in good standing of the New Jersey Antique Radio Club.

**CONTEST PERIOD:** The contest period will be from 12:00 Noon, local time at the receiving location, Friday, January 18, 2013 through 12:00 Noon, Sunday, January 27, 2013.

**SESSIONS:** Contestants may submit logs for any two, 24-consecutive-hour sessions (noon to noon) during the contest period. You may use only one receiver during a session. That means you may not "bird dog" the simple radio with a more complex radio. You may submit logs for two different receivers. They need not be in the same category.

**FREQUENCIES :** The Broadcast Band, as defined for the contest, will be from 530 to 1600 kilocycles. No stations on the new extended band, 1610 to 1710 kilocycles, will be counted since many early radios did not cover those frequencies.

**RECEIVER CATEGORIES:**

- A - Crystal radios
- B - Primitive tube or transistor receivers (homebrew also) -1 to 2 tubes or transistors, plus power supply.
- C - 1920's battery sets (homebrew also) - batteries or modern power supply are OK.
- D - Other tube radios sold for home entertainment.
- E - Amateur, commercial, and military tube-type communications receivers.
- F - Transistor radios introduced before 1970.
- G - "Light-Weight": Any radio weighing less than one pound (454 grams).

**SPECIAL AWARDS** will be given for the best performances by first-time contestants.

**ANTENNAS:** Anything you like.

**LOGS:** 1. Submit a log for each of your contest sessions (maximum of two). Each log header should include contestant's name, address, phone number, category, and description of receiver and antenna. Please include you listening address if it is different from you mailing address.

2. Make a log entry for each station you claim to have heard. Stations must be positively identified. (This is being done on the honor system, and is a somewhat variable concept. If you hear Boston weather on what you know is 1030KC, then go ahead and log WBZ. However, just because you heard a signal on 1160KHz doesn't mean you heard KSL in Salt Lake City.) The contest committee reserves the right to disallow what it feels are outrageous claims.

3. Each entry should include time, frequency, call letters, location, and optional comments. Although we're only judging your ten most distant loggings, submit as complete a log as possible. The committee may make special awards for most stations, most interesting log, etc. as it sees fit.

A log sheet may be found at <http://www.njarc.ar88.net/contest.html>. You may reproduce it or generate a similar one of your own.

Logs must be postmarked not later than midnight Monday, February 4, 2013.

Logs may be submitted as email attachments.

**SCORING:** Distances to stations will be calculated by the committee and will be based on great circle distances from Freehold, New Jersey for listening posts within a 100-mile radius of Freehold. We will calculate mileage for other entries based on actual listening location. In all cases, please indicate your ten best loggings to make our job easier.

**Special Rule #1:** A contestant may claim only one of the Cuban time stations, Radio Reloj, regardless of how many are actually heard. All will be scored as 1279 miles (Havana).

Submit logs to: Tom Provost, 19 Ivanhoe Dr., Robbinsville, NJ 08691, [tprovost@pppl.gov](mailto:tprovost@pppl.gov)

Questions: Al Klase - 908-892-5465 [al@ar88.net](mailto:al@ar88.net), Tom Provost - 609-243-2508, <http://www.njarc.ar88.net/contest.html>

SHOW & TELL



Ray Chase obtained this "Timmons Talker" cone speaker at a house cleanout a few years ago; originally, it was missing its cone and in poor condition. At a recent Kutztown meet, Ray dropped it off with cone speaker authority Buford Chidester where other "Talkers" may be found in his book *Classic Cones*. Buford said that this particular model is noteworthy for its unusual base. The results of Buford's excellent craftsmanship may be seen in the photo. When he returned the speaker to Ray, Buford said in jest that he "built in" about a half hour of vintage music in the replacement cone; Ray hasn't hooked it up yet to hear just what was there. The speaker, on loan by Ray, can now be seen in our InfoAge museum as part of its permanent collection.

*Classic Cones* (Sonoran Publishing, Chandler Arizona) by Buford and Jane Chidester is a colorful, pictorial reference and value guide for 1920's radio cone speakers. Even if this isn't part of your collecting tastes, it's well worth browsing through.



The theme of Darren Hoffman's offering was "timing is everything." Some years ago, Darren was attracted to a "garage sale" sign at an old service station that had been closed for a while. Among the old tools, he found a generator that had compression, showed spark and would run for a few minutes when demonstrated by the owner; \$15 was not a price he could pass up. It turns out that this 1959, 1500 watt generator was manufactured by Winco, and it is here that the link to radio history can be found.

In 1927, with rural America basically without electricity, the radio was the only window to the world. But batteries kept going dead and it was a real inconvenience to get them charged. Two brothers, John and Gerhard Albers, developed a wind-powered generator to recharge a six-volt storage battery and called their invention "The Windcharger." In 1935, the company was incorporated and moved to Sioux City, Iowa.

Zenith Corporation purchased a controlling interest in Wincharger in late 1935. The six-volt, wind-powered generator sold for \$15 to purchasers of Zenith radios who also wanted the power unit (see ad below). Following its full purchase by Zenith and the development of the Winco line of Power Take Off generators in 1950, the company continued to expand and is still in existence today with a full line of generators of every type.

Darren says he was impressed with the ability to still get parts for two carburetor rebuilds and reliable performance including pumping out many a basement. During Sandy, the generator kept his refrigerator, computer, TV, internet and a lamp on-line during a three-day power loss.

You are invited To a Special Showing of NEW ECONOMICAL

**ZENITH**

FARM RADIOS Operated by Frepower from the air!

DeLuxe Wincharger

—And the Genuine 6-Volt DeLuxe

**WINCHARGER**  
REG. U.S. PAT. OFF.

STOP Spending Money for DRY BATTERIES!

•

END ALL Recharging Nuisance!

•

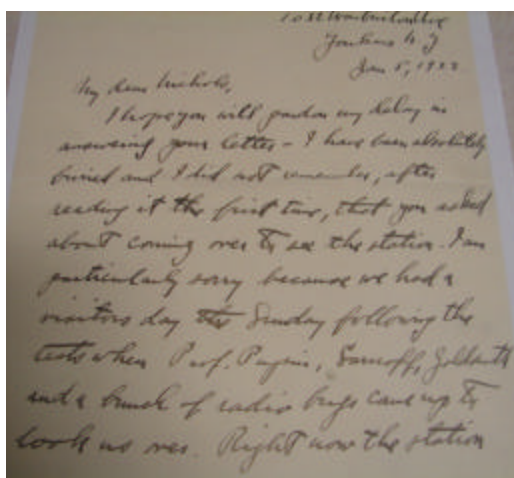
ONLY 50c A YEAR Power Operating Cost!

Complete with 6-foot Propeller, air-cooled generator, auto-type brake, strong 5½-foot steel tower, and instrument panel.

SPECIAL PRICE Only \$1500 with new 6-Volt Zenith Farm Radio



I wasn't able to get all the details of this Canadian Marconi, a Collingswood find by Steve Goulart, but it appears to be of about 1938-1940 vintage. It came with Marconi tubes but the sheet of pushbutton tabs listed American stations. It was suggested that the radio was a good candidate for our basket case restoration contest, but Steve said "I have worse than this."



Some years back, John Dilks purchased some material from the estate of Homer E. Nichols of Bridgeport, Conn. Included was a cigar box that John did not look through until two years later. To his surprise, he found a handwritten letter from Edwin Howard Armstrong dated January 5, 1922. At the time, in association with the Radio Club of America, Armstrong was attempting transmissions to Androssan, Scotland from Greenwich, Conn. Mr. Nichols asks if he could visit the facility, but Armstrong apologizes that the rig (1BCG) had been disassembled and the transmitter stored at Columbia University. The tests were very successful and if you look closely at the letter, you'll see that on visitors day "Prof. Pupin, Sarnoff, Goldsmith and a bunch of radio boys came up to look us over."

John also showed a type-written letter from Armstrong to William H. Mowbray of Kingston, Rhode Island dated July 13, 1946. Armstrong thanks Mowbray for a report of reception of his Alpine station (WA2XMN). Armstrong also suggests a half wave dipole pointed in the proper direction for better reception.

Finally, John talked about a shadow box that contained a piece of wood beam from Marconi's Cape Cod (Wellfleet) wireless station (WCC) which operated between 1902 and 1917.



Your editor talked about a Moore Pocket Register with an RCA logo obtained this year in Kutztown. If you're old enough, you probably remember these pre-computer devices for writing up and maintaining a record of a sale. Carbon paper provided two copies of the sales slip, one for the customer and one for the dealer that could be stored in the register. The register has the RCA logo at its bottom and the words "RCA BATTERIES - FOR EXTRA LISTENING HOURS." The sales slips are printed with pictures of RCA batteries. The register is unused in its original box filled with extra sales slips and carbons.



Pete Olin discussed the hesitation of radio restorers to tackle the RF subchassis of 1937-38 Philco radios, demonstrating that it is easier than it looks. Access to each section is necessary in order to replace/test capacitors, resistors, coils and clean the switch decks. He noted that the bandswitch wafers are keyed so that the bandswitch shaft can only be inserted one way. With the shaft pulled out, removing a few screws and desoldering the wiring going to each subchassis is all that is needed to free them from the main chassis. (It's important to tag all wiring disconnected from the subchassis and keep a detailed log as to where each wire went.)

## NJARC 2013 DXpedition

In support of our 2013 Broadcast Band (BCB) DX contest, Technical Coordinator Al Klase will host his extremely popular "DXpedition" on January 11th at InfoAge in lieu of the monthly meeting.

The basic concept of the DXpedition is to gather together a working collection of radios representing the various eras of receiver design in an environment that will allow each NJARC member an opportunity to operate the sets. Hopefully, inspiration will be provided for greater participation in the BCB DX contest held the following week.

We're going to take advantage of the great facilities and hopefully quiet listening environment available to us at InfoAge. The primary theme will be broadcast band DX and battery-operated sets, but the antenna facilities will support short-wave and long-wave operation as well.

We'll attempt to maintain two log books for each receiver, one for stations

heard and a second for user comments. These might be published, with pictures, to the NJARC website for further reference. We'll also try to shoot some video of each set in operation and post them on our website.

Come with sets in good working condition that you don't mind having other club members operate. If you can bring a length of coax that can be connected to your radio, with a BNC connector on one end, it might be helpful. We'll try to supply a lot of cables and adapters, but your help would be appreciated.

We'll try to coordinate the different types of radios that show up so we don't end up with mostly All-American Fives. It would be nice to have representative receivers from the following categories:

1. Crystal sets
2. Battery sets: Regen, TRF-Regen, TRF, Superhet
3. 1930s and 40s AC sets: TRF, Superhet
4. Other entertainment sets
5. Communication receivers: TRF- Autodyne, single conversion, multiple conversion
6. Transistor radios

Various antennas will be provided and you're welcome to bring your own tuned loops for the broadcast band. We can play into the wee hours if people are interested.

## GE'S FIRST TRANSISTOR RADIO

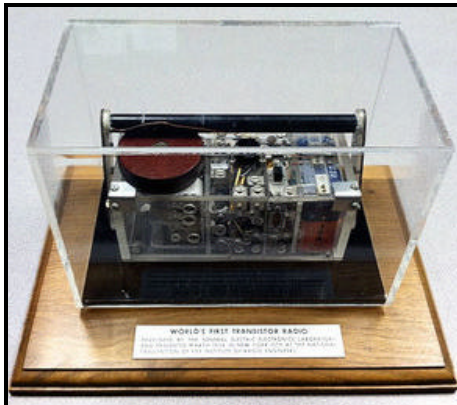
By  
**Marv Beeferman**

*The following article was suggested by a piece from Lockheed Martin's "Momentum" (Vol. 9, No. 10) sent to me by member Charles Farina...Ed*

On November 16th, the Smithsonian Institution received a bit of electronic history from Central New York when Lockheed Martin handed over a prototype of GE's first transistor radio. Jeff Marier was an integration and test manager for Lockheed who noticed a small transistor radio mounted in a Plexiglas display case in a

colleague's office. Jeff found that no one knew about the radio other than it had been displayed for years in the office of former vice president Doug Reep.

"I collect old radios, so it immediately caught my attention," explained Jeff. "I offered to take it to see if I could get it to work. Once I started to look at it, though, I realized that before I did anything, I should know its history."



What Jeff discovered was that the display was actually a prototype of the first transistor radio produced by GE. (The wording on the plaque in the above photo might more accurately read "WORLD'S FIRST (PROTOTYPE) TRANSISTOR RADIO.") The drive to develop a small, portable radio became a race between many of the leading technology companies of the early 1950s. For GE, that race was housed at its Syracuse Electronics Lab, or ELab as it was better known, under the direction of Arthur Stern. He was appointed project lead in 1952, and pushed through a lengthy strike along with a worldwide shortage of reliable transistors, to develop the prototype in 1953. During the strike, engineers on Stern's team were so committed to seeing the project through that they took materials home to continue working in their basements so they didn't have to cross the picket lines.

The commercial product was first presented at the 1954 National Convention of the Institute of Radio Engineers in New York; sales began in 1955. GE was not, however, first to the commercial market - the company lost out by a few months to the Regency TR-1 developed using transistors from Texas Instruments. The GE radio used five transistors (the Regency used four), and sold for a retail price of \$49.95, equal to \$420 in today's dollars.



**GE Model 676.** A few web resources and the Lockheed Martin article give the impression that the 677 (red) and 678 (turquoise) were among the first models but were really later additions in 1956.

Thanks to Rick Hirsh, a technical and very informative article appears on the Antique Radio Foun regarding GE's first all-transistor "pocket" radios and it is suggested that you look it over. The following is a summary of some of the radio's major features:

The 675/676 circuitry consisted of 5 GE germanium transistors as follows: 2N136 (converter), 2N137 (1st I.F.), 2N135 (2nd I.F.), 2N78 (AF Detector) and 2N44 (Output). All of these were PNP, alloy-fused junction transistors, except for the 2N78 which was a rate-growth NPN type. The transistors and electronic components were soldered directly onto a bottom printed circuit board. The top of the chassis had a special copper shield plate that was soldered to the tops of the Osc. + I.F. tuning coil cans to prevent r.f. interference.

The 2N136, 2N137 and 2N135 transistors were located underneath the top copper shield plate. To replace these transistors, GE provided copper cut-out tabs in the shield plate over each one. To gain access to the transistor to be replaced, it was only required to bend up each copper cut-out tab instead of desoldering the entire shield plate. The 2N78 and 2N44 transistors were easily accessible on the top of the chassis.

The 675/676 radios had a positive ground chassis and used batteries supplying -4.5 volts and -13.5 volts. The -4.5 volt supply was used for fixed bias on the emitter of the 1st I.F. transistor and AGC. The -13.5 supply was used for the rest of the circuitry, including a self-bias supply for the base of the 1st I.F. transistor.



**CHRISTMAS, 1924**  
By Charles H. Van Housen

Up in his shop in the Land of Snows  
 Santa is building ra-di-ohs!  
 Jolly and merry and ruddy and quaint -  
 Up-to-date, old-fashioned, modernized Saint!  
 Thousands of "plexes" and "flexes" and "dynes"  
 Built along fancy and fashionable lines!  
 Cute little crystal sets - jim-dandy toys  
 Made by Saint Nich 'las for good girls and boys!  
 Sets by the dozen and sets by the score -  
 Ten tubes and one tube and three tubes and four!  
 Piled in his store-room in gala array,  
 Tagged: "Do Not Open Before Christmas Day!"  
 Cabinets, batteries, panels and wire -  
 Anything, everything fans could desire!  
 Rheostats, sockets and soldering-lugs,  
 Ground-clamps, condensers, transformers and plugs!  
 Wave-traps and meters and toolchests and books  
 Tucked away safe in the corners and nooks  
 Of that jolly big workshop 'way up in the snows  
 Where Santa is building our ra-di-ohs!  
 Tune up your hearts, folks, 'most any night -  
 Sweet from his mansion so glist'ning and white  
 Comes the announcement: "Station North Pole!  
 Santa Claus speaking! To every good soul  
 My very best wishes! I'm glad you believe  
 In Santa! Just look for me next Christmas Eve!  
 I'm not used to talking. Please pardon this cough!  
 God bless all the kiddies! S.C. 'signing off!"

The above poem and illustration is courtesy of "The Radio" section Philadelphia's *Evening Public Ledger* for Saturday, November 29, 1924...Ed.