



The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

November 2008

Volume 14 Issue 11



**MEETING/
ACTIVITY
NOTES**

Reported by Marv Beeferman

THE ON-LINE BROADCASTER

The New Jersey Broadcaster is now on-line. To date, 93 of your fellow NJARC members have subscribed, saving the club over \$1600 a year. Interested? Send your e-mail address to:
mbeeferman@cs.com

Be sure to include your **full name**.

October was a hectic month for the club. We held off the Martians at the David Sarnoff Library while 80 Scouts invaded InfoAge. Ordinary radio collectors were transformed into ghouls and goblins by the dedicated staff of the Mad Scientist Laboratory at the InfoAge "Haunted Hotel." We introduced our first Old Equipment Contest and the response was great. We brought some "nice old radios" back to life at our Repair Clinic at the Sarnoff Library.

November will be no different. After attending our swapmeet on November 7th, join us at InfoAge for this month's meeting and a new activity which Technical Coordinator Al Klase has labeled a "DXpedition." All information is included in this month's *Broadcaster*.

Please make your plans for our annual holiday party scheduled for Saturday evening, December 13th. It will be held at the David Sarnoff Library, with a cocktail hour (non-alcohol) at 5:00 and dinner at 6:15. Members are free (spouse is included free only with a family membership); non-member adults and children under 12 are \$10 each; children under 12 are \$5 each.

Space is limited to 80 people (no exceptions) so you must reserve early. You will be sent a reservation request in about one



MEETING NOTICE

LOCATION CHANGE! (This month only)

The next meeting of the New Jersey Antique Radio Club will take place on Friday, October 10th, at 7:30 PM at InfoAge. Visit us at <http://www.njarc.org> for directions. Our November meeting will feature the club's first "DXpedition". Taking advantage of the good radio reception environment at InfoAge, we'll operate vintage sets and see how many distant stations we can receive. Stay all night if you like; the Marconi Chief Engineer's cottage will be available to us so bring a sleeping bag! The NJARC Radio Technology Museum will be also be open for browsing. What is an DXpedition? You can find all the details in this month's *Broadcaster*.

week. It is important to remember that **you must return your reservation form even if you are a member and are not bringing a guest!** You should also be thinking about a radio-related gift for our Mystery Grab Bag contest (about \$20 in value); contest rules will be mailed with your invitation.

Ray Chase reports that a few weeks ago, a local landscaper offered to beautify the front of the Radio Technology Museum if InfoAge would pay for the materials. The cost would be something like \$1100; the working board felt that the money would be better spent on lights and heat. The landscaper decided to kick in more of the cost so Fred Carl paid \$500 for the job. The landscaper moved our sign about five feet and arranged plantings around it, as well as around the front entrance.



Ray also reports that club member Emidio Ciccone contacted Steve Goulart recently about helping him empty a couple of storage modules. The modules contained all kinds of stuff, some of it

being radio-related. Steve found it a chore sorting out the stuff, so Al Klase and Ray offered their help. They toiled for two hours to dig out the radios shown (with Emidio and his wife) which are donations to the club. There's more to be found, but as you can see, it won't be an easy task.



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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SCOUTS INVADE INFOAGE

By
Dave Sica

(Photos courtesy of Marty Friedman,
Ray Chase and Bob Bennett)

InfoAge was descended upon by over 80 Cub Scouts (Troop 66 from Edison), along with leaders, parents and various hangers-on. I think they call it a pack, but it might have been a gaggle, or a herd, or a miniature blue and gold version of Woodstock. It was easily the largest crowd ever handled at one time at the facility. Congratulations are in order to Al Klase for being the point man on this, making things run surprisingly smoothly.

Although this was an InfoAge event and representatives from all the InfoAge member organizations participated, NJARC easily made, by far, the biggest and the best showing. Volunteers included Steve Goulart, Vince Lobosco and Darren Hoffman (field phone demonstration), Dave Snellman (Radio Technology Museum Tour), Peggy Reynolds ("Sound of Strings" demonstration), Ray and Edith Chase ("hands-on" room and information desk) and John Ruccolo (Radio Room).

These kids had absolutely no frame of reference for most of what they were seeing in the demonstrations. Yet most of them were attentive, interested and astonishingly polite. It was really encouraging to hear the insightful ques-

tions some of them came up with. I guess there's hope for the world yet! And of course there were also the ones who seemed more intent on twisting the knobs off all the radios than anything else. But my favorite was the question from one boy who asked if the RCA emblem on the 1955-vintage TV was where you inserted the disc!

I think the tour guides may have learned at least as much as the cub scouts. I know that I started out by standing and "lecturing", but by the end of the day I was squatting on the floor and interacting. (After it was all over, I realized I was having a real "Ibuprofin Moment" because of it!)

The one point that was driven home most forcefully to me was in watching Ray Chase work the "hands-on" room: there is simply no way you can go wrong with a quarter-million volts and a room full of cub scouts!

On a different level, John Ruccolo noted that one of the great things about working these events is how old radios sometimes trigger some wonderful memories. There was an older gentleman in one of the groups (perhaps a grandfather of one of the kids) who was quite interested in John's description of Al Klase's Korean-era R-392 truck receiver. (This was basically a repackaged version of the famous R-390 for vehicle use.) He said that he and his buddies were up at 3 o'clock in the morning in Korea sitting outside a Signal Corps truck listening to the 1953 World Series (Yankees versus the Brooklyn Dodgers). He said that they did not want to hear the re-broadcast later in the day on Armed Forces Radio - they wanted to hear it live!



Dave Sica



Vince "Colonel Klink" Lobosco and Darren "Hotlips" Hoffman man the field phones.



Operating a BC-348

Above: TV in any form (even black and white) always holds a kid's interest.

Peggy Reynolds and the "Sound of Strings demonstration.

Right: DX'ing with a one-tube rig.



AN EARLY PORTABLE "RECHARGEABLE"

By
Nick Senker

When I was a young boy, my aunt gave me an RCA portable radio she no longer wanted, but the batteries were dead. As was the case with many youngsters at that time, I couldn't afford new batteries. (It required a special 'A' battery and a 67.5V 'B' battery). Not knowing anything about electronics, I tried to operate it with my Lionel train transformer. All I succeeded in doing was to blow out the 1-volt tubes! Eventually I scraped together enough money to buy new tubes and batteries and the radio worked fine.

I suppose replacing these expensive batteries on a regular basis was frustrating to most people which may be the reason GE decided to introduce a portable radio with a rechargeable battery. No, I'm not talking about a NiCad or other modern

battery, but a lead acid battery!

I picked up a General Electric model LB 530 portable at the NJARC summer swapmeet because I wanted to see what made it 'tick'. It's not an attractive radio; it's very heavy and somewhat of a maintenance problem but I found it interesting. I had seen one on ebay a while back and I knew they existed, so I was excited to find one at a good price. These radios did have a following and were produced from about 1941 through 1949 in various models. They are not rare; in fact, there were two sold at the swapmeet!



A plain looking radio.

The radio chassis itself is a conventional 5 tube superheterodyne with two IF stages and a loop antenna in the cover, but it's the battery and its charging system which makes this portable interesting. Service notes are found in Rider's 38-36/37/38.

First, the battery appears to be a conventional 2 volt lead acid battery made by Willard (Willard 20-2, 20 amp-hr). It is in a glass container with a sealed top and a rubber vent tube. It contains three colored balls that sink or float depending on the degree of charge, much the same as the cheap battery testers you buy at Wal-Mart. As with older auto batteries, the liquid level had to be monitored and distilled water added to maintain the level of electrolyte. It was reported that a fully charged battery would operate the radio for 15 hours, a feature that made this radio popular for those needing extended playing time such as an all-day beach party.

The charging system allowed the battery to be charged from either household current at 117V AC or from an auto battery at 6V DC with an optional charging

cable. The battery could be charged by merely turning a switch on the front panel even when listening to the radio using AC household current. This allowed the battery to be maintained at full charge at all times. The position of the charge indicator balls had to be monitored while charging, but there was a peep-hole in the battery cover to view them.

While the tube filaments were powered directly by the battery, the plate and screen voltages were obtained by a synchronous vibrator which provided a pulsating current to a step-up transformer, much like automobile radios of this period. However, unlike the auto radios which used a vacuum tube rectifier, this GE radio used a full-wave rectifier made from copper oxide discs, perhaps to conserve battery drain.



Rear view of the GE LB530. Note the battery and vibrator case in the lower right.

Copper oxide disc rectifiers were forerunners of selenium rectifiers. They consisted of a copper disc with an oxide layer. These disc rectifiers had poor efficiency and a low reverse voltage rating so multiple discs were stacked in series to provide better performance.

Later, selenium rectifiers were introduced which consisted of steel plates with a selenium coating which were interspersed with aluminum plates for better heat dissipation. These provided better efficiency and higher voltage capability but were more difficult to manufacture. The internal resistance of selenium rectifiers tended to increase with use causing overheating and the emission of selenium vapors.

Westinghouse was a major manufacturer of copper oxide rectifiers, calling

them "Westectors." They also found a use as detectors in AM radios. The WX6 Westector used for this purpose was about the size of an AAA battery. (Has anyone ever come across one of these?)

So, although somewhat ugly on the outside, there's quite a bit of early science on the inside of this radio.



Close-up of the battery case with the vibrator circuitry exposed. The battery is dried out so I'll leave it that way for safety. There's an asbestos backing on the side support which deserves caution. The copper oxide rectifiers may be seen on the upper left side of the battery case. Note the spring shock mount for the vibrator case.

NJARC 2008 DXpedition

By Al Klase

Date: 14-15 November 2008 (in lieu of the monthly meeting)

Location: InfoAge

What is it?

The basic concept is to gather together a working collection of radios representing the various era's of receiver design in an environment that will allow each of us an opportunity to operate the sets.

We're going to take advantage of the great facilities and quiet listening envi-

ronment available to us at InfoAge. The primary theme will be broadcast-band DX, but the antenna facilities will support short-wave and long-wave operation as well.

We'll maintain two log books for each receiver, one for stations heard and a second for user comments. These can be published, with pictures, to the NJARC website for future reference. We can also shoot some video of each set in operation, and post it to *YouTube* etc.

Bring Your Radio

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 the far end, it would be helpful. We'll try to have a lot of cables and adaptors, but we'll need your help.

We'll try to coordinate the different types of radios that show up so we don't end up with 13 All-American Fives. It would be nice to have representative receivers from the following categories:

- Crystal Sets
- Battery Sets: Regen, TRF-Regen, TRF, Superhet
- 1930's & '40's AC Sets: TRF, Superhet
- Other Entertainment Sets
- Communications Receivers: TRF-Autodyne, Single-Conversion, Multiple-Conversion
- Transistor Radios

Antennas

The primary antenna will be a Sky-waves Wideband Antenna System (see the GE V-Doublet in Riders Volume VI) feeding a multi-set coupler with 32 isolated outputs. There will also be tuned loops for the broadcast band, and a random wire or two for crystal sets.

Bring Your Sleeping Bag

Marconi Cottage #1 will be available for a sleepover. There are beds and cots and a working bathroom and kitchen. Bring your own bedding and towel. Please let the event chairman know if you're likely to stay over.

A GREAT TURNOUT FOR THE OLD EQUIPMENT CONTEST

By
Marv Beeferman

The response to last month's Old Equipment Contest, both by participants and observers, was pleasantly enthusiastic. The David Sarnoff Library was surrounded by a diverse collection of entries representing almost every aspect of the antique radio hobby and it was quite obvious that a significant amount of work went into preparing and researching each display. Members were asked to provide brief descriptions of their entries and the unique stories regarding their acquisition. Unfortunately, it would take many more pages than are found in one monthly *Broadcaster* to do any justice to what members were treated to, but you can visit the club website to see a video of the event.

Among some of the more interesting entries was Ray Chase's "Ruhf Model 6U5" radio that he purchased at the Romaine Ruhf estate auction. The reason that this superheterodyne, broadcast band homebrew caught Ray's eye was that it was based on a combination of nineteen 6U5, 6G5 and 6E5 "eye tubes." They were typically used as tuning indicators in 1930s and 1940s radios.

Why 19 tubes? As Ray explained, a low gain amplifier drives the shadow eye section of the eye tube and 18 tubes (one being a legitimate tuning indicator) were required to get the radio to work.

Mr. Ruhf's wife had ensured that all documentation and extensive DX logs

were saved. Ray said that these logs were fantastic, with 186 broadcast stations confirmed and a domestic and foreign "wish list" of dozens more...all this with nothing more than eye tubes and a unique design.

One of Dave Sica's entries included the caution of what **not** to do with a piece of old equipment, even if it's semi-old on the date that you find it. In 1979, Dave and a friend bought out the inventory of old wall boxes from a jukebox operator. They converted them to combination "Telephone Directory/Piggybank/Nightlight" units and sold them through a novelties company in New York's Penn Station. As Dave explained, butchering a vintage jukebox wall box would be a crime today, but in 1979 it seemed like a good idea.

Marsha and Jerry Simkin entered an extensive and detailed display of their EKKO stamp collection. Marsha explained that in 1924, the EKKO Company (a radio parts manufacturer), launched a plan to issue stamps printed with a radio station's call letters. The idea was sold to over 600 stations. Printed by the American Banknote company, the stamp showed an eagle (beaver for Canadian stations) and radio towers overprinted with the station's call letters and the words "Verified Reception." To receive stamps, listeners would record their broadcast receptions on a special card (or send a note documenting reception information), secure a dime to it with a special sticker and send the card to the EKKO Company.

John Ruccolo's *Radio USA* sign originally hung over the bar at a nightclub called, of course, "Radio USA." The nightclub was located at the Princeton Marriott on Route 1 South from the late 1980s until August 1999. John retrieved

the sign from the dumpster while the club was being remodeled. The club had lots of vintage radio pieces hanging on the walls; a Zenith Transoceanic, several consoles, various plastic radios, etc. But John said his favorite item was a CBS-Hytron tube advertising clock that hung near the bar. "Oh how I wish I had it now!"

I wish there was room for many of the other intriguing stories that went with the remaining entries that follow. Perhaps we'll see them in some *Broadcaster* articles at a future date.

Jon Butz Fiscina: Mengel crystal radio; Stantex pocket radio; vintage war radio maps

Angelo Napoli: Aerodyn Special; 1956 Emerson 843 hybrid portable receiver

Al Klase: Browning-Drake Regenaformer

Steve Goulart: 1937 RCA oscilloscope

Marv Beeferman: Kadett "Tunemaster" wireless remote (KRC-2); Foreign radio magazines; Holiday radio advertising

Darren Hoffman: DuMont advertising collection (florescent sign, promotional toy truck, radio)

John Ruccolo: 200 watt linear amplifier (original ARRL lab project)

Ray Chase: WW II VT proximity fuze exhibit

Michael Littman: Roberts (Great Britain) transistor radio; Celestira 20-note roller organ

Phil Vourtsis: RCA 1X51 radio series display on vitage dealer display shelf; shower curtain with radio theme and transistor FM radio

John Tyminski: Philco Predicta, Emerson 584A transistor radio in original box

Awards will be presented at the Holiday Party in December. With regard to the winners, we'll keep you in suspense until then.



Members voted for 1st and 2nd place winners in each contest category. Special awards will be given for displays that received the most votes.





John Ruccolo



Michael Littman



Ray Chase



Phil Vourtsis



Michael Littman's 20-note roller organ



Dave Sica



Steve Goulart



Darren Hoffman



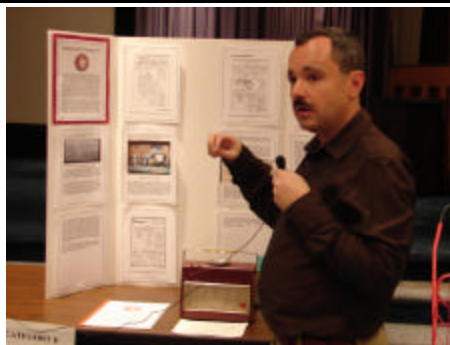
Marsha Simkin (and helping hand)



Al Klase



John Tyminski



Angelo Napoli



Marv Beeferman's Kadette display



Jon Butz Fiscina's Mengel crystal set

MARTIANS REPULSED! EARTH SURVIVES... AGAIN

The following is based on a report by Alex Magoun, PH.D., Executive Director of the David Sarnoff Library and NJARC member.

October 25th brought another invasion by those pesky Martians, first documented in a broadcast by Howard Koch and Orson Welles. About 135 people enjoyed following the *War of the Worlds* action via a fine performance by the Hunterdon Radio Theatre at the David Sarnoff Library. Executive Director Alex Magoun extended a big "thank you" to all NJARC club members who helped with their time, expertise and equipment to provide the event with its extra kick - a live broadcast from period receivers which surrounded the auditorium. Contributors included Bob Bennett, Sal Brisindi, Owen Gerboth, John Tyminski, Phil Vourtsis and InfoAge.

Special recognition goes to Al Klase and Darren Hoffman who spent Thursday evening getting a nasty hum out of the transmitter system and tuning radios.

Things got quite touchy on Saturday when perhaps as many as one-third of the sets proved to be un-useable. Al noted that getting an antique radio to work "like-new" is a "non-trivial" assignment. Things like noisy volume controls that temporarily clear up with a couple of twists and bad contacts in tube sockets and band switches come and go and are hard to predict and eliminate completely. RF/IF instability requires constant re-tuning. Al suggests that getting a restored radio to work reliably over a three hour period goes beyond the one-hour test. It involves contact cleaner, tapping on tubes and components and troubleshooting drift and instability until rock-solid reception can be produced for at least 24 hours.

As Al noted: "I also have a suspicion that the better quality sets like RCA's, Zeniths and GE's are easier to get operating reliably. There were reasons these

things cost a hundred bucks in depression money."

Unfortunately, not enough tickets were sold to give the Hunterdon Radio Theatre and the NJARC the audience they deserved for the time invested or the sponsors for the "Out of this World" dessert reception the mouths their desserts were worthy of. Therefore, the performance was opened to the educational community and general public on a donate-what-you-like basis.

Alex Magoun is not clear whether the Sarnoff Library will stage a *War of the Worlds* production next year, but whatever happens "I want you all to know how much the club's efforts, collectively and individually, are appreciated. Having now worked with a number of other organizations, I know you're two or three cuts above most membership organizations."

Photos are courtesy of Sarnoff Library volunteer Sharon Chapman. However, apologies for their size; they were provided as thumbnails and they would be distorted if they were any larger.

