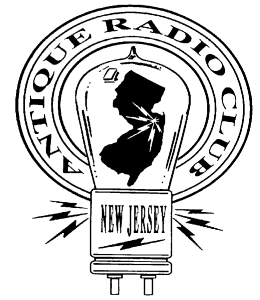


# The Jersey Broadcaster



NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

March 2006

Volume 12 Issue 3



Reported by Marv Beeferman

I hate it when work interferes with one of my favorite hobbies, but the Broadcaster had to play second fiddle to Forked River's nuke last month; it appears that Homer Simpson flipped some wrong switches - my apologies. To catch up, I'll try to cover our member auction, repair clinic, show-and-tell, Diana site anniversary and BCB DX contest results in this month's issue. Let's start with the show-and-tell:

\* John Dilks displayed a classic 1920's Clapp-Eastham "Boston" spark key on a marble base and German silver contacts. These keys were also mounted on a more rare brown base.

\* Darren Hoffman described a 1963 Western Electric "Magical" auto dialer. The unit was normally leased and 40 phone numbers could be recorded on a magnetic tape. The magnetic tape was geared to a 4" wide paper tape (which was contained within a cartridge which could be inserted in a typewriter) and each number was programmed with the rotary dial. By rotating the paper tape to the desired number and pressing the dial button, the unit would autodial the selected number.

\* Mike Cornell described a meticulous restoration of a Hammarlund HQ-120-X amateur receiver. The receiver covers AM and CW with six ranges for the 80-10 meter ham bands. It was popular between 1939-1945 and was originally offered for \$215. This restoration featured replaced capacitors fitted into shells of the originals, maintaining the receiver's original look.

\* Rob Flory showed a 3-stage RC amplifier using 201A's. It was made locally - the Heath Radio Company of Newark, New Jersey.

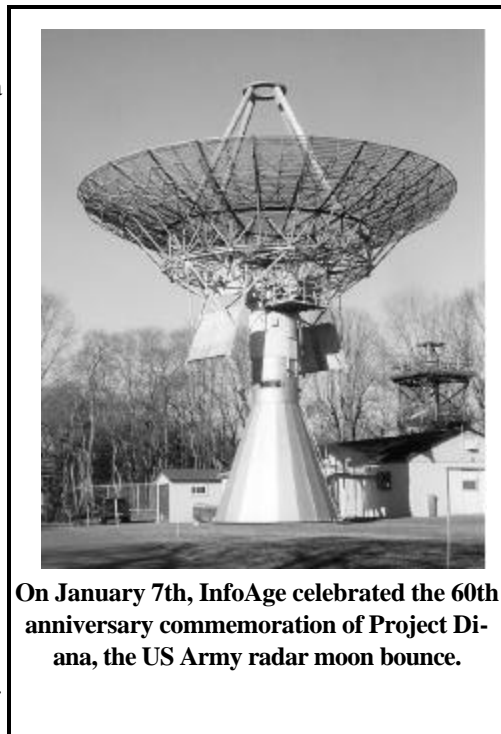
\* Mike Littman described progress on the



## MEETING NOTICE

The next meeting of the New Jersey Antique Radio Club will take place on Friday, March 10th, at the David Sarnoff Library in Princeton, NJ. Contact President Phil Vourtsis (732-446-2427) for directions. Our meeting will include awards to the winners of our 2006 Broadcast Band DX Contest and a small test equipment auction with donations from Steve Rosenfeld. This meeting will also provide the opportunity to save postage and follow-up requests by paying dues for 2006.

restoration of a 1922 Westinghouse RA/DA receiver. The model RC (consisting of an RA tuner and DA detector-amplifier) is a staple of battery set collectors and covers 180-700 meters. The



On January 7th, InfoAge celebrated the 60th anniversary commemoration of Project Diana, the US Army radar moon bounce.

individual units were first designed by Frank Conrad and Donald Little in 1920.

\* Phil Vourtsis displayed a miniature tube tester which checks filament continuity and a Silvertone radio that uses a unique back lighted dial display that projects the stations through the radio's grill cloth.

\* John Acacia showed a "hot lips" FM

novelty radio. Lips that protrude from the front of the radio are synchronized to the sound of the music.

\* Based on a tip from some observant lab worker, Sarnoff Library Director Alex Magoun salvaged an iconoscope tube from a long-forgotten workbench. Except for the numbers P751, no other identifying markings provide a link to the tube's history.

\* Al Klase gave us a closer look at one of the "secret agent" radios in his collection. It was first discovered in an Englishtown flea market some 10 years ago where the original owner said that his father brought it from Israel. The set was built by the British for the Polish underground who had a base in Jerusalem.

\* Steve Calandra demonstrated his tabletop, Swiss-made "Discomatic" jukebox. This solid-state player holds 40 records and plays them vertically. It is sometimes dubbed the "John Lennon jukebox" since a Bristol music promoter purchased one that was owned by the Beatle in 1960. Its track list was written in Lennon's own handwriting and catalogued the soul, R&B and rock 'n roll that shaped his musical education. Included were "In the Midnight Hour," "Twist and Shout," "Long Tall Sally," and "Be-Bop-A-Lula."

\* Stepping back 40 years, Ray Chase gave us a view of what the early superheterodyne user might set up to experiment with this new technology. It consisted of an 8-tube kit radio, indoor loop antenna and a double cone Northern Electric Speaker.

**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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Ray Chase reports that InfoAge activities and recognition are really ramping up. For starters, it has been designated a "Preserve America" site for 2006. A two level board structure has been established - one to set long range policy and go after major funding and a working level board that is responsible for day-to-day operations. The working level board is now meeting every two weeks to plan and guide an ambitious schedule of events as well as restoration and refurbishment. NJARC is recognized as one of the most important segments of InfoAge and our commitment in labor and material are well acknowledged. But it is important that we go one step further in our commitment by becoming InfoAge members. For details, go to the bottom of the home page of InfoAge.org.

One of the newer groups to join the InfoAge family is MARCH (Mid Atlantic Retro Computer Hobbyists); the club collects and displays old computers. They have done a lot of work at the hotel and are a great asset to the organization. They will be sponsoring a Vintage Computer Festival on Saturday, May 13th in the Marconi hotel dining room from 9:30 to 6:00 with 10 to 20 vendors; admission is \$10. The MARCH group will have custody of the Grabbe computer collection and if you think boat anchors are big and heavy, some of these guys collect old IBM main frames.

We're hoping for an exceptional NJARC membership turnout on Saturday, April 1st at the InfoAge transfer ceremony. Tours and exhibits open at 10:00 AM with the formal ceremony (deed transfer, presentation of lease payment and keys presentation) scheduled for 12:00. Tours and exhibits will then resume at 1:00 PM and continue until 5:00. Inside the hotel, each member group will have one room for displaying its area of interest - sort of a preview of the museums that InfoAge will house. NJARC will have one room which Ray Chase and Dave Snellman will outfit with radio memorabilia without taking anything out of the cottage. Ray has also asked for an additional two or three rooms for radar artifacts and WWII communications displays.

Our spring swapmeet in Parsippany is fast approaching - Saturday, March 18th. This month's Broadcaster includes a flyer

with all pertinent information.

Dues renewal is slightly above 50%, so we have some ways to go to reach our 100% goal. As a bit of inspiration, here's Nick Senker's Reflector posting for January 14th:

"I put out a request for cloth covered wire on the Reflector and got 4 members to help me out at Friday's meeting. I would like to thank them and say what a great feeling it is to belong to a club with that kind of cooperation and camaraderie! I hope I will be able to help out other members in the same way sometime. Thanks again fellows! Ps That was a great meeting/auction Friday."

Please send your \$20 check made out to NJARC (\$25 for joint membership) to Marsha Simkin, 33 Lakeland Drive, Barnegat NJ, 08005. A "1/06" on your mailing label indicates it's time to renew. In addition, please indicate any changes to your e-mail address; we're planning to publish a membership roster for members paid by April 5th.

This being an even-numbered year, NJARC elections will take place in June and we'll be accepting nominations at the March, April and May meetings. You must be a paid member for 2006 to propose a nomination. As most of you know, Phil Vourtsis will be stepping down as President this year, so we'll be looking for an equally enthusiastic individual to fill this important position. To make the overall process easier, any board members who do NOT wish to continue in their present position if re-elected are requested to contact Phil as soon as possible.

**Upcoming Events:**

03/18/06: NJARC Spring Swapmeet, Parsippany, NJ

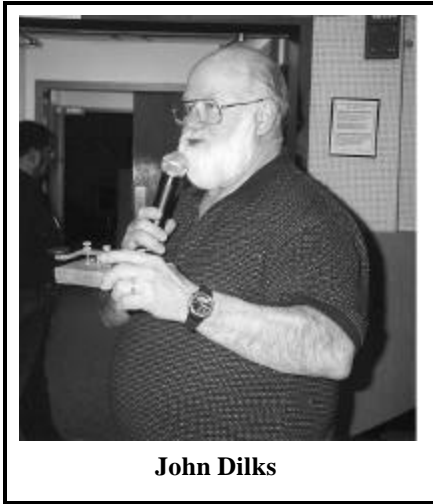
04/01/06: Historic district transfer, lease signing and InfoAge dedication ceremony, Camp Evans, Wall Township ([www.info-age.org](http://www.info-age.org))

04/02/06: Delaware Valley Radio Association meeting (<http://www.w2zq.com>)

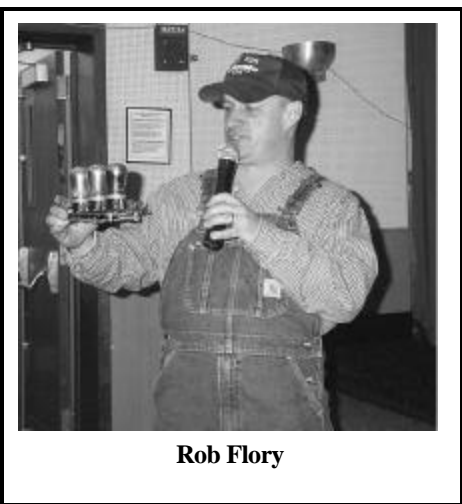
05/12-13/06: Kutztown radio meet ([www.dvhrc.org](http://www.dvhrc.org))

05/13/06: Vintage Computer Festival East, InfoAge Learning Center, Wall Township

SHOW-AND-TELL



John Dilks



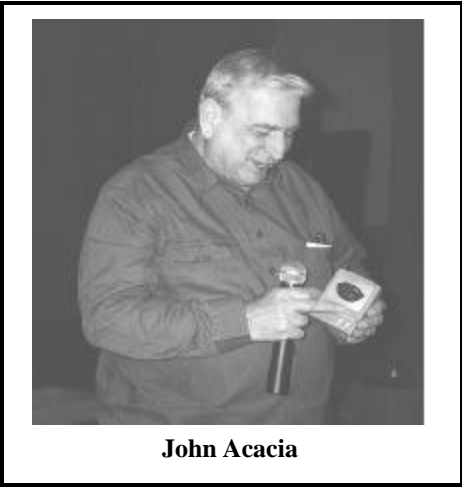
Rob Flory



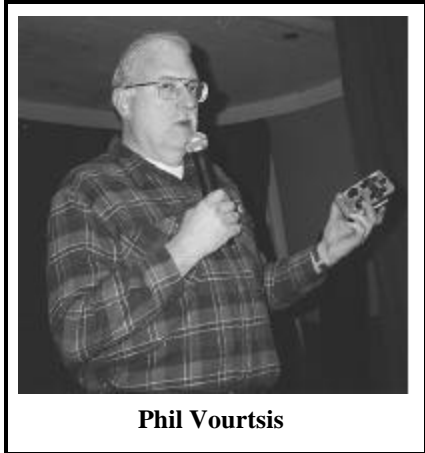
Mike Littman and his RA/DA



Mike Cornell



John Acacia

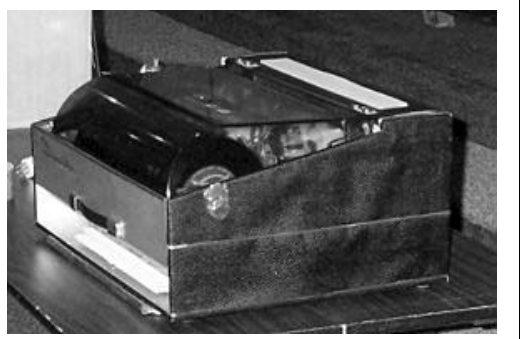


Phil Vourtsis

More pictures on page 7 & 8.



Darren Hoffman



Steve Calandra and his "John Lennon" Discomatic

## FINDING THE MARCONI ANTENNAS

By Steve Goulart

NJARC has been involved with organizing the National Broadcasters Hall of Fame collection and the preview site in one of the Marconi cottages at InfoAge. If you haven't done a Sunday afternoon explaining old radio to the variety of visitors we get, you are missing out. Having done it a few times I twice had the opportunity to deal with visitors who were Marconi experts and they had questions that I couldn't begin to answer. I decided that it would be interesting to expand my knowledge and the information on the website with a complete technical description of the 1914 Belmar Marconi wireless receiver site and its relationship to the third generation worldwide Marconi system. I am beginning by locating the original hardware involved.

The 1914 Marconi infrastructure included three balance antennas (the top section of number two was relocated to the edge of Marconi Road in the 1970's), six main masts that supported the actual wire aeri-als and various complex ground radial systems. The operations building located on the edge of the Shark River contained a 100 wpm automated receiving system for the transatlantic signals from England and manual operators sending messages on the land side.

The receiving aerial system ran from the area near the operations building up to mast one and across wooden poles at the tops of the six noble masts shown in the 1914 Henderson pictures. There is text about a counter balance tensioning the horizontal aeri-als (two) but there seems to be no known details. It would make sense that the counter weight system was at the far end of the aerial system but that isn't confirmed yet.

I started my infrastructure search on one of the extra warm days in late fall. My starting point was the "balance" antennas which

were located at the edge of the Shark River at right angles to the main aeri-als. Google Earth provided aerial photographs of the Marconi site as it is today (or at least in the last few years) which I used to construct a larger map of the Camp Evens site. Using this overhead map, I added baselines from locations in the various period photos of the Marconi location to approximate the locations of the three balance antennas.

So much for science... The Google maps showed a pathway from the operations building into the swamp. About 400 feet out there were the remains of antenna 1 draped over the raised path. Checking with InfoAge Director Fred Carl, it turned out that some other fool had come this far before. The opinion was that the portion

buildings, which isn't possible today due to the growth of trees and brush. Since a "normal" camera lens has a field of view of 46 degrees, it was possible to use a protractor to build sight lines on the Google map and approximate where the mast should have been from two different views. Since the cattails in the swamp at the rivers edge were above my head, it was not quite as easy as I had assumed to find a real object based on my map.

After about an hour search and having locating two soft spots above my boot tops, I was about to give up. But when standing on the last firm ground near the swamp, I looked down and found the bottom of antenna 2. Antenna 3, which stood near the Route 18 on-ramp, is reported as

having been removed (but with no details) and after several hours of wading, it must wait until spring.

The six main masts were removed about 1925, but the bases and anchors were left behind. Since the main masts stood in an open field "almost a mile long," the contemporary photos don't provide any clues for locating the remaining structural features.

I had driven around the neighborhood looking for some of the existing above-ground features described to me by Fred Carl. The anchor at the corner of Monmouth Blvd. and Watson Road is unmistakable but the rest seemed to be invisible until Fred showed me where they were located. At this point in the search, we had locations for one base and three anchors.

I created the first of several strip maps using the Google aerial photos and plotted the

existing pieces onto it. These consisted of the base for mast 4 and two of its anchors and one of the anchors for mast 2. I made a couple of assumptions to start with. First, that the six masts would be in a very straight line and equal distant from each other. Second, that the anchors would all be the same distance from the masts and the guy wires would be parallel to each other (half right).

Using these assumptions, I plotted a



Five of the six 400-foot masts of the Marconi antenna system showing a service team near the base of the closest mast. (Photo courtesy of InfoAge)

of the mast visible on the raised pathway was all that was left since the portion in the swamp had dissolved. Taking my trusty machete, I walked out into the swamp keeping one foot on the ironwork of the antenna and was able to find parts of the whole thing including the wooden top post.

Mast 2 shows clearly in a photo from the opposite side of the river taken in 1914. This photo also clearly shows the Marconi

map of the six masts and anchors and began a field survey using a ground rod as a probe and a metal locator to try to find the metal components. At this point, I also had to start field interviews since you can't just walk into some ones backyard without warning. On the first day I found the first component related to mast 5, an anchor buried in ivy.

Each time I found a new piece of the puzzle, I would have to change the baseline which would move the assumed locations of masts 1 and 6 by up to forty feet (introducing me to new neighbors). A major part of the problem was an assumption that proved wrong - the angle of the guy wires to the main aerial was constant from mast to mast. But, with each new map, the errors seemed to be smaller and many of the features located were found by talking to the property owners. I have to admit that several of these property owners had to introduce me to their next door neighbor, but I became encouraged by how close the map plots got me to the actual locations.

At this point, we have added one base and six anchors to the map and have reached the point where we need to do some digging (literally) to locate some of the final pieces. Since many of the pieces located have been partially removed with their remains still underground, the locations given are those remembered by the property owners and need to be verified.

After the concrete portions have been mapped, I hope to map the grounding system, possibly recovering some of the zinc grounding plates or other physical components for display. Also, we want to be able to describe the frequencies used (one about 24 kHz) and the antenna theory.

The final act I hope for is the flight of six large balloons to a height equal to that of the original masts so it would be possible to briefly visualize the Belmar masts of 1914.

## NJARC 2006 BCB DX CONTEST

Compiled by Tom Provost (MDS = Most Distant Station)

### Category A - Crystal Radios

**Winner-** Al Klase  
7,300 pts, Skywaves HP-002Xtal Set, 65 ft. flat top @ 30  
ft., MDS = 1309 mi. 530 kHz, RVC (Turks and Caicos Is.)

### Category B - Primitive Tube Receivers

**Winner-** Nevell Greenough 6,054 pts., Radiola III w/2 864s, 35 ft.  
wire, MDS = 968 mi. 570 kHz, WTBN Tampa, Fl.

John Ruccolo 2,581 pts., 3V4 Homebrew ,60 ft. basement ant. MDS  
= 501 mi., 1110 kHz, WBT Charlotte, NC

### Category C - 1920s Battery Sets

No Entries

### Category D - Home Entertainment Radios

**Winner -** Rich Mueller 9,515, pts., 1941 Zenith 6G-601 portable,  
using built-in loop, MDS = 1309 mi., 1520 kHz, KOKC Oklahoma,  
Ok.

### Category E - Amateur, Commercial and Military Communications type Receivers

**Winner -** Bill Zukowski 9,790 pts., Lafayette HE-30 w/100 ft.  
long wire, MDS = 1359 mi., 600 kHz Radio Rebelde, Urbano Noris,  
Cuba

Gary D'Amico 9,789 pts., Hallicrafters SX 28 w/2 x 4 ft. HB loop,  
MDS = 1379 mi. 820 kHz WBAP Fort Worth-Dallas, Tx

Bill Riches 9,500 pts., Hammarlund SP 600 using Mosley Tri-  
Bander @ 60 ft., MDS = 1,558 mi. 1220 kHz WOAI, San Antonio,  
Tx

Rob Flory 9,288 pts., Navy RBB receiver, MDS = 1400 mi. 750 kHz  
Radio Reloj , Cuba

Al Klase 8,237 pts., Hammarlund HQ 120 using Skywaves ferrite  
loop, MDS = 1128 mi, 870 kHz WWL New Orleans, La.

Gary Berg 6,655 pts., 1941 German Military Torn. EB Regen, us-  
ing HB loop, MDS = 736 mi. 650 kHz WSM Nashville, Tn.

### Category F - Transistor Radios Before 1970

**Winner-** Bob Bennett 6,668 pts., Channel Master 6515 with in-  
ternal loop, MDS = 860 mi. 1120 kHz KMOX, St. Louis, Mo

# NEW JERSEY ANTIQUÉ RADIO CLUB



## ANTIQUÉ RADIO SWAPMEET

SATURDAY, MARCH 18th, 8:00AM - 1:00PM\*

**PARSIPPANY PAL BLDG. - 33 BALDWIN RD.  
PARSIPPANY, NJ 07054**

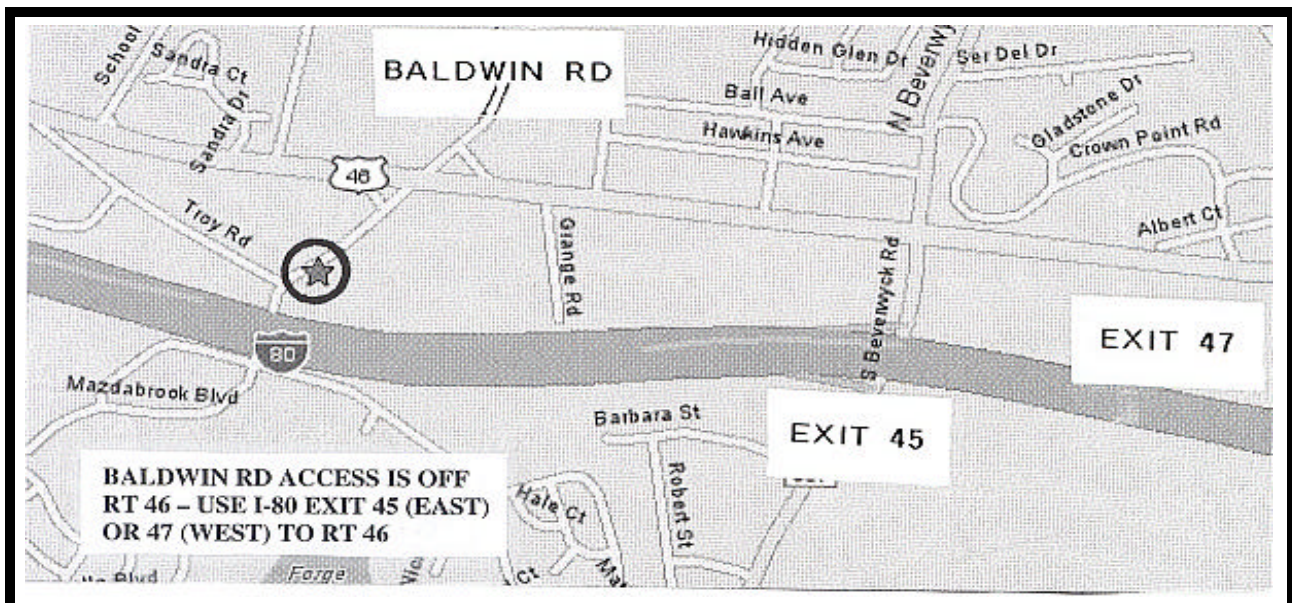
**\*Vendors set up at 7:00; no early admittance!**

NJARC presents its Spring indoor swapmeet with vendors displaying a spectrum of collectible old-time radios, military and civilian communication equipment, audio equipment, phonographs, and associated parts and literature. A \$5.00 club donation from buyers is suggested to help defer rental fee.

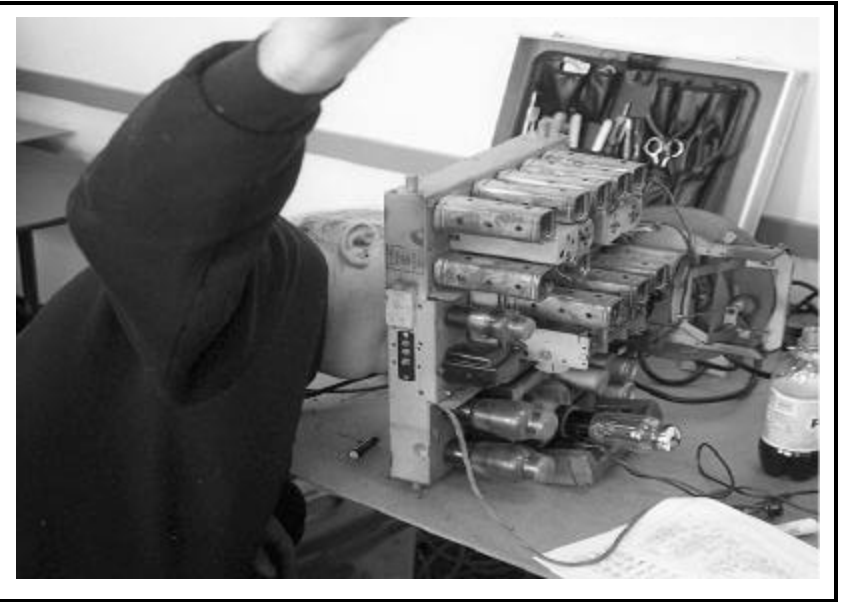
**LOCATION:** See our map below, visit our club website at [www.njarc.org](http://www.njarc.org) or "Mapquest" 33 Baldwin Road, Parsippany NJ 07054.

**RATES:** Single table (8-foot) cost is \$20 for members and \$25 for non-members. Additional reserved tables are \$15 (\$20 at the door). Access is at ground level and carts can be provided.

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NJARC REPAIR CLINIC



NJARC MEMBER AUCTION

