



The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

March 2013

Volume 19 Issue 3



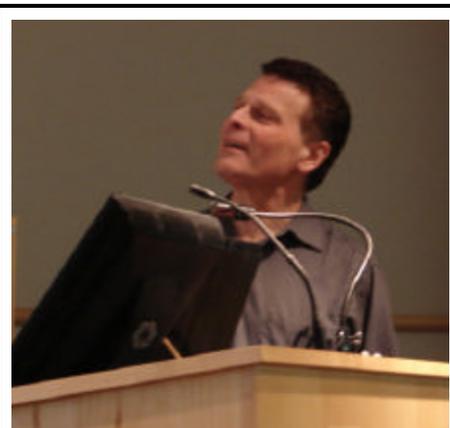
MEETING/ ACTIVITY NOTES

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. Be sure to include your full name.

Last month's meeting featured a very well-received presentation by member Walt Heskes on his personal experience and fixes for what is often termed the "silver mica disease." Walt used some lively and amusing graphics to illustrate his points and was congratulated by many attendees for his efforts. If you didn't get a chance to hear the talk, I supplemented it with an article that appeared in the February 2009 *Broadcaster*. Although the details are somewhat different than those presented by Walt, the basic ideas are the same.



An animated Walt Heskes explains the finer points of the silver-mica migration problem.



MEETING NOTICE

As a result of continuing problems with the main transformer at InfoAge, the next NJARC meeting will take place on Friday, March 8th at 7:30 PM at Princeton's Bowen Hall (70 Prospect Ave.). Directions may be found at the club's website (<http://www.njarc.org>). This month, we're asking members to demonstrate their favorite "hints and kinks," i.e., those simple but not so obvious tricks that they have discovered to make radio troubleshooting and restoration a lot easier. We'll also be presenting awards for winners of our 2013 BCB DX Contest.

Thanks to the efforts of our electrical, heating and plumbing crew, we were supplied with enough heat, light and power to hold our February Repair Clinic at the Telephone Exchange building at InfoAge under what president Richard Lee described as "battlefield conditions." Supplemented by the usual coffee, radio bagels and pizza, it was a fun day and a few of the activities were captured in this month's issue.

Member Al Klase has resurrected a project he started in 2003 - an automobile tour where participants would visit historic radio sites along the Jersey Shore. With Al's 2013 new pre-release version, we can now experience this "Virtual Radio Rally" by way of Google Earth. To use it, you'll need to download and install Google Earth and then download and execute <http://www.ar88.net/rr/Radio%20Rally%200-5.kmz>. I tried it and it's a lot of fun. Al is looking for "non-abusive, constructive criticism" from the membership.

LAST CALL FOR DUES (Cutoff date is March 31st)

Due to significant rising costs, your Board has voted to raise yearly dues to \$25 (\$30 for a family membership). Looking back on 2012, this amount appears to be very reasonable:

- Twelve issues of the *NJARC Broadcaster*.
- A great web site.
- Meetings broadcasted on the web.

- Technical presentations and contests.
- Capacitors, tubes and parts at bargain prices.
- A constantly expanding and improving radio museum.
- Meeting auctions, estate auctions, member-only auctions, "PAL" swapmeets and our yearly InfoAge tailgate.
- Repair clinics
- Our Holiday Party ... and much, much more.

Honorary (H) and Lifetime (L) members are exempt from paying dues. For the rest, dues will be collected at monthly meetings and club activities or you may send a check made out to "NJARC" to our membership secretary: Marsha Simkin, 33 Lakeland Drive, Barnegat, NJ 08005. PayPal is also available at the club's website.

Upcoming Events

April 20th: NJARC Spring Swapmeet at Parsippany PAL (see page 8 for flyer)

April 27th: InfoAge Radio/Electronics auction (details to follow)

May 3rd: Monthly meeting at InfoAge (if power is restored); Homebrew contest and Basket Case Radio Restoration contest judging

June 14th: Monthly meeting at Princeton; Show & Tell and Estate Planning talk

June 22nd: Repair Clinic at InfoAge

July 12th: Monthly meeting at Princeton

July 27th: Tailgate Swapmeet 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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THE RTM AT THE SCIENCE FAIR

By
Ray Chase

On January 29th, the Radio Technology Museum (RTM) participated in the Ocean Township Elementary School/PTA Science Fair. Over the years, InfoAge has developed relationships with some of the local town educators and was asked to take part in an elementary school science fair along with a few other local groups. K to 4th grade is a little young for our preferred clientele, but no other InfoAge group volunteered so we said RTM would do it.

The Science Fair was a Tuesday evening event from 6:30 to 7:30 PM in the school gym and included about 40 or more science projects created by the school children. Harry Klancer, Al Klase and myself decided to bring some of our museum "hands-on" displays. The PTA gave us two eight foot tables, but we had less than an hour to set up. From the museum's hands-on room we brought the Theremin, static electricity items, magnet displays, simple electric demonstrators, the "hand battery," and a camera

and TV remote to demonstrate infrared optics. Several posters were made up to explain some of the experiments along with an InfoAge poster. The set up was hectic and parents and children were coming in while we were finishing.

The next hour and a half was pure mayhem as we were flocked with interested children and parents. Fortunately, there were three of us and we were all constantly busy demonstrating and helping the kids play with and understand the experiments. We did hand out many club and InfoAge brochures along with business card size ad cards that Al made up. Unfortunately, we did not have time to really look at the kid's science displays set up in the gym. Many of them looked very interesting and well-made but they had to be taken down at the end of the short evening.

An enjoyable evening was had by all as part of our continuing endeavors to spread the word about the club and InfoAge. The school is only 4 or 5 miles from InfoAge, but we still continue to meet many people who do not know of our existence and what we have to show. Unfortunately, we had to explain that we are temporarily closed, but many parents said they would watch our web site for an announcement as to when we would be open again.



ON THE ROAD WITH ATWATER KENT

By Ray Chase

Some time back, collector Ron Lawrence posted a picture on one of the reflectors during a discussion of the topic "what is the lowest known phone number." The picture was taken from a postcard that, as a postcard collector, I would dearly love to have in my collection. But having the image on the next page serves

as a pretty good substitute.

The Atwater Kent truck and the Albion Battery Co. were located in Albion, Nebraska. I found a notice from Automobile Topics magazine dated July 16, 1921 stating that J.N. Hendrix and W.W. Wilterding had purchased the business.



Note the phone number on the door panel...from a time when life was a lot simpler

CURING THE SILVER-MICA DISEASE

Edited by
Marv Beeferman

As previously stated, at the February meeting, member Walt Heskes treated the club to a very informative presentation on curing what is commonly referred to as "silver-mica disease. As Walt explained, in some IF transformers, there are integrated capacitors internal to the IF enclosure. These capacitors are parallel to the primary and secondary of the IF coils and typically range from about 70 pf to 250 pf. After years of service, exposure to high voltage, and under certain environmental conditions, the silver becomes tarnished where the spring metal contacts touch the silver. In some cases, the silver coating can "migrate" causing shorts and arcing across the capacitor or from primary to secondary of the coils, depending on the construction of the capacitor sections.

The symptoms of these failures are typically static, popping and thunderous crashes similar to those of an electrical storm. These are attenuated by the volume control if it is downstream from the IF sections. In some cases, as in Walt's

presentation, the radio will work fine for a few minutes and then suddenly fail.

Hopefully, we might be able to get Walt's presentation and repair procedure transferred to our web page. Until then, I've included a procedure that was found at radiomuseum.org/forum that was originally published in the February 2009 *Broadcaster*. A search of the web will disclose many alternate procedures with some relating to specific radio models.

1. Photograph or make a sketch of the IF connections. Mark a reference point on the base of the IF can so it can be reinstalled in the proper orientation. (often one contact has a spot of red paint). Unsolder the connections. (Figure 1)
2. Remove the metal IF cover. Drill the rivet loose that holds the cover over the silver-covered mica wafer. (Figure 2)
3. With the capacitors exposed, find their value on the radio's schematic or measure it with a capacitor tester. (Typical value for an all-American Five is 100 pF. However, in some applications, the value may be critical enough to affect the operation of the radio.) You may have to make two very small probes with banana jacks and a 1-inch bare wire (pinch the wafer between the bent wires) to make the measurement. You can also unsolder one of the transformer wires per coil and touch the lugs to the meter.

Also, mark which coil (upper or

lower) is connected to which contacts. This will save some work if the coils must be removed from their base. It also aids in determining where to connect the replacement capacitors. (Figure 3)

4. Remove the original capacitors. Inspection should show tarnish or deposits that short across the upper and lower plates. Sometimes, you may see traces from the primary to the secondary sides of the IF transformer (typical of a single wafer of mica with multiple capacitors). To make room to access the capacitors, you may have to: a) move the lower transformer slug up, and b) remove the transformer coil wires and separate the coil section from the base. (Figures 4 and 5)

5. Clip the original capacitor contacts so they will not short. (Figures 6 and 7)

6. Replace the capacitor retainer to prevent the contacts from moving into the case. (Figure 8)

7. Glue the cover removed in step 2 back into the base. This will prevent the transformer contacts from retracting into the case and touching the slug. (Figure 9)

8. If you moved the tuning slug to make room to clip the capacitor contacts, return it as close to its original position as possible; this will facilitate realignment.

Replace the metal cover. Solder equivalent capacitors external to the underside of the IF transformer. (Figure 10)

9. Reinstall and reconnect the transformer. A complete alignment will probably be necessary; the new capacitors may have shifted the original alignment. (Figure 11)

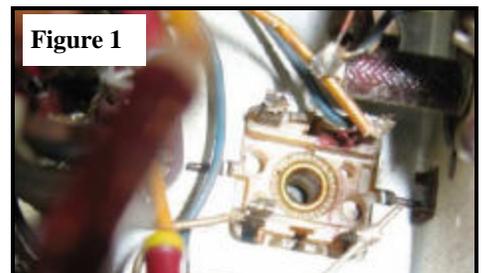


Figure 1

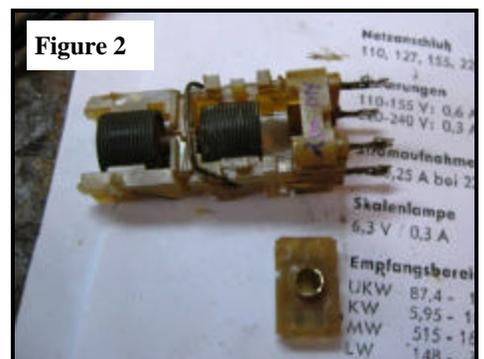


Figure 2

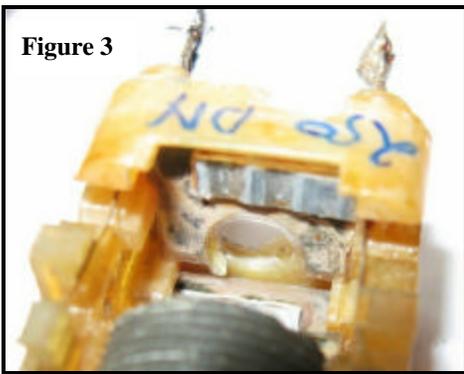


Figure 3

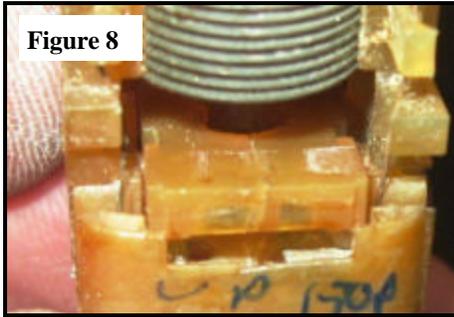


Figure 8

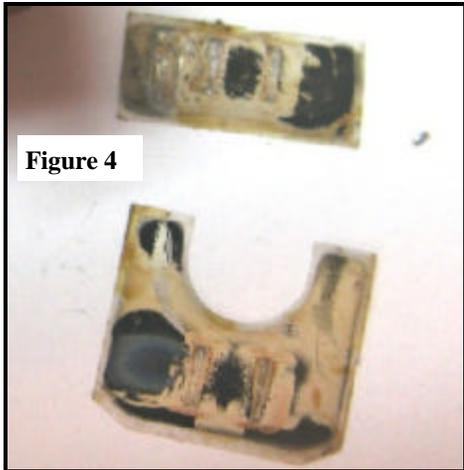


Figure 4

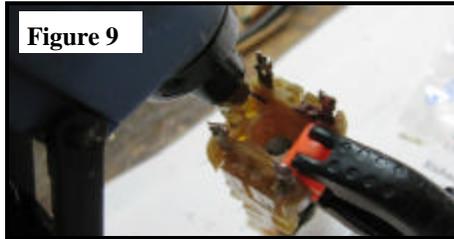


Figure 9



Figure 10

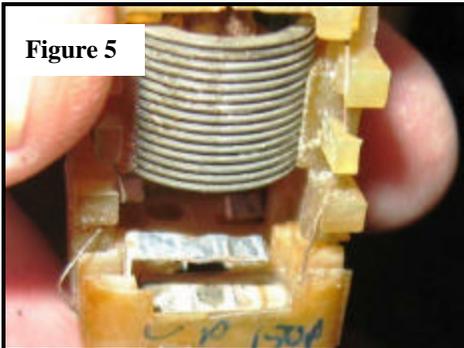


Figure 5

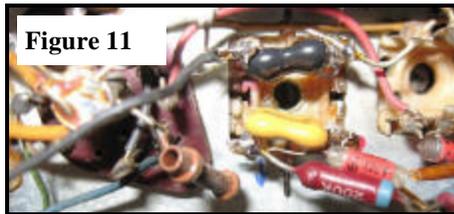


Figure 11

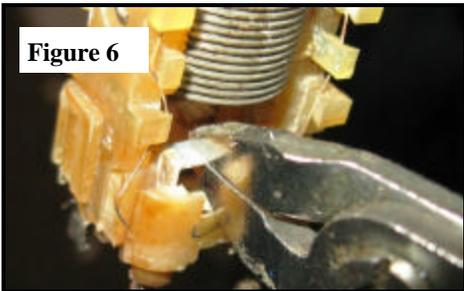


Figure 6

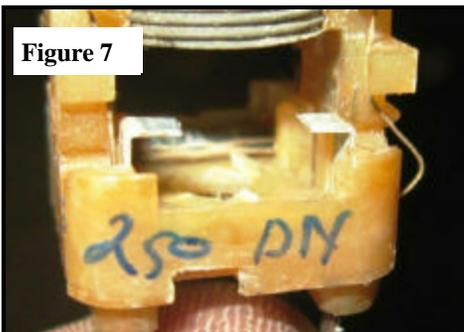


Figure 7

**RADIO REPAIR
CLINIC AT
INFOAGE**

**By
Marv Beeferman**

How do you conduct a radio repair clinic without power? Well, with the help of "generator maintenance engineer" and NJARC member John Tyminski, it went as smooth as silk. John was able to set up a Honda generator provided by InfoAge and his own 1959 Dayton generator (powered by a Clinton engine) to supply more than enough energy for light and heat in InfoAge's Telephone Exchange building and to power the test equipment, soldering irons, etc. at nine repair stations.

- Among those in attendance were Nevell Greenough and Thomas Lee who worked on a Silvertone 47-90. The radio

was dead on arrival with a fault discovered by pulling the tube in the squelch circuit. Addressing other problems involved replacing two bad tubes, aligning bands by adjusting their trimmers and adjusting misaligned IF's.

- Sometimes members show up with working radios that they just want to bring up to peak performance. This was the case for Jim Hearney's Hallicrafters WR 1500 where a sweep generator was used to verify its alignment and touch up two shortwave bands.

- Matt Reynolds and his friend Charlene worked on the alignment of a Philco 38-4 with some success. They also began assembling Antique Electronics Supply model K101A battery eliminator.

- I found it quite entertaining listening to the crew of Harry Klancer, Ray Ayling and Chuck Paci trying to discover the problems associated with the manual tuning of a Westinghouse WR-262. Part of the problem was a bad fixed broadcast band coil but it would take a few paragraphs to discuss the sequence of events that affected its repair. Let's just say that one picture is worth a thousand words.

- I worked with new member Bernie Anderson on a broken on-off switch for an Emerson DP-332. The switch was integral with the volume control. Bernie had temporarily shorted the switch contacts to get the radio to work but he wanted to return it to its original condition.

We first tried to drown the switch in contact cleaner but it did not help; the switch still showed an open even though the mechanical mechanism seemed to be operating properly (one could hear a positive "click"). Then, with the help of Steve Goulart, we were able to locate a discarded chassis that had a similar arrangement of switch and dual volume control combination. We were going to use this as a direct replacement if we could extend its shaft, but then Bernie suggested that we remove the switch section and try to use this as a replacement. Connections to the volume control were unsoldered, the control removed, and the switch section replaced. The fix worked perfectly and Bernie has gone on to replacing old capacitors and solving a "static" problem.

- John Tyminski and his friend David Gappa (who also helped John set up the generators) worked on a Silvertone AM/SW portable "clone" from 1956 that had static and B+ issues. One of the fixes was replacement of a selenium rectifier with a

diode. No capacitor replacement was required to get the radio back to working condition but a full restoration is scheduled for a later date. The pair also worked on a Pioneer quadraphonic receiver with dirty controls.

- Phil Vourtsis made some adjustments to a multi-speed turntable but could not get an RCA 4X551 with intermittent problems to fail. He also recapped an RCA 45EY2 and replaced its cartridge.
- Dave Sica and Tom Cawley worked on recapping the popular 1950 RCA 9X561 with a "hum problem." It still is a work in progress. (The book that Tom is holding in the photo is Richard McWhorter's "The All-American Five Radio." The 9X561 serves as the focus of this book, with the idea that if you understand all the fundamentals of this typical AA5, you could probably figure out all the minor variations in other AA5's.)



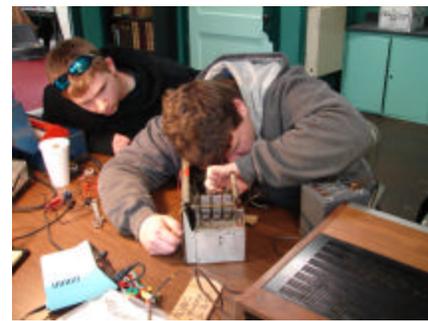
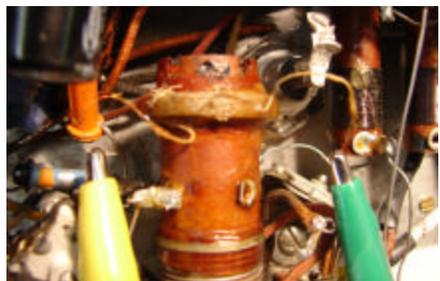
Nevell Greenough, Thomas Lee, and Richard Lee team up to work on an alignment check.



Steve Goulart advises Matt Reynolds and friend Charlene on alignment of a Philco 38-4.



Dave Sica and Tom Cawley recap an RCA 9X561 guided by Richard McWhorter's book "The All-American Five Radio."



John Tyminski and Dave Gappa work on a Silvertone AM/SW portable.



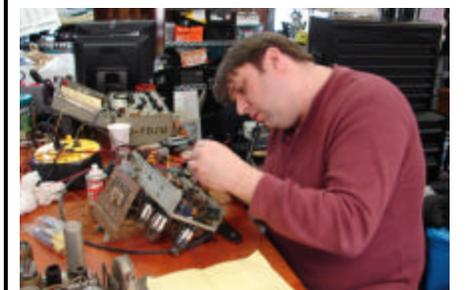
Phil Vourtsis, "Mr. 45."



Harry Klancer, Ray Ayling and Chuck Paci take all necessary safety precautions in "firing up" their WR-262 following coil repairs.



Your editor started work on an Atwater Kent 145.



New member Bernie Anderson replaces the on-off switch on an Emerson DP-332.



Failed switch on the Emerson DP-332. Its simple replacement avoided trying to match shaft lengths on its attached volume control.



Matt Reynolds and friend work on a battery eliminator kit.



John Tyminski shows off his 1959 Dayton generator which helped power-up our repair clinic.

EAST BRUNSWICK LIBRARY TALK A "BEST" EVENT

By Harry Klancer

"Does the image of a classic old radio bring a sense of nostalgia for a simpler time? Is there a certain romance in the scratchy sound of a vintage radio broadcast? Come hear Ray Chase and Harry Klancer of the NJ Antique Radio Club talk about how the local area was the heart of early radio development...Bring your curiosity and prepare to be both enlightened and entertained."

For the month of February, the East Brunswick Historical Society and the NJARC have been sponsoring a radio history exhibit at the East Brunswick Library. The above quote is from the flyer advertising the event - "Inventions of New Jersey: A glimpse of early radio development." Since some of the early work on radio was done in the New York, New Jersey and Philadelphia areas, this exhibit was consistent with the library's theme for February: "innovation and invention in New Jersey." You might be interested in going to the NJARC website (njarc.org) and watching a short interview about the exhibit.

As part of this month-long activity, on the evening of Thursday, February 21st, club member Ray Chase gave a multimedia talk titled "Radio Broadcasting in America - New Jersey Edition." To provide some focus on the New Jersey theme,

Ray and I incorporated information about Marconi's stations in the state, Hazeltine, Sarnoff and RCA, Dumont, broadcasting in New Jersey, and Bell labs and the development of the transistor.

The talk was illustrated with over 30 audio clips which were broadcast to 8 vintage receivers scattered around the room. One of the radios was Ray's 1935 RCA 128 which he won at our 20th Anniversary Holiday Party this past December.

Ray's talk was very well received by an audience of between 50 and 60 people including 4 or 5 NJARC members. The size of the audience seemed to have surprised the Library staff. Twice they had to add more rows of chairs to their original setup to accommodate the unexpected turnout.

The audience was very attentive, and the Q&A that followed was wide-ranging and lively. We even had a question from a Russian-accented audience member about whether Popov or Marconi had invented radio. Ray disarmed him, figuratively speaking, and by the end of the discussion, both were smiling.



Ray Chase fields a question.

Following the talk, I spoke to one of the people from the Historical Society who told me that she thought that this was the "best" Library event that the Society had ever sponsored. I can't overemphasize enough the interest shown by the audience. It would not be surprising if we get a few new members as a result.

There may be a few encores in the future. We have been asked to speak to a group in Scotch Plains next month, and the Mercer County Library would also like a repeat of the talk. If you are interested in participating or attending, contact Ray or myself and we'll provide you with more details.



2013 NJARC DX Contest Results**Category A - Crystal Radios**

*Winner

Edward Suhaka 1,312 pts. HBW Xtal 1N34, random wire, MDS 1100 Khz WTAM Cleveland, Oh, 397 mi.

Category B - Primitive Tube Receivers- 1 or 2 tube

*Winner

Edward Suhaka 68 pts. HBW receiver w/1B3 detector, random wire, MDS 710 kHz WOR, New York, NY, 36 mi.

Category C - 1920's Battery Sets

No entries

Category D - Tube Radios for Home Entertainment

*Winner

Steve Tetorka 3,800 pts. Philco 37-116X (1937) w/Tak-Tenna 40, MDS 650 kHz WSM 736 mi. Nashville, Tn.

Matt Reynolds 2,999 pts. RCA 46X23 w/Grundig AN 200 loop, MDS 780 kHz WBBM Chicago, Il. 708 mi.

Category E - Amateur, Commercial and Military Tube Type Radios

*Winner

Nevell Greenough 10,199 pts military BC946/ARC5 w/36" loop, MDS 1200 kHz WOIA San Antonio, Tx. 1,558 mi.

Michael Gottfried 7,827 pts. Hallicrafters S20R w/500 ft. longwire, MDS 800 kHz PJB3
Bonaire, Lesser Antilles Islands 1,975 mi.

Marty Drift 5,090 pts. Hammarlund HQ-129X w/400 ft. longwire, MDS 730 kHz KKDA (500 W) Grand Prairie, Tx. 1365 mi.

Category F - Transistor Radios Before 1970

*Winner

David Snellman 13,408 pts. Braun T1000 Portable) w/ Torus Tuner 26" loop, MDS 750 kHz YVKS and YVKG Caracas, Ve. 2,097 mi.

Joseph Serafin 8,578 pts. Zenith Royal 750 (1957) internal loop, MDS 930 Radio Reloj, Houguin, Cu. 1343 mi.

Dave Satkowski 7,279 pts. GE 780E w/Grundig AN200 loop, MDS 950 Radio Reloj, Cu. 1279 mi.

Category G - Lightweight - any radio weighing less than 1 pound.

*Winner

David Snellman 13,209 pts. Sony SRF-37W w/Terk open loop, MDS 750 kHz YVKS
Caracas, Ve. 2,097 mi.

Al Klase 10,353 pts. Sony SW-100 w/internal loop, MDS 750 kHz YVKS Caracas, Ve. 2,097 mi.

Nevell Greenough 9,463 pts. Sony SRF59 w/internal loop, MDS 670 kHz CMBC San German, Cu. 1,504 mi.

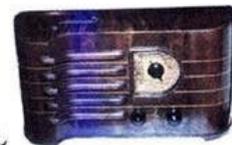
Compiled by Tom Provost



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



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



Saturday April 20th, 2013

**Walk around auction
starts at 11:30 am.
Bring in your attic
treasures for free
appraisal!**



**Expert Antique Radio
Repair Available.
Refreshments Available.
Easy ground level access.**

Open to the Public

8 AM to 12 noon

Vendor setup at 7:15 AM

\$5.00 ENTRANCE FEE

CLUB DONATION

**(70) 8 ft. Tables
\$20.00 for members
\$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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