

# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

March 2018

Volume 24 Issue 3



## MEETING/ ACTIVITY NOTES

Reported by  
Marv Beeferman

**The ON-LINE Broadcaster**  
The *Jersey Broadcaster* is now on-line. Over 160 of your fellow NJARC members have already subscribed, saving the club a significant amount of money and your editor extra work. Interested? Send your e-mail address to [mbeeferman@verizon.net](mailto:mbeeferman@verizon.net). Be sure to include your full name.

### Last Call For Dues

March 31st is the membership cutoff date for 2018 dues. Your Board feels that the \$25 annual cost (\$30 for a family membership) still remains quite a bargain in light of the club's benefits:

- Twelve issues of the *Broadcaster*.
- An entertaining and informative web site and *Reflector*.
- Two convenient meeting locations.
- Unique technical presentations and contests.
- Capacitors, tubes, resistors and parts at bargain prices.
- Resources for schematics and technical information.
- A constantly expanding, improving and award-winning radio museum, a library and vintage radio repair facility.
- Meeting auctions, estate auctions, "PAL" swapmeets and InfoAge tailgate.
- Repair clinics.
- Our subsidized Holiday Party...and much, much more

For members receiving the *Broadcaster* by mail, check the code next to your name on the mailing label. Honorary (H) and Lifetime (L) members are exempt from paying dues. If you're receiving your *Broadcaster* via email and you're not sure about your membership status, it will



## MEETING NOTICE

The next NJARC meeting will take place on Friday, March 9th, 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's meeting will feature a talk by member Harry Klancer titled "Marconi in Newfoundland - Sparks Across the Ocean." Also, if you haven't done already, try to remember to bring cash or a check to pay your 2018 dues (last call is March 31st).

be provided to you when you pay or you can contact our membership secretary, Marsha Simkin, at 609-660-8160 or [mhsimkin@comcast.net](mailto:mhsimkin@comcast.net).

Dues will be collected at monthly meetings and club activities, or you may mail a check made out to the "NJARC" to Marsha at the following address:

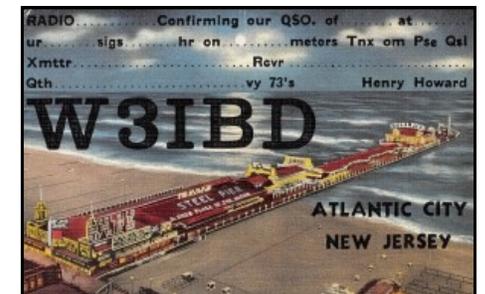
**Marsha Simkin**  
33 Lakeland Drive  
Barnegat, NJ 08005

Payment via PayPal is also available at the club's website but it will cost the club a fee. While you're at it, you might want to consider a lifetime membership. In any case, please renew early and **avoid the membership cutoff date of March 31st!**

At the February meeting, as a prelude to the club's Homebrew Contest, Technical Coordinator Al Klase gave a talk on "Homebrew Radios in the 21st Century" and offered some guidance to members who plan to undertake their own projects. We'll include some of Al's pointers in an article in next month's issue. The meeting also featured some nice offerings for sale by the membership, some of which are shown below:



John Dilks (K2TQN) has started an ongoing project with the creation of a QSL card history web page of the Atlantic City area. John notes that some of the hams represented were teenagers back in the 1920s and were talking to the world in Morse Code. He is trying to preserve the memories of these early and past ham radio operators by not only displaying their QSL cards but by including and updating interesting information on each ham as it becomes available. You can check out what John has already carefully preserved at [www.k2tqn.com](http://www.k2tqn.com) (link is in the yellow box).



John also includes information on the original WPG at 1100 AM which first hit the air in Atlantic City on January 3rd,

**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 \$25 per year and meetings are held the second Friday of each month at InfoAge or Princeton University. The Editor or NJARC is not liable for any other use of the contents of this publication other than information.

**PRESIDENT:**

Richard Lee (914)-589-3751  
[radiorich@prodigy.net](mailto:radiorich@prodigy.net)

**VICE PRESIDENT:**

Sal Brisindi (732)-308-1748  
[salb203@optonline.net](mailto:salb203@optonline.net)

**SECRETARY/NEWSLETTER**

**EDITOR:**  
 Marv Beeferman (609)-693-9430  
[mbeeferman@verizon.net](mailto:mbeeferman@verizon.net)

**TREASURER:**

Harry Klancer (732)-238-1083  
[klancer2@comcast.net](mailto:klancer2@comcast.net)

**SERGEANT-AT-ARMS (WEST):**

Darren Hoffman (732)-928-0594  
[amcmataador@aol.com](mailto:amcmataador@aol.com)

**SERGEANT-AT-ARMS (EAST):**

Rotating

**TRUSTEES:**

Ray Chase (908)-757-9741  
[raydio862@verizon.net](mailto:raydio862@verizon.net)

Phil Vourtsis (732)-208-4284  
[pvourtsis@gmail.com](mailto:pvourtsis@gmail.com)

Bill Zukowski (732)-833-1224  
[n2yeg@optonline.net](mailto:n2yeg@optonline.net)

**TECHNICAL COORDINATOR:**

Al Klase (908)-892-5465  
[al@ar88.net](mailto:al@ar88.net)

**TUBE PROGRAM CHAIRMAN:**

Al Klase [tubes@njarc.org](mailto:tubes@njarc.org)

**SCHEMATIC PROGRAM:**

Aaron Hunter (609)-267-3065  
[ahunter01@comcast.net](mailto:ahunter01@comcast.net)

**CAPACITOR PROGRAM:**

Matt Reynolds (567)-204-3850  
[matr04@hotmail.com](mailto:matr04@hotmail.com)

**RESISTOR PROGRAM:**

(To be announced.)

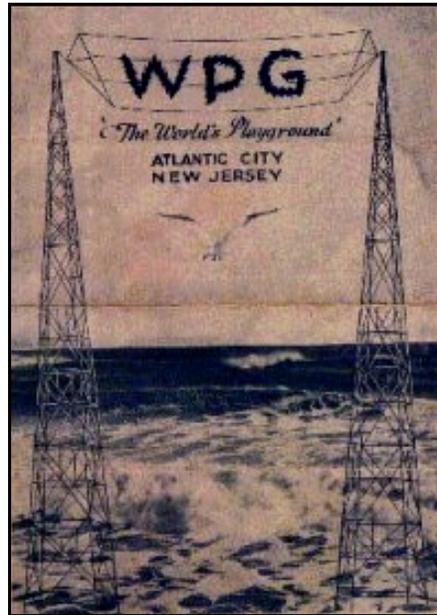
**WEB COORDINATOR:**

Dave Sica (732)-382-0618  
[dave.sica@njarc.org](mailto:dave.sica@njarc.org)  
[www.njarc.org](http://www.njarc.org)

**MEMBERSHIP SECRETARY:**

Marsha Simkin  
 33 Lakeland Drive  
 Barnegat, N.J. 08005  
 (609)-660-8160 [mhsimkin@comcast.net](mailto:mhsimkin@comcast.net)

1925. The station immediately became the voice of the World's Play Ground. If you listened to WPG, you may have heard anything from organ recitals to coverage of the visit by Charles Lindbergh when he flew the Spirit of St. Louis into Atlantic City.



Honorary NJARC member Ludwell Sibley has announced that the index to the Tube Collectors Association publications has been updated. This covers everything from 1999 through this February ("Tube Collector," the Special Publications, and the Data Cache DVD-ROM set). The PDF can be found under the "Archives" button at:

[www.tubecollectors.org](http://www.tubecollectors.org)

The Tube Collectors Association is a group of individuals active in the history, preservation and use of electron-tube technology. Its bulletin that appears six times per year and "Special Publications" alone are well worth the \$20 annual dues. Among the archives can also be found indexes to the "ARCA Gazette," "Vacuum Tube Valley," and the AWA Dowd-RCA Archive. Also included is Bro. Patrick Dowd's guide to the dates on early RCA tubes and a huge archive of tube data sheets and catalogs.

Member Joe Devonshire has started a string on the Reflector regarding a vendor I was not aware of - Hayseed Hamfest. Although we suggest supporting club members who are discrete capacitor suppliers, Hayseed appears to be a reasonable source for multi-section capacitors and re-cap kits for vintage radio, ham, SWL, audio gear applications. Custom units are also available. Hayseed may be

reached at:

[www.hayseedhamfest.com](http://www.hayseedhamfest.com)

Member Dave Sica has picked up another TV in Pennsylvania and delivered it to our Radio Technology Museum. It was sent down from upstate New York by our newest member Tim Poliniak. The small console TV is a Admiral Bakelite with a 12" black-and-white CRT.

As with the last set Tim sent our way, this one has undergone a full, electronic restoration. The case is in good condition and has polished up nicely. Dave says that Tim really likes this set and insists that this one might very well be the best-performing, most reliable vintage television we'll have.



**This 1949 Admiral Model 22X12 is identified by its rectangular grill pattern and round picture tube. Later models employed rectangular 14-inch, 16-inch and 17-inch tubes.**

**Upcoming Events**

- March 17 - NJARC Spring Swapmeet at Parsippany PAL
- April 13 - Monthly meeting at InfoAge; Show & Tell/Hints and Kinks
- May 5 - Spring Repair Clinic at InfoAge
- May 11-12 - Kutztown Antique Radio Meet
- May 18 - Monthly meeting at InfoAge; "Alternate Collections."
- June 8 - Monthly meeting at Princeton; talk by Alan Wolke (topic TBA).
- July 13 - Monthly meeting at Princeton
- July 21 - Summer tailgate at InfoAge
- September 21-22 - Kutztown Antique Radio Meet.

**BCB DX CONTEST  
RESULTS  
ANNOUNCED**

**By  
Marv Beeferman**

Member Tom Provost has announced the results of our 2018 BCB DX Contest. As usual, Tom did a great job in compiling the results as did Technical Coordinator Al Klase in sponsoring the event. It was nice to see the above-average turnout in entries; let's hope we can expand on this next year and that it is a indication of the anticipated participation in this year's homebrew contest. Before we look at the results, there were some last-minute contest comments that I wasn't able to include in the February *Broadcaster*.

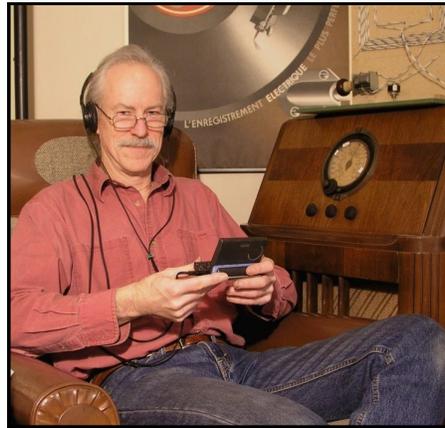
**John Ruccolo:** Below is my listening post. I temporarily commandeered the dining room table. Left to right: homebrew one-tuber, Hallicrafters SX-17 Super Sky rider, Hammarlund HQ-129X.



**Tim Walker:** I just sent Tom my logs for the contest. As a first-timer, greatly enjoyed the excuse to mess around - I mean experiment - with some AM radios! Here's a photo of me sitting with the two sets I ended up using. In my hands, a Sony ICF-SW100 portable; and to the right, a 1938 Philco 38-7 console. On top of the Philco is a corner of the air-loop

antenna I put together following Al Klase's online instructions. I had previously only used the Philco with a ten-foot, single-wire antenna. Al's loop gave it a real boost.

Of various receivers around the house, the best performer turned out to be that little Sony, which I had given my father as a gift nearly 20 years ago, and then hardly used after it came back to me. Weighing in at 8-ounces, it had me wandering around the upper floor with headphones on, pointing it in various directions, looking for hot spots. If any neighbors were watching, they probably figured I was doing some kind of ritual necromancy. Perhaps I was.



**Richard Phoenix:** The DX competition sounds like much fun. For DX machines, will be using an "ultralight," a Grundig G5 and my old standby Halli S38D. My e-mail has been very screwy for a variety of reasons, and I'm not certain that I have all pertinent details of our competition, although I do remember nothing above 1600 kHz. Too bad, as I log a number of TIS (Travelers' Information) stations here, some in the expanded band, including the one that I operate from the Borough of North Plain-

field on 1630 kHz. I have been told that it's been copied as far away as Perth Amboy, and the manufacturers are after me to power-down so they can drop in another TIS somewhere on my frequency.

By the way, I guess no longwave as I can copy a couple of navigational beacons here, especially CAT in Chatham on 254. Sorry, nothing transatlantic on the LW, although I know where to find 'em if they are there.

**Marv Beeferman:** Your editor normally enters Category C - 1920's Battery Sets. After receiving the contest results from Tom Provost, I should have stuck with this category since there were no entries and it would have been a sure winner. Perhaps this isn't exactly a legitimate way to wind up with an award, but to coin an old phrase, all's fair in DX and politics. Also, if I knew I was up against Nevell Greenough, I probably would have reassessed my Category B entry (Primitive Tube Receivers).

This year I went with a 12-tube Silver Marshall Model Q which I purchased at our January meeting. Richard Lee said that the radio "actually worked" and my DX experience with it confirmed Richard's statement. As part of the learning process, I didn't know that the time ticks for Radio Reloj could also be found on 790, 860, etc. rather than the 570 I usually shoot for. The photo below is not my radio but gives you a better idea of what it looked like in its prime.



**2018 NJARC DX Contest**

**Category A - Crystal Radios** - No entries

**Category B - Primitive Tube Receivers- 1 or 2 tube**

**Winner**

**Nevell Greenough** 8,673 pts. Aeriola Senior with triode connected 3V4, Superior HP, using 70' drooping V flat top ant. w/25' lead-in

MDS (**M**ost **D**istant **S**tation): 600 kHz CMKA Radio Rebelde San German, CU, 1347 mi

Marv Beeferman 7,169 pts. 1924 Crosley 3R3 (3 tuber using only two tubes) using 30 ft. ant.

MDS: 850 kHz KOA Denver, CO, 1,615 mi.

Gerry Dowgin 2,563 pts. 1926 General Radio Kit (2 tubes) using 40' longwire ant.

MDS: 1590 kHz WPUL South Daytona, FL, 742 mi.

John Ruccolo 2,108 pts. 1 tube (12A7) AC Homebrew "Grapes of Wrath" depression era regen using long wire ant.  
MDS: 840 kHz WHAS St. Louis, MO, 860 mi.

**Category C - 1920's Battery Sets - No entries**

**Category D - Other Tube Radios Sold for Home Entertainment**

**Winner**

**Tim Walker** 10,135 pts. 1938 Philco 38-7 console using DYI Skywaves air core loop  
MDS: 590 kHz Radio Rebelde, Guantanamo, CU, 1,389 mi.

Marv Beeferman 9,416 pts. Silver-Marshall Model Q (12 tube, 3 bands) using 30' ant.  
MDS: 790 kHz Radio Reloj (time ticks) Pinar del Rio, CU, 1,353 mi.

Phil Vourtsis 7,357 pts. Zenith C801 AM/FM table radio w/loop  
MDS: (from Myrtle Beach, SC) 740 CFZM Ontario, CAN, 1,257 mi.

**Category E - Amateur, Commercial and Military Tube Type Radios**

**Winner**

John Ruccolo 4,730 pts. Hammarlund HQ 129X using long wire  
MDS: 870 WWL New Orleans, LA, 1128 mi.

**Category F - Any Radio of your Choosing**

**Winner**

**David Snellman** 13,633 pts. Panasonic RF-B65 digital portable using internal loop  
MDS: 670 kHz Radio Managua, San Jose, Costa Rica, 2,179 mi.

Tom Provost 9,451 pts. 2010 Homebrew 5 Tube Regen using Gen. Radio supply and HB tunable loop  
MDS: 600 kHz CMKA Radio Rebelde San German, CU, 1,347 mi.

Al Klase 9,312 pts. Drake R-8B solid state using Skywaves shielded loop  
MDS: 600 kHz CMKA Radio Rebelde San German, CU, 1,347 mi.

Bob Bennett 7,942 pts. 1980's Delco Car "Franken Radio" using 4' T.O. whip powered by Gel battery  
MDS: 790 kHz Radio Reloj Pinar del Rio, CU, 1,353 mi.

Joseph Serafin 8,574 pts. Radio Shack DX 390 using internal loop  
MDS: 570 kHz Radio Reloj (time ticks), Santa Clara, CU, 1,279 mi.

Richard Lee 4,316 pts. Channel Master Super Fringe model 6515 using Grundig 12" tunable loop  
MDS: 600 kHz CMKA San German, CU, 1,347 mi.

**Category G - Light Weight- Any Radio Weighing Less than 1 Pound.**

**Winner**

**Tim Walker** 12,183 pts. Sony ICF SW100 using internal loop  
MDS: 750 kHz YVKS Caracas, VE, 2,097 miles

David Snellman 11,687 pts. Tecsun PL380 using TEK loop (Radio Shack)  
MDS: 600 CMBA Radio Rebelde, San German, CU 1,347 mi.

Bob Bennett 7,836 pts. Country Com GP5 using portable ferrite loop  
MDS: 790 kHz Radio Reloj Pinar del Rio, CU, 1,353 mi.

Ed Suhaka 5,840 pts. Chinese replica of 1949 Silvertone table top  
MDS: 670 CMBC Arroyo Arenas, CU, 1,280 mi.

Max Theis 5,702 pts Zenith Royal 275 using internal loop  
MDS: 670 WSCR Chicago, Il, 708 mi.

## HOT COFFEE AND HOT SOLDER FLOW AT FEBRUARY CLINIC

By  
**Marv Beferman**

With few non-member "clients" showing up at our repair clinic on February 17th, members were able to work out the bugs in their own projects. Emboldened by some hot coffee and the best "radio bagels" in New Jersey, the NJARC crew was ready to take on the most challenging issues. President Richard Lee would like to send out a special thanks to member Doug Poray for joining the "expert" ranks and working with member Bob Masterson on some of his radios.

As part of the repair clinic, five members attended a training session conducted by Phil Vourtsis. Topics included the major components of a radio (resistors, capacitors, inductors, transformers and various vacuum tubes) and how they are utilized. Also reviewed were the differences between AC and DC currents as related to radio circuitry. Phil then went on to discuss the various circuits in the All-American Five demonstration radio in the museum. Finally, safety issues associated with working with a radio were covered.

Here's a summary of some of the work that was performed:

- **Phil Vourtsis** worked on a 1939 Westinghouse Model WR-169, 5-tube broadcast receiver. This table model radio featured a nice wooden case and pushbutton operation. Phil found the antenna disconnected, but following recapping and replacement of a power resistor, the radio worked well. Phil also took on a GE clock radio that played for a few minutes but then went dark. Checking all tubes and changing coupling capacitors did not help. Silver mica migration inside both IF cans was suspected and the radio went home with Phil for "IF can surgery."
- **Bill Inderrieden** continued with a major restoration on the power supply terminal board of a Superior TV-12 tube tester. Work continues after noticing that the selenium rectifier needs replacement. Bill also started a restoration of a Zenith Consoletone, beginning with checking all tubes and photographing its existing condition to have a template for parts replacement.
- **Ray Chase** attacked an unknown

1930's "Hi-Fi" TRF radio. The radio was found to have working audio sections and the RF sections "seem to be working." Work continues, awaiting a high-end RF generator and quieter signal environment.

- **Matt Reynolds** had considerable help restoring an Emerson 757D TV, his family's first set. Initially, the set had a raster but no video and sound. Initial troubleshooting was previously performed with member Dave Sica. This time, member **Nevell Greenough** came on board. Problems located were a bad 6W4, a bad contrast pot, a short on the video output tube (wires touching) and a few pots out of adjustment. Repairs were successful with the restoration of video and audio; the contrast pot is still awaiting replacement.

Nevell also replaced the filter capacitors on a Zenith H500 owned by Bob Maddox resulting in a "well-playing" radio.

- **Charles Blanding** worked on president Richard Lee's Trav-Ler TR-280, 5-transistor pocket radio from 1958. It was originally dead but found new life after the replacement of a bad speaker and four electrolytic capacitors.

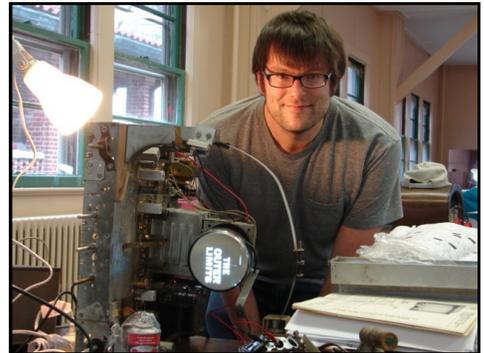
- **Bob Bennet** did an excellent job of restoring Rick Weingarten's Northern Electric 5110, 5-tube broadcast set from 1946. This is a popular radio for collectors; advertised as "the biggest little radio in the world," it is sometimes known as the "Baby Champ." Based on its Art Deco case in numerous colors (ivory, green, blue, carnation, red and red-gold) and hammertone case in blue, green, rose and gold, it is also known as the "rainbow" or "waterfall" radio. Bob found the radio in basically excellent condition but with a "howl" on energizing. The problem was traced to one section of a multi-section can capacitor being open. Following the replacement of filter, coupling and bypass capacitors and an IF alignment, Rick brought home a radio that Bob says "plays great."

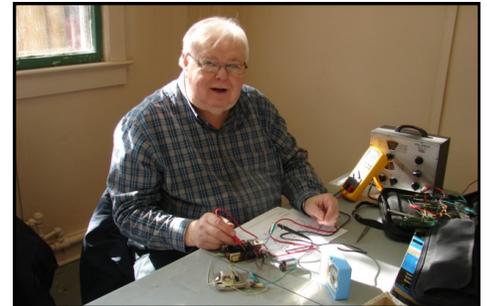
- **John Ruccolo** and **Chris Pistilli** worked on Chris's Philco wireless remote control Model 40-217RX console. Although operable, it is still a work in progress since the remote function needs adjustment and the preset lights need to be rewired. For the present, the "on/off wheel" was replaced with one from a donor set and a dial string issue was corrected.

- **Doug Poray** and **Bob Masterson** attacked Bob's Emerson 313 which was totally inoperative and traced to a problem in the first IF. It remains a work in

progress.

- A worksheet was handed in without noting all the contributors but it appears that **Chuck Paci** and **Bob Bennett** were part of the team involved in restoring a 1950 GE 408 AM/FM radio in a Bakelite case owned by Jonathan Schulman. The major problem was traced to a bad 19T8 (triple diode-triode) detector tube. Recapping was recommended.





Check out a 5-minute snippet of the February repair clinic at Bob Bennett's "Radiowild" on YouTube.

## RTM ACQUIRES A PROJECTION TV

### Part II - Restoration

By  
Dave Sica

*Last month, member Dave Sica described the sequence of events that preceded a new arrival at our Radio Technology Museum...a 1947 RCA 648PV projection TV. This month, Dave continues with the story of its restoration...Ed*

The electronic restoration of the set was performed by Tim Moritz, who was hired by the donor of the set, Adam Sayles. This part of the project went fairly smoothly. Tim has extensive experience working on these complex sets and, although more involved than restoring a radio or even a typical vintage television, the electronic restoration proceeded normally. Five separate chassis were recapped and all out-of-spec resistors were replaced. The IF alignment was touched up and the phonograph was cleaned, adjusted and a new cartridge and stylus installed. Tim had to fabricate several metal and wooden parts in his shop to replace damaged or missing parts on the set, but the restoration was otherwise unremarkable.

Last July, Tim and I first went to InfoAge to assemble the set. We expected to take a day. That's when the project hit the first of several speed bumps. (Spoiler alert: it took longer than a day!)

Right out of the gate, there was an issue with the set that would prevent us from finishing the project right away. One of the feet on the cabinet had broken and would need to be repaired. Repair would entail fabricating a missing piece of wood in addition to reinforcing and reassembling the broken parts. Tim suggested that due to the great weight of the set and the "iffy" status of the 70-year old feet, he would fabricate special casters to support it. This would leave the original feet hovering a fraction of an inch off the floor and keep the original look of the set. In addition, it would ensure against future breakage and also give a bonus of easy mobility. That required a trip back to his wood shop, and the scheduling of a second assembly session.

In the meantime, we began assembling what we could. I wish we had taken a lot more photos before and during disassembly. As I noted at the time: "Putting this

thing back together is like assembling a puzzle designed by Satan himself."

The two (low voltage and high voltage) power supply chassis, the radio, television, audio amplifier chassis and the phonograph turntable were installed. The routing of the many interconnecting cables was a bit obscure, and some of the wiring to the interlock switches and pilot lights needed to be replaced, but essentially, it all went in with relatively little struggle. The optical system was another story.

The museum had received two complete projection sets as part of the donation: the high-end set that was intended for display in the museum and a more middle-of-the-road model that, while complete, had some serious damage that relegated it to "parts set" status.

The special front-surface Schmidt optical system mirrors in these projection sets tend to age none-too-gracefully. Reconditioning the mirror is usually a must if the set is to perform to its original potential, otherwise the projected image will be even darker than the admittedly fairly dim optimal brightness.

The donor had thoughtfully arranged to have the mirror from the parts set resilvered prior to delivering it to the museum. The mirror is part of the "optical barrel" which is the heart of the projection system containing the special projection CRT and the special Schmidt mirror. It's fairly common knowledge among RCA projection set aficionados that although there were higher- and lower-end models, the sets all used the same core components: CRT, optical barrel and basic circuitry.

Except, apparently, for this one. Our 648PV, which was the biggest-baddest set in RCA's lineup that year, sported a special optical barrel an inch larger in diameter than their other sets. This meant that the "new" mirror would not fit. After considering our options, we determined that there were two: resilvering the other mirror at significant cost or swapping barrels with the parts set. We chose the second option.

Tim took the optical barrel home to fabricate some missing parts and fasteners and we scheduled yet another assembly day. After a fair amount of head-scratching, coaxing and drilling new mounting holes, the barrel was installed. Because there was no information in the service literature about the optical properties of the two different setups, we'd be able to tell if the swap worked only after the set was displaying a picture.

The screen was cleaned, then cleaned again. And again. It remained pretty

scruffy-looking. Fortunately, the screen from the donor set was identical and cleaned up nicely. The lifting mechanism for the screen was tired and even after adjusting, it sagged a bit. This would certainly affect the focus and could cause trouble if people were tempted to open and close the lid. Rather than attempting to restore the screen lift mechanism to function properly, we opted to fix it in the open position. This was based on the assumption that in order to watch the set in operation, it would have to be open and that no good would come from opening and closing the lid.

First power-up resulted in no picture. But we did have a fine ozone generator! In this set, **three** 1B3 high voltage rectifiers are used in a voltage-tripler circuit that was supposed to output approximately 30,000 volts. It measured only a fraction of that. So, although the supply had worked fine 'on the bench' after restoration, Tim took it back home to troubleshoot. It turned out to be a simple problem: one of the 1B3 tubes had failed. After replacing it, the full 30,000 volts was present. (Also, no ozone.) But... all that high voltage was making the inside of the optical barrel look a bit like a miniature Tesla coil, with sparks flying all over the place. Not good!

After cleaning and re-dressing the parts carrying high voltage within the barrel and properly grounding another, we got a raster. The raster was off-kilter, distorted and out of focus, but with subsequent physical and electrical adjustments got better and better. Making "factory adjustments" of the alignment of the projection tube and optical barrel is pretty much impossible without the factory alignment jig, and no one seems to have ever seen one of those. Even working without it, we got the picture so good that I suspect no casual visitor to the museum would ever notice that it wasn't perfect. The image is fairly dim, as was the case with these sets when they were new, and I expect that will be what people notice, rather than any small focus and alignment imperfections.

The finish on the wood of the set had deteriorated severely over the years. Much of the original varnish had already flaked off and the rest didn't seem to be far behind. NJARC member Max Theis offered to refinish the cabinet by "re-amalgamating" the existing original lacquer rather than stripping, sanding and relacquering. The results were rather spectacular; the set displays nicely. Thank you, Max!

A missing heat shield inside was replaced with a silicone oven pad, a back was fabricated for the cabinet to keep cu-

rious fingers from accidentally encountering 30,000 volts, and since the brightness and contrast adjustments were a bit "touchy" (as they were when the set was new), a clear plastic cover was fabricated to keep visitors from engaging in any casual "knob twisting" that would likely cause the picture to disappear.

There was a bit of a scare about the record player in the set not working properly, but re-seating a connecting cable solved the problem of the turntable not spinning. The fact that records weren't dropping automatically was more of a worry. Consulting the service literature one more time verified that records will only drop reliably in automatic mode when more than one is placed on the spindle; the weight of only one record on the

spindle wasn't sufficient to activate the mechanism. (RCA apparently identified that quirk but didn't engineer a solution until the next model of record changer - hence the warning in the service manual.)

The set is now on display in the museum and is working "as new." It looks impressive, although many people note the dimness of the display and are reluctant to believe that it looked that way when it was new. The "big screen" operating came at a cost, and this lack of brightness was a big factor in the relatively short period of time that these projection sets were marketed. Enjoy checking out the projection set on your next visit to our museum.



Thanks to the support of Dave Sica, a unique projection TV sits in its place of honor at the RTM. (Also note the Admiral 22X12 to the right that Dave delivered.)



"One of the feet on the cabinet had broken and would need to be repaired."



"Tim took the optical barrel home to fabricate some missing parts and fasteners."



The mirror is part of the "optical barrel" which is the heart of the projection system containing the special projection CRT and the special Schmidt mirror.



# RADIO

## New Jersey Antique Radio Club's

### Spring Swap Meet

**Parsippany PAL Building**  
**33 Baldwin Road**  
**Parsippany, NJ 07054**  
 Just off Route 46,  
 Adjacent to Smith Field




## Saturday March 17th, 2018

Refreshments Available



**(70) 8 Foot Tables**  
**\$25.00 for members**  
**\$30.00 for non-members**  
 Reserve Additional Tables \$20.00  
 At the Door \$25.00

**Open to the Public**  
 8am to 12 noon  
 Vendor setup at 7:15 AM  
**\$5.00 ENTRANCE FEE**  
**CLUB DONATION**

**For Directions**  
 Visit our website: [www.njarc.org](http://www.njarc.org)  
 or Mapquest  
 33 Baldwin Rd Parsippany NJ 07054

**Vendors Make Your Reservations Now!**

**Contacts:**

<p><u>President</u>          Richard Lee          (914) 589-3751  <a href="mailto:radiorich@prodigy.net">radiorich@prodigy.net</a></p>	<p><u>Vice President</u>          Sal Brisindi          (732) 857-7250  <a href="mailto:salb203@aol.com">salb203@aol.com</a></p>	<p><u>Secretary</u>          Marv Beeferman          (609) 693-9430  <a href="mailto:mbeeferman@cs.com">mbeeferman@cs.com</a></p>
--	--	---