



# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

June 2008

Volume 14 Issue 6



Reported by Marv Beeferman

## THE ON-LINE BROADCASTER

The New Jersey Broadcaster is now on-line. To date, 94 of your fellow NJARC members have subscribed, saving the club over \$1600 a year. Interested? Send your e-mail address to:  
[mbeeferman@cs.com](mailto:mbeeferman@cs.com)

Be sure to include your full name.

Last month's "Crichton" auction seemed to have a little something for everyone, and both buyers and the seller were pleased with the results. Your editor came home with a few "gizmos and gadgets" for tinkering with, including a selection of CDS photocells, a bunch of 4-digit LED displays and something called a "Radio Guard." This appears to be a miniature FM transmitter pre-tuned to about 88 MHz that you would either hook up to your car's radio antenna or run a wire antenna along the car's windshield. The unit receives power from a 12 volt source which is always hot regardless of ignition switch position. The concept (yet to be tested) seems to be the transmission of a tone to a nearby FM radio; if someone takes off with your car, the tone is lost as the thief drives out of range. I wonder if the thing could be modulated?

The NJARC Crystal Set Seminar is scheduled for June 14th (the Saturday following our meeting) at Infoage. The day's activities include learning about crystal radios, demonstrating sets, building sets, showing off radio's in member collections and meeting other crystal set fans. We will also have access to test equipment from the Infoage Eshop to repair sets and make measurements to see who really has the



## MEETING NOTICE

The next meeting of the NJARC will take place on Friday, June 13th, at 7:30 PM at the David Sarnoff Library in Princeton, NJ. Contact President Phil Vourtsis at (732)-446-2427 or visit us at <http://www.njarc.org> for directions. This month, we'll be featuring another "Show & Tell" session. In honor of the crystal set seminar to be held the next day at Infoage, our theme will be, quite simply, crystal sets. So dust off one of your more interesting energy-free radios (or any other item from your collection) and share its story with your fellow collectors. In addition, Dave Sica and Alex Magoun will present a brief review of the 2008 Early Television Convention held this past May in Ohio. Finally, what better way to add to the election fever sweeping the country than to participate in voting for our new officers.

best radio. Complete details may be found at our NJARC website link or directly at [http://www.njarc.ar88.net/Xtal\\_Seminar.htm](http://www.njarc.ar88.net/Xtal_Seminar.htm). This is a great activity for "young people" of all ages. Make sure you contact Al Klase ([al@ar88.net](mailto:al@ar88.net)/908-892-5465) if you're planning to attend so enough kits can be prepared or if you plan to volunteer as an assistant.



Some of our members maintain web sites to show off their collections. From the homepage of John Tyminski comes this eclectic grouping.

It's great to see how the knowledge grows of some of our newer (and especially younger) members with each passing year. John Tyminski tells his story

and proudly displays his collection at [www.freewebs.com/philcoaguys-radios/](http://www.freewebs.com/philcoaguys-radios/):

"This website is dedicated to the love of restoring antique radios and record players...just about anything with tubes. For about 10 years now, I have liked tube radios. In the summer of 1998, my mom gave me her old record player and records and from there I was hooked. In the fall of 2003, I went to a meeting at the New Jersey Antique Radio Club and so it started. I presently own about 70 radios, 50 record players and 10 vintage TV sets."

Our Summer tailgate swapmeet is scheduled for Saturday, July 26th at Infoage. This is a low-keyed, relaxed, family event under the shade trees of a historic communications site that would go great with a picnic lunch or barbecue. It also provides an opportunity to visit the Broadcaster's Hall of Fame museum and other member exhibitions. Full details are included in this month's *Broadcaster*.

Other upcoming events of local interest include:

7/13: Mid-Atlantic ARC Hamfest, Kimberton PA ([www.marc-radio.org](http://www.marc-radio.org))

7/9: Reading Area Mini-Hamfest, Sinking Spring PA ([www.readingradioclub.org](http://www.readingradioclub.org))

7/16: Ham Radio and Computer Flea Market, Oakland NJ ([www.qsi.net/marc](http://www.qsi.net/marc))

9/19-20: Kutztown Radio Meet, Kutztown PA ([www.dvhrc.org](http://www.dvhrc.org))

### CRICHTON AUCTION—Part I

Last month's NJARC auction was a nice alternative for those of us who could not make the Parsippany or Kutztown meets. As usual, the David Sarnoff auditorium was nearly filled and a varied selection of offerings was efficiently dispatched by Al Klase. The auction items were also supplemented by various parts obtained by Dave Sica. Below is a sampling...

**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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These B&K tube testers went for a very affordable \$15 and \$9.



This Hickok was a great buy at \$100.



This 1920s Jones battery set with four 199s sold for \$110. It appeared to originally be a part of a larger cabinet (note the ornate drawer-pull on the front).

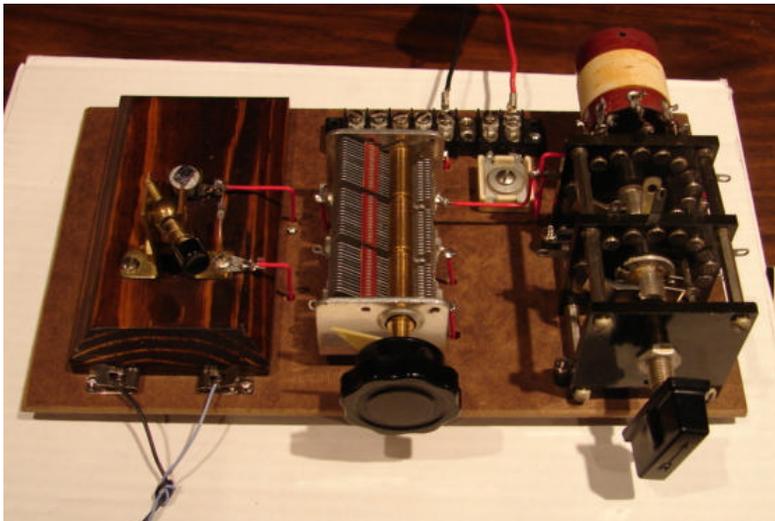


## NJARC 2008 HOMEBREW CONTEST

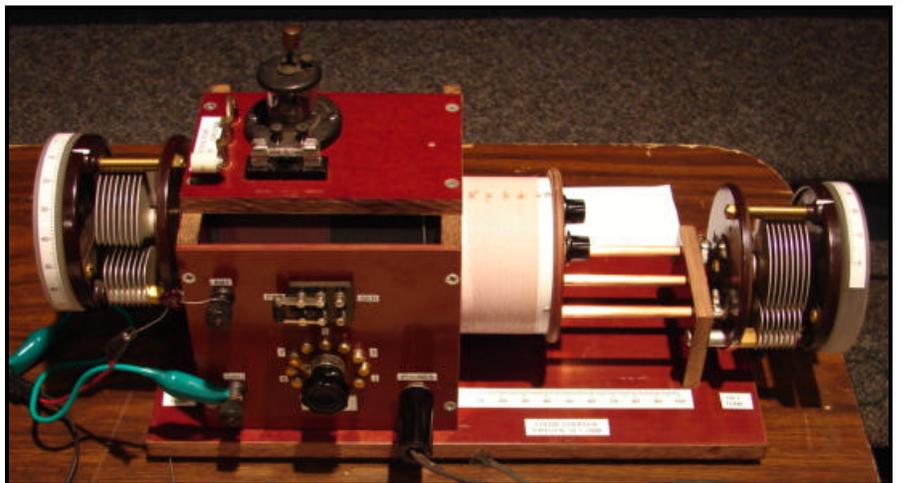
The club's 2008 homebrew contest, although not strong on quantity, was well-represented by quality. Thanks to all those participants who continue to carry the torch for a fading tradition of hands-on craftsmanship and experimentation. I'm sure that there were many more examples of "homebrewing" in our population of over 220 members that were not brought to light this year. Let's hope that we can get an additional 5 or 10 members to overcome their shyness next year and tighten up the competition. Awards will be presented at the June meeting.



Our members vote.



**John Acacia:** John's crystal set features a single-tap coil and three-gang variable capacitor. The switch to the right allows selecting between all the gangs to vary sensitivity or selectivity. The set was connected to a 35-foot long wire antenna across John's porch. This simple but effective radio was built on a Masonite board for a total cost of zero dollars and zero cents.

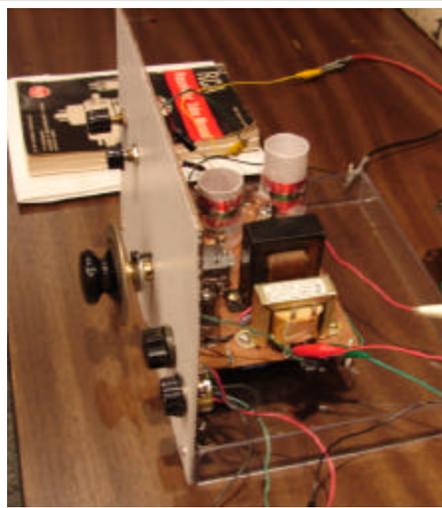
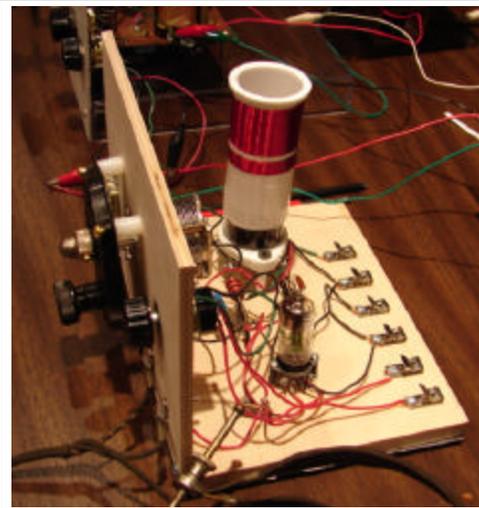


**Nevell Greenough:** Nevell describes his entry as "a slight variation on the classic 2-tuned-circuit design popular in the early 1920s. In theory, it offers better selectivity than the simpler single-tuned-circuit type." Quoting from his write-up:

The circuit of this set is based on a combination of NBS Circular No. 121 ("Construction and Operation of a Two-Circuit Radio Receiving with Crystal Detector—1922") and Al Klase's "PGXS" design. It offers parallel resonance for low frequencies and series resonance for high frequencies in the antenna circuit. The detector circuit has selectable taps for the tuning inductance and selectable taps for the diode circuit. Two detectors are offered. One is an original galena crystal; the other is a modern diode in a fuse-holder mount.

The classic construction technique involved an oatmeal box for the larger coil and a salt box for the smaller coil, all mounted on a wood base. The coil forms were often boiled in paraffin to eliminate moisture. This version uses plastic pipe parts and phenolic material instead. Originally, one could buy contact points for making tapping switches. These are made from relay contacts.

Local stations are readily separable with this circuit. WBUD (1260kHz) and WHWH (1350kHz) can be heard without crosstalk.



**Angelo Napoli:** Angelo's entries were based on two sources which many of our members are very familiar with. His one-tube regenerative receiver is a very close replica of the one described in Alfred Morgan's "The Boy's First Book of Radio and Electronics." When provided with a complete set of plug-in coils, this receiver will cover 16 to 550 meters; two coils are normally needed to cover the full broadcast band. This version uses a 6BF6 tube; Morgan's original version (1954) used a low drain 1H4G or 1G3GT/G tube which were later discontinued. Angelo's second entry, a "Battery Operated Short-Wave Receiver", is based on a circuit from the RC-18 issue of the "RCA Receiving Tube Manual." The tube complement consists of a 1U4 rf amplifier, a 1U4 detector and a 3V4 power amplifier and the receiver requires a 90 VDC supply. All of Angelo's coils are hand-wound.



**Walt Heskies:** Walt's entry is an AC operated regenerative receiver loosely based on a circuit described in the 1947 RCA Receiving Tube Manual. The series filament tube lineup is as follows: 12SK7 RF amplifier, 12SK7 Detector, 12SF5 Audio Frequency amplifier, 35L6 Power Amplifier, 50Y6 full wave voltage doubler. Regeneration is via a tap on the detector secondary coil connected to the cathode of the 12SK7 detector. This arrangement eliminates the excessive squealing normally associated with regenerative circuits that use a tickler coil wired to the detector plate circuit.

The rig tunes the AM broadcast band from 570 KHz to 1620 KHz via a pair of plug-in "RF" and "Detector" coils. A second pair of plug-in coils allows tuning up to 4 MHz. RF tuning and bandspread are provided via two switchable variable tuning caps (140pF and 30pF). Additional tuning is provided via a three-position rotary switch that adds capacitance to the RF tuning circuit in steps of 50pF, 100pF, and 250pF

Other controls include adjustable antenna trimmer, 10K wirewound RF gain pot, 500K regeneration control pot, 100K linear taper audio frequency filter control, and 500K audio frequency gain control.

Additional features include a phono jack for high impedance headphones and an AC audio voltage meter wired across the secondary of the audio output transformer for visual tracking of the audio level. A switch on the regeneration pot also controls the B+ which is between 160 and 180 VDC. Power is indicated via a switched neon bulb on the front panel.

The radio is able to detect 80 meter sideband amateur radio communications. Another notable feature is the copper-clad plastic chassis.



# A RADIO NAMESAKE

By Marv Beeferman

In June 2007, I received a call from Ray Chase who was in Burbank, Ohio attending another Estes auction. "Marv, you gotta have this radio" exclaimed an excited voice on the other end of the line. When Ray Chase says "you gotta have a radio," you give him the OK to bid with no questions asked. When I picked up my prize at the next NJARC meeting, I was thoroughly delighted to discover it was a 1925 **MARV-O-DYNE** (Type 612-C) battery set sold by the Amber Manufacturing Corp. of New York - a perfect radio namesake. (Ray was to later add to my namesake list with a Kellogg style tube

made by the "MARVIN" company.)

Although this radio maintained the simplicity of most three-dialers of the period, with nothing under the chassis except the audio transformers and a grid bias resistor-capacitor combination, it did include some nice features that I always look for in these type of sets.

First, the radio has a "Fil-a-meter" that allows you to switch between displaying the filament voltage and the "B" battery voltage. The company used this feature as one of the radio's major selling points (see advertisement) in saving tube and battery costs. It kept the tubes at their "proper operating point" and prevented something called "paralization" resulting from overheated filaments.

Another nice feature is that the cardboard instruction sheet, radio logs and battery connection diagram are in perfect condition, not suffering from the usual

attack by rodents, mildew or excessive heat. In addition, the hardware remains bright and shiny and the Bakelite panel has not warped or dulled, indicating that the radio was probably stored indoors with the cover closed.

However, all was not perfect and a couple of simple fixes will be needed before this MARV-O-DYNE is on the air. The "modulator" knob seems to have been lost in transit, the filament switch and "Fil-a-meter" switch will require repair or replacement and, as usual, the audio primaries appear open. However, these parts are readily available.

It's interesting to note that at the Info-age swapmeet a few months following the Estes auction, another "MARV-O-DYNE" showed up. This is pretty unusual for a radio that sold for \$98 in 1925 and probably was on the market for no more than about six months.

RADIO BROADCAST ADVERTISER 1023

### Compare the Value!

COMPARE the MARV-O-DYNE point for point with any other receiving set. Consider the performance and the appearance and the units—consider those things and you'll wonder how such a set can be sold for only \$98.

What other receiving set costing \$150 or more uses Haig and Haig Stratline condensers? MARV-O-DYNE does because they reduce losses and facilitate station finding. What other receiver incorporates a genuine Weston meter, which has a special provision for measuring "B" battery voltage? MARV-O-DYNE has chosen this recognized standard as part of its Fil-a-meter.

And speaking of the Fil-a-meter—that in itself is an exclusive MARV-O-DYNE feature. The Fil-a-meter alone should make you choose the MARV-O-DYNE. What this device saves in tube and battery costs by keeping the tubes at the proper operating point is obvious.

**\$98** MARV-O-DYNE has so many outstanding points of superiority that you owe it to yourself to go to the nearest dealer to inspect it. Write us for literature.

AMBER MANUFACTURING CORP.  
115 W. Broadway New York City

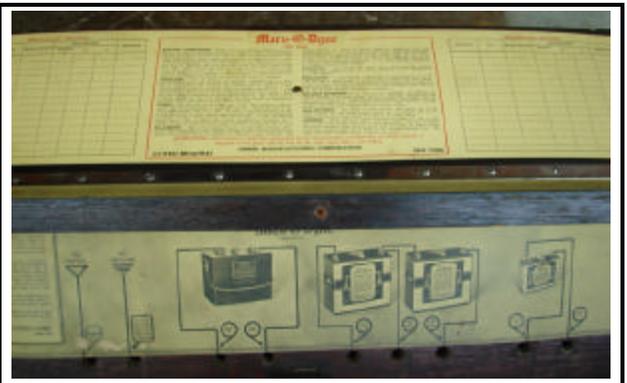
**The Amber MARV-O-DYNE**  
The set with the Fil-a-meter!



"The Fil-a-meter alone should make you choose the MARV-O-DYNE."



Each unit's serial # was stamped into the Bakelite.





## RESTORING A COLONIAL

By Aaron Hunter

A couple of years ago, I bought a nice looking Philco Model 80 Colonial clock radio. The cabinet appeared to be in good condition with original finials and what appeared to be only minor problems. The chassis appeared complete and untouched but the clock seemed to have major problems. There was no line cord exiting from the clock housing (a bad sign) and the shaft for setting the time was missing its knob and was detached from its mechanism. Since the set has a home in my living room, the silent radio and stationary hands finally got to me; action was due.

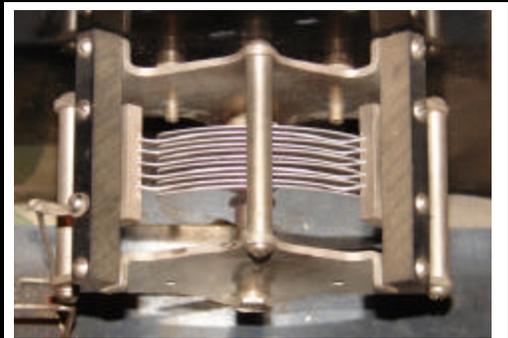
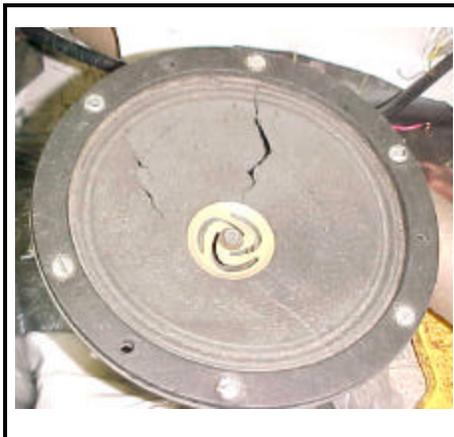
My first order of business was to get the clock working. Yes, I know I belong to an antique radio club, but for me, an inoperable clock bothers me more than a non-working radio. In order to get the clock motor out, I had to disassemble the entire set. So out came the chassis, the board assembly it sat on and the speaker - all as a unit.

When I peered inside to see how the front panel came out (this would normally be a door on a shelf clock), imagine my surprise when, instead of two holes, I saw five! Looking more closely at the veneer on the front of the radio, I realized that a piece of veneer had been nicely applied but not perfectly fitted. This was a stick-on, pre-finished type of veneer that had started to curl on one edge. I realized that the cabinet had started life as a model 551 Colonial Clock radio and the Model 80 chassis probably was originally housed in a standard, plain looking table radio. This

made me feel slightly taken, but not necessarily by the seller, who might have not known about the retrofit

Continuing to disassemble the clock motor, a rusty sheet metal screw fell out. This probably jammed the mechanism, resulting in the previous owner twisting off the time setting shaft. However, this was an easy fix, and with a new cord attached, the clock motor came alive. With the clock motor running, I felt new hope for the radio.

I started on the speaker, which had a couple of good tears in it. It was important to attend to these to avoid further propagation, rattles and sound distortion. I used Elmer's "Glue-All" and model-maker's tissue paper to repair the cone tears, although any thin paper would do; the glue will stiffen it. For larger repairs, construction paper of the same color can be used to fill in any missing sections. Rubber cement was applied to secure the flexible part of the cone. All repairs were made on the side of the cone that is hidden by the grill cloth. That way, they will hardly, if at all be noticeable from the inside of the radio.



"What other receiving set costing \$150 or more uses Haig & Haig Straitline condensers?"



When it comes to Philco block capacitors, I don't think the concept was such a bad idea. But when its time for replacement, I'm not so sure. It seems Philco's intent was twofold: seal the capacitor (encase it in Bakelite with a tar-like material as the sealant) and provide a large terminal block for multiple connections. There are five ways to deal with Philco block capacitors:

1. Do nothing at all and hope the radio works.
2. Cut the capacitor wires inside the rivets and push the wires back inside the block, ensuring they are well insulated. Then, attach a new capacitor to the external terminal lugs.
3. Remove the old block entirely by cutting it off at its terminal lugs and installing new capacitors to the lugs. This is not recommended since the new capacitors may not be properly supported.
4. Remove the old blocks entirely, replacing them with terminal strips to attach new capacitors and other components to.
5. Carefully remove the blocks by unsoldering connected components. Then, scrape out the tar and remove the capacitor. Install a new capacitor and the appearance of the block remains the same. This involves some extra work but the

underside of the chassis looks much neater. Make sure you reinstall the star washers used to mount the blocks to maintain a good ground. (Editor's Note: Replacing Philco block capacitors isn't as easy as it may seem. If you've never done it before, get your hands on a copy of "Philco Condensers and More" by Ray Bintliff. The guideline contains rebuilding tips and, more importantly, value identification and connection diagrams.)

I chose method 5 as shown below:

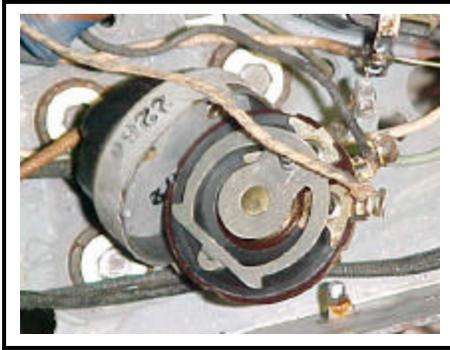


In addition, can electrolytics were replaced with smaller, new units mounted underneath the chassis. Some restorers like to hide replacements inside the hollowed-out cans, but I'm not that much of a purist; I just wanted the radio to look respectable and perform well.

Next, I checked all resistors to see if they were within 20% of their marked values. Although I found some that weren't, none were open and I elected to replace them only if absolutely necessary following final checkout.

The volume control was another story. Using an analog meter, I determined that the control was dirty and needed a shot of cleaning and lubricating fluid. However, there was no hole large enough to allow spraying without drowning the entire pot. Options are to either drill a hole in the case or carefully open it up. I chose to open the control, being careful not to break off the tabs that hold the assembly together. Following spraying and reas-

sembly, the pot quieted down.



I used steel wool and "409" to clean up the chassis. I could have taken it a step further with paint, but I decided not to make the extra effort since I wanted to concentrate on the cabinet. Anyway, you can't see the chassis when the radio is displayed and there will never be a mirror behind it! The "after" result doesn't look much different from the "before" result, but it's clean. I also replaced the rubber spacers under the tuning capacitor to position it properly in the clock window.



With the radio playing well, it is on to the cabinet. Re-gluing, replacing missing veneer, cleaning and finish rejuvenation are scheduled for a future date. When the finished product is ready, it will make its debut in the Broadcaster.

### THE PHILCO 551

The Philco 551 Colonial Clock-Radio was introduced in January 1932; the price was \$60. It was claimed to be an exact reproduction of a 19th century Eli Terry colonial clock with the following exceptions: 1) an electric mechanism replaced the old clockworks 2) a radio chassis was know in the pendulum chamber, and 3) the addition of an upwards facing loudspeaker and grill.

Philco advertised the model as follows: "...a big performing, 5-tube balanced super-heterodyne using pentode tubes, an im-

proved dynamic speaker and all-electric synchronous motor type clock. The cabinet is genuine hand-rubbed mahogany with a figured maple panel."



The Philco 551 chassis was also used in the Baby Grand (51B) released in the same year. The chassis would serve yet again, a few months later, for the models 52B and 52C.



Take a Model 551 Colonial Clock cabinet, add two pieces of wood on the front panel to hide the shaft holes, drill two new holes, build a wood platform in back, and VOILA - you have a Model 80 Colonial Clock.



## CONNECTIONS

Free exposure for buyers and sellers! Unless requested otherwise, each ad will run for two months in both the *Jersey Broadcaster* and the *Delaware Valley Oscillator*. All buying and selling transactions are the responsibility of the parties involved.

Are you aware that NJARC now has a resistor program which includes many commonly needed replacements? Contact Walt Heskes at any club meeting for details.

## FOR SALE

Check out NJARC's capacitor program for those most commonly needed replacements. Contact John Ruccolo at any club meeting or call him at home (609)-426-4568 to find out what's available. All proceeds go to the club.

The NJARC tube program offers clean, tested, boxed tubes at very reasonable prices with availability at any club meeting (no dealers, please...not for resale). Proceeds go to the club. Of course, donations of radio-type tubes in any condition are welcome. See Gary D'Amico at the next meeting.

## WANTED

Output transformer for use with 45 push-pull circuit. Self-bias circuit, 5000-ohm center tap, 4 or 8 ohm output, about 12 watts. For use with 12 inch speaker voice coil in 1931 model 20-23 Majestic radio. Dick Hurff, 856-546-7192

Need parts for Philco models 118 and 19/89. Cash for old chassis, IF and tuning parts. Will pick up at a reasonable distance. Robert Haworth, 112 Tilford Rd., Somerdale NJ 08083 856-783-4175

**WANTED:** Radio repairmen and restorers. Run out of your own radios to work on? The club and InfoAge have received a quantity of radio donations, some of which would look good in our museum. Others will be set aside for traveling displays, trading or resale as fundraisers. Many of these radios only need a good cleaning and polishing and a minor electrical checkout. Take one or two home with you and practice your skills...even if you just want to clean them up. Contact Ray Chase at our next meeting, at 908-757-9741 or enrpnr@erols.com.



## New Jersey Antique Radio Club Summer Tailgate Swap Meet

NJARC's InfoAge Cottage - 2201 Marconi Road, Wall, N.J.

**Saturday, July 26th, 2008**

8:00 AM to 1:00 PM - Open to the Public - Vendor Set-up at 7:00 AM



A great old fashioned tailgate swapmeet at what was once the 1914 Marconi Belmar Wireless station. Bring your own table, food and radios and relax in the picnic-like setting of this historic site. Take a tour of the Marconi "hotel" where the ghosts of the former age of wireless still roam the halls. Visit NJARC's Broadcaster's Hall of Fame radio exhibition at a cottage that once housed the station's chief engineer. Visit the site of Project Diana and its huge antenna that was the first to capture radar signals bounced off the moon. And much, much more!

A single space is \$20 for members and \$25 for non-members. Additional reserved spaces are \$15 (\$20 non-members). There is a \$5 club donation entrance fee for buyers. For directions, visit [www.infoage.org](http://www.infoage.org), our club website at [www.njarc.org](http://www.njarc.org) or "mapquest" 2201 Marconi Road, Wall, NJ.

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