



The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

August 2012

Volume 18 Issue 8



Reported by
Marv Beeferman

The ON-LINE Broadcaster

The New Jersey Broadcaster is now on-line. To date, nearly 120 of your fellow NJARC members have subscribed, saving the club and your editor a significant amount of money and work. Interested? To subscribe, send your e-mail address to mbeeferman@verizon.net. Be sure to include your full name.

At the July meeting, Technical Coordinator Al Klase gave the club a primer on automatic volume control (AVC) in order to "remove some of its mysteries." Al talked about the early days when tube gain (and thus output volume) was manually controlled by varying filament current or by utilizing a variable resistor in the RF section of the radio.



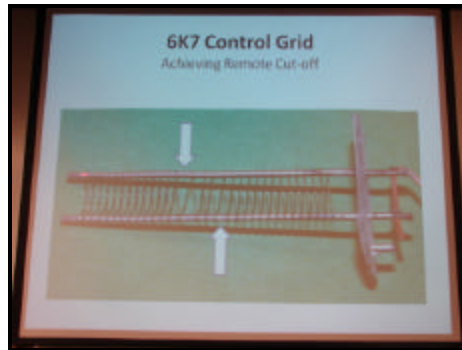
In 1925, Harold A. Wheeler gave us an "automatic" method of maintaining receiver volume fluctuations via his diode AVC circuit as exemplified by the experimental "Washington Receiver" which resides in the NJARC Museum of Radio Technology. The method was first utilized commercially in the 1930 Philco model 95. Al went on to discuss the grid



MEETING NOTICE

The next NJARC meeting will take place on Friday, August 10th 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>). A "Radio Scavenger Hunt" is on the agenda for this month; full details are included in the Meeting/Activity Notes.

construction of remote cutoff tubes and its relationship to AVC.



Finally, Al touched upon the complex AVC systems in communication receivers including extra amplification stages, separate AVC detector diodes, different time constants, and the application of different AVC voltages to different receiver stages to prevent distortion and cross-modulation.

Al's talk is typical of those that add to our member's understanding of what make radios tick and the history behind technical advances in their development. Are there any topics that you would like discussed at future meetings? We're always interested in your ideas and would be very happy to hear from you. Contact information for Richard Lee or Al Klase is provided on page 2 or on our website (<http://www.njarc.org>)

The meeting closed with the continuation of the auction of some very nice wood radios from the Allen Wright estate. We've included a few typical examples and prices in this month's *Broadcaster*.

Although the possibility of morning showers kept some away, our tailgate swapmeet turned out to be a delightful event with cool breezes taking a bite out

of a recent heat wave. A photo review is included in this month's *Broadcaster*.

On August 18th and 19th, the third annual WWII Symposium will be held at InfoAge from 1 to 5 PM (program is the same for both days). A series of presentations by technical experts will enlighten attendees about little known facts that led to ultimate victory. Our own Ray Chase will discuss the Radio Proximity Fuze and Al Klase will talk about Tactical Communications Security. Other features include WWII displays, actual military vehicles and realistic WWII dioramas. Cost is \$10 for adults and \$5 for veterans and students; WWII veterans can attend for free.

Radio Scavenger Hunt

The August meeting will feature a "Radio Scavenger Hunt" which proved to be a lot of fun last year. The idea is to come up with oddball items that are not in the typical categories of an old equipment contest but may still be unique and difficult to find. The entries are not necessarily working radios but need to be radio-related or resemble a radio. Here's a typical example entered by your editor last year; a Christmas-themed "retro-music" radio that plays recorded tunes from the 50' and 60's while the dancers rotate.



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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Entries will be limited to three items per member, each in a different category. Here's a list of categories to choose from:

- Most unusual item in the shape of a radio that really isn't a radio.
- Most unusual "wearable" radio-related item.
- Most unusual radio-related toiletry, cosmetic or personal care item.
- Most risqué radio-related item.
- Most unusual radio-related game or toy.
- Most unusual radio-related greeting card for a holiday other than Christmas, Valentine's Day or New Years.
- Ugliest or gaudiest commercially produced radio.
- Strangest looking tube.
- Most unusual novelty radio.
- Most unusual radio accessory other than a speaker, headphone or battery.
- Most unusual commercially produced crystal set.

- Smallest item in the shape of a radio.
- Most unusual radio-related item from a foreign country.
- Most unusual edible radio-related item.
- Most unusual radio advertising item not made of paper.

Upcoming Events:

- 9/14: Monthly meeting at InfoAge; Show and Tell
- 9/29: Repair Clinic at InfoAge
- 10/12: Monthly meeting at Princeton; Henry Morse "War of the Worlds - the Rest of the Story"
- 11/3: Tube Party at InfoAge
- 11/9: Monthly meeting at InfoAge; Joseph Taylor's (Nobel prize winner) "Moon Bounce" experiences
- 11/17: Swapmeet at PAL, Parsippany
- 12/8: Holiday Party at InfoAge; NJARC 20th anniversary celebration

Some Auction Items from the July Meeting



Wood/Bakelite Philco 78-player and radio: \$50



General Tire speaker: \$23



Zenith portable: \$21



Westar German radio: \$17



Emerson (Ingraham cabinet): \$15



GE: \$11



Westinghouse clock radio: \$13



Fada BC/SW: \$9



Philco BC/SW: \$13



Richard Lee and Darren Hoffman moved the offerings.

InfoAge Tailgate

(See Bob Bennett's video at <http://www.youtube.com/user/Radiowild?feature=mhee>)





THE NJARC... TWENTY YEARS AND COUNTING

By
Marv Beeferman

In 1988, Charles A. "Tony" Flanagan bought his first old radio and, for like many of us, the obsession began. "I had gone to an antique radio show in Nashua, N.H. and knew immediately this was for me." After driving out of state to attend radio club meetings and swapmeets, in May of 1992, Tony placed ads in magazines and newspapers stating his intention to form a New Jersey club devoted to antique radios.

Prospective members gathered on July 16 at the Monmouth County Library to establish the New Jersey Antique Radio Club with a charter membership of 15 collectors. Member Mark Mittleman noted that he had to direct traffic outside of the library to ensure that the club didn't lose any potential members. A formal structure of officers and committee heads was soon put into place to administer the workings of the club and we were well on our way. Tony's wife, Kathleen, as club secretary, played an important role in maintaining the club's finances and clerical obligations during those formative years.

What is most unique about the NJARC and what makes it stand out from other radio clubs is that its roots were solidly established and its branches lovingly nurtured by an individual who was not an "experienced" radio collector. With only limited technical and restoration experience and little familiarity with thousands of radio makes and model numbers, Tony was able to convince and provide the inspiration for collectors with many more years of experience to form and support a club.

Tony was always "talking up" the club at every opportunity and his natural ability to seal friendships on first meeting brought many new members into the fold. In his "President's Broadcast" from *The New Jersey Antique Club News* (Vol. 1, No. 4):

"Think and talk NJARC. I still (and this puzzles me) meet people who haven't

heard about the club. Do what I do: **Tell 'em!!!** Tell everybody. You never know what good might come of it. Bring a friend to a meeting. If everybody brought in just one new member, by next year, we'd be over 200."

Well, it took a little more than a year (Tony left office with a membership of 165), but Tony's dream was eventually realized, including the establishment of a radio museum.

With the firm foundation established by Tony, strong leadership has helped the club grow and mature over the years. In 1996, Jim Whartenby assumed presidential duties until 1998 when he left for North Carolina as a chip designer for Ericsson. Jim's strong technical background and association with RCA were great assets that kept the club on a firm footing. In his final *Broadcaster* "President's Column," Jim summed up the club's progress quite nicely:

"Two years have flown by and I now find myself writing my last President's Column. Looking back on this two-year term, I feel that the club is in better than ever shape. Club events seem to attract even larger numbers of vendors and buyers, the treasury has grown an additional 50% and new members are joining at a steady pace. These things all point to a healthy organization in which we should all take pride. I especially find the technical talks as interesting as ever. It is evident that a lot of hard work is put into the effort and I salute those who shared their knowledge with the membership. I have over the years visited a number of radio and other clubs and none seem to me to have the level of expertise in as many areas as our membership. *We have a great club.*"

The fact that, after Phil Vourtsis assumed the club's presidency from Jim and maintained it for ten years (1998-2008), says a lot about Phil's leadership qualities. Part of it can be attributed to his good nature and mild-mannered methods in resolving disputes and solving problems. Phil's main area of interest was 45 RPM record players but (in jest) this was not held against him; he quickly adapted to dealing with all the areas of interest associated with club. Phil helped guide the club through numerous changes in meeting locations, swapmeet

locations and our all-important establishment of the Museum of Radio Technology at InfoAge. Phil served not just as a president but as an active club participant. He was always there with a paintbrush or hammer in hand at InfoAge, hauled treasures from dusty and mold-encrusted basements and attics during cleanouts and participated in numerous club events and exhibits. In 2008, the tradition was handed over to president Richard Lee and is still maintained.

The club's first swapmeet took place at VFW Post 4374 in Freehold on Waterworks Road. Eventually, we established a permanent location at the Hightstown Country Club in East Windsor Township until it was ultimately razed in 2001. The Country Club holds many memories for our early members. I remember suffering numerous complaints from outside vendors whom I located next to the dumpsters of an adjacent restaurant; I must admit, the smell was disturbing but the additional tables added to the club's "take." On one occasion, I thought the club was in for a huge lawsuit when a vendor slipped on the ice-covered stairs in the rear of the ballroom. We all held our collective breaths when he was carted away in an ambulance. I'm sure many of us have a host of stories to tell from those early years.

The club then started its search for a new swapmeet location. Some of our older members might remember meets at the American Legion Hall in Dover, the North Centerville Volunteer Fire Co. in Hazlet and National Guard Armories in Freehold and Lawrenceville (did I leave any out?). We finally seemed to have settled, at least for now, at the PAL building in Parsippany and the grounds at InfoAge.

Similarly, our meeting locations have moved from time-to-time. Many of us have fond memories of those years at the Grace Lutheran Church in Freehold, including some riotous show-and-tells and repair clinics, engrossing lectures, and holiday parties with delicious, homemade offerings. After 10 years at the same location, in March 2002, we were asked to move. (Some felt that the tar from Philco encapsulated condensers finding its way to tables and the floor might have been the straw that broke the camel's back!) So, on May 2002, we were invited by Dr. Alex Magoun to hold our meeting at the Sarnoff Library in Princeton. The *Broadcaster* called this "a temporary location until a permanent meeting location can be

found."

The David Sarnoff Library location stayed "temporary" through June and July until we "attempted" some meetings at the American Legion Hall in East Brunswick. Meetings were going well until they were joined by the patrons at the bar; good-natured people and well-intentioned but not that exactly attuned to a discussion of the differences between a TRF and superheterodyne radio. In March 2003, the David Sarnoff Library became our permanent meeting location. It was a match made in heaven...a comfortable setting, a historic site and a gracious host. Our activities continued at full swing at Sarnoff...well-attended meetings, repair clinics, holiday parties and our support of the annual *War of the Worlds* radio simulation.

With the closing of the David Sarnoff Library, the club did not move too far, now dividing its meetings between Princeton's Bowen Hall and InfoAge. Throughout the years, we were very lucky, through the thoughtfulness of Phil Vourtsis, to capture and preserve meeting highlights on video, including our "tech-talks." We now have a library of some very nostalgic moments from the past that can be viewed with both sadness for lost members and for those humorous episodes from our show-and-tells.

Throughout the years, the club has done an exceptional job of meeting its mission in preserving radio history and enhancing the knowledge of radio-related disciplines. We have sponsored exhibits at the Atlantic County Library, the Monmouth County Library, the Elizabeth Pub-

lic Library, the Morris County Library, Raritan Valley Community College, Rutgers University, the Long Hill Historical Society, the Trenton Computer Fest, the Plainfield Library, the Olde Towne Village in Piscataway, the Cranbury Museum, the Barnegat Library, the Garden State Philharmonic's "1940's Radio Show," the Maker's Faire and at many other venues. In most cases, the displays and lectures were a team effort with members contributing pieces from their collections and providing technical expertise to lectures; in others, one or two members took the lead in representing the club.

In the Spring of 1996, member Marsha Simkin brought to my attention that Wall Township approved plans to use the military buildings at Camp Evans (closed in 1993 by the BRAC) for educational and recreational uses. This prompted a Broadcaster article titled "Camp Evans: Looking Toward the Future." Some nine years later, one of the most exciting feathers in the club's cap came on May 24th, 2005 with the official opening of InfoAge and the National Broadcaster's Hall of Fame at cottage #2 of this famous Marconi landmark. It brought into reality a long time dream of club founder Tony Flanagan; on that day, I pictured him approving our efforts with his typical "thanks guys" grin. This was just the start of what has eventually developed into a first class radio history resource for both young and old and an accomplishment that all NJARC members can be proud of.

There are many more events in our

history that could have been covered, but space is getting short. More will be available at our holiday party in December which will be devoted, in part, to our last 20 years. In closing, I was going to salute those individuals who have made that special effort in supporting the club. On further thought, for fear of leaving someone out, I have decided to give our recognition and thanks in more general terms to members past, present, and honorary:

Thanks to those who have participated in our cleanouts and radio rescues (usually, a very nasty job) to provide auction items for the club, help with our finances and preserve radio history:

Thanks to those who supported our public exhibits and displays.

Thanks to those who supported our swap-meets and repair clinics.

Thanks to those who served as club officers, administered our club programs and maintained the quality of our holiday parties.

Thanks to those who have built a fantastic museum at InfoAge, continue to improve it during work days and serve as docents to maintain its visibility.

Thanks to those who contributed to the *Jersey Broadcaster* and helped maintain its quality.

Thanks to those who maintained the technical quality of the club through lectures and one-on-one support of member's repair issues.

And most of all, **thanks** for being an NJARC member.



Phil Vourtsis talks about one of his pride and joys at a Freehold meeting.



Dave Sica saves a section of chestnut trim from the New Brunswick station. Hundreds of terra cotta roof tiles were also saved for "spare parts" for InfoAge.



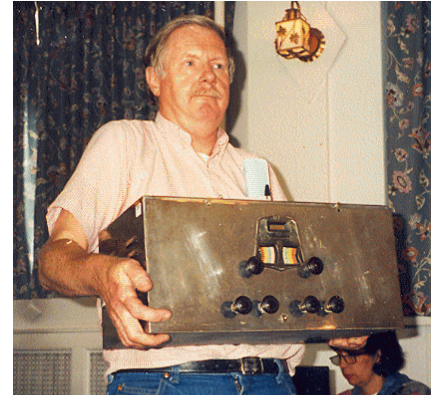
Tony Flanagan, NJARC founder and first president, discusses a point at a Hightstown swapmeet.



Bernie Gindoff explains the fine points of our meeting gavel to an amused Jim Whartenby. At our next meeting, take a closer look; it's quite a creation.



Where it all started.



Ludwell Sibley, *Tube Lore* author, played a major role in helping the club get off the ground. Here he displays one of our auction offerings.



Marsha Simkin hosts one of our holiday parties at the Grace Lutheran Church.



Cover page of our first newsletter published by Dave Sica in March 1993. It continued over four volumes when, in September 1995, it became the *Jersey Broadcaster*.



Lisa Starnes unwraps her "mystery grab bag" gift at an early Freehold holiday party as members look on with approval. The tradition has been continued every year since.

NEW JERSEY TUBE HISTORY REPEATS ITSELF

By
Ludwell Sibley

To celebrate our 20th anniversary, I tried to pick out a story from the early days of the "Broadcaster" that might represent the essence of our club. Yes, we have some fun and enjoy the fellowship of sharing a common interest, but I believe that the underlying mission of the NJARC goes beyond these obvious rewards. So,

the next time you restore an old piece of equipment or rescue a piece of advertising, a tube, or a book from the trash, you might want to think of what would have been lost if you weren't there to preserve it...Ed

In his recent (and excellent) biography *Zworykin, Pioneer of Television*, noted television historian Albert Abramson includes a footnote as to how he acquired some precious samples of early RCA developmental TV tubes. Speaking of Howard Schrader, the high-powered (and now departed) tube collector in Princeton, he says:

"In 1977, he showed me a display of television tubes that he had gathered from the RCA plant in Camden. Schrader told me that in 1942 when the RCA labs moved from Camden to Princeton he heard that the RCA patent museum was going to be eliminated due to lack of space. Every item was to be thrown out. The word went out to all collectors in the area that on a certain day all these items would be available for free collection. All tubes that were not taken were to be immediately destroyed. He told me that he and four other collectors worked very hard to stay ahead of the men with the hammers. He gathered about a thousand tubes and took them back to Princeton. Later, he

CONNECTIONS

Free exposure for buyers and sellers! All buying and selling transactions are the responsibility of the parties involved. **Send your ad to mbeeferman@verizon.net**

Are you aware that NJARC now has a resistor program which includes many commonly needed replacements? Contact Walt Heskes (732-205-9143) at any club meeting for details.

**SELLING? TRADING?
NEED THAT HARD-TO-FIND
REPLACEMENT PART?
ADVERTISE HERE...
IT'S FREE!**

was quite generous with them and gave me a dozen of his choice tubes...which included a rare 1931 sleeve type iconoscope and a 1932 miniature iconoscope."

I've confirmed this story with a present-day tube collector, who adds that RCA's museum *receiving* tubes had been taken to the local dump independently, and that Schrader also rescued many of them.

Apparently, not all of the television samples were destroyed. NJARC's Jim Whartenby reports that several early RCA iconoscopes are on display at the Franklin Institute in Philadelphia. But here's how the story repeats: a few months ago, Jim brought into a club meeting a bunch of samples freshly salvaged from the dissolution of the RCA patent museum at Princeton! He kindly handed out sample prototype tubes (mostly '60s types like Compactrons) and transistors (typically TA-coded developmental items). All had their original record sheets attached. Jim had also saved a prototype identified on its box as "the first" pentagrid converter, the relic of a patent suit between RCA and Philco. Clearly, RCA had grown a new patent museum while installed at the David Sarnoff Center, only to have it ordered destroyed after the takeover by GE.

Check out NJARC's capacitor program for those most commonly needed replacements. Contact Matt Reynolds to find out what's available. All proceeds go to the club. 567-204-3850, mattr04@hotmail.com, capacitors@njarc.org

Need a tube? Contact Darren Hoffman a week ahead of time before a monthly meeting or club event. amcmata-dor@aol.com (732)-928-0594

FOR SALE/TRADE

Club T-shirts are again available; \$10 each, L/XL/XXL. See Richard Lee at the next meeting or club event.

For Trade: Palm M505 w/fold-out keyboard & power charger, basically brand new with original boxes. Looking for a UHF mobile for the car with memory and CTCC tones (basic rig for commute time). Ed Papson, papson_e@comcast.net.

Sic transit gloria...

Editor's Note: I was present at the Freehold meeting when Jim Whartenby handed out the samples mentioned by Ludwell and managed to obtain a small box of transistor samples that no one seemed interested in. Since Ludwell's story came out some time later, I never made the connection, but reading it again made me dig out the box. Mixed in with the transistors (see examples at right) were the record sheets for an improved 5U4GB rectifier (1963) and 6AD10 audio frequency output amplifier (1966). For the 6AD10, the following improved features were noted:

"On the output pentode section, the grids are held in alignment by swaging the bottom grid side rod legs tightly above and below the bottom mica. The swaging operation is done on a special jig device on which the cage is assembled and the grids swaged in the mounting operation."

The improved feature of the 5U4GB was a slot in the mica with a restriction for retaining the filament in the bottom mica, thus minimizing plate-to-filament shorts.

A little bit of history still preserved.

WANTED

To Trade: I have a Heathkit GR-81 in fair/good shape. All tubes light up and it functions on the BC and SW bands. Looking to trade for a 70cm FM mobile or 5V filament transformer rated at least at 10 amps. Contact Ed Papson at papson_e@comcast.net, 908-309-6529 (9AM-5PM, M-F)

Complete set of knobs for a Zenith 10S155. I also need the glass cover which protects the tuning dial and dial pointer. Doug Pbray dporay@optmum.net

20K audio taper pot with a long shaft. (My previous search for a shaft coupling, gratefully fulfilled by an NJARC member, didn't solve my problem.) The type of shaft isn't important. Contact Bill at n2yeg@optonline.net



TOP: A TA 2700, 1965 transistor prototype (note lack of markings). The transistor was mainly used for high voltage Class A audio output stages and line operated equipment such as radios and phonographs. Its thermal resistance was improved by use of an internal, copper heat sink. A new 2-lead (stiff) stem was used in place of the 3-lead (flexible) stem used on the TA 2301.

BOTTOM: A PA 7368 transistor prototype with its top removed to show internal construction.