

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

January 2013

Volume 19 Issue 1



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.

Happy New Year! Our Holiday Party and 20th Anniversary celebration at InfoAge turned out to be a grand success. Al and Peggy Klase greeted members at our social hour with a delightful sampling of appetizers as a prelude to a highly praised buffet organized by Sal Brisindi. A nostalgia table set up by your editor included articles, letters, meeting minutes and other ephemera that traced the history of the club. Each member was given a copy of our first newsletter and a group of our charter members was presented with souvenir hats and shirts. Dave Sica showed a hilarious segment from the short *Hog Wild* where Laurel and Hardy attempt to put up a radio antenna on the roof of a house. Ray Chase was the lucky winner of the door prize, a beautifully restored RCA model 128 tombstone radio and flowers were presented to Marsha Simkin and Edith Chase for all their help in supporting club activities. Phil Vourtsis (our annual cake maven) was presented with this year's well-deserved Tony Flanagan Memorial Award. Our Mystery Grab Bag once again proved to be loads of fun with some really nice gifts changing hands.

Thanks to all the volunteers who made our party and 20th anniversary a wonderful finale to another year of radio collecting.



MEETING NOTICE

As a result of problems with the main transformer at InfoAge, the next NJARC meeting will take place on Friday, January 11th 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>). Technical Coordinator Al Klase will present a talk on "How to do Well in the DX Contest" which begins this month (see page 5) and we'll also hold our annual members-only auction that was originally scheduled for InfoAge.

CALL FOR DUES

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.

- 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. Please renew early and avoid the cut-off date of March 31st.

Upcoming Events

- January 26th, 27th: Armstrong Day at InfoAge
- February 8th: Monthly meeting at Princeton; Silver Migration talk by Walt Heskes
- February 16th: Repair Clinic at InfoAge
- March 8th: Monthly meeting at InfoAge; Moon Bounce Project talk by Joe Taylor (tentative)
- April 20th: NJARC Spring Swapmeet at Parsippany PAL
- April 27th: Tube Party at InfoAge
- May 3rd: Monthly meeting at InfoAge; 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



Santa and Mrs. Clause (aka John Dilks and Tina Carson) get ready to greet youngsters at InfoAges's Christmas celebration.

- 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.

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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MORE ON CONE SPEAKERS

By
Ray Chase

My original intent was to make a correction to the report Marv Beeferman included in the last issue of the *Broadcaster*. It concerned my "Show and Tell" display of a Timmons Talker cone speaker that had been restored. Marv reported that the speaker was mine and is on loan to the museum. Actually, the speaker belongs to the club; it came from a house cleanout a few years ago as a club donation. I held on to it, eventually intending to get it re-coned, which I did at the fall Kutztown meet. It is now on display in the museum as club property.

But since I am on the subject, here is some more information on cone type speakers for battery or early AC radios. Some of these types, particularly the Western Electric double cone units (those with front and back paper cones and a magnetic driver between them) have the best fidelity of any of the early loud speakers - certainly much better than horn speakers. I cannot remember the references to specific tests (I am sure a little research will turn them up), but several groups had done frequency response curves on different types of early speakers. These were all high impedance units, usually between 1200 and 1800 ohms DC resistance, and were usually connected directly between a radio's last stage audio amplifier plate and B+. Sometimes a large capacitor was used to couple audio to them in order to keep the DC tube current out of the driver coil (and also away from fingers that might get in touch with the speaker leads).

The audio signal in the driver coil operated on an armature connected to a metal rod that pushed and pulled the cone back and forth. A horseshoe-shaped permanent magnet also acted on the armature as well providing a constant magnetic field that the audio signal added or subtracted to. As the decade of the 1920's closed, dynamic speakers with large DC current field coils and Alnico permanent magnets in the 1940's greatly

increased speaker efficiency and provided much better low frequency response, so cone speakers went the way of the buggy whip.

Now, the older cone speakers are highly collectable, partly because they are so pretty. But because they are so fragile, few survive with original paper cones. Thanks to craftsmen such as Buford Chidester, we can restore these speakers to their original beauty and performance. To that end, let me talk a little about Western Electric double cone speakers.

There are three models that you should keep your eyes peeled for. The 18-inch diameter 540-AW, the 24-inch diameter 560-AW and the 36-inch diameter 548-AW. This last one is a behemoth; mounted on a wooden tripod, it stands 50-inches tall. I think I saw one only once and it was not in great shape. I have had maybe 5 or 6 of the 18 and 24-inch size speakers; two of them had good original paper, the others I restored with parts from Buford. I still have a 24-inch model as shown. I believe that member Sal Brisindi got one of my rebuilds at a holiday party grab bag a few years ago. Most of the time, you will only find the basic frame and driver with no paper left as shown in the pictured sample. Do not despair; grab it as the drivers are almost always good since Western Electric never messed with pot metal - they only built quality stuff which held up well over the years. Usually, the push rod is bent but that can be straightened easily. Even if the push rod is missing, Buford can fix it.

If you come up with a frame, clean it up, buy a paper cone kit and new cord from Buford and I guarantee that you can fix it up in little more than an hour. You'll like the sound and it will look great.

One other final note. I have a Northern Electric R4 superhet from 1924, the Canadian equivalent of the Western Electric 4D radio used as a monitor at many commercial broadcast stations. The 4D was not sold retail in the United States but Northern Electric sold the model R4 retail in Canada. A few years ago, Buford had a Northern Electric R540C 18-inch double cone speaker that he restored. This speaker was also intended for sale in Canada. Well, I certainly had to have it and it is a beauty to look at and is now paired with my Northern Electric R4.



Western Electric 24" 560-AW. Chidester prices this at \$500 to \$550.



Northern Electric R-540C



Usual "as-found" condition of Western Electric speakers.



Member Sal Brisindi was rewarded with this cone speaker at our 2008 Holiday Party "mystery grab bag." Ray restored the speaker with parts obtained from Buford Chidester.



From your editor's collection is this Timmons Concert Grand. It has a very ornate cast iron frame and base, an oval-shaped paper cone with a unique offset (eccentric) cone apex and a very picturesque design.



Another "basket case" from your editor's collection? Since the frame of this SAAL offset apex speaker is still fully intact and it is considered very "rare," it is a good candidate for a Chidester restoration.

HOLIDAY PARTY - 2012 - OUR 20th ANNIVERSARY



Part of the "nostalgia table" consisting of articles, letters, meeting minutes and other ephemera from the last 20 years.





Phil Vourtsis accepting the Tony Flanagan award.



Some of our charter members.



Some flowers of appreciation for Marsha Simkin and Edith Chase.



Ray Chase with door prize award, an RCA model 128.



The 2013 NJARC BCB DX Contest - January 18-27, 2013**Official Contest Rules**

THE OBJECT: To use vintage radios receivers to receive broadcast-band signals from the greatest possible distance. Performance will be judged by the total mileage for your ten best loggings during a 24-hour session. You will be competing against competitors using similar receivers.

ELIGIBILITY: The contest is open only to members in good standing of the New Jersey Antique Radio Club.

CONTEST PERIOD: The contest period will be from 12:00 Noon, local time at the receiving location, Friday, January 18, 2013 through 12:00 Noon, Sunday, January 27, 2013.

SESSIONS: Contestants may submit logs for any two, 24-consecutive-hour sessions (noon to noon) during the contest period. You may use only one receiver during a session. That means you may not "bird dog" the simple radio with a more complex radio. You may submit logs for two different receivers. They need not be in the same category.

FREQUENCIES : The Broadcast Band, as defined for the contest, will be from 530 to 1600 kilocycles. No stations on the new extended band, 1610 to 1710 kilocycles, will be counted since many early radios did not cover those frequencies.

RECEIVER CATEGORIES:

- A - Crystal radios
- B - Primitive tube or transistor receivers (homebrew also) -1 to 2 tubes or transistors, plus power supply.
- C - 1920's battery sets (homebrew also) - batteries or modern power supply are OK.
- D - Other tube radios sold for home entertainment.
- E - Amateur, commercial, and military tube-type communications receivers.
- F - Transistor radios introduced before 1970.
- G - "Light-Weight": Any radio weighing less than one pound (454 grams).

SPECIAL AWARDS will be given for the best performances by first-time contestants.

ANTENNAS: Anything you like.

LOGS: 1. Submit a log for each of your contest sessions (maximum of two). Each log header should include contestant's name, address, phone number, category, and description of receiver and antenna. Please include you listening address if it is different from you mailing address.

2. Make a log entry for each station you claim to have heard. Stations must be positively identified. (This is being done on the honor system, and is a somewhat variable concept. If you hear Boston weather on what you know is 1030KC, then go ahead and log WBZ. However, just because you heard a signal on 1160KHz doesn't mean you heard KSL in Salt Lake City.) The contest committee reserves the right to disallow what it feels are outrageous claims.

3. Each entry should include time, frequency, call letters, location, and optional comments. Although we're only judging your ten most distant loggings, submit as complete a log as possible. The committee may make special awards for most stations, most interesting log, etc. as it sees fit.

A log sheet may be found at <http://www.njarc.ar88.net/contest.html>. You may reproduce it or generate a similar one of your own.

Logs must be postmarked not later than midnight Monday, February 4, 2013.

Logs may be submitted as email attachments.

SCORING: Distances to stations will be calculated by the committee and will be based on great circle distances from Freehold, New Jersey for listening posts within a 100-mile radius of Freehold. We will calculate mileage for other entries based on actual listening location. In all cases, please indicate your ten best loggings to make our job easier.

Special Rule #1: A contestant may claim only one of the Cuban time stations, Radio Reloj, regardless of how many are actually heard. All will be scored as 1279 miles (Havana).

Submit logs to: Tom Provost, 19 Ivanhoe Dr., Robbinsville, NJ 08691, tprovost@pppl.gov

Questions: Al Klase - 908-892-5465 al@ar88.net, Tom Provost - 609-243-2508, <http://www.njarc.ar88.net/contest.html>

NJARC HOMEBREW EQUIPMENT CONTEST AND "BASKET CASE" RADIO CONTEST

In addition to the BCB DX contest, two additional challenges have been scheduled for 2013 - a homebrew equipment contest and "basket case" radio restoration contest.

The objective of the homebrew equipment contest is to preserve the tradition of building your own electronic equipment. Judging will be held at the regular May meeting.

Category 1 - Primitive Receivers

The signal path of the radio may use no more than two tube functions or two discrete transistors. Solid-state diodes may be used for detection as in a crystal set or reflex circuit. Any convenient power supply may be used, and may contain additional vacuum tubes or semiconductors.

Category 2 - Beginner

Same rules as Category 1. Contestant has never made a serious attempt at building a radio from scratch.

Category 3 - Open

Any recently constructed homebrew radio receiver or transmitter.

Category 4 - Vintage Reproduction

Faithful reproduction of 1920 - 1939 homebrew radios.

Category 5 - Tube Audio Equipment

General Contest Rules:

1. The contest is open to NJARC members only.
2. Entries are limited to "scratch-built" radios as opposed to kits or modified production sets.
3. Entries must have been recently constructed by the contestant. Receivers must be capable of receiving at least one station.
4. Contestants should be prepared to

demonstrate their creations at the May 2013 meeting and say a few words about the design and construction of their radio.

5. The membership in attendance will vote for the best entries in each category. Prizes and certificates shall be awarded to the winners.

Basket Case Restoration Contest

This contest was suggested by president Richard Lee and was featured at the 2011 AWA Convention. It may not be everyone's cup of tea, but it's worth a try.

The contest was first established nine years ago by the SQCRA based in Quebec, Canada. Members of this enthusiastic group of collectors take a basket case radio and in a one year period restore it cosmetically and functionally to its former glory. The contest has since gone international with such clubs as the AWA, DVHRC, CHRS and New Zealand Vintage Radio Society participating for 2012. Radios are judged on eight main criteria, with each criteria scaled from 0 to 10 points. The sum of all the points determines the winner.

Our contest period will run only 5 months with judging at the May meeting. (The time period may be extended if required.) It will not be based on a point score.

General Contest Rules

1. A minimum of three photos of the "before" condition will be provided - an exterior cabinet view, a rear chassis view and an under chassis view.
2. The restorer shall provide a short, written description of the radio's original condition and challenges faced during the restoration. The more complete the description, the more chance of a higher rating.
3. Photos of the "after" condition of areas of the radio that are not observable (i. e., under the chassis) shall be provided.
4. The radio shall be operational.
5. Since the radios entered are not expected to all be at the same level of disrepair, consideration will be given for the level of difficulty. For example, if a mouse has chewed the oscillator coil and it has to be removed, this represents a level of difficulty higher than simply replacing capacitors to return the circuit to operation.

If you are interested in seeing a full example of a SQCRA entry with descriptions in both French and English, go to the California Historical Radio Society website (<http://www.californiahistoricalradio.com>) and click on the link "Example of contest submission (PDF)" in the international radio restoration section.

TWO INTERESTING TUBULAR AUDIONS

By
Marv Beeferman

I recently purchased a double filament tubular audion from past NJARC president Phil Vourtsis. Although tubular audions with good filaments are somewhat rare (although a far cry from the spherical type), this particular example has an intact label that reflects a particular segment of the tube history timeline.

In the 2012 *Antique Wireless Association Review* can be found a very comprehensive review by Eric P. Wenaas of a specific aspect of the history of the tubular audion. In his "Elmer T. Cunningham and the Vacuum-Tube Triangle," Wenaas writes:

"The vacuum-tube triangle refers to the tangled web of conflicting patent rights associated with the Fleming valve and the DeForest audion that resulted in numerous imbroglios among and between the Radio Corporation of America (RCA), DeForest, and infringers who threatened the patent rights of RCA, DeForest, and DeForest patent assignee, Western Electric. While there were many infringers, there were three in particular who vexed DeForest by openly infringing on his patents before WWI, and later vexed RCA by directly challenging its vacuum tube monopoly after the war..."

One of these "vexing infringers" was Elmer T. Cunningham.

Prior to about 1915, DeForest enjoyed close to a monopoly on vacuum tubes and was able to impose very restrictive sales

policies. DeForest's spherical audion sold only in exchange for a spent audion or by purchasing a new audion detector unit for \$25. This could not compete with tubular audions sold by Cunningham and others at \$6.50 to \$7.50. As a result, on March 15, 1916, DeForest announced his own version of the tubular audion, the "Type T," at a price of \$5.50. Second, he filed a complaint alleging patent infringement against Cunningham and other audion manufacturers. Third, realizing that pursuing individual manufacturers of infringing tubes would be a long and expensive process, he decided on a strategy of intimidating publishers by notifying them that he would prosecute them if they continued to accept and publish ads for infringing tubes. Responding to this threat, *The Electrical Experimenter*, *The Wireless Age* and *QST* stopped accepting ads for all three-element audions with an internal grid other than those by DeForest.

For the next three years, Wenaas describes a significant chain of events that are too detailed to describe here. But on November 25th, 1919, Cunningham and the DeForest Company decided to settle the 1916 lawsuit with a license permitting Cunningham to market and manufacture his tubular "AudioTron" under the DeForest patents. In February 1920, AudioTron ads began to appear in Gernsback's *Electrical Experimenter* and his new *Radio Amateur News*. These ads carried the following caption in bold at the top: "LICENSED BY DEFOREST - AUDIOTRON - The Original Tubular Vacuum Amplifier".

Wenaas points out the importance of the 1919 settlement:

"First, Gernsback's radio magazines were highly influential, and with the largest circulation at the time, it assured Cunningham a nationwide audience. Second... Cunningham testified that he was nearly put out of business by DeForest's suit against *The Electrical Experimenter*, which had resulted in Gernsback refusal to carry ads for the three-element AudioTron since the end of 1916. Before his settlement with DeForest in late 1919, Cunningham's access to national radio magazines for AudiTron ads was limited to *QST* and *Everyday Engineering*, and even these ads were very cautious, containing no images or descriptions of the AudiTron."

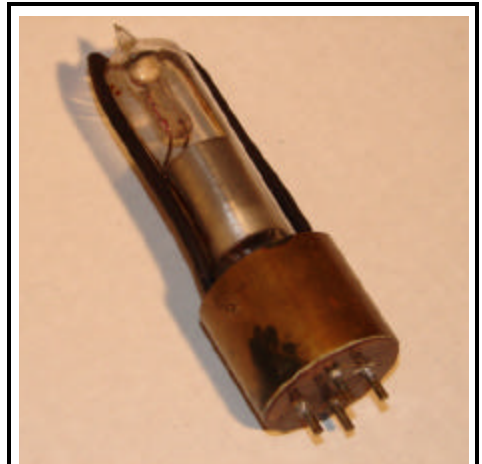


Cunningham's AudioTron - Tag reads "Genuine audion mfg. and sold under DeForest Pats. Nos. 841387 and 879532."

Aside from their increased value, examples of early radio artifacts with either markings or labels makes them so much more interesting, easier to date and helps identify the manufacturer. In the case of the tubular audion, identification is generally somewhat difficult since most labels have been lost or were never attached to avoid patent infringement. In some cases, there are a few helpful hints. An early 1915 Cunningham AudioTron was affixed with a common, stationary store label and hand stamped with the words "Genuine Audiotron." Later tubes used more conventional and permanent printed labels or had the AudioTron name etched into the glass. A later version of Moorhead's "Electron Relay" had the letters ER stamped on its aluminum plate. In other cases, dimension differences, size of the glass press and type of wire may be used as identifying features.

An interesting example has been in my collection for many years. The tube itself has no markings; it has an open filament and the grid is shorted to the plate. The original owner (I doubt that this was a commercial product) had glued the tube to an early tube base and soldered its leads to brass pins inserted through a hard, wafer base. Although the audion was a double filament type, only one filament was brought out to the tube pins. Dating this audion would be extremely

difficult since it has the appearance of many manufactured between 1916 and 1920. However, its modification for tube socket use probably took place in the early 20's.



Tubular audion of unknown origin fitted with a 4-pin brass base.

WITH THE "PHONO PHANATICS"

By
Marv Beeferman

Each year around holiday times, a group of NJARC members get together to schmooze over one of their favorite obsessions, those vinyl discs with the big holes. Along with lively discussions of obscure information about artists and their recordings, a few artifacts or repair parts might also exchange hands. This year the tradition continued when the following group of 45 RPM aficionados gathered at the home of Rick Weingarten: Phil Voutsis, John Tyminski, Steve Calandra, Chuck Rownd, Darren Hoffman, Nick Dominico and Bob Becker.

As usual, I felt totally out of place. It's hard for me to fathom how these guys can hear the first few bars of a record and immediately date it, recognize the artist's name, whether it was his first, second or only hit and what version was recorded by what artist five years later. (I can't even remember what I had for breakfast in the morning!) It even comes down to what needle works with what cartridge or when a certain version of RCA's 45 RPM player

was first offered.

The day was punctuated with pizza and lots of treats. Unfortunately, Darren Hoffman and John Tyminski were called away early to deal with the failed main transformer at InfoAge.



Scott and Hammarlund mixed in. Oh yes, Buicks too.

In the past, one of Pete's business ventures was yellow school bus salvage. He would buy them at municipal auctions, sell the engines and keep the bus carcasses for parts. The buses then became home to his growing radio collection. How many school buses, RV's, trailers and Conex storage containers are in the yard only Pete knows for sure. But from my tour, I can tell you that they all contain antique radios!

Presently, Pete deals in used police car sales and parts. But he has come to the conclusion that it is time to sell off some of his collection. So if members would like to contact Pete with radio inquiries and requests, his email address is radio-graveyard@aol.com and his cell number is 610-216-0045.



A VISIT TO THE RADIO "GRAVEYARD"
By Richard Lee



I had been looking for a 1936 Philco model 116 shouldered tombstone for quite awhile. I knew NJARC member Pete Grave had one, since he won a 116 at the Fall Kutztown auction. At our October meeting, I asked Pete if he was interested in selling the radio to me. He said yes, and offered to bring it to the November meeting...or would I rather like to pick it up at his "yard?".

Although I live in the Hudson Valley, about 120 miles from Ottsville, Bucks County Pa. where Pete is located, I was not going to miss this opportunity! I had heard for years from other radio collectors about this mythical place called the "Radio Gravyard" and now I was going to see it!



Pete and a few of his canine friends greeted me at the gate which surrounds the 13 acres of Covington Auto Sales and salvage. Pete asked if I wanted to pick up the Philco 116 now or would I like a tour of the facility first. Needless-to-say... I opted for the tour!

Pete has been collecting antique radios, boatanchors and cars for most of his life. His preferences are RCA and Studebaker, but there are many a Philco, Zenith, Hallicrafter, Silvertone, National,

