

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

February 2002

Volume 8 Issue 2



MEETING/ ACTIVITY NOTES

Reported by Marv Beeferman

A full house was in attendance at the January meeting. Following the introduction of new members and a recap of our holiday party, with thanks again to Alex Magoun for providing use of the Sarnoff Library, discussion once again turned to a swapmeet location. Although suggestions with good potential were offered for follow-up, towards the end of January things still did not look promising. However, I'm happy to report that as a result of an offhand remark to a friend of President Phil Vourtsis, the club has booked for March 30 what promises to be an excellent location for this year and hopefully for the future.

Our next swapmeet will take place in the banquet hall of the North Centerville Volunteer Fire Co. located in Hazlet, New Jersey. The hall is just a few miles off exit 117 of the Garden State Parkway and is capable of holding up to 300 people. It is clean and well-lighted, has a full kitchen and modern bathrooms, is directly accessed without stairs and the parking lots are adjacent to the banquet hall. Table setup and breakdown is provided by the fire company members, including cleanup and trash removal, and the price is very reasonable. Unfortunately, only 33 rectangular tables can be provided but a suggestion has been made for the club to supplement this number if we decide to use the hall for future swapmeets.

The March 30th date is somewhat limiting, being wedged between Passover and Easter, but it was the best that could be done on short notice and still keep a reasonable interval between a Summer and Winter meet. Your Board asks your indulgence, since the capability to provide you with a set schedule for the entire year far outweighs this one-time inconvenience. It also allows us much more flexibility in schedul-



MEETING NOTICE

The next meeting of the NJARC will take place on Friday, February 8th at 7:30 PM in the Grace Lutheran Church, corner of Route 33 and Main Street in Freehold NJ. Contact either Phil Vourtsis or Marv Beeferman for directions. A 6:30 Board meeting will precede the regular meeting; all Board members are requested to attend. Sal Brisindi will provide a presentation on trouble shooting and aligning radios with a signal generator and tracer. A communications gear mini-auction is also scheduled. We'll also update you on the the swapmeet schedule and locations for 2002.

ing advertising. With the Spring date now set, our Summer meet is scheduled for July 27th in Dover and our Winter meet is scheduled for December 7th, again in Hazlet.

The NJARC Repair Clinic has been scheduled for February 16th at our meeting room in the Grace Lutheran Church.



Al Klase demonstrates the fine points of a loop antenna he designed.

For new members, the clinic provides a great opportunity to get that dead radio up and running even with only a limited amount of knowledge in radio restoration; our talented group of mentors will patiently lead you through all the steps.

Tubes and capacitors will be available for purchase and a computer setup will be made available for printing schematics from the Rider manuals via compact discs. You will need to bring the basic tools (soldering iron and solder, a set of small pliers, extension cord, hook-up wire, a small flashlight, etc.) and register with Al Klase (908-782-4829) so we can get a rough idea of attendance.

Ray Chase gave a report on preparations for the Morris County Library display scheduled to begin on February 15th and to continue for some 6 weeks. Unlike the "History of Radio" theme that was a basis for a display the club put on a few years ago, this theme will revolve around famous American designers and the radios they created as well as examples of notable visual design themes as expressed in radios. This will cover art deco, machine age, jet age and futuristic styling starting in the 30's and running up to the 50's. A public seminar, which was very well-received at the last exhibition, may also be scheduled one evening to augment the display material. Press coverage should be extensive and the club will benefit significantly from this exposure.

The library staff is doing much of the research work with the bulk of NJARC's contribution coming from Ray and Joe Bentrovato; other members are providing Catalins, TV's, posters, advertising, etc. In fact, at this writing, I just left my contribution at the Simkin's in Barnegat where Ray will be picking up some of the South

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 \$15 per year and meetings are held the second Friday of each month at the Grace Lutheran Church, corner of Route 33 and Main Street in Freehold N.J. The Editor or NJARC is not liable for any other use of the contents of this publication.

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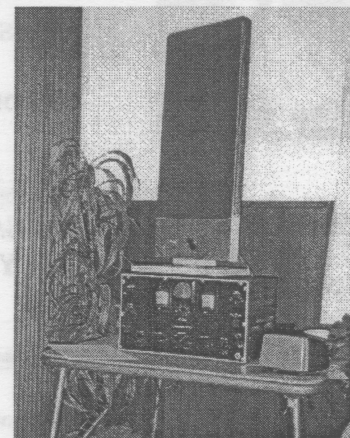
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Jersey material. Please contact Ray (908-757-9741/enrpn@erols.com) or Joe (973-361-7392/jbentrovat@email.msn.com) if you can supply any assistance or support, both with display material or helping move radios to the library. The location of the library will be posted on the NJARC web site.

Ray Chase also mentioned that Fred Carl of InfoAge is requesting a work group to inventory and preserve the radios donated from the National Broadcasting Museum that are now stored at Camp Evans. In addition to an inventory, some minor cleaning (removal of storage labels, dusting, etc.) and perhaps identifying more extensive work to be done at a later time may also be included. A tentative date has been set for Saturday, March 2nd, so if you are interested in participating (and seeing what the site looks like), you can sign up at the February meeting or call Ray or Phil Vourtsis directly.

In anticipation of the Broadcast Band DX contest (see the November *Broadcaster* for details), Technical Coordinator Al Klase gave a presentation on some contest hints that will surely make you a winner. Al suggested the Chicago stations, Radiovision Cristiana, Atlanta, Nashville and Cuba for some quick mileage. He said that the two most important factors to get started on the right foot is practicing before the contest to get the bugs out and having a good antenna. For a crystal set or 1 or 2-tube rig, an outside, high and in-the-clear long wire is the only answer. If your choice is a superhet or decent TRF set, an indoor loop "can give a good account of itself." Al provided plans (reprinted in the *Broadcaster*) for a simple loop that almost anyone can throw together. Al suggests that you conduct a site survey with a transistor portable to find a quiet spot in the house for the loop...a corner room upstairs is a good candidate. If you need a set of instructions for the contest (which runs from February 15th through March 2nd), contact Al at 908-782-4829.

Congratulations are also offered to Al (N3FRQ) for his feature article in the January issue of QST which he titled "The Age of the Autodyne." Al discusses the advantages of the regenerative receiver that made it very popular for shortwave reception many years after the introduction of the superheterodynes. He also discusses a 1930s TRF-Autodyne homebrew

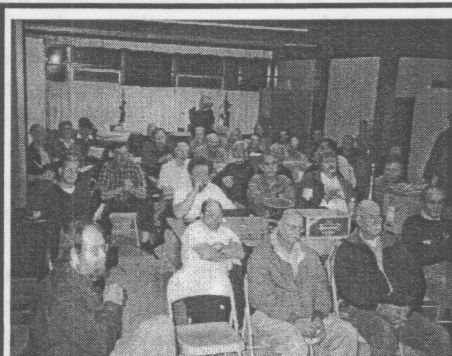


Another Al Klase design drives a Hammarlund HQ-120.

receiver based on a QST "landmark" article by George Grammer.

Thanks for the initial enthusiastic response to our 2002 dues reminder. But we still have a long way to go to reach our goal of 100% renewal. It only takes a minute...drop a \$15 check in the mail made out to NJARC and the agony is over. If you care to place the check in an addressed envelope, our membership secretary would be even happier. In case you've forgotten, her name, it is **Marsha Simkin** and she lives at **33 Lakeland Drive, Barnegat, NJ 08005**; she would be *delighted* to hear from you.

Two short notes in closing. Vintage radios will be featured on "Flea Market Finds with the Kovels" which is to air February 20th on the Home & Garden Television Network (8:00 PM and 11:00 PM). Perhaps a few members could tape the program for showing at a future meeting. Also, the 2002 AWA Conference will be held again at the RIT Conference Center (the old Marriott) from August 28th through the 31st.



A nice turnout.

Copyright 2002 - Alan R. Klase, N3FRQ

This is a simple loop antenna that will improve the performance of almost any radio. Construction is quite simple, the wire is simply woven onto the plywood. Be sure every turn of each coil is wound in the same direction. **Draw some arrows to remind yourself.** The antenna is intended to be mounted in a vertical orientation, and should be rotated to achieve best signal. The mounting arrangement is left to the builder.

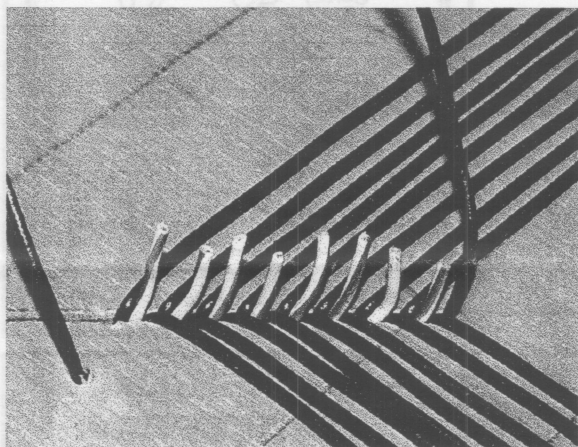
SAW KERF
5 PLACES

DRILL 1/4" DIA.
6 PLACES

16 TURNS
#22 INSULATED

4 TURNS
#22 INSULATED

1/4" PLYWOOD

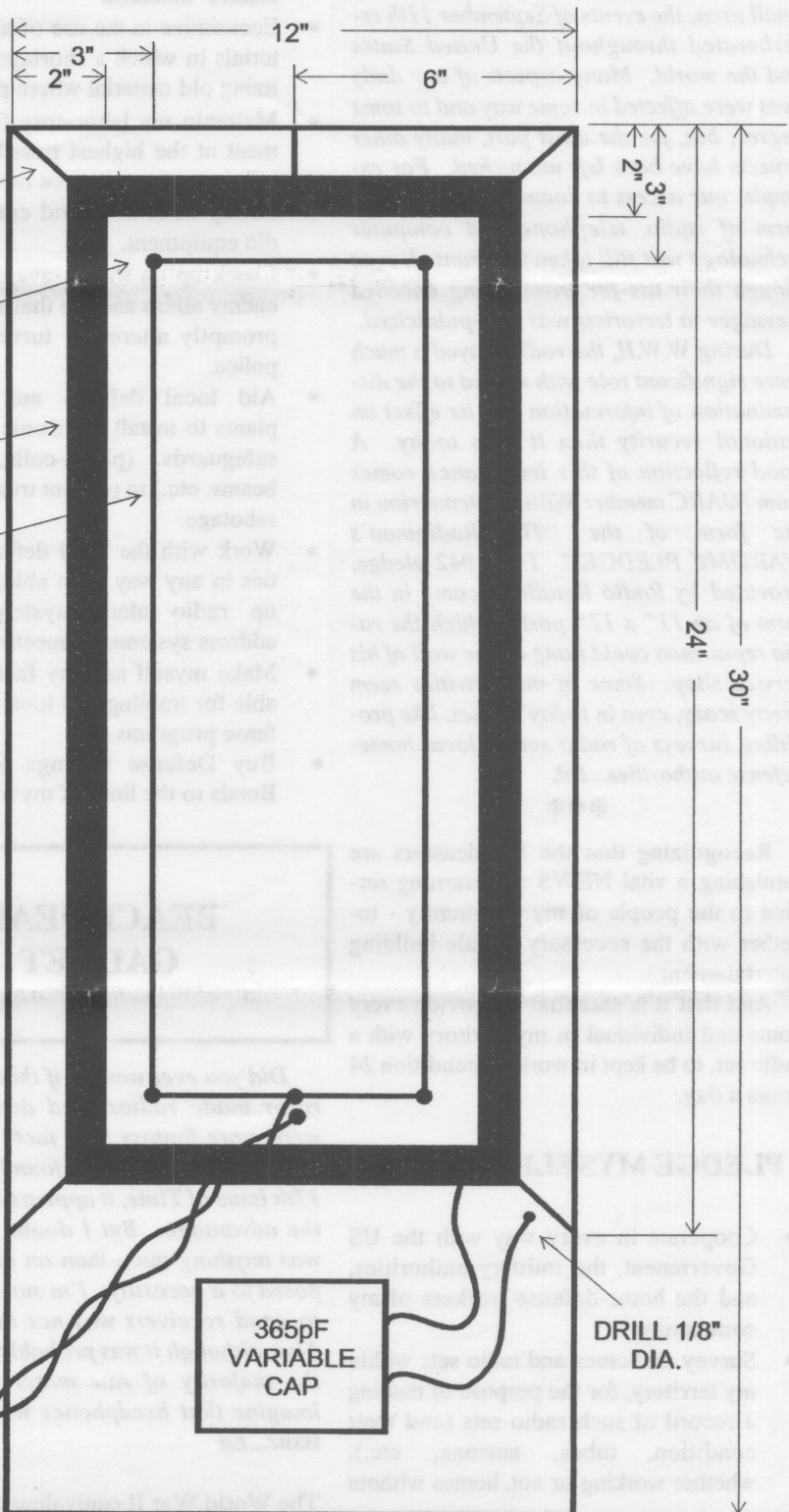


Insert a short scrap of wire in the kerf after every two turns to achieve proper spacing.

TWISTED PAIR
TO RADIO

365pF
VARIABLE
CAP

DRILL 1/8"
DIA.



THE RADIOMAN'S WARTIME PLEDGE

Although concentrated in a relatively small area, the events of September 11th reverberated throughout the United States and the world. Many aspects of our daily lives were affected in some way and to some degree, but, for the most part, many other aspects have been left untouched. For example, our access to communication in the form of radio, telephone and computer technology was still taken for granted, even though their use for transmitting encoded messages to terrorists was well-publicized.

During W.W.II, the radio played a much more significant role with regard to the dissemination of information and its effect on national security than it does today. A good reflection of this importance comes from NJARC member William Demetriou in the form of the "The Radioman's WARTIME PLEDGE." This 1942 pledge, provided by Radio Retailing, came in the form of an 11" x 17" poster which the radio repairman could hang on the wall of his service shop. Some of the activities seem pretty scary, even in today's times, like providing surveys of radio sets to local home-defense authorities...Ed.

Recognizing that the broadcasters are furnishing a vital NEWS and warning service to the people of my community - together with the necessary morale-building entertainment.

And that it is essential to provide every home and individual in my territory with a radio set, to be kept in working condition 24 hours a day.

I PLEDGE MYSELF TO:

- Cooperate in every way with the US Government, the military authorities, and the home-defense workers of my community.
- Survey all homes and radio sets within my territory, for the purpose of making a record of such radio sets (and their condition, tubes, antenna, etc.), whether working or not, homes without

a radio, etc. - which record shall be available to the local home-defense authorities.

- Repair and restore to operating condition for a reasonable charge, any sets not now working.
- Rehabilitate for use and sale, old outmoded sets among my own and customers' discards.
- Economize in the use of all radio materials in which a shortage exists, utilizing old material where possible.
- Maintain my laboratory (test) equipment at the highest possible level of efficiency to guarantee rapid, accurate testing of civilian and emergency radio equipment.
- Check up on short-wave sets used by enemy aliens and see that such sets are promptly altered or turned in to the police.
- Aid local defense and munitions plants to install electronic alarms and safeguards (photo-cells, infra-red beams, etc.) to prevent trespassing and sabotage.
- Work with the local defense authorities in any way I am able, to help set up radio alarm systems, public-address systems for meetings, etc.
- Make myself and my facilities available for training and local civilian defense programs.
- Buy Defense Savings Stamps and Bonds to the limit of my ability.

BEACHHEAD GADGET

Did you ever wonder if those rumors of razor blade radios used during W.W.II were more fantasy than fact? According to the following article found in the July 17th issue of Time, it appears that fact has the advantage. But I doubt if the radio was anything more than an oddity as opposed to a necessity; I'm sure that access to good receivers was not that difficult. Also, although it was probably easy to find the majority of raw materials, I can't imagine that headphones were standard issue...Ed

The World War II equivalent of the home-

made crystal set (circa 1920) with its galena rock and cat's whisker, turned up in force on the Anzio Beachhead. One of hundreds of US infantrymen who made foxhole receivers to kill time and boredom at Anzio, Lieut. M. L. Rupert, sent a diagram and description of the set to the Marlin Firearms Co. (razor blades, etc.). Wrote he:

"The razor blade is tacked down with a wire taped to it and going to one side of the coil and on to the aerial. The other side of the coil goes to the ground and to one side of the headset. From the other side of the headset a wire goes to the safety pin, which is driven into some wood at one end so the pin may be turned. Then the free end of the pin is moved across the unground part of the Marlin blade, and in that way you can find your station. Reception is very good and at night we can get several stations, including Berlin Sally..."



TRANSISTOR ARGUMENTS

Scientific American runs a monthly column called "50, 100 & 150 Years Ago" reviewing bits and pieces from the magazine's long history of scientific commentary. Here's one from the January 2002 issue bringing back an exchange between author Louis N. Ridenour and Lee deForest from January 1952...Ed.

AN UNHAPPY READER - "Sirs, the article in August 1951, by Louis N. Ridenour, properly entitled 'A Revolution in Electronics,' is most interesting. The article, however, conveys an entirely erroneous impression: that the three-electrode tube amplifier has virtually come to the end of its career. Dr. Ridenour neglected to mention the frequency limitations of the transistor. Under such limitations, it cannot begin to compete with the three-electrode tube, or audion, as I first styled it. The general application of the transistor in radio and television receivers is far in the future. - Lee deForest"

RIDENOUR REPLIES - "Sirs, I am very pleased to have the comments of the man who made possible the present age of electronics, even though I must take mild issue with some of them. The time at which consumer radio and television equipment can use transistors may indeed be some years off, as Mr. deForest says. However, this delay is likely to be due to the inability of rising transistor production to keep up with vast and growing military demands. The principal limitations of complex electronic apparatus are traceable to the fundamental shortcomings of the vacuum tube, which nearly half a century of development has alleviated, but not cured. - Louis N. Ridenour"

ARMSTRONG'S LEGACY LINGERS IN NEW YORK

Edited by Marv Beeferman

A month or so following the events of September 11th, member Ray Chase brought to the club's attention the scramble by most major New York stations to relocate their antennas. TV Technology's Frank Beacham covered this story quite well in the Oct. 17, 2001 issue and parts of it, with permission, are carried here...Ed.

Radio pioneer Edwin Howard Armstrong's legacy to New York City came full circle on Sept. 11, the day the World Trade Center collapsed and the moment a new generation of broadcasters realized that a tower the visionary had built in 1937 would save over-the-air television transmission in the shaken city. When the massive antenna

mast atop the north tower of the trade center crumbled into rubble, the on-air signals of most major New York City broadcasters went with it. Unable to quickly relocate to the crowded spar at the peak of the Empire State Building, the broadcasters turned to what has become a broadcast landmark - Edwin Armstrong's tower on the Palisades Interstate Parkway in Alpine, New Jersey.

Among the stations installing antennas on the Alpine tower were WNBC, WABC, WPIX and WNET. However, in the scurry to get back on the air, few realized the irony of choosing Armstrong's historic mast, once the site of America's first FM radio station.

The incongruity stems from a series of events beginning in the 1930s that helped define American broadcasting. The 102-story Empire State Building, opened in 1931, was at the time the tallest building in the world and a natural place to install broadcast antennas. Its 1,250-foot peak, originally designed as a mooring for dirigibles, was soon converted to an antenna mast. Eventually, it became the home to nearly all of New York City's television stations until completion of the 110-story World Trade Center in the early 1970s.

Empire's 85th floor was also home to Edwin Armstrong's FM radio laboratory. By 1935, it was clear that Armstrong's "staticless" FM system worked well. Perhaps too well. RCA chief David Sarnoff, claiming he needed the space for television, ordered Armstrong - who wanted to begin an FM broadcasting service in New York - to remove his equipment and vacate the building.

Armstrong's eviction from Empire left the inventor undeterred in his quest to bring high fidelity FM radio to New Yorkers. After purchasing 11 acres in Alpine that overlooked the New York metropolitan landscape, Armstrong built a 425-foot, three-armed steel tower in 1937 and soon launched the nation's first FM radio station. However, this venture would lead to a legendary feud with rival David Sarnoff. After World War II, with the launch of commercial television on the horizon, a lengthy patent battle ensued between Armstrong and Sarnoff's RCA and NBC network. It would eventually consume Armstrong.

As noted by Tom Lewis, author of *Empire of the Air: The Men Who Made Radio*, a 1991 history of radio broadcasting:

"Sarnoff started stealing the patents. In early television equipment, RCA paid a royalty for the picture component, but they decided not to pay a royalty on the audio component, which was the invention of Armstrong. What Sarnoff did to Armstrong was just awful. Just inhuman." Armstrong's wideband FM system offered improved noise properties and delivered significantly better performance under adverse weather conditions. RCA promoted an alternative design, but the engineering community was in wide agreement that it violated Armstrong's patents. Renville McMann, who began his engineering career with Armstrong at age 14, said: Sarnoff was trying to block FM and trying to block Armstrong. Making him go broke was as good a way as any other. RCA effectively chose to violate his patents and not pay him."

In 1954, Armstrong, financially devastated and under family pressure to end his long legal fight with Sarnoff, dressed in a suit and overcoat with scarf and gloves and jumped to his death from his New York City apartment. "I would give my life to turn back to the time when we were so happy and free," Armstrong wrote in a suicide note to his wife. Armstrong's widow, once Sarnoff's personal secretary, continued her husband's legal proceedings over the patents. Eventually, the courts validated Armstrong's position, establishing him - not RCA and NBC - as the legitimate inventor of key FM radio technology and the sound system used by analog television.

As Armstrong's associates contemplated the historical implications brought on by the World Trade Center disaster, their memories raced back to happier times at Alpine - especially those of Armstrong's daring penchant for climbing the great steel structure: "He was utterly fearless on the tower," remembered McMann. "He used to climb the tower for exercise. But when it came time to come down, he would step into a bucket attached to a cable controlled by an electric winch and have himself lowered to the ground. He recognized that winch was very dangerous, but did it anyway. Ten thousand dollars wouldn't have gotten me in that bucket. I was leaving my fingerprints in the steel."

Today, the tower is owned by Charles Sackerman and operated by the Alpine Tower Company of Montvale, NJ. Before the recent disaster, it was home to a variety

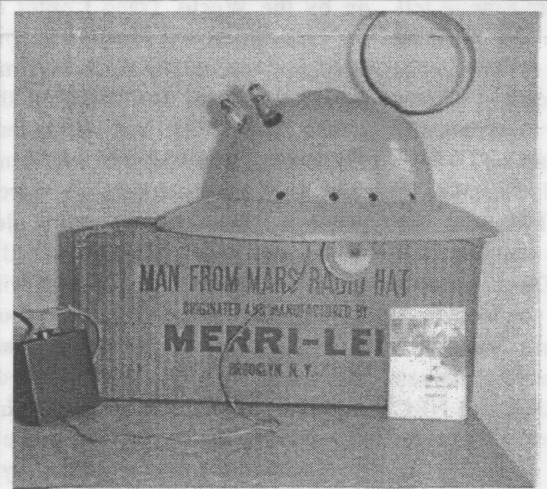
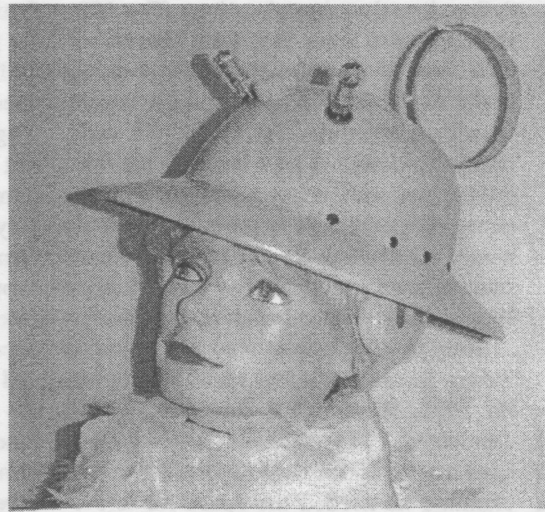
of communications services for government and industry and to WFDU, a radio station operated by Fairleigh Dickinson University in Teaneck, NJ. Now, for the first time in its history, Alpine is hosting television transmitters.

For supporters of Edwin Armstrong, a man who died thinking he was a failure, the events of September 2001 are still another validation of his genius. "Not only the building of that tower, but every time you touch a television or radio you touch an invention of Edwin Howard Armstrong," said Lewis. I bet you can find few people at NBC today who even know who Armstrong was. But the ultimate irony is they wouldn't be getting a paycheck today had it not been for him."

(Interestingly, the first experimental commercial television signals were broadcast from New Jersey. Allen B. DuMont of Passaic, an inventor, engineer and founder of the short-lived DuMont Television Network, put transmitters along the Palisades in the 1930s and 40s - before NBC and CBS existed...Ed)

NOW YOU CAN SAY 'I'VE SEEN 'EM ALL!"

From the Merri-Lei Company of Brooklyn New York (where else?) comes the "Man from Mars Radio Hat" which confirms the theory that women **are** from Venus and radio collectors **are** from Mars. The pictures are courtesy of Richard Lee (who else?) which he downloaded from e-bay.



NEW JERSEY ANTIQUE RADIO CLUB



ANTIQUE RADIO SWAPMEET

SATURDAY, MARCH 30, 8 AM - 1 PM*

North Centerville Vol. Fire Co. - Hazlet, NJ

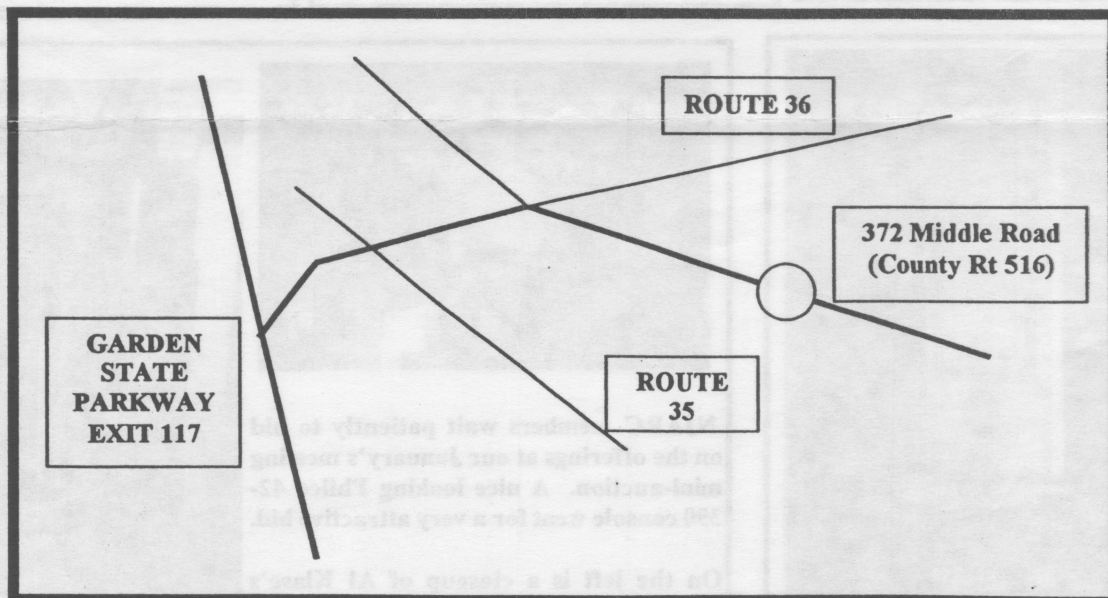
The NJARC presents its Spring swapmeet at the spacious, air-conditioned North Centerville Fire Co. banquet hall in Hazlet, NJ. The first 30 reservations receive an 8-foot table at no extra cost. A \$2.00 club donation from buyers is suggested.

* Vendor setup at 7:00 AM (no early admittance); the meet may extend beyond 1:00 PM.

DIRECTIONS: Garden State Parkway, North or South - Take exit 117 (towards Hazlet (Rt 35)/Keyport/Aberdeen). Merge onto Route 36 and continue for about 1 mile. Turn right on Middle Road (County Route 516) and continue for about 1.5 miles. The Fire Co. banquet hall is on the right.

RATES: NJARC members \$15/space; non-members \$20/space. Note: Tables are only available to first 30 registered vendors.

CONTACTS/RESERVATIONS: Marv Beeferman, 2265 Emerald Park Drive, Forked River, NJ 08731 (609-693-9430). E-mail: mbeeferman@cs.com Phil Vourtsis, 13 Cornell Place, Manalapan NJ 07726 (732-446-2427). E-mail: pvourtsis@att.com



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.

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.

For trade only...repair clinics, savings on swapmeet tables, tubes and capacitors, 12 issues of this year's *Broadcaster*, mini-auctions, technical presentations, contests, parties, fellowship of sharing a common interest with friends...\$15 check made out to NJARC. Marsha Simkin, 33 Lakeland Drive, Barnegat, NJ 08005

Need a new home for a 1950 Admiral radio, TV, phono combination, model 32X36A. Complete, cabinet in good condition, has 12" round picture tube. Make an offer...must go. Local delivery possible. Aaron Hunter, 23 Lenape Trail, Southhampton, NJ, 08088, 609-267-3065.

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.

For sale by non-member: RCA model 9 INT1, 1957, with manual, \$150. Richard A. Decker, WA2TUM, 732-505-1082, <http://www.geocities.com/gypsy/fever/>

New index to AWA publications (*Old Timer's Bulletin*, *AWA Review*, misc.), 1960 through Aug. 1999. Formatted like the earlier version but with new "Author" section. Has 63 pages, 8-1/2" X 11" size. Gives 7000+ citations. \$12 postpaid anywhere. Make check/MO payable to: Ludwell Sibley, 102 McDonough Rd., Gold Hill, OR 97525.

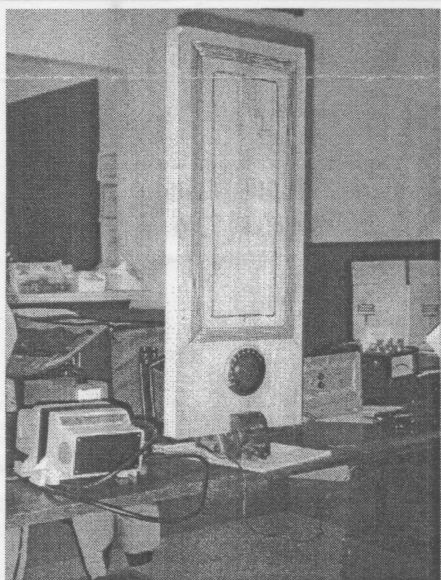
Scott console, circa 1940, needs repairs; Philco console, circa 1945, needs minor repairs. Will take best offer. Tom Musocchio, 609-448-1688.

Free to anyone who will make good use of it: RCA A-106 console AM/FM phono. A fixer-upper/parts unit, missing the 45 RPM turntable. Pair of 6V6s in the output stage and good-sized 10-12" speaker. Rob Flory, 609-466-4217, robandpj@compuserve.com.

Enclosed rack cabinets, heights: 67-1/2, 47-1/2 and two 28". Also some tabletop open racks. Free if picked up in Colmar, PA (Route 309). Jim Troe, (215)-393-8019.

WANTED

Your surplus radio knobs. Buying bulk stock of pulls for matching service and resale. Look for Gobs of Knobs at regional swapmeets and monthly DVHRC meetings. Bring your orphans and I just might have its relatives in stock. Dial pointers also available. Mike Koste, 57 Tennis Ave., Ambler, PA 19002. (215)-646-6488



NJARC members wait patiently to bid on the offerings at our January's meeting mini-auction. A nice looking Philco 42-390 console went for a very attractive bid.

On the left is a closeup of Al Klase's home-brew loop.

