

# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

June 2004

Volume 10 Issue 6



## MEETING/ ACTIVITY NOTES

Reported by Marv Beeferman

The May meeting of the NJARC featured Maurice Schecter's presentation "From Zworykin to Kosovo: How RCA's WWII Military Television Development Shaped Modern Warfare." It was a pleasure to share the evening with what Maurice termed "a hobby turned obsession" and with IEEE members as part of the IEEE History Center lecture series. Pictures of his WWII military television transmitting and receiving system in last month's *Broadcaster* did not do the actual system justice...a full Block 3 system actually transmitting and receiving over the air in exactly the same way it did in 1944!

The response to the call for new candidates for club officers was less than overwhelming. Indeed, since none of the positions were contested and the original slate of officers was re-nominated, the NJARC Board has decided it will not be necessary to take a vote at the June meeting. Here is your new (or should we say old) officers for the next two years. Congratulations to all!

**President** - Phil Vourtsis

**Vice President** - Richard Lee

**Secretary** - Marv Beeferman

**Treasurer** - Sal Brisindi

**Sergeant-At-Arms** - Dave Snellman  
(thank you Dave)

**Technical Coordinator** - Al Klase

**Trustees** - John Ruccolo, Ray Chase, Gary D'Amico

Hoping for a better response, only one individual submitted a "Candidate's Statement." I won't tell you his name, but we

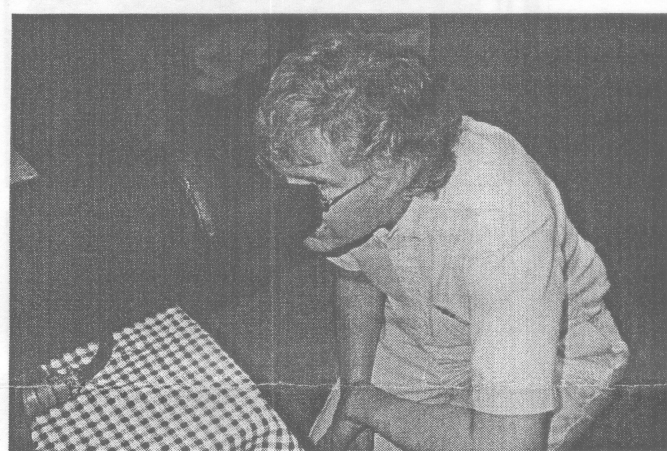
## MEETING NOTICE

The next meeting of the NJARC will take place on Friday, June 11th at 7:30 PM at the David Sarnoff Library in Princeton NJ. See the NJARC web site or contact Phil Vourtsis at 732-446-2427 for directions.

We'll be viewing a 20-minute video of a 1949 Bell System film titled "Bottle of Magic" which traces the development of the vacuum tube; see the MEETING/ACTIVITY NOTES section for a short preview. We'll also offer some donation items at a mini-auction - unfortunately, they were acquired too late to make this issue so you'll absolutely have to make this meeting or cry about the one that got away.

Our Summer swapmeet is July 31st - read about it in this month's *Broadcaster*.

could certainly use a few more members with this kind of enthusiasm and love for the hobby:



And they told me it was a peep show! Not quite - your editor marvels at a Block 3 system brought back to life.

*It is hard to imagine a regional antique radio club with resources that are equal to ours. We are in the heart of the area where much early radio/TV development took place, we have access to several major historic sites and we are located in the midst of two large population centers. Our club should and could be one of the pre-eminent radio groups in the country. Not that we are not doing well today, we*

*are! We are an important and successful club with many outstanding programs, but we should not rest on our laurels. There is*

*more that we can do and there will be many challenges ahead. Challenges that other groups would be delighted to have and which I feel we can and will step up to. I believe that it is vital that we prepare long and short range plans for our future development to make the best use of the resources available to us as well as provide maximum value both to our membership and the general public. We must also search out for the leadership people that will be needed to carry out such plans.*

The numbers are in and membership renewals have left us with four short of 200 members (it sounds so much better than 196) - a great response! Thanks to membership secretary Marsha Simkin for keeping the record straight and giving treasurer Sal Brisindi a hand with dues deposits.

It's time again for making reservations for our Summer swapmeet on July 31st at the American Legion Hall in Dover, NJ. It's a great location and it looks like we

**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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can guarantee every vendor a table. We plan to advertise this one quite vigorously so make your reservations early.

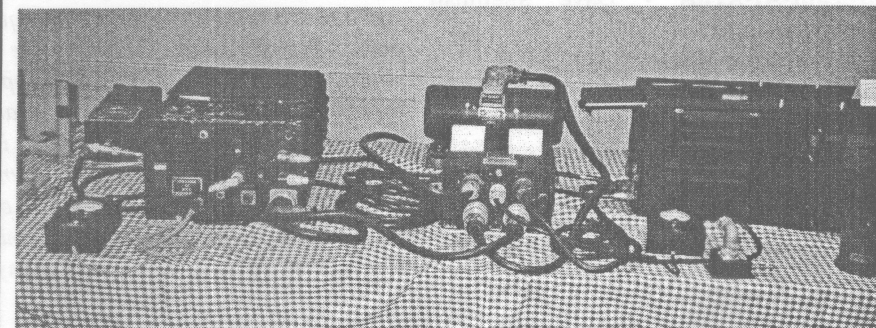
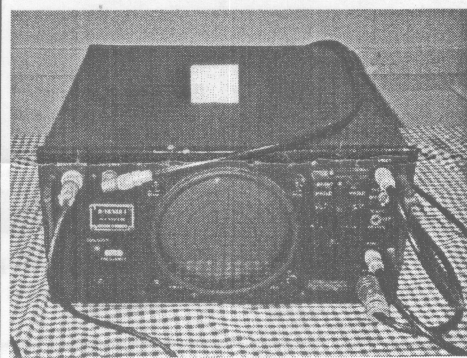
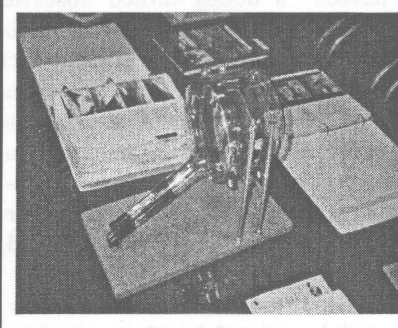
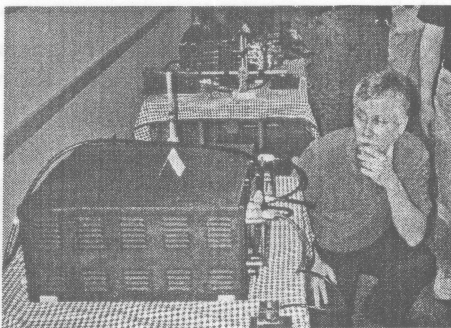
As part of the June program, we'll be showing the video of a 1948 Bell System film called "Bottle of Magic" which traces the development, manufacture and uses of the electron tube. Here's a preview to wet your appetite:

Tracing the development of the electron tube from the pioneering efforts of such scientists as Lee de Forest, Thomas Edison and John Fleming during the early part of the 20th century, this film demonstrates the role the tube plays in our society.

The video shows how, in the hands of Bell System scientists, the first three-element electron tube was fashioned into a tool for amplifying long distance telephone voice currents. As the story progresses, we see the electron tube applied first to the trans-continental telephone in 1915, through to trans-oceanic radiotelephony, public address systems, commercial broadcasting and television, radar and radio relay.

Climaxing these historical sequences, the film takes its audience behind the scenes of Western Electric's electronics shops where precision workmanship endows each item of manufacture with maximum efficiency and durability to meet Bell System standards of service.

### BLOCK 3 REVIVAL MEETING







## RADIO ARCHEOLOGY

By Richard Lee  
& Marv Beeferman

The keen eye of NJARC VP Richard Lee caught this facade above Manhattan's New York Institute of Technology. It's located between 9th Avenue and Columbus Circle (north side of 60th street) and shows the former New York branch of a radio manufacturer well-known to collectors - the American Bosch Magneto Corporation. Richard doesn't know if the inscription was previously hidden prior to restoration work on the building, but it's a great find in any case.

Alan Douglas traced the history of the company in Volume 1 of his *Radio Manufacturers of the 1920's*. The American Bosch Magneto Corporation was the outgrowth of a business established by Robert Bosch in Stuttgart, Germany in 1885. In 1906, Robert Bosch and Otto Heins organized an American sales agency under the name of Robert Bosch New York, Inc. which in 1912 changed its name to Bosch Magneto Co. upon construction of a plant in Springfield, Massachusetts. Bosch and Heins, being German subjects, returned to Germany at the outbreak of the war; in 1918 the Alien Property Custodian seized the company's assets and sold them to busi-

nessmen who formed the American Bosch Magneto Co. in 1919. Lawsuits between the American and German companies over possession of the "Bosch" trademark finally resulted in a combination of the two companies in 1930 as United American Bosch Corporation.

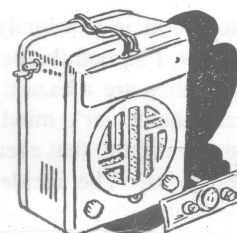
Bosch started producing radios in 1924; a beautiful 1925 "Amborola" is in my collection. With a shrinking magneto and auto-accessory business, Bosch also found it profitable to manufacture radios for other companies. It made several models for Sonora in 1927 and made a line of Eveready sets between 1928 and 1929 using chassis almost identical to its own models. Bosch continued making radios in the 1930s and a subsidiary, Essex Radio Co. of Springfield, was created around 1934 and dissolved in 1939.



An American Bosch 440A.

## BANISH THOSE TAXICAB RADIOS!

By Marv Beeferman



There's nothing new under the sun, especially when it comes to controversies arising from advancing technology. A few past *Broadcaster* articles have compared the debate over the use of cell phones while driving with opposition to the introduction of radios in automobiles. From my files comes an article featured in the *New York World Telegram* which offers a little twist on the same subject.

In February 1940, something called the "Broadway Association" directed by H. Frederick Bright started a crusade to banish radios from the taxicabs of New York. Police would be asked to declare the ban on April 1st, the next licensing period, and petitions of protest were being collected to add weight to the association's request.

On the other hand, resistance from the Transport Workers Union was immediate. The union considered taxi radios as an aid and comfort to the drivers who had long waits between calls. (Apparently, the taxi business wasn't as brisk in post-depression/pre-war New York as it is today.)

The Broadway Association's indictment of taxi radios charged them as being an accident hazard because they detracted the driver's attention from driving (sound familiar?). They were also accused of causing unnecessary noise and causing crowds to collect when sporting event broadcasts were tuned in at parked cabs. Other evils included being an unnecessary expense on an overburdened taxi industry and that the radios merely served to amuse the driver while the cab was not in service. The Association also suggested that taxi radios were of small interest to passengers

who heard only a small fraction of the program being broadcast.

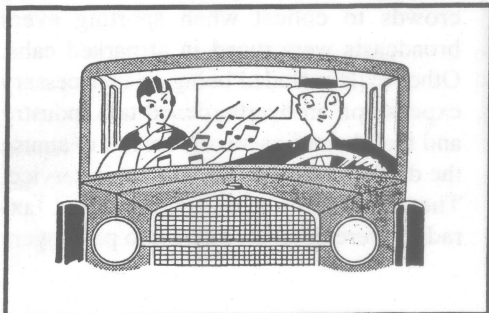
But support from the taxi cab owners was divided. One owner, Nathan Levine, president of the Bell Transportation Co. which operated 400 radio-equipped cabs at the time, agreed with the Broadway Association:

"The association is absolutely right. As a matter of fact, I signed the petition myself. Cabs with radios are a hazard to the public as they take the driver's mind off the road. It was the worst thing that ever happened to the taxi business. The accident ratio went up immediately after the radios were installed. And the passenger doesn't care about them - they're usually in the cab too short a time to hear a broadcast, and static usually interferes."

Mrs. Frances Cohen, head of the Mural Transportation Co. which operated 103 radio-equipped cabs at the time, took a different slant:

"It's a nuisance and a headache to the owners and we'd save a lot of money by doing away with them, but we find the public likes radios, wants them and demands them, and we'd prefer to keep them. Then it's a source of great comfort to the drivers. It's really the only diversion they have. It's also educating them for them to hear the news of the day."

Well, we certainly know how it all worked out; as usual, common sense and individual preference won the day. Most of the time, I find that taxi radios are kept silent. I have always considered this an invitation from the all-knowing cabby to exchange views or patter during that uptown ride. And if we just want to sit back and listen to Imus, Howard or Rush, so be it...unless I'm being held captive by one of George W's ramblings. Then it's time to uphold my right to demand a station change...who's paying for this ride anyhow!



### RIGHT OR WRONG?

If you can handle the run-on sentences, try these questions from the July, 1937 issue of *Radio World*. You won't be surprised at some of the answers (see page 5), and even one of the questions, if you can think in terms of a 1937 radio technician.

1. The diode is the best type of rectifier, whether it draws current or not, i.e., loads the circuit or not, because the audio-frequency load on the circuit always can be made at least equal to the d-c load on the rectifier, hence signals can be handled distortionlessly, despite 100 percent modulation.
2. Extraneous noises usually come through the power line and affect the radio adversely, whereas the interference that arrives by way of the antenna, or due to the phenomenon of mixing of frequencies in superheterodynes, is relatively small, so that filtering the line cures most of the troubles.
3. The ether is an unknown quantity, representing the assignment of a word to describe something the existence of which we are in doubt, and yet something we discuss as if we were sure it existed, and to which we assign certain attributes. The ether is not assumed to be a liquid, a solid or a gas, and is in no way related to anaesthetic ether.
4. When tubes are connected in parallel, the impedance is halved and therefore the load should be halved, compared to the load required for a single tube; whereas, if push-pull is used, as the tubes are effectively in series, the push-pull impedance is at least greater than the single impedance, and the impedance load should be doubled, or nearly so. Also, push-pull affords at least twice as much power output as does a single stage, at the same percentage distortion, and same voltage levels.
5. Audio amplifiers may oscillate at radio frequencies, also radio-frequency amplifiers may oscillate at audio frequencies, and the remedies in both instances are either to dampen the circuits to reduce the gain, or to remove the common impedance through which the feedback coupling is established, as by using filter networks, or condensers of lower impedance and choke coils of lower impedance.
6. The ground wave is the wave that travels close to, not through, the ground, and often reaches considerable distances, but it is the sky wave on which man depends for consistent distant reception, because it is transmitted towards the ionosphere, from which it is reflected back to earth at an angle, and thus traverses a great distance, with a gap of no-reception or poor-reception area, known as the skip distance.



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### Answers to Radio World Questions

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1. **Wrong.** While the diode may be the best type of detector, the type most commonly used, which is splendid, nevertheless loads the circuit, and the audio-frequency load never can equal the d-c load, therefore full modulation capabilities are not enjoyed, and distortion above 80 percent modulation must be expected. The triode so connected that its characteristic is like that of a diode, since it does not load the circuit, permits quality reproduction of 100 percent modulated signals, as well as signals of lower percentage modulation.
2. **Wrong.** Most extraneous noises come in through the antenna and few through the electric power line. Although line filtering will not cure nearly all the troubles, enough mischief is worked through the line to justify serious attention to that possible source of interference.
3. **Right.** Nobody knows what the ether is, or whether there is any such thing, for it is simply a name ascribed to the supposed medium through which radio waves pass. This medium is generic, it is fictitious, yet it is assigned attributes just as if it were a reality. For instance, it is said to possess linear properties for propagation, and experience has proven the existence of linearity, modified only by the Doppler effect, which accounts for apparent rather than real changes.
4. **Right.** Paralleling two resistances of equal value halves the resistance, and the same may be said of two equal tubes and their impedances. Push-pull is a series-connected circuit, and the resistance is doubled, although in practice loading less than this is usually recommended. The push-pull power increase is conservatively stated.
5. **Right.** The coupling through a common impedance is notorious in resistance-coupled audio amplifiers, and in high-gain audio amplifiers generally. Even at r.f., high gain makes for instability.
6. **Right.** The ground wave of American standard broadcasting band stations has been spotted in Europe, but the sky-wave effect is more pronounced at higher frequencies, hence much greater distance is penetrated on these short waves.

## THE PHILCO 49-901 AND ITS NOVEL TUNER

By Marv Beeferman

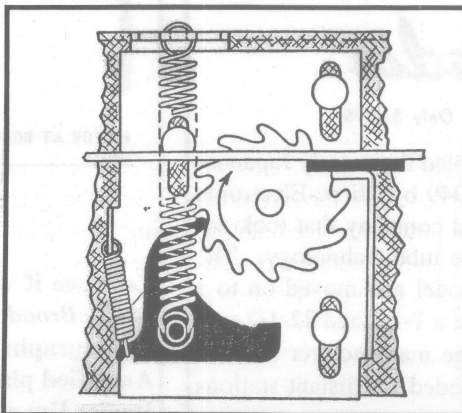
Here's one I've yet to see (page 6). Housed in a modernistic ivory or green plastic cabinet, the Philco model 49-901 ac/dc AM table radio includes an unusual tuning arrangement. The set has no provision for manual tuning but will automatically select any one of six preset stations.

The only control on the front of the radio is a 3½-inch-long serrated drum. Revolving the drum operates the on-off switch and the volume control. To change stations, the user presses down on the drum. The entire drum-volume control assembly moves down into its slot and actuates a rotary wafer switch which turns, one notch per "press," to select the stations.

A parasol-shaped circular piece of translucent material is fastened to the end of the switch shaft just behind a small glass

bezel mounted on the front of the panel. The circle is divided into segments of six different colors. A pilot lamp shines through the disc and the glass bezel, the color at each station setting indicating the station tuned in.

The station-shift assembly (see drawing) works as follows: When the drum is pressed, a plate moves down carrying a ratchet with it; the ratchet then engages with the next tooth on a gear wheel. When the drum is released, a spring (shown broken in the drawing to show its action) draws the plate and ratchet upward, thereby turning the tuning selector switch and color wheel one tooth or setting.

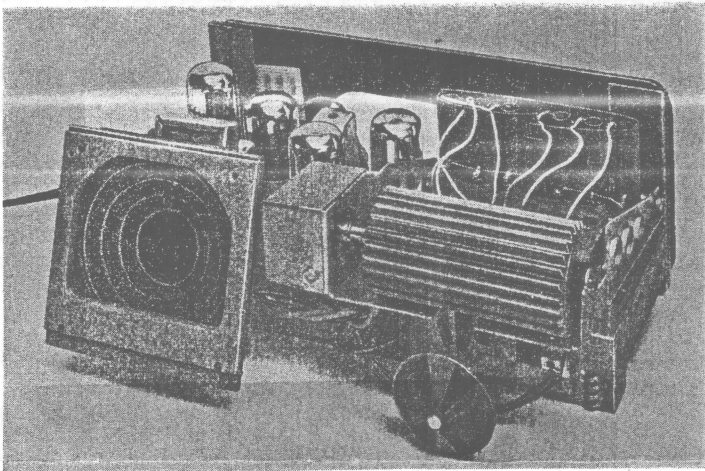


Two adjustments are provided for each station position. A trimmer tunes the radio's loop antenna and a slug tunes the appropriate oscillator coil. The adjustments are located under the chassis and are reached through holes in the bottom of the cabinet. As was customary with automatic tuners, each channel may be tuned over only a section of the broadcast band. Two trimmer-coil combinations are available for 900 to 1600 and one each for 850, to 1400, 650 to 1200, 600 to 1100, and 540 to 900.

The scarcity of this radio might be traced to its limited ability to select just six different stations which could only be changed, for most people, by a radio technician. When considering the Philco 49-901 in 1949, unlike today, most people probably chose practicality rather than novelty.

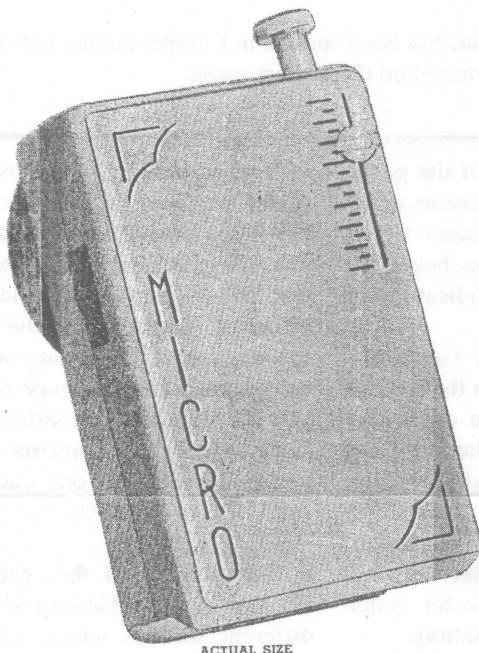
#### References:

1. *Radio-Electronics*, February 1949, p. 54.
2. *Rider's Vol. XVIII*



The Philco 49-901

Introducing  
the **MICRO PAL**



**2 Tube**  
**POCKET Radio**

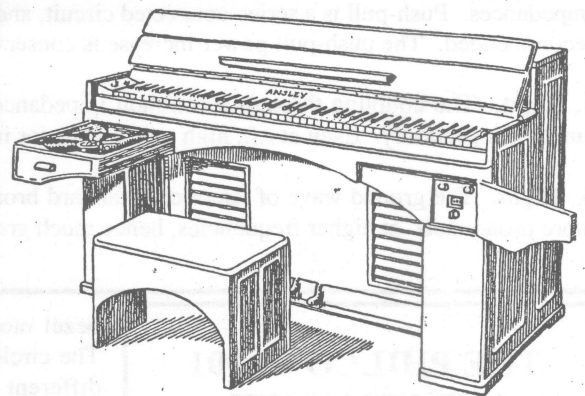
Complete—ready to play . . . Only \$12.95

I was surprised how closely this radio resembled those early Japanese transistor radios. It was manufactured in 1949 by Micro-Electronic Products, Inc. of Peru Indiana, a hearing aid company that took advantage of a ready-made case and miniature tube technology. The company originally started with a 2-tube model and moved on to a 3-tube model, also in kit form. The unit used a 1-1/2 and 22-1/2 volt battery, weighed a little over 6 ounces. The manufacturer had the honesty to advertise that an antenna was needed for distant stations but it would work quite well with the locals.

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as shown in this  
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Phonograph: Phil Vortsis

Amplified piano/harpsichord: Scott Marshall

Radio: I'm sure we can find someone who collects these things.



# NEW JERSEY ANTIQUE RADIO CLUB



## ANTIQUE RADIO SWAPMEET

SATURDAY, JULY 31, 8:00AM - 1:00PM

AMERICAN LEGION HALL, DOVER NJ

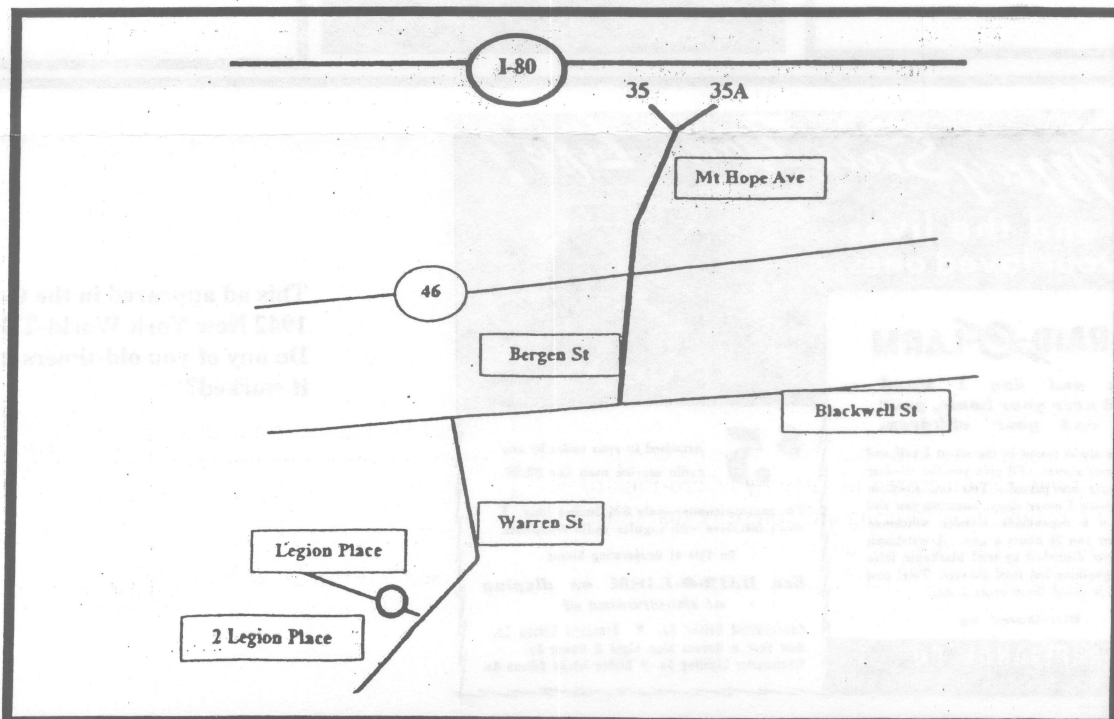
NJARC presents its Summer swapmeet at the spacious, air conditioned American Legion Hall in Dover NJ. A \$5.00 club donation from buyers is suggested. Tables are guaranteed to the first 65 reservations.

**DIRECTIONS:** From the East, North or South, take I-80 West to exit 35A (Dover). I-80 West can be reached from the North via I-287 South or the Garden State Parkway (South) or from the South via the NJ Turnpike (North) to the Garden State Parkway (North) to I-280 West. From the West, take I-80 East to Exit 35 (Mt Hope, Dover).

Follow Mt Hope Ave. South, crossing Route 46 (where Mt Hope Ave. becomes Bergen St.) and turn right on Blackwell St. Go to the third light and turn left on Warren St. Go two blocks, crossing the RR tracks. The American Legion is on the right (2 Legion Place).

**RATES:** NJARC members \$15/table; non-members \$20/table.

**CONTACTS/RESERVATIONS:** Marv Beeferman, 2265 Emerald Park Drive, Forked River, NJ 08731 (609-693-9430). Phil Vourtsis, 13 Cornell Place, Manalapan NJ 07726 (732-446-2427)



## 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.

Non-member: Old radio and radio/record player combo. Original condition but showing signs of wear and tear. (See photo to right.) hr.burns@verizon.net (Helen Burns).

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.

National NC100 ASD with manual. Has been re-capped, needs alignment, \$55. Jack Winans, 609-882-9296, WA2LGE@aol.com.

Non-member: Brunswick Panatope console, late 30s, nice veneer but rather plain and boxy, AM/SW/78 turntable, storage space for records, usual amount of scratches, reasonable. Contact John Ruccolo at 609-426-4568 for phone number.



Spring cleaning sale: Shortwave radios - Hallicrafters SX99 \$100, SX130 \$120, SX-43 \$130, Lafayette HA225 \$70, BC348 \$65, Heathkit G4-1680 \$65.

Test equipment - HP 400D AC voltmeters, 1mV to 300V full scale, 4MHz bandwidth, great for measuring gain in broadcast band radios, audio work, etc., good operating condition, \$10. Measurements grid dip meter with book, \$50. Tube testers, distortion analyzers, spectrum analyzer, scopes, etc. available - ask.

Near recent (1980s?) stereo equipment receivers, tuners, turntables, \$10 each (working).

Parts available: Tek465, Philips 3052 and various other HP and Tek equipment. Steve Goulart, 732-219-6963, sgoulart@att.com

## WANTED

Large tuning knob for Pilot TV-37, handheld remote control for Fisher RK-20, handle and plastic bezel for military Zenith Transoceanic 520/URR, large and small knobs for RCA 110 cathedral radio. Frank Johnson, 530 Elford Road, Fairless Hills, PA 19030, 215-943-8295, fadacat@aol.com.

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of your loved ones

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This ad appeared in the Oct. 5th,  
1942 New York World-Telegram.  
Do any of you old-timers know how  
it worked?