

# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

April 2016

Volume 22 Issue 4



## MEETING/ ACTIVITY NOTES

Reported by  
Marv Beeferman

### The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. The majority of your fellow NJARC members have already subscribed, saving the club and your editor a significant amount of money and work. Interested? Send your e-mail address to [mbeeferman@verizon.net](mailto:mbeeferman@verizon.net). Be sure to include your full name.

Last month's combined show & tell and hints and kinks meeting was a lot of fun, reflecting the varied and sometimes eclectic interests of our membership. We've included a photo summary of the evening's offerings in this month's *Broadcaster*. It was a nice prelude to another successful and almost sold out Parsippany swapmeet on the 19th. The club is proud that the meet is now listed as an AARL sanctioned event with extra "goodies" offered as door prizes in addition to the usual 50/50.

We're also quite proud of the RTM (Radio Technology Museum) expansion and new exhibits noted in this month's issue. The museum is also going through a makeover thanks to Technical Coordinator Al Klase with new exhibits, new signage and improvement in the flow of visitors. Part of the exhibit upgrade includes items that we have obtained from the Hugo Puciani collection, Hugo being a recent museum visitor and attendee at our monthly meetings.



## MEETING NOTICE

The next NJARC meeting will take place on Friday, April 8th at 7:30 PM at InfoAge. Directions may be found at the club's website (<http://njarc.org>). This month's program will include a talk by member Bill Zukowski on his micro-phone collection. We'll also be recognizing the winners of the 2016 BCB DX Contest. Finally, you'll have the opportunity to pick up discarded items from our old basement repair shop by getting to InfoAge an hour before the meeting - see *Broadcaster* page 5 for details.

Carefully browse through this month's *Broadcaster* for events I'm sure you don't want to miss. First, get to the April meeting a little before 6:30 to participate in our "basement scavenger hunt" at the Marconi Hotel (page 5). Second, see page 7 for information regarding our huge radio/electronics auction on April 30th.

Membership secretary Marsha Simkin has sent out notices to those members who have not yet paid this year's dues and will be dropped from our roles at the end of the March. Of course, this will also be their last *Broadcaster*. At the last Board meeting, it was decided that if you are presently receiving the *Broadcaster* through regular mail and you are dropped from membership for non-payment of dues, you will only be able to get your issues by email if you decide to come back to the club.

This month's *Broadcaster* includes an article on the recent addition of a TK-10 camera display at the museum. Some last minute information was just sent to me from Dave Sica which couldn't be included, so I'm adding it here:

"The camera originally came from television station WOR, probably back in the 1970s. WOR's field production package at one point in time included at least two TK-10 cameras (along with the necessary camera control electronics.) Upon decommissioning by WOR, the two-camera equipment package was originally intended to be used as part of a school TV station. The station was either never constructed, or perhaps the cameras were deemed obsolete or too complex. Thus, they were relegated to storage until 30 years ago when Pete DeAngelo purchased the system. Pete later sold one of

the cameras to a collector who was interested in displaying it as a non-working artifact."

Member Rob Flory notes that the May 14th, NJ History Fair at Monmouth Battlefield State Park will feature a new addition called SPAM Time, a fictional U.S. Army radio and live show that is modeled on actual entertainment presented to U.S. military personnel from WWII to the Vietnam War era. SPAM Time will provide a full day of pre-recorded and live musical entertainment that includes actual recordings and announcements from various archival sources.

Finally, Dale H. Cook offers his third edition to his index to Receiving Tube Manuals. It indexes and offers for download all the receiving tube manuals in his collection published through 1955 and some pre-1950 manuals. See <http://plymouthcolony.net/starcity/radios/pages/tubeindex.html>.

### Upcoming Events

April 15: Vintage Computer Festival at InfoAge  
April 30th: InfoAge Auction  
May 7th: Spring Repair Clinic at InfoAge  
May 13th-14th: Kutztown  
May 20th: Monthly meeting at InfoAge;  
Radio Scavenger Hunt  
June 10th: Monthly meeting at Princeton;  
capacitor nomenclature, CRT rebuilding,  
radio power supplies.  
July 8th: Monthly meeting at Princeton;  
agenda TBA.  
July 23rd: Summer tailgate swapmeet at InfoAge  
Sept. 16-17: Kutztown  
December 10th: Holiday Party

**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 \$25 per year and meetings are held the second Friday of each month at InfoAge or Princeton University.

The Editor or NJARC is not liable for any other use of the contents of this publication.

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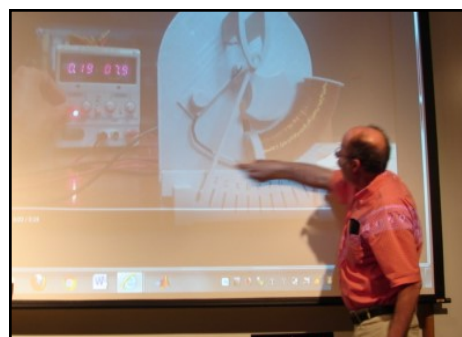
## SHOW & TELL/ HINTS & KINKS AT MARCH MEETING

By  
**Marv Beeferman**

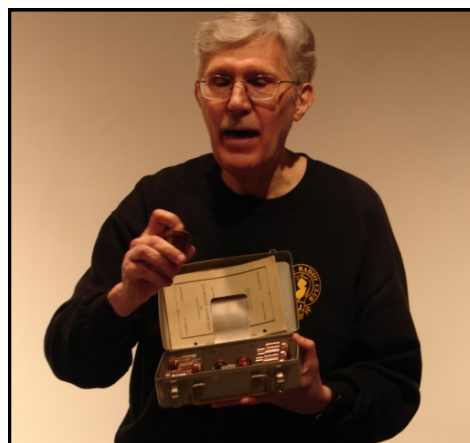
At last month's meeting, we decided to add member's hints and kinks to our popular show & tell program. As usual, some interesting artifacts, ephemera, stories and a touch of humor made for an enjoyable evening as illustrated and summarized below.



In the 1920's, Crosley wanted their household products to fit in with their radio line. President Richard Lee showed a "Temperator," a multi-speed fan with a heating element that could be used in both the summer and winter. Crosley used the same frame to enclose their early radio speakers.



Dr. Mike Littman described a working, 3D printer replica of an 1882 Edison DC ammeter used at New York's Pearl Street station. One of Dr. Littman's students worked on this project in conjunction with the Smithsonian. The ammeter used no springs, had no damping and pointer deflection was not proportional to current; pointer location was compared to an accurate current standard to mark the calibration points on the meter scale.



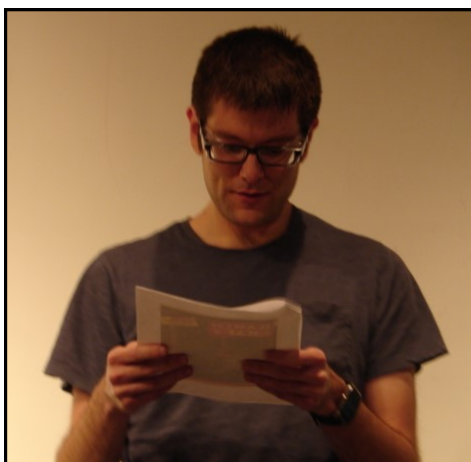
Your editor, Marv Beeferman, talked about a number of aids for repair and troubleshooting. Included was a Navy MX-1258/U Tube Socket Adapter Kit which allows the safe testing of circuit conditions from the top of a chassis. The tube in the circuit of interest is removed from its socket and the adapter is inserted in the exposed socket. The tube is then re-inserted in the top of the adapter and voltage or resistance measurements can be made at numbered tabs corresponding to the tube pins.

Also discussed was a miniature, 300W heat gun (RadioShack 6400212) for working with heat shrink tubing in small spaces, step drills for making holes in 1/16" increments, a long-reach solder sucker and long-handled pliers for getting into tight spaces.



Pete Olin was having trouble with interference from a nearby 7kw station at 1250 KHz so he decided to build an attenuator to deal with this specific frequency. His project uses a high-Q toroid ( $Q = 1600$ ) and obtains 71 dB rejection. Not satisfied with dealing with a single frequency problem, Pete went on to build a tunable frequency attenuator which obtains 60 dB rejection at 550 kHz.

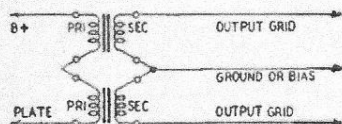




Matt Reynolds never knew his great grandfather but family history branded him as a sort of "Renaissance Man" with interests in electronics, gardening, etc. Matt had heard that he had come up with a special breed of tomatoes so he started a Google search to see if he could find anything on the subject. No "tomatoes" were found but instead was a hit from the "Try This One" section of the August 1948 issue of *Radio Craft*. Below is Matt's hint and kink contribution, courtesy of his great grandfather Orren Reynolds.

#### INTERSTAGE TRANSFORMER

The driver transformer may burn out in old sets in which they were used. If no audio unit with a push-pull secondary is available, two single-ended transformers can be used.



Connect the primaries and secondaries in series. Hook the primaries to the driver output as shown in the diagram.

Connect the secondary to the push-pull grids, using the junction between the two transformers as the center tap. If operation is not ideal, reverse the connections of one of the secondaries.

ORREN REYNOLDS,  
Dupont, Ohio



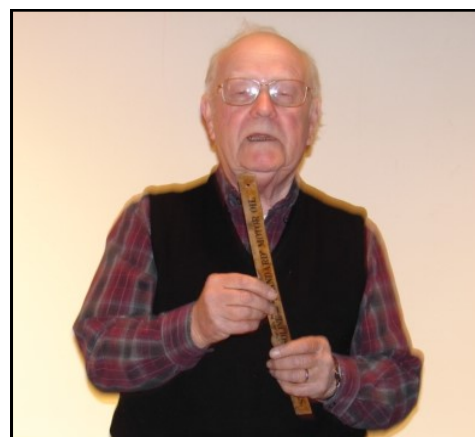
Dave Sica admits that in his youth he often "lusted after neat items" (has this deadly sin carried over into old age?). That is why a Sony Walkman FM radio/cassette player caught his eye around 1980 and he had to possess it. The price was steep, but under Crazy Eddie's competitive pricing program, he was able to get one at a substantial discount. Boy, did Eddie go Crazy when Dave showed him his competitor's ad!

Dave has talked about this in the past and he reminded members that the 400V, 10 mfd capacitor found in most dead CFL's (Compact Fluorescent Light Bulb) is usually still good and can be used for repair work.



Darren Hoffman described a 1955/56 vintage tape recorder manufactured by Stancil-Hoffman and used by CBS. It measures about 9 x 12 x 5 inches and weighs about 13 pounds. The recorder is fully transistorized and uses a 12.5 volt nickel-cadmium battery; it can also run from a car's cigarette lighter outlet. An external amplifier is required for playback. Darren pointed out that this was one of the first portables with a DC speed regulator motor. It sold for around \$500.

After having problems working on some larger cables, Darren decided to beef up his "third hand" with a heavy duty base that he machined from round stock. If the nine pound base doesn't provide enough support, Darren says he uses C-clamps to hold it in place.



Ray Chase talked about collecting radio-related items that aren't radios and the relative ease of obtaining them. These include advertising items (fairly easy), post cards (moderately easy), sheet music (difficult) and even fruit crate labels (very difficult). A full list can be found on page 7 of the *Broadcaster*. As an example, he described a Model T gas gauge with the Atwater Kent logo which was donated to member Dr. Mike Littman who recently lost his.



Pete Graves considers himself an "RCA collector." The radio he purchased on ebay was advertised as an RCA product and, indeed, when Pete received the item, it was labelled "RCA Chicago." However, as Pete explained, the radio had virtually no similarities to any RCA product he had ever seen. After examination, the radio turned out to be one used on a New York Central rail coach. It is equipped with a Buick car radio which was quite superior to many household radios of the time. The pushbuttons were covered over with a plate and the controls use Pontiac knobs! Pete also noted that the power supply "doesn't look like anything RCA ever made."





Robert Forte obtained his direct reading ohmmeter from the Hugo Picciani collection. It is based on the principle of balancing a Wheatstone Bridge. A stylus makes contact with a slide wire and is moved along its length until a point is found at which no click is heard in a connected earphone. A scale below the slide wire is read to obtain the resistance value. The use of an earphone in lieu of a galvanometer made this instrument useful in applications where stray magnetic fields were nearby (i.e., next to a dynamo). A tag on the unit indicates that it was first calibrated on July 19, 1900.



The Dalvar name is relatively rare for Texas radios. Jon Butz Fiscina showed an example in his collection made by Watterson Radio of Dallas. Also shown were two lightning arrestors - one rescued from a Kutztown radio destined for the console barn fire and the other found buried on farm property by Jon's son. In addition, Jon told the story of an antique store castaway that originally looked like a dull, Bakelite version of the Emerson "Aristocrat." After being advised to remove the dullness with a 1000 grit wet sanding, it turned out to be Catalin.



Dave Snellman described two interesting Sony radios. The ICF-SW800 FM and shortwave receiver (no AM) features a unique card-tuning system. It automatically tunes a particular station upon inserting a tuning memory card and touching the station name printed on the card. Three pre-programmed cards with pre-set frequencies of up to 60 worldwide stations (Radio Moscow, VOM, BBC, etc.) were included with the radio (although many frequencies are no longer correct for this 1989 radio). User programmable cards allow you to add or change any station presets. A clock card is used to

enter the local time or the alarm clock time.

The ICF-EX5MK2 came to market in 2009 and was only available in Japan and uses a synchronous detection circuit that really locks on the stations. Unfortunately, the radio's 6 crystal-controlled shortwave bands are useless for anyone outside of Japan but its AM performance is excellent. Dave said that if you're interested, you can still get the radio from Japan via ebay.



Member Al Klase notes that his Skywaves High Performance Crystal Set "is the result of approximately ten years of sporadic research and experimentation with crystal sets from an engineering standpoint." Apparently, Al's hard work has paid off as Nevell Greenough calls his model of Al's set a "spectacular performer."

As Al notes: "Basically, the 'hookup' is a classic two-circuit tuner with variable coupling between the primary (antenna) and secondary (detector) tuned circuits. This is essentially the same architecture used to great effect in the communication receivers of the wireless era. This circuit was almost never used in commercial broadcast crystal sets because of its high parts count resulting in high price."

A unique aspect of this receiver is that the coils are wound on ferrite cores "to provide optimum performance in a reasonable space." Al also notes that a high performance headset is important - it can easily be fifty times (17 dB) more sensitive than the typical headsets of the 20's.

## SCAVENGER HUNT AT MARCONI HOTEL BASEMENT

By  
Ray Chase

The Marconi Hotel basement has accumulated, over the years, quite an assortment of electronic items that need to be dealt with. They consist of residue from the former "E" (repair) shop as well as from many other donations. We sometimes joke that when the lights are turned out, the stuff just multiplies! Whether this is just folklore or not, the pile of "stuff" has just kept on growing.

Some of the items are worth saving and they will be set aside. However, we are providing NJARC members (2016 dues paid!) to acquire some of it for their own use. Therefore, prior to the April meeting, you will be allowed to enter the basement at exactly 6:30 and "scavenge" the basement area for an entrance fee of \$5.00. Items that are there for the taking will be marked with a square of red duct tape that has a black "X" marked on it.

You may take as many of the marked items as you wish. Make a pile with your name on it but hands off items not marked with red tape. This is not great stuff but there are many part candidates, partial radios, test equipment, abandoned projects, etc., etc. Please be courteous; these items are not worth fighting over or causing friction between members.

If you cannot find even one thing worth taking, we'll refund your \$5.00 entrance fee. Have fun, bring a flashlight, boxes, marking pen or whatever you think you'll need to carry away your finds. Scavenging stops exactly at 7:30 so as not to delay the regular meeting. Tagged items not taken will go to the dumpster.

Any questions, contact me at 908-757-9741 or raydio862@verizon.net.

## MUSEUM UPDATE

By  
Marv Beeferman

Activities to improve and expand the NJARC RTM (Radio Technology Museum) at InfoAge are always brisk and ongoing but unfortunately many are not recognized or publicized. However, recent progress is more than noteworthy and the *Broadcaster* provides the opportunity to share it with the NJARC membership.

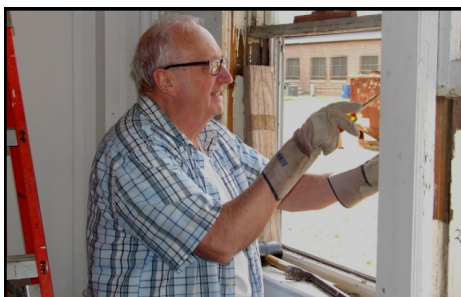
### New Repair Shop and WWII Exhibits

As noted in the previous article by Ray Chase, the "E" (repair) shop in the Marconi Hotel basement is being disbanded. However, it is about to be reincarnated directly adjacent to the museum. As a result of the computer museum moving to a new location, two additional rooms have been made available for RTM use.

The first room is now being converted into a clean and well-lighted workshop with two modern workstations. The room will include storage for member's restoration projects, storage for replacement parts and tubes and storage for additional test equipment not used on a day-to-day basis. The intent is to provide members with a neat, well-maintained and pleasant environment in which to



Members Vince Lobosco and Ray Chase inspect our new repair shop.



Member Steve Rosenfeld begins the difficult task of window repair and caulking.



Member Vince Lobosco removes ceiling tile supports in preparation for room repainting and restoration.

work on museum restoration projects and, when time and space permits, personal projects. Rules will be in place for benches to be left clear and clean at the end of the day with projects properly stored on provided shelves. The workshop will not degrade into a storage unit for abandoned projects and donated items.

In addition to the standard workstations will be a replica of a typical 1930's radio repair workbench with tools, test equipment, parts and manuals of the era. Since the new room has two doors, visitors will be able to walk through the area and watch us actually at work while also getting an idea of the differences between modern and vintage repair techniques. Being able to visit our members in a work environment adds a personal touch to the museum experience and perhaps will allow our members to share their enthusiasm with the public.

The second room will be turned into a 1940's, WWII living room outfitted with typical furnishings of the era including a console radio and table radio. The intent is to make the room represent a symbolic WWII "room on the homefront" with a Service Flag prominently displayed in the window. The radios will be furnished with pushbuttons where visitors can sit in the room and select various era programs to listen to. The room is being established to support InfoAge's status as a WWII living memorial.

### RCA TK-10 Television Camera Display

*The following report was prepared by member Dave Sica.*

Television essentially "began" in the United States following World War II. In 1946, the first commercially available television camera was introduced by RCA. The TK-10 camera was a key element in the beginning of television in the United States and through its electronic eye passed all the original images that helped usher in the legendary first "Golden Age of Television."

In conversation at a HARPS (Hudson Valley Antique Radio and Phonograph Society) meeting one month, the subject of vintage TV cameras came up. NJARC member Pete DeAngelo mentioned to me that he had an old RCA TK-10 broadcast camera in his basement. This being something as a "holy grail" television collectible, I thought he might be kidding but he was actually serious. Pete has an outstanding collection of radio artifacts in his home, and his basement is crammed with what many of us might consider rare and valuable antiques, but are for Pete his



"second-tier" items. Over the years, flood waters have taken their toll on several occasions but the camera was up blocks and had so far remained above the high water mark.

People often salvaged these types of cameras as they were decommissioned from use, but they most often focused on saving the iconic, picturesque camera head; usually, the support equipment and interconnecting cables were discarded. Pete had the complete system - a rare find indeed. Since Pete is an NJARC member, I suggested to him that the camera would make a perfect display at our museum. He considered my suggestion for a few months and he finally agreed that it should be enjoyed by museum visitors and not subject to any future "rising tides."

Eventually, president Richard Lee and I went to Pete's house to pick up the camera. Even though this is a "portable," as a first-generation model, there was more interest in making it work than making it small and the system went a long way towards filling my van. Did I mention heavy? Each of the five boxes of accompanying camera control equipment weighs between 50 and 75 lbs. And the cables are "old school" camera cables, some nearly as thick as your wrist!

The day came for museum delivery and member Darren Hoffman thankfully shouldered the lion's share of heavy lifting. With the first opportunity to take a careful look of the system in daylight, it looked to be complete. All of the often missing camera control units were present and accounted for. But there were five control units, not four as typically seen in the RCA catalog for this equipment.

As Darren began to open and examine each unit, he made an unsettling discovery. It was clear that the monitor case had experienced a fire and had evidence of having been fully engulfed in flames in one area. Clearly, the power transformer had caught fire - a serious setback.

But things got better. Remember the extra control box? The reason for five boxes vs. four was that there were TWO monitor units. While the second unit was not in perfect condition, it was complete. It seemed likely that the one that had the fire was a "parts" unit. This was a huge relief.

So we dusted off the camera and wheeled it into the museum and lugged one control unit to serve as part of the display. (The rationale behind displaying only one accessory was that once you've seen one big, ugly black box you've seen them all.) The remainder of the insanely heavy control boxes were safely stowed

away pending the day we might begin restoration work.

Enthusiastic comments from museum visitors began immediately. It's a powerful, iconic display that really adds "punch" to the television section of the museum.

Checking with InfoAge librarian Steve Rosenfeld, I was able to verify that we had at least some of the manuals for the system in the archive of RCA Broadcast Equipment Manuals that we had inherited several years ago from the David Sarnoff Library. The information in these manuals will help us verify if the equipment is complete and will provide us with the details we'll need if and when an electronic restoration is begun.

I posted photos on Facebook and the collecting community immediately rallied and began expressing its enthusiasm for the project. I also cleared up some lingering misconceptions I had about which exact model camera we had, and was even able to solve the mystery of the unusual lens turret configuration. Nowhere in the 1950 RCA Broadcast Equipment Catalog or in any of the associated manuals does it show anything resembling this particular lens turret. There are four black-capped objects interspersed with the four expected lenses. Well-known vintage television camera expert Chuck Pharis in Tennessee informed me that the turret featured aftermarket lens "orbiters" which were used to slightly and slowly vary the position of the lenses in order to prevent an image from "burning in" the delicate photosensitive surface of the face of the Image Orthicon camera tube.

As "icing on the cake," Darren noticed a period-appropriate intercom headset in the club's inventory which Ray Chase made available as a nice little exclamation point for the camera display.

The power of club members working together and leveraging the power of the Internet has resulted in the museum being blessed with a new, high-profile display to help further our efforts to educate the public about radio and television history.

Thanks to Darren Hoffman for his insight and muscle, to Richard Lee for serving as part of the moving crew and to Steve Rosenfeld and John Tyminski for organizing those hundreds of equipment manuals and knowing where the ones of interest were located when we needed them. And of course special thanks to Pete De Angelo for saving the camera from being thrown out decades ago, for storing it all these years, and for generously allowing it to be displayed.



**"The system went a long ways toward filling up my van."**



**"Did I mention heavy?"**



**Ready for prime time!**



**A serious setback? Not when you have a spare.**



**A great museum addition.**



## RADIO/ELECTRONICS AUCTION

**Saturday April 30, 2016**

Huge Radio/Electronics Auction Conducted By New Jersey Antique Radio Club

**InfoAge Science History Learning Center and Museum**

**2201 Marconi Road, Wall, New Jersey 07719**

All day sale of vintage radios, electronic test equipment, ham gear, audio equipment, military electronics, 1000's of vacuum tubes along with parts & documentation. Large variety of interesting tubes in big & small quantities.

Better tubes are pre tested. Over 300 total lots, with many large box lots.

Something for every radio collector/dealer. Stock up for the Kutztown meet.

**Auction at 10:00 AM Saturday - Viewing 8:00 to 10:00 Day of Sale**

Sale of artifacts and donations excess to the centers needs. Proceeds to benefit InfoAge, & Radio Technology Museum. Auction is indoors with ample seating.

Noted radio auctioneer Cledis Estes is wielding the auction gavel. Complete auction catalog available two weeks prior to sale. Terms are cash, good check, & select credit cards. 5% buyers premium is charged. Food concession on site.

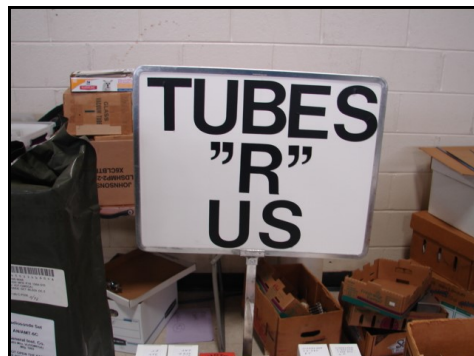
**www.infoage.org for directions**

**Auction Information: raydio862@verizon.net or 908-472-3329**

## MARCH SWAPMEET CLOSE TO A SELLOUT

**By  
Marv Beeferman**

Unlike the last Parsippany swapmeet, president Richard Lee didn't have to "squeeze 'em in" but the club came pretty close to a sellout. It seems like everyone had a enjoyable and profitable time with compliments from both buyers and sellers. As usual, we captured the action in the photos that follow.



### Radio-Related Collectables

**By Ray Chase**

#### Category

#### Ease of Obtaining

Advertising Items	Fairly Easy
Ash Trays	Very Difficult
Books	Easy
Cigarette Cards	Difficult
Coasters	Difficult
Fruit Crate Labels	Very Difficult
Games	Moderately Difficult
Greeting Cards (Valentines, Holiday)	Moderately Hard
Matchbooks	Moderately Hard
Miniature Radios (Doll House)	Difficult
Pinbacks & Tacks	Very Difficult
Playing Cards	Very Difficult
Post Cards	Moderately Easy
QSL Cards	Moderately Hard
Radio Premiums	Difficult
Signage	Fairly Easy
Sheet Music	Difficult
Toys	Fairly Easy
Tube Cartons	Moderately Hard

The above are mostly paper items, and I'm sure that there are other categories as well (but you get the idea).



