

# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

February 2003

Volume 9 Issue 2



## MEETING/ ACTIVITY NOTES

Reported by Marv Beeferman

January's meeting was well-attended with a show-and-tell and mini-auction highlighting the evening. Good attendance also allowed our 2003 dues campaign to get off to a good start. But before we get into the details, there are some firm dates for future activities that may merit your consideration. Our Spring swapmeet is scheduled for Sunday, June 22nd at the North Centerville Vol. Fire Company in Hazlet and our Fall meet will take place on Saturday, November 1st at the same location. The date and location of a Summer swapmeet between these two dates has not yet been determined. Saturday, March 1st is reserved for our first 2003 repair seminar at the Sarnoff Library in Princeton. If you plan to attend (mentors are expected at 8:00, participants at 9:00), please contact Technical Coordinator Al Klase at 908-782-4829 (skywaves@bw.webex.net) to register the radios (make and model number) you plan to work on.

As usual, our January show-and-tell brought some interesting discoveries and amusing stories to light and this month's *Broadcaster* has the photos to prove it:

•**Alex Magoun** - I first heard the name of RCA engineer Arthur F. Van Dyck in a "Web Edition" of *Antique Radio Classified* where John Wolkonowicz presented an article on RCA's intended models for the 1923-1924 season. The article described a number of receivers like the "Urban," "Jewel," and "Superba" that were planned but never manufactured. Alex read from copies of



## MEETING NOTICE

The January meeting of the NJARC will take place on Friday, January 10th at 7:30 PM at American Legion Post 177. Reference past *Broadcaster* issues for directions or contact Phil Vourtsis at 732-446-2427. The Theremin will be the theme of this month's meeting including a short lecture, a viewing of material from the History Channel's spy presentation (speculating on Theremin's work for the Soviet secret service) and a demonstration of a reproduction Theremin by Scott Marshall. We'll also hear a few songs recorded by the Canadian Broadcast Corporation from sheet music supplied by the Simkins for the production of a special on radio history. We'll also discuss plans to create a committee to coordinate work at InfoAge.

Mr. Van Dyck's diaries and journals from 1910 through 1921 where such strange phenomena as "super-generation" are mentioned first-hand.

dates to 1947. Marty offered the "before" example to tease our interest.

•**Rich Skoba** - Rich offered a cross-section of radio ephemera including an "RCA" badge from Princeton and a 1944 café menu from Rockefeller Center with a "V" for victory Morse Code logo.

•**Frank Feczko** - Frank showed off a 1979 Jim Beam decanter (sans contents, unfortunately) with reliefs of antique microphones from the 20s to the 50s.

•**Ray Chase** - Why does an IMAC transmitting tube have a side arm which is corked? So it can be used as a wine flask in a later life? Not quite says Ray...it provides access for measuring plate current to evaluate the vacuum of the tube.

•**Robert Flory** - A 1946 issue of *Electronics* describes the experimental reading aid for the blind developed by Robert's grandfather.

The text was scanned by the operator and a beam of light responded to each letter at a different frequency resulting in a unique sound for each letter. Robert said that the aid "almost worked" with the best operator "reading" at about 20 wpm. Unfortunately, the device required so much training that it wasn't viable.

•**Darren Hoffman** - Darren displayed a 1952 Rek-O-Kut record cutter and demon-



Ray Chase, Joe Bentrovato, Marsha Simkin (Jerry was camera shy), John Ruccolo and Marv Beeferman take a break to pose for a group photo while laying out the Cranbury Museum radio exhibit last month.

•**Steve Goulart** - Steve showed a Bud GIMIX GM-79 wavemeter. Bud made a cross-section of ham test equipment including crystal calibrators and VFO's.

•**Marty Friedman** - Hopefully, we'll be able to see Marty's "after" example of a Westinghouse model H148A portable at the February meeting which he rescued from the trash in working condition. This AC/DC/battery set with a criss-cross grill

**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.

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

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strated its operation by recording a rousing rendition of the Star Spangled Banner à la the NJARC membership with Alex Magoun at the baton.

•**Phil Harris** - Phil gave us a short course on pre-war Zenith portables up to 1942. Included in his five examples was the rare early leatherette version of the 6G601.

•**Nevel Greenough** - Nevel's beautifully restored G.E. model ET-3619 20-watt transmitter and ET-3620 rectifier unit are featured in a separate inset in this month's *Broadcaster*.

•**Joe Devonshire** - Joe said he will use his restored 1931 Sparton console in our Broadcast Band DX contest. He's still working on a phase problem which is producing an annoying hum.

•**Phil Vourtsis** - Phil took us for a ride down memory lane describing the Motorola, RCA, Sony and Telefunken portables he grew up with and his quest to re-acquire them.

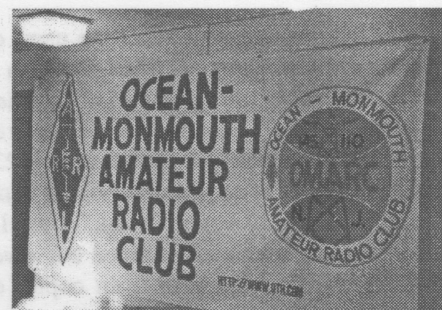
•**Marv Beferman** - Your editor read an original 1945 letter to Consumers' Research (later to become Consumer Reports) from Avery Fisher describing the birth of the Fisher Radio Company

On January 11th, Ray Chase, Joe Benvenuto, Jerry and Marsha Simkin, John Ruccolo and your editor set up a radio exhibit at the Cranbury museum. The museum was expanded from a two-room house at 4 Park Place East built in 1834. The radios provide an interesting contrast to pine floorboards, rough plaster walls, farm implements, early tools and Lenape Indian artifacts. But it seems to work as you can see by the photos.



On February 2nd, president Phil Vourtsis played host to Sunday visitors and a reporter who is planning a write-up in the local paper. As a result, attendance should be brisk on February 16th and Phil and I are planning to play host again. The museum is only open on Sundays from 1 - 4 p.m. but visiting this quaint town is a pleasure in itself (with a bookstore across the street from the museum for browsing). If you do plan to visit, you might want to consider acting as a representative of the club and fielding any questions that might come up.

On our way home from Cranbury, the Simkins and your editor stopped by InfoAge where a Project Diana open house was being held. The event celebrated the Ocean-Monmouth Amateur Radio Club's (OMARC) restoration of one of the original project buildings. NJARC has provided InfoAge with significant information on the Diana radar and its history and Ray Chase has donated SCR-270 components for display. (See Ray's article "Unusual Military Stuff" in this month's *Broadcaster*). Robert Flory drove 88-year old M. Pike (see photo), an original member of the Project Diana team, from Princeton to take part in the event.







Ray Chase, our InfoAge interface, reports that base transfer may take place in April or August. Whatever the case, sewer work is contracted to be completed on April 1st so this is a positive sign. The club intends to begin an aggressive schedule to make the cottage ready to start displaying National Broadcaster's Hall of Fame artifacts (as soon as the weather cooperates) with guidance from a separate committee formed from NJARC members.

Ray said that Fred Carl will make arrangements for us to obtain keys to the cottage so we can begin to install the security system and come and go as we please. Some initial projects will include:

Removing the boards from the windows and making sure that all windows are secure and operable.

Attending to electrical fixtures.

General housecleaning and fix-up.

Attending to the front door jamb.

Breaking up and moving out the old furnace from the cellar.

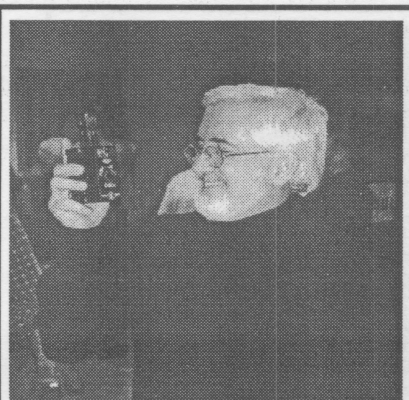
Removing or restoring the porch screening.

Setting up the cellar for storage and as a workshop.

The Delaware Valley Historic Radio Club (DVHRC) reports that "a cellar full of items left behind by a late New Jersey radio repairman" will be part of the Kutztown swapmeet and auction. Included are a multitude of tubes, parts, a few radios and some "rarely, if ever seen, ephemera." A detailed catalog of items will be published in a future *Broadcaster*. The auction will be held Saturday afternoon, May 15th, but the meet itself starts on Friday.

For your long-term plans, the sale of the "attic" portion of the Ralph Williams estate is set for May 17th. More details will be provided at a future date. The dates for the Antique Wireless Association's (AWA) annual conference are Wednesday, August 20th through Saturday, August 23rd. The flea market setup and early registration will be on Tuesday evening with no selling before Wednesday morning.

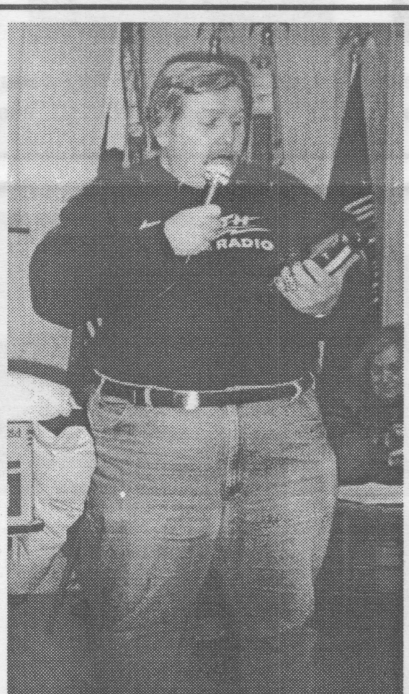
## SHOW-AND-TELL



Steve Goulart



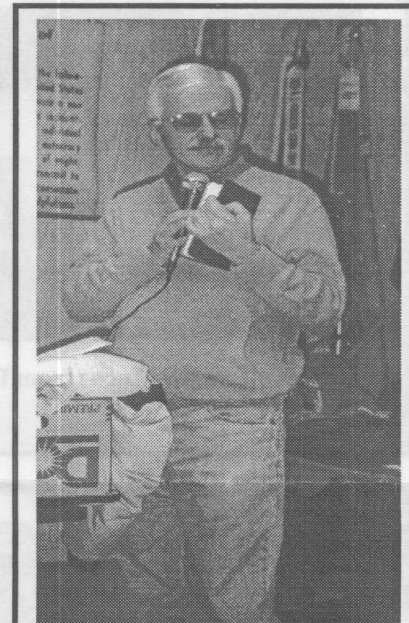
Marv Beeferman



Frank Feczko



Marty Friedman



Rich Skoba

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# SHOW-AND-TELL (Continued)



Ray Chase



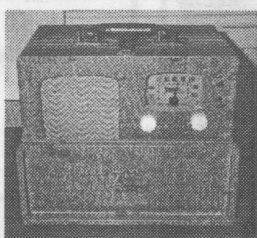
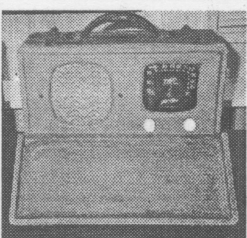
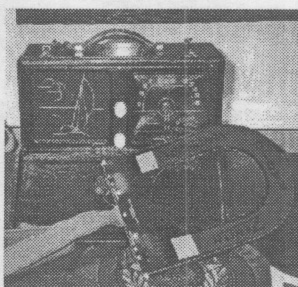
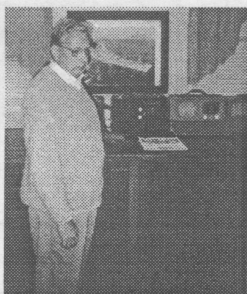
Rob Flory



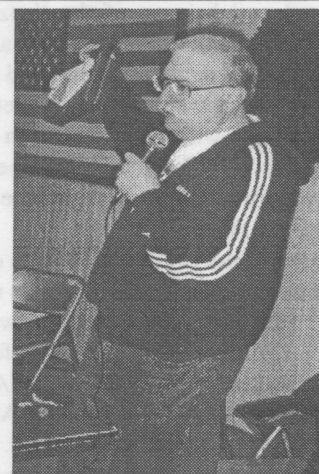
Joe Devonshire



Alex Magoun awaits his cue from Darren Hoffman to begin recording a rousing (and soon to be released) rendition of our nation's anthem by the NJARC chorus.



Phil Harris and some of his pre-war Zenith portables.



Phil Vourtsis



## The ET-3619 Transmitter and ET-3620 Rectifier Unit

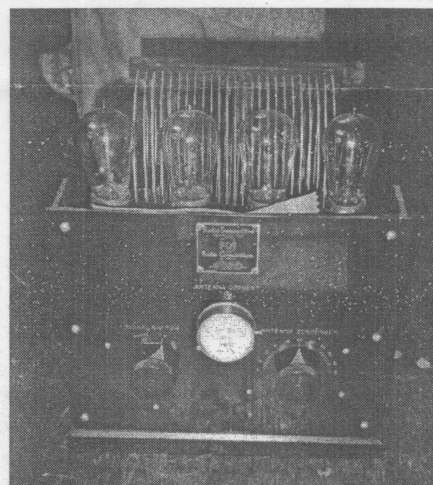
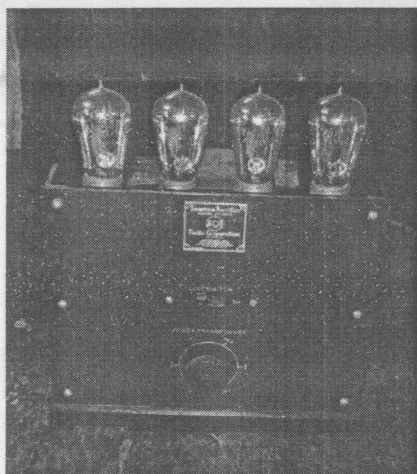
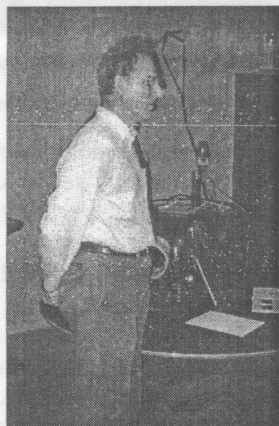
*The following is the descriptive material that accompanied Nevel Greenough's show-and-tell display...Ed.*

The RCA ET-3619 was a 10 to 20 watt transmitter intended for AM and CW service between 180 meters and 320 meters (940kHz to 1670kHz). Although designed to cover the broadcast band, it could not be advertised as such due to a patent licensing agreement with the American Telephone and Telegraph Company. It was therefore sold "for amateur purposes only," even though the instruction book clearly gives operating instructions for broadcast frequencies!

So was it an amateur rig or broadcast transmitter?

This particular unit was owned by one F.W.J. Pope as part of his Trenton, N.J. radio business. F.W.J.'s son, Ralph Pope, clearly remembers his father operating it as a bootleg broadcaster in the 1920s.

This unit was nearly lost in a barn fire started by an automobile sometime in the 1950s. It survived remarkably well under a half-inch of oil-smoked grit. The restoration work required a complete disassembly and cleaning, right down to the last bolt and nut. The transmitter will actually oscillate, although time has taken its toll on the UV202 PA tubes.

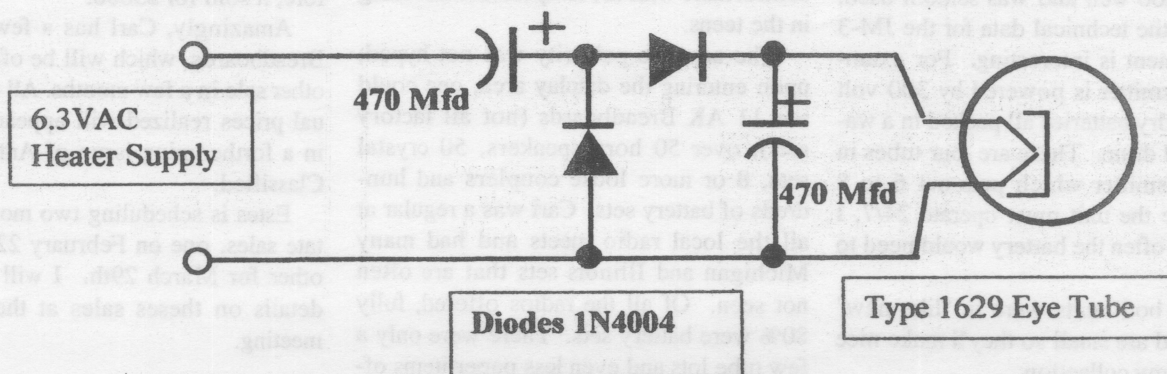


## TUNING-EYE TUBE REPLACEMENT

*The following tip was found in the January 2003 issue of the Vintage Radio and Phono Society's "Sound Waves" as presented by Chevy Crandell...Ed.*

The 6E5 and 6G5/6U5 tuning-eye tubes are beginning to show their limitations. New old-stock runs between \$25 and \$35 and still has limited life and used ones are often too dim to be useful. A potential substitute is the military type 1629 and is available from Antique Electronic Supply for about \$8.50. However, its heater is designed for 12 volts.

The solution, as provided by Chevy Crandell, is to use a voltage-doubler rectifier circuit to get the proper heater current. The trick works only for AC sets, where the 6.3 volts is rectified with two silicon diodes (e.g., 1N4000 series) and two 470 mfd electrolytic capacitors. The capacitor value is very important, because if it is too large, the DC voltage will approach being twice the peak value, which will be too high. The circuit below supplies a DC voltage with ripple and has an effective value of 12 volts to provide the proper heater voltage.



## UNUSUAL MILITARY STUFF

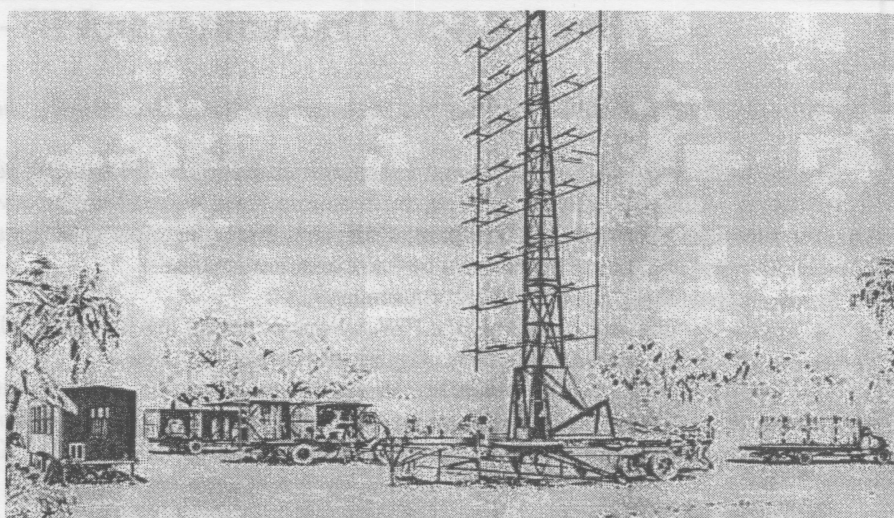
By Ray Chase

The auction held at the last meeting had a couple of unusual W.W.II military items that I just had to acquire.

The first item was a device that vaguely looked like a phallic symbol and was jokingly nicknamed "the proctoloscope". It is a Test Set I-148A which is a piece of test equipment for the 1940 SCR-270 long range radar, (yes, the one that was on duty at Pearl Harbor). The I-148A was made to be inserted in a hole in the rigid coaxial line (maybe proctoloscope is not such a bad term for it) running to the antenna so that the forward and reflected power could be measured. This one had a Fort Monmouth nameplate on it, but I had an earlier one that had a Camp Evens, Belmar nameplate. That one is now part of the Info Age collection.

The second item turned out to be more puzzling. It is a Wavemeter, CIA-60043 covering 70 to 90 Mc. (MHz) and the nameplate indicated that it was to be used with JM-3 Radio Equipment. I originally thought that it might be for "Marker Beacon" transmitters that operate at 75Mhz. But that did not square with the frequency range extending up to 90 MHz and I was not familiar with the JM-3 equipment reference. The next day, I researched some of my documents and found that the JM-3 radio was used to transmit information from hydrophones hanging from buoys or rafts as part of an early harbor defense system. The hydrophones could pick up the sounds of submarines and then radio the information to shore watch stations on the 70 to 90 MHz Band. I understand that the system never worked out too well and was seldom used, but some of the technical data for the JM-3 radio equipment is interesting. For example, the transmitter is powered by 300 volt and 7.5 volt dry batteries all packed in a water tight steel drum. There are four tubes in the FM transmitter which puts out 6 to 8 watts. Since the unit must operate 24/7, I wonder how often the battery would need to be changed.

Anyway, both units were in "like new" condition and are small so they'll make nice additions to my collection.



An SCR-270 being deployed

## BIG SPENDERS AT ESTES AUCTION

By Ray Chase

Estes Auction Center in Seville, OH scheduled the sale of most of the Carl Knipfel radio collection on January 18. Carl, of Morton, IL was moving to a smaller home so decided to liquidate most of his collection; in fact, he and his wife were present for the entire auction. How many of you could do that? The preview pictures showed a wide range of very collectible sets so a couple of us braved the wild winter snow and cold to make our presence. All the other usual suspects decided to come as well so there were about 200 bidders registered. This auction was held in a larger auction hall outside of Seville, not the regular Estes "barn," which I'm sure would have been most uncomfortable with the temperature hovering in the teens.

The advance publicity was not hyped; upon entering the display area, one could see 11 AK Breadboards (not all factory sets), over 50 horn speakers, 50 crystal sets, 8 or more loose couplers and hundreds of battery sets. Carl was a regular at all the local radio meets and had many Michigan and Illinois sets that are often not seen. Of all the radios offered, fully 80% were battery sets. There were only a few tube lots and even less paper items of-

fered so, with the exception of some Atwater Kent dealer display items that went for big bucks, most of the activity was in battery radios. However, a Zenith "Walton's Radio", in fair to good condition, sold for \$2300. Many of the battery radios were sold without tubes but the sets were in good to excellent condition, which is reflected in the prices they drew.

The auction closed with 577 lots being sold and the final total was \$146,000 not counting the 5% buyers premium charged. Considering that the vaunted AWA auction cannot pull in much more than \$30,000 these days, this was a sale to behold. Prices across the board were on the high side, 28 of the items pulled in \$1000 or more and 52 additional items commanded prices from \$500 to \$999. The biggest seller was an outstanding Pratt loop antenna in the form of three concentric rings. All the rings could be rotated separately, almost like the three axis gimballs of a gyroscope. It was about 18" around, mounted on a stand with a compass in the base. I've never seen one before; it sold for \$5000.

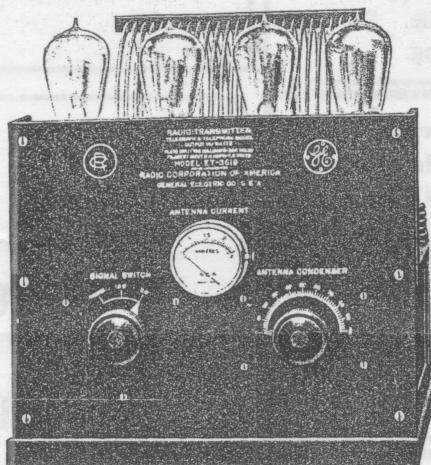
Amazingly, Carl has a few more AK Breadboards, which will be offered at another sale in a few months. All the individual prices realized will appear, hopefully in a forthcoming issue of Antique Radio Classified.

Estes is scheduling two more radio estate sales, one on February 22nd and another for March 29th. I will have more details on these sales at the next club meeting.

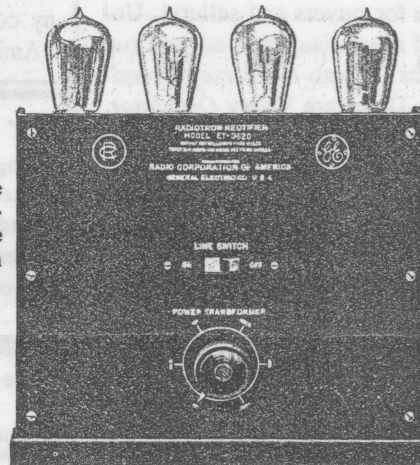


## RADIO CORPORATION OF AMERICA

## G. E. 20-WATT V. T. TRANSMITTER, MODEL ET-3619



To the left is the Radiotron Transmitter Unit; to the right the Kenotron Rectifier Unit



THIS radio telephone and telegraph transmitting outfit has been designed for use in conjunction with the Kenotron Rectifier unit described below. This transmitter, however, may be used with direct current where a motor generator set is available.

With the exception of the power supply everything necessary for a 20-watt transmitter is mounted on a sturdy panel and base made of heavy dieldoto, artistically engraved, as may be seen from the accompanying photograph. The 20-watt rate on this equipment is based on the same consideration as commercial wireless telephone transmitters, that is, four Model UV-202 5-watt Radiotrons are used as oscillators.

#### Designed for Radiotron Vacuum Tubes

The transmitter is built for operation on telephone, continuous wave (C.W.) telegraphy or interrupted continuous wave (I. C. W.) telegraphy. The method of signalling is controlled by a rotary switch having three positions.

This transmitter requires the following supply for operation at full output: .160 amperes at 350 volts D. C. for the plate supply, and 10 amperes at 8 volts A. C. for the filament supply.

Model ET-3619 transmitter is entirely self-contained with the exception of the following units, which may be connected externally:

(a) Send-receive Switch; (b) Telegraph Key; (c) Microphone Transmitter and Desk stand; (d) Motor Battery. (Not supplied as part of this transmitter.) (e) Microphone Battery.

Substantial terminals are provided for connecting the above units in circuit. All these terminals are numbered to agree with the connections indicated in the diagrams which accompany the book of instructions supplied.

Terminals are also provided so that the units not supplied with this transmitter may also be connected in circuit: such as—

(a) Magnetically controlled Send-Receive Switch; (b) Control button for the above switch; (c) Magnetically controlled "Break In" Key; (d) Chopper for obtaining I. C. W. transmission.

Wave length control is obtained by means of a variable condenser in series with the antenna circuit adjusted by a control on the panel.

#### KENOTRON RECTIFIER UNIT MODEL ET-3620

This equipment has been designed to operate in connection with the above 20-watt transmitter, or as a separate unit for other transmitting circuits. It is designed to give full wave rectification from a 110-volt, 50 or 60 cycles A. C. supply. It utilizes four Model UV-216 Kenotron Rectifier Tubes. The unit contains suitable filter condensers and reactor, so that the rectified A. C. is smoothed out for satisfactory telephone transmission.

This unit also contains a combined plate and filament transformer for supplying power at the proper voltage for heating all the vacuum tube filaments and furnishing the necessary plate potential for the transmitter.

G. E. 20-Watt Telephone and Telegraph Transmitter, Model ET-3619 including Transmitting Panel, 4 Radiotrons UV-202, Telegraph Key UQ-809, Send-Receive Switch, W. E. Desk Stand with Microphone 284W and 4 dry cell microphone battery .....\$235.00  
G. E. Kenotron Rectifier Unit, Model ET-3620, including 4 Kenotrons UV-216.....\$150.00  
Complete Transmitter and Rectifier as Above.....\$385.00  
Dimensions of each unit: Height, 14 in.; Width, 12½ in.; Depth, 11½ in.

## 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.

Nice working consoles. All cabinets are nice and clean! Atwater Kent Model 74 lowboy - \$200. Grunow model 1151 - \$200. RCA 810-K (good eye tube) - \$225. Zenith 8S-463, black dial, good eye tube, wave magnet - \$250. Contact Joe Murphy at (856)-228-0585

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 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...\$20 check made out to NJARC. Marsha Simkin, 33 Lakeland Drive, Barnegat, NJ 08005**

Seven complete volumes (volumes 2 to volume 8) of the *Jersey Broadcaster*...except issue 12 (in Vol 2) and issue 11 (in Vol 5) which are missing. Includes misc. issues of Vol 1, issue 1 and issue 3. Also includes 6 issues of *New Jersey Antique Radio Club News*, Vol 1, #2 and #4/Vol 2, #1 and #2/Vol 3, #1 and Vol 4, #1. Best offer (by April 30) over \$20.00. Contact Harry Kundrat at (908)-665-1873.

## WANTED

EICO 324 signal generator and RF probe. Tony Galella, (201)-823-0116, tgalella@att.net.

## YOUR

## AD

## HERE

**(FREE!)**

## 2004 DUES

Early payment of 2004 dues saves your club money and administrative time. Your mailing label reflects payment as of February 1st with a "1/04" code. If you have paid since then, thank you and the date will be updated next month. If not, a "1/03" code indicates payment due (an "H" code designates an honorary member with no payment due).

Please send a check for \$20.00 (or pay at the next meeting) to:

**Marsha Simkin  
33 Lakeland Drive  
Barnegat, NJ 08005**

Your cooperation is appreciated!