



OSCILLATOR

The Official Newsletter of the DVHRC

Vol. 8. No. 8, August, 2000

Next Meeting

The August 2000 DVHRC meeting will be held at 7:30PM, Aug. 8, at the Telford Community Center. Arrangements for a potentially very interesting presentation on TV history remain unresolved at press time. The usual auction will follow the meeting.

July 2000 DVHRC Meeting

Dave Snellman

Well, we had perfect weather for our July meeting. It was actually difficult to get anyone to move inside – it was that nice outside. Also, some were already displaying their auction

(Continued on page 2)

ROSS A. SMITH

By Ludwell Sibley of the Tube Collectors Association

TCA and the antique-radio world have lost Ross Smith, one of those multi-contributing individuals whose influence is quiet but substantial.

Ross' career was as an engineer with essentially one employer, Chicago Telephone Supply (later CTS Corp.) in Elkhart, Indiana. In retirement he served as curator of the CTS Museum. He was an early, strong supporter of the Indiana Historical Radio Society and its radio-display efforts, culminating in a museum at Ligonier.

Beyond ITRS, his "Transistor Topics" articles in the old "ARCA Gazette" were the first coverage of this area in the collector press - his pioneering story on the Regency TR-1 in 1985 was two years ahead of other journals. As a career-long IRE/IEEE member, he contributed heavily to the TR-1 article in the "IEEE Spectrum" (Dec. 1985). His transistor- radio articles continued in the AWA "Old Timer's Bulletin" upon the demise of the "Gazette." His articles on radio-restoration techniques appeared in AWA and other bulletins.

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Ross was a long-term tube collector, a member of the old AWA Tube Group and later TCA. He was one of the first individuals to recognize the historic value of, say, assembling a set of the "original nine" RCA metal tubes. Our sympathies go to Smith's widow Wava and son Victor. - LAS

COMING EVENTS	
5 August	Hamfest, Decature, Pa.
8 August	DVHRC Meeting, Telford Pa.
11 August	NJARC Meeting, Freehold, NJ
13 August	Hamfest, York, Pa.
19 August	Antique Radio Meet, Kutztown, Pa.
20 August	Hamfest, Mullica Hill, NJ
6-9 September	AWA Conference, Rochester, NY
12 September	DVHRC Meeting, Telford Pa.
15 September	NJARC Meeting, Freehold, NJ
16 September	Hamfest, Schnecksville, NJ
24 September	Hamfest, Bowie, MD
30 September	Hamfest, Wrightstown, Pa.

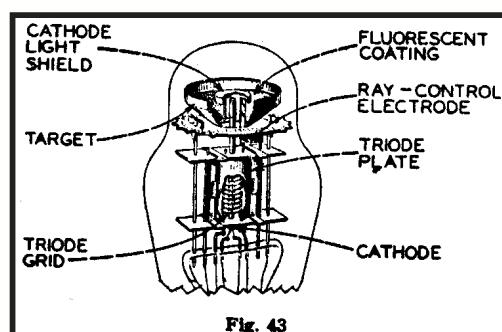


Fig. 43

THE OSCILLATOR

Newsletter of the
Delaware Valley Historic Radio Club
 P.O. Box 847
 Havertown, Pa. 19083

The *Oscillator* is published monthly by members of the non-profit DVHRC. Its purpose is to provide a forum to educate, inform, entertain, and communicate with collectors and preservers of vintage radio technology.

We welcome and solicit information relating to radio history or collecting. Submissions should be carefully researched, typed and accompanied with clear photographs or diagrams. Material on-disc (3-1/2" DOS/Win95) is particularly welcome.

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Personal views, opinions and technical advice offered in this newsletter do not necessarily reflect those of the members, officers or Board of Directors of the DVHRC, nor is the organization responsible for any buying or selling transaction incurred.

To join: DVHRC dues are \$15 per year. The membership year runs January-through-December. Please mail to the club PO box above. Meetings are held the second Tuesday of the month at 7:30 PM

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(Continued from page 1)

wears.

Finally we got enough people inside to have a meeting. We'd like to welcome two new members. A hearty DVHRC welcome to Arthur Larky and Frank Unger, both reside in Bethlehem, PA. For the good of the order, we had a brief report on the Michigan meet. Lewie Newhard gave the report. The meet is probably second in size compared to Rochester. Ray Chase informed everyone of his recent trip to the Historical Electronic Museum, located near BWI in Baltimore, MD. It's a worthwhile museum to visit if you're down that way. (Also, it's not a bad day trip.) Mike Koste informed us of a recently published book by Mark Stein. The title is Complete Price Guide to Antique Radios: Pre-War Consoles. Mike reported most of the photos are of good quality, although they are black and white. Published prices seem to rather high for consoles.

We had an interesting technical session. Al Klase gave a presentation on "spy" radios. Al showed a WWII-era "canteen" radio. Made out of a regulation canteen by POW's to hear of what was happening in the outside world, the "regen" receiver used a 12SK7.

Other radio sets included a WWII U.S. Navy CMS radio. This was a transmitter-receiver set housed in an "artist's" case. The set could be broken down into smaller modules or pieces so they could be easily hidden from the enemy.

Al also presented some "Cold War" era sets. First off, the RS-1, a crystal controlled set capable of transmitting and receiving on the 3-22 "megacycle" range. It was used from 1948-1959, though the Army is supposed to have used through the 1960's. The CIA had the RP-2 set that included a universal power supply that used selenium rectifiers. The RS-series typically had a transmitter output of around 10 to 20 watts. With a 100' long wire, the range was 100 to 300 miles, depending on the time of day. The receiver had an RF-amplifier and 2 IF stages. It used a 1L6, too!

The last set Al had was a model RS-6. This set was from the early 1950's and used sub-miniature tubes to reduce size. These were used by the Strategic Air Command and later by Special Forces. Supposedly Francis Gary Power's plane had one on board. All in all another great presentation by Al.

No DVHRC meeting is complete without an auction. This night was no exception. Items included an Emerson Vanguard 888 transistor radio, a very good-looking Crosley clock radio, and some nice German radios. We had the usual assortment of parts. Ten lots of donated items netted \$19.00 to the club's kitty.

Well that about wraps up the July meeting. August 8th is the date for our next meeting. See you there.

On the road...

The Historical Electronics Museum, Inc.

by Dave Snellman (Summer 1999)

I recently found myself in the Baltimore area with some extra time on my hands. Tired of wandering the waterfront (even though it's a great area) I decided to check out the Historical Electronics Museum. The museum is located near BWI airport, not far from downtown. It's not a "radio" museum even though you'll find some of them in there, but it should be of interest to many of our members. I learned about the museum from a flyer at one of the I-95 rest stops. It looked interesting. After spending a little over two hours there, here's some of what I found.

The museum is housed in a building owned by Northup-Grumman. The property is next to the BWI Marriott, and provides space for outdoor displays as well as a number of indoor galleries. They seem to specialize in the history of radar, from its beginnings in the 1930's to the present. As you approach the museum on West Nursery Road you can't miss the SCR-270 radar array. This was typical of the radar units used in Hawaii on December 7, 1941 according to the description on the placard near the unit. As you enter the museum a volunteer will ask you to sign in and proceed to tell a little about what's currently on display. The day I was there the gentleman was kind enough to show me the AERO-13 airborne radar unit and some other displays of early radar and then left me on my own to wander through the various galleries.

Before you think radar is all they display, you'll see their current display that traces the history and development of telegraphy. Some displays are interactive. An example is in another gallery, where you can actually send code across the room using vintage keys and sounders. Moving to yet another gallery takes you to a display that traces the development of radio communications. Along with some early Westinghouse radio gear, it has a working amateur radio station – including a BC-610 and tuning unit in mint condition.

There are a number of "hand-on" displays where you get to see electrical and electronic principles in action. A real popular one is the working "Jacob's ladder!" Some other interesting indoor displays include an Edison cylinder phonograph, a German "Enigma" machine, a lunar TV camera, and more radar-related equipment. Other galleries include various devices used in electronic warfare and countermeasures. Proximity fuses, "chaff," and AWACS are all there to view.

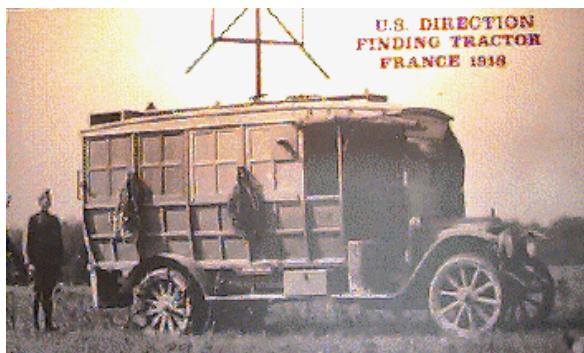
Not all the displays are indoors. Whether you start by taking the outdoor displays or wait till you've been through the indoor galleries, make certain you don't miss them. I already mentioned the SCR-270 on display outside. You'll find a TSP-43 S-band tactical surveillance radar set, a Hawk missile radar system, a SCR-584 automatic tracking and gunfire control radar unit, and many other outside. Each display is identified with a complete description.

No museum would be complete without a library and this is no exception. The library is about the size of our Telford meeting room and is filled with books, catalogs, service literature, tube manuals, and magazines – covering every aspect of electronics. QST's and ARRL handbooks from the early days to the present make up one section of the library. You can sit and read right there. Members can also borrow books from the library.

Here are some details about the museum I gleaned from their brochure. It was founded in 1973 and opened in 1983. Admission is free. Their hours are 9:00 AM to 3:00 PM on weekdays and 10:00 AM to 2:00 PM on Saturdays. It's closed on Sundays. It is located at the corner of West Nursery and Elkridge Landing Roads in Linthicum, Maryland – just off of the Baltimore-Washington Parkway. The phone number is 410-765-3803. You are invited to join the museum. Individual membership is \$25.00 per year.

I'd certainly recommend a visit to the museum. So if you're traveling I-95 this summer and need a break or just looking for a different day trip location, this is the place.

While You're in the Neighborhood



Another highly recommended stop in the BWI airport area is the National Cryptologic Museum. Originally established by the National Security Agency, this establishment traces the history of codes, ciphers and electronic intelligence. Displays include an Enigma machine that they'll let you play with!

The National Cryptologic Museum is located at the intersection of Maryland Rt. 32 and the Baltimore/Washington Parkway (Maryland Rt. 295), near the National Security Agency. Hours are Monday-Friday (excluding Federal Holidays) 9:00 AM - 4:00 PM, Saturdays 10:00 AM - 2:00 PM. Phone Number: 301-688-5849 - Ed.

General Electric A-82

By Al Klase

One of my favorite, pre-WWII broadcast receivers is the General Electric Model A-82. I first became aware of this set in, of all places, 1935 issues of the amateur radio magazine QST. While many 1930's communications receivers were clearly designed to do double duty as high-performance broadcast sets, a broadcast set claiming utility as a ham rig is just a little unusual.



The A-82 is an 8-tube superheterodyne in a handsome tombstone case. It tunes the standard broadcast band, two short-wave bands 1.8 to 6 MC and 6 to 18 MC, plus longwaves in the 140-400 KC range. The usual tuning, volume, and tone controls are augmented by an RF gain control. The advertising touts that a "CW oscillator may be added." A pair of 6F6 pentodes deliver a clean 5 watts to a 10-inch electro-dynamic speaker.

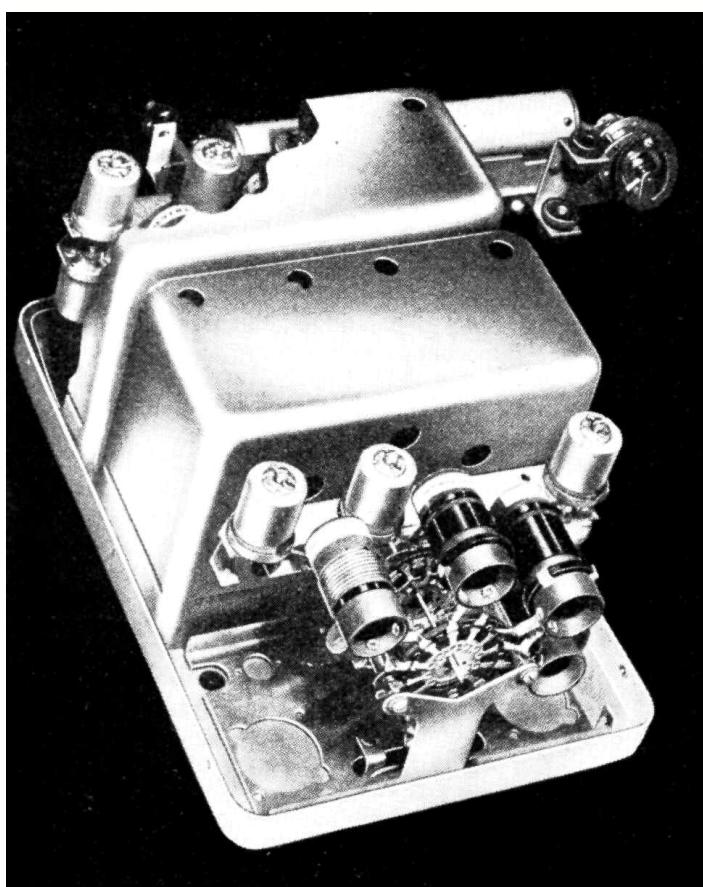
The A-82 was one of the first radios to use the newly introduced metal tubes, but the innovations did not end there. The "Sentry Box" front end assembly has separate shielded compartments for the RF-amp, mixer, and oscillator components. The construction is a clearly cost reduced version of the assemblies one finds in military communications receivers.

The tuned circuits boast air trimmer capacitors, known as "Permaliners", rather than the usual compression units. The horizontal tuning dial is an illuminated plastic drum that shows only one band at a time. The plastic has held up very well for nearly 65 years, demonstrating GE's prowess with advanced materials. The tuning mechanism is a clever two-speed affair: After one revolution at a comfortably slow rate, the tuning knob kicks into high gear to quickly traverse the band, and then can be operated in the reverse direction to cover the next segment at the lower speed.

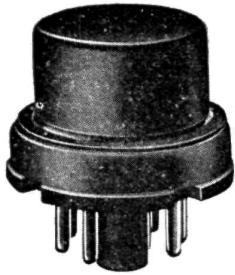
The fact that this set has only one RF, one IF stage, and no standard BFO keeps it from being serious competition for "real" communication receivers like the HRO, SuperPro, RME-69 etc. However, at \$94.50 it was half the cost of these sets and clearly superior in operating ease and performance to many of the earlier sets then in amateur service.

Another interesting aspect of this product is that it was marketed with the GE V-Doublet Antenna System. This was a sophisticated 50-foot broad-band shortwave doublet fed by balanced twisted-pair transmission line to give low-noise performance on short waves below 55 meters. A clever matching transformer at the receiver end uses a frequency selective cross-over network to automatically feed it as a "T" antenna against ground for effective pickup below 5.5 MC.

My set gives a good account of itself as an SWL set, and provides reasonable performance in the amateur "AM Windows" on the 40 and 75 meter bands.



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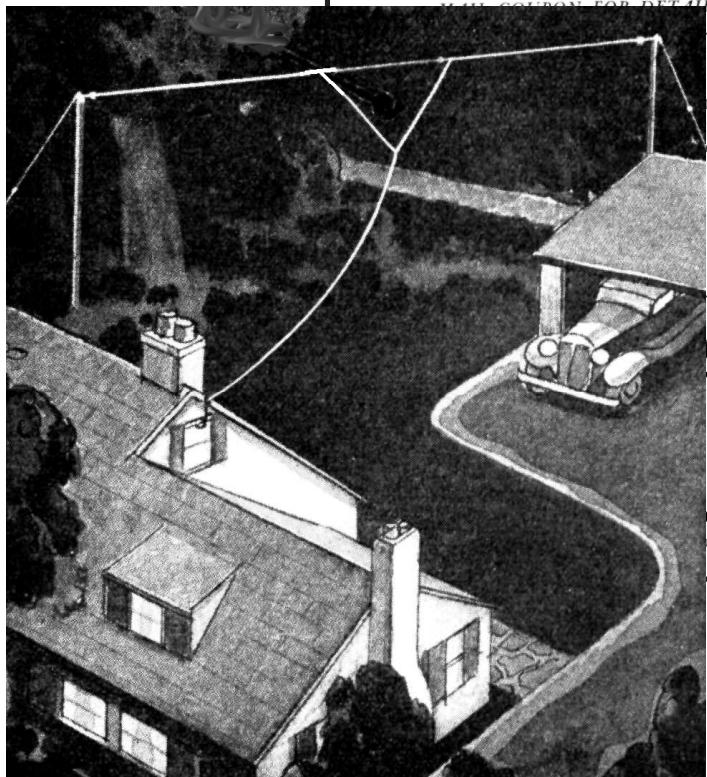
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159:
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RADIO

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Saw It in QST — It Identifies You and Helps QST

61

FOR SALE: Military TRC-8 consisting of T-30 Transmitter, PP-115 Power Supply and CY-52 Transit Case. This is 230-250 Mhz point to point comm. gear from WWII. 120 volt ac powered, in new original condition, 25" x 18" x 16.5", about 80 lbs., have two of these, \$100.00 each. Matching R-48 Receiver, also part of the TRC-8 system, 120 volt ac powered, 23" x 19" x 17", about 60 lbs., new in CY-51 transit case, \$100.00. All above are pick up only. Ray Chase, 1350 Marlborough Ave., Plainfield, NJ 07060, (908) 757-9741, www.enrpnrr@erols.com.

FOR SALE: Hallicrafters "Boat Anchor" communications receivers S-37, S-27, S-36A, SX-24, SX-25, SX-28 (2) and SX-42. Also a RBL-5 14kc to 640kc receiver made by National, with some spare parts. No shipping, pick up at my QTH or will deliver to local radio meets. Call for price and condition. Ray Chase, 1350 Marlborough Ave., Plainfield, NJ 07060, (908) 757-9741, www.enrpnrr@erols.com.

WANTED: for RCA TK-11 Camera restoration: oak field tripod (Mitchell?), chrome script "television", chrome 1.1" RCA logos, viewfinder hood, and old network logo panels.
Dave Abramson, 610-827-9757
dtatv@worldnet.att.com

WANTED: Information, circuit diagram, and purpose of the following set. 30-50 MC FM monitor Kinight model KG-220 by Allied Radio, Chicago. Service number: 8343111-610003-6N
Alton A. Dubois, Jr., 67 Peggy Ann Rd., Queensbury, NY 12804

WANTED: AM-FM-PHONO-AUX selector switch for a Sherwood Model S-7650CP stereo receiver. Fred Saul, 610-481-5034 (days)

FOR SALE: Military WWII RAK-7, CND 46155 low freq. 6 band 15khz to 600khz receiver with matching CND 20131 power supply and cable, all in "like new" condition; made by Andrea. \$100.00

Ray Chase, 1350 Marlborough Ave., Plainfield, NJ 07060 (908) 757-9741 e-mail: enrpnrr@erols.com.

FOR SALE:

Radios: Regal 747 4-tube portable, Fisher FM-80 tuner, Philco "Tropic" portable, Zenith 10S549 console, Atwater Kent Model 40, others.

Parts: big-pin tubes, vintage semiconductors, geiger-counter parts.

Paper: Vintage Allied, Lafayette, etc. catalogs.

Service notes and vintage manuals.

Contact me for a list. John Rohr, 348 Farm Lane, North Wales, Pa., 215-661-1134 FAX: 215-661-2910 jaxrohr@netreach.net

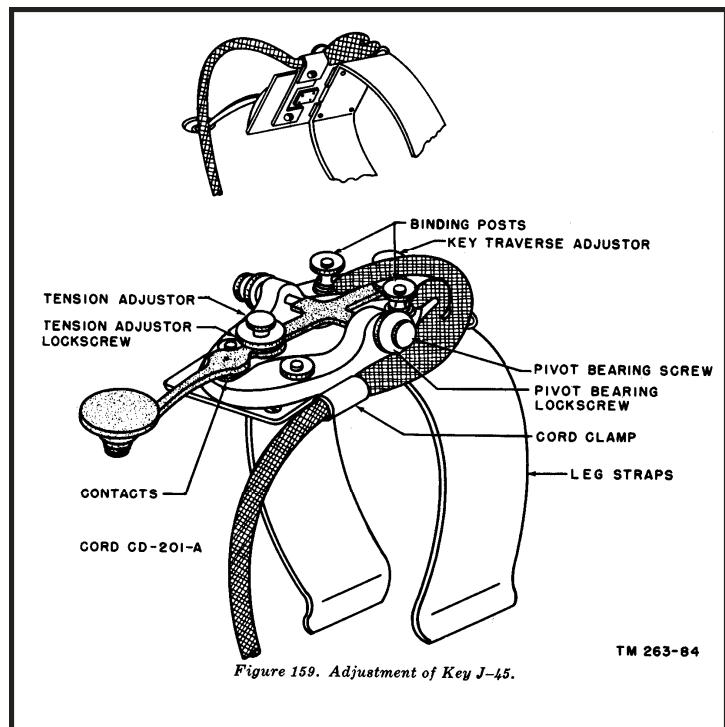


Figure 159. Adjustment of Key J-45.



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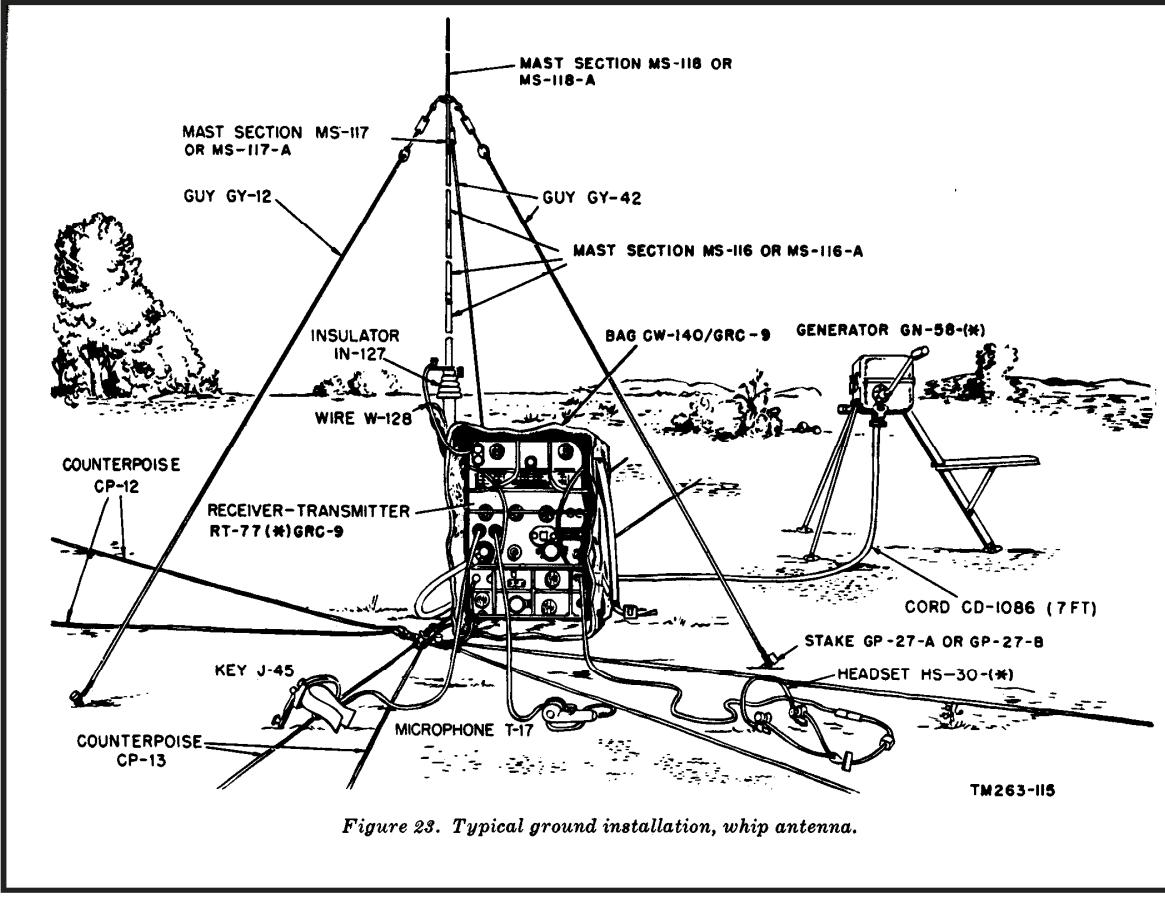
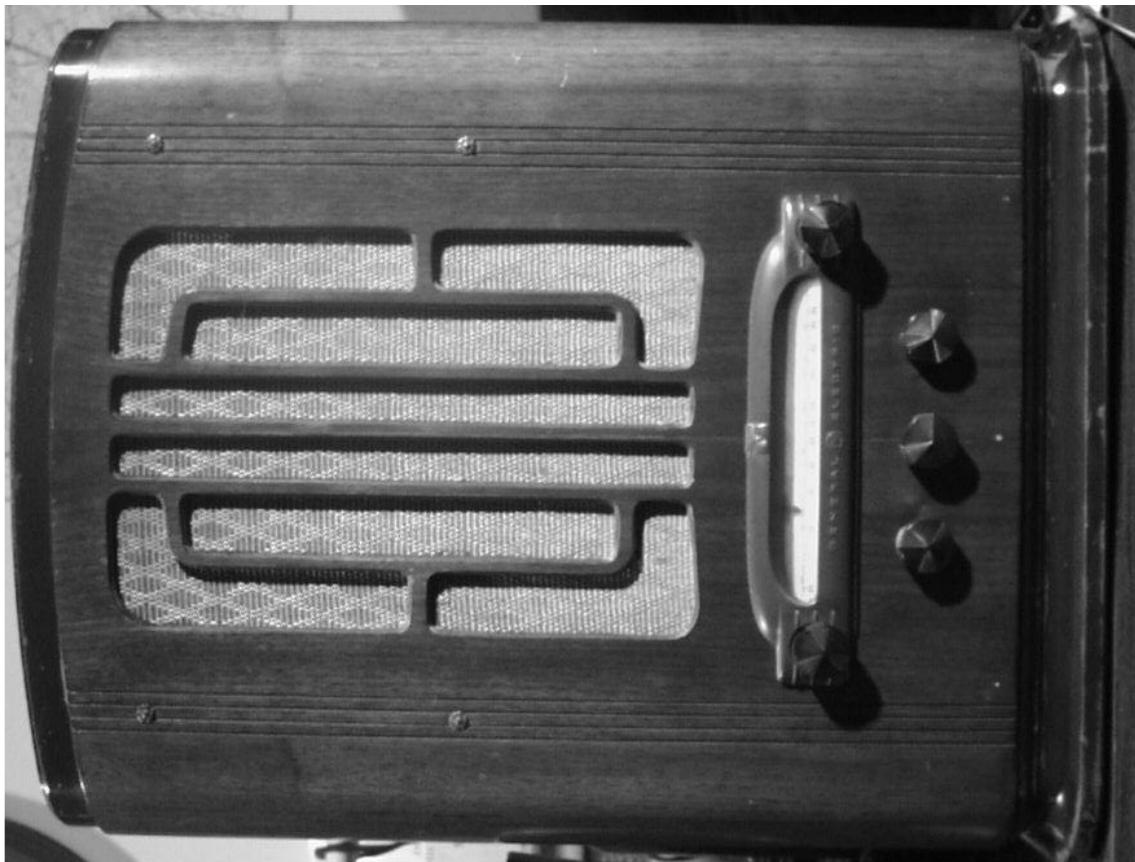


Figure 23. Typical ground installation, whip antenna.



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