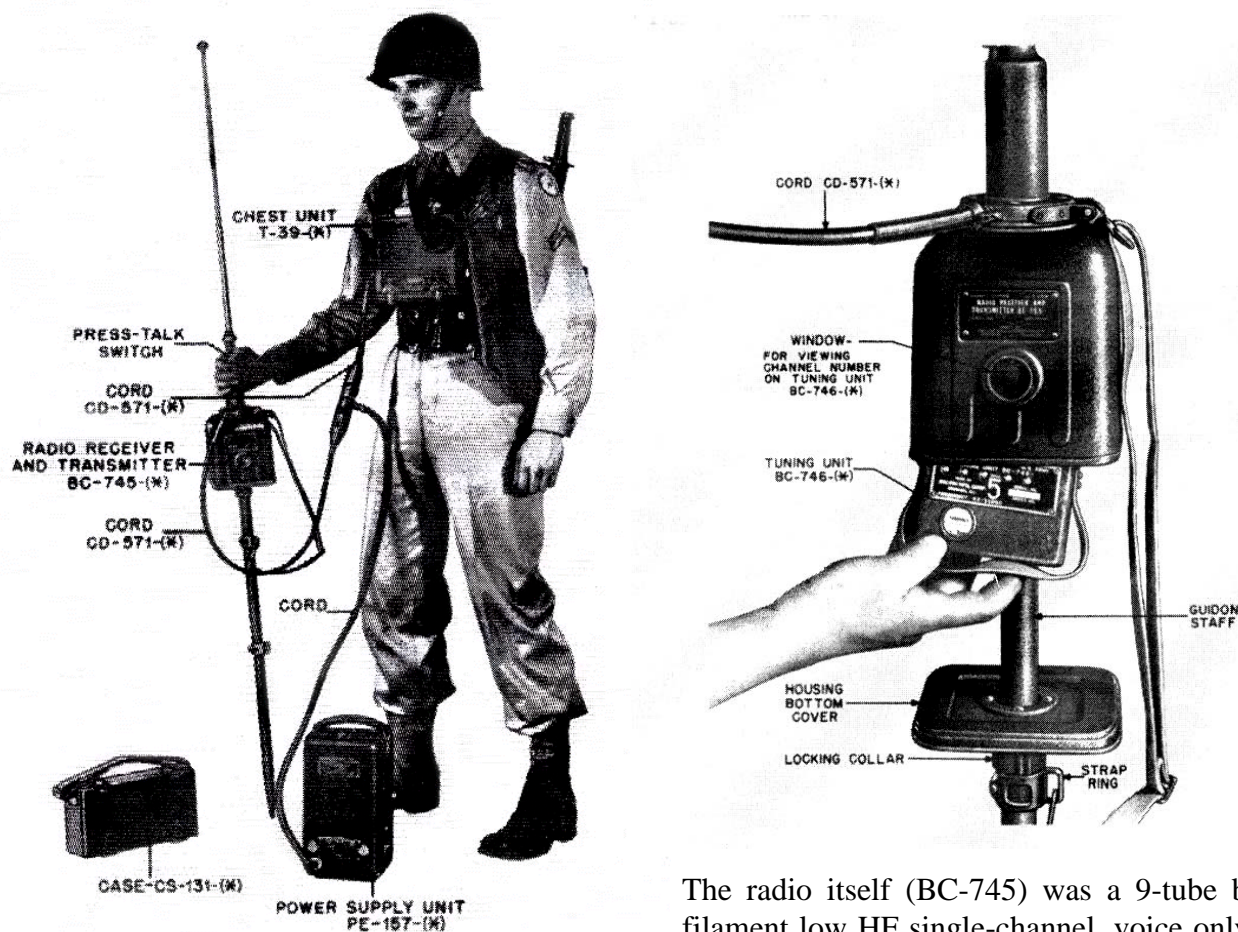


Appendix C - The Pogo Stick

SCR-511, Too Late and Misplaced In The Scheme of Things

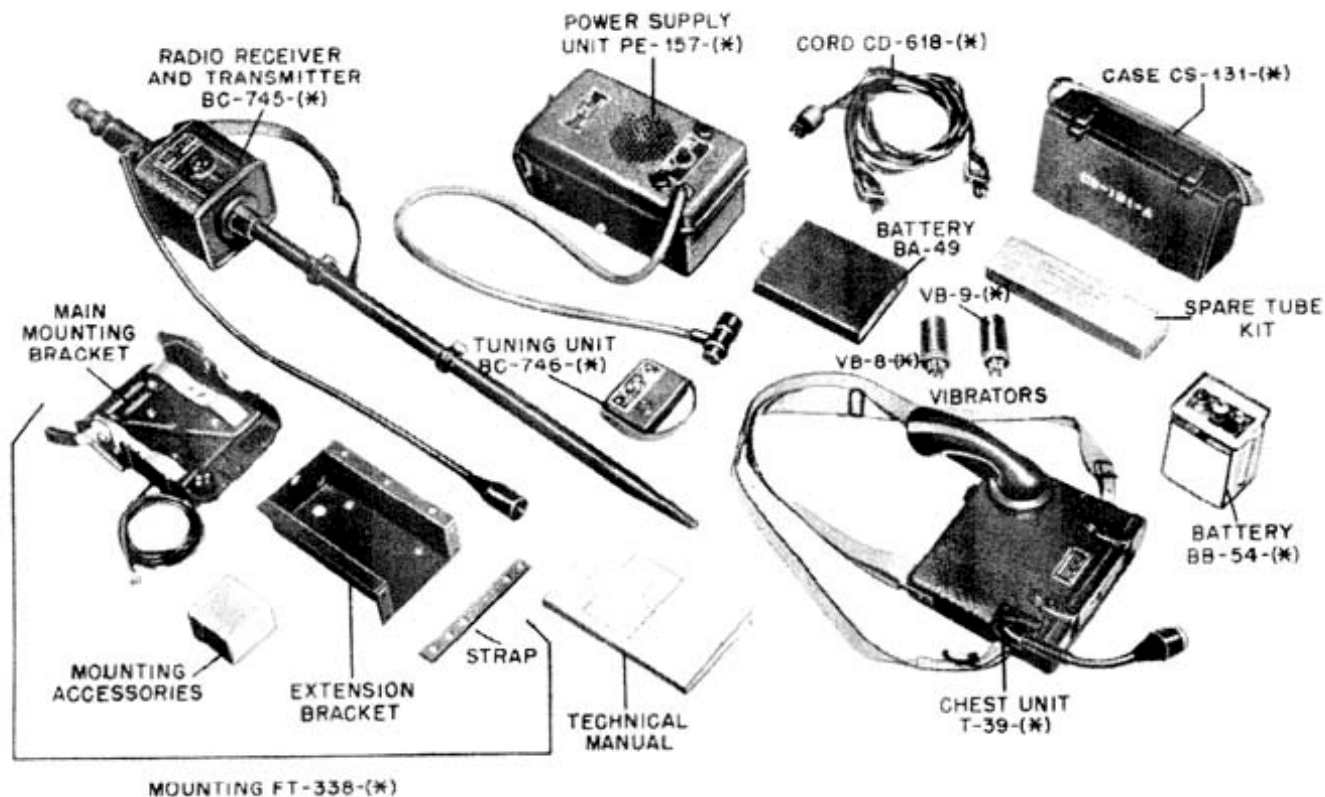
The SCR-511/BC-745 was, no doubt, an earnest effort at making radio better able to serve mounted cavalry. A big problem was that horse cavalry had been made obsolete by armored vehicle cavalry in the 1940s. Another problem was the inertia of older officers of mounted cavalry to upgrade their thinking, even with the obvious examples of Polish horse cavalry, gallant to a man, simply overrun by invading German armor in the late 1930s. The SCR-511 intent and purpose was to create a *horse mobile* radio, used by a rider on the move, like earlier cavalry radios which required dismounting and setting up on the ground. See page 2 photo.



The radio itself (BC-745) was a 9-tube battery filament low HF single-channel, voice only AM, fixed-tuned unit that was little more than an upgraded SCR-536 handheld. For ultimate portability, the chest unit had a combination microphone-speaker, a flat dry battery pack, and a spare Tuning Unit (BC-746). A press-to-talk switch was included as part of the handle at the base of the whip antenna. The *guidon staff* (bottom pole) was intended to sit in the guidon (unit pennant flag) socket of the right stirrup of a military saddle. Too often, infantry users tended to use the guidon staff as a mounting pole and thrust it into the ground without regard to damage to the radio case. For easier operation, and with a speaker output, the PE-157 power supply with internal rechargeable wet battery replaced the chest unit; an all-purpose T-17 carbon microphone with push-to-talk switch was used for voice input. The little tuning unit contained a quartz crystal and HF antenna matching network, all the operator tuning needed

to change channels. A small window in the side of the BC-745 radio case let the operator confirm the channel number marked on the tuning unit.

Apparently realizing that there would be no horse cavalry in the U.S. Army for World War II, some adapters were designed to mount the SCR-511 in vehicles. The PE-157 power supply (with speaker) and rechargeable wet cell battery (vibrator high voltage supply) was used with only moderate success in various vehicles. Apparently the guidon staff was removed for this application. See the SCR-511 components below:



Galvin/Motorola also manufactured the SCR-511 set at the same time as the SCR-300, though beginning later in time (about early 1943) and producing fewer of them. Weight of the portable arrangement was 16 pounds. With the PE-157 supply, speaker and T-17 microphone, less chest unit, the weight went up to 36 pounds. The clumsiness of the staff plus whip and the combination handle and push-to-talk switch made it difficult to use in comparison to the SCR-300 and the SCR-536 handie-talkie. While the SCR-511 could be frequency and mode compatible with the SCR-536, both were AM and at low HF, useful only at limited radio range.

The SCR-511 was replaced by the SCR-300 walkie-talkie and various new VHF FM transceivers for vehicles in the later years of World War II. Components of the SCR-511 were some of the first post-war surplus radio equipment sold to civilians, mainly the little BC-746 Tuning Units.

Illustrations in this appendix are from *War Department* technical manual TM 11-245. *War Department* was the original designation of what is now Department of Defense.