Russian Military WW - II Radio "RBM"

Radio RBM is one of the most famous Russian military radio that was used in the WW-II and after the war as a surplus radio. RBM took place in the WW-II, after the war RBM was used as trial radio for military teaching centers. Lots of Russian hams know well the radio. I want to give some information about RBM and its antennas at ANTENTOP.

73! I.G.

History: Radio RBM, firstly named as RB (Radio, Base), was designed before the WW-II, in the 1938, in the Research Center of Communication of Red Army, by a special research group guided by colonel Sosunov. Special variant of RB named as RB-40, that had low weight because it was made in an aluminum cabinet was produced from end of 1939 for spy and partisan. It was made near 1000 RB-40, but then its producing was stopped because the aviation need aluminum. In the 1942 some modifications were done in the radio, and RB was named as RBM (Radio, Base, Modified). In the 1943 both with RBM was produced RBM-5 that has 5 watts power compare to 1 watt that RBM has. After WW-II other modification of RBM named as RBM- 1 was produced. RBM-1 was produced until end of 50s. Some samples of RBM-1 was produced for export (***see picture with Latin letters on the front panel***).

Composition: RBM –1 consists of from two boxes, one is the transceiver other is its supply unit.

Transceiver has dimension of 345x195x260-mm, weight of 13 KG. It works at two frequency ranges, I- 5.0- 2.75 MHz, II - 2.75-1.5 MHZ, has CW and AM modes. Transmitter made on vacuum tubes

Transmitter has 1 watt output(in reality 1.5 watts), plate current 35-mA and heater current 1-A.

Receiver has sensitivity of 10-μV at AM and 3-μV at CW, plate current 10-mA and heater current 0.5-A.
Transmitter and receiver use common units as: an antenna and output audio transformer, that does modulation for transmitter at AM mode and audio at receiving mode.

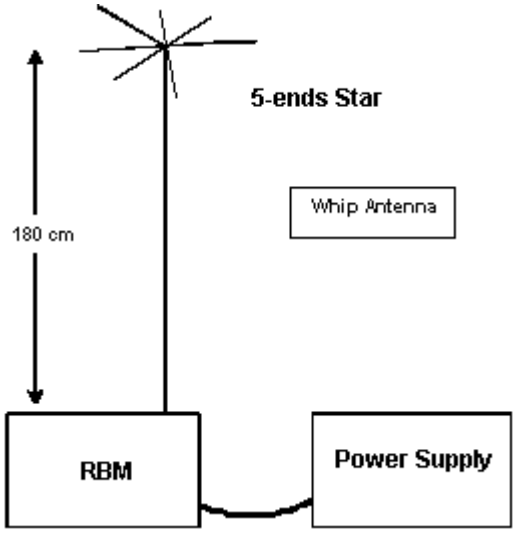
Power supply has three batteries of BAS-80 for plate and a NiCad accumulator 2NCN-24 for heater, weight of 14 KG. The Power Supply run the radio during 24- 36 hours.

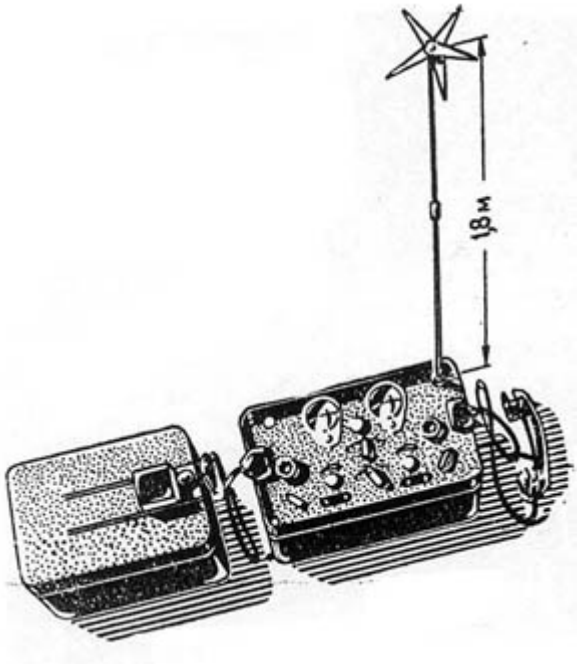
Purpose of RBM is to do reliable simplex communication at any conditions. Distance of the communication depends on antennas that use with the radio.

WW- II. USSR, Leningrad Front, 1943. Radio RB

Export Sample of RBM-1

Short Whip Antenna does communication near 10 kms on AM and near 15 kms on CW.



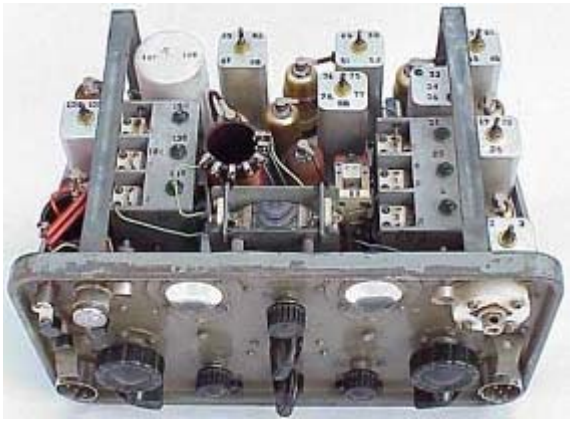


I live near village Prohorovka, Russia, where at July-4- August 5, 1943, The greatest tank battle of WW - II was. As I know, near 500 samples of RB radio took place in the battle

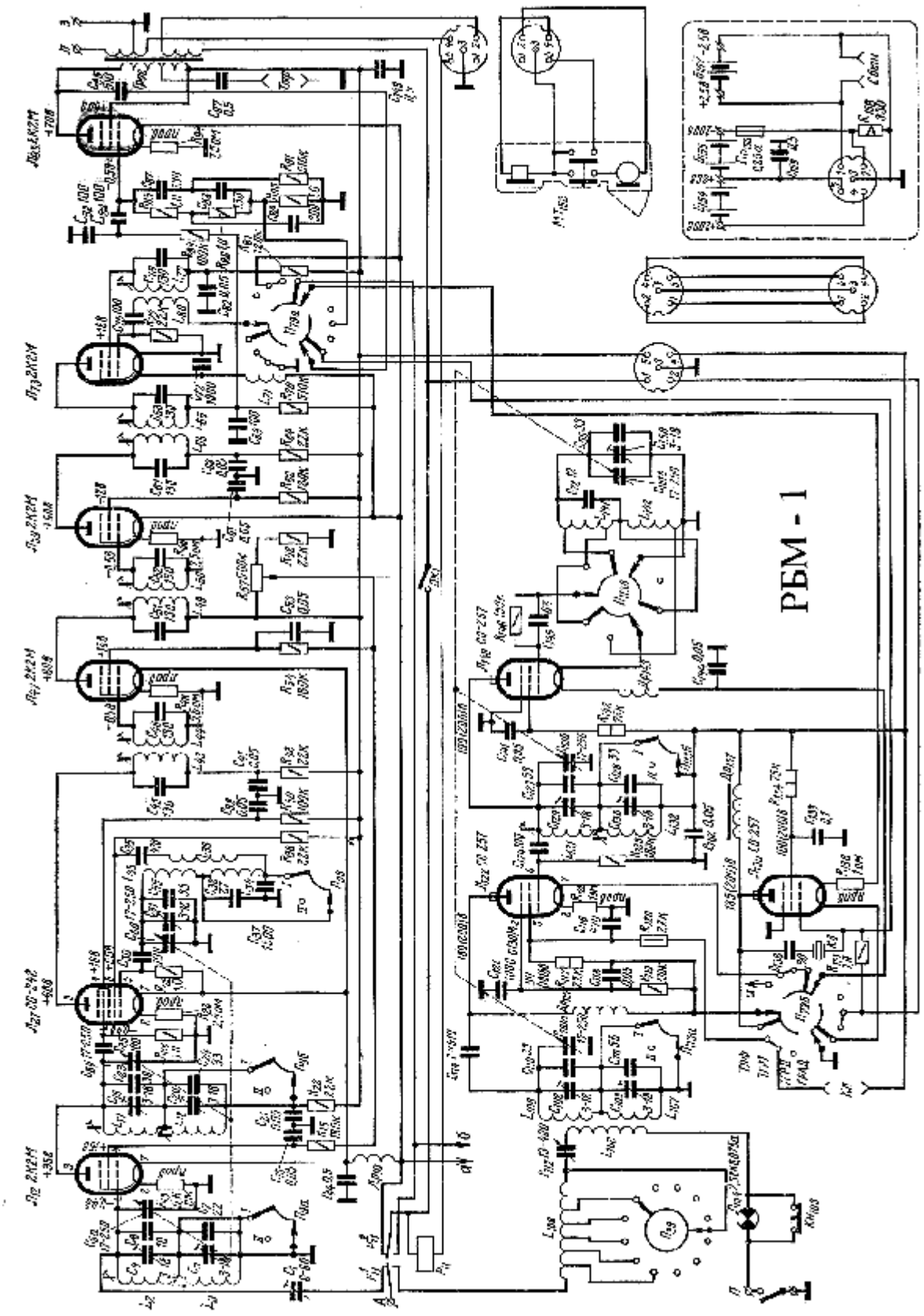
German tank Elefand/Ferdinand
Destroyed by a tank mine.
Prohorovka, July, 1943

USSR tank KV-1
Destroyed by a German tank Tiger.
Prohorovka, July, 1943

Russian RBM-1



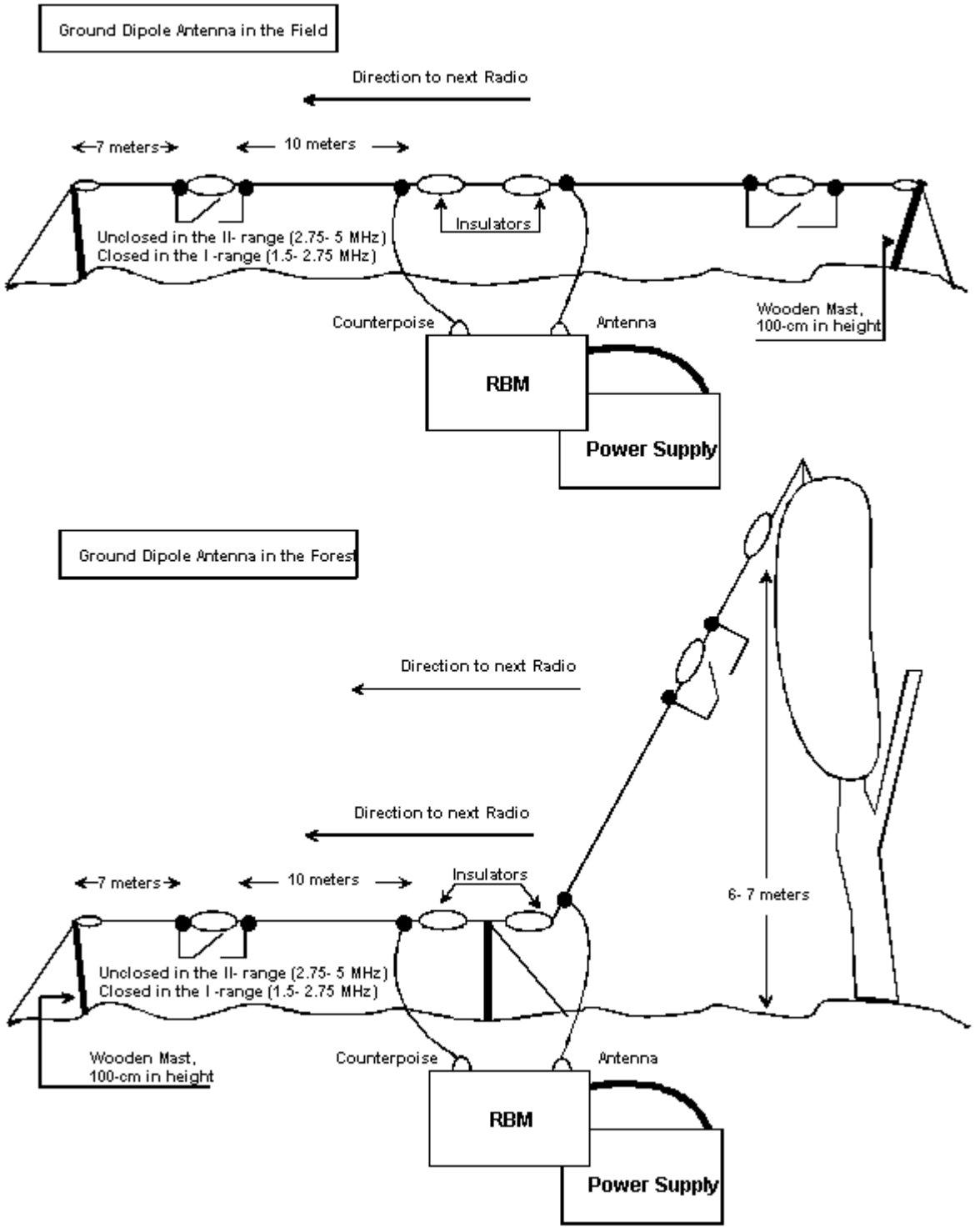
Schematic of RBM-1



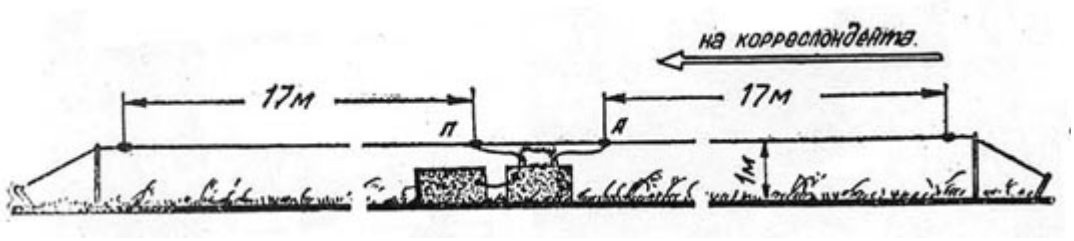
Ground Dipole Antenna does communication near 17 kms on AM and near 35 kms on CW.

Mast Antenna does communication near 30 kms on AM and near 50 kms on CW.

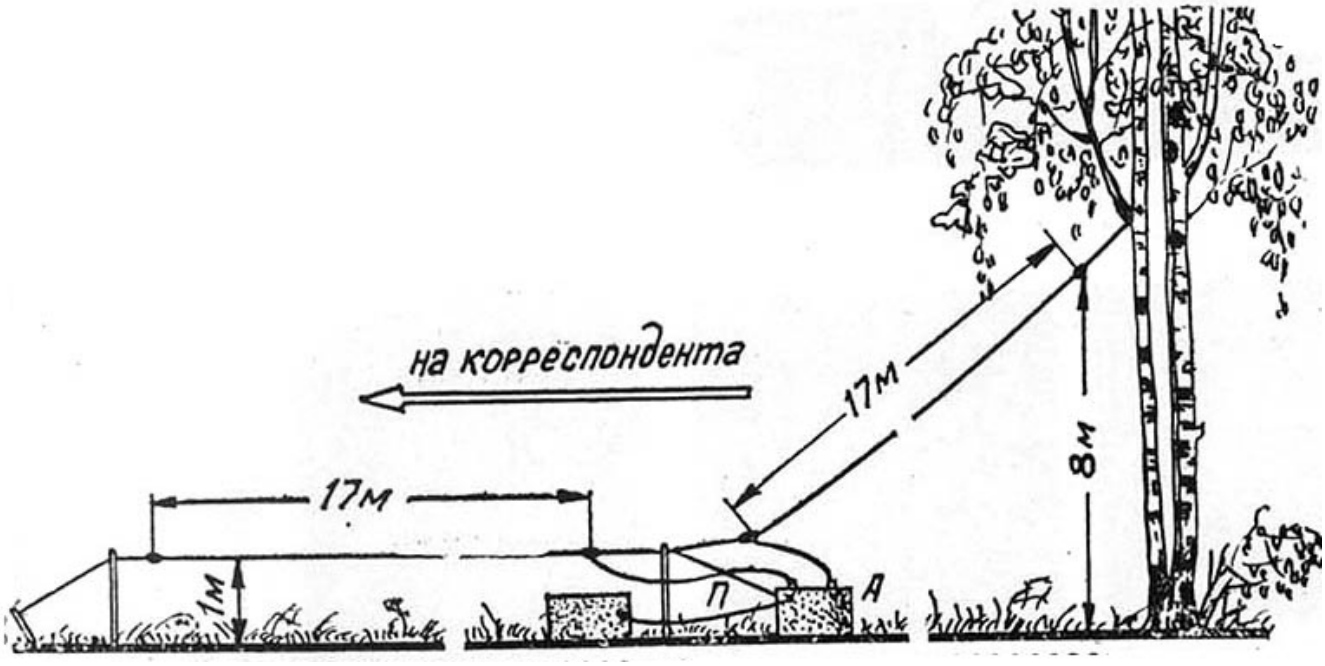
Note: The distance of communication is shown for daytime at middle level of interferences. At nighttime and at high level of interferences the distance of communication is decreased in two times.



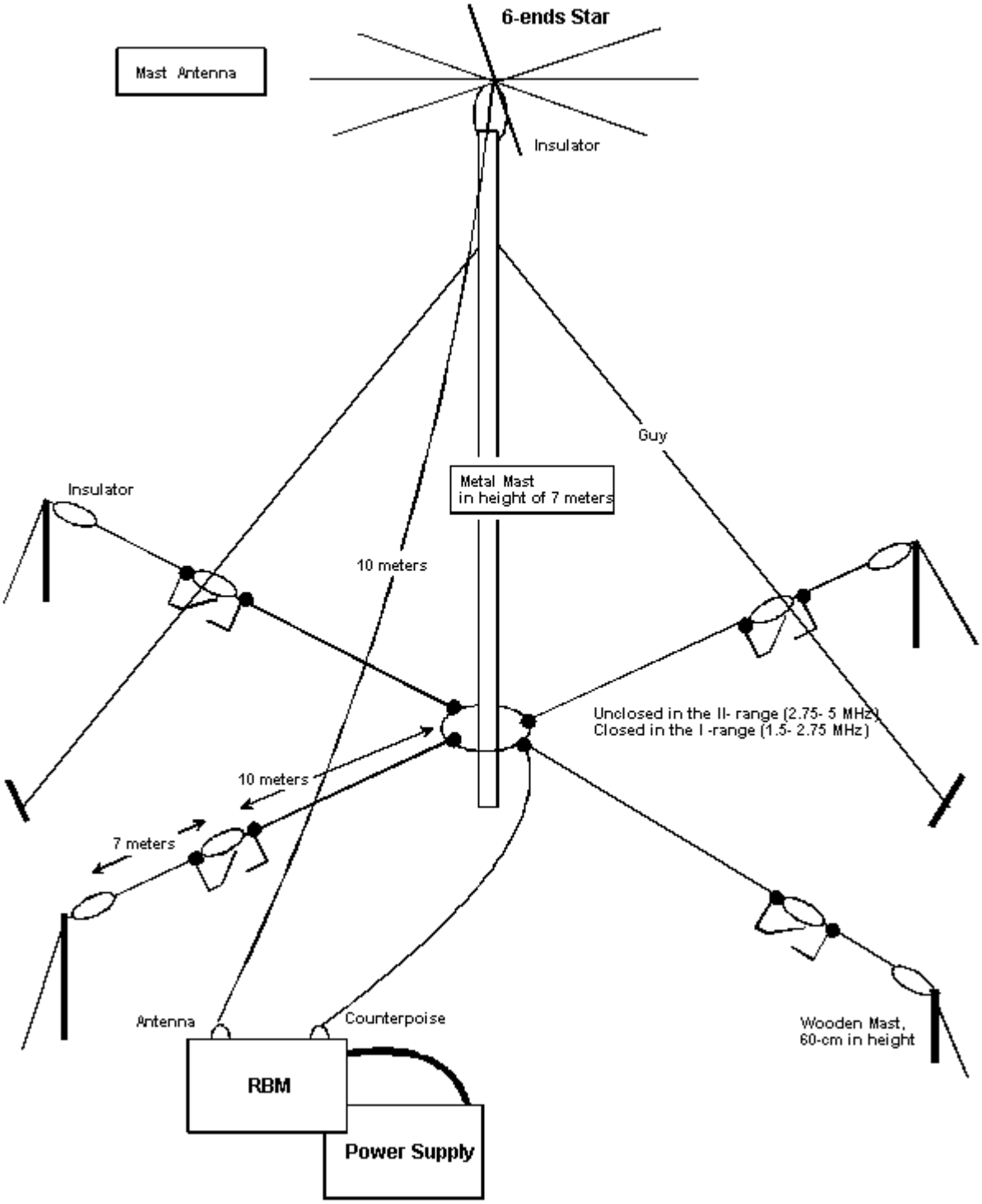
Picture from Russian Manual



Picture from Russian Manual



Winter, 60s, XX- century, Russia



Credit Line:

Radio Magazine, USSR

RBM Padio. Manual for user. 1952.

http://www.cqham.ru/

http://www.oldradio.onego.ru/

http://www.battlefield.ru/