

RKA
Country of origin: Poland

Original Marconi WT Co. Ltd. Model YB1.

DATA SUMMARY

Organisation: Polish Army.

Design/Manufacturer: Marconi WT Co. Ltd.;
Built under licence by PTR (Polskie Towarzystwo Radiotechniczne) in Warsaw.

Year of Introduction: 1921.

Purpose: Communication at Army level.

Transmitter: CW and MCW.

Circuit features: Free running oscillator comprising two type MT5 valves connected in parallel.

RF output: 50W. (Not yet confirmed)

Frequency coverage: 230-500kHz.

Receiver:

Circuit features: Tuner, RF amplifier (2x), regenerative detector, AF output.

Frequency Coverage: 230-1000kHz in two ranges:
230-500kHz and 430-1000kHz

Aerial: Umbrella type, supported by a 17.5m tall steel Marconi mast, lifted by a 5.7m auxiliary mast.
Counterpoise 4 earth mats of 5.4 x 0.6m in size.

Range: 250km (CW); 100km (MCW).

Valves: Transmitter type MT5 (2x), receiver V24 or DEV (3x) and Q or DEQ.

Power Supply: 1HP petrol engine driving a generator which delivered 1500V DC HT at 85mA and 12V DC at 10A. The receiver was powered by a 40V dry battery and a 6V accu.

REMARKS

RKA *) was a transportable and stationary long wave wireless station, the primary set used at Army level communication during the early Inter-War years. A transportable station was carried on a limber and cart, drawn by six horses. The limber carried the transmitter and receiver, both fitted in a single wooden enclosure, plus accessories such as a wavemeter, accumulators, charging panel, and two tents. The cart carried a 1HP petrol generator, sectional steel aerial mast and aerial.

Designed by the British Marconi Wireless Telegraph Co. Ltd. as model YB1 in 1921, in slightly modified form it was acquired by the Polish Army in the same year, two years later renamed RKA.

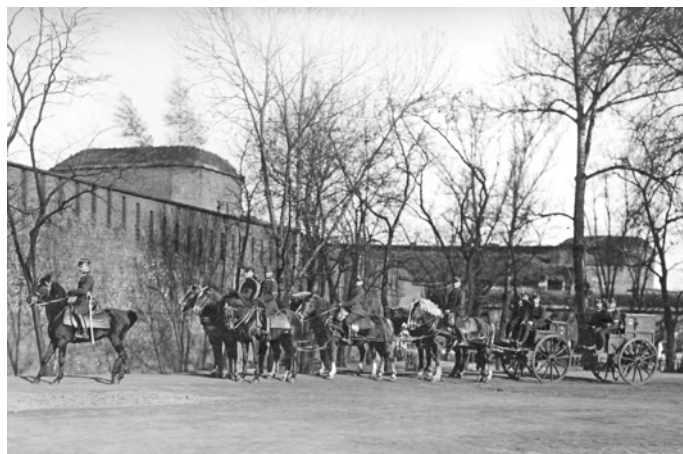
The original YB1 had a single type MT3 valve and could be operated in CW, MCW and R/T; the Polish RKA version had two type MT5 valves in parallel, and the R/T mode abandoned. About 100 sets were in service, nearly all built under licence by PTR in Warsaw. In the mid-thirties the RKA was replaced by the RKG/A (see Chapter 307).

*) (RKA=Radiostacja Korespondencyjna sieci Armii – Radio station for communication in Army nets)

Vacuum Tubes ("Valves")—

Marconi, type MR1 (Rectifying), 150 watts	216	37.50
Marconi, type MT1 (Transmitting), 250 watts . . .	217	55.00
Marconi, type MT3 (Transmitting), 75 watts . . .	218	50.00
Marconi, type MT4 (Transmitting), 400 watts . . .	219	75.00
Marconi, type MT5 (Transmitting), 25 watts . . .	220	32.50

Transmitter valves price list from Canadian Marconi Co. in Can. dollars.



A RKA wireless station detachment at the start of a march.



Operator of a stationary RKA wireless station. Note the two type MT5 valves in the transmitter.

References:

- Roman Buja, Poland, kindly granted publishing photographs and translated detailed information taken from his RKA article.
- Radiostacja RKA, Roman Buja, Swiat Radio, March 2011.
- Radiostacje Polowe, Roman Buja, ISBN 978 83 7769 588 3, Edipresse, Warsaw 2014.

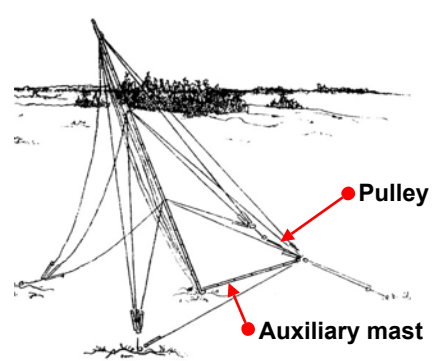
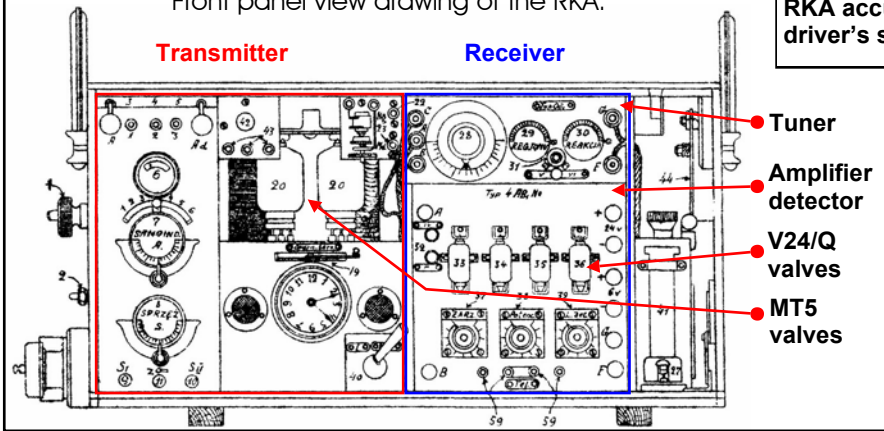


A RKA radio station detachment at the halt. The limber (left, seen from the rear) with 1HP engine, and the actual RKA cart at the right hand side.



RKA accumulator charging panel fitted under the driver's seats at the front side of the limber.

Front panel view drawing of the RKA.



Erection of a RKA aerial mast.

