

RKD
Country of origin:
Poland

DATA SUMMARY

Organisation: Polish Army

Design/Manufacturer: PWL Warsaw.

Year of Introduction: 1928.

Purpose: Wireless communication at division level.

Working range: CW: 70km; voice 10km.

Transmitter:

Circuit Features: Single valve. CW and AM R/T.

Frequency Coverage: 1200-430kHz (250-700m).

RF output: 6W.

Valve: Philips TA 1.5/15 (Marconi ACT5) and baretter.

Receiver:

Circuit Features: RF, regenerative detector, AF 2x.

Frequency Coverage: 1200-460kHz (250-650m).

Valves: Philips A409 4x (A415, G407 or RE074).

Aerial: Umbrella type supported on a 7m telescopic mast; counterpoise three earth mats of 8 x 0.4m.

Power Supply: Double voltage hand-generator PTE (Polskie Towarzystwo Radiotechniczne) type RR7 providing 7V-2A, and 90V-40mA for the transmitter; 90V HT and 4½ V LT dry batteries in a separate box for the receiver.

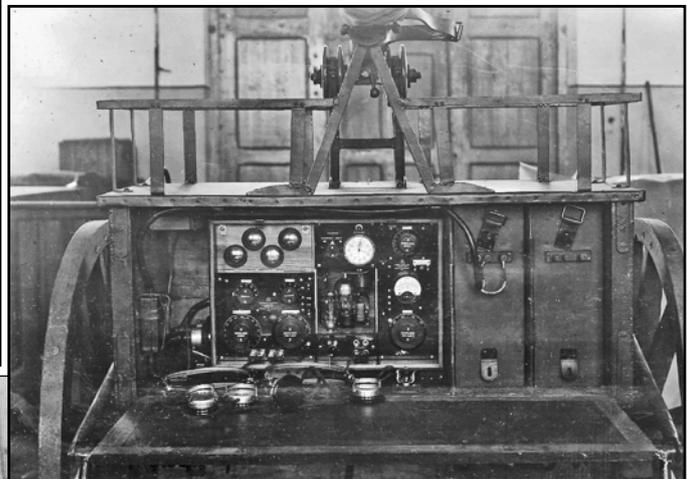
Size (cm): Height 31, length 21.5, width 47.

Weight (kg): Transmitter/receiver: 14; mast 12; batteries in box: 12.3; hand generator 16.1.

REMARKS

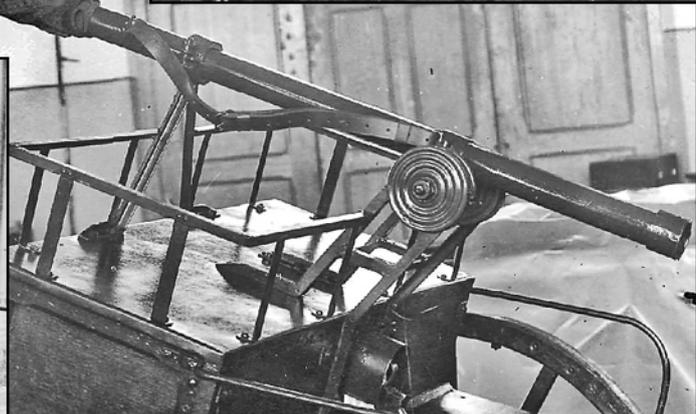
RKD (Radiostacja Korespondencyjna Dywizji = radio station for communication at Division level) was a field transmitter-receiver used by the Polish Army in the Inter War years. It was normally fitted in a limber and cart, drawn by two horses. The cart carried the transmitter-receiver, battery box plus one spare for the receiver, hand generator assembly, and the support mast for the aerial. The limber carried accessories such as ground mats, aerial wire, aerial support lines and tent. In the man pack version it was carried by 5 men. Other versions of the station were the RKD/S, fitted in a Polski Fiat 508, and in (mostly CWS M 111) motor cycles with side car. The receiver part was also used in the RKL/D aircraft station.

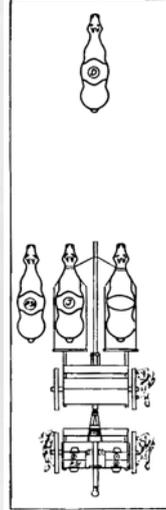
View from operator's side of the cart showing the transmitter-receiver and two receiver battery boxes (below).



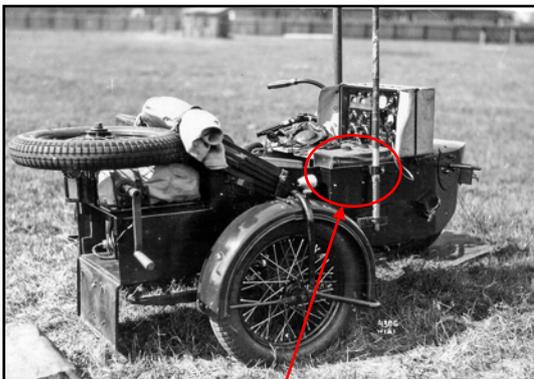
Telescopic aerial support mast and details of fitting on the cart (right).

View of the limber with accessories and spares (below).





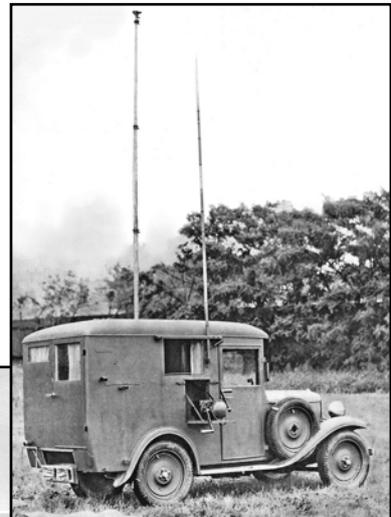
RKD Limber Station.



RKD/S station and ROD receiver installed in a CWS M 111 motor cycle with side car (left). Note the hand generator at the rear of the sidecar under the spare wheel.

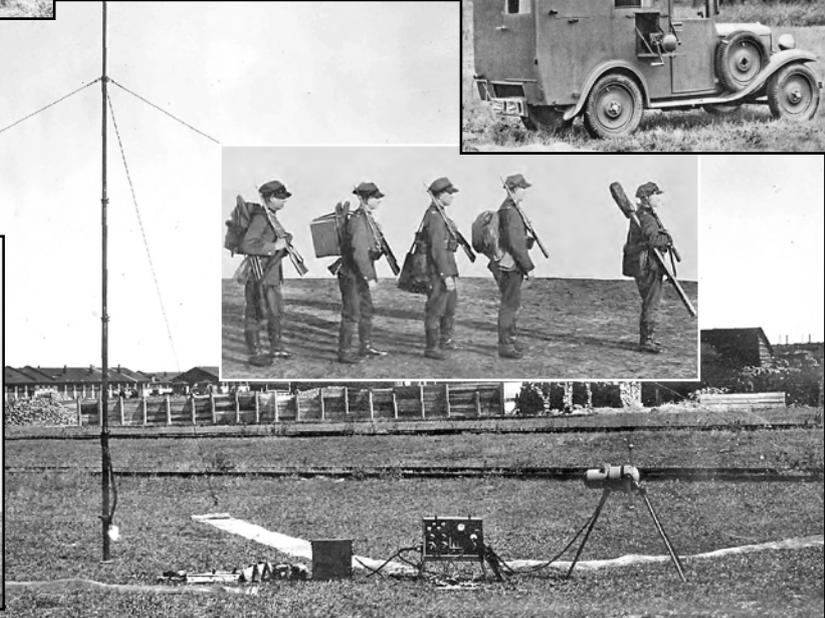
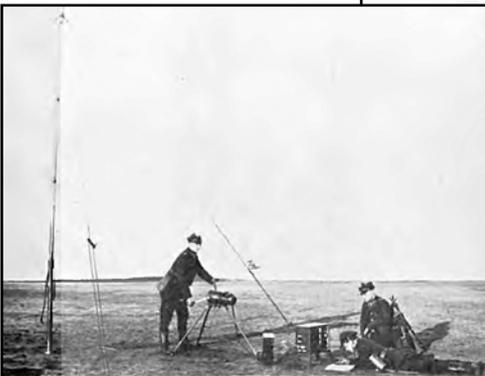
RKD/S fitted in a Polski Fiat 508 (right).

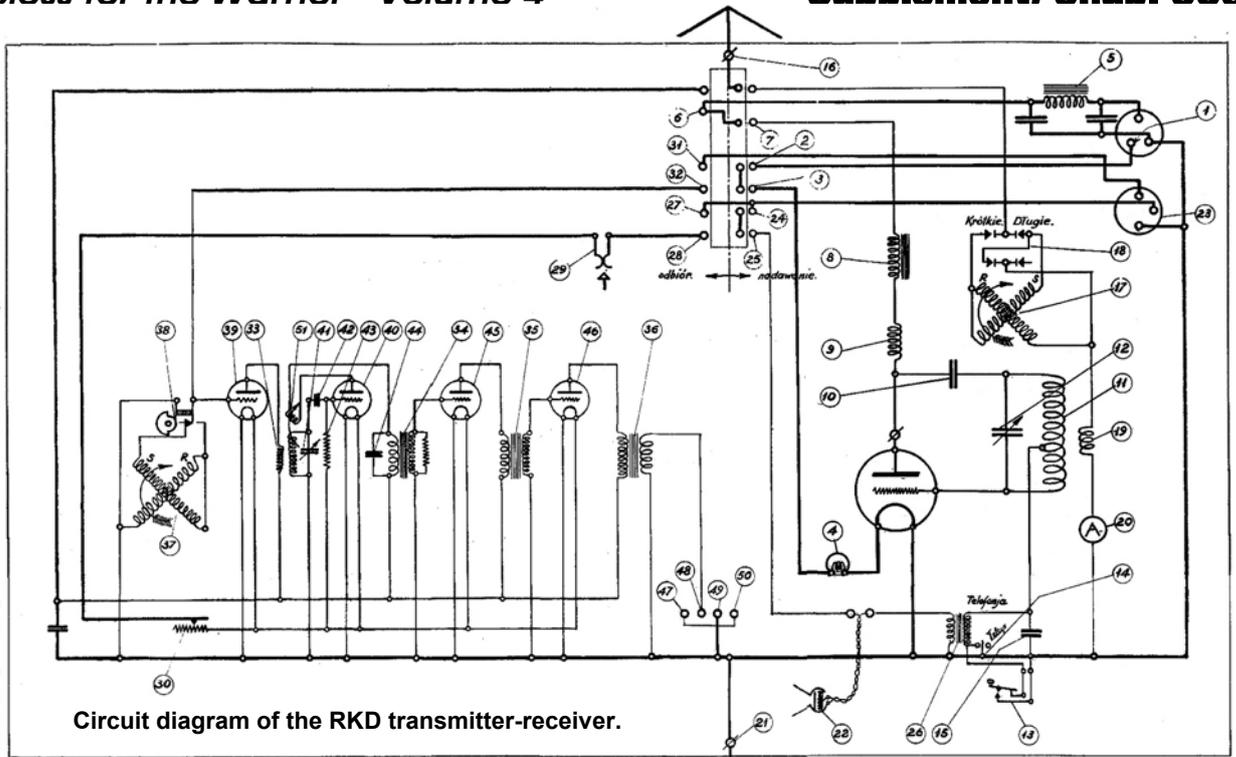
A man pack station was carried as a 5-man load. It comprised only the most essential items (below).



ROD Wz. OP1 receiver.

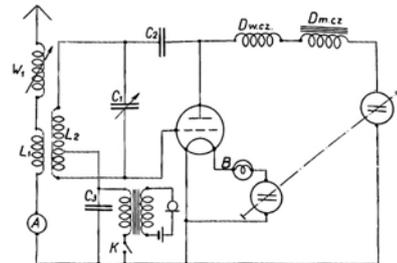
RKD/S vehicle station and RKD man pack station.





Circuit diagram of the RKD transmitter-receiver.

Simplified circuit diagram of the RKD transmitter section, showing the connections of the RR-7 double voltage hand-generator (right).



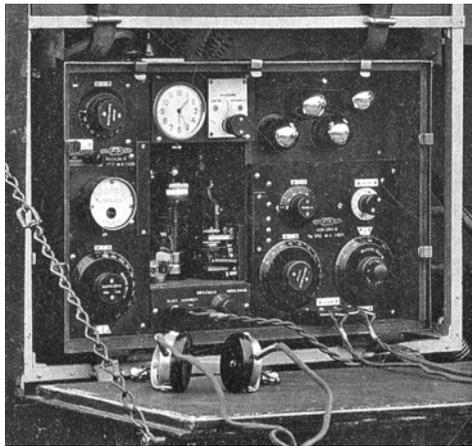
Detail view of the RR-7 double voltage hand-generator.

RKD development

Designers of the RKD station were Polish officers: mjr eng. K. Krulisz, cpt. eng. J. Groszkowski and cpt. S. Noworolski. Prototypes were completed in 1926. The serial production started in 1928 and ended in 1932. Approximately 300 units were produced in 3 factories: Centralne Warsztaty Łączności (CWL), Państwowa Wytwornia Łączności (PWL) and Polskie Towarzystwo Radiotechniczne (PTR), all located in Warsaw. In September 1939 the RKD was still in use, although since 1938 it was superseded by new radio set type N1 (See Chapter 311).

(Radiostacje Polowe, Roman Buja).

There were two variants of RKD: with the transmitter section on the left hand side and the transmitter located on the right hand side of the plywood enclosure. The left hand transmitter side variation was produced in 1926 by PTR - a Polish company with shares of the French SFR and British Marconi Co. The other variation was produced by CWL and PWL. The change of reversion the position of both units was probably due to operational reasons. The design with the transmitter located on the right hand side remained in other Marconi sets used in the Polish army - YB1 (RKA) and YC3 (RKG/A).



A RKD transmitter-receiver that survived the years, awaiting restoration.

References:

- Instrukcja o Sprzecie łączności czescie II-A. Radiostacja Korespondencyjna Dywizji (R.K.D.), Warszawa 1938.
- Many thanks to Bogdan Szkudlarek, SP3LD, Poland for his scan of the user manual with photographs of the RKD.
- Radiostacje Polowe, Roman Buja, ISBN 978 83 7769 588 3, Edipresse, Warsaw 2014.
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