



Sirius
Country of origin:
Czechoslovakia

DATA SUMMARY

Organisation: ŠtB - Štátna bezpečnosť (Secret State Police) and Správa - rozviedka (Government, Department 1, espionage).

Design/Manufacturer: Správa 6 - spojovacia technika 1 (Government, Department 6, communication technics).

Year of Introduction: About 1962.

Purpose: Agents.

Transmitter:

Circuit Features: VFO (2-4MHz), Cal osc, Mixer, Doubler, Driver/Doubler, PA. Morse code, (F1) FSK 2kHz spacing, later modified to CW (A1).

Frequency Coverage: 4-16MHz in two ranges.

Valves: 6F32, 6L43, REE30A, CK6111 (2x), DM70, EF732, 11TA31

RF output: 60-75W with high speed Morse keyer.

Power Supply: Built-in AC mains power unit. It also powered the accompanied receiver and high speed keyer.

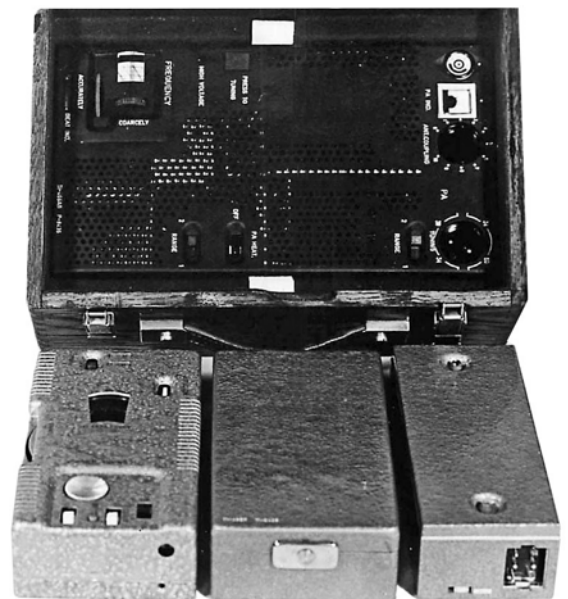
Size (cm): Height 6½, Length 27½, Width 15½.

Weight (kg): 4.2.

Accessories: 'Dávač' high speed keyer TI 485, modified Pluto receiver TI 462 A, accessories box TI 466 P, calibrator crystals, earpiece, AC mains cable, mains checker, aerial and earth wire, 9.6m wind-up aerial.

Remarks

The Sirius AB agents transmitter was developed and produced as project number TI 466 AB by Správa 6 - spojovacia technika 1. It was part of the Sirius station replacing the Pluto (Chapter 41) in about 1962, issued with a modified Pluto receiver and a Dávač' high speed Morse keyer (Chapter 69). It was the first Czech agents station equipped with a pre-programmable high speed keyer.



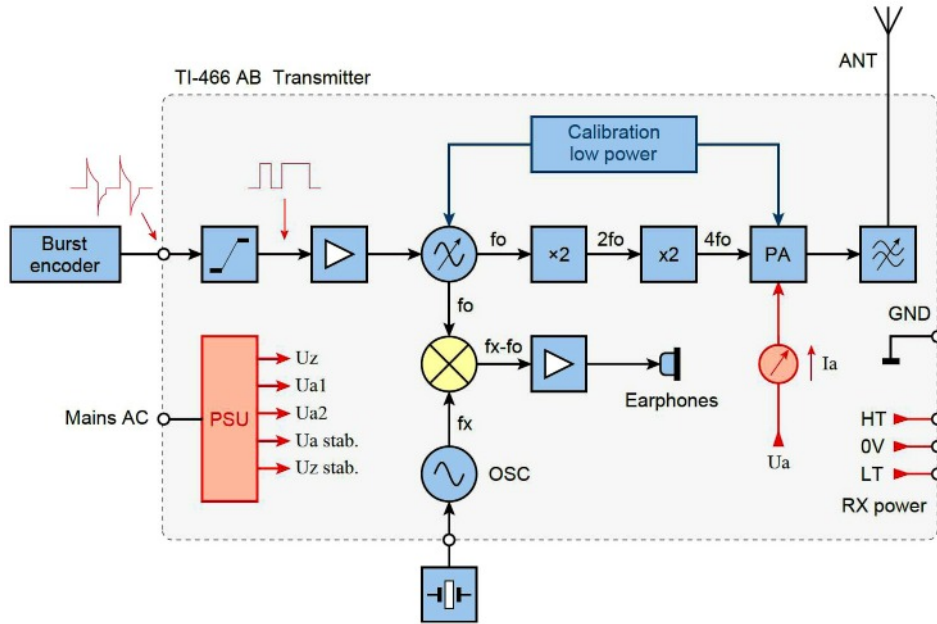
Scan taken from original manual: Part of transit case with Sirius AB transmitter (top), Pluto receiver (bottom left), accessories box (bottom centre, and Dávač high speed keyer with protective top cover in position. (right)



Pluto receiver (left) connected to Sirius AB transmitter.

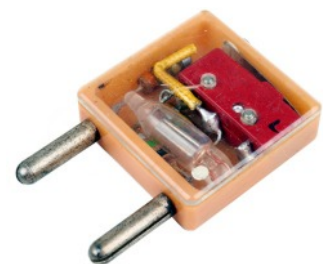
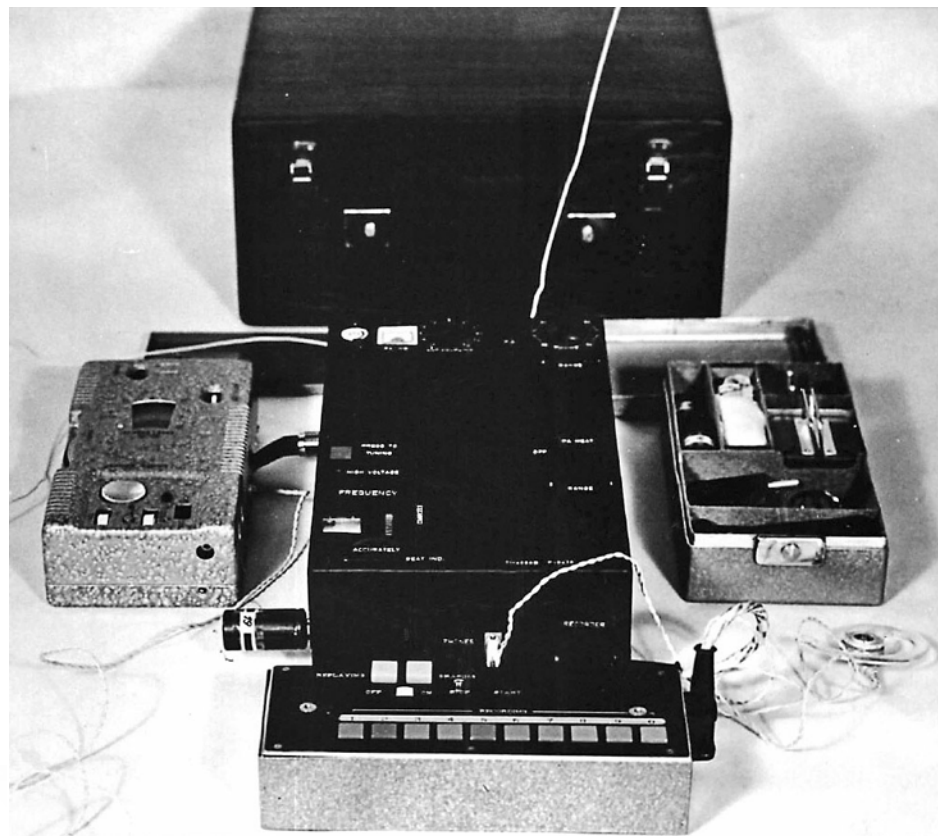
References:

- All photographs, block diagram and information for this chapter courtesy Crypto Museum, Eindhoven, Holland.
- A Sirius AB transmitter with associated equipment is held in the collection of the Crypto Museum. For full information on the Sirius AB including a downloadable manual and circuit diagram, go to www.cryptomuseum.com



Block diagram of Sirius AB transmitter. Power was derived from an integrated AC mains power unit. A variable oscillator (f_o) operated on 2-4MHz. The oscillator output was doubled and buffered for 4-8MHz, or quadrupled for operating on 8-16MHz. An oscillator (f_x) with external crystal was mixed with the variable oscillator for calibrating the vfo dial. During the calibration process the PA was disabled. Initially the vfo was fsk (F1) keyed with a frequency shift of 2kHz. This was later modified into CW (A1) keying.

Sirius agents station, a scan from the original manual showing a set in operational use: Transit case (in the background), Pluto receiver (left), Sirius AB transmitter with calibration crystal inserted (centre) and accessories box (right). On the foreground a Dávač high speed keyer. (See Chapter 69). It must be noted that the Pluto receiver, also known as TI 462 A, was a modified version with its elbug keyer paddle omitted, and the frequency range changed to 4-16MHz. (See Chapter 41)



Neon mains voltage tester (right) and reel antenna (left) were issued with the Sirius station and packed in the accessories case. Both units were probably inspired by similar devices which were standard issue with most of the post-war British agents sets.