



Topas
Country of origin:
Czechoslovakia

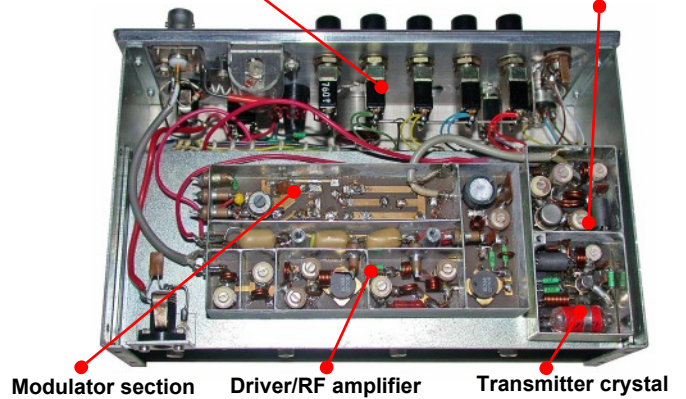
Remarks

Topas (English: Topaz, a precious stone), was the covert name of project number TI-699-0, a fully transistorised self contained VHF transmitter. It was used for wireless remote activation (Ovládací Vysílač) of various operational technical devices (such as Olymp, Hugo and Dita, though details of these systems were not known at the time of writing) by means of an AM modulated RF signal. Four pre-set audio oscillators in the range of 13-24kHz, and a socket for an external modulation signal could be selected by five push buttons. A three-position pulse switch started the transmitter carrier and a spring loaded position of the switch activated the tone. The modulated tones were outside the normal human audible frequencies. Topas was constructed on a metal chassis with the RF and modulator units on top, and the AF oscillator units/control circuits on a single board located at the bottom. This assembly fitted in a metal enclosure on which was attached a mains power pack at the rear.

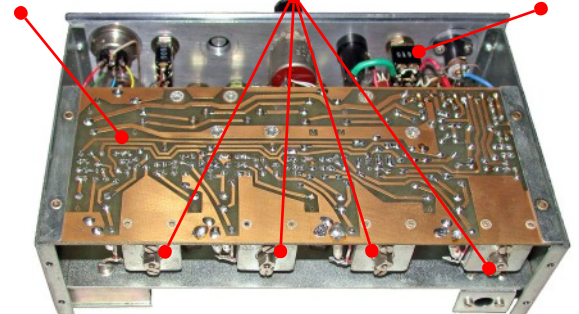
DATA SUMMARY

Organisation: ŠtB - Štátna bezpečnosť (Secret State Police) and 2 Správa - kontrarozviedka (Government, Department 2, counter-espionage).
Design/Manufacturer: 6 Správa - spojovacia technika (Government, Department 6, communication technics).
Year of Introduction: 1970s.
Purpose: Wireless remote control of operational technical devices.
Frequency coverage: Believed VHF.
Transmitter: Crystal control. AM.
 4 pre-set AF channels in the range of 13-24kHz.
Transmitter RF output: Unknown.
Range: Depending on location 150m to 1km.
Aerial: Vertical rod with angle adaptor.
Power supply: 12V by a separate mains power unit TI-699-C which was attached to the rear of the set.
Size (cm): Height 5, length 13.5, width 18.3.
Weight : 1.280kg. Receiver only; complete set in transit carton 4.440kg.

Tone press buttons Crystal oscillator/multiplier unit



AF tones board/control circuits AF tone pre-set Off/carrier/tone switch



Top and bottom chassis of the Topas remote activation transmitter.



Topas transmitter with accessories and mains power unit in a cardboard transit case.

References:

- Photos and information courtesy Jan and Alois, Czech Republic.