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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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S E C R E T

COUNTRY	Hungary	REPORT	
SUBJECT	Hungarian Air Force Communications Equipment	DATE DISTR.	8 OCT 1957 25X1
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1. *report on the 3 OCT 1957*  
communications equipment of the Hungarian Air Force. The following is *25X1*  
the significant parts of the report. *OCT 3 1 1957*
2. Every large Hungarian Air Force base was equipped with type P-20 ("Token") radar. *NOV 1 1957*  
The smaller bases were equipped with P-8 radar apparatus. Type P-20 sets were  
in use at Kecskemet, Kiskunlachaza, Szeged, and Tosza. In Budapest there was  
an air defense operations center. In view of the presence of radar equipment  
at every air-base, the aircraft "scrambled" from the base for interception  
purposes could be guided by their own base. The radar also permitted  
navigation back to the base. *SCOM*
3. Communications between the bases could be carried out by means of radio-  
telephony or radio-telegraphy, radio-telex, line-telex, and line-telephony.  
Most in use were communications apparatus of the R-50 type (capacity 1 1/2 KW,  
frequency range 2.75 - 15 Mc/s, modulation A 1, A 2, and A 3; hookups for  
Hellschreiber and telex) and type R-40 (capacity 100 watt, frequency range 2  
20 Mc/s, modulation A 1, A 2, and A 3; and hookup for Hellschreiber). Radio  
telegraphy was keyed by a bug. The telex apparatus used was the Siemens 52. *Ly/so.*  
For communications on a higher level use was made of a Soviet beam or unidirectional  
transmitter. All telegraphic traffic was in code. *w/uclo*
4. Every base had a navigation beacon, type RS0 (long wave?). There were some  
indications that "Tacan" apparatus was used. As far as is known, the MIG-17's  
were not equipped with "homing" apparatus. Nothing is known of any automatic  
homer or fixer system at the bases.
5. The UKW-6 is the communications apparatus in the MIG-15 and the MIG-17. The  
UKW-250 is the ground to air communications apparatus.
  - a. Specifications of the UKW-6: frequency range 100 - 150 Mc/s, power 26 volts,  
4 channels, capacity 6 watts, headphone with throat microphone.
  - b. The UKW-250: frequency range: 100 - 150 Mc/s, power 220 volts, 4 channels,  
capacity 250 watts, crystal controlled. The UKW-250 is built into an 8-ton

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truck (see attachment).

6. The crystals for the UKW-250 and the UKW-6 were provided with a code indicator. The users did not know the frequencies. The frequency was determined according to the following formula:

$$\text{Frequency} = \frac{N - 1}{12} + 100 \text{ (N is the cipher on the crystal).}$$

7. There was a UHF-apparatus in use with the Hungarian Air Force. Mention was also made of a Russian 24-channel UHF set

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- 8. The MIG-17 was equipped with a nose radar and a tail-warning radar.

9. The UKW-250 is a crystal-controlled transmitter and was used in the ground-to-air communications with the MIG-15 and the MIG-17. The frequency range was from 100 to 150 Mc/s. There were four interchangeable crystals in the transmitter. The capacity was 250 watts. Frequency change was effected by means of an electro-mechanical installation which was put into operation by means of push buttons. The switch-over from one frequency to another took 10 seconds. The transmitter with the receivers and appurtenances were built into an 8-ton truck, type ZIS, model 151. Every such truck had three antennas: transmitter antenna, frame aerial, and the antennas for the receivers. Voltage was supplied by a generating set of 1.5 KVA, 220 V switch. The station operated on 220/380 v.

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