

INFORMATION REPORT INFORMATION REPORT

7/24

CENTRAL INTELLIGENCE AGENCY

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

SECRET

COUNTRY East Germany REPORT NO.
SUBJECT Development and Production of Radar Systems at VEB Funkwerk Köpenick (Köpenick Radio Plant) including description, test production, planned production & export to USSR of KSA-5 Type radar equipments military involvement decreasing production) DATE DISTR. 10 JUL 1962 NO. PAGES 3 REFERENCES RD

DATE OF INFO. PLACE & DATE ACQ. 50X1-HUM

THIS IS UNEVALUATED INFORMATION.

1. Plan Realization

In terms of value, the plan realization of the total 1961 production is only 56 percent. The export plan was realized by 90 per cent.

2. Personnel Policy

Since February 1962, soldiers of all services (including the People's Navy) have been observed at VEB Funkwerk Köpenick (FWK). Because of constantly decreasing production, the development capacity is to be reduced. Development engineers thus released are to assist in technological preparation work. As it is no longer possible for the individual to change his place of work freely; he is subjected to greater pressure. Requests for separations must be cleared by the Cadre Section (Kaderleitung) and are in all cases disadvantageous to the person giving notice.

3. 1962 Ship-borne Radar Development Plan

For the sake of greater economy in production, the following development tasks were integrated: Type-series KSA-6: development of printed circuitry in subassemblies - KSA-6.1. Type-series KSA-5: development of printed circuitry in subassemblies; antenna of the slotted waveguide-type - KSA-5.1 (Schlitzantenne).

Comparison of Old and New Type-Series

The following enumeration of units comprises the slave monitors (Tochtersichtgeräte) but not the converters (Umformer):

SECRET

GROUP 1 Excluded from automatic downgrading and declassification 50X1-HUM

Table with columns: STATE, ARMY, NAVY, AIR, NSA, OCR, DIA. Includes a note: (Note: Washington distribution indicated by "X"; Field distribution by "#")

INFORMATION REPORT INFORMATION REPORT

S E C R E T

50X1-HUM

Old type-series: KSA-3 consisting of 5 units;
 KSA-5 consisting of 3 units;
 KSA-6 consisting of 5 units with directional transformer (Orientierungswandler).
 Total: 13 units which cannot be combined optionally for making variants.

After realization of the new type-program there will be only 6 units. It will be possible to combine these units according to requirements so that, considering all types of electrical current on board ship, some 35 different ship-borne radar systems can be set up.

Furthermore, a number of assemblies are being standardized, e.g. IF amplifiers in printed circuits, low-voltage power supply, high-voltage power supply, and relay units (Relaisaufbau).

The tube section of monitor screen (Sichtgerät) and integration amplifiers is to be produced in printed circuits.

4. KSA-5 Radar

From November 1961 to late February 1962, 50 KSA-5 ship-borne radars were to be delivered to various East German shipyards. It is not yet known to what extent these deliveries have been made.

Technical data of KSA-5:

2° horizontal beaming
 20° vertical beaming
 9,375 mc frequency
 magnetron 2 I 42 transmitter tube
 7...12 kW pulse power
 Receiver: reflex clystron 723 A/B oscillator tube
 Monitor screen: measuring ranges up to 12 n.m.
 sea and rain anticlutter

By the end of March 1962, 45 KSA-5 radars were to be tested. In order to assist in the testing, almost the entire development department TECC (former designation EEC) was employed in the test laboratory. This caused interruption of the development work. Production of the radars had been carried out very carelessly in Plant II.

5. Beside many manufacturing defects, it was found that the keyer tubes did not meet the requirements. The duotetrode 4491 is used as keyer tube for the magnetrons. It had been known for about 18 months that only tubes with specially treated cathodes are suitable as keyer tube. The cathodes of part of the supplied duotetrodes were specially treated by the Plant for Television Electronics. An agreement had been reached between the supplier and the FWK that the tubes specially treated should be marked by a color spot on the socket bottom. However, the Plant for TV Electronics marked only part of the tubes specially treated. In the test laboratories of the FWK nobody was informed of the special treatment and marking.

6. Lack of this information and the fact that these duotetrodes are also employed for other purposes (ship radio communications hydro-acoustics, modulation stages for high-power transmitters) caused some of the specially treated tubes to be installed in other pieces of equipment. For this reason, an insufficient number of these tubes are available for the KSA-5 radars. As the Plant for TV Electronics cannot supply the required tubes prior to June 1962, the delivery of the 45 KSA-5 radars on schedule remains in doubt and the FWK plan to deliver to the USSR a total of 100 KSA-5 radars cannot be realized for the time being.

S E C R E T

50X1-HUM

S E C R E T



50X1-HUM

7. Antenna of the Slotted Waveguide-Type (Schlitzantenne)

This antenna, which was developed in the antenna laboratory under the direction of Dr. Kühn, is to be tested at sea.

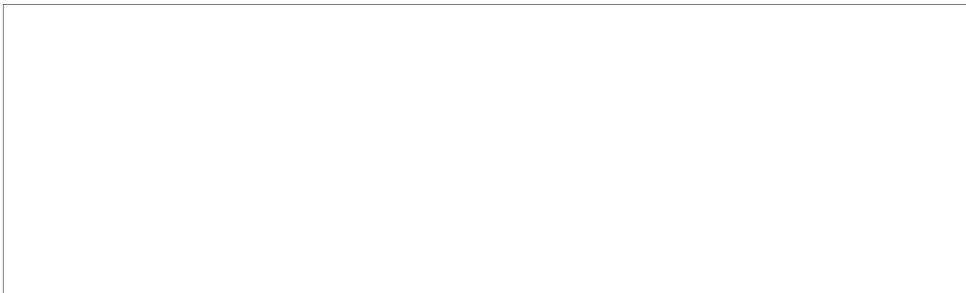
8. Rail Brake (Doppler Radar)

The rail brake developed in cooperation with the East German Reichsbahn was to be tested in March 1962 in Dresden.

9. Integration of Radar Development

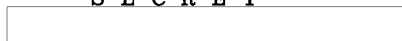
Radar development has been merged in Building 19.

10. The monitor screen (Sichtgerät) laboratory was formerly located in Building 40.



50X1-HUM

S E C R E T



50X1-HUM

50X1-HUM

Page Denied

Next 4 Page(s) In Document Denied