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CENTRAL INTELLIGENCE AGENCY REPORT

INFORMATION REPORT

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1. conference was attended
of the Central Institute
Wenderlich of the Telecommunication Engineering Plant at Berlin-Oberschoeneweide, and Dr. Eckardt of the Institut fuer Festkoerperforsch... (Laboratory for Research Work on Solid Bodies) in Berlin. At the conference, Dr. Goerlich proposed that the development of image converters ... Works. The other participants of the conference ... said that the development of this equipment ... the Berlin-Oberschoeneweide Telecommunication ... such development work had already been started ..., in the meantime, had left the plant.

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2. From rumors heard in December 1954 it was inferred that the development of image converters had been discontinued at the Telecommunication Plant and shifted to the VEB Carl Zeiss ... Jena and the VEB Zeiss Ikon ... Dresden.

3. In January 1955, work on the dev... ...iation receivers was being done in Jena. Dr. Krohs, the chi... ...ell Laboratory, and Her... Hauenstein did the main work on infrared techniques. In the Electric Laboratory, Karl Prinz ... worked on thermocouple elements and bolometers functioning on all wave lengths but of lesser sensivity than the photocells, which operate only on wave lengths up to 3 µ.

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4. The type KRS-5 crystals produced in Jena have a permeability of 95 % after deducting reflex losses of 80 %. The permeability has no absorption maxima or minima and evenly extends from 0.8 to 0.4 µ. The absorption sets in below the 0.8 µ point. The quality of the material makes it possible to manufacture from it plane parallel glass 60 mm thick. Prior to the dismantling of the plant by the Soviets it had been possible to manufacture such glass up to a thickness of 120 mm. Ground prisms have not yet been manufactured in Jena. Prior to late 1953, no quartz crystals had

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subjected for weeks to a pressure of about 1,000 atmospheres, are required for use in autoclaves. ILLEGIB

5. Work on the development of the electron-multiplier tube was continued. The first set including the mains unit was to b[redacted] by mid-December 1954. In early January 1955 [redacted] had actually been delivered. The developmen[redacted] continued by Herr Hauenstein after Dr. Buch[redacted] Engineering College at Ilmenau as a lecture[redacted]

6. In the summer of 1954, many Czechs, Poles, [redacted] visited the Z[redacted]ks in Jena. ILLEGIB

7. By [redacted]ess had [redacted] mod[redacted] compute[redacted] Dev[redacted] Entwick[redacted] Dr.[redacted] ncentra[redacted] devices for machine tools in Jen[redacted] had already received an ord[redacted] ILLEGIB for the development of automatic measuring and control devices for large lathes. Dipl. Ing. Dietrich of Development Bureau 9 worked on the project. Electric measuring sets were also said to be scheduled for development.

8. The model Oprema electronic computer, the operations of which could be preset, was to be put into operation on 1 May 1955. The equipment which [redacted] is a "4-Address" (?) computer, was designed as a [redacted]e. The ILLEGIB second electronic computer was scheduled to be c[redacted] June 1955. The latter set is to be used at the Zeiss Wo[redacted] cal computing. Final decisions on the personnel to operate the [redacted] yet been taken.

9. In late January 1955 [redacted] Technology visited t[redacted] learned that Prof. I[redacted] of Technology developed two electronic computers which were built by th[redacted] RFT-Geraetewerk at Chemnitz (apparatus plant for radio and telecommuni[redacted] ILLEGIB engineering techniques). The computer was a so-called one-address set operating at a speed eight times higher than that of the model Oprema computer. Each of the sets built at Chemnitz is fitted with 600 triodes expressly manufactured for this purpose. [redacted] the 25X1 storage unit of the set still worked in an unsatisfactory way and that difficulties had also been experienced in the making of construction drawings. One of the sets produced was delivered to the Dresden Institute of Technology, while the other computer remained in Chemnitz. It was not intended to manufacture more of these electronic computers. Lehmann also said that Czechoslovakia had developed a new electronic computer designed as a 5-address relay computer with 20 contact planes.

10. [redacted] ILLEGIB

interested in details. On 4 March, an Hungarian professor from Budapest visisted the Zeiss Works and inquired concerning the delivery terms for a model Oprema electronic computer. On 28 March, the computer was inspected by a correspondent of the Pravda newspaper who had come to Jena via

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Bulgaria, Rumania, Hungary, and Prague. [redacted]

[redacted] On 29 March, a Soviet official from Berlin who [redacted] previously had been adviser to the Soviet Minister of Machine Construction, visited the Zeiss Works and also inspected the electronic computer. The Leuna Works were also greatly interested in an electronic computer of the type developed by the Zeiss Works. 25X1 25X1

11. Since early 1955, the most important project handled by EHL had been the development of a gyro-controlled aerial mapping camera. The development work was controlled by Dr. Kortum.

12. Development Bureau 0 of EHL, which was headed by Dipl. Ing. Dietrich, the successor to Oberingen [redacted]. Kratsch, is probably scheduled to develop e[redacted]rders had, however, not been received by early [redacted]levelopment of computers for artillery fire directo[redacted] been received. ILLEGIB

13. In 1954, Dr. Kortum worked on the development of a receiver for infrared rays and made efforts to catch up with the technical achievements of the West in this field. The radiation receiver was to incorporate selenium cell which were designed to give the equipment [redacted] that of American radiation receivers. This work ~~because it had ended in an impass.~~

14. At the ELQ Laboratory of EHL, Wittig, a master mechanic, manufactured ~~various~~ shutters for bolometers. Purely development work was involved ~~and only~~ difficulties were apparently experienced, ~~in the course of this work.~~ ILLEGIB

15. Ing. Lensky who is attached to Dipl. Ing. Dietrich stated that electron-multiplier tubes were being built at the Zeiss Works. Details were not available.

16. Air force training sets of type A_1 were being built at Dr. Ing. Knothe's Department (ELGM Department) of the Suedwerk (Southern Plant). During ~~the last~~ few years, the A_1 sets had repeatedly been modified. In March 1955, ~~the construction~~ records for the A_1 sets were checked and supplemented ~~in great haste~~. It was believed possible that a KVP mission might have ~~to be provided~~ with acceptance records for the A_1 set. Some mechanics ~~of the~~ Department who had been detached to other departments were recalled in mid-March.

17. The electronis computer developed in Jena was set up on the second floor of the Zeiss Hochhaus (skyscraper), Entrance No. 6. The equipment was frequently inspected by commissions, in late January 1955 by a KVP commission.

[redacted] Comments: 25X1

1. Probably Dr. Alfred Eckardt.
2. Oprema = Optisch [redacted] 25X1
3. Not further identified.