

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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COUNTRY	USSR (Moscow Oblast)	REPORT NO.	[Redacted]	25X1
SUBJECT	1. Armaments Directorate of the Ministry of Agricultural Machinery Industry	DATE DISTR.	25 August 1953	
	2. German Personnel at the Hasag Ammunition Plant at Putilovo	NO. OF PAGES	14	
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SOVIET AGRICULTURAL MINISTRY RESPONSIBLE FOR ARMAMENT MANUFACTURE

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1. [Redacted] Germans were transferred to the USSR in October 1946 [Redacted] under [Redacted] [Redacted] the Ministry of the Agricultural Machinery Industry [Redacted] a subdivision of this ministry was responsible for the manufacture of all armament equipment for the USSR. [Redacted] the organization of the Ministry of the Agricultural Machinery Industry is as follows. Located in Moscow, it is subdivided into two main parts: Section No. 1 for the manufacture of agricultural equipment, and Section No. 2 for the manufacture of arms. The latter is under special military control. The building is heavily guarded and admission to it is restricted.

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2. First to be considered is the section for the construction of agricultural machinery. As the name implies, this was the original main branch. When the Germans were shifted to civilian production during the latter part of their stay, they had dealings with the All-Union Institute for Research and Testing in the field of the manufacture of agricultural machinery. This institute is located in the northwest part of Moscow, about 15 kilometers from the center of the city. Here the Germans were assigned the task of developing new methods and equipment for testing purposes. These tests were performed in part on proving grounds connected to the institute and partly on federal auxiliary agricultural farms. One of these farms was attached to the Sofrino shooting range as an auxiliary farm. Various newly-developed devices were tested there, such as potato-planting machines and peat pot-pressing equipment (Torftopfpressanlagen). The purpose of this equipment was to advance by about three or four weeks the ripening time of the usual crops planted in the Moscow area. This could be very important to the state of nutrition in the USSR. From this institute, the Germans received several orders to develop, among other things, machinery or large automats for these peat pots, which necessitated a daily capacity of approximately 200,000 pieces.

[redacted] many divisions are centralized there.

SECTION ONE: ARMS MANUFACTURE

3. The other section, involved in the manufacture of arms, was headed by General ZACHANITSKIY until about two years ago. He was replaced [redacted] his successor [redacted] was seen around on various occasions, but rushed through the offices and never introduced himself. [redacted] the following weapons were being developed in this department: special missiles and rockets. The most predominant were powder-rockets, but some liquid rockets were also being developed. Special recoilless guns, after the Dueka system (German code name for a particular type of recoilless gun), were also developed and tested there. This section had several subdivisions.

4. Perhaps the most important of these subdivisions was the KB-3, located in Putilovo and attached to the Sofrino shooting range. The KB-3 had the well-known Postfach 648 and Factory No. 50. Its manager, DAVISHEV [redacted]

[redacted] His alternate and chief engineer was Eng. ULYANOV, winner of the Stalin prize.

5. Directly attached to KB-3 was a secret department. The manager there, however, was directly under the central committee organization in Moscow. Only in personnel matters was he under local management. This department received all secret memoranda and other directives from superior offices, particularly concerning Party management and things of that nature. The bookkeeping, library, blue-printing, photographic division, and motor pool were attached to this department.

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6. Also attached to KB-3 for administration was a small rocket test stand, separate from the Sofrino shooting range, where special rocket tests, particularly stationary tests, were made. It was also possible to make bursting tests on a small experimental range which was attached to it. This blast testing ground was under the direction of CHIBULIN.
7. Directly adjoining this testing ground was a supersonic wind tunnel. It had been patterned and erected similarly to the one designed by Dr. TROMMSDORFF and previously built in Germany. The diameter of this tunnel was about 250 mm. It was powered by a compressed-air bottle battery which was charged by a compressor to 150 atmospheres. The air then was released by suitable diffusers and entered the actual measuring section with a thrust. The existing device did not have an immediate heating column for the air, but was run just that way for purely financial reasons. Speeds up to the speed of sound could be reached. However, the operating time was not too long and depended upon the diameter of the throat. When the largest throat was used, operating time was limited to about ten seconds. With smaller throats, the operating time was correspondingly increased. A later improvement planned was a heat exchanger to create a more universal utilization of this wind tunnel.
8. During the Germans' stay in the USSR, the planned measuring apparatus was not completed to the extent where exact measurements could be accomplished. Especially missing were oscillographs and exact pressure pick-ups. The Germans made many suggestions in this direction; but, up to their departure, these things had not been started. Often it was very difficult to obtain these things in the necessary quality from Soviet industry, and many orders were given to Soviet companies in East Germany. But these companies had orders from other places, too, so that delivery had to be made according to a certain priority, thus causing the delay of the delivery.
9. Also attached to KB-3 was a greatly enlarged experimental workshop for experimental production of rocket projectiles and normal projectiles. It was also possible to manufacture recoilless rifles here that never went over 200 atmospheres (2940 PSI). The machines on hand could not turn guns which required greater wall thicknesses than for the above prescribed pressures. Directly connected with this experimental workshop was the usual work preparation, material storage, etc. An essential part of this construction project was the actual construction office under the direction of ULYANOV. In the end, this office was staffed by Soviet scientists exclusively. The project was subdivided into a department for the development of rockets and missiles, a norm department, and a department for the preparation of firing tests. The latter was also equipped for the carrying out of the firing tests and evaluation of their results.

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10. Completely separated from the Soviet department, at least in the last three to four years, was the German project which operated under the designation "German Collective". This German project was actually divided into three groups. The first [redacted] group worked especially on the development of powder-propelled rockets for all the different purposes - plane-to-plane as well as plane-to-ground and ground-to-plane, i.e., the German "TAIFUN" missile. This project dealt with problems of design and fabrication on remote-controlled missiles of the types described below. [redacted]

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[redacted] the main interest was in the canard type (elevators in front) with a plani-wing. This deviated from the former Rheinmetall work, which employed three wing assemblies, by using four wing assemblies. These were only used as plani-wings in order to achieve greater distances and thus satisfy the demands made of the Germans. The canard-type construction, besides, resulted in a more favorable Ca and Cw, so that also in this way these developments were more advantageous than the old German-type fabrication.

11. The second department within the German Collective was headed by Dr. TROMMSDORFF. It had the specific task of developing ramjet propelled projectiles of large calibers. [redacted] the largest caliber was between 50 and 60 cm but projects for even larger things were worked on. During the latter part of our stay in the USSR, after confirmation trials proved that these fabrications functioned properly, matters were taken out of the hands of the Germans, and the Soviets continued to work on them. Then Dr. TROMMSDORFF undertook work on a supersonic compressor, which had special significance in connection with ramjets. He tried to make his compressor more effective by multiple angular thrusts in the supersonic ranges. He expected a lot of this project.

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[redacted] The Soviets tried to shroud this project again in special secrecy.

12. The third group was originally headed by SCHAADT, but after about two years on the job, the Soviets replaced him with BOEHM. They worked primarily on the further development of Panzerfaust (code name for anti-tank weapon) fabrications with longer ranges - 100 m, 250 m, and a maximum of 500 m. A lot of emphasis was placed on the hitting accuracy of the weapon. This was difficult to coordinate with the weight concessions because the necessary safety factors could not be achieved. There was the danger of barrel explosions, and such things grew worse and worse. There was also an automatic Panzerfaust, i.e., the ammunition was fed automatically. For the automatic, a pretty high rate of feed was demanded. [redacted] Furthermore they did reconstruction work on a special cartridge which had within the magazine a large number of small caliber bullets. [redacted] they were 13 or 20 mm caliber. They were fed to the barrel by the

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powder gases automatically and an immensely high number of shots could be achieved in relation to the time factor. A figure of several thousand was mentioned. [redacted]

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[redacted] a really concrete number cannot be named because it was permitted only to release a limited number of shells with each burst. These things were in the experimental stage and were tested, but they never had the full approval of the offices who had given the order.

13. Also attached to the department and directly to this section of the ministry for construction of weapons in Moscow was a research institute for the development of apparatus and ammunition. This institute had operated during the war. It was housed in a former agriculture experimental place near the Yaroslavl Railroad Station in Moscow. There they continued development of the RHEINTOCHTER, Panzerfaust, and bomb rocket type R100BS (German designation), and such things, but in such a way that the Germans never knew what improvements went on. They only knew that the development was parallel to the AULER Group work. This institute had, of course, much more priority. They had all kinds of apparatuses such as wind tunnels, etc., at their disposal and above all could at any time consult any office they wished to and get any experienced scientists, so that their work was made considerably easier. This research institute was under the direction of Colonel DYATLOV.

14. Directly attached to the sector for weapons production in Moscow was the Sofrino scientific test shooting range. It had the task of testing the cannons and missiles produced within the framework of the ministry and also of developing them. Merchandise destined for this shooting range was reloaded at the Sofrino railroad station from which the name was derived. A triangle was formed by the town Putilovo and the so-called fabrika, a textile factory founded by the German Kraft about 1910, with the shooting range as the third point. All these places are today jointly known under the name of Krasnoarmeysk. This shooting range had a size of approximately twenty-five km by five km, and is under the supervision of Colonel IVANOV. He was assisted by chief engineers and administrators [redacted]

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By German standards, it was a small shooting range. There was another shooting range connected with this range, at least organization-wise. The latter was newly founded in the neighborhood of Putilovo and another city. [redacted]

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[redacted] Large-scale building was going on close to the shooting range for a large experimental station with adjoining workshops and testing labs. A wind tunnel was proposed for the testing liquid rockets, etc. (Fluessigkeitsraketen). While the installation was under construction, it was under the temporary supervision of Dipl. Eng. TARNOVSKIY, who had originally been employed at KB-3 until he was transferred to this project. [redacted]

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[redacted] this was a large scale installation which was to be used as soon as the German Collective left and that the projects handled at KB-3 would all be organizationally merged with this experimental institute in the near future. [redacted]

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15. The rocket testing ground in Putilovo had a concrete test stand, left over from the war years. By comparison with German standards, it was of rather primitive construction. It was partially equipped with captured German equipment, used in the early days of development when insufficient funds were at our disposal. For example, indicators had spring mechanisms and such things. This equipment had been dismantled in Germany and the Soviets had reassembled it in the USSR. The indicators, generally Maihak make, were not sufficiently accurate; hence, the Germans had ceased to use them in Germany. The personnel using these test stands considered them a sort of safety device and brought their own measuring instruments with them. Other institutes also used this stand constantly for their own tests. Electrical pressure gauge (Druckmessdosen) boxes, such as those used in Germany towards the end of World War II, were not yet being manufactured in the USSR. However, various projects were worked on with the requirements of present-day technique.

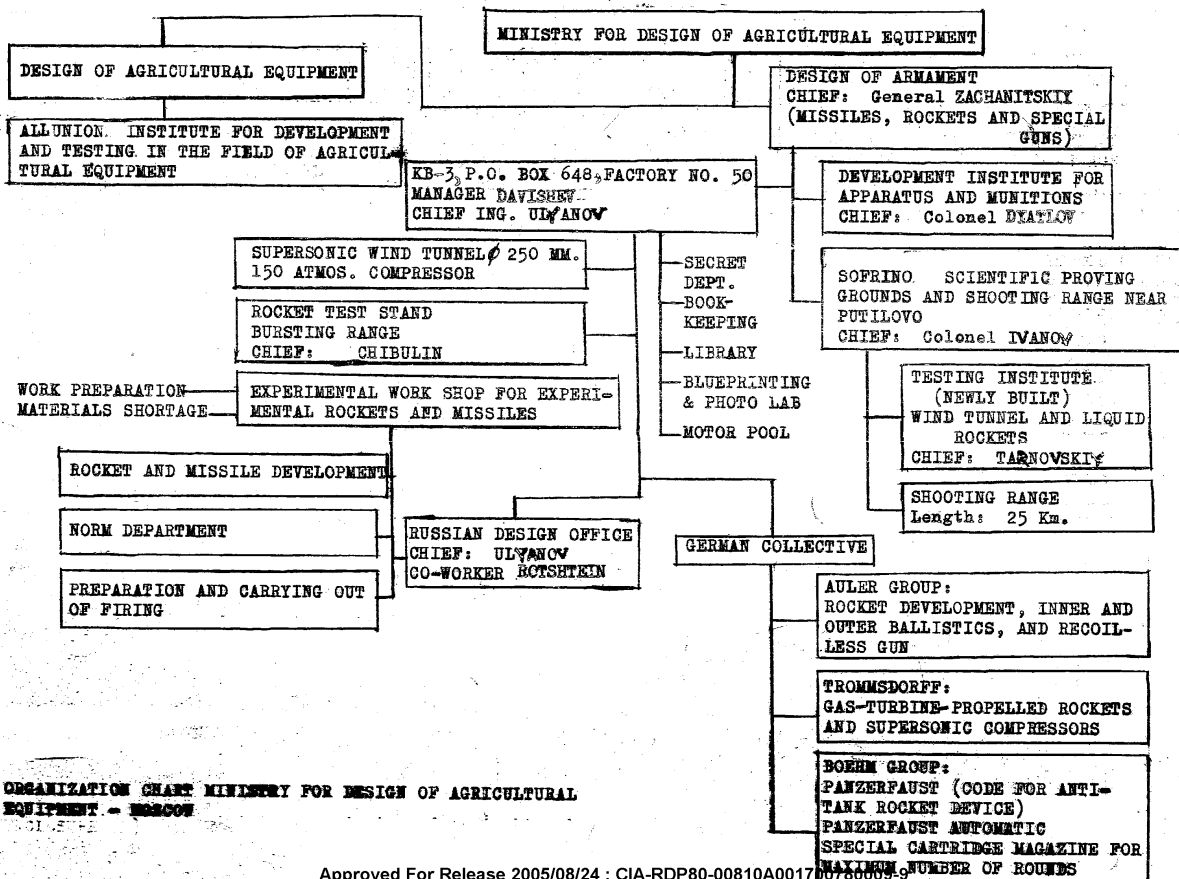
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The results of measuring pulse or burning time were generally not very accurate. The Germans discovered a margin of error of ten percent. Since the Germans did not have all the papers and calculations at their disposal, they did not have much confidence in the results of the measurements.

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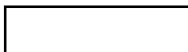
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ORGANIZATION CHART MINISTRY FOR DESIGN OF AGRICULTURAL EQUIPMENT - 1955

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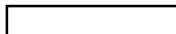
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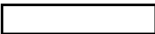
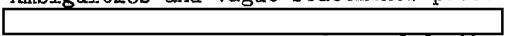
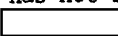


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 Comments

1. No company by the name of Anhalt-Westphalian, or Westphalian-Anhalt, Explosives Company can be located. No company by the name of WASAG is listed for Piesteritz. A WASAG Explosives Plant is located in Reinsdorf, near Wittenberg. Piesteritz, relatively far from Wittenberg, is adjacent to the town of Kleinwittenberg.
2. Bisaritz cannot be located. A Hugo Schneider Armament Plant, also known as HASAG, is located in Leipzig.
3. Ambiguities and vague statements present throughout this report   The report has not been extensively rewritten, however, for fear of further corrupting  material.

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