FORM NO. 51-AAA
FEB 1952

CENTRAL INTELLIGENCE AGENCY

CLASSIFICATION: SECRET
SECURITY INFORMATION

25X1

INFORMATION REPORT

REPORT NO. [redacted]

CD NO.

COUNTRY USSR (Kuybyshev Oblast)

DATE DISTR. 8 October 1952

SUBJECT JUMO-022 Turboprop Engine and TS Starter Engine Development [redacted] in Upravlencheskiy

NO. OF PAGES 2

NO. OF ENCLS. 1 (LISTED BELOW)

25X1

[redacted]

25X1

SUPPLEMENT TO REPORT NO. [redacted] 25X1

[redacted]

THIS IS UNEVALUATED INFORMATION

25X1

[redacted]

1. During the first quarter of 1951 the JUMO-022 turboprop engine was subjected to a State test [redacted] in Upravlencheskiy Gorodok (53-12N, 50-09E). A failure resulted, but the test was successfully repeated in August 1951 when the engine passed a test run of 200 hours.[1] 25X1

2. During summer 1951 the JUMO-022 power unit was flight tested in Kazan with a specially designed TS turbo starter. According to Soviet statements these flight tests were satisfactory.[2-3]

3. Mass production of the TS starter engine was started during the last quarter of 1951 in Leningrad. Mechanics who had worked on the TS starter engine frequently went to Leningrad.[4]

4. During 1951 designs were started on a twin turboprop engine composed of two JUMO-022 units, each rated at 4,500 shaft hp. The twin engine was to drive two counterrotating propellers by means of two gears. The first experimental model was completed by December 1951 and was to be tested in January or February 1952.

5. During the last quarter of 1951 designs were started for a turbojet engine fitted with a five-stage exhaust turbine.

6. In 1951 efforts were made to construct a 250 hp. turbo starter unit. Because there were many difficulties connected with this project, the date of completion was still uncertain by late 1951.

25X1 [redacted] Comment: It is believed that the State tests referred to in paragraph 1 of this report were probably performed with the improved version of the JUMO-022 turboprop engine rated at 6,000 shaft hp. and that, therefore, the JUMO-022 unit mentioned in paragraph 2 was a version rated at 5,000 shaft hp. which was successfully State-tested in late 1950 or early 1951.

CLASSIFICATION SECRET

STATE		NAVY	X	NSRB		DISTRIBUTION									
ARMY #	X	AIR #	X	FBI											

25X1

25X1

1. [redacted] Comment: The JUMO-022 turboprop engine rated at 4,500 shaft hp. was State-tested in August 1950 and essentially completed by October 1950. It is believed that the reported JUMO-022 is an improved version fitted with stronger gears. The output of this version was probably improved by an increased combustion temperature.

25X1

2. [redacted] Comment: The turbo starter specially constructed for the JUMO-022 was the TS starter engine rated at 100 hp. Since this starter unit was not worked on before late 1950 or early 1951, it seems improbable that flight tests with this unit could have been started during the summer of that year. Therefore, the TS starter unit referred to may be the less powerful 77 hp. version. [redacted] 25X1 for previous reports on the development of the 77 and 100 hp. TS starter engines.

25X1

3. [redacted] Comment: [redacted] for a previous report that the JUMO-022 engines are produced [redacted] in Kuybyshev/Bezymyanka. The airframe for this engine is produced [redacted] in Kazan. According to a previous report the blueprints for the JUMO-022 were forwarded to Kazan and, as stated in the present report, flight tests with the JUMO-022 were conducted there.

25X1

4. [redacted] Comment: It is not clear from the [redacted] report which version of the TS starter engine is referred to. [redacted] for a report that the 77 hp. TS starter engine went into mass production in late 1950. 25X1

Attachment: Sketch of the twin JUMO-022 turboprop engine.

25X1

Twin JUMO-022 Type Turbojet Engine Developed [redacted]

25X1