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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

COUNTRY : USSR

DATE DISTR. 3 JUL 52

SUBJECT : 25X1 [redacted] EF-150 Information

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NO. OF ENCLS. 3 (LISTED BELOW)

DATE ACQUIRED

SUPPLEMENT TO 25X1 REPORT [redacted]

DATE OF INFORMATION: [redacted] 25X1

THIS IS UNEVALUATED INFORMATION

[redacted]

1. [redacted]

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25X1 The type designation for the EF-150 airplane as given previously [redacted] should have been "medium" instead of

25X1 "heavy". Classifications as used by the Germans were based on both bomb load and range. [redacted]

25X1 [redacted] The terms "heavy" or "medium" used for

25X1 any particular airplane are based roughly on its comparison with currently existing aircraft. The conception of what constitutes a "medium" bomber might, therefore, change as aircraft in general grow larger. The Russians also called the EF-150 a medium bomber [redacted]

25X1 [redacted]

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2. Some early reports indicated a ground attack version of the EF-150 in addition to the bomber and reconnaissance versions.

Only the bomber and reconnaissance versions were planned. There were no rocket installations or any other features to indicate a ground attack airplane.

3. a retractable turret at the aft portion of the crew compartment. This turret utilized two 20-mm cannon firing rearward, 90° to starboard, port and elevation. the high speed of the aircraft deleted the armament requirements.

there were never any plans for an upper turret, retractable or not. "the speed of the aircraft reduced the armament requirements" was in line with the attitude that prevailed among Junkers engineers at the time the EF-150 design was initiated.

4. Previous reports describe a crew compartment with four members and a fifth crew member as the tail gunner

The pilot sat in the left-hand seat of the forward pair /also the same as previously described/. The right-hand seat could be used for a co-pilot. it was not to be used as such; at least in the bomber version. The left rear position was for the radio operator, and the right rear position was for the flight mechanic-gunner.

The two aft seats could be pivoted 180°. All seats could be ejected In addition to personnel in the forward compartment, there was a tail gunner.

5. 25X1

6. 25X1

There were definitely no plans for a four engine version of the EF-150. 25X1

7.

The correct designation is "EF-150", but it was frequently referred to in conversations as simply the "150". 25X1

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8.

25X1 The wing as originally designed was not changed to increase the span. Wing tip fuel tanks used on the EF-150 were similar to, but larger than, those used for the EF-140. 25X1

9.

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the fuselage fuel tanks were rectangular and not round./ There were two fuselage tanks, each approximately 1.6 x 1.85 x 2.6 m and two wing tip tanks. The dimensions of the tip tanks previously given are from memory. The tip tanks were completely filled with fuel /that is, no empty compartments 25X1 There were no internal wing tanks 25X1

10. 25X1

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The speed figures submitted to the Russians in the original design proposal were about 100 kilometers per hour less [redacted] After the Russians analyzed these proposals they insisted on increasing range and speed. The German engineers were not at all confident that they could meet the new demands, but told the Russians they would try their best. [redacted] wind tunnel tests on the EF-150 were run by the Russians at ZAGI [redacted] [redacted] cruising power settings for jet engines were "20 to 25% less thrust than that for full power".7

11. [redacted]

12. [redacted]

13. [redacted]

14. [redacted]

[redacted] The bomb bay section of the fuselage [redacted] is entirely devoted to carrying bombs in the bomber version of the aircraft. The only fuel carried in this section was the removable bomb bay tank to be installed in the reconnaissance version of the EF-150. Capacity of this bomb bay tank is unknown [redacted]

15. [redacted] the rear main gear was hydraulically actuated. [redacted] [redacted] it is electrically actuated. It is understood that the rear main gear is partially retracted during the take-off run. The question remains whether the partial retraction is accomplished electrically or hydraulically. It is understood that the complete retraction of both landing gears is accomplished hydraulically.

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The landing gear was hydraulically operated. the gear could not be partially retracted to change the attitude of the plane for take-off.

16.

17.

the EF-140 refueled by pumping fuel in the reverse direction through the normal fuel system. This could also be done with the EF-150, but this method was considerably slower than the normal method of filling the tanks individually. single-point ground and inflight refueling but there was no such system used in any of the airplanes built at Podberesje.

18.

The tail gunner's exit door was hydraulically operated. Pneumatic systems were not used at all in the EF-150 airplane. The emergency system for the tail gunner's exit door consisted of a separate reservoir and hand pump.

19.

hot exhaust gases were tapped off of the engine section just downstream from the turbine. The gas was ducted from the engine through a filter, a blower, and then to the surfaces to be de-iced. Control of the system was accomplished by turning the blower on or off.

20.

21.

25X1 [redacted] the trim tabs were to be actuated by means of electrical-mechanical actuators. There were no springs, weights or aerodynamic balances employed in actuating the trim tabs.

22. 25X1 [redacted]

25X1 [redacted] the system used in the EF-150 was a hydraulic servo boost system and not a servo power system. [redacted]

25X1 [redacted]

23 & 24 25X1 [redacted]

Mikulin Engines

25X1 [redacted] the EF-140 had two Mikulin engines rated at 4300-4500 kilograms (9460-9900 lbs) thrust each which were 25X1 later developments of the Mikulin engines installed in the EF-132, whose ratings were not known. In addition, [redacted] 25X1 Mikulin engines planned for the EF-150 have a rating of 4900-5000 kilograms (10,780 - 11,000 lbs) thrust each. [redacted] 25X1 [redacted] only two models of Mikulin engines, one rated at approximately 6000 lbs thrust and installed 25X1 in the EF-131, 140 aircraft and another rated at approximately 10,000 - 10,500 lbs and planned for installation in the EF-150 aircraft. [redacted] of the Mikulin engines. In addition, since source also observed 25X1 metal mockup of Mikulin engines, details regarding general engine configuration are also desired.

25X1 [redacted] The mockup was made in sufficient detail to show that there was a single air intake (no 25X1 auxiliary doors or scoop) and a single exhaust. [redacted] 25X1 [redacted] 25X1 [redacted] The dimensions 25X1 of the pod [redacted] indicated a centrifugal type jet engine for both Mikulin and Lyulka engines. Overall dimensions of the

pod mockups [redacted] were 1.6 m in diameter x 3.4 m long for the Mikulin and 1.8 m x 3 m long for the Lyulka.

[redacted]

25. Defensive Armament

a. Tail turret

[redacted]

[redacted] a periscope sight was designed by Eng Erwin Handke. [redacted] this sight was mounted vertically and was about 20 centimeters in diameter by 1.3 m long. [redacted] it was vertical because an actual sight was once installed in the mockup and the Russians ordered a cover made for the part that projected below the fuselage. The cover was to prevent unauthorized persons from seeing the sight. [redacted] Handke's periscope looked something like Fig 19 (T5-III) of the Air Intelligence Guide. [redacted]

[redacted] turret drive motors [redacted] were probably hydraulic.

[redacted]

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There was no mid-upper turret, either retractable or otherwise.

c. Forward Guns

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There was one gun on each side of the nose. each gun barrel was located about 135° from vertical and approximately 1.2 to 1.3 m from the center of the fuselage when looking at the airplane from the front. The gunsight was similar to that described for the tail gunner (25 a above). (Its location is shown on Enclosures (A) and (B).)

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d. Passive Protection

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Armor plate was installed behind each seat extending from the bottom of the seat to a point somewhat above the position of the occupant's head. Armor plate was also placed on the floor under each seat. There was no armament protection provided for the engine.

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26. Bombing Capabilities

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the methods of supporting bombs in the bomb bay was essentially the same as that used by Junkers during the war with modifications necessary to accommodate the larger bombs.

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The bomb sight was located in the extreme forward position in the nose (the commandant's station shown on Enclosure (B).)

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the airplane was to have radar bombing equipment

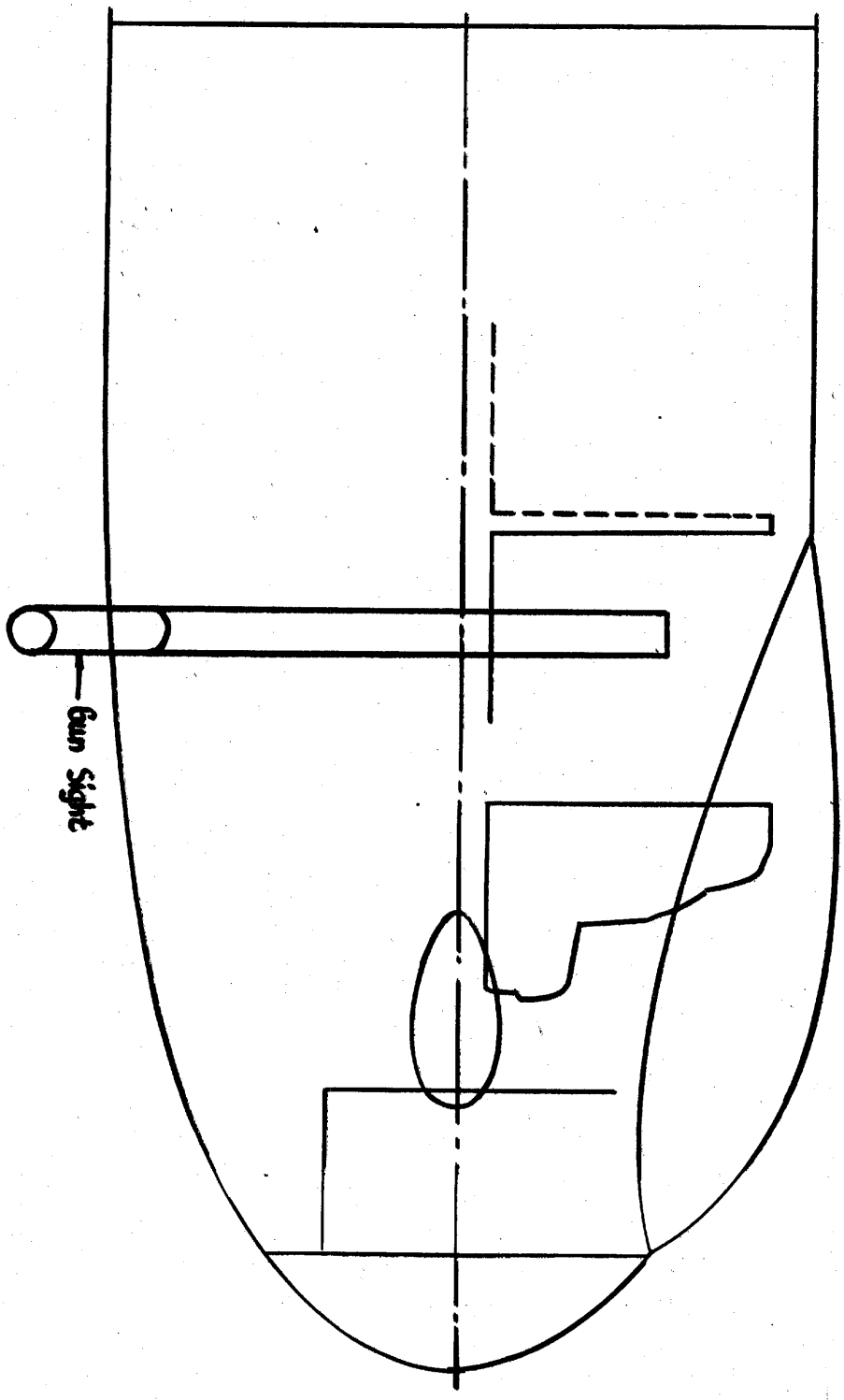
27. [redacted]

[redacted] a mockup of the 3000 kg bomb [redacted] was a conventional bomb except for the size and the fact that the nose was somewhat more pointed than other bombs [redacted] /Enclosure (C) is a reproduction of [redacted] original sketch of this bomb/

-end-

ENCLOSURE (A) Side View of EF-150 Cockpit
ENCLOSURE (B) Top View of EF-150 Cockpit
ENCLOSURE (C) Sketch of 3000 kg Bomb

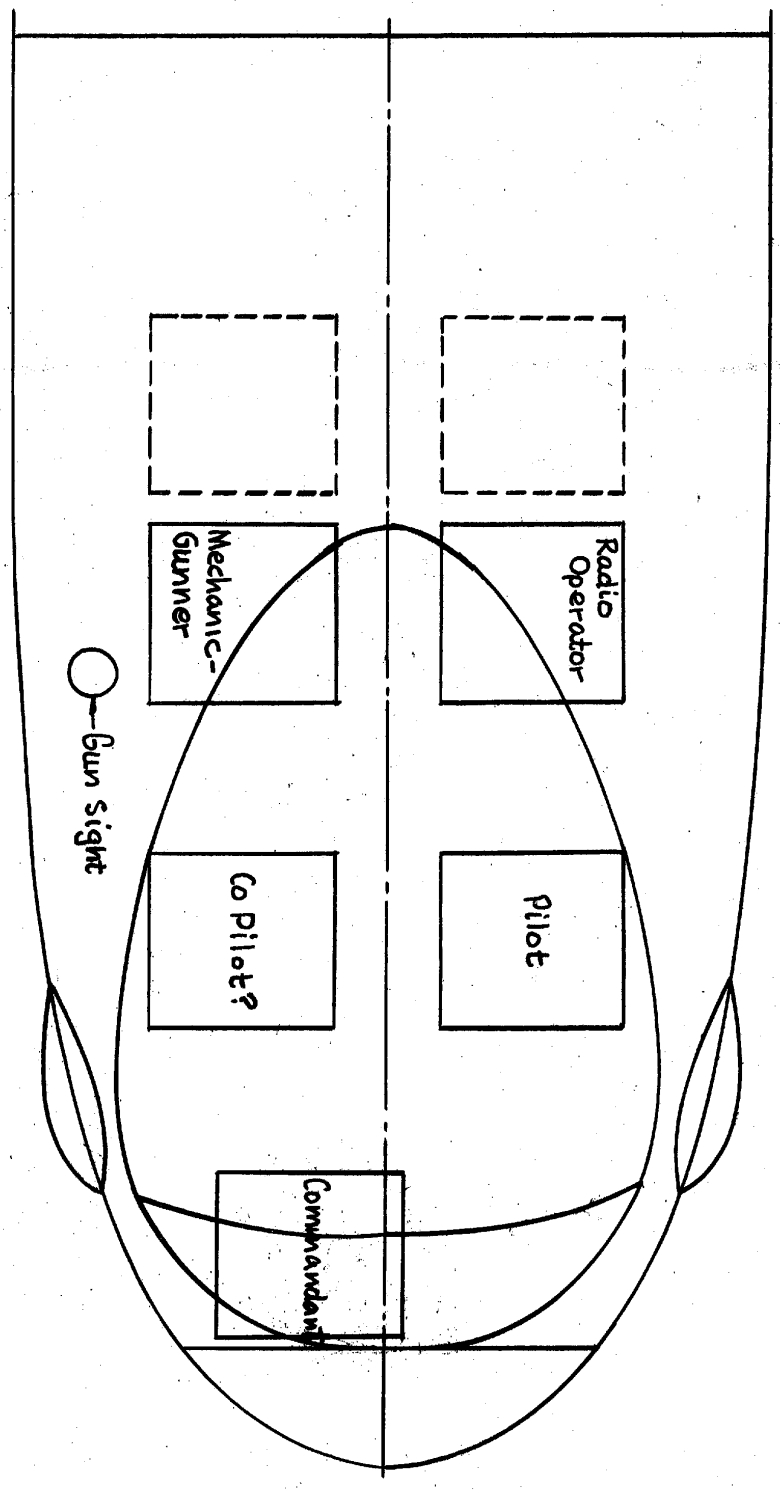
25X1



SIDE VIEW of EF-150 COCKPIT

25X1

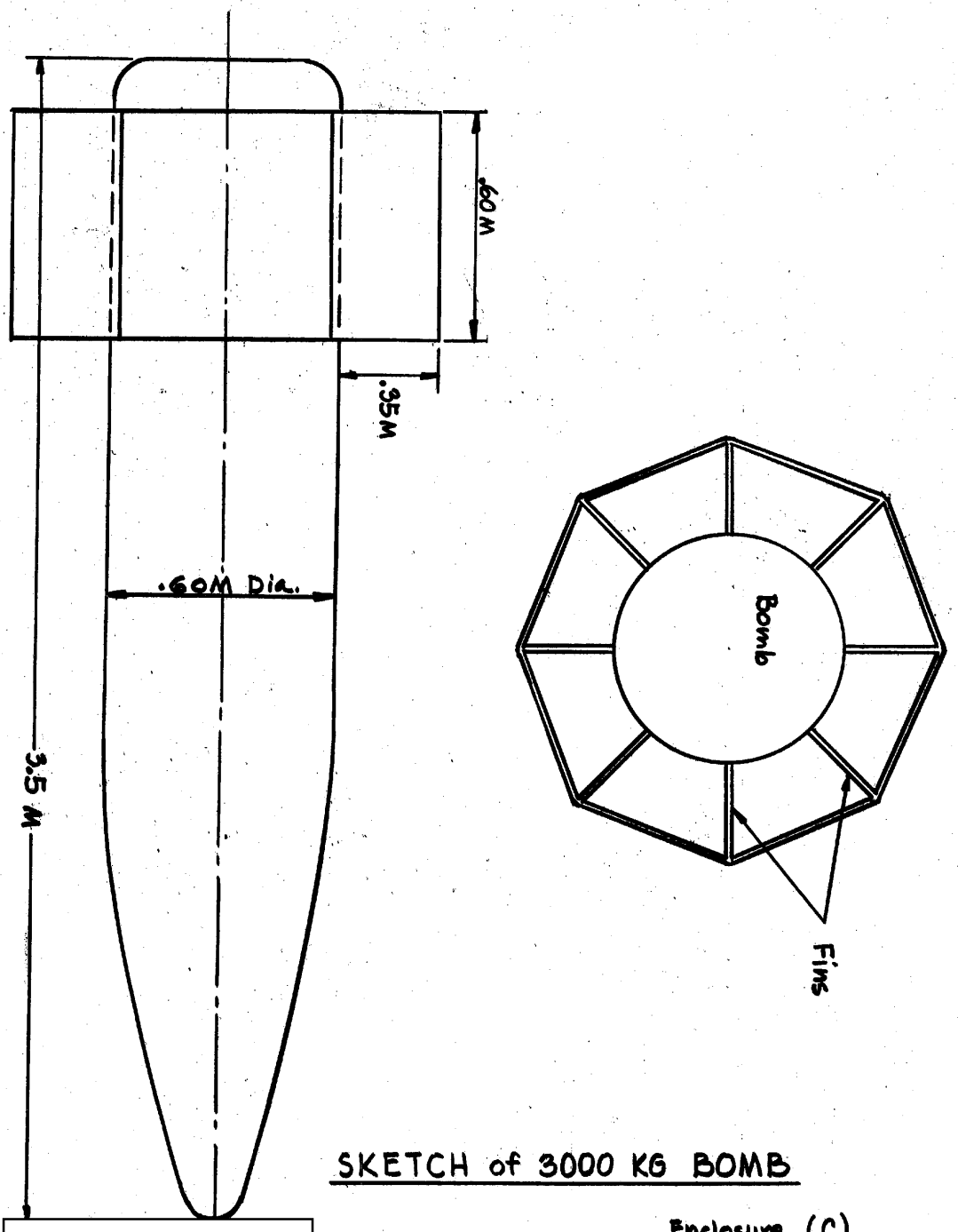
Enclosure (A)



TOP VIEW of EF-150 COCKPIT

Enclosure (B)

25X1



SKETCH of 3000 KG BOMB

Enclosure (C)

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