Notes on Enemy Aircraft and Units

Ju-87s in NSG 2: Evidence that the Germans are still using the Stuka was recently brought out in the interrogation of a Luftwaffe radio operator. Captured near Aachen early in February, 1944, where he was forced to bail out because of engine failure, the prisoner professed himself to be from an NSG unit flying Ju-87s.

Assigned to 2/NSG 2, the radioman reported that his Staffel flew Ju-87s, mostly D-3 and D-5 sub-types. Full complement of an NSG Staffel, he added, comprises 20 aircraft and their crews. Operation of these units is regarded as vitally important to the GAF, and the table of organization demands sufficient aircraft and crew so that they may operate individually against points of tactical significance.

Night-flying training in the Stukas consisted of a number of short hops of ten or fifteen minutes' duration, and two or three practice bombing runs that lasted about half an hour. The total time devoted to transition training of a crew to the Ju-87, including dive-bombing practice, was estimated to be six hours. Crews themselves felt this to be inadequate, and the prisoner said there was much dissatisfaction with the system in his unit.

According to the prisoner, his own Staffel, 2/NSG 2, was stationed at Köln/Wahn, while Staffel 1 was based at Köln/Ostheim, and Staffel 3 at Eudenbach.

These night dive-bomber units were originally formed from *Fliegerzielgeschwader* (tow target wings), and *Störgruppen*, units which flew night nuisance raids over front lines in obsolete aircraft. The prisoner thought that many, if not all, of these groups were re-equipped with Ju-87s. Both, however, were dissolved early in 1944, and most of their crews were assigned as cadres for NSG Staffeln.

The prisoner described the aircraft belonging to his unit as being equipped with FuG 7, but that it was rumored that these sets were to be discarded in favor of FuG 16. A few of the aircraft the prisoner believed to carry FuG 25 or 25A, and it was thought that this radar equipment was to become standard throughout the Staffel. Armed with one MG 17 in each wing as primary weapon, there was also an MG 181 for use by the radioman in rear fiing.

That the Ju-87 was slated for the shelf a second time and to be replaced by FW 190s operating under some sort of control was another rumor which the prisoner had heard in his Staffel. The reason for this expected switch was that an insufficient number of Ju-87s were currently being produced to furnish adequate replacements. The informant believed further that some NSG units were already operating on a small scale with early model FW-190s.

Kurskoppler: Whether I/KG 66 has a monopoly on the navigating computer device known by this name is not certain, but the latest prisoner questioned who provided information on it is from this Gruppe, as was the one who furnished the rather meager description in SUMMARY No. 42 (*page* 20).

The instrument provides a dead-reckoning plot by recording the distance traveled by an aircraft parallel to the intended track, and the distance deviated to port or starboard as measured at a 90° angle. It allows for alterations of course and speed, the latter being derived from a True Air Speed indicator compensated for altitude and temperature. Calculated wind effect is fed in through two other settings.

Neither the recent prisoner nor the earlier one knew much of the internal workings of the Kurskoppler, but the latter gave a much more detailed discourse on its use and operation from a navigator's point of view. Incidentally, the instrument described by the later informant is stated to be a Siemens product, with AEG reported experimenting with an improved model, whereas the Kurskoppler described previously was said to be made by Telefunken. It is possible that there are at least two slightly differing versions.

Four dials and a course setter compose the panel mountings of the instrument. A distance meter registers the DR distance longitudinally along the desired line of flight; it is reported to be calibrated up to 600 kilometers, and to operate through a coupling with the True Air Speed indicator. The latter is reported by the present informant to be planned for standard fitting on all GAF aircraft.

A deviation meter registers the distance by which the plane deviates from the set course, being calibrated up to 200 kilometers to port or starboard. Amount of this deviation is apparently relayed through the master compass system into two dials.

Wind velocity in k.p.h. is set by means of two adjusting knobs set into the wind dials. Fore and aft component of the wind velocity along the required line of flight is set on one dial and the lateral component on the other.

When a fix is obtained, its equivalent distance along track and lateral distance from track are obtained from a map and checked against the readings of the distance and deviation dials. If they agree, then the wind setting as used is correct. If they do not, the errors are corrected on the meters for distance and deviation, while at the same time, the wind dials are shifted by the amount by which the wind components are in error. The time factor does not have to be taken into account, freeing the navigator from the necessity of making calculations; it is compensated for by the Kurskoppler itself, though exactly how this is accomplished was not known by either of the prisoners who discussed it.

No information was obtained as to the usefulness of the Kurskoppler on any long flights over enemy territory. The later prisoner had used it only on five rather short sorties at low levels, and said that on these occasions it worked very well.

Chief advantages would seem to be that the navigator is freed from almost all the usual calculations, thus reducing the human error factor, the pilot can vary his altitude speed and course as he wishes without making navigation more difficult, and if the wind is as expected, a near fix on a target can be had simply by flying the indicated distance.

Jumo 004 Production : According to a prisoner who had been employed in the Junkers works at Dessau and later at a new works at Muldenstein, output of the Jumo 004 jet unit had reached 30 per day at the latter plant by June, 1944. The factory at Muldenstein had formerly been a paper plant.

Another informant on the same subject was a French mechanic who had been sent to work at Muldenstein from Dessau for a few days last Fall. He confirmed the statement of the German, and added that during September production of 004s had reached 35 daily.

Completed units were sent to Dessau for testing, except that they received a very brief test run at the factory where they were made.

The rotors were manufactured at the same place, as were the shafts and light metal housings, according to the prisoner. All other parts were shipped in from other plants, with castings and forgings coming from Dessau and the electrical components from a Bosch factory; some other parts were believed to be sent from a dispersal point in Alsace.

The eight-stage compressor rotors were made of different metals. First and second rotors were of an aluminium alloy, the next three were stated to be of "elektron," sixth and seventh of "silumin," while the eighth was of a steel alloy of unknown composition.

Ju-88S-3 : Crew of an aircraft of this subtype, from 1/KG 66, brought down and captured after an unsuccessful PFF mission for minelaying in the Scheldt, had words of high praise for their plane, and gave some data concerning it.

Fitted with Jumo 213 engines, the prisoners claimed that the Ju-88s-3 would attain 275 m.p.h. (IAS) without bombs at 2,700 r.p.m., flying at 6,500 feet. This was stated to be maximum cruising speed. At 2,400 r.p.m., they said the plane would do about 240 m.p.h. without bomb load, or about 236 when loaded up.

The prisoners said they had never exceeded 245 m.p.h., since they usually flew with the engines at 2,300 r.p.m. Rate of climb was given as about 24 feet per second with bombs at about 170 m.p.h., and about 45 feet per second without bombs, at around 150 m.p.h.

Ju-52s in Minesweeping : This hazardous task, formerly done only by ships, is the function of some GAF units reported by a recent prisoner to be using the three-engine "workhorse" of the Luftwaffe, equipped with electronic and other devices of considerable interest and unusual potential value. The prisoner had been an observer with *Minensuchstaffeln* 5 and 6 from June to September, 1944.

Technique of sweeping for mines with aircraft provides a rapid means of covering large areas, and if dependable would materially lessen the deterrent effect of acoustic and magnetic mines in shipping lanes, harbors and roadsteads.

In his units, the prisoner stated, magnetic mines were exploded by aircraft carrying magnetic rings, while acoustic mines were set off by charges which exploded on contact with the water, creating the necessary noise. The magnetic ring carried on these Ju-52s is described as about 15 meters (46 feet) in diameter, using a current of 300 amperes supplied by an auxiliary generator. This is reported to be a gasoline-driven motor dynamo, made by Mercédes-Benz.

While he was not directly acquainted with the method used against acoustic mines, the informant was able to say that the charge dropped was referred to as the *KK Gerät* ("*Knallkörpergerät*" meaning detonation device). He understood that it was a small semicircular pack about 12 by five inches, packed 30 to a case. The precise method of discharge was not stated.

About half the aircraft of the prisoner's Staffel were equipped with the magnetic ring, and the rest with KK Gerät. Customarily, three magnetic-ring planes and three KK planes would fly together on a sweep, the former in the lead and in line abreast. The KK aircraft would follow about 250 yards astern. Altitude flown would vary with the depth of the water, and optimum height for the magnetic mines was thought to be about 130 meters above the mine.

During sweep operations by the 5th and 6th Staffeln in the Skagerrak, North Sea, and Western Baltic areas, average distance from the sweeping Ju-52s at which mines exploded was 18 to 25 yards astern of the ring-equipped aircraft. The bulk of mines exploded were of the magnetic type.

The prisoner was not certain of the locations of the other *Minensuch* units, except that he thought Staffeln 1 through 4 operated in the Mediterranean. Staffel 2 came to Bremerhaven some time in September, it was stated.

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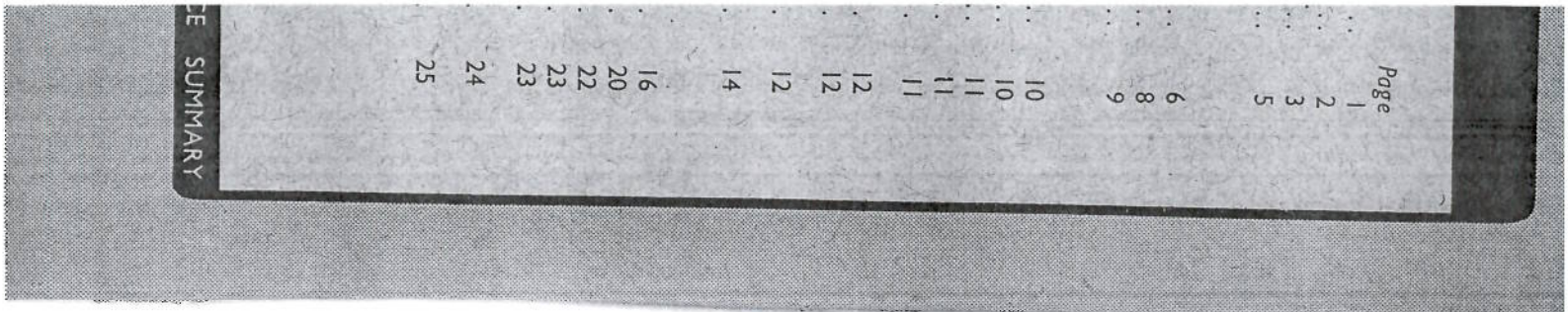

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