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# GERMAN PHOTO UNITS

A Captured Reconnaissance Crewman Provides a Mass of Detail on Them

From interrogation of a prisoner captured after bailing out of an Me-410 photo-reconnaissance plane, some extremely interesting details have been obtained concerning German photo-reconnaissance generally, and certain types of operations and equipment in particular. The prisoner, a radio operator, described present tendencies in daylight reconnaissance over southern England, as well as methods and tactics of night photographic reconnaissance, in which he was engaged for some time, including his last flight.

(Reference is invited to previous articles on German reconnaissance, particularly those in Summary No. 14, page 25, and No. 20, page 15.)

During the past two years, GAF reconnaissance aircraft have been encountering ever-increasing fighter opposition when attempting to approach or cross the coast of England. At present, according to the prisoner, daylight reconnaissance by any but fast single-engine aircraft has become virtually impossible. The unit to which the prisoner belonged is 1(F)/121, subordinate to Aufklärungsgruppe 123, which has its headquarters at Paris/Buc, and is the Staffel under this Gruppe which is engaged entirely in night sorties for the purpose of taking strike and damage assessment photos of GAF bomber objectives.

A Night Operation: The prisoner's crew made two sorties over the same area on the night of his capture, 25/26 April. As a result of reconnaissance of the Portsmouth area early in the morning, an attack was ordered for midnight on a harbor concentration, with the city itself as alternate target. Two Me-410s of 1(F)/121 took off after the main bomber force, with orders to photograph any fires seen, and also the pathfinders' flares. It appears that the Isle of Wight made a good check-point for flying by deadreckoning, by reason of its large and isolated concentration of searchlights.

The pathfinders were five to ten minutes behind ETA, and the photoplanes saw the first bombers bomb on searchlight concentrations in the estimated target area. After working about 20 minutes, the prisoner's aircraft returned to base at Orly, but the other Me-410 radioed that one engine was out,

and was not heard from again.

About three hours after landing, orders were given for another attack on the same target; it was understood that the target had been missed in the first phase. The prisoner's crew took off again about 0400 hours, with the same instructions

as before, but was intercepted and shot down by a night fighter before taking any pictures. This time, flares were laid about three minutes ahead of schedule, and the Me-410 was approaching them at 25,000 feet at the time it was attacked. This aircraft was the only one from its unit on the operation, and it would seem therefore that Portsmouth was not covered by reconnaissance in this attack. The attack was obviously planned on the spur of the moment after the failure of the first; the prisoner stated that KG 30 units at Orly, for example, were able to put up only one aircraft for the operation.

Difficulties: The staff of Aufklärungsgruppe 123 is faced, said this prisoner, with demands from Luftflotte 3 for inland photo cover of England which it is humanly impossible to provide. Daylight photographic reconnaissance of ports and coastal areas of southern England by the singleengine aircraft of 3(F)/121, based at Bernay, and by similar units, has met with some success. For example, the 25/26 April attack on Portsmouth was based on cover obtained by 3(F)/121 aircraft in the early morning of 25 April. On the other hand, the prisoner admitted that a recent attempt by a single-engine plane to photograph Bristol from 40,000 feet was foiled by fighter opposition before cover could be obtained.

New Equipment: The Staffelkapitän of 1(F)/121, Oberleutnant Kroll, who was pilot of the Me-410 in which the prisoner was radio operator, and who is presumed lost in the engagement on 25/26 April, had been experimenting recently with an Me-410 equipped with GM1 accelerator gear, which necessitated flying solo. He had hoped by this method to be able to beat the fighter defense in daylight sorties. His first attempt at this was a flight over Bristol, but while over the Channel Islands at about 30,000 feet, en route to his objective, he met such fighter resistance that he had to turn back.

The dangers of flying inland have increased to such an extent that it has become necessary for Gruppe 123 to consider the ruse of using a captured Allied aircraft to obtain the cover so insistently demanded by the Luftflotte. The GAF has been driven to flying damage assessment sorties at night under cover of the bomber attack itself, but as yet this procedure has not been producing the hoped-for results. The prisoner stated that some film was recovered recently from a PRU Mosquito which crashed in France, and that experts were

impressed with the high quality of the photographs, admitting that British practice was on the whole far in advance of the German.

Some of the newer Me-410s in 1(F)/121 are said to be equipped with an automatic camera which can be pre-set before target area so that both camera and flash-bombs can be set in action by pressing a button when the area is reached, thus leaving the radio operator free to attend to defense against night fighters, dropping düppel, etc. This device also eliminates the necessity for carrying an observer, but as yet most ships of this unit still have to carry one.

With the automatic camera, the exposure interval and the interval between firing of the flash-bombs are set in flight; the fusings of the bombs are also set from a table based on altitude. Six flash-bombs are ordinarily carried on a sortie by these Me-410s, and are rated at 6,000,000 candle-power each. Time of burning is one-third of a second, and the bombs are spaced at 25second intervals, giving roughly a 30 percent overlap. The camera shutter is automatically opened four seconds before the bomb is due to ignite, and is closed in the same manner four seconds afterwards. It is stated that this long exposure period frequently caused scarchlight concentrations to register on the film, and that an experienced operator would reduce the period by manipulating the shutter by hand.

Usual practice for night photographic aircraft is to approach the target area at about 26,000 feet, run in in a glide and level out to photograph at about 23,000 feet. From this height the flashbombs are set to explode at from 10 to 13,000 feet.

Limitations: Evidently the present stage of development of GAF night photography only allows of its application to fairly large areas, and is therefore at present suitable only for such purposes as strike assessment. The photographing of small objectives such as aircraft on airfields has not yet been successful, according to this prisoner. The majority of night photographs obtained during attacks on London and other objectives do not show good definition, and in general results have been unsatisfactory on account of searchlight tracks, emphasized by the long exposure used. On occasions these have completely covered and spoiled considerable quantities of film.

When a fire has been photographed, the result on the print is such as to make the seat of the fire unrecognizable, and no German technique has yet been evolved whereby clear definition can be obtained in the immediate vicinity of a fire of any appreciable size. Thus it is difficult to determine with accuracy which buildings or building com-

plexes are affected.

In photographing PFF flares for assessment of accuracy, it has been found by the Germans that

despite a certain amount of halation, the position of flares can be fairly well determined from neighboring detail, provided that searchlights have not caused too much interference. Assignments to photograph PFF flares were ordered by Generalmajor Pelz after very inaccurate target marking during the attacks on Hull on 19/20 March and on Bristol on 27/28 March (SUMMARY No. 24, page 21).

I(F)/I2I: One of the duties of I(F)/I2I is stated to be the daylight photographing of German camouflage in France so that its appearance in a photograph may be examined. The chief activity has consistently remained strike assessment coverage for GAF bomber attacks on southern England, including London. The home base is at Paris/Buc, where the Gruppe is located, but the field at Orly has been invariably used as an advance base in recent months for all night operations, partly because the landing ground at Buc is too

uneven for night landings.

Equipment of 1(F)/121 consists entirely of Me-410s. Normally, strength was maintained at 10 to 12 aircraft, but recent losses have been heavy and replacements light. Up to the prisoner's last mission, the staffel had lost seven crews since January, and more than seven planes; beside the aircraft of the present prisoner and Staffelkapitan Kroll, another 410 was shot down on the same night during the Portsmouth attack. These two were the first losses over England since January, the others having come to grief over France through accidents and Allied attack. One was shot down by German flak.

3(F)/121: The other Staffel under Aufklärungsgruppe 123 is 3(F)/121, based at Bernay, which is engaged in daylight reconnaissance of the Channel area with Me-109s and FW-190s. The prisoner said that a high-altitude Me-109 having a wider than normal wing-span was about to go into operation in this unit; he had heard rumors that this aircraft would be able to fly at 44,000 feet.

An interesting addition to the unit's strength is reported to be a PRU Thunderbolt which is supposed to have landed in the Cherbourg area. This aircraft had completed by 25 April a series of trial flights, and was thought to be about ready to operate on photo-reconnaissance over England. The normal work of this Staffel had recently become so dangerous that it was hoped to get inland objectives photographed by this subterfuge. The USAAF camouflage of the Thunderbolt had been retained, but German crosses had been added. It was planned to use the P-47's IFF.

This is an interesting story, and the only thing wrong with it is that no P-47s are fitted as photoreconnaissance planes. It is possible, however, that the Germans may have installed their own

photo equipment in one.

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