

From: Headquarters, No. 11 Group.  
To : Headquarters, Fighter Command.  
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GERMAN AIR ATTACKS ON ENGLAND - 8TH AUG. - 10TH SEPT.

As directed in your letter FC/S.21069/Air, dated 6th September, 1940, I have to submit the following brief report on operations in No. 11 Group area since the German offensive began on August 8th, 1940. As the battle still continues unabated by day, and has increased greatly in intensity by night, neither I nor any of my Staff have opportunity to write a lengthy report.

2. The appended report covers the period from 8th August to 10th September, during which there were three distinct phases in which the enemy altered his plan and tactics. The first phase was from 8th August to 18th August, and the second phase was from 19th August to 5th September. The 6th September began a third phase, which is now occupying all my Group's attention by day and night.

FIRST PHASE - 8th August to 18th August, 1940:

Enemy Strategy:

3. Bombing attacks were directed against the following objectives:-
- (a) Shipping and ports on the South-East and South coast, between North Foreland and Portland.
  - (b) Massed attacks against Portland and Portsmouth.
  - (c) Attacks on fighter aerodromes on the coast, followed by Bomber Command and Coastal Command aerodromes on the coast.
  - (d) Towards the end of this period, comparatively light attacks were pressed inland by day to various objectives.

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Enemy Tactics:

4. To employ massed formations of bombers, escorted by massed formations of single-engine and twin-engine fighters. The bombing attacks were mostly medium or high dive-bombing. Dive bombers, JU.87s, were used extensively, and also in lesser numbers, HE.111, DO.17 and JU.88. As this phase progressed, the enemy diverted the weight of his attack from shipping and ports on to aerodromes on the coast and R.D.F. Stations. Night attacks began to grow during this period, attacks by a number of single aircraft being made inland to various objectives.

Method of Attack:

5. The enemy usually made an attack against coastal objectives in Kent as a diversion in order to draw our fighters, then about thirty to forty minutes later, put in his main attack against ports or aerodromes on the South Coast between Brighton and Portland.

6. This phase introduced bombing by ME.110s and also 109s. ME.109s also carried out machine gun attacks on forward aerodromes.

Tactics of Enemy Fighter Cover:

7. During this phase the enemy employed his fighters in very unwieldy mass formations, usually flying much higher - about 5000 to 10000 feet - about the bombers. These tactics were not very effective in protecting the bombers.

Employment of Our Fighters.

8. The main problem was to know which was the diversionary attack and to hold sufficient fighter squadrons in readiness to meet the main attack when this could be discerned from the very unreliable information received from the R.D.F., after they had been heavily bombed. To meet these attacks on coastal objectives, it was essential to keep nearly all Readiness Squadrons at forward aerodromes, such as Lympne, Hawkinge, Manston and Rochford. The greatest vigilance had to be observed by Group Controller not to have these squadrons bombed or machine gunned on the ground at forward aerodromes. On only one occasion was any squadron at a forward aerodrome attacked while on the ground refuelling, and this was because the squadron failed to/

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/to maintain a protective patrol over the base during refuelling.

9. A very high state of preparedness had to be maintained in order to engage the enemy before he reached his coastal objectives. The general plan in employing the fighters was to detail about half the available squadrons, including the Spitfires, to engage the enemy fighters, and the remainder to attack the enemy bombers, which normally flew at between 11,000 and 13,000 feet, and carried out their attack frequently from 7,000 to 8,000 feet.

Tactics of our Fighters.

10. During this phase our fighters were mainly employing the Fighter Command attacks from astern. These gave good results against the enemy fighters, which were unarmoured, but were not so effective against the bombers. Our fighters were therefore advised to practise deflection shots from quarter astern, also from above and from below against twin-engine bombers.

Volume of Flying by Fighter Squadrons:

11. During this phase, fighter squadrons not infrequently flew over fifty hours each in one day with twelve aircraft in commission.

Casualties:

12. The casualties to pilots and aircraft were about equal in numbers for any given engagement. Owing to the lack of trained formation and Section leaders, also to the fitting of armour to enemy bombers, our casualties were relatively higher than during May and June, when operating over France and Belgium.

Results of Air Combat:

13. Results were satisfactory, the proportion of enemy shot down to our own losses being about four to one, slightly below the average when fighting over France. As much of this fighting took place over the sea, casualties were higher than they would have been if the fighting had been over land. The results of air combat were good because the enemy fighters were frequently too high to protect their bombers. Moreover/

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/Moreover, the JU.87 proved an easy prey to both Hurricanes and Spitfires.

Conclusion:

14. It would appear that our fighter defences proved too good for the enemy, because on August 18th the Germans withdrew their dive bombers, JU.87s, and there was a break of five days in intensive operations.

SECOND PHASE - 19th August to 5th September, 1940:

Enemy Strategy:

15. With this phase, enemy attacks began to turn to:-

- (a) Inland aerodromes and aircraft factories;
- (b) Industrial targets and areas which could only be classified as residential.

Attacks by day to the West of Sussex diminished markedly during this period, and greatly increased over Kent, Thames Estuary and Essex.

Enemy Tactics:

16. Possibly owing to the increased range of targets, to heavy losses which had been experienced, or to the wish to conserve them for other tasks, dive-bombing by JU.87s was not employed during this period. Night attacks greatly increased in strength.

Method of Attack:

17. During this period the enemy modified his divisionary attacks against different parts of the country, presumably for the reasons that he had not found this method to pay - or because he had not the forces to spare. His attacks were, however, made on a wider front using a greater number of very high fighter screens and smaller bomber formations.

Tactics of Enemy Fighter Cover:

18. Some formations of long range bombers have been/

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/been boxed in by close fighter escorts, some of which flew slightly above to a flank or in rear, others slightly above and ahead, with a third lot of fighters weaving between the sub-formations of bombers. On several occasions raids of this type barged through our first and second screen of fighters and reached their objectives by sheer weight of numbers, even after having suffered numerous casualties to stragglers and flank sub-formations. On several occasions, smallish formations of long range bombers deliberately left their fighter escort immediately it was engaged by our fighters, and, losing height, proceeded towards objectives in the South or South West of London without any close fighter escort. Most of these raids were engaged by our rear flank of fighters, either when about to bomb or when retreating, and suffered heavy casualties.

Employment of our Fighters:

19. As the enemy penetrated further inland, we adopted the tactics of meeting the enemy formations in pairs of squadrons, while calling on Nos. 10 and 12 Groups to provide close cover for our aerodromes near London and for suburban aircraft factories West of London. This arrangement enabled us to meet the enemy further forward in greater strength while giving a measure of close protection against enemy raids which might elude us at various heights.

20. On some occasions it therefore became practicable to detail a wing of two Spitfire squadrons to engage escorting enemy fighters while a wing of Hurricanes engaged the bombers.

21. The use of Hawkinge and Manston became rarer during this period, owing to the heavy scale attack to which they were subjected, and the fact that squadrons were required to go into action in pairs and were consequently based together at inland aerodromes.

Volume of Flying by Fighter Squadrons:

22. To ease the load on squadrons the close escort of convoys was abolished, except for the unlikely event of a day passage between North Foreland and Dungeness. The flying hours therefore did not rise materially per day.

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Casualties:

23. The heavy fighting much depleted many squadrons, and a number were withdrawn (and sometimes their ground personnel as well), for rest and training of new pilots, their places being taken by fresh squadrons from Northern Groups which had been comparatively inactive. It was again very noticeable that the heaviest casualties were experienced in the newly arrived squadrons, in spite of their being strong in numbers.

Results of Combat:

24. Results of combats were numerically satisfactory, although the enemy escort fighters engaged more closely and so reduced the number of enemy bombers turned back or shot down. Moreover, the latter were increasingly heavily armoured and in greater strength, also better handled than previously. The employment of more heavily armoured and armed bombers resulted in our casualties to pilots being high, and wastage in aircraft being very heavy.

THIRD PHASE - 6th September, onwards:

Enemy Strategy:

25. On Saturday, September 7th, the enemy first turned to the heavy attack on London by day - perhaps because his timetable called for it, or because his Intelligence staff was persuaded (on the example of Poland) that our fighter defence was sufficiently weakened by the previous month's attacks. This change of bombing plan saved 11 Group Sector Stations from becoming inoperative and enabled them to carry on operations, though at a much lower standard of efficiency.

Enemy Tactics:

26. Dive bombers reappeared in attacks on coastal objectives and shipping off Essex and Kent. These attacks were made under cover of massed attacks by long range bombers against inland objectives. Enemy attacks on inland objectives were made in two or three distinct waves, following one another at about twenty minutes intervals, the whole attack lasting up to one hour. Each wave has consisted of a number/

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/number of raids of from twenty to forty bombers having an equal number of fighters in close escort, and covered at a much higher altitude by large formations of other fighters. The majority of the raids were at higher altitude, above 15,000 feet, in bright sunlit skies that made it practically impossible for the Observer Corps to give accurate information as to the strength or type of the enemy formations flying overhead.

Method of Attack:

27. The attack of September 7th was pressed home by the weight and numbers of successive waves of bombers at short intervals, mainly with fighter escort, all directed at the London area, and in particular at the Docks.

28. Heavy concentrations of attacks by large numbers of single aircraft, followed the day attacks. These methods of attack have been followed on September 9th and 11th, when the sky was sufficiently clear of clouds. Up to the present, the subsequent attacks have not penetrated so well or done so much damage as on September 7th, and enemy losses have been consistently heavy. On 11th September, the enemy carried out a simultaneous attack on Southampton with fifty or sixty aircraft. The greater damage has probably been done by night raids, in which all pretence of attacking military objectives has been abandoned and consists mainly in "browning" the huge London target.

Tactics of Enemy Fighter Cover:

29. Some formations of fighters have been used to make very high diversionary raids in advance of bombers having close escort.

Employment of Our Fighters:

30. We have developed during this phase an arrangement to engage the first wave of a large raid with six Readiness squadrons, (Spitfires high, and Hurricanes for bombers) in pairs; to hold about eight squadrons to meet the second wave half way to the coast; for the remaining squadrons to cover aircraft factories and aerodromes, or if necessary to be thrown to meet a third wave; leaving Nos. 10 and 12 Group/

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/Group squadrons to cover Sector aerodromes North and West and aircraft factories. On the 9th and 11th September, these new dispositions were very successful. Out of twenty-one squadrons of No.11 Group despatched, nineteen engaged, inflicting heavy losses on the enemy. In spite of this, however, one heavy raid of about forty to fifty bombers broke through and reached Eastern London before effectively being attacked by our fighters.

31. To increase the proportion of engagement, despite the handicaps of R.D.F. inaccuracy on aircraft at great height, various observer corps failures, damage to G.P.O. lines and temporary partial dislocation by the movement of Sector Operations Rooms, it was decided to employ a single V.H.F. Spitfire to shadow enemy raids, and report to Sectors, who repeat to Group. The results so far have not shown what value this will prove to the air defences.

32. A further temporary handicap on the employment of our fighters has been the measures taken against bombing attacks to disperse non-essential administrative, etc., personnel and equipment from Sector Stations. This is a matter which is clearing itself, rapidly now, and will eventually lead to decreased vulnerability to enemy air attack.

Volume of Flying by Fighter Squadrons:

33. No increase in this phase as yet.

Casualties:

34. It has been decided, for the present, not to replace squadrons which have been hammered, but to keep them filled up to a minimum of sixteen operationally trained pilots by transfers from Northern Groups which, being less heavily engaged and being more remote from the area of combat, are able to train new pilots from O.T.U.s up to operational standard. The wastage in Hurricanes has been unduly heavy owing to the many instances of gravity tanks being set on fire in combat. Attention was drawn to this, and recommendations made to Command Headquarters some weeks ago.

Results of Air Combat:

35. Despite the heavy armouring of enemy bombers, our/

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/our more highly developed tactics of concentration and interception, the adoption of head-on also beam attacks, has enabled us to inflict a heavier proportion of losses during this period than during the second phase under report.

Effect of Bombing Attacks on Fighter Aerodromes:

36. Contrary to general belief and official reports, the enemy's bombing attacks by day did extensive damage to five of our forward aerodromes, and also to six of our seven Sector Stations. The damage to forward aerodromes was so severe that Manston and Lympne were on several occasions for days quite unfit for operating fighters.

37. Biggin Hill was so severely damaged that only one squadron could operate from there, and the remaining two squadrons had to be placed under the control of adjacent Sectors for over a week. Had the enemy continued his heavy attacks against the adjacent Sectors and knocked out their Operations Rooms or telephone communications, the fighter defences of London would have been in a perilous state during the last critical phase when heavy attacks have been directed against the capital.

38. Sector Operations Rooms have on three occasions been put out of action, either by direct hits or by damage to G.P.O. cables, and all Sectors took into use their Emergency Operations Rooms, which were not only too small to house the essential personnel, but had never been provided with the proper scale of G.P.O. landlines to enable normal operation of three squadrons per Sector. In view of this grave deficiency, arrangements were made to establish alternative Sector Operations Rooms within five miles of each Sector aerodrome, and this work is now proceeding on the highest priority.

39. At several important aerodromes and Sectors, enemy bombing put out of action the Stations organization by destroying telephone communications, buildings, etc. Fortunately, the enemy switched his raids from aerodromes on to industrial and other objectives, and gave a short respite during which the Station organisation at bombed aerodromes was completely reorganised.

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40. The attacks on our fighter aerodromes soon proved that the Air Ministry's arrangements for labour and equipment quickly to repair aerodrome surfaces were absolutely inadequate, and this has been made the subject of numerous signals and letters during the past four weeks.

41. There was a critical period between 28th August and 5th September when the damage to Sector Stations and our ground organization was having a serious effect on the fighting efficiency of the fighter Squadrons, who could not be given the same good technical and administrative service as previously. As a result of an immense amount of hard work day and night on the part of Group Staff and personnel at Sector Stations and satellite aerodromes, the critical period was tided over, without any interruption in the operations of our fighter squadrons. The absence of many essential telephone lines, the use of scratch equipment in emergency Operations Rooms, and the general dislocation of ground organisation, was seriously felt for about a week in the handling of squadrons by day to meet the enemy's massed attacks, which were continued without the former occasional break of a day.

Conclusion:

42. At the time of writing, confidence is felt in our ability to hold the enemy by day and to prevent his obtaining superiority in the air over our territory, unless he greatly increases the scale or intensity of his attacks. Every endeavour is now being made to improve our fighter defences by night. To achieve this aim will require not only better equipment, but greater specialisation of pilots on night flying and fighting.

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