

of the 5 .303-inch Brownings of the Blenheim. There was thus hope that decisive fire could be brought to bear in the short period during which visual contact could be expected to be maintained at night.

93. Like the Blenheim, it had not been designed as a Night Fighter (it was an adaptation of the Beaufort Torpedo Bomber), and the night view from the cockpit was bad; but Air Vice-Marshal Sir Q. Brand, K.B.E., D.S.O., M.C., D.F.C., a veteran night fighter of the previous war, had designed a new cockpit lay-out, which did not, unfortunately, materialise during my tenure of the Fighter Command. The output of Beaufighters was also very low.

94. Another type which was pressed into service as a Night Fighter was the Douglas D.B.7 (now the Havoc). It had low fire power and comparatively poor performance with its original engines. Its chief advantage lay in its tricycle undercarriage, which proved very popular for landings in bad visibility. Only one Squadron of these was in being when I left the Command.

95. One Squadron of Gladiators was still in use in the Command. As explained above, the organisation of No. 10 Group was not complete, and there was no large aerodrome close enough to Plymouth to allow of direct protection being given to that town and to the Dockyard at Devonport. A squadron of Gladiators was therefore located at a small aerodrome called Roborough in the immediate vicinity. The Gladiators, though slow by modern standards, were very manoeuvrable, and had given good results in Norway by deflection shooting in the defence of fixed objectives, where the Bombers could not avoid the Gladiators if they were to reach their targets.

96. Some American single-seater aircraft were in Great Britain, but the types then available were deficient in performance and fire power and were not employed to any material extent.

97. The Whirlwind raised high hopes in some quarters. It claimed a very high top speed and carried 4 Cannon Guns. It had, however, a totally inadequate service ceiling (about 25,000 ft.) and a poor performance at that altitude. It also suffered from a continuous series of teething troubles, and the single Squadron equipped with this type was never fit for operations in my time.

98. It is very difficult to give any kind of concise description of the types of Enemy Aircraft used during the Battle. The Germans, while adhering to broad standard types, were continually modifying and improving them by fitting more powerful engines and altering the armament. The original Messerschmitt 109, for instance, had a performance comparable with that of the Hurricane, but the latest type could compete with the Spitfire, and had a better ceiling. Some of them had 4 machine guns and others had 2 machine guns and 2 cannons. Some of them were fitted to carry bombs and some were not.

99. The Messerschmitt 110 was a twin-engined fighter designed primarily for escorting Bombers and used also as a Fighter-Bomber. It was somewhat faster than the Hurricane, but naturally much less manoeuvrable than the

single-engined types. Its usual armament was 2 fixed cannons and 4 machine guns firing forward, and one free machine gun firing to the rear. Our pilots regarded it as a less formidable opponent than the later types of M.E. 109.

100. The Heinkel 113 Fighter made its appearance in limited numbers during the Battle. It was a single seater, generally resembling the M.E. 109. Its main attributes were high performance and ceiling, so that it was generally used in the highest of the several layers in which attacking formations were usually built up.

101. The Junkers 87 was a single-engined Dive-Bomber. It had a low performance (top speed well under 250 m.p.h.). It had 2 fixed machine guns firing forward and one free gun firing to the rear. When it was able to operate undisturbed by Fighters it was the Germans' most efficient Bomber against land or sea targets owing to the great accuracy with which it dropped its bombs; but when it was caught by fighters it was nothing short of a death-trap, and formations of J.U. 87's were practically annihilated on several occasions.

102. The Heinkel 111 and the various types of Dornier (17, 17Z and 215) constituted the main element of the German striking force. They were twin-engined aircraft and were generally similar, although the former was slightly the larger. Their speed was something over 250 m.p.h., and their armament consisted normally (but not always) of 4 free machine guns firing backwards and one firing forwards. Their radius of action varied with tankage and bomb load, but, if necessary, all objectives in England and Northern Ireland could be reached from aerodromes in France.

103. The Junkers 88 was the most modern of the German Bombers. It also was a twin-engined type with a performance of about 290 m.p.h. Its armament was generally similar to that of the H.E. 111 and the Dorniers and it had a slightly longer range. It could be used on occasions as a Dive-Bomber and, though probably somewhat less accurate than the J.U. 87, was much less vulnerable owing to its superior performance and armament.

104. Before beginning an account of the Battle, I must refer briefly to the publication entitled *The Battle of Britain*, issued by the Air Ministry. This, if I may say so, is an admirable account of the Battle for public consumption, and I am indebted to it, as well as to the book *Fighter Command*, by Wing Commander A. B. Austin, for help in the compilation of this Despatch. There is very little which I should have wished to alter, even if circumstances had permitted my seeing it before publication (I was absent in America at the time), but there are two points to which I should like to draw attention:—

105. In the diagram on page 7 the speed of the Hurricane is seriously over-rated at 335 m.p.h. I carried out a series of trials to obtain the absolute and comparative speeds of Hurricanes and Spitfires at optimum heights. Naturally the speeds of individual aircraft varied slightly, but the average speed of six Hurricanes came out at about 305 m.p.h.

106. The second point is of greater importance. I quote from page 33: "What the Luftwaffe failed to do was to destroy the Fighter Squadrons of the Royal Air Force,