designated respectively objects numbers one, two and three.

174. Object number one was achieved within a few months of the opening of the offensive. By the Spring of 1941 the initiative in major daylight operations had passed from the Germans, who did not subsequently regain it.

175. Objective number two was also achieved, inasmuch as the Germans did in fact retain on the Western Front throughout the second half of 1941 approximately the same first-line fighter force as was present in the late Spring. In particular, two Geschwader of particularly high quality, which might have been usefully employed elsewhere, remained in Northern France to oppose the "Circus" offensive and our other offensive operations. ' It is, of course, most unlikely that, even without the offensive, the Germans would altogether have denuded the Western Front of fighters: so long as even the threat of an offensive was present, a substantial defensive force would doubtless have been retained in the West in any case. Still, the fact remains that through. out the Summer and Autumn of 1941 roughly one third of the total establishment of German first-line single-engined fighters was contained on the Western Front.

176. Object number three was not achieved. Such moves between East and West as occurred were by way of exchange rather than reinforcement.

177. To turn to subsidiary achievements, the offensive against shipping went far to deny the Dover Strait to the enemy in daylight, so that the Germans were induced to pass more and more of their shipping at night. This produced favourable conditions for the employment of naval forces. Furthermore the offensive as a whole, and particularly the "Circus" offensive, brought about a substantial attrition of the German fighter force in Northern France during the Summer, at a substantial cost to ourselves. Such an effect could not, by its very nature, be other than transitory so long as the enemy's means of replacement remained intact; for any slackening of the offensive, whether caused by bad weather or our own losses, would enable him to restore the situation more or less quickly. One of the clearest lessons which was later seen to emerge from this experience was that fighters operating from this country over Northern France could, at a sufficient cost, inflict such losses on the opposing fighter force as would bring about a local and temporary air superiority. But this achievement could, of itself, have no decisive military value: the ability to create this situation was valuable only if means were to hand of exploiting it by some further move capable of producing a decision.

178. This condition was not fulfilled in 1941. Consequently the operations just described, although they achieved two of the three objects for which they were undertaken, and also provided valuable experience, were necessarily indecisive. This was, indeed, recognized as inevitable when the intensified offensive was begun, for its underlying strategy rested upon the assumption that the decisive theatre lay, for the moment, in the East. Nevertheless these operations pointed the way to the events of 1943 and 1944, when the temporary reduction of the opposing fighter force was to be de-

liberately and successfully undertaken as a necessary prelude to the decisive military gesture which was to lead to the defeat of Germany.

## PART II: STRENGTH, FIGHTING VALUE AND ORGANISATION.

(a) Expansion of the Operational Training System.

179. At the beginning of November 1940, the first-line strength of Fighter Command stood nominally at  $67\frac{1}{2}$  squadrons. Outwardly, therefore, the Command was stronger than at the beginning of the Battle of Britain, when only 58 squadrons were available. In reality it was weaker. After several months of intensive fighting some of the squadrons had only a few pilots fully up to operational standards, and the first-line strength was backed by insufficient depth. At the height of the battle the supply of new pilots had failed to keep pace with losses and it had been necessary to improvise measures to avert a crisis.

180. Superficially this weakness was due to the inability of the operational training organisation within the Command to keep pace with our losses. In reality the trouble went deeper. It is true that if there had been a larger reserve of pilots in the Operational Training Units the decline in the effective strength of the first-line squadrons could have been avoided or postponed. But such a reserve could only have been accumulated in the first place either by withholding pilots from the first line or by increasing the supply from the Flying Training Schools. Neither course was practicable in the circumstances of the time. The real "bottleneck "was the restricted capacity of the Flying Training Schools, and it was not within my competence to remedy this shortcoming, which was perhaps an inevitable consequence of the change from peace to war.

181. Nevertheless, this experience pointed to the desirability of expanding the operational training organisation so that full advantage might be taken of the increased supply of pilots from the Flying Training Schools which would eventually become available. On 1st November 1940, three Operational Training Units were in existence and the formation of another had been ordered. On 5th November my predecessor proposed to the Air Ministry that two more should be added and that all six should be incorporated in a Fighter Operational Training Group within the Command.

182. The sequel was the formation in December 1940 of No. 81 Group under the Command of A11 Commodore F. J. Vincent, D.F.C. On 31st December, No. 81 Group assumed control of the six O.T.U.s then in existence or being formed. During the succeeding twelve months the number of O.T.U.s was increased to eleven. In the course of the year No. 81 Group did 263,604 hours flying and turned out 4,242 pilots—an average of more than 350 a month.

## (b) Pilot Strength of Squadrons.

183. Nevertheless, the supply of pilots continued to be a source of anxiety during the greater part of the period covered by this account. The nominal establishment of a fighter squadron stood on 1st November 1940 at 26 pilots. In practice the average strength was