

"Fighter Directing Officers". The latter were to sail in the C.A.M. ships and, making use of radar and radio-telephony equipment, direct the fighters towards approaching German aircraft. The Merchant Ship Fighter Unit absorbed the equivalent of approximately two fighter squadrons.

117. The Unit despatched its first pilots and maintenance crews on operational service early in June. In August a detachment opened at Dartmouth, Nova Scotia, to administer a pool of replacement aircraft on the Western side of the Atlantic.

118. German aircraft continued to make occasional "pirate" raids on factories and other objectives in the Spring, but thereafter activity by day, apart from operations against shipping, consisted almost entirely of reconnaissance flights and occasional "tip-and-run" attacks on coast towns in England and Scotland. Offensive operations by German fighters virtually ceased in the early Summer. On a few occasions in the Autumn Me109 fighters were seen over Kent and Sussex, but the only offensive action worthy of the name which was taken by German fighters in the second half of 1941 was on Christmas Day, when two aircraft appeared off the South Coast and opened fire on buildings near Hastings. This was the prelude to a new low-level fighter and fighter-bomber offensive which was to take place in 1942.

119. The interception of "pirate" raiders and other aircraft flying singly was a difficult task, especially in cloudy weather, when problems arose similar to those which surrounded night interception. As early as December 1940, the principle of using Beau-fighters fitted with A.I. by day in bad weather was established, and as experience grew it became evident that in such conditions the only reasonable chance of success was offered by the same combination of A.I. in the aircraft, and G.C.I. on the ground, as was used at night.

120. The next step was the use of G.C.I. by day for controlling fighters without as well as with A.I. In August 1941, I made provision for this to be done throughout Nos. 10 and 11 Groups, although at this stage G.C.I. Stations in No. 11 Group were not required to keep watch by day in good weather.

121. Another step taken about this time was the development of a plan for intercepting aircraft capable of flying at very great heights, which it was thought that the Germans might be planning to use against us. After fighters of No. 10 Group had practised making very high-altitude G.C.I. interceptions of Fortresses of Bomber Command, my staff devised a system of control whereby the country was divided into a number of regions each containing an "area control" connected with a "central control" designed to co-ordinate their activities. This scheme was to prove useful in 1942 when the Germans sent a number of high-flying Ju86 P reconnaissance aircraft over this country.

122. With the decline in the volume of over-land activity by the Luftwaffe towards the end of 1941, I considered it reasonable to contemplate a relaxation of the principles of balloon-barrage control which had been re-affirmed in the Spring. Technical improvements which made it possible to raise balloons to their operational height more quickly than hitherto

favoured a change which seemed called for by an increased volume of flying by our own aircraft, to which the barrages were in some circumstances an impediment. In November trials were made with a system whereby a large number of provincial barrages were grounded throughout the 24 hours except when German aircraft were known to be about. It was not until 1942, however, that this system was finally adopted.

(b) *Offensive.*

(i) *Operations up to 13th June, 1941.*

123. During the Battle of Britain the initiative in daylight operations lay with the Germans. Nevertheless, even before the battle was over a time was foreseen when our fighter squadrons would seize the initiative and engage the German fighters over the far side of the Channel. The necessary operational instructions were drawn up as early as the third week in October, 1940, and revised in the first week of December.

124. By the latter date it was possible to contemplate something more ambitious than a mere pushing forward of fighter patrols, and on 29th November, I instructed the Air Officer Commanding No. 11 Group to look into the possibility of combining offensive sweeps with operations by Bomber Command.

125. In the middle of December the German fighter force, which had suffered heavy losses since the Summer, virtually abandoned the offensive for the time being. Clearly, the moment had come to put our plans into effect and wrest the initiative from the enemy.

126. Broadly speaking, the plan which we now adopted visualized two kinds of offensive operations. In cloudy weather, small numbers of fighters would cross the channel under cover of the clouds, dart out of them to attack any German aircraft they could find, and return similarly protected. In good weather fighter forces amounting to several squadrons at a time, and sometimes accompanied by bombers, would sweep over Northern France. The code-names chosen for these operations were respectively "Mosquito" (later changed to "Rhubarb," to avoid confusion with the aircraft of that name) and "Circus"; but in practice it was necessary to restrict the name "Circus" to operations with bombers, and fulfilling certain other conditions which will become apparent as this account proceeds.

127. "Rhubarb" patrols were begun on 20th December, 1940, and provided valuable experience alike for pilots, operational commanders, and the staffs of the formations concerned. I encouraged the delegation of responsibility for the planning of these patrols to lower formations, and many patrols were planned by the pilots themselves with the help of their Squadron Intelligence Officers.

128. It was obvious from the start that in many cases pilots engaged on these patrols would not succeed in meeting any German aircraft, and they were authorised in this event to attack suitable objectives on the ground. Nevertheless, I considered it important that the primary object of the operation—namely, the destruction of enemy aircraft—should not be forgotten, and discouraged any tendency to give undue emphasis to the attacks on ground objectives.