

tasks. Accordingly the "modified sites" still went unmolested, although it is now known, and was strongly suspected at the time, that the missiles had been launched from sites of this class.

57. At 2230 hours on the 15th June the attacks were resumed on a much heavier scale. During the next twenty-four hours the Germans launched over 200 pilotless aircraft—or, as we soon began to call them, flying bombs or "doodle bugs"—of which 144 crossed the coasts of Kent and Sussex and 73 reached Greater London. Thirty-three bombs were brought down by the defences, but eleven of these came down in the built-up area of Greater London.\*

58. Clearly we were confronted on the morning of the 16th June by a situation very different from that of the 13th. I was of the opinion that the time to execute the "Overlord-Diver" Plan had now come; and in the course of the day the Chiefs of Staff agreed that this should be done. That afternoon I attended a "Staff Conference" over which the Prime Minister and Minister of Defence presided. One of the decisions then reached was that, in consultation with General Pile, I should redistribute the gun, searchlight, and balloon defences "as necessary to counter the attacks". Another was that for the time being the guns inside the London area (as well as those outside) should continue to engage flying bombs. We abandoned this arrangement two days later, after experience had cast doubt on the assumption that most of the bombs that were hit exploded in the air.

59. Before going to the conference I had given orders for deployment of the "Diver" defences to begin. By the early hours of the 17th June the first A.A. regiment to move had taken up its new positions and the deployment of the balloon barrage had also begun. When drawing up the plan we had calculated that deployment would take eighteen days to complete and that it would be wiser to allow twenty-five days; the Air Ministry had expected to be able to give us a month's warning. In the event we had received no warning at all, apart from that provided by the Germans themselves on the 13th June. In the circumstances it was imperative that we should get the job done quickly. The original time-table went by the board. Thanks to the administrative arrangements which had already been made and to remarkable feats by both Anti-Aircraft Command and Balloon Command, the whole of the planned deployment was virtually complete by the 21st June, only five days after the issue of the order to deploy.

60. All this time the attacks were continuing at the rate of about 100 flying bombs a day. Our fighters were bringing down about thirty per cent. of the bombs and the static defences some eight to ten per cent.; but more than half the bombs which crossed the coast were getting through to Greater London. I soon

realised that a scale of static defence which might have been adequate against such attacks as eight or ten "ski sites" could have delivered was not going to suffice against the effort of which the "modified sites" were showing themselves capable. In consultation with General Pile, therefore, I arranged for the gun defences to be substantially reinforced. By mid-day on the 28th June 363 heavy and 522 light A.A. guns were in action. Further weapons, including light guns manned by the Royal Air Force Regiment, anti-aircraft tanks of the Royal Armoured Corps, and rocket projectors, were either in position or on the way. I also arranged for the strength of the balloon barrage to be doubled.

61. Meanwhile Tempest V, Spitfire XIV, Spitfire XII, Spitfire IX, Typhoon, and at night Mosquito aircraft of No. 11 Group had been in action against flying bombs since the beginning of the main attack. As we have seen, their rate of success at this stage amounted to about thirty per cent. of all the bombs which crossed or approached the coast. On the 16th June I had issued orders defining their area of patrol as the Channel and the land between the coast and the southern limit of the gun-belt, and prohibiting them from passing over the gun-belt except when actually pursuing a flying bomb. I soon found that in good weather the fighters were much more successful than the guns, which were badly hampered by the fact that the flying bombs did not fly at the height of 6,000 or 7,000 feet previously estimated by the Air Ministry, but at that very height of 2,000 to 3,000 feet which we had always realised would make the gunner's task most difficult.\* On the other hand, when the weather was bad, poor visibility hampered the fighters, and in these conditions the guns were likely to prove the more effective weapon. Accordingly, I arranged on the 19th June that in very good weather the guns should abstain from firing in order to give the fighters complete freedom of action. Conversely, when the weather was bad, the guns would have freedom of action and no fighters would be used. In middling weather fighters would operate in front of the gun belt and enter it only when pursuing a flying bomb. When a fighter entered the gun belt for this purpose the guns would, of course, withhold their fire; otherwise the guns inside the belt would be free to fire up to 8,000 feet. Outside the gun belt gunfire was prohibited in these circumstances, except that light A.A. gunners linked to the communications network might open fire on targets they could see, provided no fighters were about.

62. These rules for engagement, which I ordered to be codified and issued to those concerned on the 26th June, were intended to prevent mutual interference between guns and fighters. For reasons which I shall explain later, they did not altogether achieve this aim. But before coming to this question it will be appropriate to review the progress of the German attacks and of our counter-measures up to the date in the middle of July when the question of an important change in our defence plan came to a head.

\* Originally the Germans meant the bombs to fly higher, doubtless so as to minimize the effect of light A.A. fire. This proved impracticable, and without the knowledge of the Air Ministry they changed their plans.

\* The figures were :

	<i>Brought down outside London</i>	<i>Brought down inside London</i>
By fighters alone ... ..	7	—
By guns alone ... ..	14	11
By fighters and guns jointly	1	—
Totals ... ..	22	11