

63. The scale of attack for the first two weeks was, as I have said, of the order of 100 bombs a day. After a period of deliberation at the outset, the authorities responsible for offensive counter-measures embarked on a series of bombing attacks on the "modified sites". A number of sites were neutralized, but the number remaining was always sufficient to have launched a scale of attack several times greater than that which we actually experienced. In other words, the factor limiting the German effort was not the number of sites available, but something else—most probably the rate at which the flying bombs could be supplied to the sites. It was therefore arguable that the attacks on the "modified sites" amounted to locking the stable door after the horse had been stolen, and were a waste of effort. The authorities decided to continue the attacks, however, in order to harass the launching crews and thereby reduce their efficiency. I cannot say how far that object was achieved, since my staff were never able to establish any statistical relationship between the bombing attacks on the "modified sites" and the rate or quality of the enemy's fire. The Germans have told us since the armistice, however, that the bombing of the "modified sites" made little difference to them.

64. At the same time the authorities responsible for offensive counter-measures appreciated that the factor limiting the scale of attack was probably supply. Information from intelligence sources cast increasing doubt on the relevance of the so-called "supply sites" and showed that the key-positions were probably certain underground storage depots situated in limestone quarries in the valley of the Oise and an abandoned railway tunnel in Champagne. Successful bombing attacks were made on several of these depots, and in two instances were followed by a noticeable decline in the scale of attack. In both cases, however, the effect was only temporary. Apparently the Germans were able to improvise other channels of supply. Hence, while I was much relieved by the offensive counter-measures undertaken by the Tactical and Strategic Air Forces, I realised that they were not likely to put a stop to the German attacks. The loss or preservation of thousands of lives, much valuable property, and a substantial productive capacity, would turn on our ability to provide an effective system of defence for London with the resources under my operational control. At that time our land forces in France had not advanced beyond the lodgment area: the capture of the launching sites in the imminent future seemed very doubtful. The flying-bomb attacks might well go on for many months.

65. And in fact the attacks continued at the same rate of roughly 100 flying bombs a day until the end of the first week in July, when the effort fell for about ten days to an average of less than 70 a day. This decline may have been partly due to good weather, for the Germans usually saved their biggest efforts for days when the weather was likely to hamper the defences. But I incline to the view that it was largely the result of a specially successful attack on one of the main storage depots which was made by Bomber Command on the night of the 7th July. Except during this same second week in July, when both good weather and a reduced scale of attack helped our

fighters to shoot down a higher proportion of the bombs than usual, about half the bombs that crossed the English coast went on reaching Greater London. In sum, during the five weeks which ended at sunrise on the 15th July, just under 3,000 flying bombs came within the compass of the defensive system.* Our fighters shot down rather more than a tenth of them into the sea, and a few were brought down into the sea by A.A. fire or fell into it of their own accord. Of the remaining 2,500 odd which crossed the coast, fighters, guns, and balloons respectively destroyed or brought down about half over the land, fighters claiming ten and guns four casualties to every one claimed by the balloon defences.

66. Outwardly these results were not too bad. Nevertheless, I was far from satisfied that the defences were working properly. In the first place, an average of 25 bombs a day was still reaching Greater London. The overall average since the beginning of the attacks amounted to nearly 40 bombs a day. London had endured heavier bombing than this in 1940; but for various reasons an intermittent drizzle of malignant robots seemed harder to bear than the storm and thunder of the "Blitz". Nor were the material results of the bombardment inconsiderable. Between the 13th June and the 15th July it killed about 3,000 people, seriously injured 10,000, and irreparably damaged 13,000 houses. Although no objectives of vital importance to the war effort were hit, many public buildings such as churches, hospitals, and schools appeared in the casualty list.

67. Secondly, although the performance of the defences as a whole had improved continuously since the beginning of the attack, and although the fighters had done particularly well during the last two weeks, I saw many signs that the limit of improvement with our existing methods had been reached. I was reluctantly convinced that unless some radical change was made, the future was more likely to bring a slow decline than further progress.

68. The circumstances which led me to this view can only be understood by reference to the special problems of the various arms of the defence. In order to gain an intimate knowledge of those problems I had decided early in the attack to share in the fighter operations as a pilot, using various aircraft in turn. Personal experience convinced me that the first problem confronting the fighters was the speed of the bombs, which was rather greater than we had expected before the attacks began.† The fastest aircraft I had were a wing of Tempest Vs and a wing of Spitfire XIVs. These could not be everywhere at once. One of my first moves, therefore, was to obtain the Air Commander-in-Chief's consent to my borrowing at first a flight and later a wing of Mustang IIIs from the Second Tactical Air Force. These aircraft were very fast at the height at which the bombs flew and made a valuable contribution

* This figure does not include "abortive" bombs which fell in France or into the sea on the French side of the Channel. It seems that the Germans launched five flying bombs for every four that came within the compass of the defences.

† Most of the bombs seem to have left the launching sites at about 200 m.p.h. Their speed increased throughout their flight, reaching about 340 m.p.h. at the English coast and 400 m.p.h. or thereabouts over London.