



*Luftwaffe He 111 bombers head for England during the Battle of Britain*

speed at which you approach your target; the bombers do about 400 KM at a height of 8000 m and your own speed when you approach at full speed is usually 600 KM; as a result you are approaching your target at 1000 KM and are only exposed to the enemy fire for a very short time.

On account of the dispersion fire and the density of the cone of fire the most dangerous distance for the fighter is between 1000 and 600 m. Once you are nearer than that the dispersion from those guns is so slight that the smallest error of aim will cause the whole cone of fire to miss you. Once you've passed the effective range of 1000 to 600 m it is much more difficult to hit you and you have a chance of bringing them down. There are many advantages besides which make frontal attack appear to be especially appropriate: firstly you can kill the crew straight away and secondly the four engines are in front and they're most vulnerable, the tanks are in front and they are more easily hit by an attack from the front than the rear.

A FW-190 and ME-109 were the mainstay of the German Air Force's emphasis on fighter planes. While this type of aircraft was suited to the defense of their homeland, the need for long range 4 engine bombers was evident during the battle of Britain when it was shown that the twin engine HE111 had insufficient range to penetrate deep into the English heartland to destroy war production. During the height of the battle of Britain when the English were nearly on their knees, a trickle of Spitfires and Hurricanes continued to be received by Fighter Squadrons from factories out of range of the German bombers. When targets were within range, the German bomber force could wreak terrible havoc. As exemplified by the devastating attack on Bari harbor in December 1943, sending to the bottom Allied shipping containing supplies for the newly formed 15th Air Force

With the start of raids into the Reich proper, which took them first to the Ruhr district, then the industrial areas of the Upper Rhine, then beyond the Main, Darmstadt, Ludwigshafen, the so called defense of the Reich was initiated. We had a Fighter "Gruppe" of about thirty aircraft, at our disposal in Holland. Twenty of them were operational. We also had at our disposal in the Reich the fighter schools with the so called operational 'Schwarms'. They consisted of one or two 'Schwarms' that is four or eight aircraft piloted by

instructors. We had at our disposal the so called industrial 'Schwarms' manned by industrial test pilots. That was the fighting force which was the foundation of the Reich. What happened to this fighting force was that they also on account of their lack of experience had heavy losses and little success.

Then we started denuding our front lines; we brought up fighter formations from the south, from the southeast, from the east, from the west, in order to obtain more or less adequate fighting force with which to oppose that assault. 'Divisions' were formed; seven fighter 'Division'; whenever we actually went into operation, each fighter 'Division' had

from thirty to fifty aircraft in the air. That is to say, if two fighter 'Division' both threw in their aircraft together. These raids proved the impossibility of operating according to old principles or to principles which were all right in the east; that is to say to send them up simply on the strength of 'Fluko' reports; a thoroughly reliable ground control had to be developed. I shall skip this development as it would take me too far a field. Finally the defense of the Reich was as follows: the 'Division' who were to put fighters into operation, received detailed reports about enemy raids from 'Corps' and from their own range finding posts.

As soon as the first aircraft took off in England and reached a height of 500 in we received the report: "Assembly has started in England." Then the assembly was continuously observed until they started to leave, as soon as the assembling of those many hundreds of aircraft, a thing which presents colossal technical difficulties, was completed. Then their flight was followed, to establish where they were going, whether they were heading due east, or north across the North Sea or south east. From all those items we formed our decisions. The 'Division' for day fighting were able to make use of battle HQs which had already been prepared for the night fighters. Slight alterations were necessary but on the whole this huge apparatus could be used for direction by day too. Then the formations got the take off order: "Take off at such an such an hour." Usually ten minutes or a quarter of an hour before. Assembly point for instance at the end of 1943 or beginning of 1944 Hanover and Brunswick, at a height of 8000 M. Then all the formations flew to that area and assembled at the prescribed height. After assembling, this close formation of 50, 80, 100, 150 aircraft was directed towards the enemy formation until it sighted them. As soon as it sighted the enemy the leader of the formation had the task of organizing the attack in whatever way seemed most favorable. This control was fairly easy as long as there was no fighter escort present.

The first attacks, which were carried out without fighter escorts, were easier to combat and were easier for the ground control to direct than they were in later developments. The most famous and widely known was that attack on the ball bearing factory at Schweinfurt, which resulted in the first large victories, which, I believe, were announced as 140 aircraft. 140 aircraft were an-