



The Battle of Britain

Highlights for KS3 and KS4 visits

To find out more about a critical turning point in the history of the UK, visit our **Battle of Britain display**, located across Hangars 3, 4 and 5.

The Battle of Britain, 10 July to 31 October 1940, was a large air battle fought between the German Luftwaffe and the Royal Air Force of Great Britain. If lost by the RAF, it would have opened the opportunity for Germany to conquer the British Isles. This would have fulfilled the Nazi ambition of domination of Western Europe and would have made it almost impossible for other countries (such as the USA) to launch a counterattack against Germany. Winning the Battle of Britain is considered to have been one of the RAF's most important contributions to British and world history.

Our 11-minute film 'Our Finest Hour' presents a useful overview of the events of the Battle of Britain and of its importance in the Second World War as a whole. This serves as a good introduction to the topic or it can be watched to consolidate learning for those who have already studied it at school.

On our website, is a more detailed account of the background to the Battle: how it was fought and what the outcome was. It can be found at: rafmuseum.org.uk/research/online-exhibitions/history-of-the-battle-ofbritain.aspx



The Dowding System was an integrated reporting and communication network, using the 'secret' early-detection system of radar. This technology and the processing of the information it gave, enabled the RAF's fighter pilots the time they needed to scramble to meet the threat of the Luftwaffe. On one wall of our display is **The Dowding System in Action**, a touch interactive. It demonstrates how the fighting was controlled on the Battle's busiest day up to then – Discover how the fighting was controlled on 15 August 1940.





One highlight of our display is the **Battle of Britain Lace Panel**, which is a post-war tribute to the aircrew and the efforts of ground defences who won the battle. Lace company, Dobson & Browne of Nottingham produced 38 copies, not all of which survive. This tall lacework required 40,000 different jacquard cards to be punched to create the pictures and 975 bobbins of cotton to weave it. Some key aircraft are featured as are famous London buildings that were bombed. Lace Panels were presented to select organisations and people (including Prime Minister Winston Churchill). This panel is a fitting tribute to the Few and the Many who served in the RAF during the Battle.

Enigma was the trade name for the cypher (code) machine used by the Germans to encode their communications. Britain had obtained a couple of sets of Enigma before the Battle of Britain. German orders and messages were intercepted and passed to Station X at Bletchley Park where they could be decoded and translated. The resulting intelligence was shared with the appropriate commanding officer to help inform their decisions. However, the speed at which the code message could be cracked in 1940 was quite slow (this was quicker in later years), so that the information it gave to help win the Battle was limited. All the same, to see such an icon of the Second World War, is an exceptionally rare treat.





Joan Mortimer
MM, Elspeth
Henderson
MM and Helen
Turner MM

The **Head and Breast Telephone Set** is one of the smaller objects on display. An everyday item, the RAF communication network used thousands of them. They were rented by the RAF from the General Post Office (today's BT) for the duration of the war. Today we would refer to it as a 'hands free set' as it enabled wearers to receive calls while freeing their hands for other tasks. It is one element of the early-warning technology that gave a tactical edge over the enemy air force as critical information could be passed rapidly. Users included telephonists, Women's Auxiliary Air Force plotters and members of the Observer Corps. Communication within and between RAF command centres was instant, as was contact to aircraft crews in the air: at a time when most households in Britain still didn't own a telephone!



One of the more modest artefacts in our cabinet display tells a story of selfless bravery. Look for the stem of a **red warning flag**. These were used to mark the locations of unexploded bombs and other possible hazards. Sergeant Joan Mortimer of the Women's Auxiliary Air Force was awarded the Military Medal for her bravery in marking unexploded bombs at RAF Biggin Hill on 30 August 1940. As the airfield was on the receiving end of the bombs of an attacking German bombing force, she stayed at her post operating the switchboard. The roof of the hut she was working in collapsed with the blast. Once the all clear sounded, she left the hut and began marking the unexploded, but live, bombs that dotted the grass of the airfield. Two of her WAAF colleagues were also awarded Military Medals for acts of bravery.

Aircraft

There are a number of extremely rare and significant aircraft on display for you to explore; some of which actually flew in 1940 in the Battle of Britain.



The **Messerschmitt Bf 109E** was the Luftwaffe's principal fighter aircraft during the Battle of Britain. RAF fighter ace Tom Neil regarded the Bf 109 as the superior of the three main fighters of 1940, (the Hurricane, Spitfire and Bf 109). This was because of its remarkable speed in climb and fast dive capability and its armament of 20mm canon firing large shells in addition to machine guns firing bullets. Conversely, its limited range allowed pilots only 20 minutes flying time during raids over south-east England and only 10 minutes combat time. However, the Germans couldn't overcome the sustained opposition of the RAF's fighters in this Battle.



The **Hawker Hurricane Mk I** entered service in 1937 as the RAF's first eight-gun monoplane. During the Battle of Britain, Hurricanes were more numerous than Spitfires and shot down two thirds of the enemy aircraft – more than all the other defences combined. The rear section of the aircraft was of traditional manufacture: a wood frame, covered with linen fabric. This often enabled battle damage to be repaired speedily enough for the aircraft to take part in the following day's combat. The Hurricane is therefore the aircraft that truly won the Battle of Britain.

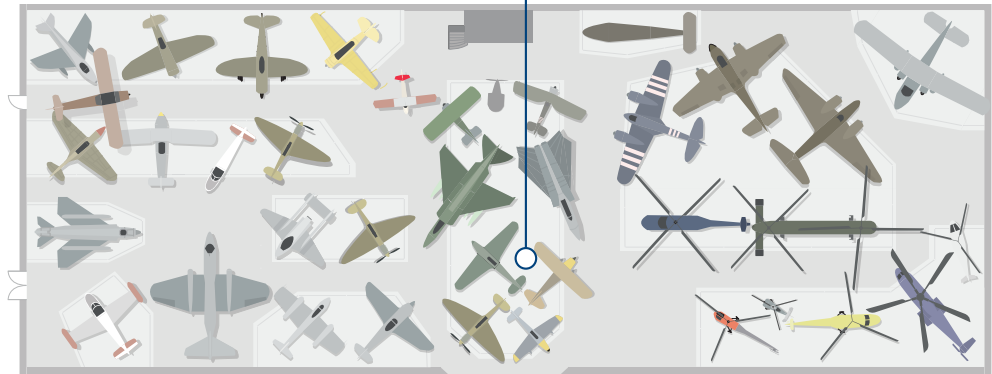


The **Heinkel He 111**, a German twin-engined medium bomber, was used extensively in the late 1930s and early years of the Second World War. During the Battle of Britain, the He 111 was vulnerable to fighter attack: it only had three machine guns for self-defence and was slower than its attackers and not very manoeuvrable. However, of all the German bombers that raided Britain in 1940 and 1941, this was the most numerous. Battle of Britain and later, night-fighter ace pilot, John Cunningham said of it, 'This is the one that did the damage'.

THE BATTLE OF BRITAIN

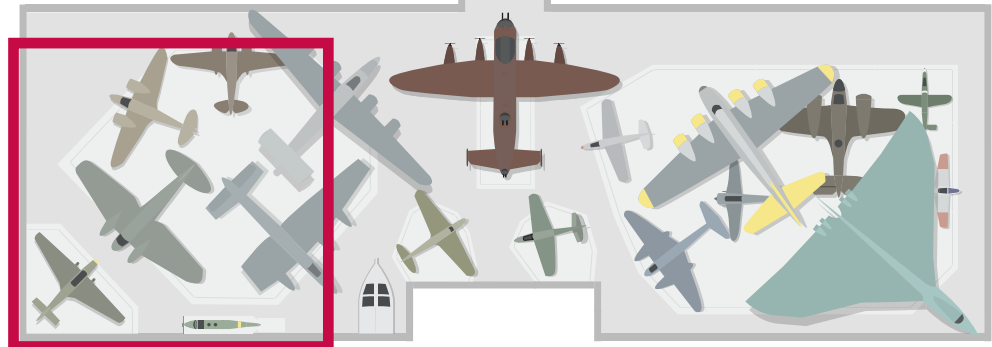
Messerschmitt Bf 109E
Hawker Hurricane Mk I

H3 H4



H5

(see below)

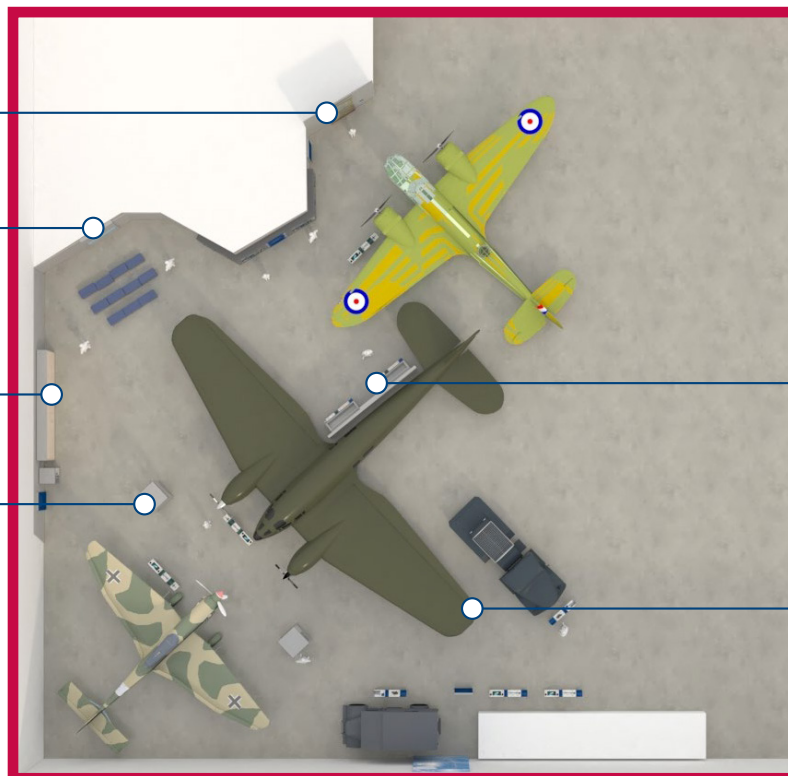


Lace Panel

'Our Finest
Hour' film

The Dowding
System

Enigma



Head and Breast
Telephone Set

Red warning flag

Heinkel He 111