





# From Landing Ground to Airfield

# The various development phases at North Weald...

North Weald opened in August 1916 as a Night Landing Ground for 39 (Home Defence) Squadron, part of 49th Wing, South East Area. Covering 136 acres it had maximum landing dimensions of 900 x 850 yards, with the Epping-Ongar branch of the London North Eastern railway line and large woods to the south, and Epping Forest to the west. The clay surface was wet in winter and at first there were only basic facilities.

The site was subsequently designated a Home Defence Flight Station (Night) in the 1st Class category for A Flight of 39 Squadron. Works in support of its new role then started, with 18 buildings taking up 15 acres on the southern boundary and a further 27 constructed in the regimental site to the south side of the Epping Road. There were two wooden Home Defence Pattern Double Sheds and a canvas Bessonneau Hangar.

The planned completion date for all the buildings was 1 December 1918. Until the messes were finished on the regimental site all personnel were fed at the Kings Head. In September 1917 B and C Flights of 39 Squadron also moved in from Hainault Farm and Suttons Farm. The whole Squadron remained at North Weald until the end of October 1918 when it went to the France.

In June 1918 A Flight of 75 Squadron arrived from Elmswell in Suffolk. When the Armistice was signed in the November, all wartime operations ceased and the Station went into a peacetime mode. The other Flights arrived in May 1919 and only remained for another month before the whole Squadron was disbanded here.

They were replaced by 44 Squadron, which arrived in July from Hainault Farm for a five month stay with their Sopwith Camels and Comics until they were disbanded in turn.

### First development

The station closed in December 1919, but in 1922 plans were put in place to develop the Airfield to operate two single-seat fighter squadrons on a permanent basis. Apart from a few structures on the technical site, all the buildings to the north of the Epping road were demolished.

The first of three planned Type A aeroplane sheds being

built on the site of the two WW1 sheds. Only the outer two sheds 1 and 2 were completed, however along with a curved concrete apron with a watch office in front and technical and domestic site behind. Only Hangar 1 remains, the other having burnt down in August 1996.

For the new layout the technical and accommodation areas of the aerodrome were extended to the east by land purchase and a new road system and buildings planned. The women's hostel was built between two existing houses, one of which is now the North Weald Airfield Museum.

The Officers' Mess was moved from Hainault Farm to serve as such until the new permanent Mess was built on the south side of the Epping Road. This Mess is now known as *Norway House* and is an EFDC hostel. The Airfield re-opened in September 1927.

By the Second World War North Weald was the main Station for E Sector of 11 group equipped with two squadrons of Hawker Hurricanes and one of Blenheim IF twin-engine fighters. During the war 20 squadrons of fighter aircraft stationed were stationed here.

The airfield was equipped with two tarmac runways, and a perimeter track around which were positioned 23 frying-pan aircraft dispersals, 26 protected pens and 12 Blister hangars. A small watch office was established at the southern end of the main runway.

### **Changes for the jet age**

Two T2 hangars were constructed on the west side with adjacent aprons opposite the earlier complex and a new Control Tower on the eastern side when the RAF entered the jet age. Although the main runway was extended twice to cater for jet aircraft the station was put on Care and Maintenance in November 1958 leaving its two runways for use by the Essex Gliding Club which formed there in 1957. The station was now too far away from the perceived threat from the Warsaw Pact for the short-ranged fighter aircraft of the time to be able to intercept.

The Airfield was transferred to the Army Department in 1966, the Queen's Regiment being the only active unit for that year and gliding continued. The York & Lancaster Regiment later disbanded at North Weald. In 1979 Epping Forest District Council purchased the site for use as a leisure facility. A T2 hangar from Stansted was later moved to North Weald (Hangar 6) along with another hangar from the Gloster aircraft factory at Brockworth (Hangar 5).

Today, the Airfield has many additional smaller hangars, as well as major bases for the National Police Air Service and the Essex & Herts Air Ambulance Trust. It is a very busy GA airfield with a wide mix of traffic. ■



## **Spreading the risk**

### Airfield living accommodation and messes were dispersed to minimise air raid damage...

Thornwood Camp on Woodside Road was one of eight domestic sites situated to the west of the Airfield, which were built in 1941 at a cost of £95.000 as accommodation for personnel serving at North Weald.

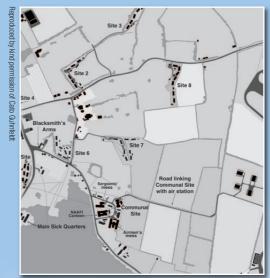
The wartime expansion stage of the Airfield was based on dispersal, with groups of domestic buildings located in the surrounding countryside. Those at Thornwood Camp were in complete contrast to the pre-war designs, being generally of single-storey brick or prefabricated types expected to last only for the duration of the war.

These half-brick huts (wall thickness of half a brick) became one of the standard forms of temporary construction. Bricks were laid lengthways along the wall, which was 4.5-inch thick. These buildings had external brick piers spaced at 10-foot centres and were built in spans of 18 and 28 feet. The piers were topped by steel or timber trusses, which carried timber purlins supporting roofs of corrugated asbestos sheeting.

The Camp is now known as the Woodside Industrial Estate and consists of twelve brick buildings on a 4.68 acre site. Three of these were used as a Sergeants' Mess, Airmen's Mess and NAAFI, while others were recreational and educational huts, plus ablutions and toilet facilities.

It was linked by a service road to the Airfield next to what is now Hangar 4a. This road was cut when the M11 was constructed. The buildings have now been converted into 27 light industrial units occupied by a range of local businesses.

Other domestic sites supporting the Airfield used metal Nissen Huts as accommodation. There were also four pre-war permanent H-Block barracks on the south-eastern side of the Airfield adjacent to the village, which suffered bomb damage during the Battle of Britain, with two wings being destroyed. These were now to be used solely by the Station Defence Force and anti-aircraft crews.







The former Airmen's Mess is behind the foreground single storey hut



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## Set up to deceive the Germans

### In early 1944, the RAF's newlyformed No 4 Concealment and Decoy Unit was at North Weald...

In the months before the Allied invasion of Europe in June 1944, much effort was spent deceiving the Germans as to the actual area where the invasion planned. Hitler and his High Command were convinced that the Allies would choose the shortest route across the Channel between Dover and Calais, as it had been their choice for Operation Sealion in 1940. The Allies wanted them to believe this.

In January 1944, the RAF formed four Concealment and Decoy Units, (CDU) which had a supporting rôle for the invasion. Each 2nd Tactical Air Force Group had two CDUs, which could also co-operate with its related Army Group. The first was set up at Gatwick. North Weald was the initial base for 4 CDU - just one of the units using the Airfield for training leading up to D-Day – and part of 84 Group, which was tasked with 1st Canadian Army liaison.

Their purpose was defined as follows: "The primary function of units is to provide protective lighting to draw off bombing attacks from vulnerable targets whether Army or Air Force. Their secondary function is to assist the concealment and decoy parties already established at Airfields in the provision of 'Q' Sites, dummy aircraft and other protective measures."

Each CDU consisted of 44 personnel along with vehicles and technical equipment. Personnel were trained practically in the use of different lighting, deception and camouflage techniques and also carried out tactical exercises under the local control of Army formations.

Decoy fires were used to divert enemy night raids. The most basic version was made from scrap wood placed in square Bramerton wire baskets, which were soaked in creosote. and could be ignited electrically by detonating a small cordite charge. They were arranged in irregular groups of up to 24 of the 2½ cwt baskets. These tactics drew upon the experience gained with the Starfish and Q Sites around the UK, from which many of the CDU personnel were subsequently posted.

Three of these set-ups were used in Normandy around the Mulberry Harbour at Arromanches after D-Day to protect vehicle concentrations, dumps and disembarkation areas. RAF decoy personnel also assisted the Royal Engineers in creating dummy targets on four sections of Gold Beach. which were thought by local observers to have diverted over half of the Luftwaffe's bombing efforts.

The CDUs also drew on other ways that the Germans could be misled – through the use of concealment and decoys. Concealment kept vital assets out of the enemy's sight either by putting them under cover or through camouflage.

Special netting kits were used to cloak aircraft, which still allowed re-arming, servicing and fuelling underneath. Camouflaged hides could be constructed with netting over rectangular metal frames. Tyre tracks which could give away the position and litter had to be removed promptly.

The second tactic was the use of decoys, which consisted of dummy vehicles, aircraft or facilities that were openly displayed to divert attention away from the real thing for protective purposes or deliberately to mislead.

For example, 50 dummy fighters made from canvas stretched across metal frames could be carried by two trucks and each one took four men just ten minutes to assemble, a winding screw at the rear keeping the whole structure rigid. These were angled to cast shadows just like the real thing. A whole dummy squadron could be laid out over the course of a night.

Decoy aircraft could be mixed with real ones or replace them to confuse enemy reconnaissance efforts. It was also possible to simulate vehicle tracks with chloride of lime in trolleys like those used to paint lines on football pitches. Fake radio signals helped to reinforce the illusion.

## The supply chain

# Copped Hall was in at the start of the effort to keep RAF aircraft fuelled and armed after D-Day...

While the history books often emphasise the supply of pilots and aircraft to the RAF as crucial, keeping the squadrons stocked with spares, fuel, ammunition and bombs was equally important in sustaining the war effort against Germany.

Maintenance Command consisted of four Groups — 40 Group was the logistical chain for spare parts and engines; 41 and 43 Groups had an engineering function, supplying, repairing and salvaging aircraft; 42 Group provided fuel, explosives and ammunition to the RAF Commands. Bomber Command had the largest requirement. Fighter and Coastal Commands initially needed fewer resources and so the storage capacity in the south was smaller during the early part of the war.

The Command was split into Maintenance Units (MU), Depots and Parks. The Depots tended to be situated further west for added protection against *Luftwaffe* raids. Originally, these had a specialised function, but were later converted into Universal Equipment Depots so that the full range of stores held was dispersed and less vulnerable to catastrophic attack.

When the RAF moved onto the offensive in the south after the Battle of Britain, 64 MU opened as an Air Ammunition Park at Ruislip in November 1941 to supply North Weald, Luton, Hatfield, Hunsdon, Sawbridgeworth and Southend.

Sub-sites (MsU) were established at Woodside Place, (Hatfield) and Oaklands Park near Newdigate in Surrey. The latter serviced the more southerly stations at Tangmere, Manston, Ford, Shoreham and Croydon. Later, additional MsUs were set up at Black Park (Iver Heath) for Northolt and Heston, and Warley Barracks (near Brentwood) to cover Hornchurch, Bradwell Bay and Southend.

Three specialised units were later created by 42 Group during the first quarter of 1944 to prepare for the invasion of Europe. These would subsequently move to the Continent in support of the 2nd Tactical Air Force (2 TAF).

The first of these, No 422 Advanced Ammunition Park, was formed in the stables and grounds of Copped Hall, near Epping, in February. It soon moved to nearby Bury Lodge and was renamed 422 Advanced Fuel and Ammunition Park (AFAP). This unit later transferred to Slindon Park near Arundel and then its final holding point at Holmsley South airfield in Hampshire to await D-Day. In late March No 423 AFAP was founded at Willinghurst in Surrey, followed two weeks later by No 424 AFAP at



Aston Down, Gloucestershire. The latter transferred to Groombridge near Tunbridge Wells before moving on to France with the other units after the invasion.

These Parks were divided into sections for distributing ammunition and fuel to 2 TAF airfields. Each unit was made up of an HQ and about 150 personnel of various trades. Their transport fleet consisted of around 120 trucks, trailers and utility vehicles, each of which was consecutively numbered with its identity clearly painted to assist with stock location. Vehicle drivers were also storekeepers and stock control documentation was maintained for each vehicle. All movements were by convoy.

The RAF's ammunition inventory included ten types of 0.303-inch and four types of 0.5-inch rounds, twelve types of 20 mm and nine types of 40 mm shells. Aircraft-launched rockets consisted of four types of rocket tubes each filled with 11 lb of cordite plus their separate 60 lb high explosive warheads. The greatest increase of types on the explosives inventory were pyrotechnics, with 76 different ones in service. There were also 500 lb and 1000 lb bombs to transport.

Trucks from the AFAPs and 40 Group's Air Stores Parks hauled supplies and spares to dumps serving the frontline airfields from the Normandy beachhead and then the British Mulberry Harbour at Arromanches, unloaded by four RAF Beach Squadrons. Later they used the liberated ports.

They also delivered aviation fuel amounting to around 15,000 tons per month in easily transportable 5 gallon jerrycans. There were six grades, including the higher performance 150 octane spirit, which was collected from Antwerp starting in early January 1945, as well as petrol for RAF motor vehicles and eight grades of lubrication oils. The Parks were equipped with Kentford compressors, enabling them to refill aircraft oxygen cylinders.

Sections of 422 AFAP ended the war at Ahlhorn near Bremen in north-west Germany, moving behind the advancing Allied forces, and remained there until 1948. ■

# When the balloon went up!

# RAF Chigwell's role in defence and attack...

RAF Chigwell was opened in May 1938 as No.4 Balloon Centre covering north east London. Three Royal Auxiliary Air Force Balloon Squadrons were based there — 908 (County of Essex), 909 (County of Essex) and 910 (County of Essex), and were part of 30 Group. They were responsible for manufacturing the balloons out of 24 separate panels and six rigging wires as well as testing and maintaining them until 1943. The total London barrage consisted of 450 balloons.

The airmen and WAAFs rigging and doping the balloons had to work with some hazardous chemicals – the rubber solution for cementing patches contained benzol, which caused dizziness and nausea in the confined spaces inside the balloons, while the paint for doping the fabric had a lead content. The girls received an extra milk ration and were given a regular health check every month.

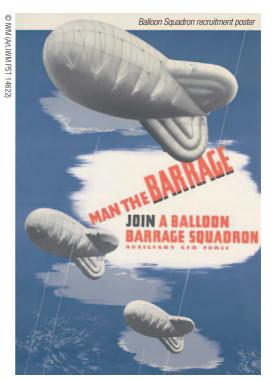
By May 1943 the camp was home to some 3,600 people. In September of that year, a number of mobile Ground Control Interception (GCI) radar teams began to be trained in preparation for the Normandy landings and the campaign across Europe as part of the 2nd Tactical Air Force.

One of these, 15082 GCl of 21 Base Defence Sector along with its Mobile Signals Unit and an additional Light Warning Set radar, was attached to the US forces and landed on Omaha Beach, suffering 48 dead and wounded out of 180 airmen, NCOs and officers, with only 8 out of 27 vehicles getting off the beach. Their blue battledress uniforms attracted fire from both the Germans and Americans. The unit claimed its first kill on 10 June, along with a probable.

Occupying some 70 acres, RAF Chigwell was well equipped. There were five balloon storage sheds, three large vehicle hangers, each nearly as large as a football pitch; twenty billet huts for personnel, a NAAFI, Post Office, chapel, sick quarters and over 100 other buildings.

The Central Trade Test Board was located there and had around 750 airmen staying on the base for testing at any one time. There was also a Battle Training School, which gave escape, evasion, survival and combat skills to aircrew, GCI teams and servicing commandos heading to Europe.

In 1950 the Aerial Erectors School was set up on the site. After an initial assessment involving working at height on the Canewdon Chain Home radar masts, airmen on the twelveweek course covered aerial theory, wire rope handling.





splicing, mast and tower erection using the former balloon anchorage areas, aerial construction, rough carpentry, soldering and feeder systems, The School continued until 1956, and completed 28 courses, involving 560 airmen.

Another unit based at Chigwell was No. 4 Ground Radio Servicing Squadron, which carried out servicing of airfield radar systems. By the Cold War era, it was also responsible for installing Britain's coastal nuclear early warning system across the South and East of England.

The facility finally closed in 1958 and part is now the Roding Valley Nature Reserve and sports centre, which is adjacent to the M11 motorway. Some of the balloon hard standings survive.

### Missile attack

# The District suffered many hits from Hitler's V-weapons...

In 1944 and 1945 England, Belgium and France were hit by Hitler's Vengeance weapons — the V-1 Flying Bomb and the V-2 rocket. Both weapons caused many casualties and did much damage. Flying at around 3,000 feet, the V-1 could be shot down by fighters or anti-aircraft fire, and only about 25% reached their target. There was no defence against the V-2, which travelled faster than the speed of sound, but many went astray or hit open ground.

### The V-1 Flying Bomb

The Fieseler Fi 103, more generally known as the V-1 or *Doodlebug*, was a pilotless aircraft powered by an Argus pulse jet, which produced its unique sound and gave it a speed of 340 mph. It carried a 1,870 lb warhead. An internal guidance system determined how far it would go. When the timer ran out the controls were severed and the V-1 plunged to earth, also causing the engine to stop. Many remember the feeling of terror when it all went quiet!

The first was launched on 13 June 1944. Because of the low thrust from the engine and its small wings, the V-1 had rocket boosters to get off the launch ramp. Later they were carried under the wings of Heinkel He 111 bombers for airborne delivery after their French launch sites had been over-run. Due to misinformation by double-agents, many V-weapons came down short of their intended targets. The Chigwell area had around 20 such V-1 hits. Waltham Abbey received one of the last two V-1s to penetrate the defences on 26 March 1945.

#### The A-4 / V-2 Rocket

The V-2 was the world's first ballistic missile, developed by Wernher von Braun and his team as the *Aggregat-4* at the *Wehrmacht's* Peenemunde research facility, which was badly damaged in the famous RAF raid of 17/18 August 1943.

The design was later designated as the V-2 and built by slave labour in the underground *Mittelwerk* factory at Nordhausen, where at least 20,000 died from SS abuse. More people perished making the V-2s than were killed as a result of the explosions on impacting their targets!

It carried a 2,200 lb warhead. After the Allied advance had pushed it back out of range of the UK it was still used against the port of Antwerp in Belgium and other continental targets. 3,225 were launched out of a production run of 6,048.

It was a superb achievement, but a strategic failure. The V-1 and V-2 programmes cost 50% more than the Manhatten Project, which produced the first atomic bombs!





The V-2s were transported from Germany to western Holland by rail, and then carried by road to the launch sites. These had already been surveyed so their positions were precisely known for accurate aiming of the rockets, which could use a guidance beam — *Leitstrahlstellung*. They were protected by trees to prevent gusts of wind from affecting the lift-off and to provide some camouflage against air attack.

There the warheads were attached along with the *Vertikant* gyroscopes and the rockets were fuelled in the upright firing position on their special *Meillerwagen* launching trailers. The rocket was powered by tanks of liquid oxygen and methyl alcohol. Hydrogen peroxide and sodium permanganate were combined to provide high-pressure steam which turned the dual fuel pump's drive turbine at up to 5,000 rpm for the launch. This preparatory stage took around 90 minutes.

Each V-2 Battalion was divided into an HQ Battery, a Rocket Battery, which had three firing platoons and its own surveying group, and a Fuel & Technical Battery to transport, test and prepare the rockets ready for launching. The Battalion had around 150 vehicles, 70 trailers and 500 men.

On a clear day, raid watchers in Chelmsford could see the vapour trails rising into the air over Holland as the V-2s climbed on their launch trajectory of their 200 mile flight.

### Epping in at the start of the V-2 campaign

The first V2 rocket to land on British soil hit Chiswick, West London at 18:43 on Tuesday 8 September 1944. Just seconds later another hit Parndon Wood, between Epping and Harlow. That was fired by Battalion 2./485 at Wassenaar in Holland, and aimed at a point just south of Southwark Bridge in central London.





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It landed eighteen miles short of its target. The sound of the explosion was heard for miles around, and was immediately investigated by Ted Carter, Chief Warden for Waltham Holy Cross. In his report, written the next day, he says "Ellis took Mick and I out through Epping and Thornwood Common to a lane off to the west, and after crossing a ploughed field, found the crater in a small wood. It was eight feet deep and twenty feet across." The next day the RAF located the launching site and attacked it.

Epping received a further V-2 on 22 February 1945 from Battalion 3./485 (Art. Reg. 3./902) at Den Haag, and one at Bridge Hill on 12 March, which was fired by Battalion 1./485 (Art. Reg. 1./902) from Hoek Van Holland.

Another V-2 impacted near to St Margaret's Hospital, on 22 March. Houses in Fairfield Road and Union Terrace, the elderly unit, a water tower and laundry block at the hospital and a casual ward which housed vagrants were demolished. Seven people died and many more were injured by the blast. It was also fired by Battalion 3./485.

### Stapleford Airfield's tragic V-2 strike

On 20 November 1944 a V-2 rocket landed in the middle of the Stapleford Airfield leaving a crater 60 feet in diameter. It was fired by the Training & Experimental Battery 444, at Site 18, Loosduinen, but caused no casualties.

Once again on 23 January 1945, Battery 444 fired a V-2, this time from Site 47 at Den Haag, which also hit Stapleford. Five buildings including a large hanger were demolished. Thirteen service personnel plus two civilians were killed, 37 service personnel and one civilian were seriously injured.

Nine of the dead, including two WAAFs, LACW Joan Turner (21) and LACW Beryl Baines-Cope (20) from 2839 Squadron RAF Regiment, are buried in St Andrew's Churchyard at North Weald.

A further V-2 fired by Battalion 3./485 from Den Haag on 1 March landed in the vicinity as well.

### **North Weald and Fighter Command's final V-1**

On 16 June 1944 the USAAF base at Boreham reported that an 'unusual missile' had come down near that airfield. F/Lt Cripwell from 6210 Bomb Disposal Flight at RAF North Weald took a squad of men to investigate. Several pieces of debris were collected and taken to Boreham for examination by intelligence officers. This V-1 impact was only three days after the first launch in operational service.

A V-2 hit North Weald on 1 February 1945. No one was injured, but it caused a crater 32 feet wide by 10 feet deep. It was launched by Battalion 1./485 (Art. Reg. 1./902) at Den Haag in Holland. Another followed on 4 February.

A V-1 Flying Bomb was shot down by F/Lt Jimmie Shottick of 501 Squadron flying a Hawker Tempest V out of Hunsdon on 26 March 1945. It was the final V-1 destroyed by Fighter Command and crashed to earth near North Weald. It had been released from a Heinkel He 111 bomber over the North Sea.

### **Other V-2 impacts across the District**

Over 40 V-2s came down around the local area. Fortunately, few caused major damage or casualties. Chigwell and Waltham Abbey suffered the most hits, as they were the closest to London.

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<ul><li>Chigwell</li></ul>	9	(1 dead, 10 injured)
<ul><li>Epping Forest</li></ul>	2	
<ul><li>Epping Upland</li></ul>	2	
<ul><li>High Laver</li></ul>	1	(1 injured)
<ul><li>Lambourne End</li></ul>	1	
<ul><li>Magdalen Laver</li></ul>	1	
<ul><li>Nazeing</li></ul>	3	(10 dead, 7 injured)
<ul><li>Ongar</li></ul>	2	(1 injured)
<ul><li>Stanford Rivers</li></ul>	3	
<ul><li>Theydon Bois</li></ul>	2	
<ul><li>Theydon Garnon</li></ul>	3	
<ul><li>Theydon Mount</li></ul>	1	
<ul><li>Waltham Abbey</li></ul>	8	(5 dead, 8 injured)
<ul> <li>Willingale</li> </ul>	1	

### Time for a beer!

Some of the surviving local hostelries used by pilots and airmen who served at the Airfield since 1916...

**The King's Head** in North Weald has parts of its structure dating back nearly 450 years. The main building is of half wood construction which dates back to the 17th century, and was originally built using old ships' timbers.

When the Airfield opened in 1916, the King's Head was used as a mess until other buildings were erected. The closest hostelry to RAF North Weald's main gate, it was a favourite destination for thirsty airmen and officers alike over the years that the RAF base was open.

**Ye Olde King's Head** in Chigwell village was built during the 17th century and used as a coaching inn. It was made famous by Charles Dickens in *Barnaby Rudge*, where it figures as the *Maypole*. From 1713 it was used for meetings of the Court of Attachments of Waltham Forest. In the 1850s it was used by public authorities who banqueted at the public expense, and was famous for its pigeon pie.



The main part of the building is of three stories with attics and cellars and exposed timber framing. Each upper story overhangs and there are four gables. The Chester Room on the first floor has 17th century panelling.

The inn was a popular haunt of fighter pilots from Hornchurch and North Weald during World War 2, and was a special favourite of the American Eagle Squadrons.

It currently is the location of Sir Alan Sugar's Turkish restaurant *Sheesh*.





**The Thatched House Hotel** on Epping High Street was frequented by pilots from North Weald and became the preferred destination for the Norwegians from 331 and 332 Squadrons during their time at the Airfield from 1942 to 1944. It is now a Grade II listed building.

The building is of two storeys with a roughcast front. It has irregular sash windows and three sided bays. The tile and slate roofs date from the 18th century and earlier.

There is a gabled 19th century porch. The left hand threewindow block dates from the late 18th century or early 19th, and has a taller, slate hipped roof.



**The Rainbow & Dove** in Hastingwood dates back several centuries. Originally a farm, it was already in use as an inn when Oliver Cromwell's troops stopped there in 1645 during the English Civil War.

It later housed teams of replacement horses for the stagecoaches travelling between London and Cambridge. The hostelry was named after the first known owners, a farming family called the Rainbows.

The hedge was subsequently trimmed into the shape of a Dove, and so the name of the inn was changed. It was a discreet destination for personnel from the Airfield during World War 2. The barn was also used for dances during the 1940s.



**The White Hart Inn** at Moreton was popular with both the RAF and USAAF, being close to the airfields at North Weald, Willingale, Matching Green, Fairlop and Hornchurch.

The oldest mullions are known to predate 1460, and there is a record of the various landlords dating back to 1649, when Henry Pinder held the licence. At its east end the first floor oversails and is supported on curved brackets. It has been altered at various times over the years. The stabling still exists too.

Up until its major renovation in 2000 it was split into sections consisting of a parlour, small private rooms and a public bar. The bar had privacy doors, and customers would open a slot on the door to make their order.



**The Eagle** on Woodford Road, Snaresbrook was an important 18th century coaching inn on the route from London to Newmarket routing through Epping, and was originally called the *Spread Eagle*.

It is Wanstead's oldest surviving public house, and still features its decorative cast iron work around the balcony. It is opposite a small stretch of water called the Eagle Pond. Inns have stood on the site since the 17th century.

Pictures survive showing 249 Squadron pilots drinking there during the Battle of Britain in 1940. It is now a Toby Carvery.





# The Army's time at North Weald

Various units were based at the Airfield over the years...

### 29th (East Anglian) AA Group

The 29th (East Anglian) Anti-Aircraft Group was originally set up in January 1936 at the Airfield as the HQ for Territorial Army anti-aircraft batteries and searchlight companies deployed across Essex as part of the 1st Anti-Aircraft Division. Some of the searchlight companies were based at Harlow, Epping, Brentwood and Upminster.

### 285th Anti-Aircraft Battery 90th AA Regiment

The 285th Anti-Aircraft Battery, 90th AA Regiment, was based at the A3 Battery on Chase Farm, just to the north east of the Airfield, and armed with 3-inch guns during 1940-41. It was formed in 1939, and had its HQ at Edmonton as part of the 37th AA Brigade. The A3 Battery had permanent octagonal emplacements for four guns plus a command post for the gunnery predictors and range finders.

## C Company 7th (Home Defence) Battalion, Essex Regiment

C Company 7th (Home Defence) Battalion, the Essex Regiment was part of a Young Soldiers Battalion tasked with airfield defence duties during 1940. On 24 August nine teenage soldiers were killed from direct hit on a shelter in what is now Hampden Close. Several are buried in St Andrew's Churchyard, and there is now a memorial at the site of the shelter.

### The Queen's Regiment

The Queen's Regiment was first formed at North Weald in December 1966 when the four regiments of the Home Counties Brigade amalgamated following a Defence Review.

The four regiments each provided a battalion, retaining their previous names in the titles:

- 1st Battalion (Queen's Surreys) formerly the Queen's Royal Surrey Regiment (2nd, 31st & 70th Regiments of Foot);
- 2nd Battalion (Queen's Own Buffs) formerly Queen's Own Buffs, The Royal Kent Regiment (3rd, 50th & 97th Regiments of Foot);
- 3rd Battalion (Royal Sussex) formerly the Royal Sussex Regiment (35th & 107th Regiments of Foot);
- 4th Battalion (Middlesex) formerly the Middlesex Regiment (Duke of Cambridge's Own) (57th & 77th Regiments of Foot).

The Regiment was subsequently based at Canterbury. During the late 1960s and 1970s its battalions were deployed to West Germany (with the British Army of the Rhine), Hong Kong, Gibraltar, Belize, Cyprus (with United Nations peacekeepers) and Northern Ireland.

The 1980s saw further tours to Ulster and West Germany as well as deployments to the Falkland Islands in 1991.

In 1992 the remaining three regular battalions joined with The Royal Hampshire Regiment to form The Princess of Wales's Royal Regiment (Queen's and Royal Hampshires). It currently consists of two battalions.

### **The York and Lancaster Regiment**

The 1st Battalion of the York and Lancaster Regiment was stationed at North Weald during 1968 when it returned from service in Cyprus, gaining the Freedom of Epping.

The Regiment chose to disband rather than undergo amalgamation as a result of the recent Defence Review and was stood down on 7 December — one of only two to take this drastic step.

The Regiment had been formed in 1881 by the amalgamation of the 65th (2nd Yorkshire, North Riding) Regiment of Foot and the 84th (York and Lancaster) Regiment of Foot. ■



# Remains of one of the Allen Williams Turrets

## The North Weald Redoubt and Ongar Radio Station

A former local landmark...

The North Weald Redoubt was built and then extended between 1889 and 1904 as the first of thirteen mobilisation centres around London. These formed part of a military scheme known as *the London Defence Positions*, drawn up in 1888 to protect the capital from invasion.

This plan envisaged a 72 mile-long, entrenched stop-line divided into ten tactical sectors and supported by artillery batteries and redoubts. Although the defences were not to be raised until an invasion was imminent, mobilisation centres were built where guns, ammunition and tools could be stored. The plan was abandoned in 1906 and the Redoubt was one of a minority retained until after World War 1 as an ammunition store.

It was semicircular and about 500 feet across, with an inner rampart containing three magazines for cartridges and shells to serve field guns protected by two pairs of casemates until ready to fire from emplacements, which would have been dug in on the roof. An outer, lower rampart accessed by tunnels gave cover to defending riflemen without silhouetting them against the skyline. Both ramparts were protected by a ditch and unclimbable fence. The Redoubt was the only fortified centre north of the Thames.

In 1919 the site was sold at auction to the Marconi Wireless Telegraph Company, which established the Ongar Radio Station on the surrounding area and used the Redoubt buildings for storage. The site passed to Imperial and International Communications in 1929, the company's name changing to Cable and Wireless in 1934.

Norwegian 331 Squadron Spitfire takes off, the aerials in the background

The station was twinned with a receiver site at Brentwood, running services to Paris and Berne using Morse code. The original antennas were curtain arrays on towers 300 feet high and spaced 650 feet apart; the longest antenna being a mile long. A beam wireless picturegram service opened between London and Melbourne in 1934, transmitting facsimiles.

In 1943, four short wave transmitters were installed to take over the services to Bombay, Melbourne and Moscow, while 'D1', a fifth, more advanced design, communicated with Cairo and the Middle East. They were located in 'D' station, which was the first in the country to run unattended.

The site was subsequently transferred to the Post Office in 1949, then its successor – BT. With the rationalisation of High Frequency communications in 1971, Ongar became one of the most up-to-date radio stations in the world transmitting telephone, telegraph and facsimile services to Eastern Europe, the Middle East, Africa and South East Asia. Later, the Maritime Telegraph Service became its main function. There were five transmitter buildings A – E, which were eventually decommissioned in the early 1990s, when the masts were removed.

The Redoubt itself has survived because of this reuse after the World War 1. Two rare Allen Williams Turrets were added to the flanks of the defences during World War 2, when it was designated as a 'Vulnerable Point' and received a special garrison. The radio station formed a landmark for the Airfield and was scheduled as an Ancient Monument in 1972.



### **Bristol Fighter F2B, E2581**

One of the oldest North Weald survivors is a Bristol Fighter F2B, E2581, which served with 39 (Home Defence) Squadron at the original Landing Ground, from September to November 1918, when it joined No.1 Communication Squadron at Hendon. It then went to South Eastern Area HQ Flight at Hounslow, finally moving to Eastchurch. It last flew on 6 May 1920, and is now on display at the Imperial War Museum, Duxford, and still retains its original logbooks.

### **Sopwith Pup, B1807**

Another World War 1 aircraft is the Sopwith Pup B1807, which was built in 1917 by the Standard Motor Company in Coventry, and issued to 112 (Home Defence) Squadron at Throwley in Kent. During this time, the aircraft took part in several anti-Gotha bomber patrols.

The Pup was transferred to 36 (Home Defence) Squadron at Cramlington, north of Newcastle At some stage the code 'A7' was applied to the fuselage. It then went to 198 (Night) Training Squadron at Rochford (now Southend Airport).

On 18 September 1918 it was moved to 39 (Home Defence) Squadron at North Weald, where it remained until after Armistice, used as a hack. In 1919 it was sold and put on the Civil Register as G-EAVX, and raced in the 1921 Hendon Aerial Derby, where it had a landing accident. Some time later it was transported to Somerset, and stored until 1972, when it was discovered and bought by Kelvyne Baker. He then started a long-term restoration, which is ongoing. It is the only original World War 1 Sopwith Pup still surviving.





### **Hawker Hurricane I, L1592**

L1592 was the 46th Hurricane built at Brooklands with fabric wings and was delivered to 56 Squadron at North Weald in June 1938. It was then transferred across to 17 Squadron in July 1939, and also served with five other squadrons, including 615 Squadron, as well as four training units before being retired. It was finally allocated for preservation and is currently in the Science Museum.



#### **Hawker Hurricane IIa. Z2389**

Hurricane Ila, Z2389, was built by Hawkers at Kingstonon-Thames in 1940. The aircraft saw serve first with 249 Squadron at North Weald, and then transferred to 71 (Eagle) Squadron, which in turn came to North Weald from Martlesham Heath in June 1941.

It later moved on to three other squadrons before being shipped to the Soviet Union in May 1942 with Convoy PQ16. Once there, it joined 767 Regiment of the VVS on the Kola Peninsula. It was shot down the following month, while being flown by Lt Ivan Kalashnikov.

The aircraft was recovered in 1996. It has been restored to taxying condition at the Brooklands Museum, and wears an Eagle Squadron scheme.

### **Supermarine Spitfire Vb, AB910**

Spitfire Mk Vb, AB910, was built at Castle Bromwich and flew 143 operational missions during the War. The aircraft was allocated to 222 (Natal) Squadron at North Weald in August 1941, but was damaged during a forced landing at Lympne shortly afterwards.

Following repair, it went to 130 Squadron which was based at Perranporth in Cornwall. Then in June 1942, the Spitfire was transferred to 133 (Eagle) Squadron at Biggin Hill, flying 29 operational sorties including four flights in support of the Dieppe Raid.

It flew operationally up to July 1944, serving with 242, 416 and 402 (RCAF) Squadrons, flying numerous cover patrols with the latter over the D-Day invasion beach



heads on 6 June 1944 and afterwards. From mid-July 1944, AB910 was used for pilot training with 53 OTU and later radar calibration duties at Hibaldstow.

Whilst at Hibaldstow, this Spitfire also flew with a WAAF on the tail! LACW Margaret Horton, a fitter, was sitting on the tail whilst the aircraft taxied out to the take-off point, which was standard practice in strong winds, without the pilot, FI/Lt Neil Cox DFC\*, realising she was there. He then took off and flew a circuit with Margaret clinging to the fin.

In 1953, the aircraft returned to Vickers-Supermarine for refurbishment, and was eventually donated by the company to the BBMF in 1965, and is now based at RAF Coningsby.

### **Supermarine Spitfire LFIXe, MH603**

Spitfire Mk. IX, MH603,was built at Castle Bromwich and delivered to 39 MU Colerne in October 1943. Its served first with 331 (Norwegian) Squadron from 3 January 1944, with the Squadron code of FN-B. It was flown on operations by Capt Bjorn Bjornstad.

It then moved to 274 Squadron in June. On the 21 August it was taken on charge by the Flight Leaders School at Milfield, and later transferred to the Central Flying Establishment at Langmere.

The aircraft was subsequently sold to the South African Air Force. In February 1949 MH603 sailed from Birkenhead for South Africa on the *SS Clan Campbell*, and arrived there on 16 March 1949.





After it was finally struck off charge, it was transported to the USA where restoration back to flying condition was started. In February 2009 the Spitfire was purchased by Pay's Vintage Fighter Restorations and moved to Scone in New South Wales, Australia. There the rebuild continues to progress. However, moves are afoot by the Norwegian Spitfire Foundation to raise funds to return this historic airframe to Norway.

### **Supermarine Spitfire LFXVIe, RW382**

Built in 1945 at Castle Bromwich, this Spitfire LFXVIe served with 604 (County of Middlesex) Squadron first of all at Hendon then at North Weald until the unit converted to Vampires in April 1950.

It then transferred to the Civilian Anti-Aircraft Co-Operation Unit at Exeter, and then the Control and Reporting School at Middle Wallop. Its operational flying career came to an end in July 1953.

It then became an instructional airframe and finally the Gate Guardian at RAF Leconfield. It was also used in the *Battle of Britain* film as a ground-based prop, The Spitfire was then refurbished and went to RAF Uxbridge, where it was again placed on static display mounted on a pylon.

The aircraft was subsequently sold and returned to airworthy condition by Historic Flying at Audley End. After suffering a fatal crash in the USA during 1998, it has recently completed a long restoration, including being converted to a high-back configuration. The Spitfire is now one of the Biggin Hill Heritage Hangar's collection of historic aircraft.

### **Supermarine Spitfire LFXVIe, RW386**

Spitfire LFXVIe RW386 was built at Castle Bromwich in 1945, It was delivered to 6 MU at Brize Norton on 2 August, and joined 604 (County of Middlesex) Squadron on 25 March 1947, wearing the codes NG-D. These subsequently changed to RAK-A in 1949.

The aircraft ceased flying in 1952 and moved to 58 MU Skellingthorpe where it became an instructional airframe. It





moved on to RAF Honington then to the RAF Technical Training School at Halton, where it was restored to its 604 Squadron colours as RAK-A in 1957. Here the Spitfire was used as a backdrop for numerous station ceremonies and the Apprentices Passing Out Parades. Restoration to airworthy condition began at Audley End in 1992 but wasn't completed due to lack of finance and the aircraft remained in storage at North Weald until 2002. The aircraft is now based in Sweden and operated by Biltema.

### **De Havilland Vampire F3, VT812**

The RAF Museum has a de Havilland Vampire F3, VT812, which was built by English Electric at Preston during 1947. In late 1948, the aircraft went out to 32 Squadron at Nicosia in Cyprus, returning in July 1950 for service with 614 (County of Glamorgan) Squadron — part the Royal Auxiliary Air Force.

In January 1952, VT812 came to North Weald and joined 601 (County of London) Squadron. It suffered a landing accident in April after a loss of power, and required extensive repairs. In August 1953 it was transferred to 602 (City of Glasgow) Squadron at RAF Abbotsinch, retiring a few months later in November to become an instructional airframe.

### **Gloster Meteor F8, WL168**

Meteor WL168 was one of the last batch of F8s to be built by Gloster at Hucclecote and entered service with the RAF on the 22 February 1954. It operated for the first



year with 111 Squadron at North Weald, later moving over to 604 (County of Middlesex) Squadron until the unit was disbanded in March 1957.

The aircraft was then converted into a target tug, and was used from January 1959 until September 1961 by the Armament Practice School at RAF Sylt, West Germany, to tow drogue targets for shooting practice. It was struck of charge in May 1962, and is now at the Yorkshire Air Museum at Elvington.

### **Gloster Meteor F8, WH364**

Meteor F8, WH364, was built by Armstrong Whitworth and delivered straight to 601 Squadron Royal Auxiliary Air Force from Moreton Valence on 4 February 1952, serving at North Weald until the unit was disbanded in 1957. From there it went to 65 Squadron, and then the Station Flights at Safi and Ta' Quali on Malta and Idris in Libya.

WH364 last served with 85 Squadron at RAF Binbrook and took part in the RAF Golden Jubilee Display at RAF Abingdon on 15 June 1968 before becoming an instructional airframe. It was later a Gate Guardian of 5 MU at RAF Kemble. The aircraft now forms part of the Jet Heritage Museum's collection at Gloucester Airport and is painted in 601 Squadron CO's colours with a black and red striped tail.

### **Gloster Meteor T7, VW453**

Gloster Meteor T7, VW453, was built by Glosters and delivered to 203 AFS (Advanced Flying School), later



renamed 203 Operational Conversion Unit), based at RAF Driffield in May 1949. In December the aircraft was transferred to 604 (County of Middlesex) Squadron at North Weald.

It was involved in a flying accident in October 1950, and declared Cat 4. Three days later it was reassessed as Cat 3 and repaired at the Airfield by a team from Glosters. Repairs were completed in early February 1951. It was damaged once more on 7 July 1952, and again repaired by Gloster Aircraft technicians on site.

In June 1953, the Meteor was loaned to RAF Ta' Quali on the island of Malta, and was damaged there for a third time in September 1954. Unable to be repaired on site, it was shipped back to Glosters for rebuild and then stored at Aston Down from July 1955.

It was transferred in March 1957 to the Aeroplane and Armament Experimental Establishment (A&AEE) at Boscombe Down. VW453 was then used by the A&AEE for 'hack' duties such as tasks involving photo-chase, instrumentation and navigational development and last flew on 23 February 1968 with a total airframe time of 2048 hours 5 minutes. The aircraft was then used for various trials by the Chemical Defence Establishment at Porton Down.

It subsequently became the Gate Guardian for RAF Innsworth near Gloucester. It is now on display awaiting restoration at the Jet Age Museum, Staverton, as part of its collection.





### **De Havilland Vampire T11, XE856**

A former North Weald Station Flight Vampire T11, XE856, has been restored to static condition at the Bournemouth Aviation Museum. It was built by de Havilland at Hatfield.

The aircraft was initially operated by 226 Operational Conversion Unit at Stradishall and was then transferred to RAF North Weald. The Vampire's final operational posting was with 219 Squadron at Driffield, until its retirement in October 1967.



### Hawker Hunter F6 / FGA9, XG194

Hawker Hunter F6, XG194, was delivered to the RAF in October 1956. It was flown by Roger Topp when he commanded 111 Squadron and the *Black Arrows* aerobatic team at North Weald and Wattisham.

From there the aircraft went to 92 Squadron as part of the Blue Arrows aerobatic team. The Hunter was converted to FGA9 standard in 1965 and served with 1 Squadron at RAF Wittering.

Later it was used as an instructional airframe at Cosford. In 1988 it became a decoy target at North Luffenham, and was modified to resemble a Soviet Sukhoi fighter bomber.

This aircraft is now displayed at the Wattisham Aviation Heritage Museum in its original *Black Arrows* colours.



### **Hawker Hunter F6A, XG160**

Hunter F6A, XG160, was built by Armstrong Whitworth at Coventry in 1956, and served with 43 Squadron. It was then transferred to 111 Squadron at North Weald as part of the *Black Arrows* just before they left the Alrfield. In 1966 it moved to 229 OTU at Chivenor to be used in the training role, and finally became an instructional airframe at Scampton in 1982.

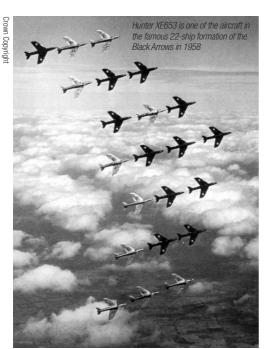
The Hunter was presented to the Royal Jordanian Air Force in 1994 to form part of its Historic Flight, but another aircraft was eventually refurbished in its place and XG160 became part of the Bournemouth Aviation Museum's collection of airframes.



### Hawker Hunter F6A, XG164

Hunter F6A, XG164, was also built by Armstrong Whitworth at Coventry and delivered in November 1956. From 33 MU the aircraft was allocated to 111 Squadron at North Weald, later serving with 74 Squadron, the RAF West Raynham Station Flight and the Tactical Weapons Unit at Brawdy.

The Hunter became an instructional airframe at Halton in 1981 and was later stored at Shawbury before being disposed of in 1995. The aircraft is currently on display at the Cornwall at War Museum, Davidstow Airfield, near Camelford.







### **Hawker Hunter F6A, XE653**

This aircraft was built by Hawkers and first flew on 6 July 1956. It served with 43 and 111 Squadrons and took part in the famous *Black Arrows* 22-aircraft formation loop at Farnborough in 1958. It also served with 237 OCU at Brawdy and various other squadrons. The early log books have been lost, so it is not absolutely certain whether this aircraft served at North Weald, although it is very likely. It is now based in South Africa.

### **Supermarine Spitfire PR19, PS853**

PS853 was one of 79 Spitfire PR19s built at Supermarine in Southampton. It was delivered to the Central Photographic Reconnaissance Unit at Benson on 13 January 1945, and transferred six weeks later to 16 squadron of 34 Wing, based initially at Melsbroek and later at Eindhoven. In 1946 it returned to the UK for storage at 29 MU High Ercall.

With the establishment of the Meteorological Flight in 1950, PS853 was selected for conversion for the role in July. In July 1957, it was delivered to RAF Biggin Hill, where it was part of the Historic Aircraft Flight (the forerunner of the BBMF).

After moving to 32 MU at St Athan in November 1957, PS853 returned to Biggin to be allocated to the Station

Flight on 20 December, moving on to North Weald Station Flight on 1 March 1958 and the Central Fighter Establishment at West Raynham on 14 April.

It was transferred to the Battle of Britain Memorial Flight at Coltishall in April 1964. It remained with the Flight until it was sold in 1995 to help finance the rebuild of Hurricane LF363. It was bought by Rolls Royce in September 1996, and carries the civil registration of G-RRGN.

### **Supermarine Spitfire PR19, PM631**

Spitfire PR19, PM631, was built at the Supermarine factory in Reading and delivered to the RAF in November 1945. It was then stored until May 1949, when it was issued to 203 Advanced Flying School.

The aircraft was subsequently converted for meteorological work, and was flown by civilian pilots with the Temperature and Humidity Monitoring (THUM) Flight based at Hooton Park and Woodvale near Liverpool.

On 11 July 1957, PM631 was flown to Biggin Hill from Duxford in formation with two other THUM Flight Spitfires to form the RAF's Historic Aircraft Flight. When Biggin Hill closed, the Flight moved to North Weald for a brief stay. The Spitfire is now based at RAF Coningsby.



### **Hawker Hurricane II, LF363**

LF363 was built by Hawkers at Langley, and first flew in January 1944. It is believed to be the last Hurricane to enter service with the RAF.

The Hurricane served first of all with 63 Squadron at Turnhouse near Edinburgh in Scotland, then 309 (Polish) Squadron at Drem, where it carried out shipping patrols. It then went to 26 Squadron for naval artillery spotting and reconnaissance.

Post-war LF363 was returned to Langley for storage while it waited to be scrapped. Fortunately, the decision was taken to preserve it. Between 1949 and 1956, this Hurricane was held and maintained, unofficially, by a several squadrons and Station Flights.

Following a refurbishment at Hawkers, it was one of the original aircraft to join the RAF's Historic Aircraft Flight, which was the forerunner of the BBMF, when it was formed in 1957 at Biggin Hill. This Hurricane then moved to North Weald for a few months when that base closed. The aircraft is currently based at RAF Coningsby.

Marston works for modification work in December 1946, remaining there until May 1947, when it passed back into storage at 6 MU, RAF Brize Norton.

PK624 remained in storage for fourteen months before going to 614 (County of Glamorgan) Squadron, Royal Auxiliary Air Force, at RAF Llandow in South Wales during August 1948. The Spitfire remained there for over two years, before returning to storage at 6 MU when the Squadron re-equipped with Vampire jets.

It then moved through 9 MU at RAF Cosford to Air Service Training at Gatwick in January 1951 under a Vickers refurbishment contract for a number of Mark 22 Spitfires to be supplied to the Syrian Air Force.

The sale eventually fell through and PK624 was returned to 9 MU at Cosford in July 1952. The aircraft was finally struck off charge in June 1953. It was then sold back to Vickers Armstrong in February 1954.

In early 1957 PK624 was on the strength of the Station Flight at North Weald, where it is believed that the Spitfire was privately owned by a pilot serving with 604 Squadron and operated unofficially in military markings. When the Squadron was disbanded in 1957 the aircraft, without its Griffon engine, was displayed on the main gate of the Airfield.

It was then moved to RAF Uxbridge as its Gate Guardian during 1960 and repainted. In 1963 it was transferred to gate duties at RAF Northolt where it remained until July 1970, going from there a to RAF Abingdon, and thence to St Athan near Cardiff in August 1989.

In October 1994 the Spitfire was sold to the Fighter Collection at Duxford, where it remains dismantled awaiting restoration to flying condition.

Spitfire F22 PK624 in later RAF markings, when it served as a Gate

Guardian at several stations



Mike Freer / Wikipedia Commons

# RAUOT

### **Supermarine Spitfire F22 PK624**

Spitfire F22 PK624 was built at Castle Bromwich and allocated to 33 MU at RAF Lyneham in December 1945. The aircraft was then transferred to Supermarine's South

A surprising number of aircraft, which served operationally at North Weald, still survive from as early as World War 1 right up to the Jet Age and can be seen at different locations. Doubtless there are more still to be found.

North Weald Airfield Museum