Wargrave Local History Society

Latest News - October 2026

Our Forgotten Local WW2 Airfield

- Angus Ross and Richard Miller

There was a capacity audience at Wargrave Local History Society's October meeting, when Angus Ross and Richard Miller's presentation *RAF Henley on Thames* recalled the innovative procedures needed to build Spitfire aircraft during the second world war, and in particular, the part played by a field at Crazies Hill that became *Our Forgotten Local WW2 Airfield.*

Angus - himself a former pilot - explained that he had been researching the history of the airfields that had existed in Berkshire. Amongst them was "RAF Henley" - which was actually on the Berkshire side of the River Thames. Its location was in the Cockpole Green / Crazies Hill / Wargrave area, but it seems than none of those was considered to be a suitable name for a wartime RAF station, which is why the name RAF Henley was adopted instead. The only feature remaining from its use by the air force is a concrete pill box (a concrete structure that acted as a guard post). It was notable as a site where Spitfire fighter planes were assembled from May 1941 until the end of 1942.

Richard, who also served in the RAF, then explained how the area at Upper Culham Farm came to be part of the Spitfire story. Up until the mid-1930s, aircraft had traditionally been constructed of wood. There were many ideas being developed at that time for aircraft that might suit the country's future needs. One of the firms involved was Supermarine, based in the Southampton area. Their latest design, by R J Mitchell, was the Type 300 which first had a test flight in 1936. It used a quite different technology, as it was of all-metal construction (apart from parts like tyres and canopy glazing etc) - one description was that it was formed of "5 million rivets flying together in formation". There were several suggestions as to a name for the new plane, such as Shrew, Scarab or Serpent, but it was Sir Robert MacLean, (the Chairman of Supermarine's parent company, Vickers) who decided it should be called Spitfire - as it 'reminded him of his grand-daughter', who had a similar nickname!

The Spitfire entered service with the Royal Air Force from 1938, and played a vital part in the Battle of Britain. Despite most of the pilots being aged about 20, with relatively little flying experience, they shot down 529 enemy aircraft - although there was a loss of 230 British planes. They were seen as fulfilling an important military function. However, although the traditional aircraft manufacturers such as Fairey, de Havilland, etc were interested in making aircraft for the war effort, they were all very inexperienced in building this specific type of plane, which relied on quite different skills to fabric covered wooden framed machines.

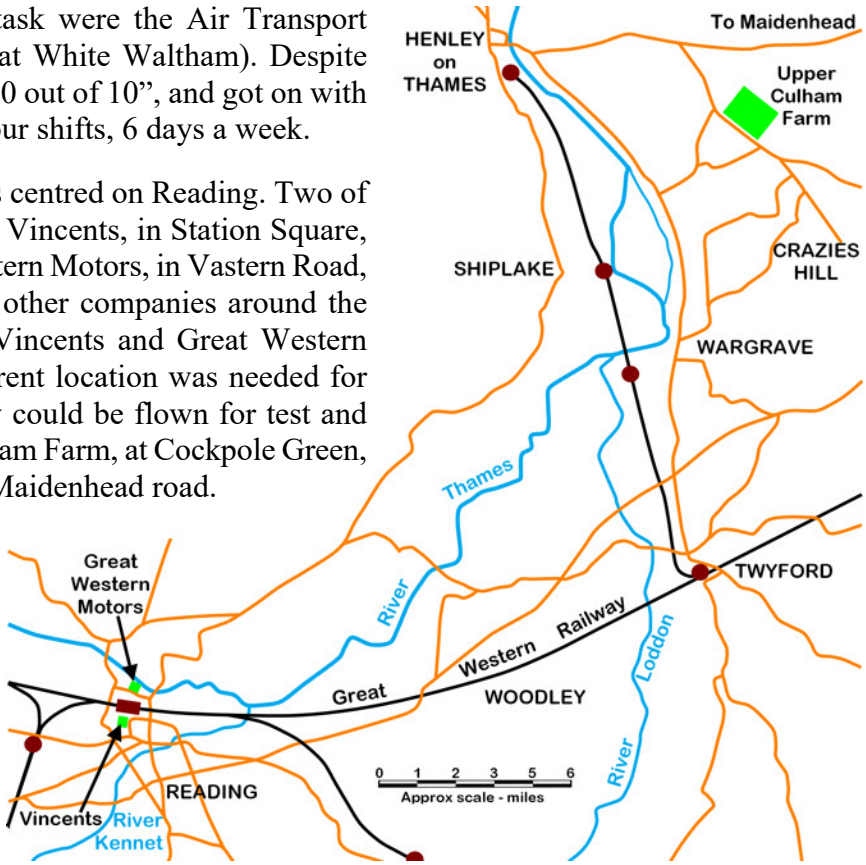
However, the Germans knew of the existence of the Supermarine works at Southampton, and over two days in September 1940 carried out bombing raids, virtually wiping out the factories. The Government faced an urgent problem - how to replace the production facilities. Critically, the process needed to find workers with the relevant metal-working skills. The most likely source would be the automotive industry, although they aimed to make their cars 'pretty, not just functional'.

The other problem was where to locate the manufacturing of the Spitfire. This was in part a political decision as a practical one. In 1935, the policy had been to 'put all the eggs in one basket' - ie a single location which was vulnerable to enemy attack. This was a poor philosophy, so the plan now became to get more people, over a much wider area, to build the aeroplanes. This would mean there were many more possible targets for the enemy, and therefore it would be impossible for them all to come under attack in a single raid. This was known as the 'shadow factory concept' - the restriction on suitable sites being where there could be people available with the relevant metal working skills. The system would involve many companies - not necessarily with an aircraft background - to make component parts for assembly elsewhere. The idea of dispersing manufacture dated back several years - the Government having even invited a German General in the mid-1930s to see some small factories - so he would be aware that there was not 'one big target'!

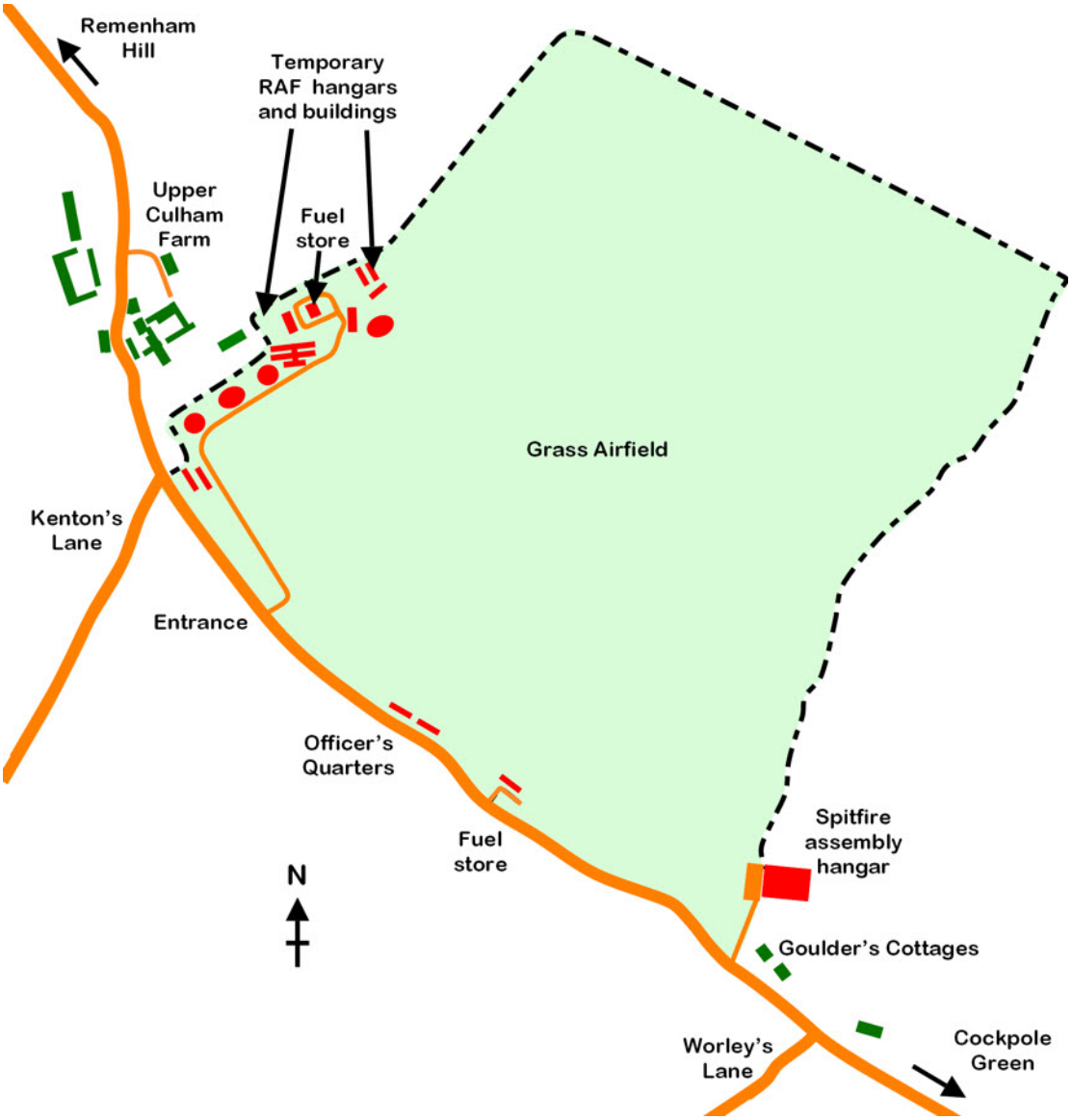
The shadow factory idea was not popular in Whitehall, as it was calculated that it would have needed more space, and involved more people, whilst there would also be the need to transport raw materials to the various sites, and then collect the parts they had made for assembly elsewhere. Unfortunately, this led the politicians to decide to build a 'super-duper' factory at Castle Bromwich to be able to manufacture the aircraft. It was thought that it could be made to be a bomb-proof factory. Lord Nuffield - familiar with car manufacture - had the task to organise this to produce 500 Spitfires by 1941 - but the output in that time was actually zero. He was replaced by a newspaper magnate, Lord Beaverbrook. Although not having aircraft manufacturing experience, he knew how to deal with politicians and get things done. He decided that not only would Spitfires be built at Castle Bromwich, but also at a series of shadow factories. A problem that remained, however, was that many locations - for example Llandudno - there might be space, but there was a shortage of men skilled in metalworking. Those with the skills would likely have been in the car industry - but many of those were already serving in the armed forces. The concept to spread the work over the country was good, but there was nobody there to build them. The only solution was to employ women - although they had never worked with metals before, they would be trained by a core of experienced men who were considered too old to be in the army, Royal Navy or Royal Air Force. In due course about 60 to 70 per cent of this workforce were women. The Government, however did not get it all right, as they decided there would be "men's wages" and "women's wages". To begin with, the women were paid 60% of the men's pay for doing the same job. This was later raised to 80%, but they never received the same rate of pay (the only women who did receive the same pay as men doing the same task were the Air Transport Auxiliary ferry pilots, who were based at White Waltham). Despite this unequal treatment, the women got "10 out of 10", and got on with the task without question, working 12-hour shifts, 6 days a week.

One of the areas chosen for the work was centred on Reading. Two of the main motor vehicle dealerships were Vincents, in Station Square, who built the fuselages, whilst Great Western Motors, in Vastern Road, made the wings and tail plane. Various other companies around the town made smaller components. Both Vincents and Great Western Motors were hemmed in, and so a different location was needed for the final assembly, and from where they could be flown for test and delivery. The site for that was Upper Culham Farm, at Cockpole Green, between Crazies Hill and the Henley to Maidenhead road.

The farm belonged to Colonel Micklem, and had been occupied by the Pring family since the mid-1920s. The first recorded flights from there were in 1935, in connection with a Pring family wedding, and in the same year Alan Cobham's famous "Flying Circus" offered pleasure flights to the public from the field.



The large sections were brought from Reading using articulated low loader trailers known as “Queen Marys” on account of their size. Managing the transport - not only in the town, but also the country lanes - was an additional cost in dispersal of manufacturing (the total extra cost being about 20%), but the method was considered a success, so that from having 20 shadow factories in the first year there were 175 by the end of the war. The large Castle Bromwich site had been designed to be easily repaired, and despite 200 bombs falling there, there were less than 100 casualties, and it remained in use.



At Upper Culham, although aircraft had used the field before the war, work began in 1939, and continued through 1940, to make the site ready and suitable for Spitfire assembly and take-off. A ditch was filled in, and temporary facilities created for the personnel, stores, fuel supplies and air raid shelters - mostly towards the north west, near the farm buildings. A large hangar was added early in 1941 for Spitfire assembly (in the south east corner), with first aircraft being completed in May that year. As the field had a relatively short landing strip, the Spitfires built there were of the photo-reconnaissance variant, not being fitted with the heavy armament carried by other planes. Although the planes could take off from there, the field was considered too short for the Spitfires to routinely land there (although in emergency some did), so they made their way to RAF Benson - or slightly further to the US air force base at Berinsfield if Benson’s grass landing area was wet. Over 260 planes had been built by the time production at Upper Culham ended at the end of 1942, the latest version of the aircraft then having a heavier engine that would have needed a longer take-off and landing area. Lengthening the runway was considered, but the presence of the road etc meant this did not take place, and the assembly location for the units built in the Reading area was moved to an area of the US base at Aldermaston.

Sadly, accidents can happen. The field was also being used by the pilot training unit at Miles Aircraft, in Woodley. In April 1942, the test pilot for a Spitfire built at Upper Culham was Johnnie Wakefield. He had been a racing driver - both on motor-cycles and in cars - before the war, and an experienced pilot, owning his own plane. At the same time as he was taking off there was a Miles Magister from the training school at the opposite end of the field. There was no 'air traffic control', and the Magister strayed into the path of the Spitfire. Johnnie avoided a collision by pulling the Spitfire to one side, but it then crashed, and caught fire with fatal consequences.

One of the Spitfires that had been assembled at Upper Culham had crashed whilst on a mission from the far north of Scotland over Norway in March 1942 to photograph the Tirpitz, a Geman battleship hiding in a fjord. After much searching, some parts had been found in 2002, and the rest of the plane recovered about 15 years later, to form the basis of a major restoration project.

Although Spitfire production had ended at Upper Culham at the end of 1942, that was not the end of its use by the RAF. In 1944 RAF Henley became an operational station, for 529 Squadron. This used Autogiros - powered in the conventional way, but with a free-wheeling set of rotor blades above the fuselage. Their work was as part of a calibration unit, which meant flying round a radar station on a specific path so that the station equipment could calculate the distance, height and angle of received signals by comparison with the reference signals recorded from the Autogiro. Subsequently, some of the first Sikorsky helicopters were based at RAF Henley as part of 529 Squadron.

For more information about the society, visit our website at https://www.wargravehistory.org.uk