

WEST ESSEX AVIATION

CRASHES & MISHAPS

**THE EARLY YEARS
GREAT WAR AND EARLIER
1911-1918**

1



The very flimsy nature, and unreliability, of the first aircraft conspired to bring about a fair number of minor mishaps resulting in the craft alighting prior to the intended destination. Exactly how numerous these relatively unspectacular events were depended upon the availability of local news reporters and photographers. Should either of these be in the vicinity of an, often temporary, landing they were recorded for posterity. If not, they were not. There was little in the way of identifying and recording the identities of the machines, often the pilot was far more important than his craft. Initially no machines were marked with an identifying number, although prior to the Great War military machines received numbers in the wake of the Larkhill Trials of 1912. Markings for civil machines were only introduced in the post war years.

September 9, 1911

In common with a number of the early incidents, the arrival of South African Mr Evelyn Frederick (Bok) Driver on Nazeing Common was not a particularly dramatic event. The Common was to prove a large and inviting expanse of relatively flat farmland for aircraft in trouble for over 50 years.

The previous Saturday, the 7th., amid a great deal of publicity the first aerial post was sent off



Mr Bok Driver in the Grahame-White bi-plane believed to have landed at Nazeing. The same aircraft is featured below.

[This image via Peter Stickland]

from Hendon in the north-west of London for Windsor Castle, Berkshire. In a further demonstration of a hoped for regular flying task, three more pilots assembled at Hendon to take the mails early on Monday September 9. Greswell, Hubert and Driver were employed by the Grahame-White Co., Hendon. A qualified flyer for only 38 days prior to the event, thirty year old Evelyn Frederick Driver was flying a Graham-White Farman type bi-plane when he set off at 6.30am with six bags of mail. Driver was in company with Greswell in a Bleriot monoplane, Hubert suffered problems and was involved in a crash early on. By 7.05am both Greswell and Driver arrived safely at Windsor with their loads of mail. The first of the pair to arrive, Greswell, was unable to return to Hendon immediately after mechanical problems arose. Driver set off on his return flight but ran into mist which hid the usual navigational landmarks, Hendon Water and the spire of Finchley Parish Church, from view.

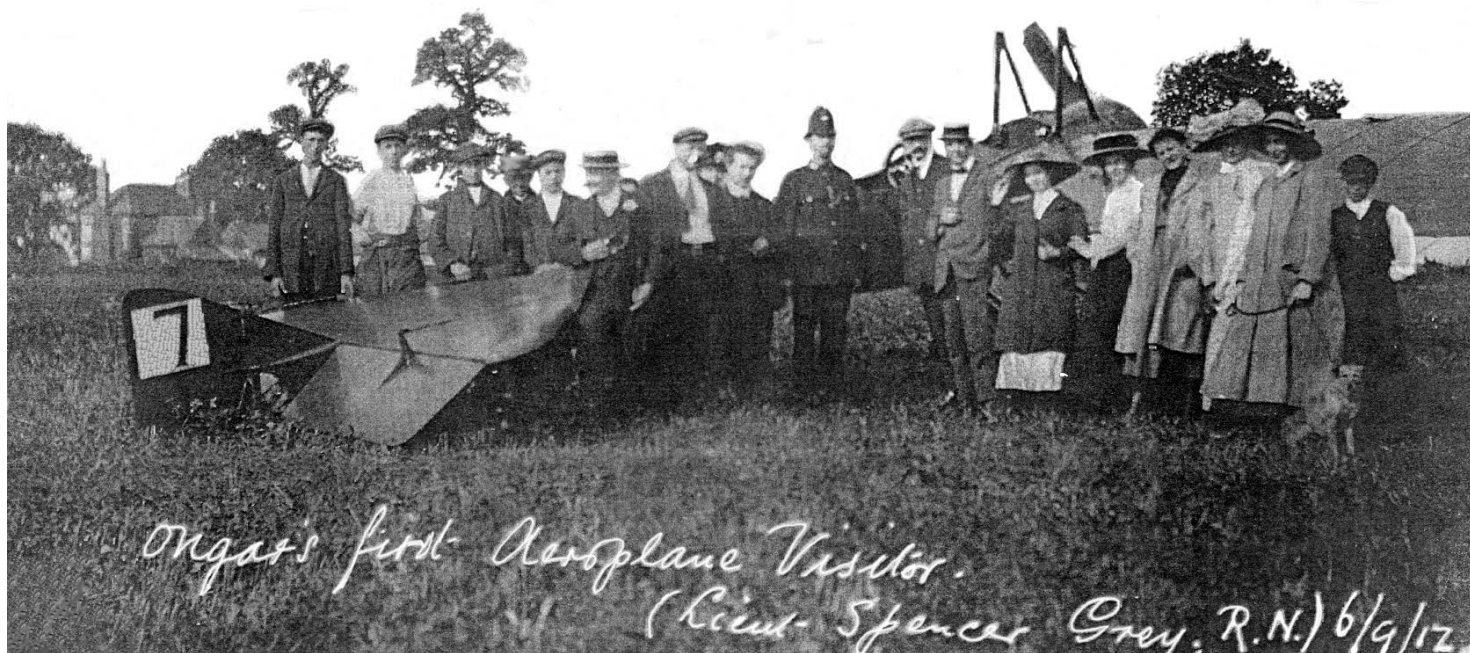
Driver emerged from the gloom in the vicinity of the village of Nazeing. After alighting on Nazeing Common the Nairobi born pilot was unable to set off again, due to an unfavourable wind direction, until 5.30pm.

The considerable period of time in which the aircraft sat in Nazeing allowed large crowds to gather from as far away as Waltham Abbey, many making their way to the landing site to view the unusual spectacle.

The following morning Driver undertook two further mail delivery flights from Hendon. The total of eleven bags he delivered in the experiment represented more than half of the twenty bags transported by the trio and made him the most productive pilot.



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September 6, 1912

In a similar manner to Mr. Driver's arrival on Nazeing Common, the landing of a military Depurdussin monoplane, number 7, at Ongar was not of any real consequence in the realms of aircraft accidents.

Lieutenant Spencer Grey, RN, became Ongar's first recorded aeronautical visitor thanks to the efforts of an unknown local photographer. A number of the local populace, eighteen including the local Essex Police constable, were called together with a small dog on a lead, to crowd around the flimsy craft as the event was recorded.

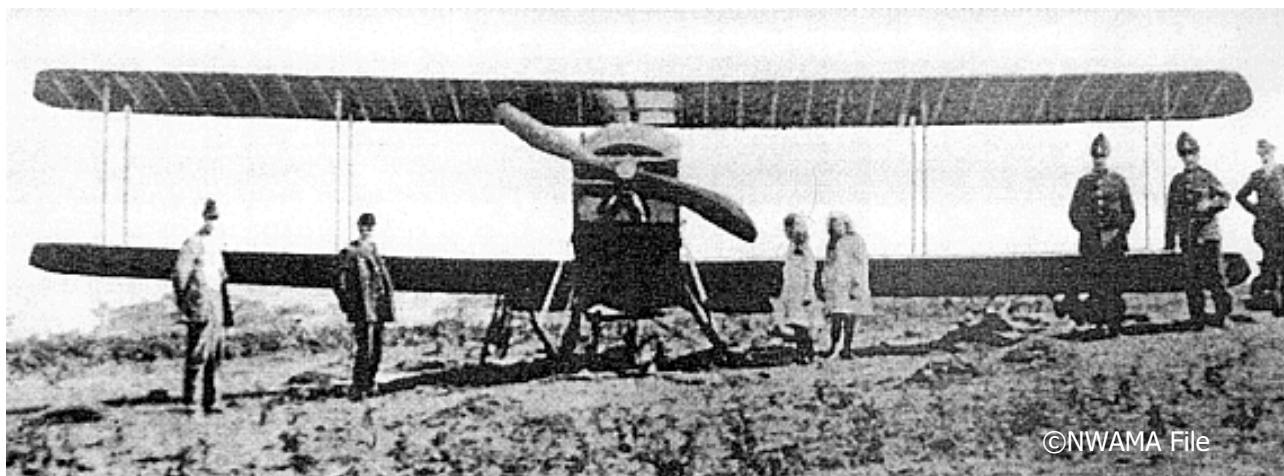
It was common for these events to be treated with a great sense of occasion and as is evident from many of the surviving images in those less frenetic days those taking part often had time to return home discard their working day clothes and appear on film wearing their 'Sunday Best'.

Whereas the Farman type landed by Driver had been an unmarked civil aircraft, Grey's machine bore the naval identity of "7". This number "7" had already changed its identity, it previously having worn the marks "M1" in army service after it had been acquired on July 24. Powered by a 70hp Gnome it was fitted with floats at some time in its naval service.

1914

Another early visitor to Nazeing Common was a military bi-plane. The new arrival was an unidentified Sopwith Tabloid type. Although a photograph exists of this machine at rest on the 'Common, it fails to assist in the identification of the individual machine.

In modern times the Essex Show, a mixture of agriculture and pure entertainment, has settled up-



BE SURE NOT TO MISS THE
ESSEX SHOW,
Waltham Abbey,

NEXT WEDNESDAY & THURSDAY, JUNE 10th & 11th.

Special Attraction: LOOPING THE LOOP BY B. C. HUCKS.
 Grand Military Displays. Leaping and Coaching Competitions.

PUBLIC LUNCHEON, JUNE 10th.

Programme free (postage one penny) from the Secretary,
 FRED TAYLOR, Auctioneer, Chelmsford.

Essex Agricultural Show,
 WALTHAM ABBEY, JUNE 10th & 11th.

SEE STAND

59,

G. L. WILSON & Co., Ltd.,
 TOTTENHAM, N.

ESSEX AGRICULTURAL SHOW,
 Waltham Abbey, June 10th & 11th.

SEE STAND

20A,

FRANKLIN'S,
 Gramophone Experts,
 WALTHAM CROSS.

Friday, June 5th, 1914

June 10th and 11th, 1914,

FLYING DEMONSTRATION

BY

B. C. HUCKS

Who always uses

PRATT'S

PERFECTION SPIRIT

BROAUSE

IT

IS

THE

BEST

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on a regular location. In 1914, and many years before and after, the event was a travelling showcase of livestock, military shows and other entertainment's hosted by a variety of locations across the county. The Essex Agricultural Society's Show is known to have visited Waltham Abbey twice, in the 1880s and then on Wednesday and Thursday June 10 - 11, 1914. This second occasion was held in fields off the Crooked Mile, Waltham Abbey, a location close to Monkshams Hall. At the time the Hall was occupied by the influential Brigadier General R B Colvin of the Essex Yeomanry.

One of the star attractions of this event was the 30 year old Essex born flier Bentfield Charles Hucks [usually styled B C Hucks]. More famous for his development of the "Hucks Starter" equipment for turning over and starting the propellers of aircraft engines of the time, in 1914 he undertook to demonstrate the daring loop the loop manoeuvre to incredulous crowds. This show appearance was just one of many for the pilot in his Bleriot monoplane, it being in his repertoire to continuously fly upside down in his aircraft for around three miles, this then being an amazing feat.

For Hucks to undertake the flying activity at this location, special permission had to be obtained from the War Office and the Royal Gun Powder Factory as the area lay within an recently imposed national defence over-flight exclusion zone brought about by the Aerial Navigation Act 1913. After a distinguished military career in the Great War, like many of his ilk Hucks died in the influenza outbreak during November 1918.



The late Captain B. C. Hucks, R.A.F.



THE GREAT WAR

With the great increase in military activity consequent upon the outbreak of war, allied to relatively poor record keeping, or preservation, it is impossible to know just how many force landings and non-fatal crashes took place in the area. It is believed that no crashes involving a fatality involved Royal Flying Corps machines. The same claim cannot be attributed to the aircraft of the Royal Naval Air Service based at Chingford.

June 1915

One of the earliest wartime incidents appropriately involved a degree of humour, a commodity rarely associated with the Great War.

In June 1915 a young Canadian trainee called Ince stopped his propeller whilst coming into land at Chingford in a Curtiss JN4 Jenny bi-plane trainer. Not wishing to call out a mechanic, and therefore compounding his error, Ince got out and swung the propeller by hand in order to restart the engine and taxi over to the flight sheds. Unfortunately, the pilot had forgotten to close the throttle when leaving the cockpit. When it fired the engine revved up thrusting the bi-plane forward, knocking Ince over and setting off alone across the airfield and taking off to a height of about ten feet in a gentle right hand turn.

The Jenny straightened up and set off towards the armaments store. As the flimsy aircraft struck the building full pelt everyone lay flat on the ground and waited for the big bang. Fortunately only the aircraft exploded into flames and the mass of explosives did not go up as well.

July 31, 1915

Charles W. Graham was flying a Caudron G.III, 3275, on 31 July 1915 from Chingford when he crashed and the aircraft was completely wrecked. Graham who gained a DSO during his short career was soon in action. On 2 October 1915 he flew Nieuport 10, 3184, with 3 Squadron on a hostile aircraft patrol from St Pol. On 14 December 1915 he was in action flying Nieuport 10, 3971, when he shot down a large German seaplane into the sea in flames NE of Le Panne but was then forced to land in the sea, the aircraft overturned and sank. Graham and his crewman Ince were rescued by the Balmoral Castle.

He was killed on 8 September 1916 when the Short 184 seaplane he was flying on patrol from Yarmouth stalled from 200 ft and dived into the sea and his bombs exploded.

Quoting from 'Diary of a North Sea Air Station' by Snowden Gamble, 'He had only recently joined from Dunkerque air station, and on that morning (the 8th) he had just left the water in a Short seaplane, but turned down wind before his machine had apparently attained full flying speed, with the result that his machine stalled and dived into the sea from about 200 ft.

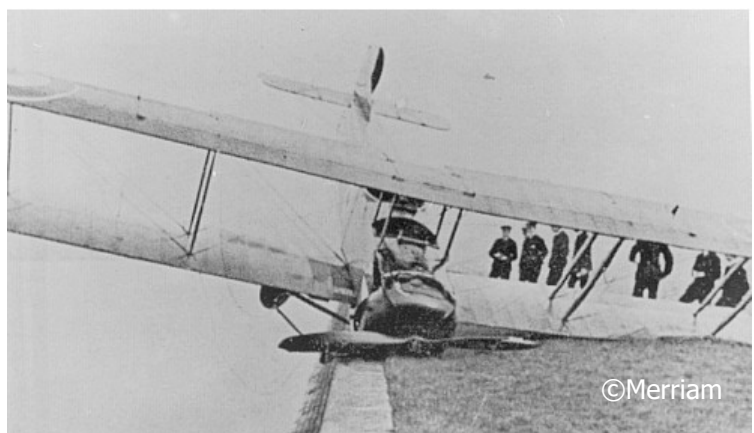
The bombs exploded and Graham was killed instantly, but his body was not recovered for another fortnight.'

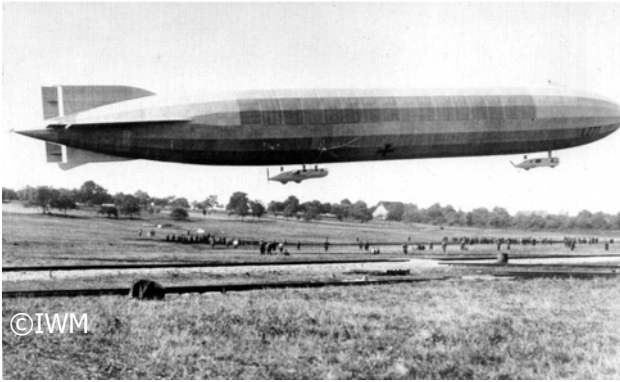
August 11, 1915

At least another half a dozen notable accidents had occurred at Chingford before an incident befell the almost unique Avro 503 in August 1915. Similar in layout, the type was an immediate precursor to the famous, and profligate, Avro 504 bomber and trainer.

Flt. Lt. Norman W G Blackburn was the brother of the pioneer aircraft manufacturer. He was flying, number 51, one of the three Avro 503s out of Chingford in August 1915. Acquired by the RNAS in September 1913 number 51 had been converted from a twin float sea plane to a wheel equipped land plane trainer in September 1914.

Blackburn stalled the aircraft at a height of about 1,000 feet, the machine nose dived and crashed into the bank of the reservoir, the pilot being rudely deposited in the wet and slime without suffering undue harm. The aircraft was finally written off from RNAS charge on August 18.





September 12, 1915

In the early hours of September 12, 1915 a single German Army Zeppelin LZ77 captained by Hptmn A Horn bombed the village of North Weald believing that it was London and returned to the coast – departing near Yarmouth at 0205hrs. No casualties or damage were reported. The incident was a precursor to the opening of North Weald as a military flying base to defend London.

January 31, 1916

A limited number of air raids were undertaken against Britain by the enemy in 1914 and 1915. None of these affected west Essex significantly. Assigned to the training role, nonetheless a number of defensive flights were undertaken from the RNAS Chingford. In 1916 aircraft moved into the rudimentary flying field at Hainault Farm to undertake defensive patrols.

On the last evening of January 1916, twenty two defensive sorties were flown against nine German Navy Zeppelins targeting Liverpool. In addition to the RNAS effort put up from Chingford, No.17 RA Squadron of the RFC, dispersed to Croydon, Hendon, Wimbledon, Hainault and Sutton's Farm, put up six machines.

For these six flimsy defenders, it was to be a far from a stirring display of airmanship in defence of the British Isles. The majority of the aircraft either crashed on take-off, returned early, with weather or mechanical problems, or crashed on landing. BE2c 2085 crashed on take-off from Hainault at 9pm, BE2c 2089 flown by Lieutenant Steele crashed landing at Sutton's Farm, and 2087, flown by Lieutenant R Maxwell did likewise at Hainault.

April 2, 1916

At 10.40pm a German airship was tracked crossing the East Coast and heading inland near the River Blackwater. At 11.20pm the machine, Zeppelin LZ90, was reported over Chelmsford and still heading west at about 60 mph. As was usual each police station along its route called a 'Special Parade' of its reserve officers. In Waltham Abbey – destined to be the target for the attack – the main body of men paraded at the police station at 11.30pm, and outlying groups alerted. The entire town group of specials paraded sixteen constables, two sergeants and A.J. Edwards their senior officer. In addition there were an unknown number of regular officers involved. The huge airship came in from Theydon Bois in the east. Picked up by the Chingford searchlight, five miles away, at about 11.50pm the lighted envelope at last became visible and was engaged by the few, inaccurate, guns of the Waltham Abbey Group.

The enemy appeared drawn to factory workers bicycle lights commencing from the police checkpoint at the base of Woodredon Hill and heading towards Theydon and Epping. It had recently snowed, presenting the airship crew with a patchwork of dark and light areas below which might have been mistaken for buildings. The craft was already under fire from the guns and conditions for bombing were far from ideal for the German crew. As the airship passed in the vicinity of the junction at the 'Wake Arms' on the London - Newmarket Road it proceeded to drop dozens of bombs onto the targets they imagined were presented below.

Airship bombs of 1916 were somewhat different compared with aeroplane bombs of the same, and later, periods. The bombs carried by LZ90, although containing some explosive, were mainly incendiary devices, consisting of pitch in wicker casings shaped like shopping baskets. They were, fortunately, fairly inefficient. Dragged to the doorways by the crew and dropped over the side after priming, the missiles were not aimed at any specific targets, merely the general vicinity. At least seventy-five of these bombs were heaved out of the control cars into the blackness below. The first fell to the rear of the 'Wake Arms' and the last near Windmill Hill, in Honey Lane, on the edge of the town that they had apparently come to bomb. In between the bombs fell in groups, mainly in the trees but occasionally upon some worthwhile targets, such as Woodredon Farm and the gravel roadway outside 'The Volunteer' public house. Woodredon Farm received twenty-eight of the bombs. Of these, the nearest to target fell ten feet from a building without exploding. The inefficiency of the bombs' fusing system fortunately saved the day.

The attacking machine, lightened of its bomb load, gained height and sought the cover of the clouds to lose the illumination of the searchlights and the incessant barking of the guns. By 12.05am, LZ90 was reported over a darkened North Weald. Fifty-five minutes later the airship

had crossed the coast near Clacton on its way home.

Back in Waltham Abbey, the next few hours were spent finding the bombs in the dark. During the rest of that night and the following morning over eighty (some reports claim ninety) bombsites were investigated in the forest and farmlands. As the majority of the bombs had failed to function in the manner intended each had to be dug free of the ground. The drop from the airship had resulted in craters up to three feet deep and eight feet in diameter. Each of the recovered bombs was taken to the Sun Street police station. The easiest means of transport evolved was to place one bomb on either end of a pole and carry them both in "coolie fashion".

The bomb distribution was widespread but had little to show for it. Only four houses received minor damage from the few explosive bombs to operate correctly. Areas of burned grass were the sole result of the incendiary weapons. The only damage considered 'severe' was that outside 'The Volunteer', where a bomb had impacted into the gravel roadway. The damage was easily repaired. Miles away, beyond Epping, one of the many anti-aircraft shells fired at LZ90 had ploughed into Parndon Lane without exploding. Attempts to dig it out were given up a fortnight later, and the hole filled in. It is probably still there.

Some good actually came out of the incident. Being a new and exciting event to the majority of the surrounding populace, it attracted the crowds. The great pile of dozens of bombs sited in the rear of the station gardens and the large number of, now empty; holes in the stack yard of Woodredon Farm were put to good use. The farmer opened his yard to all corners at a charge of 3d each. Contemporary reports show that it was not just Waltham Abbey folk who were drawn to the spectacle. The money was given to the Red Cross Hospital in the Town Hall.

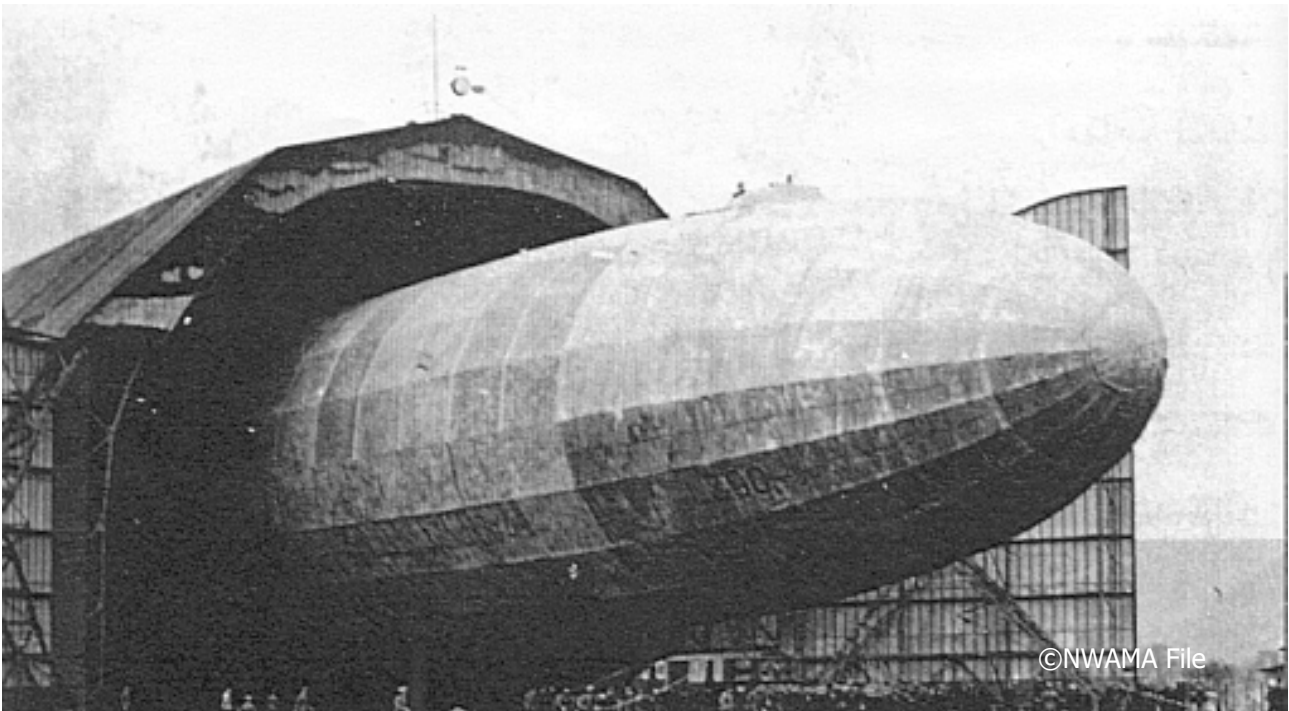
The police station yard was also opened to all, probably with a charitable charge being levied and presumably smoking being strictly controlled. It is uncertain whether the two events were connected, but some six weeks after the enemy ordnance was displayed in the yard at Waltham Abbey police station, on Wednesday May 24th Scotland Yard issued a Police Order to the effect that in future

'On no account (*are unexploded bombs*) to be handled or moved about'



Shortly after the attack, in May 1916, all of the officers stationed at the police station posed for a photograph, probably to mark the event.

Although marking a lack of success for the German crew, that particular attack by LZ90 can be recalled as unique in that it marked the dropping of the greatest number of individual bombs along any single British roadway (Honey Lane) in the Great War.



Zeppelin LZ90

Even among a class of war machine not endowed with startling offensive success against the British enemy, the airship LZ90 was not one of the most successful of its ilk. Following the raid on Waltham Abbey this airship underwent a short conversion to re-emerge at the end of April with the same military designation but a new c/n of LZ60A. On a further raid on England during 1916 the airship lost its sub-cloud observation capsule near Colchester, the cables suspending this substantial item being cut by the crew to jettison it in a moment of danger. Subsequently retrieved by the enemy and it now hangs, largely unnoticed, in the main gallery at the Imperial War Museum, Lambeth, London. LZ90's final flight took place in November 1916, the craft finally being destroyed in a storm.

[Right] LZ90's pod on display immediately after the war and below it a recent image of the same device hanging in the hall of the Imperial War Museum, Lambeth, London.

The commander of the LZ90 during its attack on Waltham Abbey, Lehman, was one of the better-known German airship fleet commanders. Credited with the invention of the type of sub-cloud observation car's carried [and subsequently lost] by LZ90 and others, he survived the war to become a director of Deutsche Zeppelin-Reederei.



He was fatally injured in the disaster that befell the airship Hindenburg at Lakehurst, USA, in 1937.

It is particularly noticeable that this air attack was not met by defending aircraft and indeed it was shortly after the attack on Waltham Abbey that defensive flying started from North Weald.



August 25, 1916

On the night of 24/25 August 1916 the enemy sent four Navy Zeppelin airships, L16, L21, L31 and L32, raiding against targets in London. As a result of this effort nine people were killed and forty injured by the bombs of the airship L31.

The defences despatched some sixteen sorties to meet these enemy airships, five of these were put up by 39 Squadron operating from North Weald, Sutton's Farm and Hainault. Of these the BE2c 4193 flown by Lieutenant A D Broughton encountered mist on take-off, went into a spin and crashed on the airfield. The aircraft was badly damaged but Broughton survived.

September 3, 1916

The airship bombing attacks on Britain continued unabated through the summer of 1916. Although the airships suffered some losses, to the weather and over Europe, none had yet been defeated over the British capital. This state of affairs finally changed in September 1916.

In a unique combined air raid effort by German airship forces, sixteen Army and Navy airships were sent against London on the fateful night of 2/3 September, 1916.

An equal number of defence sorties, sixteen, were put up against this force, with the airfields of West Essex providing six aircraft from 39 Squadron. The first of these set off just after 11pm.

Flying an aircraft armed with machine guns with a newly developed mix of incendiary ammunition, Lieutenant William Leefe-Robinson, B Flight, Sutton's Farm, engaged the wooden Shutte-Lanz airship SL11. The new ammunition mix proved a success and sent SL11 plunging to earth at Cuffley, Hertfordshire where a memorial stands to this day.

This was to be the first instance of an enemy airship being destroyed by the defenders of London, and such was the great relief felt by the government of the day that Robinson was promoted and given the Victoria Cross.

On the downside of 39 Squadron operations that night, A flight based at North Weald sent up two aircraft that night. The first of these, BE12 6484 flown by Lieutenant C S Ross, crashed on returning to land the BE at 1am.



©Bryn Elliott

October 2, 1916

Not deflected from further operations at that stage, on the night of 1/2 October 1916 another large force of ten German Navy airships was sent against targets in Britain. For the majority of the attackers, dogged by poor weather, the results were to be disappointing and, for one further airship crew, the night was to again end in catastrophe.

Among the ten airships was the L31, a vessel that had successfully attacked London on a previous occasion. As was the case in the previous sortie, the Commander of L31 was the highly experienced Kptlt Heinrich Mathy. It is believed that Mathy was the first of the attacking fleet to make a landfall on East Anglia - he was off Lowestoft at 8pm. From Lowestoft L31 flew on a south-westerly heading towards London. The journey was uninterrupted until the envelope was the craft was illuminated by a searchlight near Chelmsford, Essex, at 9-45pm. The L31 turned west and then north in a successful attempt to lose the searchlight beam. It was next reported near

Buntingford, Hertfordshire, forty-five minutes later.

The defences put up a total of fifteen sorties against the large enemy force, with 39 Squadron putting up a total of six aircraft from two of its three West Essex bases. A Flight at North Weald sent up four, amongst which was 2nd. Lt. Wulstan Joseph Tempest [right] in a BE2c 4577. The days of the scramble were yet to overtake the aerial defence of London, take-off being a somewhat leisurely affair, the first of these aircraft was sent up just five minutes after L31 was first illuminated over Chelmsford. Tempest took off from North Weald at 10pm and flew around, virtually blind, for some 90 minutes without seeing a thing. At 11.40pm Tempest finally saw the L31 illuminated by searchlight beams some 15 miles away to his west and over Cheshunt. Mathy's airship was then at a height of around 14,500 feet.

In spite of having to hand-pump his fuel supplies following the failure of the primary pump, Tempest continued with an attack on the L31. The crew of the airship saw a number of defending fighters in its vicinity and closing in for attack. The airship jettisoned its bomb load and turned to the west to escape. Tempest was fortunately close enough to the giant airship for this manoeuvre to be insufficient, and he was able to dive down and fire at the large target. Fire broke out and the airship crashed near Potters Bar with no survivors [right].

Just to round off an exciting evening, after the extreme effort involved in flying in the oxygen starved, rarefied air above 10,000 feet for two hours, on returning to North Weald Tempest encountered poor visibility and crashed the BE at 1am. Fortunately he was not injured.



©NWAMA File



©IWM

April 15, 1917

At the inquest to Robert Denholm (see 27.7.17 below) one of the jurors complained that he was uneasy about the number of crashes occurring at Chingford aerodrome, he himself had been called to one such "a few months earlier". It was stated by an RNAS representative that the earlier case was untypical in that it was caused by engine failure. This incident appears to be that involving the demise of Grahame-White XV pusher bi-plane 3610.

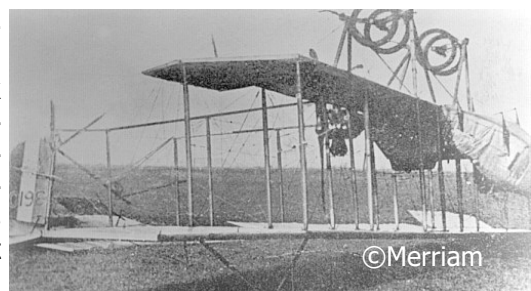
Flight Commander Merriam accompanied a 22 year-old Canadian student, Probationary Flight Officer Joseph Louis Lavigne in a flight aboard the flimsy bi-plane. The machine successfully reached a height of 30 feet above the sheds when the engine failed. Forced into a choice between alighting on the reservoir - with its inherent dangers of drowning - and turning back onto the field with the wind, Merriam chose the latter.

Unfortunately, landing the Grahame-White without the braking properties of flying against the wind resulted in a ground run of some 80 yards. The bi-plane was presented with a deep ditch which Merriam's attempts to jump over failed. The machine dug into the side of the ditch and over-turned. Although the crash appeared not to have been particularly vicious, Lavigne suffered a fractured skull and was found hanging dead in his seat. Merriam was virtually uninjured.

May 11, 1917

A double fatality resulted from the crash of Maurice-Farman Longhorn N5034 in May 1917.

Flt. Lt. (acting Sub-Lieutenant RNR) Lewis Morgan took pupil Probationary Flt Off Randolph H Seed up for instruction. The aircraft, delivered to Chingford in December 1916, suddenly dived into the grounds of the Edmonton sewage farm out of control, there were reports of an explosion prior to the crash. It was suggested that the propeller had broken and smashed into the tail boom, severing the controls.



©Merriam

July 27, 1917

At about 1000hrs on Friday July 27 (or July 28) a trainee pilot operating from RNAS air station Chingford took off for a solo flight in a Maurice Farman 57 Longhorn pusher N5733. During this flight, whilst still close to the airfield, the aircraft was seen to break up in the air and crash 600 to 700 feet to the ground. The pilot, 18 year old probationary pilot Robert Miller Denholm died. It was subsequently adjudged that one of the wing struts had failed.

October 19, 1917

After the series of daylight raids the bomber aeroplanes and improved airships switched to night attack. In another raid on the Waltham Abbey gunpowder works a two airship attack took place on the night of October 19, 1917. Little damage was achieved as most of the bombs fell on the marshes of the River Lea.

At 10.23pm the two airships, the L52 [Oberleutnant zur See Friebe] captain and L44 [Captain Leutnant Stabbert], were offloading incendiary bombs when Lt Charles Chabot, 39 (HD) Squadron, intercepted them in a BE2e night fighter, B4484, flown from North Weald at 2030hrs. After flying on the North Weald – Hainault patrol line at 12,000 feet for 1¾ hours Chabot noticed searchlight and gun flashes activity to the west near Hertford. As he approached the raiders flying due east towards his patrol line but 3-4,000 feet higher and about to attack Waltham Abbey. He climbed to meet them.

The BE had been modified to Chabot's requirements by fitting a fixed Lewis gun over the covered front cockpit position. The unique design, held in place with wire bracing, was intended to enable it to fire over the propeller disc without the need to employ a heavy interrupter gear. Although the gun was not difficult for the pilot to reach in flight Chabot had dispensed with the 'luxury' of a reload magazine to keep aircraft weight down - so he had just 47 rounds. To reduce distractions he also turned off the instrument lighting – thereby losing sight of his air speed indicator.

Unfortunately in lining up to fire on the airships the aircraft stalled at a critical moment and fell away, thousands of feet, into the night. In spite of quickly recovering the aircraft Chabot had lost too much height to attack the same airships again. Although the single, poorly armed, aircraft had posed little threat to them, the appearance of the BE obliged the two German craft to break off their attack and climb away after dropping only twelve of the bombs. Five fell on the factory; another five were spread between Waltham Marsh and Cheshunt Marsh and a further two, well to the south, beside Avey Lane.

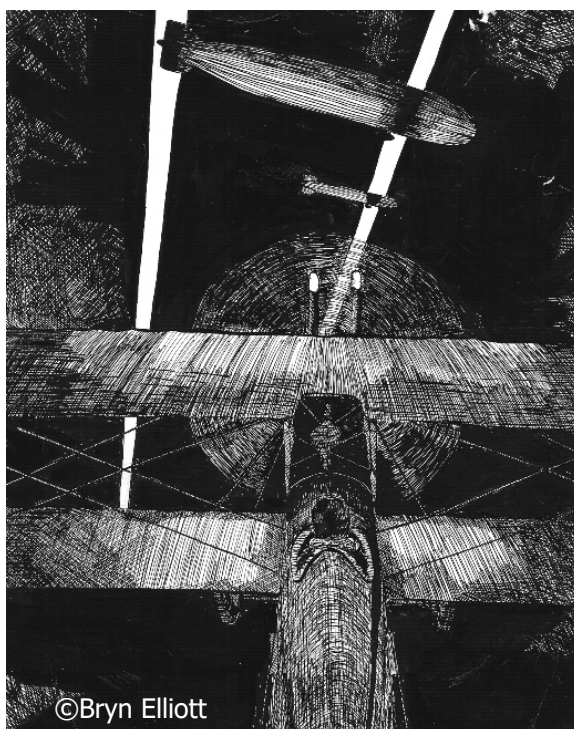
Similar in design, and poor performance, to those of the 1916 airship raid, the bombs were again collected up by police employing the now tried and trusted "coolie method". In view of the previous, [1916] instructions relating to the disturbance of these missiles, it seems unlikely that they were again put on display but it is surprising that the police still became intimately involved with the weapons. Although this final airship raid on Waltham Abbey had again resulted in total failure for the enemy, elsewhere in the country, but mainly in London, 36 men, women and children had been killed and 55 injured in attacks by eleven airships that night.

October 20, 1917

Although known to have been in the vicinity of Waltham Abbey, the police report on this incident is very sparse. The report merely stated that four (named) police reservists had placed a guard over a wrecked aeroplane for four hours between 2200hrs on October 20 and 0200hrs the following morning.

November 1, 1917

In a report submitted after the October 19 flight Charles Chabot detailed his inconclusive flight against the enemy in a manner that clearly displayed his anger. Regardless of his own position he complained at the lack of support by higher authority in expecting the pilots to tackle the ene-



my with poor equipment.

Chabot's report provoked a reply from Wing Headquarters at de Keyser's Royal Hotel, on The Embankment at Blackfriars. Chabot was ordered to elaborate upon his criticism to Major General E B 'Splash' Ashmore, Commander of the London Defences at Whitehall, which he did, forcefully and to good effect.

Although he had made a number of influential enemies in his submission, his personal report convinced the General. He authorised 39 Squadron to undertake trials with the Bristol F2b Fighter, a two-seat machine already proven on the Western Front.

Following the meeting he took a walk around the Mansion House area as enemy Gotha bombers raided the city. It was the night of October 31/November 1. Fellow members of the squadron flew four of the fifty defence sorties sent against 22 bombers flying the inadequate BE2 and BE12 aircraft [including Chabot's aircraft B4484] without success.

Taken to Northolt in the General's car he converted to and delivered the first Bristol Fighter for 39 (HD) Squadron.

Conversion to type in those days consisted of no more than being shown the salient features of the type and then let loose in the sky on a delivery flight to North Weald. Having accepted the aircraft and successfully flown it, it was anti-climax to find that on a subsequent arrival at North Weald he found the field shrouded in a thick mist. He crashed that first, unidentified, aircraft and ended up in the Epping Workhouse hospital with concussion. Fortunately the rest of the squadron was still converted to the Bristol Fighter.

Shortly after his successful campaign to upgrade the quality of equipment in the North Weald squadron Chabot was posted away to fly with 50 Squadron at Bekesbourne in Kent...



*Charles Chabot on a return flight to North Weald in a 50 Squadron SE5 early in 1918
Chabot [left] is standing with Captain G M 'Clank' Clarke*

November 27, 1917

The only extra detail contained in a further police report five weeks later was to identify the general area of Waltham Abbey in which an, again, unspecified type of aeroplane alighted. It is known from official sources that on this date there was intense activity involving 78 defensive sorties which led to eight "crashes", three with wrecked aircraft and a single fatality. It can be safely assumed that the fatality was not this machine which came down on the fields of Breach Barns Farm to the north of Waltham Abbey around tea-time. A police guard was mounted from 1800hrs until 2400hrs by five reservist officers.

January 26, 1918

Again from a Waltham Abbey police reservists notes is the sparse information relating to an aeroplane coming down in a field at Broom Hall Road on the eastern edge of the town. This location would now equate with the area around Broomstickhall Road, being part of the modern Ninefields or Congreve developments, or even perhaps the King Harold Secondary School. Unlike some of the earlier aeroplane incidents this machine required a police reservist guard overnight. Seven

officers were employed on guard duty from 1800, overnight until 0900hrs. According to those records that have survived this incident occurred during a lull in attacks and was therefore non-operational in nature.

January 28, 1918

In the early years of the war much of the defence relied upon a range of variants of the Royal Aircraft Factory BE2. The type was a slow but a stable flyer, a good trainer but often outclassed in combat. By the end of 1917 many of this range of aircraft, were being superseded by newer, faster and better armed machines.

In the final operational flurry of the BE2, North Weald based 39 (HD) Squadron sent up the type in the unarmed role of W/T Tracker in the final days of January 1918.

RAF BE2e, B4484, the aircraft flown by Chabot in his abortive attack on the Waltham Abbey airships two months earlier, was built in Bristol late in the summer of 1917. Shortly after completion the bi-plane was named 'Rewa Fiji', a name previously allotted to a Sopwith machine which had unfortunately crashed. The purpose of this re-naming was primarily to continue to please those in the distant Pacific islands that had donated the cost of one aeroplane to fight the Allied cause in Europe.



©NWAMA File

*39 HD Squadron RAF BE2e at North Weald
It stands outside the all timber 51/17 Twin Shed hangars.*

The BE2e was in service with 39 on the day it alighted in a field in the Warlies Estate, Upshire. The local police were set to guard the aircraft from the evening of January 28 until noon the following day. This labour intensive task, a regular occurrence, required the employment of twelve men in shifts.

It is thought that although B4484 returned to North Weald it never served No.39 operationally again. It was next noted in the north of the country many months later, only just prior to a period of mass disposals of machines no longer fit to use as weapons of war. B4484 was probably withdrawn and dismantled before the Armistice.

January 29, 1918

39 Squadron had an eventful night, perhaps more reminiscent of the night defending during the Battle of Britain 22 years later, when responding to German raiders on the night of January 28/29, 1918.

On this night, the Germans sent thirteen Gotha bombers and two R12 Giants against London, although in the event only seven of the former and one of the latter succeeded in attacking. The defences put up over one hundred sorties against them.

With Hainault flying the Sopwith Camels of 44 Squadron and Suttons Farm a mixed bag of Camels and 1½ Strutter's, locally the defence pressure was lessened on 39 Squadron. Now only based at North Weald this unit was able to put up only two Bristol F2B Fighter sorties against the enemy.

39 [HD] Squadron Bristol F2B Fighter at North Weald.

F/Lt W Burns Thompson DFC and Lt. G T Stoneham

One of these 'Brisfits', C4638, flown by Lieutenant J G Goodyear and 1st Class Airman W T Merchant, sighted the sole Giant to make the attack whilst patrolling a line from Suttons Farm to Sawbridgeworth. Unfortunately for the pair an attack they made on this aircraft was thwarted by the effects of the slipstream trailed by the six engine of the large bomber. The Bristol was tossed about and ended up receiving greater damage from return fire than it meted out.

With the air-gunner, Merchant, wounded and a dead engine, the Bristol glided down to make a faultless force-landing on North Weald.

January 30, 1918

In response to another major raid by seven enemy bombers on the night of January 29/30, 1918 the defences sent up some 80 sorties.

North Weald based Bristol Fighter B1157 flown by lieutenant E Brooks and 2nd Lt J Baugh in the



WIT tracker role crashed on return from a 2½ hour flight.

May 20, 1918

Over eighty sorties were sent up against twenty-eight Gothas and three R12 Giants of a German force attacking London on the 19/20 May 1918. on that night a Bristol Fighter, C4636, from 39 Squadron shot a Gotha down near Roman Road, East Ham, the squadrons first victory since the 1916 Zeppelin attacks.

On the debit side, another 39 Squadron Bristol Fighter, C4671, crashed at 0130hrs on return to North Weald from a 2½ hour sortie.

June 13, 1918

Lt. John (Jack) Lionel Boles died as a result of a flying accident at North Weald. He had taken off with a young Cadet Mackay a 'Scottish fellow' on what was described as a "training" flight. The engine stalled at a few hundred feet and they attempted to turn the aircraft, hoping to glide back to the field. Apparently, the attempt failed and it immediately crashed, killing both aboard.

Jack had originally enlisted in the army in Canada in 1916 but soon enrolled in the officer training course and joined the RFC, receiving some of his early flight training in Canada before embarking

for Britain and ultimately France in November of 1916. He apparently served in France for 9 months flying Bristol Fighters. He returned from France and was assigned to a squadron at North Weald on the Defence of London, he is buried in the church yard.

July 29, 1918

Bristol Fighter B1331 being piloted by Captain Owen Vincent Thomas RAF 39 Squadron and carrying 2 Lt Albany Francis Cairns as observer burst into flames whilst in flight and crashed. It is reported that a landing flare ignited in flight and that both chose to jump from the aircraft rather than die in the flames. Thomas succumbed immediately but Cairns lingered and died later the same day.

July 31, 1918

Although he was an Observer it seems that 27 years old Lt. C H Jordan was undergoing some flight training alone in a BE12 aircraft C3235 when it crashed at North Weald. Jordan was observer to a regular pilot on the Bristol F2B aircraft but the aircraft he died in was one of the obsolescent station airframes.

August 26, 1918

Lost for many years were details of an air accident in West Essex that occurred to the east of Ongar in 1918. The pilot, and sole occupant of the aircraft, was an important character in the defence of Britain.

Colonel Bertram Hopkinson CMG FRS MIEE MICE (11 January 1874 – 26 August 1918) was a British patent lawyer and Professor of Mechanism and Applied Mechanics at Cambridge University. In this position he researched flames, explosions and metallurgy and became a pioneer designer of the internal combustion engine.



Hopkinson was born in Birmingham, in 1874. He read law at Trinity College Cambridge, he became a lawyer after his graduation. Following the death of his father, brother and two of his sisters in a mountaineering accident in 1898, Hopkinson switched to a career in engineering instead.

In 1903, Hopkinson was elected to the Cambridge chair in mechanism and applied mechanics, and in 1910 he was elected a Fellow of the Royal Society and when war broke out he was commissioned into the Royal Engineers, and opened a research establishment at Orford Ness where he and his team researched weapons, sights, and ammunition. In 1915, Hopkinson discovered a similarity relation between the masses of explosive charges and their effects at a given distance. The same similarity relation was discovered independently in 1925 by Karl Julius Cranz in Germany.

He learnt to fly when no longer a young man and was known to fly himself to numerous locations across England and France. Many were worried about his flying and safety but it was subsequently acknowledged that all the scientific work he had done was based on risk and flying was simply an extension of that.

He died, aged 44, on August 26, 1918 when his Bristol F2B Fighter C4885 crashed near Paston, Ongar, Essex, en route from Martlesham Heath to London.

Despite Hopkinson being regularly in the news media of the time, there was very little coverage of his air accident until The Times of August 28 announced his military funeral to be held at Cambridge on the afternoon of August 30.

The Times announced that a train for would be mourners was laid on from Liverpool Street at 11.50 a.m. on the day to attend the funeral of Colonel Bertram Hopkinson, C.M.G., F.R.S., Professor of Mechanism, Cambridge University. It was also announced that the King [King George V] and Queen, through Lord Stamfordham, sent a letter of sympathy to the widow of Colonel Bertram Hopkinson, C.M.G., F.R.S., Professor of Mechanism and Applied Mechanics at Cambridge, stating that they are deeply grieved to hear of his death, and conveying their heartfelt sympathy for the family in the loss which the death of her distinguished husband had brought to her and the Royal Air Force.

The funeral was with military honours. The first part of the service in King's College Chapel, was conducted by the Rev. E. Milner-White. As the body was borne through the great court the "Dead March" was played by fifes and drums. After the service the choir sang the Nunc Dimittis at the west door, before the procession moved away to St Giles's Cemetery, Huntingdon Road. The congregation included his widow, mother and various other relatives but also attracted some of the great and good names of the time and 250 cadets.

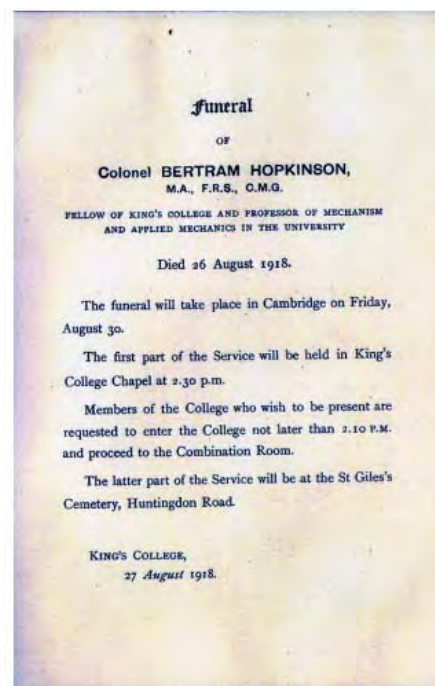


He is buried near the chapel in the SS Giles and Peter Parish of the Ascension burial ground in Cambridge, with his wife Mariana, née Siemens; All Souls Lane, Huntingdon Road, Cambridge. They had seven daughters.

Unfortunately, although we have all that detail we still do not know anything reliable about the causes of the crash. According to a wide ranging document published by Cambridge University the Bristol was "Brought down by a thunderstorm in Surrey while piloting his own plane" They got the location wrong and who owned

the RAF aircraft but can we trust the reason? In fairness the author was mainly writing about his important scientific work and may have paid little attention to the crash details.

Bertram Hopkinson was perhaps the most esteemed air crash victim in West Essex but while he remains respected in his own field 100 years later no-one knew of his passing where he died.



September 25, 1918

A Bristol F2b Fighter E2160 was being piloted by Lt. Roy Underwood with Lt. Reginald Kemp as his Observer when both died in a crash.



One former North Weald Bristol F2B Fighter airframe exists as part of the display at Duxford. Serial E2581 is seen here displayed in the late 1990s.