

Chiltern Airwords



This 1944 built Harvard Mk IIB, KF183 retired from ETPS, AAEE, RAE Boscombe Down in 2016

The Chiltern Aviation Society Magazine
Special Lockdown Issue
Spring 2020

CLUB SECRETARY WORDS

These are very strange times indeed. Many of you may remember the war, and the rationing which went on for years afterwards, or the miners strikes, the power cuts and the three-day week. Despite all of that we still got on with life as best we could. I don't remember much panic buying or hoarding in the 1970s apart from a few weeks when there were a few random shortages of items like electricity, sugar and loo rolls (again) that no one could explain least of all Shirley Williams. But now with the coronavirus lockdown I have seen whole shelves cleared of items that bare no correlation to the virus; I can understand hand cleanser but toilet rolls, WD40, spanners, torches, tins of anything I cannot understand, as the virus does not, as far as is known stop all life as we know it! My sincere hope is that the lockdown doesn't last all summer as it's my guess that the virus despite being a danger to anyone over 60, will cause great damage to the economy and be a greater threat to our children and grandchildren. If everyone could stay away from others for 14 days, then the virus would be more or less finished off. How stupid then for people to celebrate the start of lockdown with partying! Only time will tell who is right or wrong! Anyway in the spirit of togetherness I thought I'd like to create a special Airwords as a lockdown boredom breaker edition to cheer you up and stave off any yearnings you might have for the old days (just a few weeks ago) when you could go beyond the garden gate to Moons, or the local café, or a country house and garden, non-food shops or the theatre! So, keep well everyone and keep your 6ft distance. You will be pleased to note that all the words and pictures in this issue have been thoroughly sterilised, and not only has my employers closed their office to ensure staff self-isolate, they have fired me so that I can now spend as much time with my computer as I like! Sadly, printing of AIRWORDS has therefore hit a problem, so if you can print a copy for a friend please do, as professional print shops will be too expensive for CAS finances! Anyway, keep well, keep your mask on and we will hopefully be back together soon. Thanks also to Brian Jones for his most devilish quiz, which I failed miserably! Kind Regards, **Lawrence Hayward**

EDITORWORDS

Note to members; Once again thanks for the articles sent in so far, some of which are in two parts to help out with the next issue, and on that subject the number of articles has reduced making it hard to produce an issue every eight weeks, so, Airwords may need to be issued quarterly! When emailing articles for Airwords, to cas.clubsecretary@outlook.com

VITAL - Please send the words and any photos separately and not within the article.

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CHILTERN AIRWORDS; Please note Chiltern Airwords is produced purely for CAS members' own private study and enjoyment and it is not for sale. Opinions expressed are the author's and not necessarily those of the CAS Committee.

THE CHILTERN AVIATION SOCIETY (CAS); Founded in 1968. Associate member of Air Britain Historians Ltd. **President;** Philip Birtles. **Patron;** David F. Ogilvy OBE FRAeS. CAS Membership £15 PA. Non-Members also welcome at our monthly programme of talks for a small contribution of £2 per event.

MEETINGS: Fourth Wednesday of the month (third in December) 8pm to 10 pm at *Ruislip Methodist Church Hall, Ickenham Road, Ruislip, Middx, HA4 7BX.*

2020 CHILTERN AVIATION SOCIETY PROGRAMME;

UNTIL FURTHER NOTICE all meetings are cancelled

March - Alternative programme – Watch TV and Coronavirus Updates 24/7 & go panic buying for food

April - Watch TV and Coronavirus Updates 24/7 & go panic buying for loo rolls for a change

May - Appointment with Divorce Lawyers / Psychiatrist

BEER FOR OUR BOYS, NORMANDY 1944 - BY LAWRENCE HAYWARD

Normandy, 76 years ago, one of the biggest concerns of the British troops who had survived the D-Day landings and pushed out into the ‘bocage’ against bitter German resistance was not the V1 flying bomb blitz that threatening their families back home, or the continued failure to capture Caen or the port of Cherbourg. It was the lack of beer in the bridgehead. Two weeks after D-Day, an article in the newspapers said all that was available in the newly liberated establishments a few miles inland from the beaches was cider. It was said to be pretty watery stuff, which is understandable as I guess the publicans wanted it to go a bit further with their Allied clientele. With this in mind it wasn’t too long before ‘real British beer’ unofficially reached the battling troops in Normandy, and even then, the quantity was



never enough! The supply was coming via enterprising pilots in the RAF and the USAAF who had been engaged in shipping beer into Northern France privately, using what the troops called ‘flying pubs’. Some of the first attempts to bring beer over the Channel after D-Day used the expendable drop tanks, carried by aircraft such as the Spitfire and normally filled with fuel to give the fighters extra range. These seem to have been semi-official efforts: The Air Ministry actually distributed the photograph (left) to newspapers showing a Spitfire of 332 (Norwegian) Squadron at Tangmere airfield in Sussex having its 45-gallon jettisonable tank being filled with beer from two wooden casks supplied by the Chichester brewer Henty & Constable, while the pilot relaxed on the wing. That pilot was almost certainly

Wing Commander Rolf Arne Borg, commanding officer of No. 132 Norwegian wing, though the aircraft does not seem to be his, as his carried three rings in Norwegian red and blue on the spinner. Sadly, Wing Commander Rolf Arne Berg, CO of No. 132 Norwegian Wing, was killed a few months later, aged 27, in February 1945 while attacking a German airfield in the Netherlands. Another 270 gallons of beer from Henty and Constable was flown in drop tanks slung under three Spitfire Mk IXbs from Tangmere to an airfield at Bény-Sur-Mer in Normandy, some 110 miles south of England and three miles from the sea, on June 13 1944, D-Day plus seven: the first known landing of beer during the invasion. One of the other pilots was Flight Lieutenant Lloyd Berryman of 412 Squadron, 126 Wing, Second Tactical Air Force, Royal Canadian Air Force. The airstrip at Bény-Sur-Mer would not, in fact, be finished officially for another two days when Berryman’s boss, Wing Commander Keith Hudson, singled him out at a briefing at the wing’s Tangmere base to deliver a “sizeable” beer consignment to the airstrip, known as B4. Berryman recalled:

“The instructions went something like this, ‘Get a couple other pilots and arrange with the officers’ mess to steam out the jet (jettison) tanks and load them up with beer. When we get over the beachhead drop out of formation and land on the strip. We’re told the Nazis are fouling the drinking water, so it will be appreciated. There’s no trouble finding the strip, the battleship HMS Rodney is firing salvos on Caen and it’s immediately below. We’ll be flying over at 13,000 feet so the beer will be cold enough when you arrive.”

“I remember getting Murray Haver from Hamilton and a third pilot (whose name escapes me) to carry out the caper. In reflection it now seems like an appropriate Air Force gesture for which the erks would be most appreciative. By the time I got down to 5,000 the welcoming from the HMS Rodney was hardly inviting but sure enough there was the strip. Wheels down and in we go, three Spits with 90-gallon jet tanks fully loaded with cool beer. As I rolled to the end of the mesh runway it was hard to figure ... there was absolutely no one in sight. What do we do now, I wondered, we can’t just sit here and wait for someone to show up? What’s with the (lack of) communications? Finally, I saw someone peering out at us from behind a tree and I waved frantically to get him out to the aircraft. Sure enough, out bounds this army type and he climbs onto the wing with the welcome: ‘What the hell are you doing here?’ Whereupon he got a short, but nevertheless terse, version of the story. Look,’ he said, ‘can you see that church steeple at the far end of the strip? Well it’s loaded with German snipers and we’ve been all day trying to clear them out so you better drop your tanks and bugger off before it’s too late.’ In moments we were out of there, but such was the welcoming for the first Spitfire at our B4 airstrip in Normandy.”

Later, in the 1950s back in in Canada, by chance Berryman actually met the man who climbed onto his wing and told him to bugger off. Four days after Berryman’s landing, on 17th June 1944, and 11 days after the invasion started, a Spitfire of

416 Squadron, Royal Canadian Air Force flew over from England to the newly built airfield at Bazenville, just three miles from Gold Beach, with a drop tank full of beer slung below its fuselage. The tank had been scoured out first with steam but *“tough luck; it still tasted of petrol,”* according to Dan Noonan, a Flight Commander with 416 Squadron.

The heftier Hawker Typhoon could carry even more beer. Pilots of the RAF's 123 Wing, flying rocket-firing Typhoons and based from 19 July 1944 at Martragny, a few miles east of Bayeux, would run a “shufti-kite” across to Shoreham, 110 miles away, where a local brewery would fill two 90-gallon jettison tanks attached below each of the Typhoon's wings with beer. Then the pilot would hurry back across the Channel and the RAF personnel at Martragny would drink it, quickly. There was one problem with transporting beer in jettison tanks: according to 123 Wing's Commanding Officer, the New Zealand-born RAF ace Group Captain Desmond Scott, on the trip over to Normandy the beer *“took on rather a metallic taste, but the Wing made short work of it.”*



However, the journey over the channel, at 15,000 feet or so, cooled the beer down nicely for when it reached those on the ground: indeed, according to newspaper reports, not only did Spitfires supply beer shortly after D-Day in jettison tanks made from vulcanised paper fibre, but P-47 Thunderbolt fighters, presumably flown by the USAAF, had carried iced custard, or ice-cream, in their drop-tanks to troops on the Normandy beachheads: *“They flew at 15,000 feet and delivered their cargo iced in perfect condition.”* (This is not as unlikely as it seems: the US army had mobile ice-cream making machines for the troops in the Second World War, and so did many US Navy ships.)

A great thirst attacked British troops rushing emergency landing strips to completion in the dust of Normandy. Thinking of luckier comrades guzzling in country estaminets and town bistros, the runway builders began to grouse. They wanted beer. They got it. Rocket-firing Typhoons, before going on to shoot up Nazis, landed on the runways with auxiliary fuel tanks full of beer. Swarms of the thirsty gathered round with enamel mugs. The first tank-fulls tasted bad because of the tank linings; this flavour was overcome by chemical means and later loads were delicious. Just like the corner pub at home. Unfortunately, United States Army Air Forces P-47 Thunderbolts did for 123 Wing's beer runs: the Typhoon was easily mistaken by inexperienced American pilots for the German Focke-Wulf Fw 190 fighter, and according to Group Captain Scott, *“our aerial brewer's dray was attacked by American Thunderbolts twice in one day, and was forced to jettison its beer tanks into the Channel. The beer cost us money, and these two encounters proved expensive.”* The Wing's draught beer flights came to a sudden halt, and Scott had to arrange for an old twin-engined Avro Anson to fly in cases of Guinness: *“The troops mixed it with champagne to produce black velvet. It was hardly a cockney's drink, but they appeared to like it,”* he wrote.

Ironically, Thunderbolt pilots learnt what the Typhoons had been doing, and copied it themselves. Lieutenant William R Dunn of the 513th Fighter Squadron, USAAF, the first American air ace of the Second World War, was a P-47 Thunderbolt pilot in Normandy. He recorded:



“During our brief stay at A6 airfield, we learned another trick of the trade from our neighbouring RAF allies, a Typhoon squadron based near Caen. Periodically they'd send a kite with a clean belly tank back to England, where the tank was filled with beer. A flight back to France at an altitude of about 15,000 feet and the beer arrived nice and cold. We soon followed their lead, with our 150-gallon belly tanks. Those British types sure know how to take all the comforts of home to war with them.”

The other method used was to attach casks directly to the bomb racks. Pilots with the RAF's No 131 (Polish) wing, flying Spitfire Mk IXs, (probably 302 Squadron or 308 Squadron, both fighter-bomber units) claimed to have invented the idea of the "beer bomb", using casks that had home-made cones (*left*) fitted to make them more streamlined, which were fitted to the Spitfire's bomb racks. On 3 August 1944 131 Wing moved from England to the airfield at Plumentot, near Caen, and "beer bombing" began. The 'beer-bomb', invented and first used by No. 131 Fighter Wing when still stationed in England. The bomb has nothing atomic about it, so the details can now be divulged. The invention is, in fact, simplicity itself: it entailed a barrel of beer, a bomb-carrying aircraft, and a willing pilot (the three were available in increasing order of magnitude).

The procedure, freely disclosed for the benefit of thirsty humanity, was for the aircraft to be carefully 'bombed up' with a barrel of beer, flown off with every precaution to Plumentot in Normandy and landed with equal care. Never were bombs more warmly welcomed. Not least because of the dust. Presumably these beer bombs were flown out from RAF Ford airfield in West Sussex, where 302 and 308 Squadrons were based just before they were moved to Plumentot, in which case, again, the beer may well have come from Henty and Constable, eight or so miles away at Chichester. There was also Polish 'beer bombs' flown out to France from Kent in which case the beer may have come from Bushell Watkins & Smith of the Black Eagle brewery in Westerham. According to Westerham villager Edward "Ted" Turner

"I worked at a garage called Brittain's Engineering in Peckham in London making Bailey Bridges for sending to France for the invasion ... We were also making 'jettison' auxiliary fuel tanks for fighter planes to carry extra fuel to enable them to fly further into Europe and still get back home. Once refuelling facilities were established over there, the Westerham brewery used to fill those auxiliary non-returnable petrol tanks with Westerham ales for our troops in Europe. Black Eagle lorries delivered it in barrels to Biggin Hill, four miles from Westerham where the auxiliary dual-purpose tanks were filled with Bitter on one side and Mild on the other. We made them of 16-gauge metal with baffles for safe landing, the RAF's version of the brewer's dray."

Unfortunately, there are problems with the Westerham claims. The three fighter squadrons that had been using the airfield departed in late April 1944 for Tangmere, where they would be closer to the Normandy beaches. In any case, Biggin Hill was abandoned by the RAF soon after the Normandy landings. On June 13 1944, V1 "doodlebug" flying bomb attacks on London began, and Biggin Hill – right in the V1s' flightpath – was deemed too dangerous to continue to be used by aircraft, with Balloon Command taking the airfield over as part of the line of barrage balloons put up against the doodlebugs. Flying operations did not begin again at Biggin Hill until September 1944, and fighter aircraft do not seem to have returned until the October. However, one of the squadrons that had been based at Biggin Hill until April 1944 was 412 Squadron, which had made that first "drop-tank beer delivery" to Normandy from Tangmere on June 13. It is possible that the beer in the tanks might have come from the Westerham brewery, 50 miles away, which the pilots of 412 would have known very well. Certainly, pilots were happy to fly long distances to pick up beer. Thorsteinn "Tony" Jonsson, the only Icelander to join the RAF, was flying the P-51 Mustang Mk III fighter-bombers with 65 Squadron, based at Ford, when the D-Day invasion began. On 27th June his squadron moved to the temporary airfield at Martragny, designated B7, five miles from Bayeux and only some 2000 yards from the German lines.

However, Jonsson recorded:

"Life in our camp was really quite pleasant and comfortable. Admittedly we missed the luxury of being able to pop into a pub at the end of a day's work for a pint of beer, and to mix with the ladies that were usually to be found there to add spice to our existence. At the beginning of the invasion and for the next few weeks, beer was severely rationed in Normandy ... But some bright lad in our Wing had an excellent brain-wave; why not bring beer over from England in the large auxiliary tanks that could be hung under the wings of our Mustangs? Each tank could hold 75 gallons – this would make an excellent addition to our meagre ration. Action was immediately taken. Four tanks were sent to a factory for their insides to be coated with a substance to prevent the taste of metal, as is done with preserving cans, and taps were fitted. A contract was made with a brewery in London, and on an appointed day every week a Mustang flew with two empty 'beer' tanks to Croydon aerodrome and brought back two full ones; one containing mild and the other bitter. These tanks were placed on trestles in our mess-tent, which quickly became known as the best pub in Normandy. It did not take long for the word to spread to nearby military units that we had a good supply of beer, and our mess was frequently a very popular and crowded place in the evenings. The fact that nurses from a military hospital in the neighbourhood were regulars only helped to boost the attendance. It was not long before the beer trips were increased to two a week. Although most pilots liked to nip over to England whenever possible, to contact families and loved ones, the beer-run was not in demand. The reason was that a full beer tank could easily fall off if the landing was not perfectly smooth. The 'beer kite's' arrival was watched by all available personnel, and woe to the poor pilot who was unlucky enough to bounce!"

It was 150 miles from Martragny to Croydon (at the time the main airfield in London), making the “beer run” for 65 Squadron a 300-mile round trip. Croydon’s one brewery was Page & Overton, a subsidiary of Charrington’s brewery in Mile End, and it was presumably Page & Overton’s mild and bitter that flew back in the tanks of the Mustangs. Confirmation that Henty and Constable supplied much of the beer to arrive in Normandy after D-Day comes from Jeffrey Quill, chief test pilot at Vickers, the parent company of Supermarine, maker of the Spitfire. Quill recalled:

After D-Day in 1944, there was a problem about getting beer over to the Normandy airfields. Henty and Constable (the Sussex brewers) were happy to make the stuff available at the 83 Group Support Unit at Ford, near Littlehampton. For some inexplicable reason, however, beer had a low priority rating on the available freight aircraft. So, we adapted Spitfire bomb racks so that an 18-gallon barrel could be carried under each wing of the Spitfires which were being ferried across from Ford to Normandy on a daily basis. We were, in fact, a little concerned about the strength situation of the barrels, and on application to Henty and Constables for basic stressing data we were astonished to find that design of the casket had not taken into consideration its use in the air. However, flight tests proved them to be up to the job. This installation, incidentally, was known as Mod XXX Depth Charge.



The hint that Quill gave about the “flying drays” being replacement Spitfires ferried across to squadrons on the Normandy front line from England is given extra support by a newspaper story from the middle of August 1944:

“With beer in their bomb racks, replacement Typhoons from England are sure of a especially boisterous welcome from the thirsty troops in Normandy. For the beer shortage is just as acute over there as it is in England. So at least one Typhoon squadron has solved its problem by importing its own beer. Whenever a replacement aircraft flies to Normandy the pilot takes a quantity of beer, carrying it in nine-gallon barrels with special streamlined nose fittings slung in the bomb racks. This system has been found to be much better than the original method of taking

the beer in petrol tanks, which gave the beer a nasty flavour. In the event of the pilot running into trouble, the barrels were jettisoned as if they were bombs. Then another kind of trouble awaited him at the end of his journey!”

Wing Commander Johnnie Johnson had landed with his 127 Wing, two squadrons of Canadians, at a newly built airfield at St Croix-sur-Mer, designated B3, and just over a mile and a half from the landing beaches, on D-Day plus 3. After several days of tinned “compo” rations, Johnson sent a note to his favourite Sussex landlord, Arthur King at the Unicorn in Chichester, asking for help. Every day a twin-engine Anson flew into St Croix from Tangmere with mail, newspapers and spare parts, and King arranged for items such as tomatoes, fresh lobsters, newly baked bread and “a reasonable supply of stout” to be carried across in the Anson with the mail. When news of the arrangement leaked into the newspapers, Arthur King was visited by someone from Customs and Excise, who warned him that if he carried on, he would need an export licence. However, the Customs men were ignored!

According to one source with a slightly different spin on the story, the job of designing fittings that would secure the kilderkins to the Spitfire’s bomb racks was done at High Post airfield, Salisbury, one of the final assembly centres for Spitfire manufacture, “more or less as a joke”. Therefore, it is likely that various units both RAF and USAAF came up with similar ideas for flying emergency beer rations to the boys!

Eventually, organised supplies of beer for the troops supplanted the “flying drays”. In November 1944 the government actually ruled that supplies of beer for troops overseas should equal five per cent of total national production, meaning all stronger “export” beers, all naturally conditioned beers with a life of six weeks or more and all beers that could be pasteurised had to be put in the hands of the forces’ catering service, the Naafi.

FAMOUS PEOPLE I HAVE MET - BY LAWRENCE HAYWARD



The tractor driver was 15-year-old Mick Sutterby, who spent that summer working on Hatfield airfield. He isn't the famous person to which I'm referring, it was the pilot, though I guess Mick Sutterby did get a certain celebrity status for a few years to come. Apparently, he wasn't posing for the camera. In fact, he had just been telling the photographer, Jim Mead, to move on, because he shouldn't be on the airfield.

It was 19th of September in 1962. That day, Fl/Lt George Aird was in the Lightning doing a demonstration flight off the south coast. He was approaching Hatfield from the north east when he realised there was trouble. In Lightning F1 XG332, there was a fire in the aircraft's reheat zone. Un-burnt fuel in the rear fuselage had been ignited by a small crack in the jet pipe and this had weakened the tailplane actuator anchorage. This weakened the tailplane control system which failed at 100 feet on final approach. The aircraft pitched up violently just as Aird was coming up to land. Aird lost control of the aircraft and ejected. Luckily, because the nose pitched up, he had just enough time to eject. When Aird ejected, Jim Mead says he had just enough time to line up the shot as the Lightning came down nose first. Meanwhile, George Aird landed on a greenhouse and fell through the roof (photo below), breaking both legs as he landed unconscious on the ground. The water from the sprinkler

system for the tomatoes woke him. He's reported to have said that his first thought was that he must be in heaven.

The photographs taken that day, by Jim Mead, first went to the Ministry of Aviation, for about 3 months, no doubt because the Lightning was still on the secret list! Once the photos were released, Jim Mead sold the rights to the Daily Mirror for £1,000; £18,000 by today's standards. It was featured as a centre page spread in the newspaper on the 9th October 1962. Jim Mead was a professional photographer, who lived close to the airfield, and next to another test pilot, Bob Sowray, who was expecting to fly that day. Jim Mead hoped see his neighbour, so went along to the airfield with his two children, Paul, 4, and Barry, 3, and hopefully take a picture of them as the Lightning was coming in to land.



George Aird made a full recovery and carried on as a test pilot for many years before retiring from de Havilland (British Aerospace) in 1983. I met him in 1981 in the VIP tent, at the roll-out of the BAe 146, G-SSSH for which there was a small collection of historic DH aircraft. George Aird was there preparing to fly a DH Mosquito, which I think was RS712 before it went to Kermit Weeks. I got invited with my Dad as the pilot of the DH Dove used for comms at Hatfield was Dennis Buck, who knew my Dad in the RAF. I was issued with a Flight-Testing Badge which I still have, that gave me unlimited access to G-SSSH hangar and also close up access to the historic aircraft.

Apparently, our invite was due to my Dad having saved Dennis's flying career, as in the 1970s the RAF might conspire to have a pilot thrown out if they were 'considered no good' but my father would stick up for such pilots by saying as QFI they needed to be properly trained 'under his wing'. Obviously, this did not endear him to some of the upper echelons of the RAF but they could not get rid of Dad as he was a very effective Squadron QFI; if they did the Squadron might get down graded by Command! Dennis Buck did eventually leave the RAF and after flying the DH Dove, he emigrated to Australia.

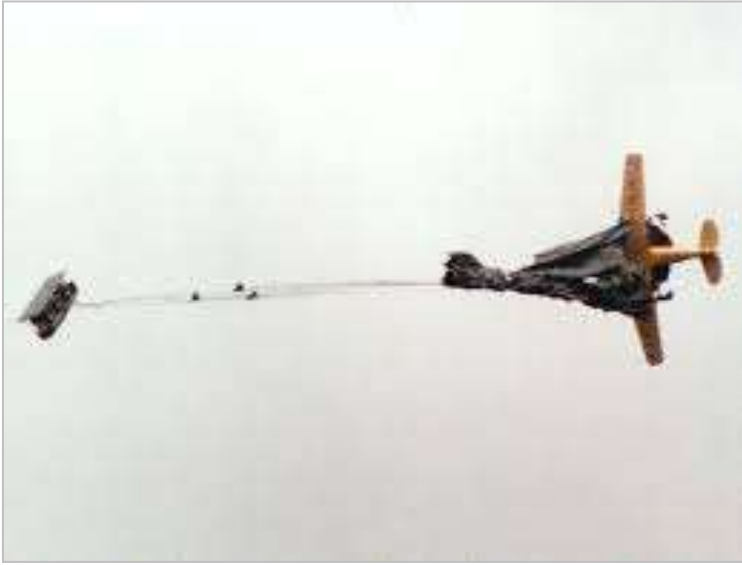
UPDATE ON CHILTERN AVIATION SOCIETY MEETINGS - FROM VERA LYNN

Well Meet Again
We'll meet again
Don't know where
Don't know when
But I know we'll meet again some sunny day
Keep smiling through
Just like you always do
'Till the blue skies drive the dark clouds far away
So, will you please say hello
To the folks that I know
Tell them I won't be long
They'll be happy to know
That as you saw me go
I was singing this song
We'll meet again
Don't know where
Don't know when
But I know we'll meet again some sunny day
We'll meet again
Don't know where
Don't know when
But I know we'll meet again some sunny day
Keep smiling through
Just like you always do
'Til the blue skies
Drive the dark clouds far away
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That as you saw me go
I was singin' this song
We'll meet again
Don't know where
Don't know when
But I know we'll meet again some sunny day



Dame Vera Margaret Lynn CH DBE OSTJ (née Welch) was born 20 March 1917 and she recently 'celebrated' her 103rd birthday (lockdown style). She needs no introduction to CAS members as an English singer of traditional popular music, songwriter and actress, whose musical recordings and performances were enormously popular during WW2. In more recent years she has become widely known as "the Forces' Sweetheart" although there were others in WW2, she has outlived them all. What endeared her to the troops was her ability to rough it and give outdoor concerts for the troops in less inviting parts of the world, such as Egypt, India, and Burma during the war as part of Entertainments National Service Association (ENSA). Sometimes she camped out within range of enemy guns and particularly in Burma had to endure high humidity equivalent to giving a concert on the 'hot house' at Kew Gardens. The songs most associated with her are "We'll Meet Again", "The White Cliffs of Dover", "A Nightingale Sang in Berkeley Square" and "There'll Always Be an England". Thank you very much Vera, and a belated happy 103rd birthday as at 20th March, from all the members of CAS.

'GIFT WRAPPED' NORTH AMERICAN HARVARD, KF183



Harvard KF183 (See cover photo) was built in 1944, and until her disposal on to the civil register as G-CORS in 2016 was said to be the longest continuously serving military aircraft in UK history, possibly even the world! She accumulated well over 15000 hrs in the air where she has been used as a photo-ship for drops on Salisbury Plain and by ETPS for tail dragger courses.

INTRODUCTION

This article relates how this North American T-6 Harvard chase aircraft ended up colliding with the parachute of a 1-ton load being dropped from a C-130 Hercules during a routine air drop trial. The way things turned out that day in June 1991 gave a whole new meaning to the phrase “pushing the envelope”! The article will cover the various factors involved in bringing about the circumstances that led to the

incident. Lessons for the future will be drawn from this sorry tale with a happy ending.

RELEVANT FACTORS

The Pilot and author of this article (who has not been identified) was the T-6 pilot, and had appointed as Wing Commander Flying at what was then the Aeroplane and Armament Experimental Establishment (A&AEE), Boscombe Down, the UK Ministry of Défense’s prime development flight test facility. Among the many duties I had, and one of the more pleasurable, was that of T-6 chase pilot. At the time of this incident I was also the base check pilot for the T-6 and supervised all the other pilots who flew it and checked out the new ones. The T-6 Harvard. At one time Boscombe Down had three T-6’s, at the time of this incident there were two. These aircraft had all been in the flight test business since the 1940s and still had a unique capability in the photo-chase of parachute trials. The T-6 rear cockpit canopy opens in flight with no speed limitation and that affords an optically perfect view all around the aircraft for the close-up video recording of the behaviour of parachutes, rigging lines and load suspension equipment on air-dropped loads. The aircraft platform also allows a view from above, which no ground-based cameras can achieve. The T-6 Harvard had proved to be rugged, easy to maintain, cheap to operate and with performance and handling qualities excellently matched to the job. So, there was never any good reason to get rid of it. Anyhow, it is a fun machine to fly and all the decision-makers got to fly it, so they weren’t about to dispatch it to the breakers yard! The C-130 Hercules. The C-130 Hercules was the standard air-drop platform for all the parachute trials at Boscombe. For many years one C-130 had been on the Boscombe Down inventory, with a dedicated crew for these sorts of trials; the flight test aircrew flew it when any other flight test activities dictated. The “Peace Dividend”. When the Berlin Wall came down in 1989, our politicians suddenly invented something called the “Peace Dividend” and Defense Budgets started being pruned. In the UK, as in most western nations, the armed forces now had to deal with annually deflating defense budgets and steadily increasing new operational commitments, such as Desert Storm and operations in former Yugoslavia. One of the results of the cut-backs was that A&AEE was driven to the decision to release the dedicated C-130 back to the RAF, along with its 4-man crew, so making a significant saving on the operational budget.

However, the parachute trials still had to be flown. This was to be achieved by the use of the RAF’s Tactics and Trials organization, which had its own dedicated C-130 for the similar work of the development of tactics and equipment related to airdrop activities. It was agreed that A&AEE would send its experimental loads, along with their specialist flight test personnel, about 40 miles by road to the RAF trials unit at Brize Norton, and the trial would be mounted from there.

THE SEQUENCE OF EVENTS.

The incident occurred on 14 June 1991. I had received prior notification of the trial, using the new arrangement with the RAF C-130, on the previous day. At the time I was checking out a new Harvard pilot to replace one who was retiring. As the trial sortie was to take place at 11am, I decided that I could fly a dual sortie before the trial flight. The photographer would get aboard during a short stop, fly the chase sortie and then we could have the aircraft refuelled over the lunch period, before another dual flight in the afternoon. On the day of the incident and to save time, the trials sortie was briefed before starting the first dual flight. A standard Parachute Trials Brief form was available for this, but no trials personnel were; they were all on the road. The paperwork indicated a routine para-drop sortie with two 1-ton loads.

The brief also contained a note about 8 paratroopers to be dropped after the two loads, but that was not part of the trial. The trial was of a new type of connector between the load suspension system and the parachute rigging lines and that would need to be targeted with the camera. That meant a quick turn in and dive to get close and alongside the load, rather than above it. After a telephone brief with the C-130 captain, we agreed a rendezvous time and join-up procedures overhead Boscombe Down before the 5nm transit to the Drop Zone (DZ). The C-130 captain confirmed that there would be two 1-ton loads and that he would not drop his 8 parachutists until the T-6 was clear of the DZ. After the first dual trip the photographer and I met up, went over the trial protocol and then we climbed aboard the T-6. After getting airborne at the prearranged time and making the rendezvous with the C-130, the two aircraft headed towards the range in formation. I awaited a call to change to the range frequency, but by the time that we entered range airspace, I had heard nothing, so I changed to the Trials frequency. There I heard the end of a conversation between the C-130 captain and the Range Controller. I checked-in and was told that there would be two loads, as briefed, and that the parachutists would be dropped after the trial was complete and the chase was clear of the range. We then flew the pattern and, as was normal, completed a “dry” run with no load dropped and then set up for a “hot” run from the second pattern. As the first load came over the ramp, I started my turn in to get us as close as possible. I overbanked to lose height and, as was my habit, glanced left at the C-130. Simultaneous with a strangled cry from the back seat, I saw the second load falling over the ramp. There were also several pale-faced figures in flight suits watching in mute fascination! I instinctively applied full throttle and pulled hard to get away from the now blossoming parachutes. Suddenly the world went dark green. I held the throttle fully forward and waited, totally frozen on the controls. I remember wondering what the sensation of falling backwards as the load dragged us down would be like. As that thought formed in my mind, the world turned blue again! There seemed to be little damage to my airplane, but I couldn't say the same for the second load! It was accelerating earthwards with shredded rags following it! The T-6's engine was still functioning normally so I headed home for a precautionary landing. Back at the ranch we found lots of bits of parachute in the most unlikely places; but any real damage was superficial.

THE INQUISITION

What went wrong? That was the first question everybody asked. The obvious answer was that I didn't know that the C-130 crew were going to drop both loads on the same run. Why didn't I know that? There were several reasons: Habit. First there was the “we never did it that way before” syndrome! So, I reverted to habitual procedures. Common Sense. Second, there was no good reason to drop the loads together. It made sense that the trials team wanted maximum video of the new piece of equipment, which was on both loads, and it made no sense not to be able to follow each load down individually. Communication. Third, nobody had actually told me that the loads would not be dropped individually. When I had spoken to the C-130 captain on the phone, he said that there would be two loads. I assumed that would mean two hot runs: he knew they would be dropped consecutively and assumed that I did too! When we joined formation overhead Boscombe Down, I expected, in keeping with our normal procedures, to be called over to the trial's frequency. In fact, his co-pilot was already speaking with the range controller on one of the C-130's many radios. My airplane had only one radio box and when I changed to the trials frequency all I heard was the end of their pre-drop confirmation brief. I missed the vital information about there being only one hot run with both loads dropping in sequence! Assumptions. If I had heard all the radio conversation, I would have known that they intended to drop both loads on one run. They assumed that I had heard it all and I assumed that I knew what was going to happen, so I assumed that I hadn't missed anything important! Organizational factors.

The pre-trials paperwork was simple and was laid out in the way I had expected for separate drops on two runs. However, it was not explicit and when I re-read it after the flight there was an ambiguity, which I hadn't questioned, because my expectation was that we would do it like we'd always done it! This was one of the first such trials using the new arrangement we had put in place to get around our budgetary problem. We were all doing what we were used to but somehow the basic procedural and operational philosophy differences had not been addressed.

LESSONS LEARNED

As usual, 20-20 hindsight helps. The lessons were so obvious. When you make major organizational changes – make sure you are all on the same song sheet. Just because another agency does some trials work, don't assume they do it the same way as you do. Arrange for cross-agency visits and meetings, as well as much exposure to each other's trials as you can afford. Communication is the responsibility of the sender. If you need to let someone know what's going on – make sure they are listening! Get feedback if you are not 100% certain you know what is going on. Knowledge beats assumption any time. You may think you know what to expect: make sure that you KNOW you know. There's always an emergency you never thought of waiting round the next corner. It's easy to get into a rut with chase work – every now and then sit down and think out what's the worst thing that could happen at the most inconvenient moment. Then work out what you will do about it. When it all goes dark – don't panic! It will soon come to pass.

THE VICKERS WARWICK – WITH THANKS TO BAE SYSTEMS HERITAGE



The Vickers Warwick was a multi-purpose, twin-engined marine reconnaissance aircraft which bears a very strong resemblance to the well-known Vickers Wellington bomber. It utilised the same Barnes Wallis designed geodesic method of airframe construction as the 'Wimpy' (a popular nickname for the Wellington) although the Warwick was a much larger and heavier aircraft, having a greater wingspan (by more than 10 feet) and a significantly higher all-up weight by some 50 percent. Originally intended for use as a heavy bomber, the Warwick was created against Specification B.1/35 and it was the largest British twin-engine aircraft to serve during the Second

World War. Two prototypes were ordered, the first of which (K8178) was powered by 2 x 1,800hp Rolls-Royce Vulture II engines and it flew for the first time at Brooklands, Weybridge on 13th August 1939 (see above left). With Joseph 'Mutt' Summers at the controls, the test only lasted a few minutes due to a defective carburettor linkage. The second prototype (L9704) did not fly until 5th April 1940 and initially carried two Bristol Centaurus engines although it was subsequently re-engined with two Pratt & Whitney R-2800 Double Wasp engines. In later life, the aircraft flew with two remotely controlled rear firing cannon barbettes, fitted in the rear of the engine nacelles and added as part of the development programme of the four-engine Vickers Windsor.

The first production aircraft (BV214) flew in April 1942, powered by PW R-2800-S1A4-G engines. It was delivered to the Aeroplane & Armament Experimental Establishment at Boscombe Down on 3rd July 1942 as the Vickers Warwick B Mk1. However, by this time the British heavy bomber policy had switched to using only four-engine designs such as the Shorts Stirling, Handley Page Halifax and the Avro Lancaster. As a result of this change and despite 150 x Type 422 Warwick B Mk I aircraft having been ordered, only 16 were finally completed before use of this twin engine type was abandoned for use in a bomber role. The Vickers Warwick B Mk II (Type 413) bomber prototype was intended as a Bristol Centaurus-powered version of the design although none were actually built as such. In fact, only one single Warwick B Mk I was converted to Centaurus power and it subsequently served as an engine test-bed in support of the Centaurus development programme. The Vickers Warwick C Mk I (Type 456) variant was ordered for use as an 'interim transport aircraft' for the wartime use of national carrier BOAC and some fourteen examples were built. The transport variant boasted increased fuel capacity whilst all turrets were removed and cabin side windows were added. The first example (BV243) flew for the first time on 5th February 1944.



Some fourteen Warwick C Mk I aircraft were built and initially allocated civilian registrations (G-AGEX to G-AGFK) and they operated with a crew of four. Fully loaded they could carry a 9,600 lb payload and they boasted a take-off weight of 41,996 lb. They were intended for use in Africa and the Middle East although poor engine performance when flying on one engine meant that these aircraft ultimately returned to service (with their original serial numbers) with the RAF, being operated by 525 Sqn and 167 Sqn from 1944. Experience with the Warwick C Mk I then led to the introduction of the Vickers Warwick C Mk III (Type 460) whose main distinguishing feature (when

compared with the C Mk I) was a long under-fuselage cargo pannier. One hundred aircraft were built for RAF transport use and they served with 525 Sqn from mid-1944 onward. It could carry four crew plus 26 fully-equipped troops or 20 paratroops. A freight / stretcher door was also provided on the starboard side of the fuselage. In 1946, D. Napier & Sons Ltd engines were using a Vickers Warwick C Mk III (HG248 fitted with Sabre VI engines) as an engine test-bed. This engine test-bed aircraft spent some of its time at Airspeed Factory, Christchurch, where it supported the development of the Airspeed Ambassador two engined airliner. The next significant role for the Warwick was as an air-sea rescue aircraft, carrying Lindholme survival equipment and/or an air-droppable lifeboat.

The Warwick B/ASR Mk I retained its nose and upper / tail turrets and was produced in various configurations. The first variant was the Warwick Bomber / ASR which could carry two sets of Lindholme gear although this did not include the lifeboat. 40 were built examples were built.

Next came 10 x Warwick ASR (Stage A) aircraft that could carry the lifeboat, or Lindholme gear. These were followed by 20 x Warwick ASR (Stage B) with ASV radar. Finally, some 205 of the definitive Warwick ASR Mk Is were built for the air-sea rescue role, carrying an improved lifeboat and powered by two 1,850hp Pratt & Whitney Double Wasp radials. The final Warwick Mk1 ASR variant to be ordered was designated (by Vickers) as the Warwick ASR Mk VI (type 485 although this designation was not used by the RAF) and 94 were built.



The Vickers Warwick GR Mk II (Type 469) was a Bristol Centaurus-powered version for use by Coastal Command as a torpedo bomber capable of carrying three 18-inch torpedoes, or two 24-inch torpedoes. The GR Mk II was fitted with an ASV Mk III or Mk VIB, mounted under the nose; 132 were built, of which 14 were modified for meteorological research as the Warwick GR Mk II Met. The final version was the Warwick GR Mk V (Type 474) anti-submarine and general reconnaissance variant. It featured a retractable belly-mounted Leigh light and was armed with 7 machine guns, 6,000 lb of bombs, mines and depth charges. 210 aircraft were built and it operated with 179 Sqn RAF and with two SAAF squadrons. The first Warwick GR Mk V (PN697) was flown at Brooklands in April 1944. A small dorsal fin was subsequently fitted to the GR Mk V (and retrospectively to earlier marks) to cure directional instability problems, which had caused the rudder to lock over, giving rise to a number of fatal accidents.



Warwick Variants & Numbers

Prototypes	Two K8178, L9704
B Mk I	16 from 150 ordered
C Mk I	14 transport aircraft for BOAC diverted to RAF use
ASR Bomber	40 aircraft Lindholme gear, no lifeboat
ASR Stage A	10 aircraft lifeboat or Lindholme gear
ASR Stage B	20 aircraft as Stage A with ASV radar
ASR Mk I	205 aircraft, improved lifeboat, no Lindholme gear plus upper dorsal turret
ASR Mk VI	94 aircraft (RAF designation remained ASR Mk I) PW R-2800-2SBG engines
B Mk II	Centaurus powered. One prototype converted from B Mk I BV216
GR Mk II	132 aircraft – 118 GR Mk II, 14 GR Mk II Met
C Mk III	100 unarmed transport aircraft for RAF use
GR Mk V	210 torpedo bomber reconnaissance for Coastal Command; ASV & fuselage mounted Leigh light
GR Mk V experimental	HG336 converted to test turbo-charged PW R-2800-57 designated Vickers Type 606.
Total production	843 aircraft (with two conversions, as noted above)

Specification

	Warwick ASR Mk I	Warwick GR Mk II
Powerplants	Two 1,850hp PW R-2800-S1A4-G	Two 2,500hp Bristol Centaurus VI
Span	98 ft 8.5 in	98 ft 8.5 in
Maximum Weight	45,000 lb	51,250 lb
Capacity and armament	Seven crew, twin gun front- and mid-upper turrets, four-gun rear turret. Mk II air-droppable lifeboat	Five crew, twin gun front- and mid-upper turrets, four-gun rear turret. Leigh light, 15,520 lb bomb load
Maximum Speed	224 mph at 3,600 ft	262 mph at 2,000 ft
Range	2,300 miles at 150 mph and 5,000 ft	3,050 miles at 161 mph and 5,000 ft



THE DEATH OF SQUADRON LEADER MAURICE VICTOR LONGBOTTOM DFC - NEW EVIDENCE COMES TO LIGHT ON WARTIME AIRCRAFT CRASH IN WEYBRIDGE



Frank Phillipson tells the story of a Vickers Warwick from Brooklands that crashed at Haines Bridge, Weybridge in 1945. It claimed the life of an experienced and decorated test pilot, Squadron Leader Maurice Victor Longbottom DFC. This article also tells his fascinating story.

As a boy Tim Ely, now of East Horsley, was one of the only people to witness the last moments of an aircraft from Vickers at Brooklands before it crashed on the railway line in Weybridge. It took place at 3.25pm on Saturday, January 6, 1945, and claimed the life of an experienced and decorated test pilot, 29-

year-old Squadron Leader Maurice Victor Longbottom DFC. Nicknamed 'Shorty' Longbottom, he was test flying a Vickers Warwick twin engine aircraft from Brooklands airfield, where the Vickers-Armstrong aircraft factory was located. The Warwick was similar in appearance to the better-known Vickers Wellington bomber but was slightly larger. The actual aircraft that crashed was a Warwick GR Mk. V, Serial No. PN778 (similar to that shown).

The Warwick was built to a pre-war specification for a two-engined heavy bomber. However, the high- power engines it needed were not available and by 1941-42 the four-engined heavy bombers such as the Handley Page Halifax and the Avro Lancaster were carrying out this role. The Warwick was therefore re-designated either as a General (actually Maritime and Anti-Submarine) Reconnaissance, Air Sea Rescue (dropping life rafts or life boats) or as a Transport aircraft. Tim, aged 11 at the time, recalls: "During the Second World War, my father's work at the Ministry of War Pensions in London was evacuated to Blackpool. My brother Tom, who was nine years older than me, had gone over to France on D-Day. In January 1945 I was living with my mother and my elder sister in Weybridge.

"I pedalled my Hercules bicycle to Sir Richard's Bridge on Ashley Road in Walton-on-Thames. There, I sat on my bicycle, leaning against the bridge parapet and watched the occasional train go by on the Waterloo to Southampton line."

"After a few minutes I was delighted to see a large twin-engined aeroplane, which had just flown over Walton station from the direction of London. It was very low and passed overhead. It continued to follow the tracks steadily, but was losing height, and just short of Haines Bridge it belly landed centrally on the railway, its fuselage in line with the tracks towards Weybridge station." Tim says there was an enormous explosion and thinks it may have been caused by the aircraft landing on the four live electric supply rails. He continues: *"Clearly no one on board could have survived. I cycled home, told my mother what I had seen and then rode up Oatlands Avenue to see the smouldering wreckage."* Another boy, Derek Bridgewater aged 13, also saw the wreckage on the railway. He spotted a large machine gun near the crash site and later that day, with great difficulty, managed to retrieve it. Frightened that his father would find the gun, he buried it as best he could, under a hut behind some greenhouses.

Pamela Morphey (nee Burningham), now of Pirbright, was a schoolgirl at the time and was at home with her mother and two sisters at "Woodside", 2 Oatlands Avenue, Weybridge. The bungalow backed onto the railway line near Haines Bridge and as the aircraft exploded the kitchen ceiling was brought down. She and her surviving sister confirm that the aircraft landed centrally and in line with the railway facing towards Weybridge station. The conclusion as to the cause of the crash was that the aircraft experienced severe rudder over balance (a known problem with the Warwick) and spun into ground. This view is confirmed in a letter to Linda Longbottom from fellow Vickers test pilot Bob Handasyde, dated February 2, 1945. He states that there has been a further accident on February 1, 1945 during a test flight *"to investigate the rudder trouble suspected in Maurice's accident"*.

British bombers at this time did not have power-operated control surfaces (such as the rudder) but just relied on the strength of the pilot moving them directly via cables or rodding. To ease these considerable loads, the rudders were aerodynamically balanced; that is, part of the rudder control surface was projected in front of the hinge line (horn balanced).

The air load on this forward rudder projection acted to oppose (or balance) the loads on the rest of the rudder control surface, considerably easing the manual force required. The design of the Warwick vertical tail fin, under certain conditions and configurations such as when carrying out a sideslip, caused it to stall. This resulted in turbulent air flow over the stalled fin that then caused the rudder to overbalance (the full force of the air flow acting on the horn balance section ahead of the hinge).

This, suddenly and without warning, then caused the rudder to lock over to full right or left rudder and be almost impossible to correct due to the enormous forces involved. The problem was eventually solved by the addition of a forward tail-fin fillet and reduction of rudder trim tab travel. The conclusion as to the cause of the crash is believed to have been based on eye-witness accounts of the aircraft entering two spins. These were deliberately carried out to try to induce the rudder over-balance problem and then find a way of recovering the aircraft. 'Shorty' Longbottom successfully managed to recover the aircraft from the first spin and then entered another spin. However, the witnesses at the coroner's inquest did not see that 'Shorty' was also able to recover from the second spin. Viewing from some distance away they were mistaken in thinking he had immediately crashed vertically onto the railway line having failed to recover from the second spin. However, this was not the case. Tim saw that the aircraft flew in level flight along the railway and belly land on the track. 'Shorty' must have made a supreme effort and managed to pull out at very, very low level and tried to make his way back to Brooklands following the railway. However, because of the extreme stresses the aircraft had come under in the spins and pulling out, it is possible that airframe structure must have failed in some way and 'Shorty' was unable to maintain height. Alternatively, it's possible that he struck his head on some part of the aircraft during the manoeuvres and became concussed. Still able to pull out of the spinning dive, the effects of the injury then became more severe which led to the crash at Haines Bridge. Due to the final spin being carried out some distance away from these witnesses, there seems to have been no connection made between where the crash would have occurred if 'Shorty' had failed to recover from the spin and the actual crash location.

Police Sergeant Benjafield reported that the aircraft came down on the railway line 50 yards east of Haines Bridge. An entry in the Surrey Police Day Book recorded that the aircraft burnt out on the railway line and a guard was placed on the wreckage by Vickers personnel. It also noted that there was "some obstruction of the railway line", but steps for its clearance were taken immediately after RAF Faygate (an RAF maintenance unit near Horsham responsible for recovery of crashed aircraft) was informed. The coroner's inquest into the crash recorded a verdict of accidental death. Witness, Arthur Watmore, thought the pilot had purposely landed on the railway line to avoid hitting houses, although this seems unlikely and there is no corroboration of this from any other witness.

At the coroner's inquest, Vickers employee Alan Waller said that he had inspected the aircraft and that it was thoroughly airworthy. Fellow employee James Hatcher said that he had started the engines of the aircraft and that Longbottom had then taken off perfectly normally. Harry Zeffert, an electrical supervisor in the Vickers Experimental Department, thought that Longbottom was the most intrepid pilot he ever saw and that he was capable of getting an aircraft to do anything he wanted (from a recorded interview held by the Imperial War Museum). On that morning 'Shorty' told Zeffert that he was going to take one of the Warwicks up as he thought that the crashes were only due to the inabilities of the other pilots. He said that he thought that he knew how he could recover the Warwick from any spin that it got into. The day before the crash Vickers chief test pilot Joseph 'Mutt' Summers and his flight observer, Jimmy Green, were test flying Warwick GR Mk. II, HG364, when at about 3pm its controls became locked at full rudder. The aircraft was at 3,000 feet over St George's Hill in Weybridge. At that height there was no time to quickly bale out and in the resulting crash an avenue of young trees cushioned the plane's impact with the ground. The aircraft ended up in a ploughed field near Chestnut Lodge (Farm), Old Common Road, Cobham. As the aircraft came to rest, flames emerged from both engine air intakes. Before the fire really took hold and eventually burnt the aircraft out, some farm workers had enough time to get into the fuselage and rescue Summers and Green. Both men were injured and were taken to Weybridge Hospital. A guard of one corporal and three men from RAF Hook (a barrage balloon depot) was placed around the wreck.

A further Warwick crash caused by the rudder over balance problem occurred on February 1, 1945. This flight was in an aircraft (one of four) specifically allocated to investigate the problem and ways of overcoming it. Warwick GR Mk. V, Serial No. PN777 took off from Brooklands about midday with Vickers test pilot, Wing Commander Maurice Summers (brother of Joseph 'Mutt' Summers) at the controls and accompanied by flight test observer, George Hemsley. At 13,000ft Summers deliberately put the aircraft into a spin but immediately rudder overbalance locked the rudder over to starboard. Finding it impossible to regain control he told Hemsley to bale out and soon followed himself. The aircraft continued to fall in a wide spiral and eventually landed on numbers 14 and 16 Ruxley Lane, West Ewell at 12.25pm. It completely demolished number 14 and killed Annie Swan and her visitor Edith Connor. Hemsley landed in a field alongside Reigate Road, Epsom and suffered an ankle injury. Summers landed in Highfield Drive, Ewell and suffered a head injury when his parachute dragged him across a road.

Maurice Victor Longbottom was born in West Derby, Liverpool on February 13, 1915. He was educated at Merchant Taylor's School in Crosby, the Wigan Mining and Technical College and at Liverpool University. In 1934 he became an operator first class in the Royal Navy Wireless Auxiliary Reserve. In 1935 Longbottom learned to fly at Bristol Flying School, Filton and became a sergeant pilot in the RAF Reserve. He was commissioned in 1936, being made a Flying Officer in 1938, and Acting Flight Lieutenant in 1939. Being of no great stature he soon acquired the nickname of 'Shorty'. In the late 1930s Longbottom served with 202 Squadron equipped with Saunders Roe 'London' flying boats and based mainly in Malta but also in Egypt and Gibraltar. The main concern for Britain in the late 1930s was the rise in Italian military preparations in the Mediterranean and Red Sea. Longbottom, 202 Squadron and other RAF squadrons therefore flew photo reconnaissance missions and took photos from international waters of the Italian island of Pantelleria (midway between Sicily and Tunisia) where a vast underground aircraft hangar had been built, new military installations on the Italian Dodecanese Islands along the Turkish coast, submarines along the coast of North Africa, new airfields in Libya, areas of Italy which might be used to invade French Corsica, and fortification of Italian possessions along the west coast of the Red Sea.



In 1939 (prior to September) Australian Sidney Cotton (below right) together with Canadian RAF Flying Officer Robert "Bob" Niven (shown left, flying as a civilian) were clandestinely taking aerial photographs of German and its allies' military installations for MI6 and the French Deuxieme Bureau. They used a Lockheed 12A Electra Jr executive aircraft with secret camera compartments which enabled them to fly as a civilian aircraft directly over German and Italian territory at high altitude. They discovered a way to prevent the camera mechanism from freezing up and stopping the lens from fogging at higher altitudes. They achieved this by diverting the executive aircraft's cabin heating to flow over the cameras. In 1939 on a photographic mission they were flying from Malta, Cotton and Niven met 'Shorty' Longbottom. On June 15, 1939 the three men flew in Cotton's aircraft to covertly photograph a number of towns on Sicily.

On return to Malta the photographs were processed and turned out to be excellent. 'Shorty' was not allowed to go along on further flights with Cotton and Niven, probably because he was a serving RAF officer on Malta. However, he, Cotton and Niven were able to talk about how aerial photo-reconnaissance should develop. Cotton found that 'Shorty' was passionate about aerial photography and described him as "a young man with a slide rule mind". He also said that Longbottom was an expert on the RAF's F24 camera and taught them some little known techniques in its use. In August 1939 'Shorty' submitted a paper called 'Photographic Reconnaissance of Enemy Territory in War' to the Air Ministry. It was a collaborative effort by Cotton, Niven and Longbottom but written and submitted by 'Shorty' Longbottom as he was a serving RAF officer at the time. It suggested that photographic reconnaissance would be better carried out by small fast aircraft stripped of unnecessary weight and fitted with additional internal fuel tanks and cameras a fact which Cotton and Niven had previously discussed. It would be unarmed relying on speed, high rate of climb and flying at high altitude to avoid enemy defences. The idea was put aside as there were not enough Spitfires (the aircraft they envisaged using) to be spared for the project. When Cotton was recruited as an Acting Wing Commander in September 1939 to form a photographic reconnaissance unit for the RAF (the Heston Flight), he arranged to have Longbottom transferred to the unit as well as Bob Niven. The Heston Flight was renamed No.2 Camouflage Unit (a cover name) from late September 1939. They were designated 'White Flight' while in the air to identify them to Fighter Command.



The use of twin-engine Bristol Blenheims and single-engine Westland Lysanders for photo reconnaissance work had shown their vulnerability to enemy attack. Cotton therefore pushed ahead with the idea of small fast unarmed aircraft for the job and managed to persuade Air Chief Marshal Hugh Dowding commander of Fighter Command to release two Spitfires to be converted for photo reconnaissance.

The two aircraft were based at Heston where they became known as the “Heston Special Flight”. Their eight Browning .303 machine guns and radio were removed and replaced by cameras and additional fuel tanks. Converted Mk 1 Spitfire N3071 (now PR Mk.1a) was flown by ‘Shorty’ from Heston to Seclin in northern France on November 5, 1939 to commence photographic flights over areas of Germany near the French border. Bob Niven flew over a supporting group of eight ground crew in the Flight’s Lockheed 12A Electra Junior. The detachment was known as the ‘Special Survey Flight’, but later renamed 212 Squadron and was also later based at Lille, Nancy, south-eastern France and for a time on Corsica.

The first ever high-speed, high-level unarmed photo reconnaissance sortie was flown by Longbottom from Seclin on November 18, 1939 over Eupen in Germany. The intended photographic target had been Aachen but a slight navigation error saw him over Eupen. However, the results from his flight were excellent and further sorties were then flown over various German cities and military installations. At their operational height of 30,000 to 35,000 feet the temperatures were -50°C . With no cockpit heating the pilots only had an oxygen mask and plenty of underwear for survival. On returning the pilot was usually numb and frozen stiff.

The Flight/212 Squadron returned to the unit at Heston (which had now been renamed the Photographic Development Unit (PDU) since January) just before the fall of France in 1940. Longbottom and Niven were awarded the Distinguished Flying Cross (DFC) in March 1940, for their pioneering photo reconnaissance work. They were also offered the French Officer of the Legion of Honour and the Croix de Guerre with palm leaf, but these were stalled by the RAF and eventually turned down. Longbottom continued to fly with the PDU (which became the Photographic Reconnaissance Unit (PRU) in July 1940) until the summer of 1940. He then became a test pilot at the RAF Aeroplane and Armament Experimental Establishment (A&AEE) at Boscombe Down.



On July 5, 1940 Maurice ‘Shorty’ Longbottom married Lilian (Linda) Scott Butler in Crosby, Liverpool. They had one daughter, born on November 5, 1943, whom they named Andrea Margaret – Andrea, after Bob Niven’s wife. In 1942 ‘Shorty’ was seconded to Vickers-Armstrong as a test pilot. It was here that in 1943 he carried out much of the development test flying involving Avro Lancaster bombers in the test dropping of Barnes Wallis’s bouncing cylindrical Upkeep bomb. This was used by 617 Squadron (The Dambusters) on the night of May 16 and 17, 1943 to breach the Möhne and Eder dams in western Germany.

On May 13, 1943 ‘Shorty’ carried out the first and only live fully armed practice drop of the bouncing bomb in the English Channel five miles off of Broadstairs, Kent. It was dropped from Mk.III Type 464 (Provisioning) Lancaster ED817 (one of three prototype Lancasters modified to carry the Upkeep bomb which did not take part in the Dams Raid) just three days before the raid. The bomb bounced seven times over 800 yards without any deviation, and detonated at depth of about 33 feet and caused a water spout of around 500 feet. After the Dams raid Longbottom was involved in the test dropping of Barnes Wallis’s smaller spherical bouncing bomb called Highball from the De Havilland Mosquito. The bomb was designed to be used to attack enemy warships but was never used in anger. On one occasion, when ‘Shorty’ was landing at Wisley airfield with an inert Highball bomb still in place, it became detached due to the forces of the aircraft flaring out as it landed. The bomb proceeded to bounce down the runway over the airfield boundary and demolish part of a cottage. No one was injured and ‘Shorty’ went straight away and apologised to the occupier.

A few months later, with the damage to the cottage now repaired, ‘Shorty’ was again landing with one of the inert Highball bombs when the same series of events occurred! On visiting the damaged cottage to again apologise, the lady occupier said: “Oh no, not you again!” In January 1944 ‘Shorty’ was ‘transferred to the Reserve’ from the RAF and it seems likely that he then became directly employed by Vickers-Armstrong as a test pilot. During his career ‘Shorty’ flew more than 90 different types of aircraft and built up nearly 2,000 hours of flying time. In a letter to Longbottom’s widow, Barnes Wallis summed up his importance by saying:

“We all were devoted to your husband, as I expect you know, but perhaps there was especially close link between him and me, for he was so ready and willing to talk over technical problems and we had many discussions together. He was the only one of our pilots with whom one could really plunge into the future, and I miss my contact with him very, very greatly.”

‘Shorty’s’ wife described him as *“essentially an aviator”*. His whole life was bound up with secret work he was doing, and he could do anything with a plane”. His elder and only brother Philip was also killed in a wartime aircraft crash while training to fly in America in July 1942. He and seven other RAF flying cadets and an American instructor were flying four twin-engine Cessna AT-17 Bobcats when they ran into bad weather in which all four aircraft collided and crashed killing all the crews. According to Woking Crematorium records, ‘Shorty’ Longbottom’s funeral and cremation took place on January 13, 1945. His ashes were scattered, at his wife’s request, by fellow test pilot Bob Handasyde at a location where both men had very much enjoyed pheasant shooting together. Handasyde wrote: “Dear Maurice is now with the Pheasants, etc. which gave him and myself so much pleasure... this last little ceremony ... was very simple but I am afraid very sad”. Maurice ‘Shorty’ Longbottom is commemorated, along with his father, at St Luke’s graveyard, Crosby. Fred Winterbotham, their MI6 boss who authored a book on the Enigma story, wrote that Shorty and Niven were deserving of a place in history for developing high speed/ high altitude photo reconnaissance.



With thanks to the *Guildford Dragon News*

THE SOUTHERN MARTLET - BY LAWRENCE HAYWARD



The Southern Martlet was the first aircraft designed by a team led Frederick George Miles, whose company was Southern Aircraft of Shoreham. FG Miles later went on to form Miles Aircraft Ltd at Woodley. The Martlet was actually a modified Avro Baby, differing in the tail unit, undercarriage and engine, the 85 hp A.B.C. Hornet air-cooled flat four. Like the Baby, it was a single-bay staggered tractor biplane, with fixed two-wheel main and tail-skid undercarriage.

The undercarriage was a combination of "oleo and coil-spring shock absorbing gear" designed by Basil Henderson of Henty Aircraft, Shoreham. The prototype G-AAII made its first public appearance on 30 August 1929 at London Air Park, Hanworth, and proved to be a very manoeuvrable sports machine. Five production aircraft were built at Shoreham, differing chiefly in the choice of engine. Three of them had 80 hp Armstrong Siddeley Genet II and one a 100 hp Armstrong Siddeley Genet Major. These were five-cylinder uncowlled radials. One aircraft had, at different times, a de Havilland Gipsy I or II (100 hp and 120 hp respectively), upright in-line air-cooled engines. The Martlets were not very successful as racers but served a succession of private owners as aerobatic mounts. No Southern Martlets were ever sold or operated abroad.

Only one Martlet, the Genet Major engined 'G-AAYX' survived the war. This aircraft was the second production aircraft and was owned for a number of years by F G Miles who used it as a personal mount while based at Woodley near Reading. It was stored during WW2. Post-war, the Martlet was acquired by the Butlin's organisation and used to give displays for holiday makers, notably at their Broomhall camp in Pwllheli, Wales. G-AAYX was fitted with an Armstrong-Siddeley Genet Major engine and untapered ailerons. Later operated by Butlins and now remains airworthy with the Shuttleworth Collection based at Old



Warden Aerodrome and underwent an extensive restoration, with return to flight in September 2000. The aircraft is now on permanent display as part of the Collection and is flown at home air displays during the summer months. The Southern Martlet G-ABBN shown above was owned & flown pre-war by Douglas Douglas-Hamilton, 14th Duke of Hamilton, of Rudolf Hess 'fame'. Photo credits **Lawrence Hayward**

MORE VICKERS VIKINGS BY BRIAN A L JONES – PART 3



G-AJPH, the former jet Nene Viking, is seen here after conversion to Hercules power. (Flight Aware – Tony Scales)



A late adopter of Vikings, French independent airline, Airnautic, based in Perpignan. Sadly, the aircraft illustrated crashed on approach to that home airport on 11 September 1963, with the loss of all 40 on board. (via Margaret Edwards)



With a freight door conversion, this Viking was operated by another French independent airline, Europe Aero Service, which was an associate of Airnautic.



Luftransport-Unternehmen (LTU) operated D-AMOR from February 1957. This Viking had been operated by the Royal Australian Air Force in 1947, moved to the Empire Test Pilots Training School at Farnborough in 1952 then operated with two British independent companies. It returned to the UK in 1963 for operation by Air Ferry then Invicta as G-AOCH and was scrapped at Manston, Kent in July 1968.



OY-DLA of Danish Air Lines (DDL), seen here with one propeller feathered, was delivered as “Alf Viking” in March 1947, initially operating a service to Northolt from Copenhagen. Two of the five Vikings operated by crashed in the sea on final approach to Copenhagen (Kastrup) the second with a loss of all on board. OY-DLA was sold in 1949 to the Egyptian operator Misrair as “Amoun”.

Finally, several photos from my own collection of BEA images.



A view of the Northolt Airport apron in early 1947 reveals a significant number of Vikings ready to serve continental and domestic routes. (BEA photo 2773)



A BEA Viking, landing at its home base of Northolt Airport, has just flown over the A40 trunk road. (BEA photo 2292)



A view inside the maintenance hangar at Northolt with Viking 1B G-AHPP and another undergoing comprehensive works. Bristol Hercules powerplants are waiting in their stands in the right foreground. While the earliest Vikings started life with an outer wing design based on that of the Vickers Wellington with geodetic construction, they were soon replaced with more conventional all metal mainplanes. (BEA photo 3249)

FLEET AIR ARM PROTOTYPES - CAN YOU NAME THEM?



Top to bottom, left to right, in twos; Blackburn B54 competitor to the Fairey Gannet. Fairey Spearfish. Blackburn B46 Firebrand with Bristol Centaurus engine, Supermarine Seafang. Blackburn Firebrand B37 with Napier Sabre in-line engine. Supermarine Seafang. Blackburn B48 Firecrest and Blackburn B88

HISTORIC AVIATION NEWS FOR MAY & JUNE 1970, 1980 and 1990

1970

May 1 - President Richard M. Nixon's administration announces that recent American attacks on North Vietnam, primarily targeting communications and air defense facilities, are the Vietnam War's largest since 1968. B-52 Stratofortress strikes and helicopter assaults against North Vietnamese forces are part of the first day of the American and South Vietnamese invasion of Cambodia. The last U.S. Army helicopter will not leave Cambodia until June 29.

Two hijackers commandeer a British West Indian Airways Boeing 727 during a flight from Kingston, Jamaica, to Grand Cayman Island in the Cayman Islands, demanding to be flown to Cuba and Algeria.

May 2 – After several unsuccessful attempts to land at Princess Juliana International Airport on St. Maarten in the Netherlands Antilles due to poor weather, ALM Antillean Airlines Flight 980, a McDonnell Douglas DC-9-33F, runs out of fuel and ditches in the Caribbean Sea, killing 23 of the 63 people on board and injuring 37 of the 40 survivors.

May 9 -U.S. Navy attack helicopters are the first American aircraft to reach Phnom Penh during the American and South Vietnamese invasion of Cambodia.

American labour union leader and president of the United Auto Workers Walter Reuther and architect Oscar Stonorov die when their Gates Learjet 23 (registration N434J) strikes trees in poor visibility and crashes short of the runway on final approach to Pellston Regional Airport in Pellston, Michigan. Also killed are Reuther's wife, his bodyguard, and the plane's pilot and co-pilot.

May 12 – Seven hijackers commandeer an ALM Antillean Airlines Fokker F27 Friendship during a flight from Santo Domingo in the Dominican Republic to Curaçao and force it to fly them to Cuba.

May 14 - A man without a ticket boards an Ansett Australia Douglas DC-9-31 at Kingsford Smith Airport in Sydney, Australia, as it prepares for a domestic flight to Brisbane, brandishes a revolver, and demands that the airliner fly him out of Sydney. After talking to a clergyman, he surrenders, and his revolver turns out to be a toy. A hijacker seizes control of a VASP Boeing 737-200 during a domestic flight in Brazil from Brasilia to Manaus and demands to be flown to Cuba. Instead the airliner diverts first to Guyana and then to Curaçao.

May 15 – Royal Air Maroc places its first Boeing aircraft, a Boeing 727-200, in revenue service.

May 18 – National Airlines ends a 108-day strike by offering ground crews a 33% pay increase.

May 20 – The Tupolev Tu-144 becomes the first commercial transport to reach Mach 2.

May 21 - Four passengers hijack an Avianca Douglas C-47-DL Skytrain (registration HK-121) during a domestic flight in Colombia from Yopal to Sogamoso with 26 people on board and demand that it flies them to Cuba. The airliner lands at Barrancabermeja and Barranquilla, Colombia, before proceeding to Santiago de Cuba in Cuba. Not permitted to land there, it diverts to Kingston, Jamaica.

U.S. President Richard Nixon signs the Airport and Airway Development Act of 1970 and the Airport and Airway Revenue Act. The acts are meant to fill funding gaps in the U.S. airport and airway system, which had become inadequate due to the rapid growth of aviation, with new aviation-related excise taxes, including a tax on aviation fuels, a tax placed on tickets sold to passengers on domestic and international flights, a tax on waybills, and a new tax on aircraft registration. The new taxes are expected to provide US\$11,000,000,000 to the Airport and Airway Trust Fund in order to pay for airport development, as well as "acquiring, establishing, and improving air navigational facilities."

May 24 – A hijacker commandeers a Mexicana Boeing 727 during a domestic flight in Mexico from Mérida to Mexico City with 79 people on board and forces it to fly to Havana, Cuba.

May 25 - A hijacker commandeers American Airlines Flight 206, a Boeing 727 flying from Chicago, Illinois, to New York City with 74 people on board and forces it to fly to Havana, Cuba.

Over Georgia, a woman accompanied by a child hijacks Delta Air Lines Flight 199, a Convair CV-880 flying from Atlanta, Georgia, to Miami, Florida, with 102 people on board and forces it to fly to Havana, Cuba.

May 26 - Operation Menu, the 14-month-long covert American bombing campaign by B-52 Stratofortresses against North Vietnamese Army sanctuaries in Cambodia, comes to an end. The B-52s have flown 3,800 sorties and dropped 108,823 tons (98,723,578 kg) of munitions during the campaign.

The Soviet Tupolev Tu-144 exceeds Mach 2 in level flight, the first commercial aircraft to do so.

May 29 – Plagued with maintenance problems and with its aircraft grounded since a fatal accident on March 14, the Brazilian airline Paraense Transportes Aéreos goes out of business. It had operated since March 1952.

May 30 – Seven hijackers commandeer an Avianca Hawker Siddeley HS 748-245 Series 2A (registration HK-1408) during a domestic flight in Colombia from Bogotá to Bucaramanga with 42 people on board and demand that it flies them to Cuba. The airliner stops at Barranquilla, Colombia, to refuel before proceeding to Havana.

June 1 - Laos's Royal Lao Air Force receives its first Douglas AC-47 Spooky fixed-wing gunships, transferred to it from the United States Air Force under the U.S. Military Assistance Program.

June 4 – Angry over the refusal of the United States Supreme Court to hear his case in a dispute with the U.S. Internal Revenue Service which had begun in 1963, Arthur Gates Barkley walks into the cockpit of Trans World Airlines (TWA) Flight 486 – a Boeing 727 flying from Phoenix, Arizona, to Washington National Airport in Arlington, Virginia – armed with a 0.22-calibre pistol, a straight razor, and a can of gasoline (petrol), and threatens to set the plane and its passengers on fire if \$100 million is not taken from the Supreme Court's budget and given to him, the first time that an American airline hijacker has demanded a ransom. He forces the airliner to land at Washington Dulles International Airport in Virginia, where TWA gives him \$100,750 in the hope that he will accept the smaller amount. Enraged at the small amount, Barkley orders the plane to take off and sends a message of complaint addressed directly to President Richard Nixon. During the next two hours, while the plane circles the airport, Barkley makes numerous suicidal threats, and TWA turns the matter over to the Federal Bureau of Investigation (FBI), which talks Barkley into returning to the airport to collect the rest of his ransom. When the plane lands, Barkley finds the runway lined with 100 sacks supposedly containing \$1 million each but actually containing scraps of paper, and an FBI sniper shoots out the plane's landing gear. A panicked passenger opens an emergency exit, and the rest of the passengers follow him out of the plane while FBI agents storm it, engage in a gun battle with Barkley in which Barkley and the co-pilot are wounded, and arrest Barkley.

June 5 – A hijacker forces a LOT Polish Airlines Antonov An-24 making a domestic flight in Poland from Szczecin to Gdansk with 24 people on board to divert to Kastrup Airport outside Copenhagen, Denmark, and demands political asylum. Security forces storm the airliner and arrest the hijacker.

June 6 – The commander of the U.S. Air Force's Military Airlift Command, General Jack J. Catton, accepts the first operational Lockheed C-5 Galaxy into service. The C-5 is the largest airplane in the world at the time.

June 8 – Nine hijackers commandeer a CSA Czech Airlines Ilyushin Il-14 making a domestic flight in Czechoslovakia from Karlovy Vary to Prague and force it to fly them to Nuremberg, West Germany.

June 9 – Two armed passengers attempt to hijack a LOT Polish Airlines airliner making a domestic flight in Poland from Katowice to Warsaw and divert it to Vienna, Austria, but they are overpowered and the flight continues to Warsaw.

June 15 – The Soviet MVD arrests a group of 12 Soviet "refuseniks" at Smolny Airport outside of Leningrad before they can board a 12-seater Aeroflot Antonov An-2 for a flight to Priozersk. Pretending to be a wedding party, they had purchased all 12 tickets available for the flight and intended to hijack the plane as a means of escaping to the West.

June 16 – National Airlines becomes the third American airline to offer transatlantic service, inaugurating daily nonstop round-trip service between Miami, Florida, and London, England.

June 21 – Three hijackers commandeer an Iran Air Boeing 727 making a domestic flight in Iran from Tehran to Abadan with 94 people on board and force it to fly to Baghdad, Iraq

June 22 – A hijacker forces Pan American World Airways Flight 119, a Boeing 707 flying from Beirut, Lebanon, to Rome, Italy, with 143 people on board, to divert to Cairo, Egypt.

June 26 - Continental Airlines becomes the second airline (after Trans World Airlines) to offer Boeing 747 service on domestic routes in the United States.

Two passengers hijack an Avianca Boeing 737-159 (registration HK-1403) on a domestic flight in Colombia from Cúcuta to Bogotá with 92 people on board and demand to be flown to Cuba. The airliner makes refuelling stops at Bogotá and Barranquilla, Colombia, before proceeding to Havana, Cuba.

1980

May 1 -A United States Marine Corps AV-8A Harrier crashes spectacularly at Marine Corps Air Station Cherry Point in North Carolina. During a vertical takeoff the aircraft rolls, drops to the runway, bounces into a ditch, bursts into flames, flips, and slides through a hangar and into a parking lot, where it damages more than 20 vehicles.

A hijacker commandeers Pacific Southwest Airlines Flight 818, a Boeing 727 flying from Stockton to Los Angeles, California, with eight people on board. The hijacker demands to be taken to Iran, but is overpowered by the pilot.

May 6 – A hijacker takes control of a TAP Air Portugal Boeing 727-172C during a domestic flight in Portugal from Lisbon to Faro and demands to be taken to Switzerland. The airliner diverts to Madrid, Spain, where the hijacker surrenders.

May 8–12 – Maxie Anderson and his son, Kristian Anderson, make the first nonstop balloon crossing of North America, flying from Fort Baker in California to Sainte-Félicité, Quebec.

May 26 – Encountering a severe thunderstorm, a Nigerian Air Force Fokker F27 Friendship 400M carrying a 12-man Nigerian military delegation on a defence diplomatic mission to São Tomé and Príncipe crashes in the Atlantic Ocean off Forçados, Nigeria, killing all 18 people on board. Nigerian Minister of External Affairs Abubakar Usman is among the dead.

May 28 – A Spanish Air Force Lockheed C-130H Hercules crashes into the cloud-covered mountain Hoya del Gamonal on Las Palmas in the Canary Islands, killing all 10 people on board

June 1 - European Helicopter Industries is formed.

Braniff International Airways ends its Concorde service. Inaugurated in January 1979, it involved an interchange service allowing the Concorde to operate over the United States by having Air France and British Airways crews fly the aircraft from Europe to Washington Dulles International Airport in Virginia outside Washington, D.C., where the aircraft were temporarily leased and re-registered to Braniff and flown by Braniff crews as Braniff aircraft to Dallas-Fort Worth Regional Airport. The process was reversed on the return trip, with Braniff crews flying the planes as Braniff aircraft to Washington Dulles, where they were "sold" back and re-registered to Air France and British Airways before being flown back to Europe by French and British crews. Braniff finds that its Concorde generally carry only 15 passengers per trip (about 20 percent of capacity) on the Dallas-Washington route, in sharp contrast to its Boeing 727s, which are full on the same route, and thus decides to discontinue its Concorde operations. Braniff is the only American airline ever to operate the Concorde.

June 1 – Mauro Milhomem, a Brazilian pilot, attempted to crash his Sertanejo-721 into the Hotel Presidente owned by his mother-in-law, after he had an argument with his wife the previous day after he discovered that she cheated him. The plane failed to hit the target and hit into several objects and ultimately crashed into an accounting office in front to a forum. Six people were killed and four were wounded.

June 2 – A Lloyd Aéreo Boliviano Fairchild F-27J (registration CP-1117) crashes in the Tapehua Hills near Yacuiba in southern Bolivia, killing all 13 people on board.

June 8 – A MiG-19 (NATO reporting name "Farmer") shoots down a TAAG Angola Airlines Yakovlev Yak-40K (registration D2-TYC) near Matala, Angola, killing all 19 people on board. Some reports identify the attacking aircraft as a Zambian Shenyang F-6.

June 12 - Badly off course after a long detour around a thunderstorm, an Aeroflot Yakovlev Yak-40 (registration CCCP-87689) attempting to descend toward Dushanbe in the Soviet Union's Tajik Soviet Socialist Republic crashes on a mountain slope 44 kilometers NW of Dushanbe Airport, killing all 29 people on board.

On approach to Lincoln Municipal Airport in Lincoln, Nebraska, Air Wisconsin Flight 965, a Swearingen SA226-TC Metro II (registration N650S) enters an area of very heavy precipitation. Water ingestion causes both engines to lose power simultaneously. The crew restarts them, but the aircraft crashes in a muddy field about 5 kilometers (3.1 miles) north of Valley, Nebraska, killing 13 of the 15 people on board.

June 13 – The last Concorde to be produced, number 16, is delivered to British Airways.

June 19 – Sikorsky Aircraft delivers the last of its S-61 commercial helicopters.

June 23 – Piloting a new aerobatic biplane of the Delhi Flying Club, Sanjay Gandhi, the son of Prime Minister of India Indira Gandhi, loses control at the top of a loop he is performing over his office near Safdarjung Airport in New Delhi, India. He and his passenger die in the subsequent crash.

June 27 – Itavia Flight 870, a McDonnell Douglas DC-9-15, (I-TIGI) crashes in the Tyrrhenian Sea near the Italian island of Ustica, killing all 81 people on board. Various theories have been put forward suggesting that the airliner was destroyed in flight by a bomb or was accidentally shot down during a military operation.

June 30 – A hijacker commandeers an Aerolineas Argentinas Boeing 737-287C during a domestic flight in Argentina from Mar del Plata to Buenos Aires, demanding ransom money

1990

May 11 – The centre wing fuel tank of Philippine Airlines Flight 143, a Boeing 737-3Y0 (EI-BZG) with 120 people on board, explodes as the aircraft taxis before takeoff at Ninoy Aquino International Airport in Manila, the Philippines, killing eight of the 120 people on board. The plane catches fire, and the 112 survivors are evacuated.

June 1 - Goodwill Flight Russia-Australia-Russia.

June 10 – A British Airways BAC One-Eleven (G-BJRT) operating as Flight 5390 bound from Birmingham, England, to Málaga, Spain, with 87 people on board has a windshield blow out over Didcot, England, slightly injuring a flight attendant and severely injuring the captain, Tim Lancaster, who is sucked halfway out of the aircraft and then wedged against the windshield frame. While flight stewards hold on to him to prevent him from being sucked entirely out of the aircraft, the first officer lands the plane at Southampton Airport in England, and the captain survives his ordeal.

June 22 – Bombardier purchases Learjet for \$US 75.85 million



AIRLINE AND AIRLINER NEWS FOR MARCH 2020 BY JOHN R ROACH

IAG is considering recruiting some of its passenger aircraft for air freight operations, to ensure that essential cargo supplies are maintained as the coronavirus crisis persists. Chief executive Willie Walsh, speaking during a 16 March briefing, said that governments “need to appreciate” that there is a strong cargo demand, and passenger aircraft carry a large proportion of global air freight. “Our intention is to try and keep as much of our capacity available for critical supplies that need to be shipped around the world,” he says. “We may operate some of our passenger aircraft just for belly-hold cargo to ensure we keep critical supplies moving.”

The coronavirus pandemic, combined with the **737 Max** grounding, could leave Boeing facing challenges more significant than it has experienced in perhaps 50 years, say some aerospace analysts.

Italy’s government has indicated that it will renationalise struggling flag-carrier **Alitalia** as part of a broad set of emergency measures in response to the coronavirus outbreak. AerCap Holdings N.V. today announced it has signed an agreement with **euroAtlantic Airways**, a leading provider of ACMI services as well as charter aviation services, for the lease of two used Boeing 787-8 Dreamliners. The aircraft are scheduled to deliver in the spring of 2021, and will be the first 787s to be based in Portugal.

KLM Royal Dutch Airlines on Sunday, March 29, 2020. The carrier is ready to operate the last Boeing 747 revenue flight. Flight KL 686 from Mexico City is due to touch down at the Amsterdam base at 1510 (3:10 pm) local time on March 29. This was the airline’s last Boeing 747 revenue flight.

The Competition Bureau of the government of Canada says it has “competition concerns” about the planned takeover of **Air Transat** by Air Canada, which could be detrimental to Canadian travellers going to sun destinations as well as Europe. “The Competition Bureau announced today it has concluded that Air Canada’s proposed acquisition of Transat is likely to result in a substantial lessening or prevention of competition in the sale of air travel or vacation packages to Canadians,” the watchdog body says on 27 March.

Antonov has restarted flights with the An-225 outsize transport, after a period of absence during which the aircraft underwent modernisation. The design bureau says the aircraft has commenced a series of test flights following installation of a domestically-designed power management and control system. Departing from the Gostomel airfield near Kiev on 25 March, the An-225 conducted a sortie of just under 2hrs. The An-225, a six-engined and twin-finned derivative of the An-124, is the world’s largest operational aircraft and the airframe flown (UR-82060) is the sole example. It has spent more than a year out of service while the upgrade work has been carried out.

Canadian commuter airline **Harbour Air** has suspended scheduled passenger operations due to the coronavirus pandemic, and says it expects to spend April grounded. “As the COVID-19 epidemic continues to spread throughout the province, and with safety as our top value at Harbour Air, we have decided that it is in the best interest of our employees and our customers to cease all Harbour Air scheduled service flight operations,” the all-seaplane airline, based in British Columbia, says on 27 March. The airline adds that it expects to be flying again by 4 May.

Airbus is deploying additional aircraft including an A330 tanker conversion airframe to provide flight support for medical supplies from China to Europe. The aircraft, an A330-200 (EC-338), has been undergoing conversion as a multi-role tanker transport, for the French Air Force, Airbus says the Rolls-Royce Trent 700-powered twinjet operated from its Getafe facility in Spain to Tianjin, arriving on 27 March, before arriving back in Spain on 28 March.



Some of 35+ Airbus A320s of British Airways parked at Bournemouth in late March together with ex Virgin A340s and some BA Boeing 747s. (Credit-- internet)

ANSWERS TO MARCH 2020 FIENDISH AVIATION QUIZ – BY BRIAN JONES

- 1 c) Antony Fokker
- 2 b) Sud-Est (Languedoc)
- 3 a) Intrepid
- 4 a) JetStars
- 5 a) Sud-Oest (Trident)
- 6 c) Waterloo Air Terminal
- 7 b) B-58 minus B-36 = 22
- 8 b) Sahara
- 9 c) 1955
- 10 b) Cougar
- 11 a) Morocco
- 12 a) North American
- 13 a) 1968, when British Eagle failed
- 14 c) Ensign
- 15 a) Hawker 400
- 16 b) apron cleaner
- 17 b) Airspeed Queen Wasp (only 7 built, from 1939)
- 18 c) 1953
- 19 a) Sydney Opera House (the large building on the site is a tram shed)
- 20 c) Vickers (type 432)
- 21 c) Terminal 3 (South Wing)
- 22 b) Hughes
- 23 b) de Havilland
- 24 b) St Louis
- 25 c) Martin Mariner

Extras

- 1) Beaumaris, Anglesey
- 2) Canadair CL-44
- 3) one
- 4) 6 October 1957 (when West London Air Terminal opened)
- 5) de Havilland Aircraft Museum, London Colney

I hope everyone enjoyed this quiz. If you have any queries please contact me on: -

brianalanjones@gmail.com

MEMBERS NOTICE BOARD

3-bedroom house in quiet residential area of Ruislip in exchange for 8 pack of baked beans

Airbus A380s available to buy or rent as a mobile home (various major airports only). May exchange for a 24 pack of loo rolls.

Will offer five litres of antibacterial gel in return for an Audi RS 5 car up to year 2019. If it's a 2016 model, I'll need face mask, gloves and £55,000 from you as well

Sign at 278 bus-stop in Hillingdon; If you want cannabis or cocaine or antibacterial gel call Barry on 078....

Afraid to be out during the Covid-19 lockdown? Why not contact validreasonstobeout.com for a cast iron alibi.

“Officer, I always drive to the Lake District for my shopping as my wife only eats Kendal Mint Cake.

“Your Honour, we lit a bonfire in Ruislip Woods so that all twenty of us could search for the car keys in the dark. It was such dirty work that once we found them, we had to have a beer and a few burgers to make us better”.

Car Batteries; Good prices paid in cash in any condition, as we will all need one post lockdown!