

Chiltern Airwords



Duxford's Republic P-47D Thunderbolt having an engine test run Feb 2020. Photo by John Roach

The Chiltern Aviation Society Magazine
March - April 2020

CHAIRWORDS

Fred Barnes's fascinating story of his BEA Viscount flight to the Scottish islands in one day, reminded me of a particularly incident whilst I was with BEA Terminal Control in the old Terminal 2 at Heathrow in the late 1950s when Viscounts were in abundance. I was on night duty and we had just despatched a Palma Viscount service which operated around midnight during the summer months. Suddenly, the telephone rang. It was Load Control to say that they had just found a Viscount's Journey Logbook. This was a mandatory on-board requirement. Luckily the aircraft had only just taken off and Air Traffic Control were able to recall him immediately. The aircraft landed, backtracked along the runway and held just off the threshold. The Duty Officer and I drove out to the runway in the station's Vauxhall car clutching the logbook and escorted by a Ministry of Civil Aviation van. We reached the aircraft and stopped under the nose – very close to the screaming Dart engines. The Duty Officer stood up on the bonnet of the car whilst a very grim-faced captain leant out of the cockpit window, snatched the logbook and within minutes he was airborne for the second time. An embarrassing incident for all concerned. As I write we have several of our elderly members currently indisposed. We wish them well and our thoughts are with them. This is also a timely reminder that we must try to recruit a few younger members to ensure the long-term continuity of the Chiltern Aviation Society. **Keith 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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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 PROGRAMME;

WED 25th March – **CANCELLED - AGM** (Further Meetings may also be cancelled)

WED 22nd April - DH 106 Comet by Philip Birtles (**Provisional on Coronavirus situation**)

WED 27th May - The Cult of Ace Luftwaffe pilots in B of B by Chris Goss (**Provisional on Coronavirus situation**)

TWO WEEKS WITH THE STARS – BY KEITH HAYWARD

In an earlier article I described how BSAA's small fleet was stretched over a long network, particularly after the introduction of the west coast Santiago route with Lancastrians. By early November 1947 two Avro Tudor IVs had been delivered and intensive training commenced – when aircraft were available, Teething problems were numerous and there was a steep learning curve. Numerous non-urgent snags accumulated in the Technical Logs. Trying to satisfy the needs of the engineers charged with rectifying these problems with the requirements of the Training Unit carrying out pilot conversion courses was a constant headache. This is a record of the period 1 – 15 November 1947:



Saturday 1 November

Due to the shortage of Lancastrians following the recent loss of G-AGWH *Stardust* in the Andes on 2 August and G-AGWK *Startrail* at Bermuda on 5 September, flight PW55 to Santiago was delayed until the following day.

BS56 to Rio de Janeiro, Avro York G-AHFG *Star Haze* departed STD 1135GMT.

Sunday 2 November

PW55 G-AGWG *Starlight* finally departed for Santiago at 0825GMT.

CN71 service from Santiago operated by a York arrived during the day.

The Lancastrian service JE22 arrived from Kingston (time not recorded).

Monday 3 November

AN179 York G-AHFD *Star Mist* arrived from Buenos Aires STA 1350GMT. This aircraft was immediately commandeered by the indefatigable Captain Rodley for a two-hour 30 minutes training session. Later he was off again for night flying training with York G-AHFB *Star Stream* for one hour 58 minutes.

Tuesday 4 November

York G-AHEF *Star Gleam* operating flight AS181 to Buenos Aires left at 1025GMT.

The engineers at Langley continued to clear defects accumulating on the Lancastrians and Yorks as well as carrying out planned major checks. In addition, of course, they were coming to terms with the intricacies of the new Tudor IVs – they were hard stretched. The small team of engineers at London Airport was equally busy clearing pre-departure defects as well as servicing departure and arrivals in somewhat primitive conditions.

Wednesday 5 November

The York east coast service to Santiago, CS73, departed STD 1025GMT; JW22, the Lancastrian service to Kingston operated by G-AGWI *Starland* (Captain Earnshaw), departed late at 1115GMT.

Flight PE54 from Santiago (west coast route) was delayed until the following day because of an aircraft shortage.

An eagerly-awaited Tudor IV delivery, G-AHNP *Star Tiger*, flown by Captain Gordon Store from Avro at Woodford, arrived during the day.

The highlight, however, was the arrival back from Mexico, proving flight ME1, with Tudor IVB G-AHNL, commanded by Air Vice Marshal Don Bennett, at 1809GMT.

Thursday 6 November

Delayed flight PE54, Lancastrian G-AGWL *Star Guide* (Captain Walton), finally arrived at 1745GMT.

Wasting no time Tudor IV G-AHNP was off on the second proving flight to Havana, MW2, with Captain Gordon Store at 1314GMT following an air test during the morning,

Friday 7 November

Flight AS192 York G-AHFE *Star Vista* departed for Buenos Aires STD 1025GMT and Captain Hartley arrived from Rio de Janeiro, flight BN56, with G-AHFG *Star Haze* at 1304GMT, 30 minutes early thanks to strong south-westerly winds en route from Lisbon.

Captain Alabaster completed a training flight with Tudor IV G-AHNL during the day whilst Captain Rodley carried out a one hour 28 minute training session with York G-AHFB *Star Stream*, plus a further one hour 30 minutes on York G-AHFG soon after it had arrived from Rio de Janeiro, such was the pressure.

Saturday 8 November

Flight PW56 to Santiago (west coast route) Lancastrian G-AGWL departed STD 0925GMT followed by BS57 York G-AHFH *Star Glitter* (Captain Holland) at 1029GMT for Rio de Janeiro.

On the Caribbean route flight JE23 Lancastrian G-AGWI *Star Land* (Captain McPhee) arrived 45 minutes late from Kingston at 1717GMT.

Finally, Tudor IV G-AHNK (Captain Taylor) was on a training detail from 1115 to 1324GMT.



Sunday 9 November

Flight CN72 York G-AFHC *Star Dew* arrived from Santiago STA 1334GMT, and Captain Rodley continued training new First Officers, on York G-AHFB for five hours 10 minutes.

Monday 10 November

Flight AN121 York G-AHFF (Captain Wellwood) was delayed until after midnight, touching down at 0130GMT/11 November from Buenos Aires, with nine very weary passengers.

Tuesday 11 November

Flight ME2, Tudor IVB G-AHNP (Captain Gordon Store) arrived from Havana at 0641GMT after a direct sector from Bermuda with eight passengers.

Flight AS183, York G-AHFH (Captain Taylor), departed for Buenos Aires STD 1025GMT.

Tudor IV training was accelerating with G-AHNP carrying out six landings between 1552GMT and 1637GMT. G-AHNK (Captain Alabaster) was also on training duties during the day.

Captain Rodley continued with night flying training with York G-AHFF for four hours 35 minutes and duty crew pilot Captain Kerrigan carried out a 45-minute air test on York G-AHEX *Star Venture*.

Wednesday 12 November

The day started with the Lancastrian service JW23 to Kingston, STD 0925GMT.

Flight CS74 for Santiago (east coast route) York G-AHEX departed STD 1025GMT.

Lancastrian G-AGWI (Captain Jones) departed for Bermuda to pick up stranded passengers bound for Santiago following G-AGWG's accident.

Urgent Tudor IV training continued with G-AHNK (Captain McMillan) and G-AHNP which completed a one-hour 30-minute session including three landings.

York G-AHFE was air tested for 45 minutes (1542GMT to 1627GMT) and Captain Ker ferried York G-AHFF (1046GMT to 1111GMT) for maintenance work.

Tuesday 13 November

Flight MW3 to Havana departed at 1155 operated by Tudor IV G-AHNK (Captains Alabaster and Cracknell). Bedevilled by headwinds the Azores – Bermuda sector took 14 hours 21 minutes! Arriving at Bermuda with almost empty tanks and nowhere else to go the Bermuda authorities expressed concern and questions were later asked in the House of Commons about BSAA's operational standards. It certainly looked as if the Pathfinder 'press on' spirit still existed. Flight AN182, York G-AHFE (Captain Wright) arrived from Buenos Aires STA 1334GMT.

Tudor training continued with a short demonstration flight between 0840GMT and 0900GMT. Finally, Duty Pilot Captain Ker carried out a short air test on York G-AHFC from 1738GMT to 1815GMT.



Friday 14 November

Flight AS184 STD 1025GMT, operated by a York, left for Buenos Aires.

York service BN57 from Rio de Janeiro arrived STA 1334GMT.

Duty Pilot Captain Ker ferried York G-AHFF from Langley including an air test from 1158GMT to 1301GMT.

Saturday 15 November

Tudor IV G-AHNP *Star Tiger* (Captain Griffin) operated the Heathrow – Bermuda sector, flight PW57, at 0941GMT with Lancastrian G-AGWI continuing the further sectors down to Santiago.

Flight BS58 to Rio de Janeiro, operated by York G-AHFC (Captain Walton), departed STD 1025GMT.

Finally, Captain Ker and duty crew carried out an air test with York G-AHFG from 1245GMT to 1336GMT.

This was a busy period for BSAA. Two Tudor IVs had been delivered out of four on order, G-AHNC was received on 29 September and G-AHNP on 5 November. G-AHNJ *Star Panther* was to follow by the end of that month. Conversion courses were well under way with Captain Rodley's team working flat out.

Tudor spares were being positioned down the line on the Caribbean route with Station Engineers receiving training.

The Star Girls (stewardesses) were adjusting to the larger aircraft with 32 seats (only 21 on the York and 13 on the Lancastrians). Being BSAA's first pressurised aircraft the Star Girls were concerned that a rumour abounded that pressurisation could cause girls to become infertile.

BSAA's Medical Director, Dr McGowan, assured them that this was not so – but added “don't take any chances!”

All was building up as the airline expanded and the Tudors settled in. Little did anyone know that two months later G-AHNP would disappear in the Atlantic – the start of British South American Airways' demise.



This Avro Tudor IV Super Trader originally served with BSAA but was later passed to Air Charter.

It came to grief while on an 'en route stop over' at Brindisi, while on its way to Australia. The aircraft started the take-off from runway 32 and swerved left off the runway after a 550 m ground run. Rough terrain caused the left landing gear leg to be torn off. The plane came to rest at 820 m past the runway threshold and burst into flames, with the loss of two crew and six passengers from Air Charter.

Probable Cause was given as "Strong crosswinds with gusts and the ground condition on the edge of the runway."

Interestingly the paint scheme on this BSAA Tudor looks to consist of an upper and lower colour not commonly seen on a BSAA aircraft and more reminiscent of an RAF aircraft.

THE HENSCHEL HS129



Henschel was a German locomotive manufacturer. Soon after Hitler's rise to power, Henschel decided to start designing aircraft, one of the first being the Hs 123 single engine bi-plane. The aircraft was designed to meet the 1933 dive bomber requirements for the reborn Luftwaffe. Although the Hs 123 gave good service in the Spanish Civil War and in the first few years of WW2 it was clearly out of date by that period of time. Henschel therefore developed twin engine Hs 129 for ground attack purposes. (The Henschel Hs 126 was a German two-seat reconnaissance and observation aircraft similar to a

Lysander). The Henschel Hs 129 saw combat in Tunisia and on the Eastern Front. The example above in USAAF hands in 1946 was captured in North Africa.

A key requirement of the original Hs 129 specification was that the aircraft be powered by engines that were not in demand for other designs. Prototypes with low-power German Argus As 410 engines of 465 PS (459 hp; 342 kW) failed acceptance test, a more powerful replacement was found with the French Gnome et Rhône 14M engine of 700 PS (690 hp; 515 kW). The design was relatively effective when it was first introduced, and saw service on the Eastern Front in a variety of front-line roles. As the war continued and anti-tank support became the main goal, the aircraft was continually up-gunned, eventually mounting a 75 mm gun in the anti-tank role that left the plane barely flyable. Only a small number of these B-3 models were produced, late in the war. By the mid-1930s, the German military, as well as its counterparts in other countries, had come to see the main role of ground-attack aircraft as the interdiction of logistics and materiel, a task in which targets were often poorly protected and less likely to be defended by strong, well-coordinated defences. For high-value, well-protected tactical targets, the dive bomber was becoming the conventional solution.

The experience of the German Kondor Legion during the Spanish Civil War (1936–39) refuted this idea. Even though it was equipped with types unsuited to the role, such as the Henschel Hs 123 and cannon-armed versions of the Heinkel He 112, the Kondor Legion proved that ground-attack aircraft were a very effective weapon. This led to support within the Luftwaffe for the creation of an aircraft dedicated to this role, and the Reichsluftministerium (RLM; "Reich Air Ministry") requested tenders for a specialized ground attack aircraft. It was anticipated that the main source of damage to such an aircraft would be small arms fire from the ground, meaning that the plane had to be well-armoured around its cockpit and engines. Similar protection was also needed in the canopy, in the form of 75 mm (2.95 in) thick armoured glass. The aircraft was expected to be attacking in low-level, head-on strafing runs, so the cockpit had to be located as close as possible to the nose, in order to maximize the visibility of its targets. Only four companies were asked to submit tenders; three submissions followed and only two of these were considered worthy of consideration: One derived from an existing Focke-Wulf reconnaissance type, the Fw 189, the other was Henschel's all-new Hs 129.

The Hs 129 prototype was designed around a single large "bathtub" of steel sheeting that made up the entire nose area of the plane, completely enclosing the pilot up to head level. Even the canopy was steel, with only tiny windows on the side to see out of and two angled blocks of glass for the windscreen. In order to improve the armour's ability to deflect bullets, the fuselage sides were angled in forming a triangular shape, resulting in almost no room to move at shoulder level. There was so little room in the cockpit that the instrument panel ended up under the nose below the windscreen where it was almost invisible; some of the engine instruments were moved outside onto the engine nacelles' inboard-facing surfaces, as on some models of Messerschmitt's Bf 110 heavy fighter, and the gunsight was mounted outside on the nose.

Henschel's plane came in 12% overweight with the engines 8% underpowered, and understandably, it flew poorly. The controls proved to be almost inoperable as speed increased, and in testing, the V2 prototype flew into the ground from a short dive on 5 January 1940 because the stick forces were too high for the pilot to pull out. The Focke-Wulf design proved to be no better. Both planes were underpowered with their air-cooled, inverted-V12 Argus As 410 engines, and very difficult to fly. The RLM nevertheless felt they should continue with the basic concept. The only real deciding factor between the two designs was that the Henschel was smaller and cheaper. The Focke-Wulf was put on low priority as a backup, and testing continued with the Hs 129 A-0. A series of improvements resulted in the Hs 129 A-1 series, armed with two 20 mm MG 151/20 cannons and two 7.92 mm (.312 in) MG 17 machine guns, along with the ability to carry four 50 kg (110 lb) bombs under the fuselage centreline.



Even before the A-1s were delivered, the plane was redesigned as Hs 129 B-1 with Gnome-Rhône 14M radial engines, which were captured in some number when France fell and continued to be produced under German occupation. This engine supplied 690 hp for take-off, compared to the Argus at 459 hp. The Gnome-Rhone radials were also made in versions with opposite rotation for the propeller, and were installed on the Hs 129 with the port engine rotating clockwise and the starboard rotating counter clockwise, as seen from nose-on, thus eliminating engine torque problems. The A-1 planes were converted into Hs 129 B-0s for testing (although it has been claimed that some As were sold to Romania) and the pilots were reportedly much happier. Their main complaint was the view from the canopy, so a single larger windscreen and a new canopy with much better vision were added, resulting in the production model Hs 129 B-1.

B-1s started rolling off the lines in December 1941, but they were delivered at a trickle. In preparation for the new plane, I./SchlG 1 had been formed up in January with Bf 109 E/Bs (fighter-bomber version of Bf 109 E) and Hs 123s, and they delivered B-0s and every B-1 that was completed. Still, it was not until April that 12 B-1s were delivered and the 4th Staffel (squadron) became ready for action. They moved to the Eastern Front (to Crimea) in the middle of May 1942, and in June they received a new weapon, the 30 mm MK 101 cannon with armour-piercing ammunition in a centreline pod.



Deliveries of the new Hs 129 B-2 model began in May 1942, side by side with the B-1 (of which just 50 planes had been delivered at that point). The only difference between the two were changes to the fuel system – a host of other minor changes could be found almost at random on either model. These changes accumulated in the B-2 production line until they could eventually be told apart at a glance; the main differences being the removal of the mast for the radio antenna, the addition of a direction-finding radio antenna loop, and shorter exhaust stacks on the engines. In the field, the differences seemed to be more pronounced. The Rüstsatz field refit kits were renumbered and some were dropped, and in general, the B-2 planes received the upgraded cannon pack using a 30 mm MK 103 cannon instead of the earlier MK 101. These guns both fired the same ammunition, but the 103 did so at almost twice the rate.



By late 1942 reports were coming in about the ineffectiveness of the MK 101 against newer versions of the Soviet T-34 tanks. One obvious solution would be to use the larger 3.7 cm Bordkanone (BK 3.7) recently adapted from the ground-based Flak 18. These guns had already been converted into underwing pod-mounted weapons for the Junkers Ju 87G and found to be an effective weapon, despite the fact that only 12 shells per pod could be accommodated. When mounted on the Hs 129B, the empty area behind the cockpit could be used for ammunition storage, which would address the limited ammunition supply. The B-2/R3 package introduced the BK 3.7 automatic cannon. For the Hs 129B-3 it was decided that the 7.5 cm semi-automatic Rheinmetall PaK 40 anti-tank gun, which had already been adapted for use in the Junkers Ju 88P-1, would be modified for use in the Hs 129. This resulted in the BK 7.5 which, even though it weighed 1,200 kg, was lighter than the PaK 40. Fully automatic, it featured a new, hydraulic recoil-dampening system and a new, more aerodynamic muzzle brake.

An autoloader system, with 12 rounds in a rotary magazine, was fitted in the empty space behind the cockpit, within the rear half of the wing root area. The gun and its recoil mechanism occupied a substantial gun pod under the fuselage, and a circular port at the rear of the pod allowed rearwards ejection of spent cartridges immediately after firing. This new variant, the Hs 129 B-3, was theoretically capable of destroying any tank in the world, but the added weight worsened the aircraft's general performance and it was inferior to previous variants.

The BK 7.5 was the heaviest and most powerful forward-firing weapon fitted to a production military aircraft during WW2. The only other aircraft to be factory-equipped with similar-calibre guns was the North American B-25G and H Mitchell, which also mounted a 75 mm for anti-shipping missions. From June 1944, only 25 examples of the Hs 129 B-3 arrived at frontline units before the production line was shut down in September (a small number were reportedly also created by converting B-2 aircraft). In the field the B-3 proved effective, but its small numbers had little effect on the war effort. There was to be a Hs 129C fitted Isotta-Fraschini Delta air-cooled inverted V12 inline engine that delivered 850 hp) providing more power than Germany's own Argus As 411 engine of similar configuration and less weight but production was not ready when the plant was overrun by the Allies in 1945.



A DAY TRIP TO INVERNESS & STORNOWAY IN 'YANKEE NOVEMBER' - PART 2 BY FRED BARNES



In Part 2, we pick up the story after Viscount G-AOYN departed Stornoway for Inverness. After take-off the undercarriage was retracted and the aircraft climbed out over the waters of The Minch and Stornoway ATC handed the flight to Scottish ATC which cleared the flight to climb to the cruising altitude of FL135. After reaching FL135 the engine power was changed cruise setting and the First Officer received the latest weather information for Inverness and other airfields in case of any diversion and established that runway 24 was still in use. Through the broken cloud I could see the coastline of the Scottish mainland ahead and later the snow-capped mountains of the North West Highlands came into view. Captain Burfoot went

through the approach and landing briefing for runway 24 at Inverness and later Scottish ATC gave descent clearance and the engine power was reset. The First Officer contacted 'Speedbird' at Inverness on the company frequency with the ETA, aircraft serviceability state and passenger information.

Then Scottish ATC handed the flight over to their colleagues at Inverness for the approach and landing. The First Officer contacted Inverness ATC who vectored the aircraft for a visual approach to runway 24 and gave further descent clearance. Captain Burfoot reconfigured the Viscount for landing and as the speed reduced lowered the undercarriage and then the aircraft flew through the broken cloud layer and the runway lights could be seen ahead. Inverness ATC gave the latest weather information and cleared the aircraft to land on runway 24. I could see the runway ahead as Captain Burfoot flew the final approach and lined the aircraft on the centre-line and then made a good landing. After touchdown the brakes were applied and engine power changed as G-AOYN slowed to taxi speed and continued along runway 24 to the end. ATC gave instructions to taxi to the self-maneuvring stand allotted on the main parking ramp at the terminal building. The flight time from Stornoway to Inverness had been 27 minutes and another busy sector with a high workload for the pilots.

Captain Burfoot manoeuvred the Viscount on to the parking stand, brought the aircraft to a halt and then shut down the engines. As the pilots were going through the after-flight checklist the groundcrew arrived with the chocks and mobile airstairs which were positioned at the forward door.

I thanked Captain Burfoot and the First Officer for an informative and enjoyable day and then unstrapped from my seat and went into the cabin. The Station Engineer arrived to talk to the captain and I thanked the cabin crew for their assistance. After a few minutes the pilots came out of the flight deck and we all went down the aircraft steps and walked back to the office. Captain Burfoot said that the weather had been good but when the weather conditions are poor with low cloud, sea fog, strong winds or storms then the pilot workload is much greater especially when there is the need to fly the non-precision approach procedures with the associated high landing minima at some of the Scottish airports. The crew transport was waiting to take the pilots and cabin crew to the night stop hotel in Inverness at the end of their duty day and we all said a cheery goodbye.

Crew change and Pre-Departure at Inverness; I chatted with the local staff and they were excited that the route to Heathrow included a Trident Two jet service six times a week on the morning departure from Inverness and the return evening service and confirmed that the paperwork sent from FTD at Heathrow was being received in good time. Then I noticed on the 'Ops Board' that the next arrival was Viscount V.806 G-APIM, c/n 412, on flight BA5727 at 1550 from Sumburgh (Shetland) and Kirkwall (Orkney) and thought that would be an opportunity for another photograph. It was then time for a visit to the café for a cup of tea, a large slice of cake and to make some rough notes about my experience during the day. Back in the office the staff were preparing for the turnaround of BA5727 and check-in for the next sector to Glasgow was underway. After G-APIM had arrived and the passengers for Inverness had disembarked the Station Engineer allowed me to accompany him on to the ramp to take a photograph in the late afternoon light. I returned to the company office to await the arrival of the crew for BA5639 for the last sector of my journey to Heathrow. Later I could hear the sound of the engines starting on G-APIM as the aircraft prepared for its departure.

After the transport had arrived from their night stop hotel, I met up with Captain Maclean, his First Officer and the cabin crew for BA5639 at 1725 to London Heathrow. The pilots looked through their flight planning documents, weather information, AIS Briefing and other paperwork and the First Officer checked the planned aircraft zero fuel weight with

load control and calculated the fuel plan. After a discussion with the First Officer Captain Maclean decided on the tanks fuel required taking into account the overall weather situation at the destination and nominated alternate airports and added some extra holding fuel as the flight would arrive at Heathrow during the evening arrival peak time. The weather at Heathrow and alternates was good with light westerly wind, good visibility and no low cloud and G-AOYN was serviceable. Departure from Inverness would be from Runway 24 and the permitted take-off weight was calculated from the Viscount Performance Manual and was in excess of the pre-planned take-off weight for the actual flight and there was no payload restriction. After the paperwork was completed it was time to go to the aircraft and I accompanied Captain Maclean across the ramp in early evening light and up the forward air steps on to G-AOYN. The cabin crew were already on board and were dressing the aircraft ready for passenger boarding and the First Officer was undertaking the external pre-flight inspection. Captain Maclean was on the flight deck and he checked the Aircraft Technical Log and there was a busy time when the Station Engineer returned to confirm that the flight plan fuel was loaded and that the aircraft was fit for departure and the First Officer returned. When both of the pilots were settled into their individual seat, I went into the flight deck, strapped into the third crew seat and plugged in my headset. The flight deck seemed darker and smaller in the late afternoon light and there was a glow from the internal lighting.

Flight BA5639 Inverness to Heathrow; The pilots were preparing for the departure and Captain Maclean went through the departure briefing for runway 24 with the First Officer and then he gave me the safety briefing.

After the passengers had boarded, the load sheet had been signed and the doors were closed the Station Engineer called on the ground intercom to advise that the aircraft was ready for start-up. The First Officer contacted Inverness ATC to request start up clearance and when that was approved the engineer was advised and each engine was started in sequence and the last piece of ground equipment was moved clear of the aircraft. Then the First Officer requested taxi clearance for runway 24 which was approved with instructions to route via the taxiway to the runway 06 threshold then taxi along runway 06 to the to the threshold end of runway 24 and there was no other traffic. Captain Maclean increased power on the engines, the brakes were released and the Viscount moved slowly forward on the self-maneuvring stand on to the taxiway and routed as instructed. The purple taxiway and white runway lights were now much brighter in the evening light as the aircraft taxied towards the end of the runway and was turned through 180 degrees at the threshold and was brought to a halt ready for take-off. The pilots went through the pre take-off checks, flaps were set and advised ATC when ready for departure.

I could see the runway lights ahead shining bright as the sun was setting. Inverness ATC gave the latest weather information and cleared the flight for take-off. Engine power was set for take-off, the brakes were released and G-AOYN started to roll forward and accelerated along the runway and after what seemed a long take-off run became airborne, started to climb and the undercarriage was retracted. During the climb following the departure route Inverness ATC handed over the flight to Scottish ATC which gave further clearance to climb en-route to FL160. On reaching the cruising level the engine setting was changed to cruise power and I could see the sunset and glimpses of the light reflecting off the tops of the snow-covered mountains through breaks in the cloud below. Darkness had fallen as G-AOYN was cruising along at a True Air Speed (TAS) around 255 knots and the cockpit lighting was subdued but adequate to see the instrumentation and controls. Scottish ATC cleared the flight to climb to FL190 at Glasgow and engine power was increased for the short climb to the new cruising level and then cruise power was restored.

Captain Maclean said that the cabin crew had a spare meal as there had been a 'no-show' passenger at Inverness and would I care to go back into the cabin to eat in comfort. I readily agreed, unstrapped and went back into the cabin and was offered an aisle seat which was most acceptable. Soon the cabin crew arrived with a high tea meal with Scottish smoked salmon and all the trimmings so there was only one thing to do! After dessert and two cups of tea I reflected on the brightness of the cabin and the background sound of the four engines. Then after about 30 minutes it was time to return to the flight deck to settle in prior to arrival at Heathrow and I thanked the cabin crew for their excellent service. I moved forward and asked the cabin crew to check with the pilots before opening the flight deck door as that would change the lighting levels on the flight deck at night which can disturb night time vision.

Arrival at Heathrow; By the time that I was settled back into the flight deck the flight was abeam Manchester at FL190 and there was some 'chatter' on the ATC frequency. I thanked Captain Maclean for his kind thoughts with the meal and said that I was enjoying my flight deck experience. He said that the days were numbered for the Viscount and that it had been a good aircraft but it was now time to move forward. As the flight continued further south the pilots started to prepare for the approach and landing at Heathrow.

The First Officer received the ATIS for Heathrow where runway 28L was in use for landing and weather for other airports such as Gatwick, Birmingham and Luton for possible diversions. Captain Maclean then went through the arrival briefing for Heathrow landing on runway 28L. Pilot workload increased with the extra monitoring of radio traffic in the busy London area and concentration on flying the Viscount as requested by ATC and conversation was minimal.

ATC then cleared the flight to descend to FL110 and Captain Maclean reduced engine power and started the descent. On reaching FL110 there was a frequency change in the London TMA, further descent clearance was received and ATC advised there was about a 10 minutes delay in the Bovingdon 'Hold'. The flight was then vectored to Bovingdon and on arrival overhead joined the holding pattern and airspeed was reduced as required. Then the First Officer contacted company at Heathrow on the 'Speedbird 55' frequency with the latest ETA and passenger information. After two circuits in the Bovingdon 'Hold' and further descent ATC vectored the flight to leave Bovingdon and route across London before subsequent vectors to turn to join the ILS approach for runway 28L. When the aircraft was established on the ILS Glide Path for runway 28L I could see the magnificent sight of the lights of the city and the light shining off the waters of the River Thames. As the Viscount continued down the ILS Approach the lights of the runway ahead came into view and then airspeed was reduced, engine power changed as the flaps were set for landing and later the undercarriage was lowered and the three 'green' lights appeared. I could see the anti-collision beacons on the aircraft ahead in the darkness and as Heathrow was getting closer, the full ILS Category III lighting on the runway ahead came into view.

Heathrow Tower gave clearance to land and after crossing the lights on the A30 road Captain Maclean kept the aircraft on the runway centreline and made a smooth landing. After touchdown engine power was reduced and with gentle braking G-AOYN slowed down and was able to exit the runway at the early turn off taxiway. ATC frequency was changed for taxi instructions to the off-pier stand allocated in Terminal One and Captain Maclean followed the route and luckily there was no delay moving into the cul-de-sac. During the taxi back towards the stand I could see the lights of three aircraft on approach to runway 28L and I reflected that it was a bit busier than Stornoway.

The aircraft moved slowly on to the stand where the airport marshallers were waiting for the Viscount to park and Captain Maclean brought G-AOYN to a halt and the engines were shut down, flight time from Inverness had been 1 hour 45 minutes. As the pilots were going through the after-flight checklist the ground crew were arriving with the forward passenger steps and airside coaches were arriving to transport the passengers to the terminal. When the pilots had completed their work, I thanked Captain Maclean and the First Officer for an informative and enjoyable flight and said that it was really useful to understand the flight deck environment and workload.

The forward passenger door opened and the passengers started to disembark and Captain Maclean said would I like to go to the terminal on the passenger coach as there was a delay with the crew transport. I unstrapped from my seat, handed back my headset, said my thanks again and thanked the cabin crew for the meal. As I was the last passenger down the steps and on to the airside coach, I had to stand up on the journey back to the Domestic Arrival area in Terminal One, but it was a shorter walk to the car park.

A BRIEF HISTORY OF VICKERS VISCOUNT V.806 C/N 263 G-AOYN



Vickers Viscount V.806 c/n 263 was assembled at Weybridge, UK as part of an order for British European Airways Corporation (BEAC) and the aircraft was registered G-AOYN and made its first flight on 7th March 1958 from Brooklands to the flight test airfield at nearby Wisley. The Viscount painted in the BEA 'Key Style Red Stripe' livery was named 'RMA Sir Isaac Newton' and was delivered to Heathrow on 26th March 1958. G-AOYN was subsequently placed into service on the BEA European and Domestic network. The airline decided to modernise its corporate image for entry into the jet era and the new BEA 'Red Square' livery was introduced from March 1959. On 12th July 1961 G-AOYN had a moment in history when the Russian

cosmonaut Yuri Gagarin was on board a flight from Heathrow to Manchester and during the cruise Captain Stanley Key invited the celebrity to sit in the first officer's seat and take the controls for a short while. Yuri Gagarin returned to Heathrow later that afternoon in G-AOYN which was still in the original BEA livery. Existing aircraft were repainted into the new BEA 'Red Square' livery when undergoing the next major overhaul and G-AOYN subsequently appeared in the new colours with the famous red wings.

There was a further change to the BEA corporate image in 1968 when the BEA 'Flying Union Jack' livery (also known as the 'Speedjack' livery) was introduced and individual aircraft were repainted during the period from 1968 to 1970 when the major overhaul was undertaken. In December 1971 G-AOYN was sold to Cambrian Airways and was delivered from Heathrow to Cardiff on 30th December still in BEA livery.

The Viscount was then repainted into the new Cambrian Airways red livery but on 1st April 1972 Cambrian Airways was placed under the control of British Air Services (BAS). Ownership changed again on 1st September 1973 when BAS became part of British Airways Regional Division in the prelude to the UK government's merger of BEA and BOAC. As an interim measure during that period aircraft from both BEA and BOAC fleets were progressively repainted with British Airways titles but retained their existing livery. On 1st April 1974 B.E.A. and B.O.A.C. were merged to form British Airways and then BEA, British Air Services and BOAC ceased to exist. G-AOYN was initially repainted with British Airways titles but retaining the Cambrian Airways livery and eventually repainted into the new British Airways 'Negus' livery with small 'Cambrian' titles on the forward fuselage that were subsequently removed.

On 30th March 1980 G-AOYN was taken out of service by British Airways and then operated a final ferry flight on 1st April 1980 from Manchester to Cardiff for parking and storage. At that time G-AOYN had a total flying time of 35412 hours and 38423 landings. In February 1981 after a long period of storage G-AOYN was sold to British Air Ferries (BAF) and on 16th February was ferried from Cardiff to Southend for a major overhaul. The Viscount was repainted into the British Air Ferries 'Coastguard' style livery in April 1981 and named 'Diane'.



G-AOYN was then operated by BAF on lease to a number of operators with changes to the aircraft's titling during the next few years before being repainted into a revised BAF livery with British Air Ferries titles in 1984. In 1987 the company changed its titles to 'British' and then reverted to 'British Air Ferries' titling in later years. British Air Ferries was renamed British World Airlines on 1st April 1993 and the new titles were repainted on the fuselage. On 5th October 1994 G-AOYN was re-registered G-OPAS for operation by British World Airlines under contract to Parcelforce Air Services as a pure freighter and on 25th October the Viscount was rolled out in the striking red Parcelforce livery with white titles. G-OPAS remained in service operating overnight flights from the Parcelforce

hubs in Belfast and Edinburgh to Coventry. On 21st June 1996 G-OPAS operated its final flight from Edinburgh to Southend and her Rolls-Royce Dart engines were shut down for the last time and the Viscount was withdrawn from use with a total of 48136 hours 47 minutes and 51482 landings. The Dart engines were soon removed from G-OPAS and the aircraft was stored until sold to Hanningfield Metals for scrap and was eventually broken up in February 1997. The forward fuselage section was removed, saved and after a period of storage at Duxford by the Duxford Aviation Society from March 1997 until December 2006 was moved to the Bournemouth Aviation Museum at Hurn Airport where it is currently on display. Epilogue; British Airways had a further review of services in Scotland in 1982 and the airline decided to remove the Viscount fleet from service and to replace it with the more economical British Aerospace BAe 748 to reduce mounting losses. The British Airways Viscount operation in Scotland came to an end and the last scheduled service was flown on 8th May 1982 by G-AOYM, c/n 262, as BA5721 Sumburgh – Kirkwall – Inverness – Glasgow. In 1983 British Airways discontinued services on the Heathrow to Inverness route, due to mounting losses using jet aircraft. Viscount V.806 G-APIM c/n 412 was preserved after service with British Air Ferries and was taken by road in sections, then reassembled and repainted and is on currently display at the Brooklands Museum.

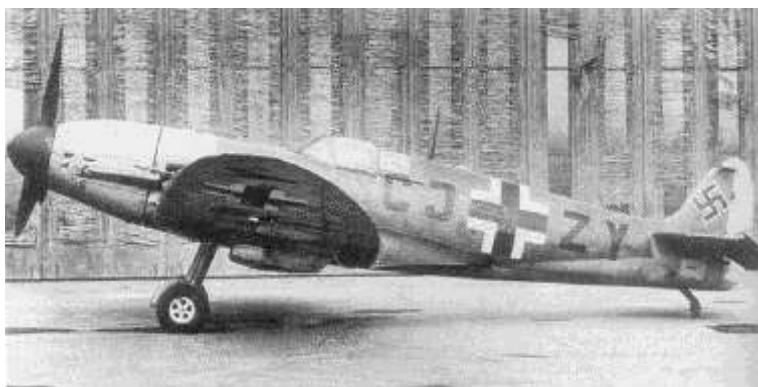
G-APIM was named 'Stephen Piercey' during its service with BAF. The runway headings quoted at Heathrow and Inverness were correct in 1980 but due to changes in magnetic variation since this trip was taken would now read Heathrow 09L/09R/27L/27R and Inverness 05/23. The author would like to thank Keith Hayward and Geoff Perry at the British Airways Heritage Centre, also Captains Burfoot and Maclean, the operating crews and staff at Inverness and Stornoway and John Roach for their assistance in the preparation of this article.

HAVE YOU HEARD OF A MESSERSPIT? - BY BOB HICOX



The making of a 'Messerspit'

Spitfire EN830 holds a unique place in aviation history in that it flew with a Daimler-Benz engine after falling in to enemy hands. One of the many thousands of Spitfires to roll off the production line at Castle Bromwich was a Mk VB, registration EN830 which was fitted with a Rolls-Royce Merlin 45 engine giving the aircraft a top speed of 375 mph and armament of two 20 mm Hispano Cannons and four 0.303-in machine-guns. Making its first flight on the 30th April 1942 the aircraft was then handed over the following month to No. 37 MU based at RAF Burtonwood on the 1st May. EN830 entered operational service a month later on the 8th June 1942 with No. 131 (County of Kent) Squadron who at the time were based at RAF Llanbedr. Just over two months into its service on the 25th August it suffered a flying accident but was able to be repaired onsite. The Messerspit was a much more radical concept in which a captured Spitfire Mk V was the basis of the change with a Daimler-Benz engine of a Messerschmitt Bf 109G. As you can see this hybrid had none of the sleek and slender lines of the Spitfire. However, the greater wing area of the Spitfire made the aircraft more manoeuvrable than the Me 109G and it broadly had a similar performance to the Spitfire Mk V. As this was not much of an improvement on the existing Messerschmitt 109's, and superior fighters were already entering Luftwaffe service, ie. the Focke-Wulf Fw190, only one example of this rather ugly hybrid of the Spitfire was ever flown by the Luftwaffe.



On 18th November 1942, with No. 131 Squadron now operating from RAF Westhampnett the weather that day brought with it, low cloud and poor visibility, the ideal conditions for which Fighter Command launched 'Rhubarb' sorties. These saw a section of fighters/fighter-bombers fly across the English Channel then fly below the clouds and look for targets of opportunity. The two pilots who would undertake the task in their Spitfires were Pilot Officer Bernard Scheidhauer and Pilot Officer Henri de Bordas, who were part of the Free French Air Force. After making their way across the channel they arrived at St-Aubin-

Sur-Mer, Caen before flying to Carentan, Normandy, on reaching Ecausseville, Normandy P/O de Bordas had become separated from P/O Scheidhauer, whose aircraft had been hit by flack. Making his way west P/O Scheidhauer made a forced landing in a field on what he thought was the Isle of Wight but was in fact occupied Jersey. He was captured by the Germans and sent to Stalag Luft III where he would take part in the 'Great Escape' being paired with Squadron Leader Roger Bushall. Four days after they escaped, they, along with 48 other escapees, were murdered by the Gestapo. Pilot Officer Bernard Scheidhauer, born on the 18th August 1921, died on the 30th March 1944. He was just 22 years old. Pilot Officer Henri de Bordas returned to RAF Westhampnett. He would take part in the Dieppe raid and D-Day and by the end of the Second World War (1939 - 1945) had amassed over 480 hours of combat experience. Born on the 4th October 1921 Henri de Bordas died on the 22nd October 2011 at the age of 90.

Creation of a Messerspit; Despite its crash landing the aircraft was flyable and with its RAF roundel replaced with the Luftwaffe's black crosses it was flown to the Luftwaffe's main test airfield at Rechlin, Germany within a month of its capture. It would be given the code CJ-ZY and painted yellow and green. A number of changes were made to the Spitfire, firstly its 12-volt electrical system was replaced with the Luftwaffe's 24 volt one, its armament removed and its Rolls-Royce Merlin 45 was also replaced with a Daimler-Benz DB 605A engine. It was then be sent to Echterdingen, Stuttgart where a propeller and carburettor scoop from a Messerschmitt Bf 109G was fitted. The Bf 109G was powered by the same Daimler-Benz engine so comparison tests were done between the two aircraft. The Spitfire stayed at Echterdingen, Stuttgart where it would be tested by Daimler Benz pilots and would then spend the next two years as a test bed before being destroyed in a United States Army Air Force bombing raid on the 14th August 1944.

THE AVIA S-199 - ANOTHER RE-ENGINEED MESSERSCHMITT

The Messerschmitt Bf 109 became one of the classic fighting aircraft of World War 2, being progressively updated throughout the conflict to keep the line viable. Towards the end of the conflict, Avia of Czechoslovakia was charged with producing the Bf 109G (G-6 and G-14 models) single-seat fighters as well as the related Bf 109G-12, a twin-seat flight training platform. Despite



this initiative, the war in Europe was over in May of 1945, leaving Czechoslovakia with large supplies of Bf 109 airframes without owners. This led to the company to completing at least twenty-one Bf 109G-6 fighters under the factory designation of "C-10" and these were operated by the Czechoslovakians as the "S-99". The training version, of which twenty-three were completed, became the "CS-99". The S-99 was issued to the Czechoslovakian National Air Guard.

By and large, these aircraft were faithful to their wartime counterparts but lack of additional Daimler-Benz DB605 inline engines soon meant that Avia was forced to find a suitable powerplant replacement - so this became the Junkers Jumo 211F V-12 inline engine of 1,350 horsepower which were readily available to the company (and also powered the wartime Heinkel He 111 medium bombers). The end result was a Bf 109 offshoot designated locally as the "S-199" and, in both form and function, the S-199 was essentially a re-engined Bf 109G model. Armament included 2 x 20mm MG151/20 cannons under the wings and 2 x 13mm MG131 machine guns over the nose. The hub-mounted cannon was not included in the armament mix. Beyond the standard, fixed weaponry was provision to carry a single 551 lb bomb or up to 4 x 155 lb bombs. As completed, the S-199 featured an overall length of 29.3 feet, a wingspan of 32.5 feet and a height of 8.5 feet. Empty weight was 5,850 lb against an MTOW of 8,245 lb. Performance included a maximum speed of 370 miles per hour with a combat radius of 530 miles and a service ceiling reaching 28,500 feet. Rate-of-climb was 2,200 feet-per-minute. The prototype S-199 went airborne for the first time in March of 1947.

CZECHOSLOVAKIAN AIR FORCE

The Czechoslovakia Air Force received its first S-199 in February of 1948 and production by Avia eventually totalled 559 aircraft. The reworked fighter was not an outright success for it proved to have poor handling when compared to the original incarnation mainly due to the replacement engine fit. There was also a possibility of the synchronizing gear for the cowl machine guns to fail and have the pilot shoot off his own propeller during flight. Nevertheless, it was available in the numbers necessary and provided local industry with work and Czech airmen with a flying classroom. Production of the S-199 spanned into 1951 and beyond the S-199 fighter version was the armed CS-199 trainer form (built from the S-199 stock) and the unarmed C-210 trainer. The D-199 was a dedicated reconnaissance platform. For the clunky fighter, Avia, not surprisingly, found no buyers other than the Czech Air Force.

ISRAELI AIR FORCE

But in the spring of 1948 another customer appeared. The nascent state of Israel was poised to declare its independence. Looming on Israel's borders were the armies of five surrounding Arab countries, ready to invade the new nation. Israel urgently needed weapons, armour, munitions, and, especially, military aircraft. Neither of the world's two largest owners of surplus war assets—the United States or Great Britain—was sympathetic. The U.S. Department of State strictly enforced the Neutrality Act, which banned the sale and shipment of war materials to countries engaged in armed conflict, such as Israel. Britain's government was even less friendly, not only imposing an embargo on arms to Israel but also supplying aircraft and training to the Arab air forces. Israel was desperate. Although volunteer airmen had smuggled a handful of surplus transports and training aircraft past the embargo enforcers, they had failed to score any fighters. Israel turned to cash-strapped Czechoslovakia, which was selling arms on the international market. In secret talks, the Czechs let it be known they would sell 25 Avia S-199 fighters to Israel.



No one representing Israel liked the deal—or the ersatz Messerschmitt. The price was outrageous: \$180,000 for each fighter, including weaponry, pilot training, and support equipment. Meanwhile, the superior North American P-51 Mustang was selling in the United States for a mere \$4,000. But the Mustang—and every other modern fighter—was off limits to Israel.

Therefore the de facto head of state, David Ben-Gurion, personally gave the order: Buy the Czech fighters. Send pilots to learn to fly them and do it now! In the Israeli AF, the pilots did not love the Avia S-199 at first sight. Perched on narrow, splayed-out landing gear, the Czech-built fighter had a sinister look that made pilots and potential buyers wary.

And when airmen became better acquainted with the long-snouted warplane, the wariness turned to distrust. To match the Jumo engine, Avia mounted the Heinkel's massive oar-shape propeller, which would turn out to be a dangerous combination for the small airframe of the S-199.

The first band of volunteers—two Americans, one South African, seven native Israelis—arrived at České Budějovice air base on May 11, 1948. Lou Lenart, a wiry former U.S. Marine Corps pilot, made the group's first flight in the S-199. It was nearly his last, recalled Lenart in *The Lion's Gate*, a book published in 2014:

“The big paddle-bladed propeller produced so much left-pulling torque, that the first time I tried to take off, the plane ran away from me clear off the runway, through a fence, and over a cliff.” Lenart fought to keep control while the fighter grudgingly gained enough speed to fly. When he landed back at the airfield, the pilot noticed his fellow volunteers staring at him. They were amazed he was alive. Lenart's inaugural flight was the beginning of a turbulent relationship. To the volunteer pilots, the Czech fighter seemed to have a vicious streak, like an attack dog turning on its handler. The narrow landing gear made the S-199 difficult to keep aligned during take-off. Directional control was made even worse by the enormous torque of the propeller. The Czechs called the S-199 ‘Mezec’ meaning “mule.” The Israeli air force gave the fighter a more menacing name: Messer, Yiddish for “knife.”



The volunteers had barely begun training when, on May 15, the radio in their Czech quarters broadcast the news that Israel's war of survival had begun. “We heard that Tel Aviv had been bombed from the air,” remembered Ezer Weizman in the 1976 book *On Eagles' Wings*. Weizman, who would later command the Israeli air force and eventually be elected president of Israel, recalled the airmen's reaction to the broadcast: “That's enough,” we proclaimed. “We're going home.” While training in Czechoslovakia, only five of the volunteers, those with World War II experience, had qualified in the tricky fighter, and none had flown it more than a few times. The first few S-199s were disassembled and loaded into transports and flown by night to Ekron airfield in Israel.

The war was going badly for Israel. By the evening of May 29, the Egyptian army had advanced northward along the Mediterranean coast to the village of Ashdod, 20 miles from Tel Aviv. Israeli commandos had blown up a bridge, halting the Egyptian forces. By next morning, however, the bridge would be repaired and the Egyptians would be in the city. The existence of the Czech-built fighters at the Ekron airfield was a closely held secret. The newly assembled S-199s had not been test flown. The guns had never been fired. None of the radios worked. But if the Egyptian army was not stopped, none of these concerns would matter.



Four S-199 pilots took off an hour before dark. Lenart, who led the four-ship flight, had never flown in Israel before. Where was Ashdod? he wondered. All the villages along the coast looked alike. Seconds later, it became stunningly clear. A column of enemy trucks and armour stretched for more than a mile south of the bridge at Ashdod. “We started coming down, and right away the whole place erupted,” said Lenart to Leonard Slater, author of *The Pledge*, a book published in 1970. One after the other, the pilots dived on the enemy column. Each dropped his pair of bombs, then swept back down to strafe. After only a few rounds, though, the wing-mounted cannon on each fighter jammed. The mission ended in calamity. The number four S-199, flown by South African Eddie Cohen, was shot down in flames. Israeli pilot Mordechai “Modi” Alon, flying the number two aircraft, swerved off the runway at Ekron in what would be the first of many S-199 gear-demolishing ground loops. Darkness fell, and a mood of despair swept over the little band of airmen. They had inflicted little real damage on the enemy, leading them to

question the value of their efforts. An hour later, they had an answer. Israeli monitors had intercepted a radio message from the Egyptian commander at Ashdod. Stunned by the appearance of Israeli fighters, the Egyptians were halting their advance. Tel Aviv had been saved—for the moment.

At dawn the next day, the two remaining S-199s, flown by Weizman and American volunteer Milt Rubinfeld, attacked a Jordanian-Iraqi armoured column in the north of Israel. Rubinfeld's fighter was hit by ground fire. He barely made it to the Mediterranean shore before bailing out at low altitude. Though seriously injured, he survived. It was an inauspicious debut for the Czech Knife. In the first two missions, two fighters had been lost and one severely damaged. Of the first five pilots, one was dead and another too injured to fly again. But the secret was out: Israel had an air force.



To make it official, the unit was given a designation: 101 Squadron, a grand-sounding label for a ragtag outfit down to one flyable airplane and three pilots. A few evenings later, the Czech Knife rose to glory. Flying the lone remaining S-199, Modi Alon intercepted a pair of Egyptian bombers over downtown Tel Aviv. In view of thousands of astonished Israelis, Alon blew one bomber out of the sky, then the second. He instantly became a hero, and the 101 Squadron's new commander. But Alon's targets had been slow-moving C-47 transports configured as bombers, easy prey for any kind of fighter. How, wondered both Israeli and Arab pilots, would the Czech Knife fare

against a real fighter, like the British-built Supermarine Spitfire? The answer came a few days later. On his first mission in the S-199, newly arrived volunteer Gideon Lichtman engaged a flight of Egyptian Spitfires. "I had a total of 35 minutes in the Messerschmitt," Lichtman told me during an interview in November 2015. "I couldn't find the switch to arm the guns." Frustrated, Lichtman kept flipping switches until he found the right one. Tailing in behind one of the Spitfires, he opened fire. "I saw pieces coming off the Spit, then smoke, and he went down in the desert," said Lichtman. More kills followed. Alon added to his tally, downing another Spitfire. So did World War II pilot Rudy Augarten, who, while flying a P-47, had destroyed two German Bf 109s over France. Other pilots began to score victories.

The Knife was proving to be a potent fighter—once it was in the air. Its behaviour on the ground was another matter; it still had a tendency to careen off the runway on both take-off and landing. When the 101 Squadron moved from the concrete runways of Ekron to a newly bulldozed strip at Herzliya in June, the pilots hoped the Knife would behave better. It didn't. Accidents were so frequent that ground crews assembled a set of long poles to flip upturned fighters the right side up. Not surprisingly, the S-199s were difficult to maintain, and Israeli mechanics laboured in the summer heat to keep them flying. "They were never able to get more than four planes in the air," recalled volunteer Mitchell Flint, whom I interviewed on July 9, 2015.

When the Israelis complained about the S-199's miserable record, the Czechs blamed the crashes on the pilots' lack of experience with the type. Their claim had some validity since the volunteers had received only minimal training in Czechoslovakia before being rushed to the harsh environment of the Middle East. Pilots accustomed to the wide-track landing gear of American fighters—P-47s, P-51s, F4Us—were unprepared for the quirky Messerschmitt undercarriage. The Czech Knife didn't reveal its deadliest trait until the morning of July 9. Lenart was assigned to lead a four-ship raid on the Egyptian air base at El Arish. The mission got off to a rough start when his number two pilot, Californian Stan Andrews, swerved on takeoff, flipped upside down, then blocked the runway for 15 minutes. Down to three fighters and short on fuel, Lenart opted to strike a closer target, the Egyptian-held seaport at Gaza.



Only two S-199s made it back. The third, flown by another young Californian, Bob Vickman, had vanished. Searchers and radio monitors tried all night but failed to learn the fate of Vickman. The next day, it happened again. A pair of S-199s jumped two Syrian dive bombers near the sea of Galilee. The lead pilot, Battle of Britain veteran Maury Mann, made short work of the first bomber, shooting it down in a matter of seconds. Mann's wingman, South African Lionel Bloch, swung in behind the second, chasing him northward toward Syria. That was Mann's last glimpse of Bloch. A second S-199 had vanished.

The following morning, a South African ex-medical student named Syd Cohen jumped in an S-199 and went looking for his lost countryman. Acting on a hunch, he gave the trigger for his nose-mounted machine guns a short squeeze. He felt the rattle of the two guns—and then something else, a different vibration. The following morning, a South African ex-medical student named Syd Cohen jumped in an S-199 and went looking for his lost countryman. Acting on a hunch, he gave the trigger for his nose-mounted machine guns a short squeeze. He felt the rattle of the two guns—and then something else, a different vibration. Back on the ground, Cohen's suspicion was confirmed. All three propeller blades had bullet holes in them. The synchronizer enabling the guns to fire between the blades was flawed. Vickman and Bloch had probably shot off their own propellers.

In October, Israel launched Operation Yoav, an offensive in the Negev desert. Every flyable S-199 was put to use. Alon had returned from a bombing and strafing mission on the coast. In the landing pattern at Herzliya, Alon reported by radio that he had a landing gear problem. That was another S-199 quirk, one or both main gear failing to extend. The remedy was to yank the fighter's nose up and down to coax the gear out of its well in the wing.

While Alon was sorting out his problem, observers on the ground spotted something more troubling. A trail of gray smoke was streaming from the fighter's nose. The controller in the makeshift tower radioed for Alon to check his temperatures. They were okay, Alon replied. It was his last transmission. Seconds later, Alon's fighter nosed down and crashed in flames beside the runway. Modi Alon, flanked by Israeli prime minister David Ben-Gurion became a hero when he scored the Israeli air force's first aerial victories by shooting down Egyptian bombers over Tel Aviv on 3rd June. That evening the pilots huddled at their makeshift bar and talked about what happened. Alon had become a near-mythical hero in Israel, the charismatic young David who had taken on the Arab Goliath. "Everybody in the squadron was crying," remembered Augarten in *No Margin for Error*. "In all the wars I've been in, I had never seen anything like that."



No clear cause for Alon's crash was determined. There was no time to grieve. The war was reaching a climax. Despite the ongoing embargo, more warplanes were joining the Israeli air force, including three Boeing B-17 bombers smuggled from the United States, four Bristol Beaufighter strike aircraft from Britain, and a pair of disassembled USAF P-51s in crates marked "farm equipment." Best of all for the 101 Squadron pilots, Czechoslovakia was providing Israel with World War II surplus Spitfires. With its augmented air force, Israel took command of the sky. By the last day of air combat, January 7, 1949, the Spitfires had shot down 15 hostile aircraft. The P-51s destroyed four. And the S-199s, despite

their calamitous history, accounted for seven air-to-air kills.

For all its treacherous attributes, the Avia S-199 had played a critical role in Israel's formation. The mere sight of the fighter in the early days of the war had terrified the invaders and roused the spirits of the outnumbered defenders. "It was all we had," said Gideon Lichtman. "So, we flew it. And we stopped the enemy."

Without the S-199, the 1948 Arab-Israeli War might have had a different ending.

THE INCREDIBLE STORY OF LARISA SAVITSKAYA



On 24th August 1981 an Aeroflot Antonov An-24, Flight 811 took off from Komsomolsk-on-Amur Airport in the very far east of Russia, over southern eastern Siberia bound for Blagoveshensk. It never arrived.

After an aerial search of the route, a crash site was located in a vast forest in Siberia, miles from any roads or habitation. The rescue team arrived after three days then set about collecting wreckage of aircraft and the pieces of victim's bodies. The whole process, the search team found very distressing, but more so when a 'body' in its seat, suddenly slapped itself on the face to kill a mosquito. It took some moments for the confused members of the search group to realize that in front of them was a living crash survivor. After a fall from 5,000 meters (16,404 ft) without a parachute the girl was alive. When their shock

passed, they lifted university student Larisa in their arms and on to a stretcher for an immediate evacuation to hospital where doctors determined that Larisa Savitskaya's spinal cord was broken in five places, and her arm and ribs were broken, and she had suffered concussion and lost almost all her teeth. Doctors told her that graves have already been prepared for everyone including her as no one was expected to survive.

In 1981, a 20-year-old student at the University of Education Larisa Andreeva married 19-year-old medical student Vladimir Stavisky in the city of Blagoveshensk in Russia. Due to the university exams, the "honeymoon" was postponed to August. This young couple were both only 20 years old when the tragedy happened. During the honeymoon the spouses visited Larisa's family in Vladivostok and Vladimir's parents in Komsomolsk-on-Amur. It was then time to return to Blagoveshensk, where they both studied. Strangely, that despite the difficulty to get tickets during the high summer season on that flight, the plane was almost empty. Before departure the flight was delayed for four hours due to difficult weather conditions. Their reserved seats were in the front, but before departure Larisa felt that it would be better to relocate to the tail. Sitting at the window, the girl fell asleep almost immediately. Her awakening was scary. The girl woke up from a strong blow. The temperature immediately dropped from +25 degrees to -30 degrees celsius. The skin was burning. Around were the cries of passengers, howling, it suddenly became very cold. Larisa turned to her husband, and saw that his face was covered in blood. From the position of his body, his unnatural gaze, she realized that Vladimir was no more. She recalled that instead of the fear and panic came the indifference. I wanted everything to end quickly and without pain. She thought about a scene from the Italian movie "*Miracles Still Happen*" where "a girl landed in a jungle still in her seat, so I thought it was better to sit down to soften the shock of the landing." said Larisa. The movie she referred is a 1974 film by Giuseppe Maria Scotese documenting the true story of Juliane Koepcke, who survived a 10,000-foot-fall after LANSIA flight 508 was struck by lightning and disintegrated over the Peruvian jungle in 1971. All 91 other passengers and crew were killed, but Juliane survived after her row of seats acted like a crude helicopter and slowed her fall, such that she was not severely injured on impact with the ground. (Some other passengers also survived the fall for similar reasons, but were too badly hurt to move, and subsequently died.) Finding herself alone in the Amazon, she wandered through the jungle for 10 days, until she was rescued after stumbling across a logging camp. Incredibly Larisa had watched this movie just *two days before her flight*. Suddenly faced with the same situation she had seen in "*Miracles Still Happen*," Larisa Savitskaya decided that she would try to learn from the experience of Juliane Koepcke.

During the explosion Larisa was thrown out of the chair but managed to climb back into it despite her badly injured arm. She clung to the armrests, cringed and planned to die without suffering. Most important of all was one scene, where the heroine survived a plane crash while strapped into her seat. Somehow, I got to a seat. I didn't even think of buckling up; action preceded conscious thought. I started to watch through the window, in order to "catch" the ground. I needed to anticipate the impact in time. I'd given up any hope of survival; I just wanted to die painlessly. There was a very thin layer of clouds, then a flash of green, and boom! I landed in the taiga, on top of a birch tree—lucky again! I had a concussion, my spine was damaged in five places, and I had fractured hands, ribs, and feet. Almost all my teeth were knocked out. When the wreckage hit with still in in, Larisa lost consciousness. The part of plane where Larisa was sitting, headed to the ground not straight but slightly swinging in the air like a pendulum. Experts say that because of this, Larisa's fall of her part of the plane was reduced and took 8 minutes, which together with the birch trees somewhat cushioned her fall, but only by a small amount as everyone else was killed. Her survival was pure luck!

Larisa then woke after few hours in the forest. Larisa tried to call other passengers hoping that someone else had survived, but the answer was a silence. Nearby was her husband's body. "I opened my eyes and the first thing I saw my husband's body. He was lying in front of me, 3-4m away. It felt like he wanted to see me one last time, like he was saying goodbye to me" - she said. Rain washed his face of his blood to uncover a terrible wound. Larisa covered his face with a blanket. Larisa still remembers the horror of the scene and of the pain she felt. She was injured but managed to make a shelter with the wreckage roof over her chair, which protected from rain. The hope for a quick rescue was futile because the collision occurred far from the human civilization. In order not to freeze, Larisa collected chair covers and wrapped herself in. Larisa eat blackberries that have grown in abundance around there and sausages from somebody's baggage. Later the rescue team discovered another woman that also landed alive but without immediate help died from injuries in the second day after the crash. The rain ended on the third day when Larisa saw helicopters. She waved her hand, trying to give a signal but the helicopter pilots mistook her for a local geologist - no one believed in the surviving passengers.

The cause of the plane crash was a collision with a Tupolev Tu-16K. At 16:21, one of the Tu-16K bombers crashed headlong into Aeroflot flight 811. In all likelihood, neither crew ever saw the other, even though they were flying in clear conditions. The impact was incredibly brutal. Both wings were ripped off of the An-24 while the Tu-16K broke in half and caught fire. As it plunged to the ground, the An-24 split into several pieces, spewing debris and passengers into the summer sky. As was typical of the Soviet era, news of what happened to the An-24 p, which operated a flight on the route Komsomolsk-on-Amur - Blagoveshchensk was officially censored and only announced many years later, due to the involvement of Tu-16K. On the day of the collision, the airline's official route had to be crossed by the Tu-16 several times, but the Tu-16K, flying from the Zavitsinsk military airfield was not informed the An-24 on their flight route. As a result, the Tu-16 pilots changed flight level and it is said that the An-24 crew, in turn, slightly deviated from its flight corridor. However, the cause was the lack of interaction between military and civilian air traffic controllers. The official investigation came to the conclusion that both crews were responsible, which was probably so as not to embarrass the glorious Soviet Air Force. On board the An-24 were 27 passengers and 5 crew members, on board the bomber Tu-16 there were 6 crew members. Of the 38 people 37 were dead.



Larisa remembers; "The planes collided tangentially. The wings of the An-24 were ripped off together with the fuel tanks and the roof. For a few very long seconds the plane turned into something like a boat. At that moment I had been sleeping. I remember a terrifying impact, and a burning sensation—the temperature immediately dropped from plus 25°C to minus 30°C. There were terrible screams, and the whistle of the wind. My husband died immediately—in that moment, life ended for me. I didn't even cry. Due to the grief, I couldn't feel fear." "The 'boat' then broke into two pieces. The tear passed right in front of our seats. I turned out to be in the tail section. I was thrown into the aisle and straight back to the bulkhead. At first, I lost consciousness, then as I came back to myself, I thought not about a death, but about pain. I didn't want the fall to be painful. And then I remembered an Italian film called 'Miracles Still Happen'" "When the rescuers found me, they couldn't say anything except "Muu-, muu" I understand their confusion, for three days they'd been collecting pieces of corpses out of the trees, and suddenly they saw a living person. And I kind of looked like a dead person. I was entirely coloured like a prune with a silver shimmer—the paint from the fuselage was extremely annoying; mother of god, I was picking it out of my hair for a month! And because of the wind, my hair had turned into something like a big lump of steel wool."- recalled Larisa. After the crash, Larisa was eventually nursed back to health but in the Soviet Union, matters were never straight forward. As a student and a widow, she didn't get any disability allowance. She didn't have a life insurance for her husband. Doctors also shrugged, as although she was seriously injured in the accident, it was declared that separately all her wounds were harmless. The collection of minor injuries couldn't provide her with a disability percentage sufficient to get the disability allowance, according to the state regulations. Therefore, Larisa received just US \$20 equivalent in compensation from the state insurance company, placing her in the (Russian) Guinness Book of Records as receiver of *the smallest amount of compensation as a paying passenger in a plane crash* (and not for surviving a 16,404 ft fall!).

Despite the pain in her spine, a year later she finished her university study and got a degree. Later Larisa moved to Moscow and contrary to medical advice, she gave a birth to the son. Surprisingly, she is not afraid to fly in a plane. Credit: **Савицкая, Лариса Владимировна — Википедия**

MORE VICKERS VIKINGS BY BRIAN A L JONES – PART 2

Following on from Part 1 in the previous issue I have gathered together a further photo collection of Vickers Viking airliners, so reminiscent of sights and sounds of London's Gatwick Airport, in the 1950s (well except the RR Nene powered Viking!). Some of the photographs used here are unattributed. I apologise in advance for not being able to establish the original source.



Initially registered to the Minister of Aviation, the first jet powered airliner to carry passengers. The Rolls-Royce Nene powered Viking set a record time for a London (Heathrow) to Paris (Villacoublay) flight of 34 minutes & 7 seconds on 25 July 1948. After Eagle purchased the aircraft in December 1953, they converted it to piston engine power before it joined their operational fleet in October 1954. It was eventually scrapped at Heathrow in 1962 and the remains deposited in a gravel pit at Bedfont, Middlesex



In a similar livery, G-AJBW "Sir William Cornwallis" was employed by Eagle for exactly three years, commencing in June 1955 before passing to Airnautic as F-BFDN. It subsequently crashed into the sea off Traliceto, Corsica on 5 June 1959.



The liveries of Eagle's Vikings underwent several changes. Flying in the face of convention, this red topped version was introduced in 1957. G-AGRS was purchased from Independent Air Travel in that year and was sold two years later to Orion Airways. (Peter Keating)



G-AHPG, seen here at Blackbushe, was initially operated by BEA in September 1946 as "Velocity", before use by Central African Airways from March 1947, Suidair in December 1949, back to Central African by June 1950. Reverting to its British registration it was operated by Independent Air Travel from April 1957 and was sold to Falcon Airways in March 1959. Moving to Luxembourg ownership in 1961, then back to Southern Africa, it ended its days as a snack bar in Blantyre, Malawi.



Independent Air Transport made newspaper headlines for the wrong reasons. One of their nine Vikings crashed at Southall, Middlesex, after setting off on a freight flight to Israel flight from Heathrow on 2 December 1958. The subsequent enquiry revealed concerning evidence of irresponsible maintenance practices. The Viking illustrated is G-AHPG, the history of which is revealed in the preceding account.



This strange scene at an unknown, probably British, airport seems to show passengers carrying their own baggage both approaching and leaving Tradair Viking G-AKTV. An ex-services battery starter unit is positioned under the nose of the aircraft. Purchased from Airwork, the Viking joined the Southend Airport based airline on 13 May 1959, passing to Channel Airways in December 1962 after takeover by that company and subsequently withdrawn from use in September 1963.



One of three Vikings delivered to the Royal Air Force for the King's Flight, VL247 is seen here at Brooklyn (now Ysterplat) Air Base, near Cape Town, during the Royal South African Tour 1947. After subsequent use by the Queen's Flight it was delivered to Tradair in September 1960, transferring to Channel Airways in January 1963, Broken up at Southend Airport, after use as a cabin-trainer, in February 1965. (via Etienne du Plessis)



Aer Lingus ordered seven Vikings in 1946, with the first being delivered in June 1947. EI-ADG above was the second in that order. All were sold by the end of 1948 when it was evident that the Airline's introduction of new routes across Europe were too ambitious and the type had failed to gain passenger approval. (Daily Telegraph)



After service as G-AJBR with BEA from 1947 to 1954, this Viking was sold to BKS and named "Amy Johnson". Shown here on lease to Lufthansa from one of that Company's subsidiaries in 1960 it returned to British registry in April 1964 with Autair but was broken up at Luton at the end of that year.

References; *Airlines & Airliners Vickers Viking* by Reg Baram, TAHS. *British Independent Airlines* – A.C Merton Jones, TAHS and *The Eagle Years* by David Hedges, TAHS

More Vikings in Part 3

AIRLINE AND AIRLINER NEWS FOR JANUARY & FEBRUARY 2020 - BY JOHN R ROACH

Bahamasair failed to add required updated ADS-B avionics to its three Boeing 737-500s according to The Tribune reporting from the Bahamas. The Federal Aviation Administration (FAA) had required all operators in American airspace to have the more precise equipment by the beginning of 2020.

International Airlines Group (IAG) announces that Willie Walsh has decided to retire as chief executive. He will stand down from the role and from the Board of IAG on March 26, 2020 and will retire on June 30, 2020. Luis Gallego, currently Iberia chief executive, will succeed Willie.

Icelandair has renewed an agreement with the US airline JetBlue on the airline's scheduled flights. This is a partnership agreement which means that both airlines can sell and issue airline tickets with each other. Thus, Icelandair customers can purchase a ticket from Iceland to a number of JetBlue's destinations in the US, the Caribbean, Central and South America. At the same time, JetBlue customers are able to purchase tickets to Iceland and many of Icelandair's destinations in Europe.

In a surprise move, the Iranian armed forces admitted to accidentally shooting down a Boeing 737-800 flown by **Ukraine International Airlines** on 8 January.

Airbus has revealed cancellations for 33 A350s, all the -900 variant, in its end-of-year backlog revision. The European manufacturer has revealed an order for 40 A330neo jets was placed in the last month of 2019, helping to lift the re-engined type's net total for the year. Airbus has disclosed that it took 768 net orders last year and delivered a total of 863 aircraft, up on the previous year's 800.

Colombian airline **Avianca** has cancelled 20 Airbus A320neo purchase commitments and delayed Airbus deliveries of A320neos until 2025, marking another step in the carrier's financial transformation effort.

Boeing's efforts to keep 737 Next Generation and MAX training as similar as possible included limiting external discussion of the manoeuvrings characteristics augmentation system (MCAS) as early as 2013, as well as an aggressive lobbying effort to dissuade Lion Air from requiring simulator sessions for its pilots, new documents released by the manufacturer reveal. Boeing is facing a second civil penalty for installing unairworthy slat tracks on 737s—this one covering 178 MAXs.

Many pilgrims go to Lourdes for rejuvenation and healing. It has not worked the same way for two former **Singapore Airlines** Airbus A380s. At Tarbes–Lourdes–Pyrénées Airport (LDE) the first two A380s are facing a sad end to their relatively short airline careers. The first two Airbus A380s (9V-SKA msn 003 and 9V-SKB msn 005, above) to enter airline service are now being scrapped out at the airport. This work started a few weeks ago.

Spirit Aerosystems, the leading aerostructures provider and Boeing's top supplier, announced 10th January it is laying off employees in Wichita due to the open-ended production halt at both companies over the 737MAX.

Italian operator **Ernest Airlines** suspended its operations on January 11th 2020 following having its operating license being temporarily suspended by the Italian Civil Aviation Authority, ENAC.

British Airways announced that it will be starting year-round flights from London to Portland, Oregon.

This will be the airline's 27th US destination. The service is due to begin on 1st June 2020 and will be five times per week flight with Boeing 787 aircraft.

Eastern Airways is re-entering the E-Jet market during January with the initial return of the Embraer 170 aircraft type to its fleet. The UK regional airline is seeing significant growth in the ad-hoc charter market for 70-100 seat jets, and the first of these aircraft will be delivered later this month. As part of the expanding E-Jet fleet, the regional operator will also add three of the larger Embraer 190 during the year.

Airbus has started operating the first of the six Beluga XL high-capacity transports it is building to facilitate production ramp-up. The A330-based aircraft completed its first operational flight on 9 January, says the airframer. EASA certification was secured in November 2019, following a test campaign of more than 700h across some 200 flights since the first in July 2018. All six Beluga XL freighters will be operating by the end of 2023.

Boeing has released its 4th Quarter and 2019 year-end aircraft deliveries numbers, which were tremendously hurt by the ongoing 737 MAX crisis that has forced the grounding and halted its production. As seen in Boeing's official tally below, it is clear that the North American plane maker has severely suffered from the grounding of its 737 MAX programmes, with only delivering a total of 380 planes for the whole year.

Last year, before the Boeing 737 MAX crisis unfolded, the company had reported 806 aircraft being delivered in 2018, smashing its 2017 record of 763 deliveries.

Boeing civil aircraft deliveries

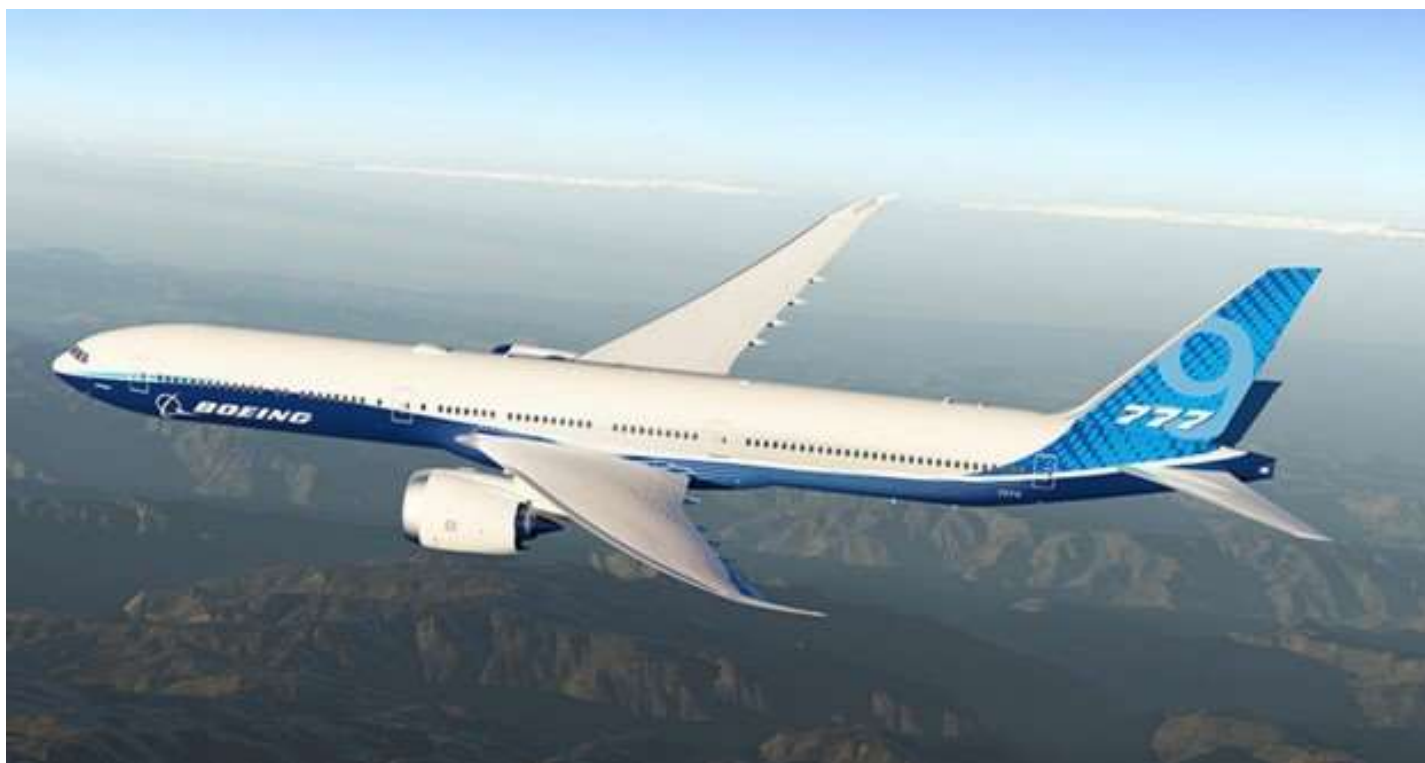
4th Quarter 2019	Aircraft delivered in 2019	
737	9	127
747	2	7
767	11	43
777	12	45
787	45	158
TOTALS	79	380

This year, however, the majority of the manufacturer's deliveries were led by the 787 Dreamliner program, responsible for 158 jets that were delivered out to worldwide customers. Boeing's total deliveries are tremendously behind its European counterpart, Airbus. The European plane maker managed to deliver 863 commercial planes; an 8% increase compared to 2018's 718 deliveries.



Just part of the 254 stored Boeing 737 MAX aircraft seen at Moses Lake in Nov 2019. Photo by Brian Worthington

Boeing are informing their customers and suppliers that they are currently estimating that the ungrounding of the 737 MAX will begin during mid-2020. This updated estimate is informed by the manufacturer's experience to date with the certification process. Southwest Airlines says that it lost almost a billion dollars in operating income due to the grounding of the Boeing 737 Max aircraft, as it joins other airlines in scrambling to find capacity and make up for the jet's ongoing problems. The new Boeing 777X jetliner took to the skies on January 25, 2020, entering the next phase of its rigorous test program. Based on the popular 777 and with proven technologies from the 787 Dreamliner, the 777X took off in front of thousands at Paine Field in Everett, Washington, at 10:09 a.m. local time for a three-hour 51-minute flight over Washington state before landing at Seattle's Boeing Field. And after landing retracted its outer wings.



Boeing 777X seen on its first flight on 25th January (photo Boeing)

Delta Air Lines Boeing 777-200ER (N860DA) departed Los Angeles International Airport as flight DL 89 from LAX bound to Shanghai, China on January 14, 2020. The flight crew decided to return to LAX due to a compressor stall after take-off and never got above 8,000 feet. In order to lighten the landing weight, the crew dropped jet fuel, dousing several students at the Park Avenue Elementary School in Cudahy, CA.

Braathens Regional Airlines has axed a long-standing order for Airbus A220s, and plans to wet-lease Embraer 190s for regional jet operations. BRA evolved from the merger of Malmö Aviation with other carrier operations and inherited the order for 10 Bombardier CRJ jets originally placed by Malmö in 2011.

National Airlines, announced the Airbus A330-200 as its newest addition to its fleet, joining Boeing 747-400 Freighter and Boeing 757-200 Passenger Aircraft. This aircraft has been delivered with its N819CA registration in National's striking Blue and Silver livery.



German Airways is to bring in another three Embraer 190s this year as part of its transition to an all-jet fleet. The carrier has emerged from parent Zeitfracht Group's combination of regional operators LGW and WDL. LGW has 15 Bombardier CRJ400s while WDL has four E190s in service. German Airways states that three more of the jets "have been ordered" for 2020.

The owner of **LOT Polish Airlines** has agreed to purchase former Thomas Cook Group subsidiary Condor. The German leisure airline said on 24 January that the deal with Polish Aviation Group (PGL) secures "our future in the long term" The Condor brand will be retained, along with "its successful management team", PGL states.

Airbus is to increase its A321 production capability, by converting its A380 facilities in Toulouse in order to accommodate a digitally-enabled A321 final assembly line. It will introduce A321 production to Toulouse for the first time – Airbus's largest single-aisle variant is currently built in Hamburg Finkenwerder and Mobile. The airframer says the change, to be in place by mid-2022, will provide "more flexibility" for A321 production.

Island Express Helicopters issued this statement concerning the crash of N72EX carrying NBA legend Kobe Bryant, his daughter and others: One of our helicopters, N72EX, Sikorsky S-76B, was involved in an accident on Sunday, January 26, 2020 in the Calabasas area of LA County.

India's government is seeking expressions of interest from investors following its approval, in principle, for the divestment of flag-carrier **Air India** – with the entire share capital on offer, along with the whole of Air India Express and 50% of its handling joint venture AISATS.

Azul is to sub-lease its entire fleet of Embraer 195s to Polish flag-carrier LOT and US start-up Breeze Aviation, in order to accelerate a transition to the more fuel-efficient E195-E2 variant. The Brazilian airline has disclosed a letter of intent for the sub-lease of 18 firm aircraft and 14 options to LOT, subject to the Polish flag carrier's corporate approvals. LOT had already previously acquired seven E195s from Azul.

Air Greenland has tentatively agreed to take a single Airbus A330-800 to replace the carrier's ageing A330-200. The 305-seat aircraft – currently the subject of a memorandum of understanding, according to Airbus – is set to be delivered in 2021. It will mark a powerplant switch for the airline, because its 22-year old A330 is fitted with Pratt & Whitney PW4000 engines while the A330-800 will have Rolls-Royce Trent 7000s.

Taiwan's Ministry of Transportation and Communications (MOTC) has revoked the operating licence of now-shuttered **Far Eastern Air Transport (FAT)**. The airline went belly up on 13 December, owing to "long-term operating losses" and difficulty in raising sufficient funds.

Etihad Airways is selling its fleet of 16 Airbus A330-200s and six A330-300s. It is also selling its 16 Boeing 777-300 ERs but will lease them back.

Ryanair's three subsidiaries reports that Malta Air continues to grow strongly and has taken over the Group's French, German, Italian and Maltese bases. Its fleet will grow to 120 aircraft by summer 2020. Lauda continues to underperform with fares much lower than expected, despite strong traffic growth and high load factors. This is a direct result of intense price competition with Lufthansa. Lauda will grow its fleet from 23 to 38 A320s by the Summer of 2020 with increased capacity in Vienna and a new base in Zadar. In third quarter of 2019 Buzz increased its fleet to 32 Boeing 737s and expanded outside Poland with new bases in Prague and Budapest. Buzz will grow its fleet to 50 Boeing 737s for the summer of 2020, with 7 aircraft in Polish charter operations and 43 operating scheduled flying for Ryanair.

Airbus SE, the Government of Québec and Bombardier Inc. have agreed upon a new ownership structure for the A220 program, whereby Bombardier transferred its remaining shares in Airbus Canada Limited Partnership (Airbus Canada) to Airbus and the Government of Québec. The transaction is effective immediately.

Due to the strong storm force winds today, British Airways and then **Virgin Atlantic** broke the subsonic New York JFK – London LHR record. The latter was accomplished in an Airbus A350-1000, doing the journey in 4 hours 47 minutes, apparently reaching 724 knots ground speed with a 218 knots tailwind, burning 22 tons less fuel than the BA 747.

AtlasGlobal Airlines has filed for bankruptcy and ceased all operations on February 12, 2020. The last flight was to Baghdad. On January 29, 2019, it was announced that the company returned their two Airbus A330-200s (top) to their lessors. The Airline was established on March 14, 2001 in Turkey, licensed to carry out "Passenger and Cargo Transportation on Unscheduled Flights, Domestic and International" and operated its first flight on June 1, 2001.

JetBlue Airways today marked its 20th birthday, commemorating its first revenue flight between New York and Fort Lauderdale/Hollywood on February 11, 2000.

The collapse of **Air Italy**, as well as start-up Ernest Airlines suspending operations in January, means that in just two months into the new decade, Alitalia is by a distance the most significant Italian carrier in operation. Only four of the 30 biggest operators across Italian routes by seat capacity are from Italy now that Air Italy has ceased flights.

Alaska Airlines will join Oneworld alliance as a full member by mid-2021, allowing American Airlines to connect flights through the Seattle-based carrier's West Coast network. Qatar Airways following the failure of Air Italy, has increased its share of the IAG Group. The airline issued this short statement: The airline announce that it has increased its shareholding in International Consolidated Airlines Group, S.A. (IAG) from 21.4 percent to 25.1 percent.

Boeing has ordered the inspection of all undelivered 737 Maxes, after it found debris in the wing fuel tanks of some of the grounded narrow bodies. The airframer states that it has also recommended 737 Max customers globally with aircraft in active storage for more than a year to inspect the fuel tank for foreign object debris (FOD). There are 386 737 Maxes in storage, with more than 4,500 aircraft on order. The Federal Aviation Administration intends to prohibit 737 Max flights until each aircraft undergoes inspections related to risks posed by lightning strikes. The FAA on 25 February proposed an order related to the lightning concern, which differs from the flight control software issue

A proposed law targeting changes in U.S. aircraft certification calls for tweaks to the FAA's delegation system, but the bill's more significant elements include adding operational data, such as minimum training requirements, to type certificates (TCs) and prohibiting aircraft sales to countries that do not pass the FAA's international safety audit.

Cape Air has become the first operator to begin revenue flights of the Tecnam P2012 Traveller, having dispatched the type on an inaugural commercial flight from its Hyannis base to Nantucket island on 22 February. The Cape Cod, Massachusetts-based carrier, using P2012s to replace some 80 Cessna 402Cs, has since placed several P2012s into service as it evaluates the type's performance. The aircraft have also operated Hyannis-Boston and Boston-Nantucket flights.

China Eastern Airlines has unveiled its new subsidiary, OTT Airlines, which will mainly operate Chinese-made aircraft, including Comac's ARJ21 regional jet, and the C919 narrow body. OTT, which is wholly-owned by China Eastern, will be based at Shanghai Hongqiao Airport, and will primarily serve the Yangtze River Delta region and other points along the coastal regions.

Scandinavia's SAS has outlined the preconditions for placing an order to renew the mid-sized fleet of single-aisle jets serving its regional network. It says that some 20% of its network uses Airbus A319s and Boeing 737-700s and that using aircraft of the appropriate size is important for both financial and sustainability reasons. "However, these aircraft will need to be replaced in the next few years," says SAS chief Rickard Gustafson, speaking as the airline unveiled first-quarter results.

European authorities have certified the Airbus A321 passenger-to-freighter conversion undertaken by the airframer's EFW joint venture with ST Engineering. Approval of the supplementary type certificate by the European Union Aviation Safety Agency follows the maiden flight of the initial converted aircraft on 22 January. The aircraft is set to be delivered to Vallair.

HISTORIC AVIATION NEWS FOR MARCH AND APRIL 1970,1980 AND 1990 - BY JOHN R ROACH

1970

March 6 British European Airways opens its charter services as BEA Airtours.

March 6 A Handley Page HP-137 Jetstream 1 (registration D-INAH) suffers engine failure on approach to Samedan Airport outside St. Moritz, Switzerland, and crashes 1.8 miles short of the runway, killing all 11 people on board

March 10 – A young husband and wife, Eckhard and Christel Wehage, hijack an Interflug Antonov An-24 with 15 other passengers on board during a domestic flight in East Germany from East Berlin to Leipzig, demanding to be flown to Hanover, West Germany. The pilot claims not to have enough fuel to reach Hanover, so the Wehages agree to land at Tempelhof Airport in West Berlin. When the plane lands at Schönefeld Airport in East Berlin instead, the Wehages commit suicide.

March 11 Four passengers hijack an Avianca Boeing 727-59 (registration HK-1337) with 78 people on board 20 minutes after take-off from Bogotá, Colombia, for a domestic flight to Baranquilla, demanding to be flown to Cuba. The airliner refuels at Baranquilla before proceeding to Havana, Cuba.

Flying under the name "R. Evans" and accompanied by his wife and their four young daughters, 36-year-old Clemmie Stubbs hijacks United Airlines Flight 361 – a Boeing 727 flying from Cleveland, Ohio, to West Palm Beach, Florida – as it passes over Pittsburgh, Pennsylvania, and forces it fly to Cuba, where he believes his family will prosper and flourish under the communist regime of Fidel Castro. Imprisoned in Cuba, he will be killed in a prison escape attempt in 1973, and his family will return to the United States in 1974.

March 12 A hijacker commandeers Varig Flight 921, a Boeing 707-345C (registration PP-VJX) during a flight from Santiago, Chile, to London and forces it to fly to Cuba.

March 14 A Paraense Transportes Aéreos Fairchild FH-227B (registration PP-BUF) on approach to Val de Cans International Airport in Belém, Brazil, crashes into Guajara Bay 2,625 feet short of the runway, killing 38 of the 40 people on board.

March 16 A United States Navy Lockheed EC-121K Warning Star (serial 14527) attempting to land at Da Nang Air Base in Da Nang, South Vietnam, with its No. 3 engine feathered stalls, crashes, cartwheels into a United States Air Force hangar area, and breaks into three pieces, with its cockpit and fuselage forward of the wing sliding into a revetment wall and burning, its centre section landing upside down in a street and burning, and its tail section landing on a softball field. Of the 28 men on board, 23 die, four suffer grave injuries, and one walks away from the tail section unharmed.

March 17 – Unable to pay his fare aboard Eastern Air Lines Flight 1340 – a Douglas DC-9-31 (registration N8925E) with 73 people on board operating a shuttle service from Newark, New Jersey, to Boston, Massachusetts – John DiVivo pulls out .38-calibre revolver and orders the pilot to "just fly east until we run out of gas." After about 15 minutes, the captain convinces DiVivo that the airliner will crash into the Atlantic Ocean soon if it does not refuel. Although DiVivo approves a refuelling stop, he shoots both pilots when they start to turn the plane. A struggle ensues in the cockpit, during which the mortally wounded co-pilot knocks the revolver from DiVivo's hand and the captain, despite serious wounds in both arms, picks it up and shoots DiVivo in the chest. The captain then lands the DC-9 at Logan International Airport in Boston, where DiVivo is arrested. The co-pilot is the first pilot killed in a U.S. hijacking. DiVivo hangs himself in his jail cell on October 31.

March 24 Two hijackers commandeer an Aerolineas Argentinas de Havilland DH-106 Comet 4 (registration LV-AHN) with 62 people on board during a domestic flight in Argentina from Córdoba to San Miguel de Tucumán, demanding to be flown to Cuba. The airliner stops at Santiago, Chile – where the hijackers allow 14 people to disembark – and at Lima, Peru, before arriving at Havana, Cuba.

March 28 A United States Navy F-4J Phantom II fighter of Fighter Squadron 142 (VF-142) shoots down a North Vietnamese MiG-21 fighter. It is the only American air-to-air kill in the Vietnam War between September 1968 and January 1971.

March 30 A Royal Malaysian Air Force de Havilland Canada DHC-4A Caribou (serial M21-10) crashes into Malaysia's Cowie Bay, killing all 10 people on board.

March 31 In what becomes known in Japan as the Yodogo Hijacking, nine members of the Japanese Communist League-Red Army Faction, a predecessor of the Japanese Red Army, hijack a Boeing 727-89 operating as Japan Airlines Flight 351 with 129 other people on board on a flight from Tokyo to Fukuoka, Japan. They release their hostages during stops at Fukuoka and at Seoul, South Korea, before proceeding to Pyongyang, North Korea, where they surrender to North Korean authorities who grant them political asylum. The future Roman Catholic archbishop and cardinal Stephen Fumio Hamao is a passenger on the plane, and one of the hijackers is Moriaki Wakabayashi, a bass guitar player who was an early member of the avant-garde rock band Les Rallizes Denudes.

April 1 Aeroflot Flight 661, an Antonov An-24B (registration CCCP-47751) on a domestic flight in the Soviet Union from Novosibirsk to Krasnoyarsk, collides with a Hydrometeorological Research Centre of the USSR radiosonde weather balloon over Novosibirsk Oblast about 12.5 miles southeast of Toguchin at an altitude of 5,400 meters (17,716 feet). The collision detaches the nose section of the An-24B, and the aircraft enters a steep descent and begins to disintegrate at an altitude of 6,562 feet, some of its pieces catching fire before landing on farm land. All 45 people on board die.

April 2 Royal Air Inter, a subsidiary of Royal Air Maroc, is formed to fly domestic routes in Morocco using Fokker F27 Friendships, begins flight operations.

April 4 After the crew of Aeroflot Flight 2903, an Ilyushin Il-14P (registration CCCP-52002), notices that they are low on approach in poor visibility to Zaporozhye Airport at Zaporozhye in the Soviet Union's Ukrainian Soviet Socialist Republic and initiates a go-around at an altitude of 131 feet, the airliner's right wing strikes the ground during a turn and the plane crashes, killing seven of the 35 people on board.

April 10 A United States Air Force Lockheed C-130A Hercules (serial 56-0516) (operated by Air America) suffers a double engine failure and attempts to ditch in the Pacific Ocean off Okinawa, killing all 11 people on board.

April 10 An Aerocosta Colombia Curtiss C-46D-10-CU Commando cargo plane (registration HK-1281) with 11,023 pounds of carcasses and a crew of four on board disappears over the Caribbean Sea during a flight from Santa Marta, Colombia, to Pointe-à-Pitre, Guadeloupe.

April 14 An Ecuatoriana Douglas C-54D-1-DC Skymaster cargo plane (registration HC-AON) crashes immediately after take-off from Miami International Airport in Miami, Florida, for a flight to Quito, Ecuador, killing its two-man crew.

April 18 Two Soviet Navy Tupolev Tu-20 (NATO reporting name "BEAR D") reconnaissance/missile-targeting aircraft land at José Martí International Airport outside Havana, Cuba, the first time that any variant of the BEAR has landed outside the Soviet Bloc. The visit begins periodic flights by BEAR D and Tupolev Tu-142 (NATO reporting name "BEAR F") aircraft between the Soviet Union and Cuba that continue until the Soviet Union's collapse two decades later.

April 21 An explosion in a lavatory blows the tail off of a Philippine Air Lines Hawker Siddeley HS 748-209 Srs. 2 (registration PI-C1022) as it cruises at 10,500 feet over Cabanatuan on Luzon in the Philippines. The airliner crashes, killing all 36 people on board.

April 22 Twenty-six-year-old Ira David "Orrie" Meeks and his 17-year-old girlfriend hire pilot Boyce Stradley to take them on a sightseeing flight in a Cessna 172 over Gastonia, North Carolina, during which Meeks pulls a gun on Stradley and orders him to fly them to Cuba so that Meeks can "get away from racism in the United States." During the 11-hour trip to Havana, Cuba, the plane makes refuelling stops at Rock Hill, South Carolina, Jacksonville, Florida (where Meeks requests but is denied a bottle of Scotch whisky, and Fort Lauderdale, Florida. Upon arrival in Cuba, Meeks and his girlfriend are arrested, and Stradley flies back to a hero's welcome in Gastonia.

April 23 At Pellston, Michigan, a hijacker takes control of North Central Airlines Flight 945, a Douglas DC-9 with four people aboard scheduled to fly to Sault Ste. Marie, Ontario, Canada, and demands to be flown to Detroit, Michigan. The hijacker is overpowered.

April 24 The United States begins Operation Patio, involving air strikes up to 18 miles inside Cambodia.

April 25 An Italian Air Force Fairchild C-119G Flying Boxcar (serial MM52-6018) suffers an engine failure during its initial climb from Rivotto Air Force Base in Codroipo, Italy, and crashes, killing 17 of the 19 people on board.

April 25 A hijacker commandeers a VASP Boeing 737-2A1 (registration PP-SMC) during a domestic flight in Brazil from Brasilia to Manaus and forces it to fly to Guyana and then on to Cuba.

April 26 Lufthansa begins wide-body airliner service with a Boeing 747 flight.

1980

March 10 A hijacker commandeers a Middle East Airlines Boeing 707 flying from Amman, Jordan, to Beirut, Lebanon, and demands to be allowed to make a political statement. The hijacker surrenders at Beirut.

March 12–14 – Two United States Air Force B-52 Stratofortresses make a non-stop round-the-world flight in 42.5 hours

March 14 One of the fuel tanks of a USAF Lockheed C-130H Hercules (serial 74-2064) explodes while it is on approach to Incirlik Air Base in Adana, Turkey, and it crashes 9.4 miles west of the base, killing all 18 people on board.

March 14 The Ilyushin Il-62 named Mikołaj Kopernik (registration SP-LAA), operating as LOT Flight 7, crashes into the moat of a military fortress near Okęcie Airport in Warsaw, Poland, as the crew attempts a go around after a mechanical failure forces them to abort a landing. All 87 people on board die, including Polish singer Anna Jantar, American ethnomusicologist Alan P. Merriam, and a contingent of the United States amateur boxing team.

March 19 Pudahuel International Airport in Pudahuel, outside Santiago, Chile, is renamed Comodoro Arturo Merino Benítez International Airport.

March 20 A CAAC Airlines Antonov An-24RV (registration B-484) on a domestic flight in the People's Republic of China from Guiyang to Changsha crashes near Changsha Huanghua Airport, killing all 26 people on board.

March 27 A Lufkin Industries Beechcraft 200 Super King Air (registration N456L) crashes in an open field north of Parker, Colorado, about 13 miles east of Arapahoe County Airport, due to severe icing, killing all 10 people on board.

March 28 – The 1000th production Learjet is delivered to the Eaton Corporation of Cleveland, Ohio.

April 3 The prototype of the Bombardier Challenger series 600 (registration C-GCGR-X) crashes in the Mojave Desert in California, killing its pilot.

April 9 In response to an assassination attempt against Iraqi Foreign Minister Tariq Aziz by the pro-Iranian Shiite group Al Dawaa, the Iraqi AF bombs the Iranian town of Qasr-e Shirin on the Iran–Iraq border.

April 9 As American Airlines Flight 348 – a Boeing 727 with seven crew members on board – prepares to board 74 passengers at Ontario International Airport in Ontario, California, for a flight to Chicago, Illinois, a man armed with a .045-calibre pistol appears on the tarmac, forces his way up the stairs, and hijacks the plane, demanding to be flown to Havana, Cuba. With only the crew and hijacker aboard, the plane flies to Dallas, Texas, to refuel and then on to Havana, where the hijacker is arrested by Cuban authorities.

April 12 On a night approach to Hercílio Luz International Airport in Florianópolis, Brazil, during a severe thunderstorm, Transbrasil Flight 303, a Boeing 727-27C (registration PT-TYS), crashes into a hill, killing 55 of the 58 people on board.

April 14 At Stapleton International Airport in Denver, Colorado, a hijacker commandeers Continental Airlines Flight 11, a Boeing 727 with 78 people on board bound for Ontario, California.

April 18 – Air Zimbabwe is formed in Zimbabwe.

April 25 – Dan-Air Flight 1008, a Boeing 727-46 (registration G-BDAN), turns the wrong way in a holding pattern and crashes into high terrain while on approach to Tenerife North Airport on the island of Tenerife in Spain's Canary Islands, killing all 146 people on board. It is the largest loss of life aboard an aircraft registered in the United Kingdom.

April 27 – Thai Airways Flight 231, a Hawker Siddeley HS 748 (registration HS-THB), crashes after entering a thunderstorm while on approach to Don Mueang International Airport in Bangkok, Thailand, killing 44 of the 53 people on board and injuring all nine survivors.

1990

March 6 The last flight of the SR-71 Blackbird takes place, when Lieutenant Colonels Ed Yielding (pilot) and Joseph Vida (reconnaissance systems officer) fly U.S. Air Force SR-71A serial number 61-17972 from Palmdale, California, to Washington Dulles International Airport in Virginia, setting a Los Angeles, California-to-Washington, D.C. world record time of 1 hour 4 minutes 20 seconds at an average speed of 2,124 mph (3,420 km/h). The aircraft is delivered to the Smithsonian Institution's National Air and Space Museum to be put on display.

March 27 TV Martí, a United States Government television station employing aircraft to broadcast its signal into Cuba, goes on the air for the first time, using an aerostat – nicknamed "Fat Albert" by people in the area – tethered over Cudjoe Key, Florida, at an altitude of 10,000 feet After Hurricane Dennis destroys "Fat Albert" in 2005, the broadcasting effort uses fixed-wing aircraft until May 2013, when budget cuts ground the last aircraft, Aero Martí.

March 29 – First flight of the Ilyushin Il-114 (registration CCCP-54000), only 20 were built, but an improved version is due to fly in 2020. The airliner is the Russian equivalent of the BAe ATP)

April 9 Atlantic Southeast Airlines Flight 2254, an Embraer 120RT Brasília (registration N217AS) with seven people on board, and a Civil Air Patrol Cessna 172 (registration N99501) collide in mid-air over Gadsden, Alabama. The Cessna crashes in a field, killing both its occupants; the Embraer, with its right horizontal stabilizer torn off, makes an emergency landing at Northeast Alabama Regional Airport in Gadsden without injury to anyone on board.

April 12 Widerøe Flight 839, a de Havilland Canada DHC-6-300 Twin Otter (registration LN-BNS), crashes into the Norwegian Sea just after take-off from Værøy Airport in Værøy, Norway, when strong winds crack its tail rudder and tail-plane, rendering it uncontrollable. All five people on board die. Værøy Airport is closed after the accident due to the danger posed by bad weather and replaced by Værøy Heliport farther to the south.

April 13 First flight of the Sukhoi Su-27IB prototype

April 21 Aeritalia joins the Airbus consortium as a partner.

PHOTOS FROM DUXFORD FEBRUARY 2020 – BY JOHN ROACH

John Roach, is no stranger to Duxford and paid a flying visit on 25th February 2020 (in the Cessna 172, G-WACY seen in the background) to see a few nicely restored aircraft parked up outside, including Hawker Sea Fury SR661 and Spitfire Mk V EE602. Lastly the P-47D Thunderbolt that has variously been in the USA then Duxford, then the USA and back again. Although the P-47D lasted in the USAF until 1955 as the F-47, it did not find favour with post war Air Forces so far fewer remain airworthy compared to the P-51 Mustang.

Surprisingly the weather looked quite good compared to the default grey overcast or raining (or both) in the local Chilterns area, for the last few months.

