In common with several second-line aircraft of the era immediately before World War 2, the Airspeed Oxford twin-engine trainer was a military development of a successful civil airliner/charter aeroplane, redesigned and produced hurriedly for the RAF's essential expansion scheme. It evolved from the Envoy, the prototype of which flew in June 1934 and 51 of which were built at the now long defunct Portsmouth City Airport. Envoys served on many internal air services varying in distance from Heston-Edinburgh to Portsmouth-Isle of Wight; but perhaps the best-known specimen was G-AEXX, delivered to the King's Flight in 1937, resplendent in the red and blue livery of the Brigade of Guards; even before the Oxford materialised, though, six Envoys were equipped with dorsal gun turrets and bomb racks and supplied to the South African Air Force. Japan, too, acquired six and built ten more.

Not surprisingly, the Oxford (to Air Ministry specification T23/36) was beefed up a bit from the Envoy in readiness for its more arduous military duties. The prototype L4534 flew first on 19th June 1937; even before this 136 had been ordered. Both the threat of war and the related demand for relevant aircraft grew apace and by the outbreak in 1939 more than 400 had been delivered. Production continued without interruption until July 1945, by which time 8,586 had been built. Unlike most military designs, which developed progressively as they matured, the Oxford underwent very few changes throughout its life and the removal of the dorsal turret early in the run was the only noticeable change. As early as 1938 many were turret-less.

The Oxford was the RAF's first twin-engine monoplane trainer with a retractable undercarriage, so the first few off the line were delivered to the Central Flying School, enabling flying instructors to gain experience before the type was delivered en masse to the growing number of Service flying schools. As a general rule at this time, pilots destined to fly multi-engine aircraft started on Avro Tutors and graduated to Oxfords, while those targeted for singles would move on from Tutors to Hawker Hind trainers. Within a couple of years this sequence was changed to elementary training on de Havilland Tiger Moths or Miles Magisters followed by advanced work on Miles Masters or North American Harvards. The Oxford, though, outlived all these, into the era of de Havilland Chipmunks, for despite a short break in the late forties, Oxfords were reintroduced for training post-war National Service pilots until the type finally retired in 1954. I think it safe to say that the Oxford was the most useful and successful twin trainer of all time. Even the 370hp Armstrong-Siddeley Cheetah X 9-cylinder radial engines remained the source of power throughout the type's life at home, though the Canadian version had more oomph with 450hp Pratt and Whitney Wasp Juniors.

Many people tend to consider the Avro Anson and Airspeed Oxford in almost a single breath, although in practice they were very different aeroplanes and had few features or qualities in common. Both were Cheetah-powered low wing twins, but there the similarities stopped. Their duties overlapped as both served on communications work; however, the relatively tame Anson shone as an uncomplaining load lifter while the Oxford had a sporting spirit that made it more tricky to fly and therefore more suitable for the pilot training role.

Now let us look at the Oxford – known throughout its working life as the Oxbox – as this pilot saw it. Unfortunately, I trained during the type's temporary withdrawal from service, so I was required to progress in one stressful leap, from the Harvard to the Mosquito as my first twin, but later I had the opportunity to become familiar with the Oxbox and I held it in high regard. For an aeroplane designed in the mid-thirties, the cockpit layout and accessibility of all key items could not be faulted. Full dual controls were fitted and the central pedestal accommodated all the required kit: the two throttle levers, a single mixture control (with take-off, normal and weak settings), undercarriage, flap, and carburettor heat controls, fuel cocks, elevator trim wheel, rudder bias and even landing lights were all within easy reach of both front-seat occupants. Instruments were sensibly positioned, with not only the full standard panel and fuel gauge immediately ahead of the left-hand seat, but with boost, rpm (interestingly, reading vertically); oil pressure and oil temperature gauges paired just to the right of centre, with duplicate ASI, altimeter and turn-and-slip indicator immediately ahead of the instructor's position. Many later designers could – and should – have learnt from this early Airspeed initiative.

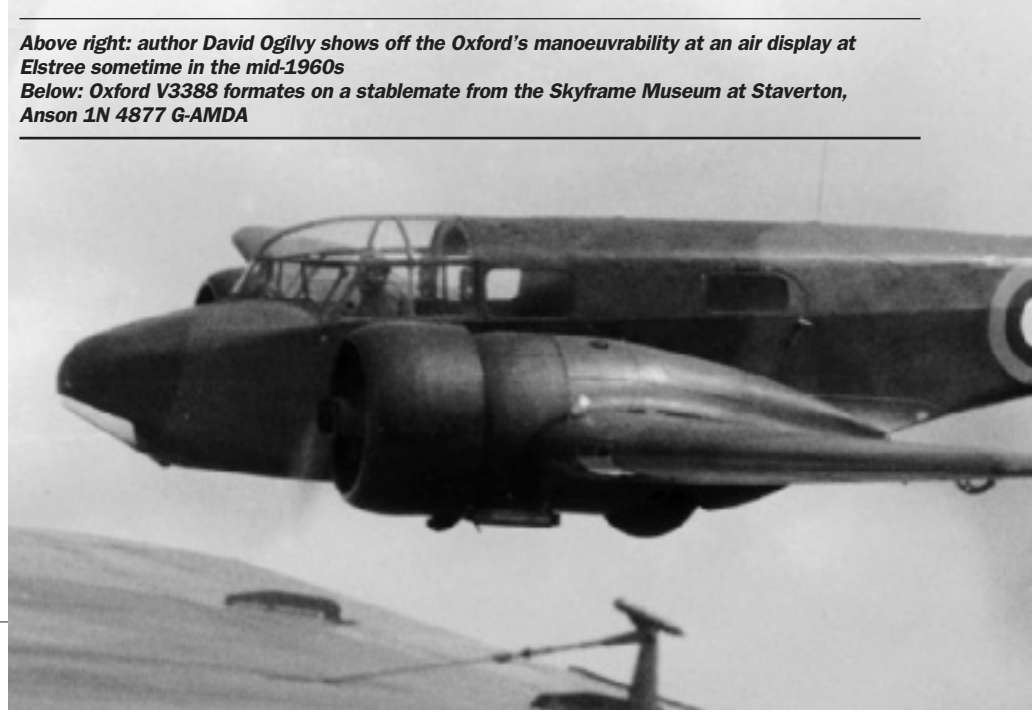
Fuel capacity was 156 gallons and each engine was fed from its own two tanks, but with no crossfeed. The undercarriage and flaps were hydraulically operated. Early Oxfords had starting (third) magnetos, but by far the majority had booster coils, while some had conventional starter motors. Taxying was quite easy, especially on grass, and the column-operated pneumatic brakes were far more efficient than their cumbersome counterparts on early Ansons. They acted differentially with use of the rudder.

On take-off the Oxford showed its real worth as a pilot trainer; the pronounced tendency to swing to starboard called for positive corrective action by generous use of the rudder and by applying power gently, leading with the starboard throttle. This was a much more significant quality feature than is the case today, for trainees were destined to graduate onto more powerful tailwheel piston trims, some of which had very strong determination not to go straight ahead unless forcibly compelled to do so!

Here the Oxford could reveal one of its less charming characteristics. A high percentage of the lift was generated from the wing centre section between the fuselage and the engines. Dented or badly fitting fillets or panels could lead to stalling at the wing roots and there are several recorded cases of aircraft needing extended take-off runs or even failing to get airborne. I have met several people who had experience of this uncomfortable phenomenon and there was an appropriate warning in the Pilot's Notes, but I was fortunate to know this only from what I have read and heard.

If all was well the Oxford would lift off cleanly at about 65mph and accelerate reasonably rapidly to the modest safety speed of 85mph – the figure at which directional control would be possible in the event of an engine failure – on the way to a recommended climb speed of 110mph, using a maximum of +2¼lb boost and 2300rpm. Once settled into the cruise, with 2100 and -1 generating about 120mph, the Oxbox revealed its generally pleasant handling characteristics, with controls that were light, effective and rapid in response to small displacements. At slightly less economical power settings leading to a modest increase in airspeed, the ailerons in particular were surprisingly crisp. All this, though, related to the load on board, for despite being laterally and directionally stable, any rearward movement of the centre

Above right: author David Ogilvy shows off the Oxford's manoeuvrability at an air display at Elstree sometime in the mid-1960s
Below: Oxford V3388 formates on a stablemate from the Skyframe Museum at Staverton, Anson 1N 4877 G-AMDA



Airspeed Oxford

Although no airworthy example remains, the 'Oxbox' was probably the most useful and successful twin trainer of all time, says ***David Ogilvy***

of gravity brought with it some rather unpleasant longitudinal oscillations. With no more than three up, it was a delight to fly, but with more than that on board much of the appeal disappeared. It was not a good load lifter.

One of the many qualities sought on a handling trainer would be some life at and near the stall. Here no one should be disappointed, for there was extensive vibration before reaching the 'clean' breakaway figure of about 67mph; then either wing would go down, a bonus that prevented a pupil (not a student in those days!) trying to anticipate the correct recovery action. With flaps and undercarriage dangling, the stall occurred at about 9mph slower, but then the wing-drop tendency was less enthusiastic.

Very few early twins had sparkling asymmetric performances and the Oxford conformed to pattern. At light load, height could just be maintained, but the rudder bias required 32 turns and even when fully applied, the remaining foot load would be quite heavy. The official Pilot's Notes, too, offered little help, with two seemingly contradictory statements: 'at full load the aircraft may climb away slowly at 85mph' and, a few sentences later: 'height can barely be maintained on one engine at full throttle'. Perhaps in fairness, though, the first would refer to performance from ground level while the other would relate to engine-out performance when cruising at several thousand feet. I can see no other explanation. Despite everything, though, the true result would depend largely on the surface condition

Left: David Ogilvy puts on a characteristically spirited display at Elstree
Bottom left: a low pass along the runway during the Elstree display

of the cowlings and wing root fillets on individual aircraft.

When 'on one', everything happened at 95mph IAS. It was the optimum for cruise performance and the recommended speed for manoeuvring in the circuit prior to an asymmetric landing. Speed should not be reduced to 85 until the airfield was definitely within reach, but if it was not, there were few options, for there was no chance of a successful go-around from this state. This situation applied to all twins of the time, including early mark Ansons.

With everything working, the Oxford was a pleasant and well mannered circuit aeroplane. The undercarriage could be lowered at up to 120mph and the final approach with full flap was 80mph. Pilot's Notes recommended an additional 15-20 for a flapless glide, but I tried this and found the subsequent float too long for comfort. 90 seemed to provide a happier solution if one wished to stay within the length of all but the longest runways. The Oxford would settle on three points with a comforting clunk, but this was an invitation to risk a smart swing that was more difficult to correct than from a tail-down wheeler. The active swinging tendency at both ends of a flight was a very useful bonus in the pilot training role – even if it was not intended at the design stage.

After flight, the engines were stopped by pulling and holding out a slow running cut-out; the ignition switches were not put down until everything had stopped.

Just as the Oxford had evolved from the civil Airspeed Envoy, it completed the life cycle by reverting post-war to further civil use. 27 ex-RAF Oxfords obtained certificates of airworthiness for a variety of uses and 150 new airframes were converted by Airspeed to become Consuls, which proved popular on the business and air charter market. These were modified to take six passengers instead of the Oxford's normal three and, both to release cabin space and move forward the centre of gravity, the noses were elongated to accommodate luggage. The last Consul to fly did so in mid-1965, but later two were reconverted back to Oxfords for static display in museums.

Unfortunately, unlike the Anson, two late examples of which remain in flying condition, no Oxford is likely to take to the air again. The last Oxford to fly anywhere in the world was V3388, which became civil registered as G-AHTW and operated for 14 years as a company hack by Boulton Paul Aircraft Limited, based at the original Wolverhampton airfield. It was very well maintained throughout and four years after retirement it was acquired by the now defunct Skyfame Aircraft Museum at Staverton. It was repainted in its original RAF camouflage and flown for several years. I had the pleasure and privilege to fly this machine on several occasions and appreciated the good condition (no battered cowlings) on which it had been kept. When lightly loaded, it was a pleasant machine which responded well to spirited handling at displays. Now, in company with its former sister ship at Skyfame, Anson 1 G-AMDA/N4877, it is on static exhibition with the Imperial War Museum at Duxford. ■

Below: 'What will I fly when I grow up?' The Oxford taxis past the old control tower at Staverton. The lad in the photo would be about 50 years old now; did he go into aviation, we wonder?