

The Anson in later life

*Following his report on the early Avro Anson 1 in the last issue,
David Ogilvy reflects on the step change that led to the post-war mark 19*



All BW photos via Phillip Jarrett

Just as the original Avro Anson 1 of 1936 evolved from the civil Avro 652 designed and built for Imperial Airways, so the post-war Anson 19 came about as the military successor to the civil Avro X1X. The latter was the result of the workings of the wartime Brabazon Committee, which in 1943 looked ahead to the likely needs of the post-war airlines and produced a specification X1X for a small feeder liner. In 1945 AV Roe and Co modified a military mark 12 (a half-way house between the original and late variants) with nine passenger seats, oval windows and other trimmings to make it more 'civil'. This successfully fulfilled the committee's requirements, so the identity X1X (later 19) was born from unusual roots and not in the normal sequence of mark numbers.

Shortly after World War II 48 new Avro 19s appeared on the British civil register, with Railway Air Services as the main operator; they had 14 on strength. Another six were used by the Ministry of Civil Aviation (a predecessor of today's CAA) for calibrating airport radio/navigation installations. These were based at a grass aerodrome called Gatwick (from which a few years later I did some part-time instructing for Surrey Flying Club on non-radio Piper Cubs!) Other Avro 19s were used as a demonstrator for the then emerging Decca navigation system, for aerial photography by Meridian Airways, BKS Air Survey, Kemp's Aerial Surveys, Fairey Air Surveys, and as an airborne laboratory for Ekco radar trials. Hawker Aircraft and Armstrong-Whitworth Aircraft used them as company hacks and another earned its keep as a flying classroom with the College of Aeronautics at Cranfield. Overseas, three operated in Biafra for Save the Children Fund.

Alongside its various civil uses, the 19 – much upgraded from the very basic mark 1 – filled a gap in the RAF's inventory and 263 Anson 19s were built, to be used mainly on communications work but also on air survey duties. The 'core' 19 was developed into the marks 20, 21 and 22 as navigation and radio trainers. The last was delivered in May 1952, marking 17 years of continuous Anson production, which had peaked at 130 a month and making a total of 11,020 of all marks – 2,882 of which were built in Canada. This gives an idea of the scale of flying activity and the industry's manufacturing capacity compared with today! The number of Ansons produced was beaten only by the Spitfire, Hurricane and, perhaps surprisingly, the Wellington.

So here, with the Anson 19, we have an aeroplane that remained frill-less, but which was markedly less bare and basic than its predecessor, the mark 1. The undercarriage and flaps were hydraulic and, unless things went wrong, the need for energetic hand pumping disappeared. A compressor on the port engine kept the pneumatic brakes in good shape; these were controlled in a conventional manner with a lever on the half-wheel control column. Power came from a pair of Armstrong-Siddeley Cheetah 17 nine-cylinder radials, each of which produced 70 more bhp than the Cheetah 9s on the mark 1, with the added benefits of variable-pitch featherable propellers; the controls for these were among the type's few unfavourable features, as they were placed inconveniently at the base of the throttle box and worked almost vertically, with

Left: the Mk 21 Anson was developed as a radio and navigation trainer



a need to push the levers almost into the floor to reach the feathering position. Strangely, the Cheetahs on all marks of Anson were not easy to synchronise and the familiar Annie throb became an unmistakable aural identification before a machine came into view. The RAF's mark 19 retained evidence of its civil origins, for the crew had cushioned seats; it was the only military type that I met with no provision for parachutes.

On take-off the 19 was a more sprightly performer than its lumbering forbear and the wheels retracted quickly, leading to a reasonably rapid acceleration to the comfortably modest safety speed of 80 knots; this was on the way to a recommended climb figure of 95, using 2 3/4 lb/sq in boost and 2300 rpm. Early 19s, known as series 1 machines, had the original slab-like wooden wings of the mark 1, but early in the production stage these were changed to more



aerodynamically clean metal units, changing the sub-title to series 2. I mention this here because shortly after take-off the differences became very clear, with the later 'tin' wings offering lighter and more responsive ailerons, providing a more balanced overall control package.

More pleasant (but possibly less interesting!) to fly than the mark 1, the 19 was a little more sensitive to weight distribution, although all versions of Annie were remarkably tolerant load lifters. On one occasion in 1950 I was sent from Benson to Leuchars to collect the remains of a detachment that had been in the north for several months and had amassed a considerable range of personnel, kit and equipment. A Lancaster had been sent to bring back as much as it could carry and I followed to pick up whoever and whatever were left. These amounted to ten passengers and their extensive baggage, so we were twelve up. I should have refused, but I was young and probably foolish, so I did as I was told. Annie behaved impeccably, eventually lifting off the

All colour photos: Damien Burke

*Top: AV Roe's Anson production line - in the background, the Avro Tudor
Above: Anson 19 G-AHKX is a series 2 machine with metal wings
Right: former RAF T21 WD413 is operated by Air Atlantique's Historic Flight
Below: KX is still owned by BAE Systems*



(fortunately) 2000 yard runway and adopting a just discernable rate of climb. All went well for a couple of hours or so until we started the approach for landing, when I shouted for the two rear occupants to rush up to the front and squeeze into the cockpit. Fortunately this worked, as it would have been impossible to manage a go-around. I mention this primarily to explain what a well-mannered aeroplane the Anson was: many others would have reacted viciously to such mistreatment.

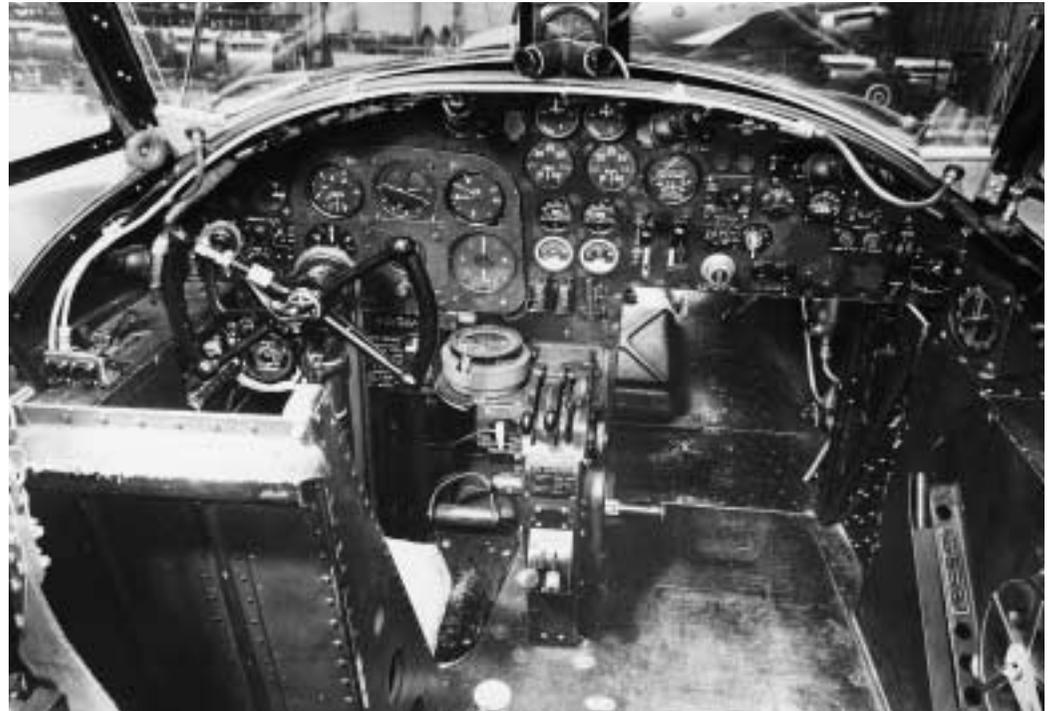
In more normal use, cruising speed for maximum range was 105 knots, but when neither range nor endurance was critical it was comfortable to romp along at about 120 knots. The view was very good, Annie rode through moderately rough air very steadily and was a satisfying A-B vehicle. From wheels and flaps down to everything up, the stall occurred between 50 and 60 knots, before which a gentle warning buffet told the pilot what was about to happen, but when it did, all was very tame and a wing needed to be provoked to persuade it to drop. Not surprisingly, the wooden block was less likely to go down than its younger metal counterpart.

For a normal landing with flaps down the approach was started at 80 knots, losing 10 of these before crossing the fence, but retaining five or so for a glide approach or at heavy weight. The landing itself was straightforward,

Right: Annie cockpit - the 'third throttle' is the mixture control
Below right: series 2 was more pleasant to fly, but less interesting
Bottom: Annies were remarkably tolerant of overloading

There are numerous tales about all variants of the Anson family that proved how tolerant they were of other people's misdemeanours. A pilot ditched a mark 1 far out to sea and, in preference to using his dinghy, sat on the wing for more than three hours until he was rescued. In a later incident, which I witnessed, one of my colleagues was on a practice single-engine approach in a 19 and unwisely decided to go round again from about 150 feet.

Although the Pilot's Notes state clearly that an asymmetric overshoot must not be attempted below 600 feet and before the flaps are lowered, surprisingly, he managed to maintain directional control for almost the full length of the 2000 yard runway. He was losing height steadily until just past the upwind boundary, when he and his mount settled gently into two trees with one wing perched on each. He was unhurt, called on the radio for a ladder to



with only a minimal tendency to bounce or swing, but a missed glide or a heavyweight approach called for energetic nose-down trimming in the event of a go-around – or an overshoot as it was called then.

The ability to feather a propeller and to raise or lower the undercarriage quickly in the event of a power failure made asymmetric flight far less stressful than on the mark 1, but, as with most twins of the time, the performance on one was far from sparkling. With the live engine operating at climbing power and at moderate weight, height could be held, but the rudder trim was unable to absorb all the foot load. When positioning for a single-engine landing, in order to retain directional control it was important not to allow the airspeed to fall below 85 knots, delaying flap lowering until the airfield was within definite reach. An overshoot 'on one' was not a safe endeavour below 600 feet, as about 400 of these could be lost in the initial cleaning-up process. In these circumstances accurate handling and a minimum of 80 knots were essential for success.



enable him to get down and, eventually, the aeroplane flew again. I know of no other twin that would have behaved so considerably.

Most of our flying was on air survey work, which included a lengthy coverage of East Anglia for updating maps of the area on behalf of Ordnance Survey; for this our photographic runs were positioned accurately with the use of the Decca navigation system, enabling the specialists on the ground to build-up extensive mosaics. However, our well-proven workhorses were in demand for a variety of uses and, wherever they were required, we needed to go with them. One such instance remains happily in my memory: 82 Squadron, based at Nairobi in Kenya, operated Lancasters on air survey work over many parts of Africa and, when the work was completed, their aircraft flew home



to roost at Benson. The last to be retired was PA 474 which was to be flown to the Maintenance Unit at Wroughton (now a part of the Science Museum) and I was tasked to bring back the crew in Anson 19 VM 360. Why is this of interest? Because, as some readers will know, PA 474 is the famous sole-surviving airworthy Lancaster on the Battle of Britain Memorial Flight at Coningsby and Anson 19 VM 360 is preserved as a static exhibit with the Museum of Flight at East Fortune in Scotland. So both survive – one



Left: Anson 19 used as an airborne laboratory for Ekco radar trials
Above: the last six Anson 19s on the Southern Communications Squadron made a final formation flypast over their base at Bovindon in June 1968

actively – 56 years later.

The Anson was a largely unsung winner in all its forms. Although the early and late marks may not have had many common components, all variants shared well-earned reputations both as uncomplaining load lifters and for rugged reliability. At the start, many Anson 1 crews performed lengthy coastal reconnaissance missions, often in harsh conditions; however, it was on second-line wartime work that the type became more widely known, training navigators, wireless

operators and air gunners in Britain and in Canada as part of the Commonwealth Air Training Plan. In the post-war period this work continued on later marks. After 32 years of continuous service, the breed was retired from active duties in June 1968, when the last six 19s on the Southern Communications Squadron made a final formation flypast over their base at Bovindon.

Fortunately the breed remains alive and well. A genuine civil Avro 19 G-AHKX has been preserved and restored; it is owned by BAE Systems and operated by the Shuttleworth Collection at Old Warden. A former RAF T21, WD 413, forms a part of Air Atlantique's extensive and growing Historic Flight at Coventry. Both fly on special occasions and, as time goes on, they will make increasingly significant reminders of our once prolific aviation industry. ■

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