AIRCRAFT

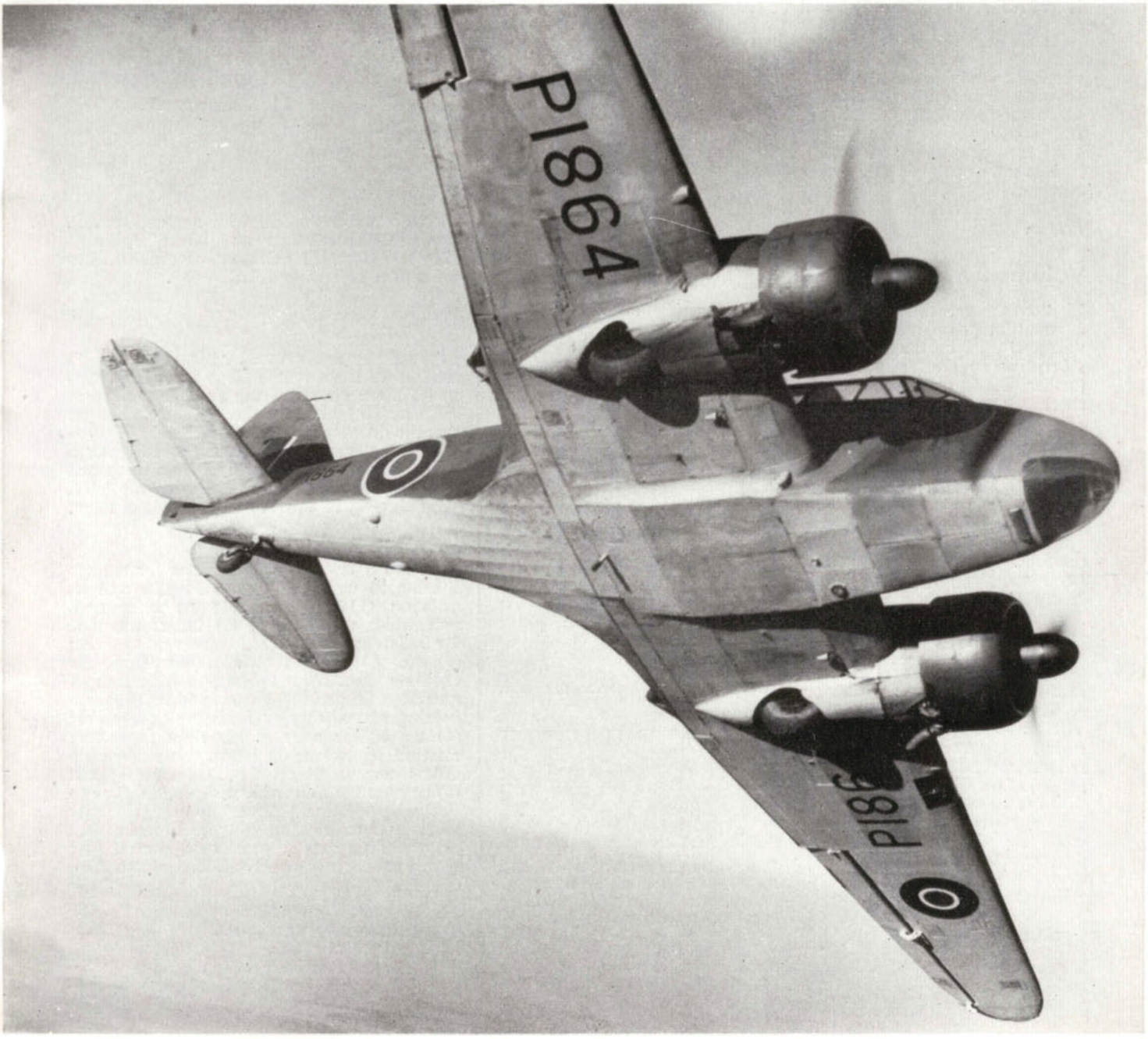
PROFILE

227

The Airspeed Oxford

by John D. R. Rawlings

35p/$1·50



Editorially speaking . . .

This is only the second occasion that *Editorially Speaking . . .* has appeared in print—the debut being made in *Aircraft Profiles* Nos. 225 and 226. So it is still too early to be able to test the reaction of readers to this new department. But it will do no harm to recapitulate that this page is intended to provide a closer link between the authors, the publishers and the public. Your comments are welcomed providing you understand and accept the content of *Guidelines on Letters* elsewhere on this page. Thank you.

CHARLES W. CAIN

ABOUT THE AUTHOR

No. 227 Airspeed Oxford variants

John D. R. Rawlings is an author best known for his historical and contemporary writings on the British Royal Air Force. That it is possible to combine professional interests—as it were "a wing and a prayer"—is evident in that the excellent big book *Fighter Squadrons of the R.A.F.* (Macdonald, London, £6·00) is ascribed to the Rev. J. D. R. Rawlings.

As promised in the preliminary announcement, there is more than a hint of pure nostalgia in John Rawlings' tribute to the hard-worked Airspeed Oxford. Enthusiastic advance reception seems to bear out our original belief that the "Ox-box" is going to be a very popular new *Profile*.

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YOUR COMMENTS

Maryland memories

Congratulations! *Aircraft Profiles* are beautiful. I would like to see the following . . . (list of aircraft types too long for inclusion—Editor). I am most pleased No. 232 will be Martin Maryland, a graceful aircraft.

Concerning the Maryland, I well recall an incident on July 14, 1941 in my home town of Corfu. A Vichy French Martin 167A-3 with serious engine trouble crashed in the town centre close to my home. It landed in what is now the garden of the Corfu Palace Hotel. Five bodies were recovered. I still have a souvenir, a piece of the metal skinning painted in distinctive orange as part of Vichy's neutrality markings of orange and yellow stripes.

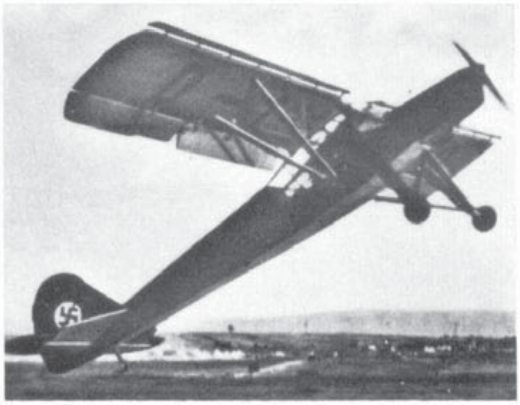
ANDREAS STAMATOPOULOS
Corfu, Greece.

Two of reader Mihail Moisescu's I.A.R. 80 photos; note the revised (March 30, 1941) national markings in the flying formation.

EDITORIALLY SPEAKING . . . *Aircraft Profiles* certainly span the world and, no doubt, this page will reflect the international flavour of the readership. *Note:* Vichy neutrality stripes were red and yellow.

Your next AIRCRAFT PROFILE

No. 228 Fieseler Fi 156 Storch variants



Once again Richard P. Bateson tackles a German subject, this time the ubiquitous Fieseler *Storch* (Stork). This was one of the first S.T.O.L. (Short Take-Off & Landing) types designed as such. Many famous names are among those who flew or were flown in examples of the Storch, possibly the most famous episode was that involving the rescue of the imprisoned Mussolini. Surprisingly, the Fi 156 has never been fully researched for publication. Until now. And worth waiting for!

How about?

Please consider the following suggestions . . . Boeing B-52 Stratofortress; MiG-21 "Fishbed" LTV A-7 Corsair II; Gloster Meteor Mks. I to III and the Romanian I.A.R. 80/81.

ERIC ODELL
Huntington Beach,
CA 92646, U.S.A.

EDITORIALLY SPEAKING . . . Mr. Odell will be amazed to learn that quite a few of his suggestions are already being prepared as future *Profiles*. To be honest, though, one is not yet "on the drawing board"—the I.A.R. 80. However, it is the subject of a selection of hitherto unpublicised photos sent to us from Bucharest by reader Moisescu as recently as June 1971. We thought you'd like to see a couple of them.

Guidelines on letters

Here are a few simple guidelines for readers wishing to write to *Aircraft Profiles* and its authors: (1) letters should be brief and, preferably, constructive; (2) letters intended for individual authors will be sent on to them; (3) except for sales queries, correspondents should refrain from submitting long lists of questions, especially those which have no bearing on existing or forthcoming *Profiles;* (4) the Editor reserves the right to extract relevant sections from letters for publication unless correspondents signify otherwise; and (5) because the Editor has only limited time to deal with additional correspondence, similarly he reserves the right to delay individual replies or, where it appears that no reply is necessary, simply to accept gratefully readers' appreciation of the time factor.

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215 Arado Ar 234 Blitz
216 Petlyakov Pe-2 variants
217 Brewster Buffalo variants
218 Bristol Blenheim Mark IV
219 Heinkel He 219 Uhu
220 Douglas C-47 variants (R.A.F. Dakotas)
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222 Bücker Bü 131 Jungmann variants
223 Lockheed C-130 Hercules variants
224 Supermarine Walrus & Seagull variants
225 Messerschmitt Me 163 Komet
226 Republic F-105 Thunderchief variants
227 Airspeed Oxford variants
228 Fieseler Fi 156 Storch variants
229 Vickers-Armstrong Warwick variants
230 Dassault Mirage variants
231 Lublin R.XIII
232 Martin Maryland & Baltimore variants
233 Kawanishi 4-Motor Flying Boats (H6K 'Emily' & H8K 'Mavis')
234 Heinkel He 177 Der Greif
235 Avro Lancaster Mark II

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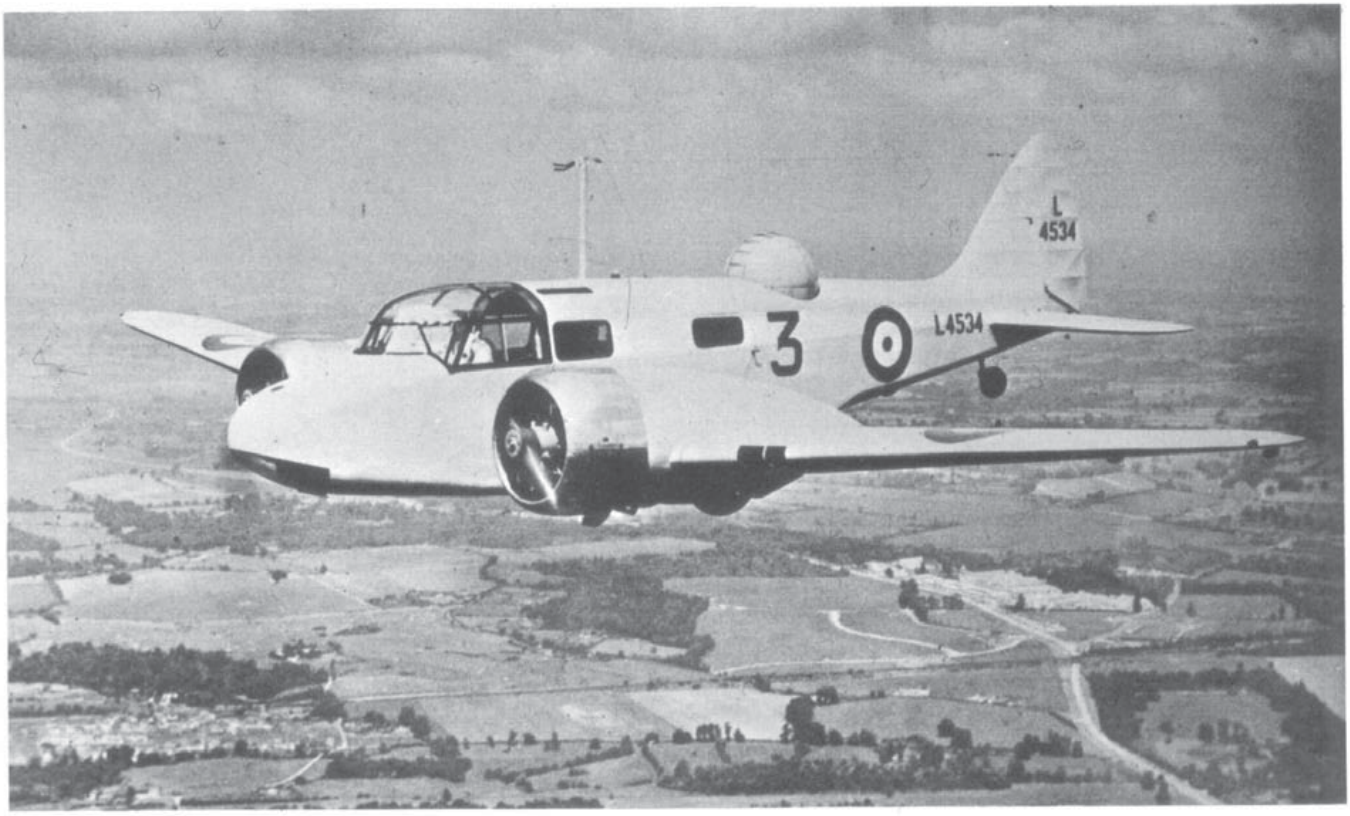


The prototype Airspeed Oxford flying at the time of the final R.A.F. Pageant in June 1937. It was equipped with a dummy turret and the black number "3" referred to its placing in the New Types Park at the Hendon Pageant. (Photo: Airspeed ref. G.2734 via the Author)

The Airspeed Oxford

by John D. R. Rawlings

IN MARCH 1936, the Royal Air Force Station at Manston, Kent, witnessed a significant event with the arrival, on charge of No. 48 Squadron, of three Avro Ansons. It was the first modern monoplane ordered by the R.A.F. in large quantities which introduced such complications as flaps and a retractable undercarriage; complications with which the new generations of aircrew would need to become acquainted.

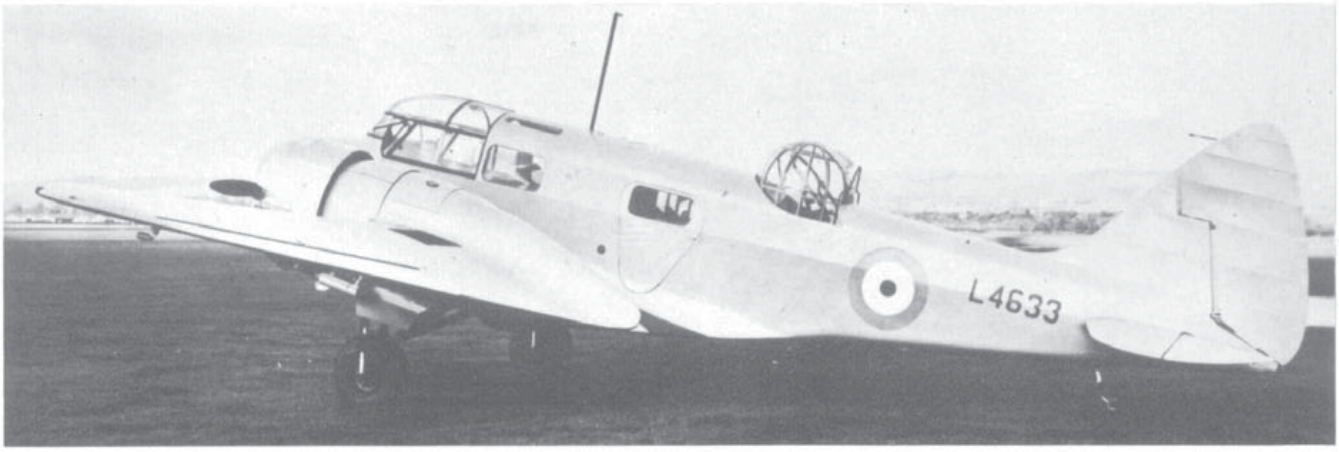
The Anson was, relatively-speaking "a dear" to fly. But, following in its train were to come more potent monoplanes, with habits sufficiently vicious (compared with the biplanes of the mid-1930s) to cause pilots to pay closer attention to their flying skills. With these new types coming into service in numbers not dreamed of since World War One it did not take the Air Ministry long to realise that new advanced trainers would be needed to match the aircrew to their new types. Accordingly, two Specifications were issued, T.6/36 for a single-engined trainer and T.23/36 for a twin-engined trainer. For the latter Specification, an invitation was sent to Airspeed (1934) Ltd., of Portsmouth, Hampshire, to submit a tender.

DEVELOPMENT

The reason behind the Air Ministry's invitation to Airspeed was sound enough. Although Airspeed was not one of the giants of the British aircraft industry, having existed for only five years, nevertheless it had more experience in producing aircraft equipped with retractable undercarriages than any other British manufacturer at that time. Equally important, Airspeed had recently had some success with the A.S.6, a small, twin-engined airliner called the Envoy which looked a good starting point. And from this basis the design team, led by A. Hessell Tiltman, did work. However, because of the multiplicity of functions required in the Specification (pilot-training, navigation- night- and instrument-flying, together with radio, gunnery, photographic and bombing training) the aircraft which emerged bore only a superficial resemblance to the Envoy. Airspeed gave the aircraft the designation A.S.10 and the Air Ministry named it the Oxford.

As with so many new types, the cautious Air Ministry made matters difficult for the manufacturing company by ordering only a relatively small and uneconomic quantity at first—the initial order in October 1936 was for 136 aircraft. Even so, for the company this was much larger than any order they had received hitherto. It was to necessitate much rearrangement of the Portsmouth factory to gear it for mass production, rearrangement which would involve a delay in getting quantity production under way.

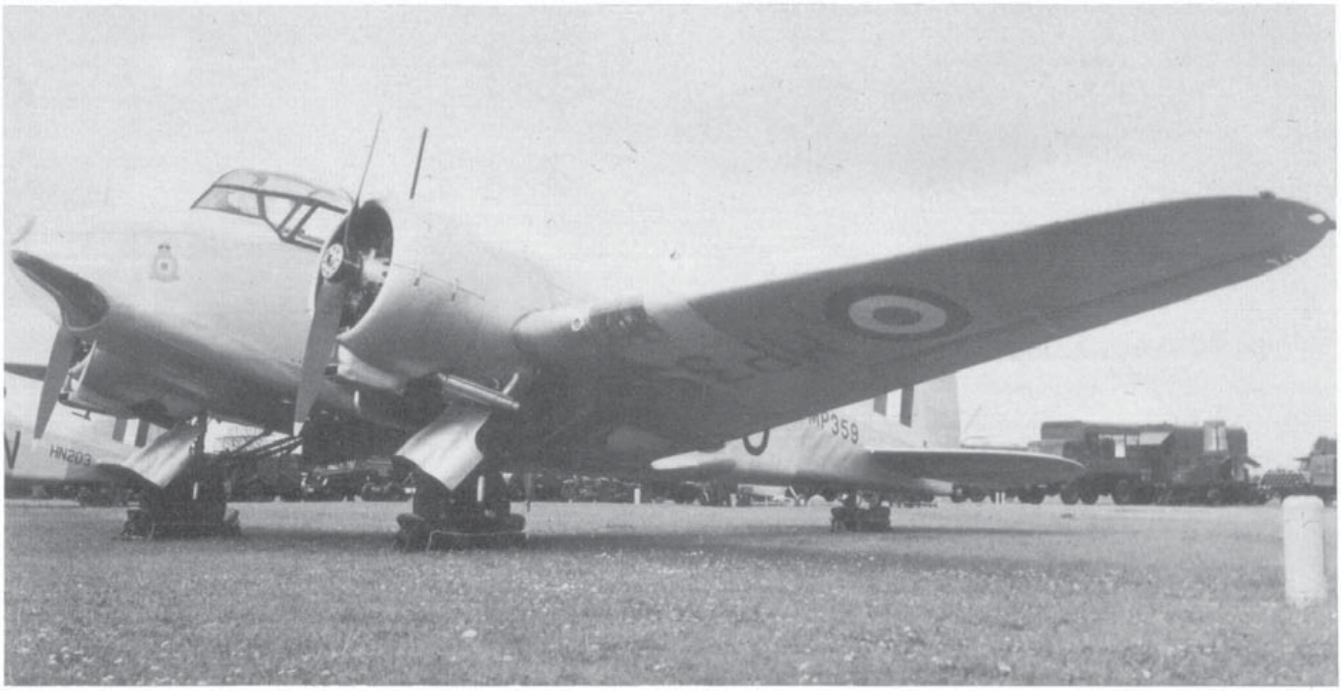
There was no undue delay with the original prototype (R.A.F. serial L4534), which flew for the first time



The 100th Oxford off the line at Portsmouth, L4633, stands outside the Airspeed flight shed. (Photo: Imperial War Museum ref. MH3341.)

An Oxford I built by de Havilland at Hatfield in 1940. V3354 appears in standard trim of dark green and dark earth camouflage with yellow undersides. This aircraft was delivered to Australia—for service with the R.A.A.F. in the Empire Air Training Scheme—where this photograph was taken.
(Photo: via M. Garbett.)

One of the last Oxfords in service, MP359—photographed in 1953 while with No. 8 A.F.T.S.—was built by Standard Motors in Coventry in 1943 and here shows the final modifications with faired air filters under the cowlings and trouser-type undercarriage fairings. (Photo: the Author)



An Oxford I in service with No. 24 Air School, South African Air Force, at its base at Nigel in the Transvaal in 1945. The aircraft is finished in the later standard trim of silver overall with yellow undersides, cowlings and rudder. The roundels were orange, white and blue and the airframe number in black on the sides of the fuselage and under the wings. (Photo: the Author)

at Portsmouth on June 19, 1937. Intensive flying followed and exactly a week after its initial flight, L4534 appeared in the "New Types Park" at the final R.A.F. Display at Hendon Aerodrome, London, albeit with a dummy dorsal turret. After this public debut, Flight Lieutenant C. H. A. Colman and G. B. S. Errington got down to the development testing which was completed by the end of September 1937.

Following test evaluation, the only immediate modification of any consequence was to move the pressure-head from the top of the aerial mast to a position under the outboard starboard wing. This caused hardly any delay to the subsequent production aircraft which were planned in two versions. The Mk. I was to be the general-purpose trainer for use with all aircrew grades, having a dorsal gun-turret, bomb-bay, and much internal equipment. The Mk. II was to be the dual-control pilot trainer. Much confusion was caused for many years, however, by the fact that the Oxford saw little service in other than pilot-training roles and the majority of Mk. Is flew for most of the time without their turrets. It had been intended to use either the Armstrong Siddeley Cheetah IX with Fairey-Reed two-blade (fixed-pitch) metal propellers or the Cheetah X with wooden propellers but in practice all the production aircraft had the latter.

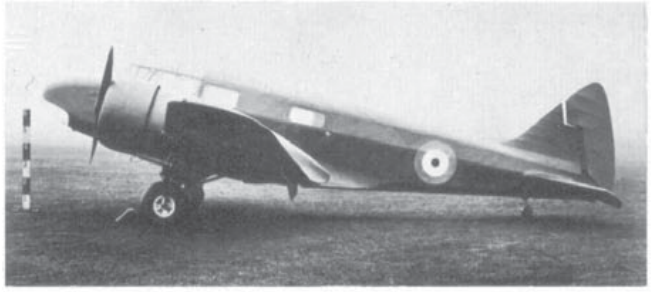
PRODUCING THE OXFORD

In construction the Oxford was a logical successor to the A.S.6 Envoy Series III being of wooden stressed-skin construction—with glued joints. Although this latter was looked upon askance at the time, the subsequent longevity of many of the Oxfords built—lasting upwards of 10 to 15 years—provides testimony to the efficacy of the gluing methods used.

The airframe was divided into four sub-assemblies which were substantially pre-fabricated before assembling as a whole, the centre-section, which was the core of the aircraft, comprised the wing panels outboard to the engine nacelles, the two outboard wing panels and the fuselage with integral empennage. The mainplane comprised two box spars around which the whole construction was built; the spars tapered spanwise to give the dihedral to the undersurface which was a characteristic feature of the Oxford. The undercarriage was designed to fold rearwards into the engine nacelles and was hydraulically-operated by a pump on the starboard engine or hand-pumped by the pilot through a separate emergency system. The fuselage was built as various sub-assemblies which were then brought together with the cabin section as a core in the boxing-up jig. The rear turret was a complete sub-assembly and removable. Access to the cabin was by a door on the port side.

Normally the aircraft was fitted-out for pilot operation with dual, side-by-side controls and with a control panel which was ahead of its time in the logical grouping of the flight and engine instruments and the arrangement of the ancillary controls on the central console. For other training functions, the starboard seat could be slid rearwards allowing a collapsible chart table to be fitted to the starboard fuselage wall. Or, it could be removed

P1070 was the first Oxford I from the Percival production line at Luton, here seen in early 1940 trim.
(Photo: Imperial War Museum MH4283)



An early Oxford T.2 T1214, in post-war service with the Station Flight at West Malling in the autumn of 1949. (Photo: Author)

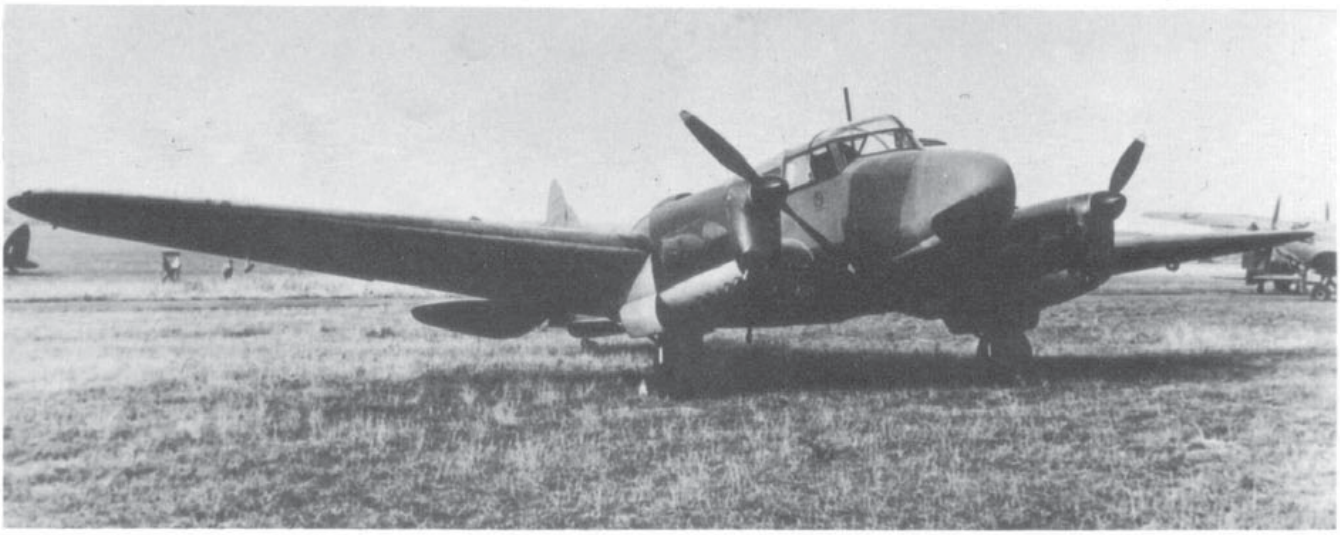
altogether to allow access to the bomb-aimer's panel in the nose—the bomb-bay being under the centre-section between the two spars. Finally, the rear cabin allowed accommodation for a radio-operator and a gunner; although normally not more than three crew members were flown at a time.

Before the initial production batch was completed, vast orders for more Oxfords flowed in to Airspeed. To meet the demand, the Company opened a "shadow" factory at Christchurch, Hampshire, and had the pleasure of having its product sub-contracted to some of the other members of the British aircraft industry, namely de Havilland at Hatfield, Percival Aircraft at Luton and Standard Motors at Coventry. Over the years that followed these companies built 8,751 aircraft, production ending in July, 1945.

SERVICE TRAINING

The first deliveries of Oxfords to the R.A.F. took place in November 1937 when L4535, 4536 and 4537 were delivered to the Central Flying School (C.F.S.), at Upavon, Wiltshire, for evaluation by the Service's senior instructors. Of other early Oxfords: L4538 was retained by Airspeed prior to delivery as a civil Oxford (special A.S.40) to British Airways Ltd. (see later); and L4539 was retained for developments with the Maclaren Castoring cross-wind undercarriage. Then further deliveries took place; L4540 to the C.F.S.;

The two ambulance Oxfords, P8832 and P8833, flying from Portsmouth just before delivery. External differences were the larger freight-type doors with two windows. (Photo: I.W.M. CH2166)



AS504 was the sole Oxford fitted with Gipsy Queen IV engines. This photograph is of interest in that, when it was released publicly during the war it "leaked" the Mosquito, whose tail can be seen under the starboard wingtip and which, at that time, was still secret.

L4541–44 to No. 11 Flying Training School (F.T.S.), followed by further Oxfords and then to No. 3 F.T.S., and so on.

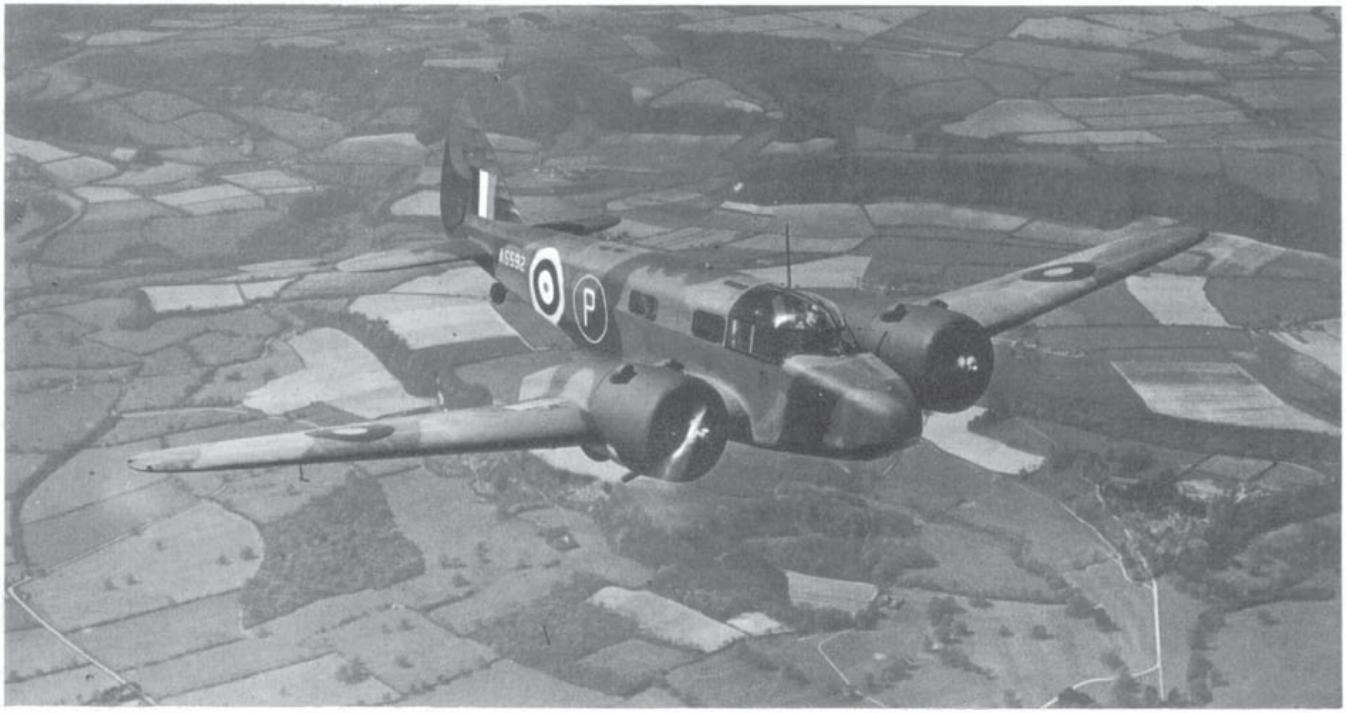
Although these first aircraft were multi-purpose Mk. Is, the initial need for the Oxford was to make sure that new pilots coming through the "training machine" were ready to cope with "twins" such as the Blenheim, Hampden, Wellington and Whitley* and so the first Oxfords went to the Flying Training Schools. By the time Oxford production was sufficient to spread around elsewhere the Air Observer Schools had surplus Ansons and, similarly, other categories of training establishments had suitable types in service so the Oxford could be retained for pilot-training. And, partly for this reason, but more because of its excellent qualities as a pilot-trainer, the Oxford was destined in this role for most of its military service career.

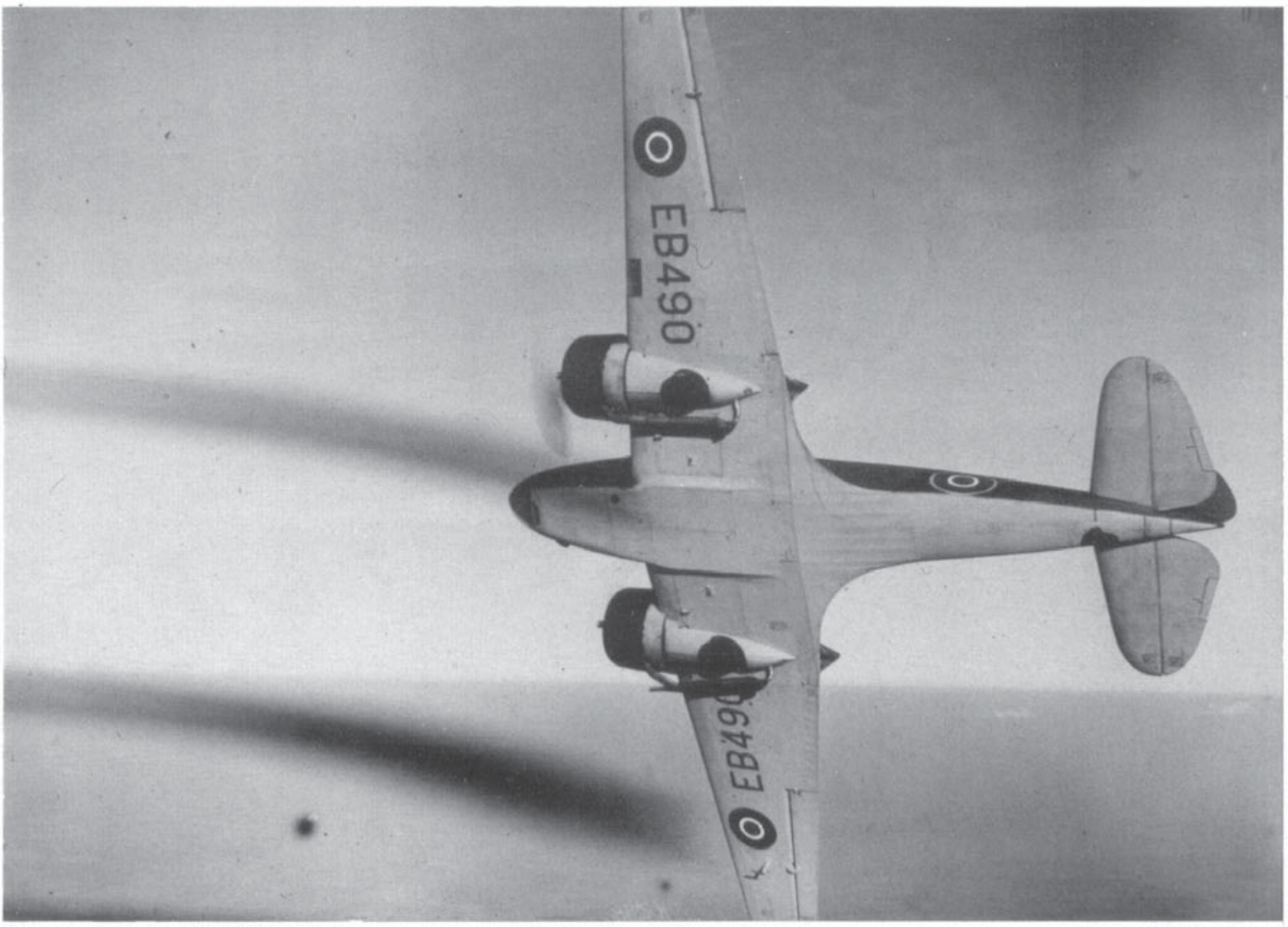
In 1939, the first Mk. IIs joined the R.A.F. and were used alongside the Mk. Is as Oxford conversion aircraft; the Mk. Is being allocated for the advanced stage of the pilot-training syllabus. By the outbreak of war, four of the R.A.F.'s Flying Training Schools were fully active with Oxfords, No. 2 at Brize Norton, No. 3 at South Cerney, No. 11 at Shawbury and No. 14 at Cranfield. Production and training continued apace in the U.K. to meet wartime needs but new developments were afoot which would greatly affect the Oxford.

In order to free the English skies of increasing numbers of training aircraft the Empire Air Training Scheme (E.A.T.S.) was conceived in which it was intended to train the planned huge build-up of future

* *See profiles*
Bristol Blenheim Mk. I (No 93/Vol. 4) Bristol Blenheim IV (218/10) Handley Page Hampden (58/3) Vickers Wellington Mks. I & II (125/6) Armstrong Whitworth Whitley Mks. I–VIII (153/7)

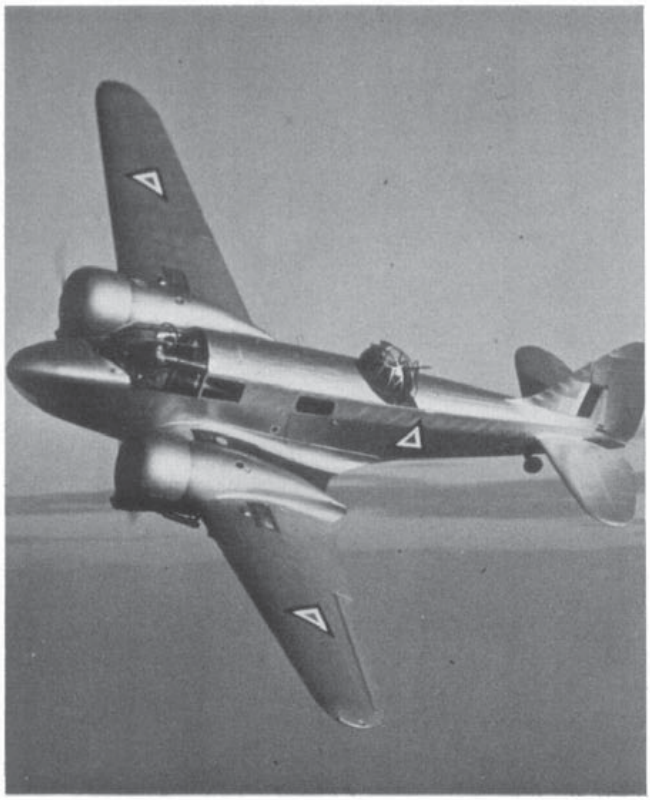
Although most of the Mk. V Oxfords served overseas, the development flying was done on AS592 in the U.K. Distinguishing features of the Wasp Junior installation were the twin intakes on top of the cowling. (Photo: "The Aeroplane")





A production Oxford V, EB490, pulls into a steep turn, revealing the longer exhaust pipes. (Photo: "Flight" 18428)

After the War, in 1948, Airspeed refurbished some ex-R.A.F. Oxfords for the Union of Burma Air Force, including reviving the turret. This Oxford bears the Class "B" registration G–35–41 and is on test near Portsmouth. It shows well the walkway and tank details on the top surfaces of the wing.

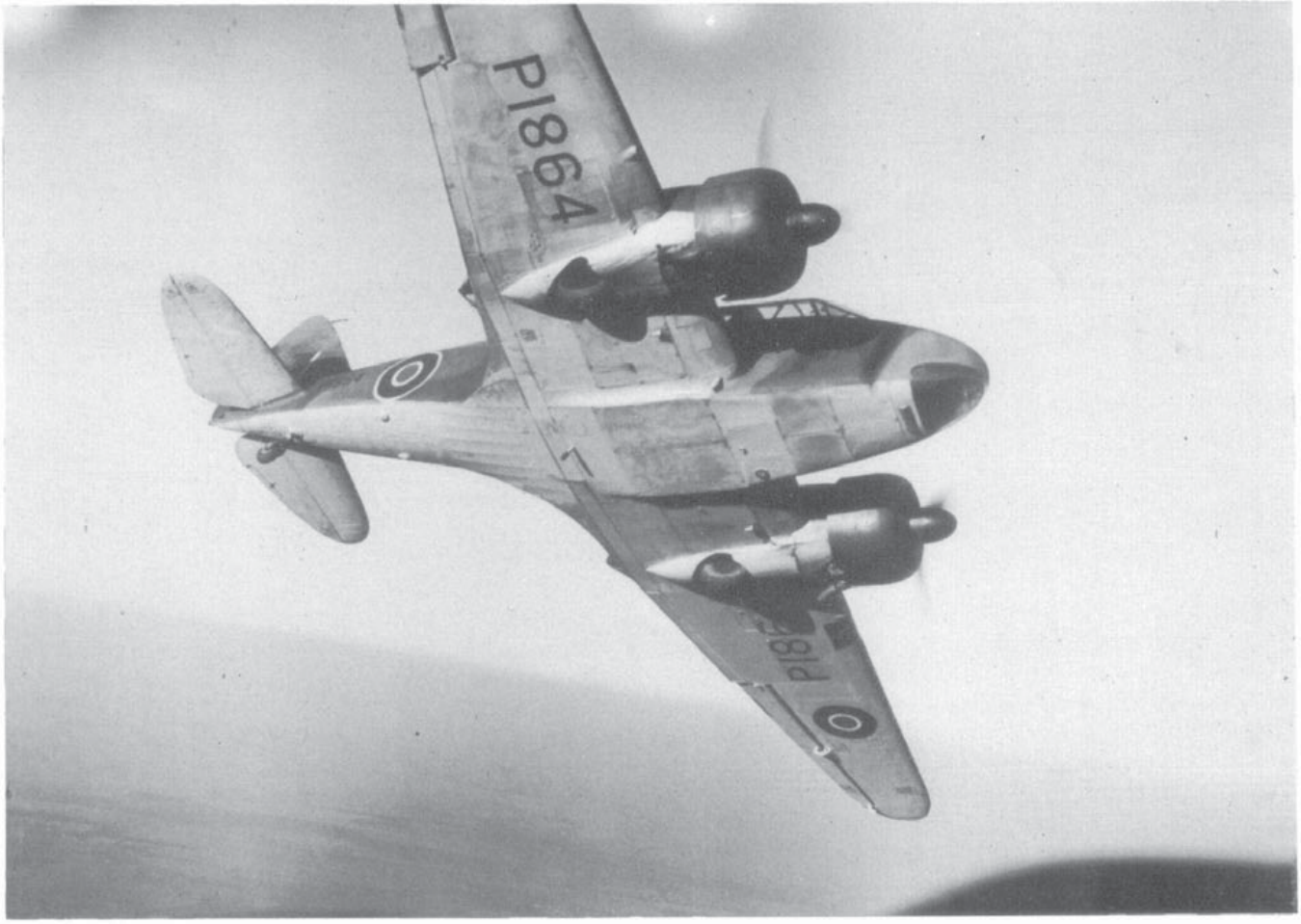


aircrew in the unhindered empty skies of Canada, South Africa, Australia and New Zealand, leaving British skies almost exclusively for operations.

Already the Oxford had reached two of these Dominions, Canada and New Zealand, who had ordered small batches for their own air forces. In 1940 many more Oxfords were crated-up and shipped to all four Dominions to further the E.A.T.S. Canada had 188 which went out, in the main, as airframes only to be fitted with Pratt & Whitney Wasp Junior R–985–AN–6 radials under the designation Oxford V (see later). South Africa had 700. New Zealand had close on 300, but it is not known for certain just how many went to Australia. In addition, many others served with the R.A.F. Schools in Southern Rhodesia. It was in these Oxfords, scattered around the Empire, that many thousands of wartime aircrew did their Service Flying Training, culminating in the presentation of their pilot's "wings". In the British Empire, as in the United Kingdom, the Oxford was predominantly a pilot trainer.

Many sceptics wondered what affect the hot, dry conditions pertaining in South Africa, Rhodesia and parts of Australia would have on the glued wooden airframes. But, in the event, surprisingly little trouble was experienced on this score and, right up to the end of World War Two, the Oxford continued to give faithful and widespread service as a pilot trainer.

As an integral part of the Empire Air Training Scheme, the Oxford fulfilled its most important task, training the aircrew of the Dominions, and its niche in history will



The one and only Oxford III, P1864, used by Armstrong Siddeley for development with the Cheetah XV engine. (Photo: "Flight" 18434)

remain secure for this alone. However, back in the U.K. it was also used in many more training and ancillary roles as the war years proceeded. With the transfer of the S.F.T.S. (Service Flying Training Schools) courses to the Dominions, the Schools in the U.K. were, apart for one or two which were kept for training special groups, turned into other units. Many became Flying Instructor Schools as the requirement for more and more instructors was urgent.

Another need arose out of the type of training being given to pilots overseas. These young men had grown accustomed to flying in clear blue skies with unlimited visibility and they were soon found to get into trouble when returning to the often murky and invariably cloud-filled skies of Britain. So, many of the Oxfords were formed into units called Advanced Flying Units (A.F.U.) which brought the new pilots into touch with the unpleasant realities of flying in the U.K., and also to many of the operational procedures in force which differed from the more rudimentary types of control in the training areas. There were Pilot A.F.U.s and Observer A.F.U.s and the Oxfords predominated in the Pilot A.F.U.s, most of them formed from existing F.T.S.s—thus No. 6 S.F.T.S. became No. 6 (P) A.F.U.

One of the features of operational flying in the U.K. was the widespread use of the Standard Beam Approach system for bad weather recovery of aircraft. To ensure that pilots were able to use the system effectively required many hours of training "under the hood" and periodical practice. This was at first carried out by No. 1 Beam Approach School at Watchfield and the Oxford became the standard type in this role. Thereafter nearly one hundred Beam Approach Training Flights were formed and attached to other units; most A.F.U.s and Heavy Conversion Units (H.C.U.) had them and there was a sprinkling of them around the various R.A.F. Bomber Command Groups to enable pilots to keep in practice. These were almost exclusively the province of the Oxford and from 1942 onwards the sight of Oxfords with yellow triangles on the fuselage (the sign of a Beam Approach training aircraft) was a familiar one throughout Britain. Also the Oxford was used widely in instrument training roles; individual aircraft being attached to many operational units, O.T.U.s, H.C.U.s and other quasi-operational units where they quickly became general-purpose "hacks" as well as being in demand for the more exacting tasks of keeping units' personnel up-to-date with their instrument-flying, thus avoiding the use of the actual operational aircraft for this purpose.

The Oxford came in for another ancillary role in 1943 when it virtually replaced the Westland Lysander in the Anti-Aircraft Co-operation (A.A.C.) squadrons. These squadrons had the boring task of flying as "targets" for the many anti-aircraft batteries throughout Britain and for calibrating the many radar stations as well. The Lysander* had taken up this task when ousted from Army Co-operation Command in 1941 and now the Oxford came in to replace it and continued to serve in this role after the war until the early 1950s.

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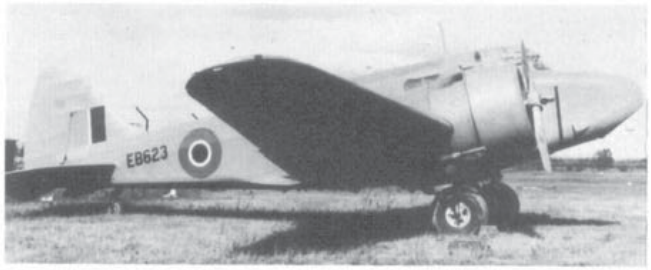
* *Westland Lysander Mks. I–III (159/7)*



Most of the Oxford Vs were shipped overseas as airframes and fitted with Wasp Juniors in Canada. Here is one of them in Canada at the end of the War. (Photo: Howard Levy)

FLEET AIR ARM SERVICE

Although basically flying single-engined aircraft the Royal Navy's Fleet Air Arm (F.A.A.) acquired a sizable number of Oxfords for various duties. First of these went to No. 782 Sqdn. at Donibristle, Scotland, to provide twin-engined conversion facilities for the Communications Squadron there which flew, among other things, a de Havilland D.H.95 Flamingo. A conversion unit for "twins" was formed at Yeovilton, Somerset, in 1941 to continue this task, more especially as the F.A.A. was using the occasional "twins" for various tasks (such as Martin Marylands for reconnaissance). Once again, the ubiquitous Oxford performed the task and continued with this unit (No. 762 Sqdn.) until November 1949. Likewise, the Oxford served the F.A.A. well with its Instrument Training unit at Hinstock (No. 758 Sqdn.) and its Beam Approach Development Unit (No. 739 Sqdn.); as well as being used as a "hack" by various other units such as the Admiralty Flight at Heston, the Air Fighting Development Unit and the Fighter Direction School.

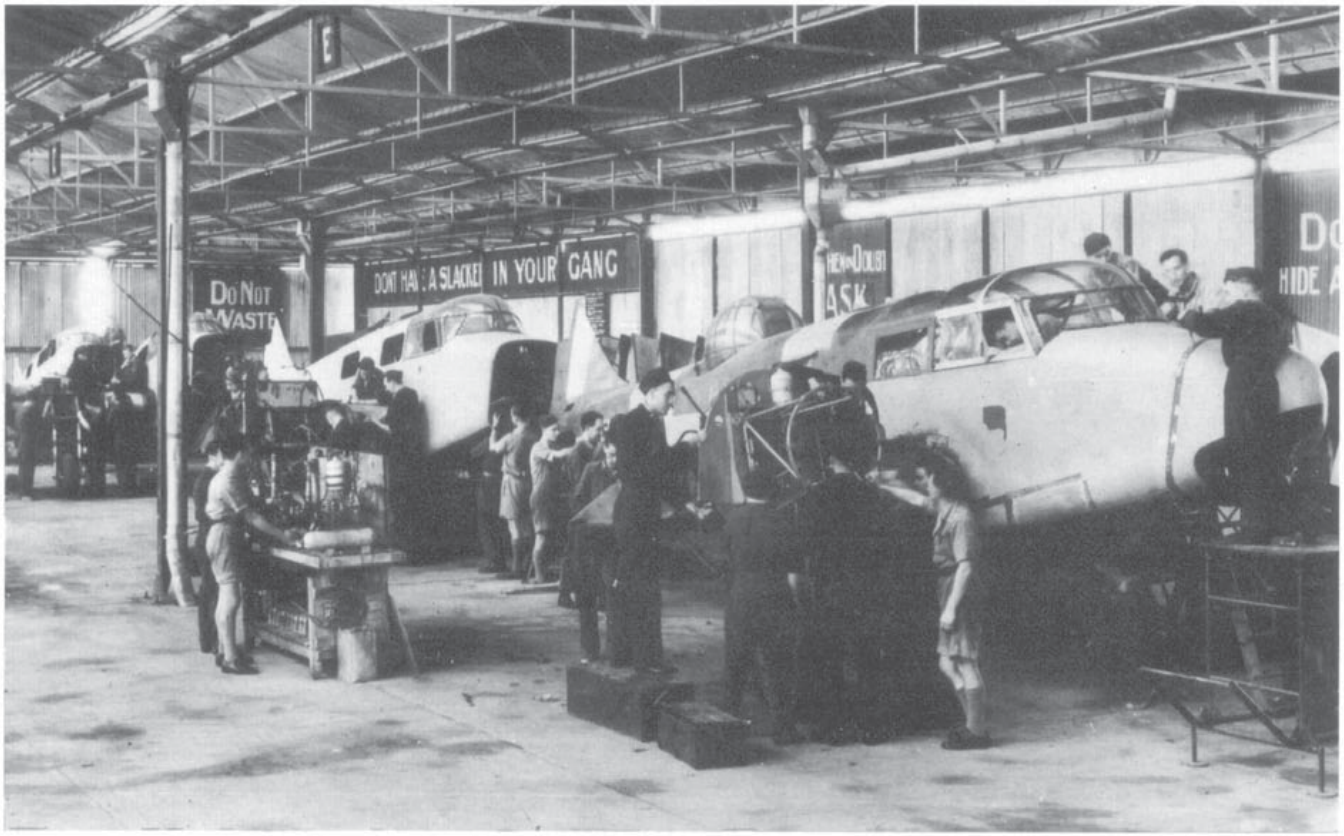
Key to colour illustrations

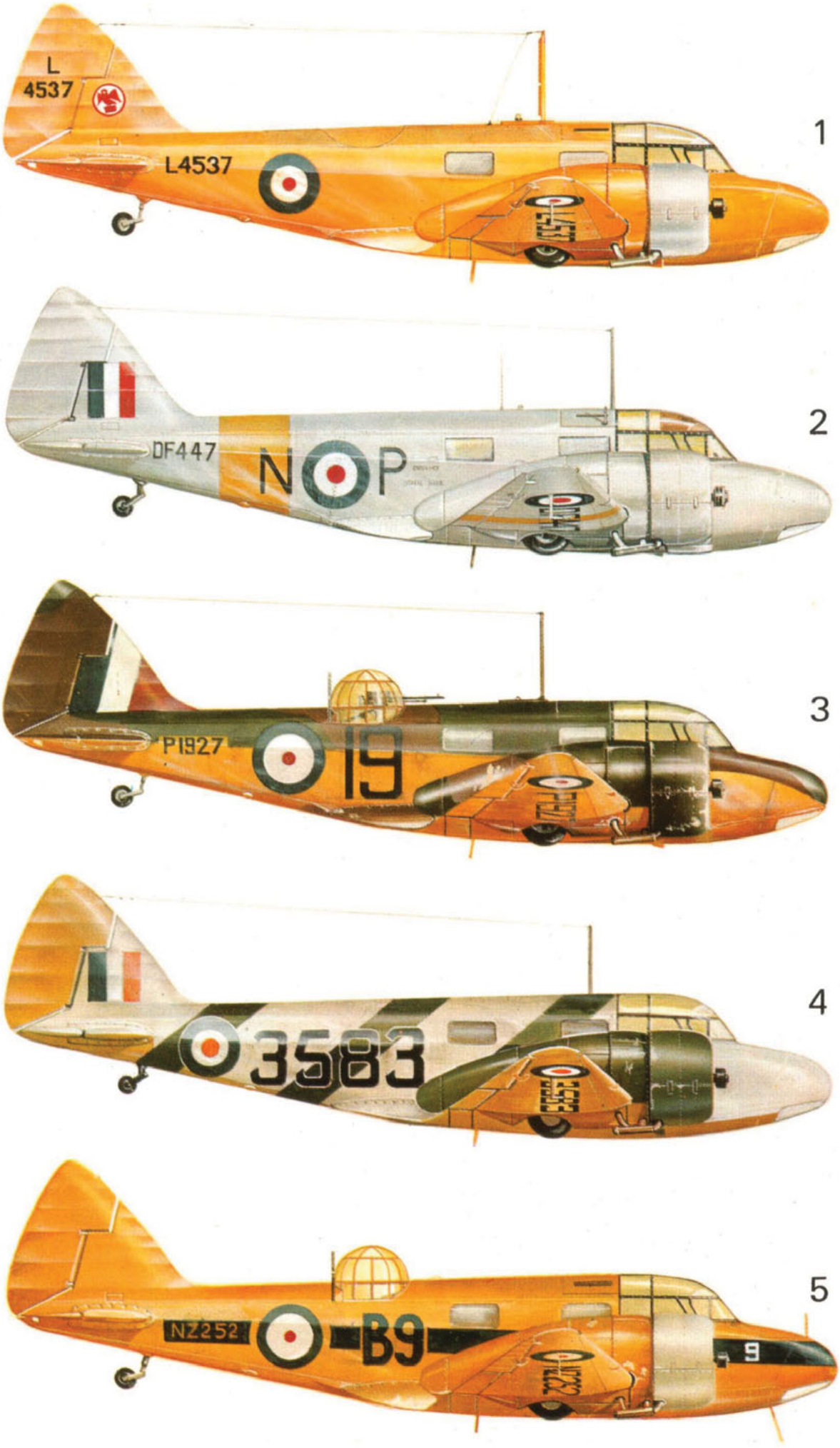
1 L4537, the fourth Airspeed Oxford I, delivered to the Central Flying School, Upavon, Wiltshire, in October, 1937. The C.F.S. badge is on the fin.
2 DF447, a 1942 Standard Motors-built Oxford I, shown in service with No.10 Advanced Flying Training School, R.A.F., in July 1953.
3 P1927, an Airspeed-built Oxford I, in service with No.14 Service Flying Training School, Cranfield, Bedfordshire, circa August 1940.
4 3583, an Oxford I of No.24 Air School, South African Air Force, Nigel, Transvaal, in 1944–5. The green stripes and nacelles denoted that the aircraft was used for Beam Approach Training and therefore to be avoided.
5 NZ252, the third production A.S.42 Oxford for the Royal New Zealand Air Force in service with No.1 Flying Training School, Wigram in 1938.

MODIFICATION AND DEVELOPMENTS

Because the Oxford proved to be a "natural" right from the start, very little modification of the basic airframe was needed. It went into service and remained in service almost in the same form as the prototype. Mention has already been made of removing the pressure head from the aerial mast; this latter was also modified by being brought forward and shortened so that it projected from the fuselage in a position just about behind the pilot's left ear. The exhaust pipes were later lengthened to enable heater muffs to be put round them to introduce heating air into the cockpit; a welcome feature on a winter's night. To deal with conditions in

Airspeed Oxford Is being assembled in Rhodesia during the War for the Empire Air Training Scheme. (Photo: I.W.M. CRH91)

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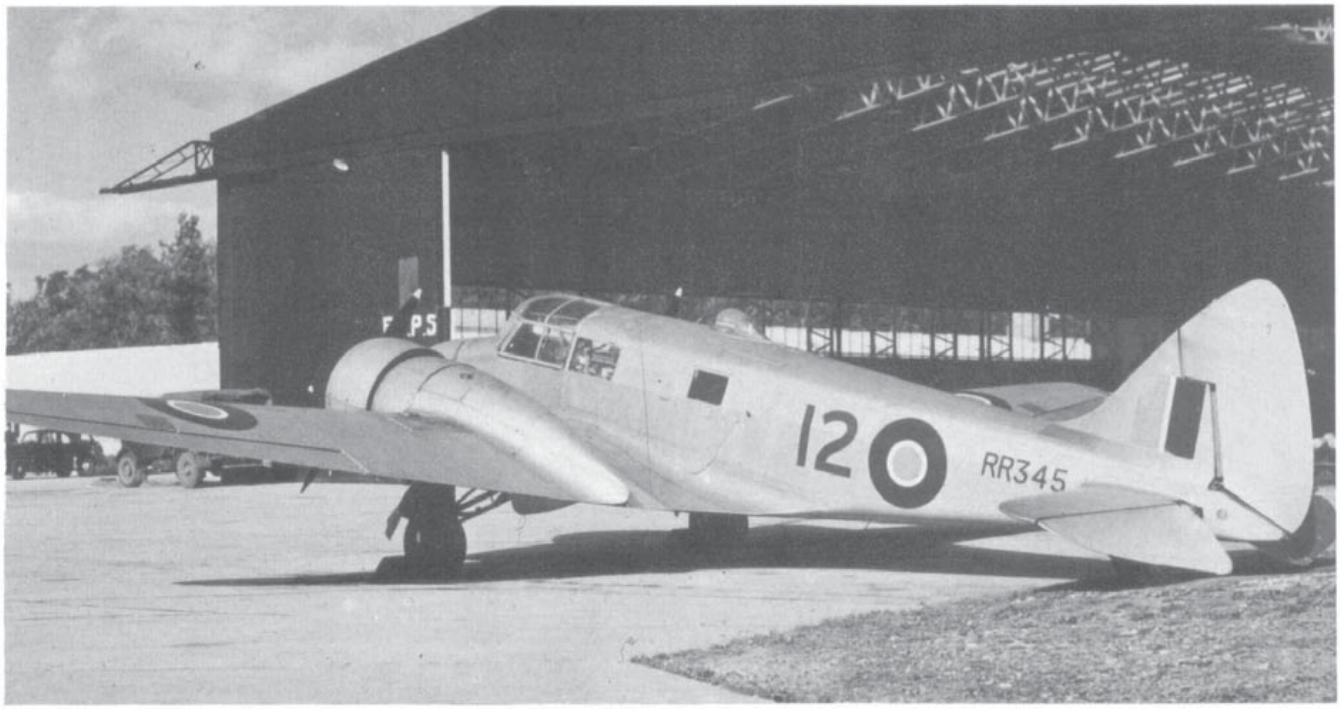


After the War one of the units using the Oxford was the Empire Test Pilots' School. RR345, one of the last Oxfords built, is here seen outside the E.T.P.S. hangar at Farnborough in 1952.

some of the dustier parts of the world a Vokes Air Filter was fitted to the carburettor air intake and this was later faired smoothly into the whole of the underside of the cowling, this modification being retrospectively fitted to many aircraft in Britain. The other semi-standard modification which was fitted in a seemingly random way was a revised form of undercarriage door, the two side doors being replaced by a frontal shield-type door.

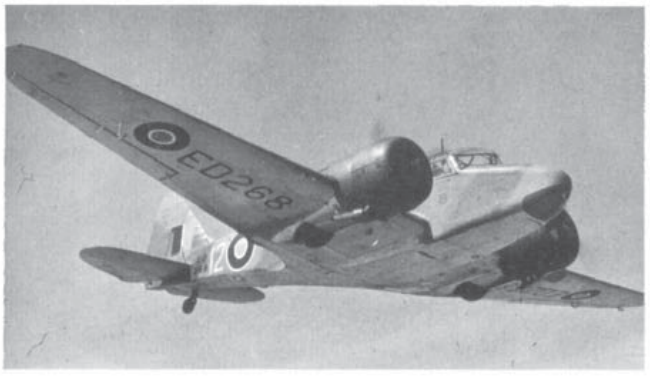
A few Oxfords were used for development testing. One of the first was L4539, the sixth production aircraft. Before going into R.A.F. service, it was delivered to Heston Aircraft Ltd. where it was fitted with the Maclaren Castoring main undercarriage. The idea of this undercarriage was to enable drift to be offset on a cross-wind landing by swivelling the undercarriage to line up with the actual line of flight. The aircraft spent 18 months to two years on these tests before being returned to standard configuration and delivered to No. 2 F.T.S.

The R.A.F. has always required its pilot training aircraft to be able to spin and recover satisfactorily and naturally the Oxford was expected to be able to do this. However, the standard Oxford did not exhibit the kind of spinning characteristics which could be let loose on trainee pilots and so some effort was made to remedy this shortcoming. One of the standard aircraft coming off the Portsmouth production line in 1939, N6327, was rebuilt with twin fins and rudders, resembling those of the Lockheed Model 10 Electra. At the Royal Aircraft Establishment, Farnborough, it was put through a protracted spinning programme. No significant improvement was apparent and this modification was not fitted to any other Oxfords; as a result the pilot training programme had to limit its spinning exercises to incipient spins.

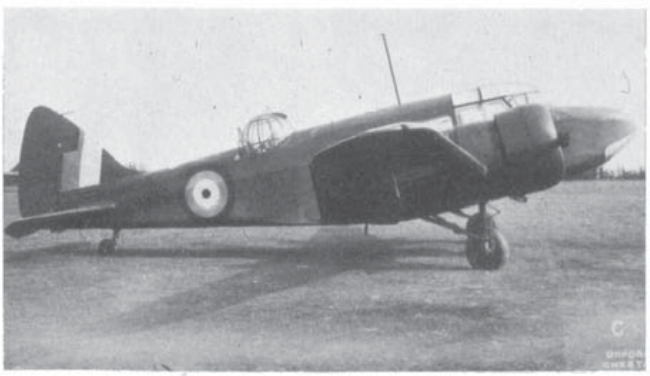
An ambulance version of the Oxford was produced in 1942 and two such aircraft, P8832 and P8833, were modified on the Portsmouth line at that time, being delivered to No. 24 Squadron at Hendon for short-range emergency ambulance flights.

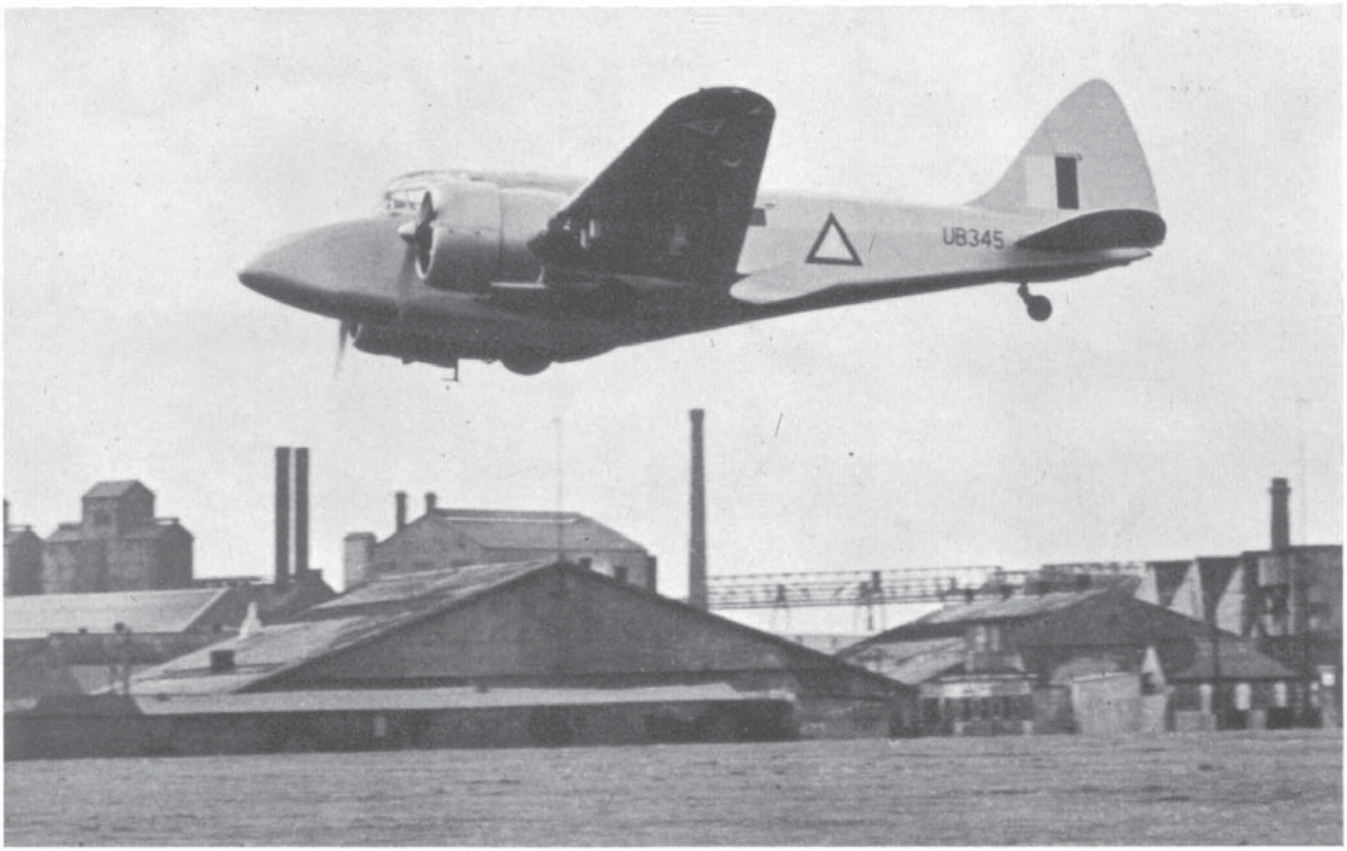
In order to get the Oxford into service quickly, the original requirement for variable-pitch propellers had

ED268, a Luton-built Mk. I, served with the A.T.A. Flying School at White Waltham. Notice the non-standard repainting of the serial number on the fuselage to allow the School number "12" to be fitted in.



The fifth production Oxford I, L4539, was used by Heston Aircraft to test the Maclaren swivelling undercarriage for landing out of wind.
(Photo: I.W.M. MH4281)





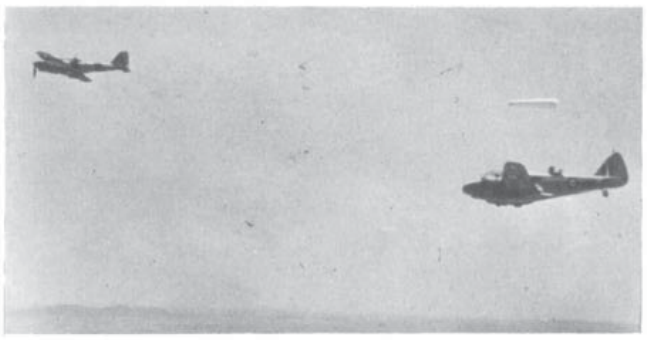
Another refurbished Oxford for the Union of Burma Air Force. This aircraft, UB345 shown here making a low flypast at Portsmouth, has a Consul-type nose and no turret.

gone by the board; although all Oxfords had a lever on the central console for this purpose. In practice, the serving Oxford Mk. Is and IIs never had such a luxury but one aircraft was so fitted. This was P1864, a Mk. II which went to Armstrong Siddeley Motors for Cheetah development and flew with the Cheetah XV in March 1940; this aircraft was fitted with Rotol constant-speed propellers and was used for a couple of years by both Armstrong Siddeley and Rotols for engine and propeller development, before it was eventually converted to Mk. V standard. This particular aircraft was known as the Mk. III of which it was the sole example.

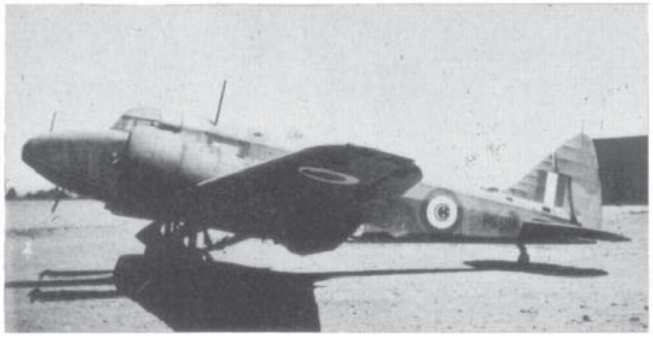
During the war two further re-engined Oxfords appeared. The first, eventually abandoned, related to a Mk. I. AS 50 4 which was delivered to the De Havilland Engine Co. Ltd. where, in 1942, it was fitted with two D.H. Gipsy Queen IV engines. This was purely an experimental installation for the Gipsy Queen IV only gave 250 h.p. against the Cheetah X's 375 h.p. but the aircraft was used on Gipsy Queen development flying before becoming a "hack" at various Ministry of Aircraft Production units including A. & A.E.E. (Aeroplane & Armament Experimental Establishment) Boscombe Down and R.A.E. Farnborough, eventually reverting to Mk. I standard. This aircraft was known unofficially as the Oxford IV although this designation had been earmarked for a pilot-training version of the Mk. III and never materialised.

The other re-engining was a much more important affair and led to the development of another major version of the Oxford. Two factors together led to thoughts about re-engining the Oxford. One was the great demand on Armstrong Siddeley Motors for Cheetah engines, principally for the Oxford and Anson,

Although the Oxford was generally used for pilot training some did find uses for gunnery training, especially overseas. Here a trainee gunner in Rhodesia fires from his turret at a drogue towed by a Fairey Battle.
(Photo: I.W.M. CRH33)



PG951 was one of the Oxfords used in the Middle East at the end of the War and then transferred to the Egyptian Air Force.
(Photo: A. J. Jackson)



Airspeed A.S.10 Oxford I – period May 1943 – of No. 15 Service Flying Training School, R.A.F. Station, Kidlington, near Oxford. This was the 403rd of 422 built at Portsmouth by Airspeed (1934) Ltd. in the BG100-668 serial range as Mk.Is or IIs.

M. Trim © Profile Publications Ltd.

Many of the Operational Conversion Units used Oxfords after the War. EB813 served with No. 237 O.C.U., the photo-reconnaissance conversion unit, in the early 1950s.

N6250, built before the War, was one of many Oxfords which had a long and useful life. It is shown here during its service with No. 2 S.F.T.S. in 1941.

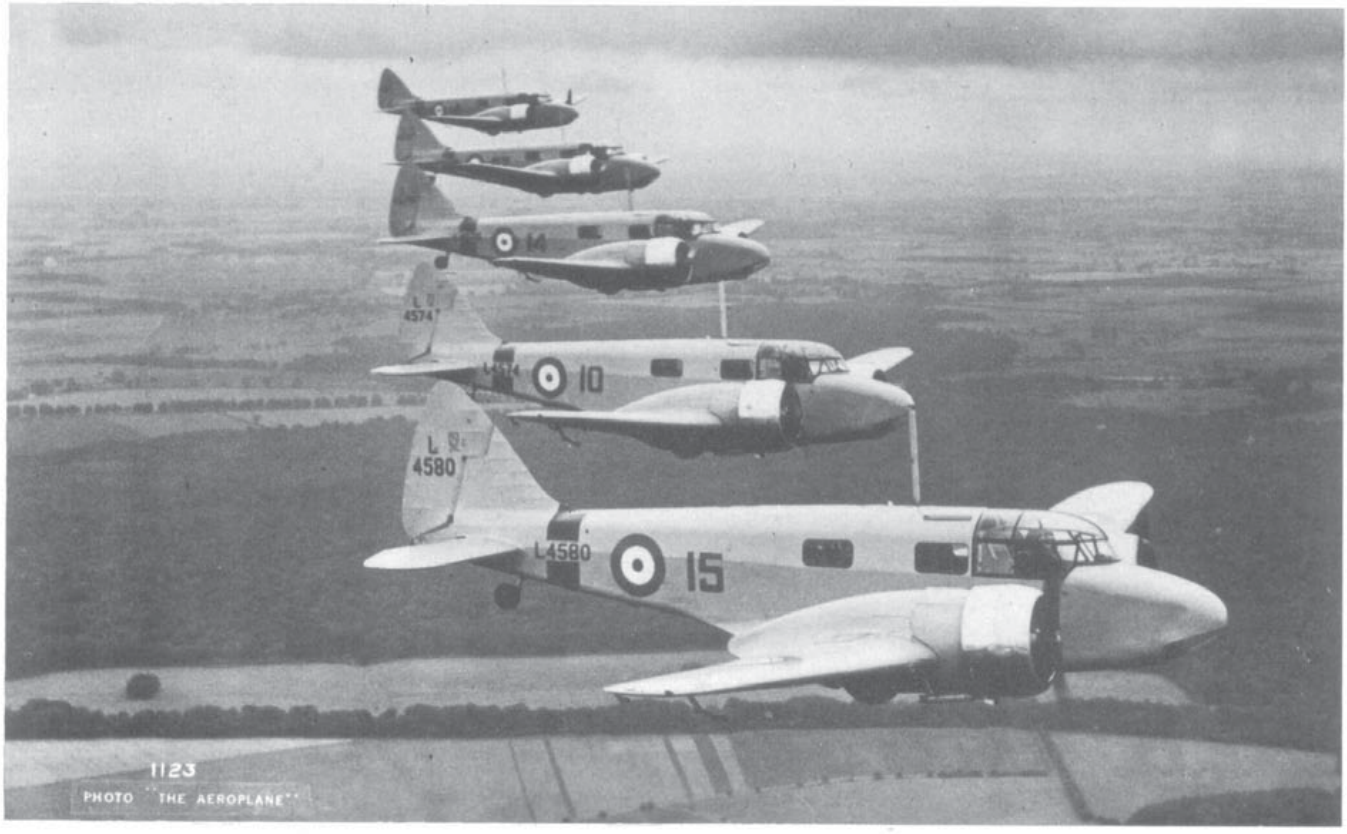
the second factor was the rather wasteful process of exporting engines to the New World (the Oxfords to Canada) when there was a suitable engine sitting waiting on that continent. This engine was the Pratt & Whitney Wasp Junior of 450 h.p. A trial installation was made on AS592 in 1941 and this became the prototype for this variant, the Mk. V, which was also fitted with Hamilton Standard constant-speed propellers. This became the third major version of the Oxford, 196 being produced as Mk. Vs and many more converted, the airframes being sent overseas and the engines fitted on arrival. The extra power, together with the refinement of variable-pitch propellers, put 20 m.p.h. on the top speed and halved the rate-of-climb time taken to 10,000. This was an added bonus of help in the hot and high conditions of Southern Africa where they served in Southern Rhodesia (but not with the South African Air Force).

One final engine development took place on an Oxford although this was not until 1946. Miles Aircraft of Woodley, Berkshire, converted Oxford, LX119, to take two Alvis Leonides radials and the aircraft, first flying with these engines on June 3, 1946, was used for Leonides development. Designated the A.S.41, this aircraft subsequently appeared on the British Civil Register as G–AJWJ and also carried the Class B registration U7 before being broken-up in 1948.

EXPORTING THE OXFORD

When the Oxford was first ordered for the R.A.F. in 1937 it made an immediate appeal to two other British Dominion air forces which were looking for a similar aircraft, namely Canada and New Zealand. Both countries ordered, and received, small quantities before the outbreak of World War Two. The Canadian order, for standard Oxford Mk. Is, was for 25 aircraft (R.C.A.F. serials 1501–1525) and these were shipped in 1939 and

A neat echelon port formation flown by five Oxfords of No. 3 F.T.S., South Cerney in 1938. The black band around the fuselage forward of the empennage was to denote No. 3 F.T.S. (Photo: "The Aeroplane")



Morning line-up at Cranfield in the summer of 1940. One aircraft is turretless, others show variation in nose camouflage and have a coloured patch below the turret housing. The unit is No. 14 S.F.T.S. (Photo: I.W.M. CH1094)

assembled by Canadian Vickers (in December 1944 renamed Canadair Ltd.) at Montreal before being issued to the Central Flying School at Trenton and No. 1 S.F.T.S. at Camp Borden. The New Zealand order was originally for five Oxfords. They incorporated modifications and so were re-classified as A.S.42s except for one aircraft which was modified for survey work and given the designation A.S.43. The five Oxfords (NZ250 to NZ254) served initially with No. 1 F.T.S., R.N.Z.A.F. at Wigram. Further orders of six, 70 and 35 were fulfilled at the beginning of the war by diverting aircraft from R.A.F. production batches and both countries received far greater quantities of Oxfords under the Empire Air Training Scheme, those going to Canada retained their R.A.F. serial numbers while those to New Zealand were re-issued with R.N.Z.A.F. serials.

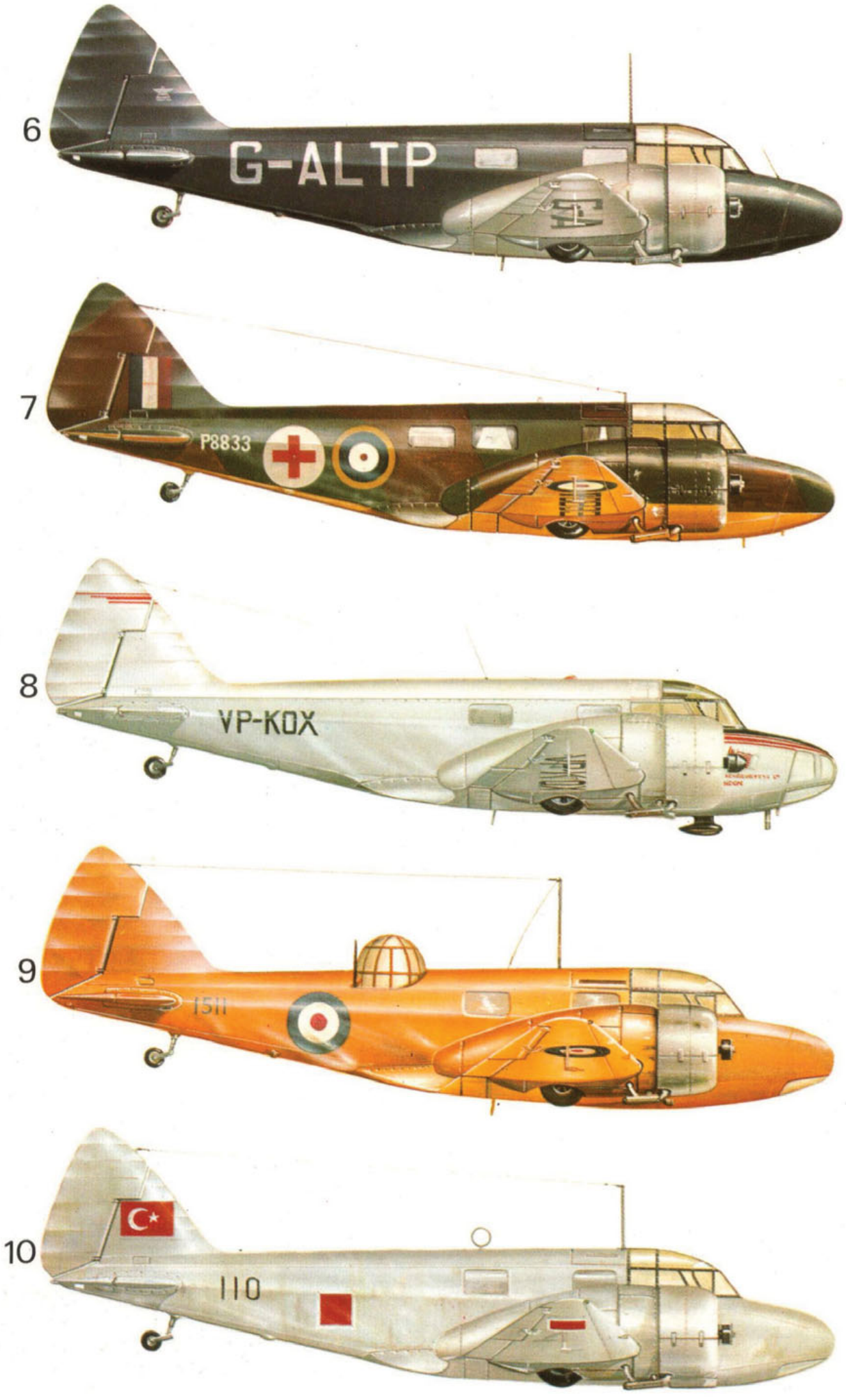
With the advent of the E.A.T.S., Oxfords were sent across the world in their hundreds with 188 going to Canada as Mk. Vs in addition to other Mk. Is and IIs. A total of 297 went to New Zealand and 389 to the R.A.A.F. in Australia (they retained their original R.A.F. serials). Approximately 700 went to the South African Air Force where they were renumbered 1900 to 1999 and 3300 to 3899. Also several hundreds more served as part of the R.A.F. in Southern Rhodesia.

World War Two prevented any further formal contracts but during the course of the conflict some Oxfords were allocated to various Allied and neutral countries. Portugal was one of these, receiving an unknown quantity of Oxfords for use by both the Army and the Navy, the latter using six Mk. IIs for navigation training. The R.A.F. used about 40 Oxfords in the Middle East and in due course they found their way both to the Royal Egyptian Air Force and the Turkish Air Force. The latter took delivery of a small quantity of refurbished Oxfords after the war. At least three found their way into the Imperial Iranian Air Force and six were sold by the R.A.F. to the Congo in 1944. Others served in India with the R.A.F. towards the end of the war and there they became the initial equipment of No. 12 Squadron, Royal Indian Air Force as transport aircraft in 1946, although they were soon superseded by Douglas Dakotas.* Other Oxfords served with the United States Air Force in the U.K., mainly on "hack" and instrument training duties.

After the War the newly-freed countries in Europe

* *Douglas DC–3 (96|4) Dakota Mk I–IV (200|10)*

Trapper's Tool. This Oxford, EB863, was used after the War by the Empire Flying School at Hullavington by the standards flight which went from Flying School to Flying School to check instructor's categories (hence the name "trappers"). This aircraft shows radio modifications with the deletion of the standard aerial mast, an S.B.A. (Standard Beam Approach) mast just aft of the cockpit, D|F loop in streamlined casing above the fuselage and additional non-standard aerials above and below the nose. The date is July, 1948. (Photo: Author)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G-ALTP
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P8833
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VP-KOX
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110

Key to colour illustrations

6 G–ALTP, an A.S.40 Oxford (civil conversion of PH321 of the R.A.F.) in service as a twin-trainer with Air Service Training Ltd., at Hamble, Hampshire, in 1950.
7 P8833, the second of two ambulance conversions of the Oxford built at Portsmouth in 1940 and presented by the Girl Guides Association in 1941. This aircraft served with No.24 Squadron, R.A.F., at Hendon, and was later named "Nurse Cavell".
8 VP–KOX, an A.S.40 Oxford, modified for survey work and used by Hunting Aerosurveys Ltd., in Kenya in 1958–9.
9 1511, eleventh production Oxford I for the Royal Canadian Air Force, in service with the Canadian Central Flying School at Trenton, Ontario, in 1939.
10 110, an Airspeed Oxford, delivered to the Turkish Air Force after World War Two.

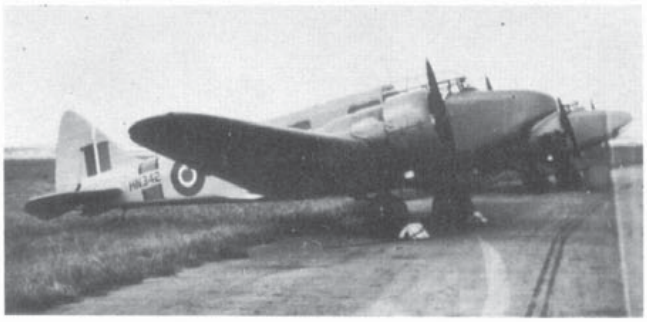
leaned heavily upon Britain and the U.S.A. to restock their air forces and the Oxford became involved in this, too. Both the Royal Belgian and Royal Netherlands Air Forces used ex-R.A.F. Oxfords as advanced twin trainers in the immediate post-war years, as did the Netherlands Navy which flew five of them. The Royal Norwegian Air Force took 20 Oxfords for its flying school at Gardemoen and the Royal Danish Air-Force had 48, some of which initially equipped Nos. 721 and 722 Squadrons. Another air force re-starting after the War was the Royal Hellenic Air Force and this acquired an unknown quantity of Oxfords.

As the British Empire was dismantled in the immediate post-war years, so the R.A.F. had the constructive task of helping new air forces to emerge; and with two of these the Oxford was involved. The Royal Ceylon Air Force received two Oxfords from the R.A.F., and the Union of Burma Air Force ordered some refurbished Oxfords from Airspeed who produced them at Portsmouth in 1948. These aircraft revived the mid-upper turret, a feature that had disappeared from most Oxfords several years before.

Thus the Oxford played a part in the renaissaince of post-war air forces.

THE OXFORD IN CIVIL GUISE

In October 1938, one of the early production Oxfords, L4538, was taken from the production line and specially fitted-out with blind approach and other radio equipment. It was given British civil marks as G–AFFM and delivered to British Airways Ltd. at Heston who used it

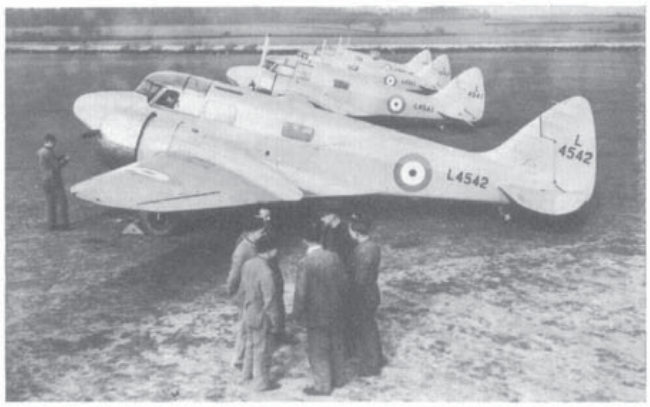


Oxford in Rhodesia. One of the hundreds used in the Rhodesian branch of the Empire Air Training Scheme, HN342 was serving with No. 33 Flying Instructors' School at the time this photograph was taken.
(Photo: D. A. S. McKay)

both for radio-navigation development and for training purposes. It was re-designated A.S.40. and this became the standard designation for all civil Oxfords although no more were to appear for seven years or so. This particular aircraft barely survived the outbreak of war, flying into the balloon barrage in the Portsmouth area on November 20, 1939 and crashing at Gosport. The next step toward civil Oxfords (apart from the allocation of the marks G–AFVS to an airframe due to go to Canada in August 1939) was the acquisition by the British Overseas Airways Corporation (B.O.A.C.) of a small fleet of Oxfords during the war which it used in its training fleet for a number of years. Seven of these were re-registered with civil marks in 1946 (G–AIAT to G–AIAY & G–AIRZ) being re-designated A.S.40 as were all subsequent civilianised Oxfords. Another training fleet of Oxfords which appeared after the World War Two was that flown by Air Service Training Ltd. at Hamble, Hampshire, which put four of its own into the fleet and then took over two of the B.O.A.C. ones and used them on "twin" training for over a decade. Several were used as executive aircraft and general runabouts by various companies in the aviation industry. These included: G–AHDZ used by Scottish Aviation; G–AHGU by Bristol Aeroplane Co. Ltd.; G–AHTW by Boulton Paul; G–AIUH by Reid & Sigrist and G–AJNC by Fairey Aviation. One actually became civilianised complete with its mid-upper gun turret. This was V3870 which became G–AHXA and belonged to the Brevet Flying Club before finding its way to Egypt as SU–AER in 1947—but minus its turret. Various different small companies acquired Oxfords for civilianising, many of which never got as far as being converted for civil use. One flew with Hunting Aerosurveys on camera work, and Lancashire Aircraft Corporation bought four intending to convert them at Squires Gate in 1950 but

Another of the Oxfords in service with No. 8 A.F.T.S. as late as 1953 was X6781, a Mk. I which had been built early in the War.
(Photo: Author)

NM537 was one of the Oxfords which continued to serve with the Fleet Air Arm after the War, being based at Stretton in 1947.
(Photo: Air-Britain Archives)



This early line-up outside the factory at Portsmouth was taken in March, 1938. The aircraft are painted yellow overall with natural metal cowlings and only the farthest aircraft, L4544, has a dorsal turret although they are all Mk. Is. (Photo: "Flight" 15455S)

only one came to fruition. Britavia bought four and promptly sold them to Israel's air force during 1951–2. Also, one or two other conversions were made and sold overseas.

In fact overseas Oxfords appeared in France with the airline UAT, in Egypt, Hong Kong, Sweden, Finland, Southern Rhodesia, Mexico, Spain and Norway. Two RNZAF aircraft were operated by G. M. Gould in Wellington, New Zealand for a short while after the war before being returned to the RNZAF.

Further use of the Oxford as a civil aircraft did not take place because of an astute move by Airspeed. With the war over, the company bought back upwards of 100 Oxfords from the Royal Air Force at a very low cost and set about turning them into small charter airliners. With a minimum of alterations the aircraft appeared as the A.S.65. Consul (which is outside the scope of this Profile) and, accordingly, favourably priced, offered an attractive buy for all the small firms mushrooming immediately post-war. Within 18 months of the Consul's appearance, approximately 150 had been sold and this virtually halted the use of pure Oxfords in the civil field.

Aircraft from three different production batches (N4640, P6823 "24", N6258) fly from 14 S.F.T.S., Cranfield in 1940. Note the different lines of the nose camouflage, the anti-gas diamonds on top of the fuselage forward of the fin and the black unit no. "24" on P6823.
(Photo: I.W.M. CH1098)

POST-WAR SERVICE USES

Although many Oxfords were thrown up as surplus when the R.A.F. was cut down at the end of the war there were still fresh tasks for the type. In fact many were drafted into Fighter Command at the end of the war because, with the advent of the Gloster Meteor and de Havilland Hornet* as day fighters, many fighter pilots who had spent all their lives flying single-engined aircraft were suddenly in need of converting to "twins". Accordingly, most fighter stations had several Oxfords either attached to the station or to the individual squadrons on it. Also the new style of operation in R.A.F. Fighter Command would be requiring much higher standards of instrument flying so two squadrons were allocated especially to this task of working up the instrument flying (No. 1 at Tangmere in 11 Group and No. 41 at Church Fenton in 12 Group) and equipped with North American Harvards and Oxfords to do this.

The revival of the Auxiliary Squadrons also drew upon the stocks of Oxfords to provide conversion and instrument training for those squadrons receiving de Havilland Mosquitos† and those with Meteors whilst Oxfords remained in service with the Anti-Aircraft Co-operation Squadrons and the newly-formed Civilian Anti-Aircraft Co-operation Units. Quite a few Oxfords were also in use for communications duties both with Station Flights and with Group Communications Flights.

The Oxford's final fling with the R.A.F. came in 1952 when the rush expansion resulting from the Korean War took place. New Advanced Flying Training Schools were formed and four of these were equipped with sizable fleets of Oxfords. Flying Refresher Schools were also opened to bring up-to-date those pilots who had been demobilised and recalled and one of these Schools flew Oxfords. But this was the swan song of the Oxford and when the immediate urgency petered out in 1954, so, too, these temporary schools were closed down. Once again the Oxford began to disappear from view, this time, rapidly. Within a short while, the only examples left in the Service were communications aircraft. These, also, soon departed to be replaced by the later versions of the Anson.

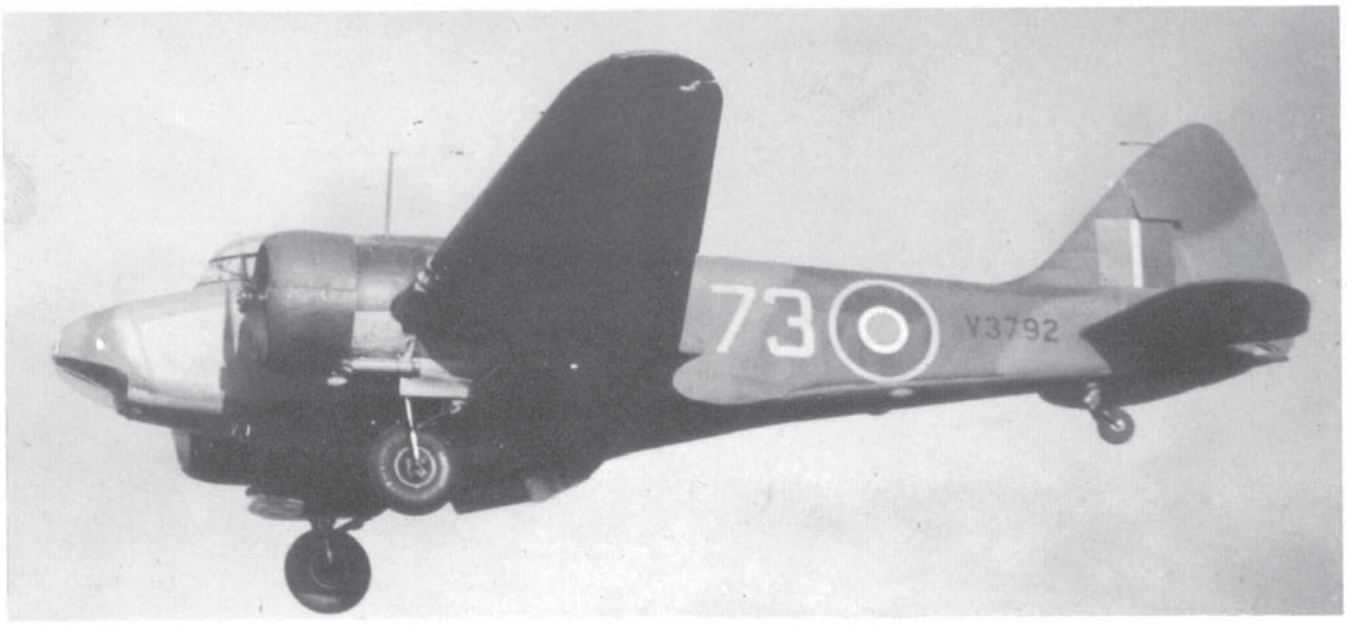
Unsung, quite inconspicuously, the Oxford died as it had lived—unpretentiously providing useful and unglamorous service in many different ways to the Allied cause, but supremely, by providing a sound vehicle for the training to a high standard of many thousands of Commonwealth and Allied pilots. Truly the Oxford owed the British Commonwealth nothing when its days were ended.

FLYING THE OXFORD

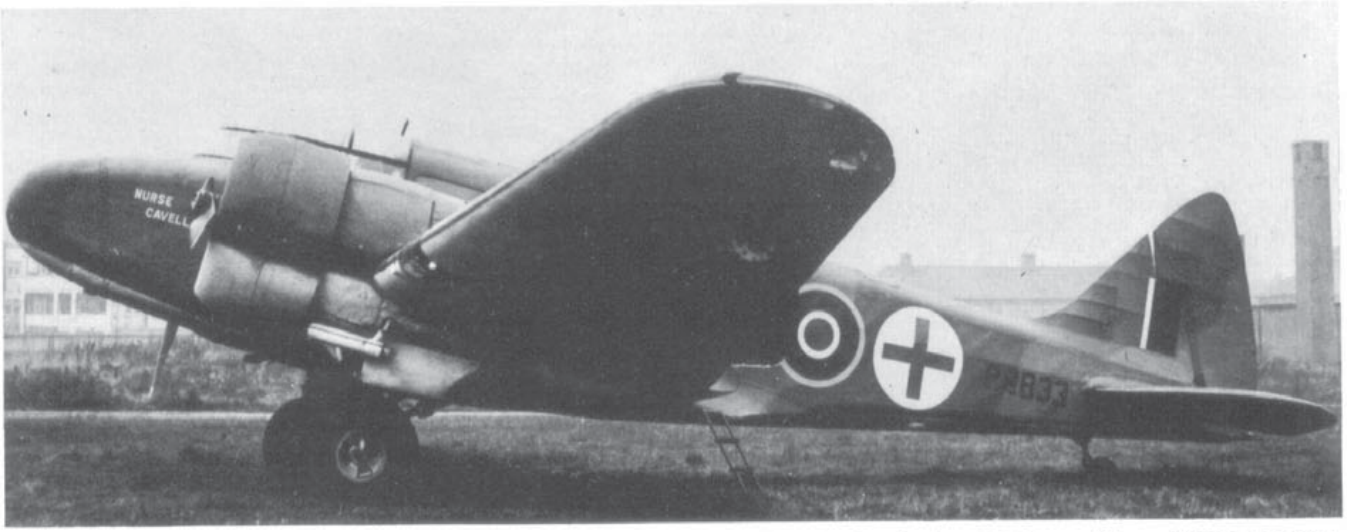
To thousands of trainee pilots, fresh from their Elementary Flying Training Schools—where most of them had clocked up about 80 hours on de Havilland Tiger Moths—the Oxford appeared as a large, compli-

* *Gloster Meteor Mk IV (74/8) Gloster Meteor Mk. 8 (12/1) de Havilland Hornet (174/8)*

† *de Havilland Mosquito Mks I–IV (52/3) de Havilland Mosquito Mk IV (209/9) de Havilland Tiger Moth (132/6)*

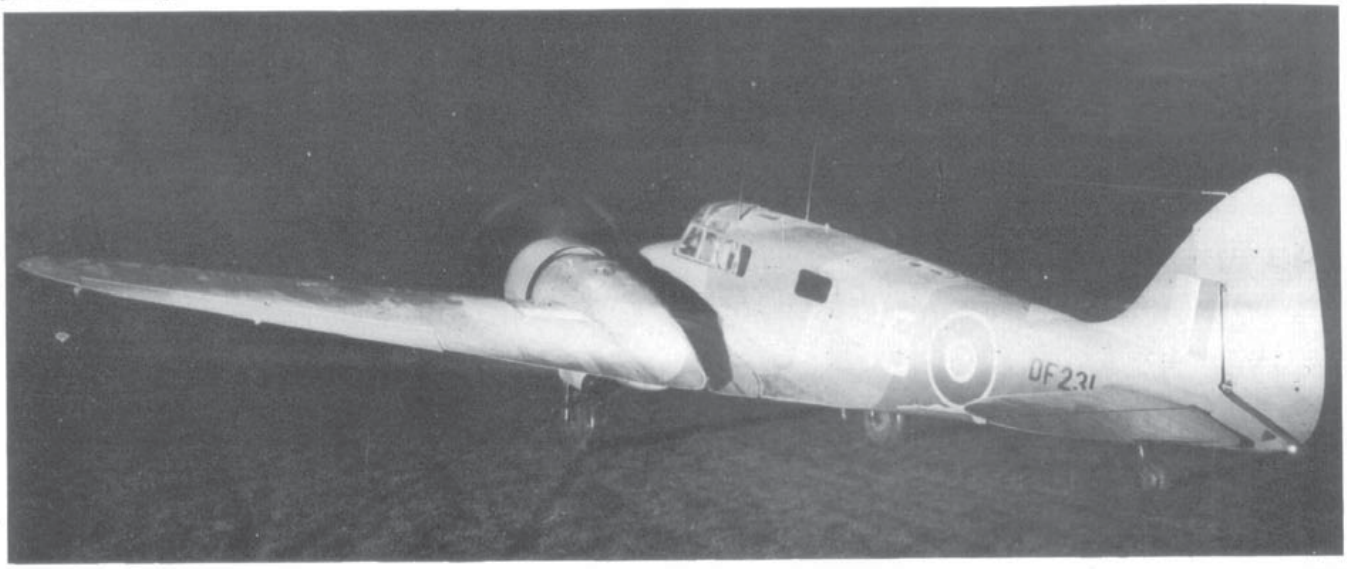


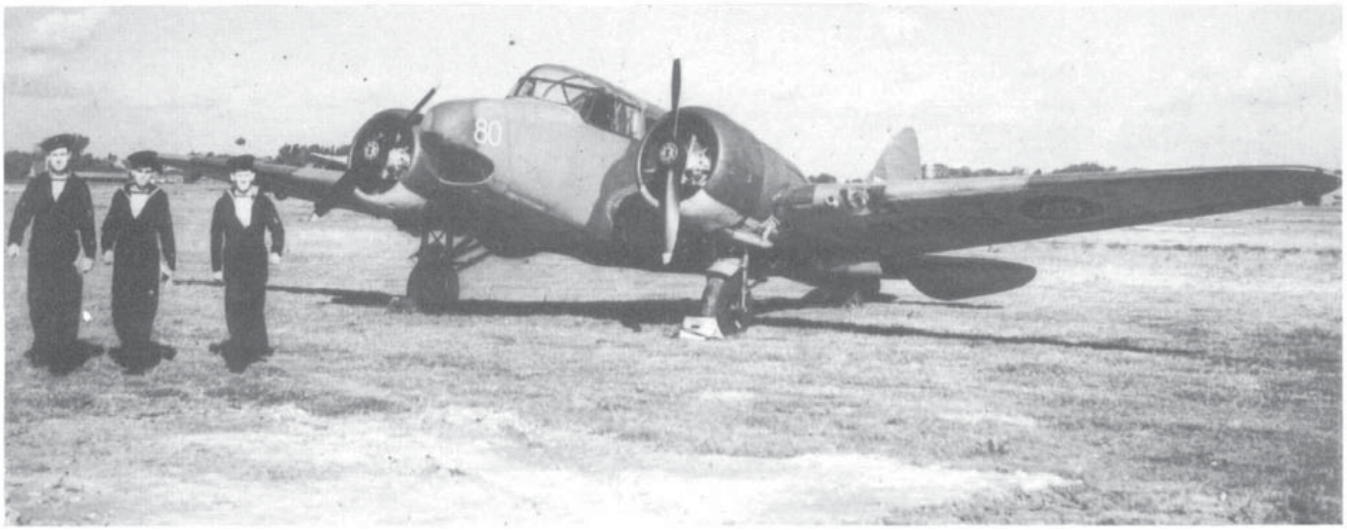
Typical of so many Oxfords in mid-war guise is V3792 coming in to land at the Empire Central Flying School at Hullavington in 1942.
(Photo: I.W.M. CH11724)



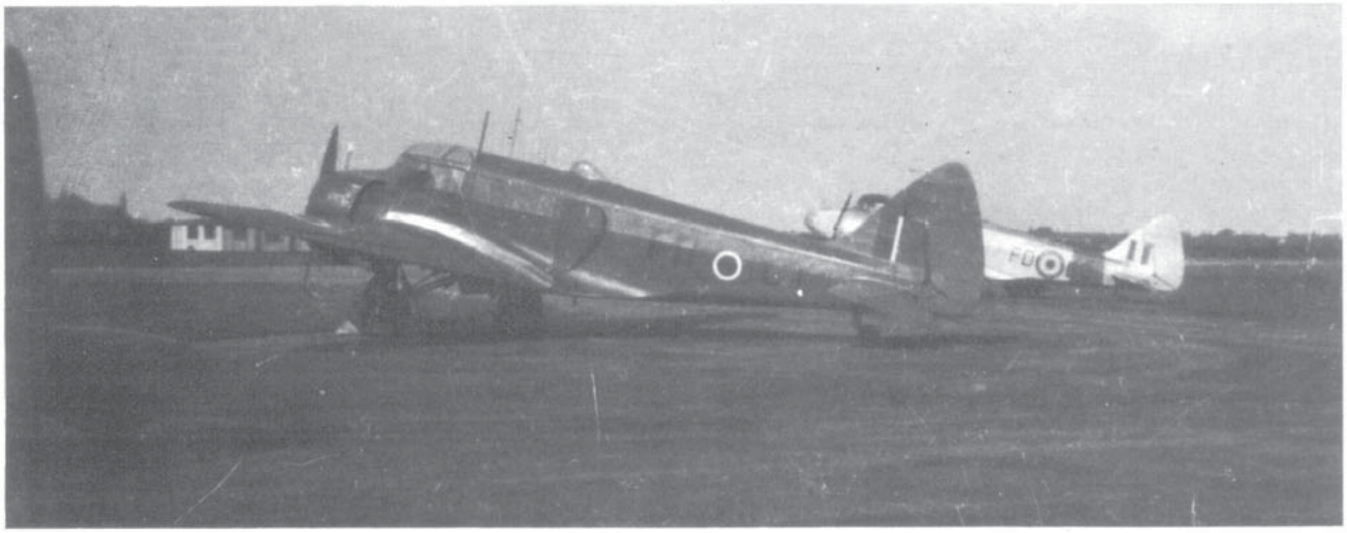
The second of the two Oxford ambulances, P8833, named "Nurse Cavell", in service with No. 24 Squadron late in 1942. (Photo: I.W.M. CH11526)

DF231 "15" of the Empire Central Flying School, Hullavington, gets a "green" for a night take-off. The second aerial shows this aircraft to be fitted for S.B.A. training.
(Photo: I.W.M. CH8202)



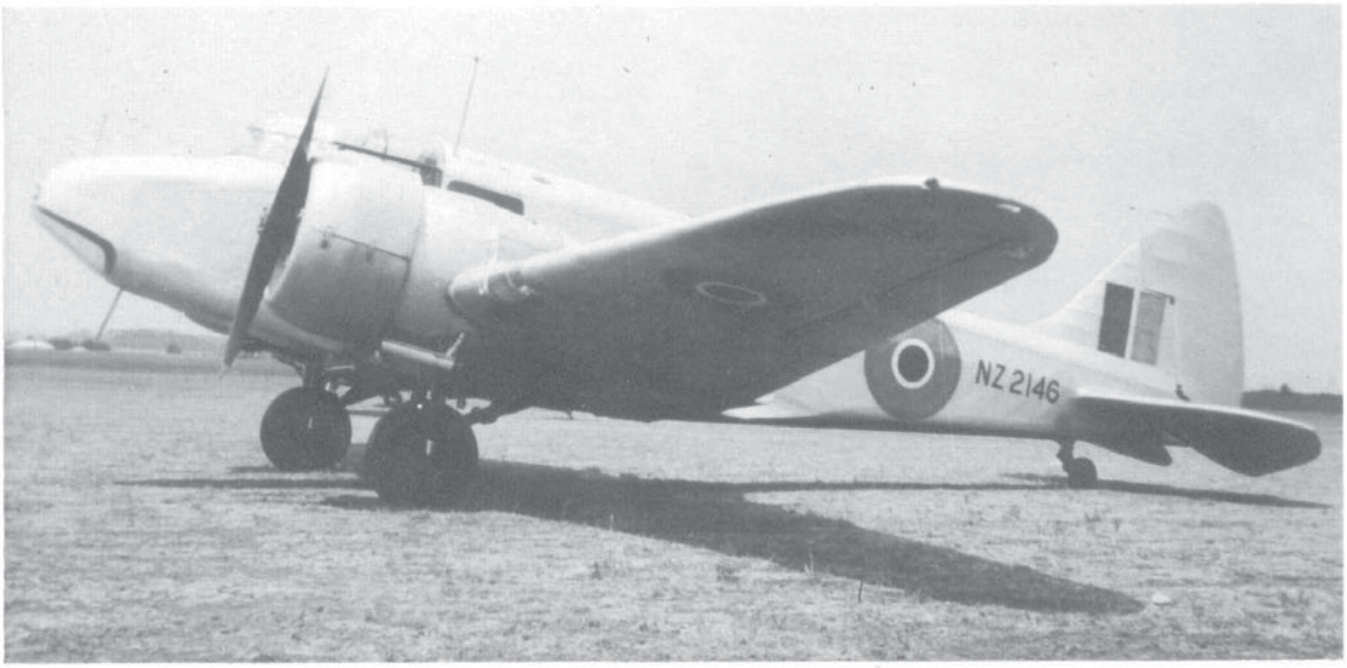


Oxfords were used quite extensively by the Fleet Air Arm for both twin and instrument training. One such as R6180 shown here.
(Photo: I.W.M. A19273)



One of the last units to use the Oxford in its pilot training role was No. 21 (P) A.F.U. at Finningley, where it became 202 A.F.S. The two Oxfords of the unit shown here display the two post-war colour schemes of yellow overall or silver with yellow bands. (Photo: R. C. Jones)

One of the many Oxfords which served on training duties with the Royal New Zealand Air Force was NZ2146.



cated, frightening monster. Certainly this writer remembers it thus, surveying its 53 feet 4 inch span and two large engines providing 750 horses compared with the Tiger Moth's 130 and thinking "I'll never manage THIS!" Nor was the first flight to allay his fears immediately for the Oxford was deliberately intended to be difficult to fly well, the hallmark of any good training aeroplane. One feature the Oxford had which was both reassuring and helpful was that of the cockpit layout. This had been specially designed at a time when most aircraft just had the instruments placed, apparently, willy-nilly. Thus, the Oxford's cockpit was a delight to behold. The left-hand seat faced a standard Flight Instrument panel carrying the six basic flight instruments with other ancillary flight instruments grouped around it. The engine instruments were grouped on the right panel with some additional flight instruments for the instructor whilst the engine controls and flap and undercarriage controls were carried down the central pillar and on the central console in the order in which they would be used from start-up so that it was reasonably foolproof to work down the panel. Trim wheels were carried on the central console and worked in the natural manner.

Starting was much more complicated than the old "Contact" days of the "Tiger" and involved an accomplice on the wing winding the engine up. But the system was effective enough and normally few problems were encountered. The Oxford (or "Oxbox" as it was usually known in the R.A.F.) taxied easily and could be turned very sharply by judicious use of brake and engine. With a fairly high ground angle it was still advisable, however, to swing the nose from side-to-side betimes in order to see directly in front during taxying.

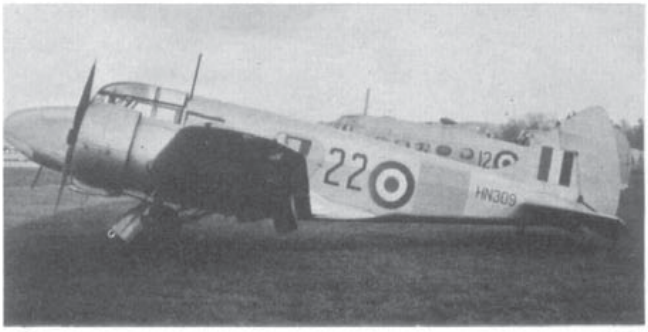
It was the take-off which began to show that the Oxford could have a mind of its own. The clue to a good take-off was to get the tail-wheel straight before opening the throttles and then to lead all the way to full throttle with the starboard engine for, although the Pilot's Notes mumbled something about "exhibiting a slight swing to starboard", in practice most aircraft had a pronounced swing to starboard. In the initial stages, it could not be held by rudder and brake alone and early attempts at take-off could be seen by the serpentine paths followed by the aircraft. Once speed mounted, a steady push on the stick raised the tail, improved the forward vision and brought about more rudder effectiveness. The tail was held fairly high until flying speed was reached (approximately 70 m.p.h.) to keep the aircraft from "porpoising" on-and-off and then a firm, steady pull back would bring the "Oxbox" cleanly into the air. As the speed mounted a jab of brake and then clean the undercarriage up and the good qualities of the Oxford became apparent. A climb away at 110 m.p.h. produced the best climb (approximately 960 ft/min at ground level). And, once airborne the aircraft provided a good mount both for cross-country work (with a 900-mile range) for which it could be trimmed accurately to fly "hands-off", and for the more energetic type of exercises such as formation-flying, tail-chasing and so on. For these pursuits the light, well-harmonized ailerons and the powerful but easily trimmed elevators were ideal and, had it been stressed for the job, the aircraft would no doubt have made a good aerobatic mount but as it was not so stressed such manoeuvres were officially and properly frowned upon. The only control which was lacking was the rudder which was somewhat sluggish and for which the trim was far from ideal; with the result that single-engined flying could be a tiring business (a feature, incidentally, which made the Oxford an ideal conversion trainer for the Meteor) if carried on for over long.

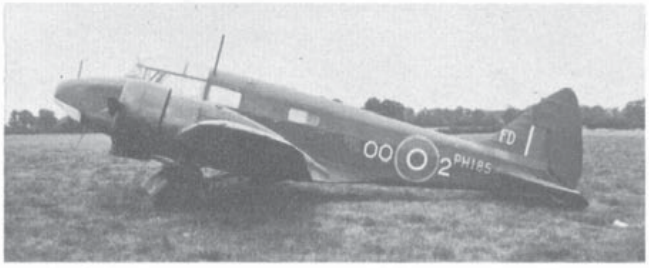
Stalling was always an interesting business on the Oxford because occasionally one came across an aircraft that would stall straight but normally there would be a reasonably pronounced wing drop. However one never knew which wing was going to drop and the

A line-up, possibly at No. 1 F.T.S., R.N.Z.A.F., of some of the early Oxfords sent to New Zealand for the Empire Air Training Scheme. Note one camouflaged aircraft in the line.
(Photo: R. Montgomery via R. C. Jones)

The Royal Danish Air Force acquired forty-eight ex-R.A.F. Oxfords after the War for training and communications duties.
(Photo: I.P.M.S. Denmark)

Several Oxfords continued to serve with the Reserve Flying Schools into the early 1950s, HN309 being on the strength of No. 15 R.F.S., Redhill.
(Photo: A. J. Jackson)





Another Fleet Air Arm Oxford, PH185 belonged to the Service Trials Unit, No. 778 Squadron and was coded "002/FD" in 1947.
(Photo: F. G. Swanborough)

Oxford 4326, one of twenty bought by the Royal Norwegian Air Force for training duties at Gardemoen, seen here at Sola.

same aircraft would not always drop the same wing. This made it a very good training aircraft because the pupil soon acquired a habit of detecting and picking-up any wing that dropped before the aircraft reached the incipient spinning stage unless the exercise took one purposely to the incipient spin. Full spinning was not allowed; although, if the aircraft inadvertently got into such a position, it could usually be recovered using normal recovery action plus the assistance of inside engine. Stalling took place, "clean", at 67 m.p.h. and fully "dirty" at 60 m.p.h.

The Oxford was a pleasant aircraft in the circuit for the view was good. It ambled around the circuit at a pleasant 120 m.p.h. allowing plenty of time downwind for the vital actions to be sorted out. With full flap, a fairly pronounced nose-down attitude developed, giving an excellent view of the intended landing path, the approach being made at 80 m.p.h. with power, or 85 m.p.h. for a glide approach. At the flare out it was necessary to give a firm heave on the "stick" to rotate the aircraft for touch-down and in most cases one ended up with a tail-down wheeler. Three-point landings required much practice and were certainly not to be recommended if there was the slightest cross-wind component. This was because the high ground-angle of the Oxford blanketed the none-too-effective rudder and, once the aircraft was on its wheels again, that fiendish delight of the Oxfords to charge in any direction other than straight ahead would again manifest itself. With the runway-consciousness of today, ground-loops are a serious business but in the days of the Empire Air Training Scheme most of the flying was done from plain fields and very often it was deemed more discreet to amble off in a controlled swerve rather than risk removing the undercarriage in a fight to persuade the aircraft that one really was its master. Besides it kept the blokes landing behind you awake!

Certainly the Oxford had its moments and no one could truthfully say that flying it was "a piece of cake". But for this very reason it made an excellent pilot trainer and like many a good horse it behaved beautifully when handled well but tended to bite fools. Even so, its over-riding advantage was that any pilot who had trained on the Oxford could go on to more advanced "twins" with confidence knowing that they were, in reality, nothing more than overgrown Oxfords.

Series Editor: CHARLES W. CAIN

SPECIFICATION OF THE AIRSPEED OXFORD

Powerplant
(Mks. I & II) Two Armstrong Siddeley Cheetah X seven-cylinder air-cooled radials. Maximum power output, take-off 375 h.p. at 2,300 r.p.m.; maximum power in flight (at 7,000 ft.), 355 h.p. at 2425 r.p.m. (Mk. V) Two Pratt & Whitney Wasp Junior R–985–AN–6 nine-cylinder air-cooled radials. Maximum power output (take-off and in flight) 450 h.p. at 2,300 r.p.m.

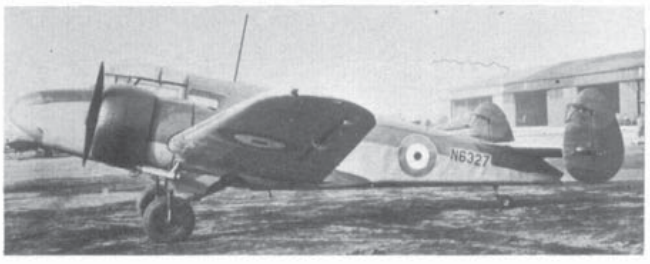
Propellers
(Mks. I & II) fixed-pitch, wooden.
(Mk. V) Hamilton-Standard two-blade, variable-pitch metal.

Fuel System
Two main fuel tanks between spars of wing centre-section; two auxiliary tanks in outer wing sections interconnected with main tanks. Total capacity 150 Imperial gallons.

Construction
Wings—Built in three sections, centre-section and outer port and starboard wing sections. Outer sections of tapering chord and thickness attached to centre-section at four spar-joints. Structure consists of two box-spars of spruce and birch three-ply. Former ribs consist of three-part girder type. Inter-spar bracing comprises built-up diagonal struts. Plywood covered wings. Handley Page slotted ailerons Split, trailing-edge flaps full-span between ailerons.
Fuselage—Built in two sections, of wooden semi-monocoque construction. Forward section built as a unit complete with cabin. Rear section includes integral fin.
Tail Unit—Wooden framework with fabric covering. Balanced rudder hinged to fin with hinge-line inclined forward. Trim-tabs fitted to elevators.
Undercarriage—Rearward-retracting type, folding into engine nacelles with lower portion of main wheels exposed. Low-pressure Dunlop tyres; pneumatic wheel brakes. Non-retractable tail-wheel with Dunlop tyre.

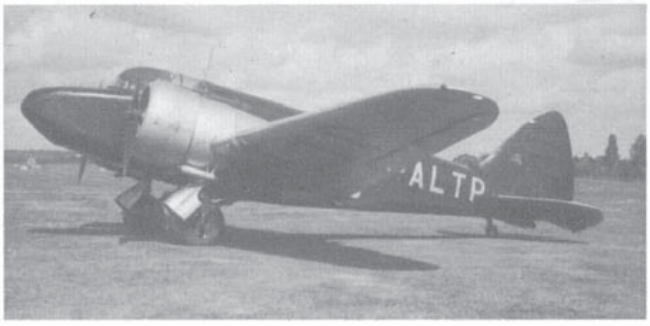
Accommodation
Up to three crew could be carried and stations are provided for first pilot, second pilot or navigator, bomb-aimer, wireless-operator, camera-operator and (Mk. I only) amidships turret-gunner.

Developed for spinning trials and also to study the effects of twin fins and rudders, Oxford N6327 was a one-off conversion and spent most of its time, as shown here, at the Royal Aircraft Establishment, Farnborough.
(Photo: I.W.M. MH3342)



G–AJGR was one of the Oxfords which came on the civil register after the War and was used for photo-survey work by Hunting Aerosurveys.
(Photo: A. J. Jackson)

Used as a general hack and freight aircraft by Scottish Aviation, A.S.40. Oxford G–AHDZ is seen here outside the control tower at Croydon soon after the end of World War Two. (Photo: A. J. Jackson)



One of the biggest civil users of Oxfords was Air Service Training at Hamble where this photo of G–ALTP was taken in 1948.

Entry effected by door at the rear of cabin on the port side. Walkways on both wings between engine nacelles and fuselage.

Armament
Bomb-bay accommodating up to 12 practice bombs located between the centre-section spars amidships; no bomb doors used. The Mk. I only had a removable, revolving dorsal gun-turret made by Armstrong Whitworth containing one 0·303-in. Vickers "K" gas-operated machine-gun.

Dimensions
Span, 53 ft. 4 in.; length (overall) 34 ft. 6 in.; height 11 ft. 1 in.; wing area 348 sq. ft.

Weights
(Mks. I & II) Empty but with fixed load, 5,380 lb.; loaded, 7,600 lb. (Mk. V) Empty but with fixed load, 5,670 lb.; loaded, 8,000 lb.

Performance
(Mks. I & II) Maximum speed at 8,300 ft. 182 m.p.h. (with turret), 188 m.p.h. (without turret); climb to 10,000 ft. in 12 min.; service ceiling 19500 ft.; endurance 5 hr.; still air range, 925 miles approx.

OXFORD PRODUCTION DETAILS

Built at Portsmouth by Airspeed (1934) Ltd.

Oxford I

L4534 Prototype	1
L4535–4669 (L4556, 4557, 4592, 4593, 4610 not delivered)	135
L9651–9660, 9680–9691	22
N1190–1194	5
N6250–6299, 6320–6345 (6250–6270 built without turrets)	76
P1860–1899, 1920–1969, 1980–2009, 2030–2044	135
P8822–8834, 8855–8868, 8891–8916, 8995–8998, 9020–9046 (8832 & 8833 finished as Ambulances)	84
R4062–4066	6
R9974–9988	15
T1001–1028, 1041–1061, 1112–1141, 1167–1180, 1264–1288, 1308–1332	143
X1038–1040	3
AS474–523, 537–571, 591–640, 665–704	175
BF782–831, 845–889, 904–953, 967–999	178
BG100–101, 113–132, 149–183, 196–245, 260–274, 546–575, 588–637, 649–668	222
EB414–423, 689–703, 717–761, 777–826, 838–870, 884–930, 946–975	230
HN217–239, 254–284, 298–346, 363–386, 405–441, 467–495, 513–554, 576–614, 631–671, 689–738, 754–790, 808–855	450
LX156–199, 213–245, 258–289, 301–333, 347–369, 382–401, 415–448, 462–489,	
LX502–541, 555–582, 595–617, 629–648, 661–699, 714–746, 759–777	450
NM217–254, 270–314, 329–370, 385–429, 444–488, 509–550, 571–615, 629–676, 681–720, 736–760, 776–810	450
PG925–956, 968–999	64
PH112–157, 169–215, 227–268, 281–327, 339–378, 391–425, 447–489, 502–527	328
PK248–269, 282–309	50
RR321–367, 380–382	50
R.A.F. Aircraft	3,272
1501–1525 (R.C.A.F. pre-war order)	25

Oxford II

L9635–9650, 9692–9703	28
N6347–6349, 6365–6384, 6400–6438	62
P1800–1849	50
P8917–8931, 8964–8994, 8835–8854	66
R5938–5979, 5991–6038, 6050–6059, 6070–6114, 6129–6163, 6177–6196	200
T1062–1082, 1097–1111, 1181–1215, 1243–1263, 1333–1348, 1371–1404	142
AS705–709, 726–745, 764–813, 828–877, 893–942	175
BG275–304, 318–337, 349–398, 415–459, 473–522, 541–545	200
	895
NZ250–255 AS.42/AS.43 R.N.Z.A.F. Oxford Contract	5

Oxford V

EB424–461, 483–518, 535–584, 599–640, 654–677	190

Built at Christchurch by Airspeed (1934) Ltd.

Oxford I

X6520–6564, 6589–6623, 6643–6692, 6726–6750, 6764–6813, 6835–6879	250
LB469–492, 513–538	50
	300

Oxford II

X6880–6884, 6932–6981, 7031–7075, 7107–7156, 7176–7200, 7231–7265, 7278–7317	250

Built at Hatfield by De Havilland Aircraft Co. Ltd.

Oxford I

N4560–4609, 4630–4659, 4681–4700, 4720–4739, 4754–4803, 4824–4853	200
P6795–6819, 6831–6880	75
V3145–3194, 3208–3247, 3267–3296, 3310–3359, 3375–3404, 3418–3442,	
V3456–3480, 3502–3540, 3555–3589, 3590–3604, 3623–3647, 3665–3694, 3719–3748, 3768–3792, 3813–3862	500
AR756–790, 804–853, 870–889, 909–953, 968–982	165
AS144–188, 201–230, 254–279, 297–331, 347–396	185
AT439–488, 502–536, 576–625, 641–685, 723–742, 760–799	240
	1365

Oxford II

R6211–6248, 6263–6299, 6317–6358, 6371–6403	150

Built at Luton by Percival Aircraft Ltd.

Oxford I

P1070–1094	25
ED197–204, 215–236, 251–300	80
HM603–650, 666–700, 721–767, 783–813, 826–875, 889–918, 945–990	287
	88
LW727–759, 772–799, 813–835, 848–879, 891–927, 948–973, 985–999	195
LX113–153	40
NJ280–322, 345–382, 397–400	85
	800

Oxford II

W6546–6595, 6608–6657	100
AB639–668, 685–729, 749–773	100
AP387–436, 451–500	100
BM671–720, 737–785, 801–844, 871–877	150
EB978–999	22
ED108–157, 169–196	78
	550

Oxford V

LW928–930, 945–947	6

One of two Oxfords on the Swedish civil register, SE-CAM was only current for a year, from October 1954.

Seen at Redhill with its military marks crudely painted out but code letters "3L:F" still there is G–AMFL, on its way to the Israeli Air Force via Britavia.

Little is known about the subsequent fates of the Egyptian civil Oxfords such as SU–AES. (Photo: via F. G. Swanborough)

Built at Coventry by Standard Motor Car Co. Ltd.
Oxford I

V3865–3914, 3933–3957, 3972–3996, 4016–4065, 4079–4103, 4124–4173, 4192–4241, 4259–4283	300
DF220–264, 276–314, 327–367, 390–433, 445–489, 501–536	250
LB401–429, 442–462	50
MP275–314, 338–376, 391–430, 444–468, 470–474, 496	150
	750

N.B. This compilation is based on information supplied by the then Ministry of Supply and differs from previously published lists largely in the delineation between Mks. I & II in the early batches. The possibility of now establishing which is correct appears remote—JDRR.

SERVICE USE
This information does not claim to be a complete listing of all the R.A.F. units which flew the Oxford. Small units (e.g. Station Flights, etc.) are omitted and many other units which just had one Oxford as a "hack" but it does give a good survey of the diverse types of units with which the type served.

Training Units
Central Flying School; Empire Central Flying School; Empire Flying School; Empire Radio School; Empire Air Navigation School; Empire Test Pilots' School.
Nos. 1, 2, 3, 5, 6, 9, 11, 15, 16, 17, 19 & 23. Flying Training Schools (also designated Service Flying Training Schools during the first part of the World War Two)
Nos. 8, 9, 10 & 14 Advanced Flying Training Schools (period 1952–4)
Nos. 1, 2, 3, 6, 11, 14, 18, 20 & 21 (Pilot) Advanced Flying Units
Nos. 2, 6, 11, 16, 21, 43, 51, 61, 70, 81, 107 & 111 Operational Training Units
Nos. 1, 2, 5 & 8 Air Navigation Schools/Air Observer Schools
Nos. 2, 3 & 7 Flying Instructor Schools
Nos. 1, 4 & 10 Radio Schools
Nos. 226, 228, 229, 231 & 237 Operational Conversion Units (post-war)
R.A.F. College, Cranwell
Air Transport Auxiliary Flying School
No. 1 Beam Approach School
Nos. 1501, 1507, 1510, 1511, 1513, 1514, 1515, 1516, 1517, 1519, 1520, 1521, 1523, 1524, 1526, 1527, 1528, 1529, 1532, 1534, 1536, 1537, 1540, 1542, 1545, 1546, 1547, 1552, 1555, 1556 & 1557 Beam Approach Training Flights
No. 104 Flying Refresher School (period 1952–4)
Nos. 201, 205 & 206 Advanced Flying Schools (post-war)
No. 1 Parachute Training School
No. 3 Glider Training School
Nos. 10, 15, 22 & 25 Reserve Flying Schools (post-war)
No. 3 School of General Reconnaissance

Communications (Comm.) Duties
Nos. 24, 511, 525 Squadrons; Metropolitan Communications Squadron; Fighter Command Comm. Sqn.; No. 1684 Flight, Coastal Command Comm. Sqn.; many Group Comm. Flts.; and innumerable Station Flights.

Anti-Aircraft Co-operation Duties
Nos. 5, 17, 34, 285, 286, 287, 288, 289, 567, 577, 595, 691 & 695 Sqns.
Nos. 1 & 3 Civilian Anti-Aircraft Co-operation Units

Experimental and Development Establishments and Units
Aeroplane & Armament Experimental Establishment
Royal Aircraft Establishment
Air Fighting Development Unit
Airborne Forces Experimental Establishment
Central Fighter Establishment
Central Signals Establishment
Bomb Ballistics Development Unit

Fighter Command Units
Nos. 1 & 41 Sqns.
Nos. 500, 502, 504 & 608 Sqns., R. Auxiliary A.F.

CIVIL-REGISTERED OXFORDS
Ex-RAF Conversions
G–AFFM British Airways 1938
G–AFVS Airspeed Ltd, doubtful if taken up
G–AHDZ Scottish Aviation 3/46, sold France 7/54
G–AHGU Bristol Aeroplane Co. 5/46
G–AHGW Boulton Paul Aircraft Ltd. 6/46
G–AHXA Brevet Flying Club 12/46 sold Egypt 8/47
G–AIAT–G–AIAY B.O.A.C. 8/46; 'T and 'X to A.S.T. 4/51, 'V sold Hong Kong 9/51 'W sold Sweden 11/54
G–AIRZ B.O.A.C. 8/46; Hunting Aerosurveys 3/51
G–AITB Air Service Training (A.S.T.) 11/46
G–AITF Air Service Training (A.S.T.) 11/46
G–AIUH Reid & Sigrist 10/47; Hunting Aerosurveys
G–AIVY B.S.A.A. 3/48; B.O.A.C. /49
G–AJGR Hunting Aerosurveys 2/47
G–AJNC Fairey Aviation 5/47; sold Rhodesia 11/51
G–ALTP A.S.T. 1/50
G–ALTR A.S.T. 1/50
G–ALXV–G–ALXY Lancashire Aircraft Corp 1/50—only G–ALXV converted
G–AMCX Adie Aviation /51; sold Spain 8/51
G–AMFJ–G–AMFM Britavia /51–/52 sold Israel (Air Force)
G–AMHE Britavia /52
G–AOUT Eagle Aircraft Services /54
EC–WGE 8/51
F–BHVY 1/57
F–BBIU 6/54 Union Aeromaritime de Transports
LN–LAD–LN–LAE Det Norske Luftfartselskab; to R. Norwegian A.F.
OY–ABS Dansk Lufttaxa; sold Sweden /50
SE–BRX Aeropropaganda /50
SE–BTP Sold Finland
SE–CAM 10/54; resold to UK 10/55
SU–AER—SU–AET, SU–AEY—SU–AEZ Egypt 8/47
VP–KMU I. J. Maclachlan; Hunting Aerosurveys; Spartan Air Services
VP–KOX 10/58
VP–YIY Air Survey Co. 12/51
VR–HFC 8/51
XA–FAO—XA–FAT /45 possible ex-Canada
Ex-R.N.Z.A.F.
ZK–APK—ZK–APY G. M. Gould; returned to RNZAF /49

C. M. Gould in New Zealand used a couple of ex-R.N.Z.A.F. Oxfords for a while under civilian marks but returned them to the R.N.Z.A.F. in 1949.