



THE VINTAGE AIRPLANE

JANUARY 1987



Air Commodore Allen Wheeler, who civilianised Auster G-APRO in 1961, props the aircraft for flight at the site of the Shuttleworth Trust in Old Warden Aerodrome, England. This gentleman, an active aeronautical engineer for nearly 60 years, was very instrumental in the establishment of the Popular Flying Association (PFA) in the U.K.

A PILOT AND PLANE FROM ENGLAND . . . Auster Mark 6A

by John Morris and Norm Petersen

(Photos courtesy of John Morris, except as noted)

It's the next best thing to an open cockpit.

So says John Morris of his rare Auster 6A. "The visibility is incredible. But then it ought to be, surrounded by all that perspex."

All that what? Yes, perspex. You folks this side of the Atlantic call it plexiglass.

For both John, 34, and his Auster are British. Both are imports. And both came into this world in January 1952 — John in Hull, England, and the Auster at what until a short while before was Taylorcraft Aeroplanes (England) Ltd., at Leicester, a Midlands city surrounded by William Blake's "dark satanic mills."

From there the Auster went globetrotting, serving its country in Korea and in the Suez campaign before finding a friendly home with renowned test pilot and British aviation figurehead Air Commodore Allen Wheeler. But more of that later.

For those of you who see Taylorcraft characteristics in the Auster — yes, 6 JANUARY 1987

they're there. Much of the structure looks the same; the wingspan's the same; the airfoil is the same NACA 23012. However, nothing is interchangeable with the American-built cousins.

And for those of you who ask why the British turned a perfectly good, 1,200 lb. gross weight T-craft design into a 2,300 lb. beastie, there is an answer: military needs. At 1,490 lbs. empty, the Mark 6 Auster will carry a load of 800 lbs. — as much as an empty BC-12D T-craft! Or the emptier it is, the more impressive its short field performance; in civilian life the mark was limited to towing only two gliders at once!

First, a brief history of the link between the American and British Taylorcraft companies. It all began in 1938.

Members of the British County Flying Club were so impressed with their new 40 hp Taylorcraft Model A they determined to build it under license. Thus Taylorcraft Aeroplanes (England) Ltd., was formed in November of that year. Separately, five American model Bs were imported into England in 1938.

It was decided to build the Taylorcraft Model B instead of the A, with various refinements to meet different British standards.

Manufacture began at the end of 1939 with the British Model C, powered by a 55 hp Lycoming O-145. Some 24 were built before World War II broke out in September, 1939.

Taylorcraft replaced the Lycoming with a 90 hp Blackburn Cirrus Minor engine — a four cylinder inverted in-line, and this became the Model Plus D.

From mid-1938 the British War Office began studying the Army's views on Airborne Observation Posts, but wasn't enthusiastic.

Trials in February 1939 showed that the Westland Lysander and Hawker Audax biplane were too fast and too heavy for this job. Taylorcraft volunteered its Plus D in the face of official derision.

As part of the trials, the T-craft had to dogfight a Spitfire — and it proved that flying low and slow gave it a good chance of survival.

The British T-craft's biggest battle



Auster A.O.P. 6 (later G-APRO) in its early life as an aerial observation plane in Seoul, Korea. Picture taken at K-16 airfield on September 10, 1954 by Charles N. Trask (EAA 69291, A/C 3163), York Haven, PA.



Interior of the Auster Mark 6 upon arrival from England. Single controls and quadrant throttle are typical of type including the large "Turn and Slip" indicator. Note parking brake on lower left side.



Off loading the Auster following shipment from England in the summer of 1984 at The Landings near Huntley, Illinois. Note the large oil tank mounted on the lower firewall.



Julie Morris dopes the surface tapes on the ailerons as the rebuild begins to go together. Note quality of workmanship which caught the judges eye at Oshkosh.

was with bureaucracy, but it finally won. In early 1942 the Army received its first Taylorcraft Auster 1 (really a modified Plus D). And so the Auster line was born. Just!

Austers served in all subsequent theaters of war.

Continuous development led to the first flight of the Auster AOP6 in May 1945. Some 312 were built for the RAF by 1953.

The aeroplane was essentially a beefier version of the 130 hp Lycoming O-290 powered AOP5, but with a British engine: the 145 hp deHavilland Gipsy Major four cylinder inverted in-line.

By the end of the war the name Auster was much better known in England than that of its maker. So in March 1946 the company became Auster Aircraft Ltd.

After the war many military Austers were converted into civilian airplanes, 8 JANUARY 1987

including G-APRO.

This particular aeroplane began in life as a 145 hp, Gipsy-powered, green and brown camouflaged AOP6 in January 1952, and was lent by the RAF to the Army. A year later found it in Iwakuni, Japan, and in service in Korea based at K-16.

The British had a penchant for hauling metal around the globe, so WJ370, as the Auster was then serialled, returned to the UK in 1954 and went to the Fighter Command communications flight at Middle Wallop.

Suez cropped up in 1956, and WJ370, painted in sand and brown desert camouflage, ventured forth with 651 AOP Squadron.

Despite one or two intriguing references to WJ370 as "the veteran of the Egyptian campaign" nothing can be found to illuminate this chapter in its history. However, the 30-year ban im-



John peels off some scale as the framework is bared for a complete rebuild. Overall condition of the airplane was very good considering the trials and tribulations of over 30 years of service.



Photo by Gene Chase

Side profile of Auster G-APRO (NX370WJ) at Oshkosh '86 reveals Taylorcraft influence in overall design, especially in the NACA 23012 series wing. Silver and black paint scheme is very rich looking.

posed by the Official Secrets Act on opening up 651's logbooks and newsletters expires this year, so something might come to light.

The Auster quietly returned to England and was put out to grass until bought at the end of 1958 by Allen Wheeler.

The Air Commodore began his career in aviation in 1925, and became very friendly with Richard Shuttleworth; indeed that friendship before World War II was the driving force behind his post-war career as a trustee of the Shuttleworth Collection, Britain's premier "keep them flying" museum.

During the war, he commanded the Royal Aircraft Establishment at Farnborough, and established procedures for investigating aeroplanes with problems that are still used today. Later he commanded the experimental and research station at Boscombe Down,

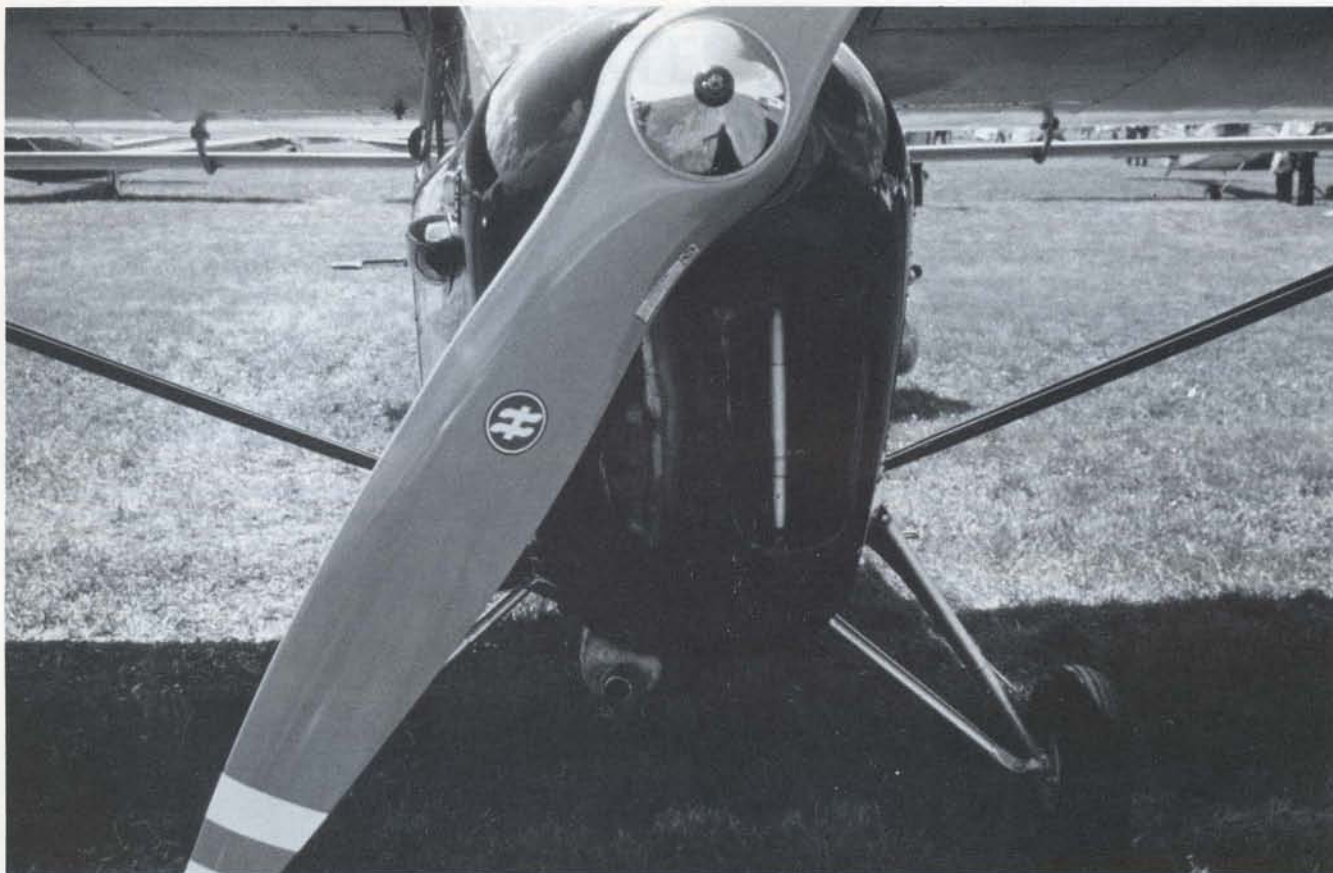


Photo by Norm Petersen

Head-on view shows what a bug sees just before he enters the cooling air intake! The German-made Hoffman propeller works very well according to John - albeit a bit spendy!



Photo by Norm Petersen

The Auster restoration is complete, right down to the English "Dunlop Tyres", which are a tad larger than our 6:00 x 6.

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Photo by Gene Chase

Tail surfaces of the Auster reveal excellent workmanship and meticulous rib stitching. Our FAA is to be commended for allowing the English registration to remain on the aircraft along with the U.S. registration on the rudder.



Photo by Gene Chase

Unique trailing flaps are constructed of metal and quite effective, allowing the useful load of 800 lbs. to be handled nicely. Large perspex roof can be warm in the hot sun!

and was a member of the panel that investigated the DH Comet airliner disasters in 1954.

On leaving the service he acted as technical advisor to such films as *Those Magnificent Men in their Flying Machines* and *Blue Max* and in 1964 he became president of the Popular Flying Association.

He regularly flew the Shuttleworth Trust's aeroplanes, and personally owned a Tiger Moth and a Spitfire as well as the Auster.

Not surprisingly, the Shuttleworth Trust engineers were called upon to civilianise WJ370, and it flew from Old Warden aerodrome as G-APRO in 1961 — the first civilian conversion of that mark of Auster. Allen Wheeler used it mainly to commute between his home and the Trust.

He owned G-APRO until his death in 1984 at the age of 80, and it became well known in British aviation circles as his personal mount.

Enter John Morris and his wife, Julie. They visited England in December 1981 and saw G-APRO lurking quietly in a hangar in the Shuttleworth Trust. They already owned a Taylorcraft BC-12D and were dreaming of buying a British cousin as a stablemate.

Allen Wheeler was willing to sell, but the price was more than they could afford.

Then about two years later, out of the blue, came a letter: Allen Wheeler had died. Mrs. Wheeler wanted to know if they were still interested.

"When an aeroplane comes begging for a home, what can you do,?" asked John Morris.

The dollar was exceptionally strong at that point, and a transatlantic buy, sight unseen, seemed feasible. Friends over there helped out, and in July 1984, G-APRO arrived in a container at The Landings airport, near Huntley, Illinois.

A quick inspection showed that time had taken its toll. The Auster was airworthy, but only marginally. Some of the



Photo by Norm Petersen

A smiling John Morris holds the plaque awarded at Oshkosh '86 for the Outstanding Limited Production Aircraft in the Classic Division.

	AUSTER 6A G-APRO (NX370WJ)	TAYLORCRAFT BC-12D
Empty weight -	1,488 lbs.	640 lbs.
Gross weight -	2,300 lbs.	1,150 lbs.
Useful load -	812 lbs.	510 lbs.
Wing Span -	36 ft.	36 ft.
Length -	23 ft. 7 in.	21 ft. 9 in.
Power -	145 hp	65 hp
Power loading (gross) -	15.86 lbs per hp	18.46 lbs. per hp
Airfoil Section -	NACA 23012	NACA 23012
Chord -	5 ft. 3 in.	5 ft. 3 in.
Cruise -	97 knots at 1900 rpm	95 mph at 2150 rpm
Stall (full flap, power on) -	30 knots	38 mph full power
Fuel -	26 gallons	12 gallons (nose tank only) 24 optional (2 - 6 gallon wing tanks)

Irish linen on it proved to be over 30 years old, and wasn't quite a match for the fabric tester!

Nothing to do but recover it. "So we thought we'd do a complete rebuild," said John. "And that's a story in itself, especially as neither of us had ever done this before."

Fourteen months and 1,500 man and woman hours later, and with the help of many friends with their various skills, G-APRO flew again in October 1985. John has flown 60 hours in it, and owns the aeroplane alone since he and Julie are now divorced.

Although it would pass muster as a genuine warbird, John decided not to camouflage the Auster but to leave it in civilian colors in deference to Allen Wheeler. In addition, John grew up as a line boy at the Battle of Britain airfield at Biggin Hill in Kent, and his personal nostalgia harks back to days when Cessnas were rare and all Austers — which formed the backbone of British flying clubs — were silver.

"I always dreamed of owning one, and now I do. It's funny that the dream came true on this side of the Atlantic," he said.

John is business editor of the Milwaukee Journal newspaper, and still flies the Taylorcraft as well as the Auster. He is also building an aerobatic version of a 1946 Taylorcraft with a 180 hp Lycoming engine, "but you won't see that for a few years yet," he smiled.

No other Taylorcraft-type Austers are currently flying in America. Another Mark 6 is under rebuild in Oregon; a purely civilian J-1 Autocrat with a Cirrus engine is a candidate for restoration with the Mid-Atlantic Air Museum; and a Lycoming-engined Mark 5 is stored in Idaho. In addition two or three non-Taylorcraft Mark 9s are known to exist over here, although only one — Charlie Lutzer's in Florida — is flying. That's it for the US Auster population. A mere handful of Mark 6s grace the Canadian register, but few venture south of the border.

Between 1939 and 1965 a total of 3,607 Austers were built, including post-war civilian versions.

Australia now has 138 Austers of all marks left out of 311 imported; Canada has about a half a dozen Mark 6s and one Mark 5; and England has about 320 assorted marks. That's a total of 464. Adding those in Europe, South Africa, New Zealand, Scandinavia and Pakistan, there are probably no more than 550 Austers of all types left in the world.

Auster Aircraft went out of existence towards the end of 1960 when it was merged with Miles Aircraft and Wallis Autogyros to form a British Executive and General Aircraft Ltd. (BEAGLE), makers of the Pup and 206 executive twin. Beagle itself has since expired as well, closing another chapter in British aviation history. ●

AUSTER COMBAT NOTES

by John Morris

Air Chief Marshal Sir David Lee wrote in his book *Eastward* that Austers were the most versatile of all aircraft deployed in the Malaysian campaign in 1953 and 1954, being used to mark targets for strike and transport forces, making low level reconnaissance, constantly used for communications flights, leaflet dropping and casualty evacuation.

Here's one short description of Austers in action, taken from a recent newsletter of the International Auster Pilot's Club. It's written by a Mr. Barwick, who served as ground crew in the British Army; "I came back from Tripoli in time to join 654 squadron for the invasion of Sicily. Capt. Butterworth was our pilot. We went up through central and eastern Sicily; charged around Mount Etna quite a lot. My job as well as engine mechanic — which took up very little time — was despatch rider, anti-aircraft gunner, Bren gun, part-time cook, truck mechanic, slit trench digger and anything else which came along.

"After Sicily we loaded the Austers into trucks for the invasion of Italy at Salerno. Captain Carr — we didn't nickname him 'Crasher' for nothing — won a Distinguished Flying Cross for doing battle with enemy regiments. In the Auster he used to offer himself as a target to tempt them into disclosing their positions and then bring down the wrath of whatever the artillery had on them. It was him that landed in a potato field, down the rows. Once, in a bog, we had to go and turn the kite back onto her wheels and borrow a yoke of oxen to pull it out. He flew high ranking officers to look at the ground they were approaching and seemed to be completely oblivious to the risks he took. He crashed so often only because he insisted on flying from the strips that were most convenient from a gunnery point of view. One strip, 113 of my paces was regarded as long enough, was a clover-like crop which when wet with dew gave no braking. It terminated in a ditch. The trick there was to get up before light and land in first light, which meant a wet surface. After he'd slid into the ditch we had a broken prop, bent exhaust stub and bent longeron to fix before the next morning. We, the ground crew, decided to be brakes. To this effect we waited a few yards from the ditch and tried to grab the struts as the kite hurtled by. It only partially worked and tended to end up

with the whole bunch of us in the ditch with the prop to change and the longeron to straighten out. The Austers were definitely second hand when we'd finished with them.

"Once we had a mainplane wrecked on a Mark 4 and they sent us a Mark 1 mainplane. We fitted it. The first Auster with flaps on one side only! The C. O. came to fly it out — we told him not to use his flaps, or if he did, to expect some funny effects.

"The Austers were popular with our front line troops because after Crasher's efforts the enemy were loth to use their guns when one was in the air. I remember the 2nd Paratroop regiment holding a section north of Casino complaining about there being no peace at meal time — until they gave us the times required and we put a stooping flight for them which ensured a peaceful meal break.

"The Germans had Storchs to do the same job but they were far too big. We could dig in an Auster in a few minutes and with a couple of nets it could be hidden very effectively. The Americans had Pipers, but they didn't seem as effective as our Austers (perhaps they didn't have enough Crashers).

The British Government's Official History of World War II states that at the Battle of Anzio the Germans soon associated the air observation posts with their difficulties. 'The great activity of American and British spotter aircraft, which were unaffected by the weather because they hopped off and on to their airstrip and flew very low, gave the Germans the impression that all their preparations were observed, and lowered their morale.' But there were losses; two British Austers were shot down and their pilots killed; three more with artillery and anti-tank guns closely packed in a small area, were hit by their own shells. At Anzio, not one single sortie was called off for unserviceability or abandoned for engine failure.

"Normally an observer was not carried unless enemy fighter aircraft were expected in the vicinity; then the observer would watch for those while the pilot carried out his normal spotting duties.

After the war many military Austers were converted into civilian airplanes, and many more were built specifically for the civilian market. Between 1939 and 1965 a total of 3,607 Austers were built, including the civilian versions. ●

CALENDAR OF EVENTS

MARCH 15-21 — LAKELAND, FLORIDA — 13th Annual Sun 'n Fun EAA Fly-In. Contact: Bonnie Higbie, P. O. Box 6750, Lakeland, FL 33807.

APRIL 25-26 — WASHINGTON, DC — 7th Annual Tour of the National Air and Space Museum's Paul E. Garber Restoration Facility. Dinner speaker Mary Feik. Limited to 200. Contact: Margaret Scesa, 9611-51st Place, College Park, MD 20740, phone 301/345-3164.

MAY 2-3 — WINCHESTER, VIRGINIA — EAA Chapter 186 Spring Fly-In at Municipal Airport. Trophies for winning showplanes. Pancake breakfast Sunday. Annual Apple Blossom Festival downtown. All welcome. Contact: George Lutz, 703/256-7873.

MAY 22-23 — JEKYLL ISLAND, GEORGIA — First Annual Twin Bonanza Association Convention with headquarters at the Ramada Inn. Technical seminars and social activities. Contact: Richard I. Ward, 19684 Lakeshore Drive,

Three Rivers, MI 49093, 616/279-2540.

JUNE 25-28 — HAMILTON, OHIO — 28th Annual National Waco Reunion. Contact: National Waco Club, 700 Hill Ave., Hamilton, OH 45015.

JUNE 12-14 — TAHLEQUAH, OKLAHOMA — National Ercoupe Fly-In. Contact: Skip Carden, P. O. Box 15058, Durham, NC 27704.

JULY 19-24 — SAN DIEGO, CALIFORNIA — 19th Annual Convention of the International Cessna 170 Association at Montgomery Field. Primary motel is the new Holiday Inn on the airport. Contact: Duane and Prieta Shockey, 714/278-9676.

JULY 24-26 — COFFEYVILLE, KANSAS — Funk Aircraft Owners Association Annual Fly-In. Contact: Ray Pahls, 454 South Summitown, Wichita, KS 67209.

JULY 31-AUGUST 7 — OSHKOSH, WISCONSIN — World's Greatest Aviation Event. Experimental Aircraft Association International Fly-In and Sport Aviation Exhibition. Contact: John Burton, EAA Headquarters, Wittman Airfield, Oshkosh, WI 54903-3086, 414/426-4800.

