

# AIRCRAFT MANUFACTURE IN WEST ESSEX

## AIRCRAFT MANUFACTURE

*Each of the known aircraft types constructed in the area, including Avro Triplane; Deekay Knight; Edgar Percival EP9; Gordon Dove; early Handley Page designs; Napier autogyro; Sprint [SAH-1], Tawney Owl; Foster Wicko Wikner.*

## ROE 1 TRIPLANE

Early in 1909 Alliott Verdon Roe, A. V. Roe, recently evicted from premises situated at Brooklands, set to designing a new aeroplane based upon a tri-plane layout. During his time at Brooklands this famous aviation pioneer had designed and built the unsuccessful Roe 1 Biplane, a type which failed to take to the air under the power of its 6hp engine.

Components for his new design of flying machine were manufactured in Putney as Roe sought a new site from which he might fly the completed machine in due course.

He eventually found a site on Walthamstow Marshes by the River Lea offering a suitable workshop space located within the arches under the Great Eastern Railway line from Chingford to Liverpool Street. Roe started to build two similar aeroplanes of his own design at Walthamstow in March 1909.

The finished machine was designed for a 10hp engine driving a forward, 'tractor' drive, propeller and being fitted with two sets of triple wings joined together by a triangular section fuselage. The undercarriage consisted of two bicycle wheels fitted under the front wings and a third, smaller, bicycle wheel under the rear fuselage and in front of the rear wings. When finished it featured an overall coat of yellow varnish, which was to earn it the name of 'Yellow Peril', this being surmounted by the painted words 'Bullseye' and 'Avroplane'. The former name was in recognition of sponsorship provided by his brother Humphrey's Manchester based company which marketed gentlemen's trouser braces under that trade mark.

The Roe 1 Triplane started taxi trials after the fitting of the 6hp engine in April of that year. This was the same engine as that fitted to the unsuccessful Biplane. At the end of May a new 9hp J.A.P. engine offering more power arrived and was fitted to the Triplane and from June 5 a number of short flights were undertaken from the Walthamstow Marshes. These ranged up to 50 feet in length and little more than 3 feet in height. On Friday July 23 1909 Roe undertook three flights at about 10 feet height and ranging up to 900 feet in distance. With these he became the first to fly an all British aeroplane with a British engine over British soil.

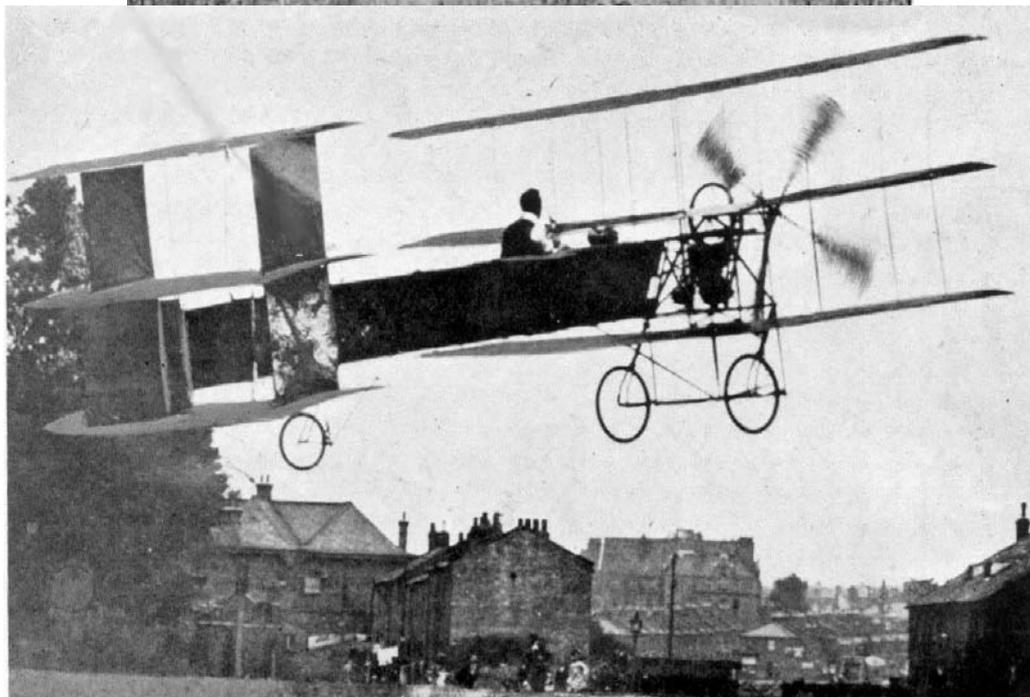
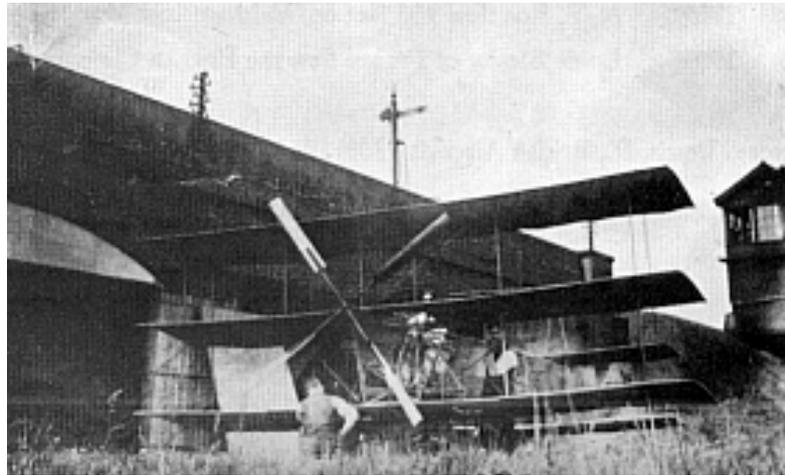
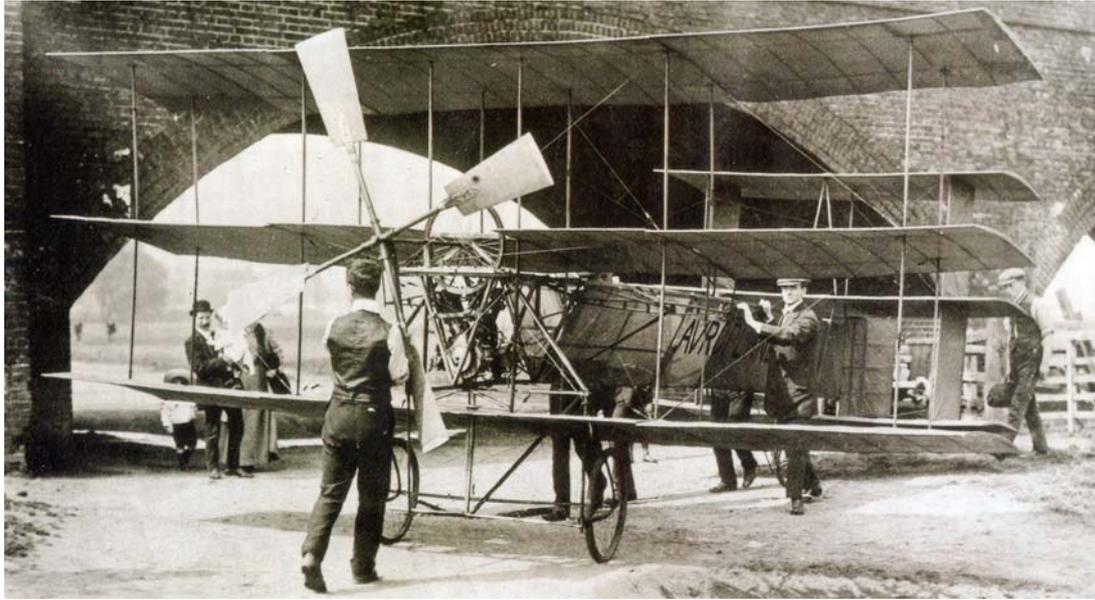
In the October Roe took both of the Triplane's to a flying meeting in Blackpool and neither appears to have returned south before Roe was evicted from his workshops on the lea Marshes later in the year, future AVRO aircraft production moved to Manchester.

The meeting in Blackpool ended the active flying life of the first aircraft, it made an appearance at an aero exhibition held at Belle Vue Gardens, Manchester in January 1914 and then went back into store until it was presented to the Science Museum in 1925. It remains on exhibition there today.

Span: 20 feet 0 inches      Speed: 25mph

Length: 23 feet 0 inches

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Image via Aeroplane

## **Deekay Knight;**

A small hire company operating out of Broxbourne Aerodrome changed its name from Anderson Aerocars Ltd., to Deekay Aircraft Corporation in October 1936 following the death of Lionel Anderson in a West Country air crash. Under J. McEwan King the newly named company started to involve itself in plastic components for aircraft, the emergence of the Deekay Knight was the result of a need to build an aircraft around a proposed plastic aircraft wing.

The Knight was an ultra light, two seat, low wing monoplane with a fixed undercarriage. Powered by an 85hp Cirrus Minor which was expected to propel the light aircraft at a cruising speed of 125mph, the design was primarily aimed at testing of the structure.

The first flight of the type was much delayed by the slowness in gaining the approval of the plastics at the Royal Aircraft Establishment, Farnborough. As a result it was an all wooden Knight aircraft, registered G-AFBA, that made its first flight in November 1937. The company had intended to progressively change the aircraft structure from wood to plastic, but with the onset of war this plan was dropped in favour of the company undertaking a greater, and more profitable, stake in the new field of general plastics manufacture.

As the company was in effect no longer a manufacturer of aircraft there was little to stop the inevitable and the remains of the sole Knight aircraft were burned during the war. The little aeroplane became, in effect, a victim of the very technology it was intended to promote.

The company again changed its name, to Aeroplastics Ltd., to reflect its new aims in manufacture and had moved to Glasgow by December 1939.

Span: 31 feet 3 inches      Speed: 125mph

Length: 22 feet 10 inches

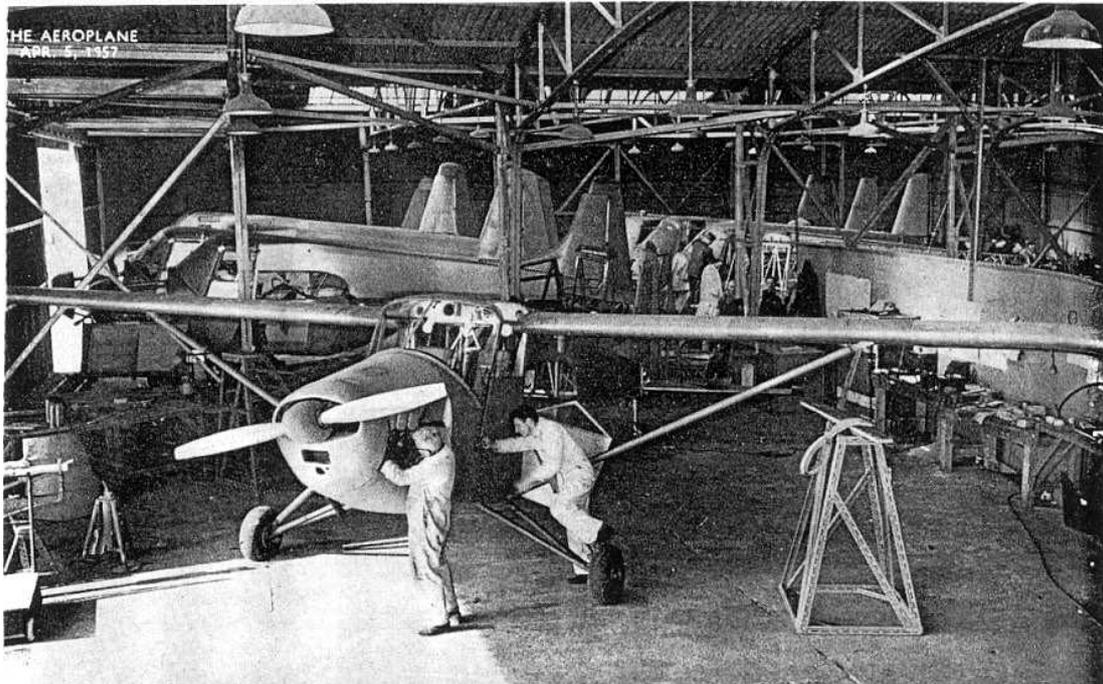
# AIRCRAFT MANUFACTURE IN WEST ESSEX

## Edgar Percival EP9;

The Edgar Percival Aircraft Ltd. was established at Stapleford Aerodrome in 1954.

Captain Edgar Wikner Percival, an Australian by birth, had come to the United Kingdom to fly with the Royal Flying Corps during the Great War. He served for a time with No. 60 Squadron before taking up the post of flying instructor at Aboukir.

He joined civil aviation in Australia as an aircraft operator in 1926, winning several races and competitions. One of these was a race for the Herald Cup at Melbourne in June 1923, undertaken in a Boulton Paul P9 G-AUCP. After coming to Britain in 1926 he became a well-known freelance test, racing and sporting pilot. He went on to design the pre-war Percival Gull series of light aircraft, mainly produced at Luton, and culminating in the Proctor. He severed his ties with the company, it eventually being swallowed up by the British Aircraft Corporation but even jet aircraft were being designed as Percival's there.



The production line [Aeroplane]

Edgar undertook the Stapleford enterprise both as a personal re-entry into aviation and in order that the fruits of his design would be built to his satisfaction. He designed the P9; a name later changed to the EP9, himself and piloted the prototype, G-AOFU, on its 20-minute maiden flight on December 21<sup>st</sup> 1955. He followed this by undertaking all the subsequent test flying. It is a matter of conjecture whether the original name reflected his 1923 flight in the Boulton Paul aircraft or was merely coincidence.

Aimed directly at the Australasian market, the design of the EP9 incorporated an unusual pod and boom configuration fuselage that facilitated a number of demanding role and aerodynamic factors. A deep front fuselage, capable of accommodating a one ton capacity fertiliser hopper in the type's primary role, allowed for the carriage of four passengers, three stretcher cases and awkward loads behind the high set two seat pilots cabin. Among the loads it was envisaged that the EP9 would be able to

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carry were standard size bales of wool, straw, 45-gallon oil drums and even livestock. A large clamshell door provided access to the rear of the cabin.

Percival planned the production of at least 60 aircraft. By late 1956 twenty complete aircraft had been produced at Stapleford, with examples being exported, mainly to the expected Australian market, and a pair of examples shown to the military. The production facilities at Stapleford were capable of a potential output of a maximum of 10 airframes a month, a capacity that was never called upon. Substantial sections of aircraft 39 and 40 were on the production line at Stapleford early in 1957; neither EP9 flew until the following year.

After demonstrating one of his aircraft to the Army Air Corps at Middle Wallop the Army became interested in the type and in 1958 c/n 38 and 39 took up military registrations (XM797 and XM819) and were delivered for testing at the A&AEE Boscombe Down, Wiltshire.

Both of these aircraft featured the most up to date production standard modifications and additionally featured underwing bomb racks allowing a standard 350lb stores container to be carried each side. These were allowed 500lb in an overload condition. Within the cabin two stretchers and an attendant, or 700lb of freight, could be carried as standard, with 1,000-lbs. overload. Air dropping was possible with the rear clamshell doors removed. In the end the Percival failed to impress the military and the substantial Army contract went to the de Havilland Canada DHC-2 Beaver.

At the end of 1958 Edgar sold out his 80% interest in the enterprise to Samlesbury Engineering Ltd. The deal included a number of completed machines and parts of 20 in production.

A total of 21 machines were recorded as built and completed at the Stapleford factory.

From 1960 the materials were transferred to Squires Gate [Blackpool] where the company was renamed Lancashire Aircraft Co. The EP9 itself was renamed the Prospector. The transfer of production was not a success, only a handful of extra machines were built afterwards.

Span: 43 feet 6 inches	Length: 29 feet 6 inches
Speed: 128mph	Range: 580 miles
Weight: 3,550 lbs.	

## EP-9 production

Up to c/n 40 were built at Stapleford. 41+ were completed at Blackpool from frames started at Stapleford.

20 G-AOFU Prototype. Registered 1.11.1955. ff. 12/55 CoA 30.10.1956. Used by Air ADS of Southend until banner towing was made illegal from 12.1957. To the Sudan 1958. Crashed Sudan 3.11.1962

21 G-APCR G-43—1. First production aircraft, but second to fly in 12. 1956. To Bahamas (Helicopters) Ltd., 12.1956. Crashed Fenzan, Libya 8.1958

22 G-43-1/ZK-BDP First production aircraft to fly in 27.8.1956. To New Zealand 10.1956. Crashed Kimbolton, NZ 19.2.1958

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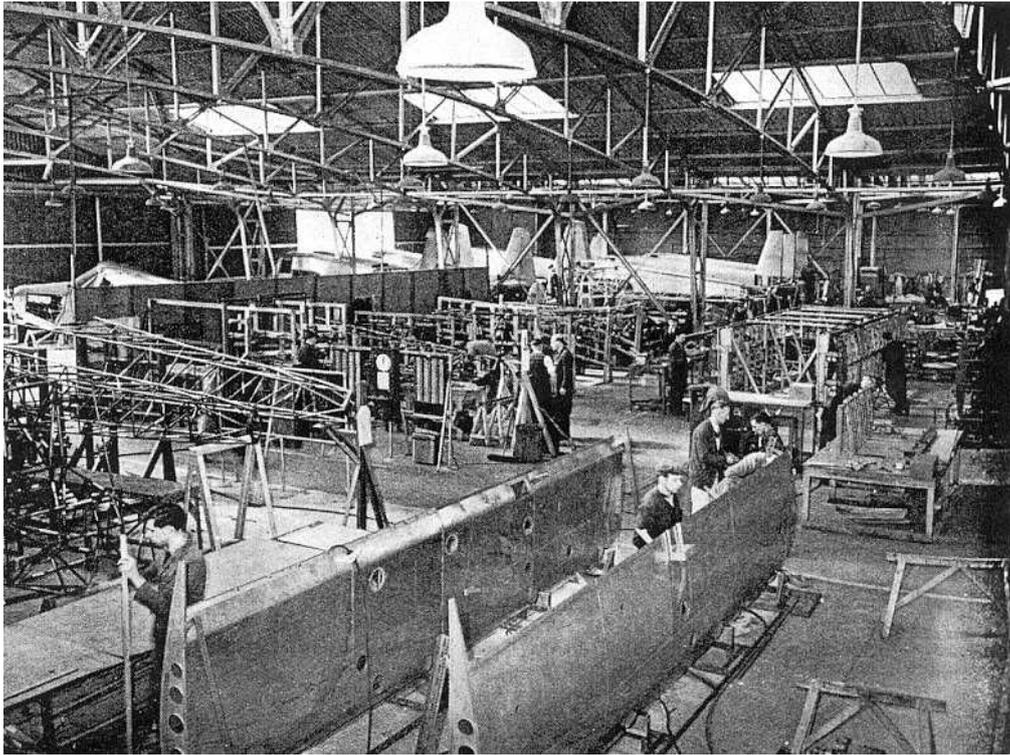


Image via Aeroplane

23 G-AOZY/G-43-2. In 12.1956. First flight 2.1957, registered 4.3.1957. To Ernst Lund KG, West Germany. Crashed Wunsdorf, Germany 6.5.1957 and replaced by c/n 26.

24 G-APCS G-43-3. First flight 12.1956. To Bahamas (Helicopters) Ltd. Crashed Gibraltar Harbour 24.8.1962

25 G-APCT G-43-4. First flight 11.7.1957. To Bahamas (Helicopters) Ltd. To EC-ASO 4.1962. Derelict Cuatro Vientos, Madrid 1978-83. Remains removed by 1989.

26 G-APBF G-43-5. To Ernst Lund KG, West Germany, D-EDUV 7.1957. Crashed near Schipol 7.1958 broken up spares at Stapleford 16.9.1958.

27 G-APAD G-43-6. ff. 2.1957 to VH-SSW (2) 9.1958 to VH-SSX 12.1958. To Superspread Aviation Pty Ltd. Destroyed by fire at Keith, Australia 11.4.1967 remains at Tintinara, South Australia in 1970.

28 G-APBR G-43.7. ff. 2.1957 VH-SSV 10.1957 crash 4.1960 Under rebuild as VH-DAI 10.1962 at Drage's Museum, Wodonga, Victoria now as VH-EPN being rebuilt by Western Aerial at Derinnallum, Victoria.

29 G-AOZO G-43-8. ff. 3.1957. Spent some time as the company demonstrator. In 1958 it was flown to Ostersund by ADS (Aerial) Ltd., and was demonstrated on Swedish military type skis. Became the prototype Prospector from August 1959 and was statically displayed with crop spray bars at the Vienna International Trade Fair in 1960 with a price tag of £9,810. Returning to the UK the aircraft spent 21 months as a parachuting aircraft for a club in Kent. It suffered engine failure at low altitude leading to a fatal crash at Lympe on 2.7.1980. All six on board died.

30 G-43-2 (2<sup>nd</sup>) CF-NWI ff. 7.1957 still active Cooking Lake, Edmonton 10.1990

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31 G-43-1 VH-PRS ff. 10.1957 to VH-BOG 2.1961 crashed Glen Innes 4.1962

32 G-APFY G-43-2. ff. 9.1957 VH-SSW (1) 9.1957 crashed at Moorabbin, NSW 4.1958. Parts used in rebuild of c/n 46.

33 G-APIA ff. 10.1957 VH-FBY 2.1958 Air delivered to Australia when registered to Superspread Aviation Pty Ltd. Crashed Boorowa, NSW 9.4.1963.

34 G-APIB G-43-1. ff. 10/57 1958 Air delivered to Australia when registered to Superspread Aviation Pty Ltd. VH-FBZ 3/58 to VH-DCM 10/62 crashed Blandford NSW 4.1963

35 G-APLP G-43-8. ff. 11.1957. In use with Crop Culture Ltd., when it returned to Lancashire Aircraft to be updated into a Prospector. On its return flight from conversion it suffered engine failure and forced landed on Blackpool beach 15.7.1959. It overturned and was submerged by the incoming tide. The Remains were last noted in the scrapyard of Gussirani & Co, Takeley in August 1963.



Image via Aeroplane

36 ZS-CHZ ff. 11.1957 Registered. 25.11.57, air delivery from 12.57. Withdrawn from use 7.59. With South African Air Force Museum airworthy. Exhibited at Lanseria since 1.81 in guise of XM797 and not believed to fly a great deal due to cash shortages. 'XM797' was really c/n 38)

37 F-BIEG ff. 5.1958 first flew 2.5.58. To Fenwick Aviation, France, shown at the Paris Air Show 1959. No details known about fate, but believed to have gone to Morocco on CN-??

38 XM797 ff. 4.1958 First flown 3.4.58, delivered A&AEE 23.4.58. Re-registered to civil marks G-ARTU with Steels Aviation at Staverton 26.10.61. Purchased by a survey company G R Moore Airwork Ltd, who disposed of it shortly after a minor force landing on 24.2.68 to Old Warden Flying and Parachute Group, who re-painted it as XM797 in 3.69. Crashed whilst attempting an overshoot when landing at Old Warden on 2.9.69.

39 XM819 ff. 4/58 first flew 3.4.58. Delivered A&AEE 23.4.58. Re-registered G-ARTV 26.10.61. Re-registered D-ELSA 2.62. Re-registered to UK 1.68. 1968 (impounded in Ghent, Belgium 9.1970 for smuggling forged currency. Later rescued by Harold Best-

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Devereux who then sold it to Jan Christie it then to USA by sea becoming N747JC  
2.1977 - current and flying 2003

40 VH-TCA ff. 6.1958 Completed 4.6.58. The last EP9 sold as such registered 6.58  
and re-registered VH-DAX 3.65. Crashed near Wittenoom, WA 7.4.68.

41 G-APWX ff. 10.1959 Built at Stapleford but completed at Squires Gate as  
Prospector. Registered. 23.9.59. First flight 9.10.59. (Noted Stansted 1961, Lympne  
1962, Thrupton) Re-registered in USA 1968 to N8395 11.1968 current 2003.

42 G-APWZ ff. 11.1959 (stored Lympne 1962) (wfu cx 1964 rest with CoA 8.1970)  
damaged near Sevenoaks 9.1970 (stored Slinfold, Shoreham) restored 1977. Gale  
damage Goodwood 2.1984 - parts used in rebuild of G-APXW, then itself rebuilt  
(complete at Shoreham 9.1999 - seen at Popham 5.1901) sold ZK-? (not yet reg in  
NZ). EP9 G-APWZ arrived in NZ in June 2002 for Hallett Griffin. It was damaged in  
transit from the UK. Has been noted post repairs as ZK-PWZ Hallett operates as  
Griffin Ag-Air/Kairanga Aviation.

43 G-APXW ff. 8.1960 (st Lympne 63-71)(wfu cx 1964 rest 1.1971) reb Ford 8.1971  
C of A mid 1972 damaged 9.1973 (stored Teesside, Slinfold, Shoreham rebuilt  
1975). Withdrawn from use to AAC museum, Middle Wallop 1981 rebuilt using parts  
from G-APWZ and G-ARDG marked 'XM819' (which was really c/n 39). All three  
were with G B E Pearce's company Strutbest Ltd that traded as Sussex Agricultural  
Aviation Services, acquiring all 3 in 8.1977.

As the two Army Air Corps examples were no longer available (c/n 38) XM797/G-  
ARTU was w/o at Old Warden 2.9.69 and c/n 39 XM819/G-ARTV/D-ELSA/G-ARTV  
had already been exported.

44 G-ARLE ff. 3/61 crash Sudan 10/64

45 Not completed

46 VH-SSR ff. 3/62 in Australia (including parts from 32/VH-SSW). To VH-DAV  
8/1964 to L Nitschke Museum, Greenock, SA.

47 G-ARDG (Mark 2 prototype) ff. 8/60 (st Stansted 61, Lympne 63-77) wfu cx 64 to  
AAC Museum, Middle Wallop 81 for spares, currently stored in West Sussex, being  
rebuilt with bits left over from restoration of G-APXW. In 2005 it was confirmed that  
the forward fuselage (i.e from firewall to rear clamshell door frame) of G-ARDG was  
noted at Redhill. It has G-ARDG on a plate on the instrument panel but, curiously, it  
has "A/c 33" penciled on the firewall.

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## Gordon Dove;

Three Gordon Dove aircraft were constructed at Maylands Aerodrome, Romford, in the late 1930's. A single seat ultra light aircraft designed by S C Buszard the three machines were constructed by Premier Aircraft Constructions Ltd., and started to fly from March 1937.



Image via Aeroplane

Span: 27 feet 3 inches      length: 18 feet 3 inches  
Weight, laden: 600 lbs.      Speed: 95mph

Confusingly, the three machines bore dissimilar styles of code numbers.

SCBIII G-AETU      First flew 3.3.37 destroyed in the "enemy action" hangar fire at Maylands 6.2.40

S.B.IV G-AEZA      This was flying by July 1937, and scrapped 5.1939.

3      G-AEZB      Flying in August 1937 but was damaged beyond repair in an accident at Tilbury, Essex 9.9.37.

Three other registrations were allotted (G-AFAC to G-AFAG), but none of the machines were built.

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## THE EARLY HANDLEY PAGE DESIGNS

*- and other types built by him.*

Frederick Handley Page was one of the great British aeronautical engineers and manufacturers. From 1908 this man became involved in experimentation with other pioneers, including Jose Weiss, that would eventually lead to the manufacture and flight of a number of the first Handley Page Limited aircraft. In the meantime, Frederick was involved in constructing a number of his own designs, variations on other people's efforts, and contracting to build aircraft for others.

Handley Page glider, a simple monoplane type based on a Weiss design. This was displayed at Olympia on March 17, 1909. It was a useful start but never flew.

Weiss, another monoplane design built at Barking and powered by a 12hp Anzani engine driving two propellers. It also never flew.

Deverall Saul, a quadruplane built by Handley Page to the design of another. Displayed as plans at Olympia in March 1909 it was completed by May in the same year. Only powered by a meagre 8hp engine it failed to become airborne even after being towed behind a motor car! Not put off by this failure, a two-seat version was ordered from Frederick by Saul.

Handley Page Type A, or HPI, a 1909 monoplane nicknamed 'Bluebird,' first flew powered by an Advance 20hp engine on May 26, 1910 and crashed. It was not then further proceeded with in this form.

Handley Page Type B, or HP2, a biplane was not an HP design, merely a modification of a type designed by another aeronautical engineer powered by a 60hp Green engine and constructed at Barking. It suffered an accident and never flew whilst at Barking. Much modified, and renamed, the basic airframe was finally completed in October 1909 and flew at Formby, Lancashire.

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Baden-Powell Scout built for the famous leader of the Scout movement and appropriately named.

Mackensie-Hughes 'Britannia' triplane was another aircraft built at Barking by Handley Page for a different designer in 1910. The Molesworth Triplane 'Britannia' was a redesign of the Mackensie-Hughes 'Britannia' built by ESB Mackensie-Hughes and AW Smith of Barking in 1910. It failed to fly in either form being underpowered. The original 'Barking No-hoper'



Handley Page Type C, or UP3, a 1910 monoplane design re-built from the Type A which first flew with the power of an Alvastron 25hp engine.

Handley Page Type D, or HP4, a monoplane initially nicknamed 'Antiseptic' and later 'Yellow Peril' from its colour scheme, was designed with a 35hp Green engine for the April 1911 Olympia Aero Show. Work began on it at Barking in October 1910 and it appeared as intended, but still unflown, at the show. It first flew at Fairlop on July 15, 1911 but crashed on its return, an event that stopped it partaking in the 'Daily Mail' Circuit of Britain race held a week later. This machine was rebuilt quite easily, re-emerging as with a 50hp Isaacson engine, and a new nickname, and flying on several occasions from Fairlop.

Handley Page Type E, or HPS, a 1911 monoplane also known as 'Yellow Peril' powered by a 50hp Gnome, the first two seat design by the company, first flew at Fairlop on April 26, 1911. This machine was little more than a more robust, two seat, version of the Type D. Just to confuse matters, both the Type D and the Type E became generally known as the 'Yellow Peril'. The latter was converted to single seat configuration in the summer of 1914. In spite of its historic part in aviation the remains finally succumbed to the scrapman in 1940.

Sonoda a biplane manufactured at Barking to a design by Japanese engineer of the same name and assembled at Hendon in June 1912. Rolled out for the first time in July 1912 it was first flown at Hendon, by C W Meridith, on September 30, 1912. It crashed.

Handley Page Type F, a side by side two seat design was to be the last built at the Barking works. Powered by a 70hp engine the machine was transported, unflown, to Larkhill to participate in the Military Trials. It flew for the first time, at Larkhill, on August 21, 1912. It failed to find favour with the military at the trials, was damaged there and returned by road to Hendon where the repaired machine next flew on November 9. It was finally lost on December 15 in the same year when it crashed at Wembley shortly after take off from Hendon. Both occupants were killed.

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## Napier autogyro;

The joker in the pack as far as locally produced aircraft are concerned, the Agricopter was a short lived version of the Bensen B.SM (B.SMEJ) Gyrocopter.



Image via Aeroplane

Built by D. Napier & Sons Ltd, a long established Luton based engineering firm that first became involved in aviation during its manufacture of aero engines during the Great War.

The tenuous local connection came about in 1959 when Napier teamed up with Pan Britannica Industries Ltd., a long established agricultural products manufacturer with a factory in Waltham Abbey and a registered address in Waltham Cross, Hertfordshire.

At that time PBI were working as aerial crop-spraying contractors and had identified the need for a small aerial crop spraying device that might eventually be developed into an unmanned craft that could compete economically against the most popular type of the period, the de Havilland Tiger Moth.

The result of this research was the purchase and modification of a basic Bensen autogyro kit, leading to the erection of three machines, variously known by the names of Napier Agricopter, Napier-Pan Britannica Agricultural Gyroplane and Napier-Benson Gyrocopter. The Napier improvements included a new propeller and a rotor spin-up device. The agricultural payload was contained in a tank situated to the port side below the pilot. Initially of 6 gallon's capacity it had been intended to fit a larger main rotor to boost this to 10 gallons.

In a public demonstration of the machine, given at Luton Airport on Thursday July 20, 1961 the aircraft was hailed as being an economical aerial crop-spraying service for

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small acreage farming. The prototype, G- 29-3, was flown by a Napier test pilot, S.J. Bartlam, against a Tiger Moth crop-sprayer.

Pan Britannica Industries Ltd., continued to operate in Waltham Abbey and Waltham Cross into the 1990's - albeit with Japanese owners – before closing down in 2001 but the prime contractor, Napier, did not survive as an identifiable independent company for many years beyond the Agricopter.

Three of these aircraft were built in 1961 (all of them probably at Luton) and registered under the following temporary registrations on the dates shown:-

G-29-2	4.1961
G-29-3	4.1961
G-29-4	11.1961

In July 1966 one of these three (code number 21102 and undoubtedly that bearing the marks G-29-3) was later registered as a Napier-Benson Gyrocopter as G-ATWT on the normal registration system. After service with A.J. Howlet at Swanton Morley marked up as 'Miss Celaneous' it went to A to F in December 1966, D. Hutchinson at Hythe a year later and finally to B.G. Baker in April 1970. It was withdrawn from use in October 1970 but not cancelled until January 1977.

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## **Sprint [SAH-1], OA-7 Optica**

Mike Robertson was the founder of the Trago Mills retail empire, with head offices at Liskeard in Cornwall. An avid aviation enthusiast in his spare time, Mr Robertson's wife gave him a flying lesson at Plymouth as a birthday present; he got the bug, learned to fly and acquired his licence in 1968. A man of great energy, he then enthusiastically looked round for aviation projects and established an airfield at Cardinham, near Bodmin.

In 1971, Robertson placed a letter in the PFA Magazine, offering to sponsor the construction of a new all-British ultra-light aircraft. Mike Whittaker, the ultra-light aircraft designer, responded by submitting proposals. These were accepted. Like the earlier Tawney Owl the Whittaker aircraft, the MW.2 Excalibur, employed a twin-boom, pusher configuration but actually used a ducted fan like the Optica.

The red MW.2 G-BDDX first flew from St Mawgan in July 1976. It only flew the once as a weight problem with the duct and the nacelle was identified, Whittaker left the project.

The remaining team then looked at a more conventional layout and came up with a larger light training aircraft The Trago Mills SAH-1 was the result.



File

In 1986 a company called Trago 86 was formed to raise funds for production. Various talks failed and then in 1988 new investors set up Orca Aircraft to take over the project from Trago Mills. The backers pulled out in 1989 and that company failed. An attempt was made to sell the project to Brooklands Aviation the then makers of the Optica, but they were already sliding into Receivership and never took over the additional project.

After another period in the doldrums FLS Aerospace took over the SAH-1 in October 1990. FLS also had also taken the Optica from a failed Brooklands.

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To meet a new RAF requirement the SAH-1 was quickly re-engined with a 160hp Textron Lycoming engine and the FLS Sprint 160 was born. The original 118hp specification became known as the Club Sprint.

The Sprint failed to get the RAF order but FLS persevered and made a number of developments to the basic aircraft including a number of exterior alterations to the cowling and canopy.

By 1998 the Sprint was up for sale again after FLS decided to reverse policy again and divest itself of the light aircraft interests.

In September 1993 the Sprint attended the Flight International Business and Light Aviation Exhibition at North Weald but in the summer of 1998 the fleet, including G-SAHI, G-FLSI, G-SCLX, G-BVNU, G-BZUW and G-BXWV were all registered to Jersey-based Sunhawk Ltd., arrived at North Weald to stay pending sale. They vied for space with the Optica and its complete range of production jigs.

At North Weald the project was marketed by Sprint Sales & Marketing based in GA House on the airfield. Where some building of the Sprint took place at North Weald no attempt was made to build the Optica. Eventually long term production plans were abandoned and both projects were put up for sale.



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In 2002 major parts of both of the aircraft left North Weald for a new home and potential production in South Wales. The Optica went east and then west to the USA. At the 2006 Heli-Expo in Dallas Texas the Greater Waco Aviation Alliance and the British Light Aircraft Co [BLAC] were exhibiting their new joint project. Now called the Optica Lone Star.

The team at BLAC included Chris Burleigh, who was once on the team of the original Optica product, and Andy Richardson formerly with MD and Boeing. The project failed.

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## **Taylor J.T.1 Monoplane**

This aircraft was famously designed and built in the bedroom of a terraced house in Ilford, East London by John Taylor between 1956-59.

Once completed the prototype registered G-APRT was removed from its birthplace by removing the front windows of the house and manhandling it into a waiting lorry. The first flight was undertaken at White Waltham Airfield in July 1959.

At that time it represented the first post war homebuilt design to come from England. It was designed to be made in small spaces with the minimum of tools and material cost. The total number flying to date is over 100 examples.



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The prototype was to return to Essex in an unusual manner. In 1994 G-APRT changed hands and was making its first flight in the hands of its new owner from Birmingham to Kent on Sunday March 6, 1994. .

The aircraft set off south in company with a Piper Cub flown by the pilots father, tracking down the line of the M1 and then turning east towards Stapleford where it was intended to turn south again along the line of the M11 towards Kent. The Arden engine failed and the aircraft was forced to set down near the M11 in Chigwell.

After rolling for a number of yards the port wheel dug into the soft ground and collapsed, swinging the aircraft around about 90 degrees to the left and onto its nose. The undercarriage and propeller were smashed, but there were no serious injuries involved. The accompanying Piper carried on to Kent, the pilot returning three hours later to recover the Taylor on a low loader.

# AIRCRAFT MANUFACTURE IN WEST ESSEX

## Tawney Owl;

The Tawney Owl was an unsuccessful type that appeared in prototype form only. Constructed of metal, it was a piston engined light two seat monoplane. Designed by A.M.'Tonyll Creedon of Harlow and developed and built by a subsidiary of Thurston Engineering Ltd., called Tawney Aircraft Ltd., the single example was built at Stapleford.



Image via Aeroplane

Featuring a twin boom tail layout to accommodate the "pusher" propeller driven by one 75h.p. Porche 678/4 air cooled engine the aircraft, registered G-APWU, crashed and overturned during its first take off at Stapleford on April 22. 1960.



Image via Aeroplane

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In front of a crowd of 200, including B.B.C. and I.T.V. cameramen, the red and white aircraft piloted by Flt. Lt. Angus Macdonald, with Harry Radcliffe as observer, spent the morning in taxi trials. At midday the plane took off and flew at a height of 50 feet from the airfield. After about a mile Macdonald is reported to have decided that the Tawney Owl was not going to fly any higher or faster and decided to put the aircraft down. Its subsequent damage, caused by the over-turning in the landing, was mainly due to the ploughed nature of the field. It was subsequently dismantled and stored.

It was stored in the rafters of the Thurston Engineering workshops at Stondon near Chipping Ongar but eventually became split with the fuselage going to Wales and the wings eventually gravitating [in 2008] to the ownership of Barry Clay in the Midlands.

From store at Classic Flight at Baginton in July 2010 it moved to Barry's new workshop in The Old Fire Station, Bishops Tachbrook airfield, Leamington Spa, Warwickshire for rebuild.

The remains are the wings and ailerons, one rudder, both main undercarriage legs/yokes/wheel/tyre and nose yoke/wheel/tyre, full set of engine bay cowls, the three-part flaps from under the centre-section and lots of brackets and small components. The plan is to build new (non flying) structure/components to represent what is missing and use/attach as much original material as possible. There are no drawings so work is from photos, 'Flight' sketches and the cine film.

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## Foster Wicko Wikner.

A type that might appear to have greater connections with Stapleford than it did was this 115mph., two seat, high wing, monoplane of the 1930's.

Designed by an emigree Australian, Geoffrey N. Wikner, the F.W.1 was designed and built in the East End of London. Construction took place in J F Lusty's furniture factory at Colin Street, Bromley-by-Bow, London E3. It was transported to Hillman's Aerodrome [as Stapleford was then known] for flight trials as G-AENU in September 1936.

The Foster Wikner Aircraft Cxo. Ltd., was registered to a Moorgate, London address on September 9, 1936. With a nominal capital of £100, set up as 100 shares at £1 each, the partners in the venture were Victor Foster, Geoffrey N Wikner and J F Lusty. Foster gave his address as 24 Castle Drive, Ilford and Wikner gave his as 3 Leyswood Drive, Ilford.

Wikner had a lengthy background in aircraft design in Australia, where he had designed and built a variety of small aircraft since 1929. In August 1934 he travelled to England and worked in aviation at Hanworth and Woodley. In April 1936, after leaving Woodley, Wikner became involved with C G Durman and D W Bishop in the rapid construction of the F.W.1.

Low initial cost was achieved by the use of a Ford V8 motor car engine allied to the reduction gear from a Pobjoy engine. This combination, termed the 'Wicko F' gave the project 85hp at 1,500 rpm. Although the engine enhanced the sleek lines of the high wing monoplane it was soon seen that it was conferring it insufficient power.

F.W. 1, G-AENU, was flown at Stapleford from July 1936. Testing from the airfield lasted only a short time before the engine was replaced with a conventional Cirrus aero engine offering a far better power to weight ratio and a vastly improved performance as the F.W.2. This engine did not find favour with the buying public either, requiring a further re- design to incorporate a 130hp Gipsy Major into the aircraft. As the G.M.1 the further production of aircraft was transferred to Eastleigh, but the company retained the Colin Street address as that of its head office. Production of this series of aircraft totalled eleven before the war brought it to an end. Most of the type were impressed, serving with the fighting forces as the Warferry.

Wikner himself spent the war years directly involved with the Air Transport Auxiliary (ATA) and Ferry pool. After the war, in 1946, he returned to his homeland leaving two of the G.M.1's only one of which survives.

C/n	Registration	Remarks
1	G-AENU	F.W.1. from 19.9.36 until converted to F.W.2. in 1937. Stored in Birmingham during war until restored in September 1946. last noted derelict at Plymouth in 1953.
2	G-AEZZ/ES943	F.W.3. at Eastleigh in September 1937. Became first G.M.1 in 1938.' War service as ES943 was not survived.
3	ZK-AGN/NZ580	G.M.1. Sold to New Zealand where it was impressed during the war, crashing in 1942.
4	G-AFAZ/ES924	G.M.1. War service was not survived

