

Reference: G01

Type: **Nacelled Zögling** manufactured by Messrs Zander & Weyl at Dunstable in 1935

Various **Daglings** manufactured by CUGC and Slingsby Sailplanes Ltd.

Totternhoe manufactured by the Dart Aircraft Company at Dunstable in 1936

Colour: Wood and fabric

BGA No.: n/a

Registration: n/a

Dates: Nacelled Zögling from 1935 to 1937

Dagling successors from 1936 to 1939 (used for RAF training in 1940)

Totternhoe from 1936? to 1939 (used for RAF training in 1940)

Information:

CUGC started flying on 17th May 1935, using three large fields at Caxton Gibbet. Solo instruction was given using the brand new nacelled Zögling, with launching by a Chrysler 20hp car converted to a winch by engineering students. After a promising start a wing got broken as a result of a stall near the ground and it wasn't repaired until after the start of the long vacation (i.e. after June 1935).

The only known photo of a Zögling flown by a CUGC pilot was published in the April 1935 issue of "The Sailplane and Glider" magazine, showing John, Duke of Grafton being launched at Dunstable Downs. John Charles William Fitzroy, 9th Duke of Grafton was educated at Trinity College, Cambridge. The Duke of Grafton was the first president of CUGC. He died on 4th August 1936 aged only twenty-two, after his Bugatti crashed during the Limerick International Grand Prix in Ireland.

In January 1936 the CUGC workshop, under John Pringle's efficient organisation, was nearing completion of a pair of modified Zögling wings and at the beginning of next term these wings and a new nacelle were to be fitted to the

existing Zögling fuselage, and another fuselage made for the old wings. Situating the workshop in town next to a hostelry may or may not have helped with the progress of work.

On 24th January 1937 a pilot landed the Zögling downwind into a hedge and broke everything except himself and one wing. As reported in "The Sailplane and Glider" magazine, 'thus occurred the crash which averages showed to be well overdue after two years of nearly damage-free operation. The old machine died a fitting death, and we are not going to disturb her remains'. At the time members working in the club workshop had nearly completed a modified nacelle Dagling to replace the Zögling – the "Super-Dagling". This blue nacelled "Super-Dagling" had its first flight on 21st March 1937 during the club's first camp, to Kimmeridge Hill in Dorset and three days later Toby Kidd gained the club's first 'C' certificate in it.

By April 1937 CUGC had use of the CUGC-built "Super-Dagling", an open Dagling manufactured by Slingsby Sailplanes Ltd. (first flown on 25th April 1937), a **Dart Aircraft Company Totternhoe** as well as the Cambridge 1. A Slingsby Kirby Kite was also due for delivery.

The Dart Totternhoe was a wooden, single-seat secondary training glider and three were built. The flying surfaces of the Totternhoe were straight edged and fabric covered. The wings and tailplane, both mounted on top of the fuselage, were of constant chord and had blunt tips. No flaps or airbrakes were fitted. Two pairs of lift struts ran from the bottom of the fuselage to the wing spars just inboard of mid span. The near-rectangular rudder was hinged between the elevators, working in a cut-out. The wooden fuselage was flat sided, with a blunt nose and open cockpit. Immediately behind the cockpit the upper fuselage was raised to carry the wing, tapering away to the tail. A single main skid and small tail skid formed the undercarriage.

By October 1937 CUGC had use of the CUGC-built nacelled Dagling, two Slingsby open Daglins, the Totternhoe, the Cambridge 1 and the Slingsby Kirby Kite – but on 21st November 1937 one of the open Daglins was 'reduced to its component parts'.

On 22nd June 1938, whilst CUGC was flying at Oliver's Castle (Roundaway Downs) near Devizes, the Totternhoe was seen to spin into the trees on the top of the hill. The pilot and glider were perched in the top of some 50 foot beech trees. With the help of the local police and fire brigade and a lot of rope, after 1½ hours and having cut down two trees the pilot and machine were recovered. There was hardly any damage except to the nose of the glider.

Another nacelled Dagling had been acquired in August 1938 and by December 1938 CUGC had given up using open Daglins and usually managed to have at least two, sometimes three nacelled Daglins in service, despite the frequent damage.

On 12th April 1939 J.P.Elton flying the Totternhoe at Draycott Farm (Huish Downs, Wiltshire) was blown into the hill and completely turned over. The pilot was concussed and broke his right leg and the initial view of the damage was that the Totternhoe probably would not fly again - though a rebuild was started.

CUGC provided basic training in the Daglins for at least 27 Air Defence Cadets but by October 1939 flying restrictions were imposed, many of the members had dispersed and CUGC flying was curtailed. By January 1940 CUGC had five Daglins and the repaired Totternhoe moved to the London Gliding Club to provide glider training to an Initial Training Wing of the Royal Air Force.



Reference: G02

Type: **B.A.C. VII "L'Esprit d'Air"**, manufactured by the British Aircraft Company at Maidstone, Kent in 1935

Colour: Wood and fabric

BGA No.: n/a

Registration: n/a

Dates: From 1935 to 1937?

Information:

Charles H. Lowe-Wylde set up the British Aircraft Company in mid-1930, with works in an old brewery at Lower Stone Street, Maidstone. The two-seat B.A.C. VII first flew in 1931, using the 40ft 10in span wings of the B.A.C. IV and VI, but with a new fuselage and an aircraft-type twin-wheel undercarriage for aero- or auto-towing.

The CUGC B.A.C. VII was owned by O.L.L.Fitzwilliam, Ralph Slazenger and the Duke of Grafton, and had its first flight at Caxton Gibbet in May 1935, piloted by O.L.L.Fitzwilliam. However by April 1937 there was no mention of the BAC VII in the CUGC news section of "The Sailplane and Glider" magazine and it is presumed to have been sold (maybe after the death of the Duke of Grafton) or damaged beyond repair.



Reference: G03

Type: **Willow Wren** (prototype), manufactured by Bill Manuel at the London Gliding Club, Dunstable in 1932

Colour: Green

BGA No.: 162

Registration: n/a

Dates: From 1935 to 1936

Information:

Built in December 1932, this was the prototype Willow Wren. It was known as the "Yellow Wren" due to its pastel yellow colour. In 1933 and 1934 the "Yellow Wren" was flown from Dunstable, including a notable flight on 30th July 1933 when Flight Lieutenant Edward Mole established a new British duration record of 6 hours 55 minutes. On 2nd September during the Sutton Bank National event a Mr McClement flew the Wren into a tree on the escarpment and Fred Slingsby bought the wreck. By mid-November Fred Slingsby had repaired it with modified wings and changed the "Yellow Wren" into the "Green Wren".

By August 1935 the "Green Wren" was owned by the Duke of Grafton and Ralph Slazenger and being used by CUGC pilots. On the first flight at Caxton gibbet on 3rd October 1935 Ralph Slazenger reportedly found patches of lift after winch launching but was unable to stay in them.

It was sold to the Read brothers at Dunstable in 1936 (?) and they were still the owners when WW2 broke out. Later in its life from 1974 to 1992 this glider was owned by Mike Russell, a CUGC member who had a vision of a National Gliding Collection based at Duxford incorporating his Russavia collection of vintage gliders - but the Imperial War Museum were not supportive.

The Willow Wren is now a display exhibit in the Gliding Heritage Centre at Lasham (on loan from the Brooklands Museum).



Reference: G04

Type: **Cambridge 1 "The Pons"** (prototype), manufactured by Messrs Zander & Weyl at Dunstable in 1935

Colour: White-blue (after repainting in January 1938)

BGA No.: n/a

Registration: G-ALTJ

Dates: From 1935 to 1952

Information:

The Cambridge 1 was an updated version of the Grunau Baby. It retained the Baby wing with its thick, high lift aerofoil, though slightly increased in span (14.12m), introduced a smoother monocoque fuselage, a tailplane of greater span and a new rudder. It was built to order with a list price of around £130.

On 1st December 1935 there was a general exodus from Cambridge to Dunstable to view the first flights of the Cambridge 1. It was initially flown by a Mr Keeble (Zander & Weyl's test pilot), and then by the new owners, Ralph Slazenger and the Duke of Grafton - who gained his 'C' certificate flying it that very day

Evaluating it in early 1936, Philip Wills considered the Cambridge 1 had balanced and 'sweet' controls but it had an unexpectedly mediocre sinking speed, possibly due to it being slightly heavier than expected at 111.3 kg.

The Cambridge 1 was initially based at Dunstable, and after participating in the Easter 1936 meeting at Camphill, made its first flights at Caxton Gibbet on 26th April 1936.

On 2nd May 1937 the Cambridge 1 flown by Kenneth Lingford made the first soaring flight from Caxton Gibbet (and the first cross-country flight from a flat site winch launch in the UK), with the flight lasting thirty minutes and landing seven miles away near St Neots.

The Cambridge 1 was flown in the 1938 British National gliding competition (at Dunstable from 9th to 17th July) by George Pirie, Michael Maufe and Charles Wingfield, placed 6th overall and runner-up in the Inter-Club Class contest.

The Cambridge 1 was flown in the 1939 British National gliding competition (at Bradwell Edge, Derbyshire from 8th to 16th July) by Bobby Cole, Derek Bolton, Norman Lee and B.Jones but only scored 2 points for a firm last place for unknown reasons.

The Cambridge was the only CUGC glider to survive the war (it was stored at Dunstable). At the first post-war meeting of CUGC at 6 Albemarle Street, London on 4th July 1945, it was reported that the Cambridge 1 only needed a new leading edge to make it airworthy and by end 1945 it had been recovered from a barn at Dunstable and flown at Heston Aerodrome by John Pringle. Apparently in August 1945 the Cambridge was flown at an illegal meeting at Sutton Ban by John Pringle and Mr. Manning.

The Cambridge 1 was first called the "Pons" after the war because it was the 'bridge' between the Cadets or Tutors and the Olympia.

The Cambridge 1 was broken on its second flight of the CUGC Easter camp at Camphill in April 1947, when making a crosswind landing into a wall, and had new ailerons and new false spars fitted by Martin Hearn Ltd. until 'little of the original 1935 aircraft appears to be left'. It was flown again on 24th May 1947.

On 29th August 1947 'Mac' Head flew the Cambridge to Buckingham (85 km) and reached 7000 feet so gaining his Silver distance and height to complete his Silver 'C'.

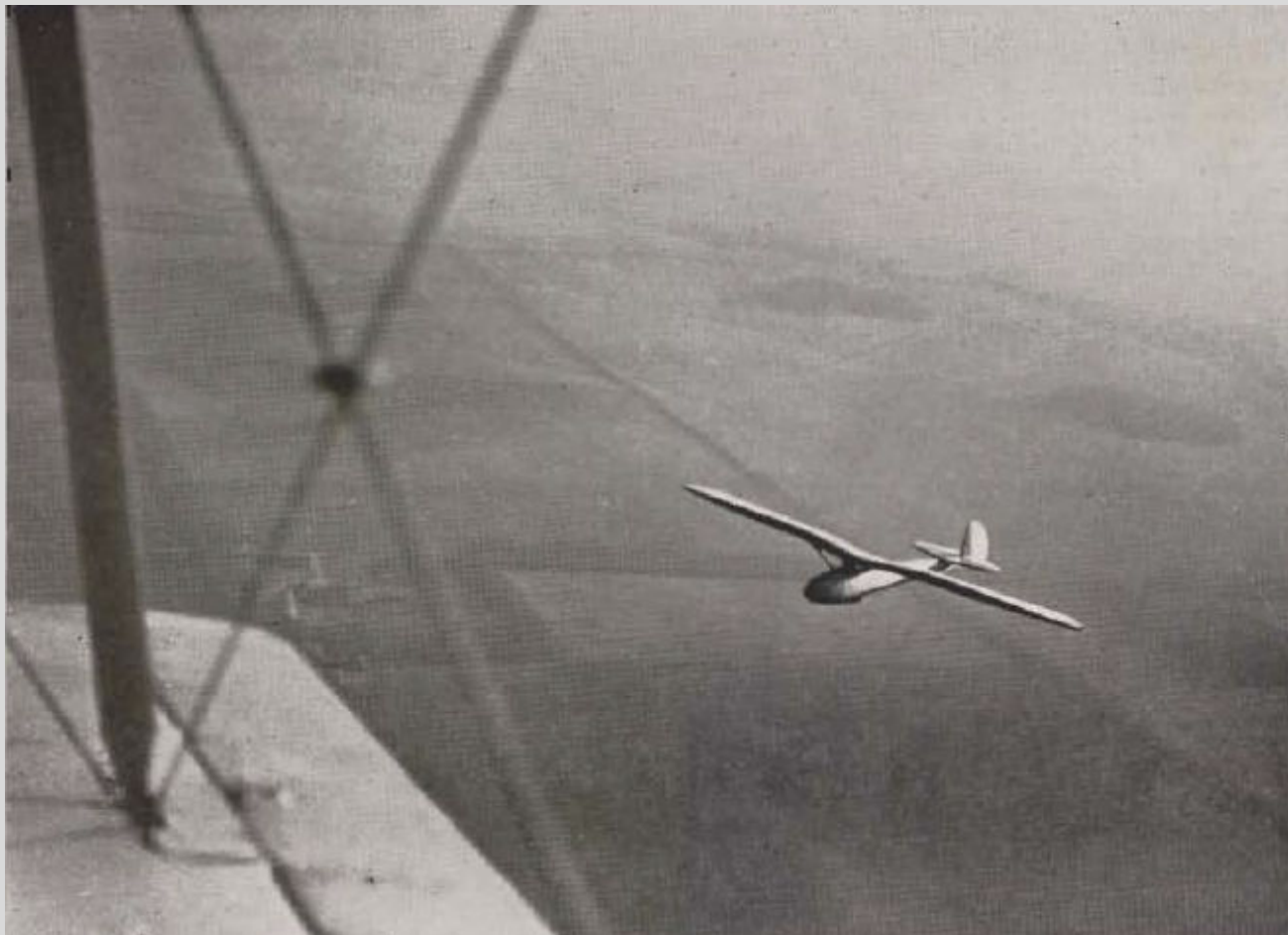
In June 1950 at the Long Mynd the Cambridge 1 was flown in three separate five-hour flights in one day, the first flight taking off at 05:30 flown by Sigfrid Neumann.

On 5th June 1950 R.E.J.Ibbotson gained his Silver height in the Pons, and on 29th July 1950 he flew to Southend for his Silver distance. He arrived at Southend at 4000 feet but didn't go further because "he had to take a poppet out the same night so he came back by aerotow, in a great hurry".

In March 1952 a camp was held at the Long Mynd, including the Pons. Hawies (?) did his Silver duration in the Pons and reached 5000 feet above take-off height in wave.

On 21st August 1951 George Whitfield flew the Cambridge to Swaffham (61 km) to gain his Silver distance.

The Cambridge 1 was completely written-off in a mid-air collision with the CUGC Olympia on 15th June 1952 during a club expedition to Camphill. Its obituary notice read "Death – Suddenly, when on holiday at Camphill, Cambridge 1 (Pons), aged 16½ years. Well done, thou good and faithful servant".



Photograph: J.E.Simpson, published in *Sailplane and Glider* April 1938 Vol.9 No.4

Reference: G05

Type: **Slingsby Type 6 Kirby Kite**, manufactured by Slingsby Sailplanes at Kirbymoorside, Yorkshire in 1937

Tail number or colour: ???

BGA No.: n/a

Registration: n/a

Dates: From 1937 to 1939?

Information:

By April 1937 CUGC had ordered a Slingsby Kirby Kite for about £145, which eventually arrived two months later. The first CUGC flight was on 13th June 1937 at Kimmeridge Hill in Dorset.

On 23rd June 1937 at Heston Airport Keith Turner flew the Kite towed by Ralph Slazenger's Moth for the club's first aerotow, observed by Air Ministry officials.

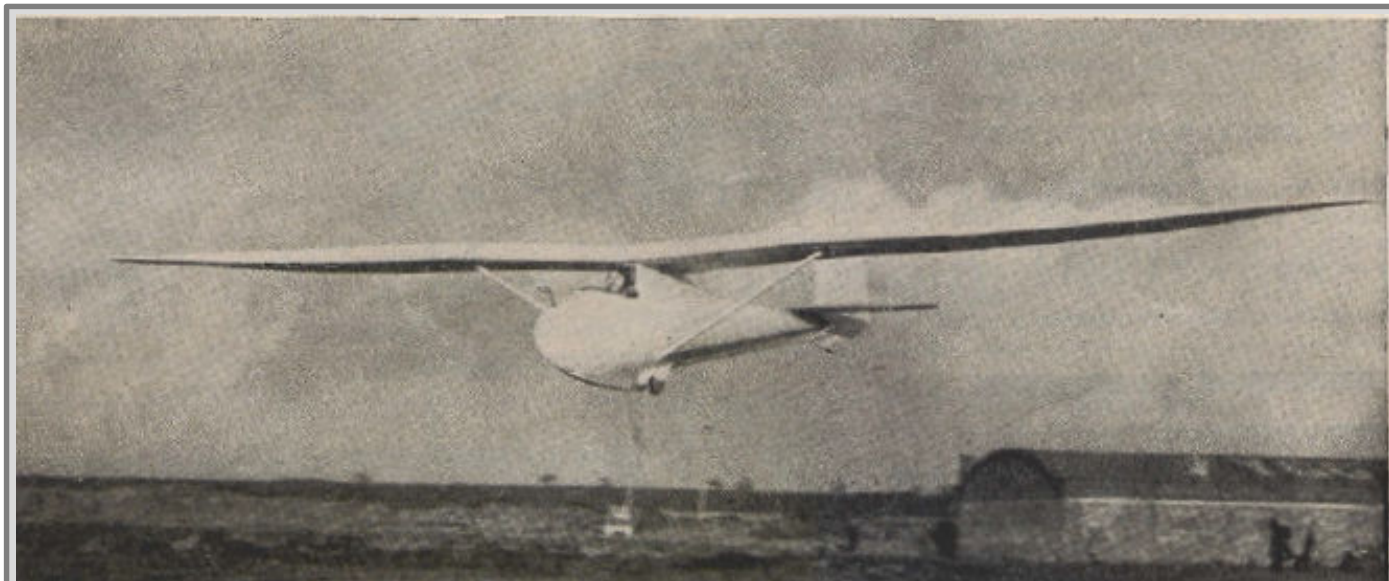
The Kite was flown in the 1937 British National gliding competition (at Bradwell Edge, Derbyshire from 29th August to 5th September) by Keith Turner and John Simpson, and was placed 6th (out of 19), winning the Open Team Prize. On 2nd September John Simpson achieved the club's first Silver 'C' in the Kite, and Keith Turner repeated the achievement two days later.

On 8th September 1937 John Simpson flying the Kite at the Long Mynd reached 8500 feet in wave, one of the earliest wave flights in the UK.

On 17th April 1938 John Pringle in the Kite at Draycott Farm, Wiltshire flew just over 100 km to Bridport, Dorset for his Silver 'C' distance. On the following day Philip Michael Thomas flew 160 km to Denbury Aerodrome near Torquay for his Silver 'C' distance and height, and then on 13th June he flew for more than five hours at Inkpen to complete his Silver 'C'.

The Kite was flown in the 1938 British National gliding competition (at Dunstable, 9th to 17th July) by John Pringle, John Parker and Ralph Slazenger, receiving the L. Du Garde Peach Trophy for the winner in the inter-club team contest.

The Kite was flown in the 1939 British National gliding competition (at Bradwell Edge, Derbyshire from 8th to 16th July) by Ralph Slazenger, John Parker and Pat Pringle, receiving the L. Du Garde Peach Trophy for the best club team and the Royal Aeronautical Society's Trophy and Prize for the winner in the inter-club class contest.



Photograph: Sailplane & Glider April 1946 Vol.14 No.4

First post-war meeting of the Yorkshire Gliding Club at Sutton Bank, 6th January 1946.

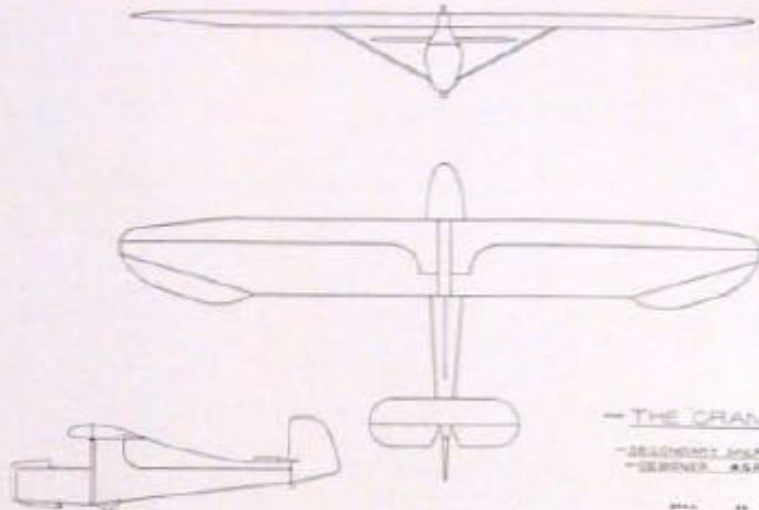
J.W.Leads landing the Cambridge Kirby Kite

The post-war history of CUGC's Kirby Kite is unclear, with the only record being this photograph.

The "Granta"

AN ALL-PURPOSE SAILPLANE FOR THE CAMBRIDGE CLUB

[The "Granta" may be described as the first British sailplane corresponding in any way to the "Utility" type which is so much used in the United States of America. The designer and builder, who describes the machine in this article, is Ground Engineer to the Cambridge University Gliding Club.]



— THE GRANTA —
— DESIGNER: A. G. PAYNE —
— BUILDER: C. G. PAYNE —
SPAN 30 FT.
LENGTH 27 FT.
WING AREA 400 SQ. FT.

THE GRANTA is a training sailplane for such purposes as winch training, first aero-tows, thermal practice, aerobatics, etc. As might be expected, it is essentially a compromise, with simplicity, safety and strength as the main considerations.

N.A.C.A. 4418 is the section chosen for the main part of the wing, for such points as: good depth of spar, small travel of centre of pressure, good speed range. This section is modified over the inner part of the aileron, and then tapers to Clark YH with 30° wash-out. The ailerons have a 3:1 differential action, and with aileron fully down the section chosen gives very little break in the contour.

Wing construction follows more or less normal practice, unusual features being solid spars of $\frac{1}{2}$ in. spruce and box ribs at the root instead of the normal diagonal to take torsion and drag. The rear part of the fuselage is virtually a triangular ply box, faired to diamond shape by fabric over a taut piano wire.

The wing fittings, sixteen in all, are channel-section mild steel, all being made off the same jig. A veneer-faced bakelite material is glued to the spars and bulkheads under each fitting; this immensely increases the bearing strength of the bolt holes.

Rigging should be very rapid; bulkhead fittings overhang, so that the wing tips can be placed on the ground while fitting the root pins. The strut is permanently attached to the wing, folding against the spar for storage. Four vertical bolts connect the cantilever tailplane, and the elevator connects automatically. A single wheel just behind the centre of gravity, and a tracking tail-skid will facilitate handling on the ground, and make cross-wind landing a normal procedure.

Actual performance figures will be given after the very thorough tests that we hope to give the GRANTA.

A. G. PAYNE.

Reference: G06

Type: **Granta** (no record of any flights) designed and constructed by CUGC in Cambridge in 1939

Colour: Wood and fabric

BGA No.: n/a

Registration: n/a

Dates: 1939

Information:

CUGC started preliminary construction work on the Granta in early 1939. This was a high performance 'secondary' single-seat glider, chiefly designed by A.G.Payne, the CUGC ground engineer. The wings were a single spar construction with a torsion leading edge and supported by single struts. The fuselage resembled a Hütter Hü-17 with a wheel on the skid. A 3-view and description were provided in the May 1939 issue of "The Sailplane and Glider" magazine.

By June 1939 construction of the Granta was held up by preparation of Daglings for the Air Defence Cadet Corps camps.

At the first post-war meeting of CUGC at 6 Albemarle Street, London on 4th July 1945, it was reported that the Granta was stored, but there was no mention of it when flying recommenced in January 1946.