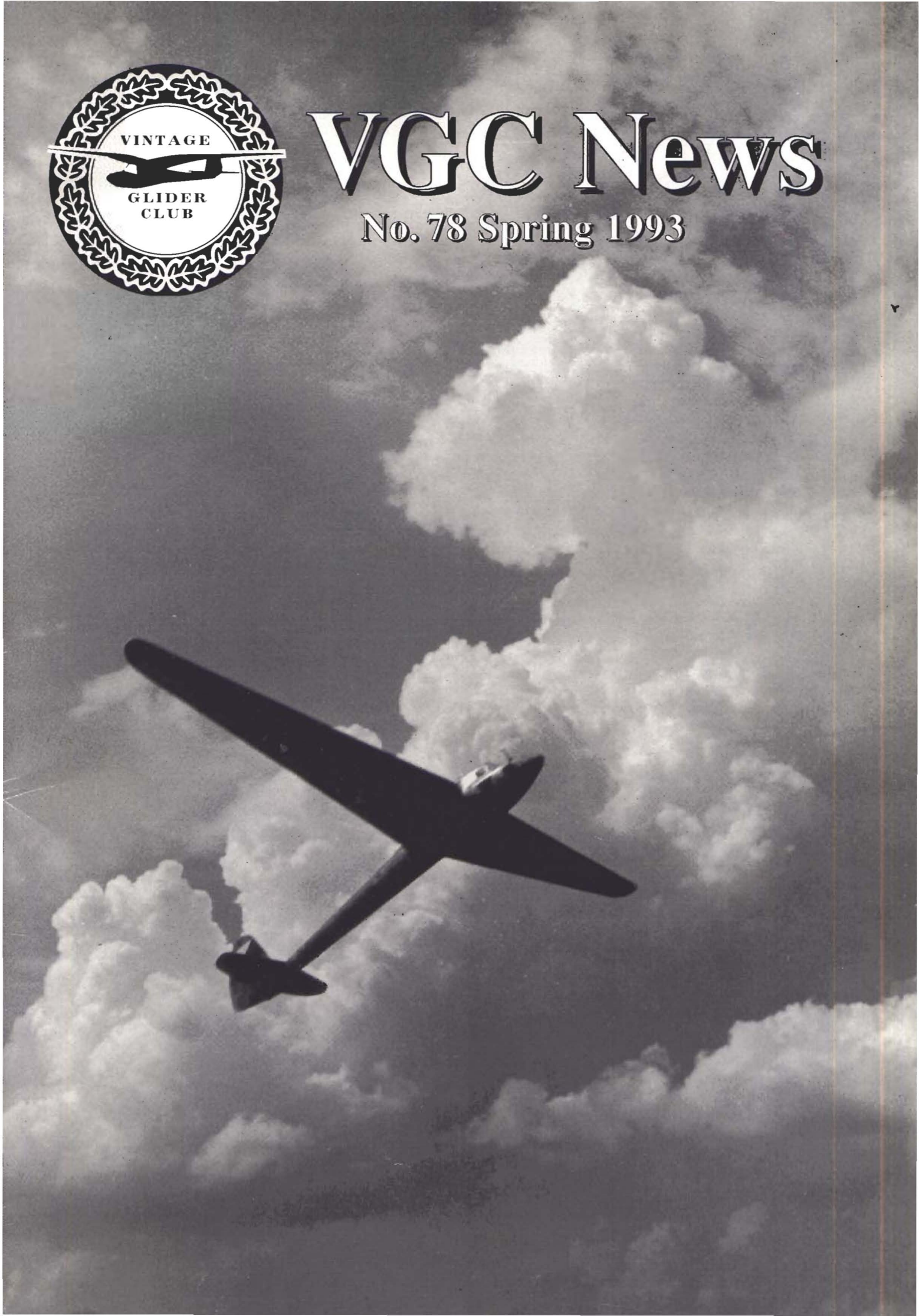
VINTAGE GLIDER CLUB

VGC News

No. 78 Spring 1993



RALLY DIARY FOR 1993

Date	Venue	Contact
April 9th – 12th	Olympia Rally, Lasham	Jane Ballard 0256 389553
May 1st – 3rd	Kirby Kite Meeting Haddenham	Peter Chamberlain 0525 378901
May 22nd – 24th	Booker Vintage Weekend	Graham Saw c/o Booker G.C.
May 29th – June 5th	National Rally The Glyndower Soaring Club Lleweni Parc, Denbigh, Clwydd.	Jane Ballard 0256 389553
May 30th	Annual General Meeting at the National Rally	
June 12th – 13th	Middle Wallop Weekend	Jane Ballard
June 18th – 20th	Dunstable Historic Planes	Geoff Moore 0442 873258
July 28th – Aug 2nd	Rendez-Vous Wasserkuppe Beethovenstrasse 64, D-6000, Frankfurt 1, Germany.	K-H Kellermann
Aug 4th – 15th	20th VGC International Rally, Zbraslavice, Czech Republic.	
Aug 28th – 5th Sept	Norfolk G.C. Task Week	John or Gwen Edwards 0763 289460
October 23rd	Annual Dinner. Venue to be agreed.	

SCHOFIELD AVIATION

The Hangar, Lotmead Farm, Lower Wanborough, Swindon, Wilts.

We are pleased to quote for a glider trailer to suit any vintage sailplane, especially designed to suit your needs.

Recent trailers manufactured by us for Primaries, Rhönbussard, Kranichs, Doppelraab and Tutors.

Please discuss your requirements with David Schofield on 0793 790160 or 0793 822300 or 0831 450272.

Cover photograph: a DFS Weihe at Soaring School Hodkovice, Czechoslovakia in 1945. It was camouflaged. Photo: Vlad Šilhan, Prage.

VGC News No. 78
Spring 1993

President:	**Chris Wills**
Vice President:	Paul Serries
Vice President:	Willi Schwarzenbach
Vice President:	Hans Dijkstra
Chairman:	D. Shrimpton
Hon. Secretary:	Robin Traves
Hon. Treasurer:	Geoff Moore

FROM THE CHAIRMAN

"We pursue adventure on the roads through the lure of speed. But the roads are no longer roads to romance but carry a glut of vehicles past signposts and policemen. We fret because we cannot pass a lorry, we return at night blinded by other motorists and terrified of hitting a cyclist. Any adventure we have may lead to the police courts! I have no use for the roads."

Britain in the Nineties? No. This was France in the Nineteen Thirties! The writer, a Frenchman, Henri Mignet.

Mignet predicted that anybody who could nail together a packing case could build an aeroplane and, what's more, teach themselves to fly it.

By publishing his book, Le Sport de l'Air, and showing off his creation, the Flying Flea, he spawned a craze that swept through France, Britain and many other countries affecting just about everyone interested in aviation.

What he expressed was a VISION that flying was within the grasp of the amateur. To this day groups and individuals still follow this 'disciple of the air'.

Thus vision can be seen to be a very powerful motivator and we, the VGC, should always be aware of this.

You may feel that vision can only be the perception of an individual but this is not true. We as a club have a vision of where we are going and how we would like to be perceived.

If you pick up the Rules of the VGC you will see that vision. It is expressed as the international promotion, preservation, restoration and flying of historical and vintage gliders; the collection, preservation and publishing of information about them and co-operation with other interested organisations to ensure that members' best interests are protected.

We show off our gliders and write articles to encourage others to join us just as Henri Mignet did.

Perhaps we can even foresee the time when our newsletter is an internationally acclaimed magazine for pilots, aeromodellers and other enthusiasts, available on news-stands everywhere.

But where is this all leading to? Are we achieving our vision or are we deluding ourselves? I hope Henri Mignet would smile on us and our achievements.

Soon it will be time to hold another AGM and some members of the committee have volunteered to stand down due to pressure of other commitments. These include Jane Ballard, who organises our National rallies and Robin Traves, our long serving Club Secretary. A third vacancy exists owing to Ron Davidson having previously stood down.

I would ask some of you who can find the time and necessary energy to come forward and help your committee to continue the fine work carried out by these people to date.

The Annual Dinner at Husbands Bosworth went with the anticipated 'swing' and those who attended will, I am sure, like to pass on our appreciation to Ron Davidson and his team of caterers as well as to Keith Emslie for his after-dinner talk, which not only sounded like a Who's Who of gliding but also ventured into some very interesting technical details.

Next year the International Rally will be held in the UK and the question of sponsorship has been raised at committee. In these days of public awareness we are a very attractive organisation; our gliders are 'green' and colourful. It takes many months to organise such events and costs a lot of money. Any offers of help with such a major event would go a long way to ensuring its success. We need to act now.

TREASURER'S REPORT

from Geoff Moore

There has been a good response for renewal of subscriptions on January 1st and new membership is increasing. If you hear of somebody who is interested in gliding, young or not so young, pass on the blue application form on photocopy, or perhaps even pass on any committee member's telephone number for details about our club. We are represented all around the UK and overseas. It is essential we learn of construction and rebuilds, and retain the knowledge, skills and history to preserve and pass on the unique skills practised on wooden gliders, and experience the pleasure of flying them using the solar energy freely available, for future pilots.

I would remind that we can only post out newsletter mailings up to six months after end of January – otherwise we will assume a lapse of membership.

FORTHCOMING RALLIES

by Chris Wills

Maritime air will lose its moisture on the first land mass it comes to. To illustrate this, I once experienced a three-hour difference in time between the ending of thermals at Lasham (16.30 hrs) and Norwich (20.00 hrs). Under prevailing British weather conditions, it could be said that if we are ever to experience anything like the much hoped-for continental thermal conditions, we should always hold our rallies in the east of Britain, and well inside Europe. However, thank goodness, subtleties in the weather can prove this wrong. Maybe, if we are lucky, our National Rally in North Wales, which will depend on the prevailing SW wind from the Atlantic to give us hill soaring and waves, will be a delightful surprise.

The European continental weather depends on a central European high pressure zone to keep the Atlantic climate at bay. In 1992 the Atlantic sea air invaded Britain and France during August, but those of our members who retired from Holland to South Germany still had excellent weather. The

Wasserkuppe should, during early August, be under the influence of the European high pressure zone which could give us good weather. This was the usual time for the Rhön contests during the 1920s and 1930s. However those of us who have been there before, during our 1974 International Rally and at other times, will know that there can be exceptions to the good weather rule. The Rhön can collect any bad weather there is around and it was not for nothing that those attending the Reichssegelflug Schule Spitzerberg, near Bratislava, used to call the Wasserkuppe the Waeschkuche (laundry) of Europe.

Let us hope this year we will be lucky so that we can become Rhönindiane on account of sunburn.

It is recommended that those attending our Rendez-Vous rally there should take an alternative route via Nuremburg rather than the usual Autobahn to the South via Frankfurt am Maine, on account of traffic jams at peak rush hour times.

The Wasserkuppe is a tricky site for landing on and soaring. There was one pilot in the old days who was frightened to go away on cross-country in case he had to do an outlanding. One day he did it, and had no more terror of outlanding because everywhere in Germany was easier than the Wasserkuppe. It has since then been improved and provided one leaves off trying to hill- or thermal-soar with sufficient height it should be possible to get back to your take-off point.

There is only one slope and this is not a good one by other hill site standards. The slope works only because thermals come up it from the Poppenhausen Valley. It used to be soared during the early 1930s by relatively slow-speed planes which had had bungee launches. However they did not have to get back to today's take-off points. Pilots in the later Rhön Contests were bungeed off for great cross-country flights, but had to get away in thermals from the Poppenhausen Valley, or from Gersfeld. They used to often land in certain meadows in the valley where they were derigged and taken back on top for another bungee launch.

A year or two back the Iron Curtain was only 4k away on two sides of the site. Landing fields on the east side of the site, on the other side of the former border, seem to be larger than those on the western side.

The military still seem to own the former gliding school radar site on the top of the Wasserkuppe, but we now have permission to enter it. We trust that all explosive devices have been removed.

During the 1935 Rhön contest, four pilots flew to Brno in Czechoslovakia. It was the first time that over 500k had been achieved. The machines flown were: Rhönadler 35; Condor 1; DB-10 and Rhönsperber. The Rhönadler (flown by Steinhoff) reached Brno still with 2000m in hand but he decided to land as unsuitable wooded country lay ahead. The World record (502k) was awarded to Oeltschner, the Condor's pilot, because his machine broke up in turbulence during the aerotowed retrieve. Oeltschner was killed. As Brno (Brunn) probably was a VDF site, the Germans may have received a warm welcome.

In the right weather, the Wasserkuppe must be a tremendous thermal site. On 7th August 1943 Hermann Strebel flew the kneeling prone-piloted Horten 4a for over 10 hours and landed quite fresh and relaxed. Dr Karl Nickel, who flew a Meise for seven and a half hours on the same day, had to be almost lifted out of its cockpit because of stiffness. It was assumed that the Horten 4 could take better advantage of the dying evening lift than the Meise, but certainly its pilotage position seemed to offer more relaxation than that of the Meise, which has a large comfortable cockpit.

The site of Zbraslavice should be still further under the European high pressure zone and should have even better hot weather and thermals. Our member Alan Harris, who has been there, has said that on one day the cloudbase was at 9000ft! It may be of interest that a German book describing the situation in 1940/41 mentions bezirk Kuttenberg/Okres Kutna Hora as one of the Arbeitsplätze (maintenance airfields) for the Flying Training School A/B 32 Pardubitz.

Controllers, office and control tower were all in one, serving as the universal building for the maintenance field of Sbraslawitz during the summers of 1940/41. In general these maintenance fields were situated on dry meadowland without a fixed runway and permanent buildings. Barracks near at hand served as accommodation. There would be one or two small hangars to accommodate aircraft and a workshop which catered for small repairs. For major damage repairs, the aircraft would have had to be taken to a larger repair unit or factory. Fuelling the aircraft usually took place at the flying training school, but they could be topped up from a barrel or mobile fuel lorry at the maintenance field. It is unknown if the German names indicated that this was yet another outpost, until 1945, of German speakers who had been left behind by the Austro/Hungarian Empire in 1918. These used to warmly welcome pilots who landed at their gliding clubs from the Wasserkuppe during the Rhön contests and otherwise.

Indeed these German speakers had their own gliding clubs which were organized into VDF (Verbanden Deutscher Flieger). These had between 1922 and 1938 162 gliders. Among them were 92 Zöglings, 14 Grunau Babies, an H17 and H28, 1 Rhönbussard and 2 LO–105s – the 1936 designed and built in Brno prototypes for the postwar aerobatic LO-100s which are still in use today.

No doubt the airfield has been improved since those times, and we shall be lucky enough to have an excellent International Rally with perfect weather. Geographically we should have it this time.

OFFICIAL INVITATION TO THE RENDEZ VOUS 93 RALLY

issued by the Oldtimer Club Wasserkuppe Rhon, January 1993

Dear Gliding-Oldtimer Friends,
The Wasserkuppe invites all participants of the 21st International Gliding Oldtimer Rally in Czechoslovakia to spend a pleasant week with us on the World's Oldest Gliding Site, before going on to Zbraslavice.

DATE OF RALLY:
Wednesday 28th July – Monday 2nd August 1993.

We can offer you:
Relaxed flying with no set tasks.
A secure parking place for your trailers with their valuable vintage gliders.
Cheap accommodation for a limited number of persons in the former Reichssegelflugschule.
Accommodation is also available in guest houses and hotels on and around the Wasserkuppe.
A camping area.
Cheap restaurants on and near the Wasserkuppe.
Possibilities for walks and visits to museums.
Sociable evenings in the Oldtimer Club Wasserkuppe's Hangar.

If you wish to come, please write to:
Oldtimer Segelflug Club Wasserkuppe

Karl-Heinz Kellermann, Beethovenstrasse 64, D-6000 Frankfurt 1, Germany. Tel: 69 74 54 75.

THE 14TH GRUNAU BABY MEETING 1993

This is to be held as usual at Whitsun. This year the Aero Club "Hans Grade" is organizing the meeting. It is the first time that the Grunau Baby Meeting is to be held in the former East Germany, at Bad Frankenhausen eV on the airfield at Udersleben. Those wishing to participate should without delay contact:

Gunter Scholz, Borlachweg 9, D-4730 Atern, Germany. Entries were supposed to be in by the end of February. Entry forms can be obtained from Chris Wills. Tel. 0491 39245.

HUNGARIAN NEWS

from Louis Rotter

Sixty years ago, on 26th December 1933, Lajos Rotter flew one hour in a Hols der Teufel in NW wind above Harmashaferhegy (HHH) in Hungary. With this feat he established HHH as a gliding site which still operates today.

The Hungarian Old Timer movement considers this year as Jubilee year: "60 years of HHH". There will be a string of events organised between the 15th and 22nd August this year and the participants of the Czech Old Timer meeting are invited to visit Budapest. Others are also welcomed of course. Cheap accommodation is available at HHH and at Farkashegy-Bia airfield.

I would like to have numbers of would-be attendees and gliders as soon as possible. Detailed information is available from Louis Rotter on (361) 1216 534 (tel and fax) or Dr Carl Serberis on (361) 166 95 95.

Also there will be an Oldtimer Rally in Budapest in 1996 to run parallel to the 1996 World Fair which will be in Budapest.

SWEDISH NEWS

In a letter to Chris Wills Ake Andersson writes from Eskilstuna that he is very busy as he is now Vice President of the SVS, the recently-formed Glider Pilots' Veteran Association, and also International Contact Member. His address is: Mürkelvagan 7, 63358 Eskilstuna, Sweden: Tel: Eskilstuna 911004.

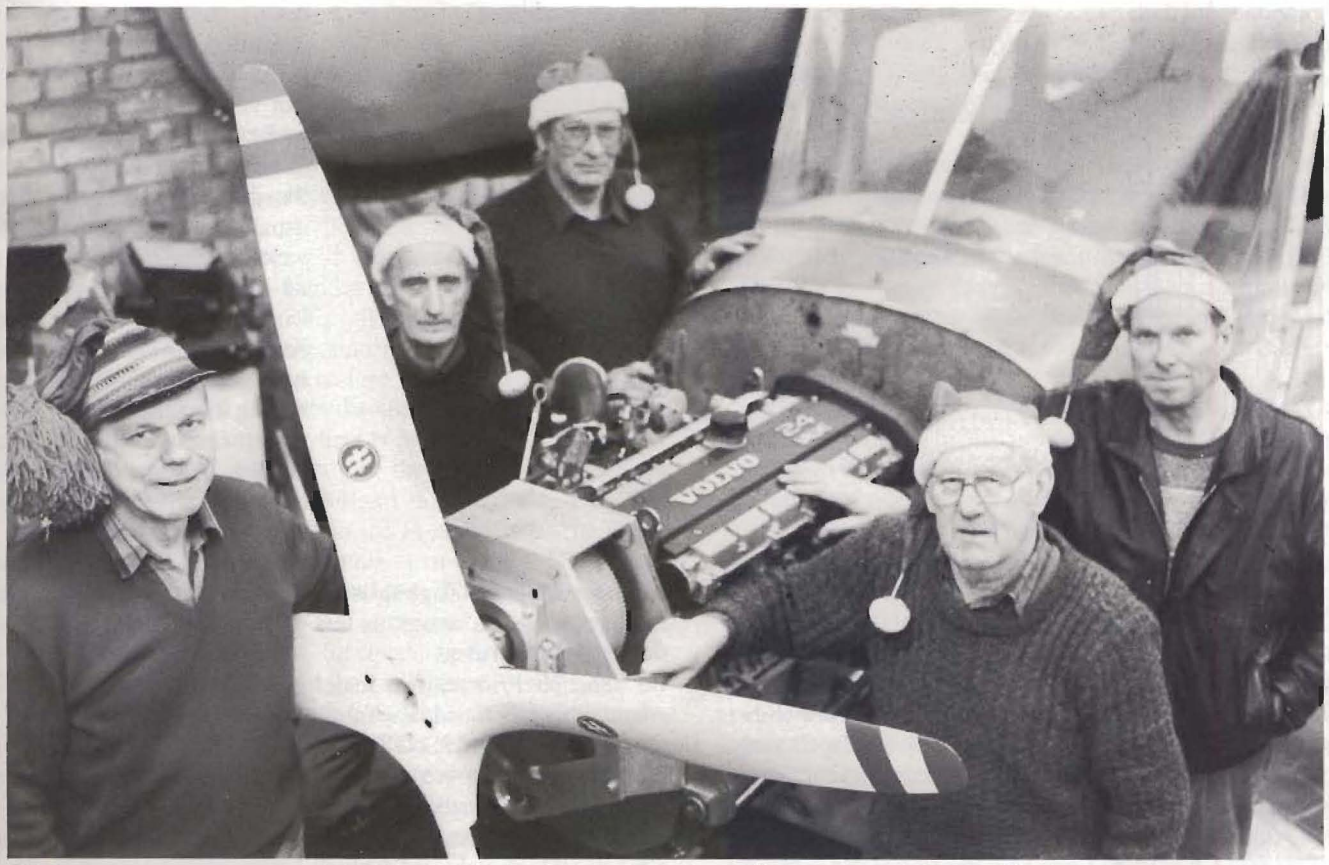
His Polykarpov PO-2, which seems to be in Polish registration and Soviet markings, is now back home and has already been towing vintage gliders. The Angfanger is ready for its first flight but better weather is awaited for this important event.

The Volvo towplane project is looking promising and it should soon be ready for ground tests.

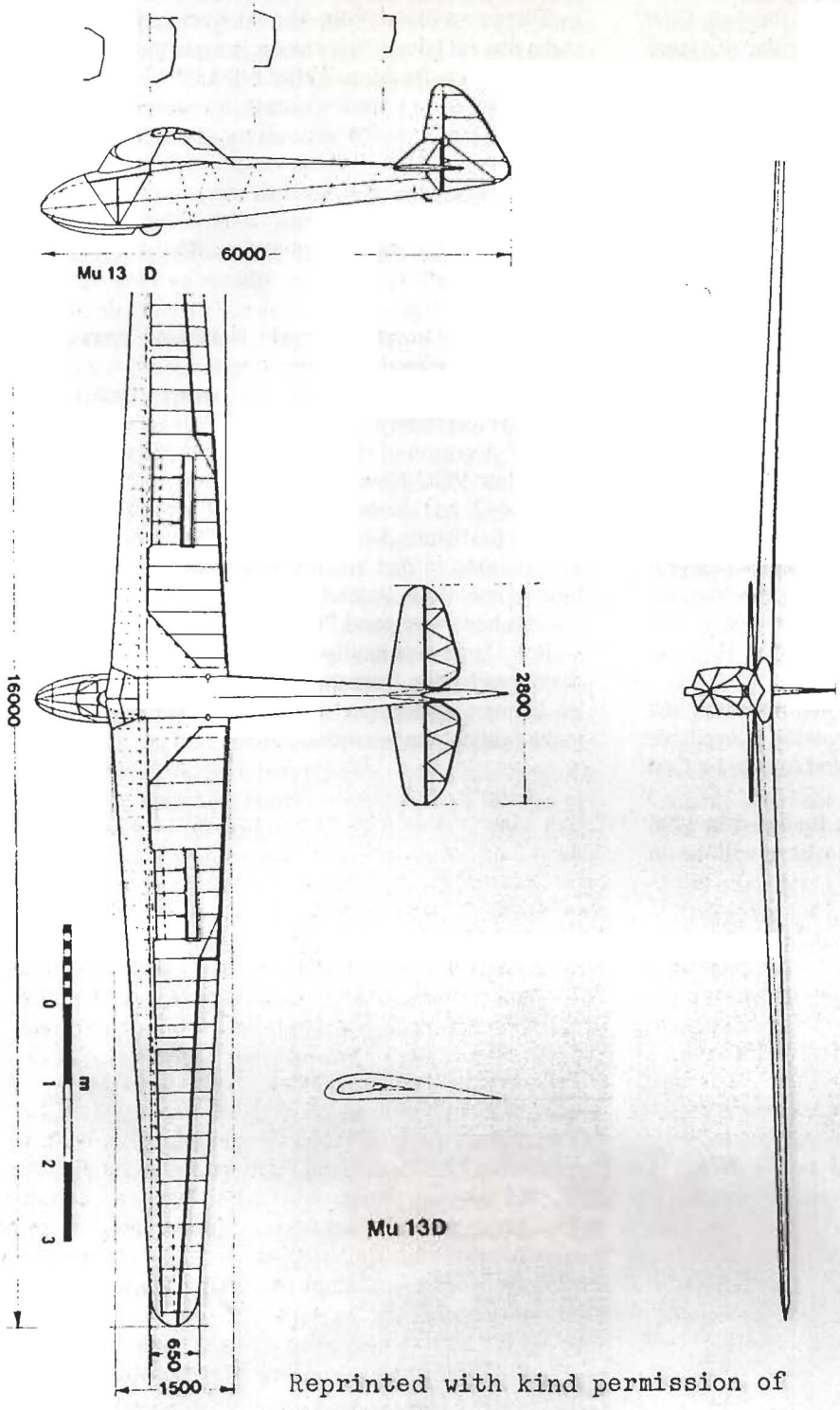
Ake intends to come to Britain soon to look for a British Eon Olympia to buy.

Rolf Algotson of the Kronobergs Segelflygklubb, reported in the last VGC News as having the Eon Olympia formerly BGA 1442, has taken it to be painted and finished in Poland. As the Eskilstuna Klubb's Swedish Grunau Baby 2B-2 was also finished in that country and as the PO-2 seems also to have come from Poland, one has the impression that the Swedes have very good Polish contacts.

Bob Ogden has kindly sent Chris Wills details of Swedish glider production from the glider section of Svenska Flygpan by Lennart Andersonn which Chris would be delighted to make available to interested parties.



Christmas 1992: The Vintage Group at Eskilstuna, Sweden, around their new Volvo powered towplane (Åke Anderson, right).



Mu 13D

Reprinted with kind permission of Martin Simons.

DANISH NEWS

From our member Niels-Ebbe Gjorup's letter to Chris Wills dated 22nd January 1993.

The Danish Historic Gliding Club has now 210 members and sends out regularly a small excellently produced magazine called Foeniks Posten.

We are happy to announce that spirits are high in the Danish VGC and there is hope of great further progress in future years.

Restorations seem to be rather time-consuming since the gliders under restoration usually have not flown for 30 years or more, so they need a lot of work. At this time five to six Grunau Babies are being worked on. One is now in Neils-Ebbe's workshop having its wings repaired with new casein glue where needed. All the D-box will have to be done owing to water damage.

The woodwork of the new Stamer-Lippisch Zögling is now complete. Next step will be to proof-load its wings, as this glider is to be licensed under Experimental rules.

The 2G Primary two-seater is flying again after its overhaul which included new fabric last winter.

The 1939 Mü 13D OY-MUX is progressing at a stable rate. Both main spars are to be repaired by adding considerable amounts of new wood.

Niels-Ebbe has a Swedish-built Kranich which has been modified with Schemp Hirth air brakes and elevator trim.

GERMAN NEWS

by Chris Wills

Andreas Dyck has started a model building club to build vintage gliders as radio controlled models. Others are restoring Grunau Babies for which there is a flourishing club. It holds an annual meeting and contest at Whitsun.

The German LBA will tolerate vintage gliders for which they have Kennblaetter statistics. This usually means information concerning gliders that were in operation in Germany, by Germans, in 1951 and afterwards. There is increasing interest on the part of the youth, as witness the many beautiful radio-controlled models of our aircraft which are appearing, and the fact that both the Münster and Wasserkuppe Oldtimer Clubs are taking on young members, while others own and fly Weihes, Grunau Babies, Spatze etc.

The OSC Wasserkuppe is at present working at full pressure to make airworthy an Udet FLAMINGO, which should offer more power for towing than the Klemm-25 which they built new after a great effort lasting several years.

One of the latest air museums to open is at Oberschleissheim. A hangar on this ancient 1912 Bavarian airfield had formerly served as aircraft storage facility for the German Museum in Münich. The cost of creating this museum was DM 52 million and it offers 7,800 sq metres of display area. An earlier enthusiast for the museum was the late Bavarian Minister President Franz-Josef Strauss who was himself a keen pilot.

Gliders on display are mostly suspended from the hangar roof. In the centre is the Grunau Baby 2b, D-1065, which was restored by our member Peter Ocker with one wing uncovered to reveal structure. Other gliders on view are a long wingspan Mü 13E; an AV36; the Mü 10 MILAN, which flown by Ludwig Karch became known as the "Conqueror of the Alps" (it was also the only two seater to win a Rhön Contest outright – that of 1937 as well as two ISTUS contests); a Condor 4; a Meise and the Celle Gövier 3, in which Frank Konsek had some of his training flights.

The new DFS 230 troop carrier has at last been found a home there. During the museum's opening weekend in September visitors came to see it in their thousands.

Although the Horten 4A's (LA-AD) mainplanes are in the museum, they are not displayed but are available to be looked at by interested persons.

I understand that there was a scheme for the Silver Hill Storage Facility of the Smithsonian Institute to send the Museum fur Verkehr und Technik in Berlin the Horten 3F (prone piloted single seater) and the Horten 3H (two-seater). The Berlin museum would restore them both and then one would be returned to the Smithsonian Institute in the USA. The other would be kept for display in the Berlin Museum.

The two aircraft were taken to the 9th US Disarmament Division at Nellingen near Stuttgart in June 1945. They had been located on their trailers in the French Zone. The CIOS team from Britain tried to organize them to the RAE at Farnborough. This did not happen and they both, together with a Horten 6, a Horten 2 and the unfinished Horten 9 V3 jet fighter, went to Northrops for evaluation. While there, it seems that someone removed the two Horten 3 wings, one off each of the Ho 3s, which were not identical. The two surviving wings were later extensively damaged due to something being dropped on them. In fact, they are almost matchwood. It would be necessary to build four new wings which would be a tremendous task as the surviving wings are so badly damaged that it might be difficult to use them even for building jigs. So far the two Horten 3s have not left Silver Hill.

There is a report from Jochen Kruse, via Harry Chapple, that a Mü 13D-1 is being worked on by a group near Uetersen. Could this be the Ernst Walter Mü 13D-1? I am interested in what happens to it as it is the only example of an airworthy short, square fuselaged Mü 13D in existence.

Two others are known about: one in Denmark, the other in France, but they are not yet restored.

Peter Ocker, who has sent us most of the news about Oberschleissheim, is himself having to do two years' military service. He writes:

"Since October I have been a soldier in the Bundeswehr and have been stationed at Bad Reichenhall to guard my home country. Some rumours were around that the Austrians had the intention to invade to steal our vintage gliders!

At the Oldtimer Gliding week at Gundelfingen, organized by Wolfgang Schaeffler, there were the following VGC members present: Didier Fulchiron and family; Peter Egger and wife; the Freiburg Doppelraab; the Weihe syndicate from Weilheim (this was formerly Hans Meyer's Weihe) and I myself with the A-Spatz, Werknummer 4, D-8813. We had great flying weather and I went cross country together with Peter Egger in his S.18 for over three hours. This was a great experience, especially when a huge mass of plastic gliders from the German Championships passed by. You should have seen their faces. I expect that they felt that they had arrived in another age!

In our last VGC News it was mentioned that we had a line on Reiher drawings in Czechoslovakia. This unfortunately led to a village where a house burnt down and exploded 23 years ago. If the drawings were in it, they would have certainly been destroyed. Also the 75 year old gentleman who gave us this information has sadly died and there is no means of discovering where this village is. However, the scent has led us to Czechoslovakia and so probably it is worth still looking for the Reiher plans there. We hope that the Oldtimer Club Wassekuppe, which is trying to build a Reiher, has had better luck than us. Every lead must be followed up and we thank the Belgian Eugeen de Velder for trying to help us."

Further news from Germany: Otto Grau is, we hear, still going ahead building a new Rhönsperber to fly. He has a full set of drawings which were prepared by Siegfried Lorenz in Cologne from copies of the few prints that I have at my home. That this full set of Rhönsperber drawings is approved by the LBA for the building of an airworthy vintage glider gives us hope that others can be built to fly from plans produced in this way.

Hans Zacher has celebrated his 80th birthday on 25th November 1992. In his honour a Symposium was held in Stuttgart Vaihingen. It was organized by German Scientific Institute for Air and Space Travel (DLR). There were interesting lecturers including Manfred Reinhardt, Professor Richard Eppler and Professor Karl Nickel (who had earlier worked with Dr Reimar Horten). Hans Deutsch, who just post-war edited the Gliding magazine Thermik, sent this information. He had great pleasure in meeting Frau Clara Hirth and Otto Bellinger there. Hans Zacher is particularly famous for his work with the Akafliegs, especially with the Akaflieg Darmstadt. During February 1943 he flew the D30 CIRRUS in performance comparison trials against the Horten 4A, which was flown by Heinz Scheidhauer. These were the two most efficient aircraft in the world at that time. Whilst the Cirrus did reveal a better performance at all speeds, the Horten, with its

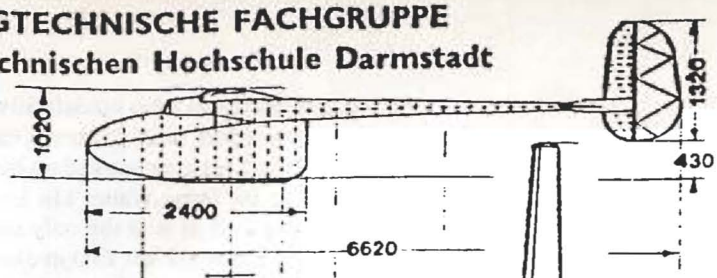
FLUGTECHNISCHE FACHGRUPPE
an der Technischen Hochschule Darmstadt

D 30 "Cirrus"

Tragwerk	Holzgerippe mit Stoffbespannung
Rumpfwerk ...	Boot i. Holzbauweise Leitwerksträger als Elektronröhre
Höhenleitwerk	Holzgerippe mit Stoffbespannung
Seitenleitwerk .	Holzgerippe mit Stoffbespannung

Entwurf: R. Schomerus - H. Alt - H.J. Puffert

Hersteller: Akaflieg



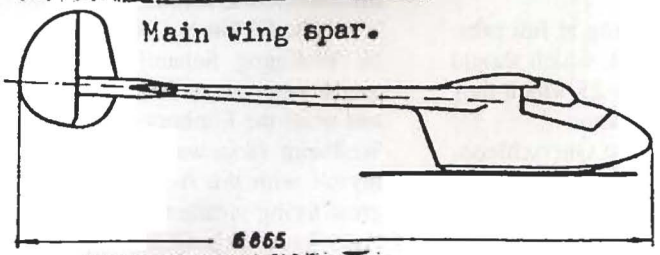
Fuselage-
Wooden Pod. Boom-Elektron Tube.

Wing-
Wooden Ribs. Fabric Covered.

Tailplane
Wooden Ribs. Fabric Covered.

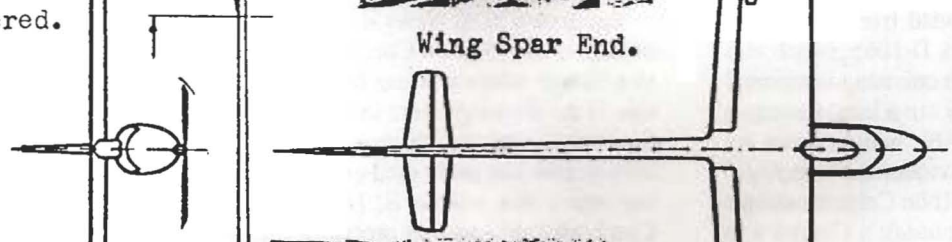


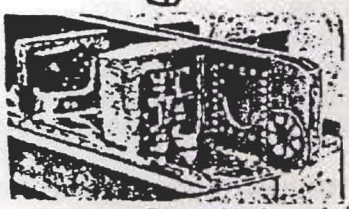
Main wing spar.



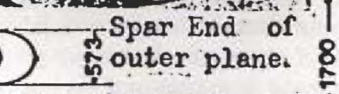


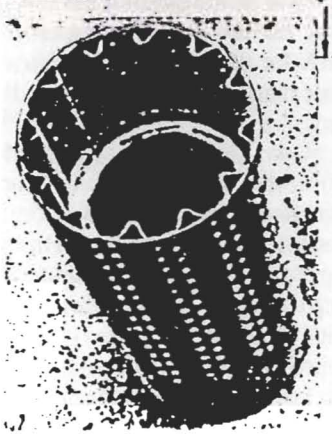
Wing Spar End.





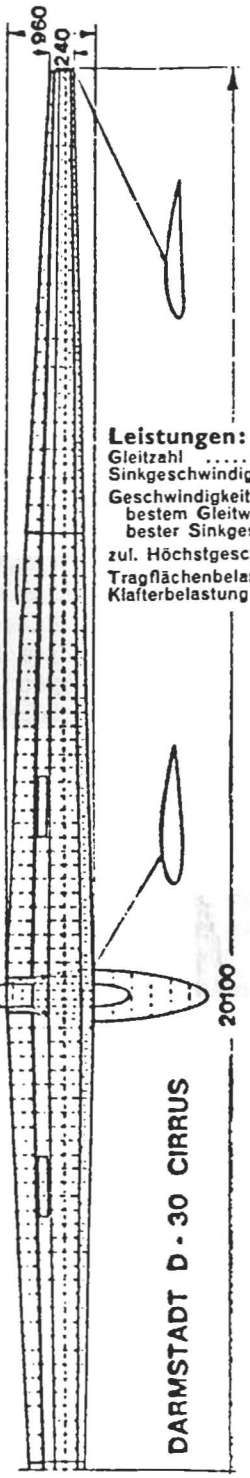
Fin & Rudder
Wooden Ribs. Fabric Covered





Tail Boom construction.





Leistungen:

Gleitzahl	.... 1:36
Sinkgeschwindigkeit	. 0,52 m/s
Geschwindigkeit bei bestem Gleitwinkel	. 72 km/h
bester Sinkgeschw.	. 62 km/h
zul. Höchstgeschw.	... 300 km/h
Tragflächenbelastung	22,10 kg/m²
Klafterbelastung	0,66 kg/m³

Max.L/D. 1:36 at 72 kph.
Min.Sink 0.52 m/s. at 62 kph.
VNE: 300 kph.
Wing Loading 4.53 lbs /sq. ft.
A/R: 33.6
Empty Weight 447 lbs
Wing Profiles
Root: NACA 24I4. Tip: NACA 44I2.

Lack of yaw stability, due to there being no fuselage side area, may have contributed to the ground loop and resultant severe damage, during its first launch at the 1938 Rhön Contest. Increase in rudder area may have been incorporated as part of its repair. This might assist models of the aircraft ? It had two jettisonable undercarriages which released simultaneously. The detailed drawing is by kind permission of Martin Simons. The less detailed drawing is from the Akaflieg Darmstadt.

STOP PRESS.THE JEWEL IN THE CROWN OF BRITAIN'S GLIDING HERITAGE. Six pre I940 designed sailplanes, comprising part of Mike Beach's prodigious restoration achievement, are on exhibition in a hangar of Brooklands Museum. It is believed that the exhibition will run until next July atleast. The sailplanes are :- Hols der Teufel, Willow Wren, (Britain's oldest original sailplane),Falcon I (RRG Falke),Scud 2, Gull 3 and Rheinland. The I935 Drone Motor glider and some of Mike Beach's vintage aeroplanes are also on display. The I93I Wren will eventually be replaced with the new Scud I, so that the former can be restored. Contact is :- Mike Beach Tel:- 08I-892-9975.

PAVULLO The Northern Italian pre I944 gliding centre is to run an International event for vintage glider flying models from 20-23.May, and an international meeting for sailplanes (among which vintage sailplanes will be included) on I2-I3. June 93. Contact is :- Frederic Fischer, Oberdorf 38, CH-9043 TROGEN, Switzerland. Tel:-Switz.7I942I35.

lower wingloading and thus stalling speed, did climb better. It is said that performance is directly related to Aspect Ratio. While the Cirrus's A/R was over 33, the Horten 4's was only 21.6. Nevertheless the Horten brothers felt that it had a chance. The Cirrus's max L/D was calculated at 1:36; the Ho 4's at 1:37. In the event practical tests showed that the Cirrus was, in fact, with 1:37.5, higher than calculated and the Horten was only 1:32. The Horten brothers mention that this Horten 4 had been prepared at the last moment and was not fully "worked up". The Ho 4 that had been prepared had been broken shortly before the trials. The Cirrus's Aspect Radio was at that time the highest that had ever been achieved for any aircraft and was, as mentioned by one important person, to have been at the very limit of structural possibility using the materials available at that time. It was only done by using electron/aluminium bonded to plywood technique. Its wing spar was a double aluminium box with L/E at the forward extremity of it, and flaps at the trailing edge (as is the wing of the Arsenal 4–111). Its tail boom was an aluminium tube with corrugated aluminium rivetted to its circumference inside to give stiffness. It had taken from 1933 to 1938 to build. It had broken the World's out-and-return record of over 300k between Lubeck and Bremen and was later taken to over 3,000 m height in cloud. Nevertheless it might not have been practical as a contest machine as it was severely broken when ground-looped during its first take-off at the 1938 Rhön Contest.

From drawings it can be seen that the shape of its fuselage varied. The later form may have been as it was after repair. In 1945, Hans Zacher says it was removed from its trailer by displaced persons and thrown into a quarry. Peter Riedel says that Wolfgang Klemperer, who was then an American citizen, told him that it arrived in the USA and was test flown until, on repeated orders of an American officer, it was destroyed and buried, although Wolfgang tried to intervene to stop it happening. Hans Zacher told me that no part of it ever fluttered but sometimes there was some laterial swaying about the horizontal axis from the tail surface end of the tail boom. The wing's outer panels could be raised and lowered in flight. With them drooped they had the effect of gull wings as the ends of the centre section flexed up. Presumably for max glide performance the end panels had to be level, but they were raised in order to give more wingtip ground clearance during landings. The idea of raising and lowering the outer wing panels was to try out the best form for lateral stability. The shape of the fuselage had been influenced by Kronfeld's Austria 198ft span supership.

Martin Simons reported some years ago that building plans for both the D30 Cirrus and the D28 Windspiel are still kept by the Akaflieg Darmstadt. This means that building plans for the following 1930s designed German sailplanes still exist in Germany and Britain (and the USA): Zögling; Hols der Teufel; Prufling (1926/7); Grunau Baby 2; Grunau Baby 2B; Hütter H17a; Hütter H17B (1951); Hütter H28–2; Wolf; Minimoa 36; Gövier; Rhönadler 32; Rhönadler 35; Rhönbussard; Rhönsperber; Habicht; Kranich 2; Weihe; Meise; Condor 2/3/4; D28 Windspiel; D30 Cirrus; Mü 13D; FVA 11 Eifel: and perhaps there will soon be a full set of drawings for the Horten 4A.

Drawings for the Swiss 1943 Moswey 3 exist in Britain at my home while a set of plans for Kronfeld's Austria 2/3 also are known to be in Britain badly in need of preservation to a more permanent status.

Lastly, Gerhard Bergmann in Michelstadt/Odenwald reports that they have sold their Grunau Baby 3 earlier this year. They had immaculately restored it. Last year their Meise was sold. They have finished all individual parts including the wing main spars of the new Minimoa they are building and are now making its fittings. Their Kranich 2B-2 is now ready except for the final painting of the fuselage. This is a Spanish-built Kranich 2 and they hope to test fly it before Easter.

BRITISH NEWS

by Chris Wills

More than 10 restorations and rebuilds are under way and we hope that their owners will find the 1994 International Rally at Lasham a goal for completion.

Since VGC News No. 77 we have received from Derek Philips of Solihull the joyous news that repair work has started on the badly damaged 1943 JS WEIHE BGA 448. This was one of the three Weihes imported from the Wasserkuppe in June 1945 by Philip Wills in a Dakota. After its time at Farnborough it became during late 1946 the pride and joy of the Surrey Gliding Club fleet at Redhill, and later at Lasham. As this Weihe is very badly broken, I asked in the last issue for Weihe components to make its restorers' lives easier. A VMA 200 Milan's fuselage with damaged sternpost has been found at Paray le Monial, a Milan's wings have been found at Gap and a tailplane has been found in the USA from Jock Forbes' JS Weihe (contact Robert Gaines). Such is the response from VGC News!

The reason why BGA 448's repair and restoration has been delayed until now is that the restorers had first to build a workshop for their project. When this Weihe is finished, it will mean that six Weihes should be airworthy in Britain. Four of these are Swedish-built; BGA 448 is German-built, and BGA 2602 is a Weihe 50 owned by a syndicate at Dunstable. Only in Germany are more Weihes airworthy than in Britain, demonstrating the popularity of this 1938 Hans Jacob-designed sailplane.

No less than six vintage sailplanes are being worked on at Lasham. These are: Swallow, 2 Eon Olympias, Kite 2, Cadet and JS Weihe (formerly SE-SHU), which has had a metal trailer built by its owners and Cair Aviation Ltd so that it can be taken to Zbraslavice next August.

Since VGC News No. 76 revealed information concerning the Broburn WANDERLUST, the aviation historian Neill Rush has reported that it is now being restored by one of its original designers for the Berkshire Aviation Museum at Woodley Airfield near Reading. It is already there, but will not be made airworthy ... Its wings are now one piece. Hugh Kendall is thought to have converted it into a two piece wing. There is some question as to the original colour scheme.

Paul Adams has bought the Thoby Fisher MEISE BGA 2080 and will keep it at the LGC, Dunstable.

We understand that the AVIA 40P BGA 680 belonging to Ron Keeping at Culdrose, Cornwall, has now been bought by a Frenchman.

Ted Hull has continued to work on his newly acquired SCUD 3 in the very spartan environment of the Dunstable Private Owners' workshop. He had by 1st January 1993 finished the wooden structural repair which was needed to the trailing edge of one wing and successfully used the new Belgian Rectavite Structan APA Polyurethane one-part glue which comes in a blue bottle and sets even in cold temperatures. This has been a vital requirement in the winter weather. He hopes to have his SCUD 3 ready to fly by next Easter.

Mike Beach tells us that his work on the SCUD 1 is

progressing very satisfactorily and a minute trailer is being built for it, the requisite Austin 7 towcar having already been acquired.

Ralph Jones of Southern Sailplanes reports that he is about to start refurbishing the Farnborough ex-Empire Test Pilots' School EON OLYMPIA 2. This almost certainly is the machine of Bill Bedford's records on August 24th 1950: 21,340' asl; 19,120' gained and a Gold Badge with one Diamond: 193 miles (over 300k) in 230 minutes. On 2nd May 1951 he flew it 257 miles (approx 430k) from near Farnborough to Usworth airfield near Newcastle for the British National Goal Flight record. Ralph Jones has also a GRUNAU BABY 2 in store for restoration.

We welcome Flt/Lt Retd James Robson as a member. He is an ex-YGC member, Gliding Certificate No. 995 (1939). He started flying in 1924 and is still at it. He is an ex RAF instructor, ex No. 3 Gliding School ATC.

We regret to report that Eleanor Nicholson died during November 1992 aged 85 years. She had been the wife of Kit Nicholson, who was so tragically killed during the 1948 World Championships at Samaden. Since that time, she brought up her family, Jane, Lou and Tim, as Kit would have liked it, dedicated to art, and had great success herself as a painter and printer. We send her family our sincere condolences.

Insurance for Vintage Gliders in Britain

Ian Smith, the VGC Technical Director, informs those who have been insured by IBI via Graham Roberts, Neil Drogman and David Bacon that they have have ceased trading and customers should contact:

Lees, Preston, Fairy Ltd,
St Clare House
5th Floor, 28–35 Minories, London EC3N 1BJ
Tel: 071 702 4191 Fax 071 481 4391 Telex 886l041

Cross Channel Travel

Ian Smith tells us that Stena Sea Link have offered free transport for trailers and caravans of any length on their services only between Dover-Calais and Newhaven-Dieppe for D and E Tariffs for summer, 1993. Bookings should be made through: Brian Ashton, Alternative Promotions, Grebe House, No. 10 Chase Avenue, Walton Park, MILTON KEYNES MK7 7HQ. Tel: 0908 663907: who should be able to offer a discount on the car and passengers' travel as well.

Gliding at Lewknor

Brian Spreckley, Britain's former World Gliding Champion, is making a determined attempt to reintroduce gliding at a field very close to Robert Kronfeld's Oxford Gliding Club site (at Lewknor during 1938/9). The original field is now a motorway intersection! He intends to start a new Gliding Club operating, for cheapness, with winches. We urge all interested persons to send letters supporting planning application for the field to be used as a gliding club. It is at Postcombe, South Oxon, adjacent to the Chiltern Ridge and close to the Lambert Arms. Robert Kronfeld, together with Carli Magersuppe, reintroduced gliding to Britain during 1930 on the invitation of the BGA (founded in 1929). He chose this as an ideal gliding site in 1938. During that year, immediately before the outbreak of war, the site had given every indication of being excellent. We feel that it would be a good soaring site and would also perpetuate the memory of Kronfeld, who had a house nearby in Watlington.

Letters supporting the planning application should be addressed to: The South Oxon District Council, Planning Dept, Wallingford, South Oxon.

Brian Spreckley's phone number, when in the UK, is 0844 281487.

BELGIAN NEWS

Firmin Henrard's vintage glider collection can be visited with prior permission. Address: rue de Porcheresse 11, Mohiville, Belgium: Tel: 083 612194. As Belgium has no glider industry, the collection has been assembled mainly from France and Germany. It consists as follows:

Avialsa A 60 Fauconnet (license-built Spatz) OO-ZWF (formerly F-CCLD)
Caudron C-801 F-CBTD
Fauvel AV 36 OO-ZIG
Rhönbussard OO-ZVO (formerly OO ZVA)
Nord N 2000 OO-ZHQ (formerly F-CAYP)
Scheibe Spatz B OO-SZB
Schleicher Ka-2B OO-SZD
Grunau Baby 2 OO-SFH
Slingsby T 31B (Cadet Mk 3) OO-ZXN
Slingsby T 38 Grasshopper WZ 768
Wassmer WA 30 Bijave F-CCTB
Zlin Schaj 2 OO-ZPM

Firmin has also founded the association Fauchures de Marguerites (Daisy Cutters) which seeks to unite the whole Belgian vintage gliding movement. He writes and circulates a small magazine for this association.

THE NORD 2000 HAS FLOWN

by Firmin Henrard, translated by C Wills and edited savagely by S Mooring.

It was a long time ago when this glider was dragged in to my hangar. For those who know me, that does not mean much. We say that the longer a machine has been stored, the more it will be loved.

It was in June 1986 that I learned that this machine was for sale in France at Mauberge. The price sounded interesting and its C of A had just been renewed. When I arrived to see it, one thing struck me as strange: the left wing took curiously the contour of the ground beneath it ... either there was something wrong, or it was being pressed down. I realized that it was very much damaged and there was no more rigidity in the leading edge. The owner arrived and urged me to test fly it: I said that it was out of the question! He let me have it for a crust of bread, rather than have its soul destroyed.

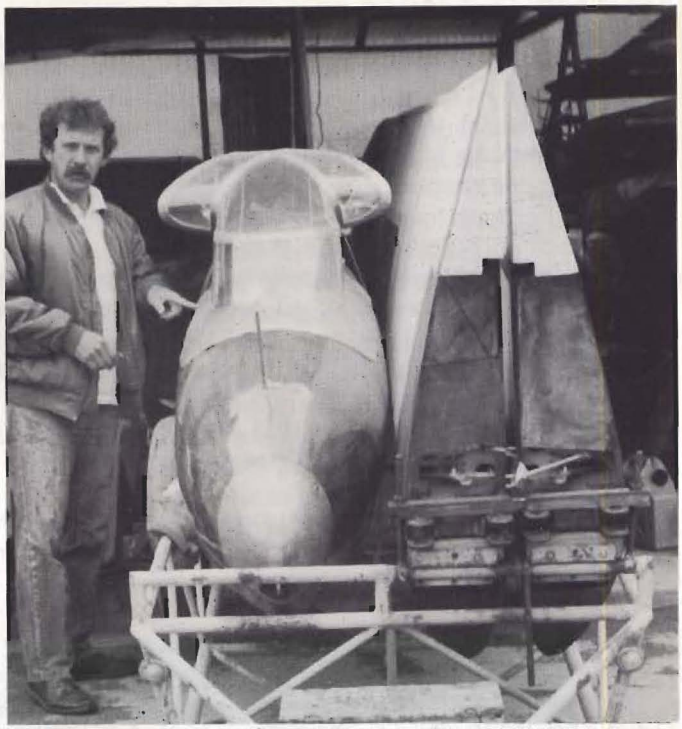
To reveal the gravity of the situation, I removed some plywood from the leading edge. Over two metres of the span, there was not a single rib in place! The covering was perished, the spar unglued and all was covered with a veritable culture of fungi.

It was in 1990, thanks to the group of amateur vintage glider enthusiasts (ASPAC) at Paray le Monial in France and their president Yves Soudit, that I was presented with two N2000 wings. What an admirable gesture! More, we received a warm welcome; the evening was well celebrated and our lodgings were comfortable. The night and particularly the town of Paray were superb. Yves gave me also a tailplane, because mine was partially metal, and also a second canopy. During the return, passing through the customs was interesting: I had an invoice for 1 franc, which did not impress the Customs Officers very much.

To return to the restoring: I wished an original finishing style ... camouflage? many colours? What if it had no colour at all? The idea crystallized. We had already seen at the Vintage Glider Rallies that certain machines were only varnished and this caused their fabric to be transparent. It was then that the restoration started with the help of some course members from an Aeronautical School whom their administration had sent me. The fuselage needed some small repairs to its woodwork. The panels, not all the same colour, had to have paint removed. The wings asked for the most work. Luckily, the rigging went particularly well and its pins inserted perfectly. This is not always the case. If you ever buy an incomplete glider, remember this, and rig all the components before buying them. I had to do a lot of work in spite of this on the tailplane to make it fit. There were also problems with the cables. I was helped considerably by a superb technical book which came from the GPPA at Angers via Christian Ravel. There is also one on the C 800.

After six months restoration of the components was complete but the weather prevented the final rigging and cable adjustments. Then, one day when the meteo seemed better, we took it all to Temploux. Rigging went well but the cable adjustments went less well. Then we took it to the runway. There was a moment of great emotion because, here at last, did I have time to admire it all. All said and done, I felt thunderstruck. I was looking at a proper oldtimer. I believed that I was going to love it, and it me!

The towplane arrived. Papa was pressed into towing me: he had also helped very much with the restoration. Getting in proved another emotional moment, as everyone knows who has restored an aircraft which is about to have its first flight. A last check and then the concentration to feel the reactions of the beast when in movement. The take-off, without wheels, was rapid. The skid – and you are flying all at once. Then I felt the machine vibrating and it was alive. It answered the controls well, ailerons a little heavy. The vario (original) was not working but everything else was OK. I followed the towplane a little as if chloroformed with emotions. 500 metres ... the signal to release ... I spiralled blindly but in lift. I began to appreciate particularities; a spacious cockpit, seating position agreeable; the trim is efficient but the canopy is not exactly a revelation in the realm of visibility. In the meantime I was finding that the handling is a little prehistoric and one felt very much that the machine is not a miracle of aerodynamics. Without vario I scratch with a Cirrus and land after it: duration of flight, 1 hour 36 mins. I am worn out but happy.

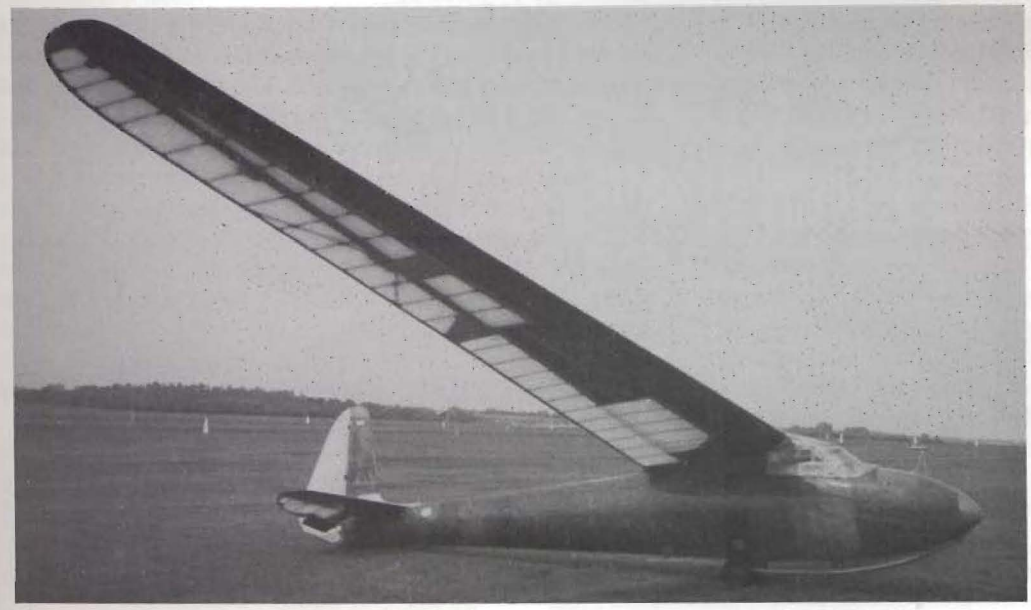


Fizmin Henrand with his originally finished Nord 2000 (Meise).

Later, after installation of a good vario, I tested the N 2000 at Saint Hubert and this time my flight lasted 7 hours 33 minutes. The machine is very pleasing, especially in flight where the interested came and accompanied me for a little formation flying. I noticed that it turned differently one way compared with the other way: I learned later that this is typical of the Nord 2000. The port wings were built in one factory and the starboard wings in another ...

It will be a pleasure to show it to you.

Chris Wills would like to extend his sincere thanks to Firmin Henrard and Roland de Huart for their kind hospitality in receiving him without warning on his way from Holland to France with the Kranich 2.



Fizmin's Nord 2000 OO-ZHQ.

POLISH NEWS

From the Müzeum Lotnictwa Polskiego, 30–969 Krakow 28, Skr. Poczt.79 Al Planu, 6 Letniego 17 Poland: Tel: (012) 12 78 55 / 12–90–00.

The Polish Air Museum at Krakow wishes to exchange 2 gliders for one aeroplane, helicopter or engine that they need.

The gliders are:

Kranich 2B-2 (Polish Built in 1949 as Zuraw 2)

IS-4 Jastrzab (Hawk), fully aerobatic, cleared to 300 mph; 1949 built, 12 metre span, all wooden closed cockpit sailplane.

SZD-12 Mucha (Fly), a 1954 15 metre span all wooden shoulder-wing sailplane.

SZD-15 Sroka (Magpie), a 1955 14-metre span training glider, all-wooden strutted shoulder wing, closed cockpit.

The aeroplanes needed are:

Harvard (Texan), Taylorcraft Auster, Cessna Bird Dog, DH Vanpyre, Avro Anson, Airspeed Oxford, F.84, T.33 or similar.

Contact direct or via Chris Wills.

FRENCH NEWS

by Chris Wills

The efforts of the great and magnificent French vintage gliding club (DEDALE) members have been devoted to restoring gliders most of which had their roots during the second birth of French gliding in 1941. But what of the time before?

What were the French gliders of the 1930s?

Let us first have a look at the history of French gliding after the great victory of Maneyrol at Itford Hill in 1922. The development seems to have happened slowly, but gathered momentum during the 1930s, as in Britain. One has the impression that by 1939 there may not have been more gliders in France than in Britain. However France is a large country and gliding could have gone on which was not recorded.

AVIA was founded in 1929 as a society to organize everything to do with gliding. Attached to AVIA were the legendary Fauvel, the tail-less aircraft pioneer; Jarlaud, the great glider designer, and Eric Nessler, who became France's No. 1 glider pilot. During the 1930s, primary, intermediate, two-seater and high performance sailplanes came forth from this stable. First there was the AVIA 20A, a tandem two seater primary glider with nacelle. This was designed by Raymond Jarlaud and Roger Cartier and flew first on 10th April 1930. It had a 13m span and wings were wire braced in Poppenhausen fashion. Then there was the AVIA 10A, a single-seat open primary similar to a Zögling, received by Charles Fauvel in 1930 at the Bois d'Arcy site. This machine and the 15 kgs lighter AVIA 11A became the standard training primaries to be built by more than 200 clubs which were starting. There was also an AVIA 11A primary modified as a tandem two-seater by Paul Lepanse.

In 1932 came the AVIA 15A with increased span and aspect ratio. It had strut bracing replacing the wires, and a nacelle cockpit. It thus had an improved performance. The prototype was tested by Bouvier and Nessler at the Banne d'Ordance in April 1932. It is hard not to compare the work of AVIA with that of Lowe Wyld in England who, during 1930–31 designed 9 gliders, often using each others' components, and then met his end through overwork. AVIA as a team designed 7 gliders during the same period and then the 40P in 1935 and the 60, the single-seat high performance motorglider in 1936. In 1938, after a report from Georges Abrial, the Service Technique e l'Aeronautique imposed modifications and thus came about the AVIA 151A.

In 1942 the engineer Lescure of the Section des Sports Aeriens of the Commissariat General aux Sports completely redesigned the machine and it now became known as the AVIA 152A. It was a remarkable redesign and the machine was considered at that time to be the best training glider in Europe. Towards 1931 the AVIA 20E was produced in the workshop of the Aero Club "Henri Bergeron" on the Buc Airfield. It was an intermediate sailplane evolved partially from the AVIA 11A but had greater span and a profiled fuselage. Its tailplane resembled that of the AVIA 11A but its rudder was rounded. After a successful first ground-slide it was winched and its wing broke, causing the machine to descend briskly from 20 metres. Luckily the pilot had a helmet and got away with a bad sprain. Later, at an enquiry, it was decided that the wood used for the spar was of poor quality.

The AVIA 22E was a tandem seated two-seat training glider to remedy the defects of the 20E. The fuselage was completely plywood covered. Among other clubs, one was built by the Aero Club "Jean Marmoz" which flew at Poissy from a deserted race course.

Also in 1931 came the birth of a more modern machine, the AVIA 32E. This machine had a completely plywood covered flat-sided fuselage. The central part of the wings was rectangular and tips were tapered. Its wings were carried by V-struts and had plywood covered torsion box leading edges. Its max L/D was given as 1:16.7. This machine had delicate flight handling and too often had a bad reputation. Nevertheless, some pilots flew records with it. One of them, Bouvier, flew 32k from the Banne d'Ordanche on 23rd September 1932 and this was confirmed as the French National Distance Record of that time.

Towards 1933, the AVIA 30E was designed. This was a hybrid consisting of the 15A's wings and tail surfaces of the 32E. Its fuselage was a slab sided box structure. Several of them were built. The type flew first on 28th April 1934 at Malzeville, piloted by Marcel Spire. It was a 12.5 metre span single seater with four wing struts.

In 1932 AVIA completed its stable of gliders when Raymond Jarlaud and his team designed a high performance single-seater. This aircraft, the AVIA 41P, in the same class as the German WIEN, was only built in 3 or 4 examples because of its high construction costs.

Its wing was of rectangular centre section and trapezoidal tips, and was of rather less span than that of the Wien. Its V-struts were of duralamin and were of torpedo cross-section. The fuselage of oval cross-section had four longerons. Its tailplane had adjustable incidence and its elevator was considerably aerodynamically balanced. The prototype had its first flights during the first days of December 1932. It had differential aileron movement, a very complete instrument panel, and a windscreened open cockpit. This was later replaced by a closed steel tupe framed cockpit similar to that the the WEIHE, notably for the 1937 ISTUS contest at Salzburg when it was flown by Eric Nessler. Great pilots achieved fame flying this machine. On 17th April 1938 Nessler flew 397k from Beynes to Chatellaillon Beach, beating his own record of 337k established eight days earlier when he flew the same machine from Beynes to St Pere en Ritz. Its Max L/D was given as only 1:23.5.

To fulfil the need of clubs, AVIA designed in 1935 a performance sailplane which would be less costly to produce than the 41P. This sailplane, the 40P, with inferior span and wing area than its predecessor, was lighter and more manoeuvrable. It had also a simplified fuselage construction. The

41P's oval cross-sectioned fuselage was replaced by one of arcs of a circle. Its wing was cantilever and trapezoidal in plan form, secured to the fuselage at three points. It was mounted on the fuselage by a pylon. The wings were of single spar with torsion box plywood covered leading edges. One in every three ribs was reinforced. Ailerons had differential movement (+ 40 degrees / –20 degrees) and this helped its turns. Its tailplane had variable incidence which could only be adjusted on the ground. Three rubber rings ensured the skid's suspension. Max L/D was given as 1:22.

A first series of 20 examples were built without airbrakes or spoilers in 1935. After the armistice in 1940, certain activity continued in North Africa and some 40Ps were built in Algeria. In total, 30 Avia 40Ps were built and were largely responsible for the improved flying standards of French pilots. It had a few faults: one being that the cockpit was a little small for certain pilots. In turbulent air, it became difficult to control (when the wing flexed the ailerons tended to become heavy). There was also the possibility of the tailplane vibrating at certain speeds. It was still an excellent glider in weak weather.

There were attempts to modify it to improve its performance, such as the AVIA 40P Special, the JJ2 and JJ3 of Jacques Brylinski and Jean Wehrle in Alsace. (Photos of the JJ3 appear in VGC News No. 75. At that time we asked if anyone knew what it was: we have discovered at last. It was built as an improvement over the JJ2 in 1937 and was spun in during a 50k Silver C attempt by Jean Wehrle. He died of his injuries some hours afterwards on 30th July 1939. Its wing profile was NACA 23012 but the accident may not entirely have been the fault of the profile.) The JJ2 has been discovered rigged together with a Pou de Ciel in a building near Poitiers and Norbert Mosson is seriously considering restoring it. This sailplane also has the NACA 23012 profile.

Probably the best distance flights of the AVIA 40P were: M Didion, CFI of Pont Saint Vincent – 296k at an average speed of 84kph. He had to land because of the cold when he still had 1800m altitude. This flight was achieved on 25th March 1938.

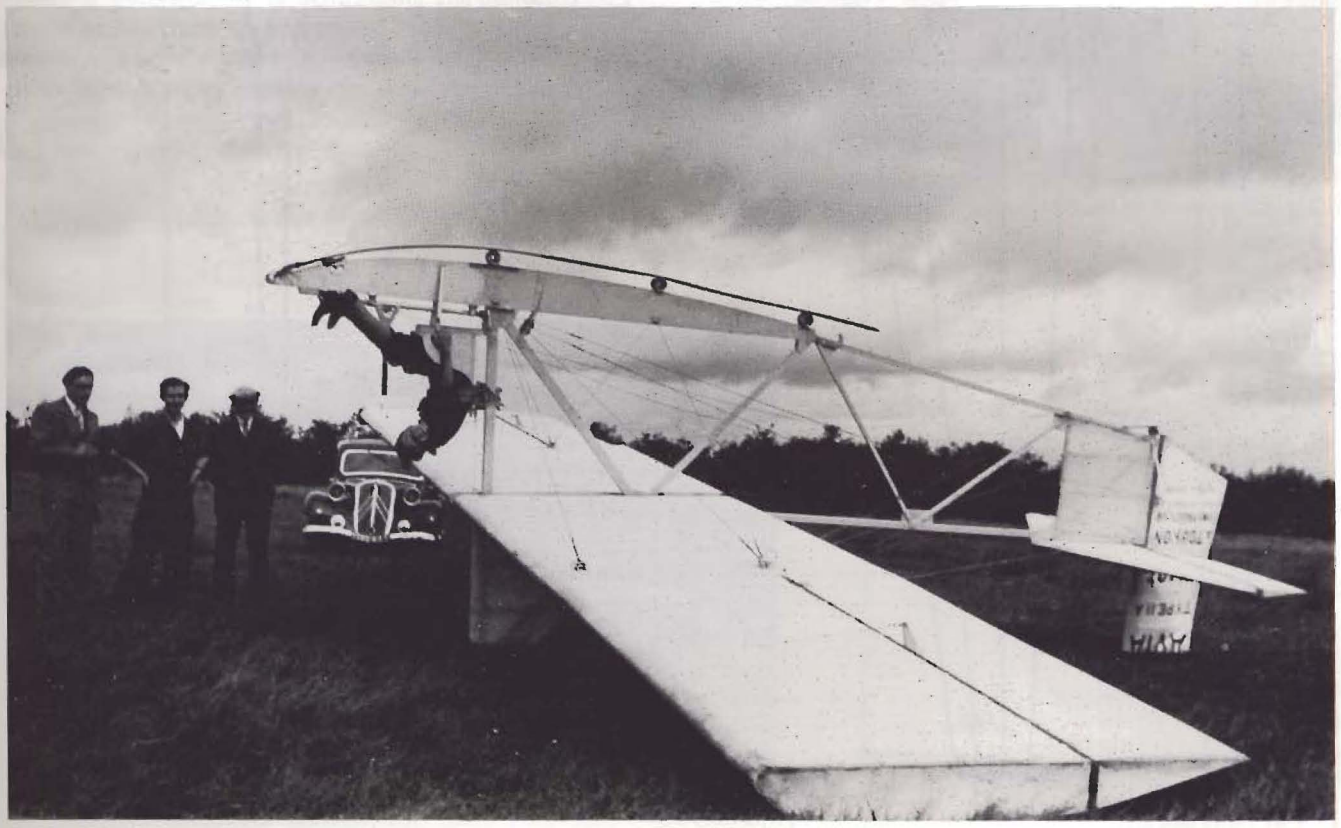
Also there were the efforts of the legendary Mlle Marcelle Choisnet. She was trained in 1939, gained her Silver C in 1941 and went on to set up duration and distance records flying a 40P. Then on 13th June 1945 she flew a 40P (No. 15) 347k free distance across France, which was the French distance record for women.

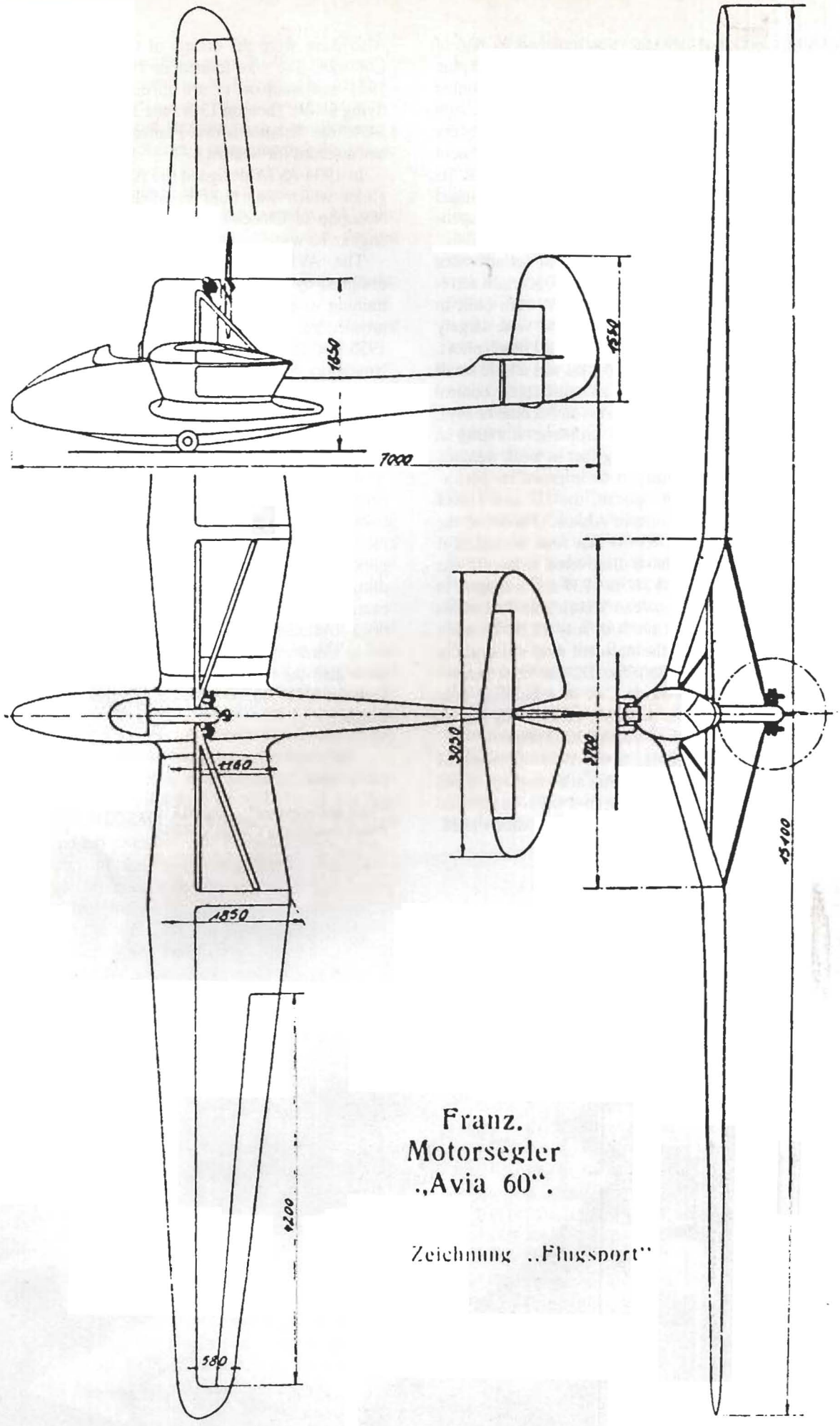
In 1934 AVIA designed the AVIA 50, a single seat motorglider which was built in Maurice Brochet's workshop at Neauphe le Chateau. It was powered by a 25hp Ponsard engine. Its wingspan was 12 metres.

The AVIA 60 was a high performance motorglider designed by Jarlaud and Cartier for giving experienced pilots training in soaring and it was to have been ideal for aerial prospecting. It was demonstrated in flight at St Cyr in April 1936 piloted by Nessler and Abrial. It was also displayed in November of that year at the Grand Palace during the 15th Salon of Popular Aviation. The life of the AVIA 60 was short, as it caught fire in flight when piloted by Nessler. He had just time to crash-land it at the Beynes site. It is regrettable that no more were built.

Apart from the AVIA machines and the JJs, there were the sailplanes designed by the engineer Castello, about which a book is soon to be published. He was responsible in 1936 for the tandem-seated CASTEL 24 two-seater which, having a good performance, later flew records in spite of its poor handling qualities. It later became the CASTEL 243 of which 10 examples were built in 1941. Then there was the DELANNE 60, a strutted single-seater. 12 were either destroyed or carried off to Germany in 1940. Only the prototype survived. There were also the sailplanes designed by Chapeau. These were, with the AVIA 60, the only French sailplanes to have had gull wings.

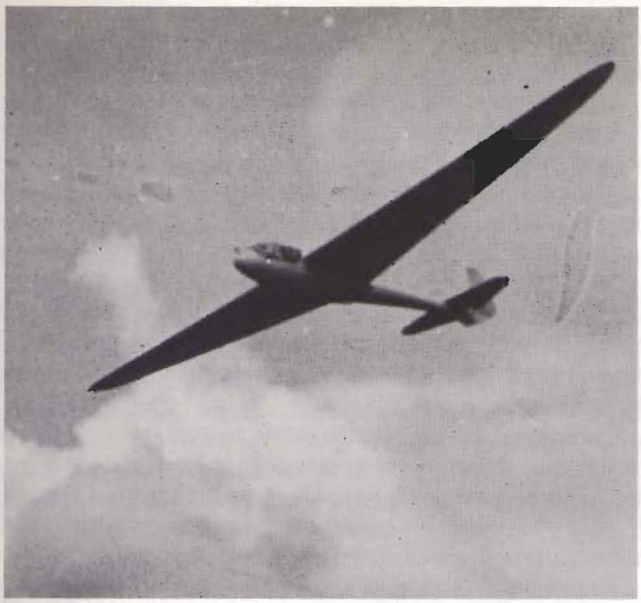
"Vive la Difference" – Aria IIA Aeroclub of the West at Angus. Photo courtesy of Christian Ravel.





Franz.
Motorsegler
„Avia 60".

Zeichnung „Flugsport"



JJ3 that crashed in 1939.

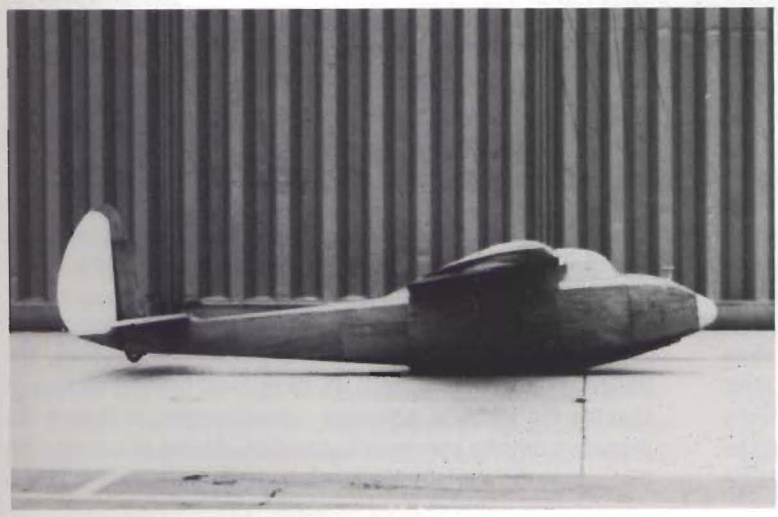
October 1991 by a team of 6. The AVIA IIA is destined to fly and will serve to bring back the time when As and Bs meant something. There is no question of stopping here as the AVIA 152A rescued from Romans by Olivier Martel has arrived to be restored for static display. A replica will be built alongside it to fly. A trailer to take the two of them is envisaged.

From *Vol a Voile* magazine July/August 1922: there seems to be enthusiasm to build a two-seater AVIA 20 and the hunt for plans has been unleashed.

Visitors to the Rassemblement du RSA Sud at Montauban on 27th and 28th June 1992 could not have failed to admire the AVIA IIA, still without its controls, which was about to come out of the workshop of the RSA National Centre of Quercy-Rouergue. This venerable relic is partially authentic concerning its fuselage beam, which was built by Henri Dubourdieux at Reole in 1931 or 1933. One should mention that this little machine was once used as a two-seater with a second set of controls below the wings. The instructor held on to the struts and placed his posterior on a car seat! The wings and the tailplane are new and were built from original plans lent by Pierre Vayse. 1500 hours of work were necessary to bring this project as far as this under the direction of Charly Roussoulieres who is responsible for work done at the RSA Centre. The restoration was started in



Avia 41P (1932 designed) flying at the Aeroclub of the West at Angers.
Photo by kind courtesy of C. Ravel.



Avia 40P on Exhibition at the Musée de l'Air et de l'Espace at le Bourget.

From ***Vol a Voile*** *No. 50 (November/December 1992):*

Pierre Vaysse made it known in his article "The Eagle of the Banne" (see *Vol a Voile* No. 47) of the likelihood of there still being an AVIA 41P in the region of the ancient centre, the Banne d'Ordanche, and that the initiated knew where it was. It was the aeromodeller Roger Mignard who discovered the machine near Bourboule, but its owner, M Goigoux, who was storing it in his metalwork shop, didn't want to be separated from it for nothing in the world. After his recent death his son and widow, who knew of his wish to sell the aircraft to the Musee de l'Air et de l'Espace, let it go provided that it should be displayed in a good position with a plaque commemorating he who had saved it. Jacques Lerat revealed the situation at the last Historical Congress and the business was concluded. The museum was to acquire the machine and two expert emissaries were dispatched is the persons of Jacques Lerat and Pierre Vaysse, who visited M Goigoux Jun on 17th November last to inspect the machine. M Goigoux Jun told them how his father had flown at the Banne d'Ordanche and how the glider had been given to him by Gilbert Sardier, the President of the Aeroclub of Auvergne, at the time of the transfer of the Centre to the Montagne Noire site.

After a superficial examination it was established that the machine seemed to be in good condition under its respectable covering of dust. There were some holes in the fabric and it seemed to lack its canopy and rudder. Its number M3 remains an enigma as, until now, the only military examples identified have been the M1 and M2 alone of the very small number of AVIA 41Ps built. Whatever it is, this venerable machine will leave its lair next spring to be restored for static display for future presentation to the public in Hall E of the Musee de l'Air et de l'Espace at Le Bourget.

Vol a Voile 50 goes on to inform us of a new Association which is interested in old gliders. In fact AEROVINTAGE/ Ailes Anciennes Touraine, a recent creation (early 1992), has as its goal the preservation of the aeronautical heritage in a flying museum in the region of the river Loire. The collection was started with two old aeroplanes in airworthy condition (an MS 733 and a Jak 18) but this has been enriched during the year with an Aero 3, a Nord 3400 and a Norecrin. It also has a branch for gliders. One of its members is working on a C800, No. 217 F-CAJI and the association is about to rescue the Castel C311P No. 39/310 F-CAIT, which has been given to them by Philippe Comte as well as the Fauconnet (Spatz) No. 82K F-CDBJ. Their restoration will begin when the infrastructure of AERO VINTAGE/Ailes Anciennes Touraine is finalized. 45 Castel 311Ps were built during 1950–51 by Fouga at Aire sur Adour.

The address is: AERO VINTAGE, 5 rue Beaunier, 75014 Paris: tel (1) 43 02 10 64.

News from ASPAC at Paray le Monial: a Castel 310P has arrived. It had been recently restored by the legendary glider maintenance engineer Felicien Noin who on 20th August 1953 flew an AIR 100 from Saint Auban in France to Aisona in Italy in 3 hours 25 minutes, thereby crossing the Alps. It was 140k but against the wind. The flight was not appreciated by his superiors, who grounded him, but the pioneer French glider pilot Joseph Thoret warmly congratulated him. The book "Dix Ans de Vol a Voile 1950–1960" by Claude Visse and Jean-Louis Saquet states that the flight was actually done in the Nord 2000 No. 59. The C310P is indeed beautifully restored and ASPAC is proud to have it. The prototype had its first flight in 1942 and it was referred to then as the C31 "Aigrette". 60 were built in 1946 by Fouga at Aire sur Adour. The C310P must be in the same class as the Slingsby Prefect.

The Groupement Preservation Patrimoine Aeronautique d'Anjou, which was the brain child of Christian Ravel, has been entrusted by the Musee de l'Air et de l'Espace at Le Bourget, to restore the museum's aircraft and gliders to, if possible, flying condition. Because of lack of display space at Le Bourget, the Museum has allowed them to set up a regional Musee de l'Air on the airfield of Avrille near Angers. The Mayors and town councils of Angers and Avrille have done everything to assist the idea of creating an aeronautical museum and restoration facility. Indeed two new hangars house both.

On 3rd September 1992 the GPPA had its 11-year anniversary. During the 11 years, its members, driven onwards by the love of work well done, have had 48 machines pass through. A huge amount of documentation has been collected. More and more people are coming to see the collection.

Two vintage gliders are currently being worked on: a second Breguet 902S F-CCCU by Dr Plane, and the Fouga CM-8–1301 F-AZFH aerobatic sailplane, by Christian Ravel. Aso a number of components of N1300 and Castels are stored awaiting restoration. The Castel 301S No. 149 F-BPJI is restored to better than new condition. It will appear at exhibitions and has already taken part in the "Journées Patrimoines" at le Bourget during last September.

Jean Paul Robin has finished restoring his Fauvel AV36 and has flown it. His profession is restoring gliders. He is now organizing the next Balade for old gliders to take place during the last week of next August (see separate report). His address is: Quartier Malcombe, 05000 GAP, France: Tel 92 51 30 11.

Dedale has many energetic and enthusiastic members who are ready to restore and fly vintage gliders. The recently restored (at Lyons) Emouchet has to be seen to be believed. It is not only finely restored but seems to be able to turn in three times its wing span while climbing in thermals at 40kph. It has its roots in 1938 when an intermediate sailplane was created at Pont Saint Vincent by Albert Mangeot, using the wings of the Waclav Czerwinski designed Polish primary glider "Salamandra".

The French gliding magazine Vol a Voile has an editor, Jean Molveau, who quite clearly loves vintage gliders. There is never an issue of this monthly magazine which does not have a very informed article on vintage gliders illustrated with photographs and Jean's excellent three-view drawings.

The 8th National Meeting for Old Gliders at Bailleau which took place during the first weekend of May 1992: The wood among the Plastiques *(from Info ASPAC translated by Chris Wills)*

The 8th French National Meeting took place on the airfield of Bailleau, that veritable centre of fibreglass sailplanes. But this is not altogether true as the Emouchet of François-Louis Henry is based there and has often flown above the site.

The ASPAC team, Jacques Menei, the dog Cassius, Yves Soudit and Jean-Michel Ginestet, went in convoy with the Castel C301-S F-CRJM bearing the still-fresh laurels of the Jean-Marie Le Bris Cup for 1991.

During the two days before our departure the weather forecast had been bad, and the team's morale was not high. The trailer is not covered and, as there was a good chance of soaking the glider, a departure was envisaged without it. On departure day the meteo announced the arrival of a front from the west at the end of the afternoon. At Paray there would be a

few hours of good weather. We decided to take advantage of it. At Lyon, Jean-Michel hurried to join the team at Paray amid the dense traffic leaving Lyon, but had time to observe the two gliders from Courbas circling under cumuli. At last everyone embarked in their vehicles, direction – Bailleau. 10k from our goal we encountered light rain. We are satisfied. At Bailleau, the C301 is laid out in a workshop and we join the first to arrive who are already seated in a local restaurant. Jacques Menei went on to a touristic excursion, perhaps the dog Cassius was navigating? He did not arrive in Bailleau until the middle of the night. The tents were barely rigged by car lights when there was beating rain. The team from Lyon with their Emouchet F-CRFK arrived late and had to sleep in their car.

Friday: the wind is blowing strongly and the sky is overcast. After a breakfast in town we returned to inspect the situation on the field and found that the cost of hangaring gliders was proportional to their performance, and so our antiques cost almost nothing!

Our weather produced then, contrary to all expectations, sun and cumuli at the end of the morning and did not abandon us for the whole meeting, although a good half of France had weather that was more worthy of November! A big thank you to whoever chose Bailleau as our venue this year.

At the beginning of the afternoon, our gliders were rigged but a strong cross wind prevented them taking the air. Only the AV22, being sufficiently heavy, was able to have a few flights. The morale of the Dedale team soared to new heights. One could admire the gliders present: a KBK, a Mesange, two Nord 1300s, two Emouchets (this was a rarity), an AV22, an AV36, a Breguet 904, an AIR 102 and a Castel C301. The day ended with a show of films.

Saturday: after the morning briefing our first gliders ranged themselves on the runway between two lines of fibreglass sailplanes. The shock of their red, cream and orange colours amid the white, as well as their angular shapes, were in contrast to those profiled to the extreme.

During the whole afternoon the Dedale Dinosaurs were integrated with the gliding activity of Bailleau making a serialist picture. And the sympathetic "rivalry" in the thermals between the old and the new became something of a joke. For example, there were some who felt it a point of honour to uncouple their variometers to give the others a chance!

The thermals were there to order and it was necessary to limit flights to an hour each so that other impatient candidates could have a go. One "hard piece of wire in the pate" was the fact that flights had to be limited to a ceiling of 1500 metres due to the proximity of Paris, but everyone took it in good grace. After a well-filled day, the traditional Rally evening awaited the joyous group from DEDALE.

It was with great regret that we derigged the Castel 301 on Sunday morning. Cumuli awaited the sailplanes above our heads and the plastiques hurled themselves without delay at 500k triangles. The ASPAC team were tempted instantly towards the mad idea of flying the 301 as far as possible. Alas, in spite of almost ideal weather, we were not numerous enough to assure a retrieve.

The meeting was successful on all counts and a warm welcome from the Bailleau people proved that today everyone attaches considerable importance to what DEDALE is trying to do. There are now few who think that old wood is only good for keeping the club workshop warm.

The Rendez Vous for Dedale 93 will be on the very new airfield of Tours – Le Louroux – an event that the ASPAC team certainly won't miss!

DUTCH NEWS

20th International Vintage Gliding Rally, Terlet, 4–15 August 92: Final Bulletin

The 20th International Vintage Gliding Rally took place last year. Here are some statistics:

Out of 10 days we had only 6 flying days. The other four were not flyable because of heavy thunderstorms, wind and rain.

Used fuel:

Winch	148ltr petrol
Cable retrieve car	160ltr liquid petrol gas
Towplanes	1450ltr AVGAS 100LL

We had 2530 showers and 1,200 litres of beer.

During this rally, for the first time, participation was strictly limited to VGC members and glider entry fees were low compared to pilot entry fees (+ or – 1:3). Only officially entered pilots were allowed to fly.

For the first time, there was a Kindergarten in almost daily operation.

The total financial outcome of the rally is positive. This was caused by our having some informal but very helpful sponsors!

In spite of the weather, we believe that the rally was a reasonable success. We were very pleased with the prize that we received from the French Musee de l'Air et de l'Espace and the gifts from the British, Belgians and Germans.

We would also like to thank all the helpers for their help and effort; the Gilzer Zweevlietgclub for their winch and cable retrieve car, which they lent us for a token price; the owners of the towplanes, the Royal Netherlands Airforce Base Deelen, the Gelderse Sweevliegclub, the National Gliding Centre Terlet; and of course all participants, some of whom were so patient and brave to stay until the end! We hope to see you again at Zbraslavice next year!

Organization Terlet 1992

More statistics:

Participants	
Australia	9
Belgium	11
Germany	61
Britain	81
France	9
Hungary	6
Netherlands	89
Czechoslovakia	31
USA	3
Switzerland	23

Launches	
Winch	200
Aerotow	245

Hours flown 189hrs 16 mins from 445 launches.

This equals an average of 25.5 minutes a flight.

Last year's rally in Switzerland gave us an average of 1 hour 13 mins a flight (i.e. 402 hours 09 mins from 330 launches during 6 flying days. Hill soaring was available during the 1991 rally.)



Richard Abraham & Susy Mooring in his T131 Terlet. N.B. If you would like to see lots of photos of yourself and friends in 'VGC News' simply attend the next AGM and volunteer to edit the Magazine – no problem!

THE SHORTEST FLIGHT

FAUVEL AV 22 SA, BGA 2344, by Ian Dunkley

In common with all major achievements, my prize-winning flight was the result of teamwork involving six nations.

In Münster a heavy landing reduced the undercarriage to more pieces than the designer intended and the C of A allowed. The combined forces of the VGC then came into play. Paul Serries made the Münster workshop, tools and materials available. Peter Egger and his wife rebuilt the steelwork and Peter Woodcock, assisted by Robin Traves, brought the woodwork to flyable condition. Valuable assistance was also provided by Firmin Henrard in the form of beer, which of course slowed the work down until Wiel Zillen supplied additional tools bringing us back to schedule.

Now the actual flight and my contribution, apart from breaking the Fauvel in the first place ... The launch was the best I have ever had in the Fauvel – 300 metres, so it took great skill in circling too soon in the only thermal I found to bring me down to my final turn, and a very careful landing.

My prize, which I have since lost on the airfield, should be shared by the following, all of whom would have denied responsibility if the undercart had collapsed on landing, or worse still, on tow out to the launch point:

Paul Serries, Germany – tools and workshop.
Ida and Peter Egger, Switzerland – steelwork
Peter Woodcock and Robin Traves, GB – woodwork
Firmin Henrard, Belgium – Beer and a piece of his car's carpet
Colin Street and family, GB – Baby powder
Chris Wills, GB – photography

and finally

Christian Ravel, France – a new undercarriage.

A PRIZE-WINNING FLIGHT IN A PREFECT BGA 701

by Malcolm Wilton-Jones

Sunday 9 August was very hot, about 93 degrees, with a moderate WSW wind. I had already had three winch launches, but the longest flight was 15 minutes, and it was getting late in the afternoon. A few puffs of cumulus were appearing, so I decided to have an aerotow to find where the thermals were. At 1200ft over Deelen, we flew into a large area of lift and I released at 1500ft and climbed quickly to 3000ft. I returned to Deelen but this time the lift was not so strong and I drifted further down-wind. I returned to Terlet where two dark fields beyond the winch looked promising. Arriving at 900ft I immediately found 10ft per second which took me quickly to 3000ft. I stayed with it as it weakened but at 3400ft I was drifting away from Terlet, so I returned. There was no lift on the way back and I arrived over the launch point at 1500ft.

I had been watching two Condors circling in the distance beyond the winch, but they now left and headed towards Deelen. Several gliders were circling upwind of Deelen's winch but I thought that if I went there and did not find anything I would not get back to Terlet. The Condors suddenly started climbing rapidly and I decided that it was worth a try. I crossed Deelen's launch point at just above circuit height and immediately found 10–20ft per second below the Condors. Terlet was quickly back within gliding range. I then flew to some large buildings south of Deelen but the lift was poor. Returning towards Terlet I again found strong lift and was quickly joined by other gliders as I climbed to over 3000ft north of Arnhem where there were large areas of gentle lift. The view across Arnhem was superb. Since my family had been ready to go back to our hotel before I launched I decided that I had better return, so I made the rest of my flight at 50–60kts, flying all round Terlet before finally landing just after 6p.m.

A NIGHT FRIGHT

by Geoff Moore, 7 August 92

I was awakening from pleasant flying dreams in the big green field-observation survey tent early on Sunday morning with a loud greeting of thunder and continuous lightning flashes and discovered that the tent was about to be launched on a cross-country in a somewhat angry wind.

My wife and I leapt from our sleeping bags on to the aluminium frame supports above to hang on for dear life as the whole tent began to lift. I believe that we were about to set a site record from Terlet for a night-time dual flight by hang-glider across the motorway. By good fortune after some ten minutes we became waterlogged which prevented take-off. This was a little lucky as I do not hold a night flying rating.

AUSTRALIAN NEWS

David and Jenny Goldsmith have moved back to Australia. David is an airline pilot and his contract in Europe has ended. For their many friends, their new address is: RMBZ Watson Road, Gisborne, Victoria 3437 Australia: Tel: 61 54 283358. They send good wishes to all their VGC friends.

NEW ZEALAND NEWS

Geoff Moore during a trip to NZ made contact with a gliding club on the airfield of Matamata, south of Auckland and east of Hamilton. Geffery Rindrup and Les Riesterer (CFI of the club) reported that the famous 1942 JS Weihe ZK-GAE (G-ALKG BGA 433, brought to Britain from the Wasserkuppe in June 1945 by Philip Wills and repaired by him before selling it to Dick Georgeson in 1951) is now being restored by a group at this club. This is indeed good news: we are very glad that something is being done to save this ancient record-breaker.

AMERICAN NEWS

From California comes the news that Raul Blackston is working on his FRANKFORT CINEMA 2B (TGYA) sailplane from 1942, Reg No. N 49522. It has been recovered with fabric and has been finished in US Army training colours, and was to have flown in Jan 1993.

He has also a Bowlus Dupont ALBATROSS 2 of 1934 under restoration. This was the greatest American sailplane of its time. It has not flown since 1939, but is planned to fly again in May 1944!

Jeff Byard in California has an airworthy SCHWEIZER TG-2 (SGS 2–8) in 1942 colour scheme complete with Stars and Stripes on its rudder and training motifs. He also has a BOWLUS BABY ALBATROSS of 1939 in natural wood and clear dope finish.

Steve Lowry in California is currently restoring a CINEMA 2H of 1942, registration unknown.

Robert Gaines has recently unloaded a crate from the Argentine in which there was a CONDOR 4 in above average condition, and a RHÖNBUSSARD which was a little 'tired'. He says that it will require a total overhaul and his objective is to make it as it was in 1933, which is when the type was first built. Its serial number is 33. He intends to strip off its present grey colour to see if the wood will stand a natural finish. He would be glad to receive information on Rhönbussard finishes of that time. Robert also owns a JS WEIHE (one of the three that Philip Wills brought to Britain in June 1945), a MU 13D-2 which was removed from North Germany in 1945 lashed externally to the superstructure of a Canadian destroyer and had to be rebuilt in Canada due to moisture damage, and a KA-3.

NORWEGIAN NEWS

Bjarne Reier writes, in a letter to Chris Wills (29.12.92)

Sending you late Greetings and a gift to the owners of gliders which are Casein glued: there is a report of a long-duration test (22 years – CW) on 14 different glues, and Casein is the best of them all. (Chris Wills will make this Norwegian report available to anyone who is interested.)

During 1992 I have been working at the German Gliding Museum on the Wasserkuppe, at the very time of the VGC International Rallies. During the first week in August the old pilots came to the Wasserkuppe for the Lilienthal Memorial Meeting and I was there at that time. I travelled around visiting the Air Shows with my Grunau 9 when not working. At the Wasserkuppe I am to cover a Rhönlerche fuselage. I am hoping very much to take part in the Rendez Vous 93 Rally at the Wasserkuppe. Greetings, Bjarne.

Chris adds:

Bjarne Reier telephoned on 11 February, saying the MU 13d-1 that used to belong to Ernst Walter is at the German Gliding Museum on the Wasserkuppe. Bjarne is now engaged in building a Hannover Zefyr, a small Hannover Vampyr, for the German Gliding Museum but he needs more drawings. Drawings for the Vampyr would do. Please contact Bjarne Reier, Post Box 25, 1501 Moss, Norway.

LETTERS

From Austen Wood, 87 Torkington Road, Hazel Grove, Stockport

Geoff Harrison, a Harbinger syndicate member, and his wife Jill, left Guernsey in April or May 1991 in their 38ft ketch to sail to the Canary Islands and on to the Caribbean, which they managed successfully. After four weeks crossing the Atlantic they arrived in St Lucia on Christmas Day 1991. It had been anticipated that the crossing would take less time but unfortunately due to relatively light winds this was not to be, consequent upon which they were almost out of diesel and running very low on fresh water despite strict rationing and only salt water baths throughout the voyage. They had the help of two extra hands across the Atlantic.

Since then they have cruised amongst the Windward Islands and have now gone to Trinidad from where they hope to visit Venezuela, returning to St Lucia for Christmas 1992.

Mildred and I spent a delightful month with Geoff and Jill recently on "Sheban Gold" and they wish to be remembered to their VGC friends. Geoff is adamant that he will return and resume gliding one day, but with a steady temperature in excess of 80 degrees F, clear sea as warm as bathwater, fair winds and no telephone or other "essentials" as well as rum at £2 a bottle, he really doesn't have any pressing need to return, but having made the Atlantic one way he may one day manage to tear himself away!

From Neelco Osinga, Netherlands.

A New Trailer for the Old Kranich

As already will be known by many of you, there is again a Kranich in our country. At the moment Ben Schenk is restoring it at Leeuwarden. I myself think we got it for reasonable conditions: long-term loan contract. As the effort on our side, we have to bring it and keep it airworthy. We should try to get aircraft from the Museum Aviodome under the same conditions.

A problem for such an old glider is the trailer. The aircraft

has a width of 18m. The wingroot is about 2.8m and the wings have a bend. Such an enormous thing does not fit in a standard trailer. Peter Deege kindly calculated measurements for me.

Chris Wills, President of the VGC, has also a Kranich and had David Schofield from Swindon, England build a trailer. As asked, David was willing to build a trailer for us; using the recommendations of Chris together with this project. Coincidence or not, but Peter's recommendations could be found in the drawings of David; therefore I had great confidence in this project. Above all the price was so attractive that it wasn't worthwhile starting to build a trailer myself. I estimate that the prices of this trailer are about half the price of the same sort from German manufacturers.

To cut the story short, on 5th September we collected the trailer from England. Swindon is situated in the surrounding of the Lasham airfield and the famous Stonehenge, so we could make it a nice touristic trip as well. David lives with Ann in an idyllic cottage right in the middle of nowhere; we enjoyed the hospitality. Jan Forster was also there. He visited Sutton Bank with his children, joining the English National Vintage Rally with Marijke Waalkens' Doppelraab. Marijke is thinking about buying a trailer from David Schofield as well and in this way David could easily make measurements of this outshaped glider.

The trip back home wasn't a problem at all with a 10m trailer; at first we drove with caution but later on we went on with high speed and the combination ran 'as a train', despite the crosswind and the windsucking lorries.

Chris Wills shares with us the following extracts from letters that he has received:

Extract from Steve Coates, Ferndown, Dorset, 3rd November 92.

As you will note from the enclosed copy of CIU (Central Interpretation Unit) Interpretation Report L215, an aircraft with sharply swept forward wings was photographed (from above) first on 19.4.44 and later on 31.5.44. This was of course a completely unknown type and was therefore designated the Rechlin 66.

This designation was of course later carried over to the Ju 287. What is remarkable about this photograph is that the Ju 287 V1 did not fly for the first time until 16.8.44. This therefore begs the question as to exactly what the Allies photographed at Rechlin. The most likely theory is that this was either a mock-up or a full-size glider built to test the characteristics of the swept forward wings. Does anyone amongst your readership know more?

Chris Wills adds: I can only suggest that it could have been the 19036 designed and built DFS 42 KORMORAN glider, which Lippisch had much to do with. I wonder if it could have been left outside? From Alexander Lippisch's book "The Delta Wing: History and Development":

"We should not omit mentioning a special project of 1936 which was of unusual design. In England Professor Townsend had shown that by sweeping the wing forward and strongly tapering it towards the tip, stalling at the outer wing could be effectively postponed. Even at large angles of attack and low speeds, roll stability could thus be maintained, as opposed to the normal swept back wing where stalling started at the wing tips. To study this problem we designed an experimental glider Kormoran DFS 42 with forward sweep of the wings, which was built in 1936. We observed the flow by means of filaments and clearly observed the Townsend phenomenon. We took a number of photographs of the wing flow on subsequent flights. However, although the flow on the outer wing remained steady, the flow over the mid section of the wing stalled relatively early causing loss of longitudinal stability and lower maximum lift. We therefore installed an additional rudder (slot? CW) over the midwing section which prevented the incipient loss of lift. On the whole, these experiments were interesting but failed to prove any superiority of the wing with forward sweep, since on normal swept back wings stalling of the outer wing could be prevented by installing wing slots which produced higher maximum lift. From that time on no further experiments with swept forward wings were carried out by us. (Perhaps that was why it was left outside during April and May 44? CW)

Extract from Marcus Lemmer, Schwalmstadt, Germany, 28th Jan 1993 translated by Chris Wills.

I have sent a few drawings of the Condor 2 and Condor 3 to Hans Mehl. He had put a note in VGC News No. 69 asking for them. With luck, I should soon be able to send him some more building plans. The Condor 4 drawings of 1937–39 have the number 56 (RLM Code 108–56. CW) They are in fact altered Condor 2 drawings. The stress calculations for the Condor 4 are also still available. These concern only the wing and the wing/fuselage fittings. The fuselage was not stressed again.

I hope to become apprenticed in May and intend to try to find work restoring aircraft.

Our Grunau Baby 2B will hopefully fly again in May 1993. We had to re-glue the tailplane completely. Josef Kurz helped with the repair of the wing spar. At the moment, we are renewing the wing tip of the port wing.

Do you know anyone who has technical data (C of G positions, control movements, handbooks etc) for the Condor 2, 3, Reiher or Rhönbussard?

Extract from Ray Ash, Gulgong, Australia, 30th Jan 1993.

I was surprised to read in the Australian section of VGC News No. 77 that someone had informed you that there was a Hawkridge Venture two-seater at Narromine. I'm afraid that it is only partly true. Yes, there is a Venture at Narromine owned by the Orana Soaring Club, but, unless they have done a lot of work on it in the last few years, it is far from airworthy.

The Venture was built during the early 1950s by the then Dubbo Gliding Club's members, and I remember they always had the problem of building it faster than the designer could supply the drawings. In fact I believe a lot of the metal fittings were designed and built locally to get over the problem. It was very well built and internally protected with several coats of varnish. It first flew in 1954, and served the club well for a number of years, many times reaching altitudes of 10,000ft or so. I don't think it ever made any cross-country flights, but I may be wrong on this score. I do recall that the ASI was a converted moving coil voltmeter that had the electrics removed and somehow used pitot pressure into its moving vane damping box. I remember someone doing these conversions at this time owing to the scarcity of proper instruments. I believe that it flew at a very low speed, but whether this is true or simply an error in the home instrument, I'm not sure, although a figure of 20 mph was suggested to me at one time. The last time I saw it, about 10 years ago, it still had "volts" written across the dial.



President: Chris Wills
Wings
The Street
Ewelme
Oxford OX9 6HQ

Secretary: Robin Traves
Rose View
Marden Road
Staplehurst
Kent TN12 0JG

Treasurer: Geoff Moore
Arewa
Shootersway Lane
Berkhampsted
Herts HP4 3NP

The Club arose from the wish of the vintage glider owners at the very successful first International Vintage Glider Rally at Husbands Bosworth in 1973 to encourage the preservation of worthy gliders of the past, particularly by the ownership and active flying of these machines.

Associate membership is available to those who wish to support the activities of the club, and Associate members are very welcome at Rallies.

Rallies are organised in conjunction with local groups several times each year, and International Rallies are held annually in sequence.

A magazine is issued to members, and there are technical articles about gliders of historic interest. Readers are always invited to contribute articles of interest to publish.

The club endeavours to keep subscriptions as low as possible. Donations towards the running costs of the club are always gratefully received.

✂ CUT

Membership No. **(please include your membership number when renewing)**

MEMBERSHIP APPLICATION FORM (1993)

I renew/apply for Owner/Associate membership of the Vintage Glider Club, and enclose remittance for:

	£	
Initial Membership fee ☐	3.00	(payable only once on joining)
Annual subscription ☐	10.00	(Great Britain)
Annual subscription ☐	11.00	(Europe)
Annual subscription ☐	15.00	(Rest of the world to cover airmail postage)
Donation ☐	_____	
Total	_____	

Cheques should be made payable to the VINTAGE GLIDER CLUB. Overseas members are requested to pay by Girocheque, Eurocheque or in sterling drawn on a British Bank

For all members (block capitals or typewritten please)

Surname _____ Christian Name _____ Title _____

Address _____

_____ Telephone _____

Gliding or soaring club (or other aero club) _____

Your gliding and/or PPL qualification /Experience/Modeller _____

Trade or profession _____

please turn over

PLEASE NOTE:

a) **Membership is individual (not by syndicate).**

b) Owner membership is either sole ownership or ownership in a syndicate.

c) Club owned aircraft are accepted as though the club were a single owner.

d) Unless b) or c) apply, associate membership is applicable.

e) The club reserves the right through the committee to accept or decline any particular glider for owner membership.

The club would be pleased to have fuller details of your glider(s) on a separate sheet, enclosed with this form

---

For owner members (block capitals or typewritten please)

Type of glider _____

Maker and date _____

Registration _____

Other numbers _____

Colour scheme _____

Where normally flown _____

Other owner(s) _____

Condition (airworthy/under repair/refurbishing/museum exhibit) *(delete where applicable)*

Note:
The club records are on computer file. So that we keep within the British Law (Data Protection Act 1984) please sign opposite:

I have no objection to my VGC membership record being held on a computer file:

Signed _____

Please post with your remittance to:
Geoff Moore, Arewa, Shootersway Lane, Berkhampsted, Herts HP4 3NP

ORDER FORM

	No req	£
Adhesive badges @ £0.40 each. Blue motif on silver 3" dia. Four types: Front glued for sticking inside windscreen		
1 'Vintage Glider Club'	☐	_____
2 'Vintage Glider Club Member'	☐	_____
Back glued for sticking on glider etc.		
3 'Vintage Glider Club'	☐	_____
4 'Vintage Glider Club Member'	☐	_____
9" dia. PVC sticker, blue motif on silver 'Vintage Glider Club' Back glued for trailers etc. @ £1.50 each.....	☐	_____
Cloth badges @ £1.50 each. Blue motif on silver-grey. 2.75" dia.	☐	_____
Metal lapel badges @ £1.50 each. Silver-coloured motif on blue enamel. 0.625" dia.	☐	_____
Brooches @ £2.00 each. Blue and white enamel. 1.125" dia.	☐	_____
Key rings @ £3.00 each. As Brooch on black leather fob.	☐	_____
Large Postcards four different colour prints from original paintings by H.K. Harwood of historical and vintage glider scenes, @ £0.20 each, or £0.60 per set of 4	☐	_____
Pom-pom knitted hats in different colours. £4.00 each.....	☐	_____
Beanie Hats white drill printed VGC crest navy blue @£3.50 Med:	☐	_____
Large:.....	☐	_____
Miniature wind socks 20 cms long @£1.30	☐	_____
Ball points @ £0.50 each. Light blue, with silver motif, 'Vintage Glider Club', retractable.	☐	_____
Sub-total		_____

	No req	£
Sub-total b/f		_____
Tee-shirts, white, with central blue motif 6.5" dia.		
L £4.50.....	☐	_____
XL £4.50.....	☐	_____
XXL £5.50.....	☐	_____
Crew-necked sweat shirts, red or yellow with small motif on left breast.		
L £12.50.....	☐	_____
XL £12.50.....	☐	_____
XXL £13.50.....	☐	_____
Replica transfers of the original SLINGSBY Emblem £2.50 each		
Quantity.....	☐	_____
Mugs with VGC Crest Blue strong plastic with white motif @ £2.50 each	☐	_____
White Pottery with blue motif @ £3.00 each	☐	_____
Ties @ £5.00 each. White motif woven in coloured tie. Green (vert, grün)	☐	_____
Wine (marron, rotbraun).....	☐	_____
Grey (gris, grau).....	☐	_____
Navy (bleu foncé, dunkelblau).....	☐	_____

Please add postage and packing (foreign rates in brackets):

Each sweat shirt or polo shirt £1.25p (£2.00)	_____
Each T-shirt, mug, pom-pom or beanie hat 50p (90p)	_____
Small quantity adhesive and cloth badges 25p (50p)	_____
Small quantity other small items 35p (70p)	_____
TOTAL	_____

Cheques should be payable to 'Vintage Glider Club' in sterling, drawn on a British bank, or Eurocheques payable in sterling. (No cash)

I enclose the sum of _____

Name _____

Address _____

_____

_____

Please send to:

VGC Sales, 22 Elm Avenue, Watford WD1 4BE

Tel 0923 241 924

The Vintage Glider Club – Technical Articles

	£	£
Manuel "Wren" Series – 2 sides. £0.30	☐	
Kranich – 5 sides. £0.75	☐	
Bolus Baby Albatros – 3 sides. £0.45	☐	
Weihe – 5 sides. £0.75	☐	
Mu-13 – 5 sides. £0.75	☐	
Spalinger – 4 sides. £0.60	☐	
Rhönbussard – 4 sides. £0.60	☐	
Olympia – 6 sides. £0.90	☐	
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Slingsby Cadet – 3 sides. £0.45	☐	
DFS Reiher – 5 sides. £0.75	☐	
Avia 40P – 5 sides. £0.75	☐	
Rhönsperber – 4 sides. £0.60	☐	
Harbinger – 3 sides. £0.45	☐	
Slingsby Gull I – 5 sides. £0.75	☐	
King Kite – 6 sides. £1.00	☐	
Schweizer TG-2 – 6 sides. £1.00	☐	
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Sub-total		
Sub-total b/f		
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Also: To help with **Restoration Work plus Kaurite Glue** – 4 sides. £0.60	☐	
Ageing of Wood Adhesives – 4 sides. £0.60	☐	
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What's Washout? Watch Out! – 6 sides. £0.90	☐	
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Mü – 17 3 sides. £0.45	☐	
The Mü – 15 4 sides. £0.60	☐	
Total		

All orders should include postage.

For postage to Europe, please add a small donation. For postage outside Europe, please add a slightly larger donation!

Cheques should be payable to 'Vintage Glider Club' in sterling, drawn on a British bank, or Eurocheques payable in sterling.

From the Secretary:

Robin Traves
Rose View
Marden Road
STAPLEHURST
Kent TN12 0JG

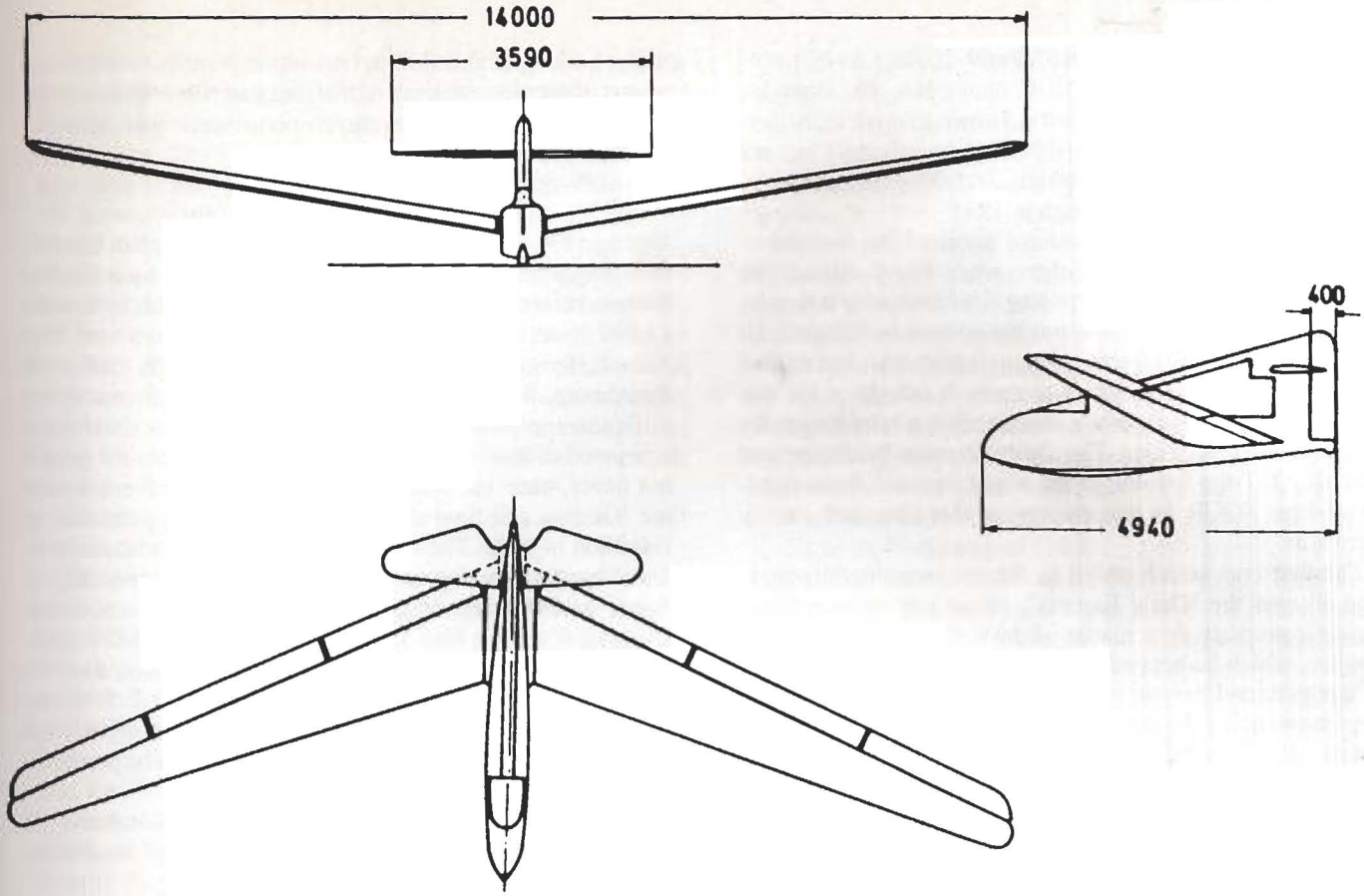




Fig. 45. Experimental glider *Kormoran-DFS 42* (1936). Layout and aircraft in flight.

See Letters – Steve Coates

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It passed from the Dubbo Club when Blaniks became affordable, probably in the mid 60s, and went to another country town about 200k south of Dubbo called Orange. The Orange owners never really got a club going and I'm fairly sure, like in many other instances, some sort of disagreement occurred over its ownership and it was put into storage for many years. I heard about it probably about 15 years ago and went to have a look at it where it was stored in the Orange Agricultural College, with the idea of purchasing it and restoring it to airworthy condition. Because of its ownership problems I was unsuccessful, and it wasn't until some years later that I heard that the Dubbo Club, now called Orana and based at Narromine, had acquired it with the intention of restoring it to museum status. This has never happened and, every time I went to Narromine, it was lying derigged in the corner of the hanger, looking more and more forlorn every year. It has now gone as they required the hangar space and I believe it is currently stored at one of the original members' farms, with the intention still of restoring it one day. To the best of my knowledge nothing has been done to it.

Last year was a very busy one for me as we moved house from Sydney to Gulgong, which is a small country town 300k from the city and about 150k from Narromine. We have a very good airfield about 10k out of town and we have our K7 and Ultralight rigged all the time.

We haven't brought up the Dickson from Sydney as yet, but I have a recently restored H-17a here and we plan to make use of all of them before long.

The VGC News is my only contact with the club. I like it very much and I keep every copy.

Extract from Harold Holdsworth, Bradford, West Yorks.
Thank you for the copy of VGC News No. 76. Page 14, Addyman Relics: Nigel Ponsford is known to possess the surviving Addyman relics, (note the word 'surviving') but not the Daily Express Professor, which Carli Magersuppe force-landed in the sea off Scarborough in 1930.

Eric Addyman is known to have acquired the remains of that machine, but it was not there when Nigel visited The White House, which is not surprising. Unfortunately it is quite a long story. When Eric's son put his address in "Flight", all kinds of people acquired something to restore who had neither the ability, money or facilities to carry it out. So a lot was finally destroyed, which is best explained by a brief biography of Eric and his activities. The Daily Express Professor was certainly NOT the last one in the world, because I can recollect at least FOUR in this country at that time and shortly afterwards.

The first one, which ended in the sea, was literally plastered all over the "Daily Express", so we can assume that it was their property. In a matter of days, Carli had acquired a new one, which he hopped on the open space along the cliffs at Ravenscar and then, to pacify the spectators, who had come by train excursion, he flew it down to the hay meadows at the bottom. I was present and volunteered to help with the retrieve. This was my first sight and experience of gliding. Before August was over, Carli performed the very first soaring, or gliding, over Sutton Bank in that Professor.

Shortly afterwards the SK 3 two-seater was delivered and was flown exclusively by Magersuppe and Groenhoff at Flixton Hill, and the second Professor just disappeared. Probably (note the word) it was bought by the London Gliding Club.

I saw a Professor at the camps at Ireleth in 1932, when it was LGC property and quite clean, with no grafitti, and I have a snapshot of it in my family album. So it can be assumed to have been the same machine.

At that time another Professor, owned by a Belgian lady named Miss Susi Lippens, was loaned to the LGC but it was rarely flown as it was not insured for damage. During 1933, it was bought, along with its trailer, by Mr Norman Sharpe, who loaned to Lieutenant, now Group Captain, Mole (RAF retired) to fly in the 1933 National Contest at Sutton Bank. That Professor was loaned to the Yorkshire GC on restricted terms. I only hopped it myself a few times and can fully agree with the late Sebert Humphries: "ailerons very poor indeed, rudder adequate, elevator had the beef of a steam shovel!" There was a story related in Sailplane & Gliding that the London Professor once flew off with the double launching rope, down the slope of Dunstable Downs, landing safely at the bottom, dragging the heavy rope without going over on its back! The landing skid had become partly dislodged and the rope had caught up when the ring fell away. An early 5 Hours for a Silver C was flown by the Yorkshire Professor, and the late John C Neilan flew it for over 13 hours for the British Duration Record but the machine's condition was deteriorating. Damp had got in between the surface varnish; it needed a complete rebuild.

During the winter of 1935/6 when I was working at Slingsbys on the Hols, as a guest, the Professor was moved there, where John Sproule carried out a small amount of work on it before it became the property of a person whose name is not recalled. He was a person of about my age who was related by marriage to Mrs Fluff Slingsby.

He related that, after a total rebuild, his machine was totally written off by a Mr Rice, the well-known caravan and trailer builder, who had flown it without permission. I have no means of proving the truth of that, but can point out that flying other people's gliders without permission was common during that period.
End of Professor No. 3.

During 1931, Kronfeld had flown across the English Channel both ways after being towed to a great height by a German Klemm before setting out on each attempt. For this he won the £1,000 Prize of the Daily Mail. Other competitors were Herr Krause, flying an RRG Falke for Liptons Tea, and a Mr Beardmore, flying his own Professor. Krause got into severe difficulties in turbulence and abandoned the tow. Beardmore is reputed to have climbed until out of sight from the ground but never made the cross-channel attempt. For the full story see 'Gliding and Soaring' by Robert Kronfeld, published by Hamilton in 1932. The book has a photo of Beardmore's Professor plastered with graffiti about its early aerotowed flights. It was certainly one of the early gliders to be aerotowed in England, if not the first. That was claimed by a BAC-7, sponsored by Barbara Cartland. So I have good reason to claim that the Daily Express's Professor was not the sole Professor in England. Today, it is not 100% certain that ILippisch had designed all of it himself. Some items are still to be proved.

A brief history of the early glider pilot Eric Addyman and the machines he built between 1930–39 as related by Harold Holdsworth:
Eric was older than myself. He was a most unusual person who built all his property as cheaply as possible, outside the terms laid down by the British Gliding Assn. How he earned his living is not known: he was reputed to have served a term of apprenticeship with an engineering concern. But there is no doubt about his enthusiasm for gliding before the war.

Also, before becoming involved in gliding, Eric had assembled his own car. It was, by all accounts, a most remarkable vehicle, assembled long before MOT tests became law.

He formed the Harrogate Aircraft Club in either very late 1929 or, more likely, during early 1930. The Harrogate Aeroplane Club was a grand name for what was really himself, assisted by a few unpaid helpers. He became a real expert at this work later, especially after he had lost his right hand.

Eric was responsible for The Association of Northern Gliding Clubs which was a good idea. At regular intervals, a few members from each northern club would meet to exchange news on progress of instruction, the relative merits of primary machines available, sites available, methods of launching and retrieving, finance etc. It was all new, and very useful at first, until it became common knowledge and the meetings stopped.

Eric put up a small cup to be competed for at Weston, near Harrogate, all using Primaries. Bradford won, and the actual cup just disappeared and has never been seen since. His first machine was a Dickson Open Primary made from drawings issued by the magazine Flight, which appeared in weekly numbers, and so the machine took a long time to build.

Exactly how Eric coped with the now known mistakes in those early Dickson drawings is not known. Ray Ash, Martin Simons and myself are agreed that the blocks needed to print the drawings and script were all prepared before work on a Dickson had started. With hindsight, we now know that the German Zögling was a far better and cheaper machine than the Dickson for what it was intended for, i.e. the very first slides and hops of a student who has never been in the air at all. Its only drawback was that it was made for small pilots.

Recently Ray Ash finished a Dickson started by another person and built in most of the modifications that I would have liked to have used over 60 years ago, but never had the opportunity. The Harrogate boys were far more adventurous than those at Bradford. Eric flew from sites that our Instructor, Mr Jones, would never have allowed. Eric's Dickson is known to have been built from commercial timber and fabric which was protected with Waterglass. This was much cheaper than clear dope. Although not recalled, it is most unlikely that the huge number of real brass screws specified were used, or the plates of Dural, with real Dural bolts, on the tailplane and control surfaces. The Bradford GC, of which I was a founder member, also had a Dickson which had the screws but not the Dural control horns. Those were formed from mild steel, as were also the wing root fittings.

Our paths crossed at intervals during gliding meetings but I cannot claim to have known Eric really well.

On 2nd August 1931 Eric was flying at The Hole of Holkum near Saltergate, North Yorks – NOT at Ingleby Greenhow as reported in Sailplane – in a very strong wind, when he lost control of his Dickson and crashed badly, and his right hand was cut off at the wrist. I don't think he was trying to soar, but was only attempting a long gliding flight, when his primitive glider was overwhelmed by turbulence. Possibly Eric may have been partly thrown out of his seat, his feet knocked off the rudder bar and so he lost control. On the same afternoon, flying a similar machine in similar conditions, that actually happened to me, when flying at Malkam, but I managed to regain the seat and rudder bar and was able to land safely.

(Carli Magersuppe later changed his name to Karl Marsens. He died of cancer during 1980. CW)

Extract from Wilhelm Hein Sen, Bad Mainberg, Germany.
(He has over the years been researching Robert Kronfeld and has formed a "Friends of Robert Kronfeld Society" which regularly meets. He has quite an archive of information and photographs, but he still needs more. CW)

The year 1992 has brought me partially surprising progress with my Robert Kronfeld collection. I think I can start in early spring to compose the detailed chronicle that has been intended. In order to finish the work as accurately as possible, may I beg you to answer some more questions?

Concerning the transfer of the Horten 4a from Göttingen to England:
Who was the initiator of this operation? Was it neither the British Gliding Assn with assistance from the RAF, nor the RAF themselves? Are there still persons alive today who participated in this operation?

Is it true that this aircraft today finds itself in a US Museum?

The history of the AUSTRIA 2 is considered to be cleared up. It was entered in the 1932 Rhön Contest, together with the WEIN and the AUSTRIA 1 of 30 metres wingspan. But it was not ready in time and thus only the uncovered components were on view on the Wasserkuppe. Before its baptism in Vienna it flew at an air display in Hannover on 18th September 1932. On this occasion it flew simple aerobatics and a young lady parachuted from it. In late Autumn 1932, after the baptism, trials with rockets were carried out with this aircraft. Thus reports Kronfeld's tow pilot, Mr Henkelmann. From the following numerous eminent flights, only one should be pointed out. One or two days after the 'Postal Four Countries Flight", Kronfeld made a flight from Vienna in thermal conditions to Proessnitz in Czechoslovakia. This was approximately 150k. The so-reported crash of August 23rd 1933 was in a CANARD, when the tail skid of the towing aircraft was damaged. Kronfeld sold his glider to Mr Michelin in February/March 1935. It was then apparently operated by French clubs. A crash at the La Montagne Noire site occurred in 1936. The pilot was M. Langlais. His passenger was Mme Nessler, wife of Eric Nessler, the pioneer French glider pilot and constructor of light aircraft. Mme Nessler is said to have rendered a tremendous slap in the face of Langlais afterwards.

The glider was rebuilt and was seen still flying during the first years of the Second World War. It was displayed in an exhibition during 1942/3 at Guerchais-Roche, Riom. In 1950, the remains of the glider were stored in a shed and were burnt.

The Wien had been acquired by a M. Lumiere at the end of 1932, or the beginning of 1933.

In 1935 Kronfeld offered his Kr 1A AUSTRIA 3 for sale by advertisement in France. It can not yet be established if it was purchased by someone in Belgium, because the AUSTRIA 3 then operating in Belgium was reported to have wings of shorter span. One AUSTRIA 2 or 3 was built in Austria under license and participated in the first ISTUS Alpine Gliding Contest representing Austria. There was still another AUSTRIA owned by Kronfeld, Kuepper and Eugen Wagner, the first pilot to have flown a Gold C, Class A. It was built by Wagner and eventually he became sole owner until it was totally destroyed by a fellow pilot in a crash.

Do you know anything of the invitation for Robert Kronfeld to go to India in approximately 1931/32, and whether he accepted and stayed there for some time? Refer "Kronfeld on Gliding & Soaring". This book was published in the English language by John Hamilton Ltd, London, in 1932. Since I received advice that this important book was written in the German language before it was translated, I would be interested to learn if it is possible to obtain an original German version.

Chris Wills adds:
I have tried to answer some of these questions, but should be grateful to receive any extra information.

I have no definite information on how the Horten 4 was brought to England as Ken Wilkinson is no more. The Horten 4 is now definitely in Ed Maloney's Planes of Fame Museum in the USA.

THE FIRST BALADE DES PLANEURS ANCIENS

by Chris Wills

This was a Dedale event. Its object was to offer an opportunity to vintage glider owners wishing to try something little more than is usual at our rallies – the chance to fly vintage gliders cross-country, over different country every day for a week.

South of the River Loire sounded like a perfect place for suitable weather and landing fields. We were to fly from Angers via Thouars, Le Blanc, Bourges, Moulins to Paray le Monial, a distance of 430k, in 90–100k laps, hopeful of having a tail wind and calm weather during the last week of August: but the weather was terrible except on one day.

We were told that because of vinyards on the first lap, outlanding possibilities would be seldom during the first 30k. At Angers, under the auspices of the Regional Musee de l'Air, a galaxy of old gliders from Switzerland, Belgium, Britain and France formed up. From Switzerland was the S.18 of Willi Schwarzenback, the S.19 of Hansueli Renz; the Spyr 5 of

Hugo and Werner Roth, a Spatz and a Ka-7. From Belgium was Eddie Terras with a Spatz; from Britain there was myself with my Kranich 2; from France two Breguet 904s; 2 Breguet 901s and Claude Visse with a borrowed club Ka 6E to which first he had to render a petit entretien, which became a Grande Visite, which was expended to the open trailer as well. (He said his 1950 Breguet 900 was a little tired and needed some rejuvenation.)

Then there was the excellently restored Emouchet from Lyons with its owners, Olivier Martel and partners; the Nord N2000 from Paray le Monial (recently restored in Armee de l'Air colours by Jean-Michel Ginestet and partners) the Marc Bourdon C800 from the Pyrenees and the C25S of Jean-Paul Robin and partners which he restored. There was also a Pik 16 Vasama which was flown by Denis Auger and his partner Didier.

I took my Kranich there from Holland as I had hoped to satisfy my wish for a little cross-country flying in conditions such as those experienced at our Bourges International Rally which I could not attend.

On the first day, in light rain and because of the necessity of reaching the Thouars club to celebrate its 10th birthday, the trailer race started. The dates and receptions at the various clubs had been arranged months beforehand so there was no question of delaying a departure anywhere. It was a matter of getting one's tent down, wet or dry, packing up and getting on the road. The new locations each evening added considerable excitement and joie de vivre. The Emouchet and N2000 did try to fly the first lap but lift was minuscule, ceiling low, and they had to land out. At Thouars the Kranich was rigged for the first time. I had come without a retrieving team and should like to thank Jean-Paul Robin and his team for help at all times. We had to derig again next day but Jean-Paul had adjusted the aileron cables pour la securite!

At Thouars the Isle of Wight Gliding Club were in force: also the catering at Thouars was done by an English family who are among the 50,000 British refugees now living in France. They coped successfully with the veritable avalanche of people who descended on them for a grand dinner in the hangar and we enjoyed la cuisine anglaise.

Then we came to Le Blanc where we had a calm evening. It seemed that, with the cool clear night, we might have a chance of good weather on the next day. And so it was, quite unexpectedly, according to Jean-Michel; there was a 30kph wind blowing exactly on course for Bourges and most hopeful-looking cumuli. This day, 27th August (my birthday), was going to be our day. Who should appear, as if sent from heaven, but Brian Spreckley, a British World Champion now resident at le Blanc with his wife. They have founded a European Gliding Centre there with full support from the authorities. Not only did he bring calm to the Kranich rigging but he also briefed me for the cross-country and helped in every way. First the Kranich had to be given a test flight to check aileron cable adjustment. This is obligatory in France. We released in strong lift and Jean-Paul announced himself satisfied. The second launch was again into strong lift under a cloud and we were off with an excellent French navigator, who was training to become an airline pilot, on board. With the 30kph tailwind, Chateauroux was reached rather quickly. My French navigator said that we were infringing controlled airspace, but it was not grave. Over the town of Chateauroux a decision was made to head south to a cloudstreet, rather than to continue on course to a rather doubtful-looking cloud. Thus we soon cleared controlled airspace. During a few turns in rather meagre lift it was possible to look back along the course towards le Blanc. There was a myriad of small lakes all reflecting the sun. I felt that this was why cloudbase had not been as high as it might be. Nevertheless I was playing very safe just so that we should reach Bourges rather than land out. Ahead, in very promising conditions, we could see a cream glider. It could have been the C800 but we never caught up with it. Soon Issudun was approached. I never saw the airfield but two plastic gliders were nearby and one of them lost no time in coming over to look at us. Finally Bourges was in sight. We were not high but we were going to get there. I again turned south and established the aircraft in really good lift to give my navigator a chance to fly. The thermal took us over Bourges. Here were really excellent conditions with a high cloudbase. On the ground could be seen many of our gliders, including the Emouchet, N2000, C25S and C800.



Castel 255 at Thouars – left to right: Jean Paul Robin, Michel Sales, Jacques Menei.



The winner of the 1st Balade in a Ka 6 E, Claude Visse, gliding historian and very experienced glider pilot, in the ASPAC Castel 301S. The 301S won the Le Bris cup for the best restoration of the year 1991.

They came up and joined us. There we were, flying exactly alongside the C800 with my navigator urging me to get in really close so that he could indulge in photography. Finally, as we headed back towards le Blanc into the sun, I felt that although this was a magnificent experience, perhaps we ought to descend to telephone Jean-Michel that we had arrived and that my car and trailer should gently come here. But it did also occur to us that there would be no chance of getting the Kranich airborne again without its undercarriage, which had been jettisoned on take-off. At this stage I looked upwards to see the magnificent spectacle of the Spyr 5 coming in with Willi Schwarzenback's S18 scudding behind it. They had been together for the whole flight. I was suddenly awoken from my bemusement by my navigator tersely announcing that we were very low, upwind of the downwind leg. With a shock I discovered that my 800ft was in fact only 600ft as Bourges is 200ft higher than Le Blanc, and this was probably the reason why weather conditions were so much better here. With the tail wind, and some lift, we made it back for a dignified approach and landing.

It had been the finest birthday of my life and in the evening there was much celebrating due to the kindness of the Swiss team and many of the French who had come with us. It was mentioned that Bourges might be an excellent venue again for an International Vintage Rally and no-one disagreed. The little Emouchet was still hanging from the hangar roof, where it has been for years.

The Lyons Emouchet had done the flight in 2 hours. The only two gliders to land out were two of the newest ones ... the Vasama and the Swiss Ka 7. The pilot of the Vasama said that once low, there was absolutely no chance of getting up again on that day. The Ka 7 came down almost within sight of the Bourges runway.

Next day the bad weather returned and so most trailed to Moulins, but Claude Visse managed to fly his Ka 6E there taking advantage of some lift before storm clouds. It was a magnificent effort from a very experienced pilot and gliding historian.

At Moulins we almost became immersed in mud and rain. The Kranich, which had been aerotowed there, had to be derigged after all.

And so we came to Paray by road. As this was the final evening with prize-giving and a Charolais feast, all gliders were rigged for the last time. There was little lift and circuits giving rides were the order of the day. The prizes were unbelievable: I have never seen so many silver cups. It was Claude Visse who became the winner of the First Balade with his Ka 6E, owing to his flying the task alone on a bad day. The organization of the Balade had been the work of ASPAC (Association du Sauvegarde la Patrimoine Aeronautique en Charolais) during the past year. Yves Soudit, the President of ASPAC, and Jean-Michel Ginestet had done so much for months and it was a real shame that the weather let them down. However the Balade was notable for its excellent ambiance and spirit of camaraderie. During the day after, the whole site was cleaned up by members of the Balade and there were many more flights in the Kranich, which had been referred to as a "living fossil and an ancestor that had escaped from the cemetery of the elephants." But now came a final adventure.

During the morning, its small undercarriage had come apart, but undismayed it was felt that flying could be continued using the large original Swedish undercarriage. After some successful take-offs had occurred, with the undercarriage bouncing as if crazy, the final horror was it hanging up on take-off and falling off over Paray le Monial. I was half expecting shell-shocked inhabitants staggering forth from their ruins shrieking "Guernica!" But no, it was the gliding club coming the other way with the wayward undercarriage, now also in two pieces, in the Camion seemingly on the way to the Bastille! Claud Visse finally announced that "the Kranich should be re-classified in the spotters' handbooks as Bombardier leger!" The undercarriage had just missed a rather good house, but its owners were on holiday. I was indeed lucky.

After this, flying stopped. The First Balade was over. Its participants judged it a great success. The 2nd Balade is now being organized by Jean-Paul Robin to take place during the last week of next August in the French mountains, starting from Gap and proceeding via Tallard, St Auban, Vinon, Sisteron and ending at Aspres Buech. We were once told that cloudbase is habitually between 3–4000m in that area ... but we've heard that sort of thing before. We also have a report that all these places are in the Durance valley and that airfields in the valley are not far apart (for modern gliders, or for ours?)

We wish it good luck!

ITFORD HILL – THE FORGOTTEN CONTEST

by Pierre Vayse, translated by Chris Wills from the magazine Vol a Voile no. 49 September/October 1992, with kind permission of Editor and Chief Jean Molveau.

(Note from Chris Wills: We to our horror have allowed 1992 to pass without giving publicity to the Itford Hill Contest, of which 1992 was the 70th anniversary. We include this French account, for it was the French who won.)

Forgotten more or less by the French, who did not keep the record for long. (Ferdinand Schulz's 8 hours and 42 mins with his FS3 on 18th May over the Rossiten sand dunes: CW)
It was moreover the discovery of gliding for Her Majesty's subjects, and a true contest which took place just after Combegrasse, 70 years ago.

In International gliding history, Itford Hill immediately brings to mind the flight of Alexis Maneyrol on Saturday 21st October, the last day. An extraordinary flight, it is true, in a full tempest, of 3 hours 21 minutes 7 seconds, which washed away the affront of the German, Hentzen, who had the audacity to defiantly cry, after his 3 hours 10 minute flight at the Rhön in September, "Let's see if the French can do as much ... if they can!"

And of course, for the English, Itford Hill means quite something else. It was their first Experimental Gliding Congress, which went on for several days from 16th – 21st October 1922. Maneyrol's performance was for the Britons a surprise crowning a series of exciting flights, and an important event for them, because at Combegrasse, two months earlier, the longest flight had been Bossoutrot's of only 5 minutes.

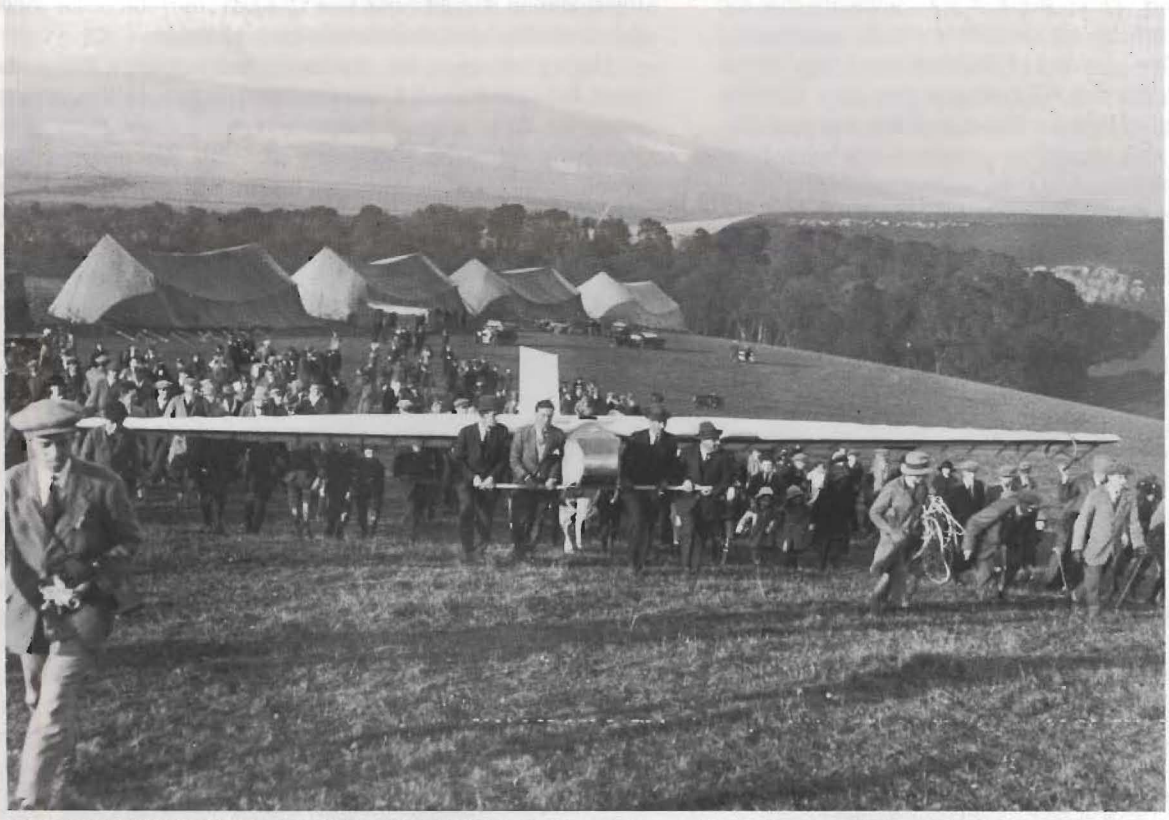
One should remember that the choice of Itford Hill had been judicious: a ridge 5k long orientated east-west 150 to 200 metres high south of London (east of Brighton, a little back from the sea.) Its north face is abrupt. The southern face descends gently and is very exposed to dominant southerly winds off the sea. That is why, during the contest, it blew a tempest from the north and the east!

£1000 to Make a Soaring Flight

The camp of canvass had been perfectly installed by the army to the north west of Itford Hill at Asham Farm near Seaford: the hangar tents for the machines, those of the Day Headquarters of the Royal Aero Club (the night headquarters were at Seaford), and those of the Daily Mail etc because it was the Daily Mail which had organised this "Contest for £1000 for Gliders". The newspaper governed everything! Except the wind!

The competitors had at their disposal the previous week to train and to try out the different slopes: "Hill 60" to the west and Firle Beacon to the east, 600ft and 718ft respectively at their highest points. Some abrupt craters on the north face, some sweetly descending slopes towards the south, a convex facade towards the west and an eastern extremity that became south east. But with the habitual faculty of the English to do everything at the last minute (it was Mr Grey, Editor of "Aeroplane", who said it!) it was on Saturday 14th that four machines arrived out of the 35 that had been entered.

Of the two French entries, only Barbot is there, with the Dewoitine P2. Alone Raynham and England have a few



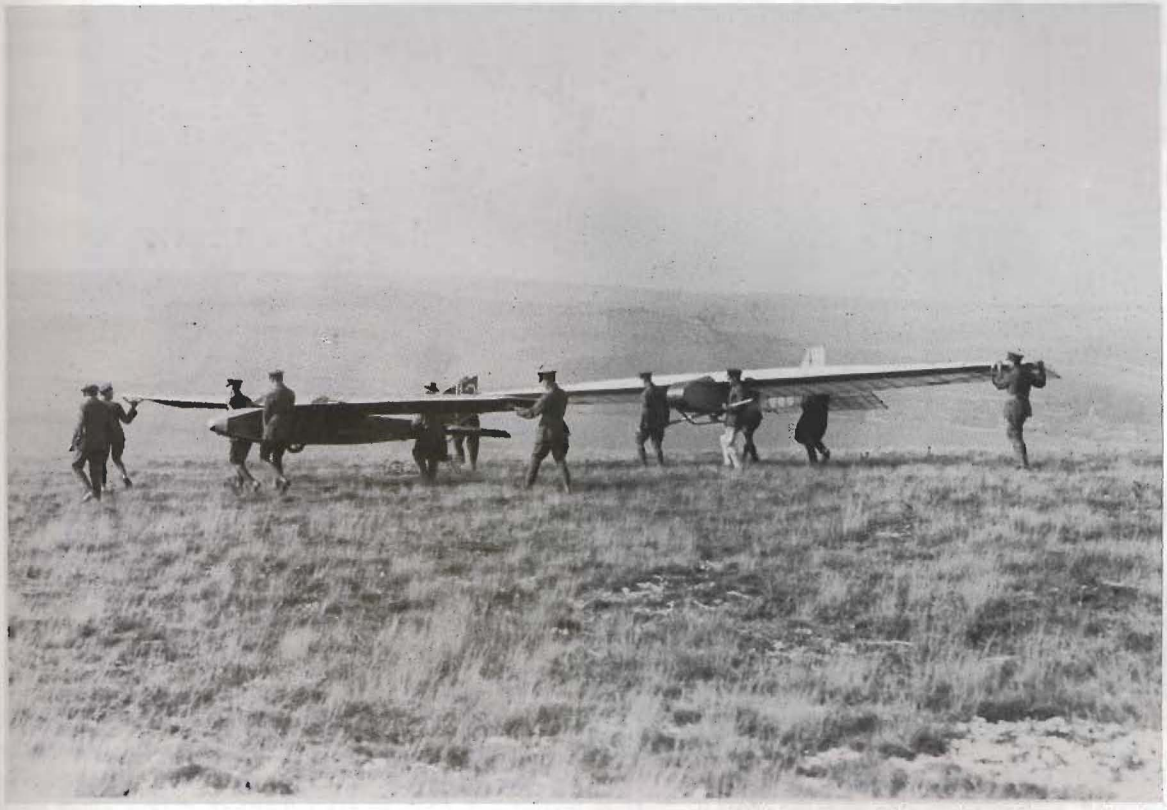
Itford 1992. Raynam's Handasyde is brought forward. 'Camp of Canvas' in background. Photo: Flight International. Reproduced by kind permission of Aeroplane Monthly.

bungee launches from the ridge. There again are the bungee crews from the Royal Flying Corps (which became the RAF in 1918: CW) who stretch the ropes, retrieve the gliders by hand, on chariots, or by winch. The Sunday of 15th October 1922 is a veritable show of splendour worthy of a fashion contest: elegant ladies and celebrated personalities. you only have to look at the list. The wind blows from the east. There is no spectacle and Messrs Raynham and England are trying out the southerly slopes (!) and make two descending flights of a minute each. On the northern face, Gordon-England has a flight during the afternoon which, if it does not last long, does not entirely lack beauty. It is ecstasy! Barbot, he tries a cross wind flight. He takes off well to the north, but to avoid the undisciplined crowd, he rears up, makes a chandelle, falls out of it, touches his left wing then the nose ... he is unhurt, but the machine is broken. Pity, the sole French competitor present is eliminated before the contest has begun.

The Forces Present

The glider Handasyde (No. 2) of P Raynham. Conceived by the pilot G A Handasyde and Sydney Camm (*1), it is the favourite of the contest. In fact, it achieved on Tuesday 17th a flight lasting 1 hour 53 minutes, beating all its competitors. Believing that he was winning and too confident, he was altogether unlucky; when Maneyrol, contrary to all expectation, took to the air on Saturday 21st at 14.30 hrs, he should have been in the air during the morning to improve his record ... but one cannot remake history!

Gordon-England (No. 13). Disciple of the pioneer Jose Weiss, Gordon-England had already achieved fame on 27th June 1909 with a flight of 1600 metres during which he gained 12 metres height ... his 1922 glider was one of the smallest of the meeting. Well conceived and built, it flew well until his crash on Saturday 21st. Gordon-England had committed a fault later to become classic in slope soaring ... a turn in towards the slope with the wind behind him. He fell out of the air and was injured (a compound fracture of the ankle).

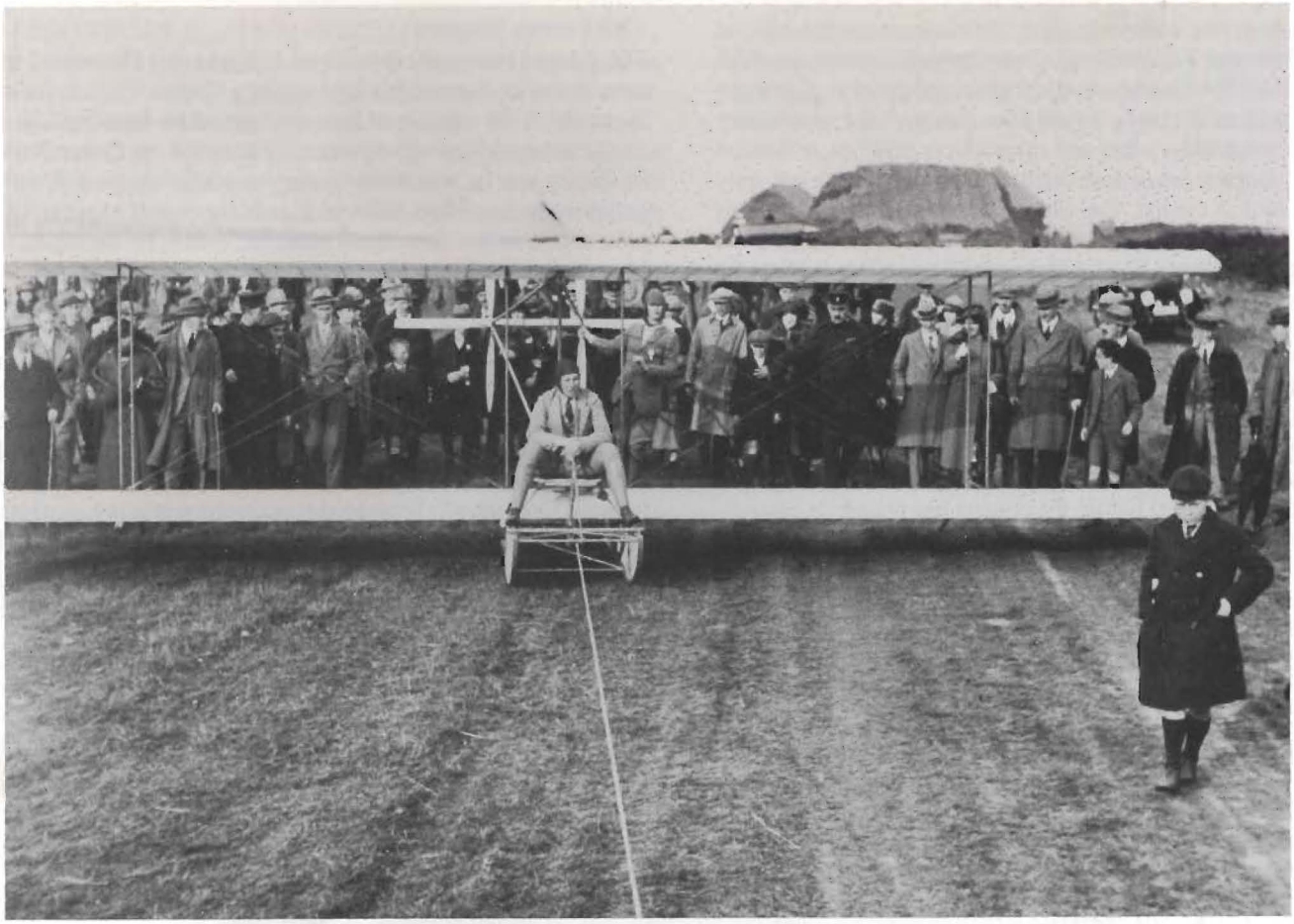


Gordon-England (13) and Raynham's Handasyde being carried by the Royal Flying Corps. Photo: Flight International. Reproduced by kind permission of Aeroplane Monthly.

The Contest is officially opened on Monday 16th October. Because other competitors have arrived, it is perhaps time to present them to you; at least those who are going to liven up the occasion dominated by the easterly wind, sometimes from the north east ... but too strong on the Wednesday and Thursday, preventing all flying, to fall on Friday to insufficient strength; to become reborn on Saturday, at last ideal during the morning, to finish at tempest strength during the afternoon. To win the prize, it was necessary to fly for more than half an hour and to land at least 728 metres from take-off point. Four competitors only succeeded in fulfilling these requirements.

The Fokker Biplanes

A single seater, The Scout (No. 3) and a two-seater of 12 metre span (No. 4). Antony Fokker, the Flying Dutchman, not well liked, is an industrialist of considerable means and solid organization (he retrieves his gliders by means of a platform fixed on his Cadillac!) He longs for publicity, he likes to be photographed, refusing to take off unless the photographer is present. It is he that animates the contest from the beginning, showing how it should be done. It is true that he had been taking part in the Rhön Contest where he had achieved a duration of 13 minutes. He is also the man to beat. Since the Monday, he had a flight of 7 minutes 15 seconds in the two seater and, during the evening, flying the same machine as a single seater with ballast, a flight of 37 minutes. Fokker is not



Fokker in his glider at Itford Hill 1922. Photo: Radio Times

popular because of his activities during the war (*2) but he lent his machine to Mr Olley, the famous Handley Page pilot, who had several flights in it, among which was one of 49 minutes on Saturday 21st, thus establishing a two seater record. Besides these stars, there were other particularly interesting participants:

Two De Havilland DH 52 Sibylla No. 4) and Margon (No. 33) of fine style, destroyed, both of them, one after the other, by wing flutter; with aspect ratio of 11.25, they are truly slim (profile: modified RAF 15). The wings were braced by double lift and drag cables (no doubt insufficiently). By luck, the two pilots, Broad and Herne, were not injured in the accidents.

The Merrian (No. 18) of small size (11.68 m) and of low aspect ratio, designed by its builder.

The Airdisco Phi-Phi (No. 27). Its wing was semi-elliptical, of aspect ratio 13.5, endowed with curious external ailerons, piloted by Stockton.

The Sayers SCW (No. 17) designed in 19 hours and built in 19 days by Messrs Sayers, Courtney and Wright. Very much inspired by the Hannover Vampyr but had very much more wing area.

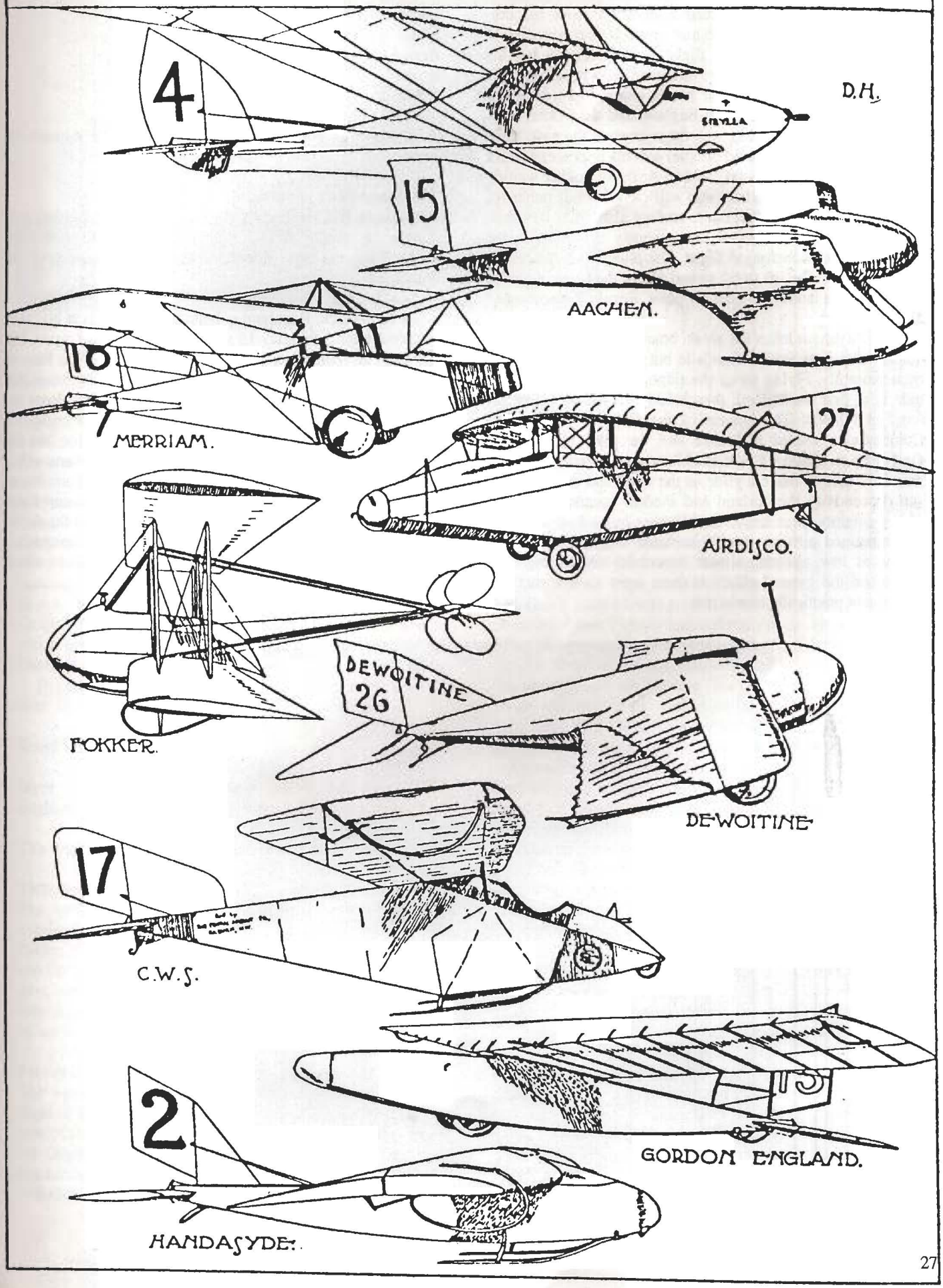
A veritable Aachen Klemperer Blaue Maus (No. 15) imported from Germany by its pilot, M Jeyes.

These machines only made brief glides which terminated with them being broken.

The Extras

Apart from these gliders, which were on the whole classic, a word on the habitual eccentrics, above all the cyclists. Certain managed to rush down the slopes and took off sometimes from bumps, but one can ask whether the same result might have been obtained if they had had no wings at all! Also one of the great subjects of discussion was whether Mr Cain's machine would be ready to fly. There was also a phantom glider, that of Mr J J O'Freddy, that departed in flight from Sheerness at 9 hrs 25 on 16th October and crashed en route on a hill near Maidstone at 9 hrs 28. Reality or fiction? The question was never answered. A certain Kingswell presented a machine which was nicknamed "an extraordinary hopper" which was an assembly of a great number of aluminium tubes, with eventually the wings and a windmill (propeller?) On Tuesday, Mr Prosser rigs an enormous biplane in a tent. Once assembled, one perceived that there was no way of getting it out of its shelter. There were many speculations as to how to resolve the situation. The problem resolved itself during the night when the test collapsed and crushed the machine. Many bad tongues were heard to say that it was a happy ending as the design appeared primitive.

THE COMPETITORS IN THE GLIDING COMPETITION.



The Releasing of Hostilities

The actors are in place, the Contest officially starts on 16th October 1922, and it is a fine start. During the morning, near the camp, Messrs Broad and Herne in their De Havilland have glides of 3 minutes. Jeyes in the Blaue Maus gave a spectacular demonstration which forced admiration from his colleagues. One has to be brave to hurl yourself over a precipice! Aie, Mr Jeyes "pomps", his flight is undulating – but his landing is good. And here is the moment that every reasonable person was dreaming of. Over lunch, one learns with terror that the Handasyde of Gordon-England and the Fokker two-seater are being taken along the ridge towards the east. Then the crowd (several thousand people) sets off in procession for 5 kms towards Firle Beacon. To find Anthony Fokker waiting for the wind (although there was sufficient!) – but rather for the photographer who had come on foot also. Paul Bewsher, of the Daily Mail, climbed courageously aboard with the aviator for a demonstration flight. The plunge into space, the terrific surge in the lift to 60 metres above the ridge, a turn to the right and a landing at take-off point. Result: 7 minutes and 3 seconds.

Fred Raynham takes the air on board the Handasyde more quickly and goes into a chandelle but re-establishes equilibrium promptly. Flying along the ridge, he gains height. Altitude is at first maintained, then briskly he passes below the wind and lands. The honour of the English is safe. The Combegrasse record is beaten and the pilot receives the Ogilvy Prize. Time: 11 minutes 25 seconds. Gordon-England was only able to make a glide as the wind had dropped. The sun descends to the horizon and shadow invades the plain. The spectators went home. But Fokker had taken off again and remained airborne for 37 minutes! Superbly and tranquilly, at low altitude, almost immobile, conversing with people on the ground although there were so few that this flight went practically unnoticed.

Results on 16.10.22

Fokker	37 mins	06 secs
Raynham	11	23
Fokker	7	23
England	4	32
Jeyes	3	01
Herne	2	38
Broad	2	18
Raynham	1	58

Total was 8 flights lasting together 1 hour 9 minutes 59 seconds.

The Passionate Contests

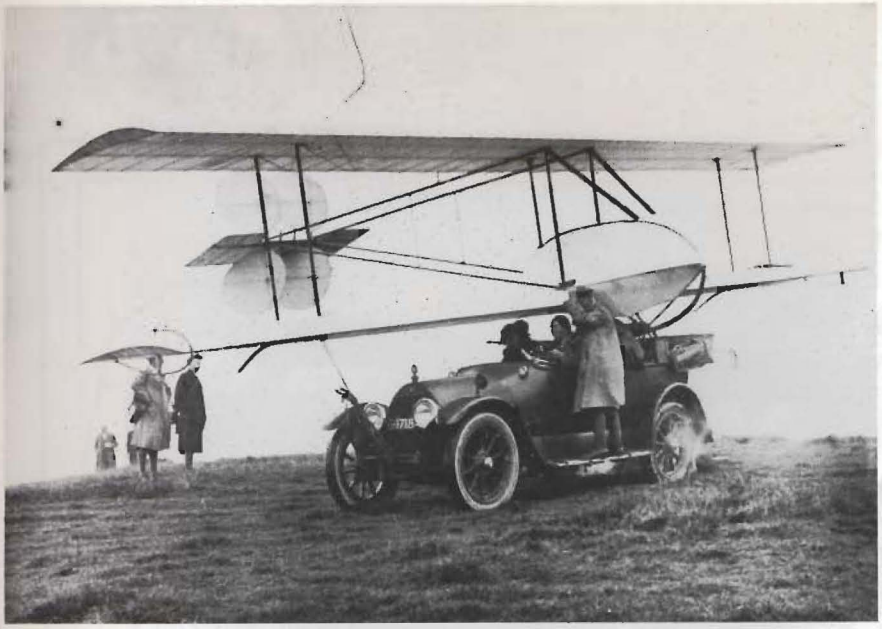
Enthusiasm has reached its peak at the end of the first day. Albion has discovered Gliding. But the wind obstinately comes from the east, stronger and stronger, hampering the flying.

Tuesday 17th. Wing: sector north east, strong (30kph).

At 10 o'clock, Raynham is launched. He lands at his take-off point after 3 minutes 15 seconds. He takes off again, but this time he remains in the air. He turns above Firle Beacon for more than one hour when he is joined by the Merriam. For fear of inconveniencing him, he changes his circuit, loses the lift and is forced to land after flying for 1 hour 53 minutes 2 seconds. Because of this chivalrous gesture, he has lost his chance for passing the day in flight. The Merriam starts with a chandelle in the middle of the crowd, makes an Immelmann turn and crashes "unfortunately missing" (sic) the stupid and undisciplined crowd. He climbs out uninjured from the debris and enters into negotiations with the stupid people to obtain a new machine! Gordon-England makes a vain attempt which results in a small 2 minutes and 7 seconds.



Jeyes in his Aachen Monoplane (Blue Mouse), Itford Hill 1922. This glider was later demolished when wingtip touched the ground in a gully). Photo: Flight International. Reproduced by kind permission of Aeroplane Monthly.



Antony Fokker's single seater on his Chevrolet

Results of 17.10.22

Raynham	1 hour	53 mins	02 secs
Raynham	3	15	
England	2	07	

Wednesday 18th
Eolus blows from the same direction, but still stronger. Gordon-England takes off from Firle Beacon and towards 9 o'clock, flies a good minute and 31 seconds, and lands going backwards on the ridge. Near the camp, Jeyes attempts a launch. It starts bucking "as in a rodeo of the far west". Caught in a down current, he touches his starboard wing, which breaks, makes a half-turn and "vomits" on its back. Contrary to all expectations, he climbs out without a scratch!

But during the afternoon a chariot race provokes a broken nose. Blood flows on Itford Hill!

Results of 18.10.22

Jeyes	2 mins	47 secs
England	1	31

This totals 2 flights for 4 minutes 18 seconds.

Thursday 19th
The wind is too strong. There are no flights. During the evening, a seance is organized at the cinema to show Anthony Fokker's films: those of the Rhön, showing German gliding, and those of Itford Hill, the actual contest. The aviator himself gave commentaries on the films to enhance their interest. The French present were so interested that there was no diplomatic incident.

Friday 20th
The wind has totally dropped. Captain Stockton achieved a flight in the Airdisco Phi-Phi towards the south in the direction of the sea. The glider was damaged during the landing. Mr Olley took off also from the southern slope, and Tony Fokker accompanied him. By the evening there had been only two short flights by the SCW by Messrs Courtney and Wright.

Results of 20.10.22

Olley	3 mins	21 secs
Stockton	3	18

There were two flights for a total of 6 minutes 49 seconds.

Saturday 21st
One expects rain and a flat calm at the end of the contest, Mr Entwistle the met man having forecast fine weather and an easterly wind. However, he was not wrong.

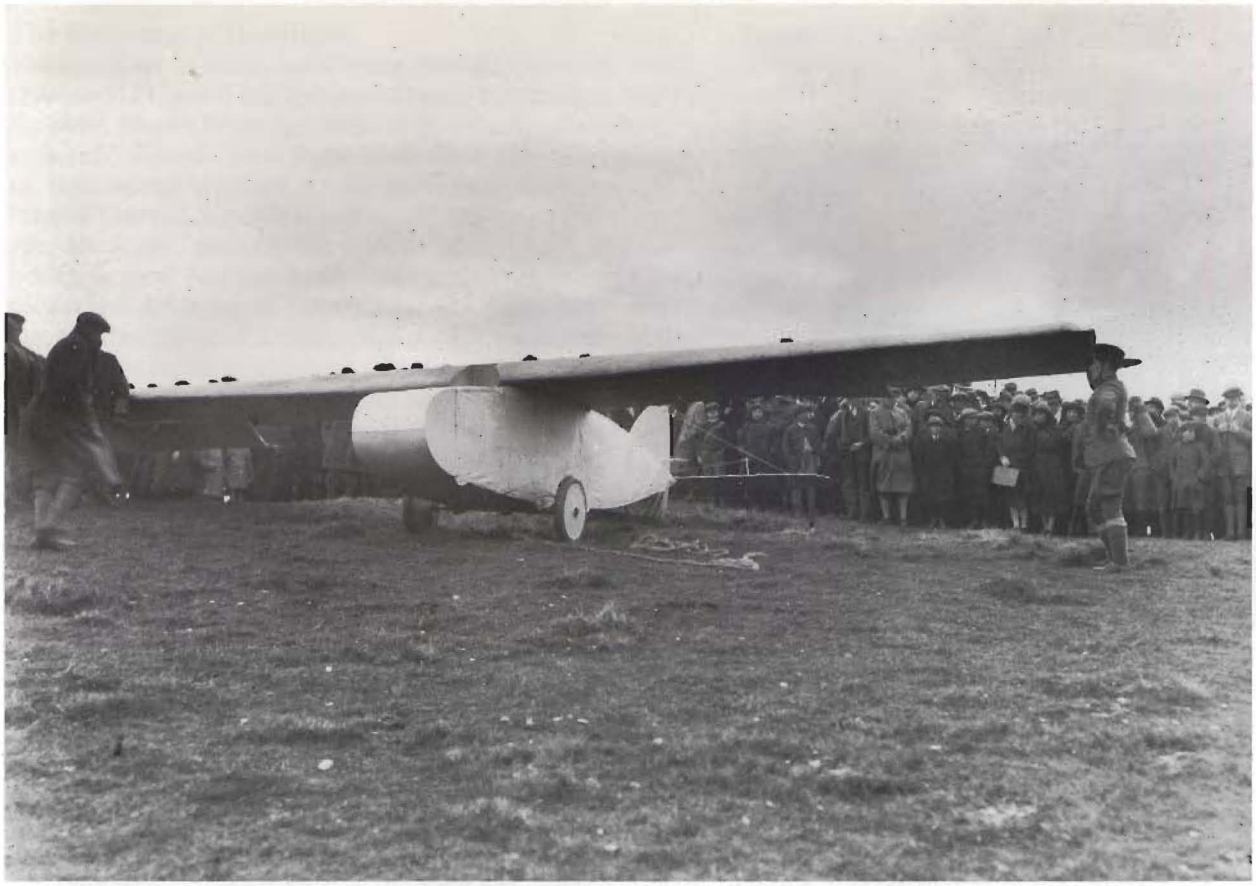
Maneyrol, Peyret and Coyaud (the journalist), the Alerion's team (it was a tandem winged glider designed and built by Louis Peyret) had arrived discreetly on Wednesday. The glider was ready on Friday. Andre Coyaud writes: "At Itford, there is no camaraderie and no gaiety! Everyone observes it and we observe that there are symptoms stained with jealousy. They wish with all their might to buy the machine, to avoid it taking part in the contest!" But that is because one supposes that the machine does not have a chance. She is judged by the experts to be well designed, but too small, too bizarre: Langley's formula has been surpassed! And then the pilot has no experience ... just a few seconds at Combegrasse, no soaring flights.

During the morning, there appeared also the Brokker (contraction of Bristol-Fokker) of Squadron Leader Grey. An odd machine, hybrid of brothers in arms, united, a fuselage and tailplane of a Bristol Fighter (without the engine of course) and the (upper) wing of a Fokker D7, all bought for a few shillings. Not very serious, all that ...

Raynham and Gordon-England rig their machine on Firle Beacon. The second wants to take off quickly while the other will observe. He takes off towards 11 o'clock against a wind of 36kph. After a few instants, he returns to the ridge. He falls out of the air and strikes the ground. Injured, he is nursed by Mrs Handasyde, a trained nurse, who from then on became known as Mrs Handy. Exit Gordon-England.

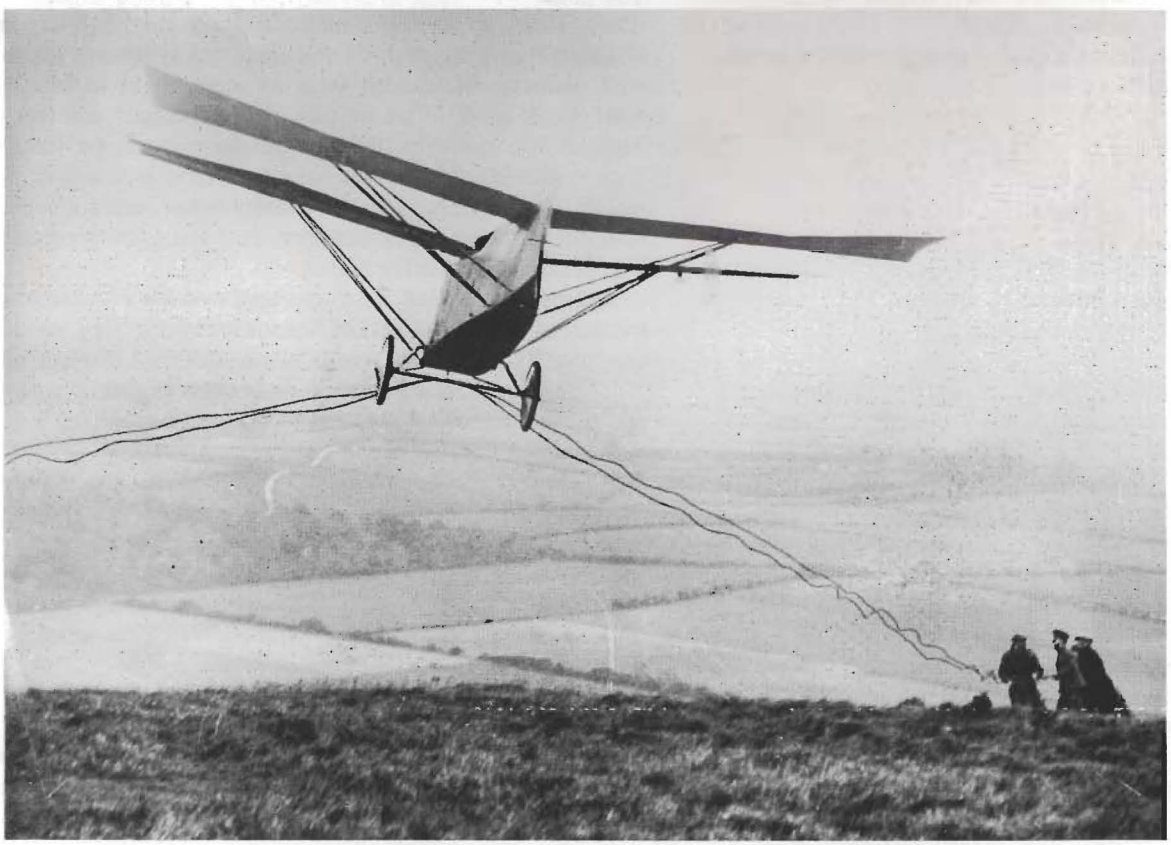
The Record Flights

Olley (pilot) and Rogers (passenger) took their place in the Fokker two-seater. Result: 49 minutes. It is the (world) duration record for two-seaters! A fine flight, certainly!

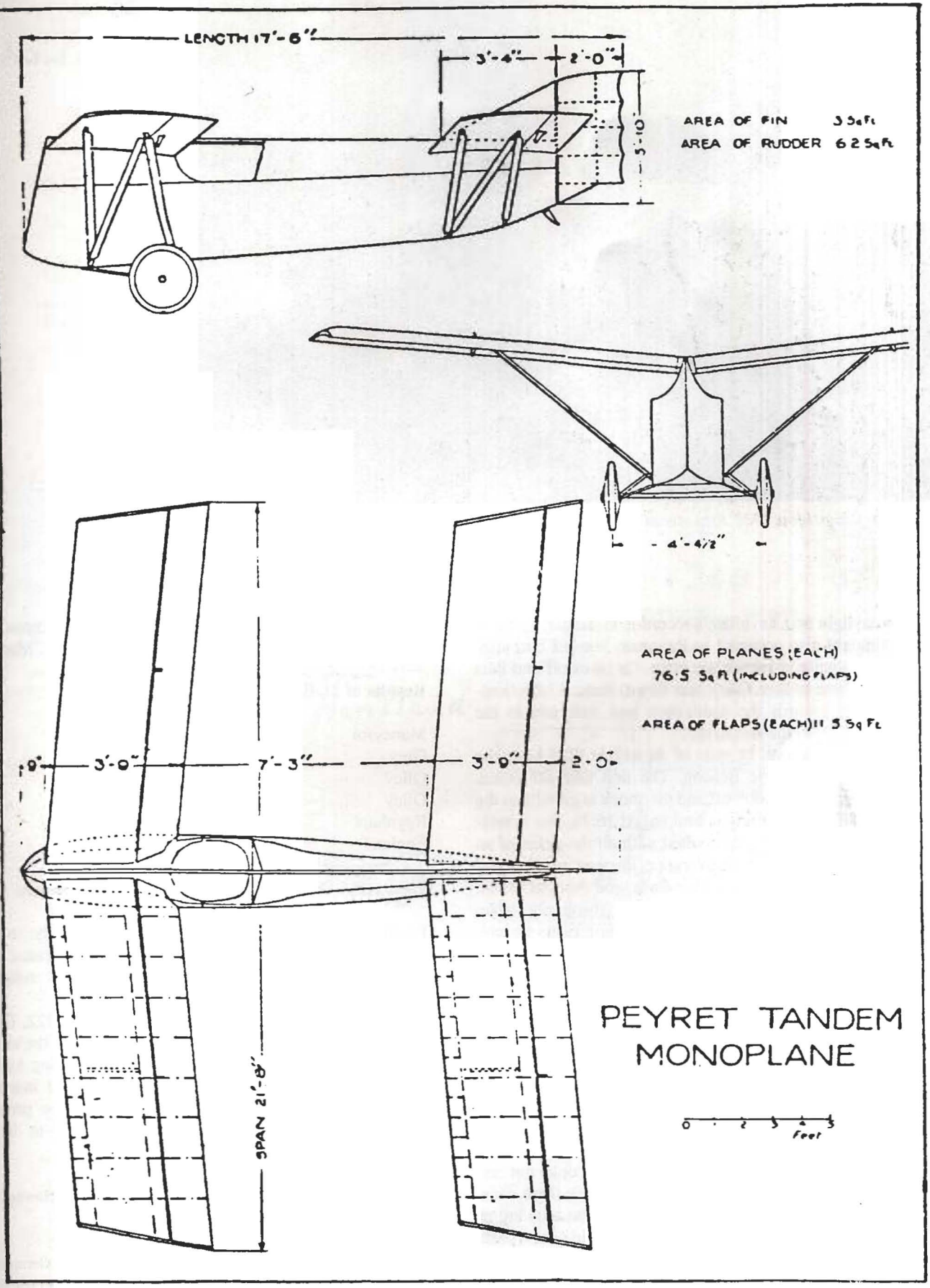


The Brokker about to proceed into the air "with all the grace of an Elephant". For England! Photo: Flight International. Reproduced by kind permission of Aeroplane Monthly.

Bringing the Peyret to the take-off point did not prevent the crowd from going to lunch. Nobody took any notice of it, until Alexis Maneyrol begged for helpers and officials for his departure. And he took off at 14 hrs 35 amid incredulity and general irony. But all is perfectly in order, from the take-off point to the grasshopper which releases the glider. Soon, everything changes: after a few passages along the ridge, the situation becomes more dangerous. There remain still two



The departure of Maneyrol: His only launch which led to the record. Photo: Chris Wills



THE PEYRET MONOPLANE : Plan, side and front elevations, to scale.



The Canvas Camp. Itford 1922. Reproduced by kind permission of Aeroplane Monthly.

hours of daylight and Raynham's record is in danger!

This thought also occurred to Raynham himself but, after waiting he committed his second error. He takes off and flies towards the west (where Olley had flown) instead of following Maneyrol towards the south-east, and descends to the ground finally. Exit, the favourite.

A new astonishment. In spite of its weight (225 kgs), the Brokker is lifted to Firle Beacon. The first take off failed. Only the undercarriage took off and the shock is great! But the machine is solid and nothing is broken. At 16.28, this is reinstalled and the machine is catapulted with all the grace of an elephant. To the surprise of everyone, instead of plunging straight into the valley, the Brokker finds, and remains in, the lift, as if Grey had been doing it for years ... absolutely stable. And it flies in concert, although lower because of its weight, with Maneyrol.

Grey lands the first at nightfall, after flying 1 hour and a half, although the Frenchman remains airborne. "The darkness becomes complete ... Maneyrol continues ... at each passage I shout down asking for the number of minutes needed to beat the German record. On the ground there is a mass of cars and invisible spectators. With the commisars, I decide that all the cars should blow their horns when the German time has been beaten. One now has got down to counting the seconds. Emotion is intense.

And suddenly, from all the people that I could not see (among whom there were only three Frenchmen), there came the most formidable Hurrah accompanied by the blowing of horns to celebrate the triumph of a man that could not be seen. At this moment, he passed overhead and shouted that he would land during the next turn. He gains height, accomplishes an almost invisible circuit and touches ground in pouring rain, during the most harmonious of descents." Such was the account that was sent by special envoy to "Matin".

Results of 21.10.22

Maneyrol	3 hours	21 mins	07 secs
Grey	1 hour	0	04
Olley		49	00
Olley		38	47
Raynham		11	54
England		0	52

Total was 7 flights for 6 hours 09 minutes 14 seconds.

Finally there was the Aero Club's banquet and the reception of the Daily Mail's prize (£1000 was 60,000 francs at that time). And Maneyrol and Peyret received an enthusiastic welcome on their return to Paris.

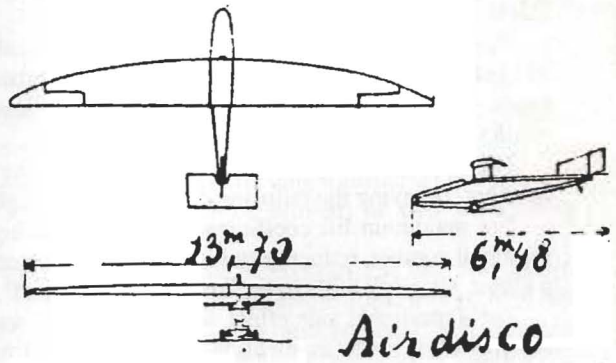
In conclusion, after the three contests of 1922, Combegrasse, the Rhön and Itford Hill, we can say that the men, the machines and knowledge were equal. Hill soaring had been discovered and exploited. Also astounding and marvellous was the fact that long duration flights could be performed without an engine, this being only the first lap in the great adventure of gliding.

*1 The future designer, among others, of the famous Hawker Hurricane of the Battle of Britain (NDLR).

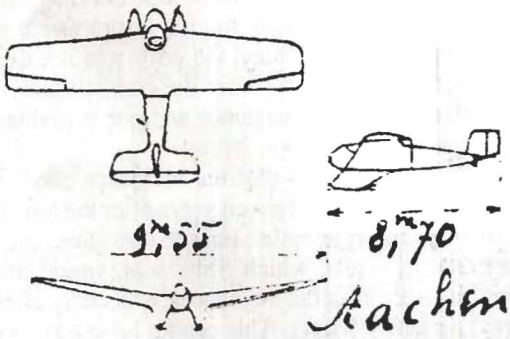
*2 Fokker conceived a whole line of fighters for Germany and invented notably also the machine gun synchronized to fire through propeller arcs during the First World War (NDLR).

Planche 24

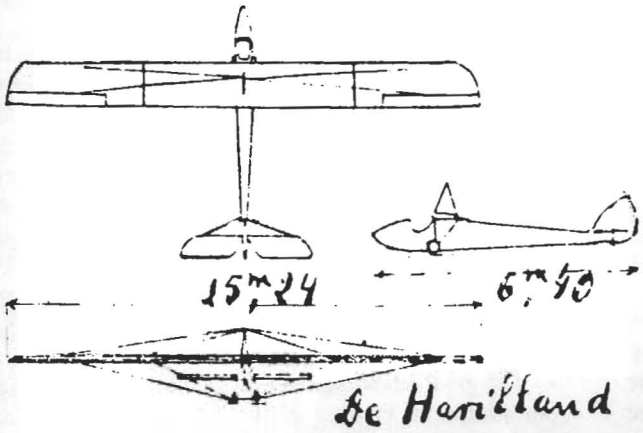
Avions sans moteur engagés dans le prix du Daily Mail



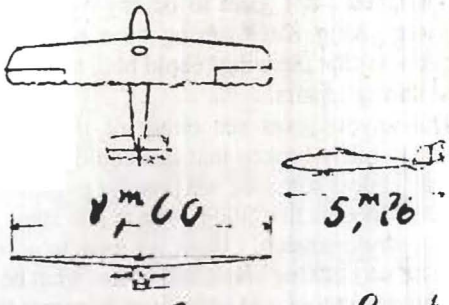
Airdisco



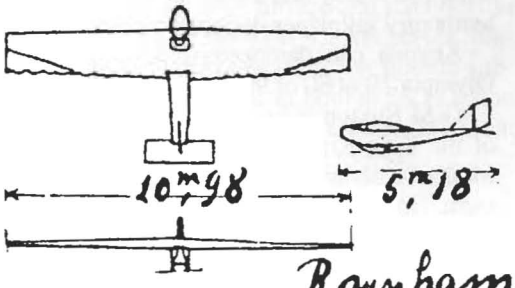
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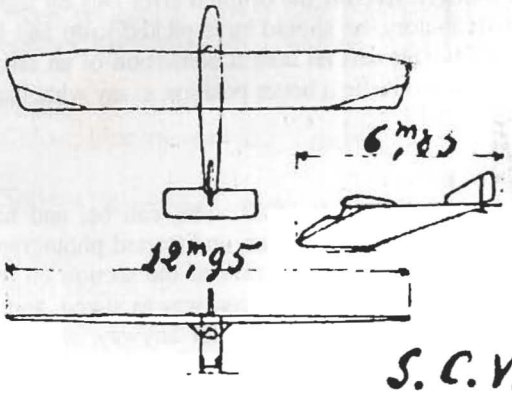
De Havilland



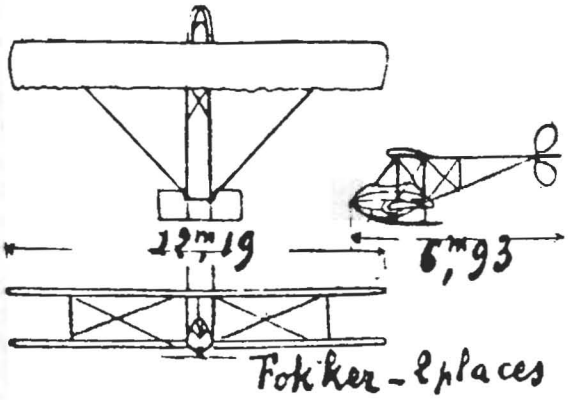
Gordon-England



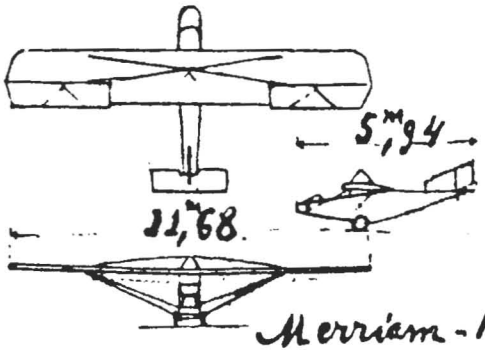
Raynham



S.C.W.



Fokker-8places



Merriam-Ne

MORE ABOUT THE KING KITE

by Martin Simons

Slingsby's Story

I cannot believe that Fred Slingsby would say what he did say about the King Kite unless he was very sure of it. The first mention of jigging errors appeared in Sailplane and Gliding in December 1944, page 16.

He said then: "Although the design was excellent, the lack of time for development work and the rush to complete the machine resulted in wing jigging errors which were repeated in all these prototypes and the error was not discovered until some considerable time after the competitions. Two of these machines are still in existence and one is giving good service in the ATC."

The implication is that the incidence check was done no later than 1944, about seven years after the aircraft was built.

It seems extremely improbable that an experienced sailplane engineer, which Sling was, would make a serious error in measuring the incidences, especially after finding they were seriously wrong. This cannot have been a quick, casual check. It must have been done, and re-done, with extra care before he made his statement.

There does not seem to be any evidence of either of the surviving King Kites having been extensively damaged in such a way that the wings could both have acquired the wrong twist during repairs.

Did anyone ever see either of these aircraft with both wings so badly broken that this could conceivably have happened? Unless someone has positive evidence of this sort, and can convince us that Sling even at this stage didn't spot such sloppy workmanship, I think we have to accept that he knew what he was talking about and meant what he said.

The story Sling told and which he repeated in print in 'The Gliding Book' (Eds Serjeant & Watson, Kaye, 1965) reflected no credit on himself. Even if the original error was by some workmen in his factory, he should have picked it up and he admitted he did not. It was an honest admission of an error. Who was then, or is now, in a better position to say what happened?

The Wing Sections

The root section was NACA 23021. This can be, and has been, checked by comparing a clear, undistorted photograph of the wing root with a computer plot of the section on the same scale. This shows that the section was as stated, and it also establishes that the ribs, at the root anyway, were not upside down. The photograph was published in Sailplane & Gliding in May 1937, page 101. The 23021 profile was very unusual for a sailplane at that time and, on first sight, anyone could be excused for thinking it looked upside down. It was not.

The tip section was not symmetrical. The profile, as stated in all published statistics and as shown on the workshop drawings, was NACA 4312, which is a section with 4% camber with the maximum camber at 30% of the chord, 12% thick in accordance with the NACA 4 digit airfoil formula. The tip ribs were not put in upside down either. This can be confirmed by study of a photograph showing the wing being built, in S & G April 1937, page 78.

Unfortunately it is not possible to tell from this photograph whether or not the wing was twisted wrongly. It does not look wrong in the picture but it evidently did not look wrong to Fred Slingsby either.

The Aerodynamics

The wing as designed in 1936–7 combined one of the relatively new NACA 5 digit sections with one of the older and better known 4 digit series. The 4 digit profiles were entirely orthodox, well proved in practice and quite docile. They are still in use for some light aircraft.

The 5 digit series were not 'laminar flow' sections. The NACA 6 series laminar profiles did not come into use until later (with the P-51 fighter and, in gliding, the Skylarks, Ka6, Eagle, Dart etc.)

The 5 digit profiles were all designed with small amounts of camber, and the maximum point of the camber line was much further forward than usual. This had several good results and one bad side effect.

The forward camber reduced the negative pitching moment, relieving the tailplane of some load in flight.

The maximum lift coefficient attainable was high despite the small camber, reducing stalling and landing speed and, for a glider, allowing turns to be flown slowly on small radius.

The undesirable side effect was that the stall was sharp; a leading edge stall (as mentioned by John Gibson in VGC News No. 77). However, a sharp stall at the root of a wing is not necessarily dangerous providing the outer parts of the wing do not stall first.

The most interesting thing about the King Kite wing as designed was that the camber INCREASED towards the tip. In almost all previous sailplanes, the wing was laid out with the camber REDUCING from root to tip. Root sections were strongly cambered, like the Göttingen 535. Tip sections often were symmetrical with vast amounts of washout to prevent them from premature stalling. Not on the King Kite. In this case, the root section had less than 2% camber (1.838% to be exact). The tip had more camber (4%). The amount of washout needed could be greatly reduced and still the cambered tip should have stalled later than the root.

The great advantage of this layout was that, at high speeds, the additional camber at the tip and the small amount of washout would reduce or even prevent down bending of the wing tips which was a notable feature, and drawback, of contemporary sailplanes designed on the orthodox lines.

Anyone can demonstrate this by flying an (airworthy) Olympia 2B at 80 or 90 knots, and looking along the wing.

G M Buxton, who was responsible for the overall design of the King Kite, was far ahead of his time in this respect. Modern sailplanes have followed the same line of development. Nobody now designs symmetrical wing tips with 6 or 8 degrees of washout. The glide at high speeds would be ruined.

Should we blame the NACA 5 digit root profile for the King Kite's behaviour? There is no reason to do so. The 5 digit sections have been in use on sailplanes, both at wing roots and wing tips, for many years and are still giving excellent service. The Schweizers in the USA employed them with total success on a whole string of excellent and safe types from the early solo 1–19 and 20, through the 2–22 and 2–33 two seat trainers, to the 1–21, 1–23, 1–24, 1–26 and 2–25 performance sailplanes. None of these aircraft has ever acquired a bad reputation. On the contrary.

Unless some quite new information comes to light, we must conclude that there was nothing fundamentally wrong with Buxton's design for the King Kite wing. Something went badly wrong in the factory when they were being built.

TECHNICAL NEWS

from Chris Wills

The Belgian one-part wood glue for aircraft is being tried out by Mike Beach and Ted Hull, and test samples have been sent to the BGA Technical Committee. (see Firmin Henrard's article).

A test report on glues over a 22-year period has arrived from Bjarne Reier in Norway (see Norwegian News). Included among the glues tested were Casein, Kaurite and Aerolite 311. I can make this report available to anyone who wants it.

GLUE

The following report on STRUCTAN APA Aeronautical polyurethane adhesive was sent to us by Firmin Henrard.

Structan APA is a thixotropic blue transparent one component adhesive with properties similar to two component systems.

As with a two component PU system, the one component Structan APA uses Hydroxyl groups to form a tight network resistant to water, diluted acids, and solvents, and is alkali proof. Structan APA is temperature resistant from -30 to +120 degrees C. Due to its unique thixotropic form this innovation is particularly suited for vertical applications. Being solvent free, the adhesive doesn't attack any material.

Fields of application

Binder
based on moisture curing polyurethane prepolymers
viscosity: thixotropic (having a reduced viscosity when stress is applied, as when stirred: Ed)
Brookfield DVII 20 RPM Spdl 7 900,000 cps
Solids content +/–100 %
coverage +/–200 to 300 gr dependant on the thickness applied
Ph neutral.

Directions for use

Free the application substrates of dust and impurities, if necessary, degrease with for instance acetone. Substrates like wood, laminates must be uniform in surface and thickness to obtain a bonding according Din 68602 B 4. Non porous substrates must preferably be lightly abraded. On porous substrates the adhesive has to be applied to both sides in a fine layer. Join the glue surfaces within 20 minutes after the spreading. Ensure that the bonding isn't able to slide.

Water content

The best results in bonding are obtained if the application surfaces have a moisture content between 10 – 16%. Special care should be taken if the water content is below 10%, due to the fact that Structan APA uses water as a reacting partner.

Bonding treated woods

Before bonding treated surfaces, a test should be considered to ensure good adhesion. If necessary the substrate must be lightly abraded. The water content must be checked to avoid unfavourable bondings. Complementary documentation can be given on demand.

Treating bonded woods

Due to its extreme chemical resistance, Structan APA bonded woods can be treated with the most common preservatives or wood paints. In this case the bonded woods must preferably dry about 7 days before treatment to avoid insufficient curing of the adhesive.

Conditions for application

Atmospheric conditions: humidity of the air between 30 – 90% (don't apply in rain or fog).

Temperature of both substrates and environment between +5 deg C and 40 deg C. Don't exceed on layer thickness to prevent slow curing, or C02 development within the bonding layer. This adhesive has no gap-filling properties conforming to bondings according Din 68705 (AW 100).

Pot life

9 months in the original unopened package at room temperature. Replace cap after use, reaction with air humidity leads to curing.

Press time

	temp	**temp**
Air humidity 60%	10 deg C	20 deg C
	12 hours	18 hours

To avoid uncured bondings it is advisable to press 24 hours, the curing of Structan is dependent on the amount of glue spread, temperature, humidity of environment and substrate.

Transport Data

ADR/RID : 6.1.
code IMCO : 6.1 UN nr 2489
Contains polyisocyanates.
Harmful by inhalation. May cause sensitization by inhalation.
In case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice.
In case of insufficient ventilation, wear suitable respiratory equipment.
In case of accident, or if you feel unwell, seek medical advice immediately (show the label where possible).
Wear protecting gloves and eye protection. Avoid skin contact. Keep away from children.

Packaging: 310 ml
Colour: blue transparent.

Solvent resistance of Structan as function of curing time:

toluene	3	1	1	0
butyl acetate	3	2	1	1
ethyl glycol acetate	3	2	2	1
acetone	3	2	2	1
Curing time in days	1	3	7	14

Tested with an impregnated wad during 60m on the adhesive surface.

0 = unchanged
1 = almost unchanged
2 = slightly attacked
3 = attacked
4 = surface damage
5 = completely disrupted surface

Chemical resistance

Test description
Application on concrete: in three layers by means of a roller the testing solution is set on the surface in a glass cylinder (diameter 35 mm) and sealed off.

Test started after complete curing of the adhesive.

Solutions	Time (hours)	Damage report
Distilled water	42	none
Sulphuric acid (10%)	42	slight discolouration
Hydrochloric acid (10%)	42	ditto
Nitric acid (10%)	42	discolouration, softening and bubble formation
Citric acid (10%)	42	strong discolouration
Sugar solution (30%)	42	none
Ammonia (10%)	42	none
Petrol	42	none
Xylene	42	none
Ethyl glycol acetate	42	none
Ethanol (40%)	42	none
Hydrogen peroxide (10%)	42	slight discolouration

(Note from the Editor: not being technically minded, I fear the only part of the above that I understood was the admonition to keep away from children, which I shall henceforth always obey. But I hope this will be of interest to our many restorers.

I understand that Rectavite Structan APA is identical to Rectavite Structan except for the blue colouring, which is added for aeronautical builders to see where they've already applied the glue. Naturally Structan APA is considerably more expensive!)

Correction to VGC News Autumn 92

Apologies to Walter Morison, the pilot of the Olympia featured on the cover of our last issue, for calling him Walter Harison, and many thanks to Ann Welch for pointing out our error. She adds:

"The photograph was taken by Charles Brown from 90hp Auster G-AHCK flown by Lorne Welch, and the Olympia was towed up by Auster G-AGVJ flown by Ann Welch, date 9 March 1947."

WANTED

T31 (Cadet Mk 3) struts and bracing wires by Steve Challis, BCAR, 40 Peverells Wood Avenue, Chandlersford, Southampton S05 2BW. Tel 0703 266538.

WANTED

Plans for the Fokker Gliders which flew from Itford Hill in 1922. Plans for other Fokker Gliders. For the building of replicas in Holland: Hans Disma, Vinkenbaan 19, 2082, EN Santpoort Zuid, Netherlands.

FOR SALE

Slingsby T31 with open trailer & cover. Good condition. Airworthy, always hangared in dry. Complete outfit £1995.00.

Peter Champion, 5a Lady's Mile Road, Patcham, Brighton BN1 8QF. Tel 0273 555799.

FOR SALE

Original unpacked Slingsby Tutor struts – offer invited.

David Schofield, Schofield Aviation, The Hangar, Lotmead Farm, Lower Wanborough, Swindon, Wilts.
Tel 0793 790160.

FOR SALE

Mraz built 1942 KRANICH 2B-2. BGA 1147. Unbroken and partially restored. It still needs much work. A new closed trailer has been started for it but still has no fittings: mudguards and electric light kit go with it.

Manuel WILLOW WREN. BGA 162. Original from 1931. Its structure is sound and it could be restored to airworthy condition. Without trailer.

PETREL 1939. BGA 651. With closed trailer

FALCON 1 (RRG Lippisch designed 1926 Falke) built recently at Southdown Aero Services as the first sailplane that Fred Slingsby designed and built in 1931. It has a new trailer. Both are in immaculate condition.

Contact RUSSAVIA – Mike Russell, Tel 0279 850308. Peddars, Wood End Green, Henham, Bishops Stortford, Herts CM22 6AY.

FOR SALE

R.22 FUTAR (Messenger) HA-4059 1944 prototype of this most successful Erno Rubik-designed sailplane. It is the only airworthy example in the world. Wing span is 15.8 metres.

Price £20,000. Szolosi Josef, Miskolck Repuloter, 3525 Hungary. Tel 46 325 254 Fax 46 325 271.

FOR SALE

KA-4 RHONLERCHE, built 1955. (2-seater.) Ser No. 109, with all papers since 1955. C of A to March 1993. No national markings or registration. It is ready to fly. To the highest bidder.
Mike Kaiser, Cite des Cerisiers 55, B-6460 Chimay, Belgium.

WANTED

A canopy for an Eon Olympia and Eon seat belts:
contact Niels-Ebbe Gjoerup, Silkeborgvej 2, 7400 Herning, Denmark.

WANTED

Building Plans for DFS Reiher by Oldtimer Club Wasserkuppe, Karl-Heinz Kellermann, Beethovenstrasse 64, 6000 Frankfurt 1, Germany: Tel 69 74 54 75.

WANTED

A name plate for JS Weihe Series 2 built by AB Flygindustri, formerly Kockums Flygindustri, in Sweden. The plate is fixed to the bulkhead behind the pilot's head facing forwards. Contact:
Keith Green, 25 Halfpenny Close, Chilworth, Guildford, Surrey: Tel 0483 68008.

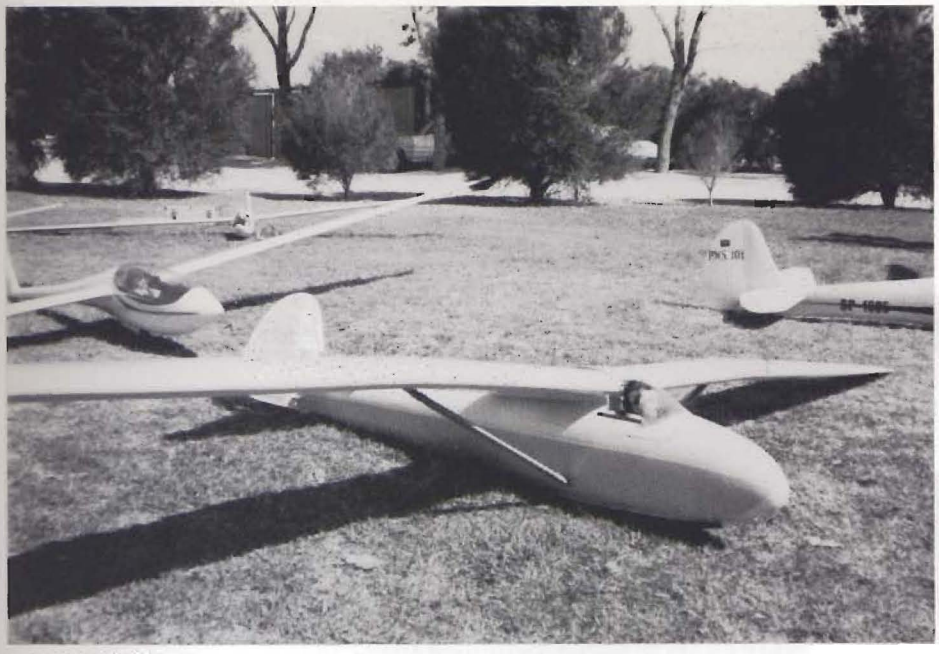
WANTED

A kind donation of Plan Chests to store glider building plans in the VGC Centre at Lasham, so that a Glider Plan Service can be initiated.

Contact: Colin Street, Yewdown House, 7 Sharpthorne Close, Ifield, Crawley, RH11 OLU: Tel 0293 543832. Fax: 0293 513819

WANTED

Technical Data such as Centre of Gravity, Control movements, handbooks etc, needed for Condors 2 and 3, Reiher or Rhönbussard.
Contact: Markus Lemmer, Holzgraben 2, 3578 Schwalmstadt 2, Germany.



Martin Simons' model of Ted Hull's Kite 1, photographed by the editor in Gawlah, South Australia, January 1992. You may not recognise the youthful model Ted in the pilot's seat! Behind is Martin's model of the ASW 24 belonging to Geoff Moore. I took this photo at the Australian Nationals 1992 on the last day, when there was a display of model aerotowing. One competition pilot, arriving back late after landing out, said he had to check his altimeter when he saw the towing combination at 3,000ft!

For Sale: Canary Jungmeister, Siemens engine, only 171 hrs engine and airframe. $100,000. Gino Di Nucci, 706 Lowell Road, Uniondale, New York 11553.

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Rear cover photograph: Camouflaged 1938 DFS Weihe and a wartime built JS Weihe in Czechoslavakia (1946). Photo: Vlad Šilhan, Prage.

