

VGC News

No. 138 - Summer 2013

Celebrating 40 years of preserving our gliding heritage.



Almásy 
The Real English Patient Part 2

FS-24 
The World's First GRP Sailplane

Ikarus 
Stamer-Lippisch Zögling Z2





Christoph and Britt Zahn

Congratulations to Christoph and Britt Zahn who tied the knot at the Wasserkuppe on the 8th June! Almost incredibly in all the years of the Wasserkuppe, Christoph and Britt are the first couple to marry at gliding's spiritual home. From the team here at the VGC magazine, may we pass on our congratulations, and wish the happy couple all the very best for the future.



Kids flying Vintage

The smile says it all!
7 ½ year old Larissa Fehlhaber clocking up yet another flight in a T21! Way to go Larissa!

VGC Yearbook

Mehr als 300 Mitglieder haben dieses Buch durch ihre Geschichten und Flugzeuge möglich gemacht. Rechtzeitig zur Rally in Lasham wird das Buch verfügbar sein. Weitere Informationen auf der Rückseite dieser Ausgabe

More than 300 members have made this book possible by providing details of their gliders and stories. This splendid book will be ready in time for the VGC International at Lasham. For more details see the announcement on the back cover of this issue.

Flying monuments!

The Rhönbussard of OSC Wasserkuppe has recently been approved as a "Beweglich-Technisches Kulturgut", (Mobile Technical Cultural Monument), by the Historic Monuments Protection authorities. To date this recognition has been awarded to some 16 gliders all over Germany. In practice this means that those gliders listed are now protected in a similar way to ancient buildings or monuments, and gives their owners access for grants for restoration. The German VGC are keen to learn if there are similar possibilities or schemes in other countries, something that we will keep you updated here in VGC News.

Rhönbussard wird Denkmal

Der Rhönbussard des OSC Wasserkuppe wurde von den Denkmalschutzbehörden als beweglich-technisches Kulturgut anerkannt. Damit gehört er zu den 16 Segelflugzeugen deutschlandweit, die diese Anerkennung erhielten. In der Praxis bedeutet dies, dass ein solches Flugzeug ähnlich geschützt ist, wie ein denkmalgeschütztes Gebäude. Dadurch besteht auch die Möglichkeit, Zuschüsse zu beantragen. Gibt es ähnliche Verfahren auch in anderen Ländern? Die deutschen VGC Mitglieder freuen sich auf Antworten und einen Erfahrungsaustausch. VGC News wird darüber berichten.

The VGC welcomes the following new members :

5289	Dietmar Matthees (Germany)	5314	Adrian Giles (UK)
5290	Michael Fabos (Germany)	5315	Matthias Schleinzer (Germany)
5291	David Firth (UK)	5316	Wolfgang Zeyen (Germany)
5292	Marcus Wills (UK)	5317	Sandor Plosz (Hungary)
5293	Henri Weston (UK)	5318	Jürgen Burkhardt (Germany)
5294	William Ellis (UK)	5319	Alexander Jones (UK)
5295	Bruce Hay (South Africa)	5320	Helen Evans (UK)
5296	Martin Hollowell (UK)	5321	Janis Wacker (Germany)
5297	Manfred Kistler (Germany)	444	Kenneth Reeves (UK)
5298	Eric Lown (UK)	5322	Duncan Pask (UK)
1922	Nigel Dickenson (UK)	5323	Espen Aarhus (Norway)
5299	Ian Burningham (UK)	5324	Paul Tolson (UK)
5300	David Clarke (UK)	5325	Jim Shafer (USA)
5301	Grzegorz Kazuro (Poland)	5326	Clive Stacey (UK)
5302	Stierli René (Switzerland)	5327	Guy Smith (UK)
2056	Anthony Hoskins (UK)	5328	Mike Armstrong (UK)
5303	Samuel Dupland (France)	5329	Andrew Mugleton (UK)
5082	Michael Farrelly (UK)	5330	Gerald Hill (UK)
5304	Marco Pattoni (Italy)	5331	Frank Oeste (Germany)
5305	Yannick Bovier (Switzerland)	5332	Chris Matten (UK)
2563	Benoit Auger (France)	5333	Marco Jera (Croatia)
5306	Stefan Kramer (Germany)	5334	Silvio Polla (Switzerland)
5307	William Batesole (Germany)	5335	Wally Tamsen (South Africa)
5308	Aldo Moia (Italy)	5336	Wolf Rossmann (UK)
5309	Reinhold Schaedlich (Germany)	5337	Julian Snape (UK)
5310	David Howse (Australia)	4580	John Gammage (UK)
5311	Hans Lööf (Sweden)	5338	Eugene Lambert (UK)
5312	Marita Rea (USA)	5339	Peter Balcombe (UK)
5313	Bruno Wettstein (Switzerland)	5340	Cath Conway (Australia)
		5341	Strnad Leopold (Austria)
		5342	Malcolm Vest (UK)
		5343	Evert Kuiper (Netherlands)
		5344	Leifur Magnusson (Iceland)



<http://www.vintagegliderclub.org>

Objectives of the Vintage Glider Club. To promote the international preservation, restoration and flying of historical and vintage gliders: to collect, preserve and publish information about the above; to locate and preserve documents and artefacts connected with gliding; to co-operate and negotiate with government bodies and other interested organisations to ensure that members' best interests are protected; and generally to do all such acts as may be conducive to the objectives of the Vintage Glider Club being met.

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The last production Phönix, PH-999 coming in to land flown by Hans Disma.
Photo Jan Das

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Nick Newton - VGC President

From the President's Corner



*I have just received my latest copy of *Sailplane & Gliding*, the UK gliding magazine issued by the British Gliding Association. Inside there is an article giving extensive coverage (six pages) of the 'Aero 2013' aviation fair, held in April in Friedrichshafen, Germany near Lake Constance (Bodensee) in the southwest corner of Germany.*

All the top of the range gliding hardware was on show with the very latest 'Tupperware' gliders, costing anywhere from €50,000 to €175,000 being featured amongst the highlights of this, the biggest annual European aviation fair.

I was fortunate enough to be able to attend this Fair with the kind assistance of our own Gere Tischler who lives in the nearby beautiful historic town of Ravensburg.

But I didn't visit the fair to enthuse over the latest costly offerings at the cutting edge of glider design. Instead, I was there to see the Vintage Glider Club stand situated along the rear wall of Hall B4. Here a wonderful display, representing the Vintage Gliding Club, had been put together by the fourteen man strong team of very hard working German members under the leadership of Gere Tischler. It seemed a great pity that, in the excellent coverage of the Friedrichshafen Aero fair in the 'S & G' magazine referred to above, I could find no reference to the VGC stand there at all!

This is, I believe the fifth occasion that the VGC has been represented at the Aerofair. I was fortunate to have been pre-

sent on the the first occasion at which the VGC exhibited at the fair in 2005. On this inaugural occasion the VGC had a whole hall to itself, and Chris Wills, as our founder President, was very honoured to receive a prestigious Ehrenurkunde Certificate which he proudly accepted from the then President of the German Aero club, Gerd Allerdissen. This Certificate was awarded in recognition of the outstanding contribution made by the VGC in fostering personal relationships between members throughout the European Community by means of its gliding activities.

On the present occasion, there was a wonderfully impressive eye-catching display of five vintage gliders around the topic "Hans Jacobs". The display comprised an Olympia Meise from the Stengele family, Christoph Zahn's new-build Habicht, the Weihe owned by Peter Ocker currently undergoing restoration and showing the exposed wooden structure of its fuselage, a replica Rhonbussard owned by the "Verein zur Förderung des historischen Segelflugs e.V." exhibited by Michael Auberger and a Kranich III exhibited by Ralf Schnirch and Rolf Braun. All these gliders were brought to the fair by their owners at no cost to the VGC and we are very grateful indeed to their owners for their enthusiastic and generous involvement.

The stand was decorated with banners on the walls, information displays about the VGC and the work it does, photographs of projects undertaken and a whole range of activities to whet the appetite of potential new members. In addition the stand was continuously manned by very enthusiastic german VGC members only too happy to talk about the work of the VGC and explain the finer details of the vintage gliders on display to the many visitors who were attracted to the stand.

This was once again an impressive display put together by the very hard work of our German members and the whole Vintage Gliding Club is extremely grateful to them all for their unstinting efforts continued over many years on our behalf. Thank you!

Nick Newton
June 2013

Jan Forster - VGC Chairman

Chairman address



You can't always plan it the way you want!

At the Dutch Rally in Axel, we only had one flying day due to the strong winds. Last week I went to Saltby Gliding Club for a Board Meeting, the same gliding site where they planned to hold the UK VGC

National Rally. When I left the weather was still horrible; storms, winds, rain, nothing suitable for gliding. Reading the Sunday

Times, even the British want to know what is happening with the weather in the UK! There is a lot of discussion, but who can change this horrible weather?

Luckily the weather changed enough a few days later to allow the Mucha, Ka6, Petrel, Skylark 2 and the Capstan to grace the skies, thanks to Buckminster GC. Anyway let's hope there is enough good weather in reserve for Challock and Lasham!

Not weather related was the AERO at Friedrichshafen. Again a very nice exhibition of Vintage Gliders traditionally organized by our German VGC member, Gere Tischler, and his team. They have done a wonderful job. The theme this year; Hans Jacob's Gliders, of which there were five exhibits. The Rhonbussard from the Donauwort Club, the Zahn's Habicht, the Meise from the Stengele family, the Kranich III from Schnirch and Braun, and Peter Ocker's Weihe. This last glider is undergoing



BOARD NEWS

a serious renovation project, and was of great interest to the visitors. Some fuselage panels were open, so people could see the inside construction of the glider. Together with our VGC President, Nick Newton, we attended some days to support their effort. There were 14 new members that joined the VGC, so welcome! Next year, if we are invited by the AERO management again, Gere opts for British made Gliders, of which we have a fine collection to show.

What do we all have in common? First, the Rendezvous at Challock and the International Rally at Lasham. At Lasham we have a full program, and will see the presentation of the 40th VGC Anniversary Book. It looks like this book will be extremely good value; with so many gliders, and over 350 pages, (in the Martin Simons Books format), stories written by members, never-seen-before photographs, and a lot more! Then we have the opening of the first hangar of The Glider Heritage Centre, in which Lasham VGC members are working very hard to make happen.

And then we have our AGM, which we are wondering how many people may be coming forward to join the VGC Board. Remember we are still looking for a secretary, and because

Man kann nicht immer so planen, wie man es gerne möchte!

Während der niederländischen Rally in Axel hatten wir wegen starker Winde nur einen fliegbaren Tag. Letzte Woche fuhr ich wegen einer Vorstandssitzung nach Saltby, der Flugplatz, an dem die UK VGC National Rally stattfinden sollte. Als ich dort wieder wegfuhr, war das Wetter immer noch schrecklich: Gewitter, Wind und Regen, nicht brauchbar zum Segelfliegen. Als ich die Sunday Times aufschlug, fragten sich sogar die Briten, was mit dem Wetter in ihrem Land los sei! Es gibt viele Diskussionen, aber wer kann dieses schreckliche Wetter schon ändern?

Glücklicherweise änderte sich das Wetter einige Tage später und erlaubten Mucha, Ka6, Petrel, Skylark 2 und Capstan den Himmel zu zieren, dank des Buckminster Gliding Club. Lasst uns hoffen, dass das Wetter noch genug Reserven an gutem Wetter hat für Challock und Lasham!

Nicht vom Wetter beeinflusst war die AERO in Friedrichshafen. Wieder eine sehr schöne Ausstellung von Oldtimersegelflugzeugen, wie schon Tradition, organisiert von Gere Tischler und seinem Team. Sie haben wunderbare Arbeit geleistet. Das Thema in diesem Jahr waren Segelflugzeuge von Hans Jakobs. Fünf von ihnen wurden ausgestellt, der Rhönbussard des Donauwörther Clubs, Zahns Habicht, die Meise der Familie Stengele, der Kranich III von Ralf Schnirch und Rolf Braun und Peter Ockers Weihe, die gerade eine große Überholung durchläuft und auf großes Besucherinteresse stieß. Einige Felder der Rumpfbepflanzung waren offen und so konnten die Besucher das Innere des Rumpfes betrachten. Zusammen mit unserem VGC Präsidenten Nick Newton nahm ich einige Tage teil, um zu unterstützen. Im nächsten Jahr, wenn uns das AERO Management wieder einlädt, möchte Gere Flugzeuge aus britischer Fertigung ausstellen, von denen wir über eine schöne Sammlung verfügen.

Was haben wir alle gemeinsam? Zunächst das Rendezvous in Challock und die International Rally in Lasham. In Lasham ha-

Stephanie is also stepping back, we also need a PR Board member. For 2014 we need a new President and Chairman, but ideally we want to get to know the candidates this year to introduce them to the Board, and get to know how they work. And don't forget our Annual Dinner. Because it's our 40th Anniversary of the VGC, it is at a very special place; Old Warden, home of the Shuttleworth Collection. Make a long weekend of it, because the Sunday is one of their famous air displays with a lot of interesting planes scheduled to fly. So put the 5th of October in your diaries now, and go to the VGC website to register your reservation.

By the time you read this, Andrea and I are close to having our baby! Yes you have to get used to the idea, so if you don't come up with a Chairman, I will have to make one myself! I am not sure if we can attend the Meetings in the UK, but our President Nick Newton will be the right person to fill in the honours.

You can't always plan things the way you want!

Jan Forster, VGC Chairman

ben wir ein volles Programm und wir werden das Jahrbuch zum vierzigjährigen Bestehen vorstellen. Es scheint, als sei das Buch von extrem hohem Wert, mit so vielen Flugzeugen, knapp 400 Seiten (im Martin Simons Buch Format), Geschichten geschrieben von unseren Mitgliedern, nie zuvor gesehenen Bildern und viel mehr! Außerdem findet die Eröffnung der ersten Halle des Glider Heritage Centre statt. Die VGC Mitglieder aus Lasham arbeiten hart daran.

Und wir werden unsere Mitgliederversammlung haben, und wir fragen uns, wie viele Mitglieder bereit sein werden, für den VGC Vorstand zu kandidieren. Bitte denkt daran, wir brauchen immer noch einen Geschäftsführer und wir brauchen ein Vorstandsmitglied für Presse- und Öffentlichkeitsarbeit. In 2014 benötigen wir einen neuen Präsidenten und einen neuen Vorsitzenden, idealerweise möchten wir die Kandidaten dieses Jahr kennenlernen um sie dem Vorstand vorzustellen und in ihre Arbeit einzuführen.

Und vergesst das Annual Dinner nicht! Da es das vierzigste Jahr des Bestehens des VGC ist, wird es an einem sehr speziellen Ort stattfinden, in Old Warden, Heimat der Shuttleworth Collection. Macht ein langes Wochenende daraus, denn am Sonntag findet eine ihrer bekannten Vorführungen mit vielen interessanten Flugzeugen statt. Vermerkt den 5. Oktober in eurem Terminkalender und meldet euch auf der VGC Website zum Dinner an. Wenn ihr dies lest, sind Andrea und ich kurz vor der Geburt unseres Kindes! Ihr müsst euch daran gewöhnen, wenn ihr keinen Vorsitzenden hervorbringt, so muss ich mich selbst darum kümmern! Ich bin nicht sicher, ob wir an den Treffen in England teilnehmen werden können, aber unser Präsident Nick Newton ist der richtige die Lücke zu füllen.

Man kann nicht immer so planen, wie man es gerne möchte!

Jan Forster, VGC Chairman

Bruce Stephenson - Editor

Editor's Comment



Firstly, may I start my opening lines by welcoming another new correspondent to the VGC team, Elson Avalone. Elson is from Brazil, and we are delighted to have someone in Brazil that will keep us informed of their vintage and classic gliders, not to mention, learning more about this countries fascinating gliding history. As a reminder however, I am still keen to hear from volunteers primarily from Belgium, France, Sweden and Australia, who's news we are currently blind to.

On a not so positive note, on behalf of the entire VGC magazine team, may we extend our apologies to those of you that experienced delivery delays in getting Issue 137. This was due to the distributors automated system taking postcodes and identifying them as country codes! Needless to say, that many magazines ended up strung out all over the globe, much to the confusion of many a foreign postal service! You will be pleased to hear that for issue 138 we have taken new steps with an alternative distributor to prevent a similar situation. May I also take this opportunity to thank all of you that have been contacting us with so many interesting and varied articles! What has been printed to date is by far only the tip of the iceberg, and I am delighted to say we have already begun to build up a healthy reserve of articles waiting for you in future

issues, many of which include articles on gliding history never seen in VGC News before!

So that everyone is aware, as we have a limited amount of space for each issue, we now have a policy in place which selects magazine content by order of a priority system that takes many things into account. This means if your article is passed over, it is then given a higher priority, and effectively moves up the priority list for the next issue. So for those of you that have contacted us with articles, and have not seen their articles appear, please do not worry, we haven't forgotten you!

Before I leave this subject, please do not hesitate to give us your feedback on what you want to see more of, or possibly less of, as the case may be.

With the Rally season now well under way, it is heartening to read of so many really fantastic flights and see even more lovely vintage gliders! I for one am always amazed by the consistent high standards of many of our members gliders, and I am constantly reminded of the living museum that ordinary members have effectively created through their dedication and skill to preserve and enjoy our gliding heritage.

Finally in a similar vein, it is always an inspiration to learn of the activities of other Vintage clubs and associations, and in this issue the VSA yet again sets the standards with news of a new VSA Journalism Award. Over the years the VSA has instigated many worthy awards and projects, something that the VGC, and possibly your local club, could well benefit from by taking a leaf out of the VSA's books in building a more robust vintage gliding community.

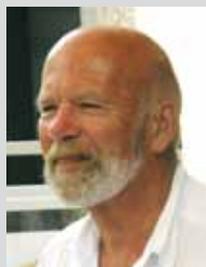
So without further ado from me,

Fly safe folks.....

*"Wenn Du das Fliegen einmal erlebt hast,
wirst Du für immer auf Erden wandeln,
mit Deinen Augen himmelwärts gerichtet.
Denn dort bist Du gewesen und dort
wird es Dich immer wieder hinziehen."*

Mit diesem Zitat von Leonardo da Vinci erreichte uns die traurige Nachricht von Volker Skrzypek's Tod am 18. Juni 2013.

Auf vielen Rallies und Veranstaltungen haben wir Volker als ganz besonders freundlichen und hilfsbereiten Menschen erlebt, immer bereit, möglichst vielen die Schönheit des Fliegens in seiner wunderschön restaurierten und denkmalgeschützten K 7 zu vermitteln. Im letzten Jahr hatte er sein Flugzeug in Pociunai zur Verfügung gestellt, obwohl er selbst krankheitsbedingt nicht teilnehmen konnte. Für diese selbstlose Geste hat er vom VGC den „Phil Tiley Memorial Cup“ verliehen bekommen. Seine K 7 wird uns auch bei zukünftigen Treffen an unseren Freund Volker erinnern. Sie ist bei den Brüdern Maleschaka in Eisenhüttenstadt in besten Händen.



*"Once you have tasted flight,
you will forever walk the earth
with your eyes turned skyward,
for there you have been, and there you
will always long to return."*

With this quote from Leonardo da Vinci, we received the sad news on the 18th June of the death of Volker Skrzypek. Many of our Rallies and Events been made richer by Volker's friendly and helpful manner, and he was always ready to bring the beauty of flight to as many people as possible in his beautifully restored Ka7.

Despite being too ill to attend Pociunai, his beloved Ka7 was there, and for his selfless gesture, was awarded the VGC "Phil Tiley Memorial Cup".

His immaculate K 7 that is now in the capable hands of the Maleschaka brothers in Eisenhüttenstadt, and the presence of the Ka7 in future meetings will always remind us to think of our dear friend Volker.

Astrid van Lieshout

Dutch Rally Report

Ascension Day Rally

Traditionally on Ascension Day, the Dutch Vintage Club (VHZ) comes together at an airfield somewhere in Holland (sometimes even Germany) to fly the weekend and have a nice time together. This year, for the 28th time, we went to Axel, situated in the South West of Holland near the Belgian border. About thirty vintage gliders were there. The EZAC organized the rally because of a special occasion. Their Grunau Baby 2b PH-213, named Nico Baby, had been restored in the last four years after severe damage ten years ago. The men that restored it, found their names on the fuselage when it was uncovered during a ceremony. The picture shows Hans Regeer together with two of his helpers, Henk Snoerie van der Heijden and Bob van Aalst.

Some gliders flew for many hours but because of the strong winds you had to take care not to be blown away.... After two hours

of rigging the Kranich, Neelco Osinga decided to make a check-flight together with Gerard Rijerse. After the winch launch, Neelco saw a Mucha circling and flew to it, certain that the Mucha was thermalling. At the same time the Mucha decided the thermal was not strong enough for the wind. So Neelco had a problem and Marja saw her husband disappear behind the trees. Six minutes after departure with the Kranich, Neelco and Gerard landed safe and sound in a field opposite to the airfield and the de-rigging could start! Jim van Aalst even decided not to try fly back to the airfield in his Prefect, and instead crossed the Schelde to land on the next isle. So you could say that we even had two cross-country flights that were made that day!

Saturday evening the rally ended with a nice BBQ. Due to the wind we could not fly as much as we hoped, but therefore had



Hey presto, a new baby is born.
Photo Astrid van Lieshout



Nico Baby. Photo Astrid van Lieshout

even more time to sit together, and enjoyed each others company for a very nice yearly event.

Franz Hirmke

Baby Meeting in Germany

Ein Baby im Wohnwagen



Land unter am Campingplatz



Schulgleiter „Hol's der Teufel“ von Jiri Lenik

Das 34. Grunau-Baby-Treffen fand über das Pfingst-Wochenende 2013 auf dem Flugplatz Bamberg-Breitenau statt. Über 20 Oldtimer gesellten sich zu dem in Bamberg stationierten Baby von Reinhold Ruß, der das Treffen initiiert und perfekt vorbereitet hatte. Auch wenn das Wetter sich nicht gerade von seiner besten Seite zeigte, so konnten doch über 120 Starts und viele Thermikflüge von bis zu 4 Stunden Dauer durchgeführt werden. Als die ersten Gespanne am Freitag eintrafen, fiel ein besonders großer Wohnwagen auf, dessen Besitzer diesen absolut nicht auf dem Campinggelände abstellen wollte. Der Grund war einleuchtend: Der Caravan diente nicht nur zum Schlafen für den Piloten, sondern gleichzeitig als Hänger für ein wunderschönes Baby 2b!

Der Nachmittag reichte nicht aus, um alle Hände zu schütteln, Begrüßungsküsschen und Geschichten auszutauschen. Viele kannten sich von früheren Treffen und hatten einander viel zu erzählen. Trotz teilweise sehr langer Anreisewege gingen die Lichter deshalb erst ziemlich spät (genauer gesagt: früh) aus.

RALLY REPORTS



K6CR DQS turning finals at North Hill

Am Samstag Vormittag wurden sämtliche Maschinen in erstaunlich kurzer Zeit flugfertig aufgebaut. Zum Start gebracht wurden: neun Baby 2b, acht Baby 3, zwei Slingsby T-21, je ein Doppelraab und Specht, der 2009 erfolgte hervorragende Nachbau eines „Reiher“ von Stefan Krahn sowie der „Hols der Teufel“ von Jiri Lenik aus Nordböhmen und alle wollten in die Luft gebracht werden.

Neben der Dieselwinde des Bamberger Aero-Clubs mit 1200m Kunststoffseil standen noch eine PA-18 sowie der Udet „Flamingo“ vom OSC Wasserkuppe zur Verfügung, mit dem Uli Stengele etliche der gepflegten Oldtimer stilgerecht in den nächsten Bart schlepte.

Ein Highlight war auch der Erstflug des Baby 3 von Raine Agne, das dieser - gerade frisch restauriert - mitgebracht hatte. Nach erfolgreicher Abnahme und Erstflug durch den Prüfer Reinhold Ruß war die Freude und Erleichterung allen Beteiligten deutlich anzumerken.

Der Samstag war wettertechnisch der beste Tag des Treffens, es wurde bis in den Abend geflogen, wobei Jiri meistens der

Höchste war. Und dies ohne ein einziges Instrument in dem graziolen „Hols der Teufel“. Deshalb konnte das opulente Abendessen mit Salatbuffet und verschiedenen heißen Bräten und kalten Getränken von Familie Winkler und Oli Bruha erst nach 21:00 Uhr serviert werden.

Bereits am frühen Nachmittag musste der Flugbetrieb am Sonntag abgebrochen und alle Maschinen sicher in Hallen und Hänger verstaut werden. Ein heftiger Frontdurchgang sorgte für „Land unter“ besonders am Campingplatz. Die gute Stimmung ließen sich die Teilnehmer dadurch jedoch nicht vermiesen – in einer großen offenen Zelthalle wurde gegrillt und weiter gefeiert.

Am Pfingstmontag führten die Gastgeber einen Tag der offenen Tür durch, bei dem viele hundert Gäste nicht nur die aktuellen Maschinen des Vereins sondern auch die liebevoll gepflegten Exemplare der Teilnehmer des Baby-Treffens aus den Anfängen der Fliegerei bewundern konnten. Etliche Besucher nutzten die Gelegenheit zu einem Rundflug über Bamberg in der offenen T-21.

Mit fundierten Kenntnissen über die Welt-Kultur-Erbe-Stadt Bamberg begeisterte Thomas Badum vom ACB bei einer gut besuchten Stadtführung diejenigen, die sich nicht nur für die Fliegerei interessierten. Im Lokal einer nahe gelegenen Brauerei wurde die Veranstaltung am Abend mit fränkischen Spezialitäten offiziell beendet. Einige blieben jedoch bis zum nächsten Wochenende und nutzten die Flugwoche des Bamberger Aero-Clubs zu weiteren Flügen und Ausflügen in die landschaftlich reizvolle Umgebung.

Auch wenn sie ihre eigenen Aktivitäten etwas einschränken mussten, waren die Mitglieder des veranstaltenden Vereins von der Herzlichkeit und familiären Atmosphäre der „Veteranen“ angetan. Wenn die Umwidmung der „Breitenau“ vom militärischen in einen zivilen Landeplatz endlich abgeschlossen ist, könnte man sich sogar eine Wiederholung der Veranstaltung vorstellen. Bis dahin sollten dann auch etwas mehr als die beiden einzigen Duschen zur Verfügung stehen.



Mit dem Udet Flamingo stellte der OSC Wasserkuppe das passende Schleppflugzeug



RALLY REPORTS

Frank Thies

Bergheim Rally



Bergheim from the air. Photo Rudi Fehlhaber



Bergheim line-up for 2013. Photo Rudi Fehlhaber



AV36 in flight. Photo Rudi Fehlhaber

In Autumn of last year, Christoph Kroll mentioned that it would be nice to have a small meeting of vintage glider friends in our area. As a member of the OSC Wasserkuppe I was asked to arrange it on the field of my club in Bergheim. (You will find some additional photographs on the website www.lsc-erftland.de) So it was easy to find a date for it, a "long" weekend from Thursday to Sunday (30th of May until 2nd of June). The weather forecast half a week before the meeting was incredibly bad. From day to day the forecasts began to improve however, so we had the chance to gather our small collection in good, but windy conditions, to

the meeting point Bergheim, where the winch was readied for a lot of fun-flights. Stefan Krämer came from Krefeld with a Doppelraab VI, Christoph Kroll brought the "Cumulus" (belonging to his father Christian) in his trailer, and Rudi took a chance to get in the air with his Skylark 2. Edwin Driessen followed with his AV36 on Saturday, and our small meeting was completed with another Doppelraab "Mösch" from Bonn-Hangelar. On Thursday and Friday it was really windy, but we made some launches every day. Club members of Bergheim had the opportunity to take a seat in the Skylark and the Doppelraab, thus flying part of gliding

history. On Sunday, which was the best day, even the Doppelraab's made flights of around 45 minutes in strong thermals. We agreed that such a small meeting could be arranged again. Perhaps with some more gliders, however with small conventions (up to 10 gliders), it is easy to organise because you have less to do. The main reason for the meeting was to meet people that are passionate about vintage gliders, and that they always share the same language; they understand the importance to keep history flying, and they have fun with it.

Chris Scutt

UK Rally News

Haddenham Rally



Haddenham from the air. Photo Chris Scutt

At last, some suitable weather for the vintage gliders! The weather gods swung things in our favour for the Haddenham Vintage Glider Rally, held each year on the first Bank Holiday weekend in May at the Upward Bound Trust. Previous years have seen too much in the way of strong winds and kite flying - kites of the tethered variety that is!

Preparations began on the Friday where we set up temporary facilities including a marquee and portable toilets. The first campers and glider trailers also began to arrive ready for the start of flying on Saturday. Saturday was a late start due (once again!) to strong winds, but by mid-afternoon conditions had improved enough to begin flying. A weather check was made

and then a couple of winch check flights given to visiting pilots. Flight of the day was had by Richard Moyse from Lasham flying his Slingsby Sky. Pushing on westwards into wind he managed to find some wave - an unusual occurrence in our flat landscapes - soaring above 6000 feet. We listened enviously about his flight later that evening at the barbeque. The remain-

RALLY REPORTS



Haddenham Grid 2013. Photo Chris Scutt



Chris Raine takes Ron Davies aloft in his Capstan. Photo Chris Scutt



Haddenham Kite 1. Photo Chris Scutt

der of the day consisted of training flights as part of the normal club activities.

The Vintage event at Haddenham would not be the same without the all-important barbeques on Saturday and Sunday, organised and prepared by Gayle Pearce, Sue Bryant and Chris Raine. A variety of meat, salad and puddings are served in the marquee and everyone is able to socialize and reflect on the day's flying.

Sunday brought calmer weather from the start and the airfield was a hive of activity with all of the visiting gliders being rigged. Andrew Jarvis had just over an hour of fun in the 1938 Minimoa, this glider is easily recognised by its distinctive gull wing. He was followed by Justin Wills in the Rhonbuzzard, who also achieved the longest flight of the weekend at 3 hours 55 minutes. It was nice to see two Capstans flying with Graham Barrett and Martin Cooper from Weston on the Green in 'BPV' and Chris Raine with various people in 'BSE'. These two seater gliders have a sociable side-by-side seating arrangement which is a much less common setup in modern day gliders. There were also two lovely examples of the K6e, one brought by Clive Smith

and Eric Lown and the other by Bob and Jan Playle. Rod Harris flew his rare Swales glider, recognisable from the distinctive fuselage shape and 'T' tail. Richard Moyses set off in the Sky again for 2 hours 23 minutes and our own Andy Byrne also had 34 minutes in the club K6cr. Chris Raine flew the 1939 Kite 1 managing a very respectable 34 minutes. This particular Kite 1 is easily picked out (or not!) by the camouflage paint on the top side of the wing with yellow and black paint on the underside. During World War II, much of the metal in this glider was replaced with wood in order to test whether it could be made invisible to radar. Daniel Jarmin and Lofty Russell each had a flight in the Minimoa, a glider which flies very gracefully.

With the forecast remaining calm and dry it was possible to leave many of the gliders rigged overnight. Monday was sunny from the start and the cumulus clouds began popping up from around 10am. I took someone up for a trial lesson in the K13 first thing on a short soaring flight and by the time I landed many gliders had formed an orderly launch queue! Our own Simon Bryant had 52 minutes in the club K8b and

Henry Ollis close behind with 46 minutes in his K6cr 'GEM' whilst David Cornelius had the third longest flight of 2 hours 36 minutes in his lovely red K6cr. UBT's Peter Bryant had 1 hour 3 minutes in the club K8 whilst Clive Smith had a one-way flight of an hour back to his home club at Sherington, some 50km away. Bob Playle took the second longest flight of the weekend with 2 hours 52 minutes in his K6e. It was nice to see CFI Mike Clark was able to have a couple of flights in the Kite 1 and Dave Bramwell also had a go. In amongst all the mayhem, Steve Bishop went solo for the first time in the club K13. Congratulations Steve, you coped admirably on one of the busiest flying days of our year! A vintage of a different kind also appeared on the airfield courtesy of Chris Raine and his beautifully restored 1937 Morris 18 car. A total of 19 hours and 15 minutes flying time was accumulated by the visiting pilots, the amount of flying clearly helped by the good weather. You can never plan the weather but the Vintage Rally at Haddenham is an event I always have on my calendar. Here's hoping for more of the same next year!



Justin Wills taking off in the Rhonbuzzard Photo David Underwood



Vintage brace. Chris Raine's beautifully restored Morris 18. Photo Chris Scutt

RALLY REPORTS

USA Rally Reports

Lee Cowie



Lee Cowie in the Gull 1 now owned by Dennis Barton

Eastern VSA



Assymling Sarah Lowry's Ka 10 with a German registration at Chilhowee Photo Lee Cowie



Visitors to Chilhowee can get checked out and fly this Schweizer 2-33. Photo Lee Cowie



Dennis Bartons Gull 1 gracfully aughts once again. Photo via Lee Cowie

The Vintage Sailplane Association has reverted to holding both the Western and Eastern regattas on the Memorial Day weekend again. The Western event was held at the Mountain Valley Airport in Tehachapi, California and the Eastern regatta at the Chilhowee Gliderport neat Benton, Tennessee. Saraha and Jason Arnold who run the Chilhowee gliderport (Chilhowee.com) have a rental fleet including Schweitzer 1 - 26, 2 - 32 and 2 -33, Schleicher Ka 7 and ASW 15 making this a very popular location for members who cannot bring a ship of their own. The

Chilhowee ridge was working for the first few days but when it wasn't you could still find thermal lift. One pilot claimed some of the best lift came from a nearby swimming pool occupied by several young women. In the evenings the group either invaded a local restaurant or cooked for everyone at the field. Members seemed to be coming and going all weekend and the field does a thriving business in rides and instruction but with two tow plane delays in launching were kept to a minimum. Of note was the arrival to the regatta of a new glider to US skies, the recently import-

ed Gull 1 from England, and now owned by Dennis Barton. A close friend of the late Bob Gaines, Dennis sold his Olympia , and is now enjoying the delights of the Gull. The Gull was one of the main attractions of the weekend, and Dennis is planning to bring the Gull to Lawrenceville, Illinois on Fathers-day weekend for the Midwest VSA regatta. It is interesting to note that Dennis is also currently rebuilding a Baby Bowlus. We were also delighted to welcome Alice Gaines to the regatta; it was so nice to see her big smile.

Midwest Regatta



Peter Von Tresckow taking to the blue. Photo Lee Cowie



Obviously flying a T31 can be a gripping experiance. Photo Lee Cowie



Hanger que. Photo Lee Cowie

The Wabash Valley Soaring Association has hosted the annual Midwest Regatta for many years. Members start arriving a week before the guests to make sure everything is in order. Buy early in regatta week many members were present. The regatta officially started on Thursday and the wind was gusting over 20 MPH out of the north and a club two seater was taken to the north south runway to give visitors who had not flown at

the Mid American Air Center before area familiarization flights. More gliders arrived all day. In the evening after a supper at a local Mexican restaurant Walter Klemperer showed aviation movies including his fathers famous Blauë Maus flight. Friday morning the VSA Annual Meeting was held in the terminal building and then flying started. No coin flights were made but pilots roamed the area and at least one 4 hour flight was recorded. In the evening

there was a steak cook out. Saturday was another flying day with many flights. Following a bar-b-q, an auction was held in the main hangar. Books and instruments were sold before aircraft came under the hammer with a glider and trailer finding a new home. On Sunday the rains came and all flying was in the hanger

RALLY REPORTS

Bruce Stephenson

National Rally Report



Peter Malloy (left) and Dave Poole with their lovely Ka6E. Photo Stuart Black



Petrel and 1937 Riley belonging to Buckminster member, Barry Beadsworth. Photo Barry Beadsworth



Brian Griffin samples the delights of the Petrel. Photo Stuart Black

2013 turned out to be a relatively quiet National Rally, which considering the clubs 40th year, was a little disappointing. This did not deter several enthusiastic members however, and soon the first of a small band began to arrive to enjoy Buckminster Gliding Clubs new clubhouse and lovely sheltered campsite.

With disappointing weather on the Monday and no flying, it was a day for catching up. Tuesday dawned marginally better however, which saw Peter Redshaw rig his Capstan, alongside the Ka-6E team of Peter Molloy and Dave Poole, not to mention John Castle with his distinctive V-tailed SB-5 and the Olympia 463 belonging to David Whyte. All took at least one launch, however conditions were tricky and flight times were measured in minutes rather than hours. The Capstan took four launches, including two that took Buckminster members into the air for their first 'Capstan' experience.

Wednesday saw much better conditions than forecast, and with improving weather throughout the day, heralded the arrival of Graham Saw and his gorgeous Petrel. Bruce Stephenson who was hard to keep up with flying all over the world, managed to rig his Mucha Standard and carry out some early winch flights. With the improving conditions, those that took an aerotow, managed to connect with the building patchy thermals, and some managed some extended flights, most notably, Graham Saw who kept the Petrel aloft for a little over 2 hours. This turned out to be

the longest flight of the week – not bad for such an elderly machine! Everyone was captivated by the Petrel's elegant form as it soared gracefully over the site. Graham later offered Buckminster Gliding Club's Operations Manager, Stuart Black, a chance to fly his precious aircraft. As Stuart later said, it was an amazing experience albeit that he had some apprehension at being given the responsibility of flying the only airworthy Petrel in the world, adding – 'I didn't want to be the one who was remembered for pranging it'!

Thursday started with low cloud which was slow to burn off, but conditions were better in the afternoon as Brian Griffin dragged his Skylark out of the hangar. It was the only vintage machine to fly on the day and soaring conditions were weak, but Graham Saw and Peter Molloy also took their turn at the controls.

In the evening there was an 'Aircraft Recognition' quiz and pizza night in the Club House. 100 aircraft (including gliders, military and civil types) had to be identified with prizes to be had! The Ka-6E Team won hands down with an astonishing 93% of aircraft being identified correctly. It was only the modern gliders that reduced their score!

Friday dawned at the earliest possible time of the year with it being the Summer Solstice. Sadly, persistent low cloud did not allow the sun to shine through until early afternoon but when it did it provided several hours of reasonable soaring conditions. Graham took to the air in the Petrel again before inviting 3 more pilots from

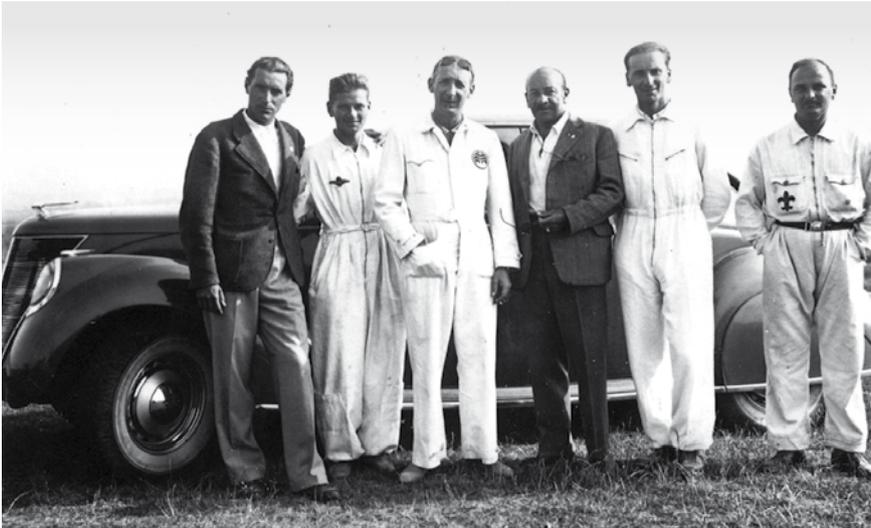
Buckminster the opportunity to try their hand at the 1930s machine. First off was VGC member, Brian Griffin who was followed by Les Merritt (an ex Buckminster CFI) and Paul Conran, the club's chief aerobatic instructor and UK Glider Aerobatic Youth Team coach. All landed back safely with huge grins on their faces!

Saturday brought rain and high winds, which sadly saw the cancellation of the much anticipated visit by the Vintage Aircraft Club and with a similar forecast for Sunday, the departure of all the visiting VGC members and their gliders.

Overall it was a disappointing week from a weather perspective but it was nonetheless enjoyable from a social point of view and the chance to see some magnificent vintage gliders at Saltby.



Inside the office. Photo Stuart Black



Almásy (3rd from the left) at the MAeSz (Hungarian Aero Association) glider instructor training camp at Esztergom 1933. Photo via Gábor Fekecs

Gábor Fekecs

Part 2 László Ede Almásy.

The Real English Patient...

Abridged from the works of VGC Historian, Gábor Fekecs.

The second term of the new Egyptian school started in early November 1936 and ran to the end of May 1937. During this time 2456 launches by 82 students had been logged with 42 "A," 15 "B," and three "C" certificates completed. From 1936, in order to qualify for the "A" certificate, the student was required to complete at least five straight-flights, whereas the "B" certificate also required the pupil attain the requirements of the "A" badge, they also had to demonstrate at least two flights with 180 degree turns, two flights with full turns, and a target landing within 25 m of a pre-set position indicated by a flag. When the Wolf glider arrived in Egypt in 1937, the opportunity of slope and thermal soaring opened up for Egyptian gliding. The first attempts at thermalling proved fruitless, but they finally succeed in connecting with dry thermals from winch launches, with the 1000 m cable enabling the Wolf to regularly gained 200-240 m altitude. The first flight was only 7 minutes long, but flights of 15, 20 and 30 minutes soon followed. Locating blue thermals was difficult however, so it became a standard process to ob-

serve kites. These birds of prey were common in Egypt, experts in thermalling flights, they painted the location of dry thermals for the pilots.

Interestingly at the time aerotowing by civilian aircraft was not allowed by the Egyptian authorities, so Almásy turned to the British stationed in Egypt. With Royal Air Force personnel willing to help, it was thus possible for Almásy to win a trophy offered by the newspaper Al Ahrām for the first soaring flight from Heliopolis to the Cheops (Khufu) pyramid, and was the first recorded cross-country soaring flight in Egypt. At a distance of 31 km, Almásy was initially towed behind an Avro Tutor, before gliding the 31 km. to Khufu, and was subsequently towed back Almaza Airport by the same Tutor.

In 1936 Almásy and Hefty attempted to investigate the possibility to ridge soar a pyramid, however unsurprisingly the rising air over the pyramid's side proved to be too narrow for practical purposes. As a hillside suitable for slope soaring could

not be found in the vicinity of Almaza Airfield, a hill located 16 km west of the pyramids of Giza was utilised for slope-soaring training, which saw the erection of a temporarily wooden shed at the base of the slope, which was only 30 meters high and 200 m long.

In 1938, efforts were made to find a more suitable slope, which led to Almásy searching the region by air, which led to the discovery of a suitable 300 m high sandstone hill called the "Iweibid Mountain" located 80 km east of Cairo, and lay between the railway and the road leading into Suez.

With an east-west slope some 10 km long, it was perfectly orientated to take advantage of the prevailing Egyptian northerly winds, and proved possible to connect with thermals from the slope. Again a wooden shed was erected, and soon saw the Wolf, a Zögling and the Grünau Baby being transported there.

Launching was carried out utilising a winch, and with practically unlimited opportunities existing to land almost anywhere, experimentation was order of the day. In a 6-8 m/s (12-18 kt) wind, soaring at 500 m altitude was common, and many hours were flown over the slope, not to mention the desert thermals which made it possible to leave the slope. The unforgiving desert made true cross country flights dangerous however, as finding a pilot after he landed out in the vast desert could prove to be both difficult, and potentially fatal, and as a result, dampened the enthusiasm to fully exploit the favourable thermal conditions.

Despite this, Almásy did manage to contact standing wave behind the hill, however most flights were carried out in an east or west direction alongside the road and the railway.

During this period, Almásy continued to make regular visits to his native Hungary



M22 Turul at RAF Abu Sueir. The M22 was one of the gliders Almásy arranged for the Egyptian Aeroclub to purchase. Photo via David Underwood

FEATURE ARTICLE – LÁSZLÓ ALMÁSY



Almásy (on the right) at Gödöllő 1933. Photo via Gábor Fekecs



Almásy is congratulated by Egyptian Aero Club members after the first cross-country flight in Egypt in the Wolf. Photo via Gábor Fekecs

where he became more involved in the development of Hungarian gliding, with his efforts focussing on getting Hungarian youth acquainted with gliding. He attended aeromodelling contests and Boy Scout groups giving lectures on gliding, and in his fictional book entitled *Suhanó Szárnyak* ("Flitting Wings") to promote this was his goal, which book proved to be a success. Concentrating his efforts in creating a well-organised and adequately financed gliding activities in Hungary, Almásy was a keen supporter of standardised training methods, backed up by well-trained instructors and well prepared manuals etc. One of his aspirations was to furnish all gliding clubs with adequate, standardised winches.

Almásy also used his widespread contacts to canvas important Hungarian officials about the sport flying and did much to obtain their support, and when in Hungary he frequently visited gliding centres, including MSrE's airfield at Érd, south of Budapest, which was the Club's regular aircraft and aerotowing training centre. He was also involved in the promotion of Hungary in the increasingly popular field of aero-tourism, and lead to Almásy flying a Klemm-35 to England as part of a promotional program.

Based on his experiences in gliding instruction, in 1937 Almásy prepared a detailed paper on glider training methods, in which he focussed on "flatland" operations over ridge soaring. In doing so, Almásy was keen to promote the safety advantages of a training system that was more suited to pre-military training methods, in which winch training would be followed by aerotowing training, not to mention the economic aspects of winch launching, as winch cables were far cheaper to replace than Bungee cords. More-over, winching operations gave better opportunities for better continuity to training, as it demanded more proficient instructors,

since the pupil required a more disciplined approach to winching methods flying the typical Primary training gliders of the day. To enhance the safety of aero-tow training, Almásy proposed the widespread use of two-seat training gliders, and pressed for design competitions to design and build adequate two-seat trainers.

With Hungarian gliding being up to the point largely ignored by state agencies, Almásy's paper couldn't have come at a better time, and was well received. In 1938 Almásy served as a trainer, instructing a course for glider instructors, and by this time had more than 8000 winch launches under his belt. By the end of the 1930's, these new approaches were well established, and saw the widespread application of training of military pilots, including pilots in Egypt.

In 1939 Almásy had expressed an opinion that the length of pre-military pilot training was too short and pupils entered into the system too late as regards their age. He proposed to start preliminary training with gliders at the age of 15, which was the earliest age Egyptian law permitted. He proposed to organise as an experiment, an eight-week long training camp for a group of high-school students and to train them on Zöglings, using winch launches to earn their "A" badge.

At time of this proposal, he discussed the method of this training with his CFI, Hermes Celio, and his assistant instructors. The result of this deliberation was an idea of developing a two-seater version of the Zögling. They figured that the average weight of the pupil was to 46 kg, and that the body weights of all the instructors were under 75 kg. Their decision was to modify one of the school's steel-tube Bonomi Zögling and strengthen it from the original 100 kg permissible, to 130 kg. Training would be similar to the "one-seater" training as regards the number of launches, however release heights would

be gradually increased to where 30 second long straight glides could be achieved. When a pupil performed 10-15 of these 30 second glides without the intervention of the instructor, he would be ready to make solo flights with ballast bolted to the rear seat, students would then carry out a minimum number of flights in order to qualify for their "A" badge.

The modification of the Zögling was carried out done by Hermes Celio. The main spars were strengthened, and the span increased to 11 m, with the original 4 mm bracing wires being replaced by stronger 6 mm ones. The related fittings were also strengthened, with space for the second seat being created by modifying the middle (diagonal) spar bracing of the fuselage under the A-frame. The rear rudder-pedal bar connected directly with the front rudder-pedal bar through a system of rods, whilst the rear joystick was located on the right of, and outside of the instructor leg. The fuselage front differed from the original Zögling with the fitting of a double skid that was dampened with springs and the release cable was lengthened link to a release lever on the rear seat.

The glider was successfully test-flown, and was awarded its certificate of airworthiness after a series of flights, which included flights of over three minutes with 2 adults, being launched by winch utilising a cable of 1000 m long.

Another interesting episode in Almásy's gliding life came after he was approached by the Persian Shah, Pahlavi, to establish gliding in Persia. Almásy had met the Shah from within the circles of the Egyptian royal family, and he immediately started planning for the new school by placing an order of five gliders with the Hungarian firm, Aero-Ever Ltd, a glider factory in Esztergom. Two well-known Hungarian sport fliers, Pál Voinits and Pál Kaiser, were also contracted to serve as instructor and as chief mechanic respectively, however un-

fortunately this promising venture came to an abrupt end at the outbreak of the war.

World War II

After the outbreak of war in 1939, Almásy soon found that he was not permitted to stay and work in Egypt, so returned to Hungary in 1940. Preparations for war back in Hungary were in full swing, and with that came the foundation of HM-NRA (Horthy Miklós Nemzeti Repülő Alap - Miklós Horthy National Aviation Fund). Almásy had envisaged the development of sport flying, and with the HMNRA coming into existence, he threw himself into creating and running training bases all over the country. From 1940 he served as the training supervisor for HMNRA, which was at the same year in which a committee was set up to search for suitable areas for gliding in Transylvania (Erdély), which had been reunited with Hungary under the Second Vienna Award. Almásy as one of the committee's members, worked with deputies, two of which were his long-time friends, Fred Hefty Sr, and László Tasnádi. (The latter being President of MSrE and the first Hungarian Gold "C" badge glider pilot).

As a reserve officer of the Royal Hungarian Air Force, Almásy was drafted to active service in 1941, and was detailed to the German Army by the commanding officer of the Air Force, General Valdemár Kenessey, in February 1941. With his extensive knowledge and experience in North Africa, he soon found himself advising General Erwin Rommel, taking up the rank of a Captain in the Luftwaffe. In the spring of 1941 he served in Derna at the African Center of the Abwehr, the German military intelligence organisation, where two important ventures in North Africa were prepared.

During the first venture, two He-111 aircraft were used to fly and land behind the English lines to pick up El Masri Pasha, the former and hostile to the British chief of Egyptian general staff, and fly him to German headquarters. The commanders of the aircraft were Almásy and Major Ritter, and the time of the rendezvous was fixed by secret radio communications. The two He-111 arrived at the time agreed, however the venture failed as the Egyptian military aircraft transporting the Pasha to the meeting point made a forced landing after observing British fighters in the area. The presence of the fighters were not accidental as the British had infiltrated the

Egyptian side of the operation.

The second venture, codenamed "Hassan" was to plant two German agents named Muehlenbruch and Klein in Cairo. The agents were to have been transported by air to the vicinity of Dairut Oasis from where they would use a motorcycle carried on board the aircraft to reach Cairo. Again utilising He-111 aircraft, Major Ritter who commanded the flight flying the agents, whilst a second aircraft with Almásy acting as commander, would act as escort.

At the last minute with Almásy's escort aircraft already airborne, one of the tires of the Ritter's aircraft was found to have a puncture. This had led to a rushed change of aircraft, along with a new pilot who had limited experience in desert flying.

Because of a late start, when the first aircraft reached the selected area close to sunset, the pilot made two aborted approaches as he judged the terrain to be full of big rocks, which led to a short debate with the two agents about parachuting to the ground without the motorbike, however the idea was quickly discarded as it would mean a near suicidal walk of over 160 km over the desert.

In the meantime, Almásy's aircraft had been flying a holding pattern over Ritter's aircraft, and due to the essential radio silence, was unable to help the pilot of Ritter's aircraft. (Later Almásy, who had selected the landing site alongside the route to the oasis, one which he knew well, came to the conclusion that the inexperienced pilot had erroneously judged the rocks as being too big due to their long shadows in the setting sun).

After the second attempt the aircraft turned and headed back to home base, Derna, however during their return, received a radio message that Derna was being bombed by the British. Almásy diverted for Benghazi, which he reached on his last dregs of fuel, however Ritter's aircraft which did not have fuel for Benghazi, tried to wait out the bombing at Derna over the sea, and led to ditching the aircraft on heavy seas, killing Muehlenbruch, and injuring both Ritter, and the pilot.

Despite this setback, Abwehr Brass were determined to plant two agents in Cairo, and in the next operation Almásy was again to play a leading role.

With a new codename of "Salaam", two new German new agents, John Eppler and Hans Stansteade, (whom Almásy immediately nick named them Pit and Pan!) were selected to go into Cairo. At the time the British had cracked the Enigma codes, and although largely ignored by higher rank-



Almásy in Egypt just after the war. Photo via Gábor Fekcs

ing officers, one young lady codebreaker did however take an interest in Almásy and began logging his movements.

After the ill-planned previous attempts to fly the agents in, this time Almásy chose an overland route, and in May 1942 set out from Libya on an incredibly daring and arduous journey that was to take them deep behind the Allied lines after a nearly 3000 km long daring crossing of the Libyan Desert. The group comprised of four vehicles, two pickup trucks with supplies and two Ford cars, (all of which had been captured from the British), and passed through stretches of desert known only to Almásy, which included the previously unknown Aqaba Pass, which of course Almásy had discovered during his earlier March 1933 expedition. Not only that, Almásy's old haunts were now to play very much in their favour, and had even managed to locate water and fuel supplies that he had been planted in 1933 expedition, amazingly, the water was still drinkable!

By this time of the war, the British had formed their own desert group, and had been formed under the guidance of Ralf Bagnold and Patrick Clayton, the very same people Almásy had both socialised and worked alongside during his pre-war days! (After their successful drop of "Pit and Pan", the whole operation proved to be a disaster, as the 2 agents were soon picked up after entering Cairo when they took residence in a house-boat, drawing attention to themselves with entertaining young ladies and extravagant parties!)

Following the same route back to Tripoli, they hit upon the water and fuel reserves of the British Long Range Desert Group, from which their own supplies were refreshed and all the remaining water and fuel were emptied to the sand. (It was this daring expedition that formed the main sub-plot the film, "The English Patient").

Almásy's services were later recognized by Rommel who awarded him with the Iron Cross, 1st and 2nd Class, and promoted

FEATURE ARTICLE – LÁSZLÓ ALMÁSY



Workers from the Deutsche Verkehrsfliegerschule Braunschweig (DVS) sitting in the Fashold in Autumn 1931. Photo Bernd Diekmann

him to Major. After the defeat of the Germans in Africa, Almásy returned to his native Hungary, where in 1943 he published his accounts of his wartime experiences in a book titled *Rommel seregénél Lybiában* (At Rommel's Army in Lybia).

After the war

During the siege of Budapest Almásy was arrested by Soviet troops, but due to his fluency of the Russian language, was used as an interpreter and was released six weeks later. In 1945 he was arrested once more after neighbours reported him to the police, and led to him being tried in the People's Court as a war criminal. After months of torture and interrogations he was found 'not guilty' and was acquitted. This judgement of the Court was influenced by Gyula Germanus, the noted orientalist who gave favourable evidence at the trial.

Initially Germanus was refused to give evidence, however had requested an interview with Mátyás Rákosi, the head of the Communist Party and his former student at the Orient Academy, which led to Rákosi taking measures to force the Courts accept Germanus' evidence. Germanus had not forgotten his debt to Almásy after his car failed in the Sahara, for it was Almásy who organised and led the rescue operation. Up to his release the much feared NKVD began to take a close interest in Almásy, which led to him fleeing Hungary and reached Rome via Vienna–Graz–Triest. With NKVD agents tailing his journey, British intelligence helped him to get to Cairo, as one member of the British intelligence staff in Rome, a Hungarian named Dezső Ónodi, happened to be Almásy's old friend.

Now back in Cairo Almásy returned to his old occupation of selling luxury cars to Egyptian aristocrats and testing new Porsche designs in the Sahara. He also worked as a flying instructor as well, using the opportunity to renewed contacts with Egyptian sport aviation, which led to a remarkable venture.

An Egyptian glider pilot, Hassan Said Kamil, had participated in the 1948 World Gliding Championship at Samaden, Switzerland flying an Air-100. After the championship Kamil remained in Europe, using the opportunity to enter various contests, which led to meeting up with Almásy in Paris in 1949. Kamil was making plans to ship the Air-100 to Egypt, and had been one of Almásy's favourite pupils before the war, visiting Hungary for advanced glider training in 1939. Almásy struck upon the idea of giving Egyptian gliding a great boost if the glider could be aerotowed to Egypt.



Bust of László Almásy at the Hungarian Geographical Museum in Érd Photo via Gábor Fekcs

Travelling back to Cairo by an airliner, Almásy persuaded Taher Pasha to support his idea, which was financed by the Egyptian Aero Club. Almásy flew back to Paris where he rented a twin-engine Miles Gemini aircraft and persuaded a Swiss pilot, Ernst Hofstetter, to accompany him as co-pilot for the trip. Kamil flew the glider. The details of the flight:

- May 14, 1949 Start from Paris.
Arrival in Rome in the evening.
- May 15, 1949 Start from Rome,
landing in Catania, Sicily.
- May 16, 1949 Start from Catania,
landing in El Aden, near Tripoli
- May 17, 1949 The take-off postponed
because of a sand storm.
- May 18, 1949 Start from El Aden,
afternoon landing at
Almaza Airport.

The total distance flown was more than 4000 km, and was to prove to be one of Almásy's last hurrahs however, and was awarded a laurel wreath and a gold medal for the flight from the Egyptian Aero Club. With rapidly deteriorating health that had plagued him throughout the 1930's and 40's, in 1950 he was treated in Salzburg for dysentery and after the treatment he went back to Cairo. In early 1951 Almásy was again in Europe transporting cars back for repairs, however illness caught up with him again, and was again admitted to a Salzburg hospital on the 10th February, 1951. He was in the hospital when the news of his appointment as Director of the Desert Institute in Cairo, a post he was never to take up, as he died on March 22nd 1951, and was buried in a public cemetery in Salzburg. B.S.

Epilogue

Author of numerous books, Almásy's name was nearly totally forgotten in Hungary between 1948 and 1989 as his books were wiped off the bookstore and library shelves. His grave had likewise been forgotten until two Hungarian glider pilots found it in 1994 and restored it for the 100th anniversary of his birth. A bust of Almásy in the garden of the Hungarian Geographical Museum in Érd (a city south of Budapest), is the only monument which cherishes his memory.

For a full list of Almásy's books, please go to my website: <http://gliders-fega.free-web.hu>

Ray Ash

Building the Australian Salamandra

My decision to build the Salamandra was for a couple of reasons, firstly, I had accumulated over the years a moderate amount of plywood, aircraft quality timber, sheet metal and instruments that I was keen to use up, and secondly, I had been confined to the house somewhat as my wife's health had deteriorated to the extent that she needed my fulltime care.

Why the Salamandra? Firstly it appeared to be a simple design and consequently simple to build (how wrong did this turn out to be!), and the thought of owning a rare example of a glider of which there were only one or two others in the world.

I had corresponded irregularly with Chris Wills over the years and I asked him if he knew if plans were available. While he had no knowledge himself, he referred me to Zbigniew Jezierski, a Polish member of the VGC. I duly wrote to him and after several months of no reply I had given up hope of receiving an answer, but nearly a year later a package arrived with a Compact Disk and a note of apology for the delay. It appears it had taken this long to transpose the plans on to the CD.

I am only moderately competent at using a computer, and the CD called for knowledge of the Auto-Cad system to access the drawings. I was able to resolve this with the help of my granddaughter's husband, an Electronics Engineer.

The number of drawings totalled 820, and there were quite a lot of details missing, so I would estimate a complete set may total over 1000! Although the plans were in Polish, I had few problems in their interpretation.

To date construction is basically complete. All major components are finished with only control installation, covering and painting left to do. Some of the problems encountered during the construction was the almost non-existent supply of aircraft plywood available in this country, and the fact that I was building it entirely on my own with no help from anyone.

I could only print out the drawings on A4 size paper which made reading the fine dimensions difficult, but I solved that by magnifying them on the computer

and transferring them to the drawings by hand. Another complication was the drawing for the lower spar boom was missing, but this was resolved by adding and subtracting various other measurements until the exact dimensions could be calculated. There were many other anomalies, like missing or incorrect dimensions, but it was to the credit to those who transferred the drawings to the CD that there were as few anomalies as there were.

Lofting up the drawings of the ribs and bulkheads to full size and making jigs was time consuming, but paid off in the end. The most difficult part I found was the building and installation of the divebrakes, where the minutest error in construction, or alignment caused all sorts of problems.

Fortunately the use of diagonal-grained plywood was limited to the spar webs and the tailplane, as this had to be made from straight grained sheets of plywood and I was very relieved to find the leading edge ply was straight grained.

Making all the metal fittings myself was another thankless task, however I was very fortunate indeed to have a close friend who was a qualified aircraft welder who offered his services free of charge. An-



Front view of the high standard of Ray's work; Photo: Ray Ash



Skimming the leading edge D boxes; Photo: Ray Ash

other unanticipated problem was that the main struts were 31mm diameter, which I only realised when all the other fittings were made and installed. The only tubing available was of course one and a quarter inches diameter (approximately 32mm), and although 1mm difference is not much, it caused me a bit of a headache to resolve.

It has been a long and sometimes difficult exercise which many times I regretted starting, but I am looking forward to its initial test flight in the near future!



Rear view of completed fuselage; Photo: Ray Ash

David Shrimpton

One Sunny Day...

One sunny day in 1986, I was flying our brand new DG300 round the skies of Lasham when I encountered a large group of people having a great deal of fun. I had just encountered the VGC at their 14th International VGC Rally. Fascinated by the wonderfully restored and interesting variety of gliders and the characters who were flying them, Margaret and I signed up for membership not expecting that the Club would become such a large part of our lives. Having learnt to fly on Tiger Moths but being relatively new to gliding (although I did solo in a T31 when I was a 16 year old ATC cadet!) the VGC's objective of encouraging gliding for pure enjoyment, preserving history and as an outlet for those wishing to participate in a less competitive area of the sport, was very appealing.

So now we had a mission; to acquire a vintage glider. After being offered much advice and opinion during those long hours in the bar, my search for a 'suitable' glider was underway. It was certainly going to be a Slingsby; I had worked at Slingsby's in the drawing office and one of the gliders that was being built in those days was the T45 Swallow. I had always been intrigued by the simple and uncomplicated method of construction so was delighted to find the one requiring minimal restoration languishing at the back of a hangar in Devon. We collected it one stormy Christmas Eve in 1986 and were later to discover that it was in fact one of three gliders donated to the RAF in 1965 by the McRobert Trust.

There was a little bit of harmless, good natured 'snobbery' about which glider you had in those days, so when I turned up at a VGC event with my pride and joy it was promptly nicknamed as 'The Gulp' by a couple of Booker members (you know who you are...!). The debate about what constitutes a Vintage Glider probably still rumbles on, but then it was a hot topic. Subsequently, during my time as Chairman a few years later, I wrote a paper to the BGA regarding glider markings which put the debate to rest by defining a Vintage glider as 'designed before 1951'; but to encourage an eclectic and more rounded membership, we also introduced the category of Classic and Old-timer into the club. I truly believe that this gave the club the membership injection it needed, and that it became less 'elitist'.

Anyway, a year or two later, I went on to buy a Slingsby T31, the type I went solo in when I was in the ATC. My recollections between the first solo when I was 16 and the next solo some 30 years later couldn't have been more different. A three minute, left hand circuit in the former, two and a half hour soaring flight for the latter.

Most readers know the history behind the beginnings of the Club following Chris Wills calling an International meeting at Husbands Bosworth (1973) to draw attention to the plight of old gliders and concerns over continuing their airworthiness. There had been vintage clubs throughout Europe before this meeting but Chris's action focused international attention to the problem, from which was born our Vintage Glider Club. It was not long after 1973 that Chris was proudly announcing that VGC membership had grown to 44 members! Finally the words "of Great Britain" were dropped from our letter heading in recognition of the VGC's international roots and growing international membership.

Well into the late 1980's, the VGC had a membership list comprising about 400 names and the club was administered by volunteer Officers. The club started to have 'assets' and some working capital. The responsibility for communication, motivation and leadership was vested entirely in Chris Wills, and it was felt that as the club was now growing fast, some formal organisation and accountability to the members was needed. A cadre of senior members led by Colin Street and Robin Traves formed a Steering Group to develop a structure of governance, to which I and others joined as volunteers.

The Steering Group adopted and modified the Rules of the then Popular Flying Association to which we added emphasis



Margaret in the 'Gulp' at Wachtensburg. Photo David Shrimpton



Thrilled and honoured to be in Willi's Spalinger. Farkashegy 1989. Photo David Shrimpton

of our International involvement in recognition of the members in other countries (26 member countries now, we had only 12 then) and the role of our International Council. Finally, at a ballot held at Dunstable in 1991, a committee was elected and at the first meeting I was voted on as Chairman, a position I was elected to hold for some 17 years. During that time I would like to think that the governance, responsibility and accountability has improved since the original officers of the Club recognised the need for such a move and I am pleased to be able to reflect on some of the things that we achieved as a group of dedicated individuals, who received little personal gain, sometimes a lot of criticism, and often lost a number of good flying days locked up in a meeting room when we could have been flying! Some key highlights have been

- During the 90's the Club was not attracting new members. The solution was the recognition of classic gliders as part of our heritage and expansion of the Club to



McRobert Trust Swallow. Parham 2008. Photo David Shrimpton

40 YEARS OF THE VGC

include these for those who wished to be represented or participate in the VGC.

- We Improved our image by modernising VGC News to become a professional looking colour magazine in line with our ambitions to be seen as a well organised and run International organisation
- Confirmation in 2006 we had the debate over whether the Club was British or International which concluded with a resounding confirmation of the Club's International status.
- Move to more formal governance as a result of the litigious environment which prevails today. Most recently the Club has moved to protect its members by formalising its legal status and becoming a company limited by guarantee which also improves our access to funding from official government bodies.
- The last four years has seen the introduction of EASA in Europe – The VGC has been active with discussions over Annex II having been included on representation via the European Sports Council and other bodies (BGA)

But above all, we have continued to achieve the Clubs objectives and created many friendships across the world which have, and will last for years to come.

Like most members who have been lucky enough to attend our National and International Rallies, I have many memories of our adventures that we still talk about today; visits to interesting places that I would otherwise never have visited, not just airfields but historic cities and places both East and West and of making friends with people from around the world I would otherwise never have met and with whom I keep in contact still.

The memories are too many and varied to cover here, and anyway are usually made more interesting when recalled over a glass or two of wine! But here are a few highlights which some of you may still empathise with.

At Keihuevel – and the first International incident at one of our rallies involving an Austrian pilot flying a British owned Eon Primary which collided with a German owned Grunau on a Belgian airfield during a final turn. The Grunau was on its first outing following a full restoration to concourse condition so the owner was understandably very upset. Fortunately nobody was hurt but the insurance companies must have had a field day sorting that one out with four nationalities being involved.

Attending the International Rally in Hungary (Farkashegy before the Berlin Wall came down), was like going back in time. Hosted by members who could remember

(and some of whom resisted) the Russian intervention. The caterers were members of the Hungarian Army. Supermarkets did not exist and fresh meat was difficult to obtain because the local shops had no refrigerators at that time. Evening entertainment was classic Hungarian dancing in traditional costumes and live 'Gipsy' music. (photo) During the Rally we were given a reprimand from the Authorities because there were more gliders in Budapest ATZ than airliners which resulted in us being grounded for a day.

In the Czech Republic, Zbraslavice, we were struck by how overwhelmed the locals were to receive a visit from VGC members travelling from the West. The language was so different to any other European language that we had to wear a label round our necks which stated in Czech "this person is a foreign glider pilot. If found please telephone the following number", hopefully we would be returned safely if 'found'. When it was time to come home any spare space in a glider trailer was crammed with locally manufactured Bohemian crystal.

The International Rallies were becoming such adventures we determined not to miss the one at Bar-Sur Seine, France. Here we were in the heart of Champagne. Our hosts asked us to pay for our glasses but not for the Champagne which flowed freely. Presumably the glasses were more difficult to replace than the drink. One morning we counted over 100 empty Champagne bottles from the previous evening! At a very colourful ceremony some members were invited to become Chevaliers (Knights) of the Commanderie du Saute-Bouchon Champenois, which translated as 'popping corks'. We were taught the etiquette of how to properly open a bottle of Champagne, how to hold a glass and toast "The King of Wines" – skills I still practice as often as possible! More recently, we visited Wels, Austria where we learnt to dance 'shuhplattler's style (thigh and heel slapping!). Some of us managed to fly far enough to dip our toes into the breathtaking Austrian Alps.

Obviously Chris Wills was fundamental to my relationship with the VGC. He was the undisputed inspiration behind the Club, admired for his extensive knowledge, dedication and determination. Even his eccentricities were cherished and loved by everyone. When either I, or the committee were trying to bring structure and organisation to the VGC (anathema to Chris) he would query the necessity of rules but then follow up with a message of support and appreciation.

But high on my list of recollections are



The International Council - 1997. Photo David Shrimpton

those dedicated individuals who spent so much of their time restoring, building and flying vintage gliders and who brought them huge distances to our rallies to be seen and shared by others. Some generously gave rides or allowed others to fly their pride and joy; even a relatively inexperienced pilot could get the chance to fly a variety of vintage gliders thanks to the generosity of their owners. I am certainly grateful for having been given the chance to fly some of the vintage 'fleet' (and relieved not to have suffered any incidents whilst doing so!) There are also the individuals who will always be remembered for helping to 'shape' our Club, run our events, provide entertainment for families, organise and run the VGC shop, act as translators for our international briefings or simply help to rig or de-rig our gliders. Some of these persons are no longer with us and are sorely missed.

During my time as Chairman I always tried to ensure that the Club maintained a formal Constitution, whilst being run on the basis of general agreement, common sense and goodwill backed up with a formal governance and protection for the club and its members. This had to be achieved without interfering with the perception of the members that Vintage gliding was fun

The VGC, being International, brings us all together as one movement and we have found a place in the international world of gliding. Issues with pilot licensing or annex II may still inhibit our ability to fly in Europe although as before in France for example given the problems with British glider pilot licences we have learned that networking and diplomacy can open doors.

With ever increasing European legislation, particularly in the world of aviation, we need to lend our support by forging stronger links with other organisations to ensure that our voice is heard. There will inevitably be problems ahead. But doesn't this all sound familiar, wasn't this where Chris Wills found himself 35 years ago when he decided not to give up but to fight back? In doing so gave us the inheritance we cherish today.

FS-24 PHÖNIX



Prototype Phönix. Photo Hans Disma

Hans-Jürgen Fischer

GRP - Sailplane FS-24 Phönix

English translation taken from an original German article that appeared in **Modell Aviator** by Hans-Jürgen Fischer

There can be no doubt as to the importance of the Phönix in relation to today's gliding history. The world's first glass-fiber glider, incredibly this aircraft was years before its time, especially when one considers that this new technology was being applied to gliders in the early 1950's.

Revolutionary in every way, it paved the way for future designs, and yet had to contend with a skeptical gliding community that took years to convince, so much so that some authorities refused to let glass-fiber gliders be registered within their boundaries, such were the debates over the longevity of GRP and its safety. Time of course was to prove the critics wrong, and today it seems almost incredible that so many questions remained for such a robust medium that has more than proven itself over the convening decades. [Ed]

Through their experiences of working with model aircraft, the pitfalls and advantages of balsa wood were already known by Hermann Nägele and Richard Eppler, when in 1951 they embarked upon designing and con-

structing a high-performance glider of low weight in a monocoque shell form. The main materials were to be of balsa-wood, reinforced with an outer skin of glue impregnated paper, and soon many tests had confirmed the weight and strength-related features of the design.

With a wing of conventional design, the fuselage was built as a stressed shell however. Neither designer had the money to develop the new technique, which would seriously limit how much research that could be invested. It was through the Academic Fliegergruppe Stuttgart that the project was successful in securing financial support from the state of Baden-Württemberg, so the construction and the necessary research was could continue.

Soon after Eppler had attended a conference on plastic materials in Stuttgart, which led both Eppler and Nägele being convinced that GRP would be far stronger and lighter than paper, and after several experiments, led to a complete redesign of the glider.

The FS-24 was given the name "Phoenix" after the original balsa-paper glue at-

tempt was unceremoniously burnt, and like the bird of ancient mythology, was resurrected from the ashes. The letters "FS" indicated that it was built at the Akaflieg Stuttgart, with the reference number "24" being a continuous serial number for the 24th project for the Academic fliers from the Swabian region.

Construction of the prototype took place in 1955 at the premises of Bölkow Nabern/Teck, with a basic requirement of a single-seat, mid-wing monoplane with a wing-span of 16m.

One of the main goals in the construction of the Phönix, [German spelling of type will be retained hereafter], was to achieve the lowest possible wing loading, with the emphasis being on local cross-country flying at good average speeds. This approach allowed for very weak thermals to be more usable, where optimal performance when circling is more important than superior glide ratios at higher speeds. The required low wing-loading was not only achieved through a large wing surface area, but also by the expected lower overall weight through the new glass-fiber, polyester-balsa sandwich construction.

Aerodynamics

Richard Eppler calculated the new FS-24 wings and tail sections in line with the American NACA profiles. The EC 86 (-3) -914 profile had been tested in the wind tunnel of the Research Institute in Göttingen, and was characterised by a large maximum lift coefficient at low speeds whilst still maintaining a high degree of laminar flow over the top and bottom of the wing. Through a low angle of incidence of the fuselage/wing mounting, both the wing loading and aspect ratio were designed for good average speed ranges at an optimum flight performance, with particular attention to pleasant flying characteristics. For this reason, the ailerons were designed as small as possible, and to limit the wing-tip drag of the ailerons, which extended to the wingtips, they were designed with an

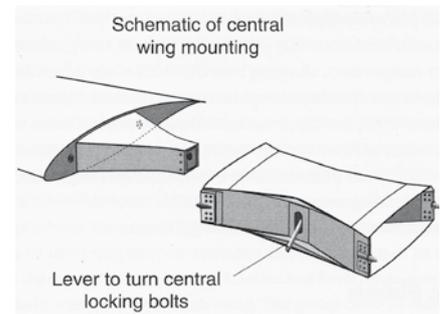


Skin thermometer on PH999. Note variable air-vent to the right. 40 years later this was claimed to be a novelty by the new JS 1. Photo Hans Disma

FS-24 PHÖNIX



Production prototype T-series Phonix D-8353 which first flew on 6th May 1960 piloted by Nagele. Haase later went to fly D-8353 at the 1960 World Gliding Championships. Photo Rudolf Lindner



Details of central wing-bridge. Courtesy of Martin Simons

elegant elliptical plan-form. Despite the outer tips of the aileron having little, or no cord to them, (due to the oblique axis of elliptical aileron), the development team were still able to design in a sufficient surface area. This helped to limit drag, and also allowed for crisper handling characteristics. In order to achieve a straight hinge-line for the aileron, the wings outer end portion had to be slightly bent upwards however.

The very elegant fuselage body contour shape, which was made up from either circular or elliptical cross-sections, was complimented by an equally attractive flowing canopy, which made for a cockpit that was slightly constricted for space however, The tail surfaces were of a proven conventional design by Eppler, with special profiles optimised for the tail surfaces with the Eppler E-272 profile, whilst the tail-plane employed an Eppler E-271 profile. The installation of a wheel was omitted, however to protect the underside of the fuselage during takeoff and landing, a sprung-skid was provided.

Method of construction

In practice laminar airfoils require a high profile accuracy and an absolutely smooth surfaces in order to achieve the calculated good flight performance. With the then more common fabric-covered plywood construction techniques, they were hardly suitable to achieve the required accuracy without considerable extra difficulty and costs. With the still relatively new materials, such as polyester resin in combination with fiber-glass cloth, these fiber-reinforced plastics (GRP) could be made any shape, which of course was important factor, and once cured, helped to give GRP its extraordinary strength.

With the construction of the FS-24 utilising

a sandwich construction, the inside and outside layers were a glass-fiber reinforced polyester resin, with a central layer of balsa wood filler. At locations where particular strength was required, or at points where forces were localised, balsa wood was substituted for hardwood.

The wing was laid up in two molds, one for the top section of the wing, and the other for the bottom section. First the molds were provided with a release agent to prevent materials from sticking to the mold. Thereafter the outer layers of glass-cloth impregnated with polyester resin were laid into the mold, before the balsa wood layer was inserted, onto which the inner layer of glass-cloth skin was then applied.

In the upper shell of the wing, fifteen ribs were then installed, and as there was no spar, designers were particularly careful to reinforce an area of between of between 15 and 55 percent of the cord by increasing the depth of sandwich. Added to this was three vertical stiffening webs, which together with the rest of the wing, considerably helped to increase the lateral and torsional forces of the wing.

After the controls for the ailerons and the large split-flaps, which were installed in the bottom part of the wing only, (see accompanying photo), the two wing halves could then be mated together and glued together. It was only then that the ailerons and flaps were cut.

To transfer the stresses and loadings between the two wings and the fuselage, a large wing-bridge structure was designed, with three pins ensuring a secure connection of the wings. (See diagram).

The technique for building fuselage was somewhat differently to the wings. The fuselage was made over a wooden core in one piece, with the balsa wood filling being

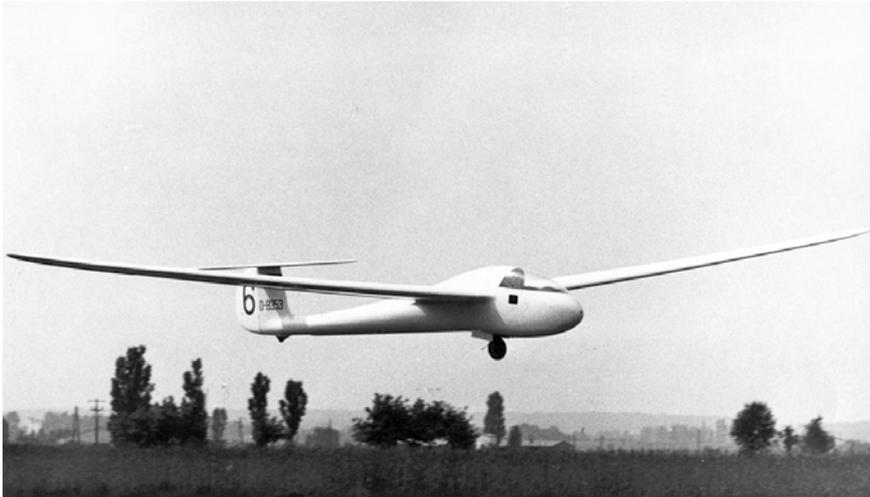
laid on first, onto which the outer layer of GRP skin was applied. Once this outer layer had cured, the hull was then cut in two horizontally, at which stage both plywood strengtheners and the inside layer of GRP was applied to the inner side of the balsa wood sandwich. With the fuselage separated, the fitting of the wing attachment structures, cockpit equipment and the metal fittings for the controls were laid into the bottom shell, before the two halves were then bonded back together again.

All linkages were concealed, with the ailerons and flaps driven by torsion bars, whilst the elevator was driven through a tube, and control-wires controlling the rudder. All controls were self-locking, which was then a another ground-breaking new feature, and with an empty weight of only 164.2 kg, proved to be surprisingly low, equating to a wing loading of only 18.5 kilograms/square meter. [This was significantly lower than those of comparable wooden gliders of the day.]

On the 27th November 1957, the prototype FS-24 Phönix, with the registration of D-8258, took to the air for the first time flown by the co-constructor, Hermann Nägele, from Schwaighofen airfield near Ulm. A few days later, the first aero-tow launches were carried out on the Hahnweide in Kirchheim / Teck, with additional flight testing proving to be straightforward due to the type's excellent handling and performance.

Within gliding circles the Phönix proved to be a sensation, with its elegant design and new construction materials inspiring all within the sport. The prototype Phönix was then shipped to the United States where it then underwent extensive flight and comparisons tests with some of the best American all-metal glider types of the day, which included the Schreder HP-8

FS-24 PHÖNIX



Haase at the 1960 World Gliding Championships. Photo Hans-Jürgen Fischer



Cockpit detail. PH-949 Photo Hans-Jürgen Fischer

and Ross Johnson RJ-5. During these tests, the FS-24 Phönix was measured with a glide-ratio of 1:40, which was an incredible figure at the time!

Series production

In 1959, Rudolf Lindner flew the FS-24 Phönix at the German Gliding Championships in Forchheim, but could only reach fifth place in the overall standings. In the meantime, Eppler, Nägele, and Lindner, had all found employment with Bölkow developments KG, so it seemed a logical step that Ludwig Bölkow put the Phönix into production. In January 1959, the trade magazine "Flight World" reported: "The company of Nabern Bölkow GmbH has begun volume production of the high-performance glider, the FS-24 Phönix. This aircraft was developed by the Akaflied Stuttgart with financial support from the State of Baden-Wuerttemberg. World champion Ernst-Günter Haase, who recently became head of design Boelkow developments KG, intends to fly the Phönix in this year's World Cup."

For the production version of the Phönix, there were a number of changes compared to the prototype. The fixed skid gave way to a retractable undercarriage, and the somewhat low-lying horizontal stabilizer was redesigned in a T-tail configuration. In addition, the ailerons were lengthened, and instead of 2 degrees of dihedral, this was increased to 4 degrees. Eppler also modified airfoil profile, raising the profile thickness from 14.3 to 14.6 percent, which subsequently became the Eppler 91 section.

The canopy was also redesigned and became somewhat enlarged by squaring off the lower edge of the canopy, thus losing the more attractive lower flowing curved

line, with the original polyester resin being replaced with a more suitable epoxy on the series production aircraft.

The first production FS-24 to be built at Bölkow carried the serial number 402, (the Akaflied prototype D-8258 had the serial number 401), and was registered as D-8353, first flying on the 6th May 1960, again at the hands of Nägele.

The competition glider pilot, Ernst-Günter Haase flew D-8353 at the 1960 World Gliding Championships in Cologne Butzweilerhof, but blamed his disappointing 9th placing on the glider. As the respected German gliding historian, and author, Peter Selinger, once wrote: "Is success not thanks to the pilot, and defeat not at the expense of the plane?"

Road to success

During the 1961 German championships, three Phönix T's were entered with Haase and Lindner flying to second and third places. In 1962, Rudolf Lindner became the German Open-Class champion in a Phönix T, and had broken a world-record in the free section with a flight of 876 km from Teck to the French Atlantic coast. (s/n 408, now PH-999)

By 1962 there were some seven Phönix T's that had been produced at Bölkow Nabern/Teck and later, in the Laupheim plants. Although one can argue that this glider was revolutionary in its design, it was not a great success in terms of sales however. The majority of pilots were a little skeptical and cautious of the manufacturers claims, with widely held views that the balsa-fibreglass sandwich would not stand the test of time, and was even thought to be unsafe by some. [Hans Disma writes that there was even a thermometer fitted to measure the skin temperature, as it was

thought that above 35 deg.C there was a danger that the structure itself could become weakened! See photo]

Despite the various individual projects by the various Academic flying groups to develop GRP, it would take years for other high performance GRP gliders to be put into production, and by 1964, Eppler, Nägele and Lindner had by then constructed the "Phoebus", of which more than 250 units were put into series production. The avid glider-pilot, Hans Disma, from the Netherlands had by 2008 two copies of the Phoenix T in his small collection, along with a Minimoa Gö-3, which is now back at its home at Hahnweide.

Footnotes

The illustrated 3-view drawing of PH-949 is a Phoenix T with the serial number 03. Delivered in May 1960 with the registration D-8354, was sold to an owner in Switzerland in 1963, where it was registered as HB-746. It later returned to Germany, where it was later again sold in 1982/83 to Belgium. It was then acquired by Hans Disma, who then re-registered it as PH-949, and was later sold to an owner in Australia. By 2007, both PH-949 and PH-999 had been seen at national and international vintage gliding meetings. PH-999 (see colour drawing) is the last built production Phönix. With the factory number of 08, this is Lindner's former world-record Phönix.

The Phönix prototype, later registered as D-9093, now carries a slightly enlarged rudder, and is now on display at the Deutsches Museum in Munich. The Soaring Museum on Wasserkuppe now houses the first of the Phoenix T-series machines, and with the serial number of 02, carries the registration D-8353.

FS-24 PHÖNIX



Novel, but noisy clear vision window. Note the split flap crank handle and sliding indicator to the left. Photo Hns Disma
 Note large underwing airbrakes. Photo Hans Disma

For a full list of the whereabouts of the production Phönix's today:
 s/n

- 401 Deutsche Museum, Munich,
- 402 Wasserkuppe Museum.
 (1st production, T-tail.)
- 403 John Ashford, Australia
- 404 Keith Sleigh, United Kingdom
- 405 crashed
- 406 Paul Gaines, USA
- 407 Helmut Lindner, Germany
- 408 Hans Disma, Netherlands

May we take this opportunity to extend a big thank you to the following individuals, who without them, this article would not have been possible:

Hans-Jürgen Fischer, Eckart Müller, Jochen Ewald, Beat Galliker, Helmut Lindner and special thanks to **Hans Disma**.

B.S.

Data and Performance

- Length:** 6.84 m (22 ft 5 in)
- Wingspan:** 16 m (52 ft 6 in)
- Empty weight:** 161.7 kg (356 lb)
 [Later increased to 225 kg]
- Max takeoff weight:**
 265 kg (584 lb)
 [Later increased to 330 kg]
- VNE:** 140 km/h (76 kts)
 [Later increased to 180km/h]
- Maximum glide ratio:**
 40:1 at 77-80.2 km/h
 (41.6-43.3 kts)
- Rate of sink:** 0.53 m/s (104 ft/min)
 at 69.2 km/h (37.4 kts)
- Aspect ratio:** 17.83

Prototype FS-24 Phönix

PD-8353 Work Number 402.
 1960 World Gliding Championships.
 (Pilot Ernst-Günther Haase)

1970's, Hahnweide Kirchheim/Teck

From October 1987 at the
 Gliding Museum at the Wasserkuppe

FS-24 Phönix T
Zeichnung ER

Peter Ocker

War prizes returning to Germany

At the end of World War II, countless German Luftwaffe gliders were captured and flown in other countries, which more often than not, saved them from being destroyed by invading troops. Many were to become important gliders in their newly adopted home countries, but now more and more of them are returning back home...



Ex-Swiss Kranich returns to Hahnweide. L-R Sieger Mayer, Werner Roth (former owner), Hellmut Hirth, Martin Konermann and Herbert Kersten.

Some of the hundreds of gliders captured in Nazi-Germany were not destroyed, but found new homes in Poland, Czech Republic, Hungary, Yugoslavia, France, Netherlands, United Kingdom and also in neutral Switzerland. They were a massive improvement of many of the existing gliders there, and played an important part in the re-birth of gliding activities in many countries.

In France there were about 350 German gliders operating after the war. On the one hand, this was an easy way to get gliders, on the other hand, it stopped France from her own developments and production, as "le materiel Allemand" was more or less for free. Some of these German gliders proved so popular that they were often produced in France under a French name. The Nord 1300 for instance, was a direct copy of Edmund Schneider's Grunau Baby IIb, whilst the Nord 2000

was Hans Jacob's Meise, or in the case of the VMA 200 Milan, was yet another of Jacob's iconic designs, the world-beating Weihe. Nevertheless, development of many of the original designs were undertaken, and some great machines were produced.

The German gliders, were of course getting older and older, and many were taken out of service. Thanks to people like Francois Ragot, some survived however. Francois not only restored his Mü 13 D-2, but also had a Mü 13 D-3 sitting un-restored in his garage.

A German enthusiast, Adolf Wilsch got in contact with Francois, and was able to buy the Mü 13 D-3, which had formerly flown in his home area. Some 10 years and 4300 working hours later, in which Adolf had completely built new wings and tailplane from scratch, the Mü was back gracing German skies once again.

(More on this fantastic restoration will be in the VGC Yearbook.)

The famous Swiss aviator, Pirat Gehringer, had a similar plan to obtain German gliders, and was able to obtain some German gliders from the French occupied zone at Lake Constance after the war. Among the gliders in which he "liberated" during some dark nights, was a Kranich II. This glider flew in Switzerland for many-many years, however eventually lay forgotten in a corner of a hanger, until discovered by Swiss VGC members who then carefully restored it. It was present at some of our VGC events, and was much admired. One syndicate owner, Fips Rothenbühler, sadly suddenly died last year, (we will never forget you Fips!), and as a result the Kranich was looking for a new home.

Advertised at the VGC Rendezvous at Olstyn in 2012, one potential buyer was very interested, however no contract was finalised. This then led to some German VGC members getting together to purchase the Kranich on behalf of the Fliegendes Museum (Flying Museum) Hahnweide.

Despite already having a former German Luftwaffe Kranich, (which had come from the UK), in their workshops, this particular Kranich has several owners who have not finished the restoration. So with the arrival of the ex-Swiss Kranich, now they have a fully restored example. So brings the total number of Kranich's in Germany today to three.

It is most interesting to see these old Luftwaffe gliders are making their way back home. As I have touched upon above, numerous gliders have returned in the past, not forgetting the famous Minimoa of the Münster Mafia, (which was called "Spätheimkehrer"), and it is still happening today!

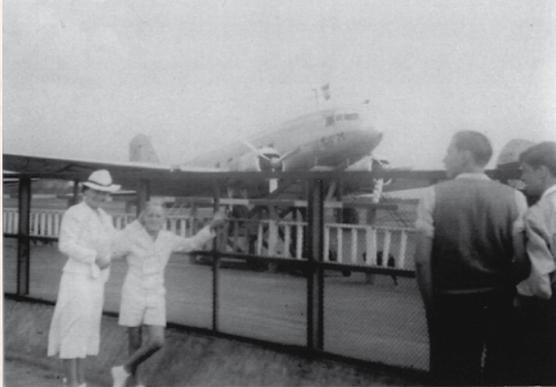


Adolf Wilsch's stunning Mü 13 D-3 has finally returned to her native skies.

Reader's Album

KLAUS CESNY

*Why not share your favorite photos with us?
To tell us why they are special to you, please contact us here at VGC-News!*



1936 Besuche des Flughafens Berlin-Tempelhof weckten mein Interesse an der Fliegerei.



Bilder von Rossitten weckten mein Interesse am Segelfliegen



Rossitten



Februar 1945
NS-Fliegerkorps
Segelflug-
Übungsstelle
Rannay



NS-Fliegerkorps, Segelflug



1937 Mein erster Flug in Konstanz am Bodensee

Im Februar 1945 nahm ich an einem Schulgleiterkursus in Rana teil - zusammen mit Harald Juhnke (später bekannter Schauspieler)



NS-Fliegerkorps, Segelflug-Übungsstelle Rannay, Osthang

Reader's Album

KLAUS CESNY



Meine Fluglehrerin - eine freundliche junge Frau: Margret Schmidt

Margret Schmidt schrieb nach dem Krieg ein Buch über ihre fliegerischen Erlebnisse



Übersicht über ausgeführten Starts

Nr.	Datum	Platz	Startort	Flughöhe	Wkt.	Gründe	Startort	Fl. (Stk.)	Bemerkungen, Forderungen, Eintragungen des Piloten
16	11.2.45	56	38	36°	SW 2-4	Rannay	G	1. Versp.	
17	13.2.45	.	.	37°	W 4-6	.	.	2. "	
18	.	.	.	39°	.	.	.	3. "	
19	14.2.45	.	.	41°	W 2-2	.	.	4. 5 7	
20	17.2.45	.	.	38°	E 0-2	.	.	5 2 +	
21	18.2.45	.	.	41°	E 0-2	.	.	7 + + +	
22	19.2.45	.	.	46°	E 0-2	.	.	+ + + +	
23	21.2.45	.	.	405°	E 0-2	.	.	1. A (M)-Prüf.	
24	.	.	.	407°	.	.	.	2. "	
25	22.2.45	.	.	420°	W 2-4	.	.	A (M)-Prüf.	
26	.	.	.	417°	.	.	.		

U.S.-Fliegergruppe Gruppe I, Standorte 40 15-17 Flug-Abteilung Rannay

Die Richtigkeit der Eintragungen Nr. Nr. 1 bis Nr. 26 bescheinigt die Fliegergruppe Rannay am 22.2.45 M. Schmidt Lt 2000



Von 1978 bis 2008 flog ich diese Ka 6E - mit ca. 600 Starts und ca. 1500 Stunden - überwiegend in den italienischen und österr. Alpen. - Turnau



Maunterndorf



2008 Meine letzte Aussenlandung bei Spittal



Dezso George-Falvy and an assistant pose in front of the Ho IV. Photo Dezso George-Falvy collection via Nurflügels website



The Ho IV coming in for a landing, with spoilers extended. Photo Dezso George-Falvy collection via Nurflügels website

Dez George-Falvy

I Flew the Horten IV

Following up from issue 137, in this issue we reprint the Hungarian test-pilot, Dez George-Falvy's report of the flight trails of the Horten IV carried out at the Mississippi State University in the early 1950's. Probably considered as one of the ultimate documented flight reports on an original Horten IV, it gives a fascinating and valuable insight into the hype surrounding the type. Sadly Dez George-Falvy passed away in 2001.[Ed]

In the development of high-performance sailplanes, the venerable Horten IV has earned a unique and distinguished place. It quickly became a legend in the post-war years and even today generates considerable interest.

At its conception in 1940, the Horten IV was the most advanced sailplane design in the world. It represented the ultimate in aerodynamic cleanness and subsequently achieved the highest performance in its time. It was the fourth model in the line of true "flying wings" developed by the Horten brothers, Reimar and Walter, in Germany during the years preceding World War II. The concept of true flying wings (featuring an absence of vertical stabilizer surfaces as well as a pilot compartment blended into the wing to minimize drag) was a principal feature of the Horten designs.

Because of the limitations imposed on the sailplane manufacturing in Germany during the war, only a few copies of the Horten IV were produced. Nevertheless, these were flown with remarkable success in contests. However, the first preliminary performance tests by the DFS (German Flight Research

Institute for Sailplanes) in 1943 revealed that the actual performance of the Horten IV was somewhat lower than expected, although still remarkably good.

After the war, one surviving and flyable Horten IV was brought to England for evaluation. When the British were through with it, they sold it to an individual in the U.S. Unfortunately, the plane was soon damaged in a takeoff accident.

Then Rudy Opitz, a renowned German test pilot working for the USAF, repaired the Horten and flew it at the US National Soaring Competition of 1952 with remarkable success.

This caught the attention of Dr. August Raspet, Director of the Aerophysics Department of Mississippi State University, which was dedicated to study and improve the aerodynamic efficiency of airplanes. He wanted to find out why this remarkable machine did not quite achieve the expected performance levels and, knowing the causes, to find ways to improve it.

Dr. Raspet wanted an experienced sailplane pilot with engineering and flight testing background who would carry out the long awaited evaluation. It was a great honour to me to be chosen for this task, which actually became one of the highlights of nearly sixty years of flying. It was an exhilarating experience to fly this magnificent plane, vivid memories of which still live with me forty years later.

The Horten IVa had a 66.6 ft (20.3 m) wing span with an aspect ratio of 21.8. The airfoil sections were of Reimar Horten's own design, varying along the span from a 16% thick reflexed section at the root, to a 10.8%



Rudy Opitz in the Ho IV awaiting a tow. Photo Dezso George-Falvy collection via Nurflügels website

symmetrical section at the tip with a geometric twist of 6.7 degrees.

The construction of the wing was unique; a welded steel tube centre-section with plywood covering the cockpit, which smoothly blended into the main wing section which was of conventional wood construction, with plywood covering forward of the main spar, and fabric covering aft of the spar. The outermost 22% of the span was of metal construction, using magnesium alloys for lighter weight and more stiffness.

The flight controls consisted of a 3-segmented elevon for longitudinal and lateral control, a drag rudder (mini-spoiler) at the wing tip for directional control, and a generously sized main spoiler on the inboard wing for flight path control and dive-speed limitation. The three segments of the elevons deflected in a unique schedule, such that pulling the yoke backwards activated mainly the centre and outboard segments, while pushing it forward deflected the inboard segments more. When rotating the yoke (for example, by left aileron application), the outboard segment deflected most and the others proportionately less on the left wing, while on the right wing the inboard segment deflected most and the two outboard segments deflected proportionately less.

HORTEN IV



Horten over the skies of Mississippi. Photo Dez George-Falvy Collection via Gábor Fekes



George-Falvy during the trials. Photo Dezso George-Falvy collection via Nurflügels website

There was also differentiation in the aileron system so that the upward moving segments deflected about twice as much as the downward moving segments on the opposite wing panel. This elaborate control mechanism was in fact a masterpiece by itself, and made the Horten IV totally free of the so-called "adverse yaw" tendency which plagued many other tail-less designs. The drag rudders were operated by foot-pedals in the conventional manner, but they could also be activated simultaneously in order to provide additional flight path control.

The pilot was situated in a prone position to achieve as small a frontal area increase as possible and thus reduce drag. This was an unfamiliar arrangement, often questioned by the uninitiated. It turned out however, to be quite comfortable, and provided superb visibility forward and down through the plexi-glass nose section. It created a feeling of flying like a bird: head first, wings extending out of your shoulders as if they were parts of your body. There was a retractable nose skid for take-off and landing which was exposed in the original design, but covered by a streamlined fairing during the tests at Mississippi State University. The test program consisted of some 35 flights with a total duration of about 60 hours. Most of the tests were conducted in the early morning hours before the thermal activity began, to ensure smooth turbulence-free air conditions.

The tests included:

- 1) airspeed system calibration,
- 2) glide performance measurements,
- 3) airfoil profile drag measurements,
- 4) boundary-layer transition measurements,
- 5) pitch-angle measurements,
- 6) elevon deflection measurements (at 3 C.G. locations) and
- 7) tuft photos of the wing and aft-canopy flow.

From the above tests it was concluded that:

- 1) The best glide ratio of the Horten IVa in the condition as tested was indeed about 1:30 instead of the originally expected 1:37.
- 2) The principal cause of the lower than expected performance was the relatively high upward deflection of the elevons required to trim the plane at lower speeds, which resulted in high profile drag and increased induced drag due to non-ideal lift distribution.
- 3) Flow-separation from the aft-canopy also contributed to increased drag.
- 4) The magnitude of elevon deflections (and thus the associated drag increment) strongly depends on the location of the centre of gravity. The more forward the C.G., the larger the elevon deflection and the drag increment.
- 5) Moving the G.G. aft improves the performance but decreases stability (mainly lateral directional) and makes handling characteristics less desirable.
- 6) At the C.G. location at which most of the tests were carried out, the Horten IV showed excellent handling qualities, a little sensitive in pitch control (as all tailless airplanes are) but very good in lateral-directional control, allowing well-coordinated turns with the use of elevons only.
- 7) The Horten IV had superb turning characteristics. Complete circles, as short as 8 seconds in duration, could be flown with the control yoke all the way back, even with hands-off, and without the possibility of stalling.
- 8) The plane had very benign stall characteristics in straight flight, without any tendency to roll.
- 9) There was, however, a less desirable behaviour in the form of pitch oscillations when a gust was encountered. At lower speeds these oscillations were quickly

damped-out and thus quite harmless, but at speeds above 90 miles/hour those could lead to dangerous flutter of the outer wing panels.

10) Another peculiar characteristic was that application of the drag rudder induced a moderate roll and nose-down pitch, which at very low altitudes, such as at the beginning of tow, could be quite unpleasant and did in fact lead several pilots to grief. The remedy was rather easy however, and to counteract this roll and pitch-down tendency with a reflex-like application of opposite elevon deflection, or just simply abstain from using the rudder near the ground.

Having identified the causes of performance shortcomings, the next task was to find ways for improvement. The tragic fatal crash of Dr. Raspet in the spring of 1960 (flying a different type of experimental aircraft), however, put an abrupt end to this activity. Subsequently, I left the Aerophysics Department for working at the Boeing Company and the Horten IV was sold in an auction. After several mishaps, the venerable bird has found its final resting place in a museum at Chino, California. Its history stops here, but its legend may live for a long time yet!

Special thanks to **Gábor Fekes** and **Douglas Bullard**.

www.nurflugel.com



George-Falvy with the Horten. Photo Dez George-Falvy Collection via Gábor Fekes



Arriving over Exeter Airports ATZ. Photo Rob Lockett

Rob Lockett

Tibenham to Truro in an old Olympia 2b

For many years me and my mate Gilbo had day-dreamed of flying an old fashioned downwind dash to Devon or Cornwall in a Spring north-easterly wind, perhaps for 300km in my Oly and 500km in his Skylark 3. The Stansted zone makes this difficult from my home club at Wormingford on the Essex & Suffolk border as it requires battling into the north-easterly wind, so it would be best to launch from Tibenham in Norfolk.

I had the Easter week off work, it was perishing cold and there was sleet and snow, but the north-easterly set up and blew for a whole week. The first Saturday and Sunday were spent fitting GPS-Nav to the Olympia outside in the falling snow, but the weather looked hopeful every day from Monday through to Friday. I missed out on Tuesday as this was forecast to be a less good day, but turned out to be a very good day. On the Wednesday me and Gilbo both trailered to Tibenham, but the day was duff, so we trailered back home to Colchester. Thursday had been forecast to be the best day of the week, but turned out duff with grey clag and snow, so me and Gee went to Bletchley Park to look at Enigma machines, Colossus and stuff.

At 10pm on Thursday night I was on the phone to Tibenham's Clubhouse interrupting their Poker Night to make special arrangements for a morning aerotow before club flying started – thank you very much to the dozen people that I pestered on the phone that night and especially to Brian K for tugging and to John R-K for helping Gee with the trailer.

Friday, the last chance of the week dawned with thick grey clag and spots of rain at home in Colchester. At 7 am the forecast showed clag south-east of a line from about Bury St Edmunds to Luton, essentially along the line of track from Tibenham to Devon and Cornwall. Looking at the grey cloudy sky I was despondent, but Gransden's weather camera showed sunshine at Cambridge so off again to Tibenham!

I declared Tibenham to North Hill for 353 km. If I could at least make say Glastonbury, on the Somerset levels, then 300km would be in the bag. If things went better than expected then Brentor for roughly 400km might be on. If I could climb at Brentor and fly on then perhaps I could better Bill Bedford's Olympia 2 flight of 413km in 1951, which I understood was the furthest ever flown in the UK by an Oly 2.

It was now about 11.20am and there were

small cumulus to the west, but overhead and east the sky was totally blue, the wind was off the sea at 20 to 25 knots and it looked unsoarable locally. I aerotowed upwind of the airfield to 3000' not even reaching Long Stratton as the headwind was so strong. On tow I felt only turbulence and no thermals, but passing back over Tibenham's runway intersection I took a few turns in weak lift before deciding, 'to hell with it', and setting off downwind. Gliding down to 1800' I luckily found a blue thermal which topped out at 3000'. No going back now, so on to the only small cumulus in reach. I reckoned I would get to it at about 1200'. Unfortunately, I hit heavy sink on the way and the cumulus decayed giving only sink. At 1000' the next cloud was 3 miles further on and out of reach, so without any better ideas I headed for it anyway. About a mile from the cloud at 500' I had the jammiest rough new thermal bubble in the blue. Gusty and rough in the windy conditions the Oly tipped and surged, but there was a positive vario average. The cockpit work-load-o-meter was bending the needle as I needed to select another field every two thermal turns due to the drift in the strong of the wind. At 800' I lost the climb, straightened up downwind toward the cloud and after ½ a mile found another good bubble to 1200' where I was able to manoeuvre to the edge of the cloud and very happily got "Hoovered" up.

Now that any early season cob-webs had been blown well and truly out of the dv panel it was time to set off properly off on track. Well, almost on track. I much underestimated the effect that the 20 degree of crosswind component in the 25 knot

TIBENHAM TO TRURO



In a setting sun St Austel hove into sight. A truly magical experience in an old wooden glider. Photo Rob Lockett

wind would have, particularly when my airspeed was only about 40 knots. This resulted in getting downwind of track near Bury St Edmunds. Fortunately I found a fantastic climb to 5,500' and pushed back upwind and back on track, promising myself not to make that critical mistake again. Approaching Gransden the sky was poor and I took it steady at 2000' resolving to take a few hundred feet climb in anything that was going up at 1 knot or more. This came to pass climbing to about 2,500' and then on track again.

Biggleswade went by, then Woburn, and then Bletchley popped up on the GPS but I couldn't eyeball Bletchley Park. The sky had over-developed a bit and I tried climb after climb passing Aylesbury and Abingdon. I could only manage 3 knots when the sky looked like there should be 5 knots. Approaching Wantage at 1800' I didn't know where to head. The White Horse Hills looked tempting, but I didn't fancy 500'agl again. Wantage was in sun but upwind of track and there was ragged cumulus downwind of track. I tried several cells of the ragged cloud before drifting over the high ground and climbed at a couple of knots never finding a strong climb.

Above the hills the TM6 crystal radio picked up the pilots of the EB28 at the other end of the glider performance spectrum battling into wind around a closed circuit task and it sounded like they were having a tough time so I felt a bit better about my inability to climb well.

At Avebury conditions improved and I climbed to 5,500'. This was the furthest south-west I'd ever flown and looking down to see several of the White Horses



Good reason to feel pleased! Photo Rob Lockett

all at once was a nice moment. Conditions were excellent and I ran for about 40km maintaining 5000' with barely a turn to Frome. Passing the Somerset levels conditions softened as expected, but I was high and 300km was now completed. Past Yeovilton and Chard I took a few climbs south of North Hill with the airfield in site. The day was now weakening and the clouds were a long way apart, but I wanted to push on, hopefully to Brent Tor. There were a few clouds a little too far north, and a few a little too south. I opted for the southern route as I thought the push to the north with headwind component would be too slow. Flying on toward Exeter I arrived at 2500' above Exeter's ATZ looking down at a dozen parked airliners.

Next, Dartmoor loomed up over the nose and there had clearly been an inadequate level of pre-flight planning. I'd presumed that Dartmoor was about 700'asl but what lay ahead definitely looked like proper hills, the map confirming that the hills are about 1600'asl. Looking down at mile after mile of thick heather my mind filled with visions of 3-day glider salvages with tractors, flat-bed farm trailers and lots of rope and whinging environmentalists. I would probably have enough height to marginally glide clear to the far side of Dartmoor near Tavistock, but not with any safety margin. Fortunately, ahead and about ¾ of the way across I could see a small village (Princetown) with a cluster of cultivated fields that were probably landable. Well, there are no certainties and the combination of two probabilities was enough to set off across. Tracking over the higher peaks to the south of the Danger Area I eventually contacted a reasonable climb near the top of the 2317' mast at Princetown and was pleased to climb. Struggling to unfold my map any further west, I eventually gave in and just tore a lump off. This was a bit of a shame as the map was brand new!

Clear of Dartmoor it was now about 5.45pm and the sun was low in the sky. I was able to run high under isolated cumu-



My girlfriend Gee and dutiful(!) retrieve crew. Photo Rob Lockett

lus along the south coast, just a few miles inshore. Passing the beautiful bays of Polperro and Fowey looking at the cliffs and beaches in the setting sun, sat in an old wooden glider, was a really magical experience. Nearing St Austell the cumulus was out over the bay, so I climbed over the sea drifting away from land in the north-east wind. The climb got ragged near the top and I set off back in land and then toward Truro. The complex of creeks in Falmouth bay lay ahead and the huge ship moored a long way inland up one of the deep creeks was a very strange unusual site to see. Now 6.30pm and the sky was almost dead. I took a few turns in the last thermal which decayed at about 1700' before gliding the last few miles south-west for distance. No lift from the last couple of potential thermal triggers and at 700' I turned back to land in a recently cut field, the vast majority of the fields being too steep, or full of crop or sheep. The landing went well in the stony field, the old Oly rolled to a halt and I climbed out and stood in the beautiful rolling Cornish countryside. I'd landed at Gare Farm near the head of the Fal Estuary between the village of Tregony and Truro. Time to check on my trusty Garmin 12 GPS how far me and the Oly had gone from Tibenham. The answer, 266 nautical miles. "Hmm, that's further than I expected and looks close on 500km!", I thought. Changing the Garmin set-up to kilometres and 493km popped up on the screen - Aaaargh!!! So close!!!! I'm very pleased as it was one of my very most memorable flights, and to my knowledge is the furthest an Oly 2 has flown in the UK. It handicaps up to 800km too, so I doubt I'll ever fly that far again on handicap!

Postscript: This is possibly the 2nd longest recorded flight in an Olympia, and under English skies! The longest known recorded flight in an Olympia was by Keith Nolan in Australia, when he flew the Yellow Witch to a total distance of 514 km in December 1980. [Ed]

Ulrich Voswinckel

Der Durchbruch des Motorflugs in Europa

Aviat-Stiftung würdigt dieses denkwürdige Ereignis
mit dem Nachbau eines Wright-Flyers

VGC member, Ulrich Voswinckel, has been a keen glider pilot for many years now. Together with his wife Sylvia, they have founded "Aviat Stiftung", building a replica of the famous Wright Flyer. During last year's VGC International Rally, Ulrich presented this historic aircraft, running it's engines for the first time, after which, there followed many interesting conversations in Pociunai. Winning recognition through a VGC Commendation Award, this subsequently led to Ulrich giving us an overview of this very interesting project.

Genau 105 Jahre sind es her, als die Gebrüder Wright am 8. August 1908 in Le Mans – und damit erstmals in Europa – ihren Wright Flyer einem begeisterten Publikum im Fluge vorführten. Etwa neun Jahre vorher hatten sie mit der Entwicklung und dem Bau von Drachen, Gleitflugzeugen und schließlich motorisierten Flugzeugen begonnen. Die Vorführungen in Le Mans und ein Jahr später in Berlin-Tempelhof bedeuteten den Durchbruch des Motorfluges gegenüber Ballon- und Luftschiffahrt. Die Aviatstiftung (Stiftung zur Förderung von Bildung, Wissenschaft und internationaler Verständigung in Hamburg, gegründet von und Ulrich und Sylvia Voswinckel, hat in jahrelanger Arbeit, dieses bemerkenswerte Flugzeug nachgebaut. Ulrich Voswinckel berichtet:

Historischer Rückblick

Der Traum vom Fliegen blieb für den Menschen sehr lange unerfüllt. Die Ballonfahrer

hatten im Jahr 1783 den Anfang gemacht. Das Fliegen „schwerer als Luft“ gelang erst mehr als 100 Jahre später. Zwei Namen verdienen auf dem Weg der Pioniere zu einem brauchbaren Fluggerät ganz besondere Erwähnung: Otto Lilienthal und die Gebrüder Wright. Otto Lilienthal gilt als der Vater der „Fliegekunst“. Er hat sich in früher Jugend schon für das Geheimnis des Vogelfluges interessiert. Als später erfolgreicher Maschinenbau-Unternehmer in Berlin befasste er sich mit theoretischen Grundlagen des Fliegens und führte ab 1891 bis zu seinem tödlichen Absturz 1896 sehr erfolgreiche Gleitflüge durch. Eine wichtige Erkenntnis seiner Forschungen und praktischen Versuche war die Bedeutung der gewölbten Form für die Auftriebskraft.

Weitgehend ungelöst blieb für Lilienthal die zuverlässige Steuerung seiner Gleitflugzeuge. Seine Methode der Steuerung durch Verlagerung des Körpergewichts war nur in sehr engen Grenzen möglich. Insbesondere die Steuerung bzw. Stabilisierung

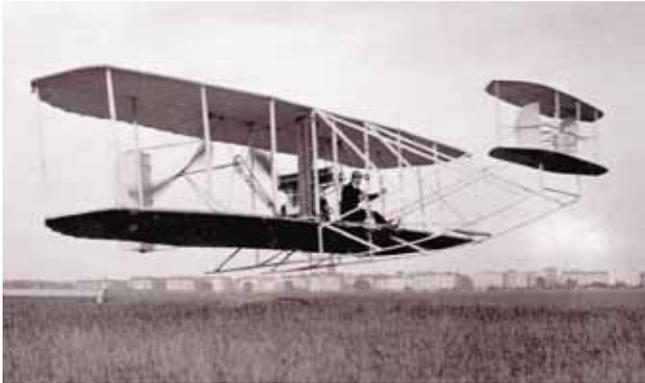
der Querlage des Flugapparates blieb ungelöst. Lilienthals bahnbrechender Erfolg war zurückzuführen auf eine glückliche Mischung von wissenschaftlicher Veranlagung und der Fähigkeit zum praktischen Durchführen von Flugexperimenten. Die von ihm eifrig betriebenen Publikationen seiner Erfolge und Erkenntnisse haben weltweit eine neue Pioniergeneration entstehen lassen. Diese Anstoßfunktion ist für die weitere Entwicklung des Flugwesens von kaum zu überschätzender Bedeutung gewesen.

Die Gebrüder Wright wurden durch die Meldung vom Tod Otto Lilienthals auf dessen Erfolge und zugleich auf die noch ungelösten Probleme des Fliegens aufmerksam gemacht. Sie entschieden, sich dem Thema Fliegen zu widmen, sammelten die verfügbaren Informationen über bis dahin bekannte Flugpioniere und führten mit bewundernswerter Ausdauer und Zielstrebigkeit ab dem Jahr 1900 Flugexperimente an der Atlantikküste im Staat North Caro-



Wright-Flyer-Replica, 2012 am Flugplatz Pociunai, Litauen

WRIGHT FLYER



Das Original in Berlin, Tempelhofer Feld 1909



Ulrich Voswinckel und Udo Jörges beim ersten Probelauf des Motors 2012 in Pociunai

lina durch. Das Ergebnis war schließlich der erste (auch fotografisch festgehaltene) Motorflug am 17.12.1903. Es ging beim Erstflug nur um eine Entfernung von ca. 40 m und eine Flugzeit von 12 Sekunden. Aber der Anfang war gemacht: Ein Doppeldecker mit zwei über Fahrradketten von einem 12-PS-Motor angetriebenen Luftschauben, ausgerüstet mit einem wirksamen Steuersystem für die drei Achsen. Erstaunlich ist, dass die breite Öffentlichkeit von der Nachricht über dieses Ereignis fast keine Notiz nahm und die Fachwelt in erster Linie Zweifel anmeldete.

Das Ziel, mit der Erfindung auch Geld zu verdienen, spielte für die Wrights spätestens nach dem ersten Erfolg eine zunehmende Rolle. Verwunderlich ist dies nicht. Von Hause aus unbegütert hatten sie die knappen Erträge aus ihrem Fahrradgeschäft und sehr viel Zeit in die Entwicklung ihres „Flyers“ gesteckt. Irgendwann musste nun auch wieder Geld in die Kasse fließen.

Die Weiterentwicklung des „Flyers“ nach dem zaghaften Erstflug 1903 zu einem leistungsfähigen und – zumindest nach Pioniermaßstäben – zuverlässigen Flugzeug gelang den Gebr. Wright schnell. Im Jahr 1905 war es geschafft. Die wesentliche Veränderung war ein stärkerer Motor, den sie ebenfalls selbst herstellten und zwei diesem Motor angepassten Luftschauben. Das Flugzeug selbst blieb fast unverändert. Aber immerhin wurde der Pilot aus seiner unbequemen liegenden Stellung befreit und bekam einen richtigen Sitz auf der Tragfläche. Diese Arbeiten fanden weitgehend unter Ausschluss der Öffentlichkeit statt. Die Gebr. Wright waren nämlich sehr besorgt, dass ihre eigenen Erfindungen von einer Sicherung durch Patente von anderen Flugpionieren übernommen würden.

Der Versuch der Gebr. Wright, ihr voll funktionstüchtiges Flugzeug allein aufgrund zugesicherter Flugleistungen – aber ohne vorheriges Vorfliegen – zu verkaufen, mißlang.

Kein Interessent ließ sich auf ein solches Geschäft ein. Nach zweijähriger Verhandlungszeit und gleichzeitiger „Einmottung“ des Flugzeugs entschlossen die Gebr. Wright sich schließlich zu einer öffentlichen Vorführung ihres Flugzeugs in Frankreich (Le Mans) und in den USA (Fort Myers). Die Vorführung in Le Mans wurde schon durch den ersten Flug zu einem durchschlagenden Erfolg. Im Vergleich zu den inzwischen fortgeschrittenen Flugzeugentwicklungen (insbesondere in Frankreich) waren die Eigenschaften des Wright-Flugzeuges fundamental besser. Insbesondere beeindruckte die hervorragende Steuerbarkeit, die auf die zentrale Erfindung der Gebr. Wright zurückzuführen war: Die „Verwindung“ der Flügel zur Steuerung der Querlage. Gab es bis zum Auftritt des Wright-Flugzeuges in Le Mans allgemein noch große Zweifel, ob ein Fluggerät schwerer als Luft überhaupt eine Zukunft hat, so zeigte sich jetzt: Dem Motorflugzeug gehört die Zukunft. Die rasante Entwicklung schon in den folgenden Monaten bewies dies.

Le Mans 2008

Das Departement Sarthe und die Stadt Le Mans haben das 100jährige „Jubiläum“ zum Anlaß genommen, für die Ausrichtung einer Ausstellung unter dem Namen „Sarthe, terre de pionniers“ (Sarthe, Land der Pioniere). Der Titel erklärt sich damit, daß ein bekannter Automobil-Pionier, Léon Bollée, Wilbur Wright bei seiner Suche nach einem geeigneten Fluggelände als Vorführort für sein Flugzeug nach Le Mans eingeladen hatte. Als Unternehmer vor Ort konnte er Wilbur Wright allerlei Hilfen anbieten. Im Zentrum der Ausstellung schweben zwei Nachbauten in Originalgröße: „Unser“ Flugzeug, der „Flyer Typ A“ der Gebr. Wright, ein Doppeldecker mit 12,5 m Spannweite, Motor ca. 30 PS, Gewicht 450 kg, Baujahr 1907/08 sowie ein Lilienthal Gleitflugzeug, Doppeldecker mit ca. 6 m Spannweite, Baujahr 1895.

Der Wright-Flyer

Wenn ich „unser“ schreibe, so meine ich die von meiner Frau Sylvia und mir im Jahr 2000 gegründete gemeinnützige AVIAT-Stiftung. Sie ist Eigentümerin des Flugzeugs. Die Idee zum Nachbau entstand im Jahr 2000. Mein Ziel war es damals, zum 100jährigen Jubiläum des ersten Motorflugs im Jahr 2003 einen Beitrag aus Europa zu der geplanten Ausstellung und Feierlichkeit in Dayton/Ohio zu liefern. Einen präzisen Original-Nachbau des Flugzeugtyps, mit dem die Gebr. Wright ihren historischen Auftritt 1908 in Europa machten, gab es bisher nicht. Die Amerikaner haben sich mit dem Vorläufermodell „Flyer III“ befasst, für das es aber kein Original mehr gibt. Insofern bleiben diese Projekte spekulativ. In Deutschland haben wir das große Glück, das einzige noch existierende Original dieses Flugzeugtyps im Deutschen Museum in München zu besitzen. Es ist das Flugzeug, mit dem Orville Wright im Jahr 1909 in Berlin auf dem damaligen Exerzierplatz „Tempelhofer Feld“ erstmals Flüge vorgeführt hat. Ein weitsichtiger Berliner Verleger stiftete dies Flugzeug bereits im Jahr 1912 dem Deutschen Museum.

Ich fand in Udo Jörges aus Achern bei Baden-Baden über einen Zeitschriftenartikel einen Maschinenbauer, der sich mit Wright-Flugzeugen schon vorher befasst hatte und zu den größten Kennern dieser Materie gehört. Wir beschlossen, das Projekt gemeinsam durchzuführen. Udo Jörges hatte damals bereits die gesamten Details des Originals im Deutschen Museum vermessen, einschließlich des Motors.

Die Durchführung des Projektes erwies sich als schwierig und insbesondere als zeitraubend. Wegen eines plötzlich erzwungenen Standortwechsels der Werkstatt von Udo Jörges mußten wir die Arbeit am Projekt im Jahr 2003 unterbrechen und die geplante Teilnahme in Dayton, wofür die Lufthansa freundlicherweise den Transport

übernommen hätte, absagen. Erst 2006 konnte die Arbeit wieder fortgesetzt und im Juni 2008 erfolgreich beendet werden. Ergebnis ist ein absolut originalgetreuer Nachbau, der unter den in Le Mans anwesenden Fachleuten aus USA und Europa große Anerkennung fand.

Persönliche Bemerkung zu dem Projekt Wright Flyer

Die Durchführung dieses Projektes war eine große Herausforderung – nicht nur in bautechnischer Hinsicht. Die unterschiedlichen Charaktere und Arbeitsweisen von Udo Jörges und mir stießen aufeinander und mussten lernen, sich an dem gemeinsam gesetzten Ziel auszurichten. Das gelang zum Glück. Der zeitliche Aufwand war groß. Er bedeutete entsprechend Verzicht, andere Felder zu beackern. Ich bin von Freunden oft gefragt worden, was mir die Kraft für diese lange Anstrengung gegeben hat. Zwei Quellen, aus denen ich geschöpft habe, kann ich benennen: die Faszination des Fliegens und meine Ehefrau Sylvia.

Die Faszination des Fliegens hat mich als Schüler schon zum Segelflieger werden lassen. Inzwischen blicke ich zurück auf 50 Jahre ununterbrochene „Tätigkeit am Himmel“. Das Fliegen hat mein Leben, äußerlich und emotional, in einer Weise bereichert, wie es in wenigen Sätzen nicht beschreibbar ist. Der Reiz des Fliegens liegt für mich ganz besonders in der Verbindung eines faszinierenden Naturerlebnisses mit der Herausforderung, die technische „Fliegekunst“ zu beherrschen. Zugleich hängen viele Entscheidungen und wichtige menschliche Begegnungen auf meinem Lebensweg direkt oder indirekt mit der Fliegerei zusammen.

Im Jahr 2000, als sich das 100jährige Jubiläum des ersten Fluges der Gebrüder Wright abzeichnete, kam mir die Idee, mit einem Nachbau des in Deutschland befindlichen einzigen Originals des Flyers Typ A diese Erfindung der Pioniere zu würdigen. Eine solche Idee konnte mir nur kommen, da ich erstmals seit Berufsbeginn begründete Aussicht auf Freizeit hatte. Als überzeugter „Atlantiker“ empfand ich dieses Projekt zugleich als ein Zeichen deutscher und europäischer Verbundenheit mit den USA. Da ich dort 1967/68 den Einstieg in ein erfülltes Berufsleben fand, spielte bei meiner Entscheidung persönliche Dankbarkeit sicher auch eine Rolle.

Wie geschildert, zog sich die Durchführung länger hin als geplant. Dass das Ziel schließlich zum „100jährigen“ in Le Mans erreicht werden konnte, verdanke ich ganz besonders meiner Ehefrau Sylvia. Sie hat



Jan Forster and Graham Saw at the controls. Photo Egon-Manfred Paech

nicht nur meine langen Arbeitseinsätze verständnisvoll ertragen, sondern sich zusätzlich für das sehr wichtige Thema „Nähen der Bespannung“ zusammen mit Udo Jörges Ehefrau Ingrid tatkräftig engagiert.

Bei den Höhen und Tiefen, die während der Bauzeit zu überwinden waren, war es Sylvias uneingeschränkte Unterstützung, die mir in schwierigen Momenten eine stoische innere Gelassenheit erlaubte, ohne die das Ziel nicht zu erreichen gewesen wäre.

Jetzt bleibt noch ein schöne Aufgabe: Eine gemeinnützige Heimat für den „Flyer“ zu finden, wo er Menschen die Bedeutung von Pioniertaten vor Augen führt und dabei hoffentlich auch einmal jemanden ermutigt, selbst als Pionier etwas zu wagen.

Ausstellung des Lilienthalmuseums in Anklam

Das herausragende Ereignis der ersten Motorflüge der Gebrüder Wright am 17. Dezember 1903 in North Carolina nimmt das Otto-Lilienthal-Museum zum Anlass, Wright nach Anklam zu holen. Die Sonderschau „Lilienthal und Wright“ in der Nikolaikirche verdeutlicht die Zusammenhänge und den Entwicklungsweg zwischen den beiden herausragenden Pionierleistungen.

Die Ausstellung wird durch die Aviat-Stiftung (Stiftung zur Förderung von Bildung, Wissenschaft und internationaler Verständigung) ermöglicht. Der Flugapparat wurde in den Jahren 2002 - 2008 unter Auswertung aller vorhandenen Originalteile und -pläne rekonstruiert. www.lilienthal-museum.de



Wright flyer in Lilienthal Museum Anklam, photo: Wittig

Das Werk der Gebrüder Wright

1896

Die Wrights erfahren aus der Presse vom Absturz Otto Lilienthals und von dessen erfolgreichen Gleitflügen seit 1891.

1899

Die Wrights besorgen sich vom Smithsonian Institut in Washington Literatur zu den bis dahin bekannten Flugversuchen. Zugleich beginnen sie in Dayton Ohio ihre praktischen Versuche mit unbemannten kleinen Drachen, um Steuerfunktionen auszuprobieren.

1900

Flugversuche mit bemannten Doppeldecker-Drachen In den in den Dünen von Kitty Hawk, North Carolina.

1901

Es gelingen erste Gleitflüge von etwa 100 Meter. Das Flugzeug in Entenkonfiguration (Höhenleitwerk vorn, Seitenleitwerk hinten) hat etwa 6 Meter Spannweite

1902

Steuerung des Gleiters um alle drei Achsen. Flüge bis 200 Meter

1903

Einbau eines selbstgebauten Motors von 16 PS. Über Fahrradketten treibt dieser zwei gegenläufige Druckpropeller an. Erstflug dieses Flugzeuges am 17.12. 1903. Spannweite 12,3 Meter, Start von einer Schiene.

1904

Bau des „Flyer II“, mit verstärktem Motor (30PS); Start auf Schiene mit Katapult.

1905

Bau des „Flyer III“, Verbesserte Steuerung, Trennung von Seitenruder und Flügelverwindung (Vorläufer des Querruders), Start weiter mit Katapult und Schiene. Dieses Modell ist erstmals zuverlässig voll steuerbar. Anschließend erfolgte aus Angst vor Nachahmern und Patentdiebstahl die Einstellung der Flugversuche und Geheimhaltung des Projektes. Beginn von Verkaufsverhandlungen ohne Bereitschaft zur Vorführung.

1907/08

Bau des „Flyers Typ A“ (Serienversion) für öffentliche Vorflüge. Erstmals sitzt der Pilot statt zu liegen und es gibt einen Passagiersitz.

8. August 1908

Der erste öffentliche Vorflug des Flyer Typ A in Europa (LeMans) wird ein riesiger Erfolg. Durchbruch des Glaubens an das Flugzeug im Vergleich zu Luftschiffen. Anschließend Auftritte an verschiedenen Orten in Europa.

September 1909

Flüge auf dem Exerzierfeld Tempelhof in Berlin. Gründung einer „Flugmaschine Wright GmbH“ in Berlin, die bis 1914 ca. 60 Wright Flugzeuge baute. Dann Schließung des Werkes.

CROATIAN ZÖGLING

by Marko Jeras, founder member of VGC Croatia

Ikarus Stamer-Lippisch ZÖGLING Z2

Zagreb's 1st Glider

by Marko Jeras, founder member of VGC Croatia



Front cover of the original handbook with instructions and drawings for building Stamer-Lippisch Zögling Primary glider published in 1927.

By the mid 1920's, gliding was becoming popular with the wider German public. To support this rapid rise in its popularity, it was necessary to design a suitable training glider to enable the fast growing number of the Aero Clubs in Germany to easily and quickly build, thus the Zögling (Pupil) was born. A pure glider rather than a sailplane, of limited performance, the Zögling was incapable of real soaring flight.

The beginning of the story of the Zögling began in 1926 when two pioneers of German gliding, Fritz Stamer (head of the pilot training school of the Research Institute of the Rhön-Rossitten-Gesellschaft) and Alexander Lippisch (head of the technical flying department of the same institute), designed a new version of training glider. Their Zögling was of typical wood construction, however differed from all other gliders of the era by utilising four metal tubes that carried the tail assembly, instead of the more common wooden frame. After acquiring construction approval from the German aviation authority, Deutsche Luftfahrt-Verband, the new design was formally known as the Stamer-Lippisch Zögling.

Soon after, instructions and building plans were printed in the form of a small handbook. Priced at 2.50 German Marks, the first edition was published in 1927, with an enhanced second edition being published in 1931. Construction was straightforward and quickly became popular with clubs, with many examples being built in European countries; both in aircraft factories and Aero Club workshops, as was the case in the Kingdom of Yugoslavia.

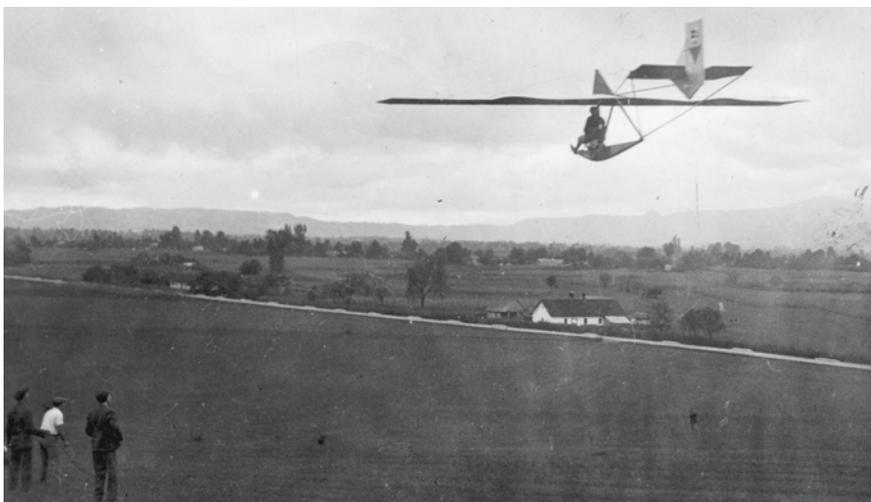
Dimitrije Landsberg, a clerk with the aeroplane factory 'Ikarus' in Zemun near Belgrade, and as an engineering student, started construction of a Stamer-Lippisch Zögling in 1929. Soon Landsberg had the support of the factory director, Demetar Konjović, which soon led to the management donating building materials and experienced factory workers to the project. In February of 1930 a factory sports club founded a section for gliding. Members of this section worked overtime in the factory and built a second Zögling, which carried the marking Z2. Eventually there were a total of four Stamer-Lippisch Zögling's built at the factory, which carried the markings Z1 through to Z4.

Around the same time, a Zagreb meteorologist and physician, Prof. Stjepan Mohorovičić, gathered interested enthusiasts with a historical lecture in the Zagreb theatre Apollo, entitled: "Gliding - a new branch of aviation". This was to be the beginning of some fruitful activities of the gliding section of the Zagreb county chapter of URA - Udruženje rezervnih avijatičara (Association of the Reserve Aviators of the Kingdom of Yugoslavia).

By the end of November 1929, there were plans to acquire drawings from Germany for the Zögling by Ivan Penkala, son of the constructor and builder of the first aeroplane in Croatia in 1910, however the project came to nothing.

In spring of 1930, members of the gliding section of the Zagreb county chapter of URA visited the 'Ikarus' factory in Zemun. Whilst during the visit, Dragutin Balzareno made a test flight and reached some ten meters in height, which led to the decision by the Zagreb based Gliding Section to purchase the Zögling Z2 for 13.000 Dinar for the training of new glider pilots, which is how the first glider pilot school in this area of Europe was established.

On May 15th 1930, the daily Zagreb newspaper 'Novosti' published an invitation to the citizens to join the gliding course with the headline; "soaring through the air without the engine". The chosen position of course director fell to Prof. Stjepan Mohorovičić, whilst the course instructors were all initially power pilots; Brenner, Pavlović and Miho Schön. Theoretical lessons were held at URA quar-



Original description from the backside of the photograph: "Stjepan Mohorovičić soars in the air". Brdovec, September 28, 1930. Photo: Marko Jeras collection.

CROATIAN ZÖGLING



Believed to be the moment of the first glider flight in Zagreb on 9th July 1930 at Borongaj airfield, as Dragutin Balzareno holds the knipl (control column) in anticipation of making history. Photo. Robert Čopec collection.

ters in Martićeva 14 and start of the first flying course was planned to take place on Zagreb aerodrome at Borongaj.

An inauguration ceremony to formally accept the Zögling Z2 was held on Borongaj aerodrome on July 9th 1930 by the President of the Zagreb county chapter of URA, Aleksandar Ullmanski, who formally handed the Zögling over to Prof. Mohorovičić. After the presentation speeches, Dragutin Balzareno performed the first glider flight in Zagreb, followed by the other instructors, an event that was recorded by newsreel cameramen. (Unfortunately to date we have not been able to locate this footage.)

Following the tragic death of Miho Schön on September 1st 1930 in a crash with De Havilland DH.60 Gipsy Moth, Military Command of 4th Aviation Wing withdrew their support for civilian flying on the Borongaj aerodrome. This led to the school moving near to a small village called Brdovec, 21km to the NW of Zagreb. (Credit for the new location had been largely down to Dragutin Balzareno who had been born in the area.) A large open field with a small hill that proved invaluable in prolonging the flights, and was located on the outskirts of Brdovec.

By the middle of November 1930, more than ten pupils had attended the school, of which four of them (Milan Hetenyi, Hrašćan, Prof. Stjepan Mohorovičić and Veriga) attained their A badge. (A straight flight of at least 30 seconds). At the time, the courses lasted for six months, with course fees of 1.000 Dinar. Flight instruction was by the power-pilot, Ivan Penkala, and flying only took place on Sundays between the hours of 9 am to 4 pm.

Zögling Z2 was repaired after several small accidents, however a prolonged halt to flying came after a more serious incident when the Zögling's pilot, Tomaško, ended upside-down; quite literally! With the bracing wires and triangular support broken, both wings were damaged, as was

the tail and the tubes that supported it. It was clear that all this damage could not be repaired quickly, and as a result, there is no mention of the Zögling in 1931.

BUILDING A REPLICA

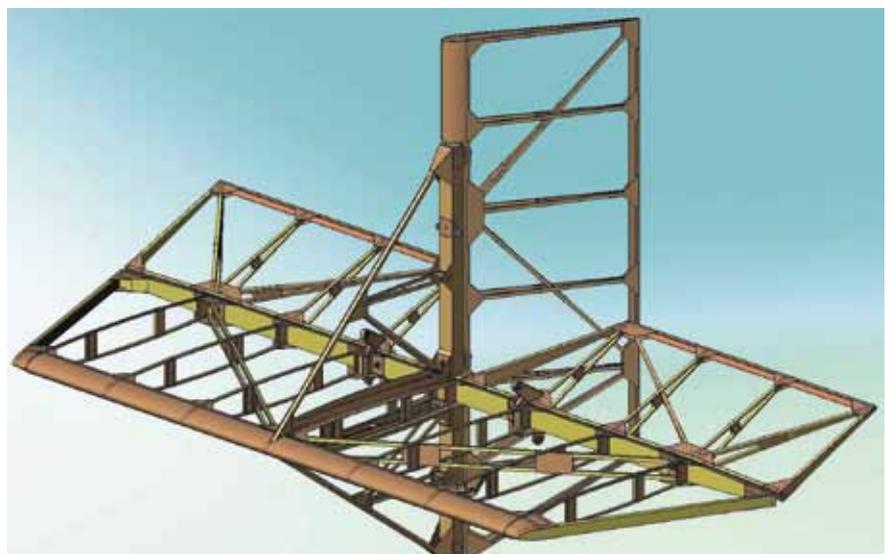
The idea to build authentic replica of what became the first glider in Zagreb, and first training glider in Croatia, was born in 2009. As preparations to mark 100th Anniversary of the first flight of the first powered aircraft that was constructed and built in Zagreb advanced, Goran Ilić and myself came to the conclusion that the 80th Anniversary of the first flight of the first glider in Zagreb was a worthy reason to build a replica.

Thanks to our friendship with Peter Selinger, the well-known German gliding enthusiast, (now an honorary member of VGC Croatia), we were put in contact with another German, Manfred Kistler. (VGC member.) Manfred had built a Stamer-Lippisch Zögling in 2001, and via Peter he sent us a copy of the original 1931 constructor's handbook with instructions

and drawings. Soon afterwards, contact was established with Dr. Bernard Lukasch, director of the Otto Lilienthal museum in Anklam, Germany. In the museum library I found an original 1927 construction handbook for the Zögling, which was invaluable in comparing the two versions in our desire to build an as accurate replica as possible. This soon led us to choosing the earlier version, especially as the later version had been published one year after the building of the original Z2 glider in the 'Ikarus' factory in Zemun.

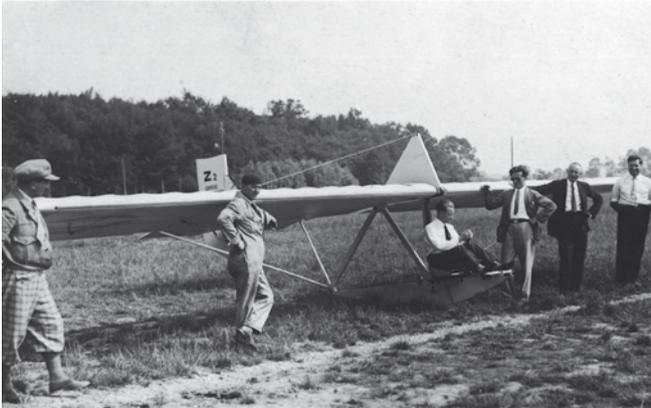
During our first Board meeting of VGC Croatia on the February 3rd 2011, Goran Ilić, Marijan Ivanček, Juraj Salaj and myself decided to start what was to become 'Project Z2'. First thing to be done was preparation of an elaborate 3D-computer model of the Zögling. Goran started building the 3D-model based on the original drawings, beginning with the tail section, as it is relatively simple to construct.

With the original drawings only taking up five sheets, the benefit of the computer 3D-model was immediately apparent, as it



A 3D computer model of the tail construction, built using SolidWorks engineering software by the late, and sorely missed 1st President, Goran Ilić.

CROATIAN ZÖGLING



Taken during summer of 1930 at Bornogaj. Standing to the far left of the photo is Dr Stjepan Mohorovičić, "father of Croatian gliding", and head of the flying school, to his immediate right is the flight instructor, Ivan Penkala. Photo . Josip Novak collection



Borongaj aerodrome, Zagreb, summer of 1930. Ikarus Zögling Z2, military biplane Hanriot H.320 and passenger aeroplane Potez 29-2 "UN-EHI" operated by the Airline "Aeropot" in the background. Dragutin Balzareno sitting under the wing facing the camera, whilst standing to his left is Miho Schoen. Photo: Robert Čopec collection.

highlighted all the positions in detail that the drawings omitted to show when interpreting the drawings alone. Luckily however, all the dimensions are also precisely recorded in the original parts listings, so no question was left unanswered.

After consultation with Marijan Ivanček, Goran finished the 3D-computer model of the tail assembly, and had begun preparing the workshop drawings when tragedy struck, and to our great sorrow, our dear friend Goran died suddenly on the December 23rd 2011.

In January 2012 we made an application for funding through a public programme for technical culture in Zagreb. Entered as 'Project Z2', as a member of the Zagreb aeronautical and technical association "Rudolf Perešin", we were delighted when in May of 2012 we found ourselves signing a contract under the name of "VGC Croatia". Financing of the project through funding started next the month, which was closely followed by an application to the Croatian Civil Aviation Agency (CCAA) for a permit for the construction of an amateur-built flying replica. Our proposal to nominate

Marijan Ivanček as an aeronautical expert to supervise and inspect the project was duly accepted by the CCAA, and a permit was issued to us for the construction of our replica of Stamer-Lippisch Zögling.

I would like to also take this opportunity to emphasise another important aspect of this project; that is the preservation of the skills and techniques required in the building of wooden sailplanes. Of conventional construction, the Stamer-Lippisch Zögling is constructed almost entirely from wood, with all the main lifting components, tail surfaces, and fuselage being constructed from spruce, and reinforced with birch plywood. Control horns and skid are ash (wood), and all metal hinges and mounts are constructed from aviation-grade steel. The tail assembly is mounted on four steel seamless tubes that connect it with the fuselage, whilst all bracing wires are steel, as are all the control cables.

Under the watchful eye of Marijan, work began with the rudder from wood taken from our first spruce beam that had been kindly donated by Marijan. From this we



Milan Hetenyi (far left) and Dragutin Balzareno (far right), photographed standing next to the Brdovec-Harmica road. Note the small hill for launching the gliders in the background. Photo: Marko Jeras collection.

first cut 5x10 and 10x10 mm strips, and after building the jigs, I began gluing up the rudder ribs, which were faced with 1mm plywood as per the drawings. Next came the rudder-spar and trailing edge, which required a 1:1 scale drawing of the complete rudder assembly. With the accurate drawings now on a thick plank of wood, assembly of the rudder components got underway.

At this point work on the rudder was halted whilst we waited for the construction of the rudder hinges, then I can proceed with covering rudder with linen. The next job will be to prepare for the construction of the jigs and sub-components for the construction of the horizontal stabilizer, elevator, and finally vertical stabilizer. This will be followed by the construction of the fuselage sections, then the wings, however I will keep readers updated of our progress.



A 3D computer model of the tail construction, built using SolidWorks engineering software by the late, and sorely missed 1st President, Goran Ilić.

FROM AROUND THE WORLD

Denmark



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The Danish Historical Gliding Club celebrated its 25 year anniversary on 10 March 2013 at the national gliding centre in Arnborg. The event was joined by many guests and members. The objectives of the club are very similar to those of the Vintage Glider Club but mainly focussing on the history of Danish gliding. The club has about 300 members. Many documents and artefacts have been saved since the club started its activities back in 1988. More than 40 historical and classic gliders have been handed over to the DaSk over

the years. About 18 gliders are now being kept airworthy on a regular basis. In 2012 the total figures were approximately 200 launches and 120 hours flown. In 2014 the club is looking forward to hosting the 42nd International VGC Rally at Arnborg Gliding Centre. Preparations are going well, though building a new hangar at Arnborg would make facilitating the anticipated large number of gliders more convenient.

For the moment the club has its workshop in a rented building at the Airport of Billund. Restoration of an SG-38, a WWS-3 Delfin, a Mü-13d, a Spatz B and another 2G primary is in good progress. The latter is getting close to completion now. Ove B. Hillersborg has been making all the woodwork restoration which included months and years of re-glueing. The team in Billund did their share of the remaining refurbishing including covering and paint jobs. This primary two-seater was the second prototype out of 9 built. It was built by the Viborg Gliding Club during 1948-49



The newly restored 1949 "2G Primary" being rigged at the Lemvig Airfield in the North-Western part of Jutland in the spring of 2013. On this day new main pins were fitted and weighing performed. Photo by Ove B. Hillersborg.

and subsequently served as a trainer until it was blown over and damaged in 1968. Airworthiness is expected within this gliding season.

Text: Niels Ebbe Gjørup
Photo: Ove B. Hillersborg

Netherlands



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After sixteen years we decided to sell our TopLess since she flew very little after finishing the T-21c TopDrop project. In the last week of April we brought our TopLess to Norway. After a journey of two days we arrived Saturday afternoon at the Starmoen Flyplass where the new owners Espen Aarhus and Oivind Habberstad welcomed us. As we were tired from the 1600 km drive, we decided not to fly that day but we could imagine how curious everybody was, so decided to rig the glider so the club members could admire her. The next day I made a nice farewell flight together with our son Mattijs, who got a thermal and flew for half an hour in the cold but clean Norwegian air. We stayed the rest of the week and were overwhelmed by their warm hospitality from Espen and his lovely wife Guri, who



Supercharged Vintage...Norwegian style. Photo Espen Aahus

also live at the airfield and run the place. It is great to stay at Starmoen in the nice wooden houses with all facility's you need. They have two bedrooms, a bathroom, a lovely sitting room with fireplace, floor heating and even a dishwasher! All the houses are all situated near the airstrip. At the opposite site of the airfield is also a 18-hole golf course, and you can walk in the woods where a lot of moose live. One morning together with Guri, I even saw six black grouse on the airfield making advances to each other. In the central clubhouse we ate together with

the club members and other guests from the nice meals that Guri prepared. In that clubhouse are also double bedrooms for rent so people can stay over the weekend. We will certainly go back there because Starmoen is a lovely place to stay for a holiday with your whole family and Norway is a beautiful country that is not over crowded yet.

Text: Astrid van Lieshout
Photo: Espen Aahus

FROM AROUND THE WORLD

Finland



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Kimmo Tihula is launched in the PIK-5. Photo Göran Bruun



Kimmo Tihula about to fly with the new cockpit on the PIK-5. Photo Göran Bruun

On Saturday 18th May, the Oldtimer Finland Annual Meeting was held at Oripää. The old board was re-elected for the year 2013-2014 and Pekka Hänninen will continue as President. Our flag ship, the PIK-5c flew 13 flights during the event, with three new members that joined the club during the weekend.

At Lappeenranta International Air Show the PIK-5c will fly display flights during all three days of the event.

Harri Mustonen, a member of Oldtimer Finland has been building a PIK-5c glider during last 20 years, and it is now finally ready to fly. Harri has plans to make the first flight during July this year. The glider was originally a PIK-5a that was

later modified to b-model, however it has been further modified to become a c-model. The registration was originally OH-PAC with a serial number of 003, but now carries the registration OH-139. I will update you in my report in the next issue of VGC News when it has made the maiden flight. Harri has also made an open cockpit for his own PIK-5 and also for Oldtimer Finland's PIK-5. Kimmo Tihula flew the first flight with the open cockpit in OH-188 during the weekend at Oripää.

In Finland there is a new PIK-5 simulator. It is built using the front of a PIK-5b glider. By flying the simulator, interested people can experience flying an old glider like the PIK-5, and we hope that through the simulator, it will encourage many new members to join the Oldtimer Finland association.

Text: Göran Bruun
Photos: Göran Bruun

Germany



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Atmospheric shot of Peter Ocker framed by the Weihe canopy taking time to share the joys of vintage gliding and the VGC. Photo Alexander Gilles



VGC Chairman Jan Foster has a lot to whistle about! Photo Alexander Gilles

Another successful AERO exhibition

From April 24th-27th, Europe's biggest air sports exhibition took place at Friedrichshafen, South Germany. According to official numbers there were 32,600 visitors. Maybe not all of them passed the stand of the Vintage Glider Club, but we had the impression most of them did!

As in previous years, Gere Tischler was again well organised with all the contacts and equipment of the fair, not to mention as the logistic manager for the aircraft and people. After last year's theme, "V-tail gliders with laminar profile", this year we

had the wide range of gliders designed by the famous Hans Jacobs.

Thanks to our members, we were able to put on display the new-built Rhönsperber (see cover of VGC News 131), the Habicht of the growing Zahn family, the Meise from Stengele family and the Kranich III of Rolf Braun / Ralf Schnirch (see cover of VGC News 129), all which are in airworthy condition, in addition to the Weihe of Peter Ocker, which is currently undergoing a major overhaul.

The wings of the Weihe were recently painted by VGC member Hartmut Sammet, however the fuselage is still bare

wood, and had some large openings with the plywood removed from the fuselage, thus giving a deep insight into the structure of this lovely glider. This was particularly appreciated by many people, who were observed getting down on their hands and knees to have a closer look inside!

The gliders attracted not only existing VGC members, many who made lengthy visits to our stand and virtual "VGC Clubhouse", but we were visited by many people interested in old gliders. Some 14 new people immediately joined the VGC, with many others revisiting us again, some of

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whom may join the club at a later date. The VGC representatives present on the stand were VGC President Nick Newton and VGC Chairman Jan Förster, along with the German members Gere Tischler, Heinz Bauer, Rolf Braun, Bernd Hurre and Peter Ocker, not to mention support from Claudia Stengele, Alexander Gilles, Ralf Schnirch, Britt & Christoph Zahn and Uli Stengele. On Friday VGC member, Gerd Allerdissen, former President of the DAeC (German Aero-Club, which all sporting pilots in Germany are members of), gave a speech on "Gliders as a monument" which opens up some possibilities in recouping some of the money that has been invested in

restorations, which would be funded by the State, or from foundations. In addition we were happy to welcome famous people to our stand, and included Thilo Holighaus (VGC member and boss of the Schempp-Hirth company), Edgar Kremer (boss of Schleicher company), Martin Heide (designer of the ASH-glid-ers from Schleicher), Christopher Dittmar (grandson of Edgar Dittmar / grand-nephew of Heini Dittmar), the Winter family (from Winter Instruments), as well as visitors from overseas, including Rob Mudd from New Mexico. (Pipistrel representative and owner of a Antonov A-15 glider which he hopes to restore over the next winter there).

We again understood that being there does not have to cost us a fortune, as everybody does it voluntarily. It is an important contact for our members, and more importantly, not only for potential new members to see and join us, but also to show the authorities and manufacturers that there is a huge interest in vintage gliders and an organised structure behind it. This also impacts in our work with the EGU, and to maintain the freedom of flying old gliders.

Text: Peter Ocker
Photos: Alexander Gilles

Japan



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outer panels. The airfoil is NACA 6-digit series comparable with those used in Europe and USA at the time.

The fuselage is steel tube framed structure with fabric covering.

Span 16.0m, Length 7.77m, Height 1.3m, Aspect Ratio 16.1:1, Weight 300/450kg, Max L/D 30.8, Vne 180km/h, Wing Loading 28.4kg/m²

There were a total of three SS-2's produced, which were all painted in red, white and blue.

Span 17.4m, Length 7.8m, Height 1.6m, Aspect Ratio 20:1, Weight 290/400kg, Max L/D 34.5, Vne 180km/h Wing Loading 26.3kg/m²

In Japan, we have a national student organisation which consists of each University Gliding Club.

They have a huge Gliderport named Menuuma Gliderport in Saitama prefecture.

Every March, all Japan Student Glider Competition is held here in Menuuma Gliderport.

Recently many photos taken by Mr. Ida, (who was a member of Osaka University Gliding Club), was found and he showed his collection via Internet.

I would like to show these valuable photos. The era was 1965-1972 and you can see K-6E, Japanese original Mita-3 Trainer and SS-2 competition glider.

The specification of each Japanese Glider is as follows.

Mita 3 Kai-1 Trainer

The Mita 3 was a 2-seat trainer first flown in 1962 by Kirigamine Glider Manufacturing Co. It was later modified by the Light Aircraft Development (LAD)Co.

Thai company produced the improved version -Mita 3 Kai-1 which flew in 1966 and was produced in some numbers.

The wing is in 3 sections with tapered



Mita 3 Mod-1 Photo Mr Ida via Yasuhiro Yama

SS-2 Competition Glider

JAA (Japan Aeronautical Association) was concerned that Japanese sailplane pilots had no locally produced sailplane which can fly a 300km triangle course in 1960s.

Mr. Asahi Miyahara, the chief designer of the Light Aircraft Development (LAD,) designed the SS-2 in 1967 with financial support of JAA.

The SS-2 had a 3-piece wing with Wortmann FX profiles.

The fuselage was a normal plywood semi-monocoque with fiber-plastic nose.

The initial version had fixed a wheel, but a later version (SS-2B) had retractable wheel.



SS-2. Photo Mr Ida via Yasuhiro Yama



K-6E, SS-2, Mita3 Photo Mr Ida via Yasuhiro Yama

Text: Yasuhiro Yama
Photos: Mr. Ida

FROM AROUND THE WORLD

Poland



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Hi Folks,

After publication of my report in issue 137, I received some questions regarding the status of the PWS 101 project, and as I promised to update you, here it comes!

“Still an unrealised dream”: update of PWS 101 rebuild story:

Introduction:

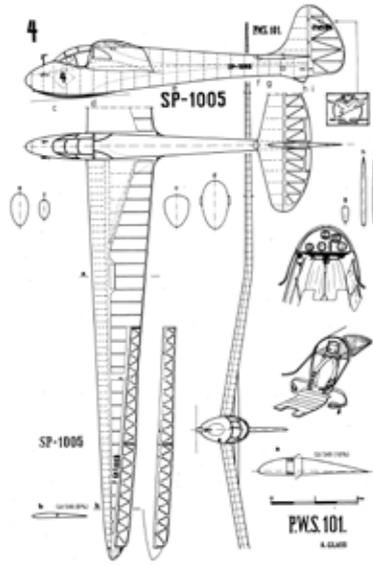
PWS 101 is one of the most legendary pre-WWII Polish high-performance gliders. It was constructed by the engineer, Waclaw Czerwiński, at Podlaska Wytwórnia Samolotów (PWS) for the 1st World Gliding Championship in the Wasserkupe in 1937. The PWS 101 was first Polish glider to be equipped with both airbrakes and water ballast. In 1938 Tadeusz Góra completed a flight of 578 km in a PWS, and through this feat, became the first recipient to receive the coveted FAI Lilienthal medal in 1939.

At the start of WWII, there were a total of five PWS 101's, however by war's end, sadly all had been destroyed. Unfortunately even the construction drawings also were lost during this time, and since then the PWS has just been a memory in our “golden age” of pre-war Polish gliding.

In 2003 group of enthusiasts formed a Polish division of the VGC, and decided to rebuild this legendary glider. As Zbigniew Jezierski stated back then: “The PWS 101 rebuilding project idea grew during VGC meeting in Achmer in autumn of 2003, boosted by the fact that some original basic drawings and technical stress calculations had been found”.

Based on this, and adding some additional archive content, work began. The engineer, Jerzy Mularczyk, a graduate from the Aviation Department at Warsaw Technical University, and then employed at PZL-Warszawa Okęcie, Jerzy took up the task of preparing the technical documentation in February 2006.

It is crucial to understand the level of difficulty and complexity of the project, especially as the original working drawings



Andrzej Glass drawing of the PWS101..

were lost after WWII, which meant that the engineers were basically working from scratch!

Great support came from Andrzej Glass, who is reputed to be one of our most famous Polish aviation historians. He provided unique archival material which helped Jerzy to reconstruct the drawings. This included items such as:

- original pictures
- modeller drawings done by Martin Simons in 1:4 scale. (He was in touch with Waclaw Czerwiński in 1973 during an article preparation for an Australian Gliding magazine.)
- Flugsport No 14 from 1937. (A German magazine where you can find an article and basic 3-view drawings of PWS 101.)

At the present time all the geometry drawings of the fuselage and wings are done. Next step will be to complete new technical stress-calculations and final technical documentation.

In parallel to the reconstruction of the drawings, Zbigniew Jezierski and his team started to look to raising funds for the project. Thanks to people from the VGC scene here in Poland, and from the other VGC members outside Poland, some money was collected, but it was only a start. So what happened? A large amount of the pine needed for construction of the frames and ribs was purchased, prepared, and stored.



Mr. J. Mularczyk presents some of the recreated drawings of the PWS 101 Photo Grzegorz Kazuro



Some of the rediscovers original stress cal calculations for the PWS 101. Photo Grzegorz Kazuro

Unfortunately over the years activity within the VGC team in Gliwice decreased, and today the project is at a standstill, and awaits for better days.

Talking about realising the dream, as Zbyszek (Zbigniew?) stated: “What we need is a group of enthusiasts who will be able to go forward with this project with energy and ability to collect, (still needed), 25,000-30,000 €. But most importantly, a team that will be motivated enough to run this project. At the moment only myself and Witek Nowak are involved, so we were forced to freeze the project, and to focus on another reconstruction project, the Salamandra, in which we are also involved.” Despite the inactivity in Gliwice, there are some talks going on behind the scenes to restart this project, something that I hope to be able to report on in the future.

Other News:

SZD 8 Jaskółka: As it was recently announced that the only flying SZD 8 Jaskółka in Poland [which belonged to Zbigniew Jezierski and seen at some of VGC Rallies-Ed], was to be sold abroad, we decided within our Association of Vintage Gliders, Toruńskie Stowarzyszenie Sympatyków Zabytkowych Szybowców, [Torun Vintage Sailplane Supporters Association] to try and take the glider under our wing, and raise funds and to buy it. We have already collected 50% of the contract payment, which means we can have taken possession of the Jaskółka, however we

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are still struggling to raise the rest of the money, and are trying to find potential sponsors and supporters.

Please visit our internet site, where you can find more details about this project, and hopefully support us in keeping this unique Polish glider in Poland by making a small donation by clicking on the PayPal button.

http://www.pws101.pl/pl/projekty/pokaz/54/szd8_jaskolka

With your support, we look forward to being able to join our VGC allies in future VGC Rallies with our lovely SZD Jaskółka!



SZD 8 Jaskolka. Photo W.Holys.

STOP PRESS!

And last weeks news! (End of May): Mucha Standard SP- 2117 has already started its new season here in Toruń, with a lot of pilots taking the opportunity to fly with this amazing glider. Please find attached a cool picture of Andżelika Lalik, a new Mucha pilot enjoying the experience!

In the my next report you can look forward for fresh news on reconstruction and rebuilding projects featuring the IS-3 "ABC" and IS-4 Jastrząb, not to mention, news and seasonal activity from across Poland.

Kind Regards
Grzegorz Kazuro

Text: Grzegorz Kazuro
Photos: Grzegorz Kazuro
W.Holys



Tadeusz Góra with the PWS101. Photo Grzegorz Kazuro



Andżelika Lalik is yet another happy new convert to our Mucha Standard. Photo Grzegorz Kazuro

UK



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News in the UK has been ticking over quietly over the past few months. Some stunning shots were received recently of the gorgeous Harbinger, owned by Jed and Susy Edyvean.

The Harbinger, in which much has been written about in earlier VGC magazines, had been grounded due to water ingress in one of the wings. With damage to the spar, upon closer inspection it was found that there were other problems however, which led to Dave Bullock carrying out a major repair to the wings.

Following a major overhaul which included a full recover and new paint, the Harbinger is now looking stunning again, and many look forward to seeing her again, hopefully at Lasham. We should take our hats off to Jed, and Susy, (not to mention Dave's skills), for returning an-



Harbinger looking splendid again. Photo Steve Slater

other of our historic British gliders back to where it belongs; in the air.

Another good news story is the recent restoration of BGA 1252. Last EoN Baby off the production line, it recently returned to the air on the 26th May 2013 after a three year overhaul by Dick Short for the Welland GC. Dick writes that BGA 1252 was first registered by the ATC in 1960 who then operated the glider



EoN Baby BGA 1252 beautifully restored by Dick Short. Photo Dick Short

until 1965, before being sold into private hands. With the EoN being given to Dick by Ray Clarke, the EoN was starting to look worse for wear, especially its wooden trailer which was beyond economical repair. This led to Dick building a new aluminium trailer for the EoN, so now it really is secure for the years to come.

Dick reports that he completely stripped the glider down, and was pleasantly surprised to find that it only required a few minor repairs, before recovering the glider in Diatex fabric, and is now finished in an eye-catching bright yellow. Dick is also looking for a new enclosed canopy for the Baby, so if anyone can help him out, please get in touch with the editor. It is always very heart-warming to hear

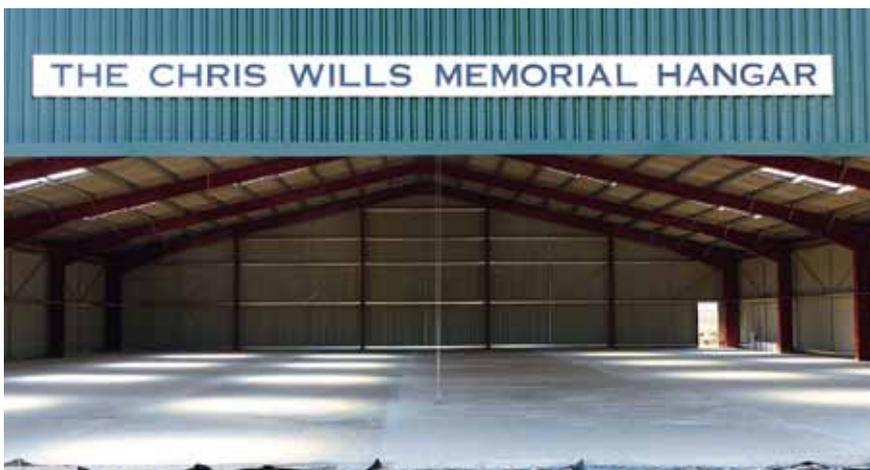
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that even these humble British gliders are being restored in this way, and are now a rare bird indeed in British skies, epitomising exactly what the VGC stands for.

Colin Simpson has given an update of the progress with the Gliding Heritage Centre. As Colin reports, they are getting perilously close to realising Chris Wills' dream to provide a hangar dedicated to vintage gliders! This will ensure they can be viewed by the public and flown more easily and more frequently. The building of the Chris Wills Memorial Hangar, funded by Chris's generous bequeathal, is the first step towards the creation of the Gliding Heritage Centre.

An enthusiastic team of Lasham VGC members, under the expert guidance of Richard Moyses and Gary Pullen, have worked tirelessly to prepare and level the ground, move several tons of hardcore; prepare all the footings, build retaining walls, constructed french drains;...the list as Colin reports, goes on and on! At the time of writing in mid-June, the concrete floor has just been laid and the signage added. Now all Gary Pullen and his crew have to do is make the doors!!

The hangar will be formally opened on Sunday 4th August at the International Vintage Glider Clubs Rally by Peter and Samuel Cody, great-grandsons of the legendary Samuel Franklin Cody, and is appropriately very close to the centenary of his death on 7th August 1913.



Chris Wills Memorial Hangar now now looking fantastic. Photo Colin Simpson

The next phase, for which considerable additional funding will be required, will be the construction of a museum building, with the third phase doubling the size of the present hangar. More information about the Gliding Heritage Centre; how to join and how to donate is available at: www.glidingheritage.org.uk

Lastly whilst on the subject of the Gliding Heritage project, comes news of a new little booklet by VGC member, and avid poet, Caroline Coates. Caroline's talents have been brought together in a series of humorous poems and limericks based purely on the antics of Vintage Gliding! Teaming up to compliment Caroline's

talents is the cartoonist, and artist, Piers Bois, who's comical drawings really bring the essence of Caroline's work to life. With the official support of the VGC, all profits are generously being donated to the Gliding Heritage project, and will be on sale at the VGC International Rally. (They will also be available through VGC Sales). So why not pick up your copy, and support our gliding past.

Text: Bruce Stephenson
Photos: Colin Simpson
Dick Short
Steve Slater

USA



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Silent Wings Museum Laister-Kauffman TG-4. Photo Lee Cowie



Silent Wings Museum WACO CG-4A. Photo Lee Cowie

US Soaring Museums

There are many excellent aviation museums in the USA and many have gliders too. I only know of three museums that are devoted to powerless flight. The **National Soaring Museum in Elmira**, New York, has been the site of our International Vintage Sailplane Meets and I have visited it a number of times. A recent road trip west gave me the opportunity to visit the other two however.

The Silent Wings Museum is located at the Preston Smith International Airport just off of Interstate 27 highway. This was once the site of South Plains Army Airfield. This museum came into being through the efforts of the National World War II Glider Pilots Association and is located in the old

terminal building. A C-47 tow plane and large G wings on the tower welcome you to the museum. Your visit starts with a 14 minute orientation film. The museum has an L3, TG 4A, and CG 4A on display. A life size diorama with another CG 4A shows much of the equipment that was carried

FROM AROUND THE WORLD



US Southwest Soaring Museum Bowlus Super Albatross. Photo Lee Cowie



US Southwest Soaring Museum Franklin PS2 close up details. Photo Lee Cowie



US Southwest Soaring Museum Franklin PS2 close up details. Photo Lee Cowie

into battle in the gliders. There are many well done displays showing different aspects of the glider construction, training and operations. The museum is looking to expand its current collection and would particularly like to add one of the 3-seat light airplane training gliders used later in WW II.

Our third museum was the **U. S. Southwest Soaring Museum** just off of the interstate highway in Moriarty, New Mexico. Housed in a large, modern, well lit hanger, is a large collection of gliders. This museum has been the dream of George Applebay who has flown ships from the collection at vintage regattas in the USA. In one corner of the hanger is a workshop where a Schleicher Ka 6E and a Weihe were receiving attention during our visit. Each glider has a description and often some of its history. The Slingsby T 21 Sedbergh had its manuals displayed with it, and the

Laister-Kauffman TG-4A had several displays around it including a painting. The museum is often involved with soaring activities at the Moriarty airport.

VSA JOURNALISM AWARD

The Vintage Sailplane Association has a new award to annually recognise an article written by a member. The article can be published in any magazine printed anywhere in the world. The winner will be selected each year by an awards committee of VSA member.

The first winner of this new award is Cam Martin of Tahachapi, California, for his feature in SOARING magazine on the Schweizer 1 - 23 series of aircraft.



Text: Lee Cowie
Photos: Lee Cowie

VSA Journalism Award. Photo Lee Cowie

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MODEL NEWS

Vincenzo Pedrielli

Model News



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model@vgc-news.com

To build a scale model is not only a skilled manual exercise, but a dedicated work of historical research. Often we fall in love with a sailplane we may have seen at a gliding field, displayed in a museum, or even seen in a book or aviation magazine.

At this point it is essential to find a good drawing, often not an easy task, however Martin Simons helps through his excellent series of books, "Sailplanes".

However a drawing is often not enough to cover all the particulars, and details such as on-board instruments offer a higher lev-

el of accuracy. The color scheme is another very important factor, and it is these sorts of details that are important when trying to recreate a "true scale" model in the true spirit of the original.

Today the "ready to fly model" has been gaining rapidly in popularity, however fortunately there are still enthusiasts who still enjoy building and flying their scale masterpieces, as is illustrated in the following pages.



Carlo Zorzoli on the left, with the young test pilot ... Giorgio Pattoni



The BS17 Allievo Cantù on flight at the Vintage Model Meeting in Cremona

Carlo Zorzoli

Bonomi Silva, BS17 Allievo Cantù



The model under construction

In spring 1994 I was busy with the restoration of a vintage glider owned by the "Museo Storico dell'Aeronautica Militare" (Airforce Museum). Actually the relic consisted only of an original battered fuselage, which was however, complete. I was in charge of rebuilding the wings, which had to be built from scratch, including the tail planes and wing struts. The glider was a BS 17 "Allievo Cantù", built around the 1940s by Aeronautica Lombardia, with the type having seen service with the Italian Air Force, and was the mainstay glider type employed by flying schools around the country during the 2nd WW.

Work began in the workshop of the late Felice Gonalba, a well-known expert in vintage sailplanes. My job was to build up the wing ribs and provide for all the drawings. I was luckily enough to find a complete set of drawings of the BS 17, and so was also able to reproduce all the drawings for the metal fittings. (The restored Allievo Cantù can be viewed as part of the Museum, in Vigna di Valle, near Rome. www.aeronautica.difesa.it/museovdv). Having all the documents available, it was almost natural to want to produce a scale model from the drawings. Within a few days I had a 1:5 scale plan on my drawing



The relic of BS17 Allievo Cantù

board, giving the exact layout of the structure, obviously substituting a lot of balsa instead of fir!

Progress of the model was rapid, with balsa dust being produced on the 16th of May 1994, and after only 15 days of hard

work, the Allievo Cantù was ready to be entered at the 1st International Gilder Meeting, Luigi Teichfuss in Pavullo, on the 10th June 1994!

I well remember the first three days of the event, which greeted us with ugly rain, forcing me to spend the time in my hotel room, during which I applied the last layers of dope to the wings.

The model flew well, and has since been flown from both winch and slope from many sites around Italy, and is today, still airworthy. After being equipped with a custom tow-hook, it was flown at the last 3rd Vintage Glider 3T event in Cremona (2012).

The wing-span is 2.12m, has a wing surface is 7 sq m and weighs in at 1.9 Kg.

The plans for the Allievo Cantù are currently being converted to CAD, so soon will be available in both 1:5 and 1:4 scales, and when ready, will be available to all Allievo Cantù fans.

Photos: Vincenzo Pedrielli



Chris Williams

KARAKAN, Hungarian glory

Pierre GEORGES – Design, Manufacturing /

François ROUY - Assembly



In summer 1933, a big Scout Jamboree took place in Hungary. For this occasion the Air Scouts association had commissioned Lajos ROTTER to design and build what was one of the first Hungarian performance gliders, the Karakan. The machine, built by the "Ezermester" scout group, was an immediate success making a lasting impression on all witnesses for its modern lines and good performances. A second Karakan was built after the scout one for the MOVERO association. The first aircraft was retired to a museum in 1939, and later destroyed, while the second one was destroyed in 1940 in a hangar fire. An astonishing number of photographs remain of these two beauties, a tribute to a very modern glider for that time.

This year marks the types 80th birthday, with a new Karakan having taken flight; C-0401, the Scout Karakan in the form of a 4m. 1:5th scale RC model glider.

It all started as a project to build a wooden old-timer, making full use of our model club's new CNC milling machine. As an exercise and fun for it, this led to a 3D design on the computer. It was this resolute willingness to make the complicated shapes, using traditional wooden construction with a twist; no ribs without multiple holes, all structure parts made of plywood in various thicknesses, balsa skins, and self aligning slots and tab assemblies... A search through Martin Simons' invaluable book series "Sailplanes" led me to a little known (I confess, to me at the time),

Hungarian glider, chosen for its impressive modern shape. I started the design from the 3-view drawing, and also started to gather historical data on the internet; and then it got out of hand! Contacts with newly made friends in Hungary yielded so much information that my friend François and I felt compelled to escalate the project to a truly scale model status (although it was too late in some areas). After 15 months, the result is quite pleasing for us non-specialists. Making use of the same CAD files, we are now building a sister ship, the MOVERO Karakan. See you in a few months for some team flying!

For reference : <http://gliders-fega.free-web.hu/karakan.html>

Special Thanks to **Gábor Fekacs** and **Patrik Ungar** for their incredible pictures
A nice video of the first flight: <http://www.youtube.com/watch?v=i4tcSnMSGkk>

MODEL NEWS



Author with newly constructed 1:3.5 scale Rhonadler 35



The Rhonadler in action at White Sheet Hill, Wiltshire



The Rhonadler in action at White Sheet Hill, Wiltshire

Chris Williams

Rhönadler Magic

Due to the limited opportunities for meeting up with like-minded folk over the long, cold winter, the focus must inevitably rest on the activities in my own workshop. As a freshly-minted O.A.P. the first project to come under scrutiny was the Rhonadler 35. As this was famously the basis for the Type 13 Petrel, it seemed only right to build her to the same 1:3.5 scale as my recently constructed Petrel, the two gliders then making a nicely historic pair. Construction started, as is de rigeur these days, on the PC screen, the mouse being far more accurate instrument than the pencil. It is a simple fact that full-size wing sections do not always work that well at model sizes, unless the models are really big, say half-scale. (Although there are exceptions). On the Petrel, and most of my other designs, I have always used a model wing section, and then compromised by thickening up the chord at the root to that of the full-size.

This has worked out well on the Petrel, and only an aficionado can tell the difference. With the Rhonadler, however, I fell to wondering what would happen if I were to apply the ultimate compromise: Gottingen at the root, transitioning to the model section at the tip. This is easily done with a wing plotting programme, but there was no way to know what the result would be, other than trying it out for real. The die was set, and soon templates were pouring off the A4 printer, then to be pasted to wood, before suffering the attentions of the scroll saw. The fuselage is built in two halves, first one side flat on the board, then, with the first half removed, the second can be built up former by former. There is little in the construction that relates to traditional full-size practice for the purely practical reason that a model is liable to undergo forces far greater than its full-size counterpart, especially when thrown off the side of a hill by its owner. Plywood, Balsa & Spruce

make up the majority of the construction materials, and the covering is of a heat-shrink, adhesive-coated material known as Solartex: not cheap, but very easy to apply. Two-pack paint provides the finishing touch, and the colour scheme is based on the 3-view drawing by Hans Jurgen Fischer. There are a few deviations from scale, purely for practical reasons. The wings are attached to the fuselage by means of steel bars passing through a box on top of the fuselage and then through into each wing, and the wings retained against each other by means of rubber bands & hooks. In order to get the bands to work, the gap between the wings has to be large enough to get the bands installed, and this has necessitated a wider than scale fairing between the wings. The blend of wing sections has resulted in a very scale appearance, especially when seen from the front, and the addition of spoilers was not unknown in many variants, and is especially vital when flying from the slope.

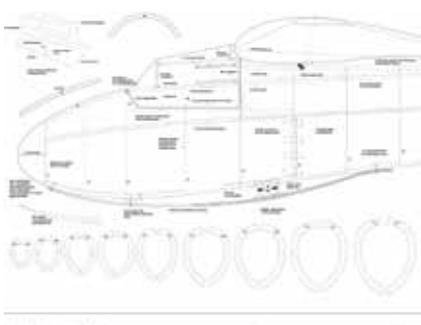
First flights were very promising, the model proving stable and without vices, especially important in the low-speed regime, the stall being very gentle despite here being no geometric washout in the wings. (If I were to be able to build the Petrel again, I would definitely use the same aerodynamic set up for the wings)

The only downside has been a lack of structural integrity in regards to the wing joiner box, the narrow pylon exerting forces in a crosswind landing that the fuselage could not sustain. Retro-modifications have taken place which have hopefully solved the problem, and the next thing will be to finalise the plans, which will eventually become commercially available through the publishers, Traplet.

If you would like to see the Rhonadler in her element, simply put THE RHONADLER FLIES AGAIN II into the YouTube search box.



The uncovered Rhonadler airframe



This where it starts: on the PC

LETTER TO THE EDITOR



The Airmans World

Where the lace of the waters is stiched to the land
by the throb of the tide in the sea,
and the earth in erosion lends scallops of sand
to ruffle the surf that is hemmed to the land -
the fingering zepthers will be.

And here in the atmosphere's ambient chang
and the local effect of the continent's range,
the sailors who sail on the ocean if air
with naught but their knowledge to carry them clear-
assemble their sensitive planes.

What is formed in the instinct of gull and tern
by the cunning of nature the sailor must learn,
and the art is less matter of knowledge to fly
than of being at home with moods of the sky-
and patience to learn.

Here, absent the surge and roar of the screw
and advice from the tower and the help of a crew;
here only the lisp of a wave on the sand
and the whisper of zephyr upswept from the land-
and your art and you...

Gill Robb Wilson U.S.A.

This GB was built from various broken pieces by "Pop" Pinniger. In the corner of one of the hangers at HMS Siskin was a pile of what can only be described as "glider debris". I understand at the time this debris was brought from Germany at the end of the war. I understand that some of the debris went to a Royal Navy Aircraft Repair Yard where three Grunau 2b's were built. A stop was put to this either by the manufacturers or licensees. I have little knowledge of what went on there, I was in my teens.

The Grunau in the foto was put together from the "debris" pile at HMS Siskin. I can vouch for this info cos I helped with part of the process. The work was carried out by Pop as a hobby. He had a workshop on the airfield and spent most of his non-working time there. Anybody who got near Pop's workshop was roped in to making tack strips.

If you study the foto and look just forward of where the strut meets the fuselage, you can make out the structural curve of the centre-wheel housing. This mod was carried out by Pop/ He also rounded off the flying surfaces, the wing tips, rudder and tail-plane. I remember vaguely him working with a *Seafire control column which he was planning on fitting in some type of glider- not a Grunau. I wish I had written notes on everything I saw at the time.

Francis Broom

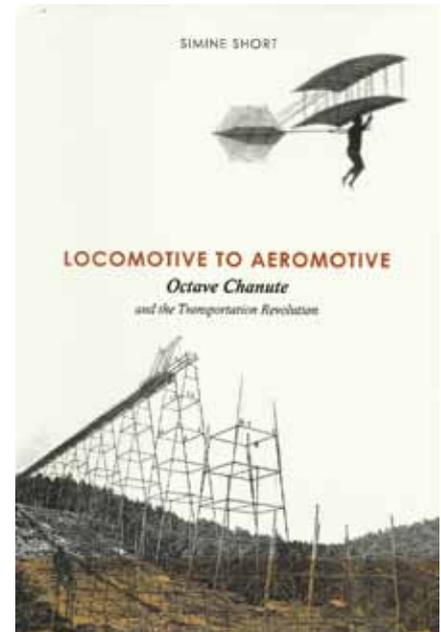
*Seafire = Aircraft Carrier version of a Spitfire.

Photo courtesy of National Soaring Museum via Simine Short.

Simine Short

Locomotive to Aeromotive; Octave Chanute and the Transport Revolution

Locomotive to Aeromotive; Octave Chanute and the Transport Revolution
By Simine Short
ISBN 978-0-252-03631-6
Widely available internationally through Amazon. (Prices vary)



If you are into early European pioneering history of America, or the early history of manned flight, then *Locomotive to Aeromotive* has to be a book high on your wish list.

Documenting the life of Octave Chanute, the author *Simine Short*, has embarked upon a formidable task in which to chronicle this amazing individual's place, not only in early aviation, but in early American civil engineering. Through his sound engineering prowess, Chanute was a true pioneer in laying down the "iron road" into a rough and unforgiving American heartland.

Through his structured and analytical approach as a successful bridge and railroad designer, incredibly Chanute also made a significant, yet highly successful sideways career move to that of industrial chemist. Through his pioneering work in timber preservative treatments, Chanute was also a leading pioneering conservationist, strongly advocating the need to conserve and manage America's then rapidly diminishing timber resource.

With the second half of the book covering Chanute's aviation exploits, the author highlights the almost totally forgotten role Chanute played in the development of modern aviation. Standing tall amongst such imminent names such as Moedebeck, Mouillard, and Lilienthal, Chanute was amongst the first to apply a logical and scientific based approach to the mysteries of flight, and was a leading figure in encouraging and supporting the

advent of powered flight, possibly years before it's time.

Through his unstinting support to openly share new information and bring all aviation experimenters together into the engineering fraternity, there is no doubt as to Chanute's role in bringing America to the forefront of aviation technology in the late 1800's; one which seemed to thrive amongst its small but determined band of enthusiasts who's ambitions were not saddled with restrictive European class systems, and enjoyed an almost unique pioneering "can do" spirit that ran as a common thread throughout the population.

With Lilienthal paving the way with simple weight-shift type gliders, the next big step for the early pioneers was the conundrum of a satisfactory flight control system. It is interesting to note that at the time of the Wright Brothers breakthroughs, (at which time they were in close contact with Chanute), both Chanute and the Wright's were working at the same problem from different ends of a common spectrum; the Wrights looking to perfect a pilot controlled stability system, whilst Chanute strived for built-in mechanical stability, when in reality the solution was a combination of both.

As an aviation enthusiast, I initially dreaded the thought of wading through so much of the book that focussed on Chanute's civil engineering life, however I was pleasantly surprised as the author paints an interesting and historical insight into

the creation of modern-day America, from which I drew a far deeper understanding. On a personal level I would have liked to have seen a few more modern-day photos of some of the places and rail lines that these hardy pioneers endured in establishing what today is still a significant part of America's vast transport network. This left me feeling no closer to Chanute in a modern day context, when in actual fact much of his efforts contributed directly in what can still be viewed today in some tangible form, even to the extent that the township of Chanute, (which bears his name), is still home to what is today a thriving community who are proud of their pioneering father. But these are small points indeed however, and should not be seen as distracting the reader from the overall commendable result that the author has achieved.

BS



Chanute glider over the dunes of Lake Michigan, September 1897. Photo Courtesy Chanute Papers. (via Simine Short)

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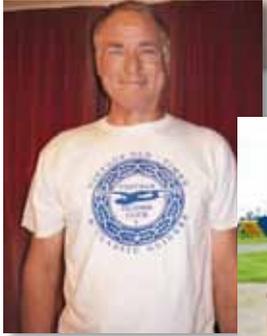


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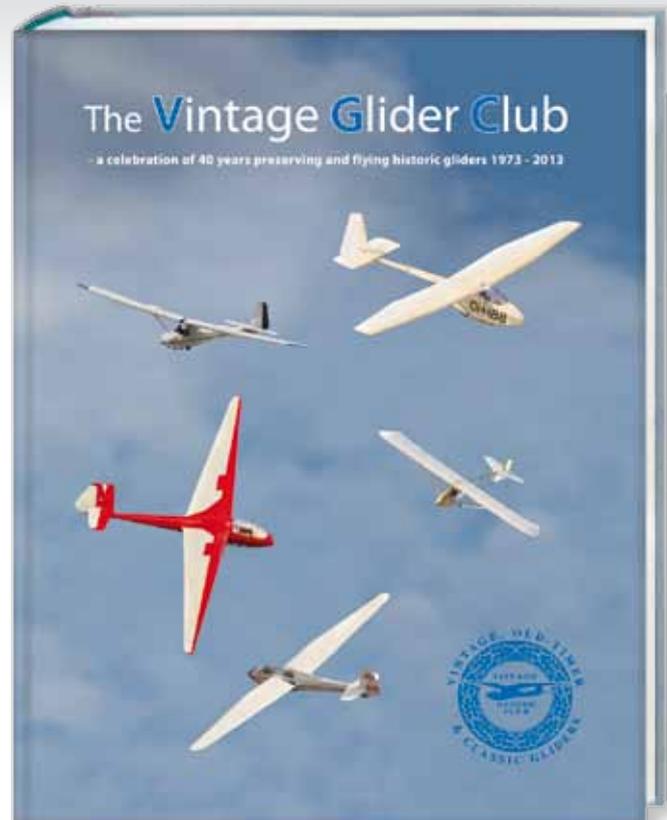
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Dazu enthält das Buch Beiträge und Tabellen zu Geschichte und Entwicklung des Vintage Glider Clubs. So wird dieses Werk zu einer angemessenen Würdigung seines Gründers Chris Wills und dessen weltweiten Mitstreitern in Vergangenheit und Gegenwart. Sie haben akribisch daran gearbeitet, unser Segelflugerbe zukünftigen Generationen zu erhalten."

Nick Newton
President, Vintage Glider Club