

VGC News

No. 108 Spring 2003

The Grunau Baby

International News

The Polish PWS-101

Slingsby Grasshopper

Horten IV progress report

http://www.vintagegliderclub.org.uk

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 artifacts 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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Front cover: ***Horten 4A now on display at the Oberschleissheim division of the Deutsches Museum, Munich. A flying replica is to be built. See page 34.***
Photo: C Wills

Back cover: ***continuing the flying wing theme; a Fauvel AV22 (F-CCGK) has been returned to flying condition. See page 20.***
Photo: David Tarbutt

The views expressed, and the contents of all material, in this magazine are the opinion of the author and may not necessarily reflect those of the Vintage Glider Club Committee or the Vintage Glider Club membership. No responsibility is accepted by the Vintage Glider Club Committee or its Membership, for any safety related (or any other) technical advice, transmitted in the magazine or any document issued by, or on behalf of, the Vintage Glider Club. No responsibility is accepted by the Vintage Glider Club or its Membership, for any adverts placed in the magazine by individuals or commercial entities.

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Please submit material to
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Wanted

Vertical Format Coloured Prints of vintage gliders if possible, in flight, for the **future covers of VGC News.**
PLEASE send them to the VGC News Editor Margaret Shrimpton:- "Fairfields", Fosse Road, Oakhill, Somerset BA 3 5HU.
Photos will be returned.

Will members please note that Technical Articles have been withdrawn from sale and are being updated. They will however be published periodically in VGC News

Notice to all members

The Rally Secretary is Graham Saw. Please forward details of any vintage glider rallies you may be planning to: G.Saw. 16 Prince Andrew Close, Maidenhead, Berks. SL6 8QH Tel 44(0)1628 776173

Advertising rates are £35 per 1/4 page for commercial adverts and £25 per 1/4 page for others

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Tel/Fax 01442 873258. Arewa, Shootersway Lane, Berkhamsted, Herts, HP4 3NP, UK.
e-mail: -vgcmemsec@btopenworld.com

Ian Dunkley - Member without portfolio.
e-mail: ian_dunkley @pgen.net

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CLUB NEWS

Chairmans Report

Fair weather, farewell and welcome.

The season has started with unexpectedly good weather, let us hope it continues right through the summer particularly since we have so many rallies planned *(see Diary dates page 5 & 6)*.

In this issue we record the passing of someone who held a special love for our Club, Anne Welch. Anne often attended our rallies and was a recent Guest of Honour at our Annual Dinner. She will certainly be missed. More Club news is that the resignation of Paul Serries, former VGC Vice President, left a gap in the organisation which the executive committee believed needed to be filled. Following their Annual Meeting in February we were informed by our German members that they have proposed the position be filled by Harald Kamper. Harald is well known to our members, particularly those who attended last year's International Rally at Achmer. The committee welcomes the proposal and will ask the membership to endorse formally the appointment at the forthcoming AGM.

On a technical note, Jim Hammerton, the BGA Chief Technical Officer has asked that members be reminded of the requirement for all gliders to carry the approved trigraph, competition number, or to have submitted a request for a glider to retain it's original markings or paint scheme for historic reasons. If you have not previously done so then please submit a photograph of your glider on the form available from the VGC Technical Officer at the next opportunity. The BGA number should still be carried (inconspicuously?) for example under the tail.

We have added to our committee a new Sales Officer, Ray Poynter. Ray assures us that VGC Sales is now on a firm footing and a new sales leaflet will be circulated shortly. Please ensure that you use the new e-mail address when contacting Ray.

Another improvement for members will be the involvement of Bryan Middleton in assisting the Rally Secretary to promulgate future events and provide coverage of rally reports for the Newsletter. The Club is still however seeking individuals prepared to succeed both the present Editor of VGC News and also the Treasurer. Both Margaret and Austen will assist in ensuring a smooth and successful transfer of their responsibilities to the new incumbents.

The committee were all in good spirits at our first meeting this year, let's all look forward to a good year ahead.

David Shrimpton, Chairman

Presidents corner

2003 is the 30th year of the VGC's Operation as a Club. C.Wills, his heart saddened by the awful fate that awaited most vintage gliders, in particular, his Kranich 2, had decided that the only way out of this sad situation was to try to organize an International Rally for old gliders. He was overwhelmed by the response. The British Gliding Association kindly allowed him to use the facilities of a National Championships, when the National Championships was not using them, at the Coventry Gliding Club at Husbands Bosworth. The dates chosen were from the 26th of May until the 3rd of June. The National Championships were to be at one end of the airfield and a Rally for steamrollers and traction engines was at the other end of the airfield, with the old gliders somewhere in between. We hoped that the steamrollers etc would not mix with us too literally. There were 20 entries from Britain, which were much encouraged by the appearance of a Willi Bischof's Moswey 3 and Willi Schwarzenbach's Spalinger S.18 from Switzerland and the Munster Minimoa from Germany.

At last, we were no longer alone, as the Swiss and the Germans were with us. More and more old gliders were brought out of their hiding places until there were 20 entries from Britain on the site. Among them were John Coxon's Minimoa, which, having been restored by Southdown Aero services at Lasham is now with the Hoelighaus family at Kircheim Teck still airworthy. The Minimoa BGA 1639, which is currently enjoying a 23 year restoration at Dunstable, the Weihe BGA 448 of Francis Russell, which was grievously damaged at our Thun International Rally in 1979 and is still awaiting repair. The Kite 1 of Ted Hull, which has just been restored by its new owner Bob Gaines in the USA, Tony Smallwood's Gull 1, which is at present with Mike Beach at Halton; Graham Saw's Rhoenbussard BGA 337, and Peter King's, Bob Collins's and Ken Davis's Rhoenbussard BGA 394 which is airworthy with the OSC Wasserkuppe; The Petrel of Ron Davidson, which is at present with Bob Gaines in the USA; Lou Glover's Viking, and the Husbands Bosworth immortal T.21b of Lou Frank and syndicate. That these beloved old gliders and their owners are mostly still with us after 30 years, gives one the impression that it has all been worth while and we thank their owners for staying true to us and our movement.

The weather for our first Rally was often most unsuitable for casein glued old gliders, with severe rainstorms and strong winds. It was only possible to fly on five of the eight days and only the Friday of the 1st June was suitable for cross-country flights. The task was to fly from Husbands Bosworth to the London Gliding Club at Dunstable. The three Minimoas landed at Dunstable. With them were the Weihe, Sky and the Moswey 3. The Coventry Club's T.21b reached Clacton on Sea. The Petrel, having reached Dunstable, was taken off again and flew back

to Husbands Bosworth. The Spalinger S.18 flew from Husbands Bosworth to Dunstable and then returned to Husbands Bosworth and then returned again to Dunstable. The flight was more than 225kms. The task for the National Contest on that day had been a 200kms triangle! (It was the day that Willi out-flew the Nationals with a vintage glider!!!). On the final day, the first Concours d'Elegance prize was awarded to the Munster Minimoa, which had been restored by Max Mueller. Rainer Willeke had seen it at Montargis in France and bought it from the French with a crate of beer!! On its nose was written 'Spaetheimkehrer' (Late returning home prisoner of war). The 2nd Concours d'Elegance prize was given to the Rhonbussard BGA 337of Graham Saw. There was much emotion when its pre-war and post-war owner Joan Price came to see it. The 3rd Concours d'Elegance prize was awarded to Willi Schwarzenbach's Spalinger S.18. Willi also received a prize for having flown the longest distance flight of the rally. Another prize was given to the many pilots of the Coventry club's T.21, who had attempted cross-country flights on every possible occasion!

In spite of the bad weather, the impression was that the rally had been a success. Some of the pilots had even gone solo on steamrollers! During the rally VGC member 002, Ken Crack quickly organized a Lunch in a local pub. At this dinner, it was decided by all members present that there should be a Vintage Glider Club and that there should be international rallies every year as long as some people could be found to organize them. It was decided that the next one should be probably on the Wasserkuppe. News was heard that efforts were being made to get many other old gliders ready in time to take part. Some owners of old gliders not present said that their machines would be there for the next Rally. Very great interest in old gliders had been created abroad. At least four more entries would have come from Switzerland, two more from Germany and two from France, had the cross channel return fare been cheaper for glider trailers. An Italian pilot had written expressing a wish to attend the next Rally with an Italian vintage sailplane.

That is what happened when the VGC was started 30 years ago. *CW*

Membership secretary chatline

To all the members who responded to our appeal for the renewal 2003 subscriptions promptly, thank you. However there are still some out there who have not yet done so please check your mailing front address carrier as to year ending expiry date. Please do so urgently as no further reminders will be sent. I would also like to remind you that glider insurance through the VGC Insurance Scheme becomes invalid unless you are paid for each current year for which you are covered. Rally Secretary Graham Saw tel: 01628 776173 email: *ramham@servotech.swinternet.co.uk* is able to answer any questions or contact the insurers directly, Graham Roberts tel: 0207 621 8276.

Vintage Flying is Fun Flying —talk to your pals about us, get them interested bring along the family to our rallies, we have a great time for all, including some flying for the pilots when the weather is kind...er most of the time. There are a great number of rallies this year to choose from - just ring the rally telephone contact numbers found in Diary Dates to say you are coming. If you are considering the International Rallies in Finland 2003 there is an entry form to be completed prior to attending. Good Safe Flying and Bon Voyage.

Geoff Moore.

Treasurers Topic
Subscriptions

The last issue of VGC. News did not contain my report but that is water under the bridge and I now confine myself to saying thank you to all those UK members who responded to my request to pay their subscriptions by Bankers Order. This is excellent.

If you have overlooked this and paid by some other way, can I repeat credit cards can be unsafe and for every 20GBP subscription paid they cost the VGC. 1GBP. If you must use this method why not make us a small donation to cover costs. This would be greatly appreciated as is any donation.

To make a Bankers Order you need to take the details given on Page 39 of Winter issue 107 and fill in a form which is available at your Bank. Please ensure that your name and membership number are stated on the form. It couldn't be simpler. You will benefit and so will the VGC.

Finally can I thank all the overseas secretaries who look after our interests so well each in their own country by encouraging membership, collecting subscriptions and then paying into the VGC. Bank. My job would be much more difficult without you.

My very good wishes and Safe Flying in 2003.

Austen Wood.

From Harald Kamper

My personal thanks to the two people in the picture below for both doing such very good work for all of us in the VGC during their long time as Sales Officers. I will miss them, because in Achmer 2002 they also ended their time joining the International VGC Rallies.

Especially, I will miss the calm and typical voice of Colin during the VGC briefing! At last once more to Alice and Colin Anson - Thank You !!



In future publications of VGC News we would very much like you to give brief details of yourself together with a photo with perhaps your glider and return to VGC Editor as early as possible
If you do not wish to contribute, you are not obliged to. Thank you.

Margaret James VGC Editor
Fairfields, Fosse Road, Oakhill, Somerset, BA3 5HU UK
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Diary Dates for 2003

27 April - 4 May
Dedale Rally, St Remy des Alpilles,
France. Contact Didier Pataille
The Dedale AGM will take place during the rally around 1st May.

3 –5 May
Kirby Kite Rally Haddenham,
Thame, OXON. Contact Peter Chamberlain Tel. 01525 378901 e-mail peter.chamberlain3@btinternet.com

6 –9 May
24th "Baby Treffen" Flugplatz Nordhorn,
Germany, Luftsporting Grenzland. Contact Volker Seidel 0171 282 3434

24th – 31st May
VGC National Rally Sutton Bank
contact: The Secretary, Yorkshire Gliding Club, Sutton Bank, Thirsk, North Yorkshire Y07 2EY phone 01845 597237 e-mail enquiry@ygc.co.uk or contact Phil Lazenby lazenby98@bigpond.com

29 May-1 June
Dutch National Vintage Rally, Terlet.
Contact Hans Dijkstra, Melis Blecklaan 4634 VX Woensdrecht

7-8 June
Portsmouth Naval Vintage Rally,
Lee-on-Solent Airfield, Hampshire. Contact Alan Clark Tel. 01329 230739

7-8 June
Denbigh GC,
Denbighshire. Contact Keith Lewis office@denbighglidingclub.co.uk

12th – 15th June
Spatzen Preffen (Spatz Rally)
Flugplatz Mengen, Nr Ravensburg, Germany. Contact Gerhard Tischler 0049 751 142 81

14 – 15 June
RAF GSA Centre 40th Anniversary,
Bicester, Oxfordshire. Contact Harry Chappel Tel. 01869 252493

14 – 22 June
Deeside GC, Aboyne, Aberdeenshire.
Contact David A. White Vegains@aol.com

21 – 22 June
'Longest Day' Rally, East Sussex GC,
Ringmer, Lewes, East Sussex. Contact David Williams david@davidwilliams.flyer.co.uk

21 – 28 June
Classic & Vintage Rally,
Derby & Lancs GC. Camphill,
Gt Hucklow, Buxton SK17 8RQ.
Contact Ian Dunkley Tel. 0128 871270
ian_dunkley@pgen.net

21 – 29 June
International Kranich Rally
Flugplatz Marpingen / Saar, Germany Contact OSCM Tel. 06131 215104 www.oscmainz.de

5-6 July
Scottish Gliding Union & VGC, Portmoak,
Scotlandwell, Kinross, Kinross-shire.Contact Ian Easson e mail ian.easson@btinternet.com

18 – 21 July
VGC Rendesvous Rally, Oripaa, Finland,
located 60 kms NE from the city of Turku. Contact Risto Rykala, Finnish Sport Aviation Institute, Rayskalantie 311, Fin. 12820 Rayskala, Finland. Tel. +358 40 825 5255 or
e mail ris.pykala@urheiluilmailuopisto.fi
(www.turunlentokerho.com)

22 – 31 July
VGC 31st International Rally,
Jamivarvi, Finland.
Contact Risto Rykala, Finnish Sport Aviation Institute, Rayskalantie 311, Fin. 12820 Rayskala, Finland. Tel. +358 40 825 5255 or e mail ris.pykala@urheiluilmailuopisto.fi (ww.padasjoenlentokerho.fi)

1 – 4 August
Borders GC Vintage Rally,
Milfield Airfield, Nr Wooler, Northumberland. Contact George Brown Tel. 01670 790465

1-4 August
Belgium Veteran Glider Club
Rassemblement, Sovet.
Contact Firmin Henrard, Rue Porcheresse, B-5361 Mohiville Hamois, Belgium Tel 083 612194 e mail henrard.f@belgacon.net

2 - 3 August
Whispering Wardrobes Rally,
Booker Airfield, Marlow, Bucks. Contact Graham Saw Tel. 01628 776173
graham@servotechnique.co.uk

2 –10 August
Balade helvétique des planeurs anciens
Suisse romande.
Wandersegelflug durch die Westschweiz mit Oldtimersegelflugzeugen, Contact J Beguin, Rue du chateau 13a, CH-Peseux j.beguin@net2000.ch Auskunft: Ruffieux Pierre-Alain, 021/802 13 48, 079/606 43 48, balade@osv-ch.org

23 – 24 August
Vauville Airfield 80th Anniversary,
Vauville GC,
France (20km from Cherbourg) 'Oldtimer glider gathering' Contact Olivier Le Ber olivier.le.ber@libertysurf.fr

23 – 31 August
Slingsby Rally, Yorkshire Gliding Club.
Contact The secretary, Yorkshire Gliding Club, Sutton bank, Thirsk, North Yorkshire Y07 2EY Tel. 01845 597237 e-mail enquiry@ygc.co.uk or Phil Lazenby lazenby98@onetel.net.uk

27th September
VGC Annual Dinner and Prize Giving.
To be held at the Coventry GC, Husbands Bosworth, Lutterworth, Leicestershire. Contact Keith Nurcombe Tel. 01788 576238 e mail keith.LVA@fsbdial.co.uk

OSV Switzerland Termine 2003:

17- 18 Mai
15. OSV Treffen in Bex,
Gummiseitraining voraussichtlich am 16. 5. nicht möglich, Auskunft: Willy Fahrni 055 246 28 27 od 079 673 21 10

7 – 9 Juni
Segelflugzeug Oldtimertreffen CH/F,
in Bellegarde F (nähe Geneve) Rencontre franco-suisse de planeurs anciens à Bellegarde Auskunft: Ruffieux Pierre-Alain, 021/802 13 48, 079/606 43 48

7 - 15. Juni
Oldi – Treffen in Blumberg D
Auskunft: Willy Fahrni 055 246 28 27 od 079 673 21 10

19 - 21 September
(Bettag) Gumiseilstart ab Balmberg / Langenthal,
60 J SG Oberaargau Auskunft: Willy Fahrni 055 246 28 27 od 079 673 21 10

Oldtimer Segelflugclub Wasserkuppe Termine 2003

1 –3 Mai
Flugbetrieb und Jahresnachprufung der segelflugzeuge

24 –31 Mai
Flugwoche auf der Wasserkuppe –
Gäste mit und ohne Oldtimersegel-flugzeugen willkomme

22 –28 Juni
Schulgleiterfliegen 2003 – 1
auf derWasserkuppe mit dem vereinseigenen SG 38 D-7055

28 Juni
Hallenfest des OSC auf der Wasserkuppe

29 Juni -5 Juli
Schulgleiterfliegen 2003 – 2
auf derWasserkuppe mit dem vereinseigenen SG 38 D-7055

3 – 5 Okt
Abfliegen

(English version)

24-31 May
Flying week on the Wasserkuppe
guests with or without oldtimer gliders are welcome

ROBERT FLEMMING INSURANCE BROKERS (UK) LIMITED
Staple Hall, Stone House Court, London EC3A 7AX. Telephone: 0207 621 1263

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VINTAGE GLIDER CLUB
INSURANCE SCHEME

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For competitive premiums matched with experience and reliability, please contact:

Graham Roberts, David Bacon or Neil Drogman
on
Direct Line—0207 621 8276
Fax—0207 623 6175

VGC National Rally

SUTTON BANK

24th — 31st May 2003.

Entry Form

YORKSHIRE GLIDING CLUB

Name:

Address:

Phone: **e-mail:**

Glider: Type: Ident: BGA No:

Other Crew/ Family members:

Arrival Date:

Departure Date:

Accommodation: *(Please tick one)* **Tent** **Caravan** **Dormitory**

Club Caravan **Local B & B/Pub**

Other Information Requests:

Return to:
The Secretary, Yorkshire Gliding Club, Sutton Bank, Thirsk, North Yorkshire YO7 2EY
Phone: 01845 597237 e-mail: enquiry@ygc.co.uk (website www.ygc.co.uk)

22-28 June
SG38 flying on the Wasserkuppe 2003 - 1 with the OSC-owned SG38 D-7055 launched by bungee rope; application forms are available on request

Saturday, 28 June
OSC hangar party on the Wasserkuppe;

29 June - 5 July
SG38 flying on the Wasserkuppe 2003 - 2 with the OSC-owned SG38 D-7055 launched by bungee rope; - application forms are available on request

3-5 October
Seasons's last flying weekend

Saturday 4 October
evening event

National Rally Sutton Bank

24th - 31st May

This years' National Rally is at Sutton Bank, one of the oldest gliding sites in the UK offering ridge, wave and thermal flying from a safe hill site with two grass runways.

Its planned to have three tugs available including the Super Cub which can aerotow old and slow ships without alarm. On westerly days winch launches provide access to the hill lift which extends for 12 miles and more when conditions are right.

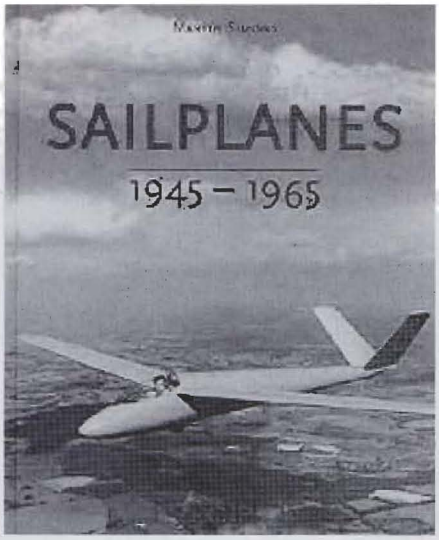
The club has an excellent clubhouse with good facilities for self catering or alternatively great food prepared on site at reasonable cost by the new catering team known as "Nanny Oggs Kitchen" (Ask for an explanation when you arrive!)

There may be accommodation available in the clubhouse or club caravan, otherwise there are lots of good B & B's around in the area. For the more hardy camping is free, as is temporary caravan parking. If you want accommodation either on site or locally it will be advisable to arrange this soon as the last week in May is a popular holiday period.

The good news is that the Yorkshire Club will not charge facility fees to bona fide VGC members and their immediate family. Out of character for Yorkshire folk!

An entry form is enclosed. The club would be grateful if these could be completed and returned as soon as possible please so they can make sure that everything is in place for the Rally. However last minute entries will also be welcome.

If you have any questions or concerns contact Yorkshire Gliding Club (details on the form) or Phil Lazenby 0113 284 2132, e-mail *lazenby98@onetel.net.uk.* ■



SAILPLANES 1945-1965
by Martin Simons.

This is a tremendous work covering a vast period of sailplane design

It is well set out with the first page dealing with pre-war wing profiles, the second with the laminar flow profiles of the post-war period. The first part of the book is on the immediate post WW-2 designs which clung to the pre WW-2 traditions, often with more wing loading.

The second part of the book is titled "New Wings" when the first laminar flow profile wing sections came in to use during the 1950s in Britain. The third part describes the first glass fibre sailplanes of the late 1950s. So, it is easy to trace the post-war course of new sailplane design through new wing profiles to new materials.

The text is excellent and the drawings are up to the best that we have come to expect from Martin Simons, with different colours representing different materials. ie brown for plywood, yellow for sun drenched fabric, light blue for perspex, silver for metal, and grey for fibreglass. The drawings seem to be very accurate and all this makes it into a lavish book. It is a shame that not all the designs could be there but there simply was not enough room, or time, or perhaps they were not important enough. Martin is to be congratulated on once more producing a super book which will be of the greatest interest to glider pilots and aeromodellers. We also salute the EQIP Verlag for so quickly producing such a masterpiece. We are simply amazed that Martin knows so much, and has put his knowledge into this book for us all to share.

EQIP GmbH Werbung und Verlag. Klaus Vey und Olaf Schumacher, Hauptstrasse 276, 53639 Koenigswinter, Germany. Tel:- (0)2223 917070.or/and Martin Simons, 13 Loch Street, Stepney 5069, South Australia. Tel:- (08) 3625476.

Martin never stops. We hear that he is now producing a similar book on all fibreglass sailplanes, but we fear that this will be outside our range, unless they become vintage by the time he has finished it ! *CW*

RHOEN-ADLER
by Peter Selinger. ISBN 3-8301-0437-5.

This is a magnificent book covering the glider design and building work of the firm of Alexander Schleicher, at Poppenhausen below the Wasserkuppe, for 75 years, from 1927 – 2002.. There is a list with production figures etc of all Schleicher gliders built before 1945. There are also photographs, some of them in colour, and magnificent 3-view drawings of all the gliders designed up to date. Among the photos is a little one of the first Grunau Baby 3 108-66, which was designed, built and flown from the Wasserkuppe during 1943/44. It was very different to the Grunau Baby 3 which was produced in 1951. Unfortunately, there is no 3- view drawing of this first GB-3. The text is in German but this book is very much worth having for its superb photographs and drawings. There are of course photos of the Schleicher designers such has Gerhard Waibel and Martin Heide. We recommend this book and congratulate Peter Selinger of having produced yet another super Gliding Book. It is printed in Germany by the Druckerei Lokay, Reinheim. *CW*

THE START OF GLIDING IN ITALY
by Vincenzo Pedrielli

Dieses kleine Buch von Vincenzo Pedrielli ist mehr als eine trockene Chronologie der Ereignisse waehrend des ersten Segelflugwettbewerbs 1924 in Italien. Mit taeglichen Berichten, die auf Zeitungsartikeln ueber den Wettbewerb basieren und den Fotos von C.D. Bonomo wird der Leser in diese aufregende Zeit zurueckversetzt. Man beginnt zu begreifen welch ein Triumph ein Flug ueber 13 Minuten 39 Sekunden und eine Strecke von 4.325m fuer den Piloten bedeutet haben muss. Gleichzeitig wird die enorme Entwicklung, die auf dem Feld des Segelflugs in den 78 Jahren seit diesem Wettbewerb stattfand deutlich. Von jedem der teilnehmenden Flugzeuge gibt es eine Zeichnung und eine detaillierte Beschreibung. Der Text ist bilingual in italienisch/englisch abgedruckt, um das Buch einem grossen Publikum zugaenglich zu machen.

This little book of Vincenzo Pedrielli is more than a dry chronology of events during the first Italian gliding competition in 1924. Daily reports based on press articles about the competition as well as the Photographs of C.D. Bonomo the reader feels thrown right back into this exciting time. Reading this book I started to appreciate the triumph a pilot must have felt about a flight of 13 minutes 39 seconds covering 4.325m of distance. At the same time the enormous evolution which has taken place in the



field of gliding in the past 78 years after this competition becomes clear. There is a drawing of each participating glider as well as a detailed description. The text is printed bilingual in Italian/English to address this book to a larger audience.

Ute Fauth

The book can be obtained from: *Vincenzo Pedrielli, 7, via Tintoretto, 20033 DESIO - MI, ITALY. E-mail: vpedrielli@murata.it*

Aviation Book Website

A friend recently wanted a copy of 'Sky Fever' but was never able to find one. A new web-site for second hand books was launched recently, aiming to bring together all book sellers in Great Britian. There were no fewer than seven copies on offer my friend found, including some later paperback editions. One which caught his eye claiming to be signed by the author and with a letter from him. He bought it and sure enough it was a pristine copy of the original book 1961, signed by the author Geoffrey de Havilland. He is pleased with his acquisition bought from a book shop near Devizes in Wiltshire as he lives over 200 miles away. The website address is: www.ukbookworld.com. Good luck in your aviation book hunting.

Geoff Moore ■

The GRUNAU BABY



This is a description in perspective of a sailplane that trained a whole generation of glider pilots and was built in far greater numbers than any other sailplane between 1931 and 1945. Reprint of VGC Technical article updated by Vince Cockett.



In 1930 there was such growth in gliding that pilots needed a cheap to build easy to repair sailplane in which they could learn to thermal soar and to do their first cross-country flights. To encourage this, ISTUS, the forerunner of the FAI, initiated the International Silver C. Thus, this sailplane would have to take pilots after their initial training on primary gliders through their C test and on to the Silver C and beyond.

In 1931 Wolf Hirth came to work at Edmund Schneider's factory at Grunau. Aware of the need for such a sailplane, he and Edmund Schneider and others, including an Englishman who happened to be there, designed and built the ESG 31 'Stanavo'. Using the experience thus gained, and after the latter's exhaustive test flying, Wolf Hirth and Edmund Schneider started to design and build the first Grunau Baby during the winter of 1931/2. The Grunau Baby very much resembled in construction and shape the earlier 'Stanavo'.

Wolf Hirth was already well respected and was also the Chief Instructor at the Grunau Gliding School, whereas Edmund Schneider was young and unknown. Because of this, Wolf Hirth was asked and agreed to say that he was the man behind the Grunau Baby design, a fact that he would then never contradict in future.

Construction.

For the fuselage a simple ply-covered flat-sided pine structure, strong, cheap and easy to build and repair, was used, as opposed to the fabric covered, internally braced pine structures, which were easy and cheap to build or repair, but were heavier and less durable, (The latter had been used on all training gliders.), and the curved, light, semi-monocoque fuselages of most of the high performance gliders of the time, which were expensive and difficult to build and repair, Thus the Grunau Baby had the strongest, cheapest and best fuselage for its intended task, The wing took its strength and rigidity from a stressed plywood torsion box ahead of the main spar. This was a light and aerodynamically good, but expensive and difficult construction usually reserved for high performance aircraft. The wings of training gliders were usually internally and often externally braced pine structures that made no use of stressed ply for their strength and rigidity. These wings were strong, easy and cheap to build and repair, but were heavier and not so good aerodynamically, since a fabric covered wing surface is not as accurate as a ply covered one. Thus the Grunau Baby had a cheap to build fuselage and a good, if expensive wing. The wings were hinged at three unaligned hinge points on the top of the





Top: Grunau Baby 3 D-5930 at Eisernhardt.
Left: the original ESG31 'Stanavo'.
Right: wing construction was difficult and expensive but good aerodynamically.

fuselage and all their vertical loads were transferred to the base of the fuselage by means of strong struts. Later in the 1930s efforts were made to improve the Grunau Baby with lighter, more expensive semi-monocoque, rounded fuselages, i.e. the Slingsby Kite 1, the Cambridges and the Baby Bowlus. Although these gliders were lighter than the Grunau Baby 2 and promised max. theoretical L/D ratios up to 1:21, it was not considered worth building them in quantity because of the extra cost and the insignificant performance increase in practice. However, no less than 25 Slingsby Kite 1s were built. Plans circulated worldwide, and US designers, especially in CA, copied the wing--look for the Bowlus Baby Albatross

The weight of the first Grunau Baby 1 was incredibly only 220.5lb, or 100kg.

After 1945 it was not possible to build the Grunau Baby economically in Britain, because of its expensive wing construction. Slingsby Sailplanes designed and built a fabric covered internally braced, spruce structured sailplane, which made little use of stressed plywood covering for its strength and rigidity, This was the 1947 Prefect. Although a heavier glider it was a cheaper glider to build, being constructed in the manner of an elementary training glider, yet offered a slightly better performance.

The weight of the first Grunau Baby 1 was incredibly only 220.5lb, or 100kg. The weight of a Grunau Baby 2b of 1939 was 375lb or 170kg. Even when new, no two gliders of the same type weigh the same, and the weight of some Grunau Babies may now be almost 400lbs.

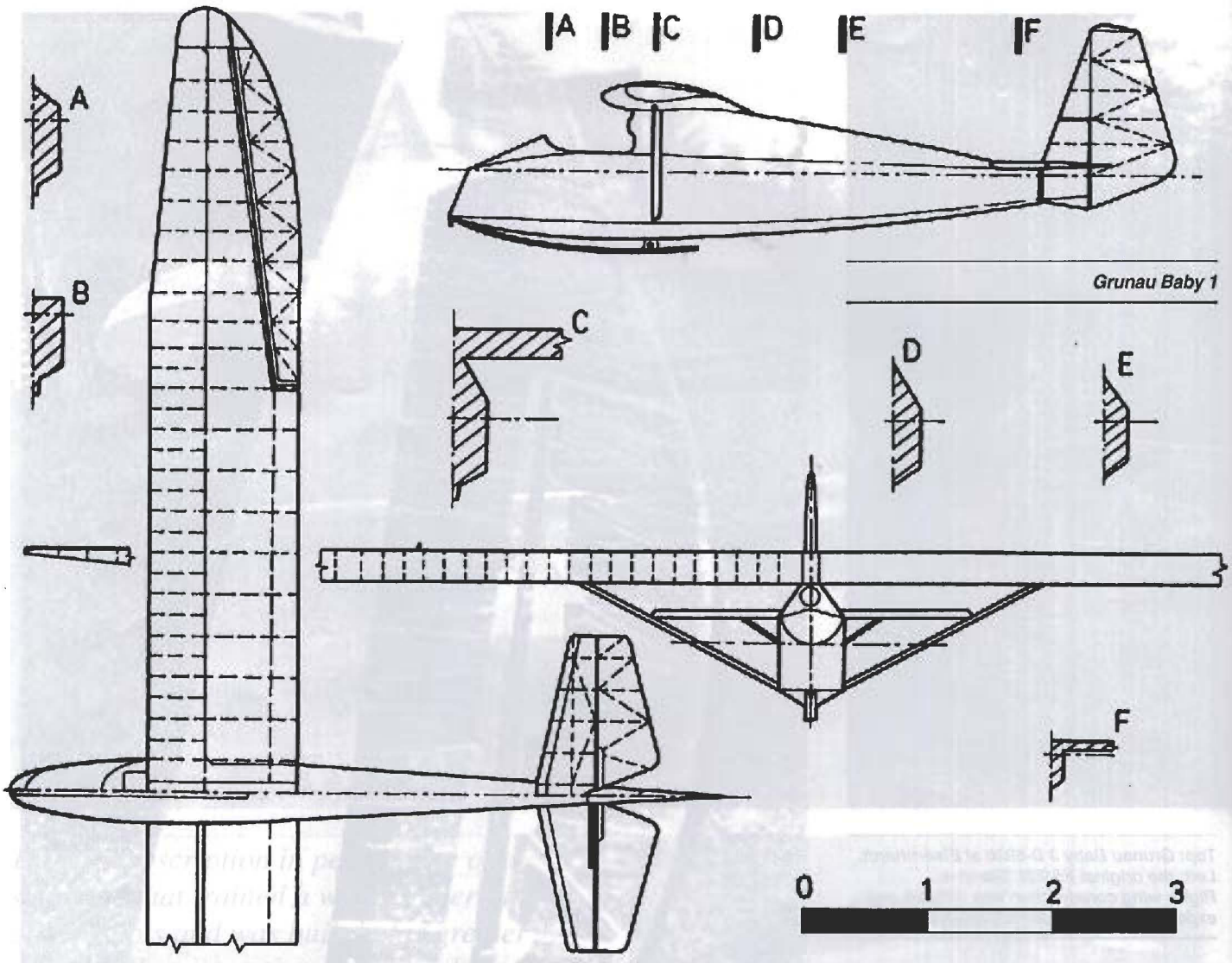
The Evolution of the Grunau Baby

Grunau Baby I

The Baby 1 had a ply covered fuselage of hexagon cross section and the strut braced wing of 12.8 span had differential ailerons and a thick Gottingen 535 aerofoil that gave good lift at slow speeds and a gentle stall.

Grunau Baby 2

In 1933 the design was modified to a 13.5 span, a roomier cockpit and a redesigned tail unit. One of the first of



Grunau Baby 1

these, designated Grunau Baby 2, was flown by German pilot Kurt Schmidt for 36 hours, which remained a world duration record until 1949.

Grunau Baby 2a

Schneider continued to refine the airplane and introduced the Baby 2A and the definitive 2B. The 2A introduced a wing of slightly greater span to accommodate spoilers for glidepath control, ailerons with a narrower chord, and for the first time, a canopy and windscreen for the cockpit

Grunau Baby 2b

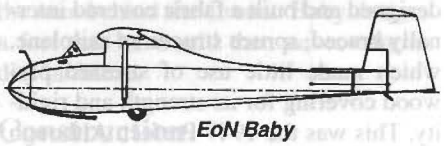
On the 2B, Schneider changed the spoilers to the more powerful Schempp-Hirth, 'parallelogram' configuration and added a wheeled launch dolly that the pilot jettisoned immediately after take-off. The Baby 2B had a longer nose and a wider cockpit and proved to be the most popular version of the design and was the one most built.

Grunau Baby 3

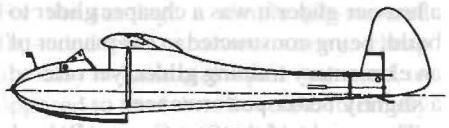
Soon after the end of WW2, the Grunau Baby 3 was designed built in small numbers in Germany. It was little more than an improved 2B model but it also had a cockpit canopy and a landing wheel in place of the former skidded undercarriage.

Grunau Baby 3a

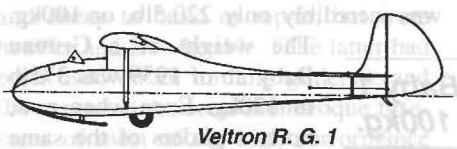
When Edmund Schneider and his family moved to Australia in 1951 the baby 3 was again slightly updated to be the Baby 3A. Only one 3A was ever built. It is still around. Throughout the various versions the original Gottingen 535 aerofoil was retained.



EoN Baby



Fokker



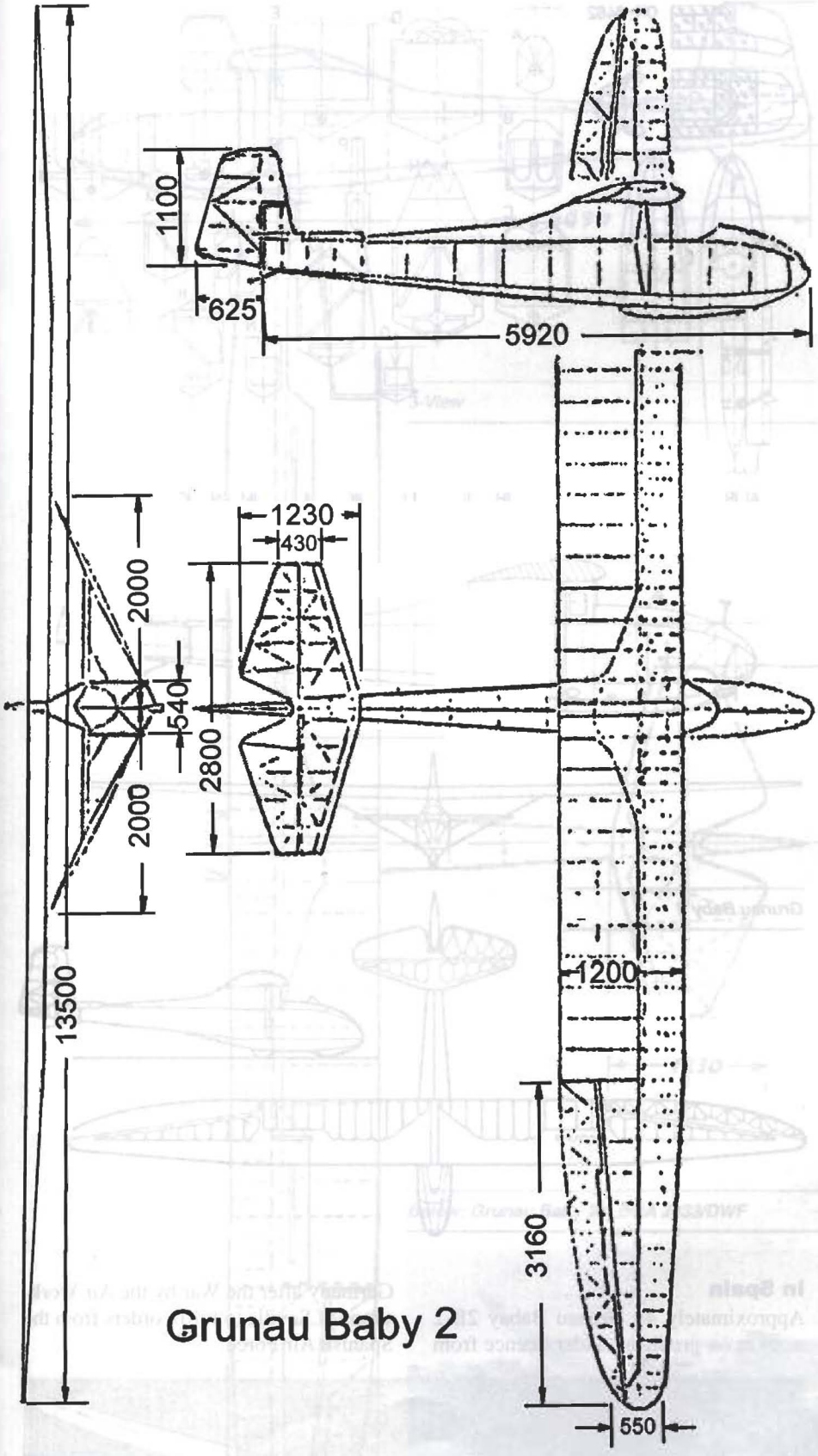
Veltron R. G. 1

The Motor Baby

These flew in 1934 with 18HP Kroeber M.4 engines mounted, pushing, between and above the wings. The engine was not retractable. A photograph shows five of these on the ground and another four in the air over the airfield of Hartau, near Grunau. The span was 13.6m, length 6.6m and empty weight 190kg.

Other Changes

Various modifications to the outline were made by some of the many different manufacturers. The easiest to recognise are the rudder profiles, some of which are shown on the left. Further changes are detailed in the following text.



How many Grunau Babies were built?

An exact answer is not possible. In Georg Brütting's "Die Berühmtesten Segelflugzeuge" it states that Edmund Schneider's factory at Grunau built about 80 Grunau Baby Is and 700 Grunau Baby 2s, 2A and 2B. In addition to this, the type was in mass production at Espenlaub's Factory, at Schweyer's factory, (which in 1943 built 280 Weihes,) at Naumberger's factory, at the Schwarzwald (Black Forest) aircraft factory, which also mass produced Mü-13's, and was being built by gliding groups and firms all over Germany. It was also put into licensed production in almost twenty countries including Holland, Spain, Rumania, Bulgaria, Czechoslovakia and above all, in Sweden where the Swedish Air Force flew 31 Grunau Baby 2B-2 it had built under licence. We believe that the Grunau Baby was also mass-produced by Schleicher's factory during the War. Brütting states that possibly 5000 Grunau Babys were built in total, and it is therefore evident that the Grunau Baby became the most flown sailplane in the world.

Martin Simons writes in 'Australian Gliding' that 22 Grunau Baby Is were built by Edmund Schneider in 1932 alone, but he indicates that yet more were built by groups from plans bought from Schneider. Martin may have obtained this information from Harry, Edmund Schneider's son, who has a glider factory in Adelaide, South Australia.

Our information indicates that during the War the number of Grunau Babys in Germany far exceeded the number of all other sailplane types put together, though there may have been more primaries than Grunau Babys. Alone of all types, mass production of the Grunau Baby continued well into 1944 and factory records show that 4,104 rolled from workshops in Germany and the occupied countries. From this, it would seem possible that if there were as many as 4104 Grunau Babys in Germany during the War, there may have been a total of only 2000/2500 other types.

Aircraft fuel became scarcer as the war progressed, and the Grunau Baby's role as a pilot training aircraft became more important. The Baby was considered as semi-aerobatic, although test pilot Eric Collins was killed in his Grunau Baby at the Cobham Air Show in 1935 when he attempted a forward loop and lost a wing.

To completely train fighter pilots in the Grunau Baby was not possible. Nevertheless, its contribution to cheap initial training and selection of aircrew was beyond measure. They were extensively used in invasion glider training, and one technique was to use an angled landing light to help in night landings. Without it, the German Eagle would have found it much more expensive to get airborne.

Just before the War, the Grunau Baby seems to have been worked on by DFS prior to mass production for the NSFK. As from this time it was known as the DFS 49 and had the German RLM glider code 108-49. All Grunau Baby 2B drawings are marked thus. Almost certainly from this time the Grunau Baby 2B became the 2B-2 version.

In Sweden

Approximately 100 Grunau Babys were built as follows :-

Factory	Type	Total
AB Flygplan at Norrkoping and Stockholm between 1941 and 1944.	GB 2B-2	95
Built by gliding club members	GB 2 or 2A	4
For the Swedish Airforce	GB 2 or 2A	1

The machine was very popular in Sweden and became known as the "C Diplomat".

In Switzerland

During the war, Grunau Babys could no longer be obtained from Germany by any foreign countries. They were therefore built locally by a Mr. Karpf and became known as the Karpf Babies. In



Karpf Baby

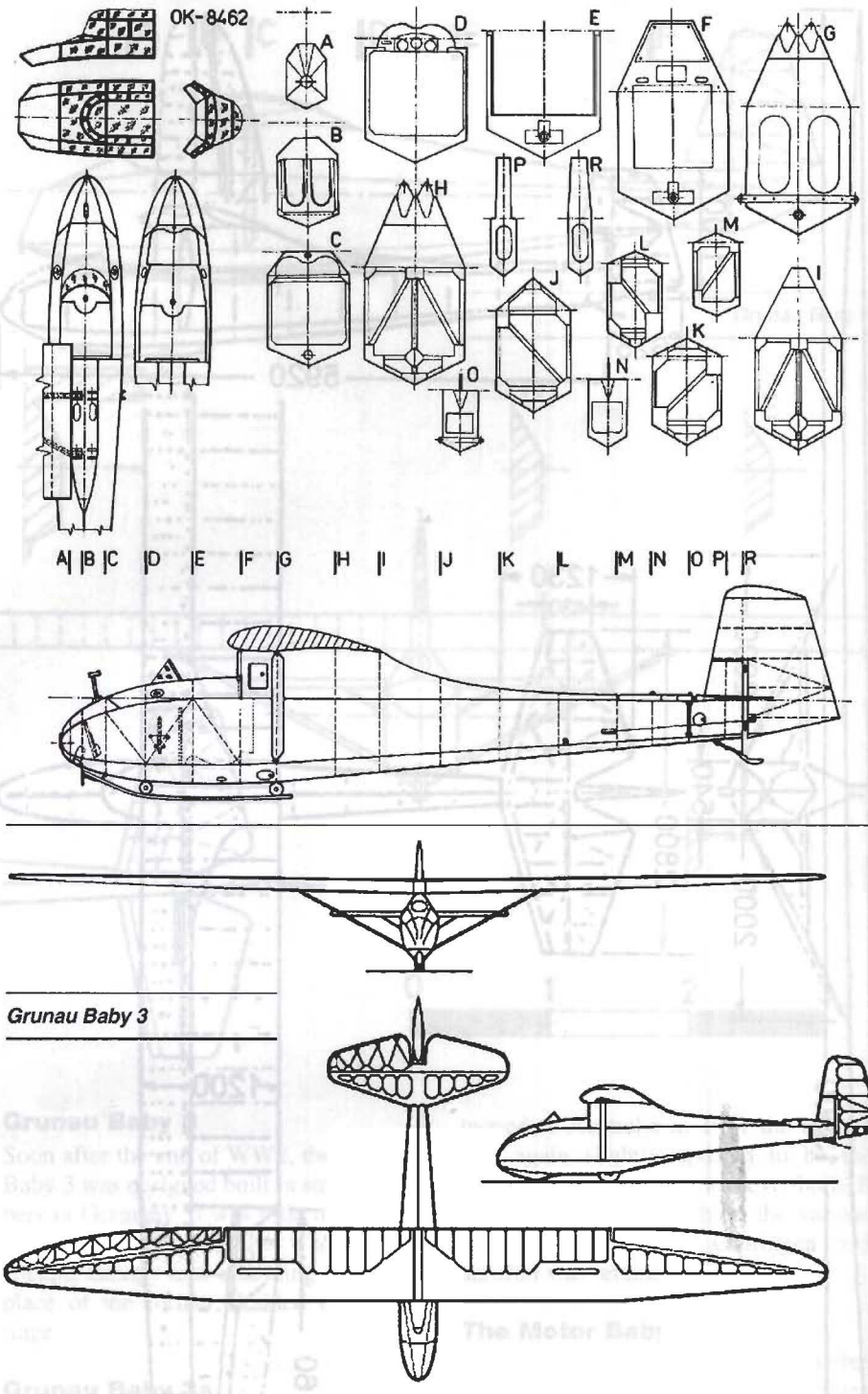
1941, 23 Grunau Baby 2s and one Grunau Baby 1 out of a total of 240 sailplanes were registered in Switzerland. In 1956 11 Grunau Baby 2s, 4 Grunau Baby 2Bs and 12 Karpf Babies were registered. *(Details can be provided C.W.)*

In France

165 Grunau Baby 2Bs were built in 1945 by SNCAN (Societe Nationale de Constructions Aeronautiques du Nord). They were, and still are known in France as the Nord 1300. It is customary in France to refer to many types of gliders by their numbers only. Thus the Grunau Baby 2B is "le Treize Cent', the Olympia "le Deux Mille", the C.25Ś is "le Vingt-cinq S'



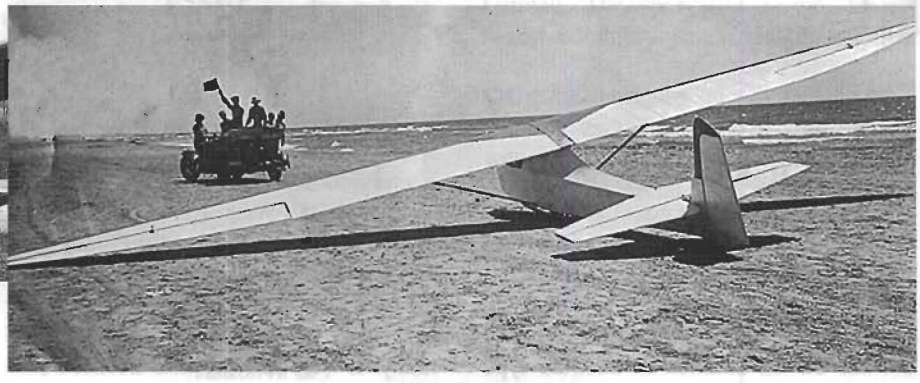
Above: Nord 1300
Right: a GB2, Israel 1935

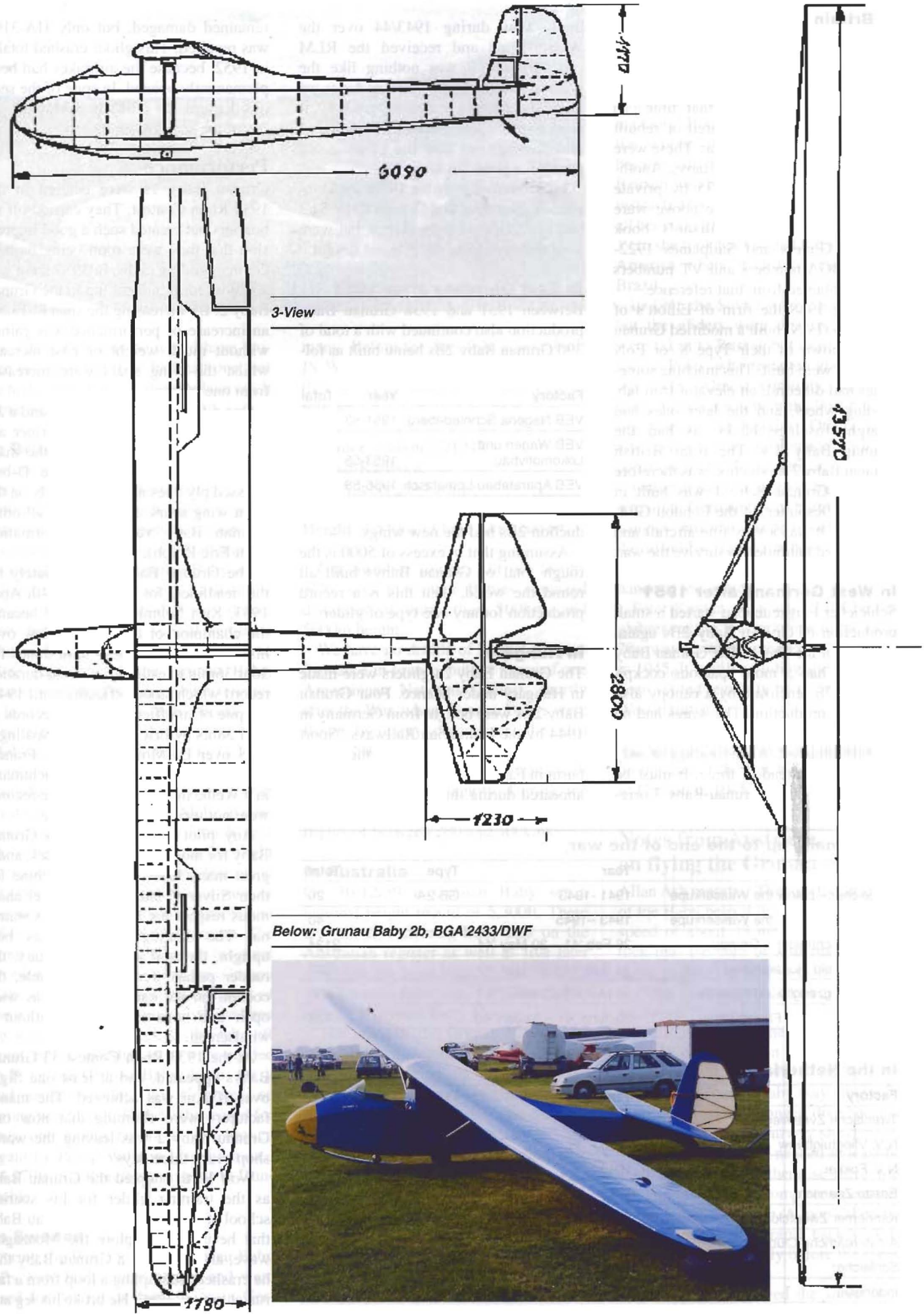


Grunau Baby 3

In Spain

Approximately 40 Grunau Babay 2B-2 were mass-produced under licence from Germany after the War by the Air Workshops of Sevilla to fulfill orders from the Spanish Air Force





3-View

Below: Grunau Baby 2b, BGA 2433/DWF

In Britain

The Grunau Baby 2 was placed in production under licence by Slingsby Sailplanes as the Slingsby Type 5 in 1935. 15 were built at that time. 10 Grunau Babys were repaired or rebuilt during and just after the War. These were captured German Grunau Babys. Another 7 were built from 1935 by private individuals. Details of the above ware taken from Norman Ellison's book "British Gliders and Sailplanes 1922-1970". BGA numbers and VT numbers can be obtained from that reference.

During 1948 the firm of Elliott's of Newbury (EoN) built a modified Grunau Baby, known as their Type 8, or EoN Baby. 47 were built. This machine sometimes had dihedral, an elevator trim tab, landing wheel, and the later ones had straight fuselage backs, as had the Grunau Baby 1's. The total British Grunau Baby 2 production was therefore 69. One Grunau Baby 1 was built in 1934 by Desoutter, of the London Gliding Club. It was a very fine aircraft and much loved but failed to survive the war.

In West Germany after 1951

Schleicher Flugzeubebau started a small production of Grunau Baby 2Bs again, notably for the Dutch. The Grunau Baby 3, which had a more spacious cockpit than the 2B, enclosed by a canopy also went into production. The wings had no forward fuselage attachment point and are thus attached to the fuselage at only two points, instead of three. It must be mentioned that the Grunau Baby 3 originally flew during 1943/44 over the Wasserkuppe and received the RLM code 108-66. It was nothing like the postwar Grunau Baby 3 and as far as we know resembled a scaled down ES-49. It is understood that it had a two-wheeled undercarriage so that the pilots could practice 3 point landings.

In Germany during the 1950s the Doppelraab, Cumulus and Grunau Baby 5 all had basic Grunau Baby wings, but were very different from the original design.

In East Germany after 1951

Between 1951 and 1958 Grunau Baby production also continued with a total of 390 Grunau Baby 2Bs being built as follows :-

Factory	Year	Total
VEB Nagena Schniedeberg	1951-53	93
VEB Wagen und Lokomotivbau	1953-55	105
VEB Aparatebau Lomatzsch	1956-58	192

It is possible that the Lomatzsch production 2Bs had the new wings.

Assuming that in excess of 5000 is the rough total of Grunau Babys built all round the world, then this is a record production for any one type of glider.

In Hungary

The Grunau Baby 2a gliders were made in Hungary under licence. Four Grunau Baby 2As were bought from Germany in 1944 by the Hungarian Railways "Sport Gliders"Association. One of these was burnt in Farkashegy and another one disappeared during the war. The other two remained damaged, but only HA-3107 was repaired. This glider crashed totally in 1952, because the airbrakes had been permanently opened. In spite of the serious damage, the pilot János Márkus, got out of the accident uninjured.

In Germany up to the end of the war

Factory	Year	Type	Total
Schleicher – below the Wasserkupe	1941 -1943	GB 2A	20
Schleicher – below the Wasserkupe	1943 –1945		40
Edmund Schneider – Grunau	26 Feb '41 – 30 May '44		2134
Schwarzwald Flugzeugbau	10 Sep '41 – 31 Mar '43		225
Petera Flugzeugbau Hohenelbe	31 Mar '43 – 30 May '44		830
Jacobs Schweyer Flugzeugbau	30 June '41 – 31 Jan '43		425

In the Netherlands

Factory	Year	Type	Total
Twentsche Zveevlieg Club	1935	GB 2	1
N.V. Vliegtuigbouw	1936 – 39	GB 2	17
N.V. Fokker	1946	GB 2B	23
Eerste Zaansch	1946	GB 2B	1
Kennemer Zweefclub	1951	GB 2B	1
Amsterdamche Club	1955		1
Schleicher	1955	GB 2B	10
Indonesia			4

Performance

Grunau Baby 1s were entered in the 1933 Rhön Contest. They carried off no honours but created such a good impression that they were soon being built in German gliding clubs. In 1933 there was a major redesign resulting in the Grunau Baby 2. By increasing the span to 13.5m an increase of performance was gained without much weight or cost increase whilst the wing spars were increased from one to two.

One difference between a 2A and a 2B is that the wing ribs of the former are built complete and pass over the main spars. Thus the leading edge D-box stressed ply does not bear directly on the main wing spars, as it does on all other Grunau Baby variants. (Information from Eric Rolph).

The Grunau Baby 2 immediately hit the headlines, for on 3rd and 4th April 1933, Kurt Schmidt, who later became the champion of the Mü-13, flew over his native East Prussian sand dunes for 36hr 36min to establish a world duration record which stood officially until 1949, in spite of unofficial duration records of over 38hrs by Eric Nessler in a Spalinger S.18 over La Montagne Noire, France, 1942, and over 55Hr by Ernst Jachtmann in a Weihe in 1943, etc. Wartime records were not recognised by the FAI.

Any pilot who has flown a Grunau Baby for more than a few minutes, and a great many have used this machine for their Silver C 5hr test, must feel enormous respect for Kurt Schmidt's stamina. The seating position was bolt upright, the seat itself rudimentary, the rudder pedals were not adjustable, the cockpit on the earlier model was wide open and sometimes even without a windscreen.

At the 1933 Rhön Contest 33 Grunau Babys appeared, and at least one flight over 100km was achieved. The manufacturers were claiming that now one Grunau Baby 2 was leaving the workshop every three days.

Wolf Hirth adopted the Grunau Baby as the training glider for his soaring school at Grunau. It was a Grunau Baby that he used to explore the Moazagotl wave, and it was in a Grunau Baby that he crashed, attempting a loop from a fast run at ground level. He broke his leg and



Left: GB3, D-1977.

his pelvis. Probably he would have broken his other leg if he had had one, but he had lost that one in an aeroplane crash some years earlier.

In Britain

Before the War Grunau Baby 2s became very popular. Unfortunately, Eric Collins, the first British Silver C pilot, after attending an aerobatics course in Germany, was killed in 1935 attempting an outside loop in a Grunau Baby at Sir Allen Cobham's Air Circus. At that time no one knew that outside loops should only be attempted in special aerobatic gliders. However, most pilots learned to glide painlessly in the Grunau Baby, thanks to its docile flying characteristics

In 1939 a Grunau Baby broke the British height record. During June, Noel McLean flew a Grunau Baby to 11,140ft in the Helm wave. The Helm Wind is an easterly wind that pours down the 2000ft west slope of the Pennines. McLean contacted wave from a winch launch near Cross Fell at 12.40. During the 2hr flight he found himself floating in clear air at 11,000ft admiring a stupendous view of the west coast. The cold was terrible and all his controls were stiff and frozen. The wind speed was 40mph, and so his great problem was how to keep the Grunau Baby from drifting back into the sink of the wave, for then there would have been no way of getting back to the take-off point. Spins, sideslips, etc., were needed to bring the Grunau Baby down, for it had neither spoilers nor airbrakes, so strong was the lift. He held the record for only one month before it was broken again by Philip Wills in his Minimoa... 14,170ft in a thunderstorm near to Dunstable.

In Sweden

During the War about 100 Grunau Baby 2Bs were built under licence and were used for Air Force training, as in Germany. Before the Swedish licence-built JS Weihes gained the national records, they fell to Grunau Babys. They were as follows:

Distance: 134km 27/1943
Gunnar Karlbom,
from Alleborg to Faringe.

Height: 4,540m 13/6/43 Ake Gaevert.

Our Swedish source, Allt om Hobby 3/76, says that other Babies managed distances of more than 300km, and 5000m height.

We have no details of Nord 1300 performance in France, but we know of one Argentinean National Contest, shortly after the War, where Grunau Babys were flown by every competitor, the idea being that everyone should fly identical machines, and no other type was available in sufficient quantity. During the contest Grunau Babys carried out many flights of between 200 and 300kms.

In Australia

On 30/12/39 a Grunau Baby set a national height record of 5,300ft. There are still five Grunau Baby 2Bs on the Australian register as well as five later versions. We have been contacted by a gentleman in Australia, who intended to rebuild a Grunau Baby 1!

The story of the Grunau Baby is far from finished. Many are flying all over the world. During the last ten years many Grunau Babys have been restored to flying condition, and whilst they are no longer available on 'free transfer', the purchase price may well be far less than the cost of refurbishment.

Edmund Schneider died after his return to Germany from Australia in the 1950s. Wolf Hirth died of a heart attack during a flight in a Lo 150 over the Hornberg in 1959.

Grunau in Silesia is now called Jezow, and the Hirschberg, the mountain on which Grunau is situated, is called Jelenia Gora (Both mean Stag Mountain), as the whole of Silesia and Pomerania became part of Poland in 1945. Hanna Reitsch was born in Hirschberg. In fact, instructed by Wolf Hirth, she did almost all her early gliding in Grunau Babies. In 1935 she took her Grunau Baby to South America where it still remains in the Brazil.

In 1945 the Soviet Army took Grunau but the gliders were unharmed. Some were taken to Russia, but most were left for the Poles, who restarted gliding during 1945. Almost certainly, some of these gliders are now in the Polish Gliding Museum at Krakow. Others were also taken to Czechoslovakia with the permission of a Soviet officer.

Unfortunately, acting on high orders, retreating German troops burnt two large hangars and many superb sailplanes on the airfield at Hartau, in the valley below Grunau, to prevent them falling into the hands of the enemy.

Peter Kirsten, who was CFI (Chefflueglehrer) at the Wasserkuppe in the early 70s, was instructing the Poles at Grunau in 1945. It is still a gliding site and it has been visited regularly by pilots from the Wasserkuppe.

Our member Werner Tschorn, who was there as a boy, provided information on the fate of the Reichssegelflugschule of Grunau in 1945.

Notes from Australia on flying the Grunau

Allan Ash reports, "The low flying speed of the Baby helped in soaring. At an airspeed of about 33 mph, it was easy to tuck into the core of a thermal or float along in no sink under a cloud or above a group of trees or a creek in the later afternoon."

A disadvantage of the high lift aerofoil became evident when aerobatics were attempted. To achieve a really high speed in a Grunau Baby (say, above 50 mph) required a prolonged dive because the speed built up relatively slowly.

A simple wingover needed at least 60 mph to start with, otherwise there was not enough speed to complete a neat turn at the top of the climb. A loop called for 85 mph and a fairly rapid back stick to get the nose up quickly before the speed washed off.

Some pilots achieved the speed by a

long shallow dive but I always preferred to start with a firm stick forward movement and a steep, short dive. It looked rather spectacular and it cost less height. This was important because in many instances we did our loops off the top of a winch launch to about 1000 ft.

Going over the top was sometimes scary as it had to be achieved very rapidly before the wing stalled. On several occasions I could clearly hear the pitter-patter of dust falling from the lower surface fabric of the wing to the inverted upper surface as I seemed to poise momentarily before the downward curve began.

I never actually stalled before going over the top but there were pilots who did. I remember an incident at Gawler about 1956 when Forbes Walker (whom many old ASC members will fondly remember) began a loop at about 1000 ft but on the upward curve he realised he didn't have enough speed to get over the top, so he pushed the stick hard forward.

The resulting manoeuvre was a cross between a bunt and a tailslide. We all enjoyed the spectacle except Forbes.

Grunau Babies had a reputation for being unspinable, but while this was generally true, there were exceptions, which caused some unexpected frights. I tried several times to spin the Hinkler club Grunaus but, probably because they were nose heavy, they always turned into spiral dives. As soon as the nose dropped below the horizon the speed built up and the attempted spin had to be." ■



Above: Wolf Hirth and Hanna Reitsch.
Right: Edmund Schneider, 1952.

Technical data

	GB 1	GB2	GB 2b	GB 3
Span	12.87m	13.5m	13.57m	13.67m
Length	5.92m	6m	6.1m	6.09m
Wing Area	14.5 sq.m	14.5sq.m	14.2sq.m	14.2sq.m
Wing Loading	11.4kg/m2	14.8kg/sq.m	17.68kg/m2	18.3kg/192sq.m
Aerfoil	Gottingen 535			
Empty weight	100kg	125kg	157kg	170kg
Flying weight	166kg	215kg	250kg	
Max L:D	1:17	1:17	1:17	1:17
Min Sink	0.8m/sec @ 45 k.p.h		0,85m/sec @ 50 k.p.h..	

	EoN Baby	Slingsby Prefect	Slingsby Kite 1	Baby Bowlus	Cambridge 1
Span	13.55m	13.72m	14.2m	44ft	14.12m
Length	*6.27m*	*6.49m*	*6.19m*	18.5ft	*6.5m*
Wing Area	14.2 1M2	14.2 5m2	14.49m2		14.86m2
Wing Loading		18.6k gm2	15.9k gM2	3. 5lb ft2	13.71kgm2
Empty weight	154kg	176.9kg	137.8kg	250lb	111.3kg
Max L:D	1:17	1:21	1:21	1 : 20	1:21

From the above data it is clear that the semi-monocoque fuselages and stressed D-box wings save much weight. Flying speeds for max. L:D at about 25mph or 40kph can be expected.
It must be stressed that empty weights vary considerably between individual machines of the same type. One notes that at least the first EoN Baby was not heavy compared with other Grunau Babys.

Good ideas



You can pull the K2b and 'wear' the Hütter 28 on the roof.

The time is1957, and it's time for us to go to the Summer Glider Meeting in Samedan. On the whole of the airfield at Spreitenbach there was a hectic atmosphere. The gliders were being prepared for transport. Two gliders, the Kranich and the Lerche, fly by double aerotow to Samedan. Others, by car, on trailers. But, after derigging and with much calculating there was no space for the K2b. My car was already to go all the way 'wearing' the Hütter 28 on the roof. There were no more free trailer couplings. What now?

There was a big discussion. Which of the two gliders do we favour, the K2b or the Hütter 28? Fortunately there are glider pilots with more brains and look! Ruedi Eichenberger was coming up with a suggestion:

"I'll weld a hook on the bumper of the car. Then you can pull the K2b and 'wear' the Hütter 28 on the roof to Samedan." On the day of the transport, we made good progress. But, we got thirsty and stopped at a restaurant in Chur. Very quickly there were a couple of people around my vehicle who marvelled at this sight. Near the curious bystanders I noticed with a fright, a policeman! I felt queasy and I hid behind a nearby hedge. Inquisitively, I looked between the branches and waited to see what would happen. He was so surprised that he forgot his 'penance form' and his pencil. After a while he went away. What luck! The rest of this transport to Samedan was without problems.

Egon Polla, Eigenheimstr. 36, 8700 Küsnacht

Bonjour!

Voici l'adresse de notre site des planeurs anciens. Belgian Veteran Glider Club. La rubrique photo sera actualisée d'ici peu. Travail de Jacques Dumont. *http://users.skynet.be/jd/faucheurs.htm* . Amitiés. Firmin Henrard.

ERRATUM.

On page 28 of VGC NEWS No 107 of winter 2002, we gave the impression that the "LIS" is more likely to get into a spin than the "MUCHA STANDARD." Jochen "Cassius" Ewald has written during January, that this is not so. The stall and spin warnings are quite clear and probably clearer than those on the Mucha Standard. This "LIS" first flew in 1960 and was to be a training glider in the same class as the Ka-8. Polish gliders had the design requirement that they should spin so that pilots should learn to recognise them and how to get out of them. If they did this because of no, or less wingtip washout, it would explain how the Mucha Standard has such a good performance. "Cassius" goes on to say that it is not right to give gliders a bad spinning reputation on heresay or without having flown them at least once to discover the true facts. *CW*

CW, in his enthusiasm, attributed to me at least one remarkable Tutor flight of Norman James. It was Norm who took his trusty Tutor "Dastardly" to the Isle of Wight, not I. Now 2288 has gone to a new owner, Chris need not be sad. I had some marvellous experiences in it, but the Olympia, with its cloud-flying, all-weather capability is already serving me rather better in my advancing years.

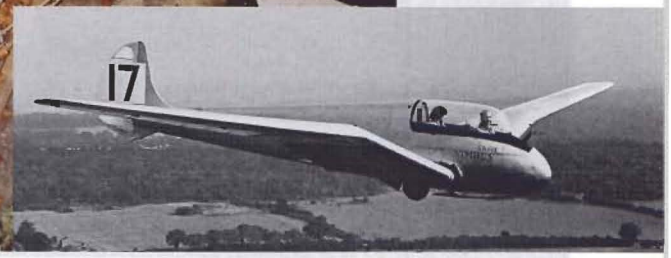
Regards

Keith Nurcombe. ■



Left: the Short Nimbus lays rotting in Belfast's Transport museum. *photo Ian Dunkley*

Below: to refresh your memory, the Short Nimbus flying. *Photo: Charles E Brown via Chris Wills.*



BRITAIN

The Vintage Glider restoration team at Wycombe Air Park, which was founded some years ago by the late Mike Birch and Graham Saw, is continuing to work being led by Robin Wilgoss. For some time, the team has been restoring BGA 751, the KITE 2 which has Skylark 2 tail fin and rudder. The restoration has been going on for some time as there was a great deal of work to do but it is being carried out to the usual very high standard, which we have come to expect from the Wycombe Air Park team. Although work has slowed during the cold of midwinter, we imagine that this Kite 1 will be airworthy by next summer.

At THE LONDON GLIDING CLUB, Laurie Woodage has continued to repair the damaged SCUD 2. The damage was caused by a failed winch launch at RAF Halton. When the launch stopped, the Scud 2 subsided, stalled onto the ground and the pilot decended through the seat!

Due to the cold at Dunstable, Peter Underwood has allowed Laurie to use his workshop at Eaton Bray. There was damage not only to the seat bulkhead, but also to a strut. In the same workshop, Peter Underwood is building the cockpit surround for the MINIMOA BGA 1639. Its many owners are supposed to be building a new canopy for it. This Minimoa was once PH- 390 and had the works no. 378. Its BGA C of A expired in March 1979. This means that its restoration has lasted 24 years!!! It was aerotowed from Holland to Luton Airport in 1969 and it gained its first BGA CofA in March 1972.

Peter Underwood's main project is the rebuild/restoration of the last nacelled DAGLING. This type was the main ab initio training glider for all British Gliding Clubs before 1940 and therefore Peter's Dagling is of immense historical interest to British glider pilots.

It seems that the British presence at BRUGGEN has become alive again. No sooner had the RAF GSA gliding club left, than the British Army, who are still stationed in Germany, has started a gliding club there. The club is called "KONDOR" and its C.F.I. is SIMON DUERDEN, a VGC member. They have a two seater, alas not quite a vintage type, but, for economic reasons, a fine ASK-13. The club's first flight was on the 30th November 2002. We wish the "Kondor Club" all the luck and hope that its members have not been posted to the Gulf.

The British and the Germans seem to have become Vintage glider suppliers to the world. The British have sold Rhonbussard, Grunau Babies, Rheinland, Weihe, 2 Kranich 2 s, Hols der Teufel, T.31s, T.21bs,Fauvette and a Minimoa via the USA and Holland.to German members and have sold Rhonbussard, Grunau Babies, EoN Olympia, Kite 1, Petrel, T.21b, T.31, Capstan to the Americans. A Goevier 2 was sold to Holland. We wonder how many vintage gliders there still will be in Britain in a few years time?

The GULL 1 BGA 378 is not being sold. It is being kept by Mike Beach, its owner, who is reserving it for his son Rowan to fly in England. Rowan is at present working in America. We very sadly have to announce that the replicas King Kite, BGA 2769 and the Huetter H.28-2, BGA 4086, which was never flown, are no more.

CZECH REBUBLIC

This takes the form of an extract from a letter from Petr Hanocek on the 20.1. 2003.

Over Christmas we had very much snow but now it is all away. At the beginning of January, the temperature was always –10 to –20 degrees C, Unfortunately. We could not come to Achmer. We were at RANA for the VGC RENDEZVOUS EAST MEETING. Only our Austrian friends with their MG 19 and MUCHA went on from RANA to ACHMER. We had only one week's holiday, but it was very enjoyable. At RANA, we had only a small Rally but the weather was super, with both thermals and slope lift. We did not fly on only one day. Altogether, there were 23 gliders taking part. Unfortunately the KRAJANEK from RANA was not ready but she should perhaps be finished this summer.

In August, we went with the LENIK family with the SG.38 "ERWIN" and J.MEZERA with his son for three days to Hoyerswerda which is not far from Dresden, for their 6th Mini Old Glider Meeting. There, it was also very pleasant. Two days after we had returned home, Dresden was under water!!! In Bohemia were the great rains also terrible. There were 13 people dead, many desperate people and there was terrible damage. As also in Austria, Germany and France, and as it was in Moravia in 1997. (This year, luckily there were no problems where we live.) At the contest of the ORLIKS in May 2002, we had a small old glider contest; Emil Sliva was

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clearly the winner. We could not go there because we had a small regional contest for Open and standard class gliders, on our own airfield. (Jesenik), In October, we were three days at Hronov, where the Czech Old-timer Gliding Club (POTK) had its annual meeting. At the same time, there was a mini Rally for old sailplanes.

In October, we were for one day in Poland at Gliwice. That is an interesting airfield and we were welcomed by kind friends including Zbigniew Jezierski who showed us interesting photographs taken during their time at Achmer. Emil Sliva was also at Gliwice with his new dog "Amigo". His beautiful red setter "Don", who was a popular participant in several of our Rallies, unfortunately got very old and ill and died two years ago. Emil and his dog arrived at Gliwice in an aeroplane after dark after a triumph of navigation. Later Emil flew a BOCIAN, behind a WILGA at night. Apparently, in Poland, this is normal gliding!!! The Poles invited us to go with them to Finland (for our International Rally). They are going by car via Talin and then will travel via hovercraft to Helsinki. This is only a dream for us. From the 23rd of July until the 3rd of August, the 10th Czech National Old-timer Rally is to take place at Krizanov (at Velke Mezirici near Vysocina) 40kms West of Brno in a very beautiful region. More likely we will be there rather than in Finland. We are already looking forward to going to Gliwice for the International VGC Rally. Zbigniew will certainly have his "JASKOLKA" ready by then. We have unfortunately no sailplane of our own, only our very lively little daughter Eliska. From Petr, Jirina, Eliska and parents.

(Translated from German by C.Wills)

DENMARK.

The good news is that the Danish HUTTER H.17a OY-CJX was flown for the first time after restoration with great success at Loenstrup in 2002 over

Participants in the VGC Rendezvous East Meeting, Rana, July 2002

Die Teilnehmer:

1.	SG-38 Schulgleiter	OK-A910	1938/1999	Jirí Leník	Raná	
2.	Ka-4 Rhonlerche	OK-A201	1955/1958	Jan Krejcí	Raná	
3.	LG-125 Sohaj	OK-0937	/1950	Zbysek Bican	Raná	
4	LG-425 Sohaj 3	OK-5399	/1955	Tomás Mezera	Raná	
5.	VT-16 Orlík	OK-2429	/1962	Milan Benes	Raná	
6.	VT-116 Orlík II	OK-5524	/1965	Jirí Becvár	Raná	
7.	VT-116 Orlík II	OK-8401	/1968	Aeroklub	Raná	
8.	VT-116 Orlík II	OK-4314	/1964	Miroslav Streda	Vrchlabí	
9.	VT-116 Orlík II	OK-6922	/1966	Emil Slíva, Vlad. Dostál	Hronov	
10.	VT-16 Orlík	OK-3405	/1963	Bohumil Ríkal, Josef Cita	Hronov	
11.	VSB-62 Vega	OK-7900	1962/1967	Petr Koudelka	Krizanov	
12.	LF-109 Pionyr	OK-3903	1953	Jaromír Piskácek	Bubovice	
13.	LF-107 Lunák	OK-0918	1950	Aeroklub Brno	Brno	
14.	LG-125 Sohaj	OK-0924	1950	Aeroklub Brno	Brno	
15.	LG-130 Kmotr	OK-1242	1951/1951	NTM	Brno	
16.	Zlín Z-24 Krajánek	OK-8565	/1948	VHÚ Praha Kbely	Brno	
17.	Zlín Z-23 Honza	OK-5722	1945/1949	PKHK Ceské Budejovice	Budejovice	
18.	SZD-22C Mucha Std.	OE-0898	1960/1960	Helmut Hoflinger, Erich	Rakousko	Austria
19.	Mg 19a Steinadler	OE-0485	1951/1955	Thaller, Gottfied Balga	Rakousko	Austria
20.	L-Spatz 55	OE-0362	1955/1960	Franz Havlicek	Rakousko	Austria
21.	SZD-24 Foka 4	D-9357	1962/1966	G. + J. Maleschka	Nemecko	Germany
22.	Foka 5	D-2146	1967/1969	Siegfr. Bindig, Gerh. Ohm	Nemecko	Germany
23.	Bergfalke IV	D-2512	1969/1973	Aek. Müncheberg-Eggersdorf	Nemecko	Germany



Above: Rana 2002, Vega is above the white 'Pionyr'. Photo: via Chris Wills

the 90 metre high sand dunes of the Rubjerg Knude together with the Grunau Baby 2b OY- AXO. On The 22nd June 2002, it had its first test flight on Viborg airfield in the hands of Johannes Lyng. The Rubjerg Knude site gives CW the impression that it might have been similar to the ex gliding sites of Rossiten and Sylt which are no longer since 1945 used. Our member Frits Ruth was present to witness the H.17 soaring over the sand dunes.

Statistics for Danish vintage glider flying since 2000 are impressive. *(see the table below).*

	2000		2001		2002	
Type	**Launches**	**Times**	**Launches**	**Times**	**Launches**	**Times**
2G -AVX	160	14.36	76	5.08	201	16.10
Rhonlerche 2 -DNX	40	5.43	0	0	0	0
Specht -VEX	8	0.48	66	27.51	41	15.19
S L Zogling -XSE	0	0	0	0	0	0
Hutter H. 17a -CJX	0	0	0	0	39	12
Grunau Baby 2B -AXO	40	23.04	23	19.33	18	16.40
EON Olympia -XEF	0	0	0	0	0	0
SZD 25a Lis -DXX	1	1.35	14	4.59	9	3
K-8B -AYX	0	0	11	4.55	4	7.07
SF-26A -BJX	0	0	0	0	4	5.37
Totals :	**249**	**45.46**	**190**	**62.26**	**328**	**76.18**

It can be seen that there has been a general increase of Vintage glider flying during the years 2000-2002.

The Hutter had originally been built by Carl Johansens in Denmark in 1938. Tage Hansen had restored it. He also helped build the Stamer- Lippisch Zoegling, and an SG.38 as well as having repaired an Olympia. On the Huetter's cockpit surround can be seen "Designed by Ulrich Huetter in 1934, built by Carl Johannsen in 1938. Restored by Tage Hansen in 2002" (written in Danish.) That it has flown 12 hours from 39 launches means that the little Huetter is already a tremendous success.

Recent news is that the Danish Air Army's Grunau Baby No.5 has returned to Denmark from North Wales to be restored to airworthy condition. This aircraft had been "liberated" by the British Army in 1945 with 75 other Wehrmacht Luft registered gliders in Denmark. The British Army did not know that it had been built by the Danish Air Army as their Grunau Baby No.5 during the war. The Danish Air Army had bought two Grunau Baby 2bs from Germany and had built four more themselves, In 1943, because the war situation was deteriorating for Germany, civilian gliding was banned in Denmark and the Wehrmacht Luft confiscated all Danish gliders that they could find and gave them 1943 WL registrations. The Danish Air Army's Grunau Baby No.5 was registered LN+ST. In 1945, the British Army "liberated" LN+ST and all other WL gliders that they could find and carried them off to Germany and Britain. With them went the Danish Air Army's six Grunau Babies. Some of these went to Canada to help restart gliding in that country after the war. However LN+ST was used at Cranfield by the Empire test Pilots' School during 1946/7 still in its WL registration. Much, much later, CW saw this Grunau Baby still in its WL colour and registration, but seriously incomplete, in Mike Russell's hands. He thought that he was looking at a time capsule from 1945. It finally was with Chris Tonks in North Wales, who is working on a British built Grunau Baby 2. He had no time to work on LN+ST or the seriously burnt Jaskolka, which is also with him. So LN+ST has at last gone home to Denmark to be made airworthy by the Danish Historic Glider Association presumably with Danish Air army registration? Among other things, it will have to have a new wing. Information has been extracted from Foenix Posten, the Danish Historic Gliding Club's Magazine No.25 Autumn 2002. The British Army in 1945 did not discover the WL registered Mu 13D-2, and later Danish registered OY-MUX. This, originally having been sold to Lithuania in 1939, is also being restored to airworthy condition but we have no up to date information as to how far this work has progressed.

FRANCE

From the Periodical of the Musee de l'Air Regional of the GPPA at Angers Marce, Bulletin No.76, November 2002 comes the news that the CASTEL 25S No. 141 F-CRBI has been restored and has flown again for the first time in 30 years. It has been christened "Napadeliselas" which we are told is Greek. We are told that its restoration took a long time but we are assured that it is so beautiful as to rival in elegance the C 25S of Jean- Paul Robin. The type flew first in 1942 and. together with the Caudron C.800, pointed the way for France into the era of dual instruction. Up to that time, the French, together with all other countries, had been using ab-initio training which often led to rather more accidents. Both the C.25S and the C.800 were France's first side by side trainers. The first two C.25S were taken to Germany in 1943 but no less than 130 more were built from 1946.

The AVIA 152A No.301 F-AZVI. We had thought that this nacelled primary was being built new but we notice that it has been given a Works Number, as if it is old? It's A frame with nacelle was finished in June 2002 and it was rigged with its tail surfaces for the first time on the 11th June 2002. On this day, final assembly of its wings was started in the Museum below the wing of the Brousade. The type AVIA 152A was France's final ab-intio Primary trainer. It was designed in 1942 as improved AVIA 151 Ab-initio trainer. It was of such a size and low wing loading that it could be soared in hill lift and thermals and so, it was a special success when flown from hill sites. The type was first built in quantity at Roche Aviation but a 1942 order transferred the production to Wassmer at Issoire. 40 were built. Another 40 were built in 1945. Another Production Line was started in 1942, at the Ets Caudron Boufabrik near Algiers. This was stopped in 1948 after the delivery of 100 machines. In all, a total of more than 200 AVIA 152 s flew in the French Gliding Centres and clubs. Thus,the AVIA 152A type is of great importance to French Gliding History.

The FAUVEL AV 22 No.1 F-CCGK. Its major Inspection was finished and the glider was rigged on the 9th August 2002. It was test flown by Christian Ravel and Henri Degoul and has been flown ever since that time. On the 25th (August?) it was presented at the meeting at Thouars, where it was a great success. The AV 22 two seater flying wing type first flew in 1956. 6 were built. One of them, which has often taken part in VGC Meetings, flies from Pont Saint Vincent. France is the only country in the world that has successfully brought in to service flying wing sailplanes. Charles Fauvel's AV 36 flew first in 1951 and, with its /D of 24, and its penetration between those of the Weihe and



Above: Fauvel AV 22 two-seater flying wing.
Photo: David Tarbutt

AIR 100, flew 300 kms flights and even a 500 kms flight. No less than 86 were built and, being refered to as a monobloc (and Godasse), it did not have to be derigged but was towed sideways along roads on its trailer.! The AV 22 does derig into three components, which fit intoa very large trailer.

The MORANE 505 "Storch" towplane No.149 F-BIPJ "Robert Benion" Its major inspection has started again, thanks to Jean-Pierre Lambin and Gilbert Huzeau and some parts have been ordered for it. It has been decided that it will be among the aircraft which will be made ready to fly next year.

FAUVEL AV 36 No.111 F-CBRK. The restoration team for this glider, Pierre Plane, Louis Lamisse and Gerard Bougerolles, have started its major overhaul and all fabric has been removed, There is a little woodwork to do but it seems to be in good condition. Before long, there should be another Fauvel taking part in our displays and meetings.

WASSMER Wa 26 No.03 F-CDUU. Its General Inspection started in April 2002, with the dismantling of every part. It is planned to paint it in its original colours with the name of the Father of Gilles Darriau, who was its first owner, on its nose. Other sailplanes, Breguet 901 F-CCCPO "Jean Cayla" (its designer), Breguet 904 F-CCFN, Castel 25S F-CRBI "Napadeliselas", Weihe F-CRMX " Paul Ginest (who restored it, Foka F-AZKA, AIR 102 F-CAGQ, and Zugvogel F-CCPT are also restored, but reason of insurance costs and GSAC Inspections, all of them can not be reactivated for the 2003 season.

From *Dedale's* (the French Vintage Gliding Club's) *Lettre d'Information No.79* of August, September, November and December 2002, comes the news that Maurice Renard wishes to sell the wings of an AVIA 40P (they are probably from the Avia 40P which flew over 300kms from Troyes in the late 1950s. This was the longest distance ever flown by a 40P), the drawings for the type dated 1942, and those for a DFS "Meise". We hope that this will lead to the building on a second Avia 40 P. The first, restored by the late Mike Birch in England, is owned by Francois Ragot at Saint Auban. Maurice's address is :- B.P. 24. 10150 CRENEY PRES TROYES, FRANCE.. Tel:- 03-25-81-17-18. Fax:- 03-25-81-31-33.

In the previous VGC news,we published a 3-view drawing of the unique Merwille SM 31 No.1 F-BBYK, which had just been rescued by the GPPA at Angers Marce. Unfortunately, due to the floods in the Somme area during 2001, its wings can not be repaired. Only the fuselage is salvable and could be placed on static exhibition in the Museum.

The 15th CONGRES HISTORIQUE DU VOL A VOILE is to take place on the 15th November 2003 at the Musee de l'Air et de l'Espace at Le Bourget. The provisional programme is already known. It will consist of Scouting and gliding, the History of the Huit Jours d'Angers (the 8 Days at Angers contests). The Gliding Site of Beynes, the evolution of the towplane, The Cup of Jean Marie Le Bris will be intimately investigated, as will Le Bris's winged Barque.

GERMANY

On pages 11 and 12 of our last VGC News (No.107, winter 2002), it was mentioned in the gloriously illustrated article " MU 13 RETURNS", how three Mu 13D-3 s were taken to the club at Weissenburg, where one of them, now BGA 2267, was built and first flew on the 1st January 1956. The club members were so overcome with the joys of watching the Mu 13D-3 s in the air, and by flying them themselves, that a party of the club members went to visit Francois Ragot at Saint Auban and bought from him for the symbolic price of one Euro a Mu 13D-3. It probably will need a very considerable rebuild. Somebody could remember seeing in an old VGC News that Francois owned two Mu 13s, one a D, which he has restored to airworthy condition and the D-3 which was probably the one from La Ferte Alais. From there, it had made several 300 kms flights and at least one of over 400 kms. A boy flew 80 hours in it during his first gliding season. Chris Wills was at La Ferte during his summer holidays from 1959 until 1961 and he saw it happen. Thus, the Mu 13D meeting in 2002 was very successful and we can hope that, in the not too distant future, there will be another Mu 13D-3 flying in Germany. Bavaria is certainly the home for Mu 13d s in Germany.

JURGEN DOPPELBAUER has obtained a Breguet 905 "FAUVETTE" from ANDREW JARVIS at Parham. Andrew Jarvis is keeping a share in the aircraft so that it continue to fly under a BGA CofA in Germany as the type is unknown to the LBA. It may be the only French sailplane flying in Germany.

JOCHEN KRUSE has taken a very large Cobra trailer to the Hamburg docks to go to Japan for Mr Honda's KRANICH 3. In the trailer are the remains of Jochen's first Schleicher built CONDOR 1V which was so tragically destroyed by two young instructors, each thinking that the other was flying it. With the Condor 1V in the trailer, is a large quantity of different woods to enable the Condor 1V to be repaired to flying condition in Japan. Among the German/Austrian gliders in Japan must now be Minimoa, Goevier 3, Weihe, Kranich 3, Mg 19, and the broken Condor 1V.

Concerning CW's article on the Horten 1V in VGC news No 106 Summer 2002, pages 36 and 37, is the letter from Prof. Dipl.Ing Bernd Ewald of the 14th No. 2002, from which we are publishing extracts.

"First of all, the Horten progress. It is extremely difficult to find really potent sponsors. Up to now, I have had no great luck. Some money is coming in by a strange coincidence. Certainly you will remember Felix Kracht, who was the designer of the FVA "Rheinland" at Aachen before the war and who, at the end of his professional career some 25 years ago, was at the top of the Airbus management. Felix Kracht died two months ago at the age of 90. Through a friend of mine at Airbus Industrie, Frau Kracht heard about my Horten project and, in the obituary she asked all the friends and colleagues of Felix Kracht to spend money for the Horten 1V project. She named this undertaking, the "Felix Kracht Foundation"! The money is collected at the "Hessisches Institute fur

Luftfahrt". This is a non-profit association, which had already been founded by my predecessor in the chair at the Darmstadt University, Prof. Bock. The statutory target of the association is the support of lecture and research in the aeronautical field at the Darmstadt University. The "Hessisches Institute fur Luftfahrt" for me was a useful institute for fund raising for our research. Now I am retired, but I am still a member of the Board of Trustees of this association. And my successor agreed in the use of the institute for the Horten 1V purpose. Until now, about 6,000 Euros has come in to the "Felix Kracht Foundation". This by far, is not enough for building the Horten 1V at a small commercial Company, but a good contribution for material procurement. Perhaps, we could introduce the "Felix Kracht Foundation" to VGC Members via the VGC News and in the VGC Internet to ask the VGC membership for contributions? If you think that this is a good idea, please let me know.

Yesterday and the day before, I spent at Stuttgart, and participated in the annual "Symposiom for Sailplane Development", which is sponsored by the DLR. It was an interesting event with a very special highlight. Hans Zacher participated in the Symposiom, and yesterday was his 90th Birthday. We had quite a party. Hans zacher has contributed enormously to the technology of soaring and perhaps you should write a little recognition for the VGC News. In the Symposioum, I read a paper on the Horten 1Va project and received strong applause when I presented the piece of hardware described below. Because of the enormous difficulty to find non existant spionsors, I was a little frustrated and so, I heated my little workshop in my house and started the woodwork for the Horten 1V. I constructed the port root rib of their wing! This was my first serious woodwork since the winter of 1960/61. When I built a new fin and rudder for my club's Doppelraab. Obviously at that time, I did a good job as, with these components, that Doppelraab is still flying in the VGC under its original registration D-5391. Its present owner is Wil Zillen from the Netherlands. Enclosed are coloured photos of the first new Horten 1V hardware... the root rib. A very sturdy part which inspires confidence.

Let me turn to another subject. As I told you, I read your articles on the Horten 1Va with great care and interest. I also copied the articles and sent them to



Above: Bernd Ewald in March 2003 with the root ribs he constructed for the Horten IV. More information on pages 26 & 34.

Prof.Karl Nickel, the well known scientific assistant of Reimar Horten, who himself has a lot of flying experience. He lives at Freiburg and is still in good health and spirits. He immediately replied and thanked me for the interesting information.. but he was a little upset. He said that people should not write about things they had not observed themselves or had not discussed with contemporary witnesses. He enumerated quite a lot of errors in your papers. I will try to remember what he said. In the accident with the Horten 1Vb, there was no cloud on that day. Strebel stalled the sailplane. It went into a spin and recovered from it at a very high speed. Serious flutter developed, and the sailplane disintegrated, probably also due to its unconventional structure.

FRAU SCHEIDHAUER never was engaged with RAF people with Horten aircraft. (this is connected with the incident concerning the burning of a Horten V1, which is described in David Myhra's book *"The Horten Brothers and their all-wing aircraft"*, Page 236. *CW*). Hermann Strebel flew the Horten 1V over the Wasserkuppe not over 11 hours, but slightly over 10 hours. He mentioned that the other pilot flying the "Meise" was he, Dr Nickel, himself. He had a very uncomfortable seat, because he took off late and all available seat cushions were already in the air in other gliders. But, Kark Nickel insists that he got out of the aircraft by himself, without help. (*after 7 hours in the air?CW*). And Strebel did not "go out" for the evening, because they stayed on the Wasserkuppe and there simply was no chance to "go out". Karl Nickel is a bit pessimistic about your analysis about the severe lift loss in the centre caused by the modification of the canopy by the Mississipi State University. Clearly the photographs show the ailerons in an Up position. According to Karl Nickel, most probably the Horten 1V was flown there nose heavy and this also explains the poor performance.

Another comment from me as an aerodynamicist on the famous "Bell Shaped Lift distribution" which Reimar invented and propagated. Starting with the Horten 111, all Horten aircraft had this lift distribution. This lift distribution was used by Reimarr Horten for the one and single purpose to design acceptable handling qualities into his aircraft. For performance, the "bell shaped lift distribution" is disasterous as the induced drag is about 30% higher than with an elliptic lift distribution! Nevertheless, Horten was forced to use the "bell shaped lift distribution" since, only by relieving most of the lift load from the outer wing, could he avoid the strong adverse yawing moment developed by aileron deflection! For normal aircraft, the adverse yaw is no problem as they have effective rudders and the pupil learns already in his first flying hour, how to eliminate the adverse yawing moment with simultaneous rudder deflection. So, with the Horten "bell shaped lift distribution", we can design a tailless aircraft with good handling characteristics in roll control, but we certainly can not design a sailplane with a performance superior to a conventional configuration. The reason why I wish to construct a real Horten 1Va with its original "bell shaped lift distribution" is certainly not to demonstrate a superior performance to anything else, but only to demonstrate a true historic Ho 1Va and to put an end to all these quarrells about the flying qualities and performance of the Ho1Va. If we design a much modernized Ho 1Va (certainly with modern structure and laminar wing profiles), I would completely skip the conventional aileron roll control and use spoilers instead for roll control like most airliners do today, atleast for low speed flight. Spoilers produce no adverse yawing moment and so we can use an elliptic lift distribution with its minimum induced drag." *Prof. Dipl.Ing Bernd Ewald.*

Chris Wills apologizes for the inaccuracies in his text. The Horten article, together with the rest of the VGC News, was produced at great speed and there was little time to check some of his references. ie: Some of it was written from memory. Late exciting news is that the HORTEN 1VA project has been given the green light to go ahead as finance is avail-

able for it. Therefore, a new Horten 1Va could be ready to fly in three years time.

During the last winter, the Aventoft MINIMOA D-8064 was lent to the Oberschleissheim Museum as a static exhibit. At the end of March, it was returned to Aventoft to fly. The Oberschleisheim Flugwerft Museum has also now a KRANICH 2 D-6171 on view. It was probably built by Mraz. Peter Hanickel, who built the new Centre Section for the Horten 1Va, LA-AD, which is also on view in the museum, had been restoring the Kranich 2. Also displayed statically is the Hutter H.17a D-8129 and a Schleicher built Condor 1V. D-8802. There are many other gliders on view.

ITALY

At the 30th Annual Meeting of the "Club Aviazione Populare" on the airfield of Carpi at the beginning of September 2002, a special prize was awarded to the best participating historical aircraft. This was the Italian CAP 20 (H.17A) sailplane, which was built in 1938 at the airfield Linate at Taliedo. This CAT 20 registered I-ZAGO, was saved from an uncertain fate by the famous Italian Test and Warbird pilot Antonio – Carlo Zorzoli, some years ago in Turin. The fine restoration was carried out by Felice Gonalba at the CAT 20's birthplace. At the 2002 meeting at Carpi, spectators were able to admire an excellent flying programme by Antonio after the CAT 20 had been aerotowed to altitude by a PA-18.

POLAND

From Wojciech Wojcik e-mail 22nd November 2002.

The 49th Anniversary of the Mucha 100's first flight was celebrated on the 21st November at Gliwice. Test pilot for the occasion was Adam Zientek. It is hoped to organise a Meeting for the type in 2003 to celebrate the 50th anniversary of its design. For the time being, we can recommend a very interesting article about the Mucha, which was written by Piotr Puchalski.

A committee has been formed to organise the 32nd International Vintage Glider Rally in 2004 and it meets at Gliwice every two weeks. Everyone who is interested in old gliders has been warmly invited to help. The first Meeting of the Committee took place on the 13th November 2002. It is expected that about 100 gliders will participate from all over the world. The Gliwice Aero Club, old glider section, has been visited by Emil Sliva from the Czech Republic, with a Sohaj sailplane and he has invited members of the Gliwice Club to take part in the next National Meeting of the Czech old glider club (POTK) in his country. He also invited the club members to take part in an old glider contest, which is to be held at Hronov in the Czech Republic from the 1st until the 11th of May 2003. There will be a small military presence on the Gliwice airfield during our 2004 International VGC Rally, to guard us and our gliders for security reasons.

During November 2002, an expedition was made by club members to Szempin to admire an ABC Primary glider, which had been designed for ab-initio glider pilot training as one of the first Polish gliders designed after 1945. It is owned by Roman Kaczmarek and he has the idea to rebuild it as a motor glider. The Gliwice members exhorted him not to do this, but to restore it according to original documentation. What he will do is still unknown. Every Thursday, a dinner party is held for all pilots of the Gliwice flying club. During the early November 2002 dinner, we were visited by pilots from ROW (Rybnik), and so, it was a special occasion. During the evening, two flying films were shown and a start has been made to create a "Memory Room" with museum exhibits, for example maps from the First World War. An expedition to Goleszowo was prepared for, where Mr Jacek Popiel was to give a lecture on the history of the place.

The Jaskolka renovation; the Jaskolka, which belongs to Zbyszek Jezierski, was then not yet finished. All varnish had been removed from wings and fuselage. The Jaskolka was to be moved to Jezov (formerly Grunau) to the former Edmund Schneider factory, where the restoration will be finished. A trip to Goleszowa was made on Saturday the 16th November 2002, to search for a really old glider, which was hidden somewhere in a barn. If the weather had been suitable there was to have been a grill party. Jacek Popiel was to have shared with us some historical facts about the gliding school, which was once at Goleszowa. In November 2002 was celebrated the 70th anniversary of gliding in Poznan. The Poznan glider pilots were congratulated and it was hoped that the sport would last another 70 years there at least.

The International Rally in 2003 at Jami in Finland was discussed and it was hoped that there would be numerous Polish entries. A Slingsby TX Mk1 Cadet, in military colours, which was lately seen in the RAF Apprentices' Museum, was described. Its military number was RA905, The glider was used to train young RAF pilots from 1940- 1950. CW supposes that this museum must be at RAF Halton and that the Cadet must be aircraft restored by Mike Beach and that it must therefore be airworthy?

Our member and Polish expert Tony Morris has kindly sent us the following extraordinary news that Poland had on their register no less than 792 airworthy German gliders after 1945. At that time, the Poles had a broken down aviation industry which had then no hope of designing and building new gliders for their aeroclubs which had no gliders to fly. The Polish army thus took over this very great number of German gliders, which were mostly found on the German airfields in Silesia and Pomerania. It is possible that as many as 1,500 gliders were found, but it was only possible to get 792 of them airworthy. It is amazing that such good records of these gliders are available to be inspected in Warsaw. The types break down as follows:

SG 38 s 371
Karntner Flugzeugbau Carinthia, Austria 85.
Kittelberger - 3
Oberlerchner, Austria – 63,
Pander The Hague, Holland- 77
Petera Hohenelbe Bohemia- 31
Ratjens - 34
Schneider Grunau (Jezow)- 9.
Unknown – 29.

VOLO A VELA

Subscribe to this glossy magazine which appears six times a year and usually includes an article on vintage gliding and other topics particularly interesting to mountain fliers. Annual subscription 90,000 lire (46 Euros) Write to Centro Studi Volo a Velo Alpino, Aeroporto Paolo Contri, Calcinate del Pesce, 21100 Varese, Italia.

Polish built at Poznan- 15
Polish built at Mragowo – 3.
Polish built at Lebork - 1.
Polish built at Katowice – 16.
Polish built at Pinczow - 1
One **SG 38** should be in the **Krakow Polish Air Museum.**
Polish built at Ligotka Dolna – 2.
Polish built at Gdansk - 2.

Grunau Babies 282
Kochmann – 2.
Petera - 23.
Schneider - 222
Unknown - 5
Polish built at Jezow (Grunau) – 10.
Polish built at Poznan - 16.
Polish built at Gdansk - 3
Polish built at Ligotka Dolna – 1,
Grunau Motorbaby. From Schneider. 3
Grunau 8 1
One **Motor Baby** should be in the **Krakow Polish Air Museum.**

Kranichs 85
recorded as
Kranich, Kranich 1 and **Kranich 2.**
Home built? - 1.
MEG (?) - 1
Mraz - 26.
Schneider- 3. One front prone pilot.
Schweyer - 1
Unknown - 3. One front prone pilot.
Polish built at Gdansk - 40. Presumably Zuraws.
Polish built at Poznan - 10. Presumably Zuraws.
Two **Zuraws** should be in the **Krakow Polish Air Museum.**They are SP-1213 and SP-1295. :-

Minimoas 4
Goeppingen - 1
Schempp Hirth – 3.

Rheinland 1
Schmetz - 1. (rebuilt at Bielsko?)
One **Rheinland SP-051** should be in the **Krakow Polish Air Museum.**

Rhoenadlers 2
Schleicher 2 (rebuilt at Bielsko?).

Rhoenbussards 3
Schneider (? CW) (or **Schleicher**? CW) 3.

Rhoensperber 1
Unknown - 1. One **Rhoensperber SP-148** should be in the **Krakow Polish Air Museum.**

Goeviers 2
Schempp Hirth – 2.

Weihes 12
DFS Darmstadt - 1.
Jacobs - 10
Schweyer - 1 One **Weihe SP-029** should be in the **Krakow Polish Air museum.**

Olympias 21
DFS Darmstadt - 6
FSH Darmstadt (should be Ferdinand Schmetz Herzogenrath CW?) - 6

Schmetz 7
Polish built - 2 (at Katowice)
One **Olympia SP-390** should be in the **Krakow Polish Air Museum.**

Mu 13D 3
Schwarzwald Fludzeugbau – 2
Munchen - 1 One **Mu 13D** should be in the **Krakow Polish Air Museum.**

Wundergleiter
A large nacelled primary glider,which was found at Grunau.
Schneider – 1.

Notes.

1) Manufacturer is as noted in the register.
2) For a small number, no c/n or manufacturer is given.
3) For a small number either c/n or manufacturer is given. not both.
4) A few c/n's are almost illegible and others must be regarded as suspect.
5) Polish built machines are probably assembled from German components and were given local c/n's. – excepting the 50 Kranichs which were built at Gdansk and Poznan in 1952/53 as IS-C Zuraws. Locally built Grunau Babies are invariably entered as "Jezyk". The 10 Jezyks from Jezow may indeed have been completely built locally as they have the first 10 c/n's in the long series of gliders from Jezow.
7) Where a local c/n is given, but an original German manufacturer is quoted, it appears under that original builder in the totals above.
8) A few build years are missing or suspect.
9) I believe that the two prone-piloted Kranichs were rebuilt in 1952 with conventional cockpits.
10) One SG.38 appears as an SG 40 in the register but SG 38 in another document. Is there an SG 40???
*11) The Grunau 8 is referred to is a *Jezyk 2" in one document.*
12) One of the Motor-Babies appears in another document with a different c/n as an "ordinary" Baby.
13) 3 Babies were passed on to Bulgaria in June 1949.
14) According to recorded c/n's, two SG 38's and three Babies have carried two different registrations which can be attributed to re-registration for some reason, or erroneously recorded c/n's. If re-registration really did take place, then the totals of S.G.38 s and Grunau Babies would have to be reduced by 2 and 3 respectively.
15) One of the Rhoenadler's was a Polish rebuild with a local c/n. It could be that only one machine was actually involved.
16) Official cancellation dates may well have little relevance regarding a "happening". I am sure that many were just paperwork "tidying up"!!!
17) S.G.38's occasionally appear as "Patyk". – This strictly should be for Polish built ones, I suppose, as per Babies.

We thank Tony Morris for allowing us to use his brilliant research, which he has uncovered during countless visits to Warsaw. We also thank the Polish Aero-club for allowing him access to the information which they have kept meticulously for all these years. We only wish that similar information should be available to us from the Czech Republic.

USA

We have heard that Bob Gaines, president of the VSA (Vintage Soaring Association of America) had a successful triple bypass of the heart operation last autumn and is now recovering well. We wish him all the best for a complete recovery.

In VGC News No 107, Page 19, concerning the very good article on Jeff Byard's Weihe, N199M, we believe that H.C.N. Goodhart's flight on the 19th August 1955 of 384 miles (650 kms?) from Grand Prairie to Amarillo Texas, which the British Distance, distance to a goal record and earned him his 500 kms Diamond, was the longest distance ever flown in a Weihe? CW would gladly be corrected if anyone knows of a longer distance flight flown in a Weihe. He had previously thought that the flight of 620 kms from Paris to the Mediterranean by Henri Lambert on the 6th May 1957 had been the longest distance flight ever flown in a Weihe. The Weihe's last victory on the international scene was when Benno Mueller, in the Weihe now owned by Peter Ocker, won the last day of the Cologne Butzweilerhof 1960 World Championships. The task had been a 201 kms triangle on the 16th June 1960. No glider got home because of the weather but the Weihe was flown the furthest. To the question as to how many Weihes are still airworthy in the world, we thought we ought to mention all the ones we know about i.e. USA – 2, Britain 2 (4); France – 2; Switzerland – 1; Japan- 1. In Germany, owners are Gerd Allerdissen, Achmer, P.Ocker, Werner Tschorn, Bad Toelz, and Gerd Herm-Jacob. This brings the total to 14, 6 of them being in Germany. Are there any more airworthy Weihes in Germany? ■

Slingsby Grasshopper

A potted history

Another in our series of the historical details of a particular glider; this month it's the turn of a couple of Slingsby T38 Grasshoppers, registration numbers XA240 and XA244.

XA240

- Built by Slingsby to contract 6/Acft/7585/GB 9(b). Constructors number 858 to 877.
- Awaiting collection 13 March 53.
- To 9 MU RAF Cosford 24 March 53.
- To 62 Group 24 April 54.
- HQ 61 Group (FTC) 23 March 59
- Portsmouth Grammar School December 76.
- Rodley College, Abingdon by January 80, still present during October 82
- West Buckland School by August 83.
- Sold to Lt CDR F Stephenson RN 12 February 88.
- To Keevil January 1998
- To BGA4556 / JJS in 1998

XA244

- Awaiting collection 22 May 53.
- To 9 MU RAF Cosford 16 August 54.
- 66 Group 16 August 54.
- 64 Group 6 February 58.
- Queen Mary's Grammar School Walsall Jan 67, still present January 1980.
- Withdrawn from use January 1981
- To RAF Cosford February 81.
- Wings at Slingsby's 14 June 83, fuselage still at RAF Cosford.
- Sold at Cosford 9 June 88.

PAINT SCHEME

Registration letters - in black 25 inches high. They are on underside of the mainplane and start on the fabric panel directly inboard of the ailerons.

High visibility stripe - in yellow on top and bottom surfaces of mainplane. They are 23.5 inches wide and the in board edge is 34 inches inboard from the cable bracing point on the top surface of the mainplane.

Roundels - outside edge located 12 inches back from D box on wing leading edge. Inner red circle 6 inches in diameter, white and blue 4 inches across. Total diameter 22 inches. Cenfre of roundel located on the fabric 6 ribs in from the wing tip. *Photos: Al Stacey*





Placard	
Max Winch	35kt.
VNE	70kt
Min Solo	111lbs
Max Solo	214lbs



Felix Kracht Foundation

Dear Chris, I am well advanced with the official installation of the "Felix Kracht Foundation". Enclosed please find the draft of the statute. I think you have enough knowledge in the German language to understand it. Furthermore I enclose a "flyer" with an information on the foundation.

Of course the main task of the foundation is to raise funds for the Horten IV. So I would be happy if you can publish the information about the "Felix Kracht Foundation" in the VGC News and also in the VGC home page. In your last letter you asked how to transfer contributions to the Felix Kracht Foundation to Germany. I see no real problem in this; for example in UK your treasurer Austen Wood could collect the money in UK and transfer it from time to time by bank transfer to the account of the Foundation. The same procedure could be arranged in other countries with VGC sections. And whoever makes significant contributions may be allowed to fly the ship, if he is an experienced pilot and if the ship turns out to be so docile to fly as it is reported by old Ho IV pilots.

Some weeks ago I visited Heinz Scheidhauer accompanied by his good friend Karl Nickel. Heinz Scheidhauer is 90 years old and his health suffers considerably from his age. His memories have also suffered a little bit but they are still quite good and he told me a lot of details about the Horten planes. He always was a pure pilot and did not care much about technology but about handling qualities.

He strongly confirmed what Karl Nickel told me already several times; the Ho IV was pleasant to fly and posed no problems at all to pilots with experience in the normal sailplanes of that time. He also confirmed the directional stability problem in the early takeoff ground run. We discussed the use of a V-towing cable similar to the towing cable with the side couplings in the Kranich III with two tow couplings mounted at the outer leading edges of the steel frame central part. Heinz Scheidhauer agreed strongly in this idea, which is similar to the successful winch launch arrangement used after the war in RAF operations in Germany with Heinz Scheidhauer as a pilot.

At that day Heinz Scheidhauer was in very good mood and he was enjoyed by the fact that I could show him the root rib of the wing.

Yours sincerely
Berndt Ewald Rohrbach, 2003-01-29





Govier—colour info requested

In the last VGCNews details were required of our Govier. Please find enclosed photos *(above)* taken at last September's Museum Open Day. The Govier is on loan from former VGC member Bob Arnold and friends. The wings are stripped and need much glue work but are quite sound. Bob has discovered the joys of microlights and owns a Whitaker MW6 going by the name of 'Big Pop Bob' which is taking up most of his time. We also own a T31, 2 Grasshoppers, a T21 and a tutor, all being cared for and displayed statically as a tribute to the Air Training Corps. Incidentally, does anyone know the colours the Govier would have worn during the 2nd World War? Yours Faithfully, Vaughn Meers, VGC member 2180, Boulton Paul Association.
(No contact address given, so please respond to VGC News – Ed)

T-31b Tandem Tutor Information

My name is Vincent de Jong. I am one of the owners of the T-31b Tandem Tutor XE790/BGA4926 *(www.zweefhist.nl)* I am planning to compose a book containing pictures of all T-31b's I can find. Therefore I sent this request. Please send me an original photo, please no digitals, of your T-31b Tandem Tutor. Maybe you can add some text about the history of your glider. I hope it is not too much trouble and I am hoping to hearing from you soon. Thank you very much. Best regards, Vincent de Jong, Adm de Ruyterweg 7, 1931 VE Egmond aan Zee, The Netherlands

Oly 2b BGA 509

Here's that follow-up piece to my request for info on my Oly 2b BGA 509 - formerly G-ALLA, now that all the evidence is in.

Many thanks to those who responded to my request for information regarding the early history of my recently acquired Olympia 2b BGA 509 - formerly G-ALLA. Wally Kahn kindly sent me a photograph of it in its original livery, believed to have been taken at Redhill in the early 1950's. It matches the original EoN red and cream livery in which it appears on a colour cine film taken at Camphill, probably before it went to Redhill around 1949/1950. In a recent letter, Mike Beach was convinced that my glider was formerly known as GreenO from Redhill/Lasham, but this theory was demolished the very next day by a very detailed missive from Bill Tonkyn confirming beyond doubt that GreenO was another glider altogether (G-ALKA, BGA 537), and that MAMBO (G-ALLA - red and cream) had been owned around 1949/1950 by a syndicate at Redhill (Malcolm Laurie, John Nielan and Frank Moore).

Bill has extracted remarkably comprehensive notes from his log books logging BGA numbers, registrations, names and descriptions of the aircraft, along with the names of the syndicate members, if any. Much later, the glider was then made over to the Surrey Club for some years. From evidence adduced by Eric Boyle and Michael Hunt the likelihood is that this is indeed "Mam Tor", one of the original batch of six ordered from Elliots by Bernard Thomas for a group of Camphill syndicates soon after the war. Certainly, its early BGA No and Constructors No 11 points to this. It appears to have been sold to a syndicate in the south

G-ALLA (Mambo) at Redhill sometime before 1951. *Photo: Wally Khan.*



and returned to Camphill in 1960, where Eric and the syndicate painted it pea green after it was severely damaged when the trailer rolled in the 1963 gales. (Some of you will remember seeing a Ferrybridge cooling tower blow down in those gales). In 1969 it was almost written off after hitting the trees at the north end, and after a rebuild under the auspices of the late Ken Blake it spent some twenty five years at Rhigos where I found it in 2000. No wonder I found so many patches on it when I stripped it!

Unless anyone knows differently, the only other survivor of this batch is "Jacobs Ladder", which was only recently converted to a 2b, and is, I believe, now being converted back to a 1. "Mam Tor" clearly knows its way in the air. On its third launch after its long lay-up, a winch launch to test the new belly-hook, it tiptoed into wave at Husbands Bosworth and spent four hours at FL105, regrettably without maps, batteries or camera. Before the thermal season ended we also managed to fit in a 100km triangle as well as a few decent cloud climbs. Already this most beautiful of Hans Jacobs designs is repaying the effort put into its refurbishment.

Regards Keith Nurcombe

Old photos, identity requested

I have just been looking at the VGC website and I am contacting you in the hope that you might be able to identify some old glider photos that I acquired recently, attached are a couple of examples.

These were found in a local antique shop here on the Isle of Wight, and as you can see it is a pretty early machine, judging from the clothes I reckon that they date from around 1920. The photos are stamped Newcastle Chronicle on the reverse so I guess that there is a Tyneside connection, the only other lead that I can offer is that they are connected to a Mr.J.C.Neilan as his name appears on some much later ones taken at Dunstable along with a press clipping from around the late 1930s. If you can shed any light on these photos it would be of great interest to me.

Many thanks, Chris Michell. Flat A Ampthill, Easthill Road, Ryde, Isle of Wight. PO33 1LL. Tel: 01983 408661 (daytime)

Spitfire tug

Regarding David Underwoods letter (winter 2002), I saw a Hotspur being towed by a Spitfire from Biggin Hill in 1944.I believe it was a trial. *Mike Wood.* ■

OBITUARIES

Ann Welch O.B.E.

She died on Thursday 5th December 2002 unexpectedly, during the morning at her home while preparing her Christmas cards and answering telephone calls.

She was so much part of some of our lives and British gliding during the not too distant past, that there is now an abyss and it is hard to realise that she is not still there, at Lasham, with the heroes of the old days.

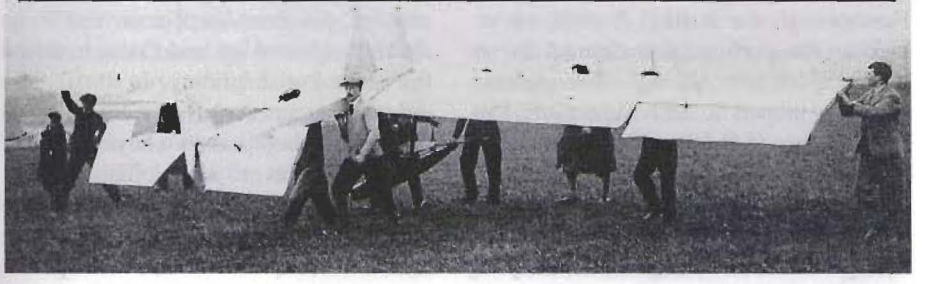
She was the daughter of a railway engineer and was born in London on May 20th 1917. Her parents used to take her to Cornwall and there she fell in love with the sea. Her parents moved to Kent and there, she became enthusiastic about flying and saved up every penny to have joy rides and sometimes a little instruction in aeroplanes but her parents hoped that she would take up a career in art and she met Henry Wiliamson and Charles Tunnicliffe who helped her.

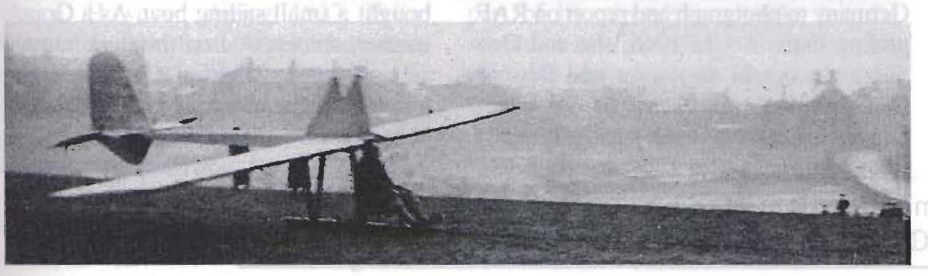
The result was that she sold some of her artwork to "Flight" and the "Aeroplane" magazines to pay for her trips to the Brooklands Flying Club. She flew aeroplanes solo for the first time a few days after her 17th birthday. She transferred to the much cheaper sport of gliding and bought a beautiful varnished Grunau Baby 2 which had been built by the students of the College of Aeronautical Engineering at Brooklands as an exercise. She needed a trailer for it and she found a jobbing carpenter to build it for £50 using an old Morris Car back axle and wheels. She told him to use casein glue, which had moderate water-resistant properties. But he used fish glue, which had none. She had a very happy time with this Grunau and flew it from various parts of the North Downs. Once, it tried to bite her and went into a spin. It came out well enough although she had no A.S.I. but she could feel the wind on her face. After a careful look at the wings, it was seen that the twist in each was different. The college was happy to rebuild the defective wing, but it meant not having the beloved Grunau for several weeks. She made several expeditions with the Grunau but flew most often from Dunstable. She got her "A" certificate on the 16th August, the "B" on the 17th August and her "C" on the next day. in 1937.

In 1936, she had met a young German at a party and he invited her and her British glider pilot friends to join him for a skiing holiday above Berchtesgaden during the next winter. The skiing was rather primitive but the snow was good and powdery. However, it was clear that the Germans wanted to talk politics and to persuade the young English not to have a war with them. The English however felt that they were only there for the fun of skiing and they knew nothing about politics anyway.

It was Jochen Benemann, who told her about the 1937 Anglo/ German gliding camp at Dunstable. At this camp, in January 1938, Jochen Benemann again invited the British to the Rossfeld Hut above Berchtesgaden and increased the propaganda by walking the British up there via Hitler's eyrie. They tried to arrange a meeting with Hitler but failed but succeeded in getting them to a lunch

Is there a Tyneside connection to these two photographs?





with the Reichs Youth Fuhrer Baldur Von Schirach. who made a speech which they could not understand. However, later, at the hut, they were visited by the Deputy Fuhrer Rudolf Hess, who talked about skiing and flying as he was an experienced power pilot. He fell about in the snow with the best of them and then retired down the slope towards the Berghof.

At that time, the young English were innocent about politics and were impressed when a young Hitler Youth presented Ann with her own Passport, having walked all the 1,000ft up the mountain in the snow with his bare legs. She had lost it in the Dining Car of the train some days previously and had given up hope of ever seeing it again and had reported its loss.

They went skiing during 1939 in Kempten as Berchtesgaden was probably somewhat too sensitive. This was again organised by Jochen Benemann.

In 1938, with £30 given by Graham Douglas of the Redhill Flying Club, she started the Surrey Gliding Club which began flying at Buckland with minimum equipment. She married Graham Douglas during the next year. The Surrey Club was forced to move in 1951 from Redhill to Lasham in Hampshire because of the operations of the Redhill Flying Club and the RAF Volunteer Reserve which made the Surrey Gliding Club stop flying at 0900 hours every day.

When war was declared, Ann said goodbye sadly to her beautiful Grunau which she never saw again (destroyed by the military?) as all civilian gliding was stopped by the military after Easter 1940, and most gliders were then impressed for military service.

Ann offered herself to the Air Transport Auxiliary which was the only organisation that would allow women, and men pilots too old for the RAF, to fly. Ann had the absolute minimum flying experience but was cleared to fly Tiger Moths by the women's' Commandant of the ATA, Pauline Gower. Navigation was achieved by following another Tiger Moth but this became really dangerous in the event of bad weather. So, from then on, Ann had to find her own ways to her destinations. She then converted via Hurricanes to Spitfires. She really loved flying them as most pilots did. She flew about 100 Spitfires and then converted to twins, which included Blenheims and Wellingtons etc.

So the war gave her powered flying experience for which she did not have to pay. In 1942, she left the ATA to have her first daughter Vivien. In 1946, she returned to gliding and, at Redhill, she helped, together with Lorne Welch and Walter Morrison, Wellington pilots, who had just returned from being prisoners of war in Colditz, and Hugh Kendall, to form BGA Test Group No 1 and to test the first production EoN Olympia. Elliotts of Newbury had built 100 Olympus (and components for another 100). They were redesigned German Meises.



To come up to British Civil Airworthiness Requirements (sub section E for gliders), they were heavier than the Meise, but they became standard equipment for the reborn British Gliding Movement after the war.

No 1 Test Group also obtained the German Weihe BGA 448 from RAE Farnborough for testing. It came up at least to the performance claimed for it by the Germans. Among other gliders, she also helped to test were Gull 1V, EoN Eton (SG.38), Moswey 3 in Switzerland, K.1, Skylarks and Capstan.

In 1946, Vernon Blunt, who owned the Sailplane and Gliding magazine, arranged for her and Doc Slater to fly to Germany to photgraph and report on RAF gliding there. So, in 1946, she and Doc Slater set out in an Auster and flew to BAFO clubs in Germany. At Salzgitter, Squadron Leader Stan Haynes, a Tempest pilot, who was CFI, arranged for her to fly their red Minimoa Silver C distance in spite of a 2,000-ft inversion above ground. Later in the week, she was aerotowed to the centre of the town at 300ft, where there was a thermal, which just took her to Silver C height, in a Mu 13D.

In 1949, Ann was instrumental in persuading Lord Nathan, the Minister of Civil Aviation, to allow British Gliding to run itself, free from state control. British Gliding was then run by the BGA and being relatively free from restrictions and paperwork, it became the envy of the world. This is largely why there are still so many airworthy vintage gliders in Britain today. Other countries glider pilots have said to their respective state controllers. "look the British are allowed to fly old gliders, therefore we must be allowed to fly them also!!!" Therefore, they have come with us and Ann Welch was initially responsible for our freedom.

Her talent for organisation, her energy and enthusiasm were incredible. She organised 14 National Championships and the World Championships in 1965. She was British National Team leader from 1948 at Samedan in Switzerland until 1968. In 1952, her team won the World Championships in Spain. In 1954, she took part with Lorne Welch, who she had married in 1953, in the 1954 World Chiding Championships at the Derby & Lancs Club, Camphill. They were flying the prototype Slingsby T.42 "Eagle". The dreadful weather gave almost no one a chance.

Her true métier may have been instructing and for 20 years, she was in charge of the BGA Panel of examiners. However, she did take time off from this, and flew her Gold C Diamond, flying 360 kms, in a Skylark 3 in 1959, from La Ferte Alais, near Paris, to Angouleme. After the 1958 World Gliding Championships, its directors Roman and Irena Zabiello, invited her and Lorne to return for some Polish gliding. In 1961, they did just that and Ann flew a Jaskolka, on the second attempt in two days, over 500 kms (328 miles) to a goal. This won for her a 500 kms Diamond and the National Women's Goal Flight record.

At home, for relaxation, she and Lorne bought a small sailing boat. As a Grandmother, she crewed on the three masted schooner "Sir Winston Churchill" and twice on the square rigged Brig "Royalist". She also displayed her talent as a writer by writing many books about gliding, and the weather, and an

Ann was instrumental in persuading the Minister of Civil Aviation, to allow British Gliding to run itself, free from state control.

autobiography "Happy to Fly" in 1983. The books were very well written. She also continued painting.

During later times, she pioneered gliding instruction using motor gliders. She also became involved with Microlights and Hang Gliding and immediately became part of the top of their organisations.

We like to think that she had decided that gliding had become too expensive and was no longer the poor man's means of getting airborne, as it had been in the 1930s. Therefore, she had a special love for our Vintage Gliding Club, often attending our rallies and being Guest of Honour at our Annual Dinners. For, only we could recapture the spirit of the beginning of gliding. With gliding, hang gliding and microlights, she had travelled and made friends all over the world and she had really enjoyed her life.

Certainly, everyone who knew her will never forget her. Lorne Welch, her second husband, died in 1998. She is survived by Vivien, Elizabeth (Douglas) and by Janet (Welch). She was appointed O.B.E. in 1966 for services to British Gliding. In 1974, she was awarded the Gold Medal of the F.A.I. for her encouragement to young pilots. She was Vice Chairman of the BGA until 1976. She presided over the formation of the British Hang Gliding Assn. In 1974. She was also President of the British Microlight Association and was founding President of the Commission Internationale de Vol Libre.

Felix Kracht

Felix Kracht died during the autumn of 2002 aged 90 years.

Before the war, as member of the FVA (Akaflieg Aachen), he had in 1936 been the motor behind the FVA 10 "Rheinland". He got the type into production during 1938/39 in a small workshop, which Schmetz had allowed them to use behind his needle factory, (which later became an ultra modern glider factory which built 601 Olympia Meises during the war).

Due to outbreak of the Second World War, Rheinland production had to cease after 29 had been built, as the FVA's glider pilots were called up for military service. However, during 1937, Felix Kracht flew the first "Rheinland" into second place during the National Rheon Contest on the Wasserkuppe. In first place was the Mu 10 "Milan" two seater which was flown by Rainer Karch's father. During that year's ISTUS Meeting at Salzburg, Felix Kracht again came second to the "Milan" but managed to fly the Rheinland over the Alps in to Italy (to the South Tyrol) where he was suspected as a terrorist and locked up in many Italian police stations!

During the war, Felix Kracht had an important post with DFS (the German Experimental Institute for gliding), which was conducting experiments with towing, high altitude flying etc etc. Felix Kracht was the research leader of the pig o'back flight, ("Mistel*) which was responsible especially for the mainly wooden, high altitude, single piloted, reconaisance DFS 228, which had a detachable pressure cabin, (which was not built of wood). From 1943, this aircraft was carried to 10,000 metres on the back of a Do 217 and released. It was planned to rocket power it to a great altitude, far higher than any flak and fighters. (Design ceiling was 25,000m!!). It



was hoped that its glide range would be about 1,050kms. Although powered flights were never undertaken, it should be regarded as the true ancestor of the U-2. There were two prototypes, one with a kneeling prone, and the other with a seated pilot. One of the prototypes was brought to Slingsby Sailplanes in 1945.

After WW-2, Felix Kracht was instrumental in encouraging French/German collaboration with aeronautical projects and designed first the Transall, and then the mighty Airbus. They were working all the hours that God gave to get the Airbus into the air before its American competitors. Felix Kracht believed that a good aircraft designer had to know every part of his aircraft intimately, but the Airbus was a very large aeroplane. He said that their success was due to the Americans very much underestimating Airbus Industrie.

He was indeed a very great man and will be very much missed by his family and his friends in French and German aviation.

Felix Kracht was born in Krefeld on the 13th May 1912. He died in Kirchweyhe near Bremen, which had become his adopted home. *CW*

Gisela Nierholz

We have just learned, with great regret, of the passing on April 4th of Gisela Nierholz, wife of Heinz and mother of Petra, Ute and Simone, after a brave and protracted struggle against cancer.

The Nierholz family, and Heinz with his beautifeul Scheibe Zugvogel I, contributed greatly both to the flying operations and the social side of our international rallies (which they rarely missed) with their cheerful, helpful and generous participation in all aspects of the meetings to which Gisela contributed so much, and their caravan was a popular social centre.

We shall miss her, and send our heartfelt sympathy to Heinz and her daughters.

Jan Vermeer

It is with great regret that we have to announce the death of Jan Vermeer. at the age of almost 75 years on December 8th, 2002.

He was well known to many VGC members since he attended many rallies, mostly with his awarded Slingsby Prefect PH-192. Jan was very active in the organization-team of the VGC-rally Terlet 1984 and, became the first Committee Technical Officer of the VHZ (Dutch VGC) in 1985.

A very correct, friendly, helpful (it was never no), modest person and, as it sometimes seemed, a real backrounder. I personally remember a, for us low altitude, long flight together with Jan in a Goevier soaring the Dunstable-ridge in 1986. The last few years Jans health was slowly deteriorating; he stopped instructing and changed from Prefect to Goevier.

Until the end of 2001 Jan was also a Technical Inspector for gliders, not only as a real "inspecting Inspector", but always giving to the point technical advices and hints. It was decided, earlier last year, to award Jan with the Gold-pin of our National Aero Club but before his death there has been no real suitable occasion to present this to him personally. Therefore it was presented to his wife Baukje, because, as Jan always said, "she deserved it at least as much as I did".

We shall remember him as we have known and seen him and our thoughts goes to his widow Baukje, his children and grand-children. *Hans Dijkstra.* ■

The Polish PWS-101



Back in 1936 this innovative design featured water ballast and air brakes, article by Maciej Durst.

The story of this glider began in 1936 when the then Department of Civil Aviation in the Ministry of Communications announced an open tender for the design and construction of three new types of high performance gliders to equip Polish glider pilots taking part in international competitions.

The three bids came from Antoni Kocjan and his "Orlik" (eaglet), Szczepan Grzeszczyk and SG-7 glider, and Waclaw Czerwinski with the design and the construction, which is the subject of this article.

Until now the initials WC identified all the designs by Waclaw Czerwinski. However, the new type was given the code name PWS-101 derived from the workshops of its manufacturer; Podlaska Wytwornia Samolotow (Aircraft Manufacturers in Podlaska) where the designer found the new employment. Boleslaw Wisnicki cooperated in the design and construction work and shares in the development credits.

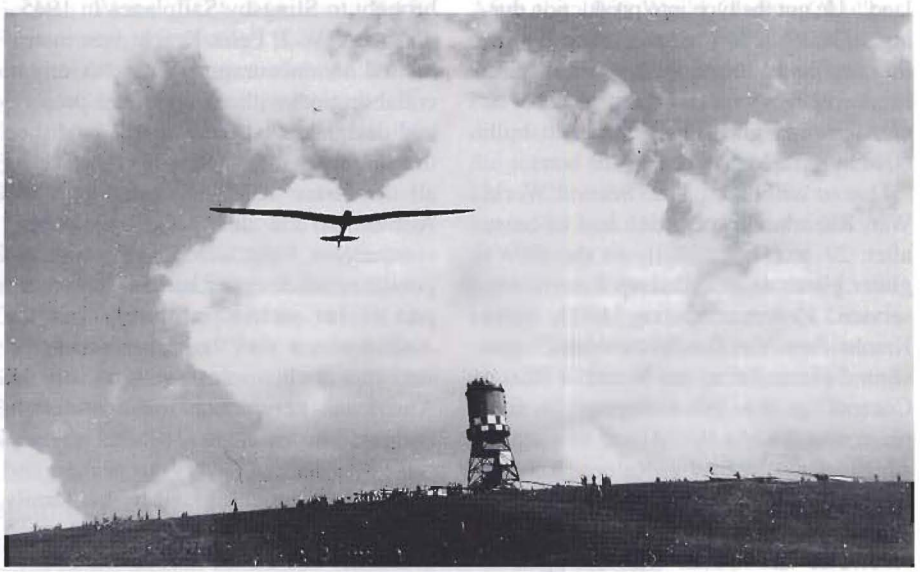
From the beginning the new and innovative project attracted close attention. For the first time the PWS-101 design employed such innovations as the use of air brakes and the ability to alter wing loadings by carrying water ballast in tanks incorporated into the wing design with a combined capacity of 40 litres.

The early aerodynamic appraisals of the new design were carried out in the Aerodynamics Laboratory of the Technical University of Lwow. Initially the glider was code named "Rekin" (shark). Ultimately, however, this name was given to the next design by Waclaw Czerwinski.

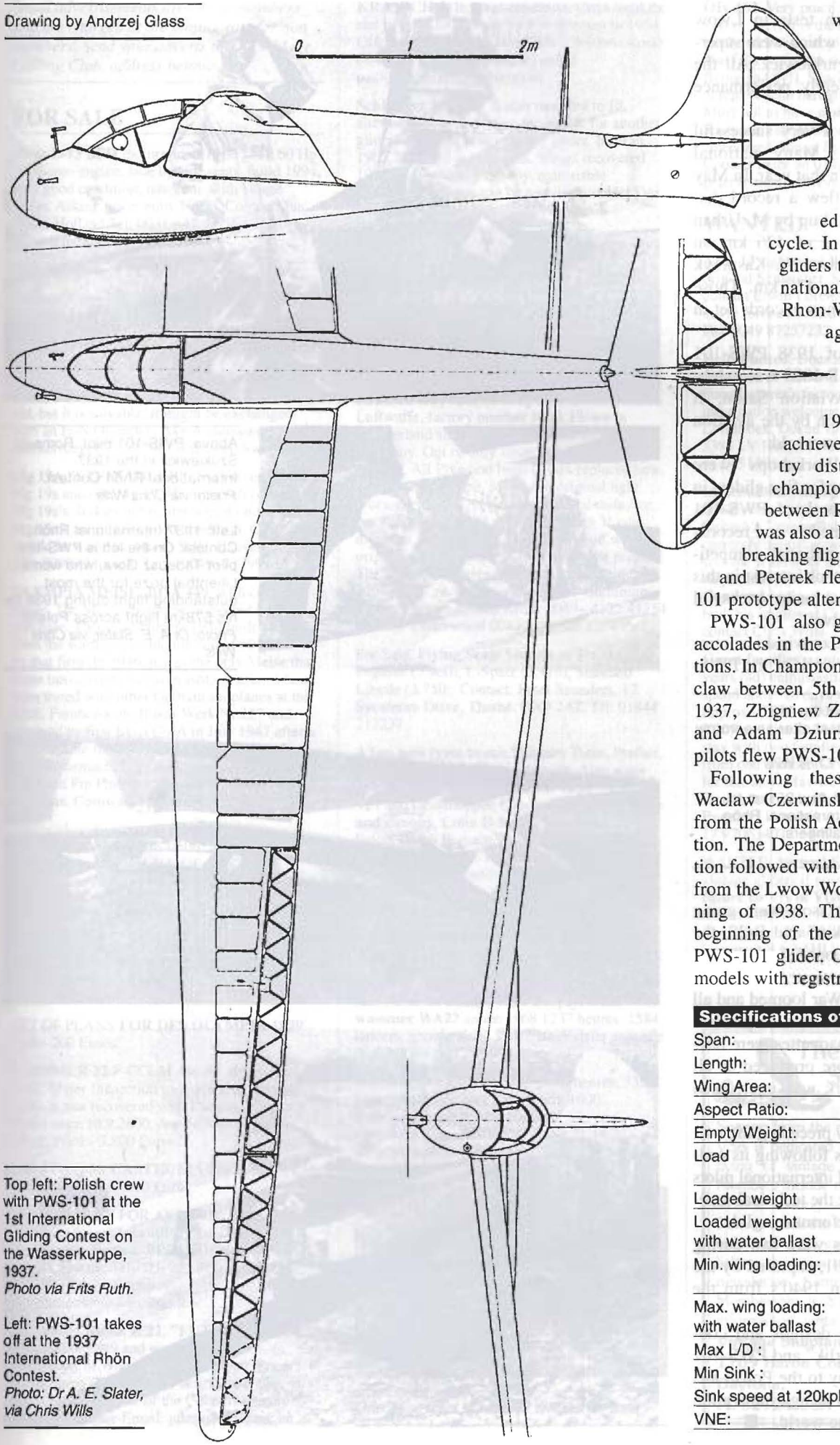
Following numerous tests in the wind tunnel two prototypes of PWS-101 were produced.

The two prototypes carried SP-1005 and SP-1006 Polish registration numbers. Piotr Mynarski test flew both prototypes at Biala Podlaska airfield. Test flights confirmed the effectiveness of the air brakes and dispelled fears that this innovation would adversely impact on the rudder controls and would result in structural resonance and increased vibrations. With a long wing span the glider proved to have very much improved handling and responsiveness of all the controls. After the first test flight the pilot reported the glider's wonderful ability to go into turns.

The construction details of the PWS-101 included, 19.0m wing span, length of 7.27m and height of 1.55m. There



Drawing by Andrzej Glass



Top left: Polish crew with PWS-101 at the 1st International Gliding Contest on the Wasserkuppe, 1937.
Photo via Frits Ruth.

Left: PWS-101 takes off at the 1937 International Rhön Contest.
Photo: Dr A. E. Slater, via Chris Wills

was a universal approval and satisfaction with the new design after the early test flights. In the light of these better than expected results it was decided to shorten the test cycle. In July 1937 PWS-101 gliders took part in the International Championships in Rhon-Wasserkuue (later agreed as the first World Gliding Championships)

On 4th July, 1937 Piotr Mynarski achieved the best cross country distance flight of the championships of 351 km between Rhon and Hamburg. It was also a Polish distance record breaking flight. Pilots Szurkiewicz and Peterek flew the second PWS-101 prototype alternately.

PWS-101 also gained many national accolades in the Polish glider competitions. In Championships held in Inowroclaw between 5th and 15th September 1937, Zbigniew Zabinski came second and Adam Dziurzynski fourth. Both pilots flew PWS-101.

Following these early successes, Waclaw Czerwinski received an award from the Polish Aero-Industry Association. The Department of the Civil Aviation followed with an order of four craft from the Lwow Workshops at the beginning of 1938. This order marked the beginning of the serial production of PWS-101 glider. One of the production models with registration SP-1089 under-

Specifications of PWs-101	
Span:	19.00m
Length:	7.27m
Wing Area:	18.9sq.m
Aspect Ratio:	19
Empty Weight:	185kgs (407 lbs)
Load	79-127kgs 173.8-279.4lbs
Loaded weight	264kgs (580lbs)
Loaded weight with water ballast	31.2 kgs 6.4lbs/sq. ft.
Min. wing loading:	14kgs/sq. m. 2.27lbs/sq. ft.
Max. wing loading: with water ballast	31.2kgs/sq. m. 6.4lbs/sq. ft.
Max L/D :	1:26 at 63kph
Min Sink :	0.61m/sec. at 55kph
Sink speed at 120kph:	2.4m/sec.
VNE:	200kph

went further thorough tests in Lwow Technical University, which were supervised by engineer Szurkiewicz. All the tests confirmed the early performance data of the prototypes.

1938 proved to be a very successful year for PWS-101. Many national records were broken in that year. In May 1938 Tadeusz Gora flew a record distance and was followed up by M. Urban who achieved distance of 426 km on 21st June. In September, W. Kasprzyk went further achieving 476 km. Those are only a few of the new records set in PWS-101 glider.

Towards the end of 1938 PWS-101 bearing registration SP-1089 was exhibited at the Paris Aviation Salon. It attracted much attention by the aviation design and construction world.

Lwow Aircraft Workshops were awarded further orders for five gliders in 1939. The existing stock of PWS-101 continued to collect medals and records in national and international competitions. Even Germans took interest in this craft although they had many successful glider designs themselves.

In 1939, Waclaw Czerwinski continued the development work of the PWS-101 design. The successors were going to be PWS-102, "Rekin" and B-32, the concept design developed by engineer Michal Blaichere. However, the shadow of the Second World War loomed and all the new design work was suspended. Although the static maquettes were tested, no prototypes were produced as all the development work was interrupted by the war.

In the period shortly preceding the war, as well as in the years following its ending many national and international pilots shared high regard for the technical superiority of this high performance glider.

Most of the gliders were lost during the war. One PWS-101, captured by the Germans was used in 1940's from the airfield in Krosno.

The history of the designs and constructions such as "Orlik" and PWS-101 provides the testimony to the Polish aircraft construction and design innovation equal to the best in the world. ■



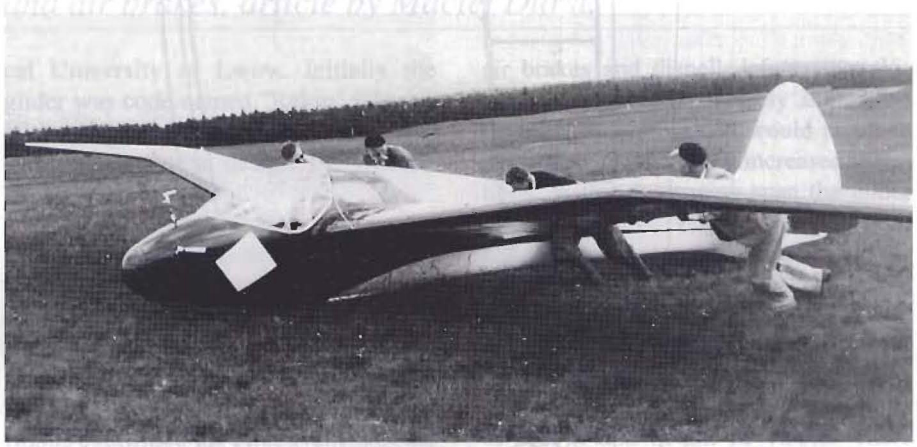


Above: PWS-101 pilot, Romauld Szukiewicz at the 1937 International Rhön Contest.
Photo: via Chris Wills

Left: 1937 International Rhön Contest. On the left is PWS-101 pilot Tadeusz Gora, who won a Lilienthal prize for the most outstanding flight during 1938 for his 578km flight across Poland.
Photo: Dr A. E. Slater, via Chris Wills

Right: PWS-101 arrives at the 1937 International Rhön Contest after an aerotow from Poland.
Photo: Dr A. E. Slater, via Chris Wills

Bottom right: a PWS-101 flew 351km to Hamburg at the 1937 International Rhön Contest. Behind are Spalingers.
Photo: via Frits Ruth





Small advertisements are free to members and are charged at the joining rate for non members. Send your adverts to The Vintage Gliding Club, address below.

FOR SALE

Vivat L-13 SEH motorglider,(PH-1238), 60 Hp W.Micron engine, side by side seats, build 1994, very good condition, nav/com, with closed trailer. Asking price: euro 34500. Contact: Jan Visser Holland Tel. 0031-447 97 55 e-mail: visser@occbv.nl

Also for sale:

Grunau Baby IIb, PH-212, build 1955, very good condition, with open trailer. Contact: Jan Visser, Smitskamp 5, 8191 HA Wapenveld, Holland. Tel 0031-38-447 97 55. e-mail: visser@occbv.nl

Rhoenbussard. It needs restoration as it is very old, but it is salvable. It might be exchanged with an EoN Olympia . Ake Andersson, Murkelvoegen 7, 63358 Eskilstuna, Sweden.

Mg 19A "STEINADLER". The owner has two Mg 19a and one Mg 19. He must sell one of the Mg 19a's. It does not matter which one. Both the Mg 19a's are in very good condition. Offers should be made to: Mario Sells, Bauseweinallee 123, 80999 Munich, Tel:- (0049) 8129993.

OLYMPIA MEISE. BGA 449. with covered trailer. The Meise should be inspected before purchase. This is a Schmetz 1943 built Meise from the wartime production run of 601 Meises by that firm. In 1946, it was the only Meise that came into civilian hands in Britain, after it had been tested with other German sailplanes at the RAE, Farnborough. It was Werk Nr.227 and received its first BGA CofA in July 1947 after a considerable rebuild. LF+VO was its post June 1943 Wehrmacht Luft registration. Contacts:- Ruth and Pip Phillips, "Boswens", Wheel Kitty, St Agnes, Cornwall TR5 ORH. Tel: 0872-55-2430.

FAUVELS AV 36C OE-0506. Built in 1955. with instruments., AV 36E OE-O687, with instruments, built in 1965. Price 5,000 Euros. L-SPATZ 55 built in 1962. Price:- 1,000 Euros. Email: Herbert.nolz@utanet.at

NORD 2000 (Meise) F-CBVR .1070 flying hours. 1,581 launches. Major inspection needed. Left wing u/s? It has not flown since 11.11.82. Price:-500 Euros.

SET OF PLANS **FOR DFS OLYMPIA** 1939. Price:-200 Euros.

WASSMER 22 F-CCLM. No.63. It was built in 1962. Major Inspection took place in the year 2000. It was recovered with Dacron. It has not flown since 10.9.2000. Annual Cof A needs doing. Price:- 3,800 Euros.

Set of Plans for **CASTEL MAUBOUSSIN** CM 310P.1945.Price:- 200 Euros.

SET OF PLANS FOR **AVIA 40P** .1942. with the wings for an Avia 40P. Price:-200 Euros. To:-Maurice Renard, BP.24, 10150 Creney pres Troyes. France, Tel:- 03- 25- 81-17-18. Fax:- 03-25-81-31-33 Email: renardmaurice@wanadoo.fr.

The unique **Rubik R.22, "FUTAR"** The glider was built in 1949 and was rebuilt as new in 1992. Built of Wood . 15 m wingspan. Price: 4,500 Euros. The designer was Erno Rubic. His son was the designer of the Cube. If you are interested, please Email: julasz@szferenc.hu

KRANICH 3. In good condition. CofA until the end of July 2003. Built by FW Bremen in 1954. Offers to Paul Davie. 0044 208 2386666 (work), 0044 7770 658191 (mobile) email: pauldavie@buhlergroup.com

Schleicher K6CR - Trailer required to fit, alternatively would swap the K6CR for another glider, or accept offers for the glider. Built in 1965, standard instruments, Wings recovered 1993. Side opening canopy, reasonable condition. Pictures can be emailed, contact Don Lees, tel +44 (0)1799 550848 or email Don.Lees@btinternet.com

K8. Cheap as hangar space needed. First reasonable offer will be accepted. Situated at Norfolk Gliding Club. Contact Kchasmorgan@aol.com or 01603 872692.

Skylark 2B, Blue/White, Cambridge Vario., CofA January 2004. Trailer, tow out gear, nice condition. £2500. Telephone 01249 782031

Kranich IIB, built 1943 by MRAZ for German Luftwaffe, factory number 1000. Flown in Switzerland since June 1945 in 59 returned to Germany. Out of duty since '69. Restoration '96-'99. All Plywood from D-box replaced new, wings in clear dope, painted in original light ivory. (See VGC News 104 from Zabraslavice, my Kranich on front and back cover). If you dream of possessing a magnificent gull wing original vintage glider in your life, here is one. The value will increase instead of dropping as with others. Available with all new aluminium trailer. Contact Jochen Kruse 0049+ 4122 41254 or Peter Underwood 0044+(0)1525 221495.

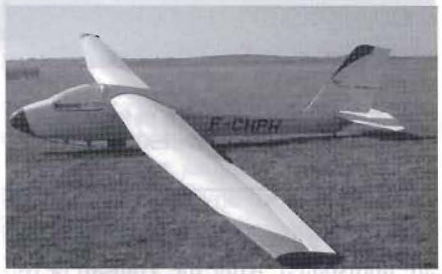
For Sale, **Flying Scale Models** of Penrose Pegasus (3.460), L-Spatz (3.916), Standard Libelle (3.750). Contact: Peter Saunders, 17 Sycamore Drive, Thame. OX9 2AT. Tel: 01844 212237

A few **new tyres** to suit Slingsby Tutor, Prefect, T31, Skylark2 and EON Olympia. Also some new Slingsby spares for Cadet, Tutor, Prefect, T21 and Grasshopper. One **second-hand frame and canopy**. Colin D Street, Steephill House, Felcot Road, Furnace Wood, Felbridge, West Sussex RH19 2PX. Tel: 01342 712684, Fax: 01342 717082. Email: colindstreet@aol.com

Spyr 5 HB-369. Built 1941/42 with trailer and tarpaulin cover. Offers please to Verner Roth, Garten Str, 78570 Weten Selden, Switzerland. Telephone 071 722 4772 or e-mail rothniederer@blewin.ch

l'aéro-club de Saintes vend 2 supejavelots **wassmer WA22** année 1968 1237 heures, 1584 lancers, grande visite 19/07/2005 visite annuelle 03/07/2003 prix 2500

wassmer WA22 année1968 2430 heures, 3390 lancers grande visite à faire prix 1000 Remorque pour WA22 1000 contact: Joëlle LALANDE 06 89 21 14 22 aeroclub.saintes@free.fr



One of several Wassmer WA22s for sale

Oly 463: Very practical vintage glider with an L/D of 32:1. It is the lightest 15m glider and rigs easily with two people. Will soar when everyone else falls out of the sky (unless they too are flying an Oly!). Spacious cockpit. Comes complete with barograph and dry metal/grp trail. Must sell as have nearly complete restoring a Ka-6 and cannot afford two gliders. All offers considered. Based Parham. Contact Peter on 01403 271966 peter@montgomerys.fsworld.co.uk.

WANTED

ASK 13 right hand Wing for project. Must be original Schleicher. Slight damage o.k. Please contact Erwin Lorenz, Germany, at erwin.lorenz@web.de or Tel 0049 87257114 Fax 0049 87257232

Help wanted. Does anyone know about the existence of **General Aircraft Hamilcar** manufacturer's factory drawings? All information welcome, contact Raymond van Loosbroek, Deken van der Cammenweg 19, 5384 LV Heesch, Netherlands. Telephone 0031 412 451401

Information wanted. During the 1934 German South American expedition, it seems that Hanna Reitsch's Grunau Baby 2 was sold and is currently almost airworthy in Brazil. As there was for years after the war a Condor 1 in Argentina, did Heini Dittmar also sell his first **Condor 1** in South America in 1934? He had built his improved Condor 2 by 1935. Please contact Chris Wills.

Guest families wanted.We are two (23 and 29 years old) enthusiastic glider pilots. We'd like to spend about 20 days with an English family to improve our English skills in the time between 21.07 and the 31.08. 2003. We would like to stay with two families which don't live far away from one another. Of course, we are able to pay for this stay. May we hope for an answer? Dominik Strunk, Gartenstraße 37a, D-31303 Burgdorf, dominik@strunki.de, Phone:+49 173/7063407 or +49 5136/9705400

WANTED. Vertical Format Coloured Prints of vintage gliders if possible, in flight, for the **future covers of VGC News**. PLEASE send them to the VGC News Editor Margaret Shrimpton:- "Fairfields", Fosse Road, Oakhill, Somerset BA 3 5HU. Photos will be returned.



The Vintage Sailplane Association

Soaring from the past into the future! The VSA is dedicated to the preservation and flying of vintage and classic sailplanes. Members include modelers, historians, collectors, soaring veterans and enthusiasts from around the world. Vintage sailplane meets are held each year. The VSA publishes the quarterly BUNGEE CORD newsletter. Sample issues are $2.00. Membership is $15 per year. For more information, write to the:

Vintage Sailplane Association
1709 Baron Court
Daytona,
FL 32124 USA

Progress Report Horten IV

14 March 2003 from Bernd Ewald

Money Collection for the Project

The search for a generous Sponsor, who enables the construction of the Horten IV by a small commercial company, was totally unsuccessful. Obviously for such an undertaking the time is unfavourable. By pure chance another approach has been found in the shape of the 'Felix Kracht Foundation' (*described below – Ed*)

Felix Kracht's widow Gerda Kracht had heard about the Project Horten IV (again by pure chance) and in the obituary she asked for contributions for this Project. As an organisation for this collection and for the Horten construction I used the "Hessische Institut für Luftfahrt e.V.". This non profit organisation has the statutory target "Support of Research and Teaching at the Darmstadt University of Technology in the Aeronautical Field".

For the support of the Horten project inside the "Hessische Institut für Luftfahrt e.V." a Fiduciary Foundation was established. Target of this "Felix Kracht Foundation "is Restoration and flying of historical sailplanes"; the first project of the Foundation is the Horten IV. Later also other projects may be supported.

Nevertheless most probably it will not be possible to raise enough money to let the Horten IV be built by a commercial company. So the construction must be done in co-operation by several partners.

Technology

Technology problems of a newly built Horten IV are cleared as far as possible. The existing workshop drawings (some original drawings and drawings reconstructed from the serial number 26, the Horten IV in the Deutsches Museum at Munich) are sufficient for a successful construction.

The problem of certification was discussed with the German Authority LBA. The discussion was very co-operative. Since important documents, especially the original stress calculations of the Horten IV, are still existing, the LBA representatives stated, that a certification for a single plane based on the old regulations BFS will not pose large difficulties. For this certification the plane has to be constructed strictly to the original structure.

A construction of the main spar in original form is not possible since the reinforce-ment of the pine spar caps with "Lignofol" is not possible. This resin reinforced wood is out of production already since the war. A favourable alternative is a spar design with spar caps from laminated beech. Such a spar was designed for the same weight as the original spar. This design offers about 25% increase in stiffness and strength.

A problem still open is the construction of the removable wing tips with 2 m half span. The original structure was aluminium. The simplest solution is a wooden structure; an alternative may be a CFK structure.

For the rudder kinematics (gear ratios and differentiation) the adjustment of the serial number 25 at the end of the war is proposed. This adjustment is described by Wilkinson and with this adjustment the plane was successfully flown by Rudi Opitz in the USA, so it should be a good adjustment.

Old pilots of the Horten IV (Heinz

The "Felix Kracht Foundation"

Felix Kracht was born on 13th of May 1912. During his studies at the RWTH Aachen he joined the "Flugwissenschaftliche Vereinigung Aachen" and soon became a talented pilot and sailplane designer. He was the designer of the FVA10-b "Rheinland". On 30th of May 1937 he became the first pilot to cross the Alps in a sailplane. His design FVA10-b went in series production at the Schmetz company. The picture shows Felix Kracht in the FVA10-b before the maiden flight on may 13th 1937, his 25th birthday.

During the war Felix Kracht worked with the DFS at Darm-stadt and at Ainring.

After the war Felix Kracht worked in the French aeronautical industry. 1959 he moved as a representative of Nord Aviation into the Transall central office at Lemwerder, Germany. His merits about the Transport airplane Transall C 160



Felix Kracht in the FVA10-b before the maiden flight on may 13th 1937, his 25th birthday.

realised in a French/German cooperation are undisputed. After the Transall development Felix Kracht moved back into the German aeronautical industry. 1967 he became chief manager of the Deutsche Airbus GmbH at Munich and after the foundation of Airbus Industries in 1970 he became "Senior Vice President Production". In this position he worked at Toulouse until his retirement in 1981.

Felix Kracht not only was one of the fathers of the TRANSALL and the AIRBUS, but also an important mentor of the European cooperation. The results are recognizable still all over the world.

After his retirement Felix Kracht lived with his wife Gerda at Weyhe near Bremen. Felix Kracht died on the 3rd of October at the age of 90.

To maintain the memory of the great sailplane pilot and designer Felix Kracht, his wife Gerda Kracht founded the "Felix Kracht Foundation". The funds of this foundation are allocated for the preservation of historical sailplanes and their restoration. As a first project

Scheidhauer, Karl Nickel) report a marked lack of directional stability during initial take of ground run. This will be cured by an arrangement of two couplings at the outer front edges of the steel tube centre frame and a short V towing cable. A similar arrangement was very successfully used for winch launches during the RAF operations after the war in Germany with Heinz Scheid-hauer as a pilot.

Progress in Construction

To give a first impression of hardware, the root ribs of the wings were constructed by Bernd Ewald at the end of 2002. Additionally the ribs 5.5 were built.

The training workshop of the DLR at Oberpfaffenhofen offered to build the complete set of wing ribs for the Horten IV, which is nearly 50% of the wing structure. This rib construction will start very soon and may be finished before the end of the year.

The main spar will be built in the workshop of the Akaflieg Darmstadt under the control of the old Akaflieg work master Heinz Hinz.

Presently the following parts of the structure are still open :

1. The rudder surfaces (wooden construction)
2. Centre part (steel tube frame)
3. Metallic parts of the control system
4. Wing assembly and ply nose
5. Wing tips ■

French Model Minimoa

In the Summer 2002 issue of VGC News a Mr Marc Hecquet asked for help with information on the Pegasus designed by Harald Penrose in 1935.

I was able to put him in touch with Mr Penrose's son and a Mr Peter Saunders who had previously built a scale model of the Pegasus, for which he is grateful. Mr Hecquet sent me a photo of his quarter scale model Minimoa *(pictured below)* with which he won a contest in France in May 2002 and has asked me to see if you could include this picture in the next issue of VGC News.

Hope you can assist

Doug Jones (VGC Member)





Horten IV flying

the rebuilding of a true historic Horten IV sailplane started as a project at the Darmstadt University of Technology shall be supported.

Between 1930 and 1955 the German brothers Dr. Reimar Horten and Walter Horten designed a number of successful tailless airplanes, some of them went into small series production. Especially the sailplanes Horten IV and Horten VI, which where superior to most conventional sailplanes of that time, still today enjoy a legendary reputation in the aeronautical society. To bring a true historic replica of a Horten plane back into the air, is of highest historical interest.

Certainly the sailplane Horten IV is the most suitable type for a true historic and flight worthy reconstruction. Good flying characteristics are established and the Horten IV undoubtedly is the most beautiful and successful Horten-sailplane. A first discussion with the responsible adviser at the Luffahrt-Bundesamt showed no serious problems for a certification as a single plane. An airworthy Horten IV at flying displays or other aeronautical events will be a sensational attraction.

Project management and trusteeship for the "Felix Kracht Foundation will be done by the "Hessisches Institut für Luftfahrt e.V." at Darmstadt. This non-profit organisation has statutory target to support teaching and research in the aeronautical field at the Darmstadt University of Technology. So the "Hessisches Institut für Luftfahrt" asks the aeronautical and gliding community for contributions for the reconstruction of a Horten IV.

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