

VGC News

No. 146 - Spring 2016



We Remember
Lajos Rotter



WW II American Training Gliders
US Glider Pilot Training- Part 1



Feature Article
Bremen-Lane



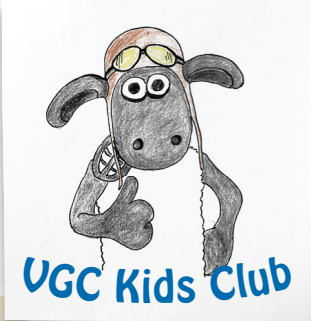
and much, much more...



PIN BOARD

The VGC welcomes the following new members :

5532	Bruce Spinney	USA	5541	Klaus Bittner	Germany
5533	Paul Strona	USA	5542	Bernard Kliem	Germany
5534	Stan Oram	UK	5543	Elisabeth Sophia Landsteiner	Germany
5536	Dieter Betz	Denmark	5544	Benjamin Lieberknecht	Germany
5537	Iain McBride	UK	5545	Peter Schalk	Germany
5538	Miroslaw Lewandowski	UK	5546	Andreas Steger	Germany
5539	Juha Silvennoinen	Finland	5547	Christian Ueckert	Germany
5540	Tom Arppe	Finland	5548	Marcus Diehl	Germany



The Zahn brothers, **Ben (L)** and **Nick (R)** 'pop' up again, ready for another display season with the Habicht.
Photo: Christoph Zahn



The Irvin sisters out enjoying the delights of the GHC. Here seven year old Madeleine samples the Krajanek's 'office' which once belonged to her great, great Uncle, Ladi Marmol.



Not to be outdone by her bigger sisters, two year old Holly takes command!



Then it was five year old, Amelie's turn for a spin.



Dear Mr Stephenson,

Please find attached some pictures of my daughters taken at the VGC Rally when we visited in the summer last year [2014]. We were lucky enough to be allowed to sit in the Krajanek which belonged to Ladi Marmol (their great, great Uncle). I was also allowed to sit in it and was as giddy as a schoolboy for some time after. They love going to air museums (Duxford especially) and usually have to be dragged out of any aircraft they are allowed to sit in.

Regards,
Scott Irvin (VGC member 5505)
Photos: Scott Irvin

None of your achitypical dolls for this lot! Somehow I think dad's trying to 'infulence' his girls somewhat in some strange way....
L-R: Holly with the unconventional 'doll', Amelie and 'master planner', big sister, Madeleine.

Why not join the VGC Kids Club and send in your children's gliding related photos?



<http://www.vintagegliderclub.org>

Objectives of the Vintage Glider Club. To promote the international preservation, restoration and flying of historical and vintage gliders: to collect, preserve and publish information about the above; to locate and preserve documents and artefacts connected with gliding; to cooperate 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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Editor:
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Bruce Stephenson
Napier House, 201 Bridge End Rd,
Grantham, Lincolnshire NG31 7HA
England

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Front cover: K13 madness Down-Under (Hunter Valley's Easter Rally). Clearly Ian Goldsmith is finding it all a bit too much!
Photo: Phillip Brown
Backcover: Ex Chris Willis Kranich now based at Ålleberg.
Photo: Thorsten Fridlitzius



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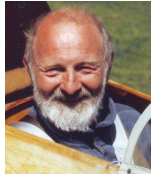
OFFICERS OF THE VGC

President



JAN FORSTER
(Board member)
e-mail:
president@vintagegliderclub.org

VICE-PRESIDENTS



HARALD KAMPER-GERMANY
e-mail:
harald.kamper@vintagegliderclub.org



NEELCO OSINGA - NETHERLANDS
e-mail:
neelco.osinga@vintagegliderclub.org



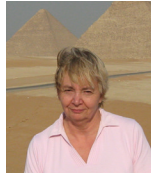
ANDREW JARVIS - UK
e-mail:
andrew.jarvis@vintagegliderclub.org

CHAIRMAN



PETER BOULTON
(Board member)
e-mail:
chairman@vintagegliderclub.org

Board



CHRISTINE WHITTAKER
VGC SECRETARY
e-mail:
secretary@vintagegliderclub.org



SUE BROOKE
VGC TREASURER
e-mail:
treasurer@vintagegliderclub.org



RAY WHITTAKER
VGC MEMBERSHIP SECRETARY
e-mail:
memsec@vintagegliderclub.org



KLAUS SCHICKLING
VGC INTERNATIONAL
RALLY SECRETARY
email:
rallysecretary@vintagegliderclub.org



WOLFGANG ULRICH
PUBLIC RELATIONS
e-mail:
pr@vintagegliderclub.org

Non-Board Positions



The Board is assisted by:
DAVID WEEKES - VGCC SALES
e-mail:
sales@vintagegliderclub.org



ANDREW JARVIS
UK RALLY CO-ORDINATOR
e-mail:
ukrallysec@vintagegliderclub.org



PETER OCKER
EGU REPRESENTATIVE.
email:
egu@vintagegliderclub.org



FRANCIS HUMBLET
COORDINATOR
VGC HISTORIC GROUP
e-mail:
historic@vintagegliderclub.org



DAVID WILLIAMS
ARCHIVIST
email:
archivist@vintagegliderclub.org



PAUL HALIDAY
VGC WEBMASTER
email:
webmaster@vintagegliderclub.org



IAN PATINGALE
TECHNICAL OFFICER
e-mail:
technicalofficer@vintagegliderclub.org



BRUCE STEPHENSON
EDITOR
email: editor@vgc-news.com



KLAUS FEY
PUBLISHER
SPROTTAUER STR. 52
53117 BONN GERMANY
TEL. +49.228.96699011
FAX +49.228.96699012
email: fey@eqip.de

International Council

DIDIER FULCHIRON - SECRETARY - FRANCE
333 rue Louis Blanc, 38420 Le Versoud, France
email: vgcfrance@free.fr

ALAN PATCHING - AUSTRALIA
22 Eyre Street, Balwyn, Victoria 3103, Australia
email: calbpatc@netspace.net.au

FIRMIN HENRARD - BELGIUM
Rue de Porcheresse, B-5361 Mohiville Hamois, Belgium
email: henrard.f@belgacon.net

JOSEF MEZERA - CZECH REPUBLIC
email: potk.josef@post.cz

NIELS EBBE GJOERUP - DENMARK
Seglen 69, DK-8800 Viborg, Denmark
email: nejjoerup@mail.dk

GORAN BRUUN - FINLAND
email: bruun.goran@gmail.com

PETER OCKER - GERMANY
Arthur-Boecker-Str. 86, 86633 Neuburg, Germany
email: weiheflieger@web.de

VINCENZO PEDRIELLI - ITALIA
Via Tintoretto, 7 - 20033 Desio
email: vincenzopedrielli@gmail.com
www.vincenzopedrielli.it

IAN DUNKLEY - NEW ZEALAND
email: ian_dunkley@extra.co.nz

JOZEF OTT - SLOVAKIA
Panska Dolina 2, Nitra, Slovakia, SK94901
email: Jozef.ott@zoznam.sk

INGVAR HYLLANDER - SWEDEN
email: i.hyllander@telia.com

WERNER RUEGG - SWITZERLAND
Uf Rütli 8, CH-8636 Wald, Switzerland.
email: w_ruegg@hotmail.com

Jan Forster - VGC President

From the President's Corner



Wake up! Winter is over and Summer is awaiting us.

This means that some of us here in the northern hemisphere now have to wake up! However, many of our members haven't been to sleep at all, otherwise how could it be possible that almost every year we continue to see newly restored gliders re-appearing after many long winter hours spent in enthusiasts' workshops?

When going to National and International rallies here in Europe, I am always excited to see these newly 're-born' gliders, originating possibly as far back as sixty years ago and most of them looking better than they ever did when they first left the factory.

The finish on some of these gliders is sometime so smooth that they can end up looking more like 'tupper-ware' gliders! As our wooden gliders age, the plywood in between the ribs and frames often acquires a hollow ('hungry horse'), or sunken look. During restoration of these old gliders, it may be very tempting to make repeated applications of filler to the external surfaces of the fuselage or wing D-box in an attempt to give them a smooth and shiny, level surface finish.

The end result may look very nice, but there is also another side to

this. The gliders were designed in an age when pilots were rather smaller and, more importantly, lighter than is often the case today. This means we are in danger of flying them with a cockpit load which exceeds the maximum all up weight allowed! Using a lot of filler during restoration can be an important contribution to this. Perhaps we should ask ourselves what is wrong with a vintage or historical glider which is technically well restored, but you still can see that it is an old and well used glider?

Bearing this in mind, it is always important to consider keeping the application of filler for cosmetic appearances, to a minimum. Not adding unnecessary weight in this manner will go a long way to enabling today's pilots to fly these old gliders safely, without exceeding their all up weight limitations.

Visiting clubs all over Europe and through contacts with organisations such as the Europe Gliding Union (EGU), I notice that Vintage gliding is becoming more and more a recognised part of the sport in general; not unlike competition or aerobatic flying. Glider pilots and aviation enthusiasts, such as modellers, join the VGC to share our fun in keeping these old gliders and their scale models flying. Searching sites on the Web, you will readily find exciting photos of our beautiful gliders, as well as models which are perfect replicas of the full-size ones. A vintage glider can become a part of one's life, and sharing this enthusiasm with one's family or the VGC 'family' and to my mind, make's a perfect combination and leaves me proud to be a member of this Club! I hope to meet as many of you as possible at this year's forthcoming rallies.

Jan Forster
President

Peter Boulton - VGC Chairman

Chairman's address



One thing that strikes me about the Vintage Gliding Club is the way people work so hard on the club's behalf.

It's difficult to cite any particular individual, as that would mean that some others wouldn't get a mention, but I'd like to invite all the members to thank the people who put in so much effort behind the scenes to give us such an exciting international club. For example, we have a superb magazine and our archive has already proved to be a

valuable resource for members restoring old gliders; these are just two aspects of the club that rely on hard-working volunteers. There are so many other aspects of the club that rely upon people giving their time and effort; we must be grateful to all of them.

The VGC would like to share information about who owns what in the world of vintage gliders. If you would like your glider to

appear on a list of vintage gliders and their owners, then e-mail me at chairman@vintagegliderclub.org with the manufacturer and model, together with the registration letters and numbers of your glider, along with its date of manufacture. If you can, include a photograph of your glider. Eventually, we would like to make this information available to members via the website. If you would be happy for other members to contact you about your glider, please also include your contact details.

I'm sure everyone is as excited as I am about the International Rally in Räyskälä, and the Rendezvous at Oripää this summer. If you can't join us there, there are numerous other rallies in various countries listed on the VGC website.

I have never visited Finland before, so in addition to the thrill of the rally, I am excited about the experience of a new country, and I'm looking forward to meeting as many VGC members as possible at Räyskälä.

I wish you all great thermals and safe landings.

Yours
Peter Boulton
Chairman

Eine Sache, die mir im Vintage Gliding Club auffällt, ist die Tatsache, dass Menschen dort so intensiv für die Sache des Club arbeiten. Es ist schwierig, irgendwen persönlich zu nennen, weil dann andere vielleicht nicht erwähnt würden. Ich möchte hiermit alle Mitglieder ermutigen, denjenigen zu danken, die im Hintergrund für einen so ausgezeichneten internationalen Club sorgen. Wir haben zum Beispiel ein hervorragendes Magazin und unser Archiv hat sich als wertvolle Quelle für Restaurierungen bewährt. Dies sind nur zwei Bereiche, für die Freiwillige hart arbeiten. Es gibt so viele andere Aspekte, bei denen der Club sich auf Leute verlassen kann, die hierfür viel Zeit und Mühe opfern. Ihnen allen sollten wir sehr dankbar sein.

Der VGC möchte darüber informieren, wer in der Welt der Old-timer welches Flugzeug besitzt. Wenn Euer Flugzeug auf einer solchen Liste erscheinen soll, gebt mir bitte unter chairman@vintagegliderclub.org Informationen über Hersteller, Typ, Ken-

nzeichen, Baujahr und Halter. Wenn möglich, fügt auch ein Foto bei. Wenn andere Mitglieder Euch wegen des Flugzeugs ansprechen dürfen, vergesst nicht Eure Kontaktdaten. Es ist geplant, diese Liste später auf der Website den Mitgliedern zur Verfügung zu stellen.

Ich bin sicher, Ihr freut Euch so sehr wie ich auf das Rendez-Vous in Oripää und die Rally in Räyskälä, Finnland. Wenn Ihr dort nicht hin könnt, es gibt viele andere Treffen, die auf der Website veröffentlicht sind. Ich selbst war selbst nie in Finnland, deshalb freue ich mich nicht nur auf die Rally sondern auch darauf, ein neues Land kennenzulernen.

Ich hoffe, möglichst viele von Euch in Räyskälä zu treffen, wünsche Euch viel Thermik und sichere Landungen

Euer
Peter Boulton
Chairman

Bruce Stephenson - Editor

Editor's Comment



*Hi folks,
Welcome to another edition of VGC News.
Not much from me this issue, with things ticking over quietly as we head towards another much anticipated summer and soaring season.*

With several meetings now about to get under way here in the Northern hemisphere, in the Southern half of the world, their season is drawing to a close. With the spring issue traditionally reflecting our quieter months, we bring to you ac-

tivities from Rallies in both Australia and New Zealand to wet your appetite for what's to come.

Another significant article is the 2nd part of our glue series. Our first article on Kaurite received many favourable comments and we hope it gave you a better insight into identifying and understanding Kaurite. In this issue we take an objective look at casein and will hopefully lay to rest a few misconceptions about this ancient, but reliable glue.

Finally, I would like to continue to encourage all those more artistic readers out there. Be it gliding poetry, art, or photography, we aim to continue supporting your interest. I am particularly keen to include a new area of glider artwork, so if you're a keen painter/artist, then why not display your talents here in VGC News? So get typing, photographing and painting folks and why not submit some of your work today?

That's about it from me, fly safe and happy landings!

Bruce

From the membership Secretary

Sorry Folks, this should have gone in the last magazine!

I would like to take this opportunity to remind you that the renewal of VGC membership is due on the 1st January 2016. If you are a new member who joined after the 1st September 2015, then this does not apply to you as you have membership until the end of 2016.

Membership for 2016 has been held at £32.50 or 41 euro. Payment can be made by PayPal, cheque or bank transfer. Cheques must be drawn on a British bank.

For bank transfers there are two different accounts.

If paying in euro

IBAN: GB78 MIDL 4005 1569 208369

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If paying in pounds sterling

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The bank address if you require it is:

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Don't forget to add your name and membership number if paying by bank transfer.

I wish you all a good seasons flying in 2016 and hope to meet some of you at one of our rallies.

Ray Whittaker
VGC Membership Secretary

New Swiss Correspondent



Swiss Correspondent
Daniel Steffen
Contact:
Switzerland@vgc-news.com

VGC News welcomes Daniel Steffen as the new Swiss Correspondent, who takes over from Werner Rüegg.

A keen modeller since 1972, Daniel writes that he was fascinated by gull-wing gliders, especially the Moswey III. He started gliding in 1979 and joined the Olten Gliding Club in 1980. He became a member of the VGC in 1981.

Having written numerous articles for VGC News over the years, he appeared on the rear cover of issue 49 in 1983, proudly showing off his Mü 13 d-3, D-8876, in what he describes as wearing 'a terrible outfit', for which he formally apologises! He also joined a two-man-syndicate of the Spalinger S 18 III, HB-510, in 1985 with which they visited many International VGC-Rallies.

Later, marrying the girl next door, he and his wife started a family which largely curtailed his more international gliding activities, however Daniel continued to glide in Switzerland.

Today Daniel is a Board member of the Swiss Foundation of Gliding History and regularly writes articles about the Swiss gliding history for the Swiss aviation magazine 'AeroRevue'.

We wish Daniel every success in his new role and we would like to take this opportunity to thank our dear friend, Werner, for his valued support and enthusiasm over the past few years in keeping us up to date and informed of Swiss activities.

Thank you Werner and thank you Daniel.

An appeal to all VGC National Representatives from your friendly VGC Rally Secretary

Our events page on the VGC website is looking healthier than ever. We are keen to promote your events, but we have noted that some events have gone unnoticed. If you want to some free publicity for your event and encourage more people to visit, then please contact me and we only too glad to publish details of your event.

So a plea to all VGC National Representatives, and VGC News Correspondents, can you kindly forward me details of your Rallies and meetings to me at: rallysecretary@vintagegliderclub.org

Regards,

Klaus Schickling, VGC Rally Secretary

Peter Ocker

Report from the EGU Congress 2016 at Graz

February 20 saw the annual congress of the European Gliding Union, which took place at Graz (Steiermark), Austria.

The Dutch Gliding Association representative, Jan Forster and myself (representing the VGC) were there. While Jan focused on the interests of the Netherlands, as the VGC delegate, I focused on old gliders (not to mention joining a lot of friends flying and owning old gliders too). These friends are either functionaries of the EGU, or are high-level representatives from several countries. It's good to know that there are a lot of people within the EGU that have, and love to fly, our old machines.

So what were the main topics discussed?

Radio frequencies: there was an attempt to secure EU funding to buy new radios. The main issue was that the funding request would amount to some 15.000€ and would only have a small chance of being accepted. Therefore, apart from Nordic countries



Peter in action Photo: Jan Forster

that have decided to remain with the 25kHz bandwidth, the rest of Europe will have to change to the 8.33kHz bandwidth at a later date without any financial support by the EU.

Furthermore, please be aware of what frequency to use for air-to-air communication. All frequencies are allocated by the European Frequency Management board. Currently the EGU is trying to secure some frequencies for air-to-air communication. Nevertheless, we need strive to reduce idle chit-chat on these common frequencies, so please remind your more 'talkative' friends to restrain from commenting on every detail of every thermal they may find themselves in. Self-control and common sense should prevail, especially in view of the transmissions of e-vario-tones, a clear sign of selfishness in radio clutter of such frequencies.

Cross-border-flights: although we have refugees crossing borders as well as the Schengen agreement, in some countries we

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still have to contend with flight plans for border-crossing cross-country-flights. Please respect your national regulations. You may avoid arrest in the event of an out-landing as illegal migrant! These days it may sound amusing, but it could affect your license!

Yearly inspections: this is handled differently in each country (in terms of interpretation, application, timelines etc.), so the National Aviation Authority (NAA) is the authority. For those involved in engineering matters, part 66 is about to be overtaken by Part ML&CAO. Part ML (also known as PML) is gaining momentum, whilst Part 66 appears to be losing momentum.

Licensing: most countries have not transferred to new licenses. To date, only Germany, Belgium and Spain have new paperwork for all pilots. With the experiences from these countries, it is most important that if you have license transition in place in your country, that you make your application in good time, preferably during the autumn so as to give authorities sufficient time to process your application during the winter months. We have received numerous complaints of long delays, so to ensure your uninterrupted flying season, don't leave it to the last minute, or you may join the queue of other last minute candidates!

Aviation Safety Websites

Far from designing you to make you fear accidents in sport aviation, these websites aim to educate pilots through the mistakes of others. Financed by the EU, they are currently still under development, but can be viewed on the following website addresses: www.aviationreporting.eu

In Germany, reports are available at www.bfu-web.de and then click on "Publikationen, "Untersuchungsberichte". In Switzerland, you can view reports at <http://www.sust.admin.ch/de/> No doubt similar sites exist in your own countries!

From my own recent experiences I have one such story. I recently bought a microlight aircraft that had crashed during takeoff due to wake turbulence of a departing Boeing 737. Had the microlight pilot read the accident report of a Robin Remoqueur, who had taken-off behind an Antonov An-2 and crashed with fatalities, this incident (along with my microlight) would have been avoidable. Educating oneself to such incidents is to the merit of one's own safety and situational awareness.

In summary:

Basically there is good communication within EASA, however gliding appears to have some way to go inside the framework of the entire aviation regulations. There are special sections for Ballooning and Gliding, which are working upon an implementation target (for gliding) of 2019. Although some of you are used to current and upcoming rules (like flight instructors having written ATO manuals and rigorous check-flight criteria), there are still ongoing efforts to make things easier. Whilst we acknowledge that many of you may find much of the EASA transition as bureaucratic, with the ongoing change, it is our determination and passion that we should remain a sport and not be saddled with endless paperwork.



Neal Pfeiffer

Workshop Flyer

Casein Glue



Correspondent:
Neal Pfeiffer
Contact:
Eng@vgc-news.com

There have been many types of glue developed over the decades that have been widely used in glider construction. In a short series of articles, we hope to provide some background information on these glues, and

also provide photos of their use in aircraft structure. Hopefully this will make it easier to determine which glue is used in your glider. In the first of our series, we featured Kaurit, whilst in this issue, we take a look at the old-

est aircraft glue, Casein. With this article we hope to highlight Casein's strong and weaker points and in doing so, dispell some of the misconceptions this glue over the years..

Neal Pfeiffer and Bruce Stephenson

Casein Glue with Wood Aircraft

A long-term Perspective for Airworthiness

For early aircraft, casein was the primary approved adhesive for wood aircraft. Wood aircraft prior to the Second World War were likely assembled using casein. While there are not great

numbers of aircraft remaining from this period, there have been questions on how to inspect and maintain these vintage aircraft. As a result, I have carried out a literature search to find what material is available.

The Forest Products Laboratory (FPL), part of the U.S. Department of Agriculture, has published a large number of reports and technical notes on the topic of adhesives since it was formed in 1910. One of these, FPL Report No. 280 (April 1961), *Casein Glues*^[1], makes the following comments on the long-term characteristics of casein.

If casein-glue joints are exposed for prolonged periods to conditions that are favorable to the growth of moulds or other micro-organisms, they will fail in time. The resistance to attack by moulds can be increased by the addition of preservatives such as the chlorinated phenols, beta-naphthol, or phenyl mercury oleate. The copper salts in

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formula probably act to inhibit the development of micro-organisms. Tests have been developed to evaluate the effectiveness of preservatives in casein glues, and these tests have been incorporated in specifications for mould-resistant casein glues.

While the addition of suitable preservatives increases the resistance of casein glues to micro-organisms, no casein-glue formula has been developed that is completely proof against destruction by these agents.

Casein-glue joints can be expected to prove permanently durable, therefore, only if the moisture content of the wood does not exceed about 18 to 20 percent for prolonged or repeated periods.

The Civil Aviation Safety Authority (CASA) of the Australian Government more recently (2005) examined the characteristics of casein glue. Here are some comments from the CASA Airworthiness Bulletin 02-011 [2]. Casein has been widely used in the past. However, casein is made from milk proteins susceptible to attack by micro-organisms if the moisture content of the wood and adhesive is above 18%. The joints do not degrade instantaneously when wet, but the amount of degradation is proportional to the time the joint is allowed to remain moist. Casein has many advantages as an adhesive, such as long pot life and setting at a low temperature. Modern casein formulations containing fungicide may be an acceptable aircraft adhesive.

From these and other sources, it is interesting that the greatest degradation in the glue joint comes from prolonged or repeated exposure to moisture content at or above 18 percent. A single exposure, even complete immersion, has little effect on joint strength, assuming that the pieces are thoroughly dried shortly after the immersion. An example of this is a Hütter H-17 glider piloted by Theo Heimgartner that landed in the Zurichsee on May 14, 1939. It was reported that the glider was thoroughly dried after this water landing and was flown again.



Photo via Klaus Heyn and originally published in Swiss Aero Revue

A second example comes from flying off the sand dunes along the shore of Lake Michigan. On at least one flight, the Wolf glider, D-Chicago, owned by Joseph Steinhäuser, landed in Lake Michigan. It was recovered from the lake, tipped onto its nose to dry out, and returned to flight the next day. This was captured in the accompanying photos.



Photo via Joe Steinhäuser



Photo via Joe Steinhäuser

FPL Report 1050 (September 1934), *Behavior of Casein and Blood Glue Joints under Different Conditions of Exposure* by Don Brouse^[3], shows that casein joints subjected to high relative humidity, either continuously or repeatedly, can drop to 25 percent of original strength in 6 months or less. However it can take two years of constant immersion to drop to 25 percent of the original strength.

FPL Technical Bulletin 205 (October 1930), *Gluing Wood in Aircraft Manufacture* by T.R. Truax^[4], has many good illustrations of aircraft components during construction. But another major element was a discussion on the durability of the glue joints. The following two paragraphs and figure from this report support the other reports of that time. In addition, they relate the moisture content within a wood sample to the relative humidity in the environment.

DURABILITY OF AIRCRAFT GLUES.

None of the glues in practical use at present can be expected to form permanent joints in aircraft parts that are subject to prolonged saturation with water, such as seaplane hulls and floats, unless the glues or joints are especially treated. Even the most water-resistant blood-albumin or casein-glued joints, which show a strength when first saturated with water of 25 to nearly 100 percent of their dry strength, fail completely when exposed without protection for a long time to free water or to extremely high atmospheric humidities. Failure in such cases is apparently caused by chemical decomposition of the glue or by its deterioration from the action of fungi and bacteria or perhaps both. Furthermore, unprotected water-resistant joints, which are known to withstand a limited number of soaking periods of several days each followed by drying out without seriously affecting their strength, fail eventually if subjected to a long series of large moisture changes by alternate wetting and drying. Under such cyclic conditions mechanical failure may be a factor in the breakdown of the joints in addition to chemical decomposition or the action of fungi.

Casein and blood-albumin glues, or even high-grade animal glues, do not deteriorate under conditions that produce about 12 per cent moisture content in wood, which is close to the average found in a survey of aircraft stations. At such a moisture content, which is considered fairly representative, well-made joints of properly constructed members may reasonably be expected to remain permanent with only ordinary protection. Glue failures, however, are reported to occur in parts of aircraft under unusually adverse service conditions, where the moisture content of the wood undoubtedly exceeds the 12 per cent average considerably. Adequate data are not available for determining the exact critical moisture content at which casein or blood-albumin glues retain their strengths permanently and above which deterioration sets in. The available data indicate, however, that the critical range of moisture content is within 15 to 20 per cent for wood. Wood subjected to relative humidities of approximately 75 to 85 per cent and to a temperature of 70° F (21° C) takes on an equilibrium moisture content within this range. (Fig. 1.) Under conditions where the wood retains 20 per cent or more moisture there is no positive assurance of the permanence of glues without special treatment.

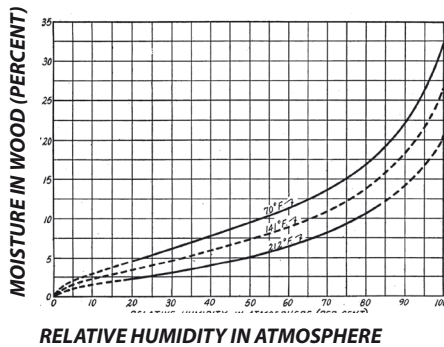


FIG 1 - Relation of the equilibrium moisture content of wood to the relative humidity of the surrounding atmosphere at three temperatures

This shows that aircraft without special surface treatments should not be stored where relative humidities are above 70-75% at 70° F (21° C). To do so would likely cause glue failure.

It is also clear that aircraft, regardless of glue type, should not be stored where condensation causes moisture levels to be high, particularly if droplets form on the structure. This moisture could be detrimental to not only the glue, but also the surrounding wood.

There were also comments in FPL Technical Bulletin 205^[4] about methods to increase the durability of glued joints.

INCREASING THE DURABILITY OF GLUED JOINTS

As a result of research work at the Forest Products Laboratory special treatments of glues and joints have been discovered that materially increase the durability of glued joints under severe exposure. The special treatments were of three general kinds; namely, (1) addition of preservative materials to the glues before making the joints; (2) preservative treatment of plywood that had been glue with untreated glues; and (3) treatment of glues before making joints, followed by the application to the glued joints of aluminum powder in spar varnish, which is an effective moisture-excluding coating.

The combination of preservatives in the glue along with a moisture-resistant varnish was presented as a means to 'materially increase the durability of glued joints under severe exposure.' Clearly, this would also improve the behavior under less severe conditions.

Paint is also referenced in CASA Airworthiness Bulletin 02-011^[2] (where MC means moisture content):

In general, wood will not crack or rot once dried to a suitable MC provided it is protected by paint externally and good quality

spar varnish or epoxy varnish applied to internal structure surfaces to slow down the rate of change of MC.

So both wood and the glue joint may be protected by a good spar or epoxy varnish. There is limited information in the past 40 years on the aging of aircraft wood glue, and most of this focuses on the resin glues that were used post-war. Ulrich Müller published an article in the journal *Wood Research* in 2004^[5]. It has a single example where a casein glue joint was tested. An Information Paper from the Building Research Establishment (BRE) in 1984^[6] also contains a single data point. The information generated in these articles confirms the same conclusions that were presented back in the 1930's; casein that is kept dry provides very good glue joints.

Another item should be mentioned about casein glue joints. Hans Jacobs noted in *Werkstattpraxis*^[7] that when repairing a glider piece that contained a casein joint, Kaurit may not be used, since the alkaline characteristics that remain in the wood from a casein joint can inhibit the acid from properly curing the Kaurit. However, casein may be utilised to repair structure previously glued with resin glues. I have not found any reference to repairing a casein joint with other glues, such as resorcinol or epoxy, so test samples would be prudent before proceeding with repairs using those glues.

So how do the government authorities deal with casein glue? Chapter 6 of the *FAA Aviation Maintenance Technician Handbook* discusses Aircraft Wood and Structural Repair^[8]. It makes the following comment about casein glue:

Casein glue should be considered obsolete for all aircraft repairs. The adhesive deteriorates when exposed to moisture and temperature variations that are part of the normal operating environment of any aircraft.

It further suggests that resorcinol or an appropriate epoxy should be utilised for aircraft joints. It also provides details on how to prepare the wood and then make and test a joint.

The Australian authority, CASA, has taken a different position. Instead it states in *Airworthiness Bulletin 02-011*^[2]:

Modern casein formulations containing fungicide may be an acceptable aircraft adhesive.

The British Gliding Association* (BGA) leaflet AMP 4-4,^[9] discusses inspection and repair of wooden structure (see below). The following sentence describes their position, which does not define a specific solution. [*it should be noted that the BGA is not

an official Governing Body and has been delegated administrative self-regulation of gliding within the Governing UK CAA framework. Ed].

Major repairs, which includes all repairs which affect the structural integrity of the glider, are to be supervised and certified by a BGA Senior Inspector.

So these Airworthiness Authorities are not in total agreement, but it is evident from research and common practices of a prior era, that casein was an excellent choice to assemble early aircraft. It remains a good choice for glue repairs to the older vintage gliders. It is best if the glue includes an anti-fungal additive and is further protected from moisture with a varnish coating. If casein glue joints are protected from moisture and microbes (and hopefully the wood is protected as well), the structure of an early vintage glider may be kept airworthy.

Neal Pfeiffer 2016

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1. *Casein Glues: Their Manufacture, Preparation, and Application (Information Reviewed and Re-affirmed), Report No. 280, Forest Products Laboratory, US Dept. of Agriculture, April 1961.*
2. *Timber, Plywood and Adhesives for Aircraft Use, Airworthiness Bulletin 02-011, Australian Government Civil Aviation Safety Authority, 26 October 2005.*
3. *Behavior of Casein and Blood Glue Joints under Different Conditions of Exposure, Don Brouse, Report No. 1050, Forest Products Laboratory, US Dept. of Agriculture, September 1934.*
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5. *Durability of Wood Adhesives in 50 year old Aircraft and Glider Constructions, Ulrich Müller, Helmut Müller, & Alfred Teischinger, article in Wood Research, January 2004*
6. *Ageing of Wood Adhesives - Loss in Strength with Time, Rodwell, Building Research Establishment (BRE) Information Paper 8/84, Reproduced for the information of members of The Vintage Club (VGC) of Great Britain by courtesy of the Director, Building Research Establishment and by permission of the Controller of HMSO. Crown copyright. Available from the files of the Vintage Gliding Club edited and enhanced by Vince Cockett.*
7. *Werkstattpraxis für den Bau von Gleit- und Segelflugzeugen, Hans Jacobs & Herbert Lück, Otto Maier Verlage, Ravensburg 1955.*
8. *Aviation Maintenance Technician Handbook - Airframe, FAA-H-8083-31,*
9. *Wooden Inspections, Aircraft Maintenance Procedure (AMP) 4-4, British Gliding Association (BGA), online at*

Casein Glue A working guide

Casein is made from curd from milk (when milk sours, it separates into curd and whey). The first step is to remove the fats, before the process of removing the natural acids and impurities. Whilst the highest grades of casein is not essential to make glue, a good glue should be free of insecticidal infection, be of a low fat and acid content, and free of foreign matter. Whilst casein is essentially water resistant, it should not however, be considered totally waterproof (as is extensively covered elsewhere in this article). If subjected to repeated soaking, tests have shown that casein does not generally perform as well as a strong, well-made phenol-or resorcinol-resin-glue joint or joints made with un-extended urea-resin glues.

Whilst today the chances of people utilising casein for glider production or repair is highly unlikely, there are however several considerations that need to be taken into account whilst carrying out repairs and remedial works involving casein joints. One major concern is casein glue-joints being exposed to conditions for prolonged periods that are favourable to the growth of moulds and micro-organisms.

If exposed to high levels of moisture, mould will result which will lead to the eventual breakdown of the joint as the glue itself becomes the food source (which is another reason as to why drainage holes were so important in areas of high moisture/water retention!). Despite the fact that manufacturers routinely added preservatives to act as inhibitors of micro-organisms and the completed wood structure was varnished, it will not totally eliminate mould in pro-longed conditions with high moisture.

Casein glue is easily identified by both smell and appearance. In its natural form, casein joints take the appearance of a milky-white glue, often of a thick consistency.



A sound casein joint in the GHC Viking 1. Note the glue-line in this photo still retains much of its original colour.

Photo: Colin Simpson

Today when dealing with casein, the course of time will have often altered the appearance of the glue through aging, or worse still, when repeatedly exposed by excess moisture, attacks by microbes (fungicides) which may eventually devour the glue, often leaving only either a brown stain or white residue where the glue once was (as indicated in the attached photos).



Close up of a nose-rib casein joint that has totally broken down on the 1935 prototype Kite 1.

Photo: David Underwood



Prototype Kite 1. Nose rib with major breakdown of casein glued joint. Note the remains of the white fungus residue

Photo: David Underwood

Glues that have been exposed to repeated high levels of moisture and have broken down, can give off a strong distinctive smell, much like that of a strong cheese, or as many will often refer to, as smelling a bit like 'cats pee' and should be considered as an early marker of more serious problems within.



Prototype Kite 1. Stub-spar webbing showing completely failed joints with soldiers removed. Note the 'brown tinged areas' around where the actual joint was originally clamped under pressure. Photo: David Underwood

Despite casein's obvious limitations as a natural glue, many myths over recent decades have manifested over the integrity of casein glues, much of which, has been largely unsubstantiated and in some cases, has done harm to the reputation of well-maintained and stored casein airframes. A well-prepared casein powder, mixed correctly (with water) and applied in the recommended manner (taking particular note to the shelf life of the mixed glue, typically measured in hours) and correct clamping pressures, produces an excellent long-term joint in sheer that is stronger than the wood itself. Adding water as an extender to already mixed glue (which was a common practice in general carpentry shops in years gone by) should be avoided at all costs for aircraft production, as this can weaken the resulting joint.

Contrary to more dismissive modern day beliefs, casein has proven to have good aging and good gap-filling properties (>1mm) however, especially when compared to gap-filling urea-formaldehyde (UF) thick glue-lines (Ref: Müller^[5]), with up to 50% higher strength levels being recorded in some samples. RAKNES (1997) concluded that casein glues retained their dry strength better than gap filling UF adhesives after natural and accelerated aging, because moisture and heat 'plasticise' the glue. This will give better stress relaxation and better load distribution compared to UF adhesives.



An example of good longevity. Note the soundness of the joints in this 1917 Bristol F2b box-spar. Photo: David Underwood

CLUB NEWS

So what are the practical things to keep in mind when dealing with casein? Casein has been around since the ancient Egyptians. Being the best performing glue of the time, it was a natural choice for manufacturers with the advent of aviation. Casein was commonly used up to, and the immediate years after WW2. Notably, the Polish manufacturer, SZD, who used casein right up to the construction of the Jaskolka, with the first non-casein SZD product being the SZD 22, Mucha Standard in 1958 (SAN used casein up until 1963 in the production of the Jodel).

One major consideration when carrying out repairs with casein-glued gliders/aircraft, is that the glue has high levels of alkalinity through aqueous alkaline solvents in the production process of casein. These levels of alkalinity can have significant effects on the curing of acid based glues such as Aerolite and can render the resulting new joint as virtually useless due to the reduction of the hardeners acidity by the

residual alkaline of casein. Therefore careful preparation of casein joints need to be considered when using acid based glues for repairs.

The BGA publication, *'Standard Repairs to Gliders'*, outlines the preparation of old casein joints by first instructing the cleaning of all remnants of the glue, before liberally painting the immediate area of both surfaces to be glued with aerolite acid hardener and allowing to dry. Repeat the process of painting the surfaces with acid hardener, which should have by now, removed any traces of residual alkalinity in the immediate area requiring re-gluing. This process MUST be adhered to religiously when utilising repairs with acid based glues and must be carried out under the supervision of suitably qualified personal.

So in a final summery, Casein can be expected to prove permanently durable if the airframe has been stored correctly and the moisture content of the wood has

not been exposed to prolong or repeated periods of high moisture. History and rigorous testing has proved that casein is a trusted and proven glue over the longer term, however like all glues, its limitations must also be acknowledged and acted upon through thorough and sound inspection/repair techniques.



*Well-preserved casein glue joints on a pre-war Slingsby Dagling wing rib.
Photo: David Underwood*

Bruce Stephenson 2016

2016 Vintage Rally Dates

20/04/2016 - 23/04/2016	AERO	Germany
29/04/2016 - 01/05/2016	Spring bungeeing Rana 2016	Czech Republic
30/04/2016 - 01/05/2016	4th VGC Season Opening	Germany
30/04/2016 - 02/05/2016	Haddenham Vintage Rally	UK
06/05/2016 - 07/05/2016	Eastern Vintage/Classic Regatta	USA
12/05/2016 - 19/05/2016	37th Grunau Baby Meeting	Poland
17/05/2016 - 21/05/2016	10th International Continental Slingsby Rally	Germany
21/05/2016 - 29/05/2016	UK National Rally 2016	UK
21/05/2016 - 29/05/2016	CPZ Sohaj Contest	Czech Republic
26/05/2016 - 29/05/2016	33rd Internationales Spatzentreffen	Germany
27/05/2016 - 30/05/2016	Western Vintage/Classic Regatta	USA
03/06/2016 - 05/06/2016	1st Nastätten Slingsby Meeting	Germany
16/06/2016 - 19/06/2016	Midwest Vintage/Classic Regatta	USA
17/06/2016 - 25/06/2016	21st Camphill Vintage Rally/6th Capstan Reunion	UK
17/06/2016 - 25/06/2016	CVNE Enemonzo	Italy
02/07/2016 - 04/07/2016	Vintage/Classic Regatta	USA

UPCOMING EVENTS

02/07/2016 - 03/07/2016	Holzoldtimer-Treffen	Germany
09/07/2016 - 16/07/2016	6 th International Vintage Sailplane Meet (IVSM)	USA
09/07/2016 - 16/07/2016	Wenlock Olympian Gliding Games	UK
09/07/2016 - 16/07/2016	Bicester Gliding Club Vintage Rally	UK
16/07/2016 - 24/07/2016	23 rd Czech National Vintage Glider Rally	Czech Republic
18/07/2016 - 23/07/2016	VGC Rendezvous 2016	Finland
25/07/2016 - 04/08/2016	44 th VGC International Rally 2016	Finland
30/07/2016 - 06/08/2016	Concours international des Cent Châteaux	France
30/07/2016 - 31/07/2016	Spanish Vintage Glider Rally, Santo Tome del Puerto	Spain
12/08/2016 - 20/08/2016	2 nd Vintage Oldtimer Pribina Star	Slovakia
13/08/2016 - 21/08/2016	15 th HOP, Old timer gliders (Orlik, Foka, Ka6 etc.) contest	Czech Republic
13/08/2016 - 21/08/2016	Lasham Vintage Task Week	UK
26/08/2016 - 28/08/2016	20 th Kleines Segelflugzeug-Oldtimertreffen	Germany
27/08/2016 - 04/09/2016	Slingsby Rally & Vintage Rally	UK
03/09/2016 - 05/09/2016	Experimental Soaring Association Western Workshop/ Vintage Sailplane Meet	USA
10/09/2016 - 11/09/2016	Whispering Wardrobes	UK
17/09/2016 - 18/09/2016	13 th VGC Season Closing	Germany
22/09/2016 - 25/09/2016	Great Plains Vintage/Classic Regatta	USA
23/09/2016 - 25/09/2016	Autumn Rana hill slope-soaring	Czech Republic
01/10/2016 - 01/10/2016	Annual Dinner 2016	Germany
08/10/2016 - 09/10/2016	Massey Vintage/ Classic Rally	USA
29/10/2016 - 01/11/2016	Vintage Rally at Bacchus Marsh	Australia

Andrew Jarvis

2016 VGC National Rally Update

Saturday 21st May to Sunday 29th May 2016

Why not join us for a fun filled week of flying and events in one of England's most historical regions?

With the Rally opening on the 21st, we plan evenings complete with live bands, Real Ale, and that obscure ancient Kentish

Game, 'Bat and Ball' (thought to be the origin of cricket, but with more beer!).

Added to the fun will be a quiz night and on a more serious level, an evening of discussions about Vintage Gliding entitled, 'Why Vintage?'

With Challock (KGC) being located close

to the ferry ports of Dover and Folkestone, we are perfectly located for those maybe contemplating popping across the ditch for some English hospitality and fun!

With Kent's rich and historical role in English history, we are perfectly placed to step back in time, with Canterbury, Dover and Hastings

UPCOMING EVENTS

all being close by, not to mention being in the traditional home of English ale (and have many historical aviation attractions nearby). So what are you waiting for? Get those CofA's out of the way and register your entry by calling the Kent Gliding Club on **01233 740274** today!



The beautiful setting of the Kent Gliding Club from the serene comfort of a flying sofa; the lovable T21!
Photo: via Bob Lloyd

Meanwhile if you feel the need for more variety in the rally calendar, then how about this?

Vintage Glider Club
UK National Rally
2016

Saturday 21st May to Sunday 29th May
Kent Gliding Club
Ashford Kent

Ridge and thermal site situated on top of the North Downs
Winch & Aerotow

Clubhouse accommodation Camping and touring caravan facilities available Restaurant and bar	Rally Fee £6 per day, maximum charge £36 Entertainments program
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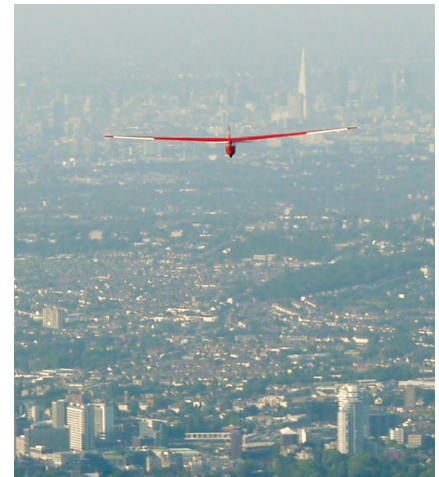
Visitors are welcome to stay for the Bank Holiday Monday

Contact Kent Gliding Club
Tel: 01233 740274
e-mail: soaring@kent-gliding-club.co.uk
Contact Bob Lloyd
Tel: 01622 880282/07721 500611
e-mail: bob.lloyd@btinternet.com

Andrew Jarvis, our UK Rally Coordinator, is excited to announce a 'midweek mini-rally' at the historic site of Kenley. This remarkable airfield is today home to Surrey Hills Gliding Club.

Billed as the 'London Skyline Rally', the event will take place from Monday 6 June to Thursday, 9 June (or till Friday the 10th if conditions permit).

Kenley provides a unique time-warp flying experience: a former front-line Battle of Britain airfield (still under MoD ownership), with tarmac runways, beautifully located on the North Downs, but almost hidden in leafy suburbia. There is an excellent Skylaunch winch, and from the maximum permitted 2000 feet QFE, the whole of Greater London is visible. A cross-country goal is the Crystal Palace masts, with the odd recreation ground as landing option! I haven't yet experienced this, but wafting over the streetlights in a T21



Suburban adventure! The unique experience of flying to the backdrop of London's iconic skyline.
Photo: via Steve Codd

will also be quite an experience! For more details, contact Surrey Hills GC on **020 8763 0091** (The CFI is Steve Codd). If bringing a trailer, take great care- the turning is easily missed. Looking ahead with yet more exciting British rally news is the National Rally for 2017 (May 20th- 28th) will be hosted by the Cotswold GC at Aston Down. Under the expert chairmanship of David Roberts, it promises to be a memorable event, with superb gliding opportunities. More information will follow in coming issues of VGC News, so stay tuned!

Vesa Airaksinen

2016 VGC Int. Finnish Rally Update



The 44th VGC International Glider Rally takes place 24/7 - 4/8 2016 at Räyskälä airfield, Finland.

This event will be organised by Oldtimers Finland, together with the Räyskälä Foundation and Turun Lentokerho from Oripää.

During the Rally, vintage hobbyists get together, flying their old gliders, some of which date back to the thirties.

The organisers expect 50-60 gliders from abroad, accompanied by some 300 pilots and their assistants. Prior to the Rally

a Rendveouz Rally will be held in Oripää. During this get-together, foreign pilots will be able to familiarise themselves with Finnish flying conditions.

Whilst restoring vintage gliders has been a popular hobby and pastime in Europe for

UPCOMING EVENTS

many years, here in Finland our focus was not officially established until 2007, with the foundation of 'Oldtimer Finland'. We now own and operate the Finnish glider, the PIK-5, designed and built in Finland in 1957. This and many other magnificent gliders like the PIK-16 Vasama, can be admired and will be seen flying at our unique VGC International Rally in Räyskälä. The event will be open to all interested visitors, who are invited to join in on the fun at both Räyskälä and Oripää.

The web page is available now for registration and has updated information regarding the gliders for rent and further

development of the venue, so please, a message to all our dear VGC friends, register as early as possible to allow us to organise one of your most unforgettable flying experiences in the 'Country of a thousand Thermals'!

For more information, visit our website at: www.rayskala.fi

The PIK-5, OH-139 on tow over some of our unique Finnish landscape.

Photo via Vesa Airaksinen



2016 VGC Annual Dinner 1/10/2016

Don't forget to book your place to join us for the 2016 VGC Annual dinner at the famous Restaurant of the Zeppelin Museum at Friedrichshafen. (See issue 145 for more details).

Spaces are limited, so book early folks! Please contact Gere Tischler: gerhard.tischler@gmx.de or telephone: **+49 173 84 89 582**



The stunning Bauhaus designed Zeppelin Museum.

Photo via Gere Tischler

AERO Friedrichshafen 2016

Mittwoch, 20. – Samstag 23. April, 2016

Eine kurze Erinnerung an die diesjährige AERO in Friedrichshafen!

Auch in diesem Jahr ist der VGC mit Gere Tischler und seinem Team von Freiwilligen präsent, wie gewohnt in der Halle B4. Das diesjährige Motto: Flugzeuge von Rudolf Kaiser. Wenn Ihr die AERO besucht, vergesst nicht, vorbeizuschauen – für ein Gespräch mit dem Team und um die Ausstellung zu bewundern.



Wie schon in den vergangenen Jahren hat dieses Aktion dem VGC und seinen Zielen viel Aufmerksamkeit gebracht. Zudem konnten dort viele neue Mitglieder gewonnen werden. In VGC News 147 werden wir ausführlich von dem Ereignis berichten.

Wednesday 20th - Saturday 23rd of April, 2016.

Just a quick update on this year's AERO at Friedrichshafen folks!

Again the VGC will be attending under the expert guidance of Gere Tischler and his German VGC team of volunteers, with this year's theme being gliders designed by Rudolf Kaiser. Again housed in hall B4, if you are visiting this year's AERO, be sure you drop by for a warm welcome and chat to the team, all whilst enjoying our gliding heritage.

As has been the case in recent years, this important venue has done wonders in raising public awareness to the aims of our club and has proved a useful recruiting tool for new members.



Look out for issue 147 when we will feature a full report on the event.

UPCOMING EVENTS

Win Gold at Wenlock 2016!

9-16 July 2016

An important message: Please note that there was an error of dates published on our Wenlock poster in Issue 145. The correct dates for the event are the **9th to the 16th July 2016**. We would like to apologise for any confusion or inconvenience. The Midland Gliding Club is proud to be the only club in the world to host an Olympian Gliding Competition in association with the Wenlock Olympian Society. Much Wenlock Games was the forerunner of the modern Olympic Games. The competition is open to all wooden and fabric covered

gliders and tasks are set to give all of them a chance of winning a Gold, Silver or Bronze Olympian medal as well as daily prizes. There is always a chance of ridge tasks, wave and of course bungee launching, as well as winch and aerotow. To reserve your place, go to our website at: www.olympiangliding.co.uk or call **01588 650206** for more details.

Wenlock Olympian Gliding Games
9 July to 16 July 2016
 Midland Gliding Club
 Long Mynd, Shropshire



Jim Short

IVSM 2016 July 9 – July 16

2016 Pilot Information

Final preparations are underway for this year's IVSM, so here's a short update on our last report. For those wishing to visit and fly solo from outside the United States, you are advised that specific FAA rules apply for pilots wishing to obtain a US pilot certificate on the basis of their foreign license under the provisions of 14 CFR Part 61 (FAR 61.75) to

fly an American registered glider. As time is now running out, if you wish to apply for your foreign verification, you are urged to contact the IVSM team now for more details. Contact: mary@soaringmuseum.org for a copy of this procedure. For help getting started, contact Jim Short at **+(708) 624-3576** or email: simajim121@gmail.com.

Please note that this process takes up to 90 days, so please apply as soon as possible. If you are unsure of what you need, please contact Jim Short for more information. For more information on the 2016 IVSM in general, go to the VSA website at: www.vintagesailplane.org/ivsm
Jim Short, President VSA

International Vintage Sailplane Meet Harris Hill July 9-16, 2016

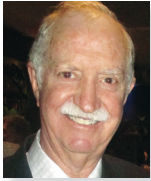


Hosted with the National Soaring Museum and Harris Hill Soaring Corporation

The Vintage Sailplane Association
 Join us -- www.vintagesailplane.org



RALLY REPORTS



Correspondent:
David Goldsmith
Contact:
Aus@vgc-news.com

Rob Benton

Bordertown Vintage Rally

Jan 9-16



The 2016 Bordertown crowd. Photo: Detlev Reuff

Another successful gathering, thanks to the Bordertown Keith Gliding Club, and particularly JR (John Marshall), VGA President and his club-mates, who ran the winches and also did a splendid job with catering. Thank you all.

Flying was logged on 5 days, most of it locally. Although it was a bit difficult to get away, a wonderful exception was Jenne Goldsmith flying her Ka6E back to Bacchus Marsh on Sunday 17, which was at the end of the Rally. This was about a 400km trip. Pretty special indeed, but more about that later.

Vintage gliders in attendance were: John Ingram with his K7, Dave and Jenne Goldsmith with their Ka6E, Bob Hickman with his Boomerang, Mike Renahan (Rena) with Boomerang, Peter Raphael with his Cherokee, JR with the Olympia, Rob Benton with his K6CR and Kim Van Wessem with his Cherokee.

Day 1, Rob and Rena got away from winch launches, each for 2-3 hrs of local probing, and both scoring about 80km on the OLC. Rob had a launch with a newly made cabriolet (open) cockpit in his Ka6, and found it... well different (flying with goggles, maybe?). Anyway the cockpit was swapped back to the normal one for subsequent flights.

Day 2 saw limited vintage flying due to the wind. Dave Goldsmith climbed away downwind and successfully pushed back to the field, scoring 54 OLC km's in a couple of

hours. John Ingram took a launch in the K7 and for the second year running, had to land in an adjacent paddock!

Day 3 looked more promising and saw David Howse arrive with his gorgeous Super Cub to tow. Bob Hickman and Rob Benton both flew notable flights, with Bob finishing with 291 OLC km/s, compared to Rob's 262km. This gave Bob the award for handicapped best distance flown at the Rally. Jenne Goldsmith, despite a late start, scored 139km and climbed to 8400ft. To show that the thermals were working well, David Howse thermalled his Super Cub for 20min at idle. Most impressive! At the prize giving this was recognised as the best flight by a 2-seater.

The next two days were blown-out. Really blown-out, with a gust of 38 kt's being recorded.

Friday was another soarable day with Bob, Rob, Rena, and Jenne flying some respectable flights of around 100km. Saturday saw some flying, packing-up, farewell dinner, and guest speaker. Pretty much everyone had a flight with 6000' feet being

achievable. Ged Terry had the Boomerang up and away, as did Peter Raphael in the Cherokee. John Ingram flew his K7, with Jeff Watson, and Rob Benton. During this event, Keith Willis recorded his 500th, five hour flight. Quite amazing! We had a great crowd for the farewell dinner, and our guest speaker, Marion McCall, gave a very interesting talk.

Sunday, after packing and hooking up for the long drive home, I was aware that Jenne was still rigged. I had heard a rumour that she hoped to fly back to Bacchus Marsh, a flight of about 400km. David Howse delayed his Super Cub departure to give her an aero-tow, whilst Peter Raphael joined the ground convoy. She only went and DID it, covering 403km and reaching 10,585 feet along the way! This sets a mark for next year's award for the best distance flown between rallies straight away. Maybe they will not have to shift the trophy far, as her husband Dave, currently holds it! So that was our Bordertown Vintage Rally for 2016. Next year's Rally is scheduled from 08-15 January 2017.



Ka6E, Cherokee and Boomerang.
Photo: Dave Goldsmith



JR presents the Concours d'élégance award to Peter Raphael for the restoration of his Cherokee II. Photo: Kim Van Wessem

RALLY REPORTS



David Goldsmith

Hunter Valley Gliding Club Easter Vintage Rally 2016

Although the Hunter Valley Gliding Club in Warkworth, New South Wales have run Easter Vintage Rallies since 2011, vintage flying is not new to this club. This year's rally began on Good Friday, 25th March, with some light rain forecast to clear during the day. Joining the usual 'fantastic-plastic' club and private fleet, were Peter and Helen Raphael's Cherokee, the two Cobras belonging to Phillip Brown and John Zoanetti, the Central Coast Gliding Club's Ka13, John McCorquodale, Rob Moffat and Arie van Spronssen, Ka7, Peter Rundle, SF-27M, Boris Jovanovic, Pilatus B4 and Dave and Jenne Goldsmith's Ka6E.

The friendly and enthusiastic club members made welcome the visiting pilots and crew, some as far away as Melbourne. Good Friday's patchy weather allowed only seven flights overall, including 50min in the SF-27 and 17min in the K7. However the next 3 days delivered 33 vintage flights, with the flying continuing for the remainder of the week with only two days lost due to weather. During the rally many enjoyed long flights and thermals as high as 8,000 feet, providing good distance flights for those venturing cross-country; the longest was 242km by Peter in the SF-27M.



Vast Australian skies...Phillip Brown makes it look so easy in his sleek Cobra.

A number of notable events added to the fun and festivities, including the Cabriole canopy on the ASK-13, the two Cobras sharing the sky together, John's out-landing on a scenic flight in the K7 with an attractive younger woman aboard, and a variety of other birds also sharing the sky to higher altitudes, all quite comfortable when formatting on the wood and fabric interlopers. The slick, safe operation and smooth launching by the Pawnee pilots, not to mention the excellent facilities of the host club, were greatly appreciated, as were the meals produced by members. A big thank you and a rousing three cheers to all who assisted to make this a memorable rally!



Peter Raphael's neat little Cherokee landing in archetypical Australian setting.



The Central Coast's Ka13 is towed aloft for another adventure over Warkworth.

All photos Phillip Brown

David Goldsmith

Melbourne Cup Vintage Rally and Australian Gliding Museum Open Day

November 2015



The Annual Meeting gets under way.

The relaxed four-day weekend of the Melbourne Cup Vintage Rally again suffered the vagaries of the weather, with rain and wind permitting flying only on the Tuesday. However Sunday's Museum Open Day was again very well attended and we managed some great open-cockpit flying in the Slingsby T31-B on the Tuesday.

Annual General Meeting 2015

The Museum program included acceptance of Australia's oldest regularly flown sailplane to the Museum's exhibits, with Alan Patching donating the famous 'Golden Eagle'. Built by a young Geoff Richardson and first flown in September 1937, the yellow and white gull-winged glider looked magnificent.

RALLY REPORTS



Chris Richardson and Alan Patching (seated) are photographed by 'Scoop' (Renee Robinson).



Some added colour to the launch-point!

Many Museum members and supporters attended the Annual General Meeting and barbeque lunch. The Museum continues to make excellent progress, having covered the area between our hangars and installed an 11 by 4 metre spray-booth. The glider collection continues to grow, now with 60 gliders in our care we are among the world's largest gliding museums.

Open cockpit flying!

Tuesday the weather improved and with a light southerly breeze, operations were set up on Runway 19. Unfortunately John King, who had brought his Slingsby Dart 17R from Benalla, had to leave, so sadly missed out on flying during the Rally.

The usual white gliders on the launch-point were joined on by a bright red strutted, open cockpit two-seater Slingsby T31b, a yellow Zephyrus, a bright orange Pirat and a blue and white Boomerang. Winch driver John Buchanan played the throttle like a Stradivarius to gently launch the T31, speed sitting comfortably below the maximum 48 knots to heights over 1500 feet. It was a day for the girls, as Sue Snell and Jenne Goldsmith had the longest open cockpit flight, 25 minutes, and Michelle Payne won the Melbourne Cup! Bob Hickman had the longest vintage flight, 2 hours 35 minutes in his Boomerang, while Beaufort Club pilots in Zephyrus had a number of flights, the longest

being well over an hour, and John Lawson also having some soaring in the Pirat. As far as the weather is concerned, maybe it will be better next year?

All photos David Goldsmith



Renee Robinson samples some open-cockpit flying in the T31 for good measure!



Correspondent:
Roger Brown
Contact:
Newzealand@vgc-news.com

Roger Brown

Vintage Kiwi

big Southern Adventure to Springfield and Nelson Lakes

While ago there was a bit of a discussion amongst the Vintage Kiwi (VK) team as to 'where to from here' as far as Rally venues were concerned. By tradition we have generally chosen to go to both Taupo and Inglewood in the North Island and support those two clubs, but it was felt it was now time for a change. Taumararui in the North Island's King Country, was one of the chosen possibilities and that's where Vintage Kiwi went last year in February 2015, which made for our highest attended rally ever. So then why not now go ahead and plan for a Vintage Kiwi southern assault to the

South Island of New Zealand (which had been the second destination chosen back in 2015). If the English can 'pop across the channel' to attend and fly in Vintage Rallies in all parts of Europe, why can't we just pop cross our Cook Strait and do a similar 'mass invasion' to meet up and fly with some of our South Island members? And so we did just that. The plan was to spend nine days at Springfield (Christchurch) and a further five days flying at Nelson Lakes on the way home for those who wished to do so. Seven gliders from all parts of the North Island, all securely tucked up in their trailers, decided to make the big journey



Our motley crew brave the high seas in comfort!

south. Not since the 1970's very active competition scene, that so many gliders had journeyed en-mass from the North Island down to the South Island before.

RALLY REPORTS



Rae Kerr with the 'Vintage Kiwi' syndicated Ka8.



Trailer secure... southern style!

Our host club for the first nine days was the Canterbury Gliding Club, who are based at their Springfield property which is a drive of about 45 minutes from Christchurch, towards the mountains and the west coast of the South Island. Several of their senior members took a week away from work and family to support our stay with an Instructor and tow pilot on hand so that we could fly every day. Most of the VK attendees stayed in the very comfortable converted farm house that was the original residence when the land was acquired some years ago.

A meet and greet BBQ was arranged by the local club on the second evening, which really helped to set the scene for the very active flying days that were to follow. The Canterbury Gliding Club now aero tow with a couple of LSA (light sport aviation) designated aircraft, with their big powerful Piper Pawnee now having been retired and sold on. Most of the Vintage Kiwi team had never towed behind a 'microlight' before, but had no is-

suues in doing so. We all experienced their famous North-West Wave, great thermals and even a small amount of limited ridge flying as and when conditions changed. The Vintage Kiwi syndicated Ka8 landed out one day on the airstrip at Porters Pass. Some very good hours were put up by everyone with only two days lost because of weather related issues (the South Island weather gods were obviously kind to us on this trip!) During one of the non-flying days, the mountain winds turned on a spectacular display of wind gusts up to 40 knots-plus at the airfield, which required a couple of cars to be used as a wind-break to stop a tent from being bowled over by the conditions that lasted some 14 hours or so. The gliders and the trailers were very well secured [South Island style] and survived. According to some locals, maximum gusts of 50 knots were estimated. Amazing. On the last Saturday night we all went out with some of our new Canterbury friends to the local Springfield Pub for a 'bit of a ses-

sion'. The following day we reluctantly all headed off.

And so onto Nelson Lakes. This was a very scenic road journey through the mountains via the famous Lewis Pass. This being a 'winching only' club, was a good change both in venue and launching system. We flew every day out of five days, which was very satisfying for the entire VK group. Again we experienced wave, thermal and ridge soaring in a pot-pourri of conditions. We all had a number of social get-together's down at the local pub after flying, which again created a great atmosphere for the week. Nelson Lakes is a great winch site and a club well worth a visit.

The Saturday saw us all journey off to Picton and to the ferry to take us all back home to the North Island, along with some great memories. It was a big, but great scenic road trip of NZ for some and certainly with a lot of very good flying involved.

Next year? It's back to Taumarunui in the North Island it seems. However, now that Cook Straight has been 'reconquered' by the North Islanders, it will be interesting to see if we might be able to prise some of our South Island members out of the security of their mountains and join us on the 'rolling flats' of the King Country as it were.

Roger Brown
The Vintage and Classic
Glider Club of NZ Inc.
All photos: Roger Brown



The stunning scenery of the Sothern Alps... to die for!



Derry Belcher's self-built American designed Briegleb BG-12-16 against a 'big country' backdrop (this is the only example of its type in NZ)

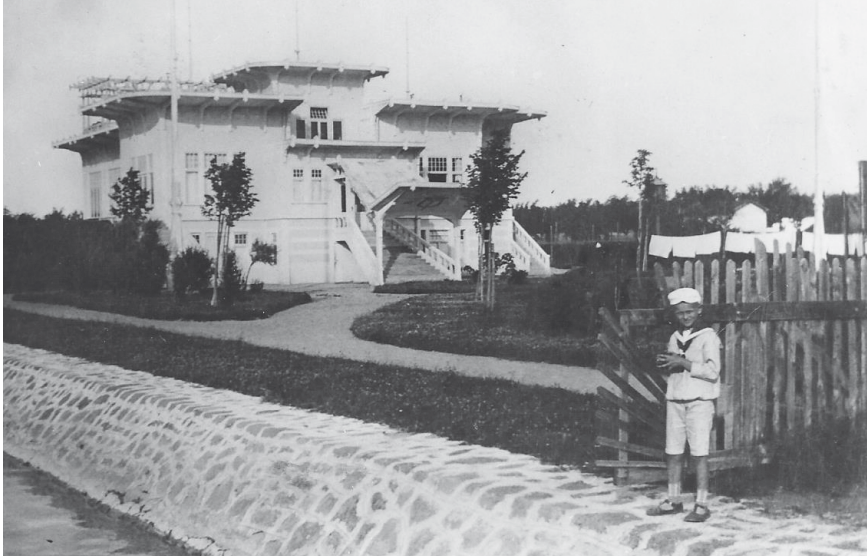


The morning after... nuff said!

WE REMEMBER

Lajos Rotter was born on the 18th of July 1901 in Budapest, Hungary, practically at the same time as the 'official' birth of aviation. His father (also Lajos), as had been as

his grandfather, were the Chief engineers of the Ganz-Danubius shipyard on the Danube, in Budapest.



My father at the age of 9 in Balatonföldvár, where I now live. The Casino building in the background is currently under restoration to its former glory. Photo: Rotter family collection

Louis (Lajos) Rotter

Lajos Rotter, a gliding Icon

There were two children, young Lajos and his sister, Margit, who was born in 1903. Their lives however were to be changed dramatically with the tragic death of their father in 1904 in an industrial accident at his workplace. With the family losing its income, future prospects did not look good during a time where there was little or no state assistance, however Lajos' mother's side of the family embraced them and they moved into a large apartment that they had in the city. As a young boy Lajos was fascinated by aeroplanes. Even as a school boy he built models of gliders based on the Wright Brothers aeroplanes. Surprisingly they flew beautifully. In 1908 Bleriot visited Budapest to give some flying demonstrations. His mother took the young Lajos on the first day and this was the first time he had seen a real aeroplane in the air. Such was the excitement, that he also visited all subsequent days of Bleriot's demonstrations, with the seed well and truly being sown. By this time he was around 12 years of age

and was keenly interested in anything that flew. He intently watched the birds circling in the summer sky, taking particular note how they didn't flap their wings. Fascinated, he would observe how they still managed to climb, noting similar observations when birds soared above ridges when the wind was blowing on to them from the valleys.

During his grammar school days, he worked during the school holidays in an aircraft factory (this was common practice during WWI in Hungary). His interest in aeroplanes soon got noticed by the works management and he was encouraged greatly in absorbing as much as possible during that summer vacation period. This included a few flights with the test pilots and from this point onwards, aeroplanes became his main line of interest during his entire life.

After grammar school he started reading Mechanical Engineering at the Technical University of Budapest. During his years at the university he studied wide aspects

of aviation utilising his command of four languages. As a student he proposed to set up an Aero Club for students with an interest in aviation and flying. The University Professors supported and approved the idea, so along with some of his fellow students, Arpad Lampich, Ernő Rubik (and others), they established the Műegyetemi Sportrepülő Klub MSrE (University Sport Flying Club) in 1921, which still exists to this day.

Even as a student he published articles in different scientific aviation reviews. His first book 'Vitorlázórepülés' (Gliding) was published by the Hungarian Aero Association. After the Ministry of Transportation's Aviation Department invited glider designs for a glider design contest in 1922, Lajos, together with a fellow student, István Ágotay, presented a design. The design was accepted. Its construction had been started at a woodwork factory, however it was never finished as the previously promised financial help did not materialise.

Lajos also got interested in the idea of an aeroplane which can take off and land without a ground run. In 1922 the Füssy Institution in Zürich offered a prize for a successful proposal for such a design. Lajos, still only a student, entered his work and won the first prize. All his ideas are included in the today's helicopters!

After the 1st World War, Hungary was in a precarious state. With the collapse of Austria-Hungarian Alliance, the Romanians were keen to ensure the success of the national aspirations of securing Transylvania in the coming Peace Conference. In April 1919, the Romanian Army was ordered to attack over the Carpathian Mountains into Transylvania.

After the Trianon agreement in 1920, Hungary lost two thirds of her territories and ordered to pay war reparations to her neighbors. The treaty was dictated by the Allies rather than negotiated, with the Hungarians having no option but to accept its terms. Thus, in the hard political environment, it made it hard to find backers for new aircraft even harder to develop new proposals.

Even before his graduation in 1923, Lajos did however manage to secure backing to establish a small workshop, through two brothers, Gyula and László Feigl. Operating under the name of FEIRO (which was an anagram of Feigl and Rotter), Lajos served as technical director and chief designer.

The Feigl brothers had come from a wealthy family and their joint aim was to develop passenger aircraft for the growing local market. Designing and building three air-

WE REMEMBER



The first of my father's designs, the Feiro 1. Photo: Rotter family collection

craft, the Feiro 1, the Dongo, and the Daru, were outstandingly advanced designs for the times. Flight magazine published a full page article with a first-angle drawing of the Feiro in 1924. The problem they had was the engines and they had to resort to second-hand stock left over from the war. For the Daru (the last of the three designs), the Feigl's bought a new Hispano engine. This four-seat cabin monoplane tail-dragger, was not that unlike in appearance and performance of the 172 Cessna of the mid-sixties. The then Hungarian military took a casual look at it, but were in reality, in the pockets of western manufacturers, so it went no further. Lajos was very bitter and openly made his views known at the time. The company failed and the aircraft were housed in a shabby shed with a leaking roof and were eventually destroyed by the weather.

By this time Lajos had two spheres of action; his professional life and his gliding activities. In the first, his engineering talents rewarded him with some leading positions in Hungarian industry, which included

abroad, promoting and supporting Hungarian gliding.

Following his gliding related activity he prepared a new glider design in 1927, however it was never built due to lack of financial, as well as 'moral' support. In 1929 the flying section of the Hungarian Nation Home Guard (Magyar Országos Védő Egyesület, or MOVERO) was formed in Farkashegy. This was the first dedicated gliding field in Hungary and was located in the vicinity of Budapest and is considered as the birthplace of gliding operations within Hungary. Lajos was a founding member and one of the leading technical experts and started gliding there the same year, gaining his 'C' badge in 1931.

He was elected into the Hungarian Aero Association as a member of the governing committee in 1928 and served as the top technical expert for the Association. Realising that without actual powered flying experience, he would find it more difficult to fully understand the challenges for the pilot, thus possibly impacting on his designs and his technical expertise. With

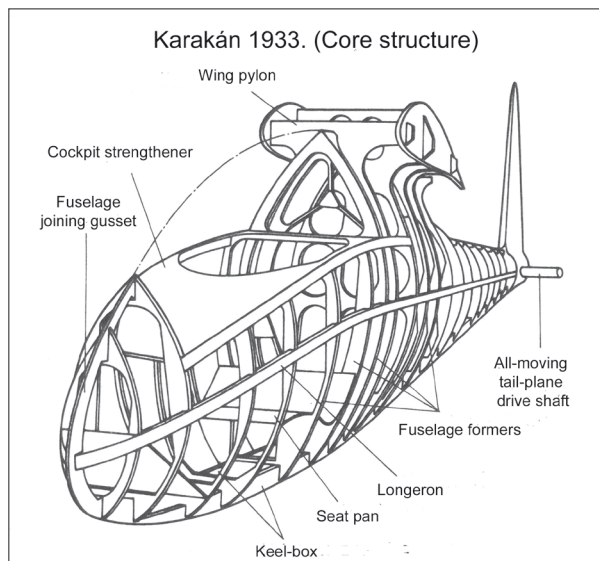
this in mind, in 1930 he gained his power license and in 1931 gained his endorsement to carry passengers.

When in 1930, ISTUS (Internationale Studienkommission für den motorlosen Flug – International Commission to study motorless Flight) was founded, he was elected as a member of its scientific committee. In the meantime, along with Frigyes Hefty Sr. (another great personality of Hungarian gliding and an experienced former WWI fighter pilot), they set out to investigate the geography around Budapest for its suitability to make more advantage of the varied wind directions. Walking around in the hills west of Budapest, the two men studied the hill formations in order to establish a suitable site for ridge soaring, one in which offered the best opportunities for the dominant wind directions, allied with suitable landing areas nearby. During their journeys, they soon realised that Hármashatárhegy (Hármashatár mountain), offered good potential to take advantage of winds from several directions. It also had offered several areas suitable for bungee-cord launch points and good landing fields, along with gentle slopes for basic training flights. At first Lajos' proposal to open up the new gliding field had not been accepted by the authorities declaring the site dangerous. However after his successful 1 hour flight in 1933, then necessary to prove that a new site was suitable for gliding, the new gliding field was finally officially accepted.

During the spring of 1933, Lajos obtained an assignment from the Hungarian Association of Boy Scouts to design a glider which would represent Hungary at the Boy Scouts' World Jamboree at Gödöllő (a village east of Budapest). The result of this assignment was the Karakán. The Karakán

first flew on August 4, 1933 with Frigyes Hefty Sr. at the controls. Next day Lajos performed a 1 hour, 2 minute flight at Gödöllő. On August 6, he made a 68km distance flight. Two days later he also achieved a new Hungarian distance record of 85km and a new Hungarian altitude gain record of 1840m.

Just before the Jamboree, Lajos organised the Air Scouts, a gliding section of the Hungarian Boy Scouts Association. After the Jamboree the wooden hangar built at Gödöllő for the

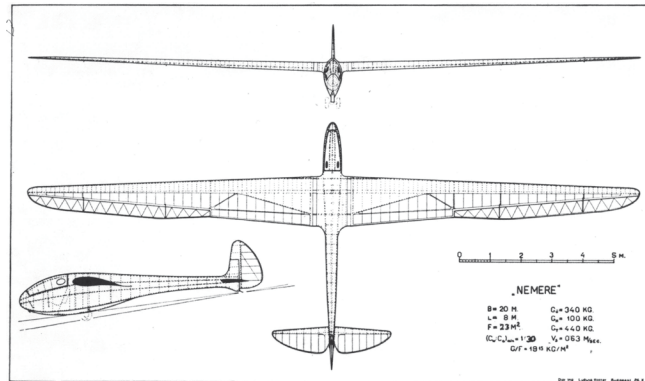


Lajos in the Karakán at the 1933 Jamboree at Gödöllő. Photo: Rotter family collection

WE REMEMBER



Single-seat training glider, the Vándor.
Photo via Gábor Fekes



times in Hungary, the Karakán was robbed to fit the Nemere with instruments.

The training flights of German and foreign pilots representing their countries were performed at Rangsdorf Field, with the official Olympic demon-

Jamboree was moved to Hámashatárhegy and re-erected there by the Air Scouts and was officially opened on January the 6th 1934.

In February 1934, Lajos gained the first Hungarian 'Silver C' badge, ISTUS number 19 (he flew the endurance leg of the badge over the slopes of Hámashatárhegy in 5 hours 3 minutes). In the same year, over the 7th and 8th of October, he flew the Karakán over the NE slope of the mountain setting a then new Hungarian duration record of 24 hours and 14 minutes. The following year he set a new Hungarian distance record of 275km, again in the Karakán, winning a complete instrument panel offered by Professor Georgii (which was a prestigious award in those days), for the most successful distance flying Hungarian glider pilot. This is how the Karakán became the first Hungarian glider fitted with instruments.

His next glider design was a collaboration with Zoltán Janka. A single-seat training glider named the 'Vándor' (Pilgrim). The Vándor was suitable for basic aerobatic flights and was built at Gyöngyös where it was initially based. Later she was moved to Gödöllő to the Ikarus Gliding School who specialised in winch launching. It was here that the Vándor was to become the first Hungarian glider to be launched utilising a car-tow launch.

In 1935 Lajos represented Hungary at the annual conference of ISTUS, which that year, was held in Berlin. During the Conference, he presented a paper on Hungarian gliding, Hungarian glider designs as well as gliding experiences and results. His presentation was illustrated with stills. In his presentation he gave account of his observations on rotor clouds on the lee side of mountains and considered the possibilities to utilising the lift in the upward side of rotors. His presentation was so successful that the conference decided to hold the next conference in Budapest the following year. Lajos went on to propose to organ-

ise a glider competition for the occasion, which was duly accepted.

The ISTUS Conference was held at Budapest between May 18 and 24, 1936, and the competition being held at Mátyásföld airfield at the same time. The German, Heini Dittmar, won the altitude gain event by 1800m, flying a Rhönsperber, the Hungarian Béla Sipos-Szabó won the duration flight event with a flight of 7 hours 9 minutes, flying a Grünau Baby, and Lajos Roter won the distance flight event, flying 138.9km in the Karakán [this meeting was also marked by Bruno Grumpert and Ignaz Stiefsohn performing the first mail flight by dual aero-tow. Ed].

1936 was the year of the Olympics. Berlin hosted the games for which the International Council of Olympics (IOC) had previously accepted gliding as a demonstration discipline. The Hungarian Aero Association impressed by Lajos' performances, asked him in early January to design a new high-performance glider which would represent Hungary at the Olympics. Lajos accepted the challenge and started to design the new glider. Named the Nemere, he turned to Béla Samu (who later became one of the top aircraft designers of Hungary), to assist him in the long task of making the drawings and calculations.

The glider was built at the Hungarian Repair Works at Székesfehérvár, a town southwest of Budapest, and had two short test flights on July the 25th 1936 with Lajos at the controls, before she was shipped to Berlin. As glider instruments were scarce during those

strations being held at Staaken Flying Field on August 4. After the demonstration flights were over, Lajos declared during the evening of August 10 at Rangsdorf, that the next day he would fly to Kiel, where Olympic sailing events were held. His declaration was received with scepticism as the forecast predicted poor gliding weather. The next day he launched by aerotow at 12:26 and releasing at 12:38, then performed the remarkable feat of piloting the Nemere to Kiel in quite a poor weather. Arriving over Kiel at an altitude of 650m he saluted the Olympic site with two loops and landed at the military airfield of Holtenau at 16:55. The distance he flew was 336.5km. This was the longest pre-declared goal flight by a sailplane [world-record], and the longest distance flight made by a glider during the whole year of 1936. He used a flying technique later called 'dolphin flying', aided by the use of the flaperon system of Nemere.

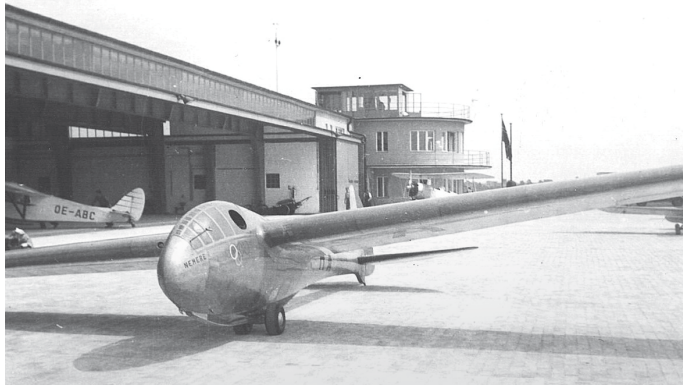
1936 was to mark another significant event in Lajos' life when he married my mother, Edith Hargitai. They went on to bring up four children, myself, born the following year in 1937 (I was known as Lajos Junior), my brother Zoltan, who was born in 1940, Ervin, 1941 and Laszlo, born in 1945.

The following year in 1937, the highest honour in gliding, the Golden Ring of ISTUS, was awarded to Lajos during the



1936 was the year my parents were married.

WE REMEMBER



The Nemere at Rangsdorf airfield, south of Berlin, during the 1936 Olympic Games. Photo: Rotter family collection

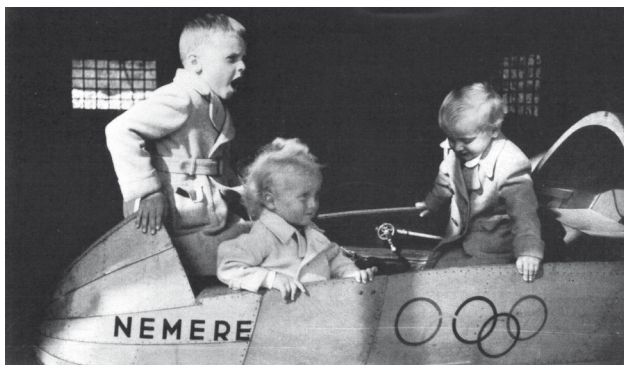


My father is greeted by officials at Holtenau, Kiel, after his epic world-record flight from Berlin. Photo: Rotter family collection

ISTUS conference held in Salzburg. This honour was awarded for outstanding performances in promoting gliding, outstanding results in scientific fields related to gliding and internationally outstanding performances. Only three people were to ever awarded the ISTUS Golden Ring, with Lajos as the first recipient. That same year Lajos was elected onto the FAI's committee of pilots. Every year one pilot with an internationally outstanding gliding performance in a glider of his own design was elected to this Committee. Subsequently the IOC's meeting held in March of 1938, at Cairo, the Council included gliding into the list of optional Olympic summer sports for future Olympic Games. A decision was later reached by FAI that all participants have to fly a common glider type the main characteristics of which were defined. Designs had been invited in the frame of a design contest and the final selection on the type was done by testing the prototypes of the entered and accepted designs at Sezze airfield in Italy between February 20 and 26. Lajos was selected into the group of six evaluation pilots. Out of the five designs submitted, it was Hans

Jacob's design, the DFS Meise that was to triumph (unfortunately WWII swept away the gliding's Olympic prospects). During the years before, and during the war, Lajos was an active glider instructor and pilot of the Air Scouts. When Hungary went to war and during the eastern campaign in 1943, the Hungarian troops 'acquired' a few Russian gliders, which included a Gn-7, five G-9's and a S-10. The high-performance Gn-7 was allocated to the Air Scouts and test flown by Lajos. The war in Europe was not yet over when Hungary's first new government entrusted him with the task to find and collect all aviation related material in the country. After the war he participated in reorganising gliding, however his actual flying career was by now practically over. He never flew gliders again in Hungary after the war. In 1947 he was elected as president of the new Gliding Club of MADISZ (Hungarian Democratic Youth Association) and as one of the top managers of the Danuvia Works (a Hungarian machine factory, where he worked from 1936), he helped the Works Aeroclub as well. Under his leadership the first aviation periodical after the war, the

'Repülés' (Flying), was published by the Gliding Club of MADISZ in 1947. With the Communist takeover after the war, all aspects of private enterprise and private flying was forced under the control of OMRE (Országos Magyar Repülő Egyesület or Hungarian National Flying Association), a newly formed organisation for all non-military gliding and flying. New management was installed, made up of virtually uneducated party activists. The club's were given communistic sounding names, but the instructors remained in place, supervised by the new Commissars. In keeping for the then Communist distrust for non-party intellectuals, Lajos was dismissed from his job as the Engineering Director of a weapons factory and relieved from all connections with flying. He did however get a job soon enough with friends, to help straighten out operations at a works badly hit by the sudden political change of key personal. The Russian Air Force had a repair workshop at Székesfehérvár airfield and was in trouble with the existing Engineering management. Lajos was summoned by them to take over the running of the place. On his first day a Rus-



Myself and siblings. Again taken at HHH during the war. Left to right, myself with my brothers Ervin and Zoltán. (I remember the Nemere very well. She was destroyed after the war as a fascist glider, still bearing various national flags on her fuselage of the nationalities of the numerous pilots whom had established records whilst flying her). Photo: Rotter family collection



The ISTUS Gold ring. Photo: Rotter family collection



1939 Olympic Sailplane selection competition at Sezze, Italy. Here my father is sitting in an Italian RUNA (Reale Unione Nazionale Aeronautica, or Royal National Aviation Association) winch car. Photo: Rotter family collection

WE REMEMBER



1933 Scout Jamboree in Gödöllő. My father is right of centre. Next to him on his left is the Hungarian explorer, László Almásy [see VGC News 137/138].
Photo: Rotter family collection

sian officer asked him if he knew anything about the Russian Mikulin aircraft engine. He said 'no', so the officer then asked, 'Do you know the RR Merlin engines?' Despite not knowing the engine, Lajos said he did. The Russian informed him that in that case, he knew the Mikulin engine too!

In 1952 the workshop was closed and all propeller driven aircraft scrapped, with jets taking over.

After he left this post in 1952 he worked for different industrial works up to his retirement. There was a period when he even worked in the design bureau of the Central Aircraft Experimental Plant, Alag (AKKÜ). He also worked at the Orion radio works, then in the National Steel and Engineering Design Office. He was also a respected and much praised lecturer at the Technical University of Budapest on precision engineering. He remained in contact with gliding and was active in different organisations promoting gliding (to name a few, the Hungarian Aeronautical Association, Aircraft Section of the Scientific Society of Mechanical Engineering, Society of Transportation Sciences, and Museum of Transportation).

Although he was forbade to glide by the communists, he frequently visited Hármasatárhegy, or as it was better known locally, HHH, along with other airfields. He



With my late wife Ann on holiday with the K-13 at West Wales gliding club in Haverford West airfield. approx. 1970. Photo: Rotter family collection



This is me aged around 5-6 years old in a Rubik designed 'Pilis' at the HHH, circa 1943.
Photo: Rotter family collection

was highly respected and liked by all in the gliding fraternity, with the exception of the assigned Commissars. When he was once confronted entering the HHH airfield and told the Commissar that he wasn't even a figment of his father's desire (or words to that effect!) when he (Lajos) established the airfield and completed his Silver C there. The Commissar turned round and just disappeared, to the delight of all the glider pilots present! He was not confronted anymore, but was still not allowed to fly. When I began gliding, he followed my progress right up until 1957.

I had grown up on gliding fields and started gliding in 1953 at Farkashegy from bungee, C-cert from winching. I had suffered a lot of humiliation from the Communists, so I hated them. In October 1956, there was a major uprising against the regime, which I took part in. In the then, Auxiliary Air Corp, which gliding belonged to, I kicked out the then chief communist, pointing a gun at his belly! When the uprising failed I was advised to escape. On the 23rd November, 1956, I walked overnight 42 kms through the frosty swamp-land under a full moon and crossed the iron curtain. With sheer luck, within a fortnight I was in London as a refugee student with a university place and a grant! I studied engineering at Birmingham and married an attractive tall



Lajos Rotter at Farnborough, circa 1970. He is on the right. Photo: Rotter family collection

student when we finished there. We had 26 wonderful years together, until Ann died of lung cancer. She sometimes complained, 'you are always off gliding, leaving me alone.' So I would reply; "so why don't you learn to glide, than we can go to the Mynd together?" She did, completing her bronze C, flying the Swallow at the Mynd.

Eventually the Communist regime allowed Lajos to visit Louis in the UK. Both Lajos and I spent all our free time together gliding on the Long Mynd. I had a K-13 syndicate and Lajos had soon been checked out by the late Jack Minshull and sent solo to enjoy the freedom of soaring the Shropshire Hills. A few years later Lajos again visited England, this time venturing to Portmoak, where he had a check flight with Anskar Sambaly and let loose to the delights of soaring the Bishop Hills. (Anskar Sambaly had been the CFI for over ten years and was an ex-Luftwaffe pilot who had been shot down over England and managed to remain in Britain after the war. The last time I saw him, he was then 91 sitting in the clubhouse enjoying a cup of tea). To my immense satisfaction, my father was present when I completed my Diamond Height flight; he was 71 by then.

Lajos' foreign gliding forays were soon to be curtailed however, when he suffered a stroke, which left his left side paralyzed. Sadly he passed away in 1983.

On August 19, 1993, a bronze bust of Lajos Rotter Sr. was unveiled at the top of Hármasatárhegy and in March 2002, his name was inducted into the National Aviation and Space Exploration Wall of Honor of the Udvar-Hazy centre at the Smithsonian in Washington, USA. This and various other Hungarian awards, cements his place in both Hungarian and European aviation history.

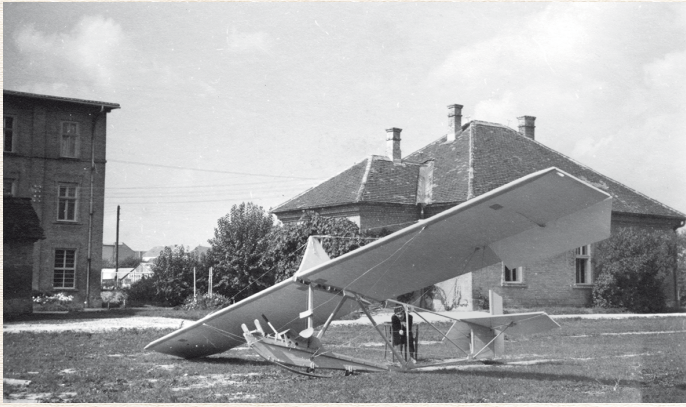
This article is based on an original article by Gábor Fekes and can be viewed at: www.gliders-fega.freeweb.hu



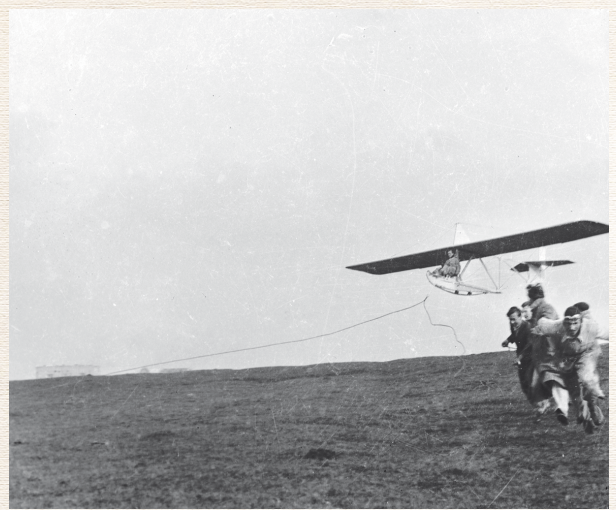
Bronze bust memorial of my father on Hármasatárhegy. Photo: Rotter family collection

Mi, galebaši' We, members of the Gull group

A PICTORIAL HISTORY (1939-1941)



Unique Zögling Z-33, the very first glider built in Zagreb. All other Zögling gliders built in Zagreb in 1939-1940 period were of the Z-35 version.



Everybody is airborne! Glider pupil and launch during a bungee launch. The first flights were carried out just to the south of the Zagreb aerodrome, at Borongaj.



Artwork of the group logo by the graphic designer, Mirko Tomas, who was a member of 'Galeb' group.



A rare in-flight photo taken by Rudolf Berkovi 'Hala' during flight in a 'Salamandra' S-12 sailplane. Several 'Galeb' (Gull) group members attended a 'C' course in Bloke, Slovenia in the summer of 1940.



Summer of 1940, Posavski Bregi, East of Zagreb, during a glider course there. Pictured here are two 'Musa Kesedija' sailplanes, a 'Salamandra' and three Zögling Z-35's standing in front of an improvised hanger.

Mi, galebaši

We, members of the Gull group

A PICTORIAL HISTORY (1939-1941)

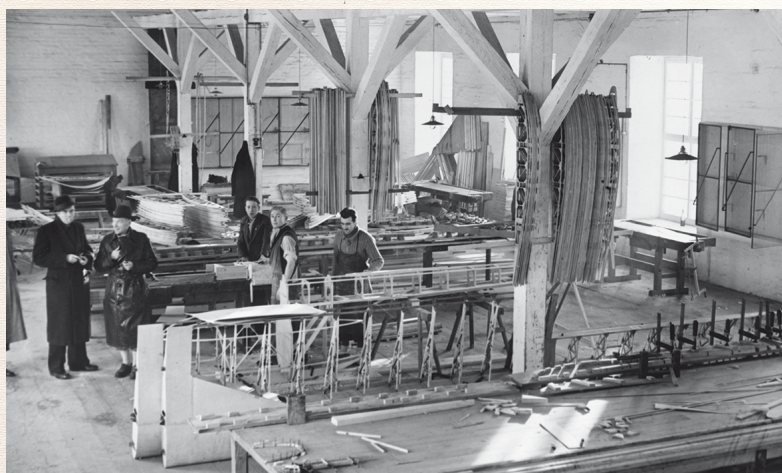


Historical flight from the top of Medvednica mountain, next to Zagreb. On August 25, 1940 the 'father' of the 'Galeb' group and chief gliding instructor, Alojz 'Lojz' Petrin is seen here waiting as the crew assemble the 'Musa Kesedija' sailplane.



Ceremony of baptising 16 new sailplanes and gliders on September 15, 1940 at Borongaj aerodrome in Zagreb. In the foreground right to left: Komar 'Vjetrogonja', Salamandra 'Galeb', two 'Musa Kesedija' sailplanes - 'Vjetar' and 'Vihor', a Salamandra 'Golub' and two Zögling Z-35 gliders.

Stanko Obad (constructor) and Milan Hetenyi (officer for gliding in Zagreb County Council of the Royal Yugoslav Aero-Club 'Na a krila' (our wings)) inspect the building of the first sailplane of the 'Musa Kesedija' type in the work shop on the first floor of the Aero-Club building. Both wings can be seen in the front and fuselage in the back.



Sailplane 'Musa Kesedija' and Zögling Z-35 glider at Sveta Nedelja, near Zagreb. The first aero-tow flights were conducted there in 1940.



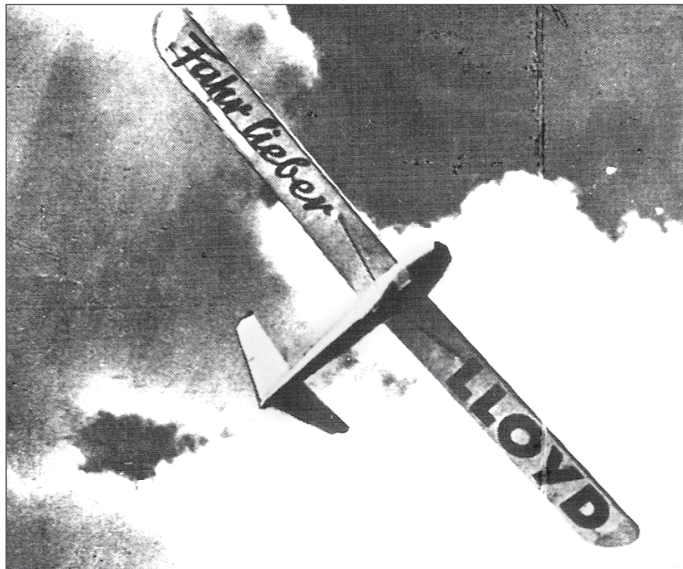
Pupils and instructors at an 'A' and 'B' course during the winter holidays of 1940/1941 at Sveta Nedelja. Pictured are gliding officer, Ivan Velikonja (standing fourth from the left) and course instructor, Alojz Petrin (standing fifth from the right).

FEATURE ARTICLE – BREMEN LANE

Ralf-Michael Hubert

Early metal

The story of how a US-German cooperation led to the creation of the first all-metal, two-place glider.



The Bremen Lane flying.



The American designer, Frank Lane.

The story of Germany's first all-metal glider is largely the result of a fortunate meeting of three people in Bremen shortly after WW2. With little or no surviving history of the glider, this little-known chapter is today an almost forgotten part of German gliding history.

In the last days of WW2, despite the continuing battle, Germany's surrender had already been agreed amongst the Allies. This was to lead to the small German State of Bremen being allocated to the United States, whilst the larger state of today's Lower Saxony, which surrounds Bremen and the city of Hamburg, would come under British control.

The main reason for Bremen going to the hands of the US was down to the small state being made up of two cities; the city of Bremen, located approximately 70km from the North Sea and Bremerhaven, which was a key harbor city with direct access to the open sea. This was of great interest to the USA as they wanted to secure a sea port to guarantee access and supply of their troops stationed in more southerly locations within Germany. This is how Bremen therefore became an Ameri-

can enclave within the dominantly British occupied territory of Northern Germany. The city of Bremen also had an airport which had been completely destroyed by Allied bombing raids at the end of the war. Bremen was a key target for allied bombing raids, as the city hosted important ship yards, building mainly submarines for Hitler's navy. There was also a thriving car industry there, which was a producer of military trucks and light tanks, not to mention the Focke-Wulf aircraft factory, located at Bremen airport.

Almost immediately after Bremen fell to the conquering allied troops, US forces started to restore the airfield, utilising it for their transport aircraft. By end of the 1940's, US forces began to allow civil air traffic into Bremen airport by mainly US and Scandinavian Airlines. At the same time it had

become obvious that the growing conflict between the West and East was going to be intense. By end of the 1940's, political tensions were building between the Allies. The later so called 'Cold War' would become very hot indeed, starting with the blockade of Berlin (Bremen was not used during the Berlin airlift, as it was located too far from the demarcation line) and the final separation of Germany into two states.

After the partition, gradually West Germany was seen more and more as a partner for the Western Allies, which lead to a more liberalised democracy for Germans living in the western half of Germany. By 1951, this had led to the lifting of the ban against flying, thus allowing Germans to fly gliders once again. This was followed in 1955 by the eventual lifting of the remainder of the ban which allowed all forms of powered flying.

During the years of 1949 to 1950, the scene was set for an American Air Force officer by the name of Frank B. Lane, to appear in Bremen. Bremen airport at that time was being operated by low-level local German management. Seemingly Frank B. Lane was ordered from Frankfurt airbase to Bremen to take up the position of 'Airport Administrator'.

Little is known about Frank B. Lane, with investigations thus far being elusive, however it seems almost certain that Lane had been a project engineer for ERCO. Together with Fred Weick, they developed the twin-tail, side-by-side two-seater, Ercoupe. The Ercoupe is said to be one of the safest, if not the safest, private aircraft ever built. The ailerons and rudder controls were combined, thus eliminating the need for the Ercoupe to be fitted with any rudder pedals. The aircraft is steered with just the control yoke, like a car. It appears to work well, however wing low, opposite rudder



Another rare photo of the all-metal construction of the V-Tail. Location unknown.

FEATURE ARTICLE – BREMEN LANE

coordinated approaches (side-slipping) in crosswinds become impossible, thus the pilot must rely on crab style approach techniques only.

Ercoupes are said to have been used to train the first Boeing 707-pilots in the crab-landing technique to help eliminate their habit of low-wing into the wind landings, which were regularly used by pilots flying propeller driven aircraft. As the jet engines were slung under underneath the wings of a 707, low wing landings carried an increased risk of the engine pod being damaged by touching the ground on landing. Works by Frank B. Lane can be found on the internet, covering reports published in both scientific and sporting publications. These include his paper on *Probable Materials of Construction for the Post-reconversion Light Aircraft*, as well as a test flight report of a Laister-Kauffmann LK-10A in *Soaring Magazine*, in 1945. Frank Lane himself admits in this report that he had limited experience with gliders. It is possible that Frank Lane's experience with gliders may have been further consolidated with his posting to Bremen, where he met Jan Eilers, a well-known local Bremen glider pilot.

Jan Eilers was born 1909 in nearby Oldenburg. He started gliding in 1925 and began powered flying in 1928. He qualified for his aerobatic licence and in 1934, became a flight instructor at the Ith hills and on the Frisian isle of Juist. Jan Eilers participated in the Rhön gliding competitions and won the Ith competition in 1939. Although carpenter by profession, he really spent most of his life flying and if not in the air, engaged in repairs and modifications in the workshops. Taking his talent into account, one would expect that Eilers would have been ordered into the 'Luftwaffe' to

become a bomber or fighter pilot? He was not. Maybe this was due to him not attending high school? Also he was known for his frankness and often openly said what he thought. Not the best basis for a career in the Luftwaffe at that time! Whatever the reason, Eilers became a flight instructor for basic glider training on the isle of Juist instead. Late in the 1980's, a journalists asked him whether he himself felt guilty to be involved in the tragedy of Hitler's war. 'Oh yes', he answered, "I feel responsible for the death of hundreds of young men. With the glider training on Juist it was me and my colleagues who awoke the enthusiasm for flying in these innocent boys. And full of that enthusiasm, they returned from the course and went on to powered flying and thereafter joined the Luftwaffe, most of them dying in action. All their consequential enthusiasm sadly started with our glider courses."

Eilers stayed on at Juist and even before Germany had regained its air sovereignty, started a flying service with Danish registered Kramme & Zeuthen motor aircraft, providing an air-shuttle service to the islands delivering daily newspapers. His small company also became a sort of Flying Doctor service when ice cut all ferry links to the islands during winter.

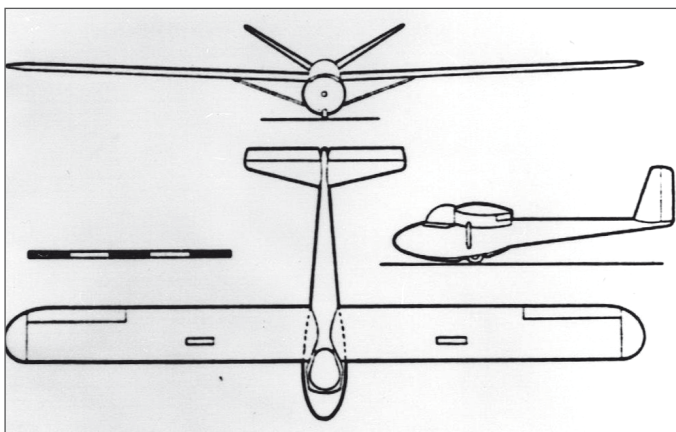
Later on Jan Eilers was to become a pioneer in developing powered gliders. He equipped a Laister-Kauffman LK-10 with a small 400ccm Lloyd engine. Although not planned as a self-launching aircraft, it would have been able to launch under its own power if it had a sufficiently long runway. Few know that Eilers had also equipped a 'Zögling' Primary glider with a 250 ccm Zündapp engine, thus creating one of the first motor-gliders. All of his life, Eilers was engaged in the development

and improvement of motor-gliders and in Germany he is said to be the father of motor-gliders. He was widely accepted as the country's leading proponent for the integration of the modern motor-glider by various commissions and committees, as well as partaking in the first competitions purely for motor-gliders.

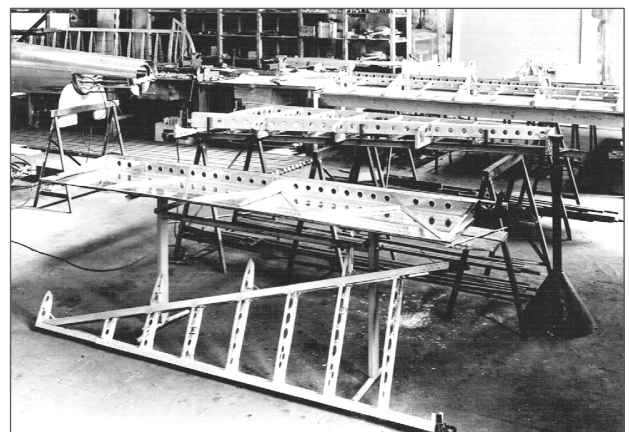
The third man to talk about is Ernst Nipp. Up to the end of the war, Ernst Nipp worked at the Focke-Wulf factory in Bremen. Thereafter he founded his own company for light metal construction for the housebuilding market. Nipp's company was one of the first to produce light metal aluminium frames for windows and with the house building boom in the sixties, his company later on did quite well.

So through these three characters, Frank B. Lane, Jan Eilers and Ernst Nipp, who had been brought together at Bremen airport, discovered their mutual enthusiasm for flying. It was said that Nipp had started construction on a Kranich III on a free-lance basis for Focke-Wulf. Focke-Wulf however, decided to move out of glider production in view of the coming production needs of the new Federal Germans Air Force, with licence production of the piston engine driven Piaggio P 149 as a basic trainer.

Frank Lane obviously was one of the first to either expect, or more likely to know earlier than others, that gliding would before long, be permitted for the Germans. Meanwhile, the three men had become good friends and realised the coming potential of Germans being permitted to fly again. Before and during the war, thousands of young men (and a very small number of woman), were trained in glider and powered flying by the Nazi Flieger-HJ (flying youth) and although the intension was to gain a huge resource of pilots for



The wings of 'Bremen Lane' appear to have been taken directly from the Ercoupe and simply extended. Unfortunately the writer hasn't been able to find out of whether the same NACA 0012 profile was used for both aircraft.

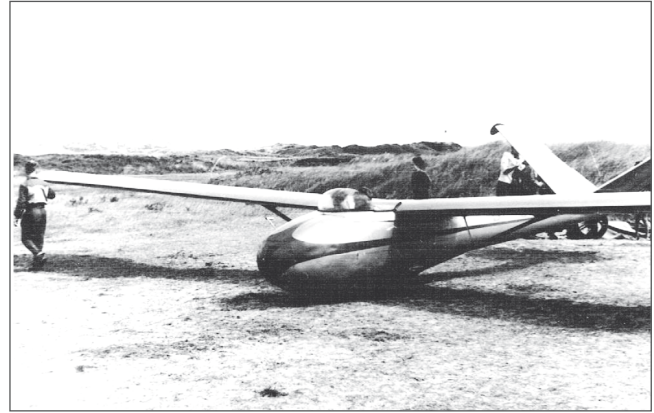


Bremen-Lane under construction

FEATURE ARTICLE – BREMEN LANE



Photo of the 'Bremen Lane' taken at Bremen airport. The glider could be flown with an open or closed canopy. The closed one looked like a semi ball.



Bungee launch on the dunes of the Frisian Isle Juist. Here it is shown with the open canopy.

the Luftwaffe, most of these young men were infected by the fascination of flying and longed to begin flying again as soon as possible during the first years of peace. Although some older flight instructors still fought for single-seat ab-initio training on school gliders, other instructors had experience with basic training in 2-seaters, which was far more efficient and involved far fewer training incidents and accidents. Our three friends were certainly correct in predicting a high demand for cheap, easy to fly 2-seaters. Jan Eilers, as a very experienced flight instructor and clearly saw the advantages of 2-seater training. It was Ernst Nipp who started with the construction of a 2-seater, and with his experience in light metal construction, it became an all metal aircraft.

Although not knowing the exact degree of how the design work was divided, it is obvious that the construction bears the signature of Frank Lane, with a number of similarities to the Ercoupe. The glider created was a side-by-side trainer just as the Ercoupe, as this layout allows for a better communication and scrutiny of the pupil, compared to a tandem seater. Judging the wing by its shape alone, it could easily have been a copy of the Ercoupe wings, and had a rectangular wing with curved tips. Like the Ercoupe, the glider had just one airfoil over the entire wingspan. It is said that Lane decided upon this layout in view of costs for future series production, as this requires only one rib former and lowers costs for mass production, very much in the manner of the Ercoupe.

Instead of a more conventional tail, the glider was fitted with a V-tail. The reason for that was probably to lower the weight as one can eliminate one of the tail surfaces. It also, of course, reduces drag. However, the benefits of this would, to a

large extent, would no doubt have been mitigated by the huge cross-sectional area of the front fuselage. Furthermore it can be assumed that Lane thought a V-tail would make the glider more attractive to potential buyers. The Beech Bonanza with its characteristic V-tail was impressive by its elegant shape and performance, and was well-known as a popular design with the general aviation market during this period. V-tails at the time had been gaining popularity and were 'en-vogue', impressing the pilot community worldwide. This included, of course, Germany, whose pilots were hungry for flying. Thus it was possible that Lane went with the V-tail for marketing reasons alone. Nipp began construction of the glider in 1950 in his metal factory.

The glider was given the name 'Bremen-Lane' and is thought to be amongst the first all-metal gliders ever built, with the Czech 'Blanik' following some years later*. The Bremen-Lane may not have looked aesthetically attractive, but what glider did during that period? As one local Bremen glider pilot recalled, insiders often referred to it as the 'Bremen-Lange Warthog', which was certainly no compliment to its looks! It is reported that flight characteristics were good and it was docile, just as Lane and Nipp intended. As there is no other immediate evidence of any earlier all-metal two-place design glider, it can be assumed that the 'Bremen-Lane' was one of the first, if not the first, all-metal 2-place glider constructed, with others following around 1956-57.

Jan Eilers wrote a short article on the glider which appeared in then popular publication of *Westermanns Monatshefte*, and is the only surviving written source on this glider. It was the Bremen-Lane's then innovative aspects which attracted Eilers to

this layout. First was the cost. Eilers had calculated a unit cost of 9,000 D-Marks based on a production of 24 airframes, which equated to around then \$2200 US dollars.

As with the all metal construction Eilers more or less surmised that there would be an unlimited airframe life of the Bremen-Lane. The side-by-side seating also allowed there to be only one set of instruments fitted, again saving on costs.

Another important feature was that the glider should be resilient to damage by students mishandling the glider on the ground. In his former gliding school on the isle of Juist, Eilers had noted a lot of ground damage, which often necessitated repairs. Eilers judged that the all-metal design would prove to be more resilient to this sort of damage, and furthermore, would be more robust during take-offs and landings.

Strangely from today's perspective, Eilers saw a certain risk of damage to the fuselage by collisions with frozen molehills upon landing! This was more of a factor back then, as during the 1950s, it was considered normal for training to take place all year round, even in the depths of winter.

Repairs were a concern, with Eilers writing; *'I am often asked whether repairs with all-metal construction are too complex and difficult to do. As a carpenter, I used to work with plywood and glue for 27 years and I can honestly tell you I had the same concerns. But then aren't we all a bit too conservative? I learned through practice and can now say that repairs on metal are as easy to carry out and sometimes faster to carry out compared to wood.'* Eilers reported on the repair of a leading edge and wing spar, which he carried out within 18 hours. Can you imagine today doing repairs on a wing-spar yourself today,

FEATURE ARTICLE – BREMEN LANE



Jan Eilers (seated on the right) presents the 'Bremen Lane' to the Irish aviation-pioneer, James Fitzmaurice (note open cockpit with windshield).

especially when contending with EASA! The main focus for Eilers however was that the Bremen-Lane was suitable as a good training tool with the instructor-student communication being excellent not only through visual demonstration, but orally as well.

The best glide wasn't measured when the report was written, but Eilers estimated it to be around 22 at 70km/h. That was slightly better than other contemporary two-seaters of that period, typically the Doppelraab, Gö 4 or Scheibe Specht, which ranged from 19-20.

After the maiden flight very little is known about the Bremen-Lane. Interviews with various people only resulted in rumours.

It was evident that the performance of the Bremen-Lane wasn't great, so the ratio of 1:22 was likely a bit too optimistic. Also it was said to be ponderous to handle. However other voices say that the Bremen-Lane was quite good and even slightly better in performance when compared to other two-seaters available in the early 1950's, which weren't great either in handling or performance (higher performance two-seat training gliders later received a boost with the appearance of Focke-Wulfs Kranich III). Jan Eilers took the Bremen-Lane to the isle of Juist, where it was parked outside. Later on he returned the glider to Bremen, but it was used only rarely for training there.

The Bremen-Lane was registered as D-3005. Only a small number of photos of the glider survive. To date, all are black and white and of poor quality. As was common in the 1950's, the glider was also used for commercial advertising, with some photos showing the glider wearing the slogan of 'Fahr lieber LLOYD' under its wings (loosely translated, this means *Prefer Driving a LLOYD*). LLOYD at that time was a mini-car produced by a subsidiary of the Bremen car manufacturer, Borgward. The glider was also photographed with the slogan 'Raucht Sanders', which stands for *Smoke Sanders* (tobacco).

The Bremen-Lane never went into series production and the only aircraft built was the prototype. Despite the Bremen-Lane failing to match the performance of the best 2-seater of that time, the Kranich III, this wasn't its purpose however. Rather it was fulfilling a role as a simple basic trainer (this role was later largely adopted by Schleicher's Ka 4 'Rhönlerche II').

It is not known how the Bremen-Lane finally ended its days. Its creator, Frank Lane, moved on in his career and it is said to have returned to Frankfurt-Rhein Main airbase as Airport Administrator.

It is likely he then returned to the USA thereafter. Jan Eilers continued in his glider flying career and continued to instruct on gliders as a profession. He closed his flight log with around 100,000 flights and passed away 1995 at the age of 86.

* [As far as known, the first all-metal gliders to be built were in America. Irv Prue built the all-metal 160 (from a magnesium P-38 drop tank with aluminium wings) in 1945. Also, Schweizer unveiled the SGS 1-21 in 1947. All were single-place gliders].

Data:

Bremen-Lane


Side-by-side two seater training glider
all metal construction

Wing span:	16,00 m
Wing area:	21 m ²
Airfoil:	NACA 0012
Aspect ratio:	12,2
Max. wing load:	20, 5 kg / m
Length:	6,78 m
Empty weight:	230 kg
MTOW:	430 kg
Best glide:	22*
Min. sink:	3.30 ft/sec.*
Vmax:	220 km/h

*Not measured

All photos via Ralf-Michael Hubert

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WW II US GLIDER PILOT TRAINING



The TG-29, Volmer Jensen's VJ-10. Photo: Frank Kelsey Collection

Raul Blacksten

WW II US Glider Pilot Training

Part I

As with the other eventual Allied militaries, the US services were caught flat-footed in June 1940, when the Germans used glider-borne troops to capture the Belgian Fort Eben Emael. Not only did the American Army Air Corps have no gliders or gliding training programs, but the Army actually forbade its personnel from even being a passenger in a glider. This short-sighted policy was the Army's over-reaction to two officers having been killed or severely injured in glider accidents during 1930 – 32.

The events in Belgium did draw the attention of someone in the Army, but to little avail. In the wake of Eben Emael, nothing was done by the US Army except to commission a study. It was not until the Germans again used gliders in May a year later, this time to invade Crete, that

the US armed services sat up and really took note. The US Army therefore hit the ground running before the end of the month.

It is uncertain whether the earlier British decision to also create a glider force had any influence on the American military's decisions to create their own. Still, a conference took place between the two militaries in March 1941, on the tactics to be used in defeating Germany, and there are similarities in the two glider programs. Was that by agreement or by happenstance? The author does not know...

The only problem was, as mentioned above, the Air Corps had no training program and no gliders. The first thing the Army did, a week before Crete, was to issue an Invitation to bid to all comers (except established aircraft companies) to produce gliders. While that was

in the works, the Army went on a buying spree and bought every civilian glider it could lay its hands on. It did not matter whether the glider was a single- or two-place glider, or even if it was suitable for the upcoming 24/7 training schedule. Most were unsuitable and some the Army deemed to be downright dangerous! Nevertheless, they all received the designation 'TG' for Training Glider.

Private owners reported that they received more for their glider than they ever imagined their glider was worth. For example, during 1936, Richard duPont purchased a Schempp-Hirth Gö 5 (Hütter H-17) for \$645 and had it shipped from Germany to the US. He later sold it for \$50 to George Law. Two years later, Law in turn, sold the glider to the Army for \$900! It became the TG-24.

As for training, the decision was made to send volunteer non-coms (no officers) to private contractors, where Army personnel were in charge. The first Army contractor was the Elmira Soaring Academy, in Elmira, New York, and the short field atop Harris Hill began producing military glider pilots. The Army subsequently encouraged the Elmira group to open a larger school in a location which could be used year round. They chose Bates Army Air Field (AAF) at Mobile, Alabama. One complication was the 150 mile civil-

WW II US GLIDER PILOT TRAINING



Schweizer LNS-1 at Page Field MAS. Photo: US Navy



Prototype Pratt-Reed LNE-1 at the Wings of Eagles Museum, Elmira, New York. Photo: Raul Blacksten

ian no-fly-zone that was established inland from the coastline. As a result, most of the Army's contract schools were located in desert locations.

In California, the Twentynine Palms Air Academy was established in the Mojave Desert at Condor Field near Twentynine Palms. Also in the Mojave, the Arizona Glider Academy was established at Thunderbird Field, outside Wickenburg. The West Texas town of Lamesa, was the site of the John H. Wilson glider school. Another school was set-up at Ft. Sumner, in east-central New Mexico.

Captain Ralph Barnaby lobbied hard for a wartime Navy glider program after Eban Emael. The Navy had twice previously experimented with gliders, and Barnaby had been the instigator each time. The most

recent experiment had successfully taken place in 1933. This time, in an attempt to minimise casualties, primary flight instruction was given in gliders. It did exactly what Barnaby expected, but top brass resistance doomed the program.

In July 1941, the Navy decided to train 50 Marine Corps officers and 100 non-coms for an expected glider war in the Pacific. At first the Navy also used the services of contract schools like the Lewis School of Aeronautics soaring school at Lockport, Illinois. This school was adjacent to the Great Lakes Naval Training Station, however the first four candidates attended the Motorless Flight Institute, in Harvey, Illinois. At both schools, training began with Frankfort Cinema IIB two-place gliders, built in nearby Joliet, Illinois. Later, training was moved to Page Field, part of the Parris Island Marine Training Base, in South Carolina. Still later, before the Navy abandoned its glider program in June 1943 as impractical, training was moved to a purpose-built glider training base called Eagle Mountain Lake Marine Air Station, near Ft. Worth, Texas.

To begin with, for the training at Parris Island, the Navy utilised two-place Schweizer SGS 2-8 gliders, which had been developed by the company at Elmira, New York in 1938. These were given the designation LNS-1, in accordance with a convoluted Naval system ('L' = glider, "N" = trainer).

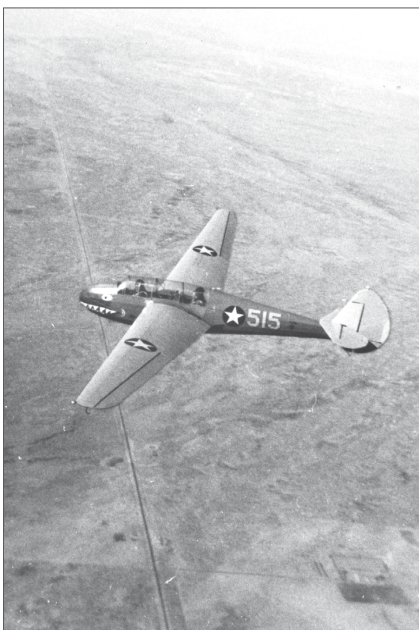
To hedge their bets, the Navy then commissioned two-place, side-by-side PR-G2 gliders from the Deep River, Connecticut-based, Gould Aero Division of the Pratt-Read Piano Company. The Navy designated the PR-G2 as the LNE-1.

The 72 resulting LNE-1 gliders were large, heavy, strong, and never used. After discontinuing its own program, the Navy

gave all 72 of its PR-G2s to the Army. Re-designated as the TG-32, the Army never used them either. Only two PR-G2s were actually ever delivered to the Navy before the contract was cancelled. Yet Pratt-Read did deliver all 72.

The Army designation TG-1 was given to the Frankfort Cinema IIB, while the Schweizer SGS 2-8 became the TG-2.

These were pre-war designs which could be quickly put into production. Due to restrictions on aluminium, the Schweizer Aircraft Company subsequently designed and produced their SGS 2-12 with wooden wings. It became the TG-3A. In St. Louis, Missouri, Jack Laister, at the the Laister-Kauffmann Company, rushed to put the final details to the LK-10. This was a two-place modification of his earlier Yankee



Laister-Kauffmann TG-4 over Arizona. Photo: Life magazine

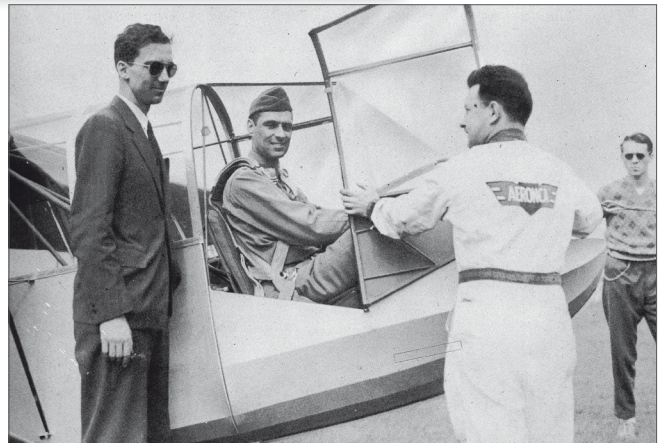


Aeronca TG-5. Photo: Air Progress, February 1943

WW II US GLIDER PILOT TRAINING



The Piper TG-8, Col. Dent, and Chet Decker. Photo: Life magazine



Major Lewin Barringer, head of the US Army's glider program in an Aeronca TG-5. Photo from Gliders and Glider Training, by Emanuelle Steri.

Doodle design. The LK-10 became the TG-4A. These four glider types were the principal training gliders used at all schools until modified 'L-craft', later replaced them. Unfortunately, these four sailplane manufacturers could not produce gliders fast enough and the L/Ds were deemed too high. At the same time, in 1942, Aeronca, Taylorcraft, and Piper were cranking out Liaison aircraft (L-craft) airframes faster than engines could be made for them. Therefore, someone came up with the idea to convert the excess L-craft into three-place gliders, with the third person taking the place of the engine. They were also given spoilers as well as modifications required by trading engine for pilot. These were designated as the TG-5, TG-6, and TG-8, respectively and they were used at all of the schools.

As the Army saw it, there was one big advantage to the converted L-craft. The TGs 1, 2, 3, and 4 were sailplanes. They were designed to soar, useless to the Army's purpose. The 5, 6 and 8 had an L/D closer to the WACO CG-4s, that the candidates that would eventually fly into combat. Both the Army and Navy programs eventually utilised the converted L-craft. The Navy referred to these gliders as the XLNR-1, LNT-1, and LNP-1 respectively. This is not to say that these seven factory-built gliders were the only ones used by the Army. Remember those civilian gliders? Many of them actually made it into the training schedule.

At Harris Hill, training took place mostly in TG-2s, since the Schweizer factory was located at the foot of 'the hill'. Yet some of the impressed gliders were also used. The Bowlus duPont M1PU3 had spent the pre-war years flying around New York and New Jersey. When Cyril Smith sold it to the Army, it became the TG-12A and was assigned to Harris Hill, where it logged 21

hours of flight time. It is unclear today as to what eventually became of the M1PU3.

At Twentynine Palms, in addition to the TG sailplanes and the converted L-craft, they also used the Jensen VJ-10 (TG-29), which was a side-by-side glider designed and built on spec by Volmer Jensen, who never got the contract for which he had hoped.

This glider had a clamshell canopy and while flying one day with his instructor, former child actor Jackie Coogan ('The Kid' and later "Uncle Fester") did not latch the canopy properly. It blew open in flight, making holes in both halves. Upon landing, Coogan reported that they had been attacked by an eagle. This prevarication was subsequently repeated in newspapers all over the country.

Carrying British Chindit troops, Coogan later became the first glider pilot to land behind the Japanese lines in Burma and was highly decorated for his service. The instructors at Twentynine Palms included several members of the Southern California soaring scene as well as the Detroit-area XYZ Glider Club. In addition, there were a couple of future soaring champions. One was the future number 1 Diamond pilot in the world, Johnny Robinson. The other was nineteen year old Dick Johnson, who brought with him his pre-war Schweizer SGS 2-8, that he had sold to the Army, which designated it a TG-2A. Yet that is not all, Johnson also brought his Bowlus Baby Albatross

for his own recreational use. Flying the Bowlus one day, he got caught in a cloud and the glider was destroyed. People on the ground heard a noise and saw the wreckage fall to earth, but no one saw a parachute. Nevertheless, Johnson had managed to bail out and was unhurt.

Herman and Henry Stiglmeier's Stick was a single-place glider that was well known in the pre-war Southern California soaring scene. This extensively modified Grunau Baby became the TG-14 and went to Wickenburg. It was eventually wrecked in a thunderstorm and subsequently destroyed.

Also destroyed in that thunderstorm was the TG-25, more commonly known as Frank Wolcott's Plover, another well-known Southern California glider. This was a sad outcome for one of the instructors at Wickenburg, movie actor, Harvey Stephens. Stephens was a well known glider pilot in the SoCal glider scene and was the 'S' in what became the RS-1 (later known as the Zanonian). Stephens' favorite glider at the Arizona school was the Plover.

...to be continued.



The TG-25, Frank Wolcott's Plover at the 1939 Arvin (California) Contest. Photo: James Campion



FROM AROUND THE WORLD

Netherlands



Correspondent:
Eric Munk
Contact:
Holland@vgc-news.com

News from the Netherlands

Great progress at Venlo with the veritable fleet of vintage gliders there. The famous T21 with the Limburg lion crest on the rudder is now transitioning to the Dutch register and shedding its BGA-numbers. This to avoid the new Dutch CAA rules on Dutch owned foreign registered Annex-II aircraft (that are in effect grounded in Dutch airspace, with some of them making their final flights at last year's VGC Rally at Terlet). It has been assigned the 'retro' Dutch registration of PH-111, a number last flown on a 1940 Göppingen Gö.4 II from 1945 to 1954. The T21 will be soon needed for conversion training for T30A pilots if works continues as fast as it does on T30A, PH-193, that is currently undergoing restoration at Venlo. The aircraft is owned by the National Aviation Museum at Lelystad, but is on loan to the Venlo group. It is undergoing major repairs following ground handling damage by a previous owner. This necessitated a complete rebuild of frames 1 to 4, the lower fuselage and both fuselage stringers. In essence, a new cockpit is being constructed to do away with decades of mediocre repairs. Johan van Dijk, who



Work continues apace on the Venlo Prefect, PH-193. Headed by our old friend, Johan van Dijk, here a new keel is installed.

The newly painted cockpit and looking better than new, testimony to Johan and his teams work. This lovely glider is expected to brighten Venlo's sky again in the near future.



is overseeing the repairs (and doing much of it himself), is also steaming ahead with his Ka3. Structural repairs have now been completed and it is ready for new fabric. The quality of workmanship has to be seen to be believed! It is hoped that both aircraft will fly later this season. At Lemelerveld meanwhile, work is continuing on the prototype T21b, which is having new D-nose ply fitted to all but one section of its port wing span. Next to this is an odd Ka6cr, sporting a Phoebus canopy and the Wortmann wing mod, which is being rebuilt after the previous owner had an argument with a tree in it. The port wing is

toast, so if anybody knows of a port Ka6CR wing with the Ka6E profile added later, it would be good to hear from you! Meanwhile, near Twente airfield, Hans Bekker has settled into his new workshop and is on the home-stretch of his epic 40-year rebuild of the Sagitta prototype, PH-266. He saved it in the late 1970s from being burnt on a bonfire following an accident, and has been slowly working on it over the years in between his many other restorations.

Eric Munk
Photos: Johan van Dijk



Johan hard at work play? Here he is working on repairs to Ka3, D-2397's port wing leading edge D-box.



Justin Steegh shows off the newly constructed skid for the Ka3 fuselage in the background.

FROM AROUND THE WORLD

Germany



Correspondent:
Peter Ocker
Contact:
Germany@vgc-news.com

Der Scheibe „Zugvogel“ wurde ab der Version III in Serie gebaut. Aber was wurde aus den Seglern der Version I und II? Wie viele gab es davon?

Dies zu erforschen, hat sich Walter Haimann zur Aufgabe gemacht. Nach seinem derzeitigen Kenntnisstand gab es 4 Stück der Version I und lediglich 2 Exemplare der Version II, wobei es sich jeweils um unterschiedliche Einzelstücke handelte.

Der erste „Zugvogel I“, nach Zählung des Konstrukteurs Rudolf Kaiser die Ka 5, wurde 1954 zunächst als D-1210 registriert. Bekannt ist hier nur ein Bild des Seglers vor der Lackierung.

Kurz darauf verunglückte der Österreicher Alois Hasenknopf, Gründer des Kufsteiner Segelfliegerclubs, beim Training zum WM 1954 tödlich, als in einer Gewitterwolke eine Tragfläche abbrach. Ein Bild von seinem letzten Start zeigt den Segler mit dem Kennzeichen OE-0273 und den österreichischen Landesfarben auf der Seitenleitwerksflosse. Weitere Daten über den Kauf, Eigentümerdaten oder Bilder sind nicht bekannt.

Der zweite „Zugvogel I“ wurde 1955 nach Villingen ausgeliefert, fliegt heute noch mit der Originalregistrierung D-8773 und ist als fliegendes Denkmal registriert. Über diesen Segler ist das meiste bekannt.

Mit dem dritten „Zugvogel I“, D-5428 wurde Hanna Reitsch 1955 deutsche Meisterin und ein Peter Kürten belegte 1957 bei der deutschen Meisterschaft den 14. Platz. Außer einem Bild im Buch „FALKENHORST - Die Geschichte der Scheibe-Flugzeuge“ (Gerd Zipper, Weishaupt Verlag,

Die Suche nach Scheibe „Zugvogel I“ und „Zugvogel II“

Gnas/Österreich) und der Auslieferung 1955 an den deutschen Landesverband Nordrhein-Westfalen ist von ihm nichts Weiteres bekannt. Mit dem vierten „Zugvogel I“, D-1359 belegte Hanna Reitsch bei der Weltmeisterschaft 1956 in Frankreich den 8. Platz. Auch hier gibt es ein Bild in „FALKENHORST“. Außer, dass er 1956 an die deutsche Forschungsanstalt für Segelflug, München Riem, ausgeliefert wurde und mit Wölbklappen ausgestattet war, ist auch von ihm nichts Weiteres mehr bekannt.

Ein weiterer „Zugvogel I“, Werk-Nr. 1005, wurde 1956 an die damalige „Burgfalke Flugzeugbau oHG“ in Burglengenfeld ausgeliefert. Es ist weder eine Registrierung bekannt, noch ob es sich um einen kompletten, flugfähigen Segler gehandelt hat. Über die Werk-Nrn. 1006 bis 1020 gibt es keinerlei Kenntnis, ob sie vergeben wurden bzw. warum sie nicht verzeichnet sind. Mit Werk-Nr. 1021 ist dann der erste „Zugvogel II“, nun ohne die Vorpfeilung der Flächen, unter der Registrierung D-6407 bekannt. Er wurde an Gerd Reimitz in Minden ausgeliefert, welcher ihn kurz darauf in Diepholz flog und den Segler angeblich an einen Baron Jochen von Wagner verkauft haben soll. Irgendwann wurde der Rumpf umgebaut. Ein Bild im Buch „FALKENHORST“ zeigt ihn mit eingestakter Haube. Das Bild müsste nach 1973 entstanden sein.

Wer kann etwas über den Werdegang und den Verbleib der D-5429, D-1359 und D-6407 sagen? Wer hat Unterlagen darüber? Wann und wo wurde D-6407 umgebaut? Gibt es noch Bilder/Dokumente zur D-1210/OE-0273?

Ein letzter „Zugvogel II“, OE-0493 bzw. D-1410 wurde 1956 an (Walter?) Dittel in Unterrammingen ausgeliefert. Dieser be-



„Zugvogel-V-1 in München-Riem Airport Photo: Walter Haimann

legte damit 1957 bei der deutschen Meisterschaft den 8. Platz. Für die Weltmeisterschaft 1958 verlieh er ihn an Lyle Maxey, USA, der damit den 9. Platz belegte. Der „Zugvogel“ ist inzwischen eingelagert und wartet auf seine Restaurierung. Auch wenn der Segler noch vorhanden ist, fehlen doch Bilder/Dokumente.

Bei Werk-Nr. 1023 handelt es sich bereits um den ersten „Zugvogel III“, welcher 1957 nach Schweden ausgeliefert wurde.

Über die „Zugvogel“-Typen I und II ist also sehr wenig bekannt. Angaben sind nur vereinzelt zu finden und die Angaben über ihre Anzahl sind sehr ungenau. Daher habe ich mir zum Ziel gesetzt, alle noch verfügbare Informationen in einer Dokumentation zusammenzustellen. Wenn Sie also in irgendeiner Weise über Informationen, Dokumente, Bilder etc. verfügen, wäre ich Ihnen dankbar, wenn sie mir diese zukommen lassen würden.

Sie erreichen mich unter walter.haimann@web.de oder Walter Haimann, Brunntalstraße 15, 97267 Himmelstadt, Deutschland.

Ich bitte aber um Verständnis für die Bitte, auf Zusendungen über den „Zugvogel III“ und nachfolgende Muster zu verzichten, da sie meine Arbeit / mein Postfach nur unnötig belasten würden.

Wanted: Information on the Scheibe 'Zugvogel I and Zugvogel II'

Walter Haimann is looking for information on the Zugvogel I and Zugvogel II. The Scheibe 'Zugvogel' was series built from the third version onwards, however little is known of the first and second versions which Walter wishes to investigate. As far as he knows there were only four versions of the first version built and two of the second mark ever built.

The first Zugvogel I, which was called the

Ka5 by the designer, Rudolf Kaiser, was registered as D-1210 (there is a black and white picture of the glider shown here).

To date there is only sketchy information available on the first and second variants, much of which is inaccurate. Walter is especially keen to learn more on the information on the Zugvogel I and II, in particular, the history or the whereabouts of D-5429, D-1359 or D-6407.

So if you can help, please contact Walter at: Walter Haimann, Brunntalstraße 15, 97267 Himmelstadt, Deutschland or email: walter.haimann@web.de

Please note that he is only after information on the Zugvogel I and II and NOT the Zugvogel III variant or later, which would only serve to fill his mailbox and complicate his work further.

Walter Haimann

FROM AROUND THE WORLD

Segelflugzeug in Holzbauweise aus Strausberg; Lo 100 Zwergreihler erstmals montiert

Strausbergs Hightech-Motorsegler der Firma Stemme werden in Faserverbundbauweise hergestellt und sind weltweit in aller Munde. Ganz im Stillen dagegen widmet sich ein anderer Strausberger einer im modernen Flugzeugbau längst vergessenen Bauweise. Sven Brandhorst, der wie vor fast 100 Jahren in einer Ecke des Flugplatzes ein Segelflugzeug aus Holz baut. Am 13. Juni montierte der 42-jährige in Berlin tätige Verkehrspolizist erstmals sein Segelflugzeug als Rohbau – im Fachjargon Rohbaumontage genannt. Sie soll Gewissheit über die geometrische Genauigkeit seines Neubaus einer alten Konstruktion geben – und das Ergebnis war sehr zufriedenstellend.

Seit Jahren schon beeindruckt Sven Brandhorst mit seinen Bauaktivitäten in der Freizeit die Oldtimerszene. Am Anfang war es ein Bölkow Phoebus C, den er neu lackierte. 2007 beendete er gemeinsam mit dem inzwischen als Konstrukteur bei Stemme tätigen Tobias Mörsel erfolgreich die Restauration eines Baby IIB. Dieser kleine Einsitzer, der damals als Übungsflugzeug weltbekannt wurde, war noch 1944 von Edmund Schneider in Grunau hergestellt worden.

Beim Baby-Treffen 2014 in Jeżów Sudecki, dem früheren Grunau, startete Sven Brandhorst zu einem seiner interessantesten Flüge. Dem Oldtimer-Piloten gelang in fast vier Stunden bei schwieriger Blauthermik eine Strecke von 52 km - sein bisher längster und weitester Flug auf diesem historischen Segelflugzeug mit einem besten Gleiten von 17.

Als 2007 die Fertigstellung des Babys in den letzten Zügen lag, erhielt Sven das An-



Sven Brandhorst in seinem gelben Grunau Baby IIb aus dem Jahre 1944. Sven Brandhorst in his yellow 1944 Grunau Baby IIb from 1944.

gebot für den Kauf eines bereits fertigen Hauptholms sowie einer Baugenehmigung nebst Zeichnungen. Es handelte sich um die Lo 100 – ein in den 1950er Jahren in der damaligen BRD speziell für den Kunstflug konstruiertes Segelflugzeug. Der Verkäufer, ebenfalls Segelflieger, hatte gemeinsam mit einem anderen Segelflieger den Holm und die Bauunterlagen käuflich erworben. Doch am Bau scheiterten sie. Aber nun sahen sie das restaurierte Baby und sagten sich, Sven Brandhorst kann es! Der jedoch konnte sich zunächst nicht wirklich für das neue Projekt erwärmen, weil ihm das Flugzeug nicht so recht gefiel. Aber da waren eben der bereits fertig gestellte Holm und die Baulizenz und dann siegte doch der Reiz, diesmal etwas ganz Neues in Angriff zu nehmen. Das war im Jahre 2008. Heute ist unübersehbar, dass Sven Brandhorst mit jedem Baufortschritt mehr Gefallen an seinem „Zwergreihler“ findet.

A Lo 100 Zwergreihler is rigged for the first time in Strausberg

Behind the scenes, Sven Brandhorst from Strausberg, is building a glider in an old fashioned way, all in wood. On June the 13th 2015, the 42 year old policeman rigged his work for the first time, with the initial results looking very promising.

Sven Brandhorst's activities has been impressing the vintage scene for some years now. First it was a Bölkow Phoebus C that he repainted, then together with Tobias Mörsel, it was on to a restoration of a Grunau Baby 2b (during the Baby Meeting 2014 in Jeżów Sudecki, Sven flew 52km in difficult blue thermal conditions).

With the Baby almost complete, in 2007 a ready-built main spar of a Lo 100, including plans and a building-license, were

offered to Sven. The Lo 100 is a glider designed in the early 1950's especially for aerobatics. The previous owners, also glider pilots, had failed to make any progress with the project, so Sven, despite not being that initially interested, finally decided to take it on.

In the meantime he has got more and more into the project, with the only pre-fabricated parts being the TBu-20-spar caps, which were made in Canada. With the recent completion of the control mechanisms for the fuselage, seven years later the Lo 100 is now recognisable as a glider.

Alexander Görnitz from Nardt will build the elevator and with flaps and ailerons already under construction, it is hoped that



Historischer Flugzeugbau in Strausberg – von links: Alexander und Anton Görnitz sowie Sven Brandhorst mit ihrem Rohbau des Kunstflug-Segelflugzeuges Lo 100 Zwergreihler. Vintage wooden aircraft construction in Strausberg – from left: Alexander and Anton Görnitz with Sven Brandhorst at their Lo 100 Zwergreihler

Die einzigen vorgefertigten Teile, die Holmgurte aus TBu 20, stammen aus Kanada. Dort hatte eine Firma für zahlreiche Interessenten weltweit noch einmal die Produktion von Holz für den Flugzeugbau aufgelegt. Heute, also sieben Jahre später, ist das Flugzeug bereits als solches gut erkennbar. Der Einbau der Steuerung in den Rumpf wird gegenwärtig vorbereitet und Alexander Görnitz aus Nardt wird das Höhenruder bauen. Die Landeklappen sind fertiggestellt, die Querruder sind im Bau. Unter dem Umstand, dass die Familie und das eigene Fliegen ebenfalls nicht zu kurz kommen sollen, geht es aber zügig voran, und so dürfte dem Bespannen und Lackieren im nächsten Winter kaum etwas im Wege stehen. Der Erstflug ist für 2016 vorgesehen; auch die Kunstflugberechtigung hat Sven Brandhorst inzwischen erworben.



Eine weitere Ansicht der Lo 100 und Svens herorragender Handwerkskunst Another view of Sven's superb craftsmanship.

covering and painting will be carried out during the winter, with its first flight hopefully scheduled for later this year.

Frank-Dieter Lemke
(FC Strausberg / Akaflieg Dresden)

Photos: Frank-Dieter Lemke

FROM AROUND THE WORLD

Why Peter Ocker had tears in his eyes



A nervous Peter gets ready for the Weihe's first post restoration flight.



Success! A joy to be back in his beloved Weihe.

As reported in the last edition of VGC news, Peter Ocker's 'Weihe' was out of the paint-shop after a six year overhaul. But from the paint-shop, it went back into the workshop, as some final touches were still to be completed, including a new instrument panel.

Also the German LBA (national CAA) wanted to know if the registration D-0700 was available for another glider. So Peter had to hurry up, and on the 6th of February, the

Weihe found its way into the workshop of VGC member, Hartmut Sammet. As an inspector, Hartmut carried out a detailed inspection, with the Weihe weighing in some 1.7kg less than that before its overhaul!

Towed aloft by Hartmut's SF25 Turbo Falke, the Weihe was immediately back in its element. Despite it being a wintery February day, the only moisture that day were the tears in Peter's eyes!

But still the mystery remains of what happened during those six long years? Peter will tell us more in the next editions of the VGC news, along with the gliders final markings, which remain Peter's secret, who reports that he has received special permission for a pre-war registration...

Peter Ocker
Photos: Peter Ocker

Italy



Correspondent:
[Vincenzo Pedrielli](mailto:Vincenzo.Pedrielli@vgc-news.com)
Contact:
Italy@vgc-news.com



Display cases in the main exhibition hall



The museum's collection of historical instruments

FAI award to the CSVVA gliding Museum

The CSVVA Museum, Centro Studi del Volo a Vela Alpino (Centre for Alpine Gliding Studies) has been awarded the prestigious title of 'FAI Recommended Museum' with the presentation of a plaque given by the FAI, through the AeCI (Italian Aeroclub). In June 2015, during a visit to Calcinatè gliding airfield, the FAI Secretary General, Susanne Schoedel, and the Sport and Marketing Director, Markus Hageney, were particularly impressed by the amount of wonderful and interesting historical documents collected in the museum. For this reason they proposed that CSVVA should apply for the assignment of the 'FAI Museum' title.

The official announcement was made during the 109th FAI General Conference, which took place in Rotterdam in September 2015. During the conference, the plaque was handed over to the Italian FAI

representative. Other recipients for a similar award went to the Irish Aviation Foundation, the Museum-Monument Francisco Sarabia (Mexico) and the Anderson Abruzzo International Balloon Museum (USA). The CSVVA gliding museum is located at the 'Giorgio e Adele Orsi' airport at Calcinatè del Pesce (Varese), in the same building that houses the ACAO gliding club. The CSVVA museum started in the early 1980's from an idea by Renzo Scavino, with the support of Orsi family (the promoters of CSVVA). The purpose of the museum is to preserve and document our gliding heritage and some items that have been in the collection since the early 1960's (the birth of CSVVA) and are accessible to the public. In addition to the exhibition hall, the museum includes a consultation room (library) and an archive of aeronautical magazines. The exhibition hall displays 80 panels (each panel averages 7 photos plus

a consultation guide) classified according to the subject. Photos on each panel provide historical images of gliders, people and events related mainly to the Italian gliding activity. In the same room there are some cabinets that collect historical instruments, navigation aids, barographs and other accessories. The same room also shows interesting wooden structural elements of vintage gliders. Various documents and aircraft models complete the exhibition. There is also an equipment unit of an old weather station, with attached printer, which provided information on the weather conditions via radio. The consultation room has two tables, one for reading and one provided with two computers for data searching, a library, and a cabinet for archive photographs. The library has more than 1300 volumes covering general aviation. All volumes have been entered in the Centre computer system and can be consulted also on line through

FROM AROUND THE WORLD



The library



The plaque awarded by the FAI



The magazine display

the CSVVA website (www.voloavela.it). The photo archive includes a collection of about 8,000 photographs regularly cataloged and subdivided into different album pages, which can be viewed onsite. About 6,000 of these photos are in electronic format and can be viewed on the CSVVA website (Archivio foto page). The room is complete with a display showing the latest issues of the magazines received. The archive room stores the collected flight magazines, published in Italy and abroad, including VGC News. Many of them have long since ceased to be published and are

thus something of a rarity. On the CSVVA website (Riviste page) there is a list of the magazines collected. It is worth highlighting that even the Italian *Volo a Vela* gliding magazine is handled (subscriptions, distribution and storage of residual copies) in this documentation centre. The construction of the CSVVA museum, the creation of its archives and the management of the *Volo a Vela* magazine are the direct result of volunteer work. They have been gathering here since the 1980's to achieve the goal of constantly improving this

important documentation Centre and museum.
The museum is open on Thursday's and Saturday's from 2.00 p.m. to 5.30 p.m. All visits by appointment. Please call 0039 0332 310023 during opening hours.

Michele Roberto Martignoni
 Photos: Michele Roberto Martignoni

Spain



Correspondent:
 José Ignacio García Colomo
 Contact:
Spain@vgc-news.com

Current Vintage Glider Activity in Spain

Frankly speaking the Vintage Glider movement, as an association, does not exist in Spain; you only need to check the VGC's members list! (3)
 There are however, a few people interested, both glider pilots and modellers. Modellers are often modelling due to economic reasons, although they do not conform to any team or club which coordinates their activities.
 To date, vintage glider rallies here in Spain have been organised by a couple of glider pilots, Carlos Bravo and Encarnita Novillo (see VGC News No 122, 128) at their gliding club, Club Loreto de VaV, located in Santo Tomé del Puerto, a village to the north of Madrid.
 Provided the dates did not coincide with the International VGC Rally, I often take part in my Bergfalke II-55 and attended the Rally in 2007, 2008, 2009. I would

like to mention that the invitation was extended to modellers so that they could show and fly their classic gliders, both mock-ups, or finished craft. I hope in 2016 the dates will again be compatible.

If you are visiting Spain this year, you may want to join us during the last week of July when we will be again holding our Annual Spanish Vintage Glider Rally at Santo Tome del Puerto. Hosted by the Loreto Gliding Club, again under the organisation of Carlos Bravo and Encarnita Novillo, the main focus of the event will be from July 30-31, however we are open from Monday the 25th for those wishing to fly during the entire week.

On to news of our Fundació Parc Aeronàutic de Catalunya Foundation (FPAC) which has its main workshop based at Sabadell airport, 45km north-west of Barcelona. FPAC is dedicated to preserving our aeronautic heritage and also has another facility that we have been given the use of on an ongoing basis at the Centro



The FPAC Opening Day at the CCA centre at Barcelona Airport on the 28th February 2016 in the fantastic museum atrium showing the various gliders and our Spanish built SG 38 in the foreground.

Cultural Aeronautico (CCA or Aeronautical Cultural Centre), which is located at El Prat de Llobregat (Barcelona Airport). Belonging to the public company, AENA (which manages Barcelona's main airport), the CCA is both a building and a hangar that is designed to host, display and repair vintage aircraft. It is also used to host aeronautical business events, presentations and is located within a business park that is linked to the airports corporate terminal. The building is designed in the celebrated spirit of Barcelona's modernist Gaudí architecture, with a striking facade where the main entrance is located, which is raised to look like a plane taking off.

FROM AROUND THE WORLD



The workshop owned by the Founder and Honorary President, Manuel Pons, at Vilanova i la Geltrú. Here the SG-38 is being prepared for the move to our buildings at Barcelona Airport after its restoration was started over 20 years ago at Vilanova i la Geltrú, but was never completed. It is now under restoration at the CCA.



Myself, Antonio Salvador, and Enric Pallarés work on the SG-38 in our spacious workshop at the CCA.



The Fauvel AV-36 in our workshop

Within the aims of FPAC's aeronautical cultural promotion, modeller and glider pilot, Enric Pallarés, together with some volunteers from FPAC, have assembled a restoration workshop mainly for gliders at the CCA. This volunteer group, of which I am part of and help coordinate, have been for several years dedicated in rescuing several gliders which had been abandoned in aero-club hangar corners. We have then restored them for display at the CCA as part of the FPAC collection. On the 28th of February 2016, FPAC celebrated its annual meeting with an opening day for visitors at our CCA museum building. Personally I would rather see the restoration work being dedicated to maintaining the glider's airworthiness, however budget and time constraints obliges us to conform to a static solution, at least for a period of time.

Rescued and repaired gliders for exhibition include: SZD-54 Pirat, Fauvel AV-36, Nord 1300 (French Baby), Wassmer WA-28 Espadón, Slingsby T-45 Swallow and a Spatz L-55. The most recent arrivals

are a Spanish SG-38, which we are now working on, a Ka-7 on hold and a LET L-3 Blanik.

It is worth mentioning that FPAC has another restoration workshop located at Vilanova i la Geltrú, a seaside town 45km south of Barcelona, whose owner/founder and Honorary President, is Manuel Pons. For the past three years, I have been assisting with the restoration of the FPAC Bergfalke II-55, EC-FHL here (ex D-1907 from Uetersen Gliding Club), with the intention of bringing it back to the air to fly. I am currently working on the skid and undercarriage wheel. It is also at these workshops that the long-term restoration was taking place of our Spanish SG-38, which has now been moved to our facilities at the CCA.

Finally, now onto a bit of unfortunate news at my gliding club, Igualada-Ódena, 61km to the north-west of Barcelona (where I have my Bergfalke II-55, EC-FPU, based). Sadly we recently broke the wing of our Ka-6cr. At the time of writing this report, we do not

know when we are going to be able to repair it.

José Ignacio Garcia Colomo
(Translated by Montse Moreno)

Photos: J. Ignacio G.Colomo



Our FPAC logo



Working on the skid of the Vilanova i la Geltrú, Bergfalke, EC-FHL

Sweden



Correspondent:
Thorsten Fridlitzius
Contact:
Sweden@vgc-news.com

Welcome to Ålleberg on your way to Finland!

The SVS (Swedish Gliding Veterans Society) and a close associate with the WGC (World Gliding Championships), regularly meet in Ålleberg (located a few km's from the town of Falköping). In the air last year were some

of the museum's airworthy gliders, in addition to some privately owned old gliders. Sadly, the weather during the season was not so brilliant, but as usual, it was a pleasant and relaxed atmosphere up 'on the mountain'.

Flying was the museum EON Olympia 2B, Slingsby T-21, Bergfalke II/55, and Kaiser Ka 8B. Other gliders that were flying under the management and auspices of the SVS, were Kaiser Ka-2B Rhönschwalbe, SZD-9 Bocian, SB-5b and SZD-24-4 Foka 4.

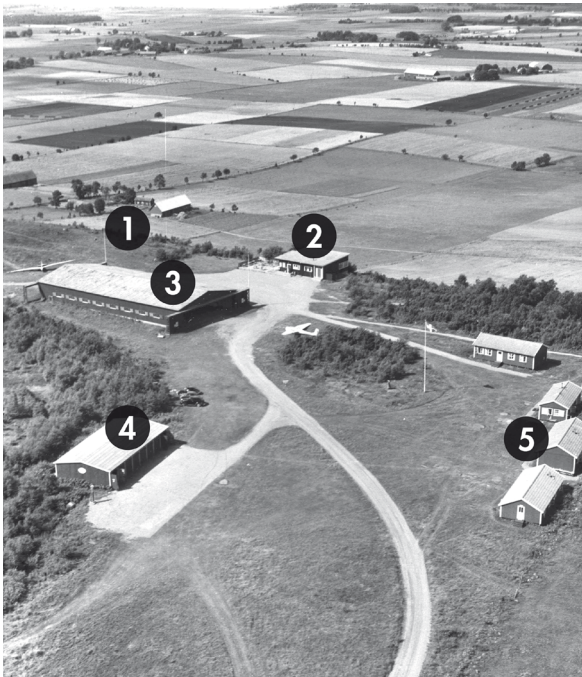
In all, the gliders flew over 78 hours from 176 launches. Most frequent in the air was the Ka-2B with 44 starts and the museum Bergfalke with 40 starts. It was of course great to see so many types of aircraft in the air.

So perhaps Ålleberg might be an ideal stop-

over on the way to Finland for you this year? With an event already planned for the 17-24 July, this could form the basis of an ideal pre-Rally stopping point for many a keen Rally pilot. Not only that, with the magnetic attraction of our wonderful collection of our museums different aircraft types and our superb overnight cabins and camping area, Ålleberg offers a warm welcome to all glider pilots from all over the world.

Last summer the SVS also organised a training-course in winch-launching. Theory lessons combined with practical exercises, were held on the 'lower airfield' in Falköping, which has a longer runway than the 'mountain'. Many 'old' glider pilots took the opportunity to refresh their knowledge. The glider used was Petter Lindberg's Ka-2B with its German registration.

FROM AROUND THE WORLD



Petter Lindberg's lovely Ka-2B

Aerial photo of Ålleberg around 1950 (with numbers)

- (1) The 'Western-hang', which now covered in vegetation that partly obstructs the view from the restaurant. Unfortunately, the launching-platform has since been torn down due to disrepair and lack of upkeep during the last few years.
- (2) The restaurant, which today also serves vegetarian food
- (3) The Museum and classrooms. It currently houses 20 primaries, gliders and sailplanes, including the worlds only preserved Grunau ESG-31. 14 aircraft are stored in other areas. This year a Phoebus A1 was added to the collection.
- (4) Shower, sauna and toilets
- (5) Simple-equipped cabins, the so-called 'Ållebyn' (Ållevillage). A total of 24 rooms equipped with washing facilities, costing only around 30 euros per night.

A large part of Ålleberg is a declared conservation area. This means trees and shrubs should be allowed to grow naturally, unhindered. For some reason, probably a bureaucratic mistake, even the Westhang (which for generations has been without trees and bushes), is now widely viewed as being largely destroyed by this policy and new vegetation. This has led to anger and disappointment among aviators and restaurant guests, who recently sent a letter of protest to the authorities with over 700 signatures being collected in a short time! It is the desire of the SVS to return the Westhang back to an open landscape,

one in which the earth and sky meet (with the Wasserkuppe, Koktebel (Crimea) and Elmira serving as surviving examples). The following picture shows Ålleberg around 1950 with minimal vegetation on the Westhang and around the restaurant area. Last year the museum had around 1,200 visitors, compared with the 1,400 who visited the museum in 2014. During the year the Museum gratefully received an airworthy Grunau IIb donation. Also comes some news of a generous donation to the museum by Hank Thor. Hank, who now lives in the United States, was the co-designer of the Dyna-Mite (BJ-1B Duster). Head

designer of the Dyna-Mite was our own Bengt Jansson and it is Bengt's hope to eventually bring the Dyna-Mite into the museum's collection as one of the very few Swedish glider designs.

Here's a brief summary of our program of activities at Ålleberg 2016:

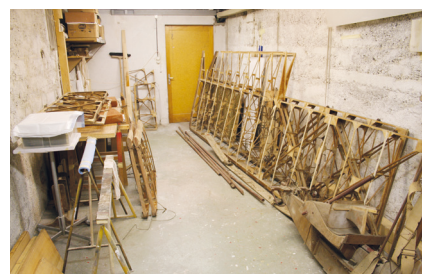
28/04 - 01/05, 19- 22/05, 16 -19/06,
17 - 24/07, 25-28/08, 15-18/09,
06 - 09/10.

Thorsten Fridlizius
Photos via Thorsten Fridlizius

Switzerland



Swiss Correspondent
Daniel Steffen
Contact:
Switzerland@vgc-news.com



The Ae.C.S.-Zögling, HB-429, in the 'Stollen' before starting the restoration.



Ae.C.S.-Zögling, HB-429 rigged.

Restoration of the Ae.C.S.-Zögling HB-429!

Once again Werner Roth is restoring a glider in his very rustic workshop in a windowless cellar in which he calls the 'Stollen' (mineshaft). This time Werner's restoration project is the primary training glider, an Ae.C.S.-Zögling HB-429, owned by the Swiss Foundation of Gliding History.

Werner is supported by his brother Hugo. Werner and Hugo have in the past visited many International VGC Rallies with their Spalinger S19 HB-225, the Spyr 5 HB-369 and the Kranich II, HB-475, with the Roth brothers realising the successful 13th International Vintage Rally at Amlikon, Switzerland, in 1985. The woodwork on the Zögling was fin-

ished last year and the inspection of the glider passed without any problems. However, the Federal Office of Civil Aviation demanded a load-test on the structure by putting weight on the wings whilst in an inverted position. This test stressed the owners more than the glider! Everything went well however and Werner is now covering the glider.

FROM AROUND THE WORLD



A nervous moment; load testing the Zögling's wing.

HB-429 was originally constructed by the Flugtechnische Zentrale Belpmoos in 1943-44. The design of the Ae.C.S.-Zögling was supported by the Aero-Club der



Recently covered flying surfaces.

Schweiz (AeCS) and is based on the Stamer-Lippisch-Zögling from 1926. During its day, the Ae.C.S.-Zögling was a very safe primary for winch launches.



Daniel Steffen during a lecture on the 19th February 2016. Photo: Kurt Buchmüller

Kurt Buchmüller
All photos unless otherwise stated: Daniel Steffen



UK

Correspondent:
Bruce Stephenson
Contact:
UK@vgc-news.com



The GHC Capstan descending between the clouds on a superb first GHC flying day for 2016.



The Viking in the workshop awaiting its inspection.

GHC update

Happy New Year from the Gliding Heritage Centre as we look forward to another season of operation.

After a bit of a hiatus caused by the bad winter weather, we were all delighted to enjoy our first GHC flying day since last November at the beginning of March. The Capstan did some good work with those kind of flights that dreams are made of when you get towed up amongst towering cumulus clouds and then gradually pick your way down to cloud base only to discover thermals below. The ex-Farnborough Oly 2b, the Oly 463 and the Kite 2b also enjoyed soaring flights in week lift under the greying skies. We are looking forward to our next flying day in April, in which the weather is looking promising, hoping that this will start a good run of flying days for us over the summer.

Of course the off-season gives us the opportunity to prepare our gliders for the coming years flying and there has been no shortage of activity in the workshop. The Foka 4 is nearing the end of its restoration, the only physical work left to do is to paint the starboard wing and then reassemble the glider for final rigging and control checks. However, this is of course not the end of the story, as every Foka owner knows, this glider is an EASA glider and hence will have

to be transitioned onto the UK CAA register. So its fair to say that we won't be seeing it in the skies over Lasham just yet, but its return to flight is eagerly awaited by us who want to find out what made this glider so remarkable when it was first introduced.

The Scott Viking is now in the workshop having its thorough inspection prior to being returned to flight. We have to say that we are delighted that Wilhelm has kept this glider in splendid condition and we really appreciate the work that he has done in maintaining her. The rubber shock absorbers in the skid are like new and we can see the work he has carried out in keeping the instruments working with new tubing between them. The glider was last covered over twenty years ago, but when the fabric was tested it was found to be like new, a testament to how carefully he has kept the glider whilst he owned it.

We still have to do the glue inspection, this was delayed as we did not have access to a suitable working camera on a stick, but this has now been resolved and should happen very soon. If all is found to be well, we should see this glider returned to the skies in the very near future.

The simulator is at an advanced stage of completion, the system has been up and running and we have all been taking turns

trying it out. Now the fuselage is being painted in a very smart paint scheme and a set of steps have been fabricated to aid the ingress and egress of virtual pilots. When complete, the sim will be put into the corner of the hangar and will be coin operated, it will become a valuable asset in raising funds for the GHC.

The Chris Wills Memorial hangar is straining at the sides with the sheer number of gliders that it contains, we receive offers of new additions to the collection all the time, visitors continue to be amazed when the doors are pushed back to reveal the treasure trove that is contained inside.

Hence, we have launched our appeal to raise funds to build a second hangar; the target is £130,000, as I write this we have raised over £47,285, that's including two anonymous donations of £5000 each!

We'd like to thank everyone who has donated so far.

If you would like to make a donation to the GHC second hangar fund check out the donate page on the GHC website www.glidingheritage.org.uk/donate to find out how.

It only leaves me now to wish you a great soaring season and we hope to welcome you at the Gliding Heritage Centre soon.

Paul Holiday

FROM AROUND THE WORLD

T21 and Kite 1 progress

Not a lot to report in this issue from the UK. Robin Birch writes about progress on his T21, BGA 3245, which he has been beaver-ing away at over the winter period. Robin comments that he had forgotten just how many acres of fabric the T21 requires, not being the slimmest of girls on the block! BGA 3245 has been based at Aston Down since 1984 and is currently owned by a syndicate of four. Typical of so many ex-RAF T21's, its new colour scheme sports her old RAF colours and should be flying by the time you all read this.

Meanwhile, the Underwoods are forging ahead with the 2nd Kite project, which of course makes it their third Kite rebuild, as David writes:

I have started to make a new tail-plane as the one that came with the project was of a Kite 2 and had woodworm! Had it not had woodworm it could have been used, although it is slightly different to a Kite 1 tail-plane.

I have made up the new tail-plane structure. This now needs to be covered in ply, which I shall start soon. The elevator which is unique to this Kite (built for Dudley Hiscox) as it is curved. I have repaired a broken rib and re glued the ply in places. There is an old rib repair which I have left, as it is OK. This morning I cleaned up the plywood lightly rubbing it down and removing lot of old red dope. I found traces of old RAF trainer yellow on parts of it for when it was used by the Air Training Corps.

Peter has started on the main spars he steamed some wood to the bend of the gull and then glued these together in the kitchen. Now that it is warmer for him, he has taken them up to the workshop. The jig Bruce



*The T21 with her clothes off.
Photo: Robin Birch*

*Repairs to the nose of the T21.
Photo: Robin Birch*



*Looking half decent again!
Photo: Robin Birch*

The myriad of markings are being painted on. Photo: Robin Birch



Stephenson brought over has been made longer and higher, then boarded over so the spars can be built up. Most of the wing ribs have been made.

I haven't done anything on the fuselage for some time. I have had four Ottfur hooks re-conditioned by Roger Andrews for both of my Kites. After I finish the tail-plane, I will

repair the rudder while Peter gets on with the wings.

Meanwhile, I hope to take the Prototype Kite over to a Shuttleworth air display in May before we recover it, after which, it should not take too long to finish off.

David U



*The new Kite tail-plane is well underway.
Photo: David Underwood*



*The original elevators were in pretty good shape requiring only relatively minor repairs.
Photo: David Underwood*



Meanwhile Peter has been busy with making up the new spars. Photo: David Underwood

FROM AROUND THE WORLD

USA



Correspondent:
Lee Cowie
Contact:
USA@vgc-news.com

New Year Shenanigans across the USA!

The Vintage Sailplane Association in the USA has a tradition of flying on New Year's Day. Starting on the east coast at the St. Marys County Airport in Maryland, Rusty Lowry and Nick Mirales traded places in the Piper Pawnee and the Schweizer 2-33. The longest flight at this east coast gathering was made by Kristin Farry in her vintage Schweizer 1-26. Meanwhile, in the mid-west it started raining on Boxing Day and continued for three days. Roads that had never flooded before, flooded. At the Mid-American airport at Lawrenceville, Wabash Valley Soaring Association members who made it to the airport flew. Members who lived farther away from the field found it harder to get through, many failing to complete the journey. Eighteen flights were made with the longest flight logged being an hour and a half long, before our happy, but cold band of friends retired to Dave and Betty Schuur's home for some heart-warming chilli. In direct contrast to all the rain in Wabash, down in California Cam Martin writes that folks at the Mountain Valley Airport at Tehachapi hosted their traditional New Year's Day, open-cockpit flying. Complete with patchy snow on the ground to compliment the beautiful mountain scenery, some of the January the 1st flyers logged their flights onto



A Vintage start to 2016 at the Wabash Valley Soaring Association in Lawrenceville, IL provided a great omen for 2016. Here Alex Dillingham and Jim Croce enjoy the Wabash Valley K-13. Photo: Jim Short



Brit Jim Staniforth launches Harry Irvine in his Standard Cirrus. Photo: Cam Martin

the OLC (On Line Contest) for the world to see which included Harry Irvine, Cam Martin, and Tom Riley. The consensus was that at 38 Deg F on the ground and with a 15kt wind, it was colder standing around than flying; which even included flying in Tom Riley's open cockpit, sport canopy equipped, Schweizer 1-26B. Of course, flying in the cold was the point, after all it was New Years day and in the northern hemisphere! Whilst finding lift may not have been the focus of the exercise, there were reports of a few positive bumps however, with Harry Irvine and his Standard Cirrus finding a bit of lift in the wake of some wind turbines. Tom generously shared his shiny red and grey Schweizer 1-26B, which has been restored and refinished by Ron Martin, who was serving as tow-pilot for the day. Other news is of the participation of the VSA at this year's Soaring Society of America (SSA) Convention in mid-February at Greenville, South Carolina, where the VSA was well represented at the highly informative 'OSTIV Speaker Session' lectures by Simine Short and Neal Pfeiffer. Simine gave a fascinating talk

on the role that the aviation pioneer, Octave Chanute, played as possibly the first methodical flight-test engineer in gliding and even in soaring. Neal presented the nationwide audience with a talk titled; *Rejuvenating our Aging Sailplane Fleet, Keeping Vintage & Classic Gliders in the Air*, which was received with great interest. If all that wasn't enough, Neal is now hard at work trying to lead the project to bring the English translation of Hans Jacobs' iconic work, *Werkstattpraxis* (Workshop Practice) to fruition. His team is finalising the last edits, layout and checking of the drafts. The 25-year project (including help from volunteers around the world) is hoped to be completed in time for this year's IVSM in Elmira, NY. Watch this space. Finally, some other news of interest is that the VSA has been successful in qualifying for Public Charity Status. This means that under US tax laws, one can now receive tax relief on donations and gifts to the VSA and represents a significant step forward for the association.

Lee Cowie/Cam Martin



Tom Riley's gorgeous 1-26. Photo: Cam Martin



Ron Martin tows Tom Riley aloft in the 1-26 with the backdrop of Tehachapi's myriad of wind-turbines. Photo: Cam Martin



A cold, but contented Cam Martin in Tom's delightful 1-26. Photo: Cam Martin



Model Editor:
Vincenzo Pedrielli
Contact:
model@vgc-news.com

10th Czech Model meeting at Rana

Petr Stejskal, translation by Tomas Mezera



An eclectic line-up of model gliders grace the launch point.

It started ten years ago, an idea for modelers from Modelklub Lipence to reunite at the end of the season and fly on the hillside at Rana while the autumn winds persist. When the winds do not oblige they turn instead to aerotows, or in more extreme cases, to the airport pub.

At the invitation of Rana Aeroclub, who provided everything we needed, including accommodation, about twenty enthusiasts with radio-controlled (RC) gliders met in mid-October 2005 for a weekend at the airfield. Over the years, the number of participating modelers has grown, with participants coming from further and further afield and with the public attending in increasing numbers.

Last year's 10th meeting was attended by around sixty RC pilots with hundreds of models, not only from the Czech Republic, but also from abroad. And what was there on our field to see?

Life-like models of gliders ranging from small wing-spans of about two meters, to 1/2 scale models in with a wingspan of up to 8 meters. They ranged from primary trainers, through to the many interwar and post-war Czechoslovak wooden gliders, right up to more modern 'white' composites.

The models are now mostly Radio Controlled on 2.4GHz frequencies, which gives the pilot data from the vario, altimeter, as well as the status of the on-board batteries. We also flew the competition category

in which a triangular track is flown by GPS navigation, with the flight data loggers being evaluated later in the evening. All features are controlled, as in the real machine, with standard electronic mixing. This typically involves the deflection of aileron, affecting the rudder, or the opening of airbrakes which often effects the pitch trim of the model.

Proportional feedback of the mechanical control coupling has not yet been perfected. However, largely because the pilots have gotten used to managing the sensitivity of control inputs with their visual feedback, they are acutely aware when the model is flying fast. It is not advisable to use large deflections. But then well-built models achieve far higher load factors than their real counterparts.

The gliders are launched by aerotow using RC model tugs equipped typically with engine displacements from 50 to 250ccm. From the perspective of full-size gliders, these aero-tows look a little different. The towing model has a curtain cord that is attached close to its center of gravity, so potential out of position tow management of the glider will not impair the control of the towing model plane. Towing models are also overpowered, so the tow rope is short and climbs are steep. This reduces the risk of out-of-tow positions for both machines. Even so, tows of four-meter wing-span models can typically finish at an altitude

of 500m, which is more appropriate for the larger machines. Of course, like with a full-size tow, there is the possibility for both parties to terminate the tow, with the ability of the towing model to retract the towing cable during the descent.

At the launch point, the gliders are readied in a queue, usually with two towing machines in the operation. More than this is often not as safe from an organisational point of view. Launch fees of 20 CZK (0.75 €) were charged, regardless of height. It is not unusual during thermic conditions, to see at least 10 models in the air at once, giving the spectators plenty to watch.

If the wind cooperates, modelers with smaller machines like to fly the hill slopes, although the closest one, Rana hill, is popular with paragliders and is not really ideal when the winds are lighter. With the stronger winds however the paragliders are sitting in a pub, and it's just right for us! Generally we do not see the largest models flying over the hill due to their weight and vulnerability when landing on the slope. For slope soaring, smaller models are usually hand-launched, with larger ones by rubber rope.

Last year's annual meeting was very nice with suitable weather, so we are looking forward to meeting again this year. A beautiful video of this event can be found on the kolmanl.info website.

All Photos: Petr Bortel



A beautifully crafted model of a British Slingsby Kite 1 nestles quietly amongst its European cousins.



Just some of the assembled tugs and gliders alike

MODEL NEWS

Chris Williams

2015 UK MODEL ROUND-UP

After the events reported the last time around, I was able to get some serious airtime with the Kite 2a. Given the nature of most strutted vintage gliders as models, I hadn't expected too much in the way of performance, but the Kite came as quite a surprise, being able to cope with both ends of the wind speed range on the slope, and very relaxing to fly from aerotow to 1500'. The combination of excellent visibility due to the sun shining through the translucent flying surfaces, and the model's remarkable stability make it a pleasure to fly on those blue sky days when visibility is often a headache.

For once, all of the Scale Fly in events at the White Sheet club were blessed with favourable weather, and at one of them we were able to address the tricky business of formation flying photography. Trying to get two gliders to fly side by side in close proximity when the pilots are on the ground can be a very tricky, if not impossible business. If one is behind the other, then picking up speed comes only with help from the elevator, and then they are at different heights. If they are at different heights, then judicious use of the airbrakes on the higher model then changes the speed and so ad-infinitum. I had a lightbulb moment when it occurred to me that the one time models would be together if they were launched simultaneously in the presence of a cameraman. This we tried, with some success, and inevitably it became necessary to try it with three gliders. The plan was that the one in the middle would fly



Not the Red Arrows, but as close as we can get

The three-man launch!

straight and, after a few tense seconds, the wingmen would peel off left and right to safety. The resultant photograph shows the Kite, a Petrel and a Bergfalke 4 in rough formation: not exactly the Red Arrows, but as close as we will ever get.

Towards the end of the year our little group saw a clutch of maiden flights. First up was Motley's (Geoff Crew) 1:3.5 scale HW-4 Flamingo, finished in a red and white livery, and built from my plan. There is little information as to current state of the full size Flamingo, as it resides in deepest Brazil, but as far as I know it is still in existence. Close on the heels of the Flamingo came my latest project, the Eagle. This is built to 1/4 scale and comes out at a fair old size. It's maiden flight took place in the teeth of 40+mph winds on the slope, but when the monsoon season is upon us, you have to take any chance you can when the rain stops for a few hours. On same day, and with a certain amount of heroism, Smallpiece (Barry Cole) flew his new 1:3.5 Bergfalke II 55, scaled up from the 1/4 scale plan. Both models survived the ex-

perience, the main danger area being the turbulence near the edge of the slope.

One of the highlights of the year has to have been the last of the Ghost Squadron aerotow events at Middle Wallop. This coincided with the final round-the-UK tour of last flying Vulcan, and we were warned to cease activities around the middle of the day. One bright spark came up with the idea of arranging all the tugs and gliders in a big triangle to honour the occasion, in the hope of catching the Vulcan pilot's eye. Sure enough, what looked like being a mere fly-by turned into a 360, as the mighty Vulcan flew around the airfield. It might be wishful thinking, but it's a story we're sticking to!

Before signing off, there was one more occasion worthy of note. At the beginning of this year, Motley and I were able to film the two Flamingos on the slope, and should you wish to see them in all their glory, you can see the video by Googling **ONE HILL 2 FLAMINGOS**

Photos: Chris Williams:



The Eagle on its maiden flight in extreme conditions at White Sheet Hill



Geoff Crew's new HW-4 Flamingo



Author's Flamingo in a scene from the video 'ONE HILL 2 FLAMINGOS'

Barry Cole with his new 1:3.5 scale Bergfalke II 55



What's at the head of the triangle of models at Middle Wallop? The tugs, of course!



Russian Correspondent:
Sychev Aleksei Vyacheslavovich
Contact:
Russia@vgc-news.com

Sychev Aleksei Vyacheslavovich

A pictorial history

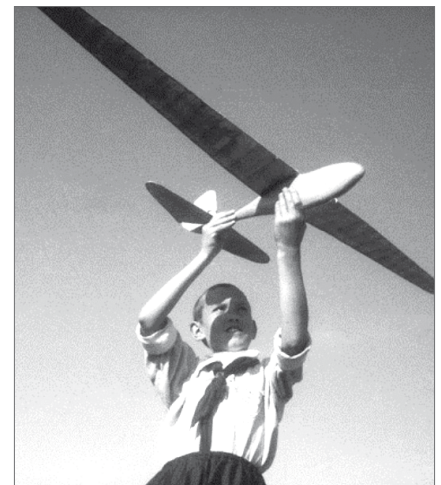
of Russian Socialist Realism and its role in the development of early modelling in the U.S.S.R.



1926. Model aircraft club.
Artist: Nina Kashina (1903 - 1985)



1930. Avia Model Club participation was not only restricted to boys. Young girls were also actively encouraged to partake in activities.
Artist: Alexey Fedorovich Pakhomov (1900-1973)



Like many other countries during the 1930's, the development of aviation in the Soviet Union was in full swing. Aeronautical Design teams headed by Tupolev and Polikarpov, designed and built the first Soviet military and civilian aircraft. The names of famous Soviet pilots like Valery Chkalov and the brave pilots, Molokova, Kamanina and Vodopyanova, who, in February 1934, were involved in the epic tale to save sailors from the ice-bound steamship, 'Chelyuskin, became idols for young Russian boys. In those days almost every Soviet schoolchild dreamed of becoming a pilot, or at least, to have the opportunity of building a model glider with their own hands.

In 1922, with the development of the Soviet Young Pioneer movement, (Molodoy Pionery, the Soviet version of the Boy Scouts), a sub-branch, the House of Pioneers, (Dom Pionerov), was soon established. This sub-organisation gave young Soviet children the opportunity to engage in after school activities with a focus on developing minds and bodies through hobbies such as modelling, drawing, singing, as well as home-craft for girls. Membership to these clubs was free and highly encouraged within schools, with State funding of the clubs providing a focus on the development of technical creativity of children.

Part of these modelling clubs were the 'Avia-Model Clubs', which focussed on model aircraft building. With their slogan of: *Ot aviamodeli k planeru! S planera na samolot (From model aircraft to gliders. From gliders to a plane)*, was well-known throughout Soviet Russia. This of course

helped to promote Communist Russia to become far more technically air-minded in the desire to rapidly modernise the Soviet Union throughout the 20th Century.

In order to achieve this goal of promoting an 'air-minded' nation, soon idealistic images of Russian youth indulging in the joys of model making were being produced in the then style of art movement known as 'Socialist Realism'. This characterised the glorified depiction of Communist values, effecting an ideological remoulding and education of the working peoples to the radiant spirit of socialism. Toward this end, Russian artists were coerced into producing industrial design work in order to create 'socially beneficial art', with Socialist Realism becoming the only Party approved style of painting and sculpture. Names such as Alexander Deineka, Alexey Pakhomov and Boris Milovidov are today



1931. The Race of the Aircraft Modeller's.
Artist: Samuel Adlivankin (1897-1966)



1934. Model Aeroplanes (Note the various uniforms of the Young Pioneers).
Artist: Boris Milovidov (1902-1975)



1960. Young modellers.
Artist: Elsa Davidovna Khokhlovkina (1934-)

MODEL NEWS



1936. Avia Model Club.
Artist: Alexey Fedorovich Pakhomov (1900-1973)

regarded as some of the leading Realist painters from the Soviet era and whose work is increasingly sought after today. With the formation of the Avia-Model Clubs, soon small factories were being organised to produce model motors and boxed kit-sets, complete with all of the required materials. As with the popular rise of model making in other countries in the first part of the 20th Century, this had led to the development in 1936 of the FAI Commission Internationale Aeromodelling, with competitions being held in the USSR under the various classes and rules of the FAI.

The State also provided the tools and materials, with most clubs building simple free-flight glider models. However in



1936. Young aeromodelling lady.
Artist: Lydia Yakovlevna Tymoshenko (1903 - 1976)



1939. 'Our Airforce'.
Artist: Alexander Alexandrovich Deineka (1899-1969)



1939. Young Aeronautics.
Artist: Anna Kazimirovna Bohr (1901-1984)

the bigger, more prolific clubs, powered models were made for competing in major competitions. In the early years, most models were either free-flight or control-line. Radio-control models later began appearing in the early 1970's. The supply of radio equipment, balsa wood and good quality rubber (from the firm of Pirelli), for rubber-powered models was a big problem in the USSR. In each region, every small city had an Avia-Model Club. In the big cities there were many Avia-Model Clubs, however after the collapse of the USSR, the financing of the clubs became very difficult and many clubs were closed down.



1940. Kirov with model airplanes.
Artist: Lydia Yakovlevna Tymoshenko (1903 - 1976)



Slogan reads: 'And we will be Pilots!'
Artist: Yuri Nikolaevich Chudov (1924-)

Today, in modern Russia, there are many models of foreign manufacture available, as there is foreign radio equipment. At International Model Aircraft Competitions, competitors from the USSR and Russia have often been winners, thus creating and maintaining this skilled tradition to this day.

All photos internet sourced via:
Sychev Aleksei Vyacheslavovich



Young Pioneers at hard at play! Vsesoyuznaya pionerskaya organizatsiya imeni V. I. Lenina (The Vladimir Lenin All-Union Pioneer Organisation), existed for children between the ages of 10-15. Formed in 1922, the uniforms pictured here formed part of the regular school uniform (there were other uniforms however) and included a red neckerchief, the symbolic colour of Communist Party, which signified the bloodshed of the Revolution. The Red Star badge worn by Pioneers signified the victory of Communism over the five continents. Soviet Pioneers swore their oath to Motherland and the teachings of the Communist Party. The aim of the Pioneers (as in the western world), was to teach young people social cooperation, learn new skills and attend publically funded summer camps.

OBITUARIES

BILL SCHWEIZER

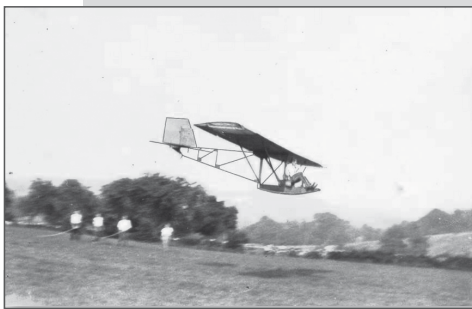
Few people can claim to have been involved with soaring in the United States almost from its inception up to the current time. Bill Schweizer started gliding with his older brothers Ernie and Paul in 1930 helping to build their first primary glider on the family's farm in Peekskill, NY; and, he stayed with it up through the late 1990's when he was Chairman of Schweizer Aircraft Corporation, the oldest privately-owned aircraft manufacturer in the United States. Bill died gently in early January at his home in Elmira, NY at age 98. His brothers Ernie and Paul, his beloved wife Peggy and many others of his generation preceded him in passing on. Bill led a remarkably personable, successful, varied and healthy life. He understood vintage



*Bill Schweizer with Phil Westcott's newly restored 1-23B on Harris Hill.
Photo: Schweizer Family Archive*

gliders and soaring history and could put this understanding into the context of aviation development over ten decades.

At age 12, Bill was younger than his brothers, but he helped them build the SGP 1-1 primary glider that they designed themselves; there were no other gliders to buy (and few to copy) for this high school trio. And there was nobody to teach them to fly, but they did learn and they all survived. Each brother went to college earning an engineering degree; Bill graduated in Industrial Engineering. This was fortunate for their company, formed in 1939, as each brother eventually specialised in his expertise, Ernie in design, Paul as the world-famous pilot, promoter and businessman, and Bill as the production engineer who made it possible to build sailplanes and many other aircraft and aviation subcontracts so the company could survive and grow. All three brothers were key to American soaring, but just as much they were important to the prospering of the Upstate New York town of Elmira. Through their love of gliders their company became known worldwide



*The first of what was later to become a long line of America's most famous sailplanes to carry the Schweizer family name. The Schweizer SGP 1-1 in flight at Peekskill, NY in 1930. Pilot unidentified.
Photo: Schweizer Family Archive*

and this helped them along the way, as they became one of the largest employers in the Elmira area and a steady workplace for generations of loyal aircraft workers. In later years, Bill often burned the midnight oil, as the factory demanded much attention to combine gliders (2100 built over the years), Ag Cat agricultural biplanes (2600 built) and eventually Schweizer 300 helicopters (more than 1200 built). Schweizer Aircraft was known for building training sailplanes, sorely needed by the American soaring movement; and, for several decades the company operated the largest soaring school in the US. This was great for Bill. Of-

ten after work during the summer soaring season Bill would call the Soaring School in late afternoon and ask, 'Is there a glider available to fly?' Sure, there was! Bill thoroughly enjoyed his few available hours flying visitors and friends and enjoying a few thermals to himself. Bill particularly loved flying the big 2-32, and enjoyed taking two passengers at once, which this 'Cadillac of sailplanes' let him do. He would take business associates, mothers and children and dating couples for rides and enjoy the flight as much as they did.

He believed in new products and spent what free time he had flying Schweizer projects such as the 2-31 glider/airplane and the Teal Amphibian. The Soaring School was also a great place to keep track of his growing family as most Schweizer kids grew up working as line crew at the school, eventually

becoming instructors before going on to college and then returning to eventual careers in 'the plant'. Fortunately, the school was located on Chemung County Airport, only steps from the factory back door. Bill also inspired many other employees and new instructors at the Schweizer Soaring School, giving them good advice and encouraging their enthusiasm as they embarked on their own aviation careers. Bill could be blunt, too. I remember once when I was toying with moving on to another aviation company: Bill called me into his office and admonished me with his thoughts, 'Don't go there, it's a "dog-eat-dog" world out there and that company is going bankrupt pretty soon, anyway.' Well, they did, and Bill was right. Schweizer was a family business and one that took care of its own.



*1983. Bill Schweizer (by cockpit of the prototype SGM 2-37 motorglider) with the company's second generation leaders, Stuart, Paul H. and Les Schweizer.
Photo: Schweizer Family Archive*

Soaring was part of the fabric of Bill's life as it was for the rest of his family. In later years after Schweizer Aircraft was sold to Sikorsky Aircraft, Bill (The Chairman) retired and turned his energy to writing (See his books, Soaring with the Schweizers: the Fifty Year History of their Aviation Adventures – 1991, The Ageless Ag-Cat – 1995 and Born to Fly – 2004) and to the National Soaring Museum, where he was a volunteer, promoter and benefactor.

He loved the International Vintage Sailplane Meets and was a speaker at several of them. He enjoyed being part of the family team that selected the Best Schweizer Sailplane at each IVSM. He maintained this enthusiasm until his last days. Meetings, parties, gliders, family and new projects were a big part of Bill's life. We bow to the last of the three original iconic Schweizer brothers!

Jim Short

POETS CORNER



Diana...

On a backdrop of the sky blossomed an orchid rare –
Subtle, full of grace – a lady in glistening white,
A dreamer endowed her with an Angel’s raptured air –
A chalice’s slender grace into a goddess wrought...

Anna Magdalena Mróz

Translation by Graham Crawford



Teacher, glider pilot, aviation lover and poet, Anna Magdalena Mróz, lives in Warsaw in her native Poland. Many of her romantic and nostalgic poems are inspired by the classics of world poetry, with much of her inspirational work now having been translated into English. Anna is a

member of both literary and aviation associations, and has won Polish and international poetry awards. Anna currently has her own dedicated poetry website, where you can view her other works. www.annamroz.net

Photo Credit: Giulio Gorr Casajus

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(Photos: Vincenzo Pedrielli)

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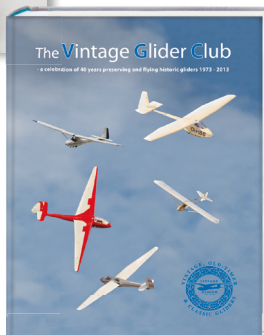
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Photo: Thorsten Fridlitzius