



# *The Vintage Glider Club of Great Britain*

NEWS LETTER

FEBRUARY 1974

## MEMBERS' MEETING

18 members returned questionnaires, and many interesting points were made.

WASSERKUPPE Briefly, seven members plan to go to the Wasserkuppe Rally - Willi and Geraldine Schwarzenbach from Switzerland, Chris Wills and John Coxon, Rodi Morgan, Francis Russell, and possibly Ted Hull. We don't know about Ken Crack still in Malaysia but we know a letter from him is stuck in the post.

Chris Thomas says that the Hus. Bos. T.21 will not be going to the Wasserkuppe, but he would be interested to hear from anyone who wants rigging or financial help in return for a share of flying time. It may be that others want help with their gliders, or would be prepared to offer help. Offers either way will be relayed through Chris Wills. Chris Wills has put forward the idea of two pilots sharing one glider, by one towing it out three or four days before the Rally and flying it then and for the first four/five days of the Rally: the second pilot coming out to fly the glider for the remainder of the Rally and as many days as he wants after, and towing it back to England. Well, it's a thought.

Rally entry forms, with fuller information is being sent to those named above. Sorry for the delay caused by rather prolonged bout of ill health. If you plan to go and your name is not shown, PLEASE ASK THE SECRETARY FOR AN ENTRY FORM IMMEDIATELY. Return date for the forms is 18 MARCH 1974, and this is important.

LONG MYND The dates are confirmed as 24th to 27th May. We are awaiting confirmation of charges, etc. from the Midland Club. These will be circulated to those named below as soon as available:

Michael Maufe  
Bob Lyndon  
Terry Wright  
Norman Mariott  
Mike Russell  
Brian Coombes  
Ted Hull (or the Wasserkuppe)  
John and Frances Furlong with  
the 'office' Dormobile

Norman Ellison  
Alex Orde  
Derek Ashman (but no glider unless  
someone volunteers a tow car to  
him - please contact him direct)  
Rodi Morgan  
Ken Crack, probably if he's back  
Chris Wills, for St. Sun. & Monday  
Mike Garnett, possibly.

If you are thinking of coming and your name is not above, PLEASE CONTACT THE SECRETARY so that more information can be sent to you.

TENT There was more or less universal support for the tent idea, and the promises in loans and outright gifts total a staggering £276. We really do thank you for this response. There remain two points to be cleared up: it had been intended that the 'gap at the top' offers might be gifts, but from the sums offered at this end, we can hardly believe they are all intended as gifts, so where query arises, the Secretary will be clearing this individually.

Secondly, some members have mentioned Exchange and Mart and possible second-hand tents at around £60/70. We thought of this and investigated. These produce the usual family-type fair weather holiday camping tents, with 3 ft. walls and 6 ft. maximum in the centre. What we had in mind, and what is now on order is a 12 ft. by 12 ft. 'young Marquee' with 6 ft. walls and a 10 ft. centre for good drainage, ample standing room for us all, stout cotton duck, less fire risk, rot-proofed. Price £180 subject to increase as necessary, and VAT, weight 1 cwt. 19 lbs. packed in two bales, max. length 6 ft. One member suggested a second-hand caravan, but this would have problems. Where to store it without having to pay a site charge annually, and how many club members would agree to tow it from storage to Rallies when they may have their own glider trailers) And of course it would only give us a space of something like 72 sq. ft. as against the 144 sq. ft. we are getting. So in the main we hope members will agree with our decision, especially those who are putting up money! Two members suggested that though the tent was an excellent idea, getting one should wait until we could definitely hold Rallies. I'm afraid I have to report that we jumped the gun on that and went ahead and ordered.

Edgington's are doing their best to let us have the Marquee by 24th May for the Long Mynd, but they are of course working a three-day week like everyone else, so we can only hope.

#### COMMENTS ON THE NEWS LETTERS AND OTHER THINGS

In the main, very favourable. More comments in detail. Michael Maufe would like more history of gliders owned by members, date of construction and previous owners.

Mike Russell would like to see more efforts to seek out and encourage the finding and proper storage of pre-War British gliders. As such a campaign would obviously cost money, more 'supporting, non-owner' members at £2 p.a. and increase owner sub. of £5. Norman Ellison wants us to go on with the present style of production of the News Letter and not venture into a 'properly printed illustrated bi-monthly or monthly', and to keep the Club subscription (right down too'.

Chris Wills has been for many years and still is conducting his own campaign to locate old gliders, not only in Britain but anywhere, so if any member gets the faintest hint of the whereabouts of one, he has only to write to Chris. As regards our subscription, this comes on top of many members' flying club charges and we do indeed intend to keep it right down. Apart from special items like the tent, we only need office supplies like stationary, stencils, duplicating paper and postage.

So until our accounts tell us that our income is not meeting our expenses, the renewal subscription after the first year will be £1. If anyone is able and would like to give more, of course we would be grateful. But with the tent we can also earn money and we believe this is the way to do it. We've yet to investigate the possibility of hiring out the marquee to other BGA clubs, but one rule would almost certainly be that one of our Club members accepted responsibility for its safe and proper erection, maintenance and de-rigging and return, and we would probably require an indemnity or insurance to cover it.

Two members suggested bungee'ing. A quick answer is this: the London Club has a bungee complete with rope ends, strain gauge and apex with weak link which they could let us have for £100 (the rubber rope by itself would be £80). It is said to be capable of 300/1,000 launches, but John Furlong who started gliding that way in the 1930s, says 'more like 100 and could be less if you were unlucky' - once the rubber breaks it cannot be repaired. And a minimum of eight men left on the ground after the last launch. The only way we think the Club could go ahead with this idea would be if each 'launchee' agreed to pay £1 per bunge, with a possible future credit accruing to him, the amount to be decided when the rubber finally breaks and the total number of actual launches is known.

So if any number of members are still keen on the idea, please let the Secretary know and we'll look at the idea again.

#### FROM THE EDITOR AND SECRETARY

We regret any omissions: other questions in the returned questionnaires will be answered direct as soon as possible. In the meantime we thank members for their encouraging response, kind comments and generosity.

VINTAGE GLIDERS FOR SALE

WEIHE 1943. Excellent condition, recent C. of A., with instruments and fitted trailer. Asking price around £1,100

Write to Peter Wright      Tel: Melton  
3 The Close                      Mowbray 4361  
Burton Lazars  
Leicestershire

MANUEL WILLOW WREN Now at Rochester Airport. Rebuilt about 10 years ago by its original 1931 designer and builder, Corporal Manuel. Anyone interested in purchasing the Wren, please contact:

Michael Jones,  
The Tiger Club  
Redhill Aerodrome  
Redhill, Surrey  
Tel: Nutfield Ridge 2212

The Wren can be seen by appointment by telephoning Mr. Thompson or Mr. Skinner U.F.S. Rochester, Tel: Medway 63424. If notified during the week, the machine can be got out for viewing.

(More news about this and other Wrens later in the News Letter)

GOEVIER (B.G.A.1642) Built by Fokkers from the Wolf Hirth design in 1948. With instruments and C. of A. until April 1974. Re-sprayed this year. Mid-wing, side by side, canopied two-seater. Trailer available. Price around £900

Write to R. J. Buckels,  
40 Harold Road,  
Leytonstone E.11  
Telephone (evenings) 01-539-6497

PARTS OF GRUNAU 2A AND GRUNAU 2B Write to W. A. Richardson,  
12 The Downsway  
Sutton, Surrey

SCUD John Jeffries at the London Gliding Club would like to syndicate his Scud, retaining a part share. It could be domiciled anywhere, but he would like to see it at the London Club occasionally. Offers to him at London Club, Tring Road, Dunstable, Beds.

WEIHE FOR SALE IN AUSTRIA News has come from Austria of an ORIGINAL WEIHE for sale to a good owner. It was fully airworthy in October 1973. Offers to Sportflieger Steyr, A - 4400 Steyr, Austria. It is not known whether this is in fact an original pre-production 1938 Weihe or one of the war-time built Weihes.

VINTAGE GLIDER NEWS FROM GERMANY

From the Deutscher Aerokurier have come details of a replica constructed and flown by no less a person than the gliding pioneer Peter Riedel. Peter Riedel came to the first Rhön Contest in 1920, as a 14 year old boy, with his second glider, the PR.2 Rhönbaby. His first problem was to learn to fly it with the instructor running in front and a man on each wing tip ready to catch it. Peter Riedel has now built the machine again and has auto-launched it at 30 mph.

The last two Aerokuriers have displayed advertisements for more historic gliders for the Wasserkuppe Museum. Among the machines said to be at the Museum, is a Rhönsperber. If this is true, there are now two Rhönsperbers in Germany - the other being in the Göttingen Museum.

..... FROM AMERICA

Our member Dean McMillian has been sending us a tremendous amount of news. He is very much involved with the designs of his old friend, the pioneer American designer Hawley Bowlus who was not only a very good glider designer, but also a superb wood craftsman. Dean has a Baby Bowlus almost ready to fly and has it fitted with oxygen, for cloudbase is sometimes at 18,000 ft. in Nevada! Dean mentions that there are other examples of this pre-War pod-and-boom sailplane either in Museums or airworthy.

Dean reports that there are also still three examples of the beautiful Bowlus Dupont Albatross, the 1930 60 ft. span sailplane. Two of them are in Museums and the other is 50% damaged. He would like to get the damaged one for rebuilding. He says there are many Bowlus Super Albatrosses still about. The machine employed the outer wing panels of the previous sailplane, in shoulder wing configuration, on a pod-and-boom fuselage: he would like to get one of these beautiful pre-War sailplanes, but in the meantime he is restoring his Baby Bowlus in original varnished ply and transparent fabric.

RHÖNADLER IN THE U.S.A! Dean has also sent details of the Gehrlein Museum: the address is (The One Man Museum!) - The Thermal G Gliderport, 9001 Hamot Road, RD 4 Waterford, Pennsylvania U.S.A. Reported contents: 1 Baker McMillian Coder built 1930, 1 Primary glider built in Akron, Ohio, the jackpot of the Museum, a 60 ft. span 1930 Hans Jacobs Rhönadler, a Tiny Mite, an Aeronca C.3 with 2 cylinder engine, a stock of engines and a Baby Bowlus (never flown).

If the Rhönadler really has a 60 ft. span and was built in 1930, it must be one of the first prototypes, since all Rhönadlers after 1933 had 17.4 m. spans. It became the most flown high performance sailplane in Germany up until 1937. Only one other Rhönadler is believed to be in existence and that is de-rigged, with other old German sailplanes, in the Polish Air Museum at Krakow. The Rhönadler in Britain was burnt in 1946, when it was only 13 years old, after damage in flight, when being flown by a Ceylonese member of the Cambridge University Gliding Club. It was taking part in the first British Gliding Meeting after the War at Rearsby during the Easter holiday. The accident occurred on 22nd April 1946. The machine had been imported during 1933 or 1934 and was originally owned and flown by Eric Collins, who flew a British Distance record in it (98½ miles) (B.G.A. No. 171 - later B.G.A. No. 281). Rhönadlers were built at the firm of Schleichers.

More news of the RHÖNADLER in the U.S.A. would be very welcome. How did it get there?

#### WREN SAILPLANES

In November a visit to Rochester Airport was made to see the Manuel Willow Wren. The machine was found rigged, locked up in the store in the hangar, and it was superficially examined. The impression was that its condition was good. All ply surfaces were painted in ivory coloured dope and the fabric was covered with transparent dope. The surfaces were unvarnished. The machine was undamaged and dry. The little glue that could be seen in the wing roots seemed sound and there was no smell of decaying casein. The machine has no C. of A. or trailer. It was apparently last flown three years ago by Charles Mackenzie of the Civil Service Gliding Club. He said that its handling characteristics were satisfactory. The trailing edges of all flying surfaces were unwarped and true. Some of the metal fittings and pins are a little rusty, but did not seem beyond recovery.

The Willow Wren was rebuilt about 10 years ago by its original 1931 designer and builder, Corporal Manuel. Since then it has been in the hands of Norman Jones of the Tiger Club and it has hardly been flown at all. Up until three years ago the Willow Wren was occasionally flown by power pilots, most of whom must have had little idea of the handling characteristics of gliders, especially old ones.

On its last C. of A., or Permit to Fly, it is believed to have had a restriction against aero-towing. Presumably this might be lifted after modifications and tests.

#### THE FATAL ACCIDENT IN A WREN SAILPLANE DURING 1939

This was recently described to Chris Wills by Doc Slater. This machine had been built by its owner, Mr. Godson, who had rigged the ailerons with their differential in reverse. He was heard to say that the one that was down was far more important than the one that was up. During the occasion of the accident, Mr. Godson was seen doing very steep turns in his Wren. During these tight turns, the machine spun but was got out fairly quickly. Mr. Godson then went on doing tight turns and went into another spin, after which the ground arrived before the recovery.

## A WREN IN NEW ZEALAND

Further to Martin Simon's excellent article which he gave us permission to publish in a recent News Letter, I must mention that another Wren was constructed in New Zealand by the Reverend Evans, possibly during the War years. The N.Z. Civil Aviation Administration turned a blind eye to the machine during the late 1940s as it had been built of local woods (if not other parts as well). The Rev. Evans taught himself to fly in his Wren, ab initio, and in spite of many accidents became New Zealand's first glider pilot.

The Rev. Evans is now no longer alive, but his Wren may still exist near Timaru. He belonged to that stout-hearted band of second generation pioneer New Zealanders and he taught himself to fly in spite of every conceivable difficulty. Both his sons fly and helped him build the Wren. Tom, his younger son, was and may still be an Air Lingus pilot.

## A N O T H E R V I N T A G E G L I D E R R A L L Y

The Devon & Somerset Gliding Club is allowing us to hold a VINTAGE GLIDER RALLY at North Hill Airfield (near Honiton, just west of Dunkeswell) during Competition Enterprise, Saturday 22nd June to Sunday 30th June inclusive. Provisionally they plan to give us our own camp in the angle at the north-west corner of the airfield. As usual suitable tasks will be set for the Vintage Gliders.

With great benevolence towards the Vintage Glider Club, the Devon & Somerset Club will be making only minimal charges: a £ or so for tent or caravan sites (ablutions and water available on the other side of the field where the Competition Enterprise competitors will be sited), 50p for monthly membership, aerotow charges of £1.50 and winch 40p - with 1,200 ft. claimed in any sort of a breeze! The Vintage Glider Club will ask for an attendance fee of £3, which will include use of the Marquee.

More details, road directions and so on, in the next News Letter. In the meantime, it would be helpful if members could let the Secretary know if they will be coming, whether with tent or caravan, whether they will require meals (if these can be laid on) - and how many. Whether any dormitory space is required in the Marquee: that's a thought - presumably men only?

Got the dates for your diary? 22nd to 30th June - even if you can't come for the whole time.

### ADDITIONS TO THE ADDRESS LIST

SND 111	Leslie Collins, 39 Torquay Drive, Leagrove, Luton Beds	*
BOWLUS - BABY ALBATROSS	Dean McMillian, 6109 Kimberly Circle, Las Vegas Nevada 89107	*
GOEVIER SKYLARK 2	Albert Hengelaar, Wilhelmstraat 12, Ommen, Holland	*
<u>BGA INSPECTOR</u>	Mike Garnett	

ADDRESS REMINDER Chris Wills, Huntercombe End Farm, Nettlebed, Oxon  
Tel: Nettlebed 650

Published by Frances Furlong, Otford House, Otford, Nr. Sevenoaks, Kent  
Tel: Otford 3277

## THE KRANICH (CRANE)

A designer must be truly great who can create a sailplane which can remain in first line service, setting up World and National records, during a span of over 20 years. Such a machine was the Kranich 2-seater.

The prototype was designed at DFS by Hans Jacobs in 1935 and was built in the autumn of that year. It was an enlarged and developed version of the Rhönsperber, Hans Jacobs' record breaking single seater of 1935. In many respects the Kranich was similar in shape and detailed design to the Rhönsperber.

From 1935 until the late 1950s the Kranich was built in many hundreds: in Germany before the War: in Germany, Sweden, Spain and Czechoslovakia during the War, and in Poland, Jugoslavia and Spain after the War.

During its long life span, it became the World's first mass-produced high performance 2-seater. Almost every World and National record eventually fell to the Kranich although at first World Distance records were hard for it because of the terrific Soviet 2-seater Distance records being set up at that time (407 Kms in 1937 and 619 Kms in 1938). Also after 1937 the German frontiers were mostly closed because of the diplomatic situation. Nevertheless, Kranichs achieved some outstanding records in Germany before the War.

Because of limited space this article can only describe the KRANICH 1, KRANICH 2, the HIGH ALTITUDE KRANICH and the PRONE PILOTED KRANICH. The Kranich 3 was designed by Hans Jacobs in 1951 and is not described here as it was completely different from the previous Kranichs.

### CONTEST ACHIEVEMENTS

- 1937 National RHON Contest. 2nd place overall, flown by Brautigam and Steinert.
- 1938 RHON Contest. 1st Place in 2-Seater Class flown by Romeis and Schillinger\*\*\*
- 1939 RHON Contest. 1st Place in 2-seater Class flown by Kuhnold and Schroder.
- 1952 World Championships, Madrid. 1st Place in 2-seater Class (out of 17 entrants) flown by Juez and de Castro.

\*\*\*This Kranich was among the machines to break up at 8,000m. in the terrific turbulence of a thunderstorm on the last day but one of the contest. Both pilots parachuted to safety.

### PRE-WAR GERMAN NATIONAL AND WORLD RECORDS

- 397 Kms. German National Record for 2-seaters which stood for 30 years. Flown by Hoffmann and Wilcken on the 31 May 1938
- 363.798 Kms German 2-seater Goal Flight Record, flown by Brautigam and Mayer on 21 April 1939 from Grossruckerswalde to Vienna.
- 258.83 Kms German 2-seater Out and Return Record, Hamburg - Hannover - Hamburg flown by Heinz Huth and Brandt on 10 August 1938
- 6,838 m (22,771 ft.) World Single Seater Gain of Height Record, flown by Erwin Ziller in Wave over Grunau.
- 11,410 m. (almost 38,000 ft.) This World Absolute Altitude Record was not recognised by the FAI as the organisation did not recognise records which were achieved during wartime. The Kranich (probably the high altitude version) was flown SOLO by Eric Klöckner in wave over Zell am See on 11 October 1940. The release point of 6,520m (over 17,000 ft.) was reached after a long aerotow up wind from Ainring to the front edge of a vast Föhn wave cloud.
- 3,304m. World 2-seater Gain of Height record flown by Ziller and Quadfasel in wave over Grunau on 18 September 1937
- 21.02 hours World 2-seater Duration record flown by Meier and Schneider over the Hornberg on 29 June 1938.
- 50.15 hours World 2-seater Duration record flown by Boedecker and Zander over Rossitten from the 9th until the 11th December 1938. An epic flight in icy conditions.

## POST-WAR WORLD RECORDS

- 511.5 Kms World 2-Seater Goal Flight record. Pakilewicz. POLAND. Lesnica-Warez  
19 July 1951
- 541.3 Kms World 2-Seater Goal Flight record. Popiel and Siemaskiewicz, POLAND.  
Lublin-Hrubieszov. 20 July 1953. This may be the longest  
distance flown by a Kranich. The machine was a Zuraw (Crane),  
a Polish-built Kranich.
- 65.98 Kms/hour World 2-Seater Speed record round a 100 Kms triangle, flown by  
Fonteilles and Lamplin, FRANCE from Le Bourget - 5 May 1951.
- 6,780m (22,577 ft.) World 2-Seater Gain of Height and Absolute Altitude records  
flown by Rousselet and Faivre, FRANCE in wave over Saint Auban -  
21 September 1948.
- 8,162m (27,180 ft.) World 2-Seater Gain of Height record flown by Brzuska and  
Parceswiski, POLAND, in Zuraw/Kranich over Jelenia Gora (Grunau) -  
1 December 1950.

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After 1945, National records, too numerous to mention, fell to the Kranich in many countries. One must however remember the efforts in this country of the Cambridge University Gliding Club, of Lionel Alexander and J. Grantham (Cambridge U.G.C. and of Wally Kahn, in Germany, in this respect. From Switzerland there was the great flight to the Spanish frontier by Hans Nietlispach, in the rear cockpit, in 1957.

Kranich production continued in Spain into the late 1950s and it is possible that the last batch were built with aerolite glue.

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### DIFFERENCES BETWEEN KRANICH 1 and KRANICH 2

The Kranich 2 went into production in about 1940 in the firm of Flugzeugbau Scweyer. It was built in far greater numbers than the Kranich 1 and differed from it in the following ways: 1. It was stronger. 2. There was more room in the front cockpit. 3. Adjustable front rudder pedals. 4. Large dive brakes. Göppingen System. The Kranich 1 has only upper wing surface spoilers. 5. 2-piece ailerons for lighter handling in the air. 6. A non-aerodynamically balanced elevator. The Kranich 1 is aerodynamically balanced. 7. An elevator trim tab (for the machine's fore and aft trim). The Kranich 1 has no fore and aft trim. 8. The alterations made the Kranich 2 heavier than the Kranich 1. Cockpit placarded empty weights of a Kranich 1 and a Kranich 2 were noticed two years ago to be 640 lbs. and 712 lbs. respectively. Of course when they were first built they would probably have been lighter.

THE KRANICH 1 was still in production in Sweden in 1943 and probably all Kranich 1s had their single piece ailerons fitted with servo tabs during the War, to make them lighter to handle in flight.

THE USE OF KRANICHS DURING THE WAR. Because of the great successes of German glider pilots before the War, the German Government decided that gliding should be one of the main methods of training military pilots. Thus, several existing types of sailplane were modified for use by the N.S. Fliegerkorps (the Youth Organisation equivalent to the British Air Training Corps) and the Luftwaffe. The Kranich was chosen to be the standard high performance training 2-seater. In this machine, dual instruction could be given in almost every aspect of flying, including blind flying and the use of oxygen and radio.

KRANICHS IN MILITARY OPERATIONS AT THE FRONT. Although it is hoped that this did not often happen, one such operation has come to light during the last year. Kranichs were used to transport petrol to surrounded Panzers in Russia, probably some time in 1941. The tanks did have some fuel but needed more to break out. The load, 500 lbs. (50 gallons) was carried in the rear seat position. The tow planes were JU 87B Stukas. The towing speed 0 about 100 mph. The Kranichs released some distance from the tanks. The Stukas then went ahead to attack the enemy. The Kranichs made a silent approach to land in a field, marked with a landing cross, beside the tanks which were hidden in a wood. The Panzer men then refuelled their tanks and demolished the Kranichs with explosives. The Kranich pilots escaped on foot.

THE HIGH ALTITUDE KRANICH This was designed and built shortly before the War. Differences between this model and the standard Kranich were increased dihedral, and 'gull' to give more lateral stability in high altitude turbulence. Aileron and elevator control cables were replaced by tubes, which were supported because of their considerable length, by light bearings. This was to eliminate expansion and contraction of the cables through temperature changes. Because of this, a pilot had much better 'fell' of his machine, and the new control system was a great success. Six oxygen bottles were carried on reinforced ribs in the outer wings and were accessible from below. They were sufficient to provide 1 to 1½ hours breathing for both pilots. The Auer (pressure demand?) respirator was fitted. The air brakes were of DFS type (Weihe fashion) and totated open on a torque tube. This was almost certainly the type used for the 11,410m wave flight over Austria in 1940.

THE PRONE PILOTED KRANICH This was first built in 1943 and a small batch were completed at Edmund Schneider's factory in 1944. The machine was probably similar to a standard Kranich except for modified nose. The object of the aircraft was to test the effects of 'G' on a prone pilot. It was found that the prone pilot could stand about twice the positive G that the normally seated pilot in the rear cockpit could. The chief suffering to the prone pilot was caused by excessive pressure by supports on chin and chest, due to those parts being so far ahead of the aircraft's C. of G. The machine undoubtedly was also to be used to training pilots to fly various prone piloted projects, such as DFS 228 and Kls 255.

THE KRANICH'S PERFORMANCE The Max L:D with one or two pilots was practically proved to be 1:23.6. Min Sink was 0.69 m/sec. After the War, the Kranich was thought not to have the best L:D of available sailplanes, but to be among those with the best penetration. Ted Lisakowski at Lasham has said that in Poland tests had been carried out between a Kranich and a Bocian and that their performances were found to be remarkably similar up to 80 mph. At that speed however the Kranich controls were rather heavier than those of the Bocian.

FLYING A KRANICH During my gliding career, I have had the good fortune to fly a Kranich 2 in France and two Kranich 1s in Britain, and was able to fly both versions on cross-country flights. Both versions had light and effective ailerons, and were extremely good at thermalling even when flown dual. Climbing performance when flown solo must be sensational. My last experience in a Kranich was to share the flying of a Kranich 1 in the 1972 Lasham Regional Contest. During six contest days we found that we could keep up with many of the modern gliders on cross country flights and we were able to climb as well as any glider there. In a handicapped regional contest, the Kranich, after all these years, seemed still to be a competitive machine. However, a Kranich 2 is preferable to a Kranich 1 for field landings because of its large airbrakes.

THE ONE DRAWBACK IS THE LACK OF VIEW FROM THE REAR COCKPIT. This becomes better with the rear canopy removed. However, instructors clearly became used to the poor visibility even with the rear cockpit canopy installed - Nietlispach's great cross country flight in the back seat is evidence of this.

The poor visibility from the rear led many designers in different countries after the War (and even during the War in Germany - the Variable Wing Sweep H,20) to create better 2-seater sailplanes than the Kranich. However it is my impression that even now, in service in our Clubs, there are no 2-seaters with a better all round performance and handling than the Kranich.

The machine may seem to stand high up and to be very heavy. I believe though that its weight is less than that of a Bocian and that, without a landing wheel or droppable dolly (as originally fitted), the machine's cockpit canopy roof is no higher than that of the Bocian. Perhaps the Kranich might still set up a British 2-seater record, even though the design is 39 years old.

#### BIBLIOGRAPHY

Details of German National and World Records were taken from Handbuch des Segelfliegens by Wolf Hirth. More details were obtained from die Beruhmtesten Segelflugzeuge by Georg Brutting, from the Thermik magazine concerning the prone Kranich and from Sailplane & Glider 1944 concerning the High Altitude Kranich. For details about the military operation, we are indebted to Kurt Kummel of the Münster Oldtimer Club, who was one of the pilots.

## KRANICHS IN BRITAIN

After 1945 there were four Kranichs in Britain. A Kranich 2 was owned by the Cambridge University G.C. The Royal Navy has a Kranich 1 and a Kranich 2, and another Kranich 2 is thought to have been at Farnborough. All of these came from Germany.

The Cambridge Kranich (B.G.A. No. 494 - Reg. G-ALKH) after a distinguished career in Britain, went to Eire. The machine was finally destroyed in the sea while making a film in the 1960s (J. Cochrane involved).

Both the Navy Kranichs were brought to England by Stanley (John) Sproule, with a MU 13 and a Meise. The Kranich 2 was spun and destroyed in Australia. The Kranich 1 probably died through glue failure at some seaside R.N. airfield. The fate of the other Kranich is not known.

During the early 1960s further Kranichs were imported from Sweden and some more were brought in by the RAF from Germany. Their exact number is not known - possibly seven aircraft.

## WHERE THEY ARE NOW

We know about only four Kranichs (2 Swedish Mark 1 and 2 German Mark 2) in Britain at the moment. Details of their locations were given in a previous News Letter. It is probable that a Mark 1 will be flying next season based at Camphill.

## IN GERMANY

One Kranich 2 is airworthy in good condition. It was seen in north Italy last year. Other Kranich 2s are in the Goppingen Collection, in the Wasserkuppe Museum and in the Deutsches Museum in Munich.

IN SPAIN, FRANCE, SWITZERLAND, POLAND AND YUGOSLAVIA. There are known to be Kranichs in these countries, but probably none of them is now airworthy. Possible locations are the Club at Plessis Belleville, near Paris - the Club at Birfeld near Zurich - Huesca, Spain - Krakow Polish Air Museum - Musee de l'Air (Chalais Meudon, Paris).

CHRIS WILLS