VINTAGE GLIDER CLUB GB

the Vintage Glider Club of Great Britain

NEWSLETTER

February 1978 no. 28

We hope that our readers have not suffered too much from this winter's terrible cold spells. We are very glad to hear that no gliders have been damaged. This would therefore be the first time that our Club has come through a summer and a winter, which in this case will be remembered for their dampness and their cold, without its gliders suffering damage. We have obviously learnt some useful lessons. Let's hope that this record can be maintained in the furure!

BRITAIN

Here are some items of glider news communicated to us.

The Moswey 4 imported by Ted Hull last August has spent the winter in the Private Owners Workshop at Dunstable. This high performance Swiss machine, with a 15.5 m wingspan, has struck everyone by its superb workmanship and finish. It was built in 1950 and, with the machine that found its way to South Africa where it was used for making the film "Whispering Wings", was the only Mosway 4 ever built. At present, it has a nose launching hook which does not allow it to be winch launched. Ted Hull is constructing a trailer for it , thus adding a seventh trailer to all those he has already built.

His KITE 1, BGA 394, has been lent to Peter Allen and Partner who will fly and look after it at Cranfield.

JS Weihes in Britain. Last October, five of them were airworthy in the country. They were:

BGA 448 - a machine built in Germany in 1943, now kept at Dunstable and still in its original form.

BGA 1297 - built in Sweden in 1943, flying today from Hinton in the Hedges. Its landing wheel has been modified and it is equipped with a buble canopy.

BGA 1230 - This is a cross between the German and Swedish Weihes. Its fuselage is Swedish and was that of BGA 1021. The wings and tailplane come from BGA 1230, a German Weihe. All components were built in 1943. This beautiful machine has been modified to accomodate a buble canopy and the inboard portions of its ailerons have been immobilised so that they now form part of the wings. Weihes of more recent construction also have shorter ailerons, but this machine has a smaller rate of roll than that of Weihes with full length ailerons. The aircraft retains the BGA number of the German Weihe.

BGA 1025 - Built in 1950 for the American Paul MacCready, who flew it to second place in that year's World Championships, this machine was the last Weihe to be built in Sweden. Its present owner, Arthur Cleaver, is in theprocess of reinforcing all the wing rib soldiers, whether their glue is holding or not, prior to recovering the wings with fabric. He hopes that his year's weather will allow him to fly the Weihe and make all his efforts pay.

BGA (number unknown to us) - a 1943 Swedish Weihe with bubble canopy flying from Bardney.

We learn from Arthur Cleaver that extensive rebuilding work is presently being carried out on a DFS Meise, BGA 449. Now in Cornwall, this machine is one of the very few (probably only two) Meises brought

to Britain after 1945. It was once owned by Andrew Coulson of the Newcastle Club, and then by Frank Foster at Dunstable. It eventually became the property of a Dunstable syndicate. Its present owner, Mr. L.S. Phillips, of Truro, Cornwall, hopes to fly it this summer.

Rodi Morgan reports from Tangmere that efforts have been speeded up to assemble his Rhoensperber. He has also been working on two Hawker Fury prewar biplane fighters. One of them is a somewhat smaller version of the Isaacs Fury. Rodi has already obtained many parts, including the engines, for the aircraft but would appreciate if anyone could help him with more Fury parts.

The AVIA 40P based at Perrenporth, Corwwall, was being recovered with fabric last summer but we do not know whether this restoration work has been completed. This machine is the last airworthy, prewar French glider in existance. We believe, however, that this AVIA was built during the war or just after it by Roche Aviation. The only other existing AVIA 40P is in the Musée de l'Air in Paris. It is a very light sailplane said to have been flying at less than 20 mph!

An MU 13E (original version) was imported in rather bad condition from Belgium last year.Its wings are about to be repaired by Martin Breen at Booker. This was the cheapest two-seater glider to be produced in West Germany after the ban on gliding was lifted in that country in 1951. At the time, it cost only 7500 DM (£750), which compared well with the Kranich 3 (11,000 DM) and the Condor 4 (16,000 DM) built by Schleichers.

Martin and friends have just completed repairing an Olympia 419 at Booker but, whereas the MU 13E might just be considered Vintage, we have doubts about the 419.

We referred some time ago in the Newsletter to the Grunau Baby 2B BGA 1910, a special machine built in 1944 in Germany. We now have the pleasure of welcoming its owners, David and Mary Squire, to the Vintage Glider Club. The aircraft has been flying at the Royal Naval Air Service Club at Culdrose. For better take-off, landing and ground handling on the Club's hard runway, the Grunau Baby was equiped with a small trolley undercarriage using two T.49 Capstan tailwheels. This machine is still in its 1944 form but, unfortunately, showed some glue failure last November. Its owners despaired of ever flying it again. Fortunately, Roy Greenslade of Humberside Aviation offered to repair it at a reasonable price and with excellent workmanship. David and Mary hope to get it flying in March or April. This rare Grunau with a 14m span (as compared with 13.57m for the standard Grunau), a larger tailplane , an enclosed canopy (also original), has an excellent performance.

The Kranich BGA 1258 is now residing in a large, heated warehouse belonging to Taskers, a firm that builds heavy lorry trailers. Bill Pattison, its owner, says that work is moving ahead again but only slowly.

Fred Porton has been working on a Tutor, BGA 1745, for several months. This machine is from Carlton Moor, but has been at Weston Supermare for about a year. Previously, the aircraft was at RAF Cranwell and was covered with 20lbs of paint and dayglo. Its military serial number was XE 760 which we are told was the serial of a Cadet Mk 3 (T.31b). It seems that the RAF may have changed its fuselage and kept its serial number.

Fred is now looking for a Primary Glider to rebuild as a project. Can anyone help him, please? His Grunau Eon Baby, BGA 1409, has spent the winter outside in Peter Allen's - its former owner- excellently built trailer at RAF Locking, Weston Supermare.

We are hpppy to report that the construction of the H.17A (Huetter) has begun at Southdown Aero Services, Lasham. During a visit there before Christmas, we saw one of its main bulkheads arrive. Ken Fripp says that it will be built in original form and finish,so that its empty weight will be close to the fantastically light designed weight of 65 kg. Ken adds that the main construction work will be carried out after the CofAs have been completed.

Talking about the Huetter, we learn from Bim Molineux in Kenya that he is having a diminutive trailer built for his own H.17A which might - there is a 50-50 chance - be coming to Europe to take part in our next International Rally or in Competition Enterprises. This is what you call real enthusiasm!

The H.17A is in fact the Goevier 5. Peter Sellinger, who is writing a book on Schempp Hirth aircraft, tells us that the statement that we made in a previous Newsletter to the effect that the Go 4 had flown before the Go 5 needs to be corrected. The first Go 4 flew on 30th November 1937 at the Hornberg. The first o 5, or H.17A, was flown before this. It seems that Wolf Hirth gave the Huetter brothers the order to start the development of the Go 4 in May 1936. The building of the first Go 5 was started in the late summer of 1936 but the prototype was completed and flown before the first Go 4.

Correction

Contrary to a report in the Newsletter, Anna Kienhoeffer does not own a Goevier in South Africa. The machine referred to is owned by the Cape Town Club and is currently for sale after being rebuilt. Anna is part owner of a Kranich 3. If the MU 13E is to be considered a Vintage glider, then the same must apply to the Kranich 3 and the Condor4 which were designed in 1951, as was the Slingsby Sky.

Fifty per cent reduction!

Geoff Moore has sent us the welcome news that Townsend Thoresson and Sealink are offering 50 per cent reductions for trailers on some of their cross channel routes this year. We understand that these reductions only apply on some crossings and that it might be necessary to take the ferry either in the morning or late at night. We hope that this will persuade many British Vintage glider owners to enter the next International Rally!

PHILIP WILLS

It is with great sadness that we have to announce the death of Mr. Philip A. Wills, one of the VGC's founding members, on 16th January after suffering for two years of a seemingly incurable back complaint. He was 70.

Philip Wills started gliding in 1932 at a time when he was already a light aeroplane pilot. He quickly became a private owner and became Britain's second Silver C pilot after Eric Collins. Progressing from a Scud 2 to a Hjordis in 1935, to a Minimoa in 1938, he became Britain's first Gold C pilot and the third in the world, the Gold C having been created that same year. Between 1937 and 1958, Philip Wills flew in seven World Championships and became World Champion in Spain in 1952. Until last year, he was Britain's only World Champion. He won countless National Championships and broke several national records.

Apart from his flying achievements, he displayed a remarkable ability to organise, an ability which served him in good stead not only in building up a family import and export business, but also in developping the British Gliding Association of which he became Chairman. His organizing ability, and ~~his~~ long ~~fight~~ for more freedom an the air and fewer restrictions did much for gliding in Britain and the rest of the world. Philip Wills was the author of three gliding books: "On being a bird" (which has just been re-edited), "Where no birds fly" and "Free as a Bird".

A Memorial Service was held at St. Clement Danes Church, the Air Force Church, in the Strand, London, on Friday 3rd February. It was attended by Air Vice Marshal Brian Stanbridge, representing the Duke of Edinburgh, and Mr. R.A.S. Ames, who represented Prince Charles. The attendance also comprised hundreds of glider pilots, both old and young, RAF men, businessmen, friends and relatives. The Army and Navy were also represented. The Address was given by Anthony Smith, the well known baloonist.

Philip Wills leaves his wife, Kitty, who helped him so much during success and illness; his daughter, and three sons, all of whom have Gold Cs. To all of them, we should like to extend our sincere condolences and say how much Philip Wills will be missed by his many friends in the Vintage Glider Club.

A month after Philip Wills' death, over nine hundred glider pilots and guests at the Annual Award Banquet of the Soaring Convention in Washington DC stood silent in his honour for one minute.

GERMANY

Radios to be obligatory for glider pilots

German gliders have always been severely controlled by Civil Service restrictions. Their pilots need medical certificates, licences to fly, licenses to cloud fly, licences to use radios and licences for cross country flying. At least, that's what we've heard. In addition, all gliding at altitude is forbidden throughout Germany because air space is controlled above 3000m.

We now have the very unpleasant news that, as from 1st April 1979, all gliders leaving their airfield circuits in West Germany will have to be equipped with 720-channel radios, each channel being 25 KHz apart. These sets cost about 3000 DM, or roughly £700, and weigh 2.5 kg. As if this were not enough, we hear that a similar ruling will apply to cross country glider pilots in Switzerland.

Naturally, this new restriction on the freedom of flying could affect our meetings in both countries as the very hight cost of these sets may be beyond the means of some of our members. The news was not warmly received by glider pilots in West Germany. Although the new regulation is officially justified by an increase in civilian and military air traffic, many people feel that it is just the result of an overwhelming bureaucracy where civil servants try to justify their existence by inventing new regulations. The invasion of red tape and the encroachments of the Civil Service obviously affect continental countries as well!

The decision to impose radios on glider pilots comes from the Ministry of Defence and the National Flight Safety Organization. It has already been hailed by the International Civil Aviation Organisation as a most important step in flight safety.

But for a great many experienced pilots, it is just another red tape measure curtailing our diminishing freedoms. Unfortunately, little can apparently be done to fight against the measure. The President of the Baden-Wuertemberg Aero Club said that he could do nothing about it.

Should gliding associations in Germany and elsewhere launch a campaign against these obligatory radios-and the danger that they will soon be imposed in other countries as well? Chris Wills certainly thinks so. He believes that we should stand and fight because, he claims, "we have been sheep for too long". Glider pilots in Britain should urge their German friends to"rise against their bureaucracy" for the sake of freedom. The Vintage Glider Club, small as it is, should pledge its support to those who, in Germany, intend to fight against the new regulation, with the hope that the other glider pilots of the world will join in.

Chris Wills adds the following: "Philips Wills fought for freedom in the air. Now that he is no more, let us carry on the fight as never before. Thanks to his efforts, British freedom of the air is the envy of all Europe

"An incident thathappened two days ago explains my opposition to radios and controllers. I was cleared for take off in a Cessna 150 against an aeroplane landing towards me at Booker. At the last moment, the controller saw the other aeroplane, and shouted for it to overshoot. Had I proceeded with take-off as per controller's instructions, there would have been a magnificent collision at 100 ft altitude, right in front of the Control Tower. As it was, the take-off was abandoned and the opposing aeroplane hurtled past overhead. Had there been no radio (and thus no control), both pilots would have made their own decision and the incident would probably never have occurred.

"The modern glider pilot may have to concentrate more on using the radio than on flying, so that his flying will deteriorate".

There is no doubt that the compulsory introduction of radios on gliders will give rise to a heated and prolonged debate.

"Start in den Wind"

This book by Peter Riedel, whose title translates "Start in to Wind", has come out at Motorbuch Verlag, Stuttgart, edited by Jochen von Kalckreuth. It has the subtitle "Erlebte Rhoengeschichte 1911-1926" (Experiences at the Rhoen Contest) and its English edition is to come out shortly.

Still an active pilot today, Peter Riedel started gliding at the age of 14 and took part in the first Rhoen Meeting in 1920 with his second glider. Drawing from his own experiences and from interviews with old Rhoen pilots, and making use of many beautiful old photographs, he has created a truly magnificent book plunging the reader in the atmosphere of these historical early Rhoen meetings. The text is vivid and the photographs of fine quality.

With the help of interviews, Peter Riedel reconstructs the Rhoen Meetings back to 1911 and begins his account by writing about earlier gliding pioneers. He gives credit to Sir George Cayley as the first man to construct a man-carrying aircraft in 1851 and to other pioneers who built their machines before Lilienthal.

Peter Riedel and the late Jochen von Kalckreuth, a great alpine pilot, photographer and author of two magnificent alpine gliding books - "Segeln über die Alpen" (Gliding over the Alps) and "Das Stille Abenteuer" (The Silent Adventure)- have created a unique book of the greatest interest to all those concerned with gliding history. Although it is essentially a German story, it should be remembered that gliding on the Wasserkuppe was almost all the world's gliding history at that time. The book is not likely to be cheap in English, but we feel that it will be a "must" for everyone's gliding library.

Peter Riedel will be producing another book, "Ueber SonnigeWeiten" (Over sunny distances), describing gliding at the Wasserkuppe from 1926 to 1939 and devoting some space to postwar gliding at the Rhoen.

If this book turns out to be as good as the first one, then it will be yet another necessary addition to our gliding libraries.

A gliding museum

Fresh efforts are being made by Helmuth Dette and Otto Bellinger to put new life into the Wasserkuppe Museum. In view of this, we were surprised to see that Helmuth's Rhoensperber was for sale in the December issue of Aerokurier. The craft is for sale at 6000 DM and those interested can phone 0611-39 92 11. To create the Museum, an appeal for funds has been launched and a raffle is being run whereby each ticket, costing 10 DM, will buy a brick for the building.

Those who buy at least five bricks will have their names entered in the Golden Book of the German Gliding Museum. Please send money to Konto Nr 2000156, Kreissparkasse Gersfeld, Rhoen, under the heading "Sperrkonto, Baustein Segelflugmuseum".

The Draw will yield the following prizes: A ticket from Francfurt to Bloemfontein, in the Orange Free State, and a voucher enabling the lucky winner to have 400DM's worth of gliding in the South African thermal paradise is the first prize. The second: A return flight in a Boeing 747 cockpit from Francfurt to Las Palmas. The third: A flight to any German destination by Lufthansa. The fourth: A SINN aviation chronometre. The fifth to the twenty-fifth prize will consist in a signed copy of Hanna Reitsch's book "Fliegen, Mein Leben".

Glider news

Ernst Walter reports from the Schleswig Holstein that he was able to achieve a distance of over 200km in his wonderful short fuselaged MU 13D last October. He now knows that a 300km flight in the machine is "on".

Klaus Heyn reports that it has been so cold, with temperatures of minus 7° C, that he has been unable to work on his Schaedelspalter (Grunau 9). He says that an airworthy Kranich 2B and a Condor 4 were seen recently on the Bavarian airfield of Gunzberg. Unfortunately, they will be taken out of the air and housed in a museum.

AUSTRIA

An Austrian Casino organisation is keen to organise a Vintage Gliding Meeting for us near Vienna. This was ascertained by Paul Serries during contacts with them last October. The suggestion may well be worth following up,and an Austrian venue would be welcomed by many participants to the International Rally. In any event, this would not take place in the immediate future as the next Rally is planned this summer at Brienne le Chateau.

AUSTRALIA

Martin Simons has sent us details of the Pelican 2, a machine owned by veteran pilot Jock Barrett which made a well noticed appearance at the inaugural Rally of the Australian Vintage Glider Association last October - as reported on our last issue.

He writes: "The Pelican 2, Australian design, was not really modelled on Kronfeld's Austria. The history of the type goes back to the late thirties, when Martin Warner in Sydney designed a glider called the Kite (no relation to the Kirby Kite). This Warner design was in effect an improved Nacelled primary - very lightly constructed, with a good, tapered wing and no struts. Instead of the "gate" type fuselage, it had a triangular-sectioned tail boom, but the basic "A" frame front which carried the pilot's seat and controls was very like a Dagling. It was faired in nicely with a nacelle to give the "pod and boom" appearance. It flew very well, and was followed by the Kite 2, which had detailed improvements. The Kite 1 eventually found its way to Waikerie which was already a forward-looking club. In the immediate post-war years, this club was operating a two-seater called the Pelican which consisted of a "Pratt" utility glider fuselage married to the cut-down and strengthened wing of a homebuilt and very wobbly glider that had been built in Adelaide by someone with more enthusiasm than technical knowledge.

"When the first Pelican was written off in a minor crash, the Club decided to build a two-seater version of the Kite 1 and set to work. The basic outline was thus the same as for the Warner Kite. Jock Barrett, who founded the club in 1937 and still flies at Waikerie, was the chief designer, but the stressing was done by Harold Bradley, an engineer. The wing was aerodynamically very good, and very strong. The fuselage, like the Kite, had a triangular tail boom, but with side by side seating, the "pod" became very fat indeed. It was said that when the club members began building it, they misread the Bradley drawings and made all his outside dimensions apply to the inside, so the pod finished up several inches wider and deeper even than he had intended.

"The Pelican 2 flew for the first time in 1952. It was in regular use for many years and then was retired after the tail boom broke off one day in a heavy landing. Jock Barrett eventually repaired it and, about four years ago, managed to get a C. of A. for the old thing again. It flies almost every weekend. It was present in 1974 at the World Championships at Waikerie but did not actually compete.

"The Kite 1 was lost in a mid-air break up ten miles north of Waikerie in about 1947. The pilot, Ken Riebe, was killed. It is thought he was overcome by lack of oxygen at about 15,000 ft. After the wreckage was found, the search party lit a signal fire which got out of control and destroyed the glider and some hundreds of acres of scrub land. I think they saved the pilot's remains.

"The Waikerie Club is proud of the fact that they were using dual instruction methods regularly (with the Pelican 1) several years before the T 21 appeared in England. They actually received letters from the BGA in 1946 asking for advice about two-seater training. Most clubs in England at that time were still using Daglings and Cadets. The performance of the Pelican 2 was reckoned to be about as good as the Olympia. I suspect this was an exaggeration, but it is certainly much more efficient at high speeds than the Slingsby T 21 with which it is contemporary".

MORE PLANS FOR OLD GLIDERS

Further to the information given in our last Newsletter, we have received more interesting news concerning the building plans of prewar gliders.

Ernst Walther has kindly sent us a list of a very large number of drawing prints in his possession for the MU 13D. This may be an almost complete set. Martin Simons has arrived from Australia with what may well be a complete set of Rhoenadler drwwings. He is at present trying to get them copied, as the originals have to be returned to Australia. They are believed to have been taken to Australia by a German emigrant just after the war.

Ted Hull has been sent, by Franz Schubert in Brazil, a complete set of Rhoenbussard drawings.

These sets must therefore be added to those of the JS Weihe, Kranich 2, Meise Olympia, Grunau Baby 2, H. 17A, all marks of Scud,and Zoegling which we already knew existed in Britain.

In America, the Smithsonian Institute is currently building up a library of Vintage glider drawings which can be printed from large black and white transparencies and made available in sets of reasonable cost to glider enthusiasts all over the world. In view of the importance of this task, we wonder if members who have relevant drawings would allow them to be taken to America by Jan Scott, an airline pilot and President of the Vintage Soaring Association of America, and returned as soon as possible after copying by the Smithsonian Institute. Will members who might feel possibly concerned contact Chris Wills about this matter.

It is true that owners might not want to part with these precious drawings even for a short time, but we believe that this is the only way to enable the Smithsonian Institute to establish a definite library containing the plans of gliders of the past, so that these craft can be rebuilt by enthusiasts all over the world in the future.

The Horten drawings that are now in the hands of the Vintage Soaring Association of America are not quite as complete as was originally hoped. There are none for the Horten 3, but about 18 for the Horten 4A. These may or may not be sufficient for the construction of the aircraft.

Ernst Walther wishes to ask whether anyone knows of a collection of Reiher drawings. Drawings of the Reiher wing are in the hands of Chris Wills. They will be sent to Ernst, but there are not nearly enough of them to enable him to start construction.

SOME OF THE GLIDERS FLOWN AT THE FIFTH OLDTIMER MEETING AT MUENSTER

Report by Chris Wills

The MU 13D

There was great excitement when this was revealed to be an old prewar, original square, short fuselaged MU 13D built in about 1939. Its owner, Ernst Walter, stated that his much loved machine was very similar to the MU 13 "Merlin", the very first MU 13 prototype built in 1935, to which it ressembled more than to the "Atalante" built in 1936 by Kurt Schmidt, and winner of the Rhoen Contest in that year. We were greatly surprised to learn that an original MU 13D should still exist in Germany, because we thought that the other three MU 13s still existing had the longer, triangular fuselage dating from after 1943. The fuselage of Ernst Walter's machine is indeed from 1939, but the wings are of a more recent manufacture (dating from the 1950s). The fuselage of the craft had been given at about that time by a British Officer in charge of a military club in Germany to a German ground engineer as a reward for his services. But there were no wings and no available drawings from which to build them. Eventually however, two drawings were discovered in a cellar and construction of the wings was started. More recent MU 13D wing drawings were found and the wings were completed. Ernst Walter bought his MU 13D after seeing it advertised in Aerokurier during the 1960s. He has lovingly kept it ever since near Bremerhaven. Its only modifications are its nose and a roomy canopy.

Ernst kindly allowed me, not a qualified test pilot, to have a two hour flight in his machine. Its empty weight was stated to be 370 lbs, nearly 40 lbs less than the later MU 13s, but its wings being of more recent construction, had non-Friez type ailerons.

I found the control loads on the stick and rudder pedals light. I noticed no disagreeable aileron drag and found the machine a delight to fly. Despite a short fuselage,there was no lack of directional stability. With its wings standing up at a terrifically high angle of attack, the aircraft had not completely stalled at an incredible indicated 30 kph (18 mph!). Circling in lift could be achieved at 40 - 45 kph (24 -28 mph!) while the machine still displayed a good L:D between 50 and 70 kph. At over 5000 ft above the centre of Muenster, one had the impression of hovering like a bird with all the streets and houses clearly visible all round thanks to the plexiglass sides of the cockpit.

Making a rather high landing approach, I side slipped the machine with full air brakes. It gave the impression that, even in the absence of wind, it could be landed in a very small space. This is an ideal sailplane for the small car owner, as trailer and glider probablyweigh well under half a ton.It also presents an unbeatable combination of light weight and performance, its max L:D being of 1: 28. It is easy to rig and to fly, but one has to accept that speed is not its strong point, and this can show in long flights against or across wind.

THE MU 17

Due to the kindness of Rainer Karch, I was allowed to fly this machine during the Preis der Nationen Task which called for a flight of exactly 30 minutes followed by a spot landing. This machine was constructed by Ludwig Karch, Rainer's father, during the late fifties and embodies many modifications to the 1939 original. The prototype was designed by Ludwig Karch as Munich University's entrant to the Olympic sailplane contest in Rome. With the Meise, it was one of the two entrants from Germany to be selected for that contest. No fewer than a hundred MU 17s were built in Prague in 1943, but they were all destroyed in 1945 or by the Allied gliding clubs using them later. It was therefore necessary, in the late fifties, to build two of the type again to compare later types with them in the interest of progress in glider design. Among other modifications, these two later machines had increased rudder surfaces and square wing tips. Some of the earlier MU 17s had retracting undercarriages that lifted the nose about 3 ft above the ground.

The main wing pins are on the centre line of the fuselage, rather than to one side, which is usual for MU 13Ds. The rudder is fitted on after the tailplane, like for the Minimoa. The rudder has no operation horns but metal stops driven by two rams (push rods) from the fuselage. There was no positive connection, and it seems to us that this is a unique way of turning a rudder. The cockpit is longer and more comfortable than that of a MU 13D and is fitted with an elevator trimmer.

The aircraft is a delight to fly, all stick and rudder pedal loads being light. Because of its 15m, high aspect ratio wing, as compared with the 16m wing of the MU 13D, it flies a little faster than the latter type. Flying speeds for min sink and max L:D are similar to those of the Meise Olympia, but its air brakes are not as effective as those of the Meise. Still, this machine gave the impression of being a worthy competitor to the Meise and would probably be cheaper to build.

THE MU 23

Due again to the kindness of Rainer Karch, I was able to have a prolonged flight in the back seat of this type. Its fuselage may well have been based on that of the two-seater MU 15. However, its 20m, 3 piece wing, is an original design. The machine stands high up on its retractable undercarriage. Inspite of its great wing span, the craft has light control loads. Take off run is short and climbing speed good.The MU 23 climbed well in lift, engine stopped, at an indicated 80 kph and seemed to have excellent flying and handling characteristics.

THE CAUDRON C. 800

This machine is a piece of French Gliding History. The first prototype flew in 1942 and no less than 800 of the type were built after the war as the standard trainer for all French gliding clubs and centres. The fuselage is of semi monocoque wooden construction, and its rather short span wings are of near elyptical plan form. These facts,and further refinements of independantly operatable air brake levers and elevator trim,gave the impression that it could never be a cheap glider to build.

The performance of this machine would put it in the category of the hot air balloon, such being its ability to climb at 50 kph or even a little less. But 40 kph proved to be too slow a speed for the craft as a slight buffet, indicating the necessity for some more speed, emerged