

THE VINTAGE SAILPLANE ASSOCIATION

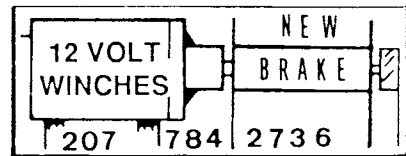
VSA is a very dedicated group of soaring enthusiasts who are keeping our gliding history and heritage alive by building, restoring and flying military and civilian gliders from the past, some more than fifty years old. Several vintage glider meets are held each year. Members include modellers, pilot veterans, aviation historians and other aviation enthusiasts from all continents of the world. VSA publishes the quarterly magazine BUNGEE CORD. Sample issue \$ 1.-. Membership \$ 10.- per year.

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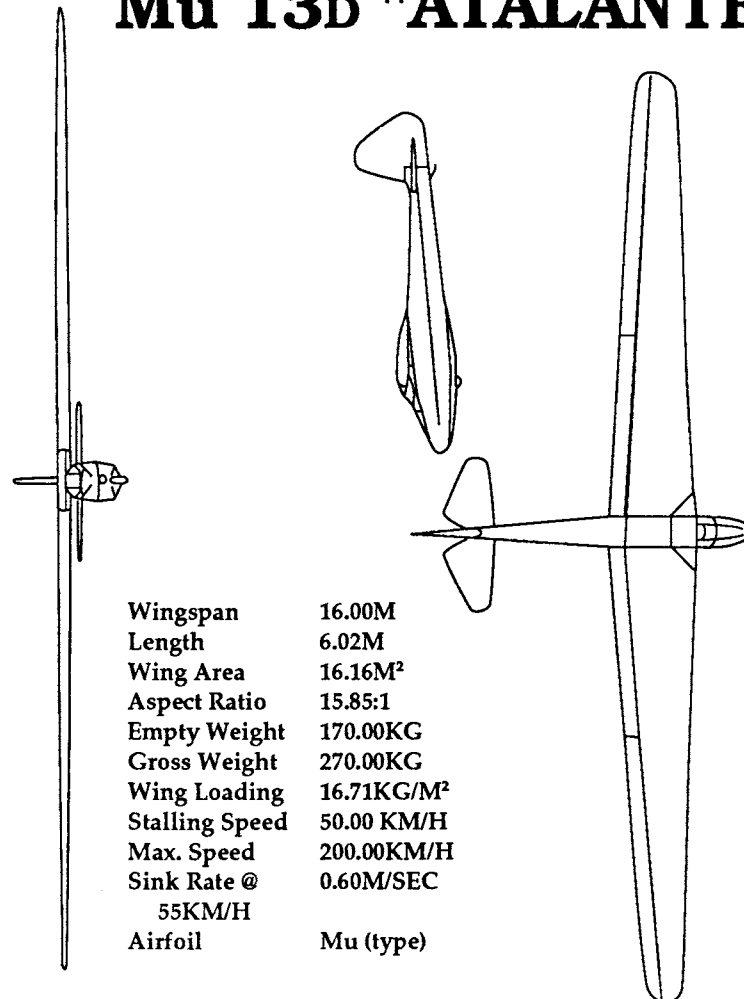


Vol. 6

No. 9

September, 1989

Mu 13D "ATALANTE"



Wingspan	16.00M
Length	6.02M
Wing Area	16.16M ²
Aspect Ratio	15.85:1
Empty Weight	170.00KG
Gross Weight	270.00KG
Wing Loading	16.71KG/M ²
Stalling Speed	50.00 KM/H
Max. Speed	200.00KM/H
Sink Rate @ 55KM/H	0.60M/SEC
Airfoil	Mu (type)

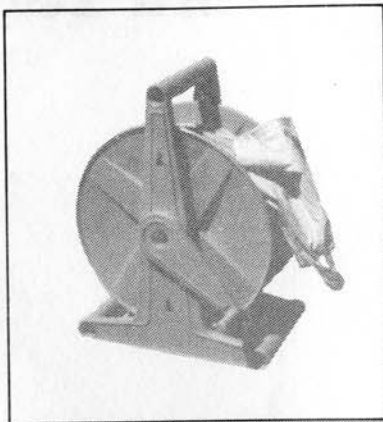
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High Start

For some two years I have been receiving letters and telephone calls asking me when I planned to do the next issue devoted to RC SCALE SAILPLANES. I answered such questions by "soon" or "hopefully next issue", or "maybe early '89." Frankly, I didn't know exactly when it would be.

On the one hand, I had accumulated over two years' worth of photos and letters from scale sailplane builders and fliers all over the world, and THEY wanted to see another SCALE issue. On the other hand, I had received some complaints about the use of an entire issue devoted to SCALE subjects. Some readers were willing to put up with a little SCALE in each issue, while others didn't want any at any time. One fellow threatened to cancel his subscription if I ever did another SCALE issue! A true consensus appears to be located somewhere between the extremes.

It must be acknowledged that there are not many builders and fliers of SCALE RC sailplanes in the US. Sure, we have perhaps 100-150 who are devotees, and maybe an equal number who are mildly interested...but that's about it. Those of us lucky enough to have attended the SLOPE SCALE FUN FLY in Washington were almost overwhelmed by the SCALE models seen...a goodly number of which were VINTAGE scale; that is, subjects popular before 1955—mainly pre WWI and the early post war era. Essentially these were faithful reproductions of the old wood-and-fabric designs produced when serious full-scale soaring was in its infancy.

"Modern" scale designs are more-or-less faithful reproductions of the fiberglass "orchidees" as they are called in Europe; machines of mostly all-fiberglass construction, possessing soaring ability an order of magnitude greater than that of their humble predecessors. There, too, were examples of the latest "fad" among slope soarers worldwide: scale powered aircraft of everything from Jennies to Jets...

The point is that SCALE means different things to a variety of people. Those who have less knowledge of full-scale soaring and who have come on to the scene in recent years seem to have less interest in or tolerance for SCALE subjects. If they have any interest whatsoever, they seek models of the latest creations from the molds of German designers and builders.

Not surprisingly, persons like myself who have flown full-scale sailplanes since the days of wood and fabric construction seem to prefer the vintage machines. In our often open cockpits we have felt the wind on our cheeks; we have stalled in turbulence trying to maintain minimum sink along a rocky precipice and

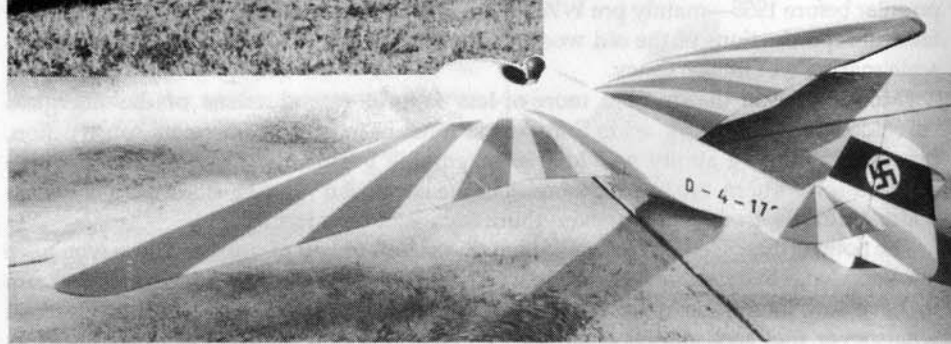
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Cliff Charlesworth launches his MU-13 D3 "ATALANTE" from the White Sheet (hill) at the 1987 meet.



Lovely model appropriately holds another lovely model. The 'Sperber, Jr. is a special sailplane designed for Hanna Reitsch who was a famous pre-war German female pilot. (Frank Smith photo)



The HABICHT (HAWK) was designed as an aerobatic sailplane that was used for training luftwaffe pilots. In fact, several versions had progressively shortened wings to simulate flying jet fighters...some of them as short as 3 or 4 meters - model size - to produce high sink rates in the glide. This technique was adopted in the early days of the US space effort by the use of "lifting bodies" which were large models with small or no wings. The HABICHT was stressed for all inside and outside maneuvers, and could put on an astonishing demonstration of aerobatics without being over-stressed.

High Start ...continued

struggled to keep the yaw string straight while circling under the damp grey "bowl" of a cumulus cloud; we have smelled the good earth after a summer squall and heard the sounds from the land a thousand or more feet beneath our wings. To soar and become a part of the ocean of air in which we travel, and to feel a kinship with the fragile machine strapped to our tailbones, is a rare privilege. Thus, and with admitted prejudice, I look upon the modelers of SCALE sailplanes as preservers of tradition and craftsmen of historical consequence. In their own not-so-small way, they provide us ALL with a glimpse of how things were and perhaps still may be.

Therefore, in the face of much diversity of opinion and interest, and with no little trepidation, I devote this third SCALE issue of RCSD to those whose skilled fingers "carry the fire." Good luck and enjoy!

Happy Scaling,
Jim Gray



Erik Eiche, Richmond, B.C., Canada, prepares to launch his 1/4-size Grunau Baby 2B out over the slope. This was THE most popular pre-WWII German club sailplane. A few still exist and are flown by the various vintage enthusiasts.

SUPER FLASH

NAT'S RESULTS (to fifth place)

CROSS COUNTRY: 1 Joe Wurts; 2 Jim Thomas; 3 Dave Johnson; 4 Mike Bamberg; 5 Bob Edson.

HANDBLAUNCH: 1 Joe Wurts; 2 Tony Martin; 3 Larry Jolly; 4 Don Harris; 5 Eric Jackson.

F3B: 1 Don Edberg; 2 Larry Jolly; 3 Joe Wurts; 4 George Joy; 5 Terry Edmonds.

SPORT SCALE: 1 Jim Veillard; 2 Terry Edmonds; 3 Bob Elliot; 4 Gary Brokaw; 5 Bob McGowan.

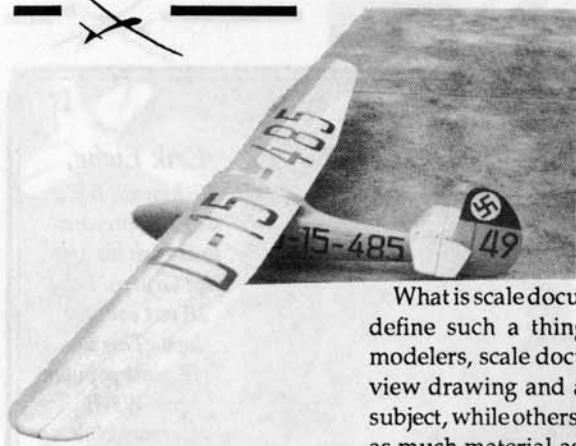
UNLIMITED CLASS: 1 Troy Lawicki; 2 Larry Jolly; 3 Dave Banks; 4 Don Edberg; 5 Harry Wilson.

STANDARD CLASS: 1 Larry Jolly; 2 Orié Adcock; 3 Bob McGowan; 4 Terry Edmonds; 5 Roy Stowers.

TWO METER: 1 Dave Banks; 2 Joe Wurts; 3 Terry Edmonds; 4 Tro Lawicki; 5 Bob McGowan.

COMMENTS by Kirby Parker: Slope info not received at time of printing RCSD. AMA was most cooperative; they refurbished the old direct-drive winches and made four new retrievers. I can't say enough about the support we received - it was GREAT! Note: the work was done by the Portland Area Soaring Society people in Portland, but AMA paid for all materials. The winches were fitted with brakes and bearings added at the end of the motor shaft. Tom Culmsee (CD) did a great job and was exhausted by the time it was over!

Modified 1.5 Semi-scale
RHONBUSSARD



What is scale documentation? How does one modeler define such a thing for his scale model? To some modelers, scale documentation may only consist of a 3 view drawing and a few technical notes on the glider subject, while others carry out lengthy research to gather as much material as is possible on their chosen model subject to present the judges with a very impressive folder of data for them to peruse.

My idea of scale documentation is more to that of the later mentioned above, but sometimes, depending on the subject that I have chosen, this can be a problem, as many vintage type gliders are hard to research, as little or nothing is known or, what was known has long been destroyed in the past.

Let me give you several ideas of just what I am trying to explain here...



My most recent project has been that of a 1.5 semi-scale RHONBUSSARD. First, I wanted to make this model as representative of scale as I could, so I perused all the books and magazines that I have in my collection in order to obtain as much data, photos and 3 views as I could on the said subject. Then, I started planning what modifications would have to be made to the Flug & Modell-Technik (FMT) plan I had on the RHONBUSSARD before I set to the task of building my model. Before my model was some two-thirds constructed, I had already started research into documentation on a suitable color scheme. This research made available to me a number of different and interesting color schemes from the mid 1930's. The one that appealed to me the most was a RHONBUSSARD from 1937 with the registration D-15-485. When I mentioned to several of my modelling friends that I was building a RHONBUSSARD, Geoff Pentland very kindly supplied me with a photostat copy of a scale documentation article on the RHONBUSSARD which appeared in the July 1987 issue of Modellflug International (a German R/C monthly magazine). This article happened to feature a print (of only fair quality) of the same RHONBUSSARD that I had chosen for the subject of my model.

In correspondence with a modelling contact in West Germany a short time later, I happened to mention the subject of my current model project. He mentioned in his reply that he was about to visit the Deutsches Segelflugmuseum at the Wasserkuppe. He said that he would see if he could obtain any photographs on the subject of the RHONBUSSARD and contact me if successful. Within a couple of weeks I received in the mail a number of vintage sailplane post cards, one of which just happened to be of the RHONBUSSARD that I had chosen for my model. I was most pleased, indeed.

My next task was to define the colors of this particular RHONBUSSARD, as it was finished with the two-color fuselage scheme representing one of the glider regions in Germany during the mid 1930's. It also had the full registration from the second NSFK (Nationalistisches Flieger Korps) period of 1937. As a member of the Vintage Glider

Association, I have obtained copies of all of the technical articles they have published, which just happens to include one on the subject of colors and markings of German gliders from 1922 to 1945.

I also have within my library several books which contain useful data on German gliders and their colors and markings. The first which comes to mind is Worlds Vintage Sailplanes 1908-45 by Martin Simons. But the one which this writer is of the opinion that contains the most valuable information not only on colors and markings, but also the Rhon contests of the 1930's, is that of Uber Sonnige Weiten 1933-1939 by Peter Riedel, published by Motor Buch in W. Germany. This particular book has not only information on glider colors, but includes markings, too, and surpasses that which has been published thus far.

The particular RHONBUSSARD that I had chosen as my model subject had the registration for Stuttgart, Region 15, in Germany, D-15-485. The colors listed for region 15 in 1935 were: Rot & Schwarz (red and black). For the 1936-1939 period, they were: Grau & Gelb (gray and yellow). As my subject was for that of one of the three RHONBUSSARDS competing in the 18th Rhon Contest of 1937, the colors were gray and yellow. I set all of the information that I had gathered on the subject to one side and continued with the building of the model.



My second example will be that of a Grunau Baby IIB that I am currently building. I had long before decided on constructing this model and chosen its finish, this being of an NSFK glider bearing the standard color scheme of the second NSFK period — 1937-1943, ie. that of an overall cream finish, or at least all of the sheeted areas of its construction. The Grunau Baby will have the black registration of D-4-764 and also the NSFK emblem below the cockpit on both sides of the fuselage. Documentation for this subject is very simple and comes in the form of one photograph on the chosen subject which appeared in a book titled Handbuch des Segelfliegens by Wolf Hirth, published in 1940. Some readers may find the above quoted Grunau Baby registration familiar, and so they should as it is that which is currently included in both the 1.6 and 1.4 scale Klaus Krick kits of the Grunau Baby IIB, and has been in the 1.6 scale kit since its first release onto the model market some 8 or 9 years ago.

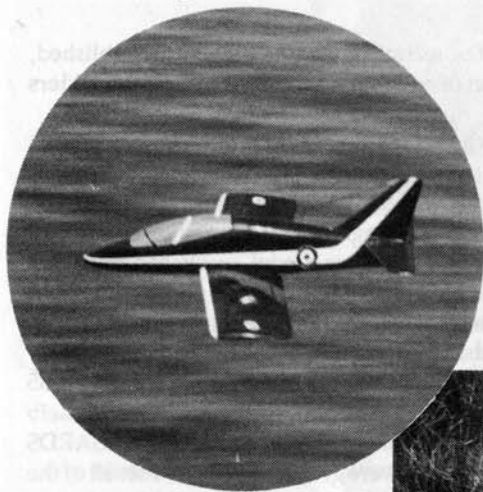
The major fault that Krick has made in the past, and more recently with their release of their 1.4 scale Grunau Baby IIB kit, is that of the color scheme for the model and also incorrect data by showing the positioning of the registration on the wings.

Several years ago, I contacted Klaus Krick's then chief designer, Karl-Heinz Denzin, now retired, and pointed out to him the color

...continued on page 6



Frank Smith & his
RHONBUSSARD on its
first flight



Australian Correspondent Bruce Abell sends this shot of a scratch-built B.A.E. HAWK power scale slope soarer making a high-speed pass along the cliff and over water. Venue is Stanwell Park, Sydney.



Close-up of Ian Fitzimmon's B.A.E. HAWK. Ship is all red with white stripe, blue canopy and Aussie 'roundels' on wing & fuselage; red center, dark blue outer circle and white middle. Ship is semi-scale, and a good flier.

Scale...continued

scheme and the positioning of the markings. Mr. Denzin very kindly acknowledged my correspondence and said that it was too late to correct the mistake as the kit had been in production for several years prior to my writing him, but he did say that, at the time of his designing this scale glider kit, he had no solid information as to the correct color scheme for the Grunau Baby IIB in Germany during the late 1930's and only assumed that they were finished in vanished plywood, as stated in the kit.

* * *

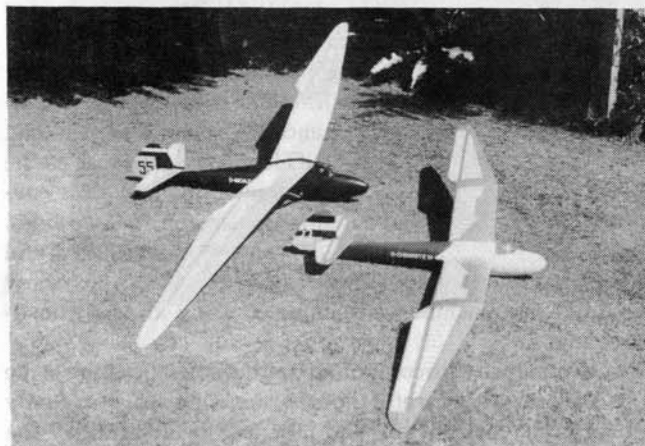
So, as you can see, I have tried to present two forms of scale documentation as seen thru my eyes, and how I have gone about gathering such data, and compiling same for future use on one of my model projects. I wish to make it quite clear here and now that I am no expert on this subject, and have far more to learn about various glider subjects, so I would be very much appreciative if other readers could submit their ideas on this subject for all interested parties to share. If I can be of any assistance, no matter what the subject may be, I shall do my best to help out where I can.

Frank Smith
may be
contacted
via
R/C Soaring Digest

The Moazagotl

An Austrian farmer named Motz Gottlieb lived in the Austrian Alps and used to watch the formation of the wave clouds formed by the wind blowing over the mountains. In fact, he reported them frequently, and came to be known far and wide for his observations. In the early 30's a new design for soaring was being prepared in Germany and it needed a name. Someone suggested that it be named after old Motz Gottlieb, so they shortened his last name and called it MOAZAGOTL. The sailplane itself had a very beautiful gull wing with this airfoil and long span, mated to a pod-like fuselage with elegant streamlining for its day. The MOAZAGOTL made many record flights, and one of its interesting features was a pair of broad wing struts having an airfoil cross section and pivoted at each end. The pilot could rotate them for landing to produce a set of barely effective spoilers! In later years, Wolf Hirth and Martin Schempp designed the follow-on sailplane, a smaller version of the large MOAZAGOTL, and called it — MINIMOA. Here's Frank Smith's models of the MOAZAGOTL and the MINIMOA, nose-to-tail, to give you an idea of their relative sizes.

The MOAZAGOTL has a red fuselage and cream-colored wings with a dark blue tip to the fin and a white line separating the red from the tip. The MINIMOA has a natural finish wing, white "pod" and green tailcone on fuselage. Rudder stripes are blue (top), white and red. In pre-war Germany, before the change effected by the NSFK, sailplanes were painted with fuselages having colors that represented the various "states" within Germany — each



one a different combination. These were extraordinarily attractive, but gave way just before the war to the general overall cream with large black alpha-numerics. Some of the earlier machines were not converted to the NSFK scheme. By the way, NSFK meant: National Sozialist Flieger Korps; that is, Nazi Flying Corps — the training ground of Hitler Youth (and others) for the Luftwaffe. The letter "D", of course, is Germany's international aviation prefix, just as the letter "N" belongs to the United States.

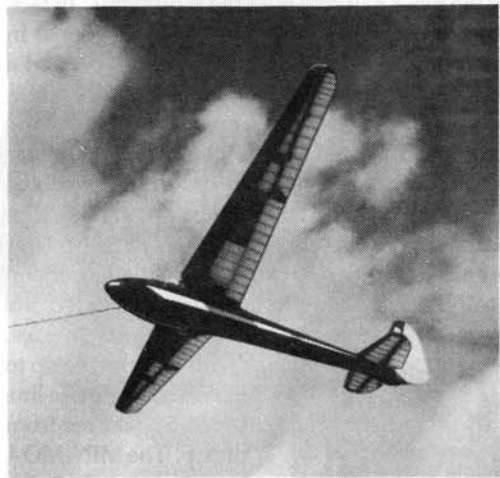
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Re...Sources -- VSA

The Vintage Sailplane Association (VSA) has long been an RCSD advertiser, and they have dozens of articles on vintage sailplanes of all countries in their magazine Bungee Cord.

Say, Jim, what's "vintage", anyway? Well, it depends on where you live for starters. In the USA, "vintage" means sailplanes designed and built before 1955 — and your expert, here, is Charlie Morey — the same fellow who publishes Slope Soaring News & is the editor of Bungee Cord.

A Vintage View



Full-size Olympia IIB on winch launch. This is an Elliotts of Newbury version made in England in 1947. Red fuselage and white wings - tail "number" BGR. (John Watkins photo)

As long as I have known of the Kirby Kite, I have regarded it as the most aesthetically appealing of all vintage gliders. Imagine my delight, when attending the 1985 VGC rally at Long Mynd, there were three! Ted Hull's BGA 394 was the one I chose to extensively photograph after assisting many 2-man "hand" launches from the Mynd's west face.

An accurate three-view drawing was acquired and plans prepared for a 1/4 scaler. Ted Hull was a great inspiration and helped by providing some of the detail I had missed.

The fuselage is constructed on a hard balsa crutch, using 1/8" balsa half-formers and 1/8" sheet balsa planking. SHEETING is strictly the word, as the rear end, being straight-lined, is covered in three pieces: top and two sides, saving all that heavy glue. After careful

preparation it was then simply covered with white Solartex. Fuselage formers which show on the surface of the ply-covered full-size machine were simulated using strips of ironed-on Solartex under the main covering.

The wings presented their own difficulties with compound trailing edge curvature in the form of root sweepback and gull effect. After careful thought, the wing spar was firstly constructed over the plan, gluing in the forward ribs and false leading edge strip. The remaining rear portion of the ribs were added with the wing in an inverted position, chocking up the pre-formed spruce trailing edge to a fit and gluing it in. The rest was simple, but a careful watch was kept to prevent built-in warps from creeping in.

The tail was purely a matter of keeping down the weight using a basic structure of extremely light quarter-grain 1/2-inch balsa sheet...knew I'd find a use for it someday!

The rudder is an outline of wound balsa strip — shades of free-flight days! All surfaces were covered with natural white Solartex, using Balsaloc (Trade Name) on the undercambered ribs and other necessary areas to increase adhesion.

Following the full-size practice, the wing and tail open structure was masked and sprayed white on top of the covering. Two hours of masking equalled two MINUTES of spraying!

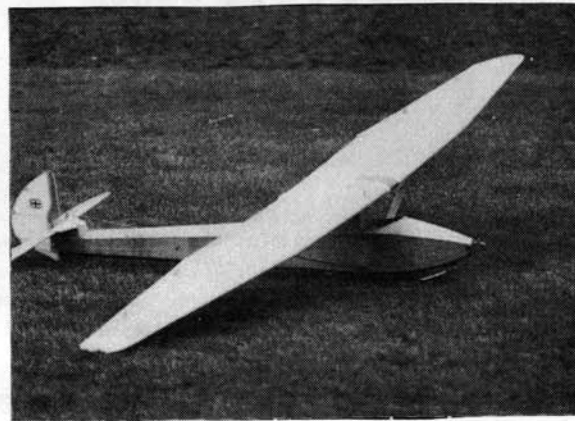
A Futaba flight pack of receiver, 500 mA H Nicad batteries and four servos were fitted as far forward as possible; the CG positioned close to the balance point bringing the weight to 7-1/2 pounds and yielding a wing loading of 10-1/2 ounces per square foot. We were ready to go.

First flight was against a 15 mph wind and the Kite just held its own with full down elevator. This proved to be quite an unfair test as, although rigging angles had been carefully monitored, adding much more weight became a danger of pushing the CG in front

...by John Watkins

of the wing! This is the result of using the scale Gottingen 535 wing section with the flat-plate tail. Now that the trim has been sorted out, the Kite is sheer relaxation to fly, albeit a bit sluggish in winds above 10 mph.

She tows up predictably well in the lightest winds and thermals willingly. This is a glider that seems more at home on the flat than on the slope, when showing up its graceful lines and structure in the sunshine. Aerotow facilities are now fitted, but not yet proven. I don't foresee any problems, so am waiting for the opportunity to arise.



Full-size Crested Wren - English glider designed and built by William Manuel in 1930-1931. Crude by present-day standards, it did soar. Note the cramped entrance to the cockpit...required a very small pilot of light weight who sat under the wing! Ship is not restored and flying with the Vintage Glider Club in England. (John Watkins photo)

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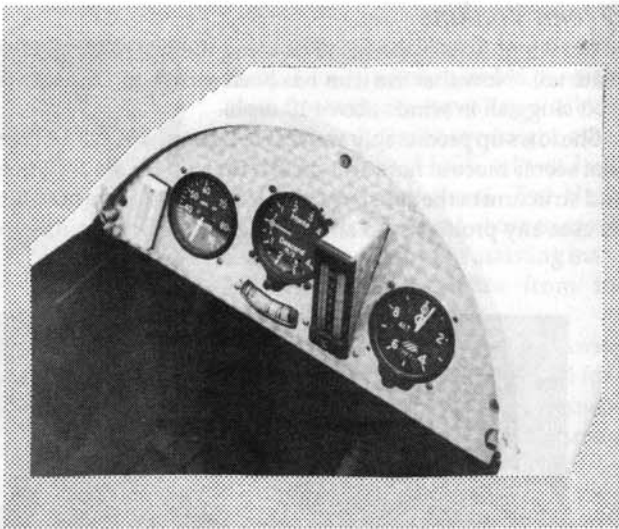
Thanks, John, for the write up and thanks, too, to Sean Walbank and RC Model World who printed substantially the same article two years ago. John provided this version hand written on thin blue airmail paper! He has since built a Crested Wren glider, modeled after a design by Bill Manuel and produced in England during the early '30's. It flies very well, indeed, and is difficult to bring down, having no spoilers. John says that Bill Manuel was still alive at 84 years of age in 1987 and still keenly interested in gliders and gliding! The last I knew, John was planning an Olympia 2B, and had taken a whole roll of cholera film detailing the full-size ship he planned to model...and I have a set of prints! He mentioned also that a club was being formed by owners of full-size Kirby Kites who need and want all possible documentation on any that may still exist here in the USA...and he's asked readers for any help they may be able to give. The Vintage Glider Club in England may be reached through Robin Traves, "Rose View", Marden Road, Staplehurst, Kent, England. John says that a closer understanding between modelers and owners of full-size gliders is being brought about, especially between owners and modelers who are going to do "their glider". JHG

John Watkins
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Lyndale Park
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England
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John Watkins

documentation photo of instrument panel from full-size Olympia IIB - used for constructing the Charlesworth plans-built quarter-scale model. Panel shows (L to R) pellet variometer, airspeed indicator, French-built "Horn"-type variometer, turn and slip indicator in curved tube, another pellet variometer, and altimeter. In pre-war days, pellet-type variometers were used in which a small pith pellet (one green in right tube and one red in left tube) were used to indicate lift and sink. When the green pellet rose in the tube, you were in lift...and when the red one rose, you were in sink. Hence the term "green" air. Dial type variometers came later and are now standard. Note this ship has three of them! This tells you what's uppermost in the mind of a busy glider pilot.



RCSD FLASH!!

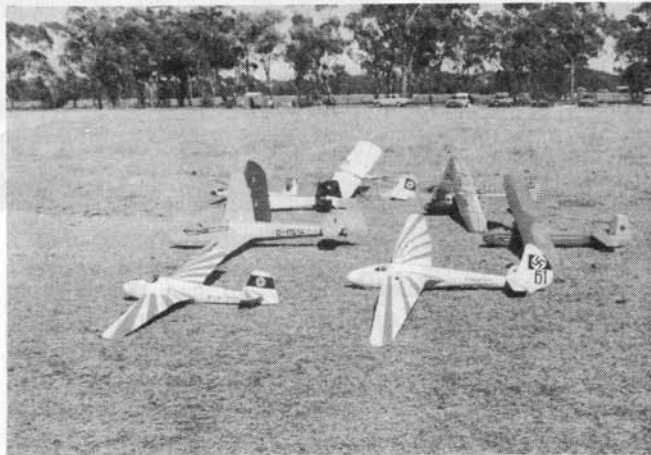
Mark Allen's FALCON 880 (see July RCSD) wins the RCSD Challenge. Mark's design was favored by the committee of Byron Blakeslee, John Dvorak, Don Edberg, Jim Gray, Gus Peleuses, and Randy Reynolds, over nine contenders — any one of which would, and will, make a fine machine for the proposed SMTS (Sportsman Multi-Task) class. The committee "votes" on a preference of 1-9 were averaged and the sailplane with the lowest average won. Some factors in the choice were: ready availability "off the shelf", winning record, reasonable price, modern airfoil, contemporary structure and materials, and esthetic appeal. RCSD wishes to congratulate ALL of the entries and especially Mark Allen for his winning design. The other entries were: CALLISTO, CAMANO, CONQUEST, HUSTLER, ODYSSEY, PULSAR, QUASOAR and WEST-WIND.

Re...Sources -- Newsletter

Sean Walbank's White Sheet newsletter occasionally runs a "scale" issue — more frequently, in fact, than RCSD. Information contained is absolutely superb, with three-views, photos, discussions and building articles, and brief histories of the designs. You can subscribe, and possibly obtain back issues, by writing to Sean Walbank, 29 the Gardens, Acreman Street, Sherborne, Dorset, England DT9 3PD.

View of entries

for the March, 1986 Scale contest hosted by the Bendigo (Victoria, Australia) Soaring Association. Bottom L to R: DFS Habicht (Hawk) and "Sperber Jr." by Colin Collyer...a special Rohoensperber for famous German woman pilot Hanna Reitsch. Middle L to R: Schleicher ASK-13 two-place sailplane of the 60's, and Grunau Baby. Top L to R: modern scale ship half hidden by wing of Doug Anderson's



Slingsby T-46B (side-by-side two place English sailplane); SG-38 primary training glider - definitely NOT a sailplane; another half-hidden Grunau Baby behind the US Bowlus Baby Albatross. Frank Smith says that the 'Sperber Jr. is a most pleasing flier and a great crowd pleaser - as was the original. Normal-sized pilots couldn't get into the tiny cockpit - small even for the diminutive Hanna

Reitsch for whom it was built. She toured Europe, England and the US putting on aerobatic displays and entering (and winning) soaring contests. The Habicht and the 'Sperber had cream-colored or white fuselages and wings with medium blue "sunburst" stripes on the upper surface.

Re...Sources -- SSA

The Soaring Society of America (SSA) is another valuable source. They publish Soaring, our U.S. sailplane and soaring magazine. Write to Box "E", Hobbs, N.M. 88240. Also, ask for Paul Schweizer's book: Wings Like Eagles, a history of U.S. soaring. SSA also has an extensive list of available publications related to soaring and sailplanes, and while you're at it, why not join the SSA? They will serve as a never-ending source for your scale needs.

Segelflugzeuge, vom Wolf zu Mini Nimbus, by Peter Selinger (in German) may still be available. It was a Motorbuch Verlag publication. Try SSA for a copy.

OSTIV, the technical and scientific organization publishes annual reports on technical matters associated with gliders and gliding. OSTIV's "Technical Soaring" may be obtained through the SSA.

Re...Sources -- Publications

The model publications, of course, have offered vintage and modern scale sailplane plans over the years — most of which are still available. I'd suggest you write to Model Airplane News, Model Builder, Flying Models and, of course, the AMA publication Model Aviation.

The VENTUS ...by Dieter Eberbach



The VENTUS without winglets in place.

I imported this Roebers kit from England — a scale VENTUS of 4M span. When I wrote to Chris Barker of Silent Flight, I asked about the airfoil and was told that it had been designed for thin air, much like the Transvaal. The kit arrived sometime later as “aircraft parts” — no box — all wrapped in bubble pack and tape. The fuselage was very well moulded and strong with holes for the wing joiners and air brake (Multiplex type) well marked and easy to drill. No cable tubes had been put in by the Germans, so I used thin-sleeve cable and ran it up to the top of the tail. There is plenty of room in the fuselage for a servo tray. The wings are fully sheeted with leading and trailing edges finished and nicely sanded. The only thing that worried me greatly was the tip chord of only 50 mm., and it was to play a great role. The best tip chord for a glider in the Transvaal, we found, was no less than 120 mm.!

I fitted mini servos into the wings as this is the only way to get a fairly positive response on the ailerons, with no play. The wings and tail were then primed and DUCO'd. Final assembly goes quickly, depending on how ‘scale’ one wants to finish. I wanted to fly my VENTUS first before doing more finishing, so off we went to the field for a hand launch which is not too easy as the fuselage is so wide. Off she went with no bad vices for a glide of 200 M., but once on the winch things looked different: it drags the tail a bit and then pulls up. The first turn with speed looked okay, but into the second turn the wing dropped like a rock and only a high-speed dive pulled her out. Not an airplane for someone going in for big scale gliding for the first time...but, there is a cure: I fitted winglets which I had brought with me in case of just such a problem. The improvement was incredible — from an absolute dog to a docile pussy cat. It is now much easier to fly and the brakes are much more effective for landings, too.

To conclude, the kit needs a lot of bits and pieces to get it to scale. It is definitely not a second glider as it needs a good amount of flying skill and not an airplane to fly just on weekends. The airfoil works well but just too hairy without the winglets. What is interesting is that the winglets have no particular airfoil and are not set at any particular angle - yet they worked. No doubt a profiled fancy winglet would work even better, but a flat piece of Solarfilm-covered balsa, mounted with wood screws worked fine.

* * *

Dieter is a very accomplished pilot and has great experience with a variety of sailplane types — in addition to flying the full-size gliders — as does his father Kurt. Dieter has

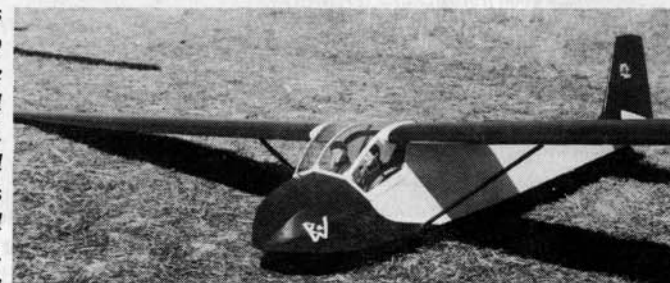
Dieter Eberbach shown with his Roebers VENTUS scale sailplane of 4-meter. Dieter discovered that, because of small tip chord, it needs winglets to compensate for the very low Reynolds Number and tip stall. Look at those cumulus clouds.

Dieter Eberbach, 49 Highveld Road
Kempton Park 1620, South Africa

been a correspondent for many years and can always be counted on to send interesting photos and newsy letters. Incidentally, the wing section used on the VENTUS is a Wortmann FX60-140/126 and is considered satisfactory for general soaring conditions — but apparently NOT for the 10,000-foot altitudes reached in the Transvaal. JHG



Doug Anderson's Slingsby T-46 — two place, side-by-side training sailplane used extensively in the U.K. during the late 50's and 60's. This version has red wings, fuse and tail with remainder white. Pleasant to fly, with



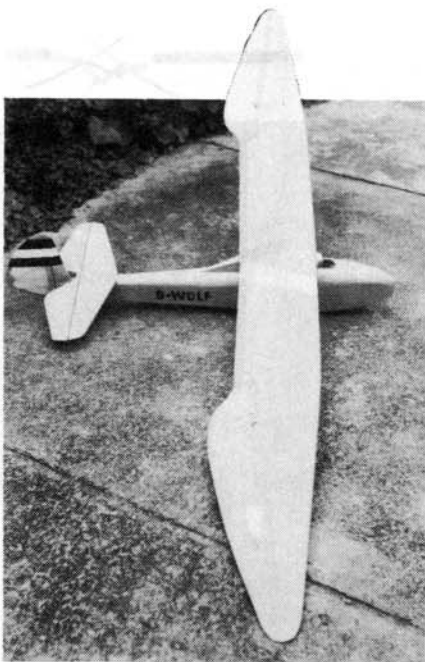
modest performance, the T-46 trained many of Britain's top competition pilots as they stepped up from the Sedbergh's and Tutors to the higher-performance machines.

Re...Sources -- Books

The World's Vintage Sailplanes, 1908-1945 by Martin Simmons is the “bible” and may be obtained directly through Kookaburra Technical Publications Pty, Ltd., P.O. Box 648, Dandenong 3175, Melbourne, Victoria, Australia.

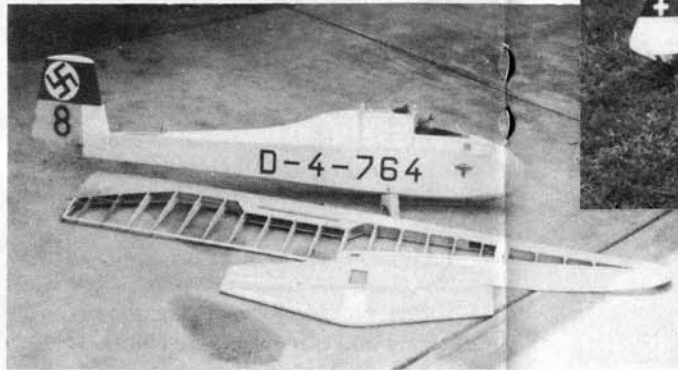
Another book you might find useful is Jane's World Sailplanes and Motor Gliders, by Andrew Coates. Out of print now, it was one of the Flying (magazine) books by Ziff-Davis Publishing Company.

An outstanding modeler, engineer, pilot and all-round human being is Ferdinando Gale, Via Marconi 10, Baveno (No.), Italy. He has a wealth of data and information at his fingertips, and he published Aliante-Soarers, now out of print, but a most valuable reference containing photos, spec's and three-views of the world's sailplanes.



The famous Goppingen WOLF of the early 1930's. Had a beautiful wing and generally good flying characteristics — but a nasty and abrupt stall if one wasn't careful. This model, prototyped by Geoff Pentland and built by Frank Smith does not yet have its final color scheme — which was white with trim of medium blue as a fuselage stripe and nose piece. Model flies well, indeed, and has a good record...92" span.

A Gallery of Photos



Good friend and correspondent Frank Smith of Ashwood, Victoria, Australia is a master modeler and builder of (mostly) vintage scale sailplanes — or gliders — as they are referred to in the U.K. This photo is of Frank's Grunau Baby IIB that was used extensively in Germany before WWII. The ship pictured bears the Swastika on the rudder (red band, white circle, black cross) and the NSFK symbol on the cockpit. Ship overall cream with black letters/numbers shows it was used in '37 or '38. The number eight shows it was the eighth glider of probably a dozen or more in the particular training school where it was used.

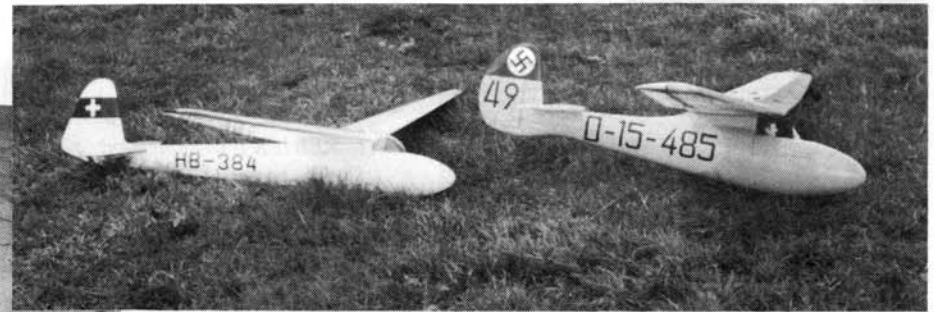


This issue features many of Frank Smith's scale models. Most of them built to a "standard" of 1/4th of the full-sized sailplane or glider. This is generally known (incorrectly) as quarter-scale, but is in such widespread use, we won't quibble. Over a period of about three years, Frank has sent me dozens of beautiful color prints of his scale models. It is just too bad that RCSD can't show them to you in full color. For those who wish to contact Frank Smith, his address is 1/57 highstreet Road, Ashwood, Victoria 3147, Australia.



The repaired and rebuilt 1.4 scale Bowlus Baby Albatross — still, as yet, un-flown. Pilot figure and cockpit details to be added, later. Photo by Frank Smith who says, "Will let you know how she performs, mate! Should fly very well, I think."

Neil McLeod's model of a Japanese Mitsubishi J8M Shusui (PSS model).



Geoff Pentland's 1/6 scale DFS OLYMPIA and Frank Smith's RHONBUSSARD



Geoff Hearn's 1.5 scale model of Japanese Hikari 2-2 primary glider. Formerly built by Frank Smith some 8 years ago. Still flies very well.



THE GRAY AREA



On the right. Quarter-scale REIHER II in its element. Need more be said? Cliff Charlesworth plan & photo.

Jim:

The last time I wrote, a friend of mine was busy building one of my latest designs in quarter scale: the Reihier II. It spans some 4.75 meters and weighs in at 11 pounds, and is the ONLY drawing design of mine that I've not actually built myself — because I cannot fit it, even derigged, into my car! However, my good friend Roy Cox who is a very



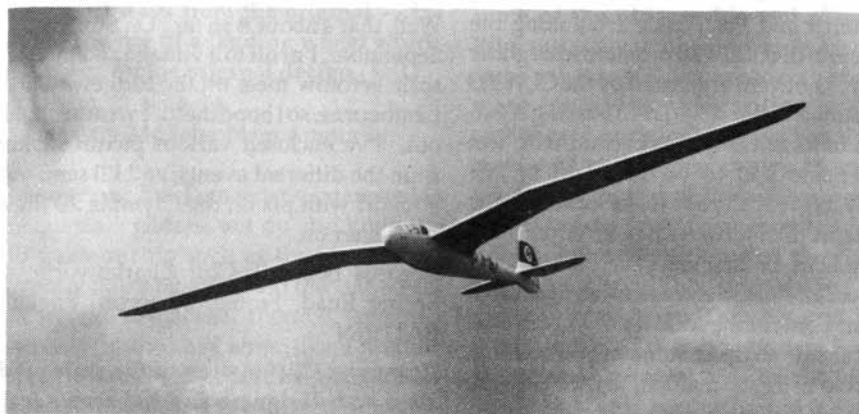
1987 Vintage meet at the White Sheet (England). 1/4-scale RHOENSPERBER gains altitude after launch. One of the more interesting "old timers".

keen scale man urged me to do the drawings so that he could build it. During construction we stayed in very close contact just in case there were some changes required for the drawings.

Well, that was four months ago, and I'm pleased to say there are four more under construction. It looks superb airborne and it grooves nicely. It hangs in well in thermals and I am confident we'll see a lot more of this aircraft as time goes on. The model is not for the faint-hearted however, as many of the original Reihier drawings were used in its creation. The fuselage can either be panelled with ply or with balsa, but I prefer the former. Rib-for-rib construction in the wings and DFS airbrakes are used. Because the

ailerons are very long, they are split — as on the full-size machine — with varying differential. It all adds up to a superb scale machine, and the only snags are that very few pictures of the full-size machine exist. Apart from that it is a joy.

After completing the Reihier drawings for publication, I turned my attention to a prototype I've wanted to build for a long time: the Olympia 2B. My friend John Watkins has mentioned it in his previous report. My drawings were developed from Martin Simons' three-view — an actual Elliotts of Newbury (EON) Olympia IIB — and photographs taken by John Watkins and Ian Tunstall. The fuselage is built with plywood panels just like the full-size ship,



OLYMPIA II gets off to a great launch. Cliff Charlesworth drew plans and built this ship modeled after an original based in England. Superb flier, too.

aired off with micro balloons and filler around the nose, and then covered with nylon. I have endeavored to produce the wings very similar to the full size with Gottingen 549 section at the root and Gottingen 676 at the tip. It's not yet complete, but I'm hoping to have it ready for our last National meeting September 20th at the Long Mynd — a superb ridge in the north of England. Scale glider comps were well supported in

this year's activities starting on May 4th with the West Mendip club. The weather was bright but very windy conditions made pattern flying difficult. However, apart from one 'fatal' crash, all managed to finish the course and live to fight another day.

The West Mendip club, like the White Sheet RFC, have been running scale meetings for years so their comps tick like clockwork. Famous names like ...continued on page 18

The Gray Area

Ken Merrit and Pat Teakle are among the members of the club who promote scale glider activity. The event organized by the CLWYD (pronounced "cloud"—JHG) Soaring Association unfortunately was blessed with wet weather and had to be called off on the Sunday...a great pity as the site located in the mountains in North Wales is superb for soaring...but in that part of the U.K. the weather can close in extremely fast and catch one out. Some of the scale fliers who arrived on Saturday enjoyed some super soaring. Roy Cox had his maiden flight with the quarter-scale Reiher that day. Both the modern and vintage events held on White Sheet Down were very enjoyable, although the modern event was marred by poor weather; but it didn't keep the 35 entrants from competing very strongly for 1st, 2nd, and 3rd places. The vintage event fell on one of those balmy summer days you always dream about. Conditions were perfect and at times on the slope only thermal lift was available, so a great deal of skill was required to complete all the pattern flying and get 'round the course...but what a sight it was to see so many super vintage models airborne at one time! It felt as if one had gone back through a time warp! By the way, I'm enclosing competition details for the 'modern' event which might be of interest to contest organizers in the USA.

Four weeks ago we had our last scale event — this time a nice flat field with aerotow — the idea being to limit the time on aerotow, giving points for takeoff and tow flight, release after 25 seconds, and then limit the duration flight to ten minutes. This was about right for the day. Although it was warm, there were not many thermals, and realism of flight was the thing to aim for, right down to the square approach to landing which, of course, was marked. Some 22 scale buffs took part in the vintage event. First place went to a Slingsby PREFECT, second place to a Reiher II, and third place to a MU-13D3.

Well, that's about it so far. On Sunday, 6th September, I'm off to a vintage and modern scale aerotow meet on the Ridgeway near Lambourne, so I hope the nice weather holds out. I've enclosed various pictures taken from the different events, and I'll send you a report with pix on the Olympia 2B flight trials later on.

Regards (signed), Cliff Charlesworth, 41 Spring Road, Frome, Somerset, England BA11 2JN

Response: Cliff is dean of the scale modelers and designers and has many scale plans available for both vintage and modern designs. His designs always seem to perform well, yet remain faithful to the scale construction details...right down to scale airfoils! In this issue, you'll find the scale course used for competition on the slope. The Reiher was the last great German sailplane prior to WWII, and three versions were built. The most beautiful in my opinion was the Reiher II, only one of which was built. There were several Reiher III sailplanes built and flown in competition. I have waited for Cliff's Olympia 2B plans for some time now, and eventually hope to build one for myself. It just happens that I saw an Olympia at Harris Hill, Elmira, NY back in the early 50's. It was a most beautiful design and had handling characteristics that were harmonious on the controls, pleasant to fly, and very quiet in the air compared to other ships of its day. The Olympia, designed by Hans Jacobs, was winner of a pre-war design contest and named the Meise. It was to have been the 'one design' sailplane flown by all pilots in the 1940 Olympics in Finland...but, as we all know, they were never held due to breakout of WWII in Europe in early September 1939. After the war, the Olympia was re-designed to more modern British specifications and put into production by Elliotts of Newbury. It was called the EON Olympia and differed in

some small ways from the original — including the use of a landing wheel which was absent on the original design. JHG

* * *

Master Modeler from Australia

Jim:

As you know, Jim, I am mostly interested in vintage scale gliders, but do also build the odd modern ship such as the Pik-20 I am currently building, plus also the 100"-span, lightweight, 2-function thermal version I have half-finished as I write. For a number of years I have been collecting plans of vintage scale models and have a good collection of same at this time.

Some years ago, Jim Ealy — a fellow countryman of yours — was producing and selling plans and kits—mainly to 1/5 scale — under the name of Archaeopteryx Avion Associates. In his 1982 catalog he lists five different German plans: Rhoenbussard, Rhoensperber, Mu.13, DFS Habicht, and DFS Meise (Olympia). Possibly one or more of your readers obtained some of these plans with the idea of building the scale models, but changed his mind, and the plans now lie gathering dust in some corner of his modelling shed. If that is so, could you possibly place a note in a forthcoming issue of RCSD to the effect that I am interested in any or all of the above subjects, and would be willing to pay for one or more sets of Jim Ealy plans? Please have them write and tell me about cost, delivery, etc.

Apart from the above, I am also re-building and refurbishing an old 1:5 scale model of a Grunau Baby IIB — my third in some years. I have stripped the airframe of its original covering and am ready to recover it, using a new color scheme.

Kindest regards for now, I am yours sincerely (signed) Frank Smith, 1/57 Highstreet Road, Ashwood, Victoria 3147, Australia

Response: Frank, I believe that Jerry Slates of Viking Models USA has some of the old Jim Ealy three-views, and perhaps even

some of the old moulds and plans, too. Why not write to him and see? Also, I am certain that some of our readers have those plans, too, and would be willing to sell you copies or the originals. Have you thought maybe of exchanging copies of some of your plans for them? I'll bet that would be a very satisfactory arrangement. Incidentally, I should mention that the German magazine FMT (Flug und Modell Technik) c/o Verlag fuer Technik und Handwerk GmbH, 7570 Baden-Baden, Postfach 1128, West Germany, has dozens of plans of vintage and modern scale sailplanes and gliders. They speak, read and write English, so your correspondence will be answered promptly. Also, anyone interested in scale models would do well to subscribe to FMT, as each issue carries half-size plans of that month's featured design. Most of the designs featured are, in fact, sailplanes! JHG

Re...Sources Documentation

Documentation information (photos, spec's, etc.) can be obtained from Scale Model Research, Bob Banka, whose ads have appeared in RCSD over the years. His Foto-Paks consist of some really magnificent shots of sailplanes, cockpits, and detailed close-ups.

By all means, don't forget the National Soaring Museum, Shirley Sliwa — Director, Harris Hill, Elmira, NY 14903. They have a magnificent collection of data on the U.S. and foreign planes.

The Gray Area

From Scale Schweizer 1-26 to Full Size Sailplane

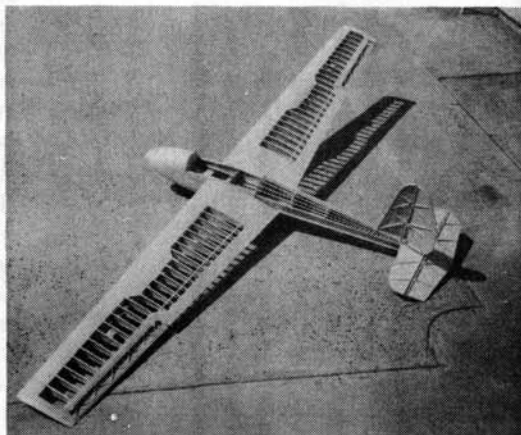
Jim:

6-20-87

Just a few lines to let you know how I'm doing with the 1-26 and enclose a picture of the framework. I can't believe how much time I have put in on this bird, but it has been a lot of enjoyment and learning new construction techniques is also lots of fun. Steve Moskal's article doesn't give a lot of data but I ran into an article in *RC Scale Modeler* of May 1987 in the letters column which says a lot. His prototype weighed 7.5 pounds and has 1500 square inches of wing area. Since my 1-26 is a little less than 1/5th scale it should come in under 5 pounds. In the enclosed picture the framework weighed 2-1/4 pounds, so I should be all right in that department. I've been working on a plug for the canopy and this weekend pulled a couple of test shots and was quite pleased. I had an opportunity to go to an airport in Hemet (near Riverside) and see some full-size gliders in action and to look at any 1-26 that might be there. I think I'm hooked! Next time I go there I'm going to take a ride and see what the shouting is all about. The other pic are of the 1-26 I'd like my bird

to look like.

I know it's been awhile since we talked about a full-sized 1-26...and I haven't got one in my garage yet, but will sometime soon! What can I say? Sailplane Enterprises at Hemet is responsible...I'm living my dream come true! So far, I've had 8 lessons and it's been so much fun learning how to fly, but it's been frustrating too, and I have 5 - 6 hours in a Schweizer 2-33. Besides not keeping the nose up in a banked turn, and having a death grip on the stick, I seem to be learning something about how to fly a glider in spite of myself. Here are a couple of pictures of my scale 1-26...no test flights yet, but



Above: Bill Anderson's "bare bones" Schweizer 1-26. Below: the 1-26 ready for its first flight.



should fly in a couple of weeks. It will weigh between 4 and 5 pounds ready to fly, but I've put so many hours in on it that it's not going to be easy to throw it off our hill...but what the heck! I know that it's going to fly great — it's just the pilot I'm worried about! It is covered with Solartex and painted with automotive lacquer. The aileron servos are in the wings and it has spoilers. The rudder is coupled with the ailerons...now if I can just keep the string centered! (Note: In flying full-sized sailplanes, most pilots put a bit of yarn on the outside of the canopy in the center and watch it while flying. The yarn is called a "yaw string" and sometimes is made out of a bit of colored silk. When you fly coordinated turns, neither slipping or skidding, the yaw string stays right in the center — but when you slip or skid, the yaw string wanders off to one side or the other by an amount depending on how badly un-coordinated your turns are. JHG) I'm looking forward to the scale issue you have promised this year and have been reading *RCS* from cover to cover. Happy soaring from one happy student pilot!

11-27-88

Just a short note to let you know that I flew my 1-26 last weekend for the first time. I waited until late in the day and the lift was so-so, but I wanted to try it anyway, so I had a friend launch it off our slope, and WOW! It flew straight out smooth as silk with no trim changes needed and in fact I got so interested in watching it fly out I forgot I was the one flying it! Someone said: "You'd better not get too far out!" So I made about six passes. The turns with coupled rudder and ailerons were real smooth and stayed right in the groove. In the air it looks like the real thing — and if full size is like this, I can't wait 'til I'm able to take on up. The landing was also smooth and easy (no scratch or ding). Final weight was 4-1/4 pounds and its L/D must be close to that of the full-size 1-26 because it took time to come down in

light lift. Anyway, I was happy and relieved at the same time.

Thanks for your return letters and for including my 1-26 in your next scale issue. By the way, I flew a couple of take-offs unassisted and unassisted tows yesterday in the 2-33, which made me feel good. Maybe I'll make it yet!

Happy holidays to you and your wife, (signed) Bill Anderson, 25291 Nueva Vista, Laguna Niguel, CA 92677

Response: Thanks for sharing your experiences, Bill. I've spent many happy hours in the 1-26 myself, and know exactly how you feel. The 2-33 you speak of is also a Schweizer...a 2-place training sailplane with almost identical performance to the 1-26. Your mention of slow descent refers to sink rate rather than L/D...and best sink rate is always closer to the stalling speed than best L/D. The minimum sink of a full-size 1-26 is about 2-3/4 feet per second, and I'll bet you are darned close when you estimate the sink of the model as being near to that of the full-size ship; maybe even a tad lower. Since the end of 1988 I'll bet you have had some pretty fantastic flights in both machines. JHG



Another Grunau Baby — this one by Frank O. Smith, 23 South Evergreen, Spokane, WA 99216. Built from Cliff Charlesworth's plans (England). Frank says: thermals okay & slopes pretty fair — but sure is fun to see in the air.

Jim:

Just a few lines to catch you up on my latest pride and joys...or is that prides and joy?

I sent for the plans of Steve Moskal's 1-26 the day I received that copy of Model Aviation. Took me a month to get them, but — boy — were they worth waiting for! I finished the bird in about a month, and as I had no information about its R.O.G. capability, I had a fellow Orlando Buzzard — Dave Davidson — hand launch it on its maiden voyage: straight up the tow, no problem disconnecting, and about a three to three-and-a-half-minute flight, feeling it out and a return to earth for a smoooth landing! One more hand launch and — what the heck, my TG-2 and TG-3 R.O.G.'d so well that let's try it. So, hooked up the bridle, had my "ground crew" hold onto the tail cone, and away we went! Airborne in less than ten feet in perfect launch attitude! I have about nine flights on it now (1987), but no contests yet — maybe Pensacola in June.

I scratched everything myself: canopies, insignia, and — as you can see from the closeup — used a "Monster Ball head from the toy store for Aircraft Commander. I commissioned him Lt. Col. Dracula! Unlike Steve Moskal, I coupled the rudder and ailerons electronically as this, too, had been successful on the TG's. My model weighs out a little heavier than Steve's: about 7-1/4 pounds, but handles extremely well for a quarter-scaler. Still enjoying the heck out of RCSD and have been receiving my issues on time — maybe my mailman doesn't build models! Thanks again for a super publication! Good lift and everything else!

(signed) Bud Moore, 3670 Periwinkle Drive, Winter Park, FL 32792

Response: Bud, I saw a beautiful Cana-

Re...Sources -- People

Steve Moskal and Jack Hiner (in addition to the others whose names and addresses have appeared throughout this issue) are scale modelers par excellence, and there are dozens of others, too numerous to mention.

The Gray Area



Bud Moore, Winter Haven, Florida holds down his elegant Schweizer 1-26 in Air Force Academy markings. This 1/4-scale beauty is finished in silver with red trim and is flown by Lt. Col. Dracula. Plans from Model Aviation.

dian 1-26 at the Washington Slope Scale Fun Fly this May, and it flies and looks every bit as nice as yours. Ernie Schweizer, now retired, designed the 1-26, the TG-2, and the TG-3. His designs all flew well, handled well, and were extremely safe and rugged sailplanes. No wonder the models do as well! The NACA 23112 and 23012 are very "forgiving" airfoils, too, and I've heard they work as well on scale models as they do on the full-size birds. JHG

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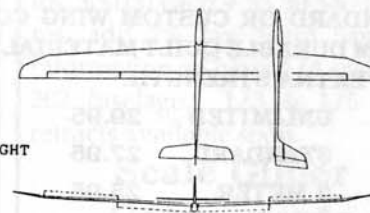
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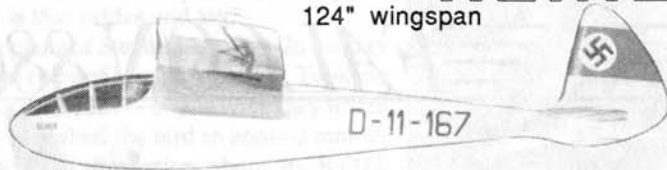
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Re...Sources -- Plans

B2 Streamlines, P.O. Box 976, Olalla, WA 94553-0976 is in the process of accumulating plans of gliders and sailplanes from around the world. Be sure to ask them about vintage sailplanes — especially flying wings like the Horten series, the Northrop wings, Jim Marske's Monarch and Pioneer, the Messerschmitt Me-163, and many others. Bill and Bunny are scale modelers, too, and may have just what you are looking for.

A list of Cliff Charlesworth vintage scale plans can be obtained here in the US from Byron Blakeslee, 3134 Winnebago Drive, Sedalia, CO 80135.

Don't forget to write to FMT in Germany for their comprehensive list of sailplane designs — both vintage and modern (Verlag fur Technik und, Handwerk GmbH, Fremersbergstrabe 1, D-7570 Baden-Baden, West Germany).

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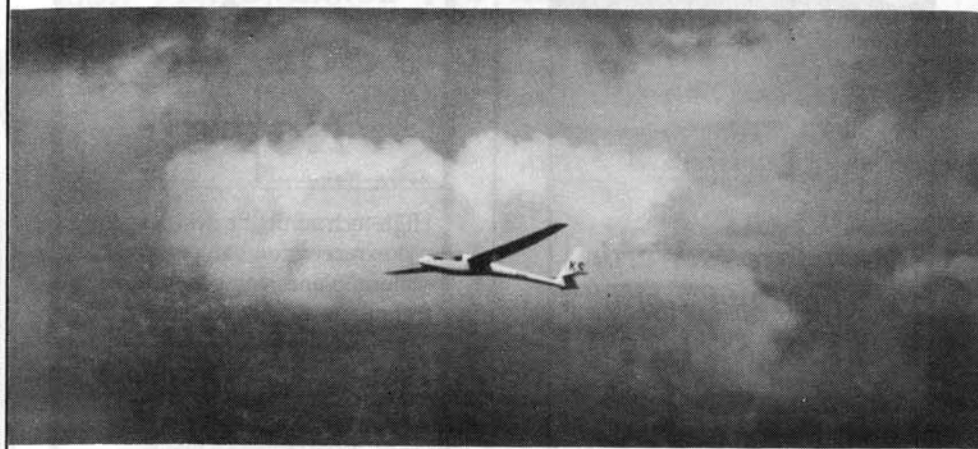
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Re...Sources -- Kits & Accessories

More and more RCSD advertisers are carrying scale model kits and/or plans. For example, you should get in touch with Viking Models (Jerry Slates), and also Greg Harding (Reiherr kit) up in Alaska, who is a new advertiser.

Don't forget American Sailplane Designs (Gary Anderson), also an RCSD advertiser of long standing, who offers kits of many modern scale sailplanes.

For retractable wheels, see Scale Glider Retracts, an RCSD advertiser. Bill Liscomb is your man.

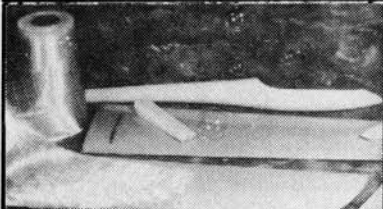
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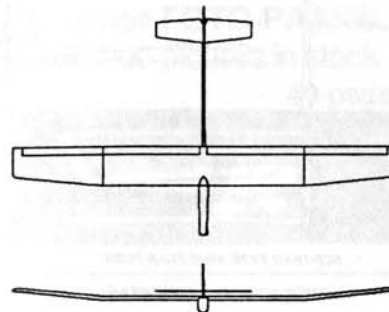
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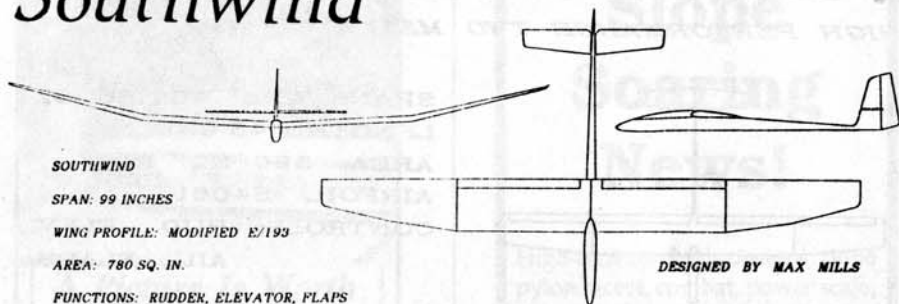
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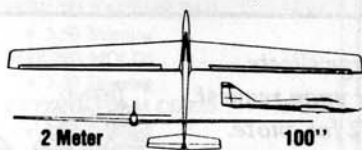


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