

THE VINTAGE SAILPLANE ASSOCIATION

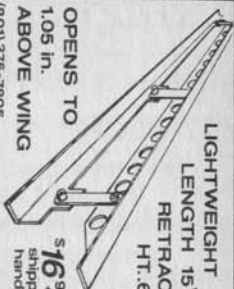
VSA is a very dedicated group of soaring enthusiasts who are keeping our gliding history and heritage alive by building, restoring and flying military and civilian gliders from the past, some more than fifty years old. Several vintage glider meets are held each year. Members include modellers, pilot 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.

For more information write:

Vintage Sailplane Association
Scott Airpark
Lovettsville, Va. 22080.

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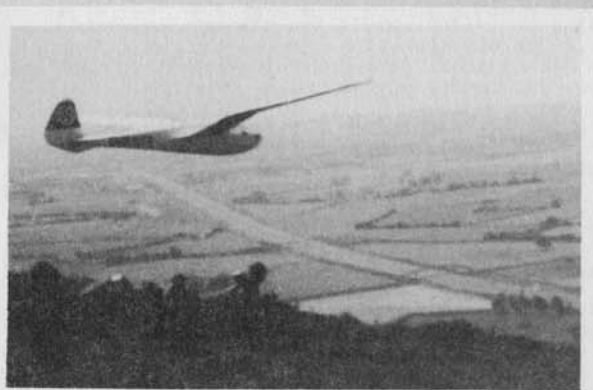
R/C

Soaring

D I G E S T

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MARCH 1987



THE SCALE ISSUE!

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HI START

RCSD is going on record here and now in support of SCALE RC soaring and sailplanes. It is long past time that serious attention be given to this interesting and unique part of soaring activity...and ONE club is already doing something about it. The S.O.A.R. club in the Chicago area is sponsoring a SCALE UPRISING for 1987. This is not a thermal duration contest (although thermal duration may well be one of the tasks) and it is not an F3b contest (although speed and distance may well figure in the final scoring)...it is an out-and-out SCALE contest where the sailplanes will be judged for appearance as well as flight performance. All I can say is that it's about time!

The very least I can do is to offer some subscriptions to RCSD as prizes in the contest - which I will do - but I can do and will do other supportive things. For example, I have contacted some well-known Scale RC sailplane modelers and have asked them to contribute their knowledge to RCSD readers in the form of articles...and maybe even a column. In the next week or so, I'll be contacting more of you scale-oriented people with a request to contribute information.

My efforts to get a slope column going were abortive, due to the failure of a particular individual to follow through with his promise to furnish a regular slope soaring column. However, I'm going to keep trying and keep asking until we get regular contributions covering this important soaring activity. Who'll volunteer?

Getting back to SCALE for a minute, I'd like to ask a question. Why don't more of you go in for scale subjects to model and fly? Is it too much work? Too much effort to get the documentation? Are we that lazy? Are the models too large at 1/4 size? Can't you find suitable subjects? Are you afraid that scale models won't fly as well as the others? Tell me, just what is the reason? I'd like to know...and so would some of the folks over in England who have asked me that question. For example, their recent scale contest drew 102 entrants!

Whether your interest lies in the contemporary, sleek fiberglass machines like the ASW-22, Nimbus III, and others...or the "vintage" sailplanes like the Olympia-Meise, Minimoa, etc., there's room for all to be built and flown competitively - with enjoyment. I've ordered a set of plans for an interesting scale subject: the Schleicher Ka-3, a smallish, vee-tailed, lightweight sailplane designed as an "alpine soarer" in Germany. The full-size machine had a span of only 10 meters, so the 1/4-size version will be nicely and easily handled. Wait 'til you see this one, gang; it's a beauty!

The Vintage Sailplane Association in Lovettsville, Virginia is a wonderful source of information for scale builders. See their ad in this issue. Join the organization and get the terrific BUNGEE CORD, the VSA magazine published four times a year at least, and sometimes more often, as material is contributed and organized. It's a FUN publication and one that every serious sailplane modeler ought to know about and have. The whole history of soaring here and abroad has been, and continues to be covered, between its pages. Join now!

If you don't know where to get information about scale subjects, just write to me and ask. I'll steer you in the right direction. Those of you who are already involved, please send in your photos, three-views and hints, tips and building ideas. We NEED them, and want them. Most of us will agree that pictures are worth a great deal. In this issue, you'll find some pictures sent to me by Cliff Charlesworth from England. I wish you could see the originals in color! Cliff is one of the world's top Scale RC sailplane modelers. He has plans available for many vintage (and other) sailplanes. More about that in the article in this issue.

C'mon in, the air's fine! Let's go SCALE!

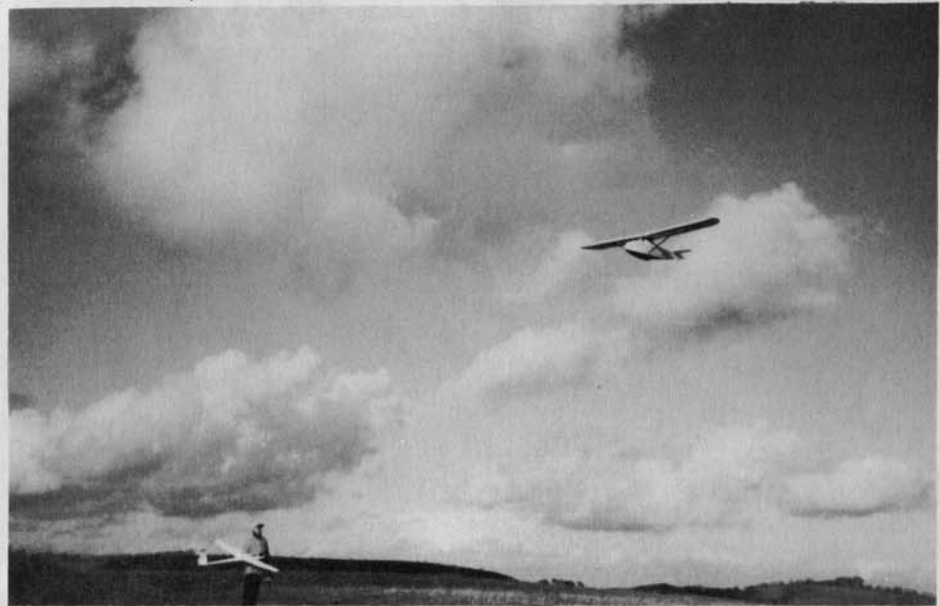
Happy soaring,

Jim

SCALE SOLILOQUY

Cliff Charlesworth

(Editor's Notes: Some time ago I learned about Cliff Charlesworth while reading a copy of Sean Walbank's excellent publication The White Sheet, a gliding and soaring newsletter/magazine published in England. It seems that Cliff is well known for his RC scale glider activities across the pond, and is both a designer/builder and competitor who is deeply involved with vintage glider designs. In recent correspondence with Cliff, I acquired a set of plans for the German Ka-3 sailplane kindly provided by him, and a most interesting letter which I pass along to you here. For all our sakes, I hope that Cliff will continue to provide material for RCSD. Welcome, Cliff. JHG)



"Dear Jim: Wind N.W. 6 knots; temperature 25 F.

Many thanks for copies of your R/C Soaring; very interesting, and I wish you good fortune with it. Enclosed are the plans of the Ka-3 I promised you, and I hope you like them. Today is January 7th and it's freezing outside, but earlier during the day I ventured up to the top of the hill and gave the HUTTER 17 an airing, and myself too. Even in the throes of winter one will generally find a gliding man up there, so it's never really lonely. The club I belong to is the White Sheet RFC (Radio Flying Club) and we fly on the White Sheet downs which are just 8 miles from where I live. The height of the slopes are quite low compared to many other sites in the UK, but the terrain in front of the slopes is gently undulating and is 'clean' so that the lift is good, even in a gentle breeze. Landing areas on the top are smooth with short grass. The entire White Sheet complex belongs to the National Trust who protect wildlife in all forms. They have accepted the flying of sailplanes from the top of the hill, and we have a good relationship with them. No power flying is permitted on White Sheet Hill, but that is no problem to us. Our aerotowing site is 8 miles from from the hill and is situated on a local farm owned by a member of the White Sheet club. We have a (Piper) J-3 Cub permanently there for aerotow duties, and we generally start about 1

April onwards, using the farm field for aerotow. We have a strip cut out, and during the season it's mowed every fortnight to keep it decent. The strip is located in a large valley almost surrounded by forest, and the thermals seem to pop away very nicely during the summer. It is very nice to get some of the Old Timers aloft to 1,000 feet and then release them. We have had some good thermal times exceeding 60 minutes.



Vintage Tug for Vintage gliders. Pretty Tiger Moth in yellow with black trim

"As I mentioned to you before, flat-field events (thermal soaring) for scale gliders are taking off very nicely in the U.K. Our main local events take place near a small country town called which is some 50 miles away. The flat-field scale events are very interesting and rewarding, and are well attended. At the last meeting we had some 46 sailplanes and 4 tugs (tow planes) which were kept very busy from 0930 - 1900 hours. They hope to repeat the events this year and also hold a special day for Vintage Scale, which of course my own club will be helping, so it could be a good year if the weather is kind to us.

"Returning to your point about scale being at a low ebb in the USA, this concerns me somewhat. In the UK lately some of the magazines have published small technical articles on full-size vintage gliders which are interesting to read and also bring such gliders to the attention of modellers young and old. This type of article helps in some way but I think the IMASS and the model kit manufacturers could help a lot more than they do.

"In the UK there are very large areas of the country that are very flat, and for many modellers a trip to the hills is a big affair, so many of them who fly scale either use a power winch or aerotow to get airborne. Some of them even use handline, but of course to do this the scale model must be light in weight and in many instances the model construction is very similar to the full size. My LO-100,

MU-13D3, Ka-3, HUTTER 17 are good examples of full-size construction in miniature which produces a machine with a light wing loading; i.e., ranging from 9 oz. to 11.5 oz. per square foot. I have seen many other fine scale models in the U.K. that fall into this category -- such as the Petrel, Kite 1, etc. Build them light and they are up there with the Gentle Ladys, etc., and in many instances will outfly them!



Here's a pre-WWII Mul3D "Atalante" sailplane at the Oxford flat-field event. Excellent flier. Mrs. Charlesworth poses with a smile at left behind rudder.

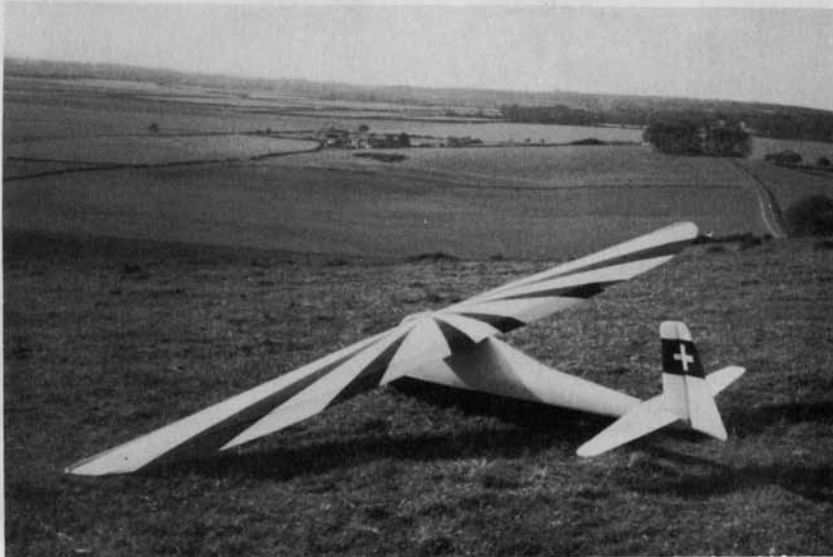
"Some scale glider types can do with some slight modifications to their respective airfoils to make them perform that much better. Let's face it: some of the designs we build are very old to say the least, and a little modern technology applied to the airfoils used can be extremely good, and it would take a real expert to detect it. For instance on a Grunau Baby (full-size) they used a Gottingen 535 which, as you know, has a very large undercamber and is okay for calm days with lots of thermals. So, if you just change it to a NACA 'foil of a suitable type you have a machine capable of penetration in a breeze...and a much better all-'round soaring capability. There are many scale models flying in Europe that carry a slightly different airfoil than the original, but in the air they are still scale models. The Grunau is the only model so far in my collection that carries a modified airfoil. All the others have a super performance with their original sections! The LO-100 and LO-150 carry a Clark Y section -- yes, a Clark Y -- but its soaring and thermal performance is extremely good.

Charlesworth continues...

"Ref. the full-size Ka-3, the cockpit size is very generous, and my friend, the owner, Jeremy Manzies is a big man but it fits him a treat.

The address for the Vintage Gliding Association Secretary is: R. Traves, 'Rose View', Marden Road, Staplehurst, Kent...and please mention my name when applying (for membership). I am enclosing a few more pictures for you, and I will forward reports to you later in the year about scale activities once we start getting some decent thermal weather. Till then have a good year, and give my best wishes to your scale flyers. (Signed) Cliff Charlesworth"

Pretty LO-100 shows Swiss tail markings. This German aerobatic sailplane has red sunburst on wings and red tail band with white cross. Cliff says it's a joy to fly.



" I am enclosing a list of my scale glider plans that are currently available. First of all, your questions. The Kirby Kite has only been modelled by one enthusiast in the U.K. His name and address are as follows: John Watkins, 58 Hopton Crescent, Lyndale Park, Wednesfield, Wolverhampton WV11 3JQ, England. John is an excellent modeller and, as he is a helpful man, I am sure that he would be pleased to hear from you. (See letter this issue...JHG).

" As regards the Eon Olympia, I am in the process of design work on that project, but it will be some time before I will release my drawings. I'm up to my eyeballs with work on repairs from last season's activities, and a 1/4 Scale Reiher is also underway...plus I have the job of organising next year's scale competitions -- both for modern and for vintage sailplanes -- so I have got a lot to think about.

" My latest scale model to fly has been a 1/4 Scale model of the LO-100 aerobatic sailplane. The full-size aircraft is only five miles down the road from me, so I have been able to document it thoroughly. The model is built along similar lines to the full size; i.e., the fuselage is constructed with .50 mm ply (.020") panels on

4 plywood formers and contoured with resin and microballoons just the

MORE CHARLESWORTH

same as is employed on the full size aircraft. It is a thrill a minute to fly and is very aerobatic, but if you make good use of the flaps you can turn it into a docile thermal soarer. The flying weight is 5 lbs. 2 oz..



LO-100 at start of an aileron roll. This aerobatic sailplane is in its natural element, and a delight to fly. Charlesworth photo.

" Your reference to the Ka-3: there are 3 Ka-3 gliders flying in the U.K.; one is flying, another is ready to fly; and a third is still being refurbished to a high standard - local to where I live.



Vintage and modern mix it up on the "playing field" Here's a Slingsby Prefect just behind the Falcon III (on its nose); a Grunau Baby 2B at right edge; the Mul3D3 center, just above the modern sailplane. Cliff

" Jim, tell me why it is that with a country as big as the USA there is very little genuine scale glider activity? In the UK, the movement is growing very rapidly indeed, with both vintage and modern gliders. Competitions are always fully booked, and many

Charlesworth photo.

entries have to be turned away. Flat-field thermal soaring events with aerotow as the launching medium are taking off well (Pun?..JHG) and many freelance thermal soarers are changing over to scale and enjoying it far more.

" Well, Jim, that is all I have to say at the moment, but next time I write I hope to have some details of what is planned for 1987. Kind regards (signed) Cliff Charlesworth."

Cliff, that's a good question, and one that I have asked myself. In this issue, you'll see that I have asked it of others, as well. I've heard of many reasons, including the lack of good slope soaring sites in the USA, but I think that's just an excuse. In fact, there are a number of excellent scale modellers in the USA...and the SCALE UPRISING should bring them out in force...

(Ed.notes: Cliff, we thank you for your help and interest. Readers who would like to correspond with you and possibly take advantage of the plans and semi kits you have for sale may reach you at 41 Spring Road, Frome, Somerset, BA11 2JN, England.

I wish you could see the Ka-3 plans Cliff sent me! It's a small sailplane of 30-foot span in its original form, built for hill and thermal soaring. It has a vee tail, steel-tube fuselage, wooden wings, and was designed for lightweight fun soaring by Rudy Kaiser of the Schleicher Company back in 1950 or so...Jim).

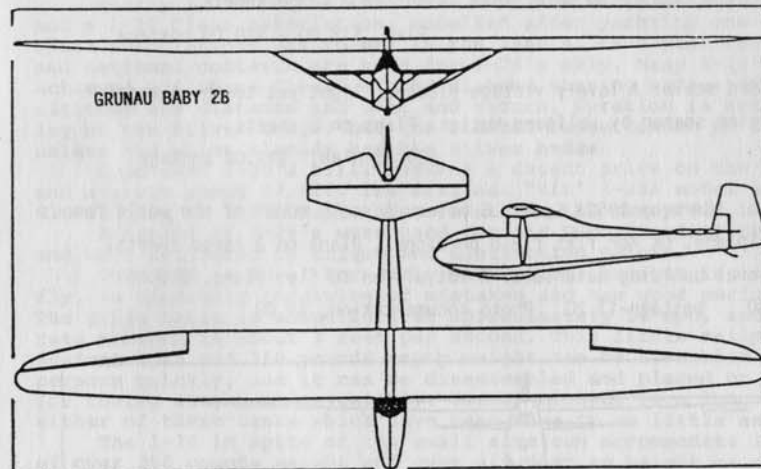


The cute little Hutter 17 awaits its tow for another flight. Original used bungee launch (no wheel) and weighed a mere 250 pounds! Many pilots said it was a delightful sailplane on the slope or in thermals. Speed was about 30 mph! Charlesworth model.

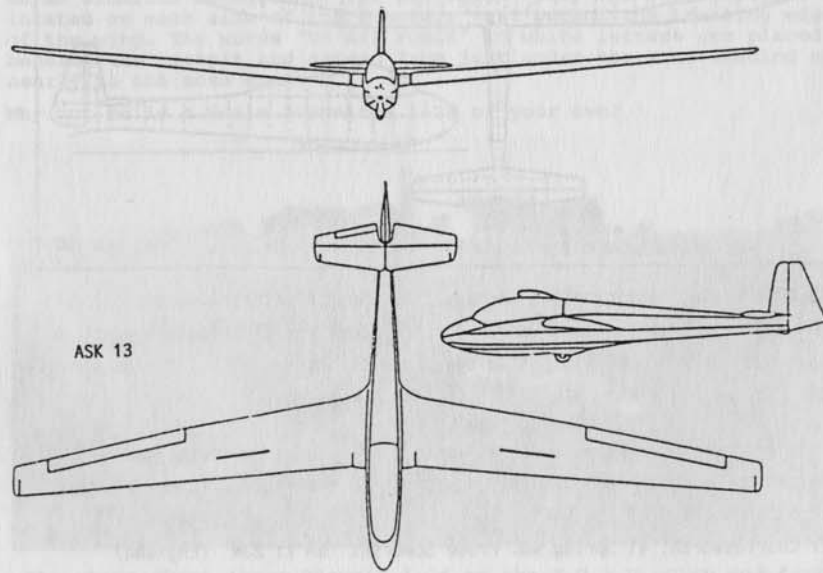
SCALE GLIDER PLANSCliff Charlesworth

The following plans are available for modellers who want true scale subjects with proven performance. All are to be built up from scratch using balsa and spruce materials.

GRUNAU BABY 2B $\frac{1}{2}$ scale: A superb example of vintage scale, it's performance from the flat or slope will impress you, full built-up structure. 3.39 Meter span plans on 2 large sheets. Plan, \$19.50+ \$11.00 postage



ASK 13 $\frac{1}{2}$ scale: If you like building large gliders then this is the one for you - the most popular 2 seater in europe. An ideal performer from the flat or slope. 4 meter span, Plans on 2 large sheets plus instructions. Plans, \$21.00 Canopy, \$14.00 postage, \$13.20



ASK 18½ scale: Probably the most interesting scale subject ever built from scratch, plus it's very efficient performance make it hard to beat in competition. 4 meter span. Plans on 3 sheets Plan \$20.00 Canopy \$11.25 Post \$13.20

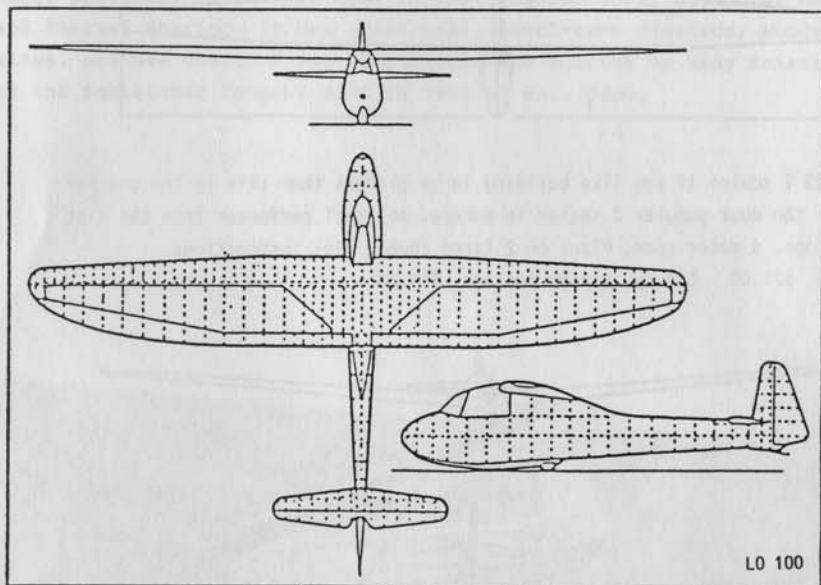
KA 3 ¼ scale: A rare little bird indeed- reproduced at ¼ scale to give you one of the finest small sailplanes today. It's performance is great. Definately one for your collection. 2.50 meter span. Plans on 2 large sheets.

Plan, \$18.00 + \$10.00 postage

HUTTER H17 1/3rd scale: A lovely vintage floater, light yet tough. A model of popular Alpine soarer by Wolfgang Hutter. Plans on 2 sheets.

\$20.25-plan, \$11.00 postage

LO 100 ¼ scale: (Germany 1952) Span 2.5 meter. A scale model of the world famous aerobatic sailplane. OK for flat field or slope . Plans on 2 large sheets, uses conventional building materials. A lot of fun to fly. Plans, \$18.00 Canopy, \$12.00 postage-13.20 Photo documentation, \$9.00



MU 13 D3 ¼ scale: Design origin-Germany 1937. Span 4 meter. A superb light-weight model of a very famous German soarer. Ideal for flat field operation. Plans are on 3 large sheets, All balsa-spruce structure, all wing ribs shown. A real lightweight giant. Plans, \$23.00+ #11.00 postage

Further interesting vintage and semi vintage sailplanes are being designed so be patient if your favourite glider is not on the list... It may be one day! Happy Scale Gliding!

Cliff Charlesworth, 41 Spring Rd. Frome Somerset BA 11 2JN (England)

The Schweizer 1-26 is going into its 33rd year of existence. The prototype flew in 1954, and since then five models have been produced: the A, B, C, D and E. All are somewhat different. The early ones had spoilers and the later ones had dive brakes. The early models were lighter since the wings and fuselage were fabric covered, whereas the later models were all metal. Significantly, the overall performance of the 1-26 has not changed much over the years, as the lighter ones turn tighter and climb a bit faster, but the later ones penetrate better...yet not so much so that they can't compete with each other.

Nearly 1,000 of the 1-26 have been delivered in over 30 years, and a 1-26 Class Association, modelled after yachting one-design class associations, was formed in the 1960's. Each year regional and national contests are held for 1-26's only. Many 1-26's have achieved all three "legs" of the diamond soaring badge: duration, altitude and distance and goal and return. Duration is actually a leg of the Silver badge, but the Diamond badge cannot be awarded unless the pilot already has his Silver badge

Good used 1-26's still command a decent price on the market, and average about \$7,500. The original "kit" 1-26A model sold for \$1,500 back in 1955! Talk about value for the money!!!

A number of 1-26's were used for Air Force Academy training, and were delivered in unique and distinctive colors.

The 1-26 is ideal for early solo pilots because it is easy to fly, is generally forgiving of mistakes and has good performance. The glide ratio is about 23:1 at approximately 50 mph, and the sink rate minimum is about 3 feet per second. This little sailplane of 40-foot span and 350 pounds empty weight can be assembled by two persons quickly, and it can be disassembled and placed on its trailer for towing away just as quickly. Twenty minutes is a long time for either of these tasks which have been done in as little as 5 minutes!

The 1-26 in spite of its small size can accommodate large pilots of over 200 pounds weight and over six feet in height -- comfortably.

The 1-26 is perhaps the most popular sailplane of its kind ever designed, and probably will be going strong when our grandchildren learn to soar. It can be winch, auto, and aero towed with ease.

As a scale model, the 1-26 is almost ideally proportioned for ease of construction and good flying ability. Some even use the original full-size NACA 23-series airfoil with decent results.

The model built by Steve Moskal is a 1-26B, and is colored red and aluminum. The wing leading edge and the fuselage stripes are red on an aluminum background. The Air Force "Star and Bar" insignia is located on each side of the fuselage just behind the trailing edge of the wing. The words "US AIR FORCE" in white letters are placed beneath the cockpit and extend from just under the wing leading edge nearly to the nose cone.

Why not build a Scale Schweizer 1-26 of your own?



The photo above shows Steve's 1-26 at the S.O.A.R. Club sod farm at Oswego, Illinois (near Chicago) in the summer of 1986. Beautiful! 9



N58085 FLAT Top LK-10A

Color: Overall Blue

White Numbers on both rear fuse sides

Yellow N-numbers on both rudder sides

Wing Span: 50 Ft.

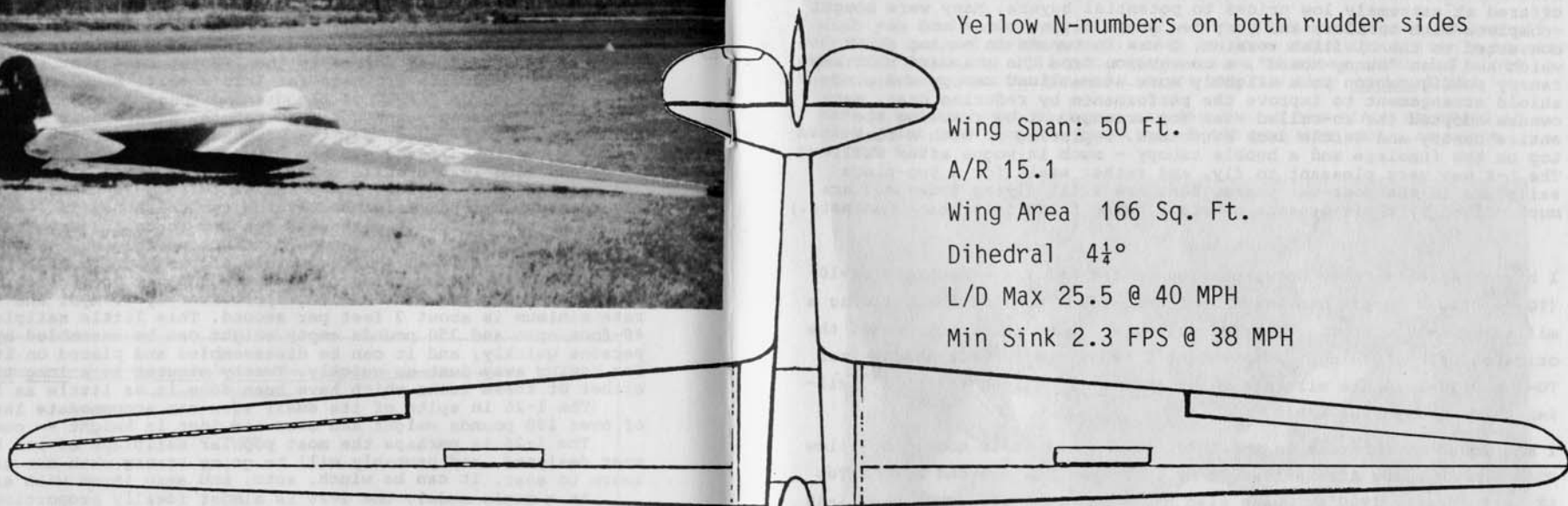
A/R 15.1

Wing Area 166 Sq. Ft.

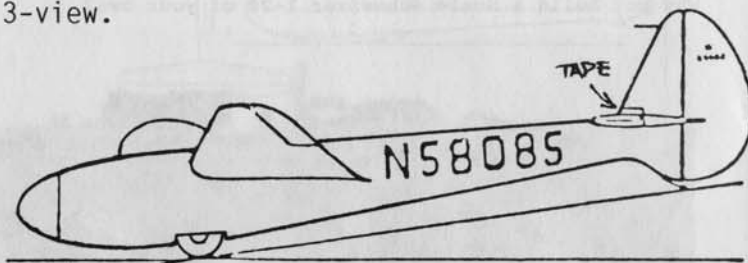
Dihedral $4\frac{1}{2}^\circ$

L/D Max 25.5 @ 40 MPH

Min Sink 2.3 FPS @ 38 MPH



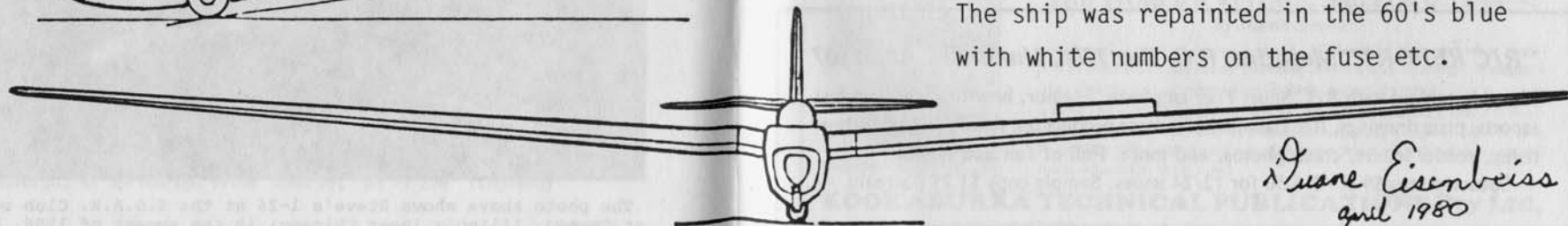
note: Pitot tube up near top of vert. stab-
ship flew nose down due to wing & stab/elev.
settings - this explains the angle on pitot
tube in 3-view.



1950's paint job - Overall red
with white ailerons top & bottom.
white numbers top right wing and
bottom left wing. Yellow #s (^N58085)
on rudder L & R sides.

wing junction w/ fillet were covered with
white tape (see 3-View) also a white tape
cover just above horz. stab on verticle
stab L.E.

The ship was repainted in the 60's blue
with white numbers on the fuse etc.



Luane Eisenbeiss
April 1980

FLAT TOP LK-10A.....Jack Hiner

(Editor's note: The L-K stands for Laister&Kaufman, the names of the producers of the LK sailplane. A derivative of the "Yankee Doodle" prototype designed by Jack Laister at Stevens Tech before WWII, the LK-10 and LK-10A were civilian versions of the military TG-4 adopted for training sailplane pilots by the Army Air Force in the mid '40s. The largest production year was 1943, and over 100 of these two-place machines were made. After the war, the TG-4As were declared surplus and offered at extremely low prices to potential buyers. Many were bought -complete with trailers and very few hours flying time- and re-converted to the civilian version. I was fortunate in owning an LK which had been "bunny-nosed", a conversion from the standard military canopy configuration to a slightly more streamlined canopy and wind-shield arrangement to improve the performance by reducing drag. Many owners adopted the so-called Flat Top arrangement by removing the entire canopy and turtle deck structure, replacing it with a flat top on the fuselage and a bubble canopy - much in vogue after WWII. The L-K was very pleasant to fly, and rather small for a two-place sailplane in the post-war years. Some are still flying today and are much prized by their present owners...being flown in vintage contests.)

N58085

I have been collecting documentation on the LAISTER - KAUFFMAN LK-10 (TG-4A) for a couple of years. At first, I was considering building a military LK-10 with the colorful yellow and blue paint scheme and the original bulky fuselage. However, as I had already built a Schweizer TG-2 and TG-3 in the military paint scheme, I decided to try a civilian paint job on the LK-10.

I mentioned my interest in the LK-10 as a sport scale model to fellow SOAR member Duane Eisenbeiss. To my surprise, Duane owned a Flat Top LK in the early 1960's. Duane also had some color slides of his LK-10 in two different paint schemes.

I do not know of an easier subject to build as a sport scale glider than Duane's Flat Top LK-10. This is mainly due to fuselage shape. While most Flat Top LK-10's would be better described as "sway-backs", Duane's was a true Flat Top. The fuselage on N58085 was perfectly flat from the front of the canopy to the horizontal stab. The upper portion of the fuselage sides was also flat.

My model spans 119 inches with 920 square inches of wing area. The LK weighs just under 4 pounds for a wing loading of 10 ounces per square foot. As a comparison, my TG-3 has a wing loading of over 13 ounces per square foot!

The only components of the LK-10A that I did not build are the wheel, the pilot and the canopy.

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R.W. CARTWRIGHT - A SCALE ENTHUSIAST FROM THE USA.....Jim Gray

Recently, I began corresponding with Bob Cartwright who placed at the Nat's in Louisiana in '86. Bob entered his Slingsby T49B training glider modelled after an excellent example of the British original which is currently flying here in the U.S.

Bob's model has a red fuselage with white stripe and letter/numbers. The wings are white with chordwise red bars. The stabilizer (tail-plane for you Brits) is white, and the fin/rudder has a white flash.

I wish you could see this in color -- and I'll make you a promise: if ever RCSD can set aside enough money to do a color issue (can't imagine when that might be) I'll put together some of these wonderful shots that have been sent to me and let you see how they really look!

I have a sneaky hunch that you may see Bob at the SCALE UPRISING in August. Just look for the prettiest T-49B you ever saw...or maybe even a T-53!



R.W. "Bob" Cartwright, from Little Rock, Arkansas poses with his Slingsby "Capstan" T-49b sailplane...a two-place English training glider with good performance.



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1/4 SCALE KIRBY KITE John G. Watkins

"Dear Jim: Many thanks for your letter dated 14th December requesting info on the Kirby Kite I. I enclose a write-up recently compiled for Sean Walbank a slope columnist for R/C Model World and his own White Sheet magazine, a similar one to your own excellent R/C Soaring Digest. Thanks for the copy by the way. Most interesting, but will benefit with the inclusion of some vintage scale news!! (How right you are, John...JHG).

As Cliff Charlesworth has probably informed you, vintage scale is increasing in popularity here in the U.K., not doubt due to most enthusiasts belonging to the Vintage Gliding Club of Great Britain where first-hand knowledge can be gained, and also the sales of Martin Simons' superb vintage sailplanes book --- get your copy quickly before stocks dry up. (Right, John. I've been trying and trying, but can't seem to get my copy! JHG).

"Yes, Jim, I'd be interested in any pix you have on the Kirby Gull - what a beauty she is. If you're still interested in the Oly, I've got some color shots of the "26" taken at the VGC 1985 at Long Mynd in (Yorkshire) England, my home soaring site. It's resplendent in red fuselage and white trim line with clear-doped flying surfaces, red leading edges (the glider, that is!). I could also include a reasonable three-view, but I'll bet that Cliff has got a better one.

"Having just collected my January '87 copy of R/C Model World, I note that Cliff is organizing 2 scale glider comps for 1987: May 17th for moderns (post 1956) and July 12th for vintage (pre-1956). I reckon I shall be going to both with luck, flying a Schleicher AS-K13 for modern, and a choice of Minimoa, Avia 40P, Kirby Kite I, or Crested Wren for vintage. The latter is a drag box, really, and I should think incapable of penetration in anything like a blow. We shall see; not finished yet anyway.



1935 French Design - Avia 40P
Photo and construction by John Watkins

"The tendency here in the U.K. is to go up to 1/3 scale, not a good move I think. It is causing a division in scale as you'd expect; the 'big-uns' always come out best. My favorite is 1/4, keeping all to one scale (my own that is). Fortunately, many of us think the same.

"Have you tried aerotowing or winching up a big scale job? Aerotowing is the bee's knees for getting up, and is really the safest way. Winching is exciting, too, providing you've got a reliable winch and winch man.



John Watkins Schleicher AS-K13
to be flown at the Scale Meet
on May 17th in England

"Well, Jim, will close now, hoping the photos are to your liking (boy, are they ever! .JHG). Thanks again for the RCSD and letter. Regards & best wishes for 1987. (Signed) John Watkins."

John, we appreciate all of your help and good information, and when I say 'we' I mean WE, the readers of RCSD along with myself. Your fine article follows.

"As long as I have known of the Kirby Kite, I have regarded it as the most esthetically appealing of all vintage gliders. Imagine my delight, when attending the 1985 VGC Rally at Long Mynd, there were three! Ted Hull's BGA394 was the one I chose to extensively photograph after assisting many two-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 & 1/8" sheet balsa planking.. Sheeting is strictly the word, as the rear end, being straight-lined is covered in 3 pieces (one top and two sides) saving all that heavy glue. After careful preparation, it was then simply covered with white Solartextm. Fuselage formers which show on the surface of the ply-covered full size sailplane (called the "starved-horse" effect - JHG) 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 & 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 the inverted position, chocking up the pre-formed spruce trailing edge to fit and glue in. The rest was simple, but a close 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" balsa sheet; knew I'd find a use for it someday! The rudder is an outline of wound balsa (laminated strips, I think he means - JHG) strips -- shades of free-flight days! All surfaces were covered with natural white Solartex, using Balsaloctm on the undercambered ribs and other necessary areas to increase adhesion.

"Following 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 spraying!

A Futaba flight pack, Rx, 500 MAH nicad batteries and four servos were fitted as far forward as possible; the C.G. being positioned close to the balance point and bringing the weight to 7½ pounds and giving a wing loading of 10½ oz./sq.ft....and we were ready to go.

FLYING THE KITE

"First flight was against a 15 mph wind, and the Kite just barely 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 would become a danger of pushing the C.G. in front of the wing! This is the result of using the scale Gottingen 535 wing section with the flat-plate tail. Now the trim has been sorted out, and 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.

BOOKS YOU'LL WANT FOR YOUR LIBRARY:

The World's Vintage Sailplanes 1908-45, published by Kookaburra Technical Publications, Pty., Ltd., P.O. Box 648 Dandenong 3175, Victoria, Australia. Available only direct from the publisher at \$72 Australian. This corresponds to approximately \$48 U.S. currency. Payment is requested by bank draft or International Money Order in Australian dollars. (See review and advertisement this issue). *

"Modell Bauplane Catalog 1987-88, published by FLUG + modell technik, Postfach 1128, 7570 Baden-Baden, West Germany. Price approximately \$4.50 U.S. (DM 9). This is a catalog listing the construction plans available, and includes over 20 electric-powered model plans, over 100 RC sailplane models, 9 flying wing models, over 50 vintage RC sailplane models, and much much more. Each model is described and pictured. When you see the words "Best.-Nr." followed by a numeral, that is the identifying number for the plan. Many of the plans are also available in kit form from Paul Beck - Flugmodelle -Friedrichstrasse, 7435 Hulben, West Germany. I am speaking of sailplanes with spans of 4 meters to 3 meters. An International Money Order for 9DM will bring you the catalog. By the way: it also has hundreds of other aircraft besides the sailplanes. You can't miss with this one!

ALIANTE - SAILPLANES: A soft-cover spiral-bound reference book about sailplanes with specifications, three-views, photographs and other valuable information. The book has color covers and measures 8¼" x 12"...coffee-table size. Lies flat due to spiral binding when opened to a specific page. Also contains aerodynamics data for 24 sailplanes in a fold-out chart. This is a must for scale modelers, and covers most of the contemporary fiberglass machines from around the world. The data and descriptions are given in German, English, French And Italian. The author and compiler is world-famous aero engineer and modeler Ferdinando Gale. This is the final printing of ALIANTE, and most of the copies have been sold out. You can get the few remaining copies for \$30 (seamail) or \$32 (airmail) from Ing. Ferdinando Gale, Via Marconi 10, 28042 Baveno NO, Italy. PLease mention RCSD when you order.

SOARCES OF NEW, DIFFERENT, AND BETTER PRODUCTS

I'm really excited about a new product line from PELICAN ENTERPRISES, INC., 265 Oxford Lane, Bloomingdale, IL 60108. Terry Surma, proprietor, has managed to stock some of the most interesting products that you will ever see anywhere. For example, an optical servo driver system that will stop glitches on those aileron servos

that use the long extensions from the receiver for wing mounting. A review in RCSD on this fiber-optic system that easily adapts to your own radio will be forthcoming soon.

He has some new breather masks with filters that can protect you against dust, paint fumes, CA fumes and other hazardous materials, at very reasonable prices. How much is your health worth?

How about a new cleaner/polisher that will leave your painted or mylar film-covered surfaces looking better than new - with permanent protection? Maybe you think you've seen or used something like this, but you ain't seen nothin' until you've used this!

Face shields, goggles, hearing protectors, safety vests, ear plugs, room air filters, safety spectacles, first-aid kits, disposable gloves, and much more are included in Terry's catalog. Besides all that, he's one heck of a nice guy to deal with. Tell him RCS D sent you when you write and/or order, and be sure to ask for the catalog.

Once again, I'd like to put in a plug for two of RCS D's faithful advertisers: Viking Models, USA and Scale Model Research. Both of these companies can supply many scale needs. For example, Viking can supply fuselages, plans, three-views and sometimes wings for many of your favorites. Scale Model Research can supply some of the detailed Foto-Paks which will document your favorite scale glider projects.

Last, but by no means least, the fountain of information available from our own Vintage Sailplane Association is incredible! Give them a try. Better still, join and receive Bungee Cord, the magazine of vintage gliders and sailplanes. The other organization you should think about is the corresponding British vintage gliding group: Vintage Glider Association. Their address is:

THE WORLD'S VINTAGE SAILPLANES by Martin Simons.....Jim Gray

It is difficult to put into words something that must be seen to be appreciated, but I'll have to try. Here is a hard-cover, coffee-table size book printed on the very best quality glossy paper. The text and photographs are without parallel in the glider and sailplane field. As the title suggests, only VINTAGE gliders and sailplanes are covered...but are they ever covered!

You'll find color photographs - dozens of them - and black & white photographs, too, numbering in the hundreds. There are hundreds of three-views, plus full technical descriptions of each featured 'plane.

In addition, you will find historical information about the designer; the factory where built; who, how, and where the sailplane or glider was flown; and much more detailed data of invaluable use to the scale modeller.

Here is an absolutely definitive reference that can be used as documentation when needed, but also a fun book to read and browse through in your den, living room or library.

Martin Simons is a full-size glider pilot, well-known author of books on technical matters (Model Aircraft Aerodynamics for example), long-time editor of the publication Australian Gliding. Martin also designs RC sailplanes, and his famous MARTINI and MINI-MARTINI are known on the contest circuit. Martin has been involved with soaring since 1939, and has flown over 50 types of gliders, including many of those featured in his book. He lives in Adelaide, South Australia.

One of the important and unusual features found in TWVS is a chapter on colors, markings and finishes, plus a reliability index attached to the drawings. The index categorizes each three-view as (A), (B), or (C) reliability. The (A) index refers to three-views taken from workshop plans of the glider featured; the (B) index is given to drawings made from large general arrangement drawings; and the (C) category is assigned to drawings made from smaller general arrangement drawings. Wherever there is discrepancy or doubt as to absolute accuracy of outline or detail, it is noted.

Sailplanes and gliders from Germany, Switzerland, Austria, Poland, the United Kingdom and the United States are among those detailed. The book is comprehensive and monumental besides being literate and easy to read. One can approach it in many ways as a model builder, an historian, or just an aviation enthusiast.

I can't imagine anyone interested in sailplanes and gliders being without this reference. Yes, it's (relatively) expensive but worth every penny in my opinion.

The rumor has it that Martin will be doing another, similar, book covering the period from 1946 to present. If that turns out to be the case, you can count me in as being one of the first to order it!

Oh yes, before I forget, there is a pronouncing aid or guide to help those of us who may have trouble pronouncing German names correctly. This not only lends technical veracity, but could also save some of us from acute embarrassment!

Bravo, Kookaburra and Martin Simons; more, more...

* A large wall poster with sailplanes in color is available at slight extra cost.

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General contest outline covering two events:

A: AMA Sport Scale for 6 classes
(see AMA rulebook)

B: Thermal Duration for 6 classes (ships must have been flown in AMA Sport Scale)
In/Out target to be a 100 ft. diameter circle (20 bonus points)
Duration will be 5 to 10 minute rounds depending upon the weather conditions with the object of 7-8 rounds flown in the two-day event

Scoring:

Straight scoring will be used (no multiplier or rolling dice) and static scoring in event "A" will not be used to add to this score.
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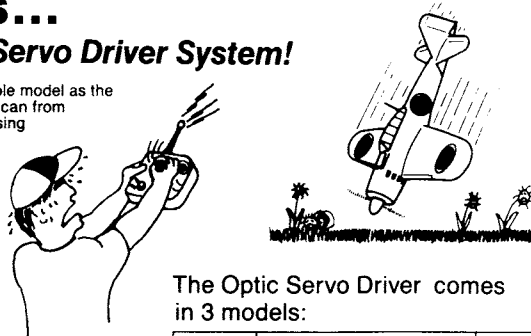
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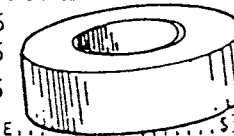
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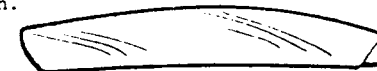
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