

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 BUNCEE CORD. Sample issue \$ 1.-. Membership \$ 10.- per year.

For more information write:

Vintage Sailplane Association
Scott Airpark
Lovettsville, Va. 22080.

FLIGHT LINE SYSTEMS

P.O. Box 1502, Lewiston, Me. 04240

12 Volt Winches
Introductory Price
\$200. + \$10. shipping



For Information Contact
NSS Secretary Treasurer
CLIFF OLIVER
8151 BROADWAY
SAN ANTONIO TX 78209

You are invited to join the
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R/C Soaring Digest

Vol. 4 No. 12

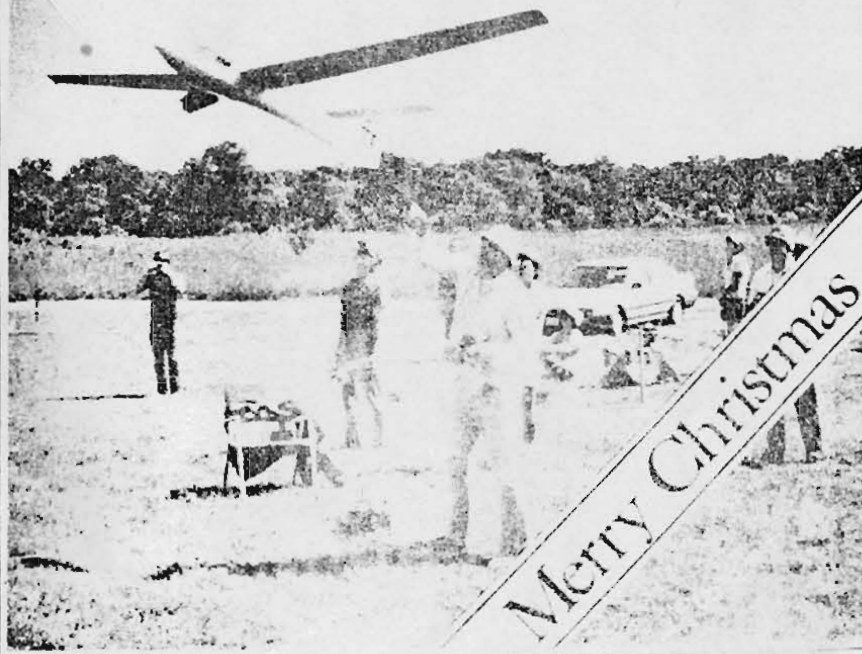
DECEMBER 1987



Juschkus Photo



Slates Photo



HI START

Whether or not you like F3B, you have to admit that it offers plenty of opportunity for discussion -- and I mean Pro and Con, if not outright knock down and drag out battles between proponents of F3B or Not F3B. There is very little middle ground; you are either for it or agin' it. As for me, I take the position of a MUGWUMP. You know what that is: a guy who sits on a fence with his mug on one end and his wump on the other! That's right - a fence sitter, a middle-of-the-roader...not that I have to be, mind you. I am well known for having taken a position, popular or unpopular, before, but on the subject of F3B there is a problem. The problem is that there are two valid and opposing views on the subject. One view holds that F3B is the wave of the future and that "everyone is doing it". The other view is that maybe everyone elsewhere is "doing it" but we're not doing it here, thank you...we have our own types of preferred contests and tasks that we've done for years, and we don't want to change all that.

Okay, let's talk about each of these positions. On the one hand, you have to admit that F3B has been largely responsible for the development of multi-task sailplanes and performance parameters far beyond those ever dreamed of by those who fly only thermal duration machines. In other words, by setting new - and different - tasks, there has been a forced development of materials, airfoils, and flying styles. F3B, therefore, is a "development" class of sailplanes and rules which are expensive, demanding of manpower and organization, and probably responsible withal for a quantum jump in sailplane design and performance. From the standpoint of cost and manpower, the F3B necessity of "keeping up with the Joneses" never lets you relax and enjoy the status quo...besides which it is too much work and too much trouble for the average Sunday Flyer - type club to bother with. Not only that, most clubs don't have the absolute driving force of will to excel at what has been an essentially "foreign" type of contest. Remember, F3B is basically a European form of contest soaring. One more point: for the individual who is "turned on" by the F3B challenge but who happens to belong to a club that couldn't care less about F3B, there is one huge problem. Where does this fellow get his help, his inspiration, his opportunity to practice with others of his ilk? The only way is to travel to a venue where F3B is "spoken", or to drag his fellow club members along kicking and screaming into F3B...highly unlikely.

Here's the other point of view: Thermal Duration soaring is a refined art in the United States with much precedent and a long development history. I may be wrong, but I believe that this is due to several conditions or reasons which include our geography, our background and our loose and wide-open flying style. The U.S. geography for most of the country consists of large, wide-open spaces with great thermal potential but relatively few accessible rolling hills of the European type. Hence we developed "flat field" soaring to its highest form, with slope soaring done only in a relatively few places throughout the country. This condition is diametrically opposed to the European situation where lots of slope soaring and less thermal soaring prevails...in my opinion. We're a country of individuals who prefer less regulated activities (read F3B) and more opportunity to fly when, where and as we please. More of this philosophy next time if you can stand it.

Happy soaring,

 Jim

Information
Package
With Plans
\$20.00
Refundable
With Order

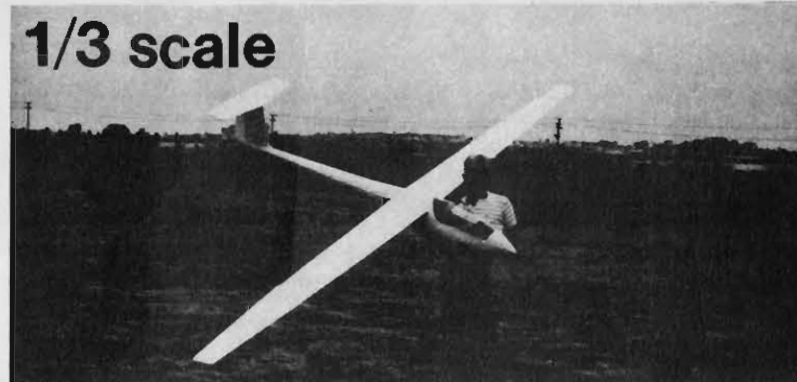
* Previously produced
by Mark Smith

ASW 20*

WINNER 1984 RENO NATS

ALL KITS MADE IN AMERICA

1/3 scale



Wingspan: 5 Meters
Wing Area: 1793.4 in.
Fuselage Length: 96 in.

Weight RTF: 16 lbs.
Wing Loading: 20.4 oz.ft.²

ALSO: ASW 17, SALTO, LS-3

These three kits come with glass fuselages and pre-sheathed foam wings. Wingspans are from 4 to 4.5 meters.

COLORFUL PADDED WING BAGS

(embroidery available)



2-meter	\$29.95
standard	34.95
3-meter	37.95
Fuselage bag	...	10.00 Plus \$2.50 shipping

Calif. Res. add 6½% state tax.

Order Direct from Milo Products or from:

American Sailplane Designs
P.O. Box 117, Dept. R
Nestor, Ca. 92053

Milo Model Products
P.O. Box 236, Dept. R, Nestor, Calif. 92053

SOME GREAT NEW PRODUCTS YOU SHOULD KNOW ABOUT

WING BAGS - BEAUTIFULLY CRAFTED IN QUILTED SYNTHETIC FABRIC; SOFT INSIDE AND AVAILABLE IN MANY COLORS. SIZES ARE: 2-METER @ \$29.95; STANDARD CLASS (100") @ \$34.95; 3-METER @ \$37.95, AND A FUSELAGE BAG (ONE SIZE FITS MOST) @ \$10.00. WRITE TO MILO MODEL PRODUCTS, BOX 236, DEPT. "R", NESTOR, CA 92053

ASW-20 SCALE MODEL: GIANT 5-METER SPAN WITH AREA OF NEARLY 1800 SQ. IN.; FUSELAGE LENGTH OF 96 INCHES; READY-TO-FLY WEIGHT OF POUNDS; AND A WING LOADING OF 20.4 OZ. PER SQ. FT.
(previously produced by Mark Smith of Mark's Models).

THIS SHIP WON THE 1984 SCALE NAT'S IN THE HANDS OF MARK SMITH. YOU CAN GET AN INFORMATION PACKAGE WITH PLANS FOR \$20.00, REFUNDABLE WITH YOUR ORDER.

ALSO AVAILABLE ARE ASW-17; SALTO; AND LS-3 WITH GLASS FUSELAGES AND PRE-SHEETED FOAM WINGS; SPANS RANGE FROM 4 TO 4.5 METERS.

Information available through Milo Model Products, address as above.

For additional information about these and other new products, you can also write to Gary Anderson, American Sailplane Designs, P.O. Box 117, Dept. "R", Nestor, CA 92053.

EASTERN SOARING LEAGUE.....Ray Juschkus

The Eastern Soaring League has been in existence since the 1970's and is the governing body for 10 soaring clubs on the East Coast. They schedule all of the meets for the season and own and maintain about 6 Goughnour winches. These winches are loaned to the host club for individual meets. ESL recognizes two classes of flier: Expert and Sport. Sport fliers advance to Expert after achieving 12 points, awarded for contest performance. All fliers in member clubs are awarded ESL points during the contest season, and when the season is over the Annual General Meeting is held - followed by a banquet.

Current ESL officers are Mrs. Ede Trockels - President; Mr. Stuart D. Swanson - Secretary/Treasurer; Mrs. Lois Zeigenfuse - Scorekeeper; Mr. Don Goughnour - Contest Coordinator. Two women, Ede Trockels and Marilyn Border are qualified in the Expert flier class.

The accompanying photos were taken by Ray Juschkus at a recent meet held by ESL member club Long Island Silent Fliers. Wody Blanchard, a WWII pilot, has modelled a Waco CG-4A cargo glider, and is shown in the photos below with this fine scale model of a famous but short-lived glider. The original carried troops and supplies into combat, towed to the drop zone by Douglas C-47's -- the military version of the famous and enduring Douglas DC-3. Woody is a member of the Tide-water Model Soaring Society of Virginia. The other photo shows Terry Luckenbach launching his beautiful scale ASW-20 sailplane - a sailplane designed and built in Germany and modelled by Terry from "scratch".

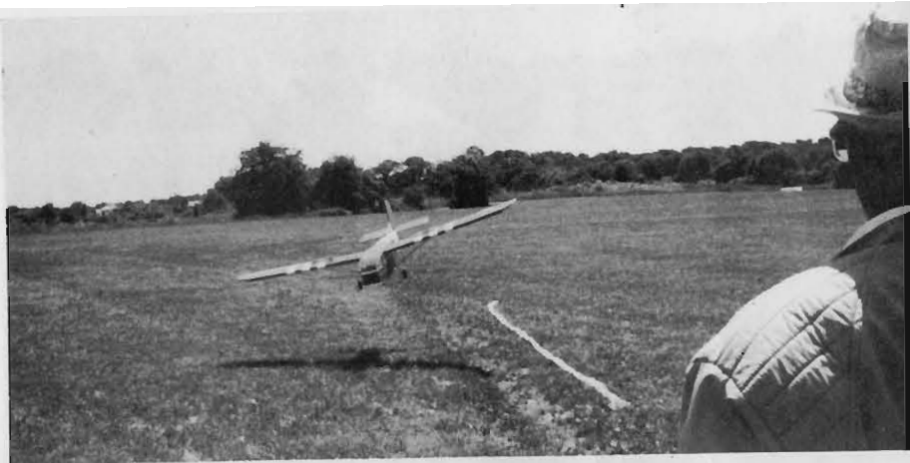


Woody Blanchard seen here holding his WW II Troop Carrying Glider with invasion stripes and all. Juschkus Photo



WW II Scale Glider making a magnificent R.O.G. take off with the old master Woody Blanchard at the controls. Juschkus Photo

Cover:Terry Luckenbach launches his beautiful ASW 20, Terry flies this plane as a competition glider in open class and also in scale. Competitors were treated to a flying lesson when Terry was coming in early during the windy contest. On the base leg of his approach the big ASW showed a bump of lift and Terry turned the ship on it's wing tip and caught up with the fast moving bubble of lift, thermaling in tight circles downwind wind. The crowd broke into Cheers and applause as Terry maxed his flight with a great landing.



Believe it or not he made a pretty good landing in spite of the angle of approach. Woody was a WW II pilot. Juschkus Photo



Juschkus Photo

Team Champions Josh Glab and Woody Blanchard show the trophy they will take back to the Tide Water Soaring Club in Virginia. Josh showed cool consistency flying his Windsong in the winds.

Any RCSD reader who may wish to join one of the 10 member clubs of the ESL, and the ESL itself, may obtain more information from ESL Public Relations Officer Ray Juschkus at 7 Evergreen Avenue, New Hyde Park, NY 11040 or by calling him at (516) 352-0387.

GOOD SOURCES OF INFORMATION.....courtesy RC REPORT

Jim Porter, who edits "The Quiet Side", soaring column for RC Report has done all of us a great service by publishing a list (see below) of good information pertinent to RC soaring.

You'll find such things as books, magazines, columns, organizations and periodicals listed. Not everything is listed, I'm sure, but by golly there's more than I could get my hands on readily -- so with thanks to Jim and editor Gordon Banks (see RC Report ad this issue) read and enjoy -- and USE this information.

SOURCES OF INFORMATION ABOUT SOARING

In my seventeen years of flying sailplanes I have continually sought well written information about soaring. Despite my enthusiasm for the pursuit of knowledge I have still managed to miss out occasionally. What follows is an attempt to fill you in on my file of good publications and where they can be obtained. There are several books, magazines, periodicals, journals and newsletters that are worth having, obviously some more than others, but all are worthwhile in some way. I have also listed organizations that actively promote soaring of one form or another.

MAGAZINE COLUMNS

Power Scale Slope Soaring, by Ray Jones, Radio Control Models & Electronics (RCM&E), available from the AMA.

R/C Soaring, by Bill Forry, Model Builder

R/C Soaring, by Herk Stokely, Flying Models

Silent Flight, Sean Walbank, RC Model World, \$30.00 per year, Traplet Distribution, 1635 Wade Dive, Paso Robles, CA 93446

Slope Soaring, Tom Speakman, Radio Modeler (RM), available from the AMA.

Slope Soaring, Charles Gardner, RCM&E

Soaring, by Al Doig, RC Modeler

Soaring, by Byron Blakeslee, Model Aviation

Soaring News, by Jim Gray, Model Airplane News

Thermal Soaring, Dave Jones, RCM&E

Thermal Soaring, George Stringwell, RM

PERIODICALS

Bungee Cord, Vintage Sailplane Assoc., Scott Airpark, Lovettsville, VA 22080 \$10.00 per year. Devoted to antique and vintage sailplanes and soaring history.

R/C Soaring Digest, P.O. Box 269, Peterborough, NH 03458. \$16.00 per year. This is devoted purely to R C soaring.

Soaring, SSA, P.O. Box E, Hobbs, NM 88241 \$35.00 per year. Devoted to full-soaring in the US.

JOURNALS

Best of Bat Chat 1986, Brian Manners, 83 Acre Lane, Cheadle Hulme, Cheshire SK8 7PA, England. \$6.00 via International Money Order. An interesting compilation of ideas and designs from the English viewpoint. When next year's issue becomes available I'll be in line waiting for one.

MARCS Soaring Symposium Proceedings, Al Scidmore, 5013 Dorsett Dr., Madison, WI 53710. Cost varies. Report of each year's Symposium. If you couldn't go this is the next best thing. Check with Al Scidmore for the availability and cost.

References & Sources, Lee Murray, 1300 Bay Ridge Road, Appleton, WI 64915. \$5.00 for Appleworks disk. A listing of soaring information on Apple Computer formatted disk.

Soartech, Herk Stokely, 1504 N. Horseshoe Circle, Virginia Beach, VA 23451. \$5.00 per issue when complete. Technical and detailed how-to articles not available elsewhere. Generally quite well done and worth

the time and money if you are technically inclined at all.

Technical Anthology, San Fernando Valley Silent Flyers. Unfortunately this is one of those cases where I didn't write down what, who, where and how much. I would appreciate it if someone would let me know the facts. This was worth reading and any subsequent issues are probably worth the time and money to acquire.

The White Sheet, Sean Walbank, 29 The Gardens, Acreman Street, Sherborne, Dorset DT9 3PD, England. \$30.00 via International Money Order. This comes out on an irregular basis, but is generally worth the wait. Some interesting examples of English humor and very good articles on English designs and events. Every once in a while there is an issue devoted to a particular topic - these are excellent. Expensive, but Sean does send it out airmail so you get it the same year.

ORGANIZATIONS:

Academy of Model Aeronautics (AMA), 1810 Samuel Morse Drive, Reston, VA 22090. \$40.00 per year for adults, \$18.50 for seniors, and \$16.00 for juniors. Includes magazine, 16.00 insurance and representation with, to, and against our government. This is the organization that has made R C a continuing possibility in the US. Without the AMA we probably would not have any RC radio frequencies!

British Association of R/C Soarers (BARCS), Alan Cooper, "Hillcrest", Top Road, Hardwick Wood, Wingerworth, Nr Chesterfield, Derbyshire S42 6RQ, England. \$10.00 via International Money Order. They put out a good newsletter about four times a year.

League of Silent Flight (LSF), P.O. Box 647, Mundelein, IL 60060. Be sure to include \$1.00 in some form to help cover postage and expenses. See my last column for a description of this organization and its goals.

National Soaring Society (NSS), Secretary-Treasurer, Clifford C. Oliver, 8151 Broadway, San Antonio, TX 78209. \$12.00 per year. This is the group that represents soaring to the AMA. It needs your support as this is the group that can affect the manufacturers attitude towards the production of kits and radios.

Power Scale Soaring Association (PSSA), J. Alan Hulme, 52 Mount Way, Waverton, Chester CH3 70F, England. \$12.00 via International Money Order. The concept of power scale soaring (non-powered sport scale soaring models of powered aircraft) seems to have started with this group, or at least they were the first to organize it. See the April 87 issue of RCM for some interesting pictures. The newsletter has good information and some photos. The listing of plans and kits is worth the price if you are interested in this form of soaring.

Soaring Society of America (SSA), (see 'Soaring', under periodicals)

Vintage Sailplane Association (VSA), (see 'Bungee Cord', under periodicals)

BOOKS

Flying Hand-Launched Gliders, John Kaufman, \$1.95, William Morrow & Co., ISBN 0 688 25108 0.

This is a good book to start the younger modelers with. It's surprising how many adults enjoy this book too. Don't overlook this one even though it isn't about R C. Good basic information. English.

How to Build and Fly Radio Control Gliders. Jack Schroeder. \$4.00 Kalmbach Publishers. This is the most simplistic of the R C books. There is enough information inside to get you going, but not much else. American

Model Aircraft Aerodynamics. Martin Simmons. \$14.95. Model & Allied Publications. ISBN 0 85242 441 8. A book on model aerodynamics that won't overwhelm you with mathematics, but will leave you with a better understanding of what's going on. Valuable even if you are not going to do your own designing. Australian.

Radio Controlled Gliding. Dave Jones. \$15.95. I haven't seen this book yet, but it's written by the columnist for RCM&E so it should be good. English.

Radio Control Scale Aircraft - Models for Everyday Flying. Gordon Whitehead. \$13.95. RM Books Ltd. This book is a wealth of ideas on structure and scale detailing. I refer to this volume regularly. English

Radio Control Slope Soaring. Dave Hughes. \$17.05. RM Books Ltd.. ISBN 0 903676 13 3. An excellent book with good descriptions of hills, different wind conditions, and how to fly them. It also goes into good detail on aircraft design for the slope and how the various types are derived and used. English.

Radio Control Thermal Soaring. George Stringwell. \$14.95. RM Books Ltd. Another excellent book on soaring with an approach similar to Radio Control Slope Soaring. English.

RC Modeler's Handbook of Gliders & Sailplanes. George Siposs. \$4.95. Tab Books. ISBN 08306 5747 9. Although not as detailed as the English books this is a good basic introductory book to get started with. American.

Sailplane Designer's Handbook and Drag Reduction-Structures Handbook. \$5.98 each. Eric Lister. 2214 Regina Drive, Clarksburg. MD 20871. Good cookbook approach to design.

Scale Model Aircraft for Radio Control. David Boddington. \$15.95. Argus Books Ltd.. ISBN 0 85242 810 3. If you are at all interested in scale this book is worthwhile. A lot of good ideas on how to detail and some interesting structural ideas. English.

Vintage Sailplanes of the World 1908-45. Martin Simmons. \$38.00. Kookaburra Technical Publications. ISBN 0 85880 046 2 This is a very well done book. The quality of the text, drawings and photographs are excellent and make for interesting reading. Martin even rates the accuracy of his material! (I have some order forms for this book. Send a SASE to me for a copy.) Well worth the price. Australian.

AVIATION BOOK SOURCES

Historic Aviation. 3850 E. Coronation Rd., Fagan, MN 55122. This company has a toll free telephone line 1-800-225-5575. Ask for their catalog and or place an order. I've not ordered from this company, but I see no reason that it shouldn't be very reliable.

Zenith Aviation Books. P.O. Box 1, Osceola, WI 54020. This company also has a free telephone line 1-800-826-6600. Ask for their catalog and or place an order. Everything I've ordered has arrived within a few days. A very complete list and stock of aviation books.

VIDEO TAPES

Aerotowing in England and slope soaring in Canada. J. Lee Smith. 15 Ravenhill Road, Winnipeg, Manitoba R2k 3K4, Canada. \$12.00 via check or money order. Although the quality is not very good in spots, especially the sound, the price is right and the material is interesting. The aerotowing in England is intriguing, but the scale sailplanes shown are the treat. The slope soaring in Canada gives us flatlanders some idea of what can be done when you have unlimited lift and lots of space. I thought it was worth the price.

Dodgson Designs 1987. Dodgsons Designs, 21230 Damsion Road, Bothwell, WA 98021. \$15.00 deposit plus \$10.00 postage gets you a two hour tape of flying, building and design philosophy. A bit much of the country western music but informative and interesting and interesting.

Hotstuff Video Tips II. Satellite City, P.O. Box 836, Simi, CA 93065. \$30.00 gets you a 56 minute color and sound video plus one ounce of Special I, one ounce of Super I and three ounces of Kick-It. That means the video costs you \$14.60. I've used cyanoacrylates since Eastman first developed #910 and I learned a couple of neat tricks from this video.

Top Flite Monokote I, II, III, IV. Four Pi Inc., 4944 North Orange Ave. Norridge, IL 60656. \$39.95 each for 30 day rental with \$20.00 refunded upon return. Video I starts with the basics. Video II is a little more advanced and covers simple layering and color schemes. Video III looks at preparation, hinging, and some more advanced techniques. Video IV emphasizes the more difficult areas of wingtips, canopies, graphics and Star-Wars type graphics. Each Video is one hour long. This might be a good item for club rental or purchase.

I would appreciate knowing of any other sources of soaring information, be it book, magazine or whatever. I'll update this list when I have received enough additions or corrections to make it worthwhile. That wraps it up for this month. Stay cool, but keep it flying.

SOURCE OF SUPPLY.....Jim Culleton*

Jim was a member of the Pasadena Soaring Society before moving to Los Osos, California. He wrote to tell us about ...well, let him say (Ed).

"...Tony Stark builds scale and semi-scale fuselages for 3-to 5-meter planes. They are gel coated and come with canopies...and sell in the \$60 to \$80 range...they also come with drawings for wings and tails...you finish. Beautifully done, and as good as any of the European kits, although intended for the guy who wants to do some of the construction himself. He is thinking of manufacturing these, and I would like to peddle them...I would appreciate your thoughts on this (idea). Sincerely (signed) Jim Culleton."

* Jim Culleton, 316 Travis Drive, Los Osos, CA 93402

Editor's comment:

(First of all, Jim, good fuselages with drawings and canopies in this price range don't exactly grow on trees. You can count on one hand the number of people in the US who do this kind of work...therefore, the market for them will be brisk. As far as peddling them, I see no problem at all because people who do the fiberglass work often would prefer to have someone else do the telephoning, letter-writing and advertising -- leaving them time to do what they do best. It seems to me that you and your friend could work out a good arrangement between yourselves which would benefit all of us, as well as you.

You'll find surely, this is a needed product and a great service, especially in the 3 to 5 meter size of sailplane which is becoming more and more popular for cross-country work. As I've said many times, if you're going to build a cross-country machine, why not build a SCALE cross country sailplane while you're at it? Good luck, and may you get many letters from RCSD readers. JIM.)

POWER SCALE SLOPE SOARING - INFORMATIONRON RAYMOND

I just received a letter from Ron Raymond out in Bloomington, Indiana who has been building foam scale replicas of the 1950's jets...and, boy, do they fly! Ron called my attention to an English publication called - you guessed it - POWER SCALE SOARING ASSOCIATION NEWSLETTER. The first issue came out in July 1986, and the latest one I have is September 1987. It is a big fat newsletter with lots of news about who is doing what and where, sources of drawings and data for possible subjects to model, and plenty of photos showing these little beauties. You ought to subscribe if you have any interest at all. There are nearly 150 members from 7 countries, and you can join right in by writing to the above titled publication at 52, Mountway, Waverton, Chester, ENGLAND CH3 7QF. Mention RCSD if you please. Members build scale models of powered aircraft and fly them as gliders on the slopes.

There has been mock combat (and some not so "mock" between Mig-15s and Saber Jets; between Me-109s and Spifires, and who knows what else. It is said that these models make excellent fliers...so why not try your hand at it? ANDY HULME is the man at PSSAN you want to write to ... he's the editor!

NEW PRODUCT OF INTEREST

Boxes Plus, out in Canby, Oregon* has introduced a couple of new products of particular interest to the RC crowd...including one that I like. It is a set of adjustable fuselage cradles for field box or workbench. They adjust from 2½" to 6¼" in width, and can be accepted by most field boxes. Padding and instructions are included. Boxes Plus, P.O. Box 176, Canby, OR 97013; Telephone: (503)-263-6281

MORE MAIL FROM READERS.....(Information wanted).....Cal Breunig*

* 7430 Highway 78, Sauk City, WI 53583 (608) 643-4280

Cal 'phoned today to ask about finding a MINI-MERLIN sailplane, and that the last address he had for this fine machine was a company called Two Worlds International, which now appears to be defunct. If any of our readers happen to know where Cal can obtain a MINI-MERLIN kit, plans or even the company's address, would you please all or write him? Thanks. Jim.

FLIGHT LINE SYSTEMS WINCH.....Jim Gray

A couple of issues ago, we ran a brief article about this winch system along with an accompanying ad. Since then, RCSD has received a couple of pictures and a bit more explanatory material which we'd like to pass on to potential buyers. Although I have not used this system myself, there are those who have used it and liked it -- and who still use it and like it.

Basically, the winch features the following:

1. A rebuilt General Motors metric starter for power at low weight
2. The winch uses three bushings for support; one at the rear and one at the front of the motor, and one at the end of the spool.
3. The spools are fabricated of cold-rolled steel and are 1½" in diameter and 6¼" long. The end disks are 1/8" thick by 6" in diameter, shrunk onto a shoulder and TIG (gas tungsten arc) welded.
4. This particular moto/spool combination provides good speed and power and has successfully launched sailplanes from 60" to 118" span with no problems. In other words, it will cover over 90% of any club or individual intended use.
5. The winch comes with a one-year limited warranty. This would ordinarily cover any defect in materials or in the manufacturing process, but not abuse by the buyer.
6. There is a cast-aluminum end bell on the starter motor that converts the starter to a long-shaft variety.
7. There is a safety switch incorporated in the system that locks out the solenoid and also prevents premature rewind.
8. There is a foot switch with 6-foot leads.
9. The turnaround uses simple bicycle components for easy maintenance.
10. The system comes less battery and leads (you provide these yourself) but it does include 2,000 feet of high-strength towline and a parachute.

All-in-all, Flight Line Systems provides a rugged, reliable and reasonably light-weight system capable of launching almost any sailplane for a suggested retail price of \$200 plus shipping and handling cost of \$10.

Although RCSD has not yet tested this winch (we would like someone to come forward with a review) it seems to be a good product at a reasonable price. For more info, contact FLIGHT LINE SYSTEMS, P.O. BOX 1502, LEWISTON, MAINE 04240; attention Russell Keith.



Over-head view showing winch layout with shaft extension housing.

Outer bearing block on the Flight Line Systems Winch



MORE SOURCES.....VINYLWRITE LETTERING

This is one of those products that fall into the category of "I wish I had thought of that". VINYLWRITE Custom Lettering, 16043 Tulsa Street, Granada Hills, California 91344; (818) 363-7131 is owned and operated by a modeler for modelers. Art Morgenstern had a better idea and put it into practice -- and I've seen the results. Here's Art to tell you about it.

VINYLWRITE CUSTOM LETTERING was started by a modeler to provide a unique service not readily available to the hobbyist....custom, made to order, easy to apply vinyl lettering and numbering. Our computer driven equipment eliminates forever the tedious chore we modelers have had to put up with...that is going to the store and trying to buy either individual or packaged letters and numbers (and you know the packaged stuff never has enough of the letters YOU need). Or we have had to deal with the wrinkling and tearing of decals while trying to obtain that elusive straight line. And getting the spacing right between letters and words is no picnic either. Well, VINYLWRITE eliminates all of the hassle for you by preparing your choice of text, letters or numbers, and sending it to you on a single strip that arrives PREPASTED, PREALIGNED and PRESPACED!

The process starts with your choice of text being programmed into the computer. We then program the CHARACTER HEIGHT you have chosen (available in 1/4" steps starting at 1/2").....THE LENGTH (in 1/4" steps).....THE TYPESTYLE (we have four to choose from).....THE SLANT of the characters (you can choose a forward or reverse slant anywhere between 0 and 45 degrees), and, THE COLOR of the characters (we offer 13 colors including silver or gold metallic). In addition, we can also cut in MIRROR IMAGE (sometimes called reverse image), which allows you to place your text behind a car window glass. Ideal for your ham radio call or club name. Once programmed, the custom text is cut from a single sheet of 2 mil. vinyl (little thicker than a coat of paint) and sent on its way to you by first class mail. The bottom line here is that you choose what you want not what is available off the shelf.

What you receive is your customized text with all characters held in place on one semi-opaque application strip. Everything is held in alignment for you until final placement on your surface. The adhesive side of the text is protected by a transparent silicone treated tape. Because you can see your text thru the application tape it is easily moved around and positioned before anything gets bonded.

Application is a breeze. Simply peel away the silicone treated tape protecting the adhesive and press the text in place. Rub the text down to insure a good bond to the surface...and peel away the application tape. That's all there is to it. Its NEAT, CLEAN and QUICK! Of course, detailed instructions and suggestions will accompany each order.

We think you will enjoy the professional finishing touch that VINYLWRITE can provide for your models. But models are not the only things that can benefit from these neat, easily applied, vinyl letters. Our friends and neighbors who have seen them have wanted them for boats, childrens' names for toyboxes, ham radio call signs, telephones, store windows and lots more. Once you have tried them and see how easy and economical they are to use, we think you'll find lots of places to use VINYLWRITE CUSTOM LETTERING.

We hope that the above information, as well as the material on the order form, has thoroughly acquainted you with the custom lettering services we provide. Please remember that your choices of typestyle, slant, color and imaging are all included in our low standard price schedule. You only pay extra for the Expanded Text Format. If, after reviewing this information packet, you still have any questions about our service please feel free to call or write.

Hoping to serve you soon,
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The Greater Detroit Soaring and Hiking Society, a famous old-time RC soaring club, has provided something for newcomers, possible future soaring pilots, and interested spectators, that everyone involved in our sport might do well to copy. Basically, it is a PR handout that explains to the uninitiated just exactly what R/C Soaring is all about. The handout - a single-page/leaflet - is simple and easy to understand, yet covers all of the most frequently asked questions. A small copy is included here

WHAT IS R/C SOARING?

RC soaring is the sport of flying radio controlled model gliders, or more properly called sailplanes. RC soaring is a growing sport and there are thousands of soaring pilots in the U.S. The models range in size from 6 feet to 14 feet in wing span and are usually made of balsa wood and some plastics. The following questions and answers were prepared to tell you something about the sport. They are the most commonly asked questions.

HOW DOES THE PILOT CONTROL THE SAILPLANE?

In the nose of the sailplane is a radio receiver that receives signals from the pilot on the ground. The pilot operates a hand held transmitter which has a stick control similar to the kind found in the cockpit of a real airplane. Moving the stick on the transmitter makes the rudder and elevator tail surfaces on the model move. These controls are all the pilot needs to make the sailplanes turn, climb, and dive. Sometimes you will see a sailplane with flaps or spoilers on the wings. These devices give the pilot better control of the sailplane's descent for a more precise landing.

HOW DO YOU LAUNCH A SAILPLANE?

Sailplanes are usually launched with an electric winch or a device called a hi-start. Both devices pull the sailplane up like a kite to an altitude of about 400 feet. The winch uses electric energy for its pull while the hi-start uses the stretch of 100 feet of surgical rubber tubing. Once the sailplane is at altitude, the launch line falls from the hook on the bottom of the fuselage and the sailplane is now gliding.

WHAT KEEPS A SAILPLANE UP IN THE AIR?

Sailplanes do not have motors so once they are off the launch line, they are on their way down unless the pilot can put the sailplane in rising air or lift. Lift can occur when wind blows up the slope of a hill. This is called slope lift. Lift can also occur when air near the ground is heated, say by a hot road on a sunny day. The warm air rises and is called a thermal. A sailplane circling in this type of lift, just like a hawk does, may climb several thousand feet. If there is lift and the pilot is skillful, he or she can keep the model up for hours. If there is no lift, the model comes down in about 4 minutes. Except for radio interference or faulty equipment, the pilot has radio contact with the sailplane for as far as he can see the model.

IS IT HARD TO FLY AN R/C SAILPLANE?

These models are pretty stable. A new pilot can learn to fly with about an hour of instruction. Then the more you practice, the better you get.

WHAT HAPPENS AT A SOARING CONTEST?

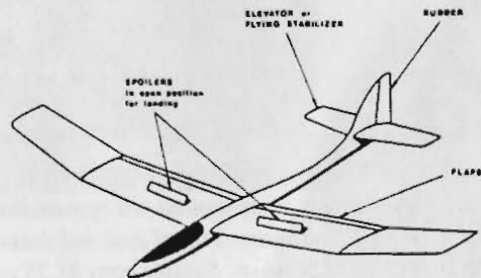
Most contests in this country have the pilot keep his or her sailplane up for a specified length of time, say 10 minutes, then make a spot landing. Other events such as distance, speed, aerobatics, and cross-country flying are gaining popularity.

HOW MUCH DOES A SAILPLANE COST?

You can put together a sailplane kit and radio for as low as \$120 but most modelers spend between \$200 and \$300. Ready made sailplanes are available but they are more expensive. The equipment you need is available from your local hobby store or from the mailorder houses advertised in model magazines.

HOW DO I GET STARTED IN R/C SOARING?

See the sport in action at our field. Our members or your local hobby store owner will be glad to discuss your equipment needs and licensing requirements. When you are ready to fly, it's best to have an experienced pilot teach you. It makes learning less painful and less expensive in the long run.



SCIMITAR, WINDJAMMER AND A COUPLE OF NEW AIRFOILS.....Bruce Abell

Editor's introduction: For long-time readers of RCSD, you'll recognize Bruce as a frequent contributor to our pages. For newcomers, let me say that Bruce Abell of Cessnock, New South Wales, Australia has provided many new, different and quite unusual ideas and designs. Working independently, he has arrived at a theory of airfoil design and wing planform that seems to work very well for him. In this letter to RCSD Bruce talks a bit about his SCIMITAR which we've seen before, and a new ELECTRIC-Powered design that he calls WINDJAMMER. Here's Bruce.



"...The BA-25 series of airfoils is enclosed. They seem to be performing well, as I can fly the SCIMITAR in anything from a 5-to a 15-knot breeze on the slope at a 7 oz. per sq. ft. wing loading. Admittedly, I have to work bl---- hard at both extremes to stay airborne, or to keep from being blown backward, but the bird is very satisfying to fly. As I told you on the 'phone, the SCIMITAR shape works! The concept, as I see it, is to try to deflect (?) the airflow into the mid-span region of the wing, thereby increasing the volume of air flowing over this area, and subsequently reducing the the amount of air flowing over the tips and creating tip vortices. It should reduce these vortices and also reduce the wing/fuselage interference drag, resulting in a net gain in the L/D ratio.

"Well, the other weekend I was forced to do what I'd been threatening to do (but chickening out on) for six months! I broke the starboard wing panel on my SCIMITAR on a high-powered launch in windy conditions during a club competition, and changed to the conventional wings -- the fuselage survived the prang with minor and easily repairable damage. Then disaster struck!

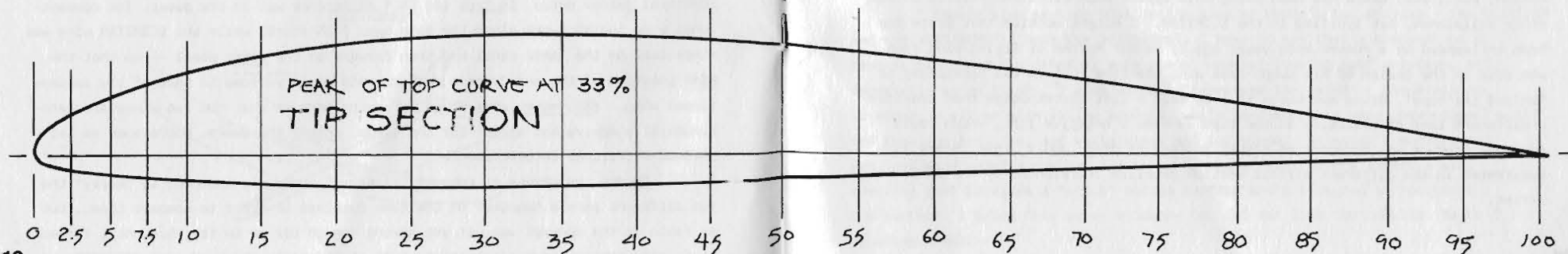
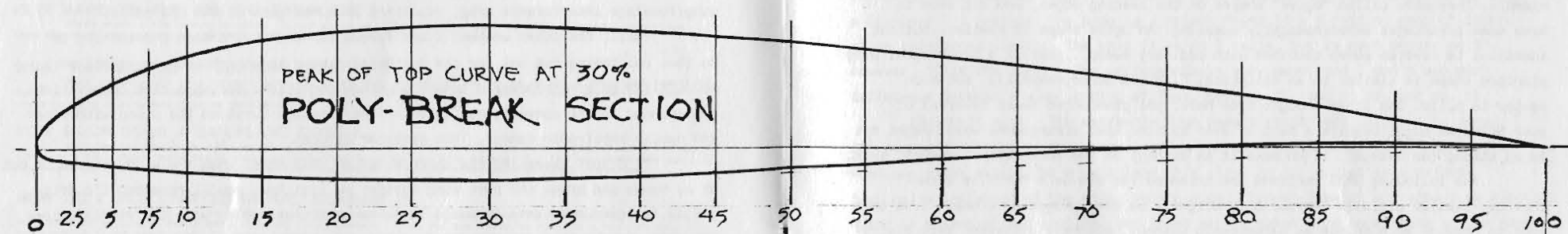
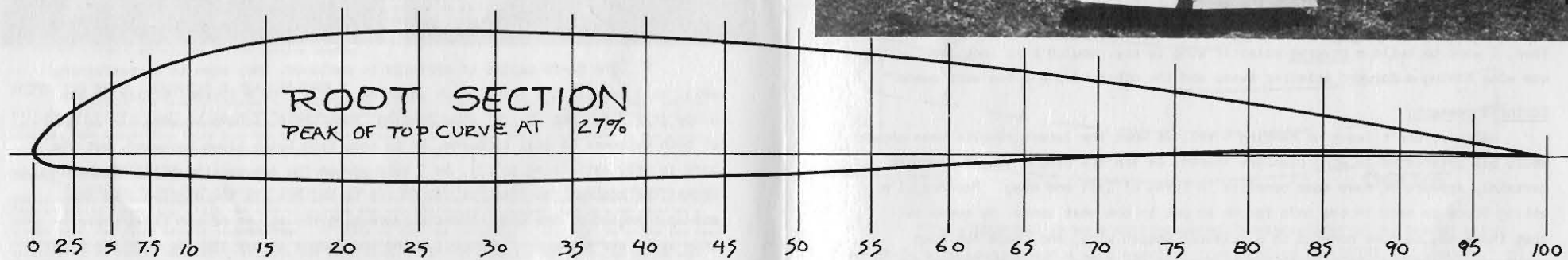
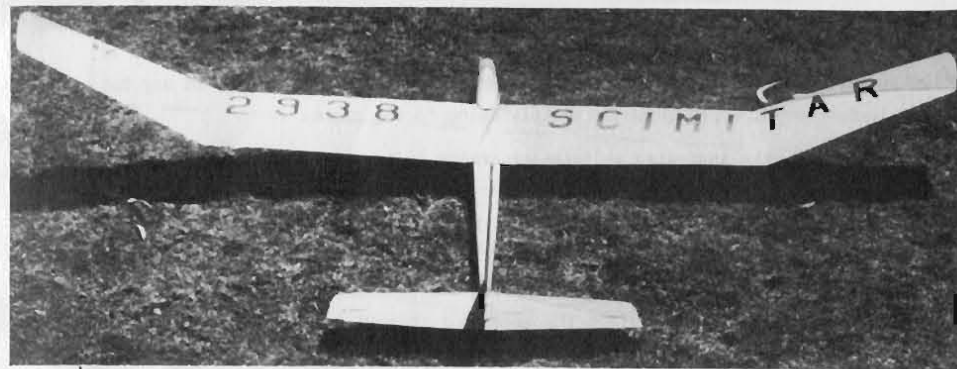
"I'd just assembled the spare wings on this model when the wind whipped it out of my hands and broke the port wing against my leg! Now, you'll remember I'd originally designed both sets of wings to be interchangeable, with the same sections, the same chords, the same tapers in each panel, the same type of construction and identical joiner setup. In fact the ONLY difference was in the sweep. The conventional wing had NO sweep along the main spar (33% chord) while the SCIMITAR wing was swept back on the inner panel and then forward on the outer panel -- so that the MEAN position of the aerodynamic center would be very close to that of the conventional wing. (Ed. note: what Bruce is saying here is that the two wings are aerodynamically equivalent except for the sweep, unless the sweep makes some as yet unknown difference to performance.)

"Under the stress of contest failure, I obviously intended to "marry" the two different panels together on the same fuselage in order to compare them...but my faith in the concept was not yet strong enough for me to try this until forced to by circumstance at a competition. Well, I did marry the good port SCIMITAR

SECTION	TYPE																							
B.A. 25 R	THERMAL GLIDER ROOT SECTION 10%																							
STATION	0	2.5	5	7.5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
UPPER ORDINATE	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0
LOWER ORDINATE	0	2.78	4.2	5.4	6.05	7.22	7.81	8.05	8.05	7.82	7.57	7.33	6.92	6.39	6.02	5.34	4.70	3.98	3.31	2.43	1.45	0.43	0	
LOWER ORDINATE	0	0.9	1.05	1.35	1.43	1.73	1.88	1.95	1.88	1.73	1.54	1.28	1.05	0.83	0.56	0.26	0	0.11	0.23	0.49	0.11	0		

SECTION	TYPE																							
B.A. 25 M	THERMAL GLIDER POLYHEDRAL BREAK SECTION 10%																							
STATION	0	2.5	5	7.5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
UPPER ORDINATE	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0
LOWER ORDINATE	0	2.82	4.12	5.18	6.0	6.94	7.47	7.8	8.0	7.75	7.5	7.2	6.75	6.3	5.75	5.2	4.6	4.0	3.3	2.7	1.8	0.9	0	
LOWER ORDINATE	0	0.9	1.05	1.35	1.43	1.73	1.88	1.90	1.95	1.88	1.73	1.50	1.28	1.05	0.83	0.56	0.26	0	0.11	0.23	0.49	0.11	0	

SECTION	TYPE																							
B.A. 25 T	THERMAL GLIDER TIP SECTION 10%																							
STATION	0	2.5	5	7.5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
UPPER ORDINATE	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0
LOWER ORDINATE	0	0.9	1.05	1.35	1.43	1.73	1.88	1.90	1.95	1.88	1.73	1.50	STRAIGHT LINE FROM 45% TO 100%										0	



wing to the good starboard conventional wing, and trimmed the hybrid beast with a couple of hand launches. Then came the crunch!

"On the line she went away! A savage swing to the right occurred immediately on launch and, luckily, the bird popped off the line at about 40 feet up! After I'd swallowed a few times to get the old ticker back where it belonged instead of stuck in the back of my mouth, I relaunched it more gently with a fair bit of compensating trim, and up she went on the line as straight as a die! On subsequent flights it looked equally weird in the air, but - without compensating trim, and at any but hand launch speed, would quite definitely swing to the right.

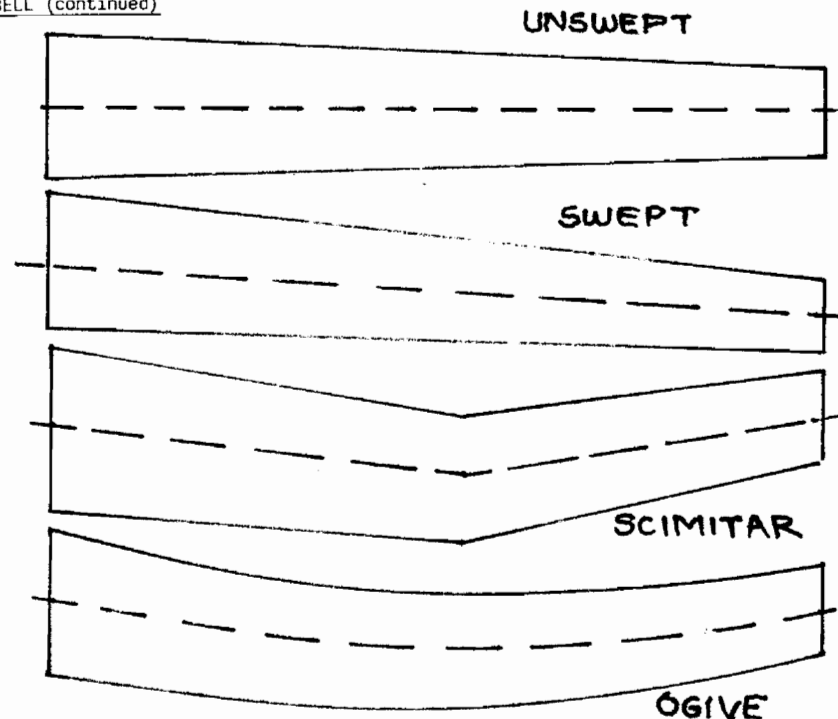
"To me, this indicates an increase in the lift component of the PORT (SCIMITAR) wing as the speed is increased -- without a corresponding increase in drag. Otherwise, the port wing would lift, but the model would just yaw to the left or even axial roll.

"My next move is to try some special and multiple turbulators and some miniature vortex generators along the span, but this will have to wait for at least another month, as we're into our unfavorable wind/weather pattern at the moment. Then, I want to build a reverse scimitar wing to try. Wouldn't it look great with one wing having a forward scimitar sweep and the other having a rearward sweep?"

Editor's comment:

(Bruce, don't leave us hanging - tell us what the latest results have shown. We're all interested in wing planform shapes, as the new discus-shaped planform certainly appears to have some benefits in terms of lift and drag. Readers, I'm asking Bruce to send in the info for me to put in the next issue. My guess is that there may be some benefit in a scimitar-shaped wing, and there has been precedent in some of the British "V" bombers of the '50's. The Avro Vulcan for example. They were called "ogive" shapes on the leading edges, and did seem to have some advantages aerodynamically speaking. An ogive shape is similar, but not identical to reverse sweep combined with ordinary sweep...just as a trapezoidal wing planform shape is similar to an elliptical planform aerodynamically, but much easier to build. One other thought from here: the pronounced sweep reversal of your SCIMITAR might require a bent or even spliced spar arrangement which might not be as strong (or heavier, if you make it as strong) as the conventional unswept spar.

The following BA25 sections are intended for use as a "profile streak"; that is, similar airfoils varied only slightly as they progress outboard from the root to provide such things as aerodynamic washout, slightly different lift distribution, etc., etc. Bruce has been using this system with excellent results on his other sailplanes, but typified in the SCIMITAR. I might mention that Bruce has been influenced by a remark made years ago by Reimar Horten of flying wing fame who said in the design of his swept-back wing planform that it was necessary to "unload the tips". Bruce has taken this to mean a lift distribution that provides a different load distribution at the tips -- even a negative lift, which could possibly produce an increment of thrust instead of drag. JHG.). This theory is manifested in the different airfoil section profiles represented by the BA-25 series.



"The WINDJAMMER is an electric-powered 2-meter glider of my design using my BA-24 wing section and a wing nearly identical to the SCIMITAR...except for using conventional taper. I power it with a Yokomo .05 stock buggy motor with a Graupner 3:1 gearbox. The prop is a Helmut Meyer 14 x 8 folding prop of fiber-glass reinforced plastic. The ship flies on 7 cells, but is much better on 10. However, 10 is the limit! The performance is very good, and I don't see much difference between a wing loading of 7 oz. per sq. ft. and 14 oz. per sq. ft.

(Editor's note: The extremely high aspect ratio vertical tail is very efficient and appears to have been used to increase the area as well, compared to what one might expect for a sailplane this size. An air outlet is provided just below and ahead of the wing leading edge. Through-flow of air around an electric motor is essential for cooling, and inlet air is taken from an opening in the nose behind the prop.

I should also mention that in the case of Bruce's two designs - the SCIMITAR and the WINDJAMMER - both use polyhedral. I have to say that a combination of reverse sweep and tip dihedral make a most unusual-looking configuration, and especially so in flight. I wish we could reproduce the color of these planes. Scimitar is silver with yellow accents, while Windjammer is more conventional with red fuselage and fin, and white wings and tailplane. Scimitar's numbers are red, and Windjammer's numbers appear to be orange/red. Bruce favors a wing covering that provides a "slick" bottom surface and a textured or roughened top surface. I tried this on my Windsong but did not like the results. Maybe I did it wrong. JHG).

Jerry Slates World Cup Photo Diary

Jerry Slates has been bringing his camera along on his travels to the F3B World Championships and around the US scale scene. RCSD is lucky to have the results and we share them with you here....Thanks Jerry.

As you can see by all the pictures, I have covered a lot of miles this last summer. What with working/helping the US F3B team in practice sessions at home and in Germany - and just being a spectator. Because much has been covered in other editorials I don't want to report the same thing over again. I'd like to tell you about the people.



USA Team - Break time between rounds

We arrived a week early so that we could get in some practice and adjust our bodies to the time change. A few other teams were also early and the team from Finland had set up for the speed runs. They let us use their equipment along with the other early arrivals, -Japan, Israel and several others. I worked the "B" line and was often asked, not only by the US team but by the others, for my comments; i.e. "was that a good turn" "Did you see something that I didn't see." etc. etc. I shared and enjoyed it.

As more and more teams arrived in camp, the trading of club patches and pins in the food line broke the ice. Everyone wanted to know who you were and where you came from but because of the different languages, this is where the real fun began. You saw hands moving, arms going about and notes being interpreted. It was fun.



Seth Dawson - with book of instructions-what to do next?

After the contest started and the rains began-I was in the big hanger during one of the bigger storm's along with everyone else, (forgot to say that I wear a cowboy hat) Because of my cowboy hat the locals and other spectators would come over and talk with me, wanting to know part of the U.S. I was from, they would want to tell me about their trip to the U.S. and many other things, I didn't understand but only half of what was said to me but enjoyed every bit of it,



A vigilant Lynn King tests the Achmer food for the team.

Photo Diary, continued...

The other thing I want to tell you is that I had to take one of the winches out to a shop to be worked on. I got the winch fixed and there was no charge, the people in the shop wished us the U.S. Team Good Luck in the competition.

After I got back from Germany I went to a thermal and scale contest, (ED. We'll have to save those photos for next time, Jer.)



The Flying site with mobile control tower. Slates Photo

Radio with "Sender Saver" rain guard



Slates



USA Team - the last meal was a great one!

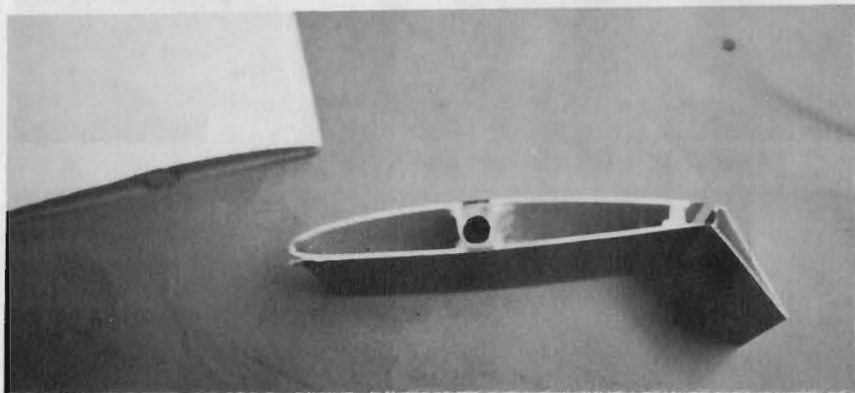


The Camp site

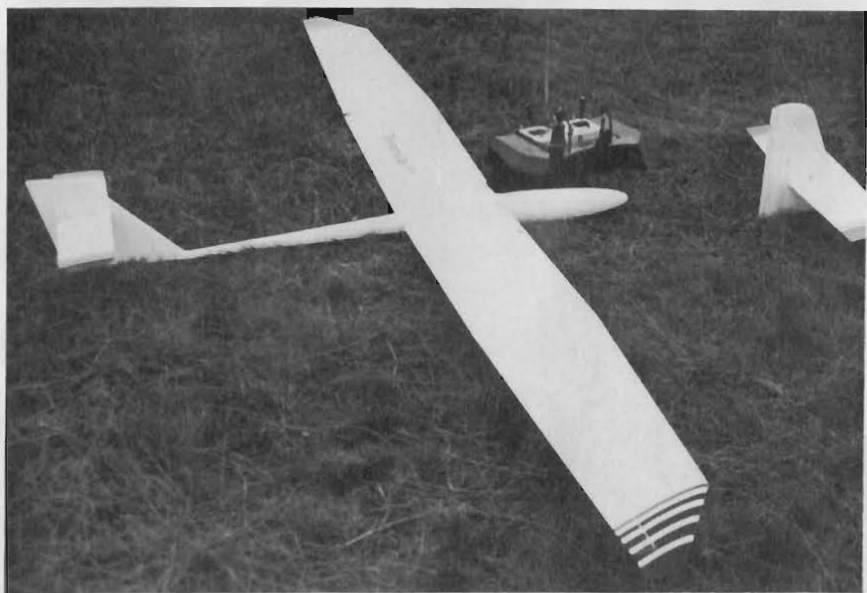




Awards table at the banquet

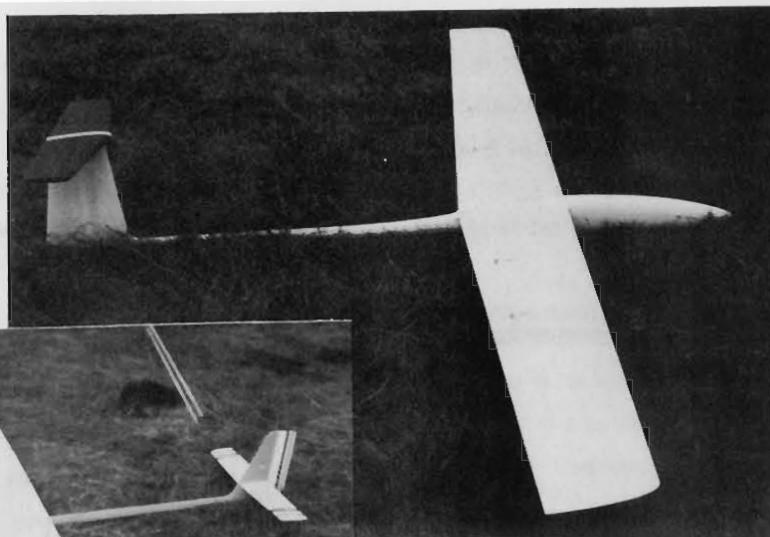


Broken wing section I picked up- skin of glass-foam-glass, Spar of carbon and end-grain wood. Slates Photo

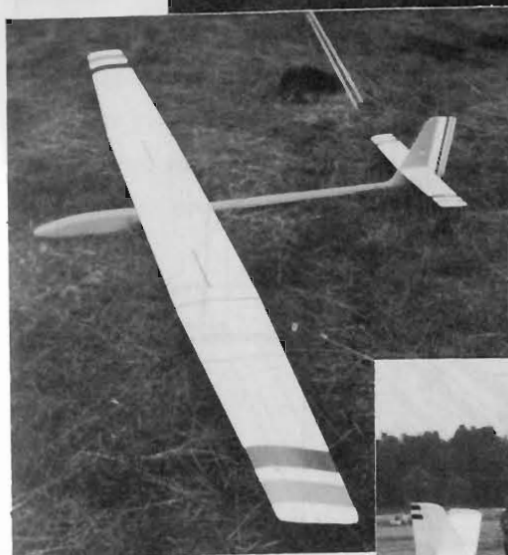


Tarantula - Switzerland

Slates Photo



Impuls - By Rowing - Israel



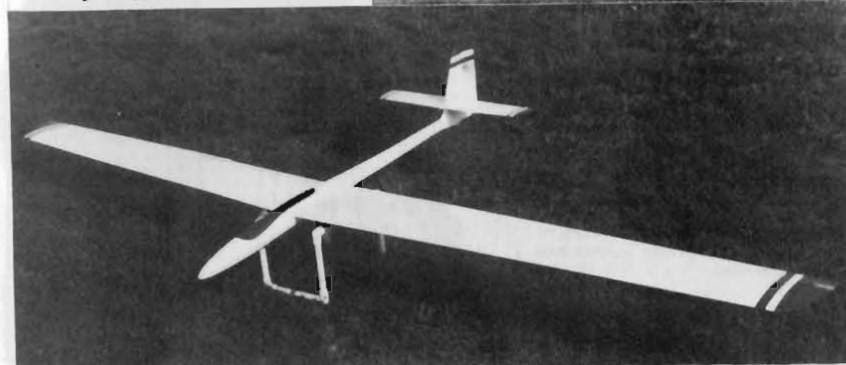
Australia's LB-4

Cover: At the Airport in Holland

The Synergy II (USA)

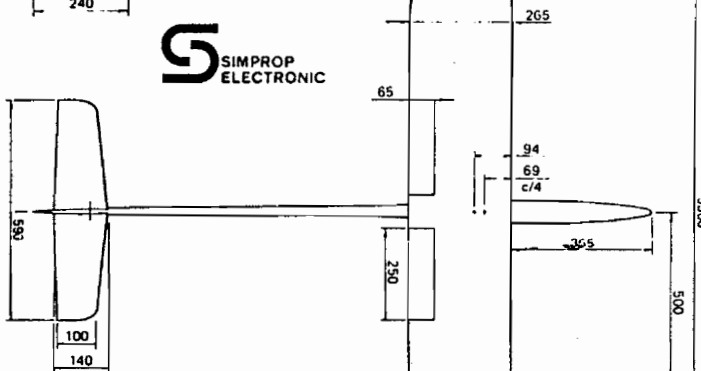
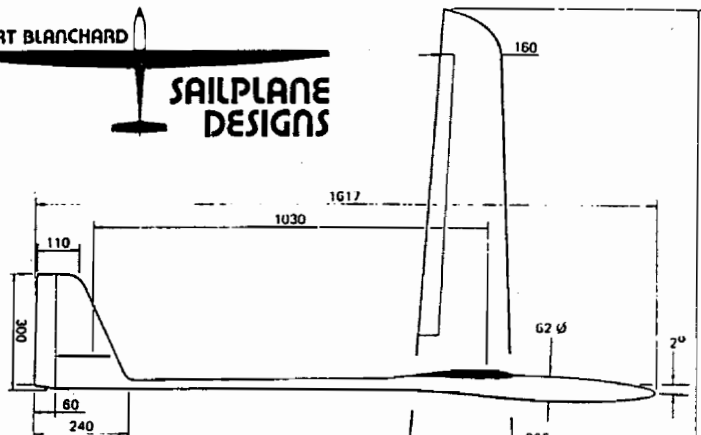


Austrian Team Member w/"Target"



Slates Photo

Stu Blanchard is at it again! This famous English sailplane designer and contest soaring pilot has released a new version of his famous Calypso series (see three-view). The new design is expected to be available in kit form from Stu. We thank the B.A.R.C.S. Soarer, edited by George Stringwell, for this information, and the Modesto, California R/C Club newsletter Thermal Topics for the three-view.



CALYPSO 8

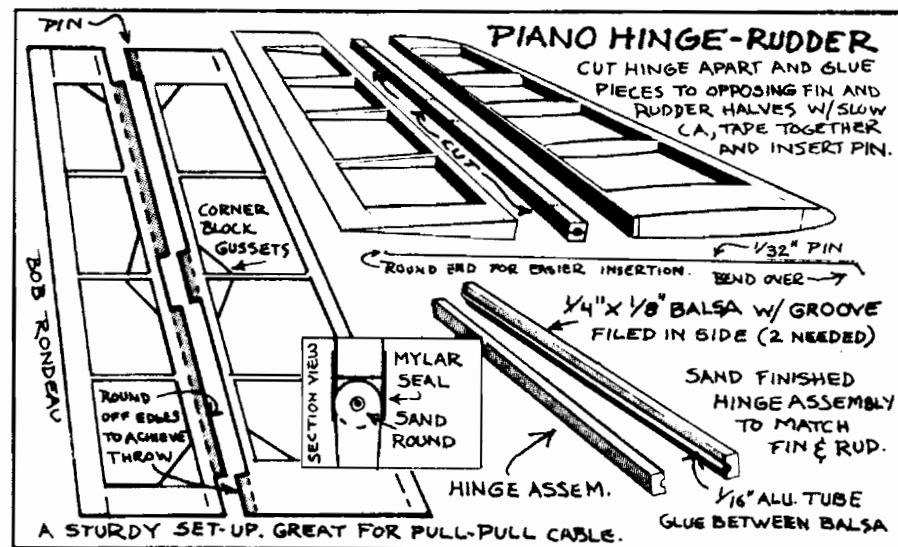
- WING SPAN - 3100
- WING AREA - 72.02 dm²
- ASPECT RATIO - 15
- TAILPLANE AREA - 6.94 dm²
- FAI TOTAL AREA - 78.97 dm²
- WEIGHTS
- WING SECTION - RG12/9.3%
- TAILPLANE SECTION - NACA 0006
- CONTROLS - RUDDER, ELEVATOR, AILERON, AIRBRAKE

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B.A.R.C. (British Association of RC Soarers); George Stringwell, 17 Hepley Road, Poynton, Nr. Stockport, Cheshire, England.

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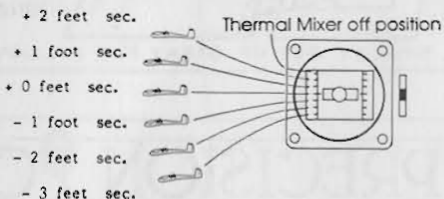
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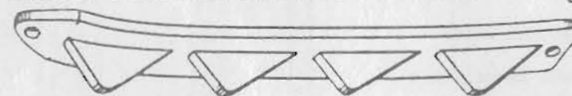
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