

December, 1997

Vol. 14, No. 12

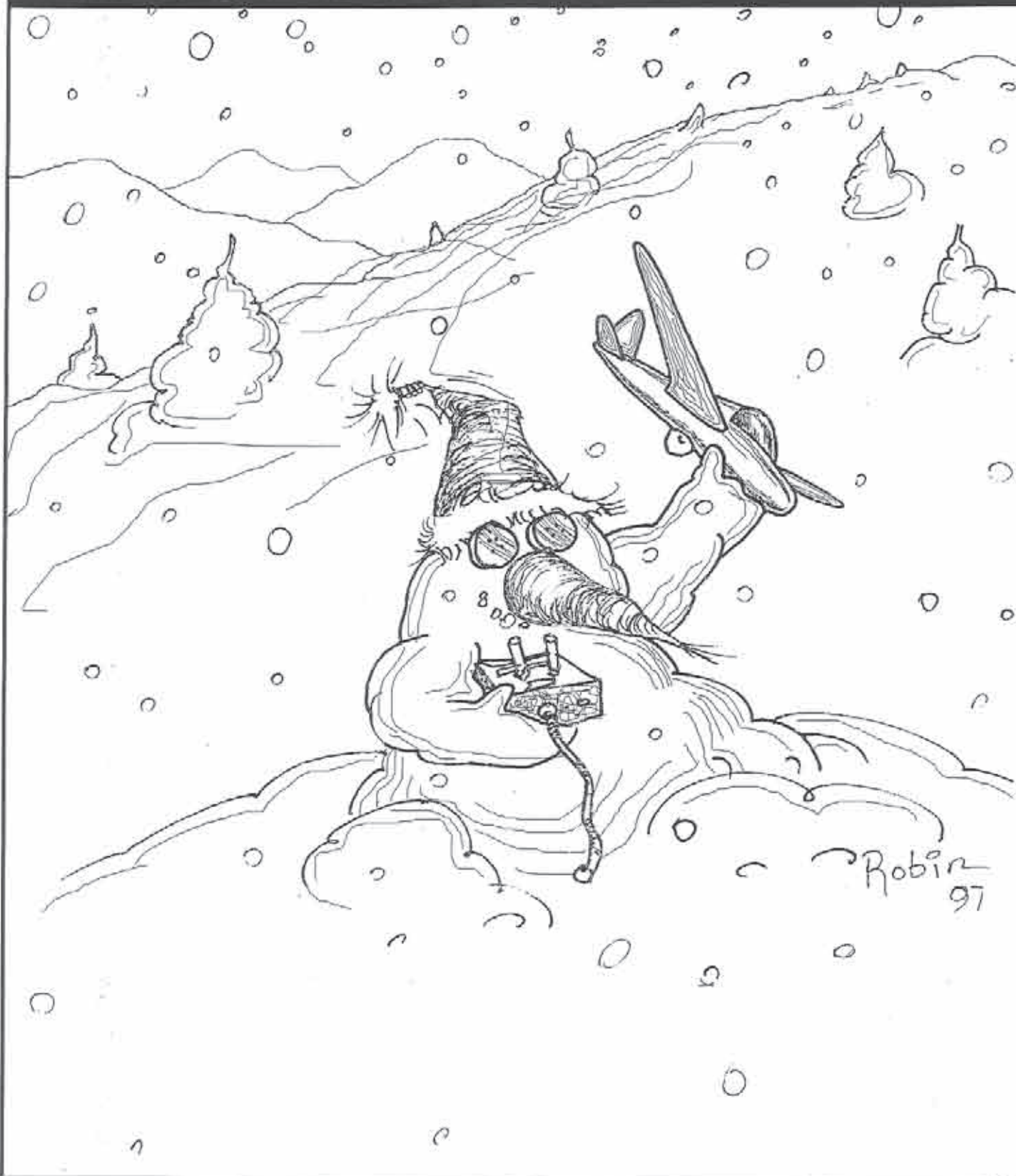
U.S.A. \$3.50

R/C

Soaring

D I G E S T

THE JOURNAL FOR R/C SOARING ENTHUSIASTS





1998

21st ANNUAL

PASADENA, CALIFORNIA MODEL SPORT & HOBBY SHOW

*SELLING YES!!

*SELLING YES!!



BIGGEST & BEST
in the WEST!

NEW DATES FOR 1998

Friday, January 9, 1998: 12 Noon - 6 p.m.
Saturday, January 10, 1998: 10 a.m. - 6 p.m.
Sunday, January 11, 1998: 10 a.m. - 5 p.m.

MARK YOUR CALENDER!

ADMISSION: \$7.25 (Tax incl.) Children under six admitted free when accompanied by an adult.

Pasadena Center, Pasadena, California
300 EAST GREEN ST. (CORNER GREEN & MARENGO), PASADENA CALIFORNIA

*
*
*

NOTE: Because of an unavoidable, unsolvable conflict, the show dates for 1998 have been changed! See above!

SEE THE LATEST R/C AND OTHER MODEL PRODUCTS. MEET AND TALK WITH MAJOR MANUFACTURERS AND DISTRIBUTORS. SOME WILL EVEN SELL TO YOU!

The TWO-SHOW PROBLEM has GONE AWAY!!!

*SELLING YES!! **IMS will have the ONLY Model Hobby show in Southern California in the Winter of 1998!** *SELLING YES!!

●GIANT OPERATING MODEL RAILROAD●

Call, write, or Fax for details on Swap Shop and Static Model Competition.

REGULAR ADMISSION: \$7.25 • ADVANCE TICKETS: \$6.00

Save money and waiting in line. Order your tickets in advance, U.S. only. Send check or Money Order payable to IMS Inc. and include self-addressed stamped envelope. Advance ticket offer expires January 1, 1998.

Make A Great Christmas Gift!

Name _____ Date _____

No. of tickets ordered _____

Amount enclosed _____

TABLE OF CONTENTS

3	Soaring Site Judy & Jerry Slates	
4	On The Wing Christian Benrens & Christian Tollman's "Spin Off" Bill & Bunny Kuhlman	
5	Jer's Workbench Kevlar™ Hinges Jerry Slates	
6	Hot Air Aerobatics, 1/2 Cuban 8 and Cuban 8 Robin Lehman	
8	Special Report CVRC 25th Annual "FALL-FEST" 1997 John Roe	
12	Gordy's Travels An Esteem'd Idea, Part 2 Gordy Stahl	
15	Short Cuts Video Review, "R/C Soaring from the Ground Up" Steve Savoie	
16	The Electric Connection F&J Team Trials Mark Nankivil	
	Special Report	
20	Scott Christensen The LSF Story	
24	Barry Kurath Level V Story	
24	John Vennerholm The League of Silent Flight, Today	
25 LSF Application Form	
26	John Vennerholm 8 Hours to Level V	
28	Cal Posthuma The Road to Level V	
29	Mark Howard Matt Sheldon Achieves LSF Level VII!	
32	Rules 1995 - 1998 Nostalgia Sailplane Event Rules Jack Lafret	
30	In the News	
	Morten Munkeso International 2M Postal	
 Retracts, "German Air Attache", "The Collected Works of Stan Hall"	
 D.E.A.F. Electric Fly-In, Texas National Tournament	

Wind Tunnel Tests of Wing Profiles Part VII
by Marlin Simons will be back next month.

Coming Soon: Something new out of Japan, from the
4th Annual Joe Wurts RCHLG Cup Fly!

R/C Soaring Digest (RCSD) is a reader-written monthly publication for the R/C sailplane enthusiast and has been published since January, 1984. It is dedicated to sharing technical and educational information. All material contributed must be exclusive and original and not infringe upon the copyrights of others. It is the policy of RCSD to provide accurate information. Please let us know of any error that significantly affects the meaning of a story. Because we encourage new ideas, the content of all articles, model designs, press & news releases, etc. are the opinion of the author and may not necessarily reflect those of RCSD. We encourage anyone who wishes to obtain additional information to contact the author. RCSD was founded by Jim Gray, lecturer and technical consultant. He can be reached at: 210 East Chateau Circle, Payson, AZ 85541; (520) 474-5015; <mpg@netzone.com>

RCSD should not be considered to endorse any advertised products or messages pertaining herein. An advertising rate card is available for businesses and clubs.

RCSD Staff

Jerry Slates - Editor/Technical Editor
Judy Slates - Desktop Publisher, General
Managing Editor, Subscriptions
Lee Murray - RCSD Index/Database

[Material may be submitted via 3.5" Disk or
e-mail, and is most appreciated!]

Please address correspondence to:
Jerry & Judy Slates
R/C Soaring Digest
P.O. Box 2108

Wylie, TX 75098-2108 U.S.A.
(972) 442-3910, FAX (972) 442-5258
e-mail: rcsdiges@aol.com
<http://www.balcyon.com/bsquared/RCSD.html>

Feature Columnists

Bill & Bunny Kuhlman (B&B),
Robin Lehman, Fred Mallett,
Mark Nankivil, Dave Sanders,
Steve Savoie, Jerry Slates, Gordy Stahl

Artwork

Gene Zika is the graphic artist
who designs the unique ZIKA clip art.

Copyright © 1997 R/C Soaring Digest.
All rights reserved.

OTHER GOOD STUFF

- 30 New Products
- 32 Schedule of Events
- 33 Classified Ads
- 34 R/C Soaring Resources
- 35 Advertiser Index



CHRISTMAS IN NEW YORK!
Cover artwork by Robin Lehman.

The Soaring Site

December arrived much earlier than expected; doesn't it always? And with its arrival, we knew that Christmas would not be far behind. So, in the 11th hour, we found ourselves frantically searching for cover quality photography that would help get us into the Christmas spirit. Unfortunately, the files didn't yield anything we felt appropriate so, after allowing ourselves time out for a short panic attack, we yelled for help. After a brief scuffle and rigorous arm twisting, Robin took pen in hand and e-mailed us the delightful character you see on the cover of RCSD. We really like it, and hope you do, too. Thanks, Robin! We'll try to give you more notice, next time! (At least, we're hoping there'll be a next time... It seems that Robin would like to start early. So, if any of you have any ideas for next December's cover, please let him know, now!)

IMS

The 1998, 21st Annual, Pasadena, California, Model Sport & Hobby Show is scheduled to take place January 9 - 11. Please note that the dates have changed for 1998, and that the "two-show problem" has gone away.

Viking Models, U.S.A.

We've gotten a number of inquiries of late regarding fuselages. Unfortunately, due to an allergic reaction, we won't be able to manufacture any fuselages for awhile. However, Viking will continue to produce canopies and other vacuum formed products, as well as trying to keep up with the monthly column, "Jer's Workbench". If you missed the column last month, we're sorry. Due to frantic, last minute changes in format, we didn't have any time to spare.

And, speaking of time, a special thanks is in order for those of you that found the time to zip us an e-mail or snail-mail note in response to the new format. Most of you said you were pleased with the new format; OK, so a few of you said you were extremely pleased! And, then, of course, there was Gordy, who said, "I'll take it any way I can get it!" Thanks to each of you, as all those notes really made our day!

Happy Flying!
Judy & Jerry Slates



**MERRY CHRISTMAS &
HAPPY NEW YEAR!**
From All of Us, to All of You!



P.O. Box 975
Olalla, Washington
98359-0975

E-mail: bsquared@halcyon.com
http://www.halcyon.com/bsquared/
**Christian Behrens & Christian
Tollmien's "Spin Off"**

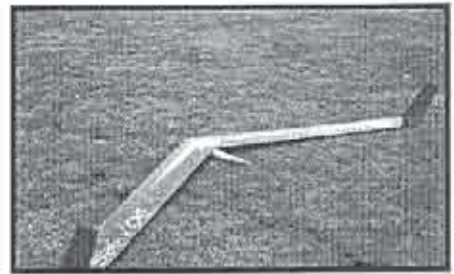
This month we take a look at another highly competitive tailless model from Germany, with thanks again to Andrew MacDonald of Australia for providing the information.

Spin Off is the creation of Christian Behrens and Christian Tollmien, and has so far gone through four iterations. The most successful version was the second, and it is the one described here. The number three version was the worst of the series, which just goes to show that subsequent modifications do not always yield improvement! Although Spin Off was inspired by Hans-Jürgen Unverferth's Joined series, comparing the Spin Off with Hans-Jürgen Unverferth's CO⁷ yields some very interesting information. This is particularly enlightening as the CO⁷ and the Spin Off are the best performing tailless sailplanes in Germany at this time. For those who think the sections used on tailless models cannot produce much lift, the two Christians say this model can break the winch line.

Behrens and Tollmien are very sure of the thermal potential of this model, and say they will have no problems with the extended thermal duration task coming for F3B. Christian Behrens admitted their lack of experience has prevented them from doing better in F3B, as they haven't enough practice in tuning their models for different conditions, and lack of identical mold-built prototypes makes them cautious against trying radical techniques for launching and otherwise improving contest performance. But he is pretty confident that if anyone turned up with a Spin Off against average pilots they have a good chance of placing well.

Both Christians are in the C-Kader F3B division this year and in the German National Championships for F3J. Christian Tollmien came in the top 26 from over 130 entrants. He also said that the number of people flying tailless competitions has dwindled and he attributes this to the fact that no one can compete with them or Hans-Jürgen. If someone turns up to a tailless competition with a new glider, and they suddenly find themselves at a 50 meter height disadvantage to a Spin Off, or a 70 meter disadvantage to a CO⁷, they tend to be discouraged. Christian and Christian fly with Hans-Jürgen, and while they help each other they are fairly competitive, as well.

Spin Off is available from Christian Behrens. He is selling two different versions. The general sport model (Standard) uses 'glass, while carbon is used for the competition model (Professional). Prices are around 600 DM for the 'glass version, 1000 DM for the carbon version. Shipping is not included in these prices.



"Spin Off" dimensions

Wing span	2.9 meters
Wing area	60.9 dm ²
Aspect ratio	13.9
Weight, Standard	1900 g
Professional	2100 - 3000 g
Wing loading, Standard	31 g/dm ²
Professional	33 - 50 g/dm ²
Design C _L (neutral trim)	0.3
Profile	S 6010
Dihedral	-2.5 degrees

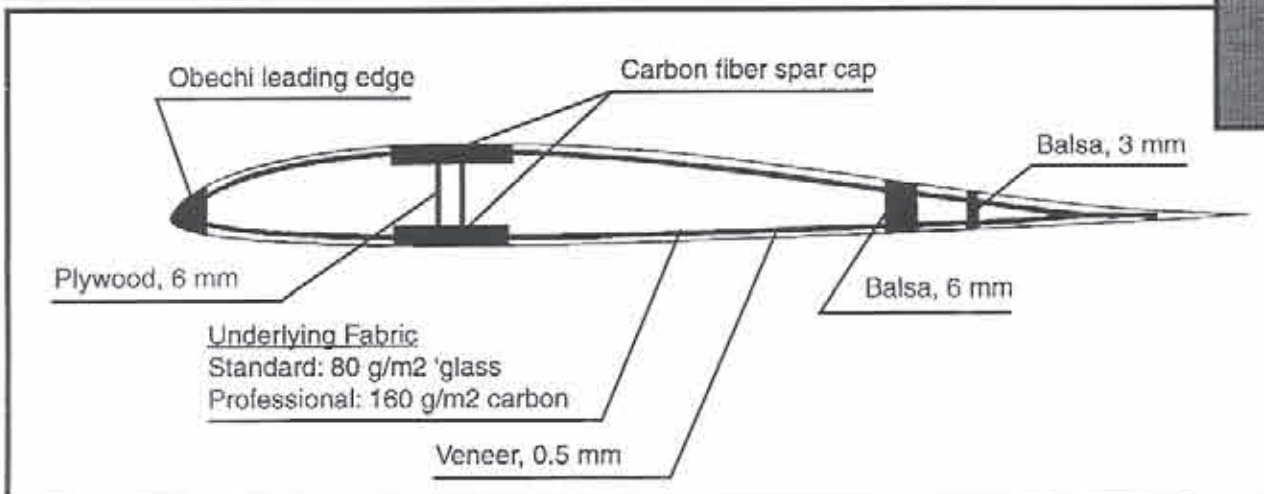
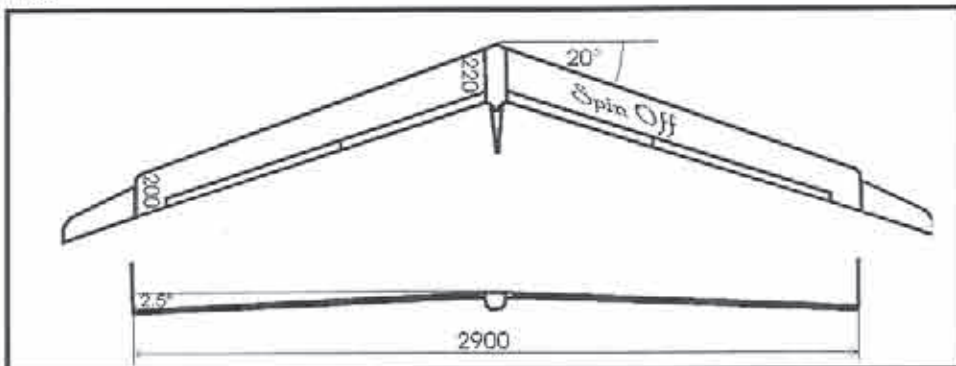
Modellflugvertrieb
Christian Behrens
Geysostrasse 13
38106 Braunschweig
Germany

T.W.I.T.T.

(The Wing Is The Thing)

T.W.I.T.T. is a non-profit organization whose membership seeks to promote the research and development of flying wings and other tailless aircraft by providing a forum for the exchange of ideas and experiences on an international basis. T.W.I.T.T. is affiliated with The Hunsaker Foundation which is dedicated to furthering education and research in a variety of disciplines. Full information package including one back issue of newsletter is \$2.50 US (\$3.00 foreign). Subscription rates are \$18.00 (US) or \$22.00 (Foreign) per year for 12 issues.

T.W.I.T.T., P.O. Box 20430
El Cajon, CA 92021





Jer's Workbench

Jerry Slates
P.O. Box 2108
Wylie, TX 75098-2108
(972) 442-3910
RCSDigest@aol.com

Kevlar™ Hinges

A Kevlar™ hinge is easy to install when building a set of wings, but a lot of care is required when cutting out the ailerons and flaps.

Let's start with a set of foam cores that have been prepared and ready for wing skins to be applied. Using a ball point pen, draw a line on the cores where the hinge line will be located, as shown in photo 1. Another line has also been drawn on the bottom of the wing for the flap hinge (not shown).

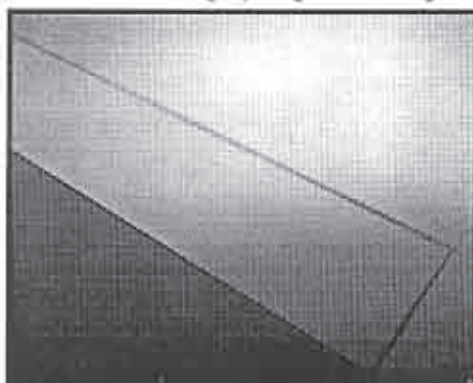
First, cut 1.8 oz. Kevlar™ to fit the size of



#1 - Marked foam core showing hinge line.



#2 - Glass skinned wing depicting Kevlar™ hinge.



#3 - Top cut of aileron on obechi skinned wing.



#4 - Bottom cut of aileron on obechi skinned wing.



#5 - Top cut of flap on obechi skinned wing.

the wings, wet out the Kevlar™ with epoxy, and lay it onto the foam core, on the top for the aileron hinge, and on the bottom for the flap hinge. Wing skins can be applied next.

Photos 2, 3, 4, and 5 show different wings, using this process. Photo 2 shows my unpainted, glass skinned wing; note the Kevlar™ hinge under the glass skin. Photos 3, 4, and 5 show one of Dale King's obechi skinned wings.

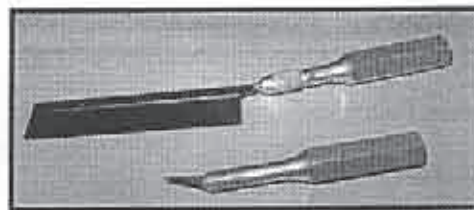
Once the wings have cured, usually within a couple of days, the edges are trimmed; the ailerons and flaps are cut out.

As shown in photos 6 and 7, Dale and I both use the same tools: a razor saw, sharp knife, 3 cornered sanding block, and a 3 cornered file, with the end broken off. We intentionally broke the end off of the file, because the cutting is done with the end of the file, only.

If wings are painted, glass skinned or obechi, the hinge line needs to be marked on the top and the bottom of the wings, again.

I recommend beginning the cut wherever one feels most comfortable. My first cut is done with a razor saw, separating the aileron from the flap. The other end of the aileron is then cut from the wing tip. Turning the wing over, I cut on the bottom of the aileron hinge, working my way through to the Kevlar™ hinge. Back to the top side of the hinge, about 1/32" strip of obechi is removed on the hinge line. On a glass skinned wing, use a sharp knife, making a small cut on the hinge line.

The aileron can be flexed a bit, although it will be stiff. So, using a 3 cornered file and



#6 - Tools - razor saw & sharp knife.



#7 - Tools - 3 cornered sanding block & 3 cornered file.

a 3 cornered sanding block, the epoxy is removed from the Kevlar™ hinge until the hinge moves freely. The above is simply repeated for flaps. ■



FULL-SIZE PLANS

MODEL BUILDER MAGAZINE

Complete collection of more than 800 plans from first through last issues of MB, with article reprints, now available on a one-to-two-week turnaround. Order 20-page price list booklet PPD \$2 U.S., \$3 Can/Mex, or \$5 overseas. Also 50-page Illustrated Catalog (price listings not valid) PPD \$5 U.S., \$7 Can/Mex, or \$9 overseas.

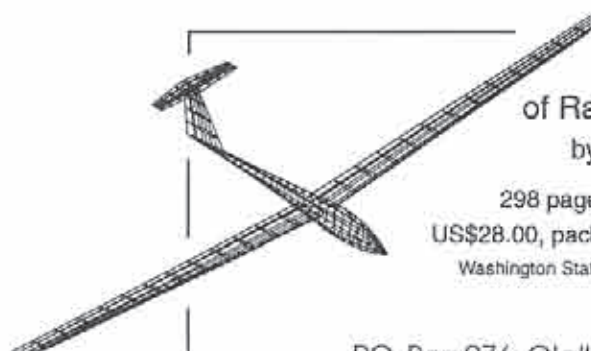
SCRATCH BUILDER'S ALMANAC

Over 75 scale plans (six boats) in 1/2-inch (1/24) to 4-inch (1/3) scale, in FF, CL, RC, gas, rubber, gliders, Bill Northrop and Charlie Smith designs, over 60 Vintage RC. Catalog: \$2 U.S., \$3 Can/Mex, \$5 overseas.

Now accepting MasterCard & Visa

BILL NORTHROP'S PLANS SERVICE

2019 Doral Court, Henderson, NV 89014
Ph: 702-896-2162 Fax: 702-897-7775



Aerodynamic Design of Radioguided Sailplanes

by Dr. Ing. Ferdinando Galé

298 pages, fully illustrated, softbound
US\$28.00, packaging and postage included

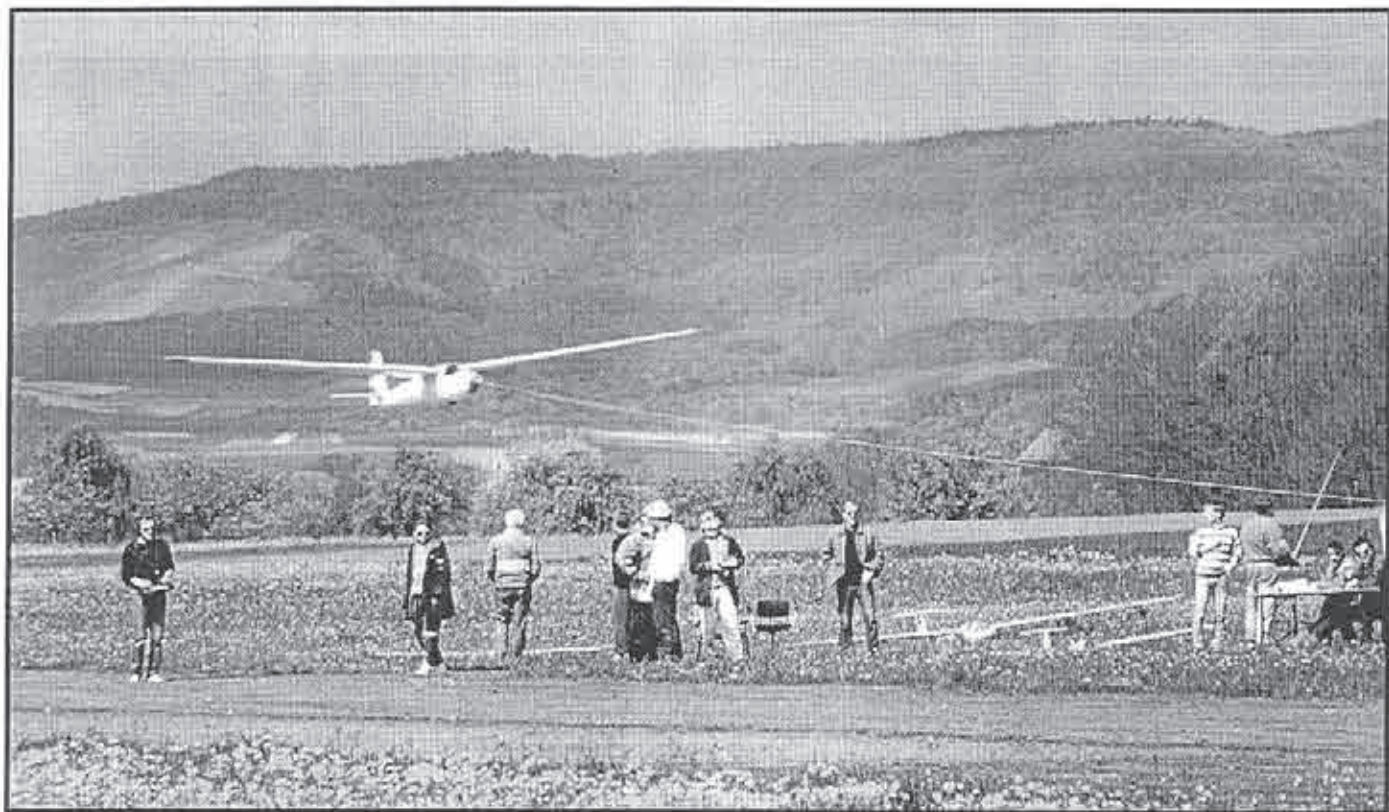
Washington State residents must add 7.6% sales tax

B²Streamlines

P.O. Box 976, Olalla WA 98359-0976 USA

E-mail: <bsquared@halcyon.com>

World Wide Web: <<http://www.halcyon.com/bsquared/>>



Thomas Schmidt starting an airtone with his award winning K&E somewhere in Germany.

Aerobatics

It's rather cold outside. That's not surprising given the fact that now, as you read this, it's well into December. What is a bit strange, is that I am writing this on October 22nd, roughly a month before Thanksgiving and it's snowing outside! What this all *does* mean, is that those of you living in the South will be able to go out and fly, while the rest of us might have to wait a while. If the winter wind is howling outside your window, my best advice is to beg, borrow, or steal a computer which has a Dave Brown flight simulator hooked up, and use that to "fly" through these maneuvers until they are familiar to you. Even if you *can* go out and fly, a computer flight simulator will help familiarize you with some new ways to fly your glider without worrying about crashing. Enough said...

Last month we learned the Split-S, which is part loop and part roll. Another variation on that theme brings us to one of the most spectacular families of all maneuvers, the Cuban 8s. Any decent aileron ship with a good roll rate will be able to perform this lovely figure 8 in the sky. Don't be put off by what the degree of difficulty *seems* to be. This is an example of having your cake and eating it too; the Cuban-8 *appears* to be difficult, but it really *is* quite easy to perform. Best of all, it's safe, it's fun, and it has wonderful spectator appeal. What more can you want?

Be forewarned. If you continue reading past this point you run the serious risk of stunt fever infection, which I am told is usually incurable.

What? You're still here? Well don't say that I didn't warn you...

The 1/2 Cuban Eight

(easy for A. + R. + E.
and more difficult for R. + E.)
a turnaround maneuver

There are a whole bunch of very useful maneuvers in the family of Cubans. As two halves make a whole, let's begin with the 1/2 Cuban-8.

Quite a while ago, I mentioned that many maneuvers are really a combination of similar basic elements. As you will see, the 1/2 Cuban-8 is part loop and part roll - both of which you now know, so this should be quite easy for you to fly. Here it is:

The model picks up speed and starts the 1/2 Cuban Eight straight and level, pulls up into five eighths (5/8) of a loop, hesitates, flies inverted 45 degrees down followed by a 1/2 roll right side up, hesitates, then pulls up to level flight. For the 1/2 Cuban Eight, you need only enough airspeed to get over the top of



Robin Lehman
63 East 82nd St.
NYC, NY 10028
(212) 879-1634

Aerobatic Flight Plan

October 1997

- Uncouple your rudder & ailerons.
- Practice flying Straight & Level.
- Master airspeed.
- Practice the Inside Loop.
- Determine what rudder & aileron adjustments are required to fly a perfect loop.
- Tackle Inverted Flight.

November 1997

- Practice the Split-S or Wing-over.
- Practice gaining sufficient airspeed to be able to complete a 360° Roll.
- Practice The Roll.
- Combine maneuvers to develop your personal, custom, aerobatic sequence.

December 1997

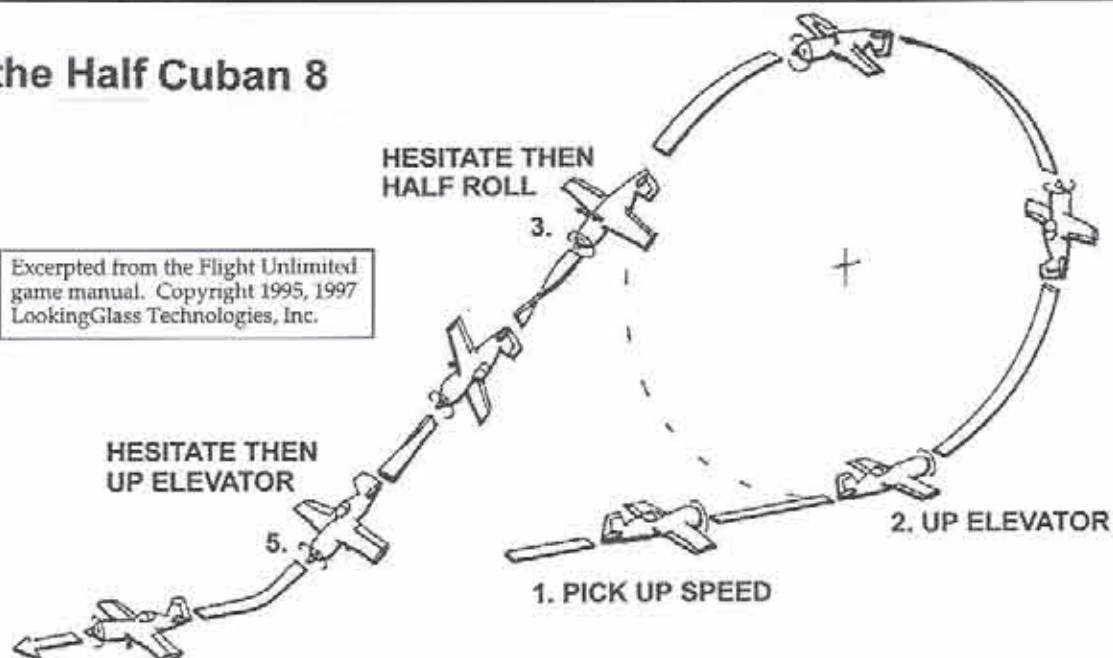
- Practice 1/2 Cuban 8.
- Practice the Cuban 8.

Notes:

- Establish and maintain a "Sailplane Diary" for each plane.
- Review monthly progress.
- Practice flying with a knowledgeable friend or expert, and remember that safety comes first.
- Practice with a flight simulator program such as Flight Unlimited (April, 1997 RCSD).
- Definition of "One Mistake High": Be darn sure you're high enough to complete the maneuver and make one mistake, before hitting the ground.

the Half Cuban 8

Excerpted from the Flight Unlimited game manual. Copyright 1995, 1997 LookingGlass Technologies, Inc.

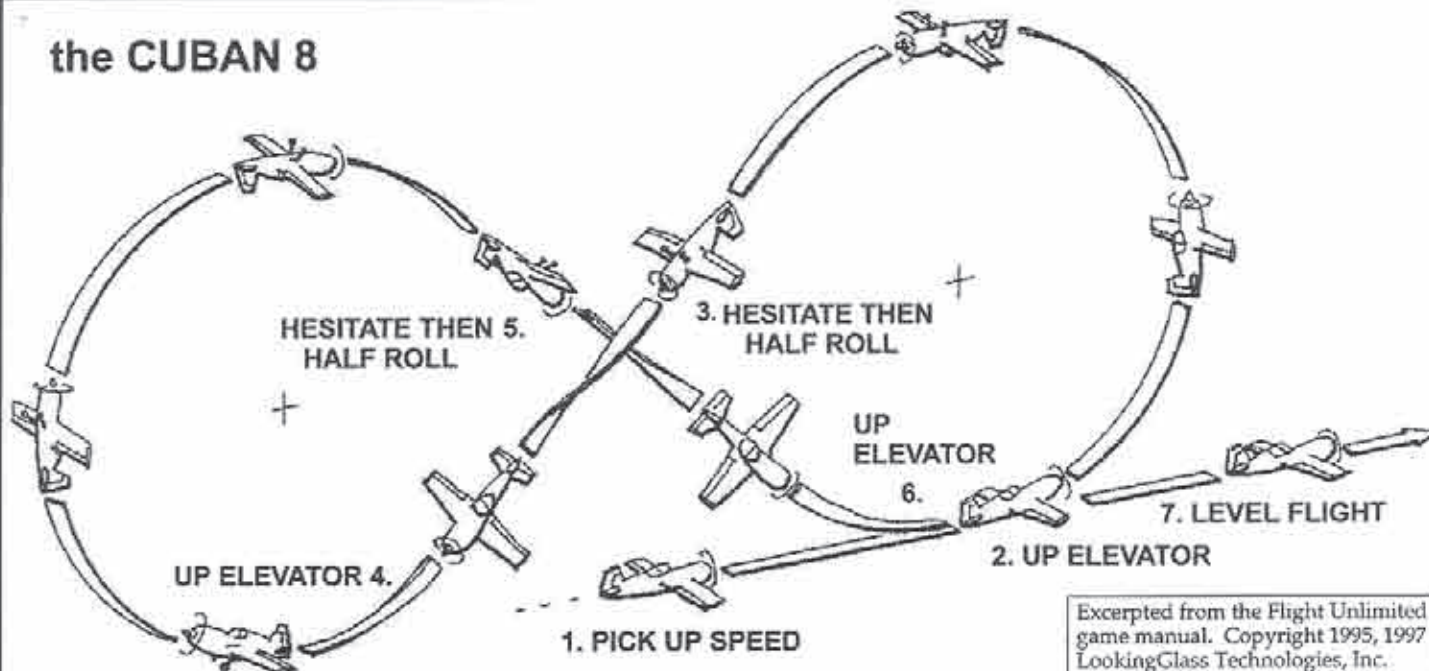


the model hesitates, performs a half (1/2) roll, hesitates, executes a three-quarters (3/4) of an inside loop, when at 45 degrees, hesitates, does a half (1/2) roll, hesitates, pulls up and recovers to level flight." (Used by permission - from the AMA rule book.)

If this sounds confusing (it does), move right to the illustration.

The Cuban Eight is a maneuver you will certainly want to keep in your bag of tricks. It's easy to perform and spectacular when well done. As long as you start the Cuban 8 with enough airspeed, you will find that it's really quite easy to perform. Good luck! ■

the CUBAN 8



Excerpted from the Flight Unlimited game manual. Copyright 1995, 1997 LookingGlass Technologies, Inc.

the loop. From then on, you're home free and, once you begin to nose down, you will have plenty of airspeed to complete the rest of the maneuver. This is one of the best and easiest of the turnaround maneuvers.

If this description confuses you, go on to the diagram. As they say, a picture is worth a thousand words!

The Cuban Eight

(easy for A. + R. + E. difficult for R. + E.)

Once you have mastered the half Cuban-8, you are ready for the (whole) Cuban-8. As you might expect, all you need to do is put two halves together. Here's how:

"The model picks up speed, and from level flight pulls up and executes five-eighths (5/8) of an inside loop, when at 45 degrees,

PENSACOLA 1997 !!!

Scale / Airtow Extravaganza !

February 20 - 22, 1998, Site 8, Pensacola, Florida
 Contact: Asher Carmichael For Info Packet
 (Rain date: February 27 - March 1, 1998)
The Best For The Best !

334-626-9141 (after 7PM CST) or ACarmic985@aol.com



Joe Wurts (L) and John Roe (R), grimacing with pain after all those hard throws in handlaunch. Joe finished first with an aileron Epsilon, and John second, flying a poly-Climmax.

CVRC 24th Annual "FALL-FEST" 1997

By "Sensei" John M. Roe
Photography by David M. Sanders

Visalia, the legendary name among thermal duration fans in the United States, is billed by the host, the Central Valley Radio Controllers (CVRC), as the "Largest RC Sailplane Event in the World"; it is something like Mecca to the faithful. At least once in the lifetime of all true soaring enthusiasts, the trip to Visalia in the fall must be made. I was anticipating quite an experience, judging by the fact that everyone I know, at every contest for months leading up to this holy of holies, asked me the same question, "Are you going to Visalia?"

...I wasn't disappointed.

This year, 272 pilots registered to compete in four classes: Open (214), "Grey Cup" for pilots over the age of 55 (28), Nostalgia (21), and Two Meter (9). All the classes were flown concurrently, so at any one time you could see all sorts of different types of sailplanes, from the newest, molded super ships, to the much-beloved wood-and-kote models of yesteryear. A sign of the times was seen in Two Meter, with an EPP Foamy being flown by its designer and builder, Dave Sanders.

With this amazing number of competitors all in the air at once in four classes, one might wonder just how the organizers of this event kept things moving along and under control. The answer is with superb management. I was very, very impressed with how totally smooth the entire contest

**Visalia 1997
Table of Results**

Open Class Standings (Top 25 of 214)

#	Name	Plane	Score
1	Thomas Akers	Blackhawk	7290
2	Gordon Jennings	Blackhawk	7272
3	Steve George	emerald Pro	7260
4	Greg Johns	Super V 100	7258
5	Scott Condon	Super V 100	7250
6	Keith Kindrick	Emerald Pro	7249
7	Jason George	Emerald Pro	7243
8	Hank Schorz	Addiction	7219
9	Jim Ludwigson	Prism	7206
10	Joe Wurts	Sapphire	7198
11	Aaron Valdes	Own Design	7194
12	Randy Spencer	Diamond	7191
13	Joe Rodriguez	Super V 100	7179
14	Bob McGowan	Thermal Eagle	7176
15	John Roe	Grand Esteem	7174
16	Mike Reagan	Addiction	7172
17	Mark Triebes	Spectrum	7163
18	Jim Skinner	unknown	7160
19	Dave Beardsley	Super V 100	7158
20	Ron Faulkenham	Mako	7158
21	Steve Condon	Maverick	7142
22	Jim Sneed	Blackhawk	7136
23	Scott Meader	Genesis SE	7133
24	Skip Miller	Emerald	7131
25	Mike Fox	Victory C	7129

Grey Cup Standings (Top 5 of 28)

#	Name	Score
1	Art McNamee	7117
2	Stretch Collins	7106
3	Keith Finkenbiner	7101
4	Clarence Nikkel	7055
5	Don Graff	6949

Nostalgia Class Standings (Top 5 of 21)

#	Name	Score
1	Mike Clancy	7051
2	Bob Sliff	6952
3	David Faeless	6927
4	Don McNamee	6893
5	Terry Rose	6882

#	Name	Score
1	Mark Hoffman	7088
2	Jerry Robertson	6548
3	Geary Keilman	6378

went; I have been to much smaller contests which didn't even come close to the level of professionalism displayed at Visalia. The whole process of competing was made very enjoyable by this skillful execution, with everyone knowing when they would fly, what winch they would use, etc.

The weather was also extremely cooperative this year, with mostly a light cross-wind or slight downwind condition, and occasionally even a headwind to launch into — unheard of at Visalia. The sky was clear and the sun warm, but not too hot. Awesome. Because of the mostly favorable

Visalia '97 from the air. This was shot from a full-scale power plane, which makes a series of low passes every year on Sunday morning. Not sure why, but every one seems to enjoy it.



Here is a line up of planes which were for sale. Many excellent bargains!

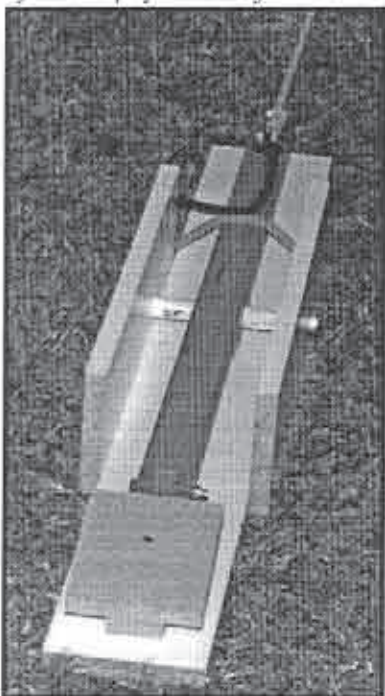


Merrill Farmer of MM Glider Tech. with his new Standard and 3 channel class all built up design.

winds, making the infamous Visalia landing task was achievable most of the time. However, I did witness a few hapless souls get caught in a strong downwind gust, flip a plane over for a "zero", or send the timer skyward in a desperate attempt to jump over an errant plane. The landing task this year was to hit the "bulls-eye", a 12" circle painted on the grass. If you accomplished this, you were awarded 25% of your flight time points. Surrounding this bulls-eye was a 1 meter diameter circle that was worth 15%, and surrounding that



The business end of the winches. There were almost no failures of any sort. A fantastic performance by the CVRC.



The catapult designed and built by Silent Squadron to launch their EPP Komet 163A slope combat plane; it worked so well that they are now selling plans and may kit it.

was a 2 meter circle worth 10%. The rest of the field was worth zero. For many pilots, making flight times was not too difficult most of the time, although there were times when it was possible to get in trouble, due to a sink cycle coming in behind a big lift cycle that happened to have moved downwind. Joe Wurts, in fact, elected to fly-out a line break, rather than re-launch, because the "only game in town" (his words) was a huge thermal, rapidly moving downwind with big sink behind it. He scooted off downwind and hooked, to make his time in spite of not getting a full tow. Others were not as "lucky" and found themselves searching the big Visalia sky in vain.



Gordon Jennings (L) and Thomas Akers (R), smiling after winning second and first, respectively, flying Blackhawks.



Well known scale enthusiast Rick Briggs (standing) and Dennis Brandt. Dennis had the crowd cheering with every landing he made, using the brakes to try and stop on the spot.

This year's winner, college freshman Thomas Akers, flew consistently and well, making at least a "10%" on every landing, and getting two "25%". Thomas is one of the younger pilots on the circuit, but doesn't lack experience, as he has been competing since he was 12! This August, Thomas went to the F3B world championships as a member of the USA team (ground crew) and will be practicing on weekends with the likes of Gordon Jennings and others up in San Luis Obispo where Thomas is studying Aeronautical Engineering. (What else?)

Second place went to Gordon Jennings, also a member of the USA F3B team (And, a pilot at that!), with Steve George in third.

In the "Grey Cup" class, open to pilots over the age of 55, we had Art McNamee in 1st, and in Nostalgia (planes designed and sold as kits before 1980), the winner was Mike Clancy. Two meter was won by Mark Hoffman.

Quite a variety of planes were flown in Open class, with Renaud Designs winning the unofficial (but coveted) bragging rights for the most planes in the top 30, with 5 EMERALD, all-molded, thermal duration (TD) planes on the "first page". Next came the ADDICTION (4, NSP), and the SUPER V (4, Levoe Designs); the

venerable Blackhawk (Selig Designs) had 3 in the money, including 1st and 2nd! Other planes, with one or two in the top 30, were the Genesis, Diamond, Grand Esteem, Mako, Maverick, Prism, Sapphire, Spectrum F3B, Thermal Eagle, and the Victory C. There were also, of course, some "own designs" up there. Any of the above planes in the right hands is more than capable of taking the day in modern TD competition!

Of intense interest to many, as usual, was the hand-launch contest held Saturday afternoon after the regular winch flying concluded. Approximately 60-70 pilots entered a fun, multi-task format contest, which consisted of an all-up first down (with the first downers being eliminated), then a self-timed (with no watch) 20 second precision flight with a loop and a hand-catch, then a SPEED run and, finally, a limbo contest. At each stage, the lowest scoring pilots were converted to spectators until only two remained for the final limbo. Joe Wurts hit the tape (barely) leaving the door open to myself to score the win; but alas, I also hit the tape. On the next run, Joe got it and I didn't. Joe wins again!

This contest was especially fun for the spectators, as hand launch is always fast-paced and in-your-face, with the action easy to follow without needing scorekeepers.

As always, the contests at Visalia were just one part of the total experience, with the renewing of old friendships and making of new ones the first priority for many of the pilots. Also, this year was a great one for entertainment with, believe it or not, ELVIS making an appearance and singing a set of his classics, while a catered barbecue party went on after the competition on Saturday night. This music and eating lent a carnival atmosphere to the spectacular bungee and rocket-plane demonstrations put on by Trick R/C (makers of the Zagi) and Silent Squadron. This part of the hobby has become very popular, both on the slope and at the field, with everyone oohing and aaahing as Komets, Zagi's, Razors, etc., were launched skyward at warp speed. The most innovative plane had to be Silent Squadron's Komet 163A which, after a radical catapult launch off their own design, foot operated, bungee plane device, had its rocket motor fired by remote control for a further smoky run up into the sky. Way cool. As it became dark, the Cylume sticks were broken out, and soon glowing green wingtips and noses were seen streaking and rolling all over the sky, while the mellower pilots relaxed and chatted, and Elvis gyrated and crooned. Surreal. Timothy Cone had a fantastic new product at the field called "Night Ops", which consisted of strips of some sort of tape-like material which, when powered up by a 9 volt battery, glowed like a neon sign! He festooned a DAW TG-3 foamy two meter with it, and even Joe Wurts had to take a turn or two spot-bashing it on an impromptu landing target (hat) in the dark.

The vendors who so generously support this classic event also played a big part, with their colorful booths and new products displayed at "show" prices. Many pilots come to Visalia in part just to see what they can't do without each year, and the manufacturers do their darndest not to disappoint. Some of the highlights in the booths included the new, larger presence of Multiplex, with their high-quality German equipment, and a whimsical new electric plane called the "Smiley"; although Karlton Spindle, the US Multiplex dealer, wasn't smiling when I almost splatted Smiley while doing touch-and-goes with it.

Also making their presence known was Cavazos Sailplane Design, whose speed 400 plane, the

Switchblade, was flown to first place at the NATS this year. They had a nice booth with lots of electrics and hi-tech slope planes.

Don Peters (who is not Canadian) of Maple Leaf fame was there. He is one of my favorite guys to talk to, and I was very impressed by his new "mid-range" hand-launch design. It's meant to have great all-around performance with good hang time in dead air, and great penetration and ranging ability in wind. To accomplish this, it is equipped with the new, very popular, MH-32 airfoil.

With the changes at Airtronics, some had wondered what would become of the Specialty Division, with the many great products and the support that Airtronics and the Renauds have contributed to the hobby. Well, it looks like instead of losing one manufacturer, we will be getting three! At Visalia was Ed Whyte, of Whyte Wings, the new owner of the Airtronics Specialty Division. He plans on continuing production of the SAPPHIRE and other popular planes, as well as bringing back the OLY II (available now) and other classic designs. Also at Visalia was Tim Renaud, of Renaud Designs. He will be continuing the Renaud presence in the hobby, and his EMERALD molded TD ship is one of the finest available. Airtronics themselves were there as well, with a booth and Stylus radios at the field to show the flag for Sanwa!

Another manufacturer with new and innovative products was The Bag Lady. She now has all sorts of "must have" items aimed at the soaring enthusiast. Besides her well-known wing-fuselage bags, she now has transmitter totes, tool rolls, and some items that had to have been inspired by her constant and crazy companion, Phil "the lost bozo" Lontz. How about a combination RX crystal and cigar tote? It just wouldn't do not to have a fat one on hand when the fat lady sings... Anyway, one of the cool places to hang-out between rounds was at The Bag Lady booth, where Daryl Perkins could be found telling tales of Turkey and F3B. I learned that eating something called "severed mergot" was a really, really bad idea.

There were many others at the Field, and there is simply not enough space to do them all justice. Suffice to say that Jerry Teisan (Trick R/C) and Pat Bowman (Bowman's Hobbies) were also a big hit with their foamy booths. Jerry is constantly coming out with more variations on the very successful Zagi, with some cool "silhouette scale" fighters coming on line. And Pat with his Javelin EPP hand-launch plane was very impressive, making it to the very last rounds in the hand-launch contest.

Unbeaten Path Imports also had a nice booth, and caused my buddy, Dave Sanders, a logistical problem when Dave purchased a 5 meter "Crystal" scale sailplane, as I had no way of getting it into or on top of my Toyota pick-up, our ride. The problem was solved when Mike Ziaskis of San Diego agreed to drop it off at Dave's on his way home. Unbeaten Path has a must-have catalog with some of the



Here is the real thing, an all-out go for broke (or break) contest landing. Notice the grass flying up from the bulls-eye and the wings rotating on impact.



Two kit manufacturers getting some rare R&R. Pat Bowman (left) and Dave Sanders throwing their respective EPP foamy hand-launch kits skyward.



One of thankfully very few crashes. Most were caused by flying the wrong plane in a thermal, a constant possibility at large contests.



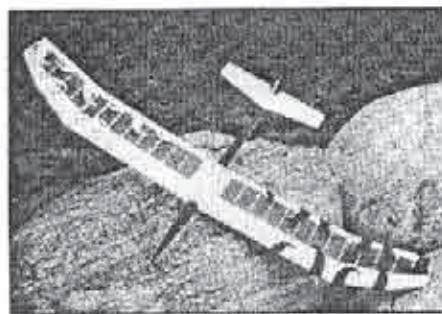
Christine Cassidy, the actual Bag Lady and her latest wares.

top scale and competition planes from Europe, as well as many accessories, including Voltz servos.

This contest is the last leg of the Western States Triad, three contests held in Arizona, Pasadena and Visalia; the scores are added together from each event to come up with a "top west coast" winner. This year, once

ILLUSION

Precision Hand Launch Glider Kit



You don't need to pay high prices to compete in Hand Launch events. The Illusion is "a poor man's hand launch glider" that took 4th place in its first competition. It delivers lots of hang time, is stable and turns on a dime. The kit comes complete with hardware, full-size plans and machine-cut parts. Try one yourself!

\$41.95

plus \$5 S&H; California residents add \$0.46 sales tax.

SPECIFICATIONS

Wing Span: 55-1/4 in. Wing Area: 418 sq. in.
Cord: 8" Airfoil: SD7084
Flying Weight: 12-18 oz.

MM Glider
Tech

P.O. Box 39098
Downey, CA, 90239
(310) 823-2414

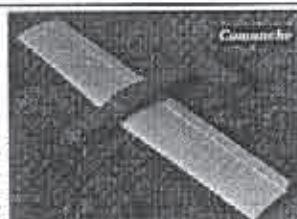
Ruffneck



Be prepared for Slope Combat Competition. The Ruffneck Arrow and Ruffneck Comanche are the choice of Champions and Champions-in-the-making. The Arrow and Comanche are known for their superb handling qualities and durable nature.

The Arrow and Comanche are also designed to be used as trainers on the slope and off; each can be fitted with a tow hook for high start launches in your neighborhood field.

Competition or training, think Ruffneck.



Arrow/Comanche Specifications:

WING SPAN 48"
FUSE 34"
WING AREA 408 SQ. IN.
AIRFOIL RG 15
WEIGHT 28-32 OZ.
WING LOADING 9.7-10.7 OZ./SQ. FT.
PRICE \$59.95 ea + \$7.00 S&H + CA Tax

Kit Features include: EPP Foam Wing with Carbon Fiber Spar, LPP Foam Fuse, Complete Tail Section, Hardware, including Control Rods/Links, Instruction Manual with Pictures.

Bowman's Hobbies

21089 Susan Carole Drive, Saugus, California 91350 (805) 296-2952 FAX (805) 296-9473

e-mail Ruffneck1@aol.com

again, it was Joe Wurts who left carrying the perpetual trophy.

The last event at Visalia and, as always, not to be missed, was the enormous raffle, with a huge pile of some awesome prizes given away to lucky winners. In fact, "not to be missed" could be a good theme for next year's "Fall-Fest". It will be Visalia's 25th anniversary, and the organizers are already promising to make it something very, very special and... Not to be missed!

...See you there next year! ■

NEW PRICES!!
PJ's EPOXY
 "I've used West Systems and EZ-LAM, and PJ's Epoxy is the BEST. It's all I use."
 ...Chris Boutlinghouse, C.A.B. Designs
 Maker of the Corn Dogger HLG

- ✓ PJ's Epoxy is a crystal-clear, low-viscosity epoxy, perfect for vacuum-bagged wings & epoxy-glass fuselages.
- ✓ PJ's uses a tri-functional hardener that gives it an edge in strength over other brands.
- ✓ PJ's cures as clear as glass, with a "crispness" that other epoxies never achieve.
- ✓ PJ's has a working time of at least an hour, even in 80°+ heat.
- ✓ PJ's is low odor, and not super critical on mix ratio (2:1 mix).

12 oz: \$10 / 24 oz: \$17 / 48 oz: \$27.50
 96 oz: \$48.50 / 192 oz: \$79.50
 (All prices plus shipping. Texas residents, add tax.)

PJ's Epoxy: (512) 990-2858
 P.O. Box 1118
 Pflugerville, TX 78660



WINGS BY FINNEY'S!
OBECHI & WHITE FOAM

RG-15 & SD7037
 REINFORCED WITH
 CARBON FIBER & GLASS CLOTH
NEW \$4083 FOR 60" WINGS
 1.5 METER 60"
 7.5" ROOT CORD

4 PANEL POLYHEDRAL	\$80
2 PANEL ROUTED AILERONS	\$65
2 PANEL NOT ROUTED	\$60

2 METER 78", 9" ROOT CORD

4 PANEL POLYHEDRAL	\$75
2 PANEL ROUTED AILERONS	\$80
2 PANEL NOT ROUTED	\$75

BALSA LEADING EDGE & WING TIPS ADDED \$20

NEW, TEMPERED, STAINLESS STEEL TOW HOOKS 6/32" SIZE! GREAT FOR UP TO 2M GLIDERS! ...\$4.99 EACH

ADD \$10 SHIPPING PER ORDER IN CONTINENTAL U.S.A. PLUS TAX FOR GA RES.

FINNEY'S HOBBIES
 3455 Peachtree Industrial Blvd.
 Ste. 980, Duluth, GA 30136
 (770) 495-8512 • fax (770) 495-8513
 finneys@mindspring.com

VISA • MASTERCARD • DISCOVER

The rare double. Daryl Perkins won both the 1997 Torrey Pines International Hand Launch Festival and the AMA/LSF Nationals flying box-stock Maple Leafs. Think about this: Daryl can fly any Leafs. Just in case you might Leafs are cranky, think about this: neighborhood toss field. Like he says, right to fly and



910.234.8800 or mapleleaf@aol.com
 2015 Garquinez Avenue, El Cerrito, CA 94550

be thinking that Maple fragile contest planes, Daryl lets the kids in his his around the local "No airplane has the handle this well."

The Contest Winning ZAGI-LE Combat Wing
 \$45.00

Wing span	48"
Wing area	2.83 Sq Ft
Airfoil	Zagi 12/5
Loading	7.50 Sq Ft
Weight	22 oz
Radio	2 Channel or Mixer

The ZAGI-LE COMBAT WING with an expanded polypropylene EPP foam leading edge laminated to the tough 2 lb. EPS foam core. Cover with 2.4 mil poly-tape. Complete hardware package. Available in seven colors. Only three hour building time

B2-A Fun Fly Foamie
 \$60.00

Wing Span	54"
Wing Area	489.6 Sq. in
Weight	23 oz
Airfoil	ZAGI 12/5
Loading	5.5 oz/sqft
Radio	4 Channel

YF-22
 \$65.00

Airfoil	Zagi 9/5
Wing span	48 inch
Wing area	600 sq in
Weight	37 oz
Loading	8.9 oz/sq ft
Radio	Std. 4 channel

The 2M Beater With Polyhedral or Ailerons
 \$90.00

The Beater features Die cut plywood parts, pre-cut servo and battery bays, die-cut Coroplast tail group, carbon fiber fuselage spars, beefy tow hook, optional built-up tail group kit available

Wing span	2M
Weight	44 oz
Surface area	673 sq in
Surface loading	9 oz sq ft
Airfoil	HQ3513
Radio	4 channel

The Razor Combat wing
 \$65.00

Wing span	48"
Wing area	408 Sq in
Airfoil	Zagi 12/2
Loading	8.48 oz sq Ft
Weight	24 oz
Radio	2 Channel W/Mtr

A high performance slope combat wing. All EPP foam cores and beds, carbon fiber spars with steel joiner, formed trailing edge and elevons, coroplast ramped winglets and a complete hardware package

New From Trick R/C A Low cost Cure for HANGER RASH

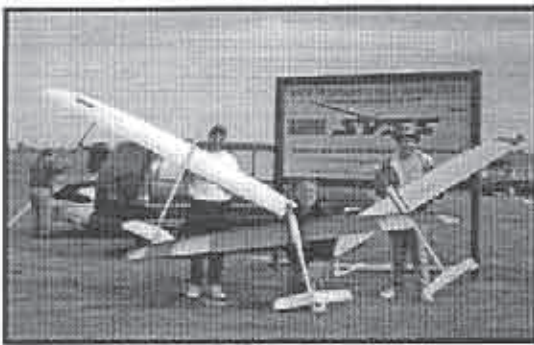
EPP Wing Gloves
 Protect your airplanes in the most scary and dangerous situations—in the shop and on the way to the field.

Wing Gloves are made of the skin of the EPP foam blocks. A quarter inch of the toughest part of the foam. You could call it "EPP hide." The Wing Glove is a complete protection system. Protection for wings fuselage and stabilizer. Heat insulation and abrasion protection. Great for shipping. Centers and immobilizes ailerons and flaps. No more narfed tips or tweaked control linkage. The test I gave it was dropping a Mekita 9 volt battery from 2 feet on to a molded Synergy 5 wing in a Wing Glove (picture left). The battery was held vertically and landed on the wing in that position. The wing and battery are fine.

Open Class (100"+), Std. \$35.
 2 Meter and 60 inch, Std. \$25.

Trick R/C 938 Victoria Ave. Venice, CA 90291 (310) 301-1614
 CA res. add 8.25% tax S&H \$6.00
 Email Zod@Zagi.com Visit http://www.Zagi.com

VISA



(L - R) Carl Otto (Pelican), Gordy Stahl (Polaris), Mike Clancy - LSF 5 (Grand Esteem)

An Esteem'd Idea Part 2

By Gordy Stahl
GordySoar@aol.com
Louisville, Kentucky

In Part 1, I interviewed Mike Popescu, CEO and basement genius of Inventec Corp. We talked about his belief that it was possible to create a sailplane that could meet a higher standard, and then promised to expose all the secrets of that design, in detail. In this part, I keep that promise, and you will be shocked at the depth of Mike's vision!

Here's something to start you thinking. The airfoil is the least important part of Mike's design, just as a setting allows a jewel to achieve its highest value. We have all enjoyed our toils with foils, but with all of the variations created by Selig, Eppler, Quabeck, etc, doesn't it seem odd every new ship seems to use the same foil? If that one is so good and so important, why create new ships with the same foil? Won't it fly the same? Well, forget all that for now; we'll get back to the subject, later.

This has been one of the most eye opening trips I have taken in the hobby. For one to fully appreciate what Mike has created, you have to follow the same streets that I took. This trip starts with comments from Grand Esteem and Pelican owners. You see, I got the idea to interview because I started noticing sort of a pattern.

First, I noticed a catchy advertisement for a neat looking ship that no one seemed to be using for contests. Then, there was the occasional, little article about the designer's unusual choice of airfoil. Then, I noted a little more attention paid from guys trying to guess what his modifications were, since other ships had come out with the foil and not been all that exciting. Then, I noted a growing number of e-mail comments, which all seemed to have a common theme about the guy's ships. This all took place over a period of years... I asked myself, "Why wasn't this guy's ships fading away like most?"

So, let's start with some of the comments. I warn you, this part will be enough to give you a toothache; but read them carefully, cuz buried in them is Mike's concept point, proven.

John Roe, a California martial arts Sensei, and extremely new thermaler, began flying thermal duration in January; in March, he

bought a second hand Grand Esteem. It wasn't long until he was consistently placing in the top five in local contests at Torrey Pines Gulls events. He took first, three times in a row. Just recently, he distinguished himself at Visalia, competing against some of the most skillful sailplaners in the U.S., by placing 15th. He even took a first in a Master/Expert contest held by the Soaring Union of Los Angeles. At the F3J team trials in Michigan, John warmed up by skying his Grand E off of handlaunches.

At the opposite end of the experience spectrum is Ben Cleveland of Orlando Buzzard fame. Ben has been competitively soaring for 17 years. His son Don (40+), of Houston, Texas, also flies. Ben posted, "The Pelican is the best sailplane I have flown or owned." Don said, "I feel very comfortable going to a contest with my Grand Esteem. I know it can easily exceed the abilities of my thumbs. I'm confident that if any ship can find the air, my GE can. Landings are nearly a given, because of its predictability."

Jim Monaco of Bolder, Colorado, and self proclaimed "sportsman" level flyer, posted, "I flew and owned other popular unlimited ships and never felt as comfortable or confident in their abilities as I do in my Pelican. I am the kind of flyer who when down to 40 or 50 feet, I'd give up and land, instead of chancing a stall and crash... Well that was the old me! Flying my Pelican, I now go for that extra few turns. I even took third in a recent contest!" It's the ship he hoped he'd get, each time he had sent his money, the times before...

Another California guy, Shawn Keller, agonized and queried the Internet soaring forum about which new ship to drop the big bucks on. He decided on a Pelican, finished it on a Friday, tested and tweaked all day Saturday and won the contest on Sunday. He said, "It was a tough contest, the air was total up, everyone was getting their time. So, it all came down to making the landings. My Pelican felt so solid, so predictable, I just felt really confident about hitting the landing zone. An added kick was being the guy who was getting the huge launches, for a change!"

Tom Hoopes of Utah, one of the most helpful and intelligent sailplaners in the hobby, recognized why his Grand Esteem worked so well. Here is some of what he posted to the Internet. "Being a proud and happy owner of a Grand Esteem, I thought I would share a post that I had sent some months back when a modeler asked which airfoil he should look for in his new ship. He seemed to be teetering between a 7037 and the 7080. I posted this: Unfortunately, airfoils are not like a cheap pair of socks, one size does not fit all. One airfoil may exhibit qualities that are good for a certain type of flying and not for another. Which is better, the 7037 or the 7080? Some reputable pilots have been very outspoken about how little they like the 7037."

"The way I see it, an RG15 will scoot circles around a 7037 and a 7037 will out hang an RG15; which is better? You see, comparing one airfoil to another is silly; I think you have to see how they match up to the

overall task. A thermal duration ship needs to be versatile, it needs to have a foil with adequate lift, but it also has to be able to move. However, in my opinion it needs to do it with as little drag as possible. What I have experienced with my Grand Esteem is that the 7080 is about that middle of the road. It scoots better than the 37 and hangs better than the RG. (Did I mention that I really enjoy flying my Grand Esteem?)"

Enough already!!! Okay, no reason to discuss the foil since Tom just gave up the skinny on it. It's sort-of good, at everything.

One more comment to sum up all that gushy testimonial. East coast guys fly in different conditions than the west coast guys. They have a kidding feud about the ships each think are the best. Since the P and GE are made on the east coast, I didn't bother printing comments from there, figuring they'd be biased. I think you can now see the pattern I picked up on. Guys from all over the USA, of varying thumb skills, were enjoying the same planes and telling the same stories.

Okay, then what makes Mike's design so universally successful, confidence building and comfortable to veterans and rookies alike? Keep reading!

I asked Mike to explain it to you himself. The explanation that follows will make it clear that those testimonials weren't due to some mass hypnosis, but rather a very deliberate attempt by Mike to produce a universally effective sailplane of mass satisfaction.

Here's Mike!

"Three observations became the criteria that helped me clarify what the focal point needed to be for my design.

- 1) Most planes will climb in a thermal.
- 2) All planes will come down in sink.
- 3) Few planes will hang as well as you would like in mediocre air.

"Unfortunately, big thermal days are rare; fortunately, those stinking sinking days are, too (unless it's a contest day). Mostly, we end up flying in conditions somewhere in the middle. It's those days that can tell you if you like or hate your plane... Keep it or kill it. So, what you actually get in your kit is a bunch of parameters squeezed together to make a plane. Here is what I squeezed into my ships.

Full utilization of the only fuel on board, that being the lift the wing can generate via a dragless design. That means choosing a planform capable of maintaining an undisturbed flow over 80% of its area and having wing tips designed to contribute toward that goal. (Keep in mind that Mike utilized a triple taper design on his Esteem three years ago! Gordy) Clean airflow translates into less drag. Incorporating this type of planform with a lesser lifting and correspondingly reduced drag factor airfoil, pays dividends toward that less drag design.

"A light and swift wing frame (meaning planform + airfoil) that will rise in the lightest thermal and, in its absence, will travel on top of those winds and gusts that push you way down wind and way up



Polaris in the foreground, with Carl Otto and Pelican in the background.

high, only to find you have made your time. The key, a design that best utilizes the energy available, one that focuses on less losses of energy to drag.

(Wait a second! A lesser lift airfoil???) Compared to what? To another airfoil maybe, but not to the total lift that a plane needs to stay aloft in neutral air. The key to choosing a foil is to get one that provides sufficient lift to accomplish its task. The error has always been to assume that a foil with excess lift provides some added value to the plane's abilities. Excess lift ability translates to drag. High lift might mean up, but as you know, making time is not just the ability to get high, but the ability to get up, follow that lift, and return in those usually mediocre conditions. To do that you have to stay with a drag less design.)

"Preservation of the only fuel on board. That is accomplished by reducing the "pit cups" created at the fuse to wing intersections. Raise your arms up in the wind and you can feel the wind resistance created at your arm pits. Those pit cups throw on the brakes every time your plane raises its nose to the airflow.

"Preservation is also achieved by a thin fin design, mounted almost vertical, so that vortices trailing the rudder remain weak, avoiding build up and drag.

"Last but not the least part of importance to that design - a long tail-momentum fuse to require very little deflection of the flying stabs and to provide a complimentary effort with the main wing. Any wing will rotate in flight to an angle of incidence dictated by its own airfoil characteristics.

"This is not the incidence the designers set in their wing relating to the fuse. This is the pitching moment of that particular airfoil that makes her rotate and take the minimum resistance pathway. Those are free bodies and will act accordingly. The job of a stab is to help in maintaining that wing angle of incidence. Anything more or less is detrimental. Also, too much stab area is less desirable, because of the added drag that it produces. If in landing, a plane has enough authority to maintain the craft on a stable descent approach, that plane has enough stab area.

"My planes were designed with full recognition that all the airfoils we need for our applications have been developed and available. I'm not implying giving up on foil research, just stating that we haven't taken full advantage of the one's we already have... And the one's we have, already exceed our use needs.

"A simple calculation will reveal to anyone

interested, how much weight a good wing design can lift for neutral air flying. Again, for those big thermal days, anything will do. The Inventec mission was to design a plane utilizing one of those foils, without jeopardizing its good characteristics and to avoid aggravating bad ones. That translates into having a clean aerodynamic, overall, design. So, in my opinion, dragless is the key, not airfoils. Clean, smooth airflow over the entire airframe will always provide superior performance, with less thumbing needed, on those days of mediocre air conditions. That is what I put into Inventec boxes."

So, why does Inventec offer a couple of different ships?

Some guys fly flat, patient and smooth, and then there's the rest of us who like to aggressively seek out our air, jerking and pulling our thermal turns like battling a demon. Smooth and flat is more efficient and allows for a more efficient use of that fuel, but more on this part near the end.

The original Esteem was the breakthrough machine, a plane that worked great in average air. It was the sum of all the research Mike had done, as detailed in Part 1 of this article. It featured a T-tail and Obechi sheeted wings. This ship showed Mike two things in particular.

One, that while a T-tail *might* be optimum placement for a stab, having a fixed stab made the plane susceptible to incidence alignment faults. The assembly, if made strong, increased airframe weight where it was not wanted. It wasn't too long before the full flying stab was offered and became the standard for Esteems.

Second, the Obechi reacted wildly to moisture, varied in density and thickness and would not allow the super sharp trailing edges needed to compliment true airfoil integrity. The Esteem was and is an excellent ship.

Spar system arguments still rage on, yet Mike needed one that provided more than strength. He wanted a system that didn't corrupt the airfoil integrity, one that was simple to install for productions purposes, yet was enough to withstand some winch abuse. The tube and joiner system filled that criteria. Like the airfoil not needing to be the best lifter, this spar is not the strongest possible, but plenty for our needs and relatively light. The floating joiner concentrates the majority of stress on a single point and, with that in mind, allowed for design attention for that point. It virtually ended fuse cracks around the joiner. A nearly flex-free carbon wing rod allowed for an additional weight savings.

This system has now become the norm in most kits sold today. (However, in spite of their slight flexing, Mike now prefers an aluminum joiner, as it seems less susceptible to the carbon rod failures experienced by some, due to invisible resin degradation at the stress joint.)

Built up tail surfaces just didn't comply with the overall design goals, so Mike went with all composite stabs and rudder. (While built components are lighter, he felt the airfoil integrity justified the small weight penalty.)

Next came the Grand Esteem, the name

coming about by designing a ship that encompassed all that Mike had learned from flying, building and listening to Esteem owner's desires. It incorporated improved, speedier and more consistent component construction techniques, and of equal importance, truer airfoil integrity through the use of composite wing surfacing and, of course, those ever so important sharp, drag reducing trailing edges.

The wing intersections of the fuse, noticeably different than all other ships available, and well proven on the Esteems, were still there, as well as the conventional canopy that most purchasers seemed to prefer. My personal test flights of this ship, in comparison to simultaneous flights of the Pelican, showed the Grand Esteem to fit the description of various owners, as an "Agile Cruiser", or maybe, "handy and comfortable". (Very popular with the "yank and crank" style of flying. The clean energy usage of the design really pays off for this kind of flyer at 20' and still working air!) The GE uses a symmetrical airfoil on its stab, working at the idea of just enough area, reduced drag, yet effective when deflected a small amount (The Pelican comes at it a different way.) This ship is the one that seems to have bridged the needs gap of East and West.

However, Mike began getting the feeling that another ship with some different looks and handling characteristics was needed to fill the bill for a different kind of thumber. Guys who were happy with the GE would comment that they wished they had something a little less agile, but that was optimized for a smoother, flatter, more patient kind of flying, since they had learned that style over the years of flying the polys of the past.

At first, Mike's pride in his baby, the Grand Esteem, kept him from taking the idea seriously; then, while on a vacation in St. Martins, he became transfixed by the beauty and energy conservation of Pelicans soaring. His customer's words seem to come to life as he watched the very flat and calm turns these birds made, for hours on end, in the slightest of sea breezes. He was a man renewed!

Those birds got his mind going again, and a new ship idea presented itself. His non-stop talk at the field about those Pelicans, prompted Herk Stokley to offer "Pelican" as the name of the new ship.

The Pelican, while in some ways an improvement on the Grand Esteem is, in reality, an alternative. Optimized for a flat patient style of flying, it exceeds the GE's L/D, and even launch height - if flown in that style! If you are by nature a yank and cranker (like me), then quite probably the GE is your ship. (I know that some of you might say, "Oh no, Gordy, you can't fool me. I am going for the most L/D and launch heights; that's what wins contests!" Except, you would be wrong, in my opinion, because you are still stuck on airfoil-itus type thinking, and not taking into account the enjoyment factor.

Switching styles isn't easy and habits are hard to break; the difference MIGHT get you another minute sometimes, but the

comfort factor of confidence is part of your flying equation. Having a ship matched to your style means not having to think about style in those low air battles. So, why does the Pelican work so well with that particular style?

First, let me explain about the fuselage. The slip-on nose has become popular and lent itself to the slim, beak-like look of the bird. The wing intersections are still optimized to reduce drag potential of the pit-cups. The wing, flown in a flat smooth style, was optimized by transitioning Mike's modified 7080 at the root to a 7084 (thicker) at the tip. That meant more of the wing was effective for maintaining lift over more of its surface.

Adding a different approach to the stabilizer's function, Mike changed to an inverted E374 foil with a minutely larger cord, to better assist that added lift developed by the wing. With a little more drag to the foil there is a smoother response to pitch through a more active control over that incidence thing. Hence, the description of Pelican owners, "Smooth Cruiser", the ability to move/penetrate without futzing with switches, presets and ballast, yet a feeling of those old ships in a thermal.

Now for the third ship in the group. Sailplaners had been telling Mike that they love the Pelican style, but would prefer it in a roomier, easier to see, more conventional, canopied fuse. Also, the ability to ballast for those "occasional" super windy contests. They wanted a ship adaptable to F3J, and they all always want light weight. So, along comes the "Polaris", a design intended to polarize the desires and needs of the entire continent's specialized interests.

It features the Grand Esteem's fuse, which also reduces the overall ship's weight, mostly due to its roomier nose and lack of nose cone. It uses the Pelican wing and stabs. The wings have carbon ballast tubes pre-installed. Hence, a synergy composite of materials, design, aesthetics, and

technology.

What happens next? All molded ships, of course, the only way to achieve uniform consistency of production, airfoil integrity, strength and, hopefully, costs. Molding ships has been prohibitive due to the expense of the mold. With the trend toward *model of the month*, having an expensive mold made would be nuts, unless you had a proven design that was able to get its time and make its landings in that oh so common, mediocre air. This design would also have to be accepted universally, across the nation, for a good period of time. Obviously, no gamble here. What will it look like, will it be hollow molded, what about price, which ship will it be, or all?

Find that out on one of my future trips!

Did this article sound like an advertisement? As a salesman, I know that products that need selling, don't last. These ships do sell and continue to be purchased. I wanted to find out why. For it to be even close to an advertisement, I would have to mention Mike's no-fault guarantee that promises, "You wreck it during the first year, and Mike will contribute either a wing panel or a fuse to the repair, at no charge," and possibly mention kit contents and the like. I won't though.

Hope you enjoyed this trip. See you on the next, *Gordy's Travels!* ■



**GRAND ESTEEM
BABY ESTEEM
& PELIKAN**

*If you would like to
have one, call:*

*Inventec Corp.
(215) 953-1736*

BUILDING WITH TODAY'S TECHNOLOGY



Composites

High Quality - Large Selection - Fast Service

Carbon Fiber

Braided Sleeves, Laminates, Plates, Sandwich Panels, Rods, Tubes, Tissues, Tapes, Prepreg, Unidirectional and Bi-directional Fabrics

Fiberglass

19 Styles of Cloth, Woven and Unidirectional Braids, Tapes, Tissue and Chopped Mat

Epoxy

WEST SYSTEM® and PRO-SET® brand Epoxies, Fillers, Accessories and Tools

Vacuum Bagging

Pumps, Bagging Kits, Systems, Bag Seals, Breathers/Bleeders, Bagging and Release Materials

Foam

Rohacell, Spyder and EPP

Ask about CST Saver's Club
Call for a free catalog

Order Toll Free: 1-800-338-1278
E-mail: info@costales.com
Web Site: <http://www.costales.com>

Composite Structures Technology

P. O. Box 622, Dept. MS
Tehachapi, CA 93581-0622

J & C HOBBIES

Order Line 1-800-309-8314
Info Line 412-795-9344
24hr Fax Order line 412-798-9857

Focus 2 S.S. 72mHz AM	65.95
RDC Supreme Rx w/crystal	62.05
'535' Micro Rx w/crystal	67.95
IIS-60 Super Micro (16 oz/in)	38.95
HS-80 Sub Micro (31 oz/in)	24.95
HS-85 Mighty Micro (38 oz/in)	29.95
HS-101 Mini (24 oz/in)	21.95
HS-205 BB Super mini (43 oz/in)	27.95
HS-225 Super Mini (50 oz/in)	29.95
HS-525 BB Hi Speed (47 oz/in)	35.95
HS-545 BB Hi Torque (62 oz/in)	35.95
HS-605 BB Hi Torque (77 oz/in)	37.95
HS-615 MG Super Torque (107oz/in)	46.95

CIRRUS SERVOS

CS-20 Sub-Micro (world's smallest)	22.99
CS-30 Pro Mini	19.99
CS-70 '148' Type	10.99
CS-70 BB Standard Pro	14.99

AIRBORNE PACK SPECIALS

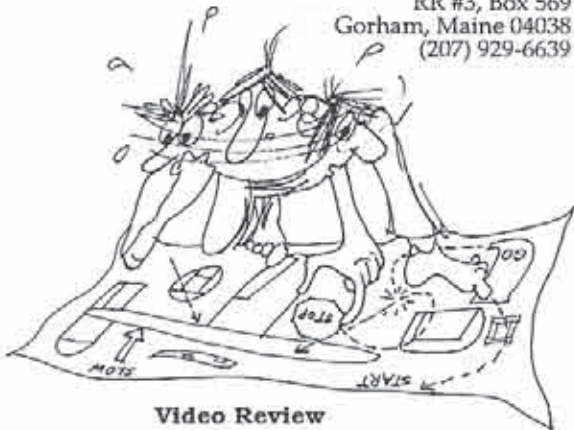
Combs include: '535' Micro Rx (w/crystal) switch harness & aileron ext.

#A	3	CS-20 Sub-Micro	129.95
#B	2	CS-30 BB Mini	105.95
#C	4	CS-70 Standard	108.95
#D	4	CS-70 BB Pro	122.95

J&C Sound Security 19.95
A MUST FOR EVERY SAILPLANER
(Check Interference, Range Check, Lost Airplane Locator - Low Cost Insurance)
Shipping & Handling ... \$5.00 (Continental U.S.A.)
Most Orders Shipped in 24 hrs
J & C Hobbies - 100 A Street
Penn Hills, PA 15235
Visa / Mastercard / Discover Accepted
Prices Subject to Change Without Notice

"SHORT CUTS"

Steve Savoie
RR #3, Box 569
Gorham, Maine 04038
(207) 929-6639



Video Review

"R/C Soaring from the Ground Up"

I was recently asked to review a 90 minute tape, from Soaring Stuff, that's advertised as a must if you don't have an instructor. So, wanting to get a non biased opinion from a true beginner's aspect, I asked my wife, Vicky, to watch the tape and give me her opinion. Being one who always gives her opinion, I thought this review would be a breeze. Well, I wasn't getting out of it that easy.

She watched about 2/3rds of the tape and had two pages worth of questions and comments. It appears that my method was flawed; there were just too many questions. It would make sense that a beginner would have the plans, kit contents, and directions in hand when he/she watched the tape. This would probably have shortened the number of questions by half. So, back to the old VCR. I planned to take notes as if I were a pure beginner.

The quality of the audio and video is excellent, and the camera angles are very good.

The tape starts out with a short review of power and hand tools. Several neat, homemade tools were shown and demon-

strated; I plan to add some of these to my own inventory. A 2 meter Gnome is used to demonstrate some really ingenious building methods, several of which take advantage of using existing kit parts to measure out, fit, sand, and template other components; many of these methods I'll plan to use on my next built-up kit (Skeeter HLG). The video even demonstrates a very good method for adding a reinforced throwing hole for hand launching; a nice touch.

The first component built is the fuselage, and takes far less time assembling than normal, by taking a few short cuts and employing a few building tricks. The one piece, two meter wing is built up over the plans, with proper emphasis

placed on good building practices, in order to yield a strong, winchable wing. A two piece wing option is also discussed during this segment. A brief discussion and demonstration follows on the topic of covering a built up wing.

The tape then moves back to the tail group. These building methods should be quite helpful in showing a beginner how to build a flat, yet strong tail. This section even demonstrates hinging the elevator through a tape hinge, which is great. Both vertical fin and rudder are built as one unit, and later separated; another good tip for the novice. From here, the tape moves back to the fuselage to cover servo installation.

The center of gravity position and its impact of the plane's pitch and control is also discussed, which is a great topic to have in a beginners film. Multiple tow hook locations were built into the fuse, which is yet another good idea for the beginner to build into his/her first plane.

The tape culminates with the first flight and trimming techniques.

All in all, this tape covers a lot of great building techniques that could be incorpo-

rated by even the most seasoned builder. However, the tape is lacking in some areas, and should not be considered a one way ticket, where a novice need only purchase the video along with his/her first plane. Don't get me wrong; the tape shows great techniques, but it's not so complete that a mentor is not required.

An example of this is the omission of assembling the rudder and horizontal stab onto the fuselage; in fact, wing installation is not discussed, either. The purpose of a trainer should allow the novice to first learn building and flying techniques. The tape, however, starts off by modifying the fuselage width and electronic placement to improve performance; hence, building a "contest" plane through the use of carbon fiber tapes to the spar caps.

Another area I feel should have been discussed is servo linkage hook-ups and linkage geometry; remember, 4 channel radios don't have electronic and end point centering. Linkage set up, soldering, control horn installation, and wire finning should all be discussed in a true beginner's video. My only technical error note was that washout was not discussed during the building of the partially sheeted wing; it was later shown and discussed for another plane in the video, which had true open bay construction. Twisting the wing and using a heat gun to hold the washout is kind of tough with a partially sheeted wing.

I would have had a better feel for the tape if its intent was to discuss advanced balsa building methods and kit modification. While I strongly recommend this tape for every club's library and beginner alike, I feel that the beginner should augment it with the guidance of a seasoned builder, instructor, or mentor.

Soaring Stuff
9140 Guadalupe Trail N.W.
Albuquerque, NM 87114
(505) 898-8281

<http://www.3lefties.com/soaringstuff/>

Announcing the FIRST ALL LASER CUT Sailplane Kit!

The precision of CAD-CAM Laser cut parts are far superior to previous methods of designing and manufacturing. Parts fit so well, it makes this complex kit

easy to assemble. The strong, full

D-Box, double shear-web

wing allows for super

winch launches; the

large flaps and ailerons

add to the great

SD7037 airfoil performance.

Terrific performance, style, accuracy of

parts, and at an affordable price!

The Mystery Ship has ailerons, flaps,

rudder, and full flying T-tail. The wings

are plug-in; 2 micro servos for

ailerons and 2 mini servos for

flaps are required. Standard

size gear will fit in

fuselage.

Mystery Ship?

Retail **\$169.95**
only **\$149.95**

FREE shipping in continental U.S.

Wing Span	116 in.
Wing Area	973 in. ²
Airfoil	SD7037
Aspect Ratio	13:1
Fuse. Length w/Rudder	53.25 in.
Wing Loading	8.8 to 10 oz./ft. ²
Flying Weight	62 - 69 oz.

Say you saw it in RCSD and save \$5.00 more! *The mystery is why pay more?*

Major Hobby, 1520 "B" Corona Dr., Lake Havasu City, AZ 86403

Orders Only: 1 (800) 625-6772 Info: (520) 855-7901 FAX: (520) 855-5930

Closet Scale Stuff At Sailplanes Unlimited, Ltd.

1/3 Pribek ASW 27 - 5 meter span (196"), wing profile HQ 2.5/12, ca. 20 lbs.

1/3 Müller Discus - 5 meter span (196"), wing profile HQ 2/12, ca. 20 lbs.

1/4.2 FiberClassics Nimbus 4 - 6.28 meter span (246"), wing profile E 68-66, ca. 18 lbs.

1/3.6 Roedelmodell DG 800 - 4.15 meter span (163"), wing profile E 207, ca. 11 lbs.

1/3.75 Roedelmodell Fox MDM-1 - 3.8 meter span (149"), wing profile RG 12, ca. 15 lbs.

1/4 Roebers Pilatus B-4 - 3.75 meter span (147"), wing profile Ritz 3, approx. 8 lbs.

1/4 Roedel Piper Super Cub (scale towplane) - 2.687 meter span (105"), wing profile Clark Y mod., approx. 15 lbs. This airplane is partially built. It requires additional building and covering. Suitable motors are OS 160 T, OS BCX-1, Brison 3.2, or similar.

1/2.77 PriBek ASW 19 - 5.4 meter span (212"), wing profile Ritz 3 mod., ca. 20 lbs.

1/3 ASK 13 - 5.33 meter span (209"), wing profile E 68-67-66, ca. 32 lbs. Completely built & ready to fly with all servos installed, brand new, unflown.

1/3.5 Roke DG 202 - 4.86 m span (168"). Completely built including all servos.

Please call for additional info: (212) 879-1634.



Saturday Morning and the fog is burning off while the fliers gear up to compete.

started and, at that point, the models may be launched. A warning signal is given 2 minutes before the end of the working period, and a signal is then given at the end of the working period to announce the end of the working time. The models must be in contact with the ground before the end of working time signal is given or otherwise the modeler's flight score is penalized. Landing points are awarded with 100 points for 0-1 meter from the landing spot, 95 points for 1-2 meters, etc. The scores for the flight group are then tabulated and normalized and the flier with the highest score receives 1000 points.

To select the 1998 U.S. F3J team, preliminary rounds were flown on Saturday and Sunday and the top ten fliers from these rounds then flew in the fly off rounds on Monday. There were twenty six fliers entered for the team trials. At the pilot's meeting Friday night, the decision was made to fly as many rounds as could be flown each day, with Saturday and Sunday to be the qualifying rounds and Monday being the fly-off rounds. For each 6 rounds during qualifying, there would be one throw out round. Every fly-off round would count on Monday.

The Electric Connection

By Mark Nankivil
7411 Canterbury Ave.
St. Louis, Missouri 63143
(314) 781-9175

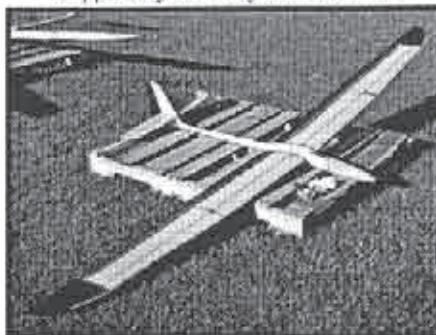
F3J Team Trials

The '97 Labor Day weekend saw glider guiders from all across the U.S. gathering on the sod farm of Jim & Mitzi McLeod, located south of Grand Ledge, Michigan, to participate in the first ever U.S. F3J team selection. Hosted by the Greater Lansing Area Soaring Society with Larry Storie as the Contest Director, the top three fliers and first alternate would be selected to represent the U.S. at the 1st F3J World Champs to be held in Great Britain in 1998. As this is a new FAI class, a short description of what F3J is might be helpful.

F3J is a pure thermal duration event, unlike F3B where speed, distance and duration are flown. F3J models must meet the FAI requirements for weight and wing area and the typical model is similar to the U.S. Unlimited Class with wingspans in the 118" to 140"+ range. The models are launched by hand towing and the tow line is 150 meters long. Monofilament line is used almost exclusively because of the extra stretch and energy that can be imparted to the launch of the model. Towing can be with one or two towman, and either a direct tow or the use of a pulley is allowed. Launches are every bit as good as the typical club winch. A minimum of 5 qualifying rounds are flown to establish the top fliers (a minimum of 9 fliers), who then go on to the 2 fly-off rounds. The fliers are divided into flight groups; these flight groups are mixed so that each flier will fly against everyone by the end of the qualifying rounds. The qualifying rounds have a working time of 10 minutes; the fly-off rounds working time is 15 minutes. Flying starts with the flight group being notified that the 5 minute preparation time has started. At the end of the 5 minute prep time, a horn or other signaling device is



Skip Miller with his Renaud Emerald. The Emerald is a molded version of the Airtronics Sapphire - both now being supposedly kitted by Tim Renaud.



Molded Kevlar Blackhawk flown by Bill Wingstedt of Oswego, Illinois.



'98 F3J Team member Ben Clerx releasing his Müller Esprit on the horn. Usual technique is to tension the tow line during the last seconds of the countdown and release the model on the horn - every second counts!

Saturday morning found fog covering the sod farm, but this burned off before the first flight group reached the launch line. The weather for the weekend overall was quite varied, which actually helped out with selection process. As Saturday went on, the clear skies gave way to a solid overcast with a steady, light breeze out of the south, varying from 5 to 12 mph, the lift/sink cycles becoming more defined. Lift at low altitude seemed to be non-existent. I did not see anyone pull off a low save at anything less than 150 feet or so. The key was a high launch, fly smooth, and watch what the other models/fliers in your flight group were doing. Flight groups were typically around 8 fliers, and it was important to "cover" those in your flight group, so that you wouldn't risk being buried by someone breaking away and finding the only decent lift. That didn't happen but maybe a couple of time over the whole weekend. I won't go into a round by round description of the day, but touch on some of the highlights. Launches were with one or two towers, with most using just one because of the lack of helpers. The launches though were fast (typically 4 to 6 seconds on line) and with very good zooms. Joe Wurts had two line breaks in the first round due to improperly tied knots on the towlines, and took a big hit with a score of 672/1000, but as you'll see, he bounced back just fine. 1st round flight group winners were Arthur Markiewicz, Tom Akers, and Gordon Jennings. In fact, Tom Akers took 1000/1000 in the first three rounds. The end of the flying day saw 6 rounds being put in and no one sure of where they stood because of the throw out rounds.

We awoke Sunday morning to low, gray clouds and rain that had fallen in the early morning hours before sunrise. By the start of the first round of the day, the clouds started to break up and conditions settled into partly cloudy with the wind 10 to 15 mph out of the west. Flying today had a few more surprises and a couple of mid-air to spice things up. About 3 minutes into the working time of the second round, Arthur Markiewicz and Tom Akers' models made solid contact while working the same patch of lift. Both flew out the round for near maxes but, upon landing, Tom's Sapphire was found to have a broken right wing - it was amazing that it held



Larry Jolly giving the heave-ho to his Müller Esprit. The Esprit was the most numerous model type flown. Fully molded, SD7037, 124" span, 1000 sq. in., and 74 oz. weight. Those who flew the model in the trials rated it highly.



Josh Glaab (1st Alternate) sending his WACO Magic skyboard at the start of a Round 4 flight group on Saturday.



Michael Lachowski and Josh Glaab launching at beginning of Round 4, Sunday.



Mike Fox waiting for the working time and holding his Victory C. Trusty flying partner Rusty Shaw acting as timer/spotter.



Joe Wurts' models - top to bottom - Emerald, Sapphire, and Diamond F3B. The Diamond F3B model is what was flown by the U.S. F3B Team in the '97 World Champs in Turkey. Fully molded, RG15, 122" span.



Ben Clerx scoring 100 point landing with Müller Esprit. Ben was ultra-consistent at the landing tape as well as in the air.



Rusty Shaw's Viper after the mid air with Seth Baker's Condor.



Fox Models Viper flown by Terry Edmonds. Terry is the U.S. representative to the FAI for F3B and F3J.

together for the rest of the flight as the obechi sheeting was broken top and bottom and the wing was flopping around. Arthur's Esprit had a solid ding in the leading edge, but the molded wing held up reasonably well and Arthur had it repaired in short order. As the day wore on, the scores started to spread out as some fliers were caught short on flight times and landings were missed. Conditions were such that you needed to stay with what lift that could be found; a few who ventured away from the gaggle, to find that elusive lift to bury the others in their flight group, were instead caught out short.

In the last round of the day, I saw the most spectacular mid air I've yet seen. Seth Baker and Rusty Shaw were in the same flight group and adjacent to each other on the launch line. When the horn signaled the beginning of the working time, Seth launched and, after a good zoom, his model started to head west. Rusty launched 2 to 3 seconds later and had a great zoom; as he pulled into the vertical, the right wing of his Viper cleanly sliced the tail off of Seth's Condor. The Condor rolled over and whet straight in, but Rusty still had control of the Viper and brought the model around to land. Still stuck in the wing was the vertical fin and left stab of Seth's Condor, along with the elevator cable hanging out from under the wing. Rusty calmly landed the model and, upon inspection, found that the elevator cable had gone clear back to the carbon fiber shear web. Because of the mid-air, the flight group was reflowed; Rusty and Seth followed up with near maxes in their flight group.

The end of the day saw a total of 7 rounds being flown and, combined with the 6 rounds of the previous day, allowed for two throwout rounds.

With the qualifying rounds completed, it was an impatient wait for the scores to be posted and find out who would continue to fly on Monday. Those who made the cut were:

- | | |
|----------------------|-------|
| 1. Skip Miller | 10912 |
| 2. Josh Glaab | 10895 |
| 3. Arthur Markiewicz | 10863 |
| 4. Ben Clerx | 10741 |
| 5. Terry Edmonds | 10702 |
| 6. Tom Akers | 10681 |
| 7. Larry Jolly | 10679 |
| 8. Gordon Jennings | 10673 |
| 9. Joe Wurts | 10613 |
| 10. Rusty Shaw | 10370 |

Monday morning at flight time saw light winds out of the south and mostly cloudy; as the day went on, the sun showed its face with regularity. All ten fliers flew together as one group for each round; the 1st round hinted at what the day would be like, with 6 of the 10 fliers scoring a 1000 and the low score being 994! There was rush hour traffic on the final approach to the landing tapes! The 2nd and 3rd rounds started to sort the scores out as the 15 minute working time had pilots scratching hard to find the elusive lift to make that time. Skip Miller made the only 1000 point scores in those two rounds and others, like Rusty Shaw and Larry Jolly, took big hits when they couldn't connect with the lift for the full round. Fifteen minutes can be a very long time when lift is thin and sparse! Joe Wurts had a couple such flights, but with reflights in each round, because of line crossings, etc., Joe was able to redeem himself and stay in the hunt for the top spots. In the 6th round, Skip Miller and Gordon Jennings' models touched during the launch but they decided to fly the round out. Just a few minutes later though, Arthur Markiewicz and Skip Miller had their models mid-air while working some lift about 1/4 mile away at the northwest corner of the sod farm.



Joe Wurts' tensioning the tow line prior to releasing his Sapphire during the Fly-Off on Monday.



Thomas Kiesling walking back to the pits with two copies of his O/D Mantis. A unique looking model that flies quite well.

Sailplane Homebuilders Association (SHA)

A Division of the Soaring Society of America



The purpose of the Sailplane Homebuilders Association is to stimulate interest in full-size sailplane design and construction by homebuilders. To establish classes, standards, categories, where applicable. To disseminate information relating to construction techniques, materials, theory and related topics. To give recognition for noteworthy designs and accomplishments.

SHA publishes the monthly *Sailplane Builder* newsletter. Membership cost: \$15 U.S. Student (3rd Class Mail), \$21 U.S. Regular Membership (3rd Class Mail), \$30 U.S. Regular Membership (1st Class Mail), \$29 for All Other Countries (Surface Mail).

Sailplane Homebuilders Association
Dan Armstrong, Sec./Treas.
21100 Angel Street
Tehachapi, CA 93561 U.S.A.



Skip's Emerald was damaged to the point where flying was difficult, but he managed to fly the Emerald back to the turf and land without further damage. Further inspection when the model was retrieved showed a large chunk of the molded right wing's leading edge badly damaged, which forced him to go to his back up Sapphire. The 8th and last round had everyone contacting good lift and the rush hour traffic on landing approach was repeated.

When the fly-off scores were posted, the 1998 U.S. F3J Team was Skip Miller, Ben Clerx, and Joe Wurts, with Josh Glaab as the 1st alternate. Congratulations to a top notch team that has the ability to win it all in Great Britain in 1998.

Fly-Off Round Results:

1. Skip Miller	7991
2. Ben Clerx	7983
3. Joe Wurts	7981
4. Josh Glaab	7968
5. Terry Edmonds	7871
6. Larry Jolly	7812
7. Rusty Shaw	7556
8. Arthur Markiewicz	7532
9. Gordon Jennings	7496
10. Thomas Akers	5118

Models Flown

John Rowe, Laguna Hills, CA
Radio - Airtronics Stylus
Grand Esteem, 64 oz.
Sisu 2M

Jerry Bannister, Oswego, IL
Radio - Airtronics Stylus
O/D Assailant, 7037, 116", 88 oz.
Thermal Eagle, 78 oz.
Synergy III, 85 oz.

Bill Wingstedt, Oswego, IL
Radio - Airtronics Vision
Sapphire, 118", 68 oz.
Molded Kevlar Blackhawk, 114", 68 oz.

Mike Stump, Cadillac, MI
Radio - JR 8103
Grand Esteem, 67 oz.
F3B Eagle, 112"

Harry Roe, Dayton, OH
Radio - Futaba 7UGF
Super V 110, 72 oz.

Paul Siegel, Cincinnati, OH
Radio - Futaba 7UGF
Obechi Blackhawk, 65 oz.
Super V 1000, 70 oz.

Rudy Siegel, Cincinnati, OH
Radio - Futaba 7UGF
O/D Red Tail, S7012, 124", 77 oz.
Molded Spectrum, 112", 70 oz.

Rich Burnowski, Bollingbrook, IL
Radio - Futaba 9ZAP
O/D Vampire, SD7037, 116", 62 oz.
O/D Galactica, SD7037, 121", 78 oz.

Rusty Shaw, Ottumwa, IA
Radio - Airtronics Stylus
Fox Models Viper, SD7037/7080, 122", 67 oz.
Grand Esteem, SD7080, 67 oz.

Mike Fox, Davenport, IA
Radio - Airtronics Stylus
NSP Victory C, 64 oz.
NSP Laser 3, SA7035, 122", 66 oz.

Thomas Akers, Thousand Oaks, CA
Radio - Airtronics Vision
Sapphire, 121", 63 oz.
Blackhawk, 76 oz.

Gordon Jennings, San Luis Obispo, CA
Radio - Airtronics Stylus
Molded Blackhawk, 64 oz.
Diamond F3B, RG15

Arthur Markiewicz, San Diego, CA
Radio - Airtronics Vision
Jaro Müller Esprit, SD7037, 1000 sq. in., 124", 73 oz.

Thomas Kiesling, Johnstown, PA
Radio - JR 3885
O/D Mantis, SD7037, 122", 58 oz.

Ben Lawless, Owings, MD
Radio - JR 3885
WACO Magic, WA001, 138", 76 oz.

Terry Edmonds, Iowa City, IA
Radio - Airtronics Stylus
Fox Models Viper, 120", 70 oz.
RNR Genesis, 118", 70 oz.

Ben Clerx, Newport Beach, CA
Radio - Futaba 9ZAP
Jaro Müller Esprit, 124", 74 oz.

Larry Jolly, Westminster, CA
Radio - Airtronics Vision
Jaro Müller Esprit, 124"

Michael Lachowski, Pittstown, NJ
Radio - JR 105X
Jaro Müller Esprit, 124", 70 oz.
Jaro Müller Ellipse II F3B, 116"

Skip Miller, Boulder, CO
Radio - Airtronics Stylus
Renaud Emerald, SD7037, 122", 77 oz.
Sapphire, 118", 71 oz.

Jim McCarthy, Chicago, IL
Radio - Airtronics Stylus
Super V 1000, 122", 69 oz.
Diamond F3B, RG15, 122", 77 oz.

Tom Kallevang, Chicago, IL
Radio - Airtronics Stylus
Renaud Emerald, 74 oz.
F3B Eagle, 76 oz.

Rick Briggs, Long Beach, CA
Radio - Airtronics Stylus
Jaro Müller Esprit
Mako, SD7037, 126", 80 oz.

Joe Wurts, Valencia, CA
Radio - Airtronics Stylus
Renaud Emerald, 118", 75 oz.
Sapphire
Diamond F3B, RG15, 122", 83 oz.

Josh Glaab
Radio - Airtronics Vision
WACO Magic, WA009, 130", 78 oz.
WACO Millenium, Thinned Clark-Y, 60 oz.

THE CONDOR

MADE IN AMERICA
BY MODELERS, FOR MODELERS

FEATURING THE NEW
TRIPLE TAPERED SD7035 WING!

SPECS:	
WING SPAN	112.5"
WING AREA	918 SQ. IN.
AIRFOIL	SD7035
WEIGHT	62-66 OZ.
WING LOADING	9.7 - 10.3 OZ./SQ. FT.

The Condor is designed by Mark Allen, who is considered one of the best model sailplane designers in the United States, if not the world. Mark has taken all of his previous experience in competition thermal duration flying, plus all the knowledge he has gained from his earlier contest and sport designs, to design the Condor. Mark Allen's previous planes, to name only a few, are: Falcon 880 and 800, Falcon 600, Swift, Thermal Eagle, Vulcan, Night Hawk, Sky Hawk, Electric Hawk, Falcon 550E, Rocket, Pocket Rocket and, of course, the molded, world championship F3B Eagle. By taking the best of these designs and the new construction techniques available today, Mark has come up with what we feel, is the absolute best open-class sailplane available.

The wings are made in America by Ron Vann, owner of Spectrum Enterprises. Ron is also an avid competition flier, and is considered to be one of the best wing manufacturers in the industry. Taking his years of experience in manufacturing wings, Ron has produced wings and stabs for the Condor that we feel are world class. Starting with the spar that Mark Allen designed, Ron uses only the best and most accurately cut foam cores available. He then uses hand-picked obechi from Kennedy Composites, which is applied with West Systems epoxy.

CONDOR

*Tomorrow's Sailplane,
Technology Today*

This is after he has first reinforced the wing with carbon fiber and fiberglass. The servo wells are routed out, as are the flaps and ailerons. What this means for the sailplane enthusiast is a minimum amount of work before getting the sailplane into the air. The wing is light but strong enough to take "pedal to the metal" launches. Also available as an option is Ron's unique internal capped hingeline. This means even less work for the modeler.

The fuselage is made by Steve Hug, owner of the Fuse Works. Steve is another master at what he does. Fuse Works makes what we consider to be the best fuselage in the business. Steve uses only the best fiberglass and Kevlar™ available. All fuselages are manufactured using the West Systems epoxy. Steve's fuselages have the least amount of pinholes, if any, that we have seen. In fact, the fuselage is so pretty that many people do not paint it. The fuselage is extremely light, and yet strong enough for very aggressive flying and landing. For those with very little

building time, and those who don't like to paint, there is an optional pre-painted, in the mold, fuselage which includes a unique carbon fiber canopy.

All kitting is done at Slegers International's new and larger manufacturing facilities. We have spared no time or expense with supplying the modeler with the best materials available. The kit contains pre-sheathed wings and stabs by Ron Vann, fiberglass and Kevlar™ reinforced fuselage by Steve Hug, 3/8" diameter titanium wing rod from Kennedy Composites, optional 3/8" diameter steel wing rod by Squires Model Products, control horns and tow hook by Ziegelmeyer Enterprises, pushrods by Sullivan, or optional one piece steel rods. All wood is custom cut. Specially cut basswood of 60" is supplied to eliminate splices in leading edge, flaps and aileron capping. All balsa is hand picked, light to medium, to ensure light weight wing tips, stab tips, and rudder. Aircraft ply is used for the pre-fit servo tray and towhook block. A comprehensive instruction manual is included.

The Condor, designed by Mark Allen, wings by Ron Vann, fuselage by Steve Hug, and kitted by Slegers International, we feel, is the best open-class, thermal duration sailplane available, at an affordable price of \$395.00 plus S&H.

★ VISA ★ MASTERCARD ★ DISCOVER ★

SLEGERS INTERNATIONAL

P.O. Box 364, Long Valley, NJ 07853
Shipping: 35 Hacklebarney Rd., Long Valley, NJ 07853

(908) 879-9964 - FAX (908) 879-8177
<http://www.slegers.com>



The LSF Story

By Scott Christensen, LSF 001

(Written in 1988, and submitted by Bob Steele, President of the LSF.)

Genesis

Soaring, as an activity within the R/C community, in the mid to late 60's, was very interesting. Believe it or not, R/C soaring had been around a long time up to that point, but had never really "caught on". There was probably soaring activity going on in a lot of areas of the U.S., as well as Europe, but this activity tended to be fairly low key and was reported in the magazines only sporadically.

However, designs were being developed, contests were being held, and this momentum of activity was beginning to be reported on in the magazines. Fortunately, for the as yet to be formed LSF, some well-placed individuals were taking an active interest in R/C soaring, and were in a position to report on this activity in the modeling press. Two of these individuals were Jerry Nelson and Ken Willard. As fate would have it, these two gentlemen would later play an important role in getting the LSF into national prominence, and keeping it there for a reasonable amount of incubation time.

I had lived in and around the San Francisco Bay Area since my discharge from the Air Force in 1965. At that time, I moved to San Jose and started my new job with Fairchild Semiconductor in Mountain View. Geographically, all of the lower San Francisco Bay communities were close to each other and it was possible to meet people from all of these areas at a single flying site. Flying sites for R/C thermal duration sailplanes per se, did not exist. What you had to do was find a site that was far enough away from other, powered R/C activity, so as not to create a conflict of any kind. Fortunately, there was just such a site in San Jose: Del Mar High School. It was at this site, in 1967, that I met and flew with Duane Hyer, Keith Brewster, and Le Gray. The four of us had a lot in common in

terms of model aircraft backgrounds, but most importantly, we got along very well and quickly became good friends. There were several other "Del Mar regulars" who, along with the four of us, gathered every weekend to fly.

Most designs being flown in those days were scratch-built, due to the fact that there just was not much available commercially. It came down to the Kurwi (a great airplane) and some imported kits, primarily Wik, that flew OK, but were not all that easy to build. In short, it was a time of heavy design activity, essentially no classes of models, and very embryonic-type contests.

During this time, at the Del Mar High School site, we were busy "making-up" and flying our own contests. We even had our own winch. In those days, the winch was located directly upwind of the pilot, 300 to 400 yards away, and was operated by a fellow who "stood winch duty" through one complete rotation of the pilots present. He was then replaced by the next guy in rotation, and so forth. The winch was a simple 6-volt affair, using a car starter motor and a homemade take-in drum with heavy phenolic sides. Most significantly, there was no turn-around; the winch and its operator were very remote from the pilot, and all start/stop signals to the operator were relayed by flags, waved by yet a third individual, who stood near the pilot! If the turn-around system had been invented, this bit of technology had not yet made it to the Bay Area. Compounding all of these launch procedures and requirements was the fact that we were all completely convinced that the safest way to get a sailplane into the air was with an R.O.G. launch!

The contests themselves consisted of literally staying up the longest and landing the airplane back on the same field. Your time started when your hand let go of the model, and stopped when the model touched the ground. (Yes, your time on the winch, during launch, counted in your flight time.) I can recall even doing a few rudimentary "cross-country" type contests,

where you launched your model, were given some period of time to find lift, and then declared your proposed flight distance from the field. So, say you launched your model, a few minutes later found some lift (always a total surprise), started climbing and, at the end of, say, five minutes asked to declare your distance. You looked at your model's altitude,



Earl with "Snipe I".



"Pell's Belle", 10' span, 800 sq. in., 54 oz.



"Lowisa", 8' span, 670 sq. in., 33 oz.



Earl Pell with Myndair Products Slingsby "Dart" 15 (The Rock).



Bob Belger and "Foka".

Photography on this page submitted by Earl Pell, Connecticut, depicts early East Coast sailplane interest and aircraft design, around the winter/spring of 1968.



Bud Pell with modified "Kestrel", January 1969.



Electric winch, level wind and all.

figured you could safely get a half mile away and still get back, so declared "1/2 mile". You were led over to the back of someone's grungy pick-up truck, deposited in the back, and the driver took off, using the odometer to determine the intended 1/2 mile. This was more than often done without any regard to wind direction or pilot-related input. Once the driver was 1/2 mile away, he stopped the vehicle, stepped out, and became the witness to the outward bound aircraft actually passing overhead. Another variation was to see who could fly the most "laps" between the winch location and the pilot himself.

In all of this, we placed little, if any, emphasis on landings, other than stipulating that the pilot had to land on the same field he took off from. The flying part of these contests had a kind of "sameness" to them, and it was not very long before we all were searching for another aspect to the flight that would be: a) prototypical, and b) easily judged or measured. This quickly ruled out aerobatics (too subjective and not necessarily prototypical), limbo (Believe it or not, this was tried but, only once, with disastrous results.), and speed (This seemed like a good idea, until it was explained to people, at which time we figured there would be maybe two people who might try it.). Somebody, I honestly don't remember who, came up with a "scale runway landing", which would be the conclusion to each contestant's flight. This thing was laid out with two parallel lines, 12' apart, which were the "edges" of the runway. The length of these lines was about 20'. At first, all that was required of the pilot was to land his airplane, right side up, inside of this 12' X 20' rectangle. If he did this, he'd be awarded another 30 seconds to his flight score. This whole idea proved both popular and a challenge, because all of these airplanes had a wheel on the bottom for the required R.O.G. take-offs! Well, it didn't take long for virtually everyone to learn how to land in this box, and we were just about back to square one.

Then, one day, a great and simple truth struck us when one of us took off our flying hat, threw it onto the grass, and announced, "For a quarter, I'll hit that hat!" Someone yelled, "You're on," and literally put a quarter into the hat. The pilot didn't hit the hat, but the nose of his model came to rest within 6" of it! A great landing by anyone's standards. I remember every flyer at the field standing there looking at the hat, the quarter, and the nose of that airplane. I don't think anyone said a thing for a full minute. What we had just seen was the birth (to the best of our knowledge) of the "spot landing". Funny how things evolve though, because what really occurred to all of us, when we viewed this scene, was a way to GAMBLE with our models! You guessed it! That hat (or, "spot") was quickly filled with the pilot's ante, and the money was awarded at the end of each round to the guy who came the closest with the nose of the model. Word spread quickly, and now, instead of the usual 9 to 12 contestants we expected for our contests, we were looking at 20 to 25 people every Saturday! This aspect of our contests had really put fresh spark in the pilots because, besides being fun (and it

was), spot landings could be lucrative. Competition became intense; money, regardless of the amount, does that, and the amount of money in the hat quickly escalated. I recall completely cleaning the entire nose off of one of my sailplanes when I struck a hat filled with \$22.75 in quarters! Clearly, things had gotten out of hand.

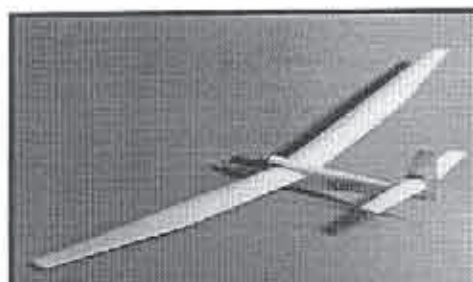
I think that eventually it was Le Gray who suggested that the "quarter thing", as he called it, had taken a bad turn, and that perhaps, we should do away with it, but keep the spot as a landing goal. This, coming from Le, was quite a concession, because he still much preferred the more prototypical runway type landings which, he felt were more in keeping with full-scale soaring techniques. To understand this point of view, you had to understand Le. Le took all of this very seriously, and to that end, designed gorgeous scale-like R/C sailplanes that were complete with well-done pilot busts, and always equipped with wheels. Many of these designs were published, and you may remember names such as Wind Dancer from the dim past. At any rate, he never cared that much for the spot landing concept, but never denied its usefulness as a learning tool and its popularity in contest situations.

There is one other aspect to R/C soaring back then that should be addressed, because it had a direct bearing on the eventual formation of the LSF. It was commonly believed and accepted, that any R/C sailplane design could and would work with equal success on both the slope and off the winch. On the surface, this belief should not surprise too many people because, as most of us know, you can toss almost any thermal duration type model off of a reasonable slope, and fly it quite successfully - no big deal. But, R/C aircraft designed specifically for slope soaring had not yet come down the road as an accepted type of model. Therefore, at least in those days, and in that area, airplanes that were slope-oriented only tended to be viewed as quite limited. Unless you don't know, all of that changed, and changed fairly quickly.

All of the fore-going (and much, much more) takes us happily into the fall of 1968, and soon-to-be-founded League of Silent Flight.

Formation of the League of Silent Flight

The summer and fall of 1968 proved to be a very busy time for R/C sailplane enthusiasts. At the Del Mar site, alone, contests could be enjoyed every weekend. Meanwhile, in Livermore, Jerry Nelson was working with sailplane pilots in his area, and they too were holding a series of experimental contests. The interest in this type of flying was running high and Jerry, rightfully, foresaw the need for the AMA to become involved in terms of formulating National rules and, simply, recognition of the activity by the AMA. Since he was a member of the District X AMA Contest Board Committee, he was in a good position to press the issue. To this end, he set-up a Special Interest Group, called the National Radio Control Soaring Society, or NRCSS.



Pylonius

Span	78"
Area	626 sq. in.
Weight	36 oz.
Length	39"
Controls	2 Channel/Rud./Elev.
Airfoil	Flat bottom/Orig.

Features

- Full-flying, flat-bottom stabilator
- Fuselage mounted wheel for R.O.G. requirements
- Removable wing tips (8" per side) for slope soaring

The First Airplane to Achieve Level I

By Scott Christensen

This model was conceived and designed during the winter of 1967/68. It was built and flown in the spring/summer of 1968.

Construction was conventional balsa/ply. It was the first model that I ever tried my own canopy design on, and my first experience with vacu-forming. Wing construction was typical D-tube and had 8" (per side) removable tips to raise the wing loading for slope soaring. The airfoil was original, but was truly a flat-bottom type at somewhere around 9 - 10%.

The design used a full-flying stabilator, which was driven and attached by a 1/4" O.D. fiberglass tube. This tube then fitted into 1/4" I.D. fiberglass female tubes in each of the stab panels. All linkages were internal. Airfoil on the stab was a lifting, flat-bottom type.

The radio used was two channels from a Bonner 4RS system, running rudder and stabilator.

Because of the R.O.G. requirements of the day, the fuselage was fitted with a fully-faired single wheel. Forward of the wheel were three towhook locations, and a laminated (1/16" ply X 4 lams.) noseskid. The entire model was covered in white monokote, with the exception of the detailed cockpit interior.

The Pylonius was flown extensively from 1968 through 1971, and won a fair share of both thermal and slope contests. It towed quite well, and was quite good in thermal situations as long as reasonable cruise speeds were maintained. The model was an excellent slope racer, with or without the removable tips in place. ■



Scott Christenson (L) launches the beautiful Pylonius.



Ken Willard, the 'ol professor, is making a few last minute adjustments to one fine performing Delgavilan mod. with Eppler airfoil.



Joe Corr and his beautiful Schweizer 232 weighing 3 lb.



Sam Crawford, Steve Martin, and Les Anderson taking advantage of a big lift on the hill. On a clear day with wind, you can physically fly out of sight; the ocean is just 4 miles away.



Hart Jewel shows a little of that ol' form, as he launches his Francis Cirrus, a fine performer for both slope and flatland.

Jerry held a contest at his father's ranch location in Livermore, California, on the weekend of August 17 - 18, and it was at this time that the formation of the NRCSS was announced and memberships were solicited. Membership was \$5.00 and the promise was that NRCSS would represent R/C soaring to the AMA, and get the activity recognized. Jerry, along with Dale Willoughby and Hans Weiss, would act as temporary officers. Dale Willoughby, who was editor of *Zephyr*, a publication devoted to only R/C soaring, volunteered this magazine to be the "voice of the NRCSS". All of this went over quite well, and I recall virtually everyone joining on the spot. Soon, general publication of the formation of the NRCSS took place in not only the *Zephyr*, but in more recognizable magazines, like *Model Airplane News*. It was not very long before the fledgling NRCSS was "monied" and had a reasonable membership.

During this same summer and fall period of time, Le Gray, Duane Myer, Keith Brewster, and myself began some serious talks about an R/C soaring program, of sorts, that would approximate full-scale soaring's Flight Achievement Program. This very successful program worked within and throughout the full-scale soaring community and, in essence, memorialized an individual's achievements in soaring, against a given set of criteria. This program could be actively pursued by anyone, regardless of club affiliation, etc. It awarded diamonds for each phase or level of achievement, and was generally referred to as the "Diamond Program". The most important aspect of such a program, we all felt, was the recognition of the individual. This meant,

Photography taken in Marin county, Northern California at a North Bay Soaring Society contest held in 1969.

to us, that anyone, anywhere, regardless of club affiliation, country of origin, etc., could reap benefits from participating in such a program. What were these benefits? In order of importance, I think we saw these as: 1) becoming a better pilot through participation, 2) being recognized for achieving a given level of accomplishments, and 3) being a member of an organization which sought only better piloting, instead of endless funding. There was a kind of simple truth in all of this that really appealed to us. We, as a group, set out to come up with such a program.

Most of our meetings took place at Le Gray's apartment in Sunnyvale. He was the only one who was not married and so the timing of those meetings was much easier. We met a lot of times during the fall of '68, and finally, in December, we'd hammered out the original five levels of what we called the SOARING ACCOMPLISHMENT PROGRAM. A great deal of thought went into these levels, because we wanted both a "doable" program, as well as a challenging program. We wanted one level of achievement to give the participant a true level of accomplishment and to also pave the way for participation in the next, even more challenging, level. An interesting sidelight to all of this was the fact that from a purely technical standpoint, we did not think that equipment existed, at that time, to complete the two higher levels! But, we felt that if the program really had merit and was to be truly challenging, individuals would force their abilities and talents into these technical areas to achieve these levels. Further, we felt that the fall-out of some of these technical achievements

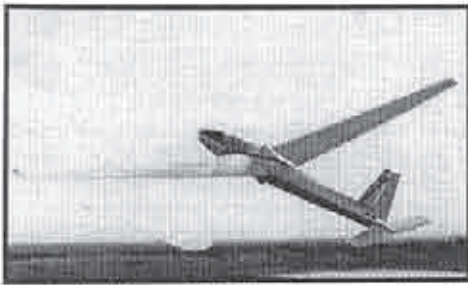
would have a direct benefit to R/C soaring in general. Lastly, we wanted these levels of accomplishment to create a true pyramid of membership. In other words, those people with the will to do so would be able to make it to the top, but there would be darned few of them. The goal was to set a standard of excellence that was so high that when you ran into a Level V pilot, you had automatic respect for both him and his abilities, not only as a pilot, but as a person. Looking back over the years, I'd have to say that the program did precisely what it initially set out to do.

All four of us were at a place in our lives where we each had something to give to the program. It turns out that each of these things were critical to getting the program off the ground and keeping it there.

Le Gray worked for United Technology Corp., in Sunnyvale. Le's job was all about technical writing, contractual, I believe. This, plus Le's abiding love of full-scale, as well as R/C soaring, gave him the tools needed to finalize verbiage needed for the L.S.F.'s Soaring Accomplishment Program. At our various meetings, Le would take copious notes on everything said, and would then have these formalized for our next session, and so forth. Le was also a gentle "guider" of those meetings, always keeping us working towards the goal of creating both the organization, as well as the program.

Keith Brewster was a rugged individualist, with definite ideas on how things should be done, and who should do them. He was not wealthy, but had some money, could be counted to "kick-in" now and then when we needed something. He loved R/C sailplanes, and even opened a hobby shop in Sunnyvale devoted to nothing but R/C sailplanes. He came up with his own designs and even kitted a couple of them. He, like the rest of us, liked to compete.

Duane Myer was the artist. He was employed at Sylvania in Mountain View as a graphic artist. It is Duane who came up with the now famous L.S.F. logo. Duane was also an artist when it came to modeling and I recall that every single model that he came up with was so outstanding in workmanship that they put everything else to shame! Duane was the quiet type, and never interested that much in competition. But, he did participate and enter every contest that we ever held. Duane was the perfect team-player and, without him, I'm



Les Taylor's beautiful Schweizer, competitive in both thermal and slope events, caught in a R.O.G. winch launch sequence. Model kitted by Les' company, Fliteglass Models. Taken in 1969 at North Bay Soaring Society contest.



Duane Hyer, one of the founders of the L.S.F. and artist who designed the L.S.F. logo. Taken in 1968 at Milpitas foothills in Northern California, plane is Original Design with heavy free flight influence.



Fernando Ramos holding Phoebeus. Photo taken in 1969 at the (then) Harbor Slope Soaring site, Southern California. Mr. Ramos is known for his scale, free flight activities and, at the time of this writing, was the scale, free flight columnist for Model Builder.

sure that the L.S.F. would not have become the organization that it eventually would.

I worked for Fairchild Semiconductor and was, at the time, in charge of all of their Marketing Services distribution programs: mailing, printing, collation, etc. I was, in short, good at organizing and distributing paperwork. I also could type 75 wpm, and this eventually proved an asset. Working with other people at Fairchild, I was able to come up with our letterhead, envelopes, and membership cards which, I always felt, made us look professional and "for real".

Once all of the various elements came together, and we had the ability to at least look like a real organization, we made a PR mailing to virtually every magazine, magazine columnist, soaring oriented individuals, and anyone else who we thought might be interested. The League of Silent Flight became a reality with that mailing.

The mailing announcing the formation of the L.S.F. took place in January of 1969. Locally, of course, we passed out information to anyone who wanted it. In the meantime, a whole bunch of us, myself included, set out to achieve Level I of the program. Since the League's first mailing address was my house, I was going to be able to see if the mailing produced any results. Boy, did it ever! We received a slew of what we called "letters of intent", and each of these was personally answered by me, neatly typewritten on L.S.F. letterhead, with a Level I form included. We were really paranoid in those days about doing everything "just so" in order to look as professional as possible. I really think that it paid off in terms of people's belief in us as a viable organization.

In the meantime, I was fortunate in completing my Level I form rather quickly, and becoming the first legitimate L.S.F. "member", complete with the issuance of the first-ever membership card (which I still have)! I bought a yellow poplin jacket just for this occasion, and this was taken to a bowling trophy store, where a custom L.S.F. back patch and shoulder patch were made and sewn in place. I still have this jacket, and look at it from time to time, still amazed that we could have pulled this thing off, without even having patches to mail out or anything like that! All of that came later.

Le Gray acted as the first "president" of the L.S.F., the other guys did what they could, and I acted as the first "secretary". 1969 was the first real year for the L.S.F., and

there were no elected officers, only volunteers. What a year it was for mail! I handled, as I recall, the first 200 aspirants, in terms of letter writing, phone calls, etc. I remember when we got our first "foreign" aspirant, a fella from Saskatoon, Canada. Man, we'd gone international! R/C soaring enthusiasts literally came out of the woodwork; it seems that the program hit a real nerve and was producing results. Things were cooking right along, except it was becoming quickly clear that money was going to be an issue. Believe me, no one was getting paid, as that was totally out of the question! No, we needed funds for more letterhead, cards, etc., plus funds for patches and other allied goodies for the membership.

Right about this time, mid '69, we got a real break. At yet another contest, held by the NRCSS group in Livermore, Jerry Nelson made a post contest announcement. He said, in essence, that the membership of the NRCSS could be served much better by the L.S.F., and that he was recommending that all NRCSS support and funds be turned over to the League! He backed this up with the same statements in his March 1970 "Soaring" column in RCM. While the funding received was modest, it did put us in the black, again, and we were running to the point where the organization grew sufficiently to allow elections and some real management.

The rest of the L.S.F. story is history, successful history. I think that the League did a lot for a lot of individuals, without asking for money. It gave, continues to give, real goals and achievements to soaring pilots around the world and proved, to me at least, that the only way to get something accomplished is to do it yourself, be it flying or creating a viable organization. Did it really work? To get that answer, I'd suggest talking with the latest pilot to achieve Level V, or the latest pilot to achieve Level I; the sense of satisfaction and belief in the program should be similar in both cases.

Reference material

Model Airplane News, December 1968
"Silent R/C Flight Whispers", by Bill Northrop

RCM, September, 1969
"Sunday Flier", by Ken Willard

RCM, January 1970
"Soaring", by Jerry Nelson

RCM, March 1970
"Soaring", by Jerry Nelson



A very young Scott Christensen at an early NRCSS contest, Livermore, California, Nelson Hummingbird Haven ranch, around early 1968. The airplane is a Keith Breoster design called the "T-Halpack".



Ralph Doleworth, Saskatoon, Saskatchewan, Canada, 1968, L.S.F.'s first foreign member, holding "Boing Boomer".

A special thanks go to Barry Kurath who, having recently achieved Level V, started the dialog and did much of the footwork that brought the "LSF Story" to light. Special thanks also go to Bob Steele, John Vennerholm, and Cal Posthuma for all their hard work and dedication to the L.S.F.

For any of you that wish to reproduce the application form, please feel free to do so. Newsletter editors who wish to include portions of the "LSF Story" in club newsletters, may also do so.

Judy Slates



Level V Story

By Barry Kurath
Portland, Oregon

Reaching LSF Level 5 has been a goal of mine for many years. I had done Level 1 about ten years ago, and spent the next several years muddling about in Level 2, without ever getting focused on finishing it. When I met Don Pesznecker, he was just beginning to fly RC gliders, and I encouraged him to start working on the LSF accomplishment program. He did Level 1 one weekend, Level 2 the next, and I suddenly realized with a shock that he had passed me up! That was enough to get me focused! Pesz did the first four levels in eight months, and I finished Level 4 shortly behind him in Spring of 1995. We looked at the tasks for Level 5 and tried to decide which was going to be the most difficult for us to do: was it the contest wins, the 2 hour thermal flight, the 10 kilometer goal and return or the dreaded 8 hour slope flight? They all looked pretty unlikely to me, but we began planning a methodical attack together.

We flew LOTS of contests in 1995. Pesz won one that counted for Level 5 (more than 20 entries), which encouraged us greatly. We both upgraded our equipment, and I moved from flying a Joust to a Genie and a Thunderbird. The bigger planes worked better for me, and I began placing higher in the contests. I made the flyoffs of the Northwest Soaring Society (NWSS) Tournament for the first time that year with the T-Bird. At that time, I was beginning to get sick with a serious illness, and got progressively worse through the Fall and Winter. I spent a week in the hospital in November, a week in February, and another in April. At the end, I was so sick that I couldn't eat or drink anything, so I got all my nutrition intravenously for six weeks. Fortunately, I recovered from that bout and was able to start on a new combination of medicines that promised good things. I was still unsure if I would be able to do any flying in 1996, because of my weakened condition, but Pesz had been planning a Level 5 weekend in the Tri-Cities of Washington for June 1st, so I made arrangements to attend. The story of how I made only two flights that weekend, but managed to complete three of the LSF 5 tasks has already been told (RCSD October 1996), but I will summarize briefly. On Saturday, June 1st, we had a sunny day with no wind, so we set up winches to attempt the thermal and goal & return tasks. I was among the first to launch in

the morning, and promptly found a good thermal which took my Viking Models Contestant up to a really good height. I hopped in the Mustang convertible with Glenn Pyle driving and Prashant Manikam timing, and spotting and we set off down the road. The lift was not fully developed yet, so the outbound trip was challenging. Three times I had to scratch from below 100 feet, but I always managed. We made the goal, and started the return trip, as the lift kept improving. After a while, I had the plane in a strong thermal, and was trying to get as much altitude as possible when Prashant said, "You're only two miles from the finish. I think you can make it." I immediately told Glenn to punch it, and headed down the road. Shortly, we could see a plane in lift at the start/finish area, and I sent the plane out ahead of us to that thermal. When we drove up to the field, I had been in the air for almost two hours, so I hung out for a while and landed at 2:05, giving me both tasks in one flight! I let Prashant use the plane the rest of the day for his Level 4 tasks. On Sunday, we went to the slope, and both Pesz and I completed our 8 hour flights. I was quite surprised to find that I was feeling pretty darn well after all that flying. I joked that it wasn't much of a weekend, as I only got in two flights! My plane had over 12 hours of air time that weekend.

Now, the only thing left was to win three big contests. Only! I won a contest in June of 1996 with my old Joust, but there were just 19 pilots, so it didn't count. It was a great boost to my confidence to win against the likes of Dave Johnson, Jim Thomas, Harley Michaelis and Tom Brightbill. In August, I got my first win that counted, flying a borrowed 2-Meter Warrior. I flew 99.2% of perfect on all 10 minute tasks, beating all the Open class planes as well as the 2-Meter guys. The season ended with the NWSS Tournament, where I again qualified for the finals with my Thunderbird. I was probably the only one flying in the extreme wind without any ballast, and I was happy to just finish the contest with my plane in one piece.

The 1997 contest season got underway with a 2-Meter only contest here in Portland. I was again flying a borrowed plane, this time an Easy Eagle that belonged to Don Pesznecker. He likes to say that it is completely stock, except for the wing, the fuselage and the tail feathers. The conditions were perfect for a lighter plane, and I won. This left just one more win to finish off all the tasks.

My Thunderbird had suffered a serious crash due to radio failure in April, but Ron Wagner helped out with the repairs and it was ready to go again in late June. We traveled to the Tri-Cities for a two day contest over the Fourth of July weekend. The conditions were hot and breezy, which suited the T-Bird well. The plane out launched everything else there, and I was able to range as far as I wanted to find lift and follow it downwind. I ended up winning Open class, as well as the award for Thermal Wizard, which goes to the pilot with the most time in the air. It was a great way to finish up my LSF experience!

This LSF Accomplishment Program has been incredibly helpful for me. It motivated me to set goals, improve my skills and equipment, and take the chances necessary to win contests under tough conditions. I encourage EVERY soaring pilot to get started on Level 1 the very next time you go out flying, and keep pushing yourself until you finish 5. The rewards are huge!

New Airfoil Plot 7 Pro \$35 Model Design 7 Pro \$50

Also Available
Airfoil Plot Sport \$25
Model Design Sport \$40
With AFEdit add \$10

Airfoil Plot and Model Design have been upgraded. New features include the ability to plot airfoils from files downloaded from Mike Selig's airfoil data base, export airfoils in DSF format for use with CAD programs, and plot airfoil templates for cutting foam cores upright or inverted. Airfoil Plot Pro still cost only \$35 while Model Design Pro is still only \$50. Nothing else to buy. Over 250 airfoils plus NACA and Quabeck airfoil generators are included. Send #10 envelope with 55 cents postage for demo disk. canders@edge.net
Chuck Anderson, P. O. Box 305, Tullahoma, TN, 37388 Phone 931-455-6430

TODAY

League of Silent Flight

By John Vennerholm, LSF Secretary (Vouchers)
Spruce Pine, North Carolina
jvgv@m-y.net

The League of Silent Flight was established by a group of RC sailplane modelers in 1969 to provide a collective identification for radio control sailplane enthusiasts. The LSF, as it is now known throughout the world, quickly became very popular and has since grown to a membership of over 7,330 modelers. The non-profit LSF fosters and supports all phases of both sporting and competition activity for model sailplanes and encourages the advancement of model aeronautics and related aspects of RC soaring.

The best known aspect of the LSF is the Soaring Accomplishment Program. This system recognizes individual proficiency and accomplishment in RC soaring through a set of successively harder tasks that measure the sailplane pilot's skills and knowledge of soaring. The modeler has an opportunity to achieve these specific tasks with a sailplane of his or her choice. These tasks are designed to challenge and entertain, while allowing the pilot to measure and improve his flying skills and understanding of model soaring against a proven set of standards.

The Soaring Accomplishment Program is organized into five Levels of achievement, starting with Level I, the simplest, and progressing through Level V, which demands truly exceptional performance. These levels are arranged so that the beginning flyer can pace himself and gain confidence and skill, knowing that his efforts are being measured against the same criteria that other LSF members have already been measured by. As the flyer completes his Level 1 voucher and submits it to the LSF, he is issued a new voucher for Level 2 and so on up through Level V. There is no time limit or pressure for completion of any task or level. Accomplishment of individual tasks may take only a few weeks or completion of levels may extend over several years, depending on the individual's own interest and activity. Once a voucher is completed and all the tasks on it are approved by the LSF, it becomes a permanent part of the member's record in the LSF computer database and the tasks need not be repeated.

The LSF also sponsors the Soaring National Championships each year at the AMA flying site in Muncie, Indiana and periodically supports other regional contests throughout the country. As you fly in the various contests all over the US, you will meet, compete against and learn from other LSF members who have enjoyed the spirit of comradeship that the LSF has fostered through the years. You will be proud to earn and display the brightly colored LSF logo on your jacket and on the wings of your sailplane. It is the sign that you are a truly accomplished RC sailplane pilot. And you can aspire to reach that pinnacle of accomplishment, Level V, and qualify to display the silver V above the LSF logo on the wing of your sailplane.

Membership does not require dues or fees, merely a \$2.00 "donation" to offset printing and mailing costs each time a member corresponds with the LSF. Membership in the LSF is gained by written application to the LSF Executive Board and is open to anyone who has an interest in RC soaring. LSF has over 1890 members living in thirty foreign countries, some of which have their own National Chapters serving their countrymen locally. The only requirement is that the member, in any country, must hold a valid FAI modeling license. In the USA, that is an AMA membership number. The LSF is a fully volunteer program with an Executive Committee of four elected officials who serve two-year terms. Some foreign countries also require a valid radio operator's license.

Write for further membership information or for an application form to: LSF, c/o AMA, P.O. Box 3026, Muncie, IN 47302-1026, or e-mail LSF directly. ■

To: LSF Executive Board

I, _____ (please print full name) will support the philosophies, concepts and criteria set forth in the Bylaws of THE LEAGUE of SILENT FLIGHT and give notice herewith of my intention to become an ASPIRANT and attain Level 1 of the LSF Soaring Accomplishments Program, and by so doing, earn full recognition and privilege of membership.

AMA or FAI license Number _____ (Required)

Signature: _____

Mailing address: _____

City: _____ State: _____ ZIP: _____

Country: _____

E-mail address: _____

Mail to:
LEAGUE of SILENT FLIGHT
c/o AMA
PO Box 3028,
Muncie, IN 47302-1028
USA

Please include a check or Money Order (IMO accepted) for US\$ 2 with your application.

Upon LSF's receipt of this application, you will be granted Aspirant status and receive, by return mail, a Soaring Accomplishment voucher and instructions for proper completion of the Level 1 tasks and a copy of the Bylaws. When you have properly completed the tasks for Level 1, return the voucher to LSF, along with the standard \$ 2 fee., at the address above.

Upon acceptance by LSF of a correctly completed Level 1 voucher, you will become a full member of the League of Silent Flight. You will then be issued an LSF membership number, a membership card and your new Level 2 voucher.

There are no membership fees or dues with LSF. However, all correspondence with LSF that concerns membership application and vouchers must be accompanied by at least US\$ 2.00 to cover postage, printing, forms and envelopes. Please do not send cash or stamps. Send a check or Postal Money Order or International Money Order made out to LSF. The LSF is an honor system and your cooperation will assure prompt attention to your voucher submissions.

"LSF is all about goals. Setting them and doing what you must to meet them. It makes you a better flier. Every goal seems very hard, until you do it, and then it becomes easy. You may fall short a few times before you make it. This builds soaring character."

Cal Posthuma,
LSF 2997, Level V

"It seems that once someone completes a difficult task, others become encouraged to try and that is the real spirit of modeling. So for those of you who still look forward to your eight-hour flight, or any other task, perhaps some of the things I have shared with you may help you prepare for that day when you climb a mountain somewhere and throw your favorite bird off into another world."

John Vennerholm,
LSF 1291, Level V

1120 Wrigley Way, Milpitas, CA 95035 Voice/Fax (408) 946-4751 (408) WINGS-51



Also Distributed By SLEGERS INTERNATIONAL (908) 879-9964

LOOK no further for your fully molded sailplane needs! At RnR we offer a selection of high performance sailplanes that will address your specific requirements in FIB, Thermal Duration, Slope, and Cross Country. The Mark Allen designed World Championship *FIB EAGLE* is now being produced by RnR at its new lower price. Each RnR sailplane enjoys design and construction enhancements for 1997.

RnR's composite molded technology provides a unique blend of strength and weight optimization. Noticeable results are found through increased durability, torsional stability and stiffness incorporated in the wing, fuselage, and tail section.

We also offer a selection of parts and joiner systems for you scratch builders out there. To catch the latest visuals, specifications, and competitive pricing of RnR's sailplanes, contact RnR. At RnR, the sky's the limit...



GENESIS-SE Specifications:

WING SPAN 117"
WING AREA 855 SQ. IN.
STAB AREA 24 SQ. IN.
AIRFOIL SD 7037
ASPECT RATIO 14.2:1
WEIGHT 68 / 73 OZ.
WING LOADING 11.7 OZ./SQ. FT.

Disciplines:

	FIB	Thermal Duration	Slope	XC	SFO
* FIB EAGLE	X	X	X	X	X
* SYNERGY 914	X	X	X	X	X
* SYNERGY 1	X	X	X	X	X
SYNERGY DIESEL	X	X	X	X	X
SYNERGY 91-SE	X	X	X	X	X
** SPECTRUM	X	X	X	X	X
* GENESIS SE	X	X	X	X	X
EVOLUTION	X	X	X	X	X
REVOLUTION	X	X	X	X	X
SB-AC	X	X	X	X	X

*New, **Available Soon, XC=Cross Country, SFO=Soar Employment Orientation

ORDER DIRECT FROM RnR



SLEGERS INTERNATIONAL

http://www.slegers.com

(908) 879-9964
FAX (908) 879-8177

Dave Squires
Wing Rods
Available only through
Slegers International.

CASE HARDENED
STEEL WING RODS

ANY DIAMETER 5/32" TO 5/8"
LENGTHS TO 35"
GUARANTEED AGAINST BENDING
ON THE WINCH OR IN FLIGHT!
ONLY 10 REPLACED IN 6 YEARS!

PO. BOX 364, LONG VALLEY, NJ 07853
(SHIPPING: 35 HACKLEBARNEY RD.)

VISA • MASTERCARD • DISCOVER



John Vennerholm with Paragon after 8 hour, 2 minute LSF Level V flight. Note waist pack for external transmitter batteries. Blue and yellow transparent monokote gave excellent, high altitude visibility.

8 Hours to Level V

By John Vennerholm, LSF Secretary (Vouchers)
Spruce Pine, North Carolina
jvgv@m-y.net

I have been a member of the League of Silent Flight for over 22 years, but I still remember the day when I received my voucher for Level I. At that time, many of the tasks that lay ahead seemed truly beyond my skill as a model enthusiast. I can remember those first precision landing attempts in the quiet evenings in Yellow Springs, Ohio, gently bringing my Zaic Floater in toward the landing spot. We would run out with the tape and eagerly measure the distances for those first landing goals. Years later came the special tasks required for Level IV and V, which were the most interesting and challenging. But the greatest legacy of LSF has been the many lasting friendships gained at countless contests across the Midwest where I learned

what a great sport RC sailplaning really is.

I am a life member of DARTS, the Dayton Area Thermal Soarers, and it was with the help of my good friends in DARTS that I had completed all of the Level V tasks, with the exception of the eight-hour slope flight, before I moved from Ohio to the Carolinas in mid-1984. I then joined the High Country Soaring Society in the Asheville, North Carolina area, and learned from my new friends what it is like to throw my favorite airplane off the top of a mountain!

In the fall of 1985, I finally began to get serious about getting my 8-hour slope flight. The first attempt was on Big Bald, a peak about 5600 feet high, situated on the Tennessee-North Carolina border; the second was at Butler Mountain, a 700 foot high peak, directly south of Asheville, NC, which itself is about 2200 feet above sea level. Both of these attempts ended with my time in the air falling far short of the required eight hours, due either to deteriorating cloud conditions or insufficient wind. Finally, on August 24, 1986, all the conditions were right for another attempt on Butler Mountain. Butler has a beautiful grassy dome and is surrounded on all sides by trees and bushes. One can see Asheville spread out below and the peaks of the Smoky Mountain National Park rise clear and sharp on the western horizon.

Planning an eight-hour attempt involves some logistics. The site has to be such that the winds predicted throughout the day are from the correct direction. There have to be enough LSF Level II (or higher) members present to properly sign vouchers. And there has to be sufficient daylight available at the end of the flight to safely land airplane.

I was flying a Paragon using only rudder and elevator, leaving the spoilers disconnected to conserve battery power. (Later in the day I would wish that I hadn't done that.) The flight pack consisted of four C-alkaline batteries with soldered connections. With only two servos on line, this was probably enough power

for several eight-hour flights. I just wanted to be very sure that batteries would not be a concern, because there were going to be enough other things to worry about during this long day. I had added one pound of lead ballast in the fuselage bay directly ahead of the wing spar.

My transmitter had its normal interior power supply, but I also had a waist pack of eight D-alkaline batteries with soldered connections, using a flexible lead to a DIN plug that originally was the trainer plug on the side of the transmitter. I had added a slide switch to the transmitter which allowed me to switch to external power. I planned to start flying with transmitter power on external and if the meter should show a drop into the red, I could switch to internal power knowing that there would be at least two hours of flying time remaining.

I launched at 10:27 A.M. About 250 feet down the north side of Butler Mountain is a row of large trees which can set up a fierce horizontal vortex or rotor, which one has to penetrate to get out into the main lift. The only way to succeed is to launch the airplane and dive along the contour of the hill through the turbulence. The airplane went through some violent rolls before it finally passed into the smooth laminar air out in front of the mountain. Then it shot up like it was on an elevator. If the airplane can not penetrate the wind coming up the face of the mountain, there is no way it will be able to penetrate the area of maximum velocity which occurs directly over the top of the mountain. If the plane doesn't have any excess penetration ability, it is important to never let the it fall behind the front of the crest of the mountain. If this should happen, even diving it steeply toward the ground will only cause it to fall further back... into oblivion.

At first, there was a low cloud deck over the mountain. The visibility up to the cloud deck was good, although the actual bottom of the overcast was indefinite at about 600 or 700 feet.

I spent the first hour of the flight keeping the airplane generally pointed straight out from the mountain and not allowing it to get too high. I was very concerned about having it get completely swallowed in the clouds.

At the beginning of the second hour I could feel an increase in air temperature and the bottom of the cloud deck began to rise noticeably. After noon, the bottoms of the cloud deck were quite high, I had essentially unlimited range out over the valley, and could reach heights where the stabilizer of the aircraft became indistinct due to the extreme distance.

During the third hour, the overcast began to break up, revealing a fair amount of clear blue sky. I could see small cumulus clouds begin to form out over the valley and as they moved in toward the mountain, they would build and fill out and become dark gray underneath. As each cloud came by, I could spend three or four minutes getting literally sucked up into the big, dark, evil-looking centers. But when the airplanes became very difficult to see because of the extreme height, I would have to dive out from under the cloud and quickly move over into some clear blue sky where I could get back down to a sensible height. The possibility of flutter due to high speeds and turbulence are a definite hazard in conditions like this.

As the day wore on, I experienced a predictable physiological situation. I had been very careful of the amount of liquids that I had consumed the night before and earlier in the morning. But Mother Nature seems to be a little cantankerous at best, and I had my first of several trips over to a convenient spot on the windward side of the mountain. Not only does wind tend to blow our airplanes about, it'll blow hardest when you need it the least. So when one is trying to keep one's eyes on the airplane and one's shoes dry, one will discover a Level V task that isn't on any LSF voucher.

I approached and passed the first milepost on this flight, 3-1/2 hours, the longest that I had ever flown. At that time, I began looking for the same kind of perceptual deterioration that I had encountered during earlier attempts. Very slowly, I started to realize that I was not taking an active part in flying my airplane. I would find myself acting more like an interested observer and had to mentally jerk myself back into the idea that I must control the airplane, not just sit there and watch it fly around. This problem will creep up on you as your mind wanders with fatigue, it's a potentially serious situation that friends must keep you aware of.

The wind then shifted a bit to the west of north and I had to spend the hours of the flight facing almost directly into

Airborne to be WILD!

Fly Full-Contact R/C Combat!

with virtually unbreakable EPP combat slopers!

MIG 3 WWII combat sloper
\$54.95*



Avro Vulcan
flying wing combat sloper \$54.95*

EPP'se Combat/Aerobat \$49.95*



* \$5.50 s&h




We've got lots more! Visit
<http://Planet-Hawaii.com/studiob>

Studio 'B' Design & Production, LLC

P.O. Box 514 - Kurtistown HI 96760
Tel/Fax (808)968-8721 e-mail: studiob@ALOHA.net

LSF Presidents		
Date	Name	LSF #
1969 - 1971	Bob Andris	4
1972 - 1973	Le Gray	9
1974 - 1977	Dan Pruss	60
1978 - 1981	Gordon Pearson	410
1982 - 1985	H. Warren Ploh	334
1986 - 1987	Robert "Skip" Schow Jr.	166
1988 - 1991	Bob Steele	800
1992 - 1995	Mike Stump	4738
1996 - 1997	Bob Steele	800

the sun. My visual acuity was deteriorating further, I was losing peripheral vision from staring at the sky for so long. It was all I could do to concentrate on the airplane in one small portion of the clear, blue sky.

I had spent most of the day either sitting in a chair or a lounge or just lying in the grass with the transmitter propped on my knees, with the tip of the antenna held stationary at a point in the sky. I would use the antenna tip as a reference and fly the airplane in a pattern around the tip of the antenna. This was a great help in keeping the airplane from wandering all over the sky.

Finally, the seven-hour mark came and it was then a matter of counting down those last 60 minutes. It was a very, very long hour. During this period, however, the wind increased and I was able to fly the airplane once again to an extremely high altitude. I would occasionally lose sight of the stabilizer and realize that I was too tired to judge the rate at which the airplane was climbing. I can remember asking my timer if I should come down. He said, "Stay up." And I said, "But, maybe it's getting too high." And he said, "Stay up." Every time I would ask him if he thought I should come down, he'd just say, "Stay up." I was so tired at that point that I absolutely could not make a judgment as to whether I should come down or how high the plane really was. He was correct. If you have altitude, don't throw it away. The wind can die without warning at that time of the day and every foot of altitude becomes precious.

Soon my friends began counting down the time remaining to the end of the flight. At ten minutes to go, I thought, "Just a regular old max. I guess I can handle that." They counted me down minute by minute, and soon I was racing through the last 60 seconds. Finally, they announced, "EIGHT HOURS!" Everybody cheered (probably because they knew they could finally go home).

It was time to bring the airplane down very carefully, because even though I had stayed up eight hours, the landing had to be within 200 meters of the launch point or the whole flight would be invalid. When I stood up from the lounge where I had been sitting for the past two and a half hours, I was so unsteady that a friend had to hold my shoulder and literally keep me from falling over. I didn't feel comfortable taking my eyes from the airplane and looking down at the ground, changing focus as I walked backwards and turned to see the landing area. My reflexes were very, very slow. The Paragon didn't have spoilers and was awfully high. With my fatigue, it was difficult to bring it down without building up too much speed. I started to spiral down and immediately succeeded in getting right smack into the sun. Turning around, I saw the grass and trees at an angle which began to disorient me a little bit. So I just planted my feet and stared at the airplane as it curved toward me around the top of the mountain.

The plane was rather heavily loaded with ballast and it was on approach at a high speed. On final, the Paragon encountered ground effect and began to accelerate. In this situation, the airplane could have zoomed right past me and right out in front of the mountain again. I was too tired to face another approach and knew I had to put the airplane down on the first try. So I pushed down elevator and blasted into the

"As to LSF stories, planned attempts to do thermal tasks always failed. Success came when least expected. One summer evening, circling a few feet above telephone poles over a paved intersection, I unexpectedly remained aloft over a half hour for Level 3. After trying all one year for the Level 4 hour task, and after a few flights of 3 minutes or so one cold morning the end of October, I figured flying for the year was finished and went home. Shortly after lunch the fellow I'd been flying with banged on my door announcing there was now lift all over where we'd been and to go for the elusive hour flight. The air was dead, it was gray overcast, frost still on the ground on the shady side of buildings. I launched, headed out over an adjacent cemetery and stayed up an hour, probably never getting more than about 300 feet high. I can understand the continuous lift rising over the hot intersection, but can't figure that one at all. I've never been able to repeat either experience in the same spots."

Harley Michaelis, LSF 023

grass. After winning all those tough contests and after all the practice I had for landings for Levels I and II, my last task for Level V resulted in an upside-down landing! Oh, well...

As I think back about the flight, I realize that we who have made an eight-hour flight have experienced something unique, the opportunity to watch the sky continuously for an entire day with no interruption. I watched the sky go from overcast, dark and gray, through various stages of cloud, until it was clear and brilliant blue. I saw all the changing cloud formations and watched them form from nothing and grow and become full-sized cumulus and then dissipate. I watched the changing sunlight color the sky and I flew with several hawks. And I saw all of this as one continuous visual experience from 10:30 in the morning until 6:30 that evening. All of you have watched clouds form, and watched the sky,

"LSF is one of the best programs we have in soaring. I'm surprised more clubs don't get people involved through LSF task days, especially to get aspirants through the first 2 levels."


"Out at ISS (before it was ISS), we used to hold a contest for anyone who had sent in their documents for Level I. That way they could have their first contest right at home. It only took 5 people to qualify for a Level II contest and we'd make up little trophies from wood scraps and stencils and give them a name. The TRCGC was our first (Tony Read Commemorative Glider Contest). Followed by the Tall Paul (for Paul Trist), the GNATS (Gary's New At This) and others. Each one had a small trophy for the new Level I pilot, so no matter how it came out there was a little something for them. Seemed to help break the ice and overcome the trepidation that sometimes comes with starting out in contest flying."

Dave Register


but how many of you have actually seen it evolve through an entire day and not miss a single thing? Many of you will call it complete physical and mental anguish. I think it was a fascinating experience.

I owe a big debt of gratitude to all those people who have helped me achieve Level V. I am pleased to be able to share my experience through the courtesy of RCSD and perhaps encourage some of you out there to continue until you have your Level V, also. It seems that once someone completes a difficult task, others become encouraged to try and that is the real spirit of modeling. So for those of you who still look forward to your eight-hour flight, or any other task, perhaps some of the things I have shared with you may help you prepare for that day when you climb a mountain somewhere and throw your favorite bird off into another world.

Good Luck and LIFT! ■



Nimbus 4-D
130" Wingspan
\$499.95



Duo Discus
88" Wingspan
\$399.95

Gallery of Gliders

Specs.	ASW-1924	PLATUS B-4	LUNAK LF-107	DISCUS (1:3.5)	DG 800 (1:4.5)	NIMBUS 4-D
Wing Span:	49 in./64 in.	57 in.	66 in.	168 in.	137/165 in.	130 in.
Length:	28.3 in./28.3 in.	29.5 in.	28 in.	74 in.	62.5 in.	46 in.
Wt:	9 oz./11 oz. \$139.95/\$159.95	10.5 oz. \$149.95	15 oz. \$159.95	200 oz. \$1199.95	123 oz. \$899.95	54 oz. \$499.95

CALL FOR FREE CATALOG **HOBBY CLUB** WWW.HOBBYCLUB.COM

931 CALLE NEGOCIO-Suite F-SAN CLEMENTE, CA 92673 - Phone (714) 498-5377/FAX 498-5340

Now available: complete line of glider accessories: Canopies, Markings, Retract UG, Airbrakes, etc.

BOB IS HERE!



Poly Bob

\$55.00

+ Shipping & Fondling

Bob can be built polyhedral or w/wingeron!

Poly Bob can be built and rigged in 4 to 7 hours.

Bob's specs speak for themselves.

Bob's Specs:

- Wingspan 60"
- Root 7.5" Tip 4.5"
- Wingloading 4.2 or less
- Weight 10.5 oz with: micro servos 270 mah battery micro RX in case.
- Weight 9.5 oz with: Sub-micro servos 150 mah battery micro RX out of case

Bob is a true competition ready HLG that happens to be built out of foam and wood.

From the Foamer People at:

The Torque & Recoil Club • 7004 Chinook • Austin, Texas 78736

Ph 512/454-0061/Fax 512/301-1782 • foamer@aol.com



Back row (R - L): Larry Jeffery (goal spotter), John VanderPlow (site manager), and Sid Smith (pickup driver). Plane Sagitta 900 w/sniffer and fully sheeted wing. Picture by Walt Good, spotter.



The 8 hour slope flight in Alberta, Michigan. (L - R): Bob Robinson (also got 8 hours), Roger Fish (witness), Al Reaime (witness), Cal Posthuma, and Larry Jeffery (witness).

The Road to Level V

By Cal Posthuma, LSF Treasurer
Edinburg, Texas
CalPlsf@aol.com

My road to level V started in 1977. After several years of power flying, I got hooked bad on soaring. A fellow flyer in the club encouraged me to get started in LSF. As soon as I got the form, I finished it in two days. My experience from years of power flying helped with the landings.

It took me 6 years to reach level IV; all I had to do was the Goal and Return. In the meantime, I became friends with Walt Good, who helped me with the Goal and Return. I was flying a Sagitta 900 with some modifications. Walt Good marked the 2 km, waited for the airplane, and then came back so we could turn around. First altitude was gained to about stab disappear level. At first, I was going to use the wheelchair lift on my van, but it conveniently broke and made that impossible. Probably just as well, as I



Larry Jeffery pushing Cal to Level IV Goal & Return, 1.2 miles.

did not relish the idea of riding on it. While all were discussing how to get me down the road, I took off in the wheelchair. It wasn't too bad with the stable Sagitta, but was too slow. At a rate of 3 mph, the flight would be a long one. One of

my crew said he would push me, so out went the clutches and off we went, as fast as he could run. My hat blew off; he went to get it, but did not realize I was free wheeling. I went down in the ditch and ended up trying to keep the Sagitta, flying over my shoulder. Once he got me back on the road, I said, "Forget the hat!" The sniffer was still singing, so on down the road we went. The next problem was that the pusher was getting tired, so we ended up changing, every 10 minutes or so, with a fresh body from the trailing van. Finally, Walt Good could be seen driving towards us, saying the goal was achieved. Now, I could finally start on Level V. The year was a good one: 1984.

My first achievement was one of the tough ones: an eight hour slope flight. I did not want to risk my Sagitta, which was my primary contest plane, so chose my Windrifter. I had modified my Kraft transmitter with a side jack, which would switch from internal nicad to an external alkaline pack, seven alkaline cells C type. I kept a spare set for backup. I CAed 4 alkaline C cells into my Windrifter on the CG. The wind was up, but the direction was about 30 degrees off the slope. The weather did not look good, so I sealed the spoilers and wing joint with tape, in case I had to endure rain. Good thing I did, too. We tossed the Windrifter over the 400' slope at 11 A.M. It was gusty and the Windrifter bounced around a lot, but seemed to maintain a 50' to 100' spot over the slope. I had to endure rain and cold, which was unusual for an August day. Every time a rain squall came through, I got a bad wind shift. Once the plane turned around, I toured the parking area, before regaining control, and finally got it back over the slope. It is very hard to maintain concentration when you get about six hours in. The angle of the wind forced me to be real careful, as the plane was only 20' up, above the slope. I had to switch batteries a few times on the transmitter, but with an hour left, I went on internal nicads. In the last 15 minutes, the wind finally came around to the slope. Much celebration and, "I don't think I can do this," came from my witnesses.

A two hour thermal flight came on the 4th of July, when our club holds a yearly LSF bash. I launched the Windrifter at 11 A.M. for a test flight. The lift was real good. I got the plane so high that I could only see it if a cloud was behind it. To get from cloud to cloud on the cloud street, I had to use the spoilers, get down a ways, and then catch lift under the next cloud. The sniffer again was invaluable at altitude. It went well and all I suffered was a sore neck.

My last contest for level V came that summer, as well. It ended up with a flyoff with Ken Bates for first. I almost destroyed my Sagitta in that contest in a hard landing. Lots of help from my fellow competitors got me back in the air before the last round. Many thanks to Walt Hill for his repair.

The Goal and Return was the last thing I needed to do. I chose the Sagitta, again. This time I

"I have been in the LSF for about 1.5 years and am currently a level 2. I like the LSF because it gives me a way of measuring my growth as a pilot." ...Jon Stone

smartened up and got a pickup truck. I put a ground crew together: field and equipment watcher, John VanderPlow, and goal spotter, Larry Jeffery. We used a CB to communicate this time. Walt Good was my spotter and Sid Smith, my driver. It takes a good crew to do this and I had the best. It was a warm day with light winds and no clouds. The lift was strong but quite far apart. It took a few flights, as I sat in the truck, to get the Sagitta high. I took off down the road looking for lift. It seemed the lift was a mile apart and concentrated near tree lines and gullies. I made the turn at the goal, but got too low and had to land out. I was disappointed in myself. Larry said, "Are you going to try again?" I replied, "Why not!" At least I knew what I did wrong, and the rule this time was to use every bit of lift and stay HIGH. Since I knew where I caught lift before, it was easier. An hour later I was in sight of the start point, but only 200' up. I heard a scream from the sniffer and used that last thermal to make it back.

After several years, I decided to do this again. I only have the 8 hour and Goal and Return to go. It went faster this time.

What is the benefit of getting a Level V? A lot of knowledge and skill, but most of all the friends you get along the way. ■

F-86 Sabre

EPP INDESTRUCTIBLE
Foamie Scale Combat Sloper
SPAN: 48" AIRFOIL: SD6060



\$54.95 + \$5 S&H

Send a SASE for a FREE CATALOG

MM *Glider Tech*

P.O. Box 39098, Downey, CA 90239

562-923-2414

e-mail: mmglidrt@keyway.net

Aerospace Composite Products

Vacuum Bagging Video

NEW!



90 minutes
of How To
Instruction!

The video that shows you how.

How to vacuum bag a set of obechi sheeted foam core wings.
How to vacuum bag a set of big scale wings.
How to vacuum bag a set of fiberglass skinned wings.

Plus, a run down on all the materials you need, helpful tips, techniques to let you confidently bag your own.

AEROSPACE
Composite Products

only \$19.95
plus \$5.00 shipping.



14210 Doolittle Drive, San Leandro, CA 94577 • Orders: (800) 811-2089 • Information: (510) 352-2022

Matt Sheldon Achieves LSF Level VIII!

By Mark Howard
Golden, Colorado

Matt Sheldon managed a two hour flight today to complete his LSF Level V certificate. Matt is the first Rocky Mountain Soaring Association (RMSA) member to reach level V and the second Colorado pilot to achieve this status. Matt flew a Sagitta X-C. Matt's flight was anything but boring. He made three attempts Sunday, after the annual club picnic. His first attempt broke the winch line. After getting the ship down safely, he launched again into marginal air. On this flight he got only one decent thermal, resulting in a 15 minute flight. His third launch did the trick. Matt ranged to the four corners of the compass in search of lift. The best thermals were found to the south and east of the sod farm - where the dirt has recently been graded and plowed. A northerly venture proved unwise. The sink almost did Matt in; but a push to the better air in the east spared him. Once he flew to the limits of visibility through sink the whole way. He knew if he turned around he'd be finished. Finally he hit a bubble, but he could only get a glimpse of the plane every now and then. Three additional pairs of eyes lent assistance. Shouts of, "Turn NOW!" could be heard across the plains. Fortunately, the bubble widened and eventually migrated closer to the sod farm. Everyone relaxed again, sat back, and breathed a sigh of relief! Matt laughed, "I could only see the plane once every two circles or so!" Matt got a cool drink and remarked that he thought the eight hour slope flight was easier!

With about thirty-five minutes to go, Matt noticed that Phil Weigle was up in a thermal to the southwest that seemed promising. Matt tagged along and climbed up to the base of a passing "cumie". If he could manage to hold on under the cloud base, he'd have it made. He flew into the cloud several times - each time popping the spoilers on to lose altitude. Matt had a tough decision to make. He couldn't climb, because he'd lose the plane in the cloud. He couldn't move away from the lift, as he was blocked in on the right and, closer in, by a menacing (black) cloud; to the left was bright sky, which would provide no contrast to see the plane. He couldn't move away any farther out, either. If he started down, he might not make his time. While he pondered the choices, he constantly applied more and more spoiler, as he cut back and forth across the cloud that was moving him towards his goal, but at the same time taking a "death grip" on the plane. Full spoilers and still climbing - at the 1:57 mark - time to start down. Three diving passes back and forth and no noticeable descent! More DOWN! NO! That's TOO much! Pull UP! Finally she pulled out. She was OK - away from the killer cloud in normal air and VISIBLE! Several minutes later she was on the ground, safe after over two hours aloft.

So, on the first day after the summer solstice in the year 1997, Matt Sheldon achieved the goal of many years and joined a select fraternity of only a hundred special pilots. Congratulations Matt! Well Done! ■

"One aspect of soaring that people in the less soarhead populated areas miss out on is the person to person relations. However, LSF doesn't allow this. You have to get a credible witness out there to sign off on your accomplishments. Typically, this will be another flier, and invariably, they are going to give advice, tell their own stories, and simply exchange with you. If they aren't fliers, they are likely to be interested in the hobby, since it would be tough to get someone who's not interested to trudge out to the middle of a field, or onto a precarious cliff, to watch you fly a 5 minute flight. Or worse, watch as you inch closer to that 10 foot landing, as each time the smallest of wind gusts blows that trainer just outside the circle! Personally, it's hard to coordinate mutual times to get out to the glider field. The accomplishments program encouraged me to do so, and I'm happy it did. The same goes for the competition flying. Sometimes its hard to realize how many glider fanatics are within a 3 hour drive of you. And once you meet them, you want to talk about everything you've learned or are trying to learn, but simultaneously beat them by 1000 points in the contest standings."

Adam Weston, LSF 7179

CLIMMAX

NEW! PF

60" Span Hand Launch

60" Span, 4 Channel Epoxy/Kevlar Body-13-15 oz flying wt.

FiberGlass Body & Pre-Sheeted Wing

\$99.95

Light-Fast & Affordable

60" Span **BLAZER**

Our New Poly-Flaparon design for the ultimate in Thermal Hand Launch competition flying. Turns like a polyhedral with the speed, penetration and chamber control of a flat wing.

CR

Fiberglass Kit \$99.95

Pre-Fab \$199.95

RENEGADE

60" Span Slope Racer

CR-15

Factory-Built Composite ARF

\$279.95

SEND S.A.S.E. FOR FREE 97-98 CATALOG

CR High Performance Products • 205 Camille Way • Vista • CA • 92083 760 / 630-8775

CompuFoil Professional for Windows

Phone/Fax: 513-274-7164
Eric Sanders 9am-11pm EST
3004 Traine Dr.
Kettering, OH 45429

The most popular airfoil plotting and modification program has just gotten better. Fully reprogrammed in optimized C++ for speed, with enhanced features, wrapped in a professionally developed Windows interface. Available options allow you to: create full sets of inflated ribs in either straight taper, elliptical, or modified elliptical planforms, complete with spar slots, jig holes, leading edges, sheeting, foam templates with wire keel compensation, stations, ramps, airfoil transitions, etc... or leading edge shaping guides. Customize airfoils with a full host of modification functions, directly coordinate edits, or with the built in CAD utility while viewing overlays. Create .DXF files and NACA 4,5 and 6 digit airfoils with the click of a button as well as true print previews and automatic tiling of templates. Email to compufoil@aol.com or log onto the CompuFoil web page and download a working demo version of CompuFoil at: <http://ourworld.comuserve.com/homepages/CompuFoil> or <http://members.aol.com/compufoil>

Priced from \$35 to \$113, plus \$2 S&H depending on purchase options. Options user upgradable.



**Used by NASA, schools, universities, major model mfus, and hobbyists world wide

Wouldn't you rather be building and flying than drawing templates by hand? Let CompuFoil make it easy!

ARF Kit Specifications:

Span: 60"

Length: 59"

Airfoil: S4083

Wing Area: 366.5 in.²

Weight: 10 - 12 oz.

Wing Loading: 3.9 - 4.9 oz./sq. ft.

Color: Krylon

(Additional cost/extra color.)

Bludartar

(Texas for Coopers Hawk)

\$160.⁰⁰ INCLUDES S&H U.S.A.

(Does not include Texas Residents tax)

ELECTRIC & V-TAIL VERSIONS AVAILABLE



Kit Contents: • Composite wing pre-cut, fiberglass fuse, canopy, rudder, elevator, throwing bar (graphite shaft, body pre-drilled) • wing mounts pre-assembled • dowel pre-drilled • nylon screws, rasy hinges, & fiberglass tape

Carl McBurnett, 7506 Legend Point Dr., San Antonio, TX 78244
(210) 662-9503 • bludartar@mindspring.com • <http://www.mindspring.com/~bludartar>

IS YOUR EPOXY SETTING WORLD RECORDS?

PRO • GLAS Epoxy System

<http://www.ihpva.org/Raven/>

Fiberlay

In Use Today By The RAVEN

An aircraft designed to break the world record for human powered flight

We invite you to compare prices on our 4:1 system
20 oz kit \$19.41 ♦ 40 oz kit \$24.34 ♦ 80 oz kit \$37.57

Call or email today and Receive your FREE CATALOG
1-800-942-0660 or <http://www.fiberlay.com/>

December 1997

Page 29

IN THE NEWS

International 2M Postal



Morten Munkeso, Seelands Model Soaring Club, Denmark, SMSK, reports, "I hereby forward the results of the our International 2m Postal event. The contest turned out to be more National than International, as none from outside Denmark joined the game.

"The weather was fantastic. We flew from 5-9 in the evening, with lovely thick air most of the time. I managed to get 2nd place which is, in fact, not too bad.

"I have had contact with at least 50 US soaring clubs during the spring, but it seems that they are not very interested in 2-meter postal events. I get the feeling that the 2-meter class is going down a little this year. Often, F3J now is the favorite choice. Anyway, our result of the event confirms this. I spoke with Chas Gardiner recently, and it is his impression that the F3J is now the interesting class, so perhaps we should arrange a world wide postal F3J event instead? What do you say?

"I forward our group picture as always."

Morten, perhaps the best way to find out what type of postal event folks would be interested in is by taking a survey so to speak.

So, readers, if you wish to get in touch with Morten, his e-mail is <mmu@post5.tele.dk>. Ed.

Retracts

If you're looking for a retract for a scale sailplane, and don't mind assembly, Gene Cope has a number of kits available: 1/5 or 1/6 size is \$35, 1/4 is \$40, and 1/3 is \$60. Gene can be reached at 3203 1/2 Main St., Union Gap, WA 98903; (509) 457-9017, after 5 p.m., PST. Ed.

"German Air Attache"

"German Air Attache" is the thrilling story of the German Ace Pilot and Wartime Diplomat Peter Riedel, written by Martin Simons. The October issue of RCSD included an announcement on availability and how to order from Airline Publishing, England. Shipping in November, this book is also available from Raul Blacksten at <raub@earthlink.net>, or P.O. Box 307, Maywood, CA 90270. Cost is \$32.95 plus \$3.00 each P&H, check or money order, in the U.S.A. Foreign orders please inquire about additional postage. Raul also carries Martin's "World Vintage Sailplanes 1908-45" and "Slingsby Sailplanes". Ed.

"The Collected Works of Stan Hall"

We received a press release from Dan Armstrong, Secretary-Treasurer of the Sailplane Homebuilders Association (SHA). The SHA is offering "The Collected Works of Stan Hall", a compilation of all the writings of Stan Hall, a prolific author of sailplane design, construction, flying and testing. Writings in the collection encompass the 1950's into the 1990's, including all his articles that appeared in *Sailplane Builder*, *SHA Talk*, his column "Homebuilders Hall" from *Soaring* magazine, and more.

Over 300 pages, all profits go to support of SHA activities. Cost is \$23 USA, \$26 Canada/Mexico, and \$28 for all others. Includes P&H. SHA, c/o Dan Armstrong, Sec-Treas., 21100 Angel St., Tehachapi, CA 93561.

D.E.A.F. Electric Fly-In

The 11th Annual D.E.A.F. Electric Fly-In was held in the Dallas, Texas area on October 4 - 5,

1997, and Greg Judy advised us that they had the biggest turnout, ever! There were 43 registered pilots flying 125+ aircraft. There was also a significant increase in the number of scale aircraft on display, including excellent Speed 400 powered scale ships. Fifteen aircraft registered for the stand-off scale judging. The newest activity for them was the Speed 400 Pylon Racing Demonstration, with 8 pylon ships racing in 3 heats.

Greg also says, "We hope to see you next October for our 12th Annual D.E.A.F. Fly-In. We'd appreciate any helpful comments." For more information, contact Greg Judy, 212 Freedom Lane, Arlington, TX 76002; e-mail <TheJudy@flash.net>.

T.N.T.



Skyline "Aces"

We received some photos taken at the Texas National Tournament, also held in Dallas, from Lynn Williams. The first photo shows hand launch winners (L - R) Fred Mallett, Jim Ferris, Tom Meeks, Larry Sengbush, and Julian Tamez. Hand launch ships flown in the event were Monarch, Corn Dogger, Epsilon, Blutartar, Skeeter, Illusion, and 2 original design. [Top Novice was Stew Gibson; Sportsman were Bob Dixon (1st), Jerry Porter (2nd), and Chris Vanderbilt (3rd).]

The overall T.N.T. Champion, who took possession of the perpetual trophy for the year, was Jim Frickey of Kansas. Congratulations go to all the T.N.T. participants and helpers. Henry Bostick did an excellent job; the Skyline "Aces" did a wonderful job keeping up with the contestant scoring, as well. ■

PERFORMANCE COMPOSITES

Before buying your next glider, make sure to get our brochure on the many variants available of our popular Starling and Starship, 60" and 2m gliders. All feature rugged 100% Kevlar™ fuselages.

PERFORMANCE COMPOSITES

P.O. Box 6843, Napa, CA 94581
(707) 253-8029

e-mail: perfcomp@community.net

If you've got news, just send it in!

NEW PRODUCTS

The information in this column has been derived from manufacturers press releases or other material submitted by a manufacturer about their product. The appearance of any product in this column does not constitute an endorsement of the product by the R/C Soaring Digest.

"Endless Lift"

...from Paul Naton



A New Soaring Adventure Video

Join top westcoast soaring pilot, Paul Naton, on his 30,000 mile journey around the United States flying R/C sailplanes in many wild and wonderful locations. This professionally produced, one hour soaring video features incredible flying action from handlaunch thermaling to heavy-wind sloping at some of America's most beautiful and unusual locations. This video has received rave reviews from soaring publications and from hundreds of pilots from all over the world. "Endless Lift" also features a digitally mastered stereo soundtrack featuring some of California's top instrumental composers. From Kitty Hawk to Cape Cod, from Baja Mexico to Crater Lake, this video covers the four corners of the country and places in-between. Scenes include slope flying bridges in the Florida Keys, handlaunch flying from an ice field in the Montana Rockies, sloping dunes at Cape Cod, magnificent full-scale soaring in Pennsylvania, a tour of the best locations in the Pacific Northwest, and much, much more. This video is guaranteed to amaze and inspire anyone interested in soaring and demonstrates that you can fly anywhere, anytime with today's high performance sailplanes. Run time is one hour, NTSC VHS format, with a stereo soundtrack.

"Endless Lift - A Soaring Adventure" @ \$29.95 per copy plus \$3.00 shipping and handling. Send check or money order made to: Paul Naton, 349 1/2 Ocean View, Encinitas, CA, 92024. For more information call 760-634-2348 or e-mail Paul at pnatona@cts.com. ■

Bill Northrop's Plans Service

Bill Northrop has obtained the exclusive rights to the *Model Builder* plans service, offering more than 800 plans originals. This includes 38 R/C gliders and about 12 free flight A/1, A/2, A/3, and HLG listed in the *MB* catalog (and shown in the illustrated catalog); there are 16 F/F and R/C gliders in the *Scratch Builder's Almanac* (S.B.A.), including 12 early JASCO towline and HLG designed by Frank Zaic, and four blow-ups on the *Sailing* and *Thermic 50*, plus two scale R/C gliders.

Plans, Price List Booklet and *Scratch Builder's Almanac* can be purchased from Bill Northrop's Plans Service, 2019 Doral Court, Henderson, NV 89014-1075, (702) 896-2162, M-F, 10 a.m. - 5 p.m., fax (702) 897-7775, anytime. ■

NEW PRODUCTS

JD Pilot Figures

...from John Derstine

JD pilot figures are sailplane specific, 1/3 scale pilots. True to scale, they come complete and ready to put in the cockpit. Two pilots are currently offered. Dieter, with real hair and hand painted face, represents more of a caricature. With his unruly look he is sure to appeal to the person who wants the unusual. The second pilot, Johann, is a realistic sculpture with molded-in hair. He has a handsome visage for those with more traditional tastes. Both full figure pilots include: (1) soft body, (2) plastic resin (forearms gloved hand, and lower legs with feet), (3) hollow cast resin head individually painted, (4) sunglasses, (5) hand sewn red jumpsuit, (6) real hair (Dieter only), and (7) floppy hat (Dieter only for now, although one will be added soon for Johann).

Price for Johann is \$130.00 (less hat), Dieter is \$135.00. Shipping extra \$8.00 US address; PA residents add 6% sales tax. Allow 4-6 weeks for delivery as each figure is made to order. Contact John Derstine at 717-596-4392, e-mail: <johnders@postoffice.ptd.net>, RD #3 Box 336, Gillett, PA 16925. ■



1/4.5 Pilatus Turbo Porter PC6

...from Sailplanes Unlimited, Ltd.



The 1/4.5 all glass, Pilatus Turbo Porter PC6 has a span of 140". The length is 96" and, depending on the motor, it will weigh in around 35 lb. It will take a Saks 5.8, a 3w80R2, or a 3w120R2. With the more powerful 120, it will tow the largest of sailplanes with ease. Although not for beginners, the plane is stable and easy to fly. Color choice is white or yellow. Larger, lighter and more powerful than the Turbo Porter seen at Elmira and Fayetteville '97, this work horse is sure to be a show-stopper on and off the ground.

Contact Sailplanes Unlimited Ltd. for more information at (212) 879-1634, or visit the web at <<http://www.sailplanes.com>>. ■

1/2.5 Fox by Bruckmann

...from Sailplanes Unlimited, Ltd.



Incredibly light for its size, the 1/2.5 Fox by Bruckmann is made to order, including the wing section, and the price varies depending on the state of completion. The model has a 222" span, and weighs around 30 lb., or less, one of the lightest, giant scale sailplanes ever seen.

What follows is one example of a completed model recently imported. A beautiful, extremely light yet strong, gloss white finished Kevlar™ fuselage included the wing joiner tube glued in place; canopies were fitted and glued onto the canopy frames.

The completely finished and ready to cover obechi wings are already aligned to the fuselage, with wing joiner tube built in, spoilers installed, ailerons finished and hinged. The gloss white, all glass rudder and stab are finished, hinged and ready to go. The combined weight of all of these parts is only 20 1/2 lb.. Only 2 to 3 lb. of lead are required for balance.

Priced from \$1,995, contact Sailplanes Unlimited Ltd. for more info. at (212) 879-1634, or visit the web at <<http://www.sailplanes.com>>. ■

Bowlus Baby Albatross

...from Sky Bench Aerotech



The Bowlus Baby Albatross is a 122", laser cut short kit. Kit parts are CAD drawn from Col. Bob Thacker's construction plans/article, which appeared in *Model Builder* magazine's September 1975 issue. Wing tip, rudder, and stab fins are modified to fit balsa wood trailing edge, in place of 1/16 steel wire, as shown on plans.

Kit contents include balsa wood trailing edge parts for wing/rudder/stab, plywood formers, stab control horn, fin parts, root ribs for wing/stab, steering yoke, instrument panel, and balsa wood ribs for wing/fin/rudder/stab. All parts cut exactly to plans, with slight weight saving modifications to some fuse formers.

Kit price is \$97.80 plus \$5.95 S&H. Sky Bench Aerotech, P.O. Box 316, Washington, MI 48094; (810) 781-7018. Plans can be purchased from Bill Northrop's Plans Service, 2019 Doral Court, Henderson, NV 89014-1075, (702) 896-2162, M-F, 10 a.m. - 5 p.m. ■

Mini-Ellipse

...from Ellipse U.S.A.



The Mini-Ellipse is an all composite hand launch/slope RC glider. Fully molded, it has a 58" span, RC-15 modified airfoil, elliptical wing planform, and V-tail configuration; fuselage is glass construction with removable canopy; colors are incorporated in the molding process. Top of wing and stab is white; bottom is optional in standard colors, with custom colors available on special order.

Servo wells are molded in the wings to accommodate mini servos; servo covers are molded; ailerons and elevators are hinged, and hardware is included - ball joint for ailerons. Hollow wing is constructed in CNC mold of glass and Rohacell™, with carbon spar. Completed V-tail is ready to mount; elevators are actuated via cable or wire pushrod. Instructions include optional elevator control configuration; launch options include both bungee and high-start.

RTF, it requires only the mounting of the V-tail (completed), a wash job, and radio installation. Expected flight performance will be best derived by the intermediate/expert pilot. Also available as an electric with Speed 400, 7 cell.

Price is \$285.00 plus \$15.00 S&H. Ellipse U.S.A., Inc., 510 West 9460 south, Sandy, UT 84070; ph/fax (801) 567-9542. ■

SCHEDULE OF SPECIAL EVENTS



Feb. 15

Detroit, MI

Fayetteville '96, Lehman photo.

GDS&HS Sno-Fli
Dave Corven, (248) 656-1879

Feb. 20-22

(raindate Feb. 27-March 1)

Pensacola '97 Scale/Airtow Pensacola, FL

Asher Carmichael, (334) 626-9141
ACarmic985@aol.com



Pensacola, Lehman photo.

May 15-17

Los Banos, CA

Los Banos Slope Scale Soar-In
Lynsel Miller, (408) 275-6403



Los Banos, Lehman photo.

June 11-14

Elmira, NY

Elmira Aerotow '98
John Derstine, (717) 596-2392
johnders@postoffice.ptd.net



Elmira '96, Lehman photo.

June 26-28

Louisville, KY

MSSC '98
Ed Wilson, ewilson1@bellsouth.net

August 14-16

GNATS Scale Fun Fly Niagara Peninsula, Canada

Gerry Knight, (905) 934-7451

Don Smith, (905) 934-3815

mistral@niagara.com, linden@niagara.com

ELMIRA AEROTOW '98 AT HARRIS HILL



COME FLY WITH US AND SOAR TO NEW HEIGHTS!

June 12-13-14 1998

HELD IN ELMIRA, NY

SOARING CAPITAL OF THE U.S.

HOSTED BY: HARRIS HILL L/D R/C

co-sponsored by:

The National Soaring Museum
The Harris Hill Soaring Corp.

Our event this year will again be at Harris Hill. There are some new developments to report. This year we will be given exclusive use of the Harris Hill Soaring Corporation's airfield on Thursday and Friday the 11-12. Thursday will be open flying (aerotow or slope) for early arrivals. Friday will be the start of the official event with radio impound. The field will be shared with full scale sailplanes, including ASK-21's, and Schweizer Trainers on Saturday and Sunday 13-14. Rides will be available during these days. Factory demos are scheduled for Saturday afternoon. National and international vendors will be showing their wares. The emphasis will be on fun and aerotowing, as well as some fantastic slope soaring, if conditions dictate. Tow planes and experienced pilots will be there to tow you to altitude. Bring your 3 meter (118") or larger aileron sailplane with nose release and join the growing aerotow movement. Scale gliders are recommended, but not required. We will have a few scale sailplanes available on site for those who can't bring their own. This year we are going to have pilots choice awards and a special award for the best Schweizer scale sailplane. Other prizes to be announced. On Friday evening there will be a picnic at the Harris Hill Youth Camp adjacent to the flying field. We will have an evening banquet Saturday night at the National Soaring Museum. Guest speakers to be announced.

More exciting plans are in the works, so keep an eye out for further developments as they become available. Current AMA membership is required. There will be a \$25.00 pilot registration fee. For details & info. (including shipping your sailplane to Elmira), contact:

John Derstine
717-596-2392

johnders@postoffice.ptd.net
http://www.Geocities.com/
CapeCanaveral/Lab/5739

Outside U.S.A.

Aug. 1998

F3J World Championships, organized by BARCS

1995 - 1998 Nostalgia Sailplane Event Rules

(These are the official rules that have been used at the NATS for several years. Jack Lafret is the "Keeper of the Nostalgia Rules" and his e-mail address is <tails@tin.com>. These rules will be used at the 1998 Mid-South Soaring Championships, according to Edwin Wilson, <ewilson1@bellsouth.com>. Ed.)

Date of Release

The latest accepted magazine date for the published design, or release of a kit will be Jan. 1, 1980.

If the kit or published design had several release dates that include modifications to the design, only those prior to Jan. 1, 1980 will be accepted.

Airframe Requirements

• Items that must duplicate the original

The plane must replicate the original styling and appearance and comply with the vision of the Nostalgia event (Vision is stated under Special Items).

Airfoil, flying surfaces plan forms, moments and surface areas...

Fuselage form or stylings in outline both in side and plan views. Basic construction (i.e., open bay wing structure, wood vs. fiberglass, etc.)

• Items that can deviate from original

Control surfaces... If desired, on plane with no glide control capability, spoilers may be added to the upper wing surface as long as the plans do not call for any other glide control device. If the plans have a glide control system, it must be the one used and shall not be deviated from.

If spoilers are added, they must be designed to minimize the effect on styling of the original aircraft. (An example would be on an open structure wing; the spoiler system must be of the minimal dimensions including the area around the spoiler bay used to attach the covering.)

Any interior, non-visible, structural modifications to enable the plane to handle modern launch equipment and techniques... Some examples:

- Substitute spruce for balsa
- Carbon fiber reinforcements
- Larger joiner rod
- Stronger tow hook
- Wing incidence and decalogue
- Wing mounting (bolt vs. rubber bands)
- Removable or bolt on stabs, rather than permanent stabs as long as the assembled position replicates the original and visible architecture is unchanged.
- Dihedral (either tips or center or both) can be modified a maximum of 25% of the original for personal handling characteristics.

Special Items

- Radios can be of any type legal to operate, and electronic mixing is allowable on any set of surfaces.
- The use of landing arrestor devices is prohibited. This does not eliminate the use of a smooth surface skid to protect the bottom-landing surface of the aircraft from scratches and nicks.
- The CD will have the final vote on legality for 1996 on any item not covered in this document... Bear in mind that the vision of the event is to duplicate the spirit of the old days in styling and form of aircraft and flying capability of said aircraft and only those changes consistent with launch and landing safety would be allowed. The final proof of legality of a design for this event lies with the contestant and having an original set of plans would be the optimum way to settle any questions. ■

R/C Soaring Digest

Classified Advertising Policy

Classified ads are free of charge to subscribers provided the ad is personal in nature and does not refer to a business enterprise. Classified ads that refer to a business enterprise are charged \$5.00 per month and are limited to a maximum of 40 words. The deadline for receiving advertising material is the 1st day of the month. (Example: If you wish to place an ad in the March issue, it must be received by February 1.) RCSD has neither the facilities or the staff to investigate advertising claims. However, please notify RCSD if any misrepresentation occurs.

Personal ads are run for one month and are then deleted automatically. However, if you have items that might be hard to sell, you may run the ad for two months consecutively.

For Sale - Business

PC-Soar Version 3.5 Sailplane Performance Evaluation Program Optional Sailplane Library now expanded to 54 models including: Alcione, Anthem, Genesis, Mako, Probe, Thermal Eagle, and Synergy-91. Free Library Upgrades. PC-Soar Upgrade to Ver. 3.5 \$10, PC-Soar New Purchase \$40. New Libraries of Sailplanes and Airfoil Polars \$30. Please include \$3 P&H for all purchases & upgrades. Also available: Laser cut airfoil templates. LJM Associates, 1300 Bay Ridge Rd., Appleton, WI 54915; ph: (920) 731-4848 after 5:30 pm weekdays or on weekends; <http://www.athenet.net/~atkrn95/pcsoar.htm>

PRECISION AMAP WING CUTTER, replacement parts, and service. AMAP Model Products, 2943 Broadway, Oakland, CA 94611. Butch Hollidge, (510) 451-6129, or fax (510) 834-0349.

A.M.P. Aerial Model Products, sport, slope, race prototypes - all airfoils. 60" Del Valle Snake, 94" H&K Cobra, AMAP Flair, Kevin Cutler's full house Davenport Monitor. All race tested. Butch Hollidge, (510) 680-0589, eve, California.

PARACHUTES: \$10. Dale King, 1111 Highridge Drive, Wylie, TX 75098; (972) 475-8093.

SOARING SIMULATOR - for PC's. Ka-8, LS-1F, SB-10, ASW-27. Realistic aircraft and weather model. Lift from thermals and slopes. Winch launch or aerotow. Target, target-return, and triangle courses. Dynamic scenery. MUCH MORE! Free Demo Available. geewiz@wwnet.com. (248) 932-0825.

PLANS - R/C Sailplanes - Scale, Sport & Electric. Old Timer & Nostalgia - powered, rubber, and towline. Scale - rubber. All models illustrated. Catalog: \$2.00. Cirrus Aviation, P.O. Box 7093 Depot 4, Victoria, BC V9B 4Z2, Canada.

IMPROVE YOUR LANDING SCORES with unbreakable injection molded polyethylene landing SKIDS, SKEGS and TEETH. Free catalog w/other unique soaring accessories. Tim McCann, P.O. Box 2091, Harrison, AR 72602, (870) 365-0023, <tmccann@alltel.net>, <http://www.alltel.net/tmccann>

AIRBRUSHING - Event & Club Tee Shirts. One of a kind designs. Custom wing graphics. Great fund raisers. Adam, (972) 699-3998.

For Sale - Personal

Mystery Ship RTF, pearl white fuse, metallic blue bottom & tips, never crashed... \$150.00; C.R. Climax, wood fuse, pearl white... \$60.00. Add shipping. Mark McMullen, (910) 657-8987, North Carolina.

Aerofly by Aeronaut (Rudolf Frudenthaler), 100" wing span, electric sailplane, 05 pusher motor configuration, current model in Hobby Lobby, NIB... \$100.00 or trade for sailplane or bicycle related items. Robert Samuels, (314) 432-4952 (H), (314) 862-0200 (W), e-mail <NUWAT@aol.com>, Missouri.

NIB Robbe SF-26 motor glider, ARF, 118" wing span, all surfaces pre-sheated w/obechi, plans show Enya .46 four stroke motor, could be easily converted to electric power... \$195.00/offer. Plus shipping. Bob Sterett, (503) 364-5915, Oregon.

Saber, Dodgson Designs, 121", SD/037 airfoil, fiberglass fuse, NIB... \$200.00; **Chuperosa HL**, SD4061 airfoil, NIB... \$40.00; **Cox Sport Avia w/ electric motor**... \$55.00. Bill Maserang, (817) 838-2069, day or eve., Texas.

December 1997

Satum 2M... \$300.00, ask about servo; **WindDancer**, my own design, have 4 to sell, a lot like the **Falcon**, 110" - 118" span, various airfoils... \$350.00 ea.; **Synergy 91**, very nice... \$400.00, ask about servo. Dale (Head Elf) King, (972) 475-8093, Texas.

1/4 Roebers Pilatus B4, 3.75 meter span (147"), wing profile Ritz 3, NIB... \$495.00; **1/4 Roedel Super Cub (towplane)**, 2.687 meter span, wing profile Clark Y mod. (suitable motors are 160 T, 300 T, OS BGX-1, Brison 3.2 or similar), NIB... \$385.00; **1/4 Rosenthal Rally Morane (towplane)**, 2.78 meter span (109"), NIB... \$295.00; **1/5 Wik Twin Astir**, all glass, NIB... \$595.00. Contact Robin Lehman, 63 E. 82nd St., New York, NY 10028; (212) 879-1634.

Wanted

JR FM Xmitter module for 347, 388, or Galaxy. CH 50 preferred. Any other 72 Mhz ch OK. Bill Maserang, (817) 838-2069, day or eve., Texas.



Cavazos Sailplane Design
1901 Rowan Ave., Moon Valley, CA 92653

Look for these planes in
your favorite Hobby Dealer
or call: Robert Cavazos
Cavazos Sailplane Design

The **SWITCHBLADE 840RACE** was specifically designed for racing. It is fast, light and very quiet. A completely new design. The 14 features a light weight epoxy glass fuse, blue foam cores, complete with all hardware, CAI plans and instructions.



SWITCHBLADE 840RACE
87" Place 97 A.M.A. Nationals
Wing 2048.00
Wing 7088.118
Aileron 1949.3 Thread -
Wings 13.00

Kit Price \$70.00

ORDER DIRECT
(809) 485-0674
Email: rcsd@rcsd.com
We're members of AEA/RCF
Shipping & Handling \$5.00
California Sales Tax 7.75%

• SWITCHBLADE Speed 400 Entry Level Racer
• Wings-8P Speed 800 Acrobatic Sport Plane

Dealer Inquiries welcome!

LARGE Scale gliders at cost



1/3.6-1/3.86E5



1/4 ASK 18



1/4 Wilga

- EMS/ready to fly**
1/4.3 DC 800 (165" span)
Roedelmodell
1/4.5 ASK 21 (165" span) • (1/3.6) Ka6E (165" span)
Roke
1/3.5 DG 202/17 (191" span) • 1/3.85 ASK 18 (163" span)
Roebers
1/3.75 DISCUS (157" span) • 1/3.5 ASW 24/27 (157" span)
1/4 PILATUS B4 (147" span)
Krause
1/3 SALTO (177" span)
Ripo
1/3 DC 600/18 (236" span)
Büchtele
1/4.4 NIMBUS 4 (237" span)



1/4.3 DC 800 ready to fly.

Scale Towplanes

- Frisch PZL 108 Wilga 35**
1/4 2.78 meter span (109")
Roedelmodell Jodel Robin
1/4 2.18 meter span (86")
Rosenthal Rally Morane
1/4 2.78 meter span (109")

- Schüler & Fleckstein**
1/3 all-glass ASH 26 (235" span)
1/3 all-glass ASW 24 (196" span)
1/3 all-glass FOX (183" span)
PriBek
1/3 Ka6E (197" span) • 1/3 ASK 13 (209" span)
1/2.7 ASK 18 (209" span) • 1/2.77 ASW 19 (212" span)
1/3 ASW 24 (196" span) • 1/3 ASW 27 (196" span) • 1/3 FOX (183" span)

Sailplanes Unlimited, Ltd.

63 East 82nd Street, NYC, NY 10028 Phone (212) 879-1634 Fax (212) 535-5295

<http://www.sailplanes.com>

R/C Soaring Resources

These contacts have volunteered to answer questions on soaring sites or contests in their area.

Contacts & Soaring Groups - U.S.A.

Alabama - North Alabama Silent Flyers, Ron Swinehart, 8733 Edgell Dr. SE, Huntsville, AL 35802; (205) 883-7831, <ron.swinehart@svl.lmco.com>.

Alabama - Central Alabama Soaring Society, Ron Richardson (Treas.), 141 Broadmoor Ln., Alabaster, AL 35007, <ron_mail@bellsouth.net>.

Alabama - Southern Alabama & NW Florida Aerotow, Asher Carmichael, (334) 626-9141, or Rusty Rowd, (904) 432-3743.

Arizona - Central Arizona Soaring League, Iain Glithero, (602) 839-1733.

Arizona - Southern Arizona Glider Enthusiasts, Bill Melcher (contact), 14260 N. Silwind Way, Tucson, AZ 85737; (520) 825-2729. SAGE welcomes all level of flyers!

Arkansas - Northwest Arkansas Soaring Society, Tom Tapp (President), RT 2 Box 306, Huntsville, AR 72740; (501) 665-2201, eve.

California - California Slope Racers, John Dvorak, 1063 Glen Echo Ave., San Jose, CA 95125; (408) 287-0375.

California - Inland Soaring Society, Robert Cavazos, 12901 Forman Ave., Moreno Valley, CA 92553, RCAV@aol.com.

California - Northern California Soaring League, Mike Clancy, 2018 El Dorado Ct, Novato, CA 94947; (415) 897-2917.

California - South Bay Soaring Society, A.J. Angelo, P.O. Box 2012, Sunnyvale, CA 94087; (415) 321-8583, fax (415) 853-6064.

California - Southern Calif. Electric Flyers, John Raley (President), 1375 Logan Ave., Costa Mesa, CA 92626; (714) 641-1776 (D), (714) 962-4961 (E), e-mail: E-Flver@ix.netcom.com.

California - Torrey Pines Gulls, Ron Scharch, 7319 Olivetas Ave., La Jolla, CA 92037; (619) 454-4900.

Colorado - Rocky Mountain Soaring Assn., Phil Weigle, 1290 Salem St., Aurora, CO 80011; (303) 341-9256 eve.

Eastern Soaring League (VA, MD, DE, PA, NJ, NY, CT, RI, MA), Jack Cash (Pres.), (301) 898-3297, e-mail BadIdeas@aol.com; Bill Miller (Sec./Tres.), (609) 969-7991, e-mail JerseyBill@aol.com; Michael Lachowski (Editor), 448 County Rt 579, Milford, NJ 08848, e-mail mikel@airage.com, <http://www.eclipse.net/~mikel/esl/officers.htm>.

Florida - Florida Soaring Society, Mark Atzel (President), 1810 SW Terrace, Ft. Lauderdale, FL 33312, (954) 792-4918.

Florida (Central) - Orlando Buzzards Soaring Society (www.specs-usa.com/~ingo/OrlandoBuzzards), Jerre K. Ferguson (Pres.), 4511 Pageant Way, Orlando, FL 32808, (407) 295-0956, <jerre@bellsouth.net>.

Georgia - North Atlanta Soaring Association, Tim Foster, (770) 446-5938 or Tom Long, (770) 449-1968 (anytime).

Hawaii - Maui Island Slope Soaring Operation, MISO, Hank Vendiola, 10-C Al St., Makawao Maui, HI 96768; (808) 572-5283.

Illinois (Chicago Area) - Silent Order of Aeromodelling by Radio (S.O.A.R.), Jim McIntyre (contact), 23546 W. Fern St., Plainfield, IL 60544-2324; (815) 436-2744. Bill Christian (contact), 1604 N. Chestnut Ave., Arlington Heights, IL 60004; (847) 259-4617.

Illinois (Northwest) - Valley Hawks R/C Soaring Club, Jeff Kennedy (President), 414 Webster St., Algonquin, IL 60102, (708) 658-0755, eve, or msg.

Iowa - Eastern Iowa Soaring Society (Iowa, Illinois, Wisconsin, Minnesota), Bob Baker (Editor), 1408 62nd St., Des Moines, IA 50311; (515) 277-5258.

Indiana - Bob Steele, 10173 St Joe Rd., Fort Wayne, IN 46835; (219) 485-1145.

Kansas - Wichita Area Soaring Association, Pat McCleave (Contact), 11621 Nantucket, Wichita, KS 67212; (316) 721-5647.

Kansas - Aerotowing, Jim Frickey, (913) 585-3714.

Kentucky - Bluegrass Soaring Society, Frank Foster (President), 4939 Hartland Pkwy., Lexington, KY 40515; (606) 273-1817.

Kentucky - Louisville Area Soaring Society, Ed Wilson (Contact), 5308 Sprucewood Dr., Louisville, KY 40291; (502) 239-3150 (eve), e-mail <ewilson1@bellsouth.net>.

Maine - DownEast Soaring Club (New England area), Steve Savoie (Contact), RR#3 Box 569, Gorham, ME 04038; (207) 929-6639. InterNet e-mail <Jim.Armstrong@juno.com>.

Maryland - Baltimore Area Soaring Society, Russell Bennett (President), 30 Maple Ave., Baltimore, MD 21228; (410) 744-2093.

Maryland & Northern Virginia - Capital Area Soaring Association (MD, DC, & Northern VA), Chris Bovais (Coordinator), 12504 Circle Drive, Rockville, MD 20850; (703) 643-5513.

Michigan - Greater Detroit Soaring & Hiking Society, Greg Nilsen (Sec.), 2163 Highsplit Dr., Rochester Hills, MI 48307; (810) 651-8598, GNilsen624@aol.com.

Michigan - Great Lakes 1.5m R/C Soaring League & "Wings" Flight Achievement Program & Instruction, Ray Hayes, 58030 Cynrenus Lane, Washington, MI 48094; (810) 781-7018.

Minnesota - Minnesota R/C Soaring Society, Tom Rent (Contact), 17540 Kodiak Ave., Lakeville, MN 55044; (612) 435-2792.

Missouri - Independence Soaring Club (Kansas City area, Western Missouri), Edwin Ley (Contact), 12904 E 36 Terrace, Independence, MO 64055; (816) 833-1553, eve.

Missouri - Mississippi Valley Soaring Assoc. (St. Louis area), Peter George, 2127 Arsenal St., St. Louis, MO 63118; (314) 664-6613.

Nebraska - B.F.P.L. Slopers, Steve Loudon (contact), RR2 Box 149 E1, Lexington, NE 68850; (308) 324-3451/5139.

Nebraska - S.W.I.F.T., Christopher Knowles (Contact), 12821 Jackson St., Omaha, NE 68154-2934; (402) 330-5335.

Nebraska - Ken Bergstrom, R.R. #1, Box 69 B, Merna, NE 68856; (308) 643-2524, <cabergst@neb-sandhills.net>.

Nevada - Las Vegas Soaring Club, Jim Allen (President), 7117 Caprock Cir., Las Vegas, NV 89129; ph (702) 658-2363, fax (702) 658-1996.

New Jersey - Vintage Sailplane R/C Association, Richard G. Tanis (President/Founder), 391 Central Ave., Hawthorne, NJ 07050; (201) 427-4773.

New York, aerotowing Rochester area, Jim Blum and Robin Lehman, (716) 367-2911.

New York - Elmira - Harris Hill L/D R/C, aerotowing & slope, John Derstine, (717) 596-2392, e-mail 2076482@mcimail.com.

New York, aerotowing Long Island Area, Robin Lehman, (212) 744-0405.

New York - (Buffalo/Niagara Falls area) - Clarence Sailplane Society, Lyn Perry (President), (716) 655-0775; e-mail perryll@staff.sunysen.edu; Jim Roller (Competition Coordinator), (716) 937-6427.

New York - Long Island Silent Flyers, Stillwell Nature Preserve, Syosset, NY, Taylor Fiederlein (President), (516) 922-1336, or Joe Coppola (VP), (516) 798-1479.

New York - Syracuse area, Central NY Sailplane Group, Dave Zintek, Minoa, NY, (315) 656-7103, e-mail Zintek@aol.com.

North Carolina - Aerotowing, Wayne Parrish, (919) 362-7150.

Northwest Soaring Society (Oregon, Washington, Idaho, Montana, Alaska, British Columbia, Alberta), Sandie Pugh (Editor - NWSS Eagle), 1119 SW 333rd St., Federal Way, WA 98023, e-mail: parrot2luv@aol.com, (206) 874-2429 (H), (206) 655-1167 (W).

Ohio - Cincinnati Soaring Society, Cluck Lohre, 3015 Beaver Ave., Cincinnati, OH 45213; (513) 731-3429, lohre@iac.net, http://www.iac.net/~lohre.

Ohio - Dayton Area Thermal Soarers (D.A.R.T.S.), Walt Schmoll, 3513 Pobst Dr., Kettering, OH 45420, (513) 299-1758.

Ohio - Mid Ohio Soaring Society (MOSS), Hugh Rogers, 888 Kennet Ct., Columbus, OH 43220; (614) 451-5189, e-mail tomnagel@freenet.columbus.oh.us.

Oklahoma - Central Oklahoma Soaring, George Voss, (405) 692-1122.

Oklahoma - Tulsa R/C Soaring Club (TULSOAR), http://www.mccserv.com/tulsoar

Oregon - Portland Area Soaring Society (PASS), Pat Chewing (Secretary), 16766 NW Yorktown Dr., Beaverton, OR 97006, (503) 645-0323, e-mail: patch@sequent.com, www.europa.com/~patch/

Oregon - Salem Soaring Society, Al Szymanski, CD, (503) 585-0461, http://home.att.net/~aszzy/sss/> for club's home page.

Oregon - Southern Oregon Soaring Society, Jerry Miller, 3431 S. Pacific Hwy. TRLR 64, Medford, OR 97501, e-mail Milljer@aol.com, ph/fax (541) 535-4410.

Tennessee - Memphis Area Soaring Society, Bob Sowder, 1610 Saddle Glen Cove, Cordova, TN 38018, (901) 751-7252, FAX (901) 758-1842.

Tennessee - Tullahoma (Southern Middle Area), Coffee Airfoilers, Herb Rindfleisch, 106 Inglewood Circle, Tullahoma, TN 37388, (931) 455-1836, <herb@cafes.net>.

Tennessee - Soaring Union of Nashville, Terry Silberman, PO Box 17946, Nashville, TN 37217-0946, (615) 399-0846.

Texas - aerotowing, Dallas area, Andrew Jamieson, 9426 Hillview, Dallas, TX 75231, (214) 349-9346, e-mail ajsleep@aol.com. Larry Sengbush, (972) 291-4840.

Utah - Intermountain Silent Flyers, Tom Hoopes, (801) 571-3702 (eve). "Come Fly With Us!"

Virginia - Tidewater Model Soaring Society, Herk Stokely, (757) 428-8064, herkstok@aol.com.

Virginia - Appalachian Soaring Association, Virginia's Southwest (Bristol area), Greg Finney, 106 Oakcrest Circle #5, Bristol, VA 24201; (540) 645-5772, e-mail <gfinney@naxs.com>.

West Virginia - Chip Vignolini, 1305 Perry Ave., Morgantown, WV 26505; (304) 598-9506, <cydne30a@prodigy.com>.

Washington - Seattle Area Soaring Society, Waid Reynolds (Editor), 12448 83rd Avenue South, Seattle, WA 98178; (206) 772-0291.

Wisconsin - Valley Aero Modelers, Lee Murray, 1300 Bay Ridge Rd., Appleton, WI 54915; (920) 731-4848, <74724.65@compuserve.com>.

Outside U.S.A.

Australia - Southern Soaring League, Inc., Mike O'Reilly, Model Flight, 42 Maple Ave., Keswick SA 5035, Australia. Phones: ISD+(08) 293-3674, ISD+(08) 297-7349, ISD+(018) 082-156 (Mobile). FAX: ISD+(08) 371-0659.

Canada - Greater Niagara Area Thermal Soarers (GNATS), Flat Field Soaring & Aerotowing, Gerry Knight, (905) 934-7451 or Don Smith, (905) 934-3815.

Canada - MAAC Men Gliding Club, Jim Holland, 168 Verona Dr., Winnipeg, Manitoba, Canada R2P 2R8; (204) 697-1297.

Canada - Southern Ontario Glider Group, "Wings" Programme, dedicated instructors, Fred Freeman, (905) 627-9090, or Bill Woodward, (516) 653-4251.

England (CIAM Flyer), Jack Sile (Editor), 21 Bures Close, Stowmarket, Suffolk, IP14 2PL, England; Tele. # 0449-675190.

England (southwest) - Sean Walbank, Woolcombe Hays, Melbury Bubb, Dorchester, Dorset, DT2 0NJ, phone 01935-83316.

Hong Kong - Robert Yan, 90 Robinson Road, 4th Floor, Hong Kong; (852) 25228083, FAX (852) 28450497, yanr@asiaonline.net.

Japan - Dr. Paul "Sky Pilot" Clark, 2 - 35 Suikoen Cho, Hirakata Shi 573, Osaka Fu, Japan; IAC+(81) 720-41-2934, <pclark@osk33web.ne.jp>

Scotland - Ron Russell, 25 Napier Place, South Parks, Glenrothes, Fife, Scotland KY6 1DX; Tele. # 01592 753689.

Seminars & Workshops

Free instruction for beginners on construction & flight techniques, week-ends (excl. contest days), "A" Angelo, South Bay Soaring Society (San Jose area), (415) 321-8583.

RCSD Index/Database

Available from CompuServe's Modelnet Forum/General File Section, AOL Model Aviation Software Library (text copies, only), or web site: >>http://www.athenet.net/~atkrn95/pcsoar.htm<<. Or, send 3.5" high density disks and SASE with stamps for 2 oz. Lee Murray, 1300 Bay Ridge Rd., Appleton, WI 54915; (920) 731-4848 after 5:30 pm weekdays or on weekends, 74724.65@compuserve.com.

Reference Material

"Summary of Low-Speed Airfoil Data - Volume 1" & "Volume 2", Michael Selig wind tunnel testing results. Cost for each: \$25 USA (includes postage), \$29 surface outside USA, \$31 air Western Hemisphere, \$38 air Europe, \$42 air all other countries. Computer disk, ascii text files (no narrative or illustrations), is \$15 in USA; \$16 outside USA. Source for all "SoarTech" publications, also. Contact Herk Stokely, 1504 N. Horseshoe Cir., Virginia Beach, VA 23451. Phone (757) 428-8064, email: herkstok@aol.com.

"Elmira Aerotow '96 Video" taken at the First Annual Northeast Aerotowing Fly-in, New York. Over 40 minutes of flying, interviews, and a special preview of the National Soaring Museum with Paul Schweizer. Check or money order, \$19.95 plus \$3.00 S&H (U.S.), payable to Harris Hill L/D R/C, c/o John Derstine, RD #3 Box 336, Gillett, PA 16925; (717) 596-2392. S&H foreign: \$6 Canada/Mexico, \$7 Europe, \$8 Asia/Africa, \$8.50 Pacific Rim. VHS format, NTSC standard.

RBS/Internet

Internet - Email list/resource of RC soaring related folks, including US and international club contacts, vendors, kit manufacturers/distributors, software, equipment and supplies. Check out the web site: www.ocpapsych.com/yellow.htm, or contact Marney Tau at taucom@kaiwan.com.

Internet soaring mailing listserve linking hundreds of soaring pilots worldwide. Send msg. containing the word "subscribe" to soaring-request@airage.com. The "digested" version that combines all msgs. each day into one msg. is recommended for dial-up users on the Internet, AOL, CIS, etc. Subscribe using soaring-digest-request@airage.com. Post msgs. to soaring@airage.com. For more info., contact Michael Lachowski at mikel@airage.com.

R/C Soaring Web Site & E-Mail Addresses Directory, one stop search for URL's & e-mail addresses. Submit your cyber address free. Updated constantly: <http://mccserv.com/dozone/rcwebpgs/>

Clubs, events, major contest scores, pilot chat board, classifieds, picture gallery: <<http://www.rcsoaring.com>>

THANK-YOU FOR KEEPING YOUR LISTINGS UP TO DATE!!

Hobby Shops that Carry RCSD

Finney's Hobbies 3455 Peachtree Industrial Blvd. Ste. 980 Duluth, GA 30136 (770) 495-8512	Hobby Hangar 1862 Petersburg Rd. Hebron, KY 41048 (606) 334-4331
Gunnings Hobbies 550 San Anselmo Ave. San Anselmo, CA 94960 (415) 454-3087	Hobby Town U.S.A. 8060 S. 84th St. La Vista, NE 68128 (402) 597-1888
Gyro Hobbies 23052 Lake Forrest Dr. Unit C2 Laguna Hills, CA (714) 583-1775	Hobby Warehouse 4118 South St. Lakewood, CA 90712 (310) 531-8383
Gyro Hobbies 2 17431 Brookhurst Unit H Fountain Valley, CA 92708 (714) 378-8924	King R/C Five Forks Village King, NC 27021
Hobbies "N Stuff 9577-L Osuna Rd. NE Albuquerque, NM 87111 (505) 293-1217	Tim's Bike & Hobby 2507 Broadway Everett, WA 98201 (206) 259-0912

Subscription Costs

USA: \$30 First Class
(Texas res., please add \$1.52 tax.)
Canada & Mexico: \$30 Air
Europe/U.K.: \$45 Air
Asia/Pacific/Middle East: \$52 Air

Back Issue Cost

Back issues are available for 1996, 1997. All are mailed via first class or airmail.
U.S.A., Canada, Mexico: \$2.50 Per Issue + Tax (Texas Only: 7.25%)
United Kingdom/Europe: \$3.75 Per Issue
Asia/Africa/Middle East: \$4.35 Per Issue

Advertiser Index

- 28 Aerospace Composite Products
- 24 Anderson, Chuck
- 5 B² Streamlines
- 5 Bill Northrop's Plans Service
- 10 Bowman's Hobbies
- 33 Cavazos Sailplane Design
- 14 Composite Structures Technology
- 29 C.R. High Performance Products
- 35 Dave's Aircraft Works
- 29 Fiberlay
- 11 Finney's Hobbies
- 27 Hobby Club
- 2 International Modeler Shows, Inc.
- 35 International Scale Soaring Assoc.
- 14 Inventec Corp.
- 14 J&C Hobbies
- 15 Major Hobby
- 11 Maple Leaf Design
- 29 McBurnett, Carl (Bludartar)
- 10, 28 MM Glider Tech
- 30 Performance Composites
- 11 PJ's Epoxy
- 35 R/C Soaring Digest
- 25 RnR Products
- 18 Sailplane Homebuilders Association
- 33 Sailplanes Unlimited, Ltd.
- 29 Sanders, Eric (CompuFoil)
- 19 Slegers International
- 25 Slegers International
- 36 Slegers International
- 26 Studio 'B' Design & Production, LLC
- 27 Torque & Recoil Club
- 11 Trick R/C
- 4 T.W.I.T.T.
- 35 Vintage Sailplane Association
- Events
- 32 Elmira Airtow
- 7 Pensacola Airtow



ZIKA

Advertising Note

Please note that the cut-off date for classified & display ads is the 1st of the month.



The Vintage Sailplane Association

Soaring from the past and into the future!
The VSA is dedicated to the preservation and flying of vintage and classic sailplanes. Members include modelers, historians, collectors, soaring veterans, and enthusiasts from around the world. Vintage sailplane meets are held each year. VSA publishes the quarterly BUNGEE CORD newsletter. Sample issue: \$1.00. Membership is \$15.00 per year. For more information, write to the:

Vintage Sailplane Association
Route 1, Box 239
Lovettsville, VA 22080
<http://www.iac.net/~feguy/VSA>

- Please renew my current subscription.
 - Please enter my new subscription to RCSD.
 - Please send the back issues I have selected.
- (Check or Money Order, only, please. U.S. funds.)

Name _____

Address _____

Please return to R/C Soaring Digest,
P.O. Box 2108, Wylie, TX 75098-2108

DAVE'S AIRCRAFT WORKS

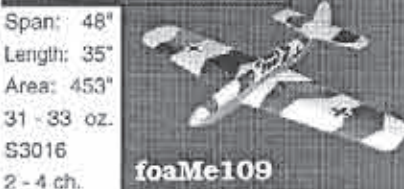
The Gunfighter's Choice

NEW! D.A.W. KILLER FOAMIE WARBIRDS!



Foam51D

Span: 48"
Length: 35"
Area: 453"
31 - 33 oz.
S3016
2 - 4 ch.



foaMe109

Span: 48"
Length: 35"
Area: 453"
31 - 33 oz.
S3016
2 - 4 ch.

THE ULTIMATE SLOPE COMBAT MACHINES!

You can have it all... Looks, durability AND performance: all in one airframe! Designed from the ground up with full-contact combat in mind, you will find these simple to construct slope killers the most satisfying warbirds you've ever owned. Wings and fuselage are constructed of the latest technology, combat proven EPP super-foam with Coroplast tail group. Designed to be covered with iron-on film coverings! Kits include airframe components, all wood materials, basic hardware and illustrated instruction manual. \$59.95 ea. + \$5.00 shipping in cont. U.S. (CA res. add 7.75% tax).

ALSO AVAILABLE:

We continue to offer our original wood kits! These are also suitable for Speed 400 electric conversion.

P51D- 34 3/4" W.S.
Ta152- 34 3/4" W.S.
P40- 31 1/2" W.S.
Hurricane- 31 1/2" W.S.
Me109- 30 1/2" W.S.
Ki61- 36" W.S.



Complete kits \$35.95 + 7.00 s/h in cont. U.S. (CA res. add 7.75% tax). Send \$1.00 for complete catalog. See our reviews in July '96 Model Builder and QF1 '21!

DAVE'S AIRCRAFT WORKS

34455 Camino El Molino, Capistrano Beach, CA 92624
(714) 248-2773 or E-mail to: 104271.3352@compuserve.com
<http://ourworld.compuserve.com/homepages/davesaircraftworks>

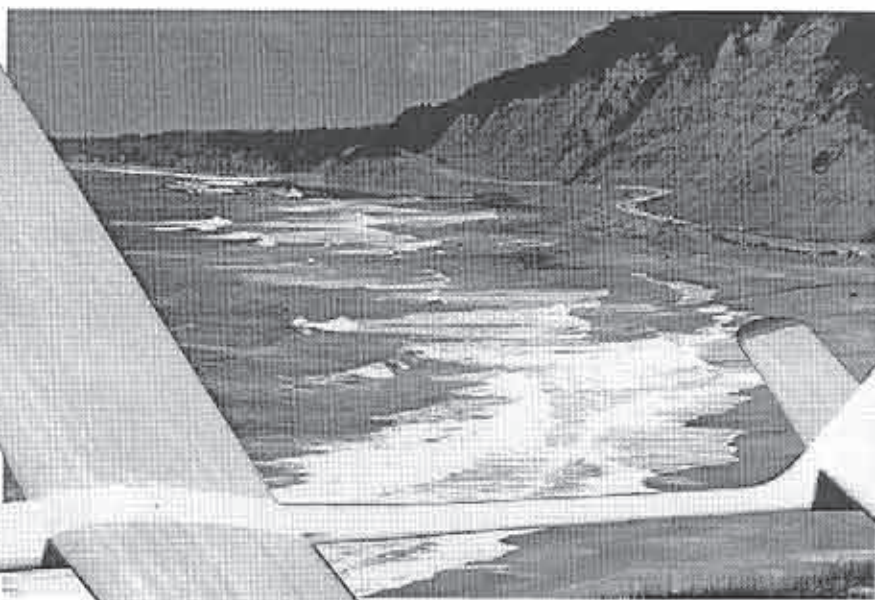


International Scale Soaring Association

There is a growing interest in scale soaring in the U.S. We are dedicated to all aspects of scale soaring. Scale soaring festivals and competitions all year. Source for information on plans, kits, accessories and other people interested in scale. For more information, write to:

International Scale Soaring Association
37545 Oak Mesa Drive
Yucaipa, CA 92399-9507
e-mail: 70773.1160@Compuserve.com

FAZER 2M



PRICE: \$295⁰⁰ + S&H

The FAZER is an all new, 2 meter thermal duration sailplane. It is recommended for the intermediate to advanced flier. Clean aerodynamics start at the tight-fitting, slip-on nose cone. The one piece, epoxy/fiberglass fuselage is reinforced with Kevlar™ for rigorous competition. The FAZER features an efficient double taper wing planform, a standard tail, and full flying stab. The two piece wing is joined using a 3/8" carbon fiber rod system for maximum strength and minimum weight.

The FAZER is a solid thermal sailplane balanced to feel light and nimble on the sticks. Thermals and light lift are easy prey for this SD7035 airfoil/planform combination, which delivers especially high zoom launches and slower than usual landing speeds. Large 2.125" chord flaps, coupled with generous aileron and rudder area, make landings a dream. The full flying stabilizer is used to extract a super positive pitch response at all flying speeds.

SPECS:

AIRFOIL WING	SD7035
AIRFOIL STAB	SD 8020
PLANFORM	DOUBLE TAPER
WING AREA	565 SQ. IN.
STAB AREA	70.6 SQ. IN.
WING LOADING	8.8 - 9.8 OZ./SQ. FT.

The kit features include:

- Sleek new design with plug-on wings, standard tail, and full flying stab.
- Pre-sheated and finish sanded wings & stab. Construction is obechi over foam.
- Routed servo pockets and aileron & flap hinge lines; 3/8" carbon fiber wing rod.
- Epoxy fiberglass fuselage, Kevlar™ reinforced nose to tail. Slip-on nose cone.
- Easy instructions by Bob Duke Graphics, and all hardware.

SLEGERS INTERNATIONAL

P.O. Box 364, Long Valley, NJ 07853 U.S.A.
Shipping: 35 Hacklebarney Rd., Long Valley, NJ 07853

(908) 879-9964 - FAX (908) 879-8177
<http://www.slegers.com>

High Quality Electric & Non-Electric Sailplanes,
Radios, and Accessories for the Sailplane Enthusiast

★ VISA ★ MASTERCARD ★ DISCOVER ★