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Slegers International is proud to introduce the **Barracuda**, designed and manufactured by **Brian Agnew**.

Brian has taken all his years of flying and 15 national titles to produce one of the finest, open class sailplanes available, today.

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Weight 59-61 oz.

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R/C Soaring
D I G E S T



R/C SOARING DIGEST

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This 1/2.5 Twin Acro is bigger than some small home built!

Robin Lehman photo, New York.



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The Soaring Site

Latex Allergy?

Ever heard of a latex allergy? Well, if you haven't, and you've been doing stuff in the workshop that involves the use of latex gloves, and you find your hands bothering you from time to time, we thought that you might be interested in a recent newspaper article that appeared in the Dallas Morning News on September 23, 1996.

The headline says, "In its most severe form, an allergy to rubber can kill." And goes on to explain that folks that should be concerned about latex include health care workers, people frequently exposed to latex in medical procedures, and people allergic to certain foods. Warning signs are, "Any swelling, itching, and redness after contact with rubber products." And, "Any breathing problems after latex exposure, such as blowing up a balloon."

The symptoms seem to get worse over time and there has been some "confusion" in diagnosis. The article says, "Latex allergies can cause reactions ranging from contact dermatitis — itching, swelling, and redness of the skin — to hives, asthma, or full-blown anaphylactic shock in severe cases."

Jer's latex gloves were immediately replaced with non-latex gloves, and his hands don't swell and itch much, anymore!

For a pamphlet called "The ABC's of Latex Allergy" send a stamped, self-addressed, business-size envelope to Department of Allergy, Henry Ford Health System, 1 Ford Place, Detroit, MI 48202. On the World Wide Web, reach the Delaware Valley Latex Allergy Support Network (www.latex.org). There are other groups and web links, as well.

Scale/Aerotow Meet

As many of you know, the Gulf Coast Scale/Aerotow Meet originally scheduled for October 5 - 6 in Pensacola, Florida, had to be canceled because of rainy weather; however, it has been rescheduled for November 15 - 17. Questions can be directed to Asher Carmichael at (334) 626-9141 or ACarmic985@aol.com.

Happy Flying!
Judy & Jerry Slates



Jer's Workbench

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Molded Hollow Core Wings Part III

Last month, the caulking of the wings in the parting trays was completed. The mold release agent has since been applied: Frekote 1711. Then, a layer of epoxy surface coat was applied: Resin Services, Inc. RSC-301-XB. This surface coat provides a hard surface on the inside of the mold.

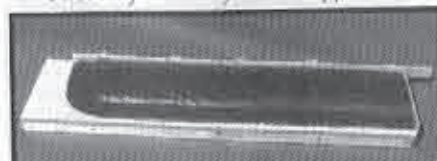
It is important to note that at one time or another I have suggested not working with any epoxy resins when the temperature is below 65° F. The same thing applies if the temperature is too high. To make a long story short, I mixed a full quart of epoxy surface coat, and began brushing it on. About half of the wing was done when I started to feel the heat generated in the mixing pot. Speeding up the process, I was able to complete the first wing before the epoxy surface coat became unworkable. At the time, the temperature in the workshop was 85° F. The next morning, when the temperature was about 70° F, I mixed another full quart, and applied it to the other wing. There was plenty of working time in which to complete the second wing; in fact, there was time to spare.

The next day, after the epoxy surface coat had cured, I started the lay-up of the fiberglass cloth, which consisted of 6 layers of 7.5 oz. fiberglass E-type cloth. Once complete, this was allowed to sit for about 3 or 4 days for a couple of reasons. For one, the first half of the wing molds need to be fully cured before they are removed from the parting trays. Two, there was other pressing work that needed to be done in the shop.

A few days later, everything was fully cured. The wing plug and the top half of the mold were carefully removed from the parting tray. "Carefully" is a key word here, as you don't want the wing plug to fall out of the mold, or the



First half with surface coat applied.



First half after completed fiberglass lay-up.



Other side of mold ready for lay-up.

trailing edge dam to fall off!

Next, the other side of the mold was cleaned up; caulking and dirt was knocked off. Using a Dremel tool, a set of "keys" were ground in. The "keys" are to ensure a perfect alignment once the mold halves are bolted together.

It was now time to lay up the other half of the mold. The mold release was applied first; just like the first half, this was followed with epoxy surface coat, and the 6 layers of fiberglass cloth. When the lay-up of the fiberglass was complete, I added some strips of 3/4" by 2" plywood along the leading edge and tips of the mold. The plywood strips add rigidity to the mold halves, and hold the T-nuts which will be installed into the bottom halves. Prior to installing the T-nuts, I drilled 1/4" holes approximately 4" apart across the leading edge and around the tip. The bolts and T-nuts were then installed. The rough edges were trimmed off, next. Now, the mold can be opened and I can finally see all the work that has been done! One thing about mold making, you can't see what you are doing or even check the progress, because you are working from the inside out.

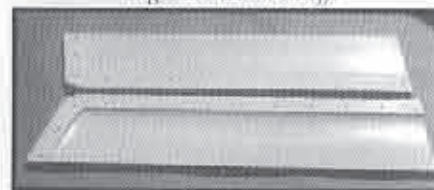
Once the mold has been opened and the plugs have been removed, each of



Note "key".



Completed molds after rough edges are trimmed off.



Inside of completed mold.

the mold halves (4) are polished (wet sanded), using 600 grit wet-dry sandpaper. Additional sanding was done with 1000 grit. Then, the mold was rubbed out using a rubbing compound; and the last step, before molding a hollow core wing, was to add about 6 coats of mold release wax.

Next month, I will start molding the hollow core wing.

Materials:

All wood, bolts, washers, and T-nuts from local lumber yard

7.5 oz. fiberglass cloth and Frekote 1711 Fibre-Glast

1944 Neon Drive
Dayton, OH 45414

Epoxy surface coat RSC-301-XB
Resin Services, Inc.
5959 18 1/2 Mile Rd.
Sterling Heights, MI 48314

Epoxy resin, Safe-T-Poxy
Aircraft Spruce
201 W. Truslow Ave.
Fullerton, CA 92632

Radio Control Sailplanes Rules Change Proposal

...by Bob Johnson
Fond du Lac, Wisconsin

Present Rule:

3. Model Sailplane Specifications
3.1.3. Class C — Standard Class Sailplanes.
Projected span limited to 100 inches but greater than two (2) meters.

Change to:

- 3.1.3. Class C — Standard Class Sailplanes
a. Projected span limited to 110 inches.
b. Control limited to three functions: rudder, elevator, and spoilers.
c. The trailing edge of the wing must remain fixed at all times.
d. Protrusions or devices extending below the bottom of the fuselage either fixed or retractable, the purpose of which is to produce a rapid deceleration upon landing, are not allowed.

Above is the Rules Change Proposal I submitted to the AMA for consideration. It is the culmination of discussions with other glider guiders at the Mid South Soaring Championships, the AMA/ISF Nats, other local and regional contests, as well as my personal opinions. This proposal is intended to create a class that does not require as sophisticated an aircraft, or as great an investment, to be competitive as is currently necessary in Two Meter and Unlimited classes as flown at most contests.

Reasons for proposed changes:

A survey of the Contest Calendar in Model Aviation shows several events specifically limiting the aircraft to the three control functions in this rules change proposal. Hence, a need has been demonstrated.

In an article in the September 1996 issue of R/C Soaring Digest, noted designer Brian Agnew writes: "I would like to suggest that it is time to start thinking about introducing a new class for competition. I feel strongly that, to

the degradation of this sport, things have become too expensive. I would like to see an official class introduced that would limit control function to 3 (rudder, elevator, and spoilers)."

An event is needed where the relative new-comer to contests will not be intimidated or get scared off because everyone else is flying a full-house glider. While we all know that it is possible to score well with a less sophisticated aircraft, I find it extremely difficult to defend that concept to someone while I am holding my six-servo sailplane!

My reasons for increasing, but limiting, the wing span to 110 inches are:

1. Theoretical analysis reveals an increase in performance of sailplanes when the span is increased.
2. 110 inches is about the upper limit for a sailplane that can easily be launched using a high-start.
3. Larger sailplanes are easier to see at a distance.
4. As wingspan increases, turning becomes more difficult and I felt that 110 inches was about the upper limit for wingspan that would enable reasonably good landing control.

I chose to specifically state that the trailing edge of the wing must remain fixed to eliminate flaps and wingersons. Both devices require a degree of sophistication that are contrary to the spirit of this proposal.

It is my feeling that devices such as dorsal fins and sharks teeth should not be allowed as they also defeat the spirit of the KISS (Keep It Simple, Stupid) philosophy. If someone knows how to eliminate the "yard dart" type landings, wording to the effect of so doing should be added to this proposal.

A discussion with Terry Edmonds revealed that the AMA is hesitant to add a new class to the existing rules. Most contests have Two Meter and Unlimited events. There currently is little activity in Standard class. Therefore, rather than adding a new class, I felt it would be appropriate to redefine an existing class.

Some of the ideas that were considered and rejected were:

"Flaps should be permitted to make it a stepping-stone to Two meter and Unlimited." If flaps are permitted, then the next logical argument would be that a dorsal fin should be permitted to protect the flap servo(s) on landing. My desire is to eliminate dorsal fins. Therefore, no flaps.

"A larger wingspan should be allowed." As stated above, 110 inches is about the upper limit that can be launched with a normal hi-start. Tim Renaud felt very strongly that the aircraft must be high-start launchable without having to resort to a super, heavy duty high-start. Also, as wingspan is increased, it becomes more difficult to land the glider, especially when the wind is blowing. This proposal is intended to create a class that is more appealing to beginners. To do so, the glider should be relatively easy to launch and land under normal circumstances.

"Do not allow composite construction." 'Composite' means the use of two or more different materials. By definition, a balsa framework covered with monocoque utilizes composite construction. To specifically eliminate 'composite' construction would create a rules interpretation problem that would be impossible to resolve. The elimination of construction that utilizes balsa, obechi or fiberglass with foam cores would seriously limit innovation and creativity. In addition, there are many fiberglass fuselages available, and I felt it would be unreasonable to prevent them from being used.

"Only built-up structures should be allowed." This suggestion was made by an individual who thought that the class should be a stepping-stone to Two Meter and Unlimited. How can that be if the type of construction used in most aircraft flown in those classes is eliminated? Also, the Selig airfoil tests reveal a decrease in performance resulting from sagging of the covering material within open bays.

"You should create classes similar to those used in R/C Pattern to separate flyers into different groups according to ability." Several people I talked to indicated that their club divides fliers into different categories for purposes of competition. It is my opinion that, given the changes I proposed, anyone

should be allowed to participate regardless of their expertise. Consequently, the creation of skill categories was not included in my proposal.

The concept of skill classes has merit. If someone has the desire to create rules so doing, I would encourage them to submit a rules proposal to that effect.

Many people I talked with were



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Joined 2

Hans-Jürgen Unverferth is a dedicated and ardent enthusiast of tailless planforms. In an attempt to better the world speed record for RC sailplanes, he developed a relatively small, swept wing glider called JOINED 1. We provided some information on this high performance sailplane in the April 1996 issue of *RC Soaring Digest*.

There are a couple of notable differences between JOINED 1 and JOINED

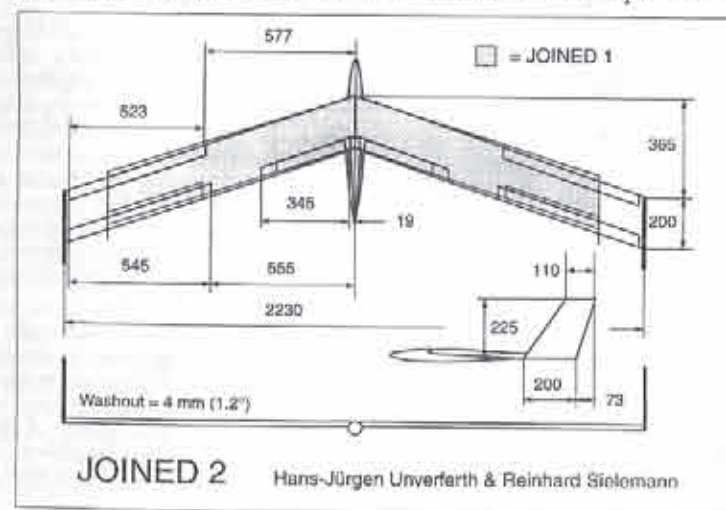
enthusiastic about the creation of a new class as defined in my Rules Proposal. I ask for the support of the sailplane community in the successful passing of this proposal through the AMA's rules changing process. If you have any comments or questions, I can be contacted at the following address: Bob Johnson, 453 Roosevelt St., Fond du Lac, WI 54935; 414-922-6705. ■

2. First, JOINED 1 used no wing twist at all, while JOINED 2 uses 1.2 degrees (4 mm), with the twist beginning at half span. Second, in an effort to improve landing characteristics, JOINED 2 incorporates a moveable leading edge on the outer portion of each wing.

JOINED 1 was clocked at an unofficial speed of 360 kph, or 223.7 mph. This is over a 200 meter course at an altitude below 50 meters! Hans-Jürgen said that during the record attempt he simply got the airplane lined up on the course and let go of the sticks, as any control movement at speed led to some pretty wild oscillations!

The measured speed of JOINED 2 was substantially lower, 260 kph, or 161 mph, but was much easier to fly and land. JOINED 2 is currently on display at a museum in Munich, Germany.

Next time, Hans-Jürgen's thoughts on the future of tailless sailplanes. ■



1996 TEXAS NATIONAL TOURNAMENT

...by Fred Mallett
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Corpus Christi, Texas 78412
(512) 991-3044 (Week Days)
FrederM@aol.com



Some of the TNT handlaunch crowd. Mallett photo

Jay Schultz
Overall Grand Champion TNT '96
Lynn Williams photo.

modelers do after traveling hundreds of miles to a contest. We stayed up until 2 A.M. and made ourselves some airplanes to fly. Frankie put in a radio, and repaired one of my older model (obechi) CornDogger Classics, and I did final assembly and radio programming on an Epsilon HLG. Gotta have a brand new plane for a contest; it just wouldn't be prudent to fly a well trimmed plane.

Morning came early, so we stopped for junk food, gallons of water, and headed to the field. The field was huge, with the wind coming the long way down the field. A legal flight launch/landing area was marked off with cones, so that people did not get lost out yonder. It was a great job, big enough to allow some downwind drifting, and spread people out, but not enough so that you couldn't hear the microphone. Kudos.

The pilots meeting started with the CD, Bud Black, trying to set us straight on the tasks; you'd think we never flew HLG before, but finally he got all 28 of us straightened out. A few of the tasks were new to me, and number 5 was really fun since the air was real bad

This year's Texas National Tournament (the 13th year) started for me with an 8 hour drive, the high point of which was picking up Frankie Arzu, my flying buddy from Guatemala. No, it was only an 8 hour drive, cause Frankie is temporarily located in College Station, Texas. I was especially looking forward to this year's TNT (my second), for two reasons. The first was that there was a full day of HLG added to it. The second was to get rid of that darned traveling Champion Cup Trophy that was taking up most of my mantle. (At least, that is my excuse for not flying well enough to win!)

After checking into the hotel, Frankie and I did what all good, well prepared



Skyline High School "Aces" are setting up. They did a great job scoring all the landings!! Mallett photo.

during that part of the day. Here they are, all with 10 minute windows, and you had to be on the ground at the end of the round. (Ask me about it, I flew past the window time and lost a flight.)

- 1) Three increasing duration flights. Unlimited throws.
- 2) Set times ladder, most completed (in order), 15, 30, 45, 60, etc...
- 3) 5 minute precision.
- 4) 6 throws, 5 - 2 minute precision.
- 5) 5 minute add-em up, three throws. (Cool round. Lots of "watching the other guy".)
- 6) Best 4 flights, none over 3 minutes.

The first thing I noticed, when everyone brought their planes out, was that this must be Texas, 'cause there were 8 CornDoggers in attendance. Two were with a new airfoil that Chris is using, and it penetrates very well. Other planes included 7 Monarchs, 2 Orbiters, 2 Skeeters, a Fling Thing, a Wristocrat, an Osprey, and an Epsilon. There were also some own designs, and some I did not recognize. (Or ask about. Sorry.)

The contest was a ball, as usual; with only three flight groups, there were lots of planes out there, which is what makes HLG fun. Sometimes it was handy, as the thermals were small, and it was nice to have planes marking them. I saw Chris Boultinghouse in one round sniff a thermal out upwind, throw into it, and stay at launch height as it worked down the field, to squinting distance down wind; he still made it home. It was a very impressive flight. Several other planes threw into that thermal and came right back down. Henry Bostick helped me out big time in the third round. He was in another flight group and took an early thermal up and out for his 5 minute



Henry Bostick's Thermal Eagle calmly approaches the landing strip. Mallett photo.

flight, and everyone else missed it. Sucked some heavy points out of some close contenders. In later rounds, the winds started to pick up some, but were still light by Corpus Christi standards. It was a fun contest, and thanks go to the others that helped with scoring (Cindy Landers) and flight window timing (Bill Monroe and Tim Bennett).

When the dust settled, the scoring was a surprise to me; I have been landing out of the top places all year, and the Thermal gods must have decided to go easy on me on my birthday, as I ended up first. It was a very nice birthday present!

After the contest, instead of a raffle (that was Sunday), we were allowed to pick from the donated prizes, and there were some beauties. (You'll have to come next year to see the type of stuff this club can solicit; it is amazing! There were no dolls, or bicycles.)

Saturday started the two day, Open class contest, each day being a separate contest, which were then totaled to determine the Grand Champion

winner; the winner gets to polish the traveling trophy 'til next year. Saturday saw perfect conditions, with light winds, and nice light thermals. Seems that if you concentrated, and had a flight plan, you could always find some lift, or at least some soft air to extend the flight. The wind was coming from an unusual direction for this time of year, which meant that the 3 winners were set up in the southwest corner of the field. This was fun, as it meant that the landing approach was not straight in, due to power lines, and a road. The zones were far enough away from the wires to allow



TNT Saturday winners (Back L - R) Dale Nutter, Jay Schultz, Fred Mallett, Robert Taylor, Mark Williams, Nick Altizer - (Front L - R) Bill Munroe, Paul Perret, John Rodenburg, Lee Farris - Lynn Williams photo.

TNT Results

HLG Expert

Score	name	plane
5753	Fred Mallett	Epsilon Aileron
5232	Henry Bostick	Monarch
5209	Chris Boultinghouse	Corndogger Classic II (New foil)
4906	Julian Tamez	Corndogger Classic
4597	Walter Higgins	Corndogger Classic

HLG Sportsman

- 1) Chris Vanderbilt
- 2) Jerry Porter
- 3) Greg Dickerson

HLG Novice: Perry Dunlap

Saturday Open

5382	Dale Nutter
5367	Jay Schultz
5363	Fred Mallett
5306	Robert Taylor
5173	Mark Williams

Sunday Open

5367	Jay Schultz
5261	Mike Frickey
5251	Henry Bostick
5240	Jim Farris
5230	Mark Hoffman

Total Score

10734	Jay Schultz (Grand Champion)
10373	Robert Taylor
10345	Fred Mallett
10163	Mark Hoffman
10114	Henry Bostick

Novice Saturday: Nick Altizer (27 overall!)

Novice Sunday: Nick Altizer (19 overall!)

(Say goodbye to Novice Nick!)

Sportsman Saturday: Paul Perret, Bill Monroe, John Rodenburg

Sportsman Sunday: Bill Monroe, Bill Heishman, Paul Perret

Junior Saturday: Lee Farris

Junior Sunday: Lee Farris

for turning between the road and the landing spots. I enjoyed coming in hot and early, and setting the Esteem up on an ear for some tight circles 'til my timer said, "15," and then headed for the spot. Of course, that is not a real good approach method, as I ended up blowing one, and shooting a zero



Mark Hoffman landing his Super V. Lynn Williams photo.

landing; but it sure is fun! The landing was a runway with 25 feet of rope, 100 points for the center 2", and then 2 points to the inch after that.

The Skyline "Aces" came all smartly dressed in blue and tan, and professionally ran the landing scores and score card recording. They did a great job. Even better still, they would all get quiet, with that sense of passion for flying,



Best landing of the contest goes to Dick Roddy, thanks to coaching from Julian Tamez (L). Mallett photo.

whenever a plane started in on final. These people really seemed to enjoy watching the planes, and for that, we tried not to hit very many of them on overshoots. Just kidding, folks!

We flew 6 rounds on Saturday; 5 counted for Saturday, and the 6th was really the first flight of Sunday's contest; this was great, as it allowed people to head for home early on Sunday. Those that came only for Sunday got to fly that round first thing on Sunday morning. It all worked out fine. I love it when people don't complain; the contestants at this contest were a good bunch. We finished up all 6 rounds, with 52 fliers, by 3 P.M., which was very impressive. This was lucky, as it started to sprinkle during the last couple flight groups, and the sky opened up soon as the last planes hit the ground. Of course, the unlucky part was that we out of towners (me at least) all bailed out and ran, leaving the locals to pack everything up in the rain.

The air on Sunday was a bit different; the morning was typical, but later rounds saw big cycles of lift. (Why is everyone circling? The whole sky is going up!) The cycles of lift were followed by just as big a cycle of down. (Henry Bostick says to me, "I thought



Frankie Arzu building an HLG in the hotel on Thursday night. Mallett photo.

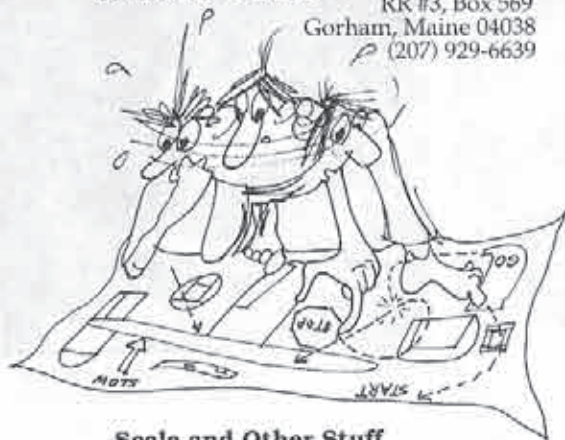
your group was flying now. Oh, you landed already?" I flew a 3:43 on a 7 minute task. What a drag!!) Rumor has it that, after 3 rounds, with only one round to go, an old lady drove by and saw Jay Schultz' plane coming in on final approach, rock steady like always. She thought it was an airliner crashing, and called 911 on her cell phone. The police arrived, didn't see any crashed planes, and figured it must be those toy airplanes flying around that she was complaining about. Thus, we were required to move the landing zone for the last round, so as not to panic any tourists driving by. This made it rather interesting, as we were all drilled as to where the landing zone was; now we had to break the habit in order to find the new one, while staring up at the planes. Thank god for timers! It was all done quickly, and made for some challenge, but what a good bunch. There was no complaining. Jay, once again, proved his mettle, and won Sunday by a good margin, to prove himself deserving of overall TNT champion and a fine flyer.

There is only one winner, and Jay both won and deserved it; but just for the record, note that there was a possible 11,000 points, and Jay only dropped 266 points in 10 rounds!! There was also a sportsman, novice, and junior category on Saturday and Sunday.

Come fly with us next Memorial Day. Beats cooking hot dogs on the grill. ■

"SHORT CUTS"

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



Scale and Other Stuff

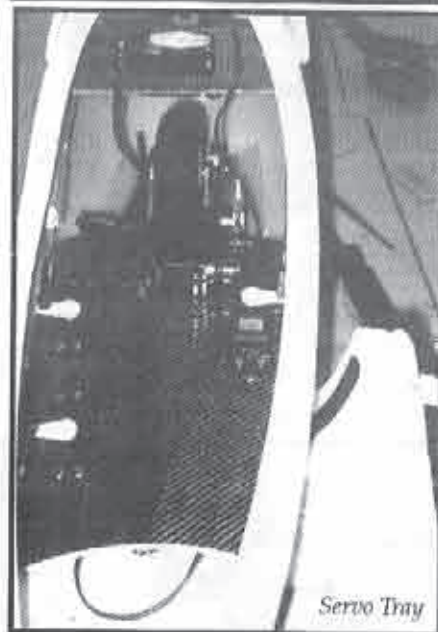
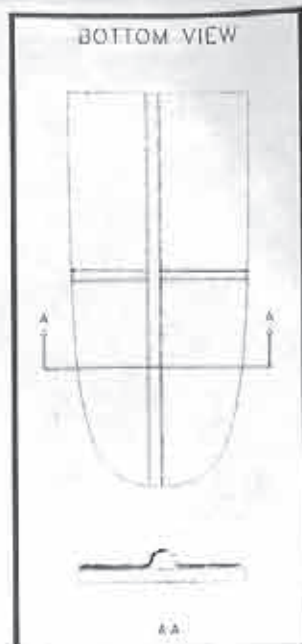
This month, I'll touch base on a few varied topics. I want to share a few construction techniques that I used while building a 1/4 scale DG 800. The plane is imported by Robin Lehman of Sailplanes Unlimited, and will be the topic of a future article. One of the plane's attributes is its weight (6+ pounds), so I wanted to build light. I built a full size servo tray out of luana plywood that weighed in at 3.75 oz. I was not happy with its weight, so I looked around the shop for an alternative material. I found a 1/8" Rohacell sheet and some light-weight carbon cloth, about 3 oz./sq. yd.

The Rohacell was cut to size, and I glued several pieces of myrod outer tubing to the bottom of the Rohacell as shown in the illustration. The raised surface of the carbon over the tubes increases the section modulus of the tray and greatly improves the strength. The carbon was wet out, and both the top and bottom surfaces of the tray were bagged, with the upper surface against mylar. The next day, I had a .75 oz. servo tray that was very stiff, held screws well, and probably cost much more than the average servo tray. (I wanted to play around with the carbon, anyway.) I also needed a quick and easy method to trace out the fuselage outline, in order to make the original plywood tray.

I did this by misting the plywood with 3M 77, and attaching a piece of 8.5 x 11 copy paper. The fuselage was then

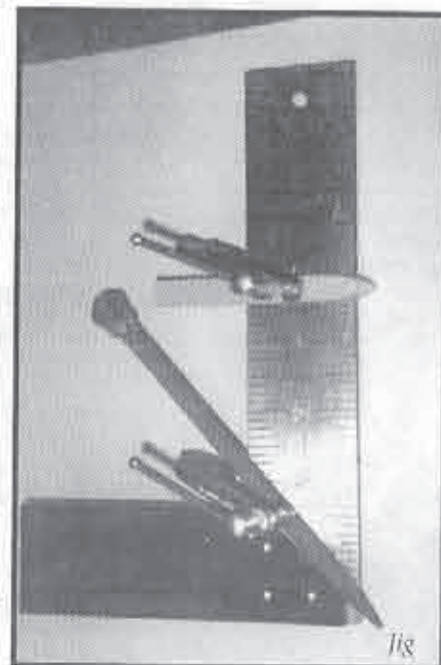
securely fastened to foam blocks to prevent it from shifting during the tracing process. At this point, the fuselage was positioned so that the intended plane of the servo tray was parallel to the workbench. Once that's done, the plywood, with the paper attached, was slid under the nose of the fuselage. I then used a 9" angle square and clamped a popsicle stick to the vertical leg of the square, at the height where the tray is to be positioned in the fuselage. A small pencil was also clamped to the vertical leg of the square. I made sure that the tip extended down just enough to mark on the paper, and to extend out from the vertical leg of the square, just slightly more than the rounded edge of the popsicle stick. This compensated for the thickness of the glass fuselage.

With everything in position, I transcribed the fuselage outline onto the paper, ensuring that the square remained vertical, while the popsicle stick stayed in contact with the fuselage at all times. Once both sides were scribed, I cut out the tray with my scroll saw. The cut was then angled slightly, with a 6" disk sander, to fit the rounding of the fuselage sides. The next interesting dilemma I was faced with did not deal with building, but



with flying, or I should say radio set-up.

This plane has flaps, spoilers, ailerons, rudder, elevator, aerotow release, and a retract landing gear. That's right; it required 9 servos on a 8 channel Stylus, which I borrowed from OFB, Walter Mudgette. This was not a problem, as I



stole the mini, 4 channel receiver and 270 battery pack out of my Birdworks' Zipper, and hooked them up to the retract servo. You should have seen the look from the impound manager when I asked for 2 transmitters on 2 different channels in order to fly the DG 800! The bottom line is that it worked just fine. I didn't want the two transmitters too close to each other, so John Derstine (Retract Man) operated the retract from a few feet away. I didn't need another channel, just another radio and pilot. I've enclosed a few pictures of the servo tray and tracing jig.

"Til next time. ■

Glue Syringes

Glue syringes are available from Wood Workers Warehouse. A free catalog can be obtained by calling (888) 234-8665. Thanks to Steve Savoie and Gordy Stahl for this update. ■

FIGHTING FOAM & HEAVY IRON

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Parker Mountain Night Crash and Bash!

Pat
Bowman's
Ruffneck II in
flight at
Parker
Mountain.

My friend John Roe and myself did a fun thing on the night of Saturday, September 14th, at Parker Mountain in Santa Clarita, California, one of the slope sites used by the Santa Clarita Soaring Association. The event was their Night Crash and Bash, a semi-regular get-together of the region's most ardent slope combat fliers. Scheduled as an over-night activity, participants were welcomed to camp out right at the site, which we had prepared to do if we felt we'd have lift early enough on Sunday. As it turned out, John and I ended up staying until just past midnight on Saturday, and elected to head home so we could get a jump on our work schedules on Sunday. (Don't ya' just

hate how our jobs are always interfering with our fun?!)

Parker Mountain is an incredible slope site! It's a razorback ridge with a 2,000 foot bowl-shaped slope on the west side, and a 3,000 foot bowl on the east face, which we've been told is stellar in Santa Ana winds. There's also lots of interesting and lift-producing features sprinkled along the slope, as well as a neat little valley to shoot through on the east end of the lift band. Since this site is in the desert, there's not a whole lot of vegetation, but what vegetation exists is rather...uh...hearty (see the stick-through-wing shot). The landing area is the dirt road that runs along the ridge, and it's pretty gravelly, so I elected not to fly one of my painted airplanes for that reason. For film covered sport planes or foamies, though, it's no problem at all. In addition to this, cars can become an added landscape fixture since the lack of a large, flat, parking area necessitates them being parked on the ridge line road. This place's marginal air looks like a good day on my home hill. The local club members wanted the REALLY big (40 MPH) air to come on, but us out-of-towners were still pretty impressed by what we did get, and everyone was able to fly with gusto continuously for most of the day.

How was the flying? Well, for guys like John and I, it felt great. Big hill and respectable air. We got good 15 MPH winds for the majority of the afternoon coming from all the way at the bottom of the slope. You don't need much wind to get a big hill



Original Ruffneck taking position for it's next taste of blood. Notice tents in background for an overnight stay.

working real good. There were usually at least 6 to 8 blood-thirsty aircraft up all the time, and if your brain got tired from pushing the sticks, watching the action was almost as much fun!

Among the activities available was a Window of Opportunity, similar to that utilized in the Harbor Soaring Society contests, and Slope Bowling. That's right, Slope Bowling. This consisted of ten 2-liter soda bottles with water ballast used as pins, set up in a triangle configuration on the road



Trick
R/C
Zagi
flown
by John
Roe.

at the middle of the flying area. The object of the game was to knock down as many pins as possible while still remaining aloft. This was best done by using the technique of "dynamic soaring", where the aircraft fly in a circular, horizontal pattern that is centered on the ridge line. This flying technique utilizes the energy stored in bizarre rotors created by the razorback form of the ridge, and is only possible with the correct geography present. Amazing speeds are attainable if you master the right path to take, and that path is quite narrow. I saw many people try this with varying success, and it proved to be the method of choice for slope bowling, as it left the aircraft with enough kinetic energy to successfully knock down the pins and still continue flight.

As the afternoon went on, the sun began to set, and the really challenging part began - flying in the dark. Some aircraft were equipped with electric lighting systems, but most fliers simply taped Cyalume light sticks to their

Marc
Webster's
Survivor
II, also
at Parker
Mountain.



The Box Plane designed by Ron Davis. One of two examples on hand at the SCSA Night Crash and Bash. This example is engaged in Slope Bowling. Notice background blur in photo - this airplane is moving at VERY high speed after only a couple of circuits of "dynamic soaring"

planes in strategic locations. My airplane had one stick on each tip, and one on top of the nose. Flying the plane just by the lights took some getting used to, but after a few passes and smackin' the hill a couple of times, I got in the groove pretty quickly. The hardest part is avoiding the terrain, and you need a few low passes to find your limits. After you've conditioned your mind to avoid certain areas, your flying begins to normalize a little bit. You'll also become slightly dis-oriented once in a while, but as the aircraft rolls or pitches, and exposes an obscured light, you quickly get back on it. It's advantageous to be an experienced, reflex conditioned pilot for this type of flying; and would be a good test to perform on yourself to see how acute your muscle memory really is on your stick fingers. I felt myself drawing on instinct many times while flying in the dark.

Here's some of the things I learned about night flying for next time:

- 1.) Have at least three light sticks on your plane - four if it can take the weight for the air that evening.
- 2.) Place the sticks on the wing tips so that they project an inch or so in front of the leading edge of the wing. This makes them much brighter in several obscurity-prone orientations.
- 3.) Try to have a light stick on the top and bottom of the plane on its centerline. I liked the one I had on the nose of the plane, but wished there had been another one on the bottom, directly beneath it. This would have provided more adequate visual cues. I found myself flying a "triangle of lights", and it got to be second nature in no-time, and would have been even easier if I'd had corresponding lights on the nose, both top and bottom.

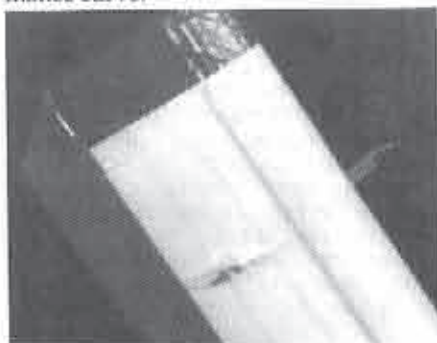
Along with the flying, we all ate our own chow brought from home. Other amenities included a large shade structure (for the afternoon and to contain the work lighting at night), a gas barbecue, and an AC generator, set up by club president, Richard Webster. This provided for complete comfort during the entire day and evening. Everyone had come prepared for a camping trip, and other than some folks wishing for warmer clothing in the late evening, everyone felt pretty at home. The SCSA members are all great sports, and fun to fly AND converse with. These are definitely some of the most skilled fliers I've seen, and proved to be righteous opponents for aerial warfare. If you're interested in coming to one of the SCSA Night Crash and Bash events, give Pat Bowman a call at the number listed below, and he can tell you the schedule. Also, you'll need a vehicle capable of navigating the dirt road to the flying site. The road is not particularly bad, but some ground clearance is required and it's a steep climb. John's two-wheel drive mini-truck with street tires made it fine, but I wouldn't drive a '96 Cadillac up it. Another thing to keep in mind is limited parking. The cars are parked very close to the flying area, and can become part of the combat arena.

Bottom line is that it'll pay to carpool with someone who's car runs strong, and has body work that is not a big concern! Bring food and drinks, too, because you will be wanting them.

Cool Stuff I Saw At Parker Mountain

At the Night Crash & Bash I got to hang out with three designers of state of the art combat planes. Here's the stuff they had...

Pat Bowman of Bowman's Hobbies, maker of the Ruffneck EPP foam slope combat plane, had one of his new Ruffneck II's, a low-wing design using a RG-15 airfoil bumped up to 11% thickness. This airplane sported impressive, all-around performance in all the conditions we experienced. Pat stood and talked casually with me while doing consecutive outside loops right up against the ridge line! Unlike it's predecessor, this plane has a little different geometry and a slightly tapered wing planform: Span 48", Area 345 sq. in., Weight RTF 24 ounces (approx.). A complete kit sells for \$59.95, plus tax and shipping. For more information about the Ruffneck II and the original Ruffneck, write to Pat at 21069 Susan Carole Drive, Saugus, CA 91350, or call (805) 296-2952. I've personally flown the original Ruffneck, and the Ruffneck II is even more impressive! Pat's worked hard to keep his designs at the crest of the performance curve.



In the case of Parker Mountain, forget about the big cats and coyotes; it's the flora that'll get the best of ya! This wing panel has been completely penetrated by this stick. The pilot just yanked it out, smoothed the hole over with his hand and threw her back out! Happiness IS a rubber airplane.



Fred Guilfoyle (above) and his outstanding V1 sloper. Fred launching for the camera. Check out how far away the valley floor is - pretty dynamite hill, huh? Photos by Akabee.

In-flight shot of the V1. If you have any WWII history books handy, compare this to a similar picture of the full-scale and you'll see it's a spittin' image. Photo by Akabee.



Also present in numbers were Marc Webster's all-EPP foam Survivor and Survivor II's. The Survivor has been around for quite a while, and is a recognized cutting edge design. The Survivor II, though, has gone to a low-wing configuration, and has retained the straight-chord planform. Airfoil is a modified NACA 4412. The Coroplast tail group features twin fins, and with the addition of a camouflage paint scheme can easily pass for a semi-scale A10, with far beyond scale flying capabilities! This plane, too, is solid and responsive in flight, and an excellent, full-contact combat platform. The kits are very complete and also include a detailed instruction manual with CAD drawings of all the major steps, which can be quite helpful to the rookie combat builder/flier: Span 48", Area 391 sq. in., Weight RTF 24 ounces (approx.). The kits sell for \$55.00, plus tax and shipping. For more information on the Survivor and Survivor II, contact Marc by E-mail at: mwebs90046@aol.com.

The other neat item I saw was Ron Davis' incredible (and patented) Box Plane. This delta-style flying wing plane is made almost entirely of corrugated cardboard! I was surprised by its excellent performance; it was very well suited to the brutal combat that the SCSA fliers do as a matter of course. Construction is quite simple; it easily accommodates standard size gear in its spacious fuselage. From a materials engineering standpoint, I truly believe this is one of the most



unique new designs I've seen in years. Ron hasn't officially released these to the public yet, but says he may in the near future and would like to retail them for around 20 bucks plus shipping, a real bargain for the excellent examples I saw performing at the event: Span 48", Area 648 sq. in., Weight 39 ounces (approx.). If you're intrigued by this design, give Ron a call at (805) 850-0020 for information.

Other New Products

Lex Liberato, of Studio B in Hawaii, has been hard at work and has released a pair of brand new designs.

The Foamator is an improved version of the venerable Blue Max combat plane, utilizing the new EPP foam technology. This plane sports a 48"

span, straight-chord wing with a modified E374 section. Lex's specified flying weight of 22 1/2 ounces riding on the 360 sq. in. of area yields a quite light 9 ounce per sq. ft. wing loading.

This plane is a break from the norm in that it utilizes a shoulder winged, removable vee-tail configuration. Complete Foamator kits go for \$39.95 plus \$3.50 shipping and handling - a very competitive price for an EPP model.

Lex's other innovation is the EPP'ee (named after the fencing sword), which takes foamie design standards in a little different direction. This plane has a 50 1/2" span, and utilizes a double taper wing planform with SD6060 section for a total area of 372 sq. in. The manufacturer's specified RTF weight of approx. 30 ounces yields an 11 to 11 1/2 ounce per sq. ft. wing loading. This all EPP foam plane has a coroplast vee-tail also, but a longer tail moment to give it a more sport-plane-like feel. Lex says this is a very smooth flying plane designed with full-house, four channel, standard size radio setups in mind to provide camber changing, rudder and aileron/rudder coupling. Of course, it can still be easily set up with a more typical two-channel aileron/elevator system. The complete EPP'ee kit sells for \$49.95, plus \$3.50 shipping and handling. Talk to Lex by writing to: Studio B Graphic Design & Production, P.O. Box 514, Kurtistown, HI 96760. Call/fax to (808) 968-8721 or E-mail at: studioab@aloha.net.

Here Come the Huns. Again!

This month's Reader's Ride is yet another V1 missile! Although one was featured recently, this model was so beautifully built, I just couldn't pass it by! Designed and built by Fred Guilfoyle of Edmonds, WA, it has a 57" wing span with 500 sq. in. area and an E374 section. At 39 ounces overall weight, it has a wing loading of only 11.2 ounces per square foot. A previous version Fred built had a smaller wing and required better



Lex Liberato of Hawaii has two, brand new designs: the Foamator and the EPP'ee. Photos provided by Liberato.

conditions to fly in than the final version shown here, which Fred says is, "Much more friendly," due to the increased wing area. He flies it on two channels, with one servo for elevator and one in each wing panel for the ailerons.

Construction is 1/32" balsa skins on the wings over white foam cores and a scratch built polyester/glass/carbon fuselage with slip-on nose cone - very classy. The pulse-jet nacelle is also of fiberglass construction. Just to prove that sometimes things DO work out for us on our scratch built designs, Fred remarked that, "Amazingly enough, I had to add no weight up front to obtain 32% C.G. This is purely due to good luck." Fred wisely designed the radio gear to fit as far forward as possible to achieve this. He goes on to say, "It is painted with Krylon Satin colors... great for PSS models, very realistic."

Using AutoCAD LT, Fred drew the plans with minor mods, made a male plug from blue foam off the drawings, built a mold from the plug, then laid up the fuselage inside of that. Fred has been pleased with the flight performance and said, "It flies well, and I have even looped and rolled it. Very COOL!... No 'scale' landings, yet!"

Although a big and costly project for a one-time shot, Fred felt it turned out highly successful and was gratified at the result. Fred loves to talk models, and told me to include his E-mail address if you'd like to discuss the V1. He can be reached at fguil@concentric.net.

Fred belongs to the Seattle Area Soaring

Society (SASS), and they're fortunate to have such a talented man in their ranks. If you are ever in the Seattle area, see if you can get a chance to meet Fred and see his fantastic craftsmanship first-hand!

More Foam Technology

On the foam technology front, there's been further experimentation with new materials and methods. Chuck Howerton of Longmont, Colorado told me recently that he's obtained good results using a hot glue gun with all-purpose glue sticks for both EPP foam to Coroplast joints and tape to Coroplast joints. I tried this myself on a recent project, it has worked pretty well, and speeds construction, considerably. Though still not the definitive solution, it is quick and easy to repair, if necessary.

I also spoke to the guys at Parker Mountain about bonding wings to fuselages, and they've recently taken to using double-sided carpet tape for this high-stress joint, with good results. The best seemed to be the Manco outdoor variety, although I've been told the Scotch Brand outdoor type works well, too. These have a fiber matrix that is very strong, and the adhesive is extremely aggressive. Thanks to Pat Bowman and Marc Webster for that one.

Back to the Hangar

So, there you have it. Be careful out there, fly safely, and I'll see ya'll in a couple of months. In the mean time, keep your eyes peeled for those bogies on the horizon.... ■

Thermal Vagrant Meets Slope Gypsies

...by Tom Nagel
Columbus, Ohio

(This short story appeared on RCSE, was spotted by FrederM, permission requested, and appears here, so that all of us can laugh. ED.)

Chuck Rumele and a group of friends fly slope on sites scattered around southeast Ohio. Some of these are just steep-sided cow pastures, and some are slopes left over after strip mine reclamation. Chuck has been visiting

at our thermal field this summer, and had invited a bunch of us to come sloping with him. This weekend I took him up on it.

I've been flying thermal for four seasons now, but this was my first venture onto the slopes. I figure my knees will stop shaking sometime later this week.

Slope flying is related to thermal flying the same way cliff diving is related to bobbing for apples. The good news is that I finally found out what my wild weasel flying wing is good for. And I didn't break anything critical. The bad news is the 50 mile drive is punctuated by a 30 minute delay in stalled I-70 traffic.

We thermal guys go for precision landings. The slope crew shoots for controlled crashes. The Newark guys have developed a precision landing contest for days that they are sloping out of the cow pasture. It is called a splot landing. They also showed me how to do loops below eye level. I came close to doing a loop below ground level.

The current story at Chuck's slope club involves one of the members who insisted that it was inefficient to launch the model with the right hand, and then try to get back to the sticks in time to fly. He argued that you should hold the transmitter in your right hand, and launch with your left.

One day, Chuck showed up at the slope and announced that he was going to try the new launch technique, and hold the transmitter in his right hand. He turned on his plane and transmitter, picked up his plane in his left hand, transmitter in his right hand, ran a few steps down the slope and vigorously launched the transmitter down the hill.

After the club members stopped rolling around amidst the cow patties, Chuck told them he'd done it on purpose. The transmitter at the bottom of the slope was an old junk part from his workshop.

This thermal vagrant plans to go back and slope some more with the gang from Newark. Even if the wind isn't blowing, its fun to watch Chuck.

Hey, Sky Pilot! Gnorme the Gnome slopes just fine! ■

SCALE TO THE INFINITE!



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"Hot Air"

Some ships lend themselves to scratch building. The Minimoa is a classic example. Don't ask this beauty to perform rolls or inverted flight. Just let it float around and catch thermals.

Perhaps the most interesting thing about scale models, is that you can take them as far as you want. What I mean by that is that you can buy a ready made kit, put no cockpit detail in the airplane and fly the pants off the thing. On the other end of the spectrum, you can scratch build an air-



A pilot really does help make a scale model look realistic in flight. The bigger the airplane, the more obvious an empty cockpit becomes! This Twin Astir has a fully scale cockpit. The realistic pilot (Note the real hair!) can even wave on a fly by; one servo operates his arm!



This is how I transport the monsters. 1/2.5 LS 4 on top, and the 1/3 Discus is inside the Volvo.

plane, put every single rivet and cockpit instrument into your model, making it a miniature real aircraft.

As more and more people are becoming interested in scale, and fun-flys and scale contests become more frequent, there will be as many different kinds of competition and flying as there are personalities involved!

What follows is a partial list of what might be included in fun-fly and/or competitive events. The choice is really infinite - any number of types of competition can be run in any number of ways, and what follows is not intended as a comprehensive "how to run your competition", but just a few ideas to float out there for you all to chew on and expand upon.

Now for some possibilities...

Pylon racing or speed runs (slope, airtow)

There are plenty of people who want to fly their gliders as fast as possible - why not let them do it and time them as well! This could be done in groups of two or three (or more), but perhaps safer would be a timed solo flight around two pylons. In order not to waste a lot of time, and to give pilots a lot of flying, it would be easy enough to give a five minute (or whatever minute you want) window of opportunity. Draw lots for your starting order, first flight at such and such a time, and each pilot comes up in order and does his thing and is timed. You could have the fastest speed, or the fastest combined speed; you could add a throw-out - whatever.

For example, competition starts at
November 1996

10:00 a.m. At 10:35 a.m., you are due to fly, and you have five minutes to get your flight in: three times around, four times around, twice around the pylons - whatever. I'm sure you get the idea.

As you probably know, most modern full sized sailplanes are used for racing in competitions, and so racing does lend itself best to the "glass slippers". That being said, you could have two or more categories of airplanes - antique and/or aircraft before 1950, and/or modern aircraft. If you wish, you can further divide up the playing field.

Static Scale Judging

Scale competition is judged on scale fidelity. How closely does the model resemble the original aircraft?

At one end of the spectrum is competition like the Scale Masters where 3-view drawings and color pictures of the original aircraft must be used to prove scale fidelity. The scale models are judged from some distance away, and there are different categories of scale - novice, expert and team.

A team scale competition exists where one person builds the model and another person flies the model - something which is quite common with complicated powered aircraft. Some superb builders are not good pilots, hence the creation of team scale.

At the other end of the spectrum is "stand off scale", requiring little or no documentation.



Scale can be judged in any number of ways - everything from the most complicated possible "proof of" documentation to nothing at all.

I might add that very often scale is judged by:

- 1) How faithful the model is to the original, and/or
- 2) How complicated the airplane is. You get bonus points the more complicated the aircraft is, and/or
- 3) Craftsmanship.

The most attractive part of scale is the fact that you have infinite possibilities. There is literally no end to what you can attempt to achieve.

Combining Scale Fidelity with Flying (slope, airtow, winch)

Unless your competition is a static scale event with no flying (WRAMS and Toledo shows are examples), then your scale competition involves flying (such as, aerobatics, height, distance, duration, etc.). Each person has a set number of rounds to fly. Everyone has an equal number of attempts.

The flight score(s) is (are) added to your static score and, voila - there you have it!

In Germany, the most popular scale event of all, the D.M.F.V. Scale and Semi-Scale Airtow Competition, draws over 50 international competitors and is growing every year. Scale is judged from very close; semi-scale is judged from some distance away. Airtow is as high as the sailplane pilot wants. Take off, flight maneuvers, and landing scores are combined with scale fidelity. The airtow launch makes all the difference, allowing ample height for whatever maneuvers are chosen. (AMA take note!)

Master Airtow Competition

This is a category specifically for airtowing which has a large following in Europe. A towpilot and a glider pilot team up and are required to take-off, do a figure eight, and release the glider at height; the towplane must drop its towline on the spot, the towplane must do a spot landing, the glider must fly for, say, exactly ten minutes and is penalized for any more or less time spent in the air, and must



If you don't want to mess with airtow or winch, how about self-launching? At height, when the motor stops, it is retracted into the fuselage.

do a spot landing. These spot landings, by the way, are not controlled crashes with the nose stuck into the ground; they are scale spot landings with a roll out just like a real airplane. The aircraft are judged not only on the above criteria, but also on how realistically the flights and landings are accomplished.

If you want to add something (aerobatics?) or subtract something, it's up to you. Your only limit here is your imagination.

Spot Landings (slope, winch, airtow)

As we are involved with scale aircraft here, it seems to me most natural to judge landings with two criteria: a) the realism of the landing, and b) how close is the aircraft to the mark? Dorking in the glider (Sorry guys, that's not a landing!) should be neither encouraged nor desired. (You will go home with a broken aircraft.) Also, it strikes me that the pilot should stand off the landing strip when attempting a landing. If realism is the true aim,



This is about as large as you can get. Miller's LS 4 is a real floater once it's up and, when flown with a little down trim, it sounds like the real thing. Sound effects might be worth something in a scale contest!



All kinds of airplanes are used in Europe as towplanes. Hold on! Where's the pilot?!

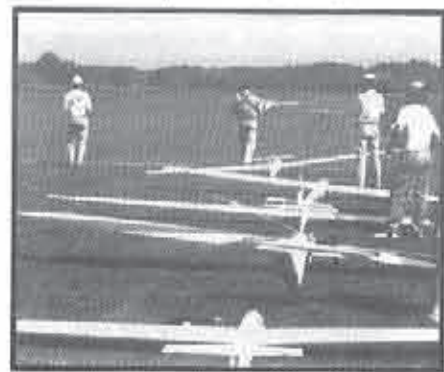
remember that a landing starts with the down wind leg! As with any competition, there should only be a limited number of rounds available for the attempt; in other words, you are allowed three attempts, or five attempts, or however many you wish. Every pilot is allowed the same number of attempts.

If you combine this with a fun-fly event, the pilot can fly any number of times he desires; however, if he wishes to make his spot landing attempt, he should announce his intentions before hand and have a go.

You can add all three attempts together, or you could add two and have one throw out, or however you wish to run the competition. But if you add several landing scores together, you will probably find the best pilots rather than the luckiest.

Thermal Duration (winch, airtow)

Here again there should be a set number of attempts. You could aim for the best flight, or the best two flights



Waiting for an airtow, each sailplane is already hooked up to a length of line. The towplane lands, unsnaps, attaches to the next sailplane, and takes off in seconds. There is no wasted time hooking up. In this photo, you can just see a Pilatus B4 on takeoff, while a gaggle of sailplanes wait their turn. to get airborne!

added together, etc. You could divide up the categories into modern and vintage. You could factor in your scale fidelity score as well. Enough said, you get the idea.

Pilot's Choice Award

You can have one Pilot's Choice award or vintage and modern - or more. This works very well both with competitive and non-competitive events!

The Most Realistic Flying Sailplane (slope, winch, airtow)

You choose!

Cross Country (slope, winch, airtow)

You know what this is.

Aerobatics (slope, airtow)

There are many wonderful maneuvers a modern aerobic sailplane can perform. Perhaps some of you have had the opportunity of enjoying an aerobic routine at an airshow! Once you have seen it done by the pros, you will have an excellent mark to shoot for. The following are just some of the maneuvers which come to mind: a roll, a split S, an Immelman, an inside loop, a stall turn, a spin, a snap roll, a four-point roll, inverted flight, an outside loop, a Cuban Eight, an inverted spin, an inverted roll, a tail slide to inverted flight, and no doubt I have forgotten quite a few.

This type of competition should probably be split into categories: novice and expert, modern and vintage sailplanes.

You can run it in any number of ways; for instance:

- 1) Choose any four maneuvers. The maneuvers are scored on a difficulty factor plus execution, plus realism of flight, plus the artistic factor.
- 2) You could have unlimited aerobatics from airtow or from a slope; choose whichever and however many maneuvers you wish to do, and announce each one as you are doing it. As with full sized aerobatics, there could be a compulsory aerobic routine given to the pilots on the day of the competition and/or an unlimited freestyle routine which the pilots themselves choreograph.
- 3) These maneuvers could be done one at a time, meaning you do a roll, you fly around and set up for a loop; then you set up for another maneuver, etc., or you can program your routine one maneuver after the other trying to achieve the best possible over all visual effect. This is how the big birds do it!

You can have a set number of rounds; for instance, three, with or without a throw out. From the time of launch, you can have a five

minute window within which to compete your maneuvers!

- 4) Perhaps you could include a realism factor, meaning an old-timer will probably not do many maneuvers, whereas a Salto, for instance, should be capable of almost anything. You might want to factor in a "reality factor". There might be a scale glider which zips along at a million miles an hour, but which can complete all of the hardest maneuvers (unrealistically). Another sailplane does all the same maneuvers slower and more realistically. Should they be scored the same, or should realism be rewarded?

The Fun Fly Event (slope, winch, airtow)

The I.G.G. (those interested in large scale sailplanes) in Switzerland has been getting together for some 15 years, now. One slope and one airtow event is scheduled every year. Everyone who can, comes to these non-competitive events. This year, up to 100 scale sailplanes will participate! The Elmira, Fayetteville and Pensacola airtow events were inspired by the I.G.G.

The fun-fly event is just that: flying for fun, without competition. But, if you plan to hold such a scale event, you might consider adding just a little spice to your affair and add a friendly competition of one sort or another to please those competitive types!

A Combination of Events

Factor in any of the above, stir the brew, and create your own competitive event!

Scale has been around for many years, but it's only now beginning to become increasingly popular in America. If you toured Germany, the world's present capital of scale soaring, there are probably tens of thousands of active scale sailplane enthusiasts. Soaring over there is part of a national heritage and is usually shared by the whole family. Very often the models co-exist with their full sized sister ships at the same time and sometimes at the same field. It's a great way to see, compare and appreciate what scale is all about.

One should not lose sight of what competition is all about; it should be to hone one's skills to the utmost (flying and/or building), and perhaps most importantly, to have a good time! Very often, in the heat of competition, one tends to forget this. I would hope, should competitive flying become very popular and widespread, that we would all still HAVE A GOOD TIME!

Obviously, some types of competition lend themselves best to slope soaring, and some to winching, while others could best be exploited by airtowing.

As with all competition, especially if it is serious, perhaps there should be a couple of different categories for the same event - novice and expert or silver and gold cup races - to give the inexperienced pilots a chance.

The whole point is that it's a privilege and a pleasure to rub shoulders with fellow enthusiasts and to see their wonderful creations perform!

Have I forgotten something? No doubt...

...Fill in the blanks!

Good flying! ■

Scale Soaring at Genesee Valley

...by Gerry Knight

St. Catharines, Ontario, Canada

Saturday, October 5th, 1996 in Ontario's Niagara area dawned cloudless, sunny and cold. A typical Fall day was in the early stages of development. The previous night had brought us our first frost, which quickly dissipated as the sun gained a little height in the sky. It looked like a great day to go flying. Only a few days before, Phil, Don and myself had been invited to go down to the G.V.A.M. field (Genesee Valley Aero Moldelers) located in New York's Finger Lakes area, just east of Conesus Lake and Hemlock Village. We had been asked by Jim Blum and Robin Lehman to come down and do some aerotow flying. Phil had a reason to go, as he was exchanging a Discus kit he had bought from Robin for a ready to fly one, namely a 1/4 scale EMS DG 800, having seen Steve Savoie's fly at our Scale Fun Fly, back in September. So, we had a good excuse to go.

The journey to the G.V.A.M field was beautiful. Nice, quiet New York State Highway 20A is a joy to drive on, especially as the air was so clear and the trees beginning to show their fall colors. The outside temperature was a cool 46 degrees Fahrenheit as we left St. Catharines at 9:00 a.m., but we were not concerned, as the sun was shining brightly. We had packed lunches, Phil's I.3.5 ASW 20, and his exchange Discus; I had my Olympia 2b charged and ready to go. Don was along for the ride on this trip.

We arrived at the C.V.A.M. field at about 11:45 a.m., and quickly met Jim Blum, Robin Lehman and Ron Wahl who were already busy assembling tugs and sailplanes. The field is operated by a power flying club; they had two mowed runways, a nice fenced off area for the pits, and another area for parking. Also, there was a fixed frequency board, complete with numbered pins corresponding to all known frequencies in the U.S., and a posted set of club rules. The glider pilots have use of the field mostly in the mornings, but there were only 2 or 3 power fliers there when we arrived, so we quickly assembled the ASW 20 and the Oly 2b to get some flying under our belts. In actual fact, the sailplane pilots pretty well had the run of the field all day, while the power guys sat and watched.

Some of the launches were going to very high altitudes, reaching mere specs in the sky before releasing from the tugs. Too high for my liking. Thermals were beginning to become widespread, and Ron Wahl achieved over one hour on his first flight with his ASK 18. Jim Blum followed him up with his Ka6e, and also put in a very respectable thermal flight.

My turn next, the Olympia was hooked up behind the tug, Phil holding the wingtip, and Don holding onto my shoulders to stop me falling over. (Just recovering from a minor stroke, so I am not too steady on my feet, yet.) The tug was moving, taking up the slack, and then the "all out" signal; we were airborne. The Oly was soon rising rapidly and, after only a circuit or two of the field, I felt that I was plenty high enough; so I released from the tug.

That sailplane did not want to come down. Someone brought over my lawn chair, so that I could sit down, much to Don's relief; from then on, I just kept that sailplane in front of me for the next half hour or so, rising in the clear air, going from to thermal. A lot of the time, myself and other sailplane fliers had to fly with the airbrakes extended in order to ensure that the planes would not vanish. Most of us have added some dark color to the underside of the wings, otherwise they become very hard to see. The Oly is modeled after a full size one that is flying in England, and is painted in a sunburst pattern on both the top and underside of the wings and tail, so it shows up pretty well at altitude. I tried side slipping a couple of times, as it appeared that it was not coming down with the brakes out. That worked, but the Oly just went up again when I let it go into more rising air. Eventually, I had to come in to land, as my neck was getting sore from continually looking up. This turned out to be one of the best flights that I have had with this plane, so after landing I was able to sit back and relax.

Don was able to fly Ron Wahl's ASK 18, which he enjoyed, especially as it too was a lengthy, thermal flight; he is in the process of scratch building a K18 from Cliff Charlesworth plans, so he was able to get a feel for how this plane flies, and what he has to look forward to.

Robin Lehman put his scale Space-walker to work in the afternoon, after Jim Blum's Telemaster's engine began to give trouble. Phil had the chance to fly Jim's Ka6e and Ron's ASK 21, both of which rewarded him nice, high, thermal flights. The one thing that became very obvious from this day's flying is that aerotowing allows you to get much higher than winch launching, and places you in a much better position to find thermals, if there are any around. We were very fortunate to have a day when everything went right; the wind was light, the clouds were high and scattered, and we had mostly blue thermals to work with.

The wind eventually started to pick up a little, and brought with it a late afternoon chill so, with the prospect of

a 120 mile ride home ahead of us, we packed up our aircraft and left Robin, Jim and Ron still aerotowing. One of the power guys brought out a 12 ft. Telemaster with a 7 cylinder radial in it and was putting it together as we departed. That was some airplane!!

We arrived home at 6:00 p.m. elated with the whole day's events. Phil now has a DG 800, which only has to have a radio put in it and it will be ready to fly. Those 800's weighing in at under 112 oz. are real performers and float even in the lightest air, so I'm waiting to see it fly.

That day was one of those days you remember forever; they do not come along that often. Good friends, getting together to do the thing that we love... Flying, beautiful weather and perfect flights. It certainly makes life worth living?! ■

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.

1/3 Müller Nimbus 2 - 6.76 meter span (265"), wing profile E 68, ca. 25 lbs.

1/3.4 CNC All-glass ASW 27 - 4.41 meter span (175"), wing profile HQ 3.0, ca. 12.5 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 Roehbers 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 BGX-1, Brison 3.2, or similar.

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



*We find the right place
where we can fly this
-on the road
pennally the way.
Lehman photo.*



*Another view of the T-46.
Very slow flying and
realistic! Lehman photo.*

*Phil Landray with 1/4
scale ASW-20. Terry
Hounsham photo.*



*Bill Woodward's 1/5 scale T-46. A beautiful
soaring machine. Charlie Rader photo.*

THE G.N.A.T.S.

Scale Aerotow &
Motorglider Fun-Fly
September 21-22, 1998

...by Gerry Knight
St. Catharines, Ontario, Canada

Going back in time to July of last year, several members of The Greater Niagara Area Thermal Soarers (G.N.A.T.S.) attended the full size International Vintage Sailplane Meet at Harris Hill, New York where Robin Lehman, Jim Blum, John Derstine and others were demonstrating aerotowing of model sailplanes.

During that event, we got to know Robin and found that he and his friends in the aerotowing business were avid flyers, both in power and

sailplanes. Whilst talking to these fellows, the discussion came around to putting on aerotow events in the Eastern parts of the U.S., and perhaps in Canada, also. Robin was hoping to promote several of these events, and suggested that we in the G.N.A.T.S. group should consider participating in the Canadian Scale Flyers, as we had about three or four years of aerotowing

experience in our club. We said that we would do so, and would strive to make it a worthwhile event to help put aerotowing on the map, so to speak.

June 1996 saw the 1st Northeastern U.S. Aerotow Fun-Fly at Horseheads (Elmira), New York, which was a spectacular event, and we of the scale fraternity in G.N.A.T.S.

attended, along with our S.O.G.G. cohorts (Southern Ontario Glider Group); we had a ball. This was something that we could only hope to aim for on the Canadian side.

Looking forward to our own event, we sent out copious amounts of literature inviting Canadian and U.S. flyers to our September 21-22 meet, with descriptions, maps, accommodations and pre-registration forms. We actually started to make plans back around March of this year. Robin, Jim Blum and John Derstine had already agreed to participate. All we had to do was wait for the day to arrive and hope for good weather.

As the year progressed, and the weather remained wet for the most part, windy and cool throughout the Northeast, we were all apprehensive about being rained out. Up to the day before the event, there had been lots of wind and rain thanks to hurricanes Fran and Hortense, but on Friday we were able to start setting up and even do a bit of flying. Chris Murphy of Easton, Connecticut arrived and enjoyed some pre-event flying with us.

The gods were beginning to smile on us it seemed. The field owners had mowed this huge sod field for us; the Johnny on the Spot had arrived.

Saturday, the big day, dawned and we were out at the field bright and early to put up tents, tables, food concession, registration and transmitter impound areas, etc. Robin and Jim Blum were the first to arrive, and began putting

Jim Blum with his Ka6e. Praying for lift. We got plenty! No wind, plenty of sunshine — a perfect airtow day! Lehman photo.



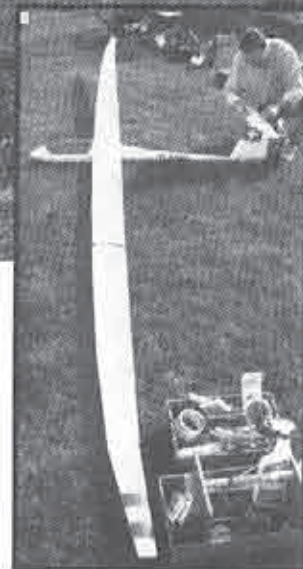
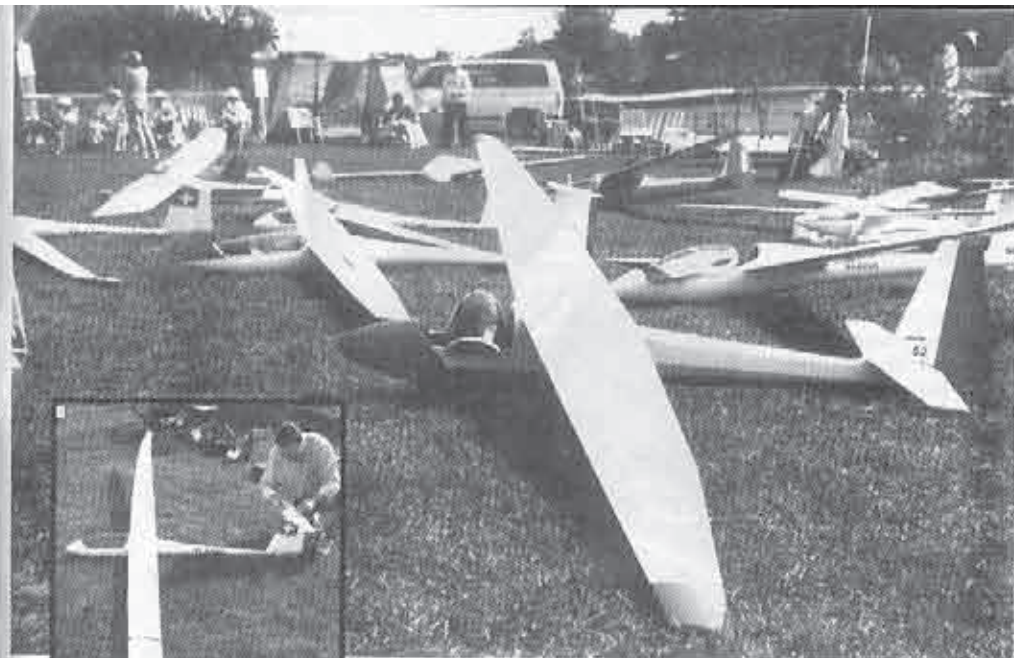
Almost ready to tow... Gassing up. We got 5 high tows out of a 32 oz. tank! Lehman photo.

"I had the pleasure of attending the scale airtow event put on by the G.N.A.T.S. in Canada (near Buffalo, New York). A bunch of us came up from the States with towplanes and sailplanes, and made new Canadian friends on a lovely, warm, windless, perfect airtow day on the 21st of September. Whereas everyone from the States brought sailplanes made from kits, most of the Canadians scratch built their scale sailplanes, and there were a few most exceptional scale models."

"The airtowing went flawlessly, and I had the pleasure of both airtowing and flying quite a few different sailplanes that day. I shared the airtow duty with Jim Blum, and we towed virtually the entire day. We knew that the weatherman was predicting horrendous weather the next day, so we flew until we could no more! A wonderful time was had by all and we very much enjoyed the Canadian hospitality."

...Robin Lehman

tugs and sailplanes together. Others from Canada and the U.S. arrived to swell the throng to 16 registered flyers bringing 22 sailplanes, 4 tugs and 2 motorgliders. By 10:00 A.M., Phil Landray and Robin were able to hold a pilots' meeting. Thereafter, flying got underway in short order with a steady line up of sailplanes waiting for a tow. Most flyers had already experienced the joy of being aerotowed, and all the



A few of the sailplanes ready for airtow! Lehman photo.

John Derstine readies his Büchele Nimbus 4 for flight. Lehman photo.



Robin Lehman readies his "Spacewalker" tug. Performed flawlessly. Terry Hounsham photo.

launches went off smoothly; some sailplanes used dollies, others took off from the ground.

Robin was flying his "Spacewalker" tug with a Brison 3.2 cu. in. gas engine. His flying is always so inspiring to watch, as his take-offs are so straight and with authority; his landings are picture-perfect every time. The sailplanes tracked right behind with no problem, whether they were 3 meter lightweights or 6 meter glass jobs. Launches to altitudes of 1500-1800 were common place and took only a minute to accomplish before releasing. Thermals were beginning to pop out by 11:00 A.M., and soon several sailplanes were to be seen circling high overhead.

Jim Blum was flying his modified Senior Telemaster tug powered by an OS BGX-1 engine, and took over

towing whenever the need arose. The Senior Telemaster performed beautifully under Jim's expert control, giving fast, high launches to even the largest sailplanes. His first tow of the day was John Derstine's beautiful yellow and red ASK 18, followed by Phil Landray's ASW 20; many others followed.

Several vintage sailplanes put in noteworthy flights. Bill Woodward's Slingsby T-46 stole the show by putting in lovely, slow and scale-like flights. He also flew his Slingsby T-53 and an MU-13B built by Fred Freeman, which performed realistically. Charlie Rader had his 1/4 scale TG-3, but opted to fly off the winch. There were several ASK

18's, which always fly well; one Roke kit built by Ron Wahl, and flown by Robin Lehman, floated around for a good 45 minutes during the mid-afternoon.

More modern sailplanes, such as Jim Blum's and Ron Wahl's Ka6E's, and many

1/4 scale Olympia 2h built and flown by Gerry Knight. Terry Hounsham photo.



John Derstine did a beautiful job on his Roke ASK 18. Lehman photo.



Glass Slippers took to the air in short order, all achieving lengthy, thermal flights. Noteworthy among them were Steve Savoie's DG 800, Kurt Fritz's DG 300, and John Derstine's Nimbus 4.

Motorgliders were represented by 2 electric sailplanes flown by Manfred Eiberberger and Philip Soden of Oakville, Ontario.

As the day progressed, the sun got warmer and the sky was continuously filled with high flying sailplanes. Flying ended about 5:00 P.M., with Bill Woodward still enjoying his T-46. Everyone expressed their thanks to the 2 tug pilots and to the weather gods for giving us such a glorious day, probably the best of the whole summer in this part of the world. The day ended with most participants attending a supper at the local motor inn and reminiscing over the day's events.

The following day, Sunday, as predicted by the local weather forecasters, turned out to be an exact opposite of Saturday. We awoke to rain beating down, the wind picking up and heavy clouds, making things too uncomfortable to do anything but commiserate. Robin and the U.S. crew decided over breakfast to pack up and head home. Members of G.N.A.T.S. said their

Steve Savoie is a real enthusiast. He drove all the way from Maine! Lehman photo.



Chris Murphy of Easton, Connecticut flew his LS-4 all day. Terry Hounsham photo.



R/C Soaring Digest

farewells and thanks to these fellows who had traveled a great distance to be with us, then headed to the field to pack up the tapes, stakes, tents and so forth.

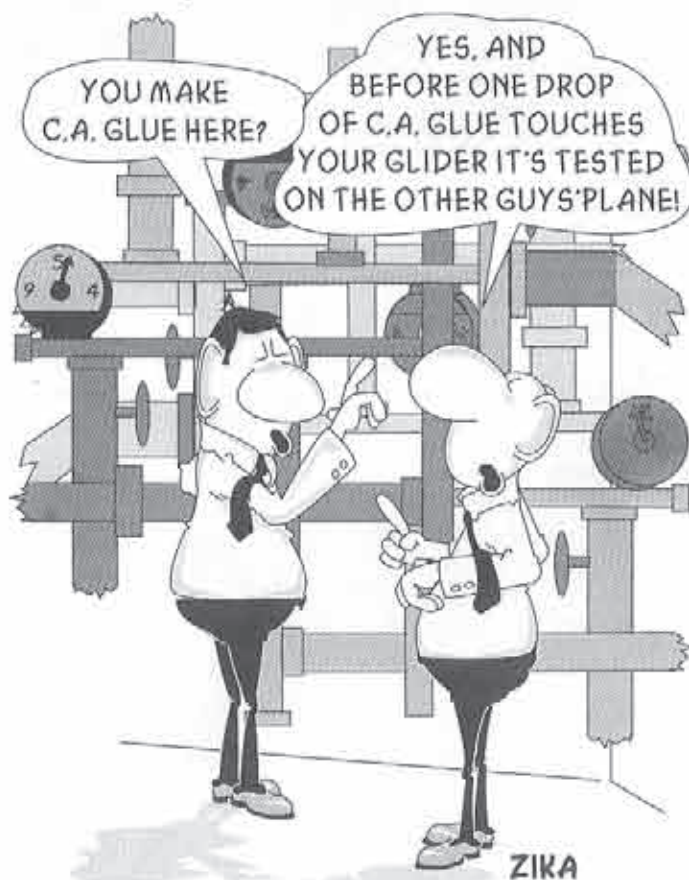
All participants were extremely pleased with the G.N.A.T.S. event, even though it was cut short by a day, and voiced the opinion that we should do it again next year.

Thanks have to be given to Robin Lehman and Jim Blum, who between them did all the aerotowing with planes that never gave up.

Thanks also have to go to the many helpers from G.N.A.T.S. who acquired tents, barbecues, tables, and so on, and assisted in organizing and running the affair. Without their assistance, this event couldn't have taken place.

Guidelines for our event came from John Derstine and the Harris Hill L/D-R/C for which we are most appreciative. RCSO must also share our appreciation for giving us 6 months of advertising coverage at no cost to us.

Now that this year's aerotow meet is over, we have time to breathe easy for a while before thinking about 1997. We at G.N.A.T.S. certainly enjoyed putting this event together, but we wonder now if the timing was right; perhaps it should have been run earlier in the year. This year the weather has been so unpredictable that no matter when we would have planned the event for, the possibility of a rain-out existed. We were lucky this time; can we get 2 good days next year? ■



DO THE MUNCIE!

...by Bob Kidd
Lexington, Kentucky
...photos by David Garwood
Scotia, New York



Robert Kidd is launching his Spirit 2 meter during the 1995 Nats in Muncie. It is his first year in the hobby and the first time to attend the NATS. He flew two full-house models in 1996, but he says, "The fun was just as good as with the little Spirit."

An aerial view of the Muncie soaring site on AMA grounds, taken from Dave Garwood's Paragon camera plane, shows the car park area and display tent on Nostalgia day. Other AMA facilities for powered planes are visible.

No. Surely they weren't going to send us out in the rain. Naah... Yes! Yes, they were... So, there I was, walking out in the middle of a former Indiana cornfield, carrying a hammer, a stake, a pulley and a roll of monofilament tough enough to floss the teeth of Madonna's lawyer. And the rain was getting wetter, if not harder.

We were in F3J "prep time", so I only had a few minutes to walk out two rolls of line (making sure they didn't snarl), drive the stake in the ground, attach the pulley handle to the primary line and wait for my pilot's signal to start running as hard as I could, launching him up into the ominous sky to search for — lift? I had soggy sneakers, tired legs, and that Eternal Drip of rainwater that seems to hang on the end of your nose when both hands are busy and you can't wipe it away.

A day before, I'd never seen F3J, but there I was, towing for my new buds

Joe Hahn launches and RCSD columnist, Mark Nankivell, observes during the HLG event on Sunday. Joe runs Df Aerotech; Mark was the F3J contest director.



R/C Soaring Digest

"This year, Bob won the LSF "Spirit of Soaring" award for his infectious optimism, positive attitude, and yeoman service as a NATS volunteer worker."

...David Garwood

from Southern California, and loving it!

Hey, Mike Stump! LSF could go on cable TV with an infomercial: "How can you get a great tan, lose six pounds, build quads like The Hulk, eat a Midwestern pork tenderloin that's as wide as your head, and meet a hundred strangers who already know your favorite sport? Do The Muncie!"

Before leaving for the 1996 AMA/LSF Soaring Nationals, co-workers asked me why I chose to spend a week's vacation in Muncie, when I used to head off to places with more... uh... longer names! Now I have loads of stories to tell them why, but I'm still not sure they'd understand.

I remember watching my new pilot friend, Arthur Markiewicz, thermal up out of that rainstorm in F3J! He actually did it, got his max, and came back to land to our cheers.

I got my first view of F3B, as a turn judge. It is incredible how fast a glider

Gordon Jennings steers his handlaunch ship toward the cup in HLG golf. This comic evening event drops all pretense of formality and produces howls of laughter from pilots and spectators.



A ripping-good F3B launch into the beautiful skies of Muncie.

Crowded flight line in F3B. Gordon Jennings launches a Thermal Eagle. Note his very practical hat!



will turn in a speed run.

There were guys throwing a handlaunch, effortlessly, to three times the highest altitude I've ever reached.

I saw a few guys throw an open class sailplane, effortlessly, to three times the hang time my HLG has ever reached!

I flew in the national championship with my best pals from back home — the guys who taught me to fly sailplanes just last year.

These were good times! Attending NATS is worth it, if only for the variety of characters you meet. It gave me a chance to put faces with the names of many I had chatted with on the Internet's RC Soaring Exchange, and to meet some of the best in the game. The Southern California guys were mesmerized by the concept of rain. Midwestern guys were mystified by the Southern California guys' big, floppy sun hats. Free flight guys shared the AMA field next to us during the RC soaring events. You could tell their cars, as each had a motorbike strapped to the bumper. You could hear when they experienced a "Maalox Moment", as the limited motor run ended with the sound of the propeller meeting the ground. And, at what other time can you stay at a hotel where an evening walk down the breezeway reveals a model airplane



Aerodynamicists Michael Selig from the University of Illinois Urbana Champaign (UIUC) and Joe Wurts confer between unlimited class rounds.

sitting on charge inside every other room?

Going into the week, I figured my goal was to return home with my planes intact. But after watching F3B and F3J, I was getting pumped up. I had to try harder. I wanted to be — dare I say it aloud — on the first page of scores



Chuck Anderson (Tennessee) prepares to launch his Sailaire in the nostalgia event.



F3B pilots practice stoic concentration while volunteer officials crack jokes during a break between rounds. From left are Steve Condon, Tom Kallevang and Jim McCarthy.



Daryl Perkins catches an F3B ship, preparing for a teammate's relaunch.



Terry Edmonds prepares his beautiful scale ASW-20 for ROG winch launch. Muncie weather cooperated and allowed both Scale and Nostalgia classes to fly this year.

taped to the bulletin board. Well, I made it, barely, in Two Meter. (Maybe it helped when they compressed the type size on computer printouts after several rounds.) And I did manage to bring the planes home, although the spar boxes in the Pulsar were looking kinda loose and wiggly on launch by the end of the week. (Heh, heh... I think I got overly enthusiastic with the winch pedal.)

After a few weeks to rest, I am thoroughly energized after taking part in only my second NATS. Hey, I've only got a year to prepare new planes, learn how to read the air better, zone-in my landings... And, of course, dry out my tennis shoes.

Do The Muncie! ■

Another Wish List

Beginner Babbling

...by Al Halsey
New Ross, Indiana

(The following request should be of interest to many of you that have found yourself in the same situation as Al. Should any of you wish to tackle an article(s) on this subject, as he suggests, just let us know. ED.)

Having just been to the NAT's in Muncie for the 3rd year in a row, and drooling over the fancy planes this year, I discovered what I am looking for: Nostalgia class. Over the past three years, I have gradually watched all the various classes, and Nostalgia has to be the entry level, fun class for the beginning guy. Having flown gliders for about 4 years (but never in competition due to the cost and intimidation, and lack of local help), I always wanted to join in, somehow. After watching those guys have fun with those old 2 or 3 channel planes, this has to be the way for a new guy to get started.

Now to the point! Us beginners out here need an article on what this competition is all about. Having watched over the past 3 years, I've got the general idea that you fly so any minutes and land on a streamer but, how is this scored and how are they measured when they land? What are all the different things that go into this soaring competition? Wouldn't that

make a good article?

More Beginner Babble

During the lunch break at the NAT's, I was looking at planes and chatting with some of the competitors, and I happened on two guys talking about the high cost of getting started. You know, \$500+ for a computer radio, and \$400+ for a plane, and so forth; they figure \$1000+ to get started, and there sat a simple Nostalgia, 2 channel plane, that could be flown with a \$50, 2 channel radio. I just stood there and listened dumbfounded. Were they trying to scare me off? Come on guys; wake up and smell the roses. Let's not chase off the newcomers with big dollar talk when you can get this Nostalgia thing real cheap the way I figure.

I have bought 3 two meter Spirits for me and my boys, along with three \$50 radios, high start, and Radio Shack charger, and kept these birds flying for less than the cost of a full-house radio. We've taken these planes to speech class at school, and even did a hobby day at school with the local gas engine RC club, but they are not interested in gliders.

Please keep thinking about the new guys trying to figure a way to break into this sport. ■

Book Review

"Slingsby Sailplanes" A Comprehensive History of All Designs

...by Jim Gray
Payson, Arizona

Martin Simons has done it, again! He has authored a new book that is an absolute 'MUST-HAVE' for all sailplane enthusiasts, whether they be pilots of full-size aircraft or scale-model builders and flyers.

Martin's classic "The World's Vintage Sailplanes 1908-45" remains the definitive work on historical gliding and soaring machines, and now we have his new book, which I believe is destined to become another classic in its field.

In preparation for over five years, "Slingsby Sailplanes" covers the

products of the Slingsby company of Kirbymoorside, Yorkshire from their first Type 1 (British "Falcon"), through their last (T-65 "Vega"), encompassing nearly fifty years of continuous production in seven major segments: Scarborough 1931-34, Kirbymoorside 1934-39, Second World War 1939-45, Post War, The Laminar Boundary Layer, Wood, Metal or Glass? 1965-69, Vickers Slingsby, and The End of Sailplane Production. Each segment contains drawings, photos and text of each Slingsby sailplane produced and flown during that time period.

In his own crisp, elegant draftsmanship, Martin presents full-page three-views of each glider/sailplane, most taken from factory drawings and other original source material, and also includes accurate fuselage cross-sections, plus detailed drawings of variants, modifications and sub-types of each aircraft, things usually missing from other books.

You will discover more than dry statistics and three-views in this wonderful book, because Simons' insightful commentary places in perspective the founder, F.N. Slingsby, his company, its personnel, and the place they occupied among their peers in the growth and ultimate popularity of world soaring.

Of great interest to the designer of full-size sailplanes, and also the scale sailplane modeler, are the interesting technical discussions of thinking and rationale behind the choice of a particular airfoil, the aspect ratio of a wing, the choice of material, the type of dive brake, whether to use a wheel or skid-only landing gear, and hundreds of similar details.

Of interest to the historian are the many human stories about the pilots, their backgrounds, and many personal experiences ranging from a beginner's 'ground slides' in a Dagling 'Primary', to eventual, full-bore competition in a Sky, Skylark, or Dart. Credit is given to Slingsby's engineers, stress analysts, layout men, and craftsmen who created these machines - sometimes beginning full-size layout in chalk on the factory floor before drawings had been completed.

Businessmen will appreciate glimpses of the hard decisions a designer-builder-salesman-managing director like Fred Slingsby had to make: choices between simplicity and ease of manufacture, durability, and economy, as well as the intangibles of safety, acceptability, overall performance, and international recognition - relating to demand for his products - weighed against market viability and competition with the products of his competitors: Elliotts of Newbury in England, and various European manufacturers.

You will see page after page of glorious black and white photographs of each Slingsby type, many of them rare and previously unpublished. There are anecdotes about the pilots of "Slingsby Sailplanes" and their deeds and mishaps, from club-level instruction to world soaring championship proficiency, drawn from Martin's own soaring experiences, as well as information from interviews and communication with the persons involved.

"Slingsby Sailplanes" in hard-cover measures 8-1/2 by 12 inches and contains approximately 255 pages of text, drawings and photographs. Unlike "The World's Vintage Sailplanes 1908-45", there are no color photos, but the clear, technical and artistic presentation throughout is totally satisfying. The photographs are superb in their own right, often reminiscent of an Edward Weston or Ansel Adams print. To my own surprise and pleasure, I didn't miss the absence of color at all.

"Slingsby Sailplanes" is a monument to the meticulous research and elaborate exposition of Martin Simons, himself a sailplane pilot, who knew and flew with many of the persons mentioned in this book. I believe it deserves a place on every aviation bookshelf.

This magnificent book is available from Airline Publishing Limited, 101 Longden Road, Shrewsbury, Shropshire, SY3 9EB, England. The price (credit cards accepted) of my volume was £44.95 (English pounds) including postage and packing. (An order form is included in RCSD September 1996 issue, page 41. ED.) ■

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.



A NEWSLETTER FOR F3J ENTHUSIASTS WITH EUROPEAN F3J LEAGUE NEWS

Thermal Talk is an unofficial publication designed to act as a forum to discuss, educate, and exchange information concerning FAI Class F3J. Subscription Rates: £5.00 UK, £8.00 Continental Europe, \$11.00 North America, £8.00 Rest of World.

Thermal Talk

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e-mail: Jack Sile 100307.522 (CompuServe)
Or e-mail: Jack.Termtalk@demon.co.uk



November 1996



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>

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 twelve issues.

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

LSF



The League of Silent Flight (LSF) is an international fraternity of RC Soaring pilots who have earned the right to become members by achieving specific goals in soaring flight. There are no dues. Once you qualify for membership you are in for life.

The LSF program consists of five "Achievement Levels". These levels contain specific soaring tasks to be completed prior to advancement to the next level.

League of Silent Flight
10173 St. Joe Rd.
Ft. Wayne, IN 46835

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 Edgemoor Dr. SE, Huntsville, AL 35802; (205) 883-7831.

Alabama - Central Alabama Soaring Society, Ron Richardson (Treas.), 381 Stonebridge Rd., Birmingham, AL 35210; (205) 956-4744, e-mail lamreht@concentric.net.

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

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

Arizona - Southern Arizona Glider Enthusiasts, Bill Melcher (contact), 14260 N. Silwind Way, Tucson, AZ 85737; (602) 325-2729. 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, RCVAV@aol.com.

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

California - South Bay Soaring Society, Dave Burwell, P.O. Box 2012, Sunnyvale, CA 94087; ticedoff@ix.netcom.com.

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-Flyer@ix.netcom.com.

California - Torrey Pines Gulls, Ron Scharck, 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 (President), (301) 898-3297, e-mail BadIdeas@aol.com; Bill Miller (Sec./Treas.), (609) 989-7991, e-mail JerseyBill@aol.com; Michael Lachowski (Editor), 448 County Rt 579, Milford, NJ 08848, e-mail mikel@airage.com.

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

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 Vendola, 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; (708) 259-4617.

Illinois (Northwest) - Valley Hawks R/C Soaring Club, Jeff Kennedy (President), 414 Webster St., Algonquin, IL 60102, (708) 658-0753, 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.

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

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@acornbbs.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), Steven Lorentz (Coordinator), 12504 Circle Drive, Rockville, MD 20850; (301) 845-4386.

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 Cyrenus 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; (813) 833-1553, eve.

Missouri - Mississippi Valley Soaring Assoc. (St. Louis area), Ken Trudeau, 3033 Plum Creek Dr., St. Charles, MO 63303; (314) 926-3537.

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

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

Nevada - Las Vegas Soaring Club, Jim Allen (President), 7117 Caprock Cir., Las Vegas, NV 89129; ph (702) 658-2363, fax (702) 658-1998.

New Jersey - Vintage Sailplane R/C Association, Richard G. Tanis (President/Founder), 391 Central Ave., Hawthorne, NJ 07506; (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.sunverie.edu; Jim Roller (Competition Coordinator), (716) 937-6427.

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

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), Roger Breedlove (Editor), 6680 S.W. Wisteria Pl, Beaverton, OR 97005; (503) 646-1695 (H) (503) 297-7691 (O).

Ohio - Cincinnati Soaring Society, Chuck 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.

Oregon - Salem Soaring Society, Al Szymanski, 8991 Edcliff Ct. SE, Aumsville, OR 97325-9549, e-mail aszy@teleport.com, (503) 585-0461, fax (503) 585-6929.

Oregon - Southern Oregon Soaring Society, Jerry Miller, 3431 S. Pacific Hwy, TRLR 64, Medford, OR 97501, e-mail jmill@cdsnet.net, 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, Craig Logan, 147 Stillwood Dr., Manchester, TN 37355, (615) 728-5446, jclogan@edge.net.

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

Texas - Texas Soaring Conference (Texas, Oklahoma, New Mexico, Louisiana, Arkansas), Gordon Jones, 214 Sunflower Drive, Garland, Tx 75041; (214) 271-5334.

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, Bob Harman, (801) 571-6406. "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, 266 Plumb Alley West, Abingdon, VA 24210; (540) 628-4469 (H), (540) 676-3788 (W), (540) 676-3094 (fax).

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

Outside U.S.A.

Australia - Southern Soaring League, Inc. (SSL), 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 (Thermal Talk & Europe), Jack Sile (Editor), 21 Bures Close, Stowmarket, Suffolk, IP14 2PL, England; Tele. # 0449-675190.

England (southwest) - Sean Waibank, 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, yan@asiaonline.net.

Japan - Dr. Paul "Sky Pilot" Clark, 2-35 Suikoen Cho, Hirakata Shi 573, Osaka Fu, Japan; IAC+(81) 720-41-2934, fax: IAC+(81) 6-954-4144, e-mail: 76055.3546@compuserve.com, http://chaos.fullerton.edu/~jclark/skypilot.

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

BBS/Internet

Internet - Email list/resource of RC soaring related folks, including US and international club contacts, vendors, kit manufacturers/distributors, software, and supplies. Also a resource for aeromodelling related Web sites on the Internet. Contact Manny Tau at taucom@kaiwan.com, or on CompuServe: 73617,1731.

Internet soaring mailing lists serve linking hundreds of soaring pilots worldwide. Send a msg. containing just the word "subscribe" to soaring-request@airage.com. The "digested" version that combines all the 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 mike@airage.com.

The Frequent Flier's Info. Hot Line, San Francisco Bay Area - Box 1 (lost & found airplanes, helpful tips, upcoming events), Box 2 (questions), Larry Levstik, (415) 924-4490.

Reference Material

Still a few copies available of some issues of the printed transcripts of talks given on RC Soaring at the Previous Annual National Sailplane Symposium. Prices reduced to clear out stock. Talks were on thermal meteorology, flying techniques, hand launch, cross country, plane design, airfoil selection, vacuum bagging, plastic coverings, flying wings, etc., etc. Send SASE or call for flyer giving details. Many copies of most recent (1992) transcript left. Clubs have found them good for raffle prizes, gifts, etc. Al Scidmore, 5013 Dorsett Drive, Madison, WI 53711; (608) 271-5500.

"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.

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RCSD Index/Database

If you aren't connected to the internet, please send 3.5" high density disks and SASE with stamps for 2 oz. Files can be loaded onto any word processor; search for a word or phrase and references pop up by issue, author, date, page, and comments. If you are connected, the index is available on-line. Lee Murray, 1300 Bay Ridge Rd., Appleton, WI 54915; (414) 731-4848 after 5:30 pm weekdays or on weekends, 74724.65@compuserve.com.

Seminars & Workshops

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

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

International Scale Soaring Association (ISSA)



ISSA is a non-profit organization formed in 1996, governed by a board of directors, dedicated to the advancement and expansion of all aspects of scale R/C soaring, both vintage and modern. It encourages LSF Achievement Goals, and promotes general interest in soaring flight. Quarterly newsletter provides information on plans, kits, accessories, and membership list of others interested in scale, as available.

General membership is \$15 per year, which includes organization By-Laws. Rules and Regulations for initial ISSA festivals and competitions, to be held at Empire Polo Field in Indio, California, are also available. For additional information, contact:

International Scale Soaring Association
37545 Oak Mesa Drive
Yucaipa, CA 92399-9507
e-mail: 70773.1160@compuserve.com
AMA Charter #3733

Schedule of Special Events

Date	Event	Location	Contact
Nov. 15-17	Acrotow Fly-in	Pensacola, FL	Asher Carmichael, (334) 626-9141 Rusty Rood, (904) 432-3743
Nov. 29-1	Tangerine	Orlando, FL	Ed White, (407) 321-1863
June 19-22	1997 MSSC	Huntsville, AL	Ron Swinchart, (205) 883-7831

(If you have event dates available for 1997 that you would like listed, please send them in.)

Classified Note

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

TIDBITS & BITS

Great Lakes R/C Soaring League

The following is from Ray Hayes, CD, Great Lakes R/C Soaring League, 1996 Spring R/C Soaring Festival.

"This was a three part contest using the same format used in the 1995 Fall R/C Soaring Festival: A. 2 meter hi start, B. 1.5 meter Man-on-Man group launching by hi start, and C. hand launch. Winners were declared in each of the three events, and total points went towards the overall Grand Champion.

"The 2 meter event was won by Paul Sherman. Event rules were: 1 two and a half hour window (9:30 a.m. to noon); fly as many times as possible or desirable; record your best flights. No landing points were awarded other than you didn't receive flight points if the flight did not culminate in the craft landing in the 50' diameter landing circle. The landing task relates to full scale flying (i.e., the pilot is supposed to land the plane on the runway). Paul recorded one flight score of 1 hour, 31 minutes, and 48 seconds. It would have been a longer flight, had the flying started on time. Paul flew a hand launch size sailplane in this event, as did most of the other contestants.

"The 1.5 meter event was conquered by Paul Sherman, winning 5 out of 6 rounds. The total length of the hi starts are 150', which includes 30' of rubber. 25 points were awarded for landing in the 50' landing circle, and these points would possibly break a tie. All flights counted, regardless of landing performance.

"Hand launch is Paul Sherman's forte, and he dominated this event. Four 10 minute windows were flown, with a task of 2 three minute max. times in each window.

"Hats off to the 1996 Spring R/C Soaring Festival Grand Champion!"

For additional information on these events, contact Ray Hayes, P.O. Box 316, Washington, MI 48094.

"Airborne 88'er"

Bruce Abell of Cessnock, NSW, Australia had plans for a 120" version of the "Scimitar" published in the Australian magazine, *Airborne*. It is called "Airborne 88'er". He dropped us a note to let us know that if anyone is interested, it is still available from Ropomod Productions, P.O. Box 30, Tullamarine, Vic. 3043, Australia for Austr. \$14.00. He says, "It performs very well and got me a 2nd at Armidale Sailplane Expo. a few years ago. It is a rudder/elevator/spoiler bird, but I built an aileron/elevator/rudder/flap version, which was "shot down" before I could fly it in "anger"."

Buzz Waltz R/C Designs

The following fax was received from Buzz Waltz,

Cathedral City, California.

"I hope that all of you have had a great summer and, for those of you that got away, you were the lucky ones. For myself, I chose to stay here, fly, and make some major changes in my kiting business.

"In the near future, you may hear some rumblings as to status of my kiting business, so I thought I would let you know first hand as to what I am doing now, and in the future. I have decided to close Just Plane Fun Models and shut down my retail location. However, this does not mean that I have gone out of the kiting business. I am going back to my original name: Buzz Waltz R/C Designs.

"I will continue to kit the P.S. FLYERS for Hobby Lobby; the Big Birdy kit I will sell directly, myself. My other kits will be available, but only as I receive orders for them. In addition, I am making all my designs, 20 in all, available for sale in plan form, with ribs and material lists. I have enlisted the help of a friend in the kiting business, and he will cut the parts for me; I will do the packaging and shipping.

"I am also very close to finishing a prototype of the Slingsby T-31B Tandem Tutor sailplane. It is a 100" sport scale model, and it will become available in plan and rib form at first; in kit form later on.

"Hope to see you all back at the flying field this season."

Scale Stuff

The following information was provided by Raul Blacksten, Vintage Sailplane Association Archivist, raulb@earthlink.net. Thanks, Raul. ED.)

"As the Archivist for the VSA, copies of R/C Soaring Digest come to me after our Bungee Cord newsletter Editor finishes with them, often several months later. I then check them out and file them. Just yesterday, he passed on the June 1996 issue to me, and I was going through it tonight. As such, I noticed something. In an article on page 9, there is a picture of a TG-3. There are 3 problems.

"First, while it does appear to be a TG-3, it is painted as a TG-2. There were no TG-3s painted in this color scheme. The TG-3 came after the USAAF required all training aircraft to be painted silver. Only the prototype TG-3 was painted in the old training colors: blue fuselage, yellow wings and empennage, and candy-stripe tail. All production TG-3s were silver.

"Second, this glider is identified as being a "TG-3 Navy trainer". The TG-3 was not used by the US Navy. They had already ended their glider training program by the time the TG-3 was developed. The TG-1, TG-2, and TG-32 were used by the Navy

and were known by different designations (for example, the USAAF's TG-2 was the Navy's "LNS-1"). The TG-3 was not.

"Third, even if the TG-3 had been used by the Navy, it would have been painted all yellow. But of course, it was not used by the Navy, so this point is moot. In the scheme of things, this is no real earth shaker, but I thought it should be noted."

"Here are a few captions for the photos which are not identified from the International Vintage Sailplane Meet (IVSM) last summer at Harris Hill. Reference the article pp. 4-10, February 1996 RCSD. All are clockwise from top left, but only the uncaptioned ones."

- Page 5 Slingsby T-38 "Grasshopper, ditto, Schweizer "SGS 1-34"
- Page 7 "M100S" (Italian Aero Club), replica Slingsby "King Kite", "M-100S", (identified as "tow plane") Piper "Pawnee", (identified as "Viking") Scheibe "Bergfalke"
- Page 8 Warsztaty Szybowcowe "Orlik II", Schleicher "Ka-6 CR", Laister-Kauffmann "LK-10A" (USAAF TG-4) with a "bunny nose", Schleicher "ASK-21", Schweizer "SGS 1-23"
- Page 9 Slingsby Type-21 "Sedburgh", Grunau "Baby", Pratt-Read "PRG-1" (US Navy LNE-1), Schleicher "Ka-6", Schleicher "Ka-3"
- Page 10 Schleicher "Ka-6", Schweizer "SGS 1-23", Schweizer "SGS 1-26A", Breguet "Fauvette"

Raul also sells the "World's Vintage Sailplanes 1908 - 45" written by Martin Simons. It is \$60 post paid in the U.S.A., checks payable to Raul Blacksten, P.O. Box 307, Maywood, CA 90270. Additionally, Raul offers 2 books in Italian: "L'Aliante Militare" and "Ali Misteriose", and plans to be offering Martin's new book, "Slingsby Sailplanes", too.

Raul's e-mail: raulb@earthlink.net

VSA Archives Homepage: <http://www.earthlink.net/~raulb>

VSA Homepage: <http://www.iac.net/~feguy/VSA>

Solar Powered Flight

Dave Beck has been pursuing world records for solar powered flight, using a self designed model. The project has been underway for three years. During this time, motors, props, gear sets, solar cell selection and configurations were tested. A sailplane design was developed to optimize airfoil selection to achieve the desired stability and performance, and permit placement of the maximum amount of solar cells. This last summer, Dave demonstrated that he could sustain continuous flight in

sunlight between about 10 a.m. and 3 p.m. in Wisconsin. There had been no world records established for cross country flight, in a straight line, with solar only power (no battery on board). This August, Dave and his support team, of which I am a part, established a flight distance of 24.17 miles. The application for the record has been filed to FAI via the AMA. We evaluated a 100 mile course in Wisconsin, but that entailed crossing a river where we would have to pass control of the model from one pilot to another, and going through several small towns. Physical limits to the trip were a second, wider river to cross at one end, and Lake Michigan on the other. It is hard to plan for the right weather in Wisconsin. Dave needs a sunny day with few clouds and a westerly wind. After looking at climatic data for the USA, we see that the southwest (southeastern California, Nevada, Arizona, New Mexico, west Texas and Colorado) has the highest level of sunlight. Maps can show us what looks like fairly straight roads. However, the maps also show that much of the area has mountains.

Here is where you can help us, and become part of this team if you wish. In order to set a record of about 50 to 100 miles next spring, we need to have recommendations as to where we might go. We are looking at a time in early June. The recommendation should mention: routes, possible starting and stopping places, comments about features of the route, towns, bridges, mountains, etc. The landing zone should allow a soft landing area since this model is rather fragile, having been made as light as possible. If you or a member of your club has a pick-up truck or convertible that can be used, that would be a bonus, but we will plan to rent one if needed.

Send your comments and suggestions to us at any of the addresses: Lee Murray, 1300 Bay Ridge Rd., Appleton, WI 54915; E-mail: 74724.65@compuserve.com; Dave Beck, 1755 N. Racine St., Appleton, WI 54911; E-mail: dbeck@execpc.com. ■



DG-800

...from Hobby Club

DG-800 with winglets is available from Hobby Club, 10 Hughes Street Suite A-102, Irving, CA 92618; (714) 461-0336. ■

New Product



M - ONE - Y

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...by Del Brengman, San Jose, California

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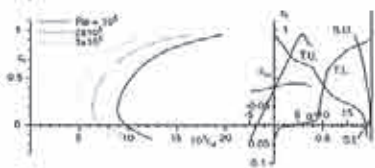
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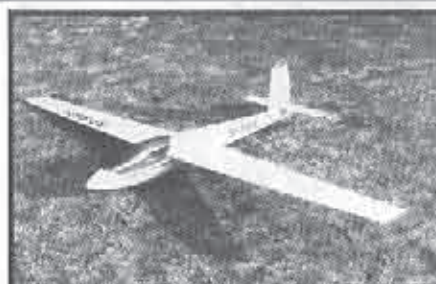
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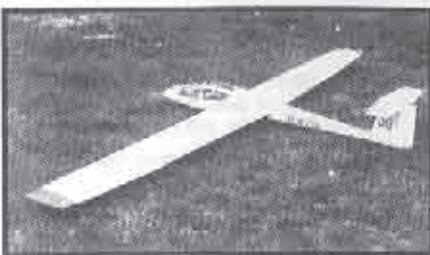
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Wing Area: 961 Square inches
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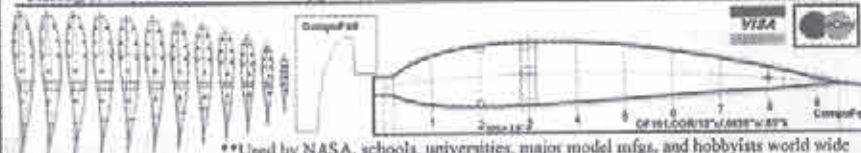
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The wings are made in America by Ron Vann, owner of Spectrum Enterprises. Ron is also an avid competition flier, and is considered to be one of the best wing manufacturers in the industry. Taking his years of experience in manufacturing wings, Ron 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, beech from Kennedy Composites, which is applied with West Systems epoxy.

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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-sheeted 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.

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