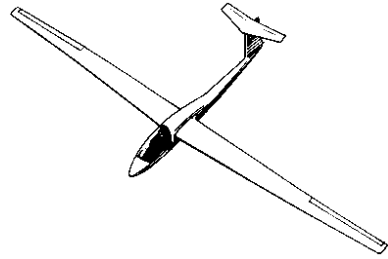


# CLARENCE SILENT FLYAIR



BI-MONTHLY NEWSLETTER OF THE  
CLARENCE SAILPLANE SOCIETY

Jul/Aug '99

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## From the Editor

- Marty Timm

**Zagis over ECC!** - I attended the August on-field meeting at ECC South Campus to find that the sky was filled with brand spanking new Zagi-400s. Lyn Perry, Don Chudyk, and Paul Bolis all had their planes out and were tearing up the sky with them. I had just bought one and was thrilled to find these little planes flying so well. Paul was putting on quite the show with loops rolls, and low inverted passes. I was so impressed, that I shelved all my other projects and went straight to work on the Zagi.

What is a Zagi-400 you ask? Well, it's basically a 48" foam flying wing with a Speed-400 motor strapped on the back with a pusher prop. The wing consists of an EPP leading edge bonded to conventional foam to form the wing. Wing tips are made of cloroplast. The "complete"

kit comes with the motor, prop, a speed control and a 8-cell 600Mah AE battery pack. These little critters really burn up the amps, so I recommend purchasing a spare battery pack so you can fly while you charge.

These little planes do it all, from extreme aerobatics to floating on thermals. I heard of one person getting a 45-minute flight by turning off the motor and riding the thermals. Fly it fast, or slow it down for a nice controlled landing. Best of all, having the EPP leading edge, they bounce!

That's right, when you screw up and make a bad landing, you'll probably have no damage at all.

I'm sure you'll be seeing a lot more of these planes in the near future.

**Contest Update** - Lyn Perry's AMA sanctioned Ed Waters Memorial Contest was, in my opinion, an excellent event. Well organized and well attended, the event had 7 pilots in open class and 11 in standard. Lyn Perry took honors in open class beating Bill Wegman by only 13 points. Jim Roller followed suit in Standard class with 1344 points. The contest format was AMA T1 International Duration. This consisted of 3 ten-minute rounds with a 30 point bonus for landing within the landing circle. See the "Contest Results" section later in this newsletter for standings of the

### Upcoming Events

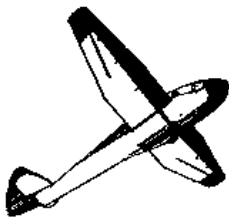
September 11 (rain date 9/18)	Electric Fun Fly - Lyn Perry
September 16	Meeting - Clarence Town Park
October 2 (rain date 10/9)	Contest - Fall Finale - Jim Roller
October 21	Meeting - Clarence Town Park

contestants. Good contest, Lyn.

Unfortunately, Roman Paryz II's F1.5B contest was canceled. I find this disappointing because Roman's contest provides a different set of tasks than the typical thermal duration contest. In the past, being a novice pilot, I've considered the F1.5B task list to be a little intimidating, but this year felt up to the challenge. (Having an indestructible EPP plane sometimes gives me more balls than brains!)

I arrived late to find the entrants sitting down waiting for the somewhat high wind to settle. Due to lack of turnout (only about 6-7 pilots showed up to compete) and marginal wind conditions, the participants agreed to pass on the contest and proceed directly to the fun-fly part of the day's schedule. As the day unfolded, conditions improved and a good time was had flying for fun.

The day of Bill Hauth's Handlaunch contest greeted Western New York with high wind, cold temperature, and light rain. Knowing how weather works in Western New York (if you don't like it now, just wait 5 minutes, it'll be different...) I threw handlaunch "Bob" in the car and headed out the ECC South. Only Bill, Dave Decker and myself showed up. With no break in the weather likely, we unanimously voted to pack it in. Bill's schedule did not permit a re-run any time in August.



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## From The Flightline

- Lyn Perry

Welcome to the almost-end-of-season! Forty-seven degrees outside as I write, and, with a couple more of these, it'll be "From the Building Board" again. The club has enjoyed another successful year flying at ECC's South Campus, with a series of good events (Marty's Spring Opener, Dave Decker's Memorial Day Fun Fly, our AMA-sanctioned contest and three on-field evening meetings) but unfortunately lost two of them (Bill Hauth's handlaunch contest weather-canceled, and Roman's F1 1/2 B due to lack of turnout. Two final events cap the summer/fall: the 13th annual Electric Fun Fly coming up on September 11th, and Jim Roller's Finale on October 2nd. In addition, of course, lots of people have been flying daily at South Campus, West Seneca East, Clarence Town Park, and, when the wind allows, slope sites at Rainbow Lake and Canada.

An interesting phenomenon has hit CSS over the past two months, in case you haven't noticed: I call it the Zagi Plague. One sees a Zagi 400 E (foam 48" flying wing with direct drive Speed 400 backed by an 8-cell 600 Mah battery; 20 oz. RTF) in the air doing marvelous things, and an uncontrollable urge to own one hits! At last count Field's had sold at least thirty of these wonders; I think fifteen club members are infected! This speaks well for our continuing enthusiasm about the hobby.

Our indoor Clarence Town Park (Main Street) meetings begin soon; hope to see you there or on the field.



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## RCCR Electric Fun Fly - August 21, 1999

- Jim Sonnenmeier

With the seeming demise of the Radio Control Club of Rochester's annual sailplane contest, they sought to replace it with something with more appeal to the rest of their membership. CD Jerry Joseph wanted to find out what kind of electric activity was out there and therefore sanctioned an electric fun fly. The word was to come and see what electric is all about.

Now of course 'we' know all about this topic but we also support any attempts to increase the activities in the area so it was an opportunity to see what other people were doing. Several conversations during the week prior with various CSS members suggested that perhaps 5 or 6 of us would trek down route 31 to the Redman Rd. field. Having been afflicted with the Zagi-400 virus on Wednesday and having three evenings for it to run it's stage-1 course (building) I was in a feverish stupor. Waking on Saturday feeling somewhat more

in control, Tim Krystaf and I loaded two Zagi's, a Cessna Cardinal, Skat, and Tim's large Quaker in our vehicles under cloudy skies. Following Tim's red turbo Toyota speeding ticket generator we arrived at about 9:00 am to see Jerry and crew setting up a flightline and equipment. We had driven out of the cloudy weather and it was sunny and warming up nicely. Unfortunately the rest of the CSS crew decided that the weather was too iffy. Oh well, you all missed a very laid back and enjoyable day.

While it was an AMA sanctioned event (had to show your AMA card and sign in etc.) it was officially a fun fly. There were no events, just relaxed flying as you wanted. There were maybe 40 people total present with spectators. 15 entrants signed up and there was in the neighborhood of 25-30 planes on the field. The planes were in all shapes, sizes, and manner of electrics. There was everything from the powered sailplane types (Gentle Ladies, Spectra's and the like including a very nice Electric Hawk from Mark Allen/Slegers) to old timers (a Playboy and a very large New Ruler) to fun-fly types (Electric Hots and the Zagi's [very popular with the ohh and ah crowd]) a couple of electric ducted fans (A Kyosho T-33 foam job and a Bill Grigg's small fan) and some of the most impressive scale planes I've seen with electric power. There was a married couple there with 7 or 8 planes. She had a PT-Electric and a very nicely covered (pink and white - with butterfly trim) Piper Cub. He had a Morrisy Bravo (with MAXCim power), a Beech Staggerwing, and a very large (maybe 80" span) Cessna 310 twin! (with 28 cells and two

Astro 25's!) He flew the planes very realistically, the twin even had retracts! As the sky improved the air got more buoyant. Tim had to force the Quaker out of a large thermal that had sucked a couple of gliders up to specks. The first flight with my new Zagi was exciting with too much throw but after adjustment, the ohhs and ahhs were fun to listen to. There were no mishaps with quite a lot of flying being done and only one faux pas when Tim and I pondered over why the servos on my Zagi wouldn't move when Tim's youngest son David who came along with us noticed that we had taken the wrong HiTec 3 channel transmitter from the impound table!

There were hot dogs for sale at noon, a very large canopy with tables, and a porta-john over by the maintenance sheds so it was quite comfortable at the site. The official flying lasted until 3 PM and everyone was invited to continue to fly afterward. There was a raffle for the registered participants with some nice prizes (an Astroflight Watt Meter, Astroflight Discharger, gift certificates etc.) David was chosen to pick the tickets and he almost managed to skunk his father (he picked Tim's number on the very last drawing) Everyone enjoyed themselves and agreed that the first RCCR Electric Fun-Fly was a great success.



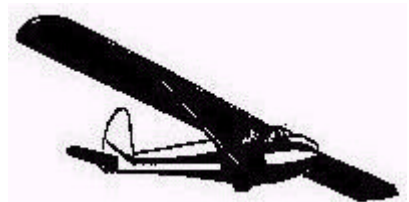
## Safety Note

- Marty Timm

Many of us fly electric-powered aircraft. As a result, many of us make it our first priority to hook a battery charger up to our automotive batteries when we arrive at the flying field. When I hook up my Astroflight Charger, a spark is clearly evident when I connect the second wire.

It occurs to me that this spark is potentially dangerous. We are taught that, when hooking up jumper wires to an automotive battery, that we should connect the ground wire to the frame of the vehicle some distance from the battery to avoid the possibility of igniting combustible gases near the battery. It makes sense that we should exercise the same caution when hooking up our battery chargers.

Now, when I connect the battery charger to my automotive battery, I take care to connect the ground wire to a grounded piece of bare metal that is somewhat away from the battery. While I've never actually known anyone that exploded a battery with a spark, this small piece of preventative medicine costs me nothing and may just help me to avoid a disaster.



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## Contest Results

The results from the Ed Waters Memorial Contest held July 25 are as follows:

**Open Class**

Pilot	Pts
1* Lyn Perry	1274
2* Bill Wegman	1261
3 Jim Roller	1170
4 Jim Sonnenmeier	1159
5 Pete Fiorentino	730
6 Dave Decker	650
7 Ed Granger	356

**Standard Class**

Pilot	Pts
1* Jim Roller	1344
2* Bill Wegman	1204
3 Roman Paryz II	886
4 Jim Sonnenmeier	790
5 Dave Kutina	420
6 Dave Decker	417
7 Marty Timm	410
8+ Warren Laufer	230
8+ Jim Wolfe	230
9 Don Chudyk	210
10 Ed Granger	121
11 Roman Paryz III	0

\* Indicates a trophy position  
 + Indicates a tie

**Product Information - Elevon Mixer**

*Thanks to Fred Meier for submitting information on this interesting product.*

The Ohmark company has an elevon mixer available for "flying wing" aircraft or planes with v-tails. If you want to get into planes requiring mixing, but don't want the expense of moving up to a programmable radio system, this may be just the ticket for you. Priced at around \$30, this little gem can get you flying at a reasonable price.

Here's how it works. Instead of having one signal work the elevator and one work the rudder (or ailerons), this device, located in the plane, "mixes" the signals to drive two servos off one input. In the case of a flying wing with elevons, when you pull back on the stick, both elevons move up. When you push forward, they both move down. Pushing the aileron stick to the left causes the left elevon to go up and the right one to go down.

Some of the features include:

- Works with all modern 1.5 millisecond neutral pulse radio gear.
- Microprocessor design doesn't need adjustment for centering.
- Outputs Travel limited to prevent Servo or linkage damage.
- Both outputs separately reversible for quick set-up.
- Allows 100% 75% 50% or 25% mixing of each input channel independently for flexibility.
- Microprocessor "Watchdog" ensures keeps things working 100%.
- Simple installation, just

- plug in and set the switches.
- Lightweight, just 8 grams
- Smaller than a standard servo. (25x10x30mm)
- Low power usage. 4ma Max (not including current used by servos)
- Gold plated output connectors for long life and sure contact.
- "Universal" input leads fitted.
- Will connect to 99% of radio gear.
- Covered by full 90 Day warranty

If you're on a budget (who isn't these days) and want to get that Zagi flying without investing in a programmable radio, check this out. For more info, see Ohmark's web site at <http://www.cybermall.co.nz/ohmark/rcprod.htm>



**Hint/Tips from the AMA National Newsletter**

**Hole Marker**

A few years ago, while attempting to mark center holes for drilling wing mounting bolts I made a discovery. If you have to drill a recessed hole and line it up with a hole that is over 3/4 inch deep, you have to reach about 1 1/2 inches to mark the spot. If the hole you are marking through is only 3/16 inch diameter, how do you mark it accurately?

An awl will work to make a dot, but it's better if you can cover the entire circle.



**Ohmark Elevon Mixer MK 1.0**

So, what I did was pull the felt center out of a black marker, put it into a piece of brass tubing, and viola (that's French), I had a six-inch long, 1/8 inch diameter marker! It worked perfectly.

from *Plane Talk*  
Dan Knack, editor  
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Woodbury MN 55125-1130

### Joining Balsa Sheets

When joining balsa sheets together with Cyanoacrylate (CyA) glue, join the sheets along their sides, then wick the CyA into the joint. While wet, sand immediately. The sawdust from sanding will fill in any gaps in the joint.

When joining balsa sheets with white glue, sand the edges so the butt joint is nearly perfect. Then, dust the peices off and lay them flat on a bench. Now, tape (masking tape works well) the two sides together and lift from the bench. Gently fold open and run a bead of you favorite glue in the joint.

Now, lay the joined sheet back down on the bench with the taped side down and join with tape on the opposite side. Leave the sheets to dry, maybe slightly weighted. When dry, remove the tape and sand to a reasonable finish.

from John Nooyen

### Covering Models with Fiberglass Cloth

One of the highest quality finishes for fully sheeted balsa surfaces is painted fiberglass cloth. Please note that open structures like unsheeted wings cannot be covered with fiberglass. Fiberglass provides a ding-resistant surface, increases the flexural and torsional

strength of the airframe, and adds minimal weight.

#### Materials Needed:

Light fiberglass cloth: For most work, you want .56 or .72 oz./sq. yd. cloth. Light cloth is available in bulk quantities from several companies.

Resin: There are two main types of finishing resin: polyester resin and laminating epoxy.

*a. Polyester resin:* This resin uses a catalyst to start the curing process. The advantage of this is that the cure rate can be accelerated by adding extra catalyst (within limits). The material has a strong odor, and will not cure over epoxy.

*b. Laminating Epoxy:* This is not the same as the adhesive epoxy used for assembling models. Laminating and finishing epoxies form a very hard and sandable surface, not the rubbery surface of adhesive epoxy. Epoxies use a proportional mix of resin and hardener. Hobby grades are usually a 1:1 mix to simplify measurement, but commercial grades are usually 4:1. The proportion cannot be varied to accelerate the cure; using the wrong ratio results in a soft, rubbery lay-up that will never fully cure. Epoxy has much less odor than polyester resin and will cure over nearly any surface, although it doesn't bond extremely well with polyester fiberglass. An advantage of epoxy is that the resin can be thinned with denatured alcohol to make it easier to spread. I recommend using epoxy resin. The directions that follow illustrate my method for epoxy glass covering.

#### Process:

1. You must start with a high quality surface. The cloth will not conceal errors. Fill or steam out all dings and finish sand the airframe with 240 grit abrasive and dust it off before proceeding. The finished product will be no better than what you start with here.
2. Wear latex or vinyl gloves. This is as much to protect the cloth as it is to protect you. After sanding a model, you'll have rough spots on your fingertips, and these will snag the cloth. This cloth is as sheer as gauze, and it's easy to snag.
3. Lay the cloth out over the area to be covered. I recommend starting with the underside of a wing. It is about the easiest to cover. Cut the cloth to size, leaving about two inches of extra cloth around the perimeter. Brush the cloth down with a dry-hair brush. This smoothes out any wrinkles and imparts a static charge that will make the cloth cling in place.
4. Mix the resin: I use one part resin, one part hardener, and one part denatured alcohol (don't use rubbing alcohol, which is diluted with water). Mix thoroughly. The alcohol won't effect the strength of the final product since it's very volatile, and will evaporate well before the resin starts to cure.
5. Brush the thinned resin on so that you fully saturate the cloth. This is the advantage of thinning. You can spread the resin quickly and easily. Leave the excess cloth around the edges hanging loose. It will be removed later. The cloth will follow

compound curves like wingtips with a light tug as you saturate the cloth.

6. After you've saturated the cloth, blot the surface with cheap paper towels. You need to remove all excess resin as it adds unnecessary weight. Look for shiny areas and blot them until you have a uniform dull surface. If you see any white areas, you didn't apply enough resin in that spot. Re-apply to that area and blot again.
7. Let the epoxy cure overnight, then trim off the excess cloth. If you wish, you can just sand around the perimeter with 240 grit and the excess will come loose without trimming (neat, huh?). Sand the surface lightly and then do the other side of the wing, overlapping the cloth by around 1/2 inch. After finish sanding, the seam will be invisible.
8. While finish sanding, be careful to sand lightly. The glass is so thin that you can sand through it if you're not careful.  
Now you're ready for paint!

*Priming:*

Epoxy fiberglass will accept a wide variety of paints. I've gotten very good results with inexpensive sandable primers from auto stores. Just make sure the primer will be compatible with your color of paint.

1. After sanding and wiping the airframe with a tack

**CSS E-Mail List**

Keep in touch with fellow fliers. E-mail the club members and share your flying experiences.

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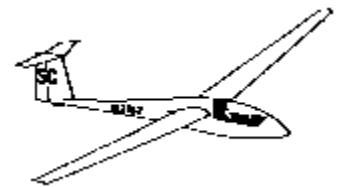
If your e-mail address is missing or incorrect, please let me know at mtimm@paradox.net.

2. After the primer cures, go over the airframe looking for open wood grain that's showing through. If you don't see any, you probably applied too much resin. The open grain can be filled with a styrene putty. Apply the putty with a spatula and let it dry.
3. After the putty dries, wet sand the model with 400 grit wet/dry sandpaper. You want to remove nearly all the primer, which is there

just to fill the cloth weave. Be careful not to sand through the cloth, which is very thin. Extra primer only adds weight, so try to remove as much as you can.

4. After finishing the sanding, wipe the airframe with a damp cloth and wipe dry. You now have a perfect surface, ready for paint.

*from the SACRC  
Newsletter  
Bob Higday, editor  
8123 Merion Drive  
Newark CA 94560-1551*



**F3B Results!**

The F3B contest is being held as this newsletter goes to print. For the latest updates, check out the daily results on the World Wide Web at:

<http://www.webselect.co.za/f3b99/live/default.htm>

