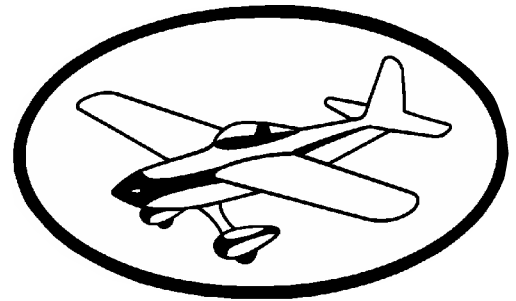


**C**alendar of Events

- Nov. 18th- Walt's 20th anniversary sale. Huge savings!
- Nov. 18th Break-A-Ways annual auction; Masonic Temple, Fulton.
- Jan 1, ARCS Annual New Years Day Snow Fly
- Jan 21, CNYMAA Symposium; NYS Fairgrounds.



Aero Radio Club of Syracuse

Official Publication of the Aero  
Radio Club of  
Syracuse  
November 95' edition

*ARCS Club Meeting.....  
At Walt's Hobby,  
November 10th 7:00 pm*

**Member of the Month**

*The ARCS member of the month for October is our very own club vice president Gerd Wirickx. In a totally unselfish act of heroism and in a valiant attempt to protect our club assets, Gerd heroically lunged in front of his model as it dove towards the pit area at blinding speed. Casting his personal safety aside, Gerd took the full impact of his biplane's wings on his shoulder and in doing so reduced his crafts impact with the ground thereby lessening, considerably, the divot left by his wayward model. Then, in an act even more remarkable than the first; picking himself up off the ground and brushing balsa parts off his body, Gerd's first thoughts are of his fellow fliers. "Look Out!", he yells. We can all be proud that we have members in our club like Gerd.*

*Heard at the field  
"OOPS. That wasn't the retract switch!" said Bill Volcko as he watched his Ultrasport do the prettiest snap roll on takeoff you ever saw- except for the part where it whacked the ground. "I think this plane is out of trim. But I've got it!" Spoken by Rocco Mangano seconds before his Cherokee impacted the treeline east of the field.*



# Fiberglassing 101

## **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.

### **A. Materials:**

1. LIGHT glass cloth. For most work, you want .56 or .72 ounce/sq. yd cloth. Light cloth is available in bulk quantities from several companies, including Composite Structure Technology, Fiberglast Development Corp. and Aerospace Composites.

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

a. Polyester resin: This resin uses a catalyst for starting 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. K&B polyester resin is the most popular hobby grade.

b. Laminating Epoxy: This is NOT the same thing as the adhesive epoxy used for assembling models. Laminating and finishing epoxy form a very hard and sandable surface, not the rubbery surface of adhesive epoxy. Epoxies use a proportional mix of resin and hardener. Some are 1:1 mix, but commercial grades use other rates like 4:1. The proportion CANNOT be varied to accelerate the cure; using the wrong rate 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 does not bond extremely well with polyester fiberglass. Hobby grades include Pacer Z-Poxy and Smooth-n-Easy. Both work very well. An advantage is that the resin can be thinned with DENATURED alcohol to make it easier to spread. Denatured alcohol is also excellent for clean-up.

I recommend using epoxy resin, and the directions that follow illustrate this method.

### **B. 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.

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 bits of CA and spurs of skin on your fingertips, and these will snag the cloth.

3. Lay the cloth out over the area to be covered (I recommend starting with the underside of a wing, as it's about the easiest to cover) and cut the cloth to size, leaving about 2" of extra cloth around the perimeter. Brush the cloth down with a DRY hair brush. This smoothes out any wrinkles and

*(Continued on page 3)*

*Fiberglassing 101 (Continued from page 2)*

imparts a static charge that will make the cloth cling in place.

4. Mix the resin: For Z-Poxy, I use 1 part resin, 1 part hardener, and 1 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. It's very volatile, and it'll 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; you'll remove it later. The cloth will follow compound curves like wingtips very well; just tug at it lightly as you saturate it, and it'll smooth out perfectly.

6. After you've saturated the cloth, go back over it with cheap paper towels and blot the surface. 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 whitish areas, you didn't apply ENOUGH resin in that spot. Re-apply to that area and blot again.

7. Let the epoxy cure; overnight is best. Trim off the excess. 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". After finish sanding, the seam will be invisible.

8. After glassing the entire model, dust it clean and then brush on another coat of thinned epoxy. After applying, wipe off all the excess you can. This second coat helps to fill open wood grain and saturate any dry cloth. Let cure and finish sand. Be careful to sand lightly. Now you're ready for paint!

### **C. Painting:**

I prefer K&B Superpoxy over fiberglass, but I've used urethane, lacquer, enamel, and other epoxies successfully. The K&B primer works very well over glass, and the paint is really opaque and easy to apply. Nothing is more fuelproof than epoxy paint.

1. After sanding and wiping the airframe with a tack cloth, spray on a heavy coat of primer. Bear in mind that you're going to sand nearly all of it back off.

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 called "white putty". It's made by Testors, comes in a tube that looks just like model airplane glue, and can be found at most hobby shops. Apply the putty with a spatula and let it dry.

3. After the putty dries, wet sand the model with 400 grit. You want to remove most of the primer, which is there just to fill the cloth weave, but be very careful not to sand through the cloth, which is very thin.

4. After finishing the wet sanding, wipe the airframe with a damp cloth and wipe dry.

You now have a perfect surface, ready for the color coats of paint. That wasn't so hard, was it?

An excerpt from ModelNet; Jim Ryan 11-5-95



# Presidents Column

HELLO,

This month I'm on a mission of sorts. I would like to take five minutes of your time to try and convince you that the club would benefit from the adoption of a club plane, and that YOU will enjoy building and flying the club plane. The idea as I see it is to *HAVE FUN*. I mean that is why we do this right? A club plane could serve as a common denominator within the club. Each of us has an area of the hobby that has captured our interest or that we favor. For some it may be pattern, for others it may be electric or Q 500 or scale - whatever. This could be one way to promote some friendly competition between members of all flying abilities and preferences. If we do this I will organize and chair 2 - 3 club events each season where we use the club plane exclusively. These events would be designed so that they did not favor the planes particular strengths. For example, no racing if a Quickie was the designated platform. This helps to keep an individual who is skilled as a racer from having too much of an advantage over the rest of the contestants. Doing so I think will help to encourage participation as it levels the playing field . Also the competitions should have a mix of events such that a high performance engine will offer little advantage over a typical engine of the same displacement, and in fact may be at a disadvantage to smaller engines in some events .

I've given this a lot of thought and I think that if this is going to be a success, the plane that we select should be 1) A kit - most people will not scratch build. 2) That the plane be easy to assemble, or even an ARF or ARC - so that getting into one does not divert too much building time from our more favored projects. 3) Be relatively affordable - under \$70 lets say. 4) Be easy enough to fly as a second or third plane, yet have a performance envelope wide enough to entertain more seasoned pilots. 5) Limit the engine size to no more powerful than a .46 2C - almost everyone has one or two of these already so there is no additional cost .

With this in mind and some careful consideration I've narrowed a field of candidates down to 2 kits. Please note that I am certainly open to other suggestions.

- 1) **Fazer** - Sig - \$50 - profile fun fly. Easy build, a good plane to add to any collection.
- 2) **Lucky Stik**- Hobby Shack - \$70 - (Not so) ugly stik type, ARC - redesign the tail feathers and covered properly it is not bad looking. Wide performance envelope.

If we have enough interest ( read - a dozen kits or more) I'm sure that Walt would even be able to do better than these advertised prices.

Thanks  
Mark DeFillipo

## ARCS Meeting Minutes October 1995

Minutes of last meeting were read.

### **Treas. Report- 72 paid members**

1382.85 checking  
1203 tractor fund  
2585.85 total

### **OB**

Discussion on moving impound shed to center of field It was noted that the impound shed is not being used as intended. Discussion on need for winterizing tractor

### **NB**

Mike Mele volunteered to chair field committee

Commendations were made and due appreciation noted for the chairmen of the past years club events

Mike Gosson - Pattern Primer

Rocco Mangano- Funfly

Dave Kennedy- Family Picnic

Motion was made and seconded that we have Pattern Primer next year on or about May 18. Mike Gosson volunteered to CD. Motion carried.

Rocco "volunteered" to chair Funfly.

Topics for upcoming meetings were discussed, possibilities-

vacuum bagging  
sheeting foam wings  
engine clinic  
flight trimming

### **Symposium was discussed-**

Date-Jan. 27- this will be a true symposium with more "how to" demonstrations.

The ARCS are heavily volunteered for duties involved running the symposium in conjunction with the STARS. The CNYMAA may or may not be involved, at this time it is undecided Walt is looking for memorabilia for the ED Izzo commemoration.

There was some discussion on having competitive flying events between clubs.

Walt asked that we bring our own chair to the next meeting

Rocco is looking for items for his column-Wing Tips

Meeting adjourned

Respectfully Submitted

William Volcko

**ARCS CLUB OFFICERS**

***President***

Mark DeFilippo - 469-5639

***Vice President***

Gerd Wirickx- 673-1167

***Secretary***

Bill Volcko- 685-3034

***Treasurer***

Byron Monday- 437-3829

***Newsletter Editors***

Mike Gosson / Dave Mathewson

World class pattern flier, Ivan Kristianson will be at Walt's Hobby on Saturday November 18, 1995 from 10AM until 5PM to help celebrate the 20th anniversary of Walt's shop. Kristiansen has, on numerous occasions been both Canadian and American National FAI champion. Designer of the Summit series of pattern aircraft and its predecessor, the Saturn, Ivan finished 4th in the world at the FAI championships held in Japan this past September. This will be a rare opportunity to meet and talk with one of the world's best radio control pilots.

ARCS News  
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