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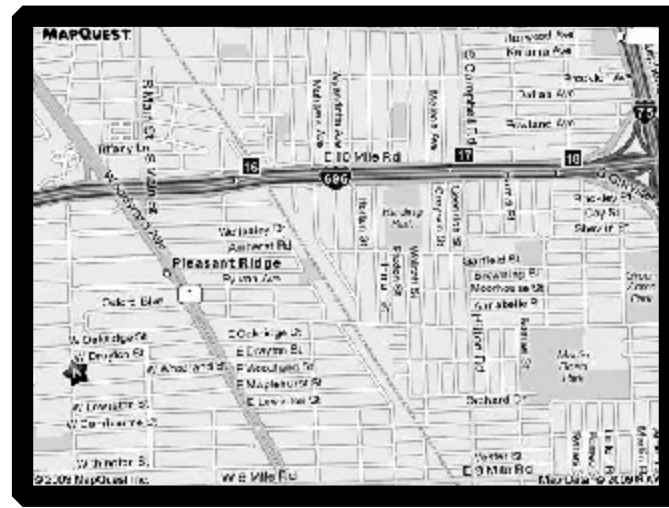
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976 Pearson St.  
Ferndale, MI 48220

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Club Officers;

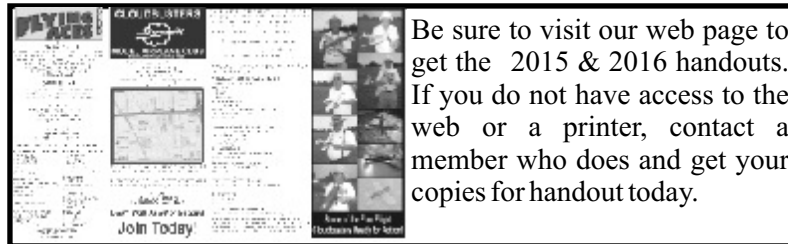
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Cloudbusters Model Airplane Club  
976 Pearson St  
Ferndale MI 48220



The Cloudbusters meet at 8pm. on the third Tuesday of the month at Drayton Ave. Presbyterian Church 2441 Pinecrest Avenue Ferndale, MI 48220 The meeting room is #309 No meetings in June, July, or August.



Our 76th Year

Nov-Dec 2016

*Merry Christmas*

Cloudbuster officers for 2017 were put in place at the last monthly meeting. The officers for next year are;

**President - Davis Gloff**  
**Vice President - Winn Moore**  
**Secretary - Chuck Hickson**  
**Treasurer - Mike Welshans**  
**Safety Officer - Chris Boehm**

Perpetual trophy nominees and winners (in bold blue) are below. These trophies will be presented at the January meeting prior to the annual auction.

Bill Adams trophy for service to Model Aviation

Mark Freeland

**Winn Moore**

George Lewis trophy for service to Cloudbusters

**Chris Boehm**

Chuck Hickson

Dave Dulaitis trophy for contributions to scale modeling

Ted Allebone

**George Bredehoff**

Ron Sears Top Gun Award for contest results

There was a close battle for this trophy presented annually to the Cloudbuster with the most contest win points based on 3 for 1st, 2 for 2nd & 1 for 3rd place finishes. **George Bredehoff** edged out Winn Moore 138 to 134 points. No one else had enough points to turn in or to be significant in the race.

Remember the two upcoming meetings are generally well attended and special. **The December meeting will be changed to the second Tuesday, December 13th, to back off from the holiday and will likely be in the second floor room where the Civil Air Patrol meets. The January meeting, January 17th, will be our annual auction and if the past holds true will be held in the large room down stairs. Both of these meetings are a lot of fun.**

There will also be an AMA meeting at the Ultimate Soccer Arena the evening of November 28th. Our AMA District VII VP Tim Jesky will be in attendance along with potentially a couple of AMA staff members, weather permitting. This meeting is held yearly and IMO is well worth attending. Most SE Michigan model clubs have several attendees as it is always good to know what is going on with our great hobby.

Mike Welshans  
Cloudbuster Treasurer

### Some Experiments Are Still Needed!

A few years back I was flying a Delta Dart at a local airport for some Cadets. I was using a lubricant for the motor, Dow corning #111, I believe it was. It was a little thick but it sure lubed up the motor good. On a fully wound loop of 1/8" tan it was hard to hold the motor to transfer it from the winder to the prop shaft. Anyway, I had the Dart trimmed out very well, performing nice circles, slowly overhead up to about 40', for probably 1.5 minute flights. The Cadets were impressed. The Dart did however land in some sand, which got the motor coated pretty good. I removed it, wiped it off, then thought, I probably should lube it again. As I went to get my #111, the late Dan Olah said "Hey Chris, I've got my lube right here!". I used Dan's lube from his baggy, it seemed to be a lot thinner than my #111, almost runny, but it is only a Delta Dart. I then proceeded to wind up the Dart with the same number of winds that I had been using, walked out between the hangers, and released that little Dart. IT SHOT OUT OF MY HAND AND DID AT LEAST THREE LOOPS. It was moving a whole lot faster. The only change that I had made was the lube.

Over the years now I have been playing around with different lubes. I have settled like many of us on Dow Corning #33. It is fairly thin, it is slippery, it lubes, heck it just works. But, I kept going back to that day at the airport. I decided to try some experimentation. At the last local contest of the Cloudbusters, I took out my Roger Dodger P-30, wound up 1200 turns into 1 loop of 1/4" tan and watched a nice graceful climbout and long circles overhead. It is a trusted performer, even if I fly it underpowered.

I then proceeded to add some lubricant to my already lubed motor. Jeff Foxworthy said that with this lube you could park your Cadillac in the doghouse so I had to try it. It is a product known as AstroGlide. From the Astroglide Web Site "ASTROGLIDE's name reflects its aerospace origins. It was developed by a NASA Aerospace Chemist (Dan Wray), in 1977 who for the Space Shuttle Program was challenged to find the highest quality personal lubricant that was also a moisturiser, economical in its use and above all suitable for astronauts and space, where it is very dry. His formula was coined "Astro Heaven". ASTROGLIDE is made close to San Diego, California by BioFilm Inc a company that Dan still owns and manages. ASTROGLIDE is so popular, that is all BioFilm manufacture. Sex isn't rocket science but Astroglide is."

Back to the P-30, with the same 1200 turns the plane climbed faster and rose approximated 3 times the previous altitude. I had other Cloudbusters try it on planes that they knew to be good fliers. Some of them use torque meters and the like and made comments such "as many more turns to raise to the same torque". And had to add downthrust to control the power burst. We might be onto something here!!!

I do not believe it is just the consistency of the lube, but the combination of the lubes that matters. I respectfully request all of you experimenters, especially those of you that wind to destruction, measuring torque, turns, power curves, and everything else to get into the experiment and let us all know the results. After all who does not want more turns, more power, higher altitudes, plus you might be able to use this product to get your wife into coming to the field with you.

Chris A. Boehm



# P-6E flight brings smiles and memories



Joe Hass submitted these photos and story in honor of 98-year-old Bill Shaffmaster.

**B**ill Shaffmaster is a World War II veteran. He was awarded the Bronze Star for action in Europe. [He is now] in hospice after a 10-year battle with bone cancer. The pictures are of Bill's Great Planes Curtis P-6E Hawk. [He has] a history with the real aircraft.

"Bill got started on it before going into hospice. I finished assembling it [after] his daughter asked me to do an inventory of his modeling supplies and equipment. I saw the partially built P-6E, knew of Bill's history with it, and took it home to finish for him. While he is in a [center] for hospice patients, he still visits his house when someone drives him over. He saw that the P-6E was missing and called his daughter to report it stolen. His daughter told him of the 'surprise.' We had a great day.

"We made the maiden flight on August 4, 2016, [with] no trim changes. It flew right off the board. It is powered by a three-cell 2,200 mAh LiPo driving a RimFire .32 controlled by a Spektrum radio. [The] all-up weight, with a fully charged battery, is 4.2 pounds. The wingspan is 43.5 inches.

"I purchased the partially assembled PT-19 in the picture and have been flying it for a number of years. Fellow modeler

"This article is courtesy of Model Aviation Magazine and appeared in the November 2016 issue."



Fred Engelman made the day possible. Bill enjoyed the flights of both aircraft.

"After flying, we were joined for lunch by John Hoover, of Flightline Hobby in Lake Orion, Michigan. John agreed to display the P-6E in his store. While at Flightline Hobby, Bill reminded us that the original P-6E had a three-blade propeller. Before it went on display, John changed the propeller and put on a hub for a more scalelike appearance.

"Bill is making plans for his 100<sup>th</sup> birthday."

*Do you have an airplane, helicopter, or multicopter photo that you are proud of, or a model aviation related photo with a great story behind it? Email your high-resolution "Viewfinder" photo and a short note about it to [jennifer@modelaircraft.org](mailto:jennifer@modelaircraft.org) or submit it online at [www.ModelAviation.com/viewfinder](http://www.ModelAviation.com/viewfinder).*

I received a message at 5:00 AM this morning that Bill Shaffmaster has just passed away.

Bill was a remarkable gentleman - with the emphasis on gentleman. He was a patriot, a WW II Vet who received a Bronze Star for his efforts in Europe. His strong handshake and ever present smile will be missed by all who had the privilege of knowing him.

My sincere thanks go to Fred Engelman who made possible Bill's last trip to the flying field to see the maiden flight of Bill's P-6E Hawk. John Hoover at Flightline Hobby displayed Bill's airplane. Bill was very proud to see his P-6E hanging from ceiling.

Tremendous thanks go to Jay Smith and Jennifer Alderman of Model Aviation who not only assembled the pictures and text of the P-6E flight but bumped the scheduled November VIEWFINDER so that Bill could enjoy the write up. By The Way - Bill passed out every magazine that AMA sent him and had pictures of the article on his wall.

Special thanks go to Jim Held who, during the indoor event honoring Bill, trimmed a foamie so that Bill could fly a few laps around the field at Ultimate Soccer Arenas. George Derderian at Ultimate donated the field in support of all veterans.

The memorial for Bill Shaffmaster has been set.

Wednesday November 30, 2016

7 PM

Shriners Silver Garden Event Center

24350 Southfield Road

Southfield, MI 48075

Internment.

Tuesday December 20, 2016

2 PM

Great Lakes National Cemetery

4200 Belford Road

Holly, MI 48442 I have no other details at this time.

Joe Hass

248-321-7934

## Another Silly Putty Timer

By Richard Pivitt

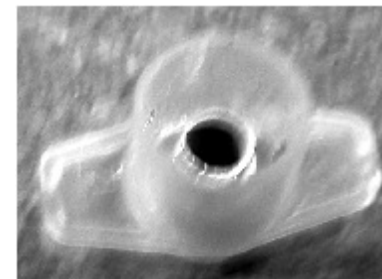
I think that I have tried to make every Silly Putty timer that is out there. Yes, they work, but the size and weight are higher than the other vicious timers. The problem with most vicious timers, is the cost. So, I came up with my timer. It is fairly easy to make and very low cost, if you are making more than one.

I have been taking insulin for many years and have paid to recycle syringes. I now have a use for them. They are the 1 ml size. You can buy them at Walmart for about \$15 for a box of 100. You should be able to buy a few and not a whole box.

Items needed to make the timers:

BD-U100 insulin syringe 3/16" OD Alum tubing 3/16" long  
5/32" OD Alum tubing 5/16" long 5/32" OD Alum tubing 1/4" long  
1/8" OD Alum tubing 1" long .030" carbon rod, 2 pieces as needed  
1/64" plywood Silly Putty (Pink)

First thing, break the needle off the syringe for safety. Remove plunger. Cut syringe off 1/8" below the finger stops. Use a 5/16" drill bit to remove the 4 nubs inside the syringe. Put the first two pieces of aluminum tubing together with the 3/16" piece at one end of the 5/32"



tubing and glue with a drop of CYA. This assembly is pressed into the syringe from the needle end. The long end of the 5/32" goes inside. Drill a hole for the carbon rod 1/16" from one end of the 1" length of 1/8"



tubing. This is best done with a jig to hold the 1/8" tubing and hole aligned for the drill bit. Glue the carbon rod in the 1/8" tubing with gap filling CYA. Cut the carbon rod off a little long and adjust to fit inside the large end of the cut off syringe. Insert into the syringe and hold in place, then slide the 1/4" long piece of 5/32"

onto the 1/8" tubing. Be sure the shaft assembly turns freely. Glue in place using gap filling CYA. Cut the 1/8" tubing to the final length.

Using a jig again, drill a hole for the carbon rod that will drive the timer. Glue in place with gap filling CYA. Time to fill the timer with Silly Putty. Fill around the carbon rod, leaving no air pockets. Let the timer set with the Silly Putty pointing up for a few minutes. Check to see that the putty fills the timer completely,

and adjust as necessary. Punch out the cover from 1/64" plywood with a 3/8" hole punch. Glue down over the Silly Putty. Check the timer for proper operation. Depending on spring tension, a timer should run 4 to



5 minutes for a full turn. The timer should run with 2 ounces of pull. If the timer was moving freely before you put in the Silly Putty, but doesn't now, then there is too much Silly Putty in the timer. This is fixed by drilling a small hole in the plywood cover and turning the timer by hand to expel some of the Silly Putty. The timer should now run with 2 ounces of pull. A drop of CYA is used to seal the hole.

The small drill bit set and punch set are both from Harbor Freight.

## Science Olympiad "Wright Stuff-B" and "Helicopters-C" Volunteers Needed

From: [todd.troutman@mcc.edu](mailto:todd.troutman@mcc.edu)

Sent: 11/15/2016 11:30:03 A.M. Eastern Standard Time

Subject: Science Olympiad, March 25, 2017

Mike and Ralph and the Cloudbusters,

I am working on the 2017 Science Olympiad schedule and would like to know if you are still willing to be the event supervisors for "Wright Stuff-B" and "Helicopters-C"? Helicopters is the event that is being swapped for the "Elastic Launched Gliders" event you supervised last year.

The Science Olympiad will take place on Saturday, March 25th, 2017. Thank you for considering this request and your continued support of the Region V Science Olympiad!

Todd

Todd Troutman

Dean, Science and Mathematics Division

Gorman Science Building G1001

Division Office: 810-762-0284

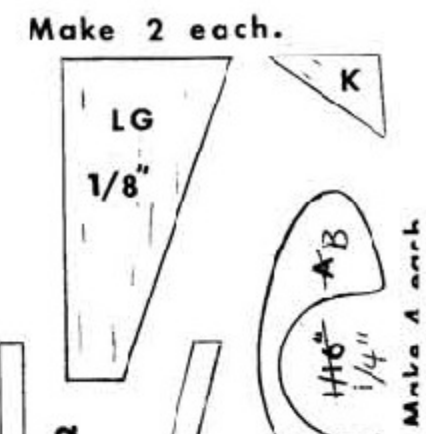
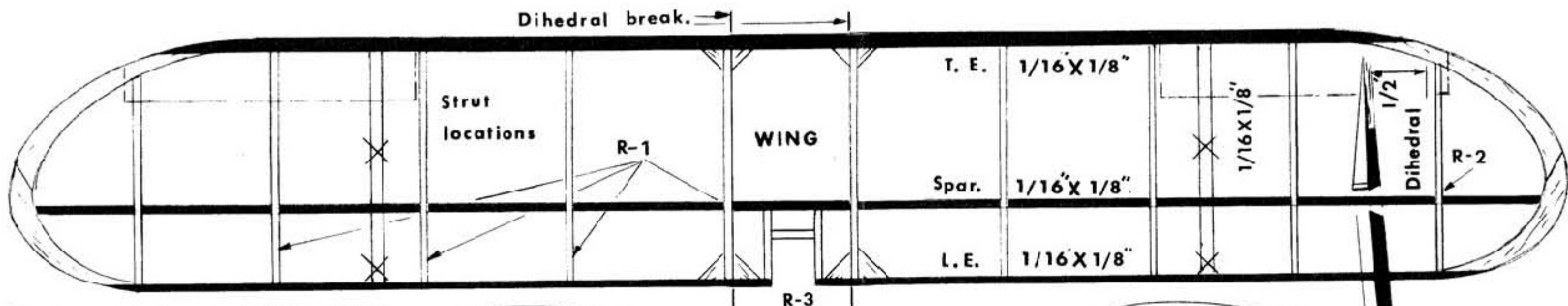
Direct: 810-762-0409

Mott Community College

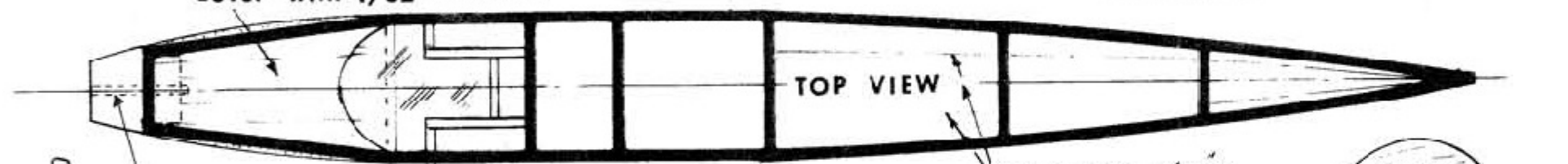
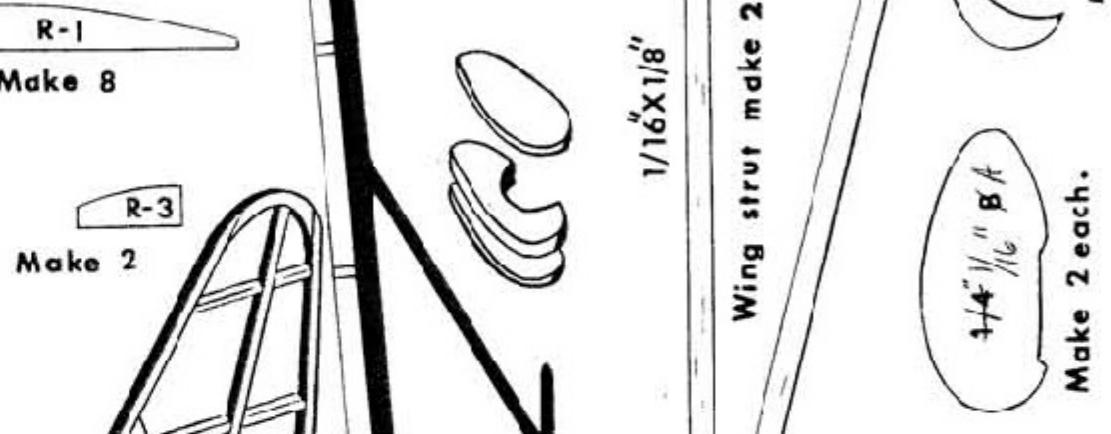
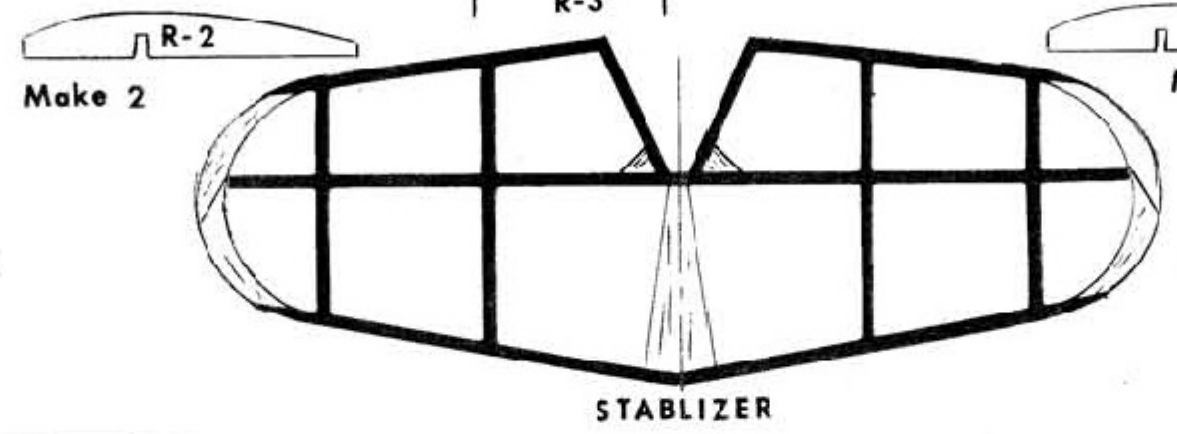
1401 East Court St.

Flint, MI 48503

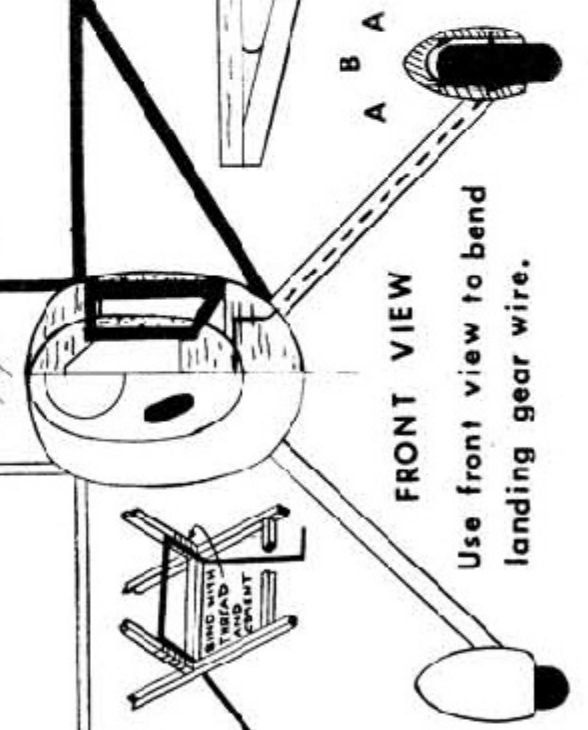
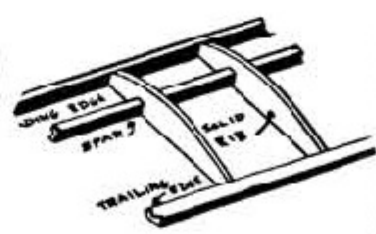
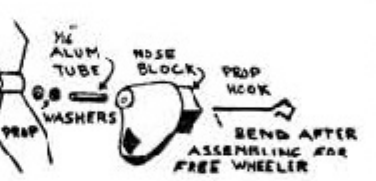
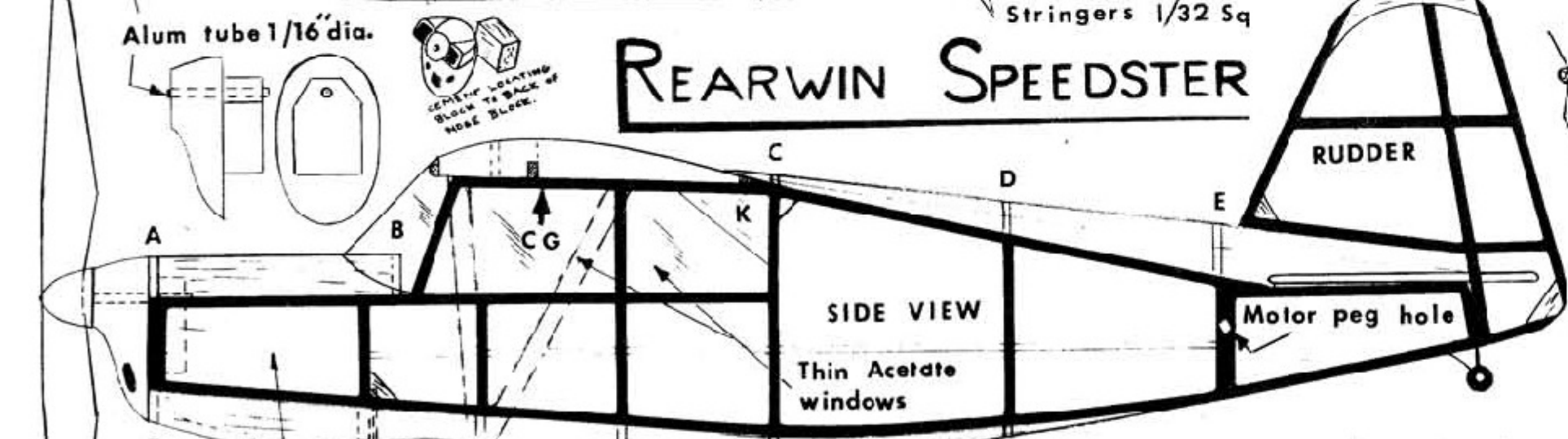
[http://www.mcc.edu/science\\_math/index.shtml](http://www.mcc.edu/science_math/index.shtml)



**NOTE**  
 Build 2 fuselage side frames (Black outline) directly over the plan. Use 1/16" sq and 1/16" x 1/8" balsa.  
 Take finished side frames and build a box frame over the top view.  
 Landing gear and Prop hook 1/32" music wire.  
 Nose block is removable and has a locating block on the back side that fits inside the fuselage structure.  
 Cover with 1/32" sheet.

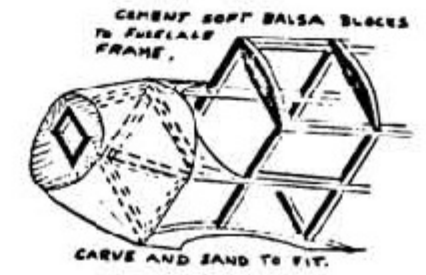
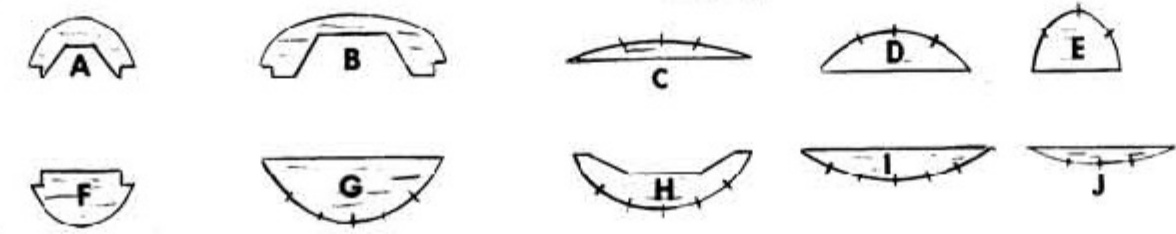


# REARWIN SPEEDSTER



**NOTE**  
 Use balsa blocks on sides and bottom. Carve-sand to fit.

**NOTE** All parts, unless otherwise noted, are 1/16" thick balsa.

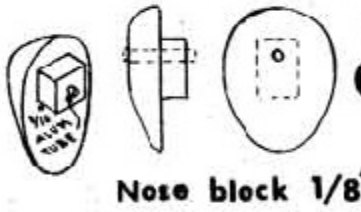
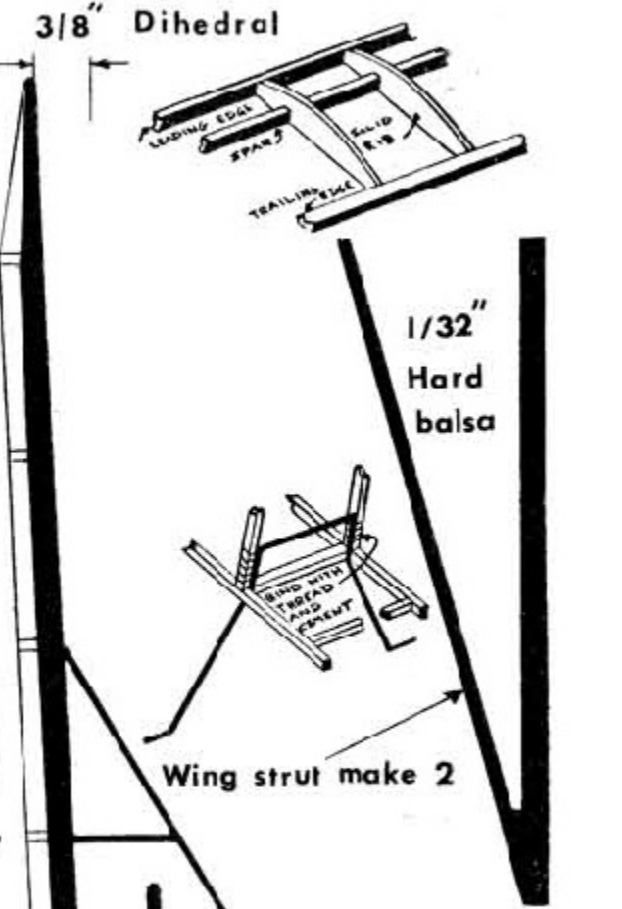
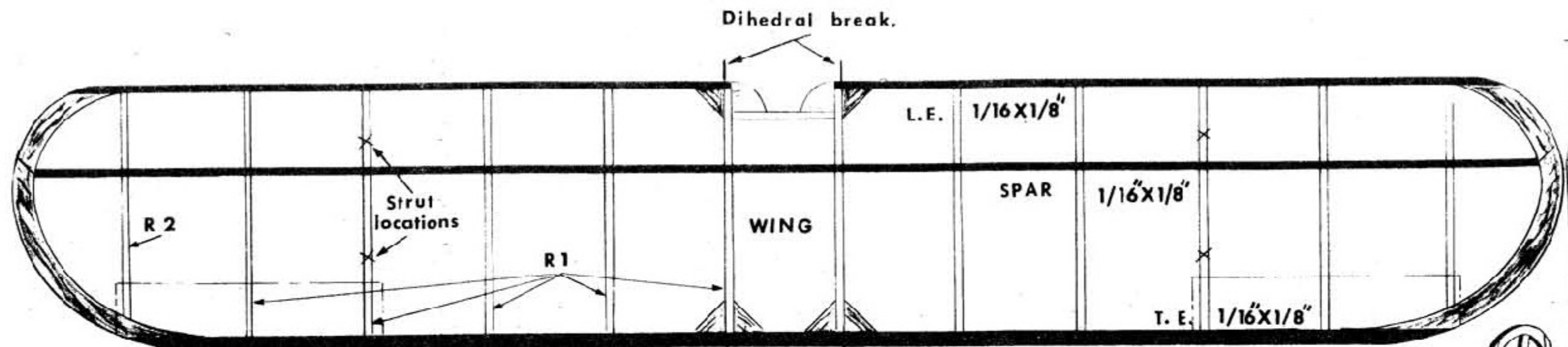


Wheels 3/4" dia Wheel pants

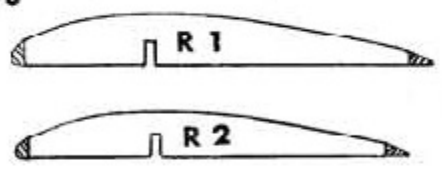
Cutdown Sleek-Streak propeller

**JANICK MODEL ENGINEERING**  
 32 FARLEY ROAD SCARSDALE N.Y. 10583  
 PLAN # H-102

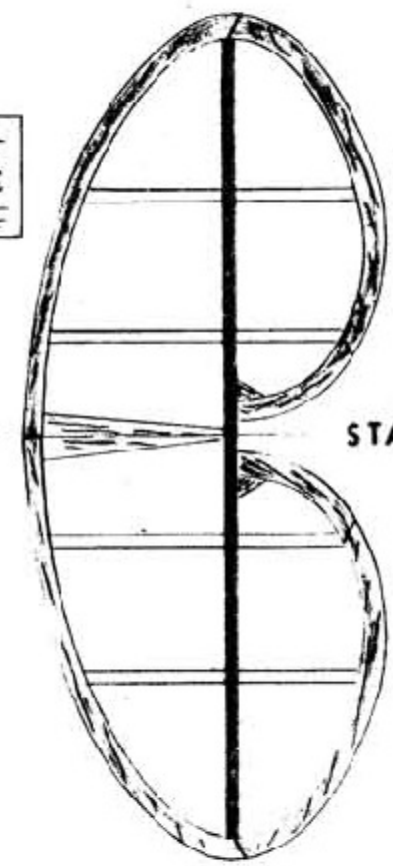
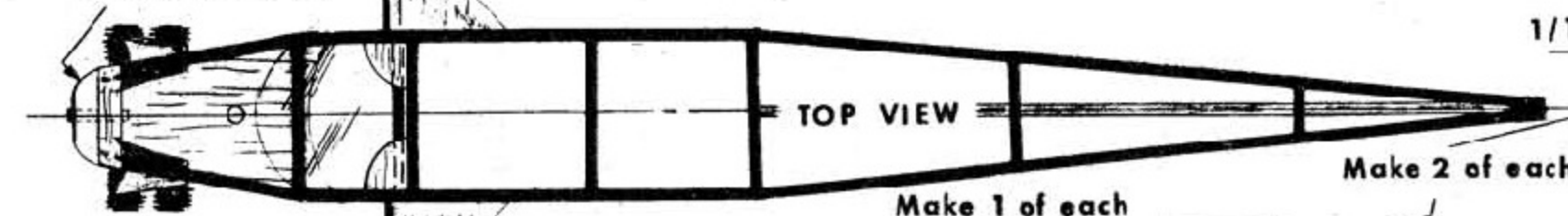
© 1973



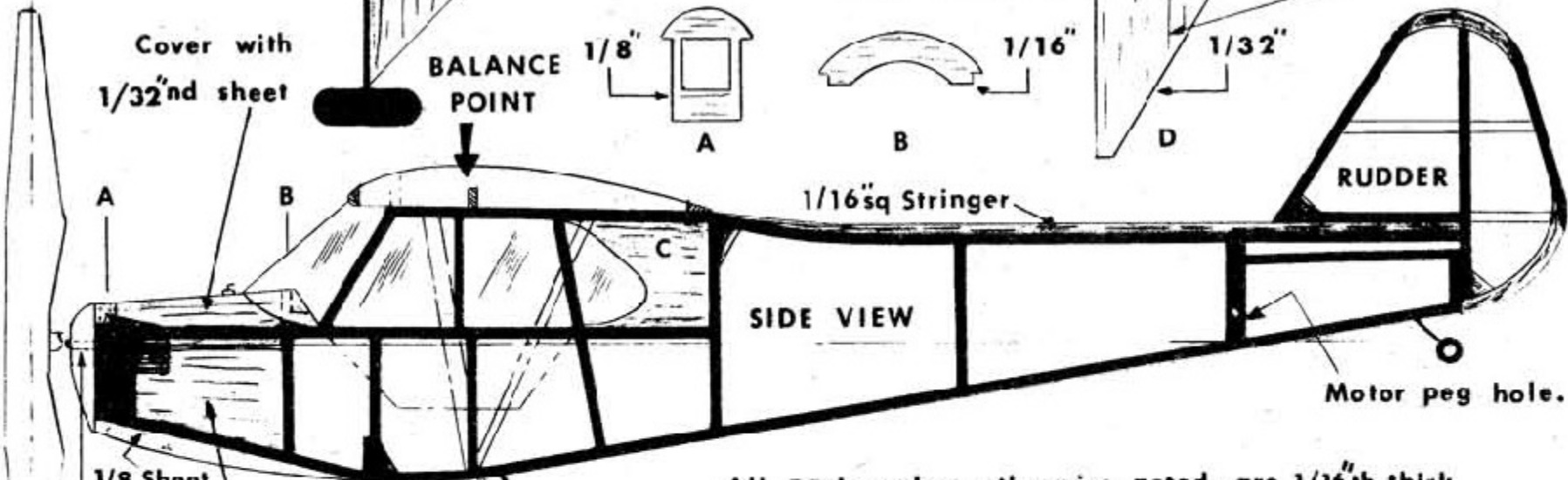
Nose block is removable and has a locating block on the back side that fits inside the fuselage structure.



Make 10 of R1  
Make 2 of R2



STABILIZER



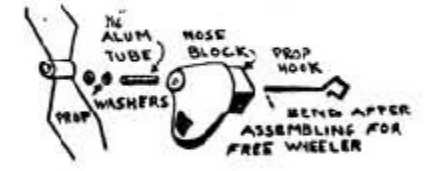
All parts, unless otherwise noted, are 1/16th thick balsa.

Build 2 fuselage side frames (Black outline) directly over the plan. Use 1/16th sq and 1/16th X 1/8th balsa.

Take finished side frames and build a box frame over the top view.

1/8 Sheet balsa  
Fill in with 1/16th balsa  
Wheels 5/8 dia  
Alum tube 1/16 dia.

Cutdown Sleek-Streak propeller



Landing gear and Prop hook  
1/32 music wire.

Use front view to bend landing gear wire.

REED CLIPPED WING CUB

JANICK MODEL ENGINEERING  
32 FARLEY ROAD SCARSDALE N.Y. 10583  
PLAN No H-101

# Tech Tips

## Good to Know About Superglue

by Johan "Hugis" Hugogård

The cyanoacrylate glue, popularly referred to as superglue is one of those additions to the workbench which brought a small technological revolution in modelling. Not only did it allow to bond different materials such as metal to plastic, but also opened up the way for entirely new modelling materials such as resin. Used on plastic, it provides non-shrinking, non-destructive seams that are just great for sanding. Applied as filler, it takes scribing unlike any other.

Since there seems to be a degree of confusion about how cyanoacrylate glue works and what it is best used for, I have made some research, the results of which are presented here. The information contained below comes from interviews I made at the the Department of Fibre and Polymer Technology at the Royal Institute of Technology in Stockholm and from a variety of sources on the Internet.

### What is Superglue?

The correct chemical designation for the CA glue is ethyl 2-cyanoacrylate. An acronym ECA is also used in chemistry. There are also numerous trade names, including superglue (of course), permabond, pro grip, black max, crazy glue, cyanolite, superbonder and so on.

The actual composition of most commercial glues is typically ca. 91% ethyl 2-cyanoacrylate, 9% polymethylmethacrylate, <0.5% hydroquinone and a trace of organic sulfonic acid. Thin-running Crazy Glue and Super Glue are believed to be essentially 100% ECA.

A common source of confusion is mixing up CA glue with Loctite thread locking glue. The main reason for this seems to be historical. The Loctite brand that initially produced the thread locking glue became for many users synonymous with that type of glue. Nowadays, Loctite has an entire variety of glue products in its range, CA glue among them. The main difference between the two types is in the medium activating the bonding reaction. In the thread locking glue, polymerisation starts in the absence of oxygen (air), while CA bonds with the aid of humidity.

### How it Works

The cyanoacrylate glue hardens very quickly when trapped between two surfaces. The reaction is caused by the condensed water vapour on the surfaces (namely the hydroxyl ions in water). The water comes from the surrounding air, so obviously the air humidity is a factor that may affect bonding capabilities, or cause them to differ from application to application.

The curing reaction starts at the surface of the bonded material and develops towards the centre of the bond. Because of this, thick seams or large blobs of glue may harden less satisfactorily than surface-to-surface bonds with good fit. In a thick blob of glue, a polymerisation reaction may stop before it reaches the centre of the blob. A rule of thumb is that seams thicker than 0,25 mm should be avoided. Thick seams will also take longer time to cure.

The described relation between seam width and curing time can be used to advantage: a thick superglue-filled seam will allow adjustment of the parts, but will bond instantly and definitely when they are pressed together, so that the gap decreases below 0,25 mm. Pressing the parts harder against each other will make the glue cure instantly.

### CA applications

The best use for CA glues is undoubtedly attaching small details, where small amount of glue would cater for thorough polymerisation and advantage can be taken of the extremely fast bonding time.

CA glue will provide strong bonds on a wide variety of materials. The shearing and pulling resistance are very good. However, it should not be used on glass or on parts that are exposed to water.

### Curing time and slow-setting inhibitors

The hardening reaction can be described like this. The cyanoacrylate is a polymer which contains its own hardener compound. However, a weak acid is added acting as an inhibitor, preventing the reaction and "holding apart" the molecules which accounts for the liquid consistency of the compound. When exposed to water, the acid is dissolved. It triggers a chain reaction and the compound cures to the solid state.

Manufacturers use the inhibitor to control the curing time of the glue. Slow-setting superglues have a larger proportion of inhibiting acid in the basic mixture.

### Accelerators

Besides water, cyanoacrylate polymerises also in presence of alcohol and basic compounds (including weak amines). The latter can be used to produce a superglue "kicker" – a compound which triggers quick polymerisation of the glue.

Baking soda is one well-known substance with this effect. If you apply a layer of superglue to a seam and gently pour baking soda over it, the glue will cure very quickly. It makes for most effective filler for smaller jobs, and the baking soda results in a slightly rough surface which is good for sanding.

The great advantage of using superglue as filler is the total absence of shrinking which plagues most solvent-based fillers on the market.

There are also commercially available liquid accelerators, but as baking soda has the same effect, I personally prefer it over another harmful chemical in my workshop.

Like water, the accelerator also affects the reaction through surface contact, so it will be much less effective on thick layers of glue. When filling larger recesses with superglue, it is therefore advisable to build up the volume in several thin layers rather than applying a large volume of glue at once.

With these precautions (i.e. working with small amounts at a time), CA can also be used for moulding smaller detail parts, which I have tried with success.

### A word of health warning

Be mindful that superglue comes with its own set of health hazards.

The glue has a distinctive, strong, acid odour. Breathing cyanoacrylate fumes is irritating for your breathing organs. For some individuals, repeated or extended exposure to fumes may prompt chronic allergic reaction. In dry air (less than 50% humidity), fumes may be also be irritating to eyes, stimulating tears.

In contact with the skin, the primary risk with the CA is bonding fingers or other body parts together. This goes also for eyelids, remember to never ever poke your hands into the eyes while working with superglue!

In skin or eye contact, CA is deemed to be non-toxic, so don't panic, assess the situation, and seek medical help if necessary. Never try to tear the apart the bonded body parts! It is also ascertained that CA cannot trigger allergic reactions through skin contact.

The wisdom of the above is that safety glasses and breathing masks are best worn when working with these glues. A good ventilation is also a must.

### James Spurgeon

James Spurgeon, I use Superglue for a million + one things, including stitching minor cuts.

Updated 30 May

Cyanoacrylate (Superglue) is technically a very fast curing 2 part resin based glue. The tube contains the cyanoacrylate resin and the hardener is water from the humidity in the air.

Too much water will compromise the glue, just like incorrectly mixing glues where the resin and hardener come in 2 tubes or a double sided syringe.

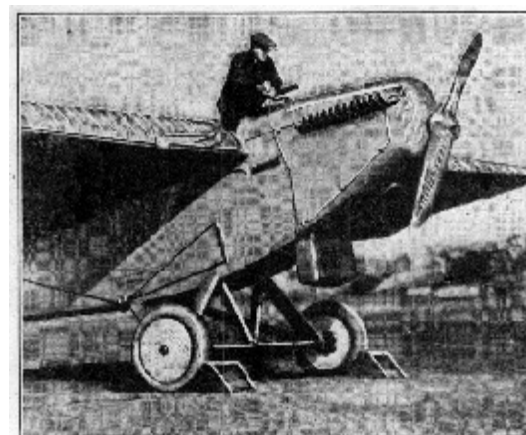
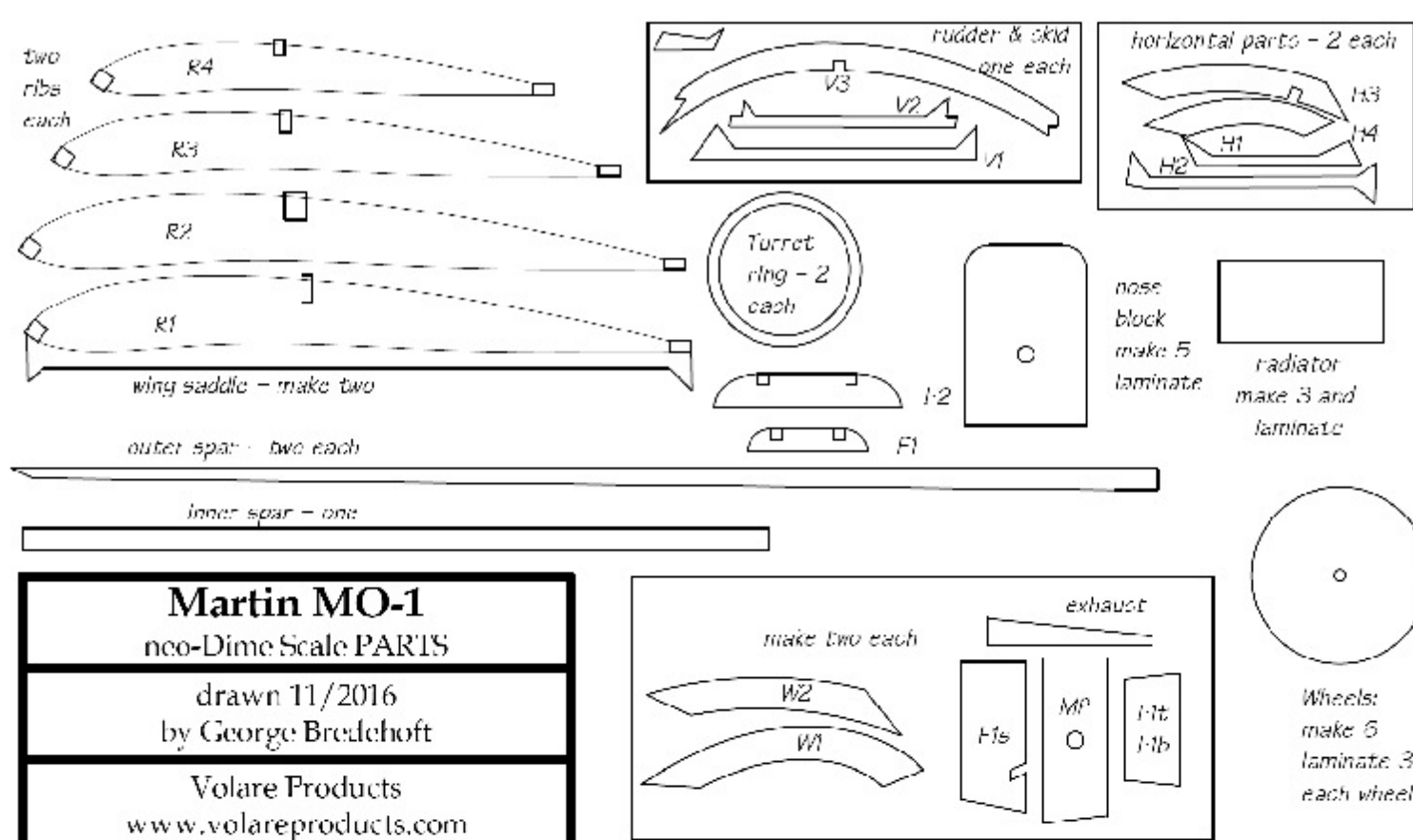
In very dry climates, Superglue can be slow to set. The typical reaction is to blow on it, which actually works. Blowing isn't "drying" the glue, the humidity in your breath is activating it.

Commercial "activators" for Superglue are generally alkali compounds\* that can join the polymerization chains in the cyanoacrylate, which are suspended in water base solvents. Some are just water, some are various forms of alcohol.

The aqueous solution helps activate the polymerization and the alkali pre-fills sections of the polymer chain to speed up the conversion.

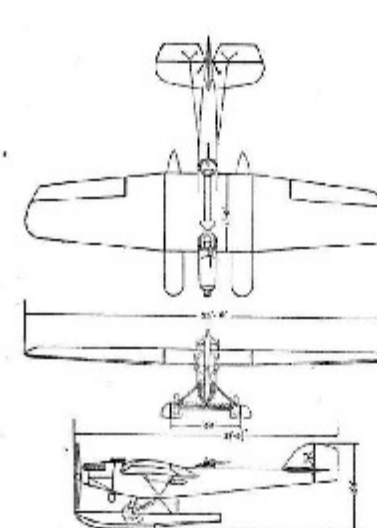
Editor's Note: A small amount of research on the internet will reveal that CYA obviously can be set off with water, commercially available accelerators, and baking soda, as described above. Has anyone tried refilling there commercially available empty sprayer with a mixture of baking soda and water? I would like to hear from you if you do.

**But, By far, the best damn activator ever is to put the CYA between two things that you did not want joined.**

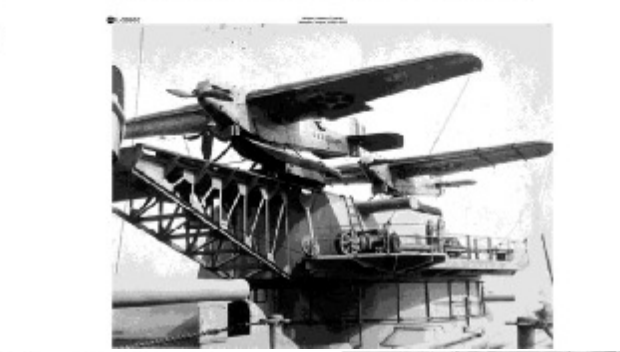
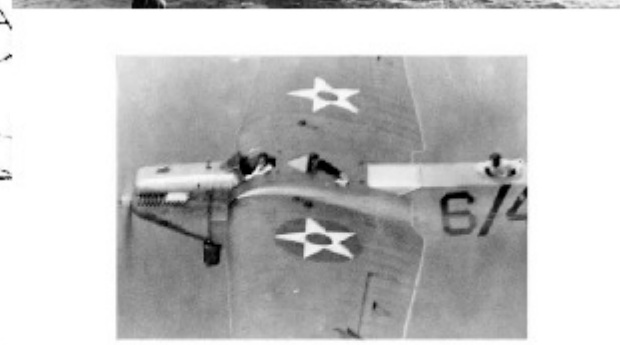


### Cranks Plane from Cockpit

IN FRONT of the pilot's seat in the first metal airplane to be completed in the United States is a horizontally turning crank that enables the aviator to crank the motor without leaving the cockpit. The plane has been constructed for the Navy Department and has made successful trial flights at Martin Field, Cleveland, Ohio.



THE GLENN L. MARTIN COMPANY  
CLEVELAND, OHIO  
TYPE: NAVY SPOTTER MODEL 101  
ENGINE: CURTIS D-2 350 HP



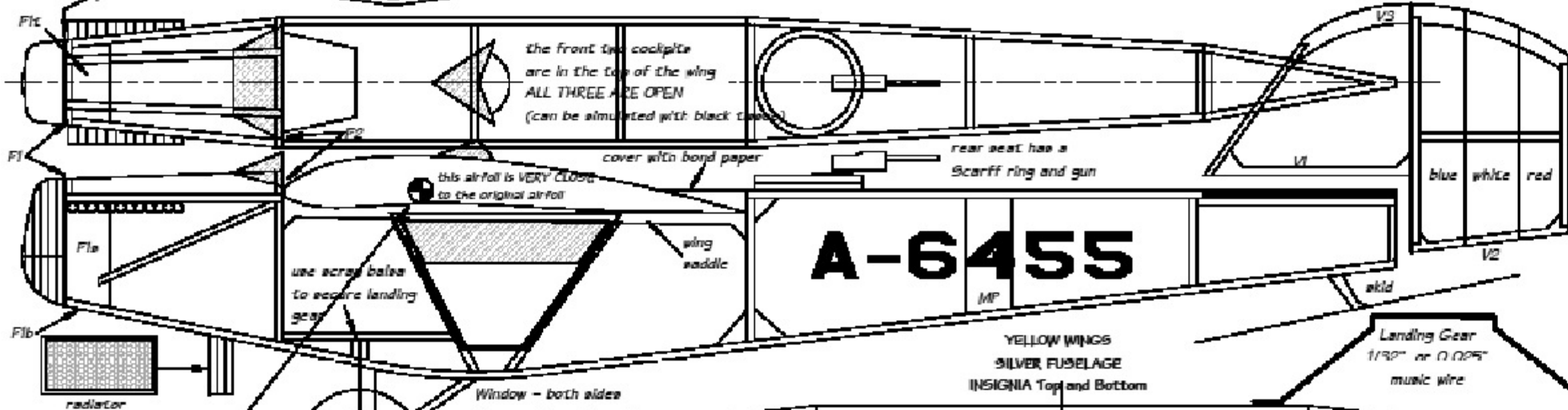
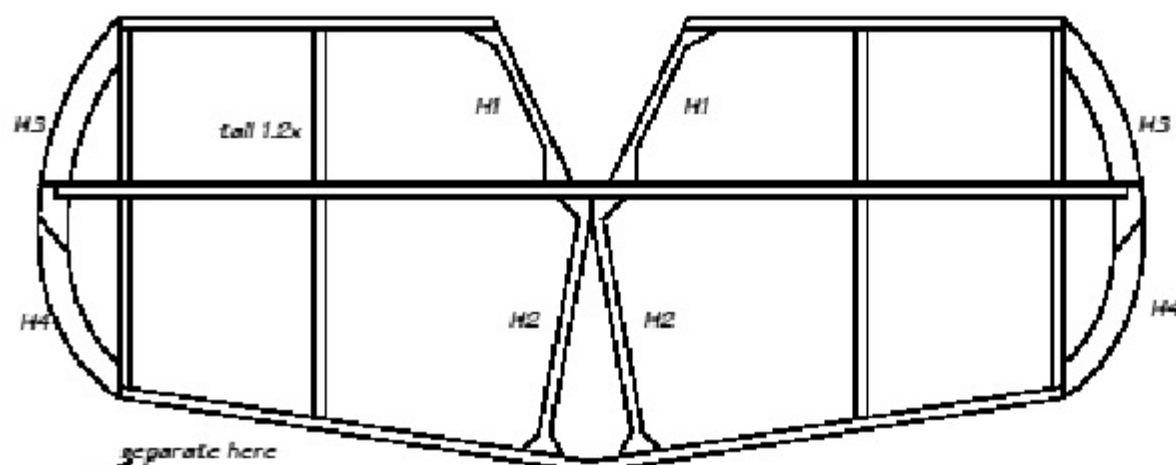
**Martin MO-1**  
neo-Dime Scale

drawn 11/2016  
by George Bredehoff

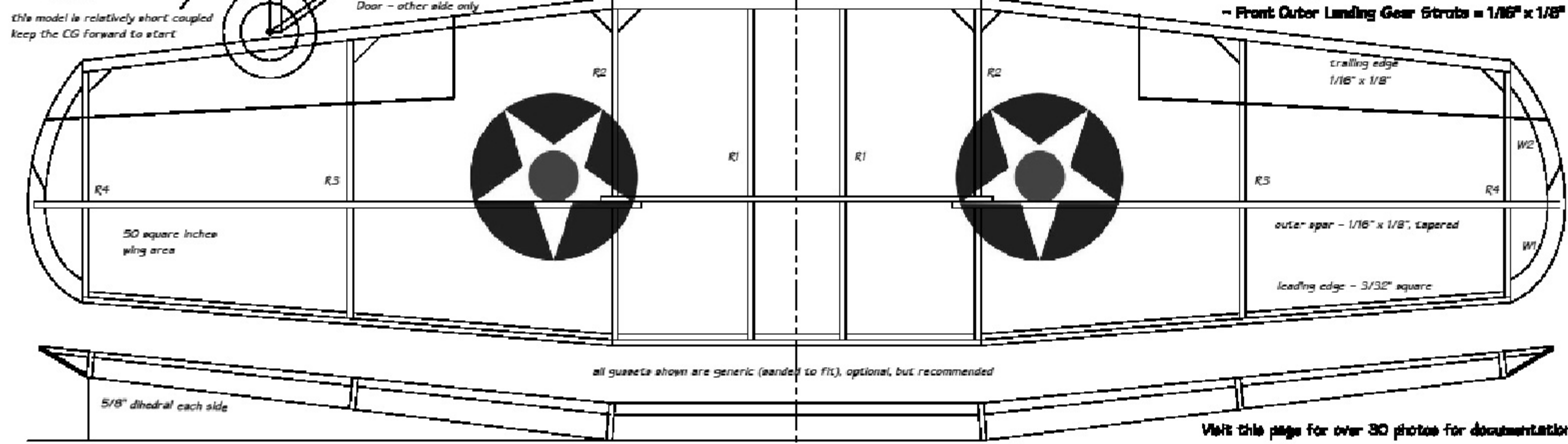
Volare Products  
www.volareproducts.com

RECOMMEND: 6" or 7" prop on a loop of 1/8" or 3/16"

The Martin MO-1 - a 3-place between-the-wars observation plane. Less than 40 were produced. This is an often-modeled Dimer, with several plans out there. What's not to like - a huge wing, a skinny fuselage, no wing struts. They even built some with floats (for those extra FAC Dimer Bonus Points!)



- ALL STICK WOOD IS 1/16" SQUARE EXCEPT:**
- Leading Edge = 3/32" square
  - Trailing Edge = 1/16" x 1/8"
  - Front Outer Landing Gear Struts = 1/16" x 1/8"



Visit this page for over 30 photos for documentation  
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