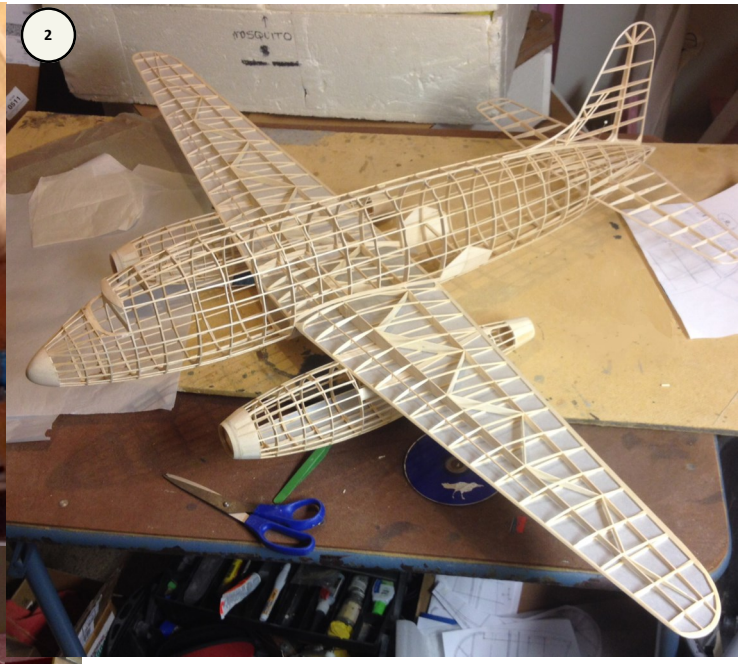
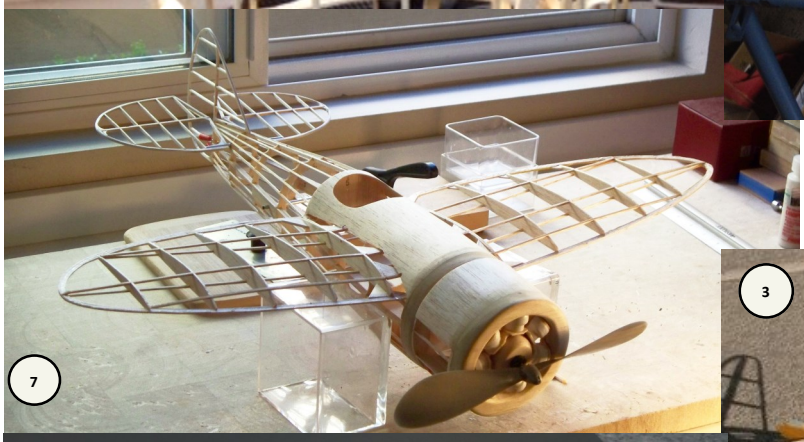
FLYING ACES

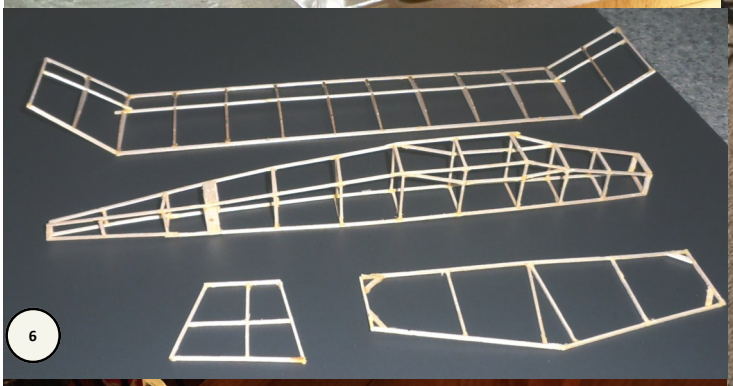
Club News

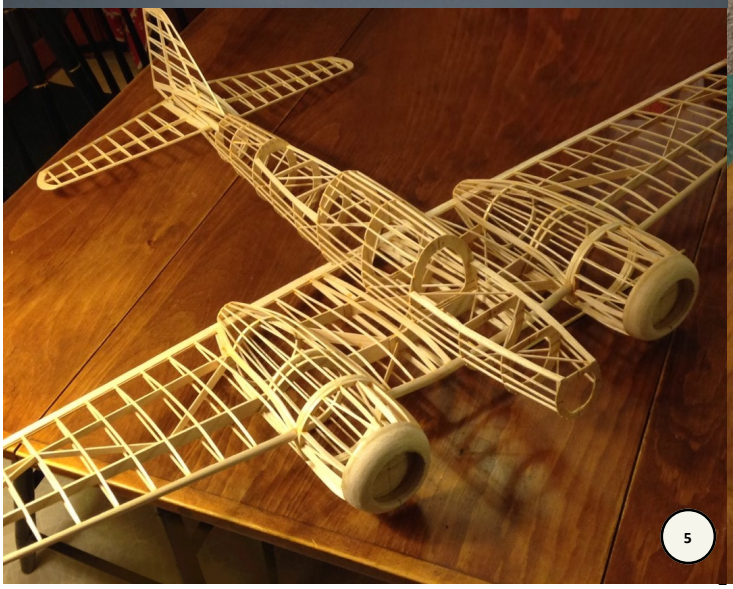
No. 276 March/April 2014

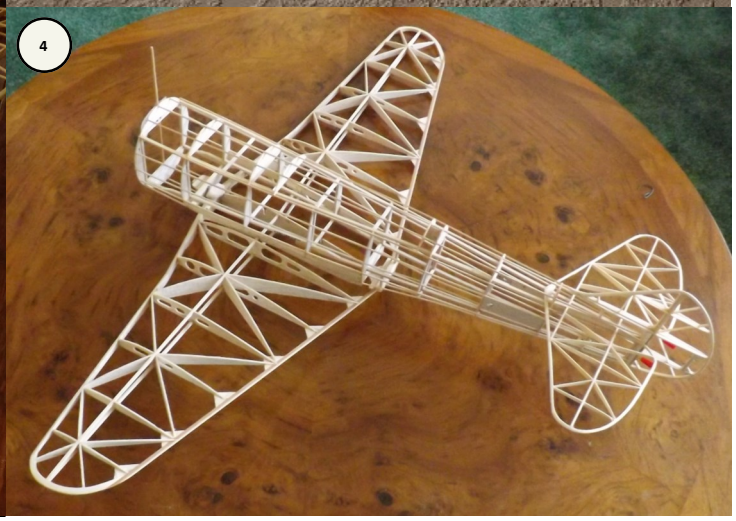




Dem bones!







Cover story

Bill Hannan's Mini Cloud Tramp

Back during the 1940s, "Model Airplane News" magazine was edited by Charles Hampson Grant, an accomplished aircraft engineer. Among his primary goals was teaching aerodynamics as applied to model airplanes, to his readers. In addition to technical theory-of-flight as expressed via complex calculations, Grant published practical advice on achieving efficient performances, for those unable (or unwilling) to slog through mathematical formulas, including me.

His alternative approach was designing a series of models, starting with simple gliders, progressing to basic rubber-powered R.O.G.types, such as the "Cloud Tramp," and graduating to fairly sophisticated gas-powered aircraft.

Fast-forward to perhaps about the 1990s, when a nostalgia-minded U.S. modeler recalled his fondness for the "Tramp," made another one, and was amazed at how well it performed. He convinced a British pen-friend, Mike Parker, to build one, and soon the idea of paying tribute to C.H. Grant evolved. The concept was that anyone who would build such a model, would agree to simultaneously launch the craft at a specified time, regardless of their geographical location.

The suggestion caught on, largely through internet communication, and the event has taken place every August since. There are no prizes offered, merely the satisfaction in knowing other enthusiasts are upholding the tradition. Joan and I have been taking-part with a Peanut -size "Tramp" for about 12 years or so, taking turns doing the launching at a local school athletic field, and reporting our experiences to "Headquarters".

This year, the official launch date occurred during our Alaskan ocean cruise, so in order to keep our record unblemished, a tiny demountable "Mini-Tramp" was hurriedly constructed. Untested, it was disassembled, and safely transported in a small hard plastic box. Aboard ship, short test-glides revealed its plastic wheels too weighty, and they were replaced by crudely-cut paper replacements, making me wish some tools had been brought along...

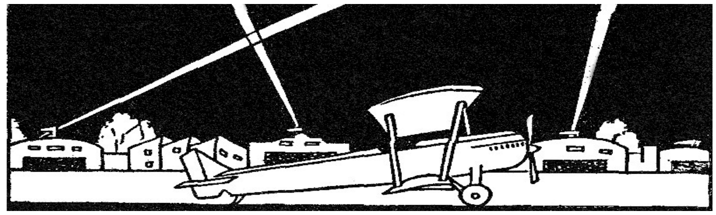
However, at the official time, we did manage successful flights the length of our cabin, while cruising near the coast of Canada, which was somehow quite satisfying.

At latest report, 133 entrants have responded, from countries including England, France, Germany, Canada, Portugal, the Czech Republic, Slovakia Republika, Norway, Sweden and various places in the U.S.A.

You can Google "The Cloud Tramp Home Page*," for comprehensive details, including plans, kits and handy hints..

Very best regards, Bill and Joan Hannan

*http://www.mikedparker.karoo.net/



In this Issue

An Airy Chat with the Editor……4
S.O.S……4
News on the Wing - The word from GHQ……5
Worthwhile Website……5
A Few Twists on Laminated Outlines……6
WestFAC Report……8
The Gadgeteer……9
Care and Feeding of Lifting Tails……10
Bonus Point Quiz……10
No Secrets - Tips and Tricks from the Aces……11
Rubber Scale Modeler's Muse Shop……12
Tip on Wing Tips……15
Hung's Alter……15
Gone West……16
Membership Information……17
FAC Contest Calendar……18

Plans - Based on what you've seen so far in this issue, the inclusion of the **Cloud Tramp** plan shouldn't surprise you. You'll have a ball with it until you lose it in a thermal, then it's the perfect time to build and fly a **Sky Bunny** from Bill Warner. There's even a contest connected with this one. Check out the second page of the plan for details. The fact that they're calling it an "Easter Bunny" contest should alert you to the fact that there isn't a lot of time to spare. Dave Pishnery drew up a nice half size version of Bob Copeland's elegant **Northern Star Wakefield**, and kindly offered to share it with the crew. Looks like a good choice for our Half Wakefield event. Just in time for the WWI mass launch campaign season, we've got a real contender from none other than Ralph "Rottensox" Kuenz. His plan for a **Sopwith 1 1/2 Strutter** should scale up or down to wherever you're preferred wingspan zone resides. This one came from the Cloudbusters newsletter. And last, after learning of the passing of Jerry Paisley, we thought we would give him a salute by reprinting one of his plans. His **Brewster F2A-3 Buffalo** first appeared in the Max Fax newsletter. I somehow missed seeing this the first time around. Jerry was a very talented draftsman, and his plan should build a good flying Scale model.

Thanks to all who contributed!

Photo Captions

Clockwise from top:

1 & 2 - It's an airliner, so you probably already guessed it's from Vance Gilbert. This time it's a Giant Scale (49" span!) Vickers 618 Nene Viking. Those two jet pods will carry a lot of rubber, and the clear plastic props will be nearly invisible as it cruises high overhead. Of note is the balsa fill on the fuselage, providing a safe place to hold onto while launching. The wing features Rees style framing, with the characteristic warren truss spar set up.

3 - Just about ready to cover is a new P-47, built from a short kit from "Iron Mike" Midkiff, now being constructed at the VULTURE Squadron in Lost Wages by Bob Hodes.

4 - Rod Persons form the MARIN AERO SQUADRON is working on a 1/12th scale Lavochkin La-7 WWII fighter. Rod is also recruiting flyers into the FLYING ACES in Northern California. This ship features geodesic style ribs more commonly seen on endurance ships for a light and warp free wing.

5 - Another big one! Doug Beardsworth snapped a shot of his Giant Scale Mitsubishi Ki-46 "Dinah" when he did a test fit of the framework. This is one of the prettiest airframes to come out of the Mitsubishi factory, and it's a good bet that Doug will create an impressive model.

6 - And from the simpler side of the aeromodeling game, we have the framework for an Easy Built Freshman from the bench of Ray Azure (Pete's big, or at least older brother). The embryo is Ray's first model in a long, long time, and we'd like to welcome him back to the greatest hobby on earth.

7 - Roger Willis shows off the bones to his new Cessna CR-2 Thompson Trophy racer

Greetings Junior Birdmen,

Lots of this-and-that has wafted through the hangar doors over the last couple of months. I'll hit the high spots and save room for the good stuff!

Keith Sterner's offer for laser cut parts for the **Cub One-Design Event** was met with an enthusiastic response. He sent this note to GHQ: *When I have gotten one more order, I will have produced and shipped 70 sets! That's all there will be. I was only going to run 40 sets max, but the acceptance of this offer has been overwhelming to say the least. I am very pleased to have made so many modelers a bit more interested in the concept of the 'one design' contest. There is a large potential for allot of these birds to be flying out there this year!*

And while we're on the subject, Ralph Kuenz wanted to make it known that the plan for this event has been listed under a couple of different numbers by Comet during its long production run. He sez: *The plan you put in the newsletter for the Piper is labeled #3206 and the plan I handed out at the Outdoor Champs is labeled # N-15. They seem to be the same plan but with different layouts.* (Note, the version printed in the newsletter was rearranged by the editor so it would fit better. No changes were made that would affect the construction of the model.) *If you get any comments on this, either direct them to me, or just tell them that I agree that either plan qualifies for the One-Design event.*

As our newsletter forges ahead in the never ending battle against confusion, I should mention that the **All -Sheet Model Event** mentioned in Dennis Norman's article in the March edition of *Model Aviation* isn't quite ready for prime time. I'm afraid Dennis got a little bit ahead of the curve on this one, probably confused by the fact that I wear two hats in my roles in the Cleveland Free Flight Society, and the FAC. The event is *not* a FAC event. It's a CFFS event being run just for grins and bragging rights at the local contests in Cleveland. The boys here in CLE will give it a workout and let you know if the event has legs.

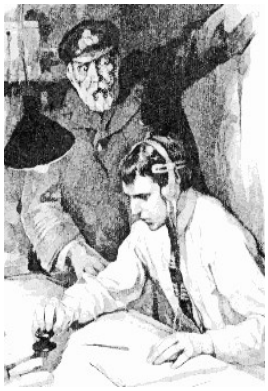
By the time you've read this, you've probably been through the rest of the newsletter and you may have noticed that there are several references to **postal events**. While none of these are "official" FAC events, they seem to be the kind of thing that would be of interest to our fraternity. The annual **Cloud Tramp** Mass Launch is well described by Bill Hannan on page three. I was surprised to hear that it's been going on for twenty years and I somehow missed it. I won't this year! Inside the plans pages in this issue, you'll find the plan for that classic model, plus one for Bill Warner's slightly more modern classic, the **Sky Bunny**. Uncle Bill is running a postal contest that should be a real hoot. There isn't a whole lot of time before the Easter Bunny contest wraps up, but the model doesn't take a whole lot of time to build so you can still get into the game. Details are right on the plan page. There's also a postal contest being run by Caley Hand: **22nd Annual Worldwide Postal Competition 2013/2014.** As you can tell by the date on this item, this too isn't exactly red hot news. Even with a late start, there's plenty of time to get some flights recorded; the cutoff for official flights isn't until June 30th. There are 19 events in this competition, including three for novices, and (new this year) three for Scale models. All the particulars would take up more space here than we have to spare so for the rest of the story, head on over to Hip Pocket Aeronautics: (http://www.hippocketaeronautics.com/) Check out "Postal & E-Postal Competitions" on the forum. You'll find events for big models, little models, and gliders. It's a great way to meet some new flying buddies from around the world, and an opportunity to show them the joys of belonging to the FAC. Everybody wins!

I'm sorry to say we have an unusually large contingent in our "Gone West" column this time. Two of the fellows, Al "Grayhawk" Lawton, and Jerry Paisley did some top shelf model design work, and we're proud to present examples. (We'll have a plan from Al in the next issue.) Paul Grabski was a talented and energetic modeler, and a genuinely nice guy. I was getting to know him very well through our correspondence and meetings on the flying field when he left us too soon. To the family and friends of all these fellows, we'd like to extend the condolences of the Flying Aces fraternity.

Special thanks go out to Mark Rzadca for his article on laminated balsa parts. He noted that many of these common techniques are often mysterious to newer modelers, and even the old sweats can pick up a new wrinkle when they see how another fellow goes about it. There are many ways to tackle the job. I can vouch for Mark's methods, 'cause that's just exactly the way I do 'em!

Back to the bench. Flying weather is coming...honest!

See you on the flying field. Wingnut



S.O.S.

Long time FACer Jim Hyka has a pretty amazing collection of old pulp magazines, including a nice run of the original Flying Aces magazine. He'd like to fill one remaining gap, and there's probably no better place to look than in the Flying Aces Club. Here's part of the note he sent to us:

I need some help completing my collection of Flying Aces magazines. If anyone has a copy of the April 1929 issue, I would be happy to send you $10 for a color copy of the cover. Jim Hyka, 50 E. 209th St., Euclid, OH 44123 (216) 481-6525

And…

Jay Hicks is looking for some flying buddies. He's got plenty of flying fields nearby in the north end of Sumter County Florida. (If you're thinking of moving to the sunny South, this could be the place for you!) Contact Jay at: 806 Huron Street, Wildwood, FL 34785 352 603 6061

FAC Book Nook

Solo to the Top of the World Written by Gustavus A. McLeod. Published by Smithsonian Books of Washington and London. The book describes and depicts Gus flying to the Magnetic North Pole one year and the return trip to the Geographic North Pole the following. The aircraft used for both trips was a 1939 vintage Stearman PT-17, which by all reason should not have even been considered for that type of undertaking.

However, Gus did, and on the second trip the Smithsonian undertook to record his daring flight, shadowing and observing his trip in a more suitable cabin aircraft while he plodded along in his old Stearman.

It may be wise to read this book in front of a warm fire or on a hot summer day as his description is so vivid, you can almost feel the Arctic cold in your bones.

Well written and good reading. I have read it three times, finding it that interesting.

Following the final trip, the airplane was donated to and is on display at the College Park Aviation Museum.

Fran Ptaszkiewicz

News on the Wing

First and foremost…my apologies for being so slow to respond to your emails. At issue was the health of my PC and this old body. Both are doing much better at this time. I believe I am all caught up with those emails. If I missed yours, please send again … cinc@flyingacesclub.com. Thank you for your understanding.

Okie dokie Clubsters, NOW it's time to get excited about the 2014 FAC NATS in Geneseo, NY. By now you've seen the schedule and here are the rest of the particulars.

This year I'll be your CD. Once again I send many thanks to Dave Mitchell (who has worn that hat for the past several years) and his crew of volunteers. Gentlemen, it's time for you to take a well-deserved break.

Now, having said that, it's high time that you - "Mr. I've Never Volunteered In The Past" to take that small step forward and experience another side of the "Big Show." To volunteer for anything just drop me a note. Many of the FAC Council and others have already taken the "step forward" to help put on the greatest show of balsa and tissue in the world. I thank you in advance.

The Quality Inn will be the site for judging (in the banquet room) and compliance checks (in the small back room) on Wednesday starting at 1:00 PM. Those volunteers doing those necessities will have "head of the line privileges" for their models. (Vendors can start setting up at 11:00 AM.)

Judging will be done in pairs. Now is the time to sign up for the experience. One bonus of judging is that you will see there are so many ways of modeling with stick and tissue…ways you may not be aware of. And the tricks you can gleam from the "masters" are worth their weight in three-pound balsa! So volunteer! I'll pair you up with an experienced judge. It is so worth it.

Once again at the NATS there will be a **50/50** and a **raffle**. Proceeds go towards expenses such as the Port-a-Potties and we all know how important they are. A portion also goes to the National Warplane Museum…our host.

IF YOU ARE NOT GOING TO THE NATS…but you would like to make a donation to the raffle…you still can! We recommend you pack up your donation and mail via the US Post Office to Mr. Mark C. Rzadca, ATTN: FAC RAFFLE, 17 High Point Trail, Fairport, NY 14450. He has volunteered to transport your mailed donations to G-Town. Mark requests that you send him an email (mrz01@rochester.rr.com) to inform him that you've sent something in the mail.

If you *are* attending the NATS…bring your donation to the Quality Inn when you bring your models in for judging. All donators will be acknowledged in the FA NEWS.

We thank everyone in advance.

And now the scoop on **S.U.N.Y. housing and meal packages** for those of you who enjoy that experience only available at G-Town. There were several issues last year with the college that necessitated some changes or we would have lost the college completely. I was able to negotiate some compromises so please don't shoot the messenger. Keep in mind that the arrangements are 100% better than nothing.

There are four options and ONLY four. There are NO options as to lunches…NONE will be offered. Also, there are NO options as to breakfasts. They are included in the room fee whether you eat them or not.

- SHORT STAY = check in on Wednesday, July 16th with four breakfasts. Check out Sunday morning.
- LONG STAY = check in Tuesday, July 15th with five breakfasts. Check out Sunday morning.

Your four options are:

- SHORT STAY with NO dinners.
- SHORT STAY with three dinners through Friday.
- LONG STAY with no dinners.
- LONG STAY with four dinners through Friday.

Two more dinner notes to keep in mind: one, there will not be a S.U.N.Y. dinner offered on Saturday evening as that is when the banquet will be held at the Quality Inn. (Banquet fee is $45.00 per plate.) If you don't go to the banquet, you'll be on your own for dinner. And two, there will be a B-B-Q dinner on the field sponsored by the NWM as last summer. If you request a S.U.N.Y. dinner pack, you will be charged for it even if you don't eat at the cafeteria and opt for the dinner on the field.

All fees will be announced ASAP.

See you soon! Ross, FAC, CinC.

2014 FAC Nats Motel Info:

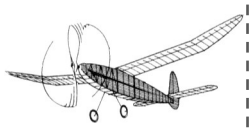
Quality Inn 4242 Lakeville Rd, Geneseo, NY 14454, 585-243-0500
$108.00 plus $11.88 tax = $119.88 per night.

Hampton Inn 4250 Lakeville Rd, Geneseo, NY 14454, 585-447-9040
$129.00 plus $14.19 tax = $143.19 per night.
Be sure to mention FAC!

2014 FAC Hall Of Fame Nominations

Nominations are now being accepted at cinc@flyingacesclub.com. All nominees must be members of the FAC in good standing. Members who have "Gone West" will be accepted. You may nominate up to two members. Each name must be accompanied with a short reason why the nominee should be considered. Nominations must be received in time for publishing the May / June FA NEWS.

And one more add-on item for the Nats News…



Due to popular demand, we've added **Half Wakefield** to the event list.
There's still plenty of time to get one ready to fly skysters!

Worthwhile Website

Even if you're not shopping for anything, the Shorty's Basement website ranks as one of the best things that's come along for the Free Flight community in recent times. Among the other goodies you'll find there, George Bredehoft has posted a collection of WWII Victory Model plans for downloading. Free! There are also free calculators for prop blanks, paper cones, and true length struts. The famous Pinkham Field Handbook is posted there too. Of course, while you're visiting, you might want to check out the Free Flight supplies in the catalog, including the new line up of **Superior Props**.

Victory Model Plans

From the Connecticut Flying Aces Club Squadron "Pinkham Field Handbook":

"Victory Models were conceived and designed during World War II by the team of Ira Dyer and Louis Bucalo. The motivation was the conservation of modelers dwindling supplies of rubber and balsa wood. Beginning in the January 1943 issue of Flying Aces magazine, seven different plans were published, some of them in companion magazines to Flying Aces."

http://volareproducts.com/?page_id=548

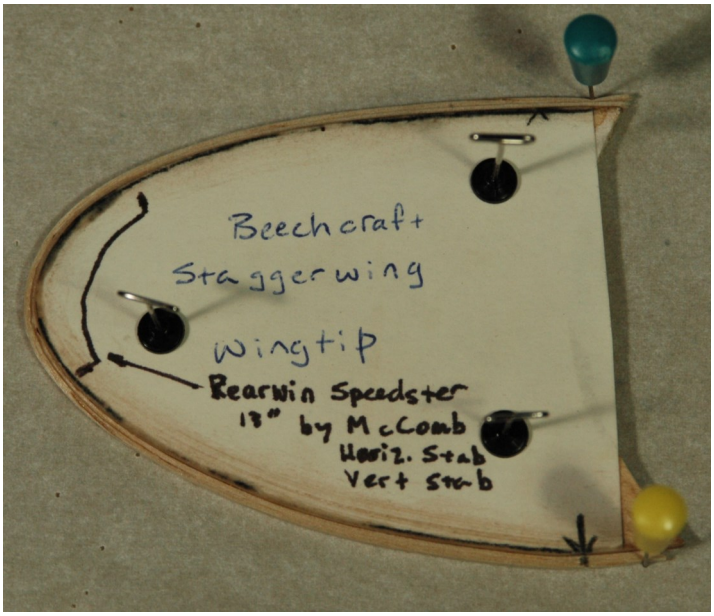
All plans fit on one 11″x17″ paper, or two 8.5″x11″ side-by-side.

A Few Twists on Laminated Outlines

By Mark Rzadca

Much has already been written about laminating balsa tip outlines. The basic technique is to soak balsa strips in water to make them pliable, then apply glue and wrap them around an appropriately shaped form to produce the desired shape. Working with wet strips necessitates use of glues compatible with water. Generally that limits the glue choice to the woodworker's types such as Elmer's or the like. Such glues work well enough, but the resulting parts are harder to sand than if other types of glue had been used. A two-step approach of forming the strips without adhesive followed by application of adhesive to dry pre-formed strips allows one to use pretty much any glue desired. Solvent type adhesives such as Ambroid or Sigment are most preferable for this task. Outlines made with these adhesives are much more easily sanded than those made with carpenter's glue and it isn't even worth mentioning what a pain it is to sand those made with CYA.

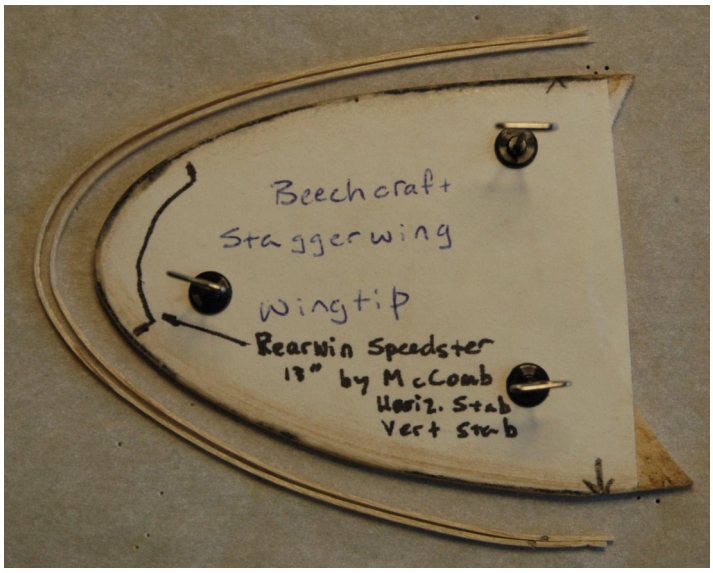
Soaking and initial forming with the two step approach are the same as has been described many times before except that the layup is done without applying any adhesive. Once the strips are dry, they can be removed from the form and separated from each other. With this two-step process, the strips will be put back on the form with adhesive applied. To make it easier to put the strips back the way they were when first formed, put a reference mark the strips while they are still wrapped around the form. The reference mark on the strips should likewise line up with an index mark on the form so the whole



assembly is put back on the form in the same position as well. Use a very soft pencil to make the mark on the balsa parts. Art supply stores sell drawing pencils in a wide range of hardness. Softer pencils write darker and with less pressure. Soft art pencils are designated by 1B

through 9B, with higher numbers being softer. Anything above 6B should provide a sufficiently gentle way to mark balsa.

When the dry strips are removed from the form they retain much of the desired shape. Now, most any adhesive can be applied to the mating surfaces of the individual strips. While the adhesive is still

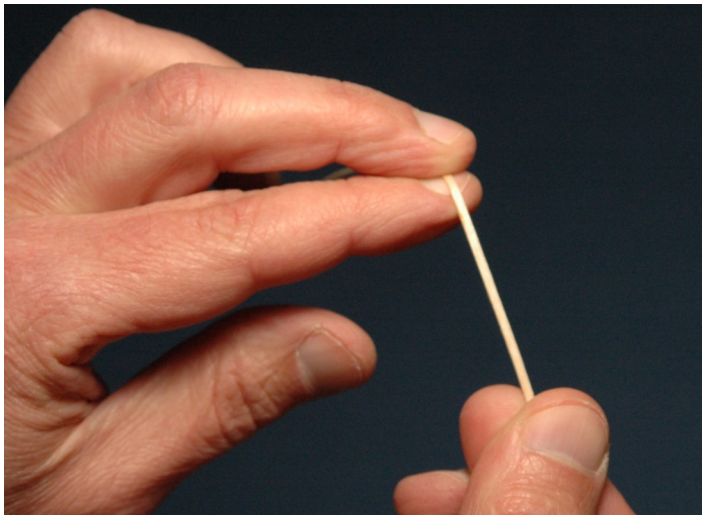


wet, sandwich the strips back together using the previously applied reference mark to line up the strips. Once the stack looks nice, the reconstituted outline can be put back on the form. Use the reference mark to get the assembly back on the form just as it was the first time. Pins are used to hold the strips to the form just like when the wet strips were first formed. Once the glue has set, the outline part is done. If a solvent type adhesive has been used, the outlines will be very amenable to any sanding required.

CYA does offer the opportunity to make really rock hard curved parts if that is desired. The parts won't sand very well but they are really rugged. Real precision is required to apply the CYA to the laminations. This should be done without removing the part from the form. One must be very careful to apply a minimum of thin CYA to the interfaces of the individual strips. Any CYA which gets on the inner most surface may attach the whole assembly to the form; that can make it impossible to remove the part without ruining the part and damaging the form. Erring in the direction of too little CYA may leave voids in between the laminations which results in a very much weakened part.

Another difficulty frequently associated with laminated outlines is breakage of the delicate strips as the wet parts are initially applied to the form. Most instructions say to pull the strip around the curve so that the tension in the wood will help it conform to the shape of form. Balsa is not perfectly uniform in strength and hard spots or weak areas can make it difficult to produce the desired curve without snapping some strips. Sometimes the pile of broken wet balsa strips gets big enough to build a second or even third set of tail feather outlines. One very simple trick to make this part of the task much easier is to use your finger nail as a form for imparting an initial smooth curve to an individual strip.

Very simply this is done by crossing the fingers of one hand with a strip of water softened balsa strip pinched between the pad of the middle finger and the nail of your first finger. Pull the strip through with the other hand. By gently pinching the balsa in this way, the pad forces the strip to conform to the finger nails curve somewhat. The strip should be pulled so that it is tangent to the finger nail where it separates from the nail. (That means it is parallel to the nail where the nail and strip begin to separate.) Very little pressure is needed to induce a bit of curve. More curvature can be added by repeated passes. On subsequent passes, the strip can be pulled to even tighter

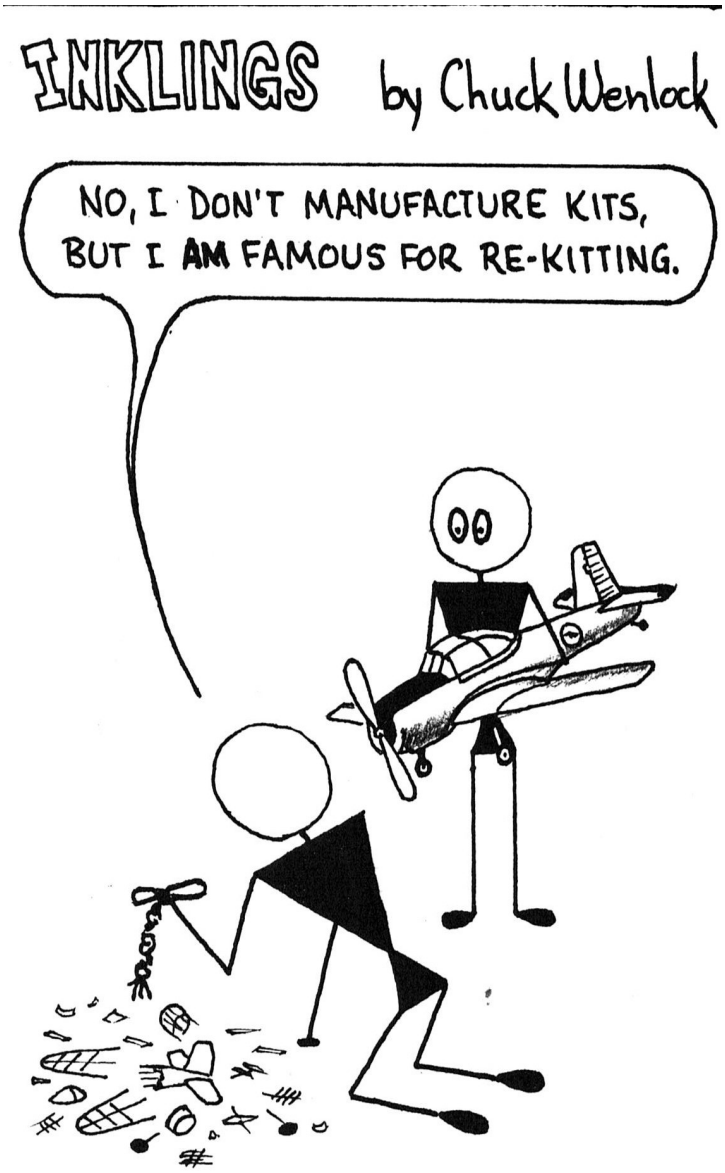


radii by pulling the strip over the finger nail beyond the pinched part. This operation may sound tricky but it is really much easier than wrapping a straight wet strip around a form the old way and the application of a pre-curved strip to the form becomes almost trivial.

Finally, here is one last suggestion for making laminated tips more convenient. Make up a soaking bath from a tube or pipe. Seal off one end and devise a means of holding the tube vertically. The bath shown in the photo is made from ½ inch copper tubing. It is easy to sweat a copper joint but copper is expensive these days. Inexpensive PVC tubing can be used and easily sealed as well. Just choose a length a bit longer than the longest strip you plan to soak and large enough in diameter to hold the quantity of strips required. Very little water is needed to fill the tube. Do not fill the tube to the very top before putting the strips in unless you don't mind the overflow. Once the strips are in, the water can be topped off to make sure the wood is completely covered. A weight of some sort will be required on top of the bath to keep the strips from popping out until they are water logged. Tweezers may be needed to pull the strips out but the strips never seem to sink out of reach.

Holding the bath in an upright position is left to your ingenuity. As shown in the photo, a wood worker's hand screw clamp serves in a splendid fashion. It is heavy enough to allow it to be simply set on the edge of a table as shown.

So, there you have it. A two-step laminating technique which allows use of much more sanding friendly adhesives and a way to pre form an initial curve in the wet wood to reduce frustration and wasted material. The soaking tube is more convenient than using trays since it takes up so little space and there is much less chance for accidents. Time to stop writing and get back to the building board before the contest season is upon us. -



WESTFAC

News from Out West

Everyone says the winter is a time for building. Well, that is true both in the West and in those somewhat cooler regions. This column will focus on the "new builds" coming out of the Western Flying Aces squadrons and give you a preview of a new Squadron forming up in California. We hope you enjoy.

First things first. We have begun a new Flying Aces Squadron addition in Mennifee, California. We are using the same demographic we used in Arizona...the Active Adult Community. This time, the Community is called the Oasis and it caterers to folks over 55 as most of them do. With the help of an Oasis resident, Joe Donaldson, we obtained permission for a new "building and flying" class utilizing a great craft class room in the Community. With some Community advertising, we enrolled folks interested in building and flying and started the Class. We continue to use the Flying Aces Moth for the initial class build. Bob Holman (of Bob Holman Plans) continues to supply the short kits, and various vendors on the net supply various parts.

All the basic building skills are taught, and out the other end of the class pops *new* Free Flighters.

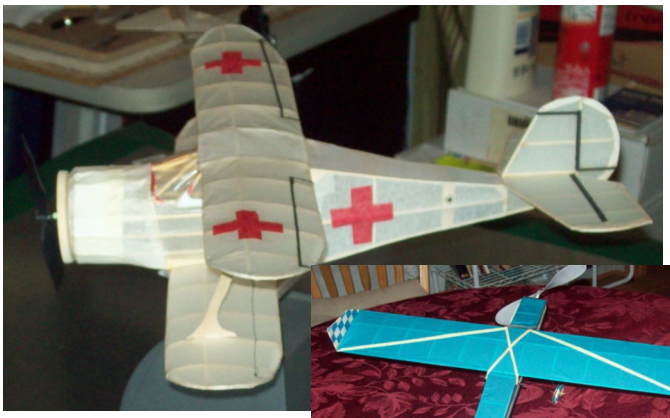
We then take them to a friendly farmers alfalfa field to begin trimming instruction….

Much fun for all, but that's what the Flying Aces are all about..!!

The class is now taking their new Moths up the torque curve and finishing the trimming portion of their class. All of them have started the 2nd model, a Jimmie Allen BA Cabin. We hope to form a new Flying Aces Squadron soon and we will begin another new class at this Community in March.

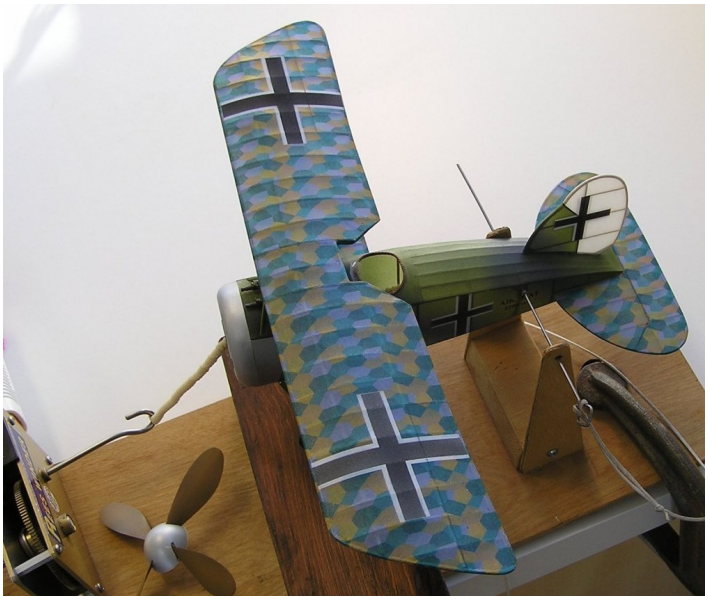
The Texas Squadrons have been building too. We have

included a picture of Duke Horn's beautiful new Ercoupe PQ-13. The aircraft was delivered to Wright Field on August 19, 1941. It has a 24" wingspan and came out at 45gm. Duke is using a GizmoGeezer front end and Callie Graphics provided the scale graphic details.



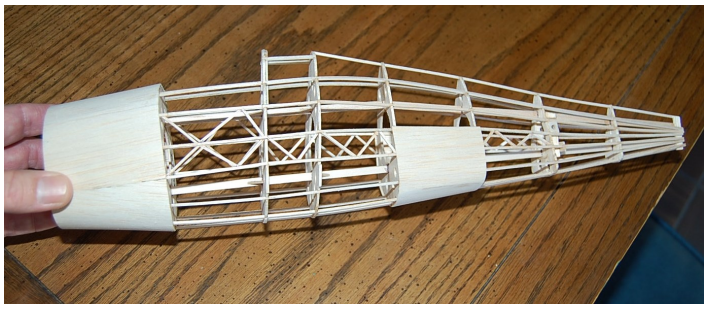
From the ALAMO Squadron, a couple from Allen Shields: a new Embryo and a Dimer Staggerwing Beech.

From the RIO GRANDE Squadron comes some new builds sent by David Wagner: A new MR. SMOOTHY from EasyBuilt Models…



...and ready to wind is a great looking Albatros D XI.

The BEDE 4 is 28” span using one of the new compressed air motors by John Morril. He says this baby needs a DT on every flight..!!



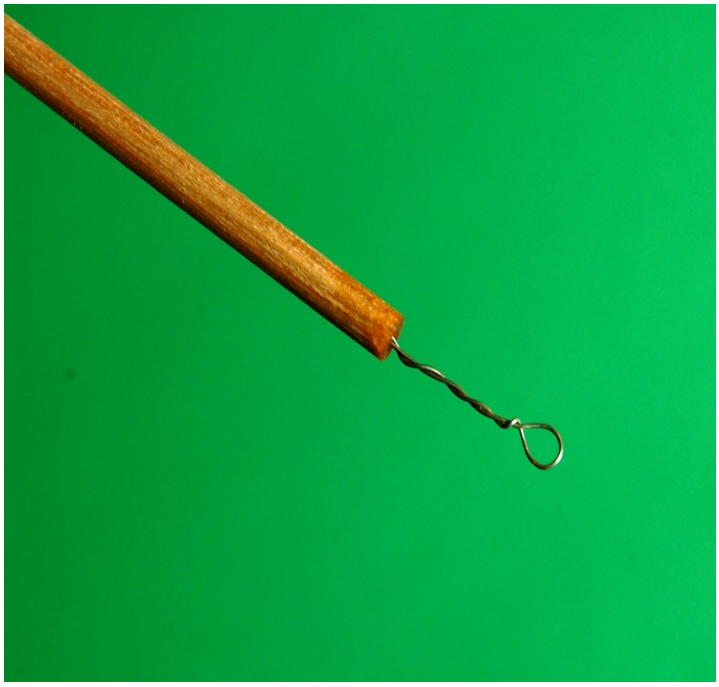
At the Scale Staffel Squadron in San Diego, Mike Jester is completing a new EasyBuilt Hellcat. This Squadron has set the dates for three *two -day* Contests that will include over 11 FAC Events, including the Double Trouble Mass Launch at each Contest during 2014. Dates for these great contests can be seen on their web-site at www.scalestaffel.org.

Well, that’s all for now. I’m going back to my building board to try and figure out how to install Don DeLoach’s fantastic spring loaded DT on my new CESSNA CR-2. If that baby flies half as good as Don’s…. I’m a happy guy..!! Many Maxes to all ,

Roger Willis

The Gadgeteer

Sometimes you have to place a single drop of CyA into a tight space, such as a broken former inside a fuselage. This simple tool will get the job done.



Make a loop about 1/16 to 3/32" in diameter from soft craft wire. Attach it to the end of a dowel or bamboo skewer. The loop will hold a single drop of CyA that can then be placed wherever needed.

CARE AND FEEDING OF LIFTING TAILS

by Al Cleave

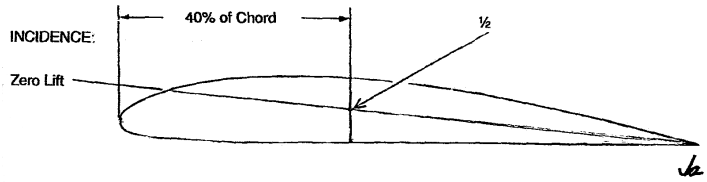
It would appear that confusion regarding "lifting tails' is apparently running rampant throughout the modeling world. This article may hopefully help clarify things a little . . . but, on the other hand may simply add to the overall bewilderment. Here goes anyway, for whatever it's worth.

To start from square one, the term "lifting tail" means that a stabilizer, rather than being a flat surface, employs an airfoil section. As for the "lifting" adjective, this means that it lifts only the tail and aft end of the fuselage . . not the entire model as some seem to think. As a result, the tail goes up and surprise! the nose goes down, resulting in a diving mode.

The fix for this comes in the form of increased decalage, which, for the benefit of any newcomers among us, refers to the difference in incidence angles between wing and stabilizer. The most efficient method of determining the proper angles is by using what is called the "Zero Lift Angle." This is the angle of wing incidence where the airfoil generates no lift, and is very easy to determine.

First, (1) Make a drawing of your airfoil and draw a vertical line through it at a point 40% back from the leading edge. (2) Mark a point on the line that is exactly midway between the top and bottom of the airfoil. (3) Draw a straight line from the trailing edge through this 50% point and extend it on forward. This line indicates the zero lift incidence for your airfoil. (See Figure 1).

Figure 1



Do the same thing with the stabilizer airfoil, then measure and compare incidence angles for both surfaces. When compared with the zero lift angle for a flat stabilizer surface it will be seen that the angle of incidence of the lifting tail will be somewhere around only half as much as that of the flat tail, which explains the nose-down reaction and indicates the need for an increase in decalage.

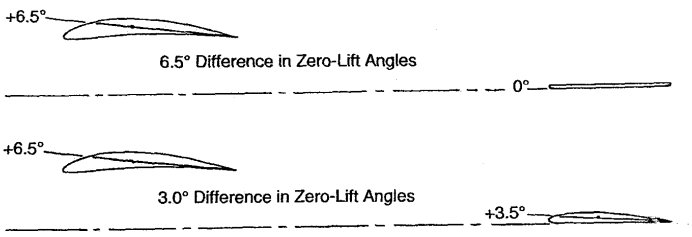
(A major advantage of this method is that it takes into consideration the thickness and resulting lift of both the wing and tail airfoils.)

The value of the Zero Lift concept was well illustrated several years ago when a modeler built an Old Time Rubber model from a plan that showed a flat plate stabilizer section. The original 1940 plan, however, had shown a lifting tail. Under Society of Antique Modeler rules, airfoils must not be changed, so the builder returned to the original lifting airfoil when building his model.

The modern plan had apparently compensated for the change to a flat stabilizer section by reducing the wing incidence. When the model was test flown with lifting stabilizer, it was incapable of free flight, consistently diving into the ground.

When the lifting stabilizer was substituted for a flat plate, it had reduced the angular difference between the wing and tail (decalage) from 6.5 degrees to 3.5 degrees. Once the condition was analyzed in regard to the 3.5 degree increase in the stabilizer's zero lift incidence, a matching 3.5 degree increase in wing incidence restored the angular difference and the model became a fine flyer. This particular example is illustrated in Figure 2 both before and after decalage was corrected.

Figure 2



Raoul Hoffman, in his book Model Aeronautics Made Painless, gives guidelines for decalage in terms of zero lift angles: Gas - 6 to 8 degrees; Outdoor rubber 4 to 6 degrees; Rubber scale - 5 to 6 degrees; Towline - 7 degrees. These values can be used for starters with fine-tuning to follow during test-flying.

We, in our youthful ignorance, knew nothing of the technical side of decalage in the 1930's and 40's --- just that it took a whole bunch of incidence difference between wing and tail. In spite of this knowledge shortcoming, our models didn't know the difference and just went on flying as though we knew what we were doing. Or why.

Bonus Point Quiz

Here's a wacky idea for the stumping of you fellows!! Yes, I have nuttily looked at this ship many times over…

Say you wanna put a prop on the nose of the bottom half of this Languedoc/Sud-Est SE. 161and fly the whole kit and caboodle. What do you think the bonus points would be for that??

Answer on page 15

No Secrets

Tips and Tricks from the Aces

Bending Balsa - from SAM 8 Speaks, Ted Katsanis, Editor

Contrary to common belief, ammonia doesn't really make balsa easier to bend. True, ammonia has long been used by industrial "wood formers" to soften hardwood for forming tennis racket frames, chair seats, and that sort of thing. However, (1) the ammonia is in concentrated gaseous form, so strong that one breath of it would sear your lungs; and (2) it works by temporarily plasticizing the lignin "binder" in the wood.

Household ammonia doesn't really help in forming balsa because (1) it's merely a weak solution of ammonia gas and (2) balsa contains practically no lignin anyway. (That's one reason it's so light.)

Household ammonia appears to soften balsa. That's because its detergent action makes its water content soak into the wood fast. Few modelers realize how slowly plain water penetrates balsa. It wets the outer surfaces fast, all right—but in doing so, the wood cells swell up and produce a barrier against further moisture penetration. At Veco in the 1950s, we used a wet process for die-cutting that eliminated nearly all "die-crunching" problems. But to make it work we found that the wood had to be soaked all the way through. For 1/8" x 3" x 36" medium-hard balsa sheets, that took at least 24 hours.

We tried an ammonia/water solution to expedite the soak-through. That worked! However, we also found that ammonia makes an excellent fertilizer for various molds, mildews, and fungi. They thrived gloriously between many of the wet sheets of balsa—which, as you might suspect, took about as long to dry out as they had to become saturated in the first place.

One further detriment to the use of household ammonia for model-building purposes is that some if not all brands you can buy at your supermarket contain other "ingredients" besides NH3 and H2O. Bobrick's Cloudy Ammonia (for example) has detergents and stabilizers added, which cause polyvinyl type cements (e.g., white glue and "aliphatic resin" glue) to curdle rather than cure.

Plain water seems the only sage "bending enhancing" fluid for balsa. True, it takes a long time to thoroughly penetrate the wood. Hot water works faster, but even that requires about four hours to truly saturate 1/16" sheet balsa. But when balsa is really soaked, you can just about tie knots in it without its breaking or splitting. I've formed severe compound curves with it—such as a one-piece fuselage top for a 3/4" = 1 ft. scale Lockheed 10A "Electra"—that would have required strip-by-strip planking by conventional construction methods.

True, there's a drawback to working with soaking wet balsa. It expands when wet and shrinks back again as it dries. For medium-weight wood, the lengthwise expansion of saturated balsa is about 3/4 of one percent. That's not enough to make trouble, at least in the size models I build. But across the grain can be a different story! There the expansion can be as much as ten percent.

That's more than enough to cause problems. I once made the mistake of sheeting the leading edge of a big control line stunter with sopping wet 1/16" x 3" balsa sheet. When it dried out, the shrinkage produced "scallops" between the ribs, almost as bad as if I'd covered the wing with wet Silkspan.

All this goes to show that model building is an art form, requiring knowledge, patience, finesse, and even a modicum of good luck. But to me that's the fascinating part of the activity. (I'd rather spend time constructing my own models than cash buying craft built by others. As far as I can see, there's nothing educational in spending money . . .)

More on Bending Balsa - Al Stein, from rcuniverse.com/forum

I think you'll find that steam will work very well, maybe better than ANY other method. I usually use plain warm water and it works fine.

I've also used window cleaner with ammonia and had no problems... although the only improvement over plain water was that the dye in it made it a little easier to see where there was a good bit of it on the wood and where the wood was drier. I've also used household ammonia watered down and straight from the bottle and it worked fine as well... more smell, less comfortable to use, but no more or less effective that I could tell on up to 1/8" balsa sheet.

As for anhydrous ammonia -- luckily that post was actually discussing 50% solution, not anhydrous -- and I wouldn't touch it at that concentration either. I am a degreed chemist and I would NEVER consider using something like anhydrous ammonia for this... you just wouldn't believe the damage it can do to things like lung tissue or your eyes -- and that's just the vapors: It'll eat ya up without you even needing to spill the stuff.

The theory on using ammonia is that it softens the lignin in the wood. Now, as it happens, softwoods (i.e. conifers) have a lignin content up to twice as high as hardwoods. But here's the big secret: most people don't realize that even though balsa is very soft physically, it is a hardwood technically, and therefore low in lignin... so attacking the balsa's lignin structure doesn't make anywhere near the difference it would make in a piece of spruce. Ammonia doesn't make it any harder to bend, but if it makes it any easier, you couldn't prove it by me.

Stretch winding - from the WHAM newsletter out of Wichita, KS, FAC Squadron 23, Jeff Englert editor

A telling bench test on breaking-in rubber motors. They took six strand, 1/8th inch motors, six inches long, and did multiple winding tests to destruction of two, broken-in groups, one stretched twice their length and the other seven times. The results follow, speaking for themselves.

Rubber stretched 2X

Motor	Turns	Torque (in/oz)
#1	316	12
#2	332	12
#3	336	14
#4	320	11
#5	340	14
Average	328.8	12.6

Rubber stretched 7X

Motor	Turns	Torque(in/oz)
#1	368	17.5
#2	352	16
#3	356	19.5
#4	360	16
#5	364	20
Average	360	17.8

Yes, we know; this isn't a tip or trick, but it was just too spiffy to pass by. You probably recognize the Bezobrazov tailless triplane from a Bonus Point Quiz a while back. Well, Greg West took that 3 view and made a model out of it! It's sure to turn some heads at the flying field this Summer.

Rubber Scale Modeler's

Muse Shop

Vance Gilbert

Whatcha Thinking Of Building?

OK fellas. It's the mid bleak end of winter. Maybe you've done some repairs. Maybe you've started a great kit. Maybe you're dreaming of what you'll be taking to Geneseo, or Muncie, or the FAC WESTFAC, or to the 3 or 4 local contests on your calendar. Well, dreaming is gold. It's the life blood of what we do. That raggedy 3-view you built over, that kit you're bashing, it's either your or someone else's dream, or a combination of the two.

But how do you get there? Now we're really going to muse.

One thing to remember is that 90% of the time, your modeling daydream has been executed, in some form, somehow before. Sorry for that fact. Whatever you think of, as you peruse that book of 3-views or that site on the web, note that someone has already considered building something like it at some point in time.

Now, don't be deflated...just because what you were considering to build didn't spring from the very Brow of Zeus doesn't mean you aren't an original….by the time your stamp is upon it, you can call it yours, hands down.

Beethoven was influenced by Mozart, Klee was influenced by Picasso, Jimmy Connors was influenced by Pancho Segura, and Tom Hallman was influenced by Dave Rees. And all who proceeded the proceeders had influences.

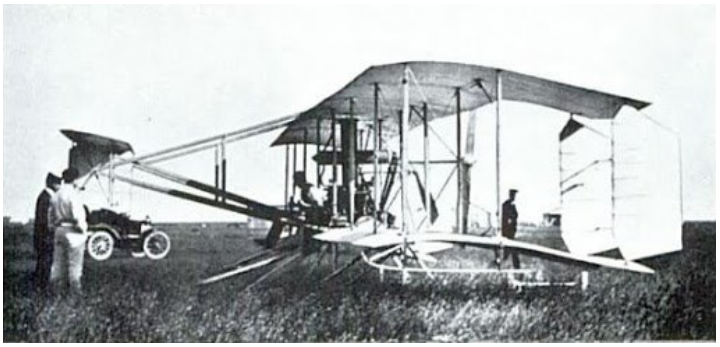
However, "that special ship" that you bring to the field will be yours, all yours, if you learn to look at your next subject as a plane already done. I'm going to coach you as to how to take a step back from your next subject, no matter how crazy it seems in your head, and see it as something you've already seen before.

It's just one of these, but done like that

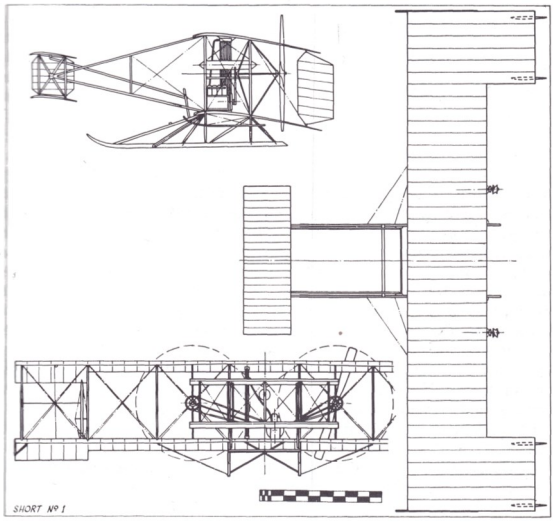
I didn't want to do a Wright Flyer. But boy, did I want a twin pusher biplane canard. Don Srull was making a mark with his Santos Dumont 14bis, and oh, what a lovely thing that was. So I wanted to make noise like that, even with my meagre skills at hand.

But I wanted to do it with 2 motors..

So, one evening, flipping through Shorts Aircraft since 1900, by C.H. Barnes, scale ruler in hand, I came across the 3 view and pics pictured here .

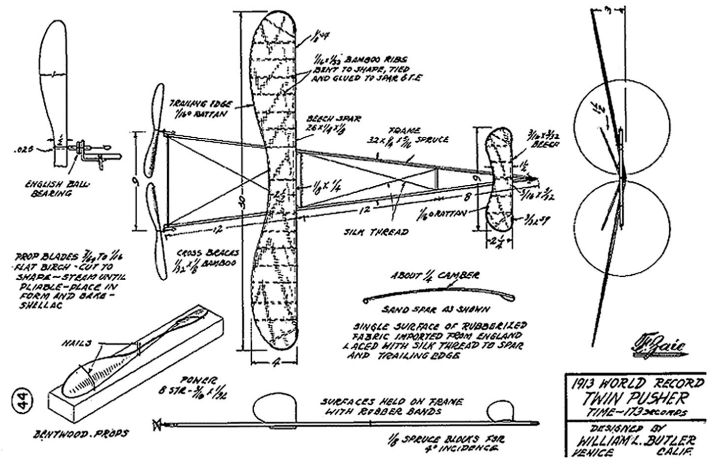


It was so alluring to me, but initially it looked very strange. So, scrolling through my brain Rolodex, I recalled that a fine Connecticut-based modeler named Royal Moore had a Wright Flyer before I came into the hobby, yet I had no idea how I was to look at, much less set up, a ship like this on my own.

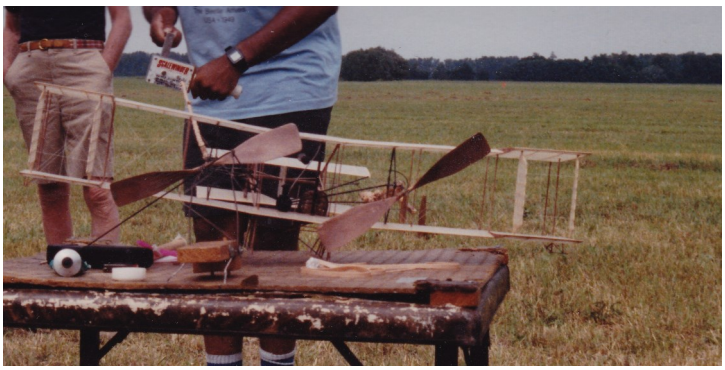


- Biplane
- Canard
- Twin
- Pusher

Well, that's a stack of bonus points. And a full-time job. Man, what was I thinking? Then it dawned on me... The last two categories - this was a twin pusher...in fact it was a canard twin pusher!!



Why, the guys at the SAM meets have been flying these twin pushers since the beginning of flying model time!! Heck, the set-up of this Shorts Biplane #1 is what model aircraft have looked like for 100 years!!! The final leap of faith was how to handle it's biplane-ness. Trying to see out of the box led me to believe that this ship was merely 2 twin pushers stacked on top of one another, with the prop and rubber in the gap. I ran the rubber up to the front canard, and, honestly, it looks at home as there is so much rigging and struttage abounding that the rubber virtually disappears. Here's a pic of me winding her, then one as she sits atop the late Dave Stott's car, and then in flight. I'm not sure of the first photo's artist, the middle I believe to be Mark Fineman's, and the



last was taken by Henry Struck himself, just as a cool FYI !!.
This ship was a great flyer. I simply wore it out. It sits in a fairly dishev-eled state on the basement refrigerator..

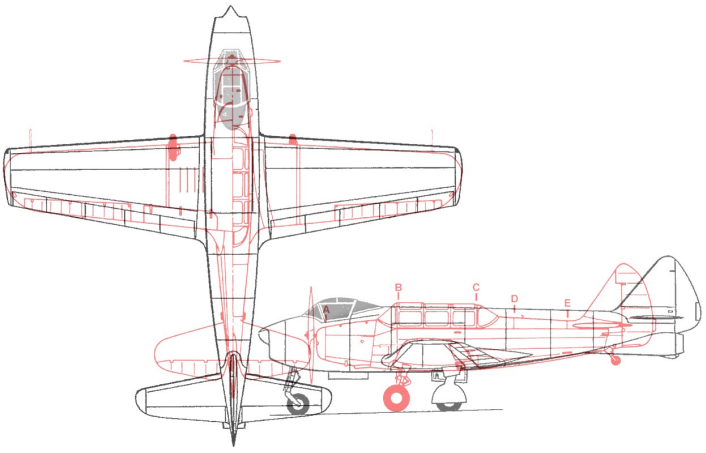
Here's what's key. Take this pair of plan views - the Twin Pusher, and the Shorts Biplane #1, and glance back and forth to each. See how simi-lar things are from a top, or "plan" view?

It was done once, I can do it again

Here another way to adapt a sensibility. Lots of fellows use this.....so you've gotten used to a plane size /rubber/ prop combination. You have something that works for you. That's a sure fire road to success. Tom Nallen 2 and his dad live in, if I remember correctly, a 22" span, shaved 8" Peck prop, 2 loops 1/8 for their best-scale-ships world, and they build accordingly. Your author here loves a 28-31" biplane, 12" blue peck prop, and 2 loops of 1/4 or 2 loops 3/16 and a 1/8 "kicker" as Tom Nallen2 calls it. Ain't the variety to success wonderful?

The irrepressible Tom Hallman has adopted a new realm for himself based on the success of his Pulqui jet. Most of these "numbers" he recently subscribes to come from the construction techniques and average size that Dave Rees liked to use in most of his Scale-sized, non-coconut rubber ships. I approximate thus: 27" span, 10" props, 2 loops of aprox 5/32 give or take, wing area about, say as much as you can get in that span. The point is that he's got a formula that he knows he can build with using his favorite materials best to get weight right, that he can power in a way that he's familiar with, all this topped by detailing and finish at his usual best, leaving him confident that he's got a flyer on his hands. Good enough as a low winged jet to place 2nd in Scale at the 2012 FAC NATS.

Look at the overlay action on figure 5:



He took the successful Pulqui:

and sized his last-year-new PT26:

to that. Now, granted, he didn't get the motor length he got with the Pulqui- which I remember to be 18" peg-to-peg, but he still had a great set-up for another winning plane. He has a third ship on the building board for the D-Day Launch that I'm not at liberty to spill the beans aboutspitfire that also subscribes to this current formulaspitfire. I expect he'll have another winnerspitfire.

This all said, there's nothing more educational than building and flying a plane using another fellow's numbers. I guarantee you that in FAC any fellow that seems to have success with the ship that he's campaigning is willing to share with you how he got it done. Make a part of your planning to get a hold of someone who's plane and it's fly-ing you respect as you start to draw lines on tracing paper this winter. Yes, I'm thinking about prop and rubber even as I tape the tracing paper to the drawing board.

Modeler's Muse Continued…

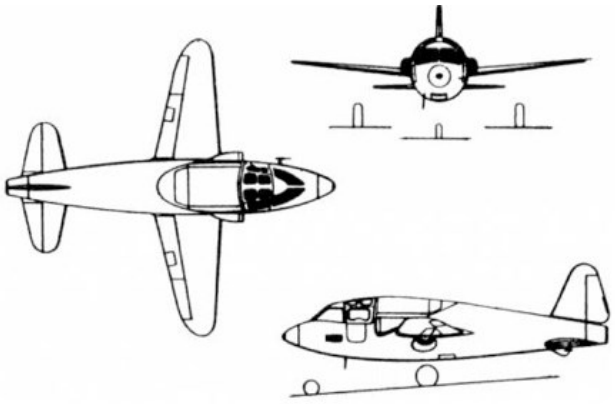
Chase another guy's success

This can be competitive-within-the competition and fun. Also a great and inspiring bar-raising amongst friends. A few years back Tom Hallman built his Mitsubishi IMF1. Aprox 22" span, 40g empty, 9" prop. I chased it size for size wise with my Aero A38.

Aside from using solid rather than sliced ribs, they were similar in...well, they were similar. So, he still has his fine flying award winning ship. Mine specked out over the college at Geneseo in 2007 with a 9-10 minute plus flite. It was a different design wheelhouse for me, but what fun to try another fellows shoes on!

Epilogue: What's all your measuring and page flipping about while she watches Downton Abbey?

I have been thinking about a 27" span jet; something that would give reasonable chase to the Pulqui. There are plenty of ships that can meet the specs or "numbers" that the Pulqui lays out, that 18" peg to peg rubber being the hardest to come by. Why not chase this great flying ship? Wouldn't you want to have a low-winged job that could rub up elbows with the myriad of twins and place 2nd in scale at the NATS?



But get this- the ship I'm currently looking at is so silly in comparison, and the reason I like it is because... it's just silly. The SNCASO Triton 6000 is looks to be fun.

Look at all that fuselage length in front and behind the wing! That says that a long rubber motor can be pretty effectively used without the addition of performance-robbing ballast. Alas, she's a mid winger, and while building that wing through that fuselage doesn't daunt me, the 5 points for the Triton versus 10 points for the Pulqui really make a bigger difference than you might imagine when the flight multipliers get factored in. Remember, after a minute, each second = 1/2 a second, and after 90 seconds, each second is worth 1/4 second. So, let's say, all basic scale scores being equal, the Pulqui puts in a 90 second flight. Hah... Wait... You have to at least equal that 90 second flight and then make up for the missing 5 seconds with *quarter seconds*. So you're now responsible for 20 actual real seconds!!! So you need a 110 second flight to tie him in the standings!

And if he maxes, well he's out of your reach. But wasn't that design chase fun? And you've now got a 110sec jet to brag about. Let's guess how that will fare at your local contest!!

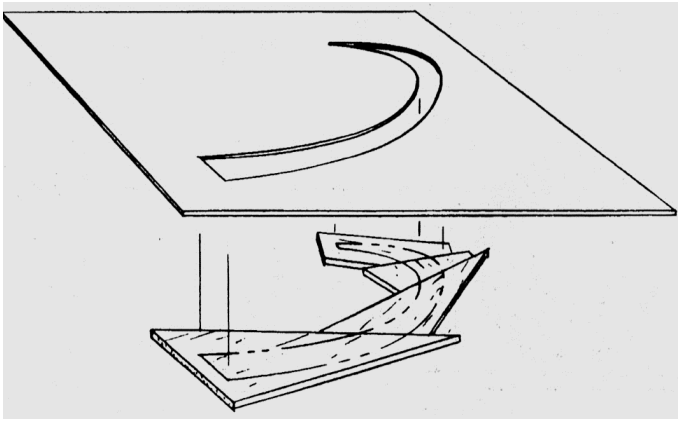
So remember, as you stare off into space as to your next project with the snow piled up to your nostrils, keep your goals loosely in mind and have an open mind too while you're at it!!

We have the most fun, don't we?

Golden Oldie
Tip on Wing Tips

After filling this issue with all the info you need to know about laminating curved model aeroplane parts, we figured we needed to spill some ink on behalf of traditional sheet wood parts. This method makes the job a lot easier, quicker, and more accurate too. It was found in the archives here without a good reference to where it came from, but we know it was written up by Jim O'Reilly of Bel Aire, KS - *Ed.*

Several years ago I decided to build Ed Lidgard's Eugene II. I wrote him and he suggested that Eugene might be a better flying ship. He offered me the use of his plans and templates. I accepted. What popped out of the mailbox several weeks later was a package containing more templates than plans. The only wing-tip information in the bunch was a piece of light cardboard with a wing-tip shaped cutout in it. Hmmm . . . For years I had been carefully—and inaccurately—cutting out funny crescent-shaped pieces and gluing them together to form wing tips. Sometimes—but most times not—they even resembled the original intent of the designer.



With Lidgard's templates you just glue up some oversized pieces of triangular-shaped sheet stock with the grain going in the direction you want, without worrying too much about the locations of the glue joints. Slap on the template, carefully trace around the edges of the hole with a sharp blade . . . Presto! Finished tips. [And the genius of Ed Lidgard (now departed) visits us yet again.—Ed.]

BP Quiz Answer

Well, some might argue that it is "odd configuration" and let it go at that for 15 points. I call cop out. That designation is saved for ships that can't be defined in any other way. Therefore I clearly see this as:

Biplane.....15 points
4 free wheelers (2X4) = ...8 points
Jet engine.....1 point

_____
Total.....34 points

Hung's Alter

A blast from the past…

Back in the early days of the FAC, "Hung's Alter" was a regular newsletter feature. The guys would send in the news of their latest creation getting "stuck in the sky." We've collected some memories of lost models from a few skysters. If you've got a story from the good old days, or a recent heart-breaking loss, send it along. They say that misery loves company! Hawww!

I had my first thermal at 5 or 6 with a dimestore glider that got into a little twister coming across the infield of a local diamond. Up and over the trees the little glider went. Pop says I cried, but brother Mick in the stroller was unimpressed. It still hurts to lose a model today :-) Tom Nallen II

My first FF experience with a thermal (the Hot Breath of Hung) was when one took away my red, white and blue Gollywock when I was maybe 11-12? I was crushed. It had my first carved/folding prop, and was probably the first non-scale, non-Guillows / Sterling thing I'd ever built. I.E. it was probably the first thing I'd built that was really, truly, designed to FLY. Found out how small that football field was in a hurry.... Dave Mitchell

Gone West

Longtime Atlanta area Free Flight modeler and TTOMA and FAC member **Frank Hodson** died this past December from cancer. He was a Thermal Thumbers of Metro Atlanta president for many years and a life-long Free Flight modeler. He will be missed. From David Mills

Bob Nichols from the Swamp Squadron in Florida has passed. Bob was a Blue Max holder with 61 kanones. Report I received is he had a heart attack while out flying at their local field. He flew model airplanes most of his adult life - he moved from CT to Palm Bay FL to be near the flying field. He would show up for every contest and was always trying to recruit new flyers. He was more than happy to assist with trimming or answering any questions. His times were always the ones to beat. Of all the awards he'd won over the years he was proudest of the Blue Max. He was a good friend to everyone he knew and he is greatly missed. From Charlie Shepherd

Paul Grabski was born and grew up in Utica, New York. After graduating from the Utica Free Academy he joined the Air Force. He served in Viet Nam and in Thailand, followed by the final 15 or so years as a helicopter crew chief, and retired as a Master Sergeant. Paul held an Aircraft and Powerplant license, and following his Air Force retirement worked in various aviation related industries in the Pensacola area. He initially fell in love with plastic scale modeling and was very much a perfectionist at it. When he discovered the Pensacola Free Flight team, he moved to Free Flight. Paul was one of the most skilled builders and flyers anyone could imagine, and was a great mentor for newcomers in the free flight game. He was a life member of NFFS, was the president of Pensacola Free Flight Team and the FAC Pelican Squadron #46, held the coveted Flying Aces Club Blue Max, and recently earned the exulted rank of Air Marshall in the Flying Aces Club. His unexpected death at the age of 63 was a shock to everyone who knew him. From George White

Jerry Paisley passed away on January 6, 2014 at age 88 and after a wonderful lifetime, leaving his wife Helen, whom he married in 1948, four children, 11 grandchildren and several great grandchildren. Jerry and Helen were from Great Bend, Kansas. He served in the US Navy in World War II in the Western Pacific where his ship saw action several times. After returning from the WWII, Jerry graduated from College with an engineering degree and worked for Colonial Pipeline for most of his career. He and Helen retired to Smithfield, VA around 1995. Jerry was a member of the DC Maxecuters, the Brainbusters Model Airplane Club of the tidewater area (the same club that Earl Stahl belonged to), the Flying Aces Club (a Blue Max holder) and the Kudzu Squadron of the FAC. Jerry and Scott and Helen were very active in attending model plane contests from Geneseo to North Carolina.

I first met Jerry and Scott at Comsat about 1976 along with their buddies Mike Escalante and his dad and Allan and Chris Schanzle. They came to watch Maxecuters fly rubber powered planes at Comsat. Scott and Jerry became active builders, designers, and flyers. Jerry published several of his designs in Max Fax. You couldn't meet a nicer guy than Jerry. He never spoke unkindly of anyone and always had a great sense of humor and told wonderful stories of his experiences in the Navy. Jerry and I made several trips from the Richmond/Norfolk area to fly in Maxecuter events at Comsat and indoor sessions. Riding with him for several hours and talking of airplanes, kids, the Navy and life in general were great times. He also would come up to Richmond to fly with me, Wally Farrell, Dave Franks, Dave Rees and Bob McClellan and also attended events at Petersburg. He and Bob were best buddies and they attended almost all of the Kudzu events and the water fly sessions that Dave and Marie Rees put on in North Carolina. We had great fun at those events. Jerry and Helen and Bob and Jane were regulars and great friends.

I am going to miss Jerry a lot. I spoke with him back in early December while he was hospitalized and he sounded just like always. Allan Schanzle and Verna and Sandie and I attended his funeral services and listened to wonderful remembrances of Jerry by Scott. What a great guy and wonderful friend Jerry was. Thermals Jerry! Pat Daily

Allen A. Lawton of Portland, Connecticut, passed away on Friday December 6, 2013, at his home at the age of 89. After high school in 1943, he entered the WWII Army Air Corps Aviation Cadet Program from which he graduated as a pilot in November 1944. In 1945, he flew C-46 Transport Planes across the infamous "Hump" mountains from India to China in support of the campaign to retake southern Burma. His squadron moved to Okinawa in the Pacific in support of
B-29 Bomber operations and movement of personnel and supplies for the expected invasion of Japan. After separation from active duty in December 1945, he attended Rhode Island State College, graduating from the engineering school in 1949. He then worked in the aerospace industry before being recalled into the USAF for the Korean War. After a tour of duty in Korea, he was assigned to the Aircraft Laboratory of the Wright Air Development Center. Upon separation from active duty, he was employed at Pratt and Whitney in East Hartford for 35 years. Always an aviation buff, he enjoyed participation in the free flight discipline of model aviation and attended competitions in several states, which led to friendships with people from all over the US. He was a member of the Flying Aces Club and was a frequent contributor to the club newsletter for many years. He was a long time member of the Congregational Church in South Glastonbury.

The news of Al's passing brought several remembrances from his flying friends:

After graduating from college, I was getting back into the hobby and had just built the Golden Age Reproductions kit of the Kawasaki Ki-61 Tony. It was my first competitive "scale" build. When I learned that the kit was designed by Al Lawton -- and that Al Lawton was right there at that very contest at Durham -- I was awed and I felt I was near a god-like presence -- and I just had to meet the man behind the kit! I was expecting to meet a tall, imposing figure. The man I met was quite tall, but certainly not imposing. I was surprised to find he had a very kind, soft-spoken way. He was very humble when I lavished him with praise and thanks for designing such a brilliantly engineered and competitive design that a novice like myself could build with ease and use to mix it up with the "big boys." Al was always very willing to help and offer advice, but only when asked. He was never one to be didactic or showy. In his own quiet way, he would often whip the rest of us with his marvelously constructed and beautifully crafted models. We'd often forget he was there -- until we checked the scoring sheets to find that his scores were well beyond the reach of everyone else. In the mass launches, you would usually find him there in last round doing his thing in his easy, relaxed sort of way. I will miss Al very much. I will miss his calm demeanor, chatting with him, and picking his brain for the wealth of knowledge and decades of sage advice that he possessed. The FAC has lost another one of the great men from that greatest generation who built the club and whose dedication have enabled us be where are in the hobby today. We owe much to Al. Indeed, we stand on the shoulders of giants, and Al Greyhawk Lawton was a giant among men. Andrew Ricci

Al Lawton was one of my earliest mentors when I was just starting out in the hobby. Al was a guy who would "take the big look" as Vance would say. Rather than just comment "add more downthrust" or the like, he would really work with you to figure things out. It was an immense help to someone starting out. My first "big win" was at Muncie, flying a DVII that Al had designed and coached me on (by telephone no less). When I told him I was going to go the ROW meet that Dave Rees used to host, he was a great help in figuring out how to get a scale ship off the water, and I still have the letters he wrote to me about this and other FF topics. It is possible I think to see virtue in others when we are engaged in any activity, even if it is "only" model airplanes. Certainly Al was a great role model, not only as a flier, but also for his patience, skill, insight and generosity. We are all now called to fill the gaps left by him, Dave Rees, Dave Stott and so many others. Let's hope we can make them proud. Wally Farrell

In my early days in FAC I took on the irrationally large task of building Al's Hughes H-1 racer design; a fairly complex design. Al even gave me some of his original drawings to help me put it together. His was repeatedly winning the Thompson event hands down at Geneseo and other fields. Building it was a task I would not have completed without Al's help by mail and phone and in person at Pinkham field. My plane came out heavy, had too many warps, and was not much of a flier, but Al and I sure tried to get it right more than once. He was a great designer, fierce competitor and all around good guy. He was one of the top echelon of fliers that I looked up to as I tried to build up my skills for competing in this great hobby and certainly some of those skills came from following his advice. I will miss him. Dick Gorman

FAC GHQ & Council

When contacting FAC officers via email, please be sure to include "FAC" in the subject line so that your message isn't overlooked.

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Fred Gregg
Tom Nallen I
Tom Nallen II
Mike Nassise
Jack Moses
Bob Schlosberg
Chris Starleaf

*Note - Names in **bold type** are FAC Board members.

Membership Information

- Membership brings you six issues of the **Flying Aces Club News**, and all the grins that come with being a Junior Birdman.
- When the **Dreaded Red X** shows up in that circle next to your address label, it is time to renew your membership. Please note: the **DRX** is the only notice you will receive. Memberships will not be back dated so any missed issues of the newsletter will have to be purchased. (For back issues, see below.)
- Your renewal date will be printed on your newsletter mailing label so the **DRX** won't sneak up on you.
- If you would like to use the **PayPal** option to send your dues, go to: **flyingacesclub.com** and click on "membership." The PayPal button is at the bottom of the page. Pick your location (US, Canada, or Overseas) and hit the button. You do *not* need a PayPal account to do this. It's all handled by the credit card people.
- You can still send a check through the good old mail service. Use the form below, or any reasonable facsimile. Please make checks payable to: **Flying Aces Club**
- **Canadian and Overseas members**, please use PayPal (preferred) or send checks payable in US dollars.
- **Change of address -** please note - the post office does not forward bulk mail so be sure to handle this promptly or you will miss an issue! Send your new address, or any questions about your membership to the address below, or email to:

join@flyingacesclub.com

FAC News **BACK ISSUES** in limited numbers are available for $5.00 each. Send orders for all back issues to the same address as above.

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☐ New ☐ Renewal

Name:_____ AMA or MAAC No._____

Address:_____

City:_____

State/Prov:_____Postal Code:_____Country:_____

Email:_____Phone:_____

Annual dues in $US:

- $20 USA
- $28 Canada
- $40 Overseas

Please make checks payable to:

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Erie, PA 16510

FAC Contest Calendar

BUILD…What you really like FLY…All you can WIN…Just let it happen

Glastonbury, CT	Apr 6	GLASONBURY INDOOR CONTEST	John Kpotonak	gliderguider@comcast.net
Dunwoody, GA	Apr 12	PEACH STATE INDOOR CHAMPS	David Mills	404 509 4209 davidmillsatl@gmail.com
Perris, CA	Apr 12-13	SCALE STAFFEL CONTEST	John Hutchison	http://www.scalestaffel.org/
Flint, MI	Apr 13	CLOUDBUSTERS OUTDOOR CONTEST	Winn Moore	winn_moore@yahoo.com
Kent, OH	Apr 26-27	CFFS KSU INDOOR CONTEST & RECORD TRIALS	Mike Zand	imzand@hotmail.com
Pensacola, FL	Apr 26-27	FIESTA OF FIVE FLAGS MODEL AIRPLANE CHAMPIONSHIPS	Jack Coyle	jandpcoyle@gulftel.com
Washington, DC	May 4	MAXECUTORS NATIONAL BUILING MUSEUM INDOOR CONTEST	Glen Simpers	301 843 2896 grfreeflight@hotmail.com
Pontiac, MI	May 4	CLOUDBUSTERS INDOOR FLING	Dan Olah	248 542 8144 danielolah@wowway.com
Geneseo, NY	May 17-18	WNYFFS SPRING OPENER (Rain Date - May 31 - June 1)	WNYFFS	http://wnyffs.org/
Raeford, NC	May 17-18	KUDZU / CAFFA / DC MAXECUTERS KUDZU CLASSIC	Stew Meyers	stew.meyers@verizon.net
Elyria, OH	May 18*	CFFS OUTDOOR CONTEST (*Note, date is provisional, check with Jim	Jim Gaffney	jamesfgaffney@hotmail.com
Flint, MI	May 24	CLOUDBUSTERS OUTDOOR CONTEST	Mike Welshans	mbwelshans@aol.com
Wawayanda, NY	May 24-25	FOUNDING FATHERS MEMORIAL MEET	Fast Eddie Pelatowski	203 735 9494 epelatowski@gmail.com
Whitesburg, Ga	June 21	TTOMA FAC Outdoor	Karl Hube	fhube@bellsouth.net
Muncie, IN	June 21-22	McCOOK FIELD SQUADRON ANNUAL FF CONTEST	Tom Ersted	937 336 5760 flyingace46@yahoo.com
Geneseo, NY	Jul 16 - 19	**FAC NATS**	Ross Mayo	CinC@flyingacesclub.com
Muncie, IN	Jul 28-Aug 1	AMA / NFFS FREE FLIGHT WEEK	AMA / NFFS	Details TBA
Muncie, IN	Sept 11- 12	**FAC OUTDOOR CHAMPIONSHIPS**	Ralph Kuenz	rdkuenz@yahoo.com

Spread the word! *Send your contest info to the editor. To get your event listed on the website contest page, send your stuff to our esteemed Webmaster, Dave Mitchell. Contact information is on the Membership Information page.*

Photo Captions:

1 - It's a grainy scan of an old photo, but worth a look as it captures a great moment in Free Flight. It came to us via Lindsey Smith with this comment: *Ah Yes I remember it well...That was when this poor benighted Limey realized what real free flight scale was about !* The event was an unofficial trimotor mass launch at the '92 Nats featuring models by Don Srull, Vance Gilbert, and Dave Rees.

2 - A Polar Vortex Flier! The recent arctic weather inspired Tom Hallman to go outside and do some flying. He soaked an old FAC T shirt with water and once it froze solid, folded it into an aeroplane and launched it. The blue cast to the photo is probably due to the fact that the camera was cold too!

3 - Jim Norfolk sent a few pics of his latest projects. Here's an unusual subject: a Junkers Ju 187 "Super Stuka" from the Luftwaffe '46 website.

4 & 5- Sten Perrson recently joined the FAC, and will be recruiting some new members in his native Sweden! One of his modeling buddies, identified as "Boris" is a Finn, and is already in the zone with his rubber powered BV 141 and Gladiator. The Thulin 'K' monoplane is from Sten's own bench. With a span of 35" it was built from a popular kit from the mid-fifties, its original Webra Piccolo .049 diesel has been replaced by a modern electric motor.

6 - Closer to home, F.S. Gilbert brought this very nice Sopwith Dolphin to a recent indoor contest at Glastonbury, CT.

7 - Here's a group shot of the NY gang that flies every January 1, regardless of what Mother Nature (or common sense) might suggest. The pic came from Matt King so we can assume he's not in the pic because he was behind the camera.

8 - More from Glastonbury...Tom Nallen II shows that a Guillow's Chipmunk can be finessed into a good looking, and good flying model.

9 - F.S. Gilbert came to the Glastonbury gym with some very handsome models and this caricature Bostonian Mustang that flew really well.

10 - John Koptonak with his Lockspeiser LDA-1, ready to defy the walls at Glastonbury.

11 - Tom Nallen II's Nieuport is built from an enlarged and somewhat cleaned up version of that famously elegant Dallaire plan. (Be careful as the two wing halves are not mirror images.) This one's right at 13". All photos from the CT indoor contest are from Peter Kaiteris and Tom Nallen II

12 - The Cloudbusters had some fun with the Cub Scouts recently, hosting an AMA Cub (Delta Dart) building and flying session. Looking like a general directing his troops, Cloudbuster Treasurer Dan Olah explained launch technique to a brand new modeler.

13 - Cloudbuster V.P. Winn Moore helping a trio of scouts. The look on their faces as an AMA Cub circles overhead is priceless.

14 - Ralph Kuenz helping a scout wind. Hard to tell which one of them is having more fun. All photos from the Michigan Cub Scout event are from Bruce Thoms.

Thanks to all who submitted photos and captions!

USA Science and Engineering Festival

The D.C. Maxecuters will again have a booth at the USA Science and Engineering Festival that is coming to Washington D.C. Planned for April 25, 2014 to April 27, 2014, this is an opportunity to talk to the general public about the fun we have with the hobby. When we did this in 2012 we passed out about one thousand brochures and old model magazines, and talked to between 5,000 and 10,000 people. This is a high voltage event of youthful energy and certainly energized my interest in talking to people about modeling. **The club needs people to man the booth**, provide some models to display (the models hung on an EZ-Up worked wonders last time), and ideas to better explain our unusual fascination with things that fly. Come spend some time in Washington in the springtime. You're sure to have a great time!

Glen Simpers DCMaxecuters@hotmail.com 301-843-2896


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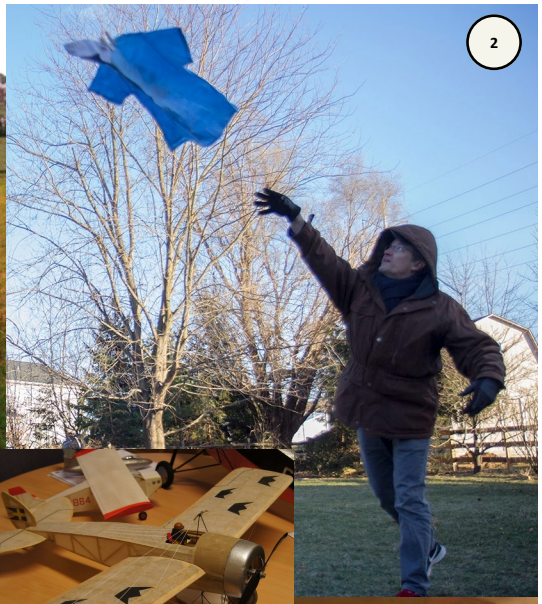
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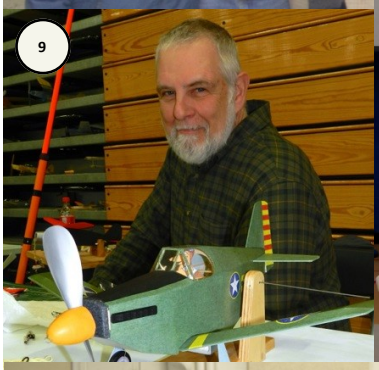
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Above: Vic Nippert was among a small band of happy fliers observing an annual January First Free Flight tradition. Despite the freezing weather in rural NY, this group made the trip to the field and got some air under their models. Note the built up structure in that Jet Cat wing. **Below:** Flying in the Two Bit +1 event at Wawayanda last Fall, John Stott waited about ten minutes for a lull in the wind to launch his veteran Skokie.

FAC News #276

4 – 5 T
6 T
7 T
8 T
9 T
1/16" formers

1 – 2 T
1 B
2 B
3 T
1 -2 S
3 S

trim center rib

Spars on bottom of top wing and top of bottom wing

1/8" L.E.
1/16" sq. spars
1/16" ribs
1/16" X 1/8" T.E.

1 2 3 4 5 6 7 8 9

1/32" balsa deck to rear of cockpit

Engine, trim to fit, and glue to cowl

Tips: cane or 3/32"" sq. wet and bend

control separation

use 7" – 8" prop

inter plane struts shown full length

windshield

dihedral angle

struts: 1/32 ply or bass
connect w/ soft wire
color Kaki

white " A/6906" on Khaki rudder

blue white red

control wires: silver thread

Cockpit coaming twine or reed

rear strut view

white "5" and diamond

A/6906

control horns: bond paper

silver

1/32" piano wire

1/32" balsa or paper over wire

1/32" I.D. alum. Tube

cross grain 1/8"

1/16" I.D. brass tube rough up and glue

1 ¼" wheels

axle 1/32 piano wire glue, tissue wrap to spreader

spreader bar

Paper cone: crease for spokes, cut here to center o'lap and glue. Color khaki.

front strut view

black tissue to simulate opening

rear

front

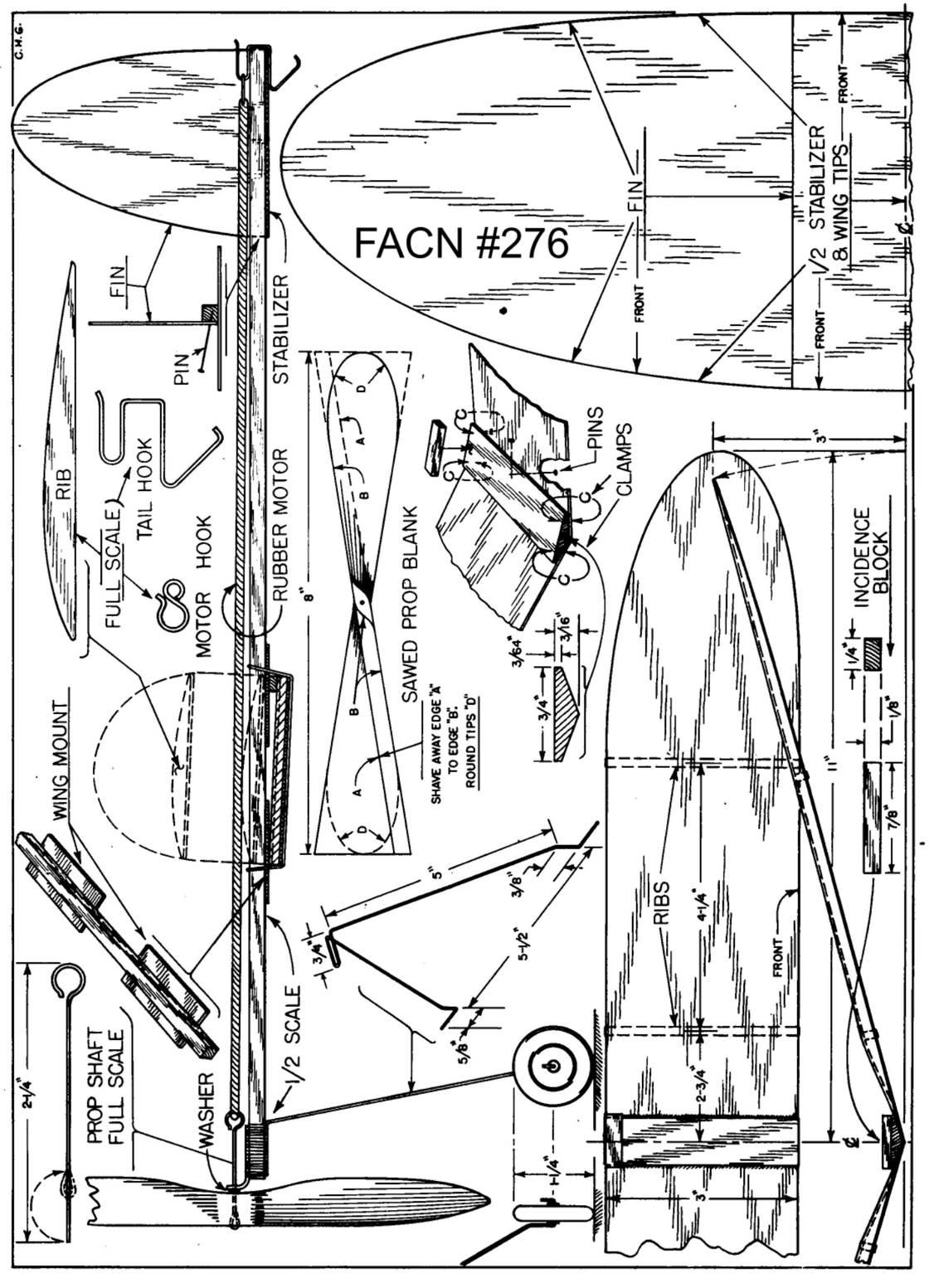
1/32" piano wire

bend line

Color: upper and vertical surfaces khaki, lower tan

1/16" structure

Sopwith 1 ½ Strutter
by Ralph Kuenz for
Cloudbuster Newsletter



CLOUD TRAMP

by CHARLES H. GRANT

This may be a beginner's model but its performance commands respect. Put one together and fly it whenever all the complicated stuff gets you down. All balsa.

Why are you a model fan? Is it because you enjoy the frustration born of balky gas engines with only an occasional flight; because you enjoy the labor of building intricate structures; because you thrill to the tug of a motorized "yo-yo," roaring through repeated circles at the end of restraining control lines; or is it because you reap deep satisfaction from *repeated, realistic, completely stable free flights* requiring *minimum construction effort* and *damage repair?* If you prefer the latter, build this simple model. It will give you as many as 20 to 30 thrilling flights in an afternoon, without breakage, and all within the bounds of a baseball park.

Longer flights of a minute or more to altitudes of more than 300 ft. can be ob-tained by lubricating the motor with glycerine, stretching it 2-1/2 times its length and winding it to 900 turns. The motor should not be wound *more* than 400 turns when it is dry and wound by hand.

Study the plans carefully and before you start building be sure you know the exact function, material, size and shape of each part and how all parts are placed and held together in the assembly.

Start with *balsa sheet*: medium hard, 40 in. total length, 3 in. wide, 3/64 in. thick. From this, cut the wing, 22 in. long; the stabilizers, 10 in. long; and the fin, 3-3/4 in. high. Shape the wing tips, the stabilizer and fin outlines all according to the patterns given full scale in the plans.

From *balsa sheet*, medium hard, 4 in. long, 3 in. wide, 1/8 in. thick, cut wing incidence block and four ribs to the exact outline given in the plans. Then use:

Balsa: medium hard, 4 in. long, 3/4 in. wide, 3/16 in. thick. Cut wing center block from this to length and cross-section shown in plans. Sand the "V" bottom to precise shape.

Balsa sheet: hard, 2 x 2 x 1/16 in., from which cut two wing mount strips, 1-5/8 in. long and 3/4 in. wide, *with grain running crosswise*.

Balsa stick: hard balsa, 18 in. long, 1/4 in. square cross□section.

Sawed balsa propeller: 8 in. long. Shave down blade faces, round tips, sandpaper all surfaces and "balance" on pin through shaft hole. Cut trailing edge at hub to concave shape shown in side assembly view.

Molded plastic propeller: 8 in. long. (This may be used if balsa propeller is not available but flights will be shorter because of greater weight and lower pitch of types now on market).

Wheels: hard wood, 1-1/4 in. dia., 1/4 in. thick.

Hanger-bearing for prop: steel, "L" shape, legs 13/16 and 5/16 in. long, cross-section half round 3/32 in. wide.

Washers: two, brass, 3/16 in. outside dia., 3/64 in. hole (min.), on propeller shaft between propeller and bearing.

Steel wire: hard (not annealed), 21 in. long, .032-.035 in. dia. From this make landing gear, prop shaft, tail hook, and motor hook according to size and shape given in plans, (Prop. shaft, tail and motor hooks are shown full scale).

Rubber for motor: 10 ft. long, 1/8 x 1/30 in. (Brown 1/8 in. flat is common designation).

Quick drying, waterproof model cement.

Miscellaneous implements, as pins, clothes pin spring clamps, sandpaper, pliers, knife, razor blade, etc.

To assemble, crease wing sheet at exact center and cement "V" center block in the crease. Hold in place until dry with pins and clamps as indicated, and support wing tips at dihedral angle shown until dry.

Cement four wing ribs to under surface of wing: hold with pins and clamps until dry.

Cement incidence block to wing "V" block rear edge.

Cement stabilizer and fin to motor stick: hold until dry with pins.

Cement prop hanger bearing to *top* of motor stick and bind firmly with thread.

Bind landing gear to underside of stick below bearing with thread, using plenty of cement to coat joint.

Put wheels on axles and bend up wire ends with pliers.

Cement tail hook to rear of motor sticks.

Pass end of prop shaft through prop, bend over end into loop and drive loop back into front face of hub after applying cement to loop.

Cement wing mount strips to motor stick at location shown.

Fasten wing in place on mount with 2-1/2 in. rubberband (use two if required).

Place washers on prop shaft and hook shaft into bearing.

Hook motor "S" hook over tail hook and string *four strands of rubber* through the prop shaft hook and the "S" hook, without tension. Tie ends of rubber together and locate knot at rear end of motor by adjusting the rubber loops.

The motor should include four strands of rubber, (two loops). One extra strand may be used *with Sawed Balsa Prop when ROG take-offs and high climbing rates* are desired.

Care in constructing, finishing and aliening your Cloud Tramp will give you the most reliable and best performing model plane you have ever built, Don't let its simplicity fool you.

To fly, balance plane on *ends of two fingers,* supporting plane at two points, each about 2 in. from and on opposite sides of the center wing chord from one another and just half way between leading and trailing edges.

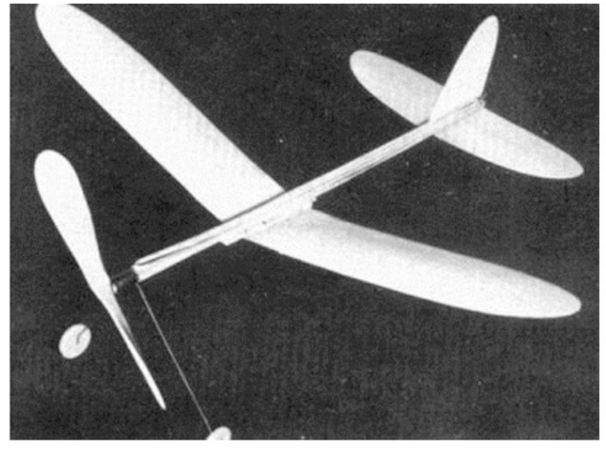
If plane does not balance level, move the wing back and forth along the stick as required to bring plane in balance when supported on fingers.

When in balance, glide plane gently from hand launch.

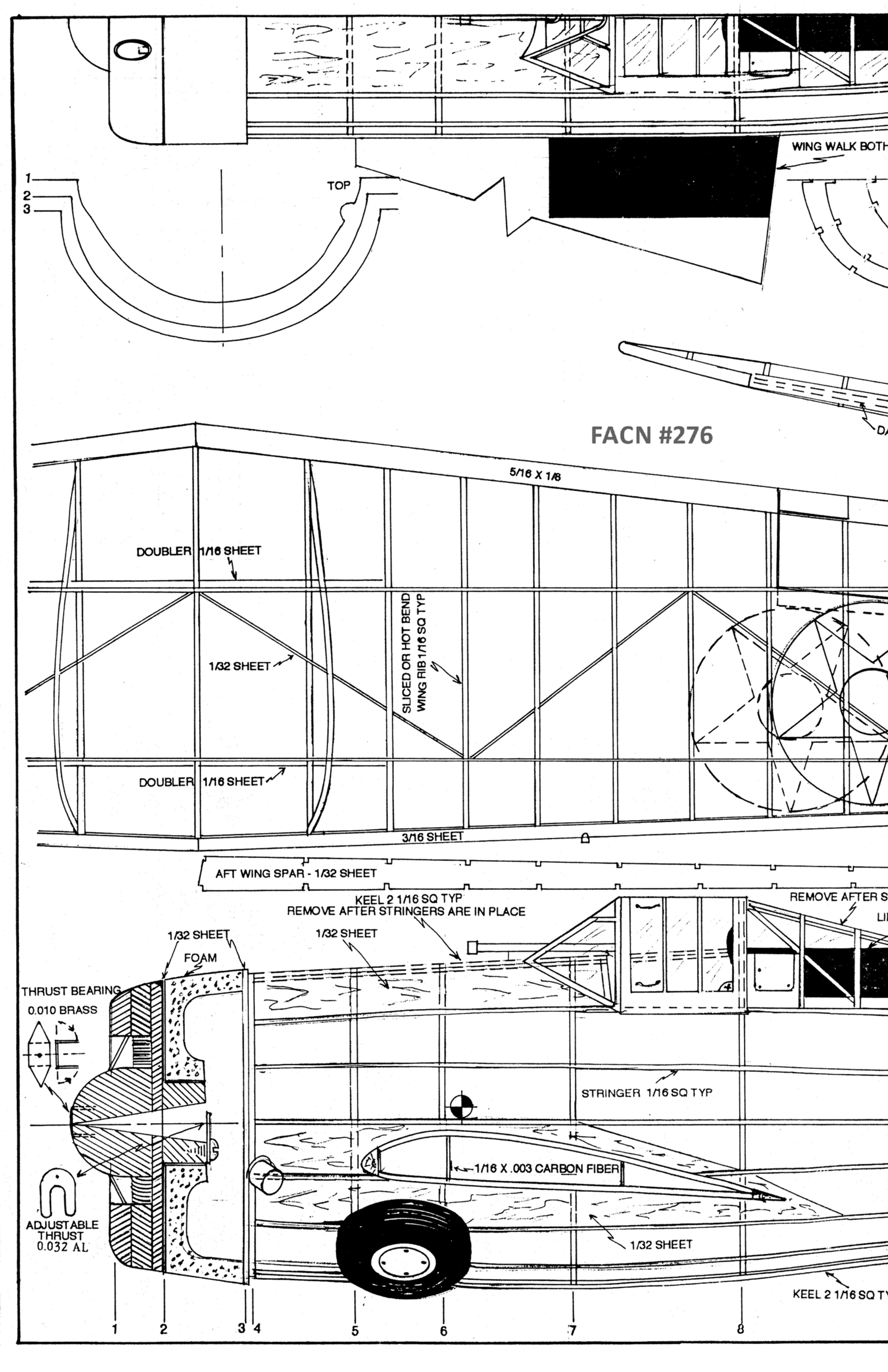
When glide is smooth and even, wind motor by the propeller about 100 turns and hand launch gently. If plane flies without stalling or diving, wind about 300 turns and launch for a long flight.

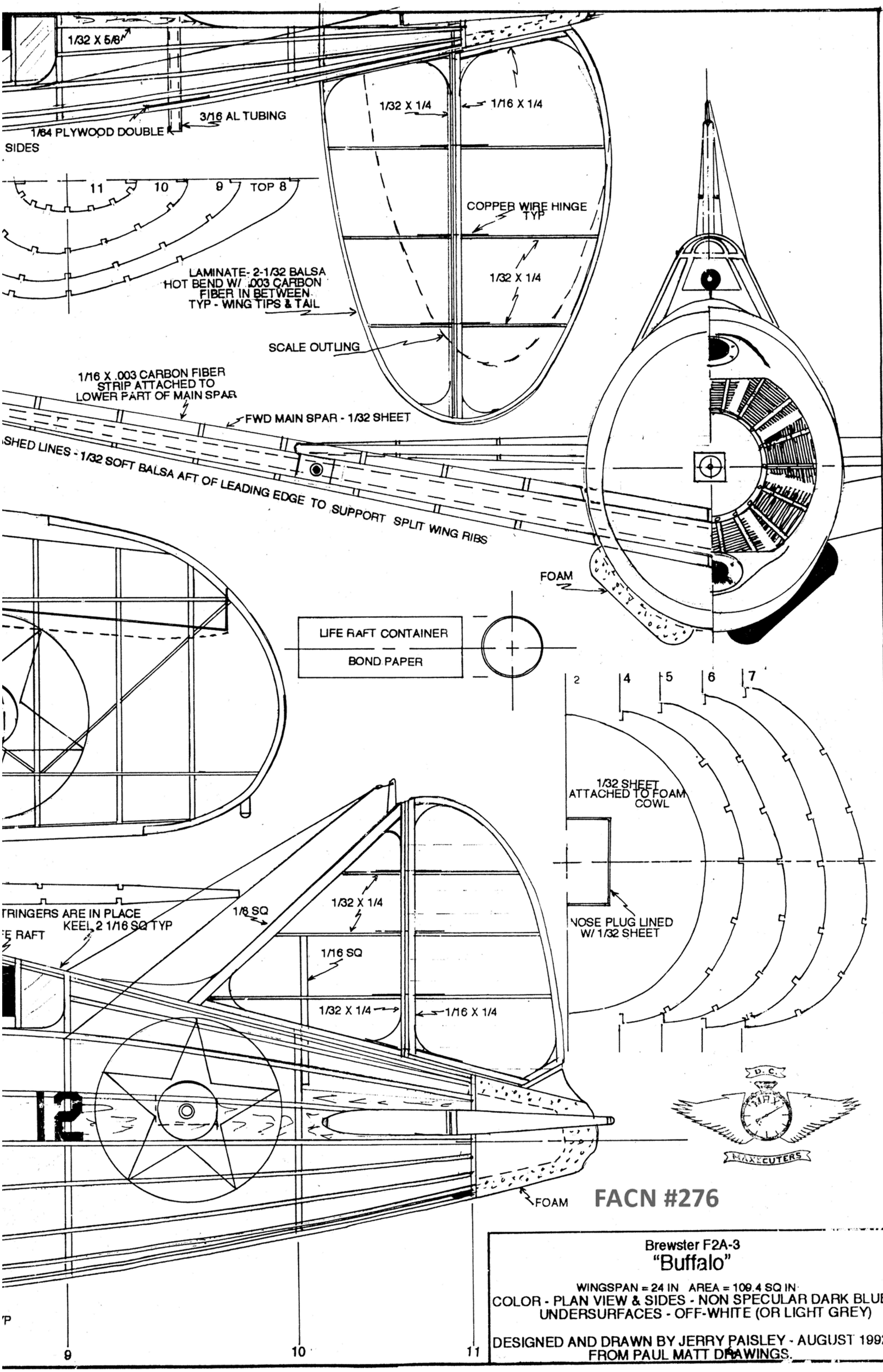
If plane stalls, move wing back 1/4 in. If it dives, move wing forward 1/4 in. Then wind it again and fly, adjusting wing on stick until flight is even.

For forty years, Charlie Grant has experimented with fundamental rubber powered models like the Cloud Tramp. The proportions and areas in this photograph make for sport performance second to none.



Scanned From August 1954 Model Airplane News
Thanks to Gary Hunter for the scan from his "Plan Page"
http://www.theplanpage.com


WING WALK BOTH
1
2
3
TOP
FACN #276
5/16 X 1/8
DOUBLER 1/16 SHEET
1/32 SHEET
SLICED OR HOT BEND
WING RIB 1/16 SQ TYP
DOUBLER 1/16 SHEET
3/16 SHEET
AFT WING SPAR - 1/32 SHEET
KEEL 2 1/16 SQ TYP
REMOVE AFTER STRINGERS ARE IN PLACE
1/32 SHEET
1/32 SHEET
FOAM
THRUST BEARING
0.010 BRASS
STRINGER 1/16 SQ TYP
1/16 X .003 CARBON FIBER
ADJUSTABLE
THRUST
0.032 AL
1/32 SHEET
1
2
3
4
5
6
7
8



FACN #276

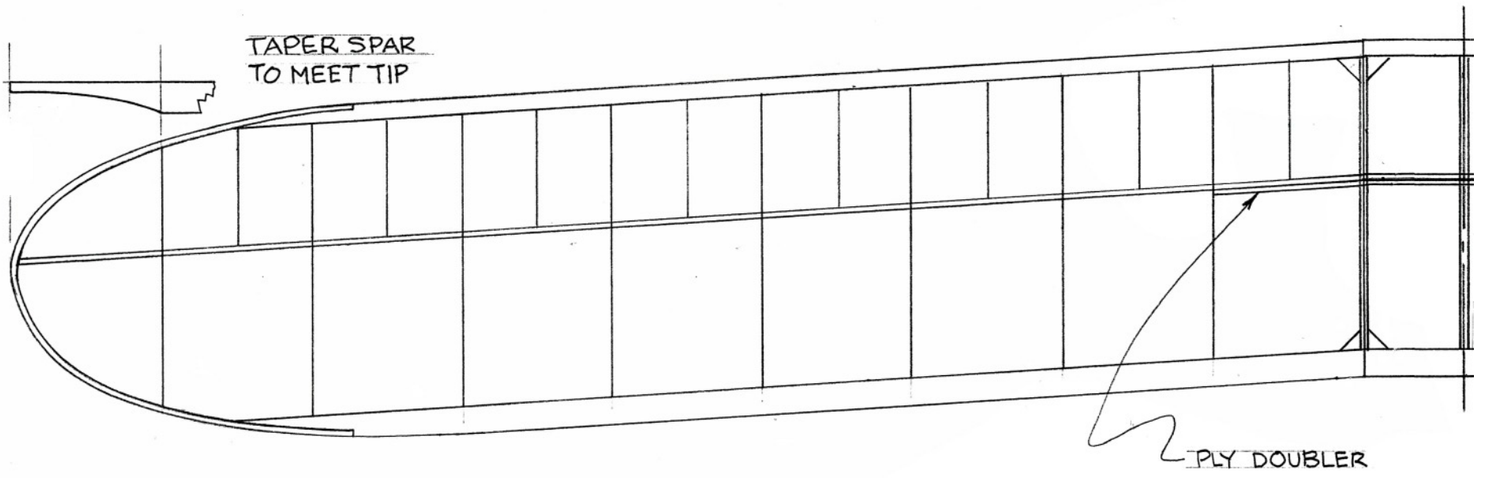
Brewster F2A-3

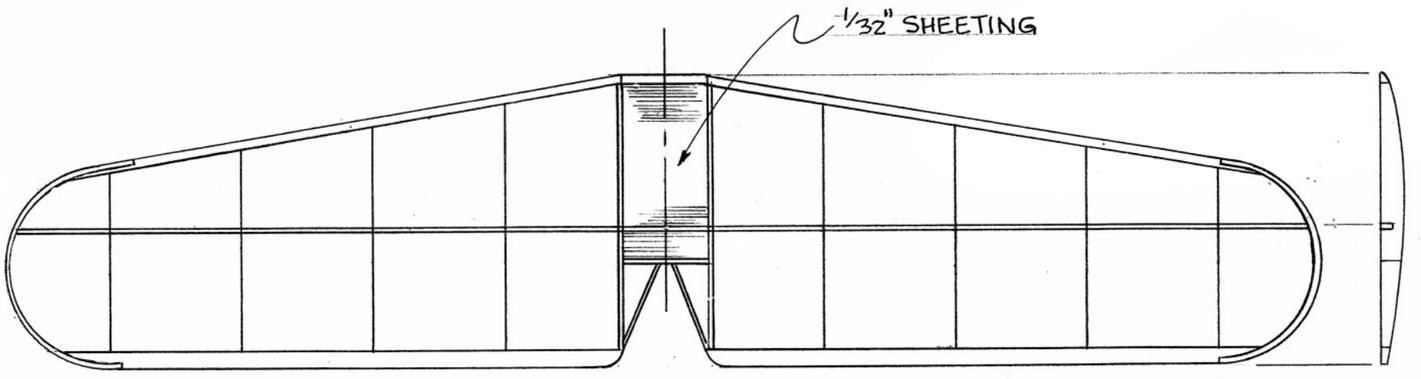
"Buffalo"

WINGSPAN = 24 IN AREA = 109.4 SQ IN

COLOR - PLAN VIEW & SIDES - NON SPECULAR DARK BLUE
UNDERSURFACES - OFF-WHITE (OR LIGHT GREY)

DESIGNED AND DRAWN BY JERRY PAISLEY - AUGUST 1992
FROM PAUL MATT DRAWINGS.



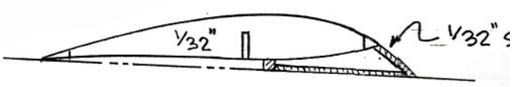


STAB.

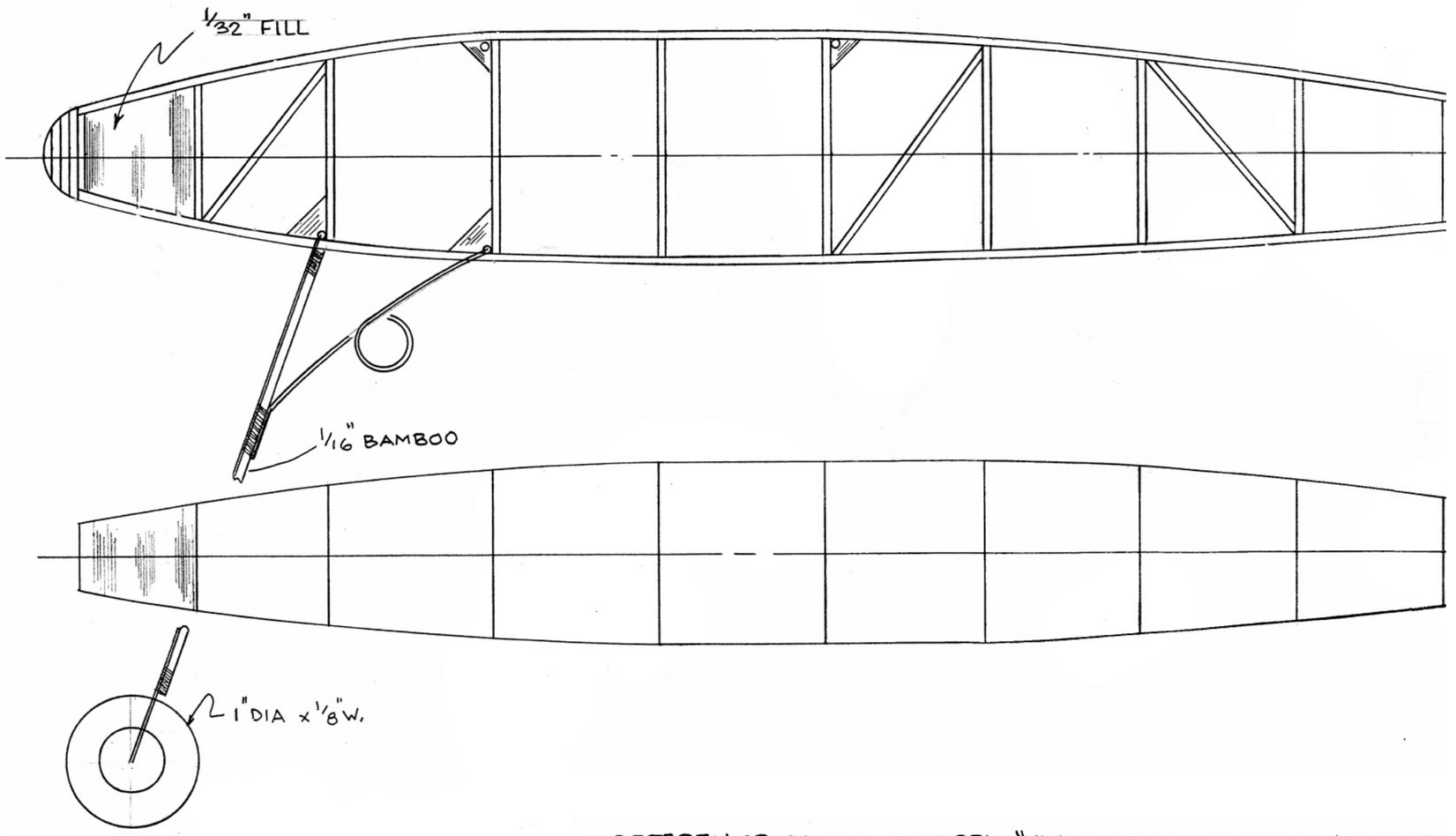
L.E. 1/16" SQ
T.E. 1/16" x 1/8"
SPAR 1/32" x 3/32" > 1/32" SQ.
RIBS 1/32" SHT.
TIPS 1/32" x 1/16"

FACN #275

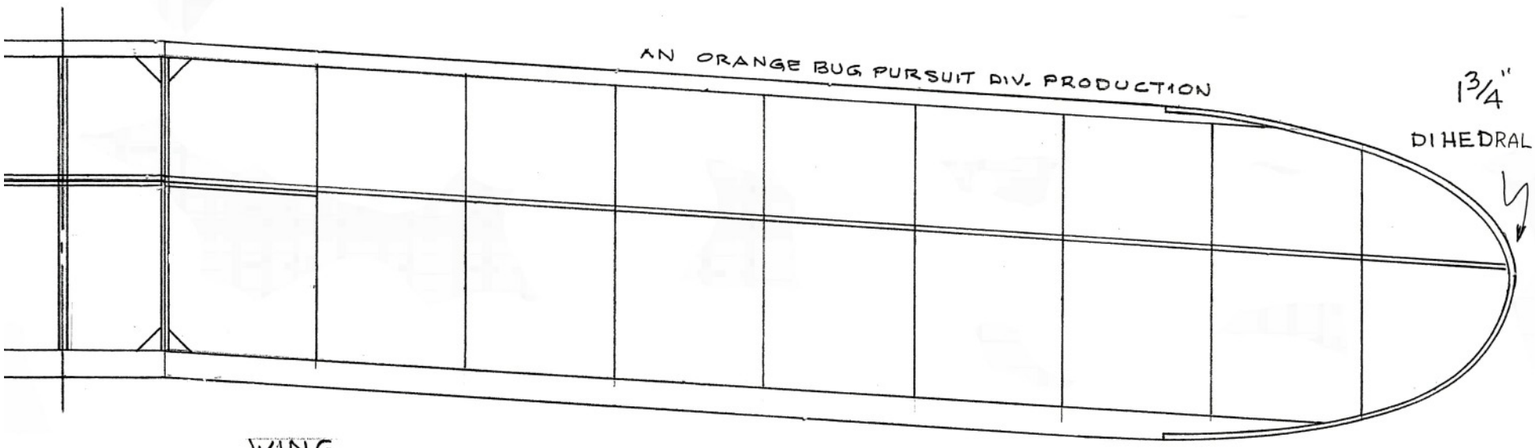
RAF 32
WING SECTION
1/16" SQ INCIDENCE
BLOCK



FUSELAGE
1/16" - STRINGERS,
UPRIGHTS & SHEETING



REFERENCE DWG: OCT, 1991 "FLYING MODEL DESIGNER & CONSTR



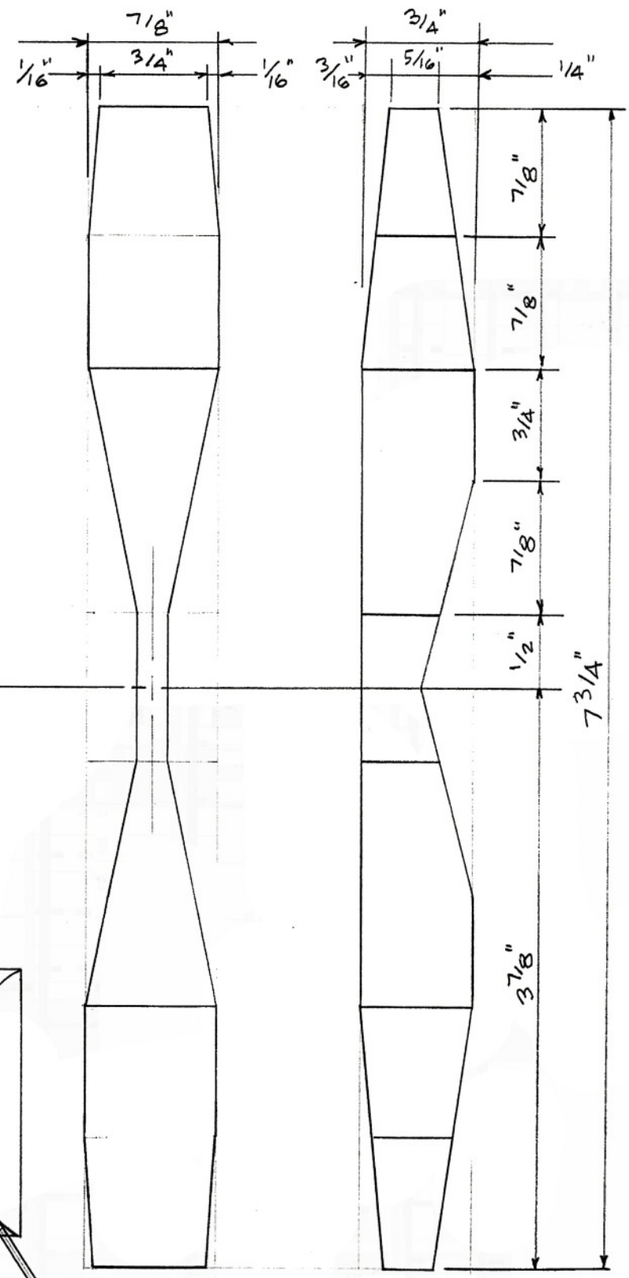
WING

L.E.	3/32" SQ
T.E.	1/16" x 3/16"
SPAR	1/16" x 3/16"
RIBS	1/32" SHT.
TIPS	1/32" x 1/16"

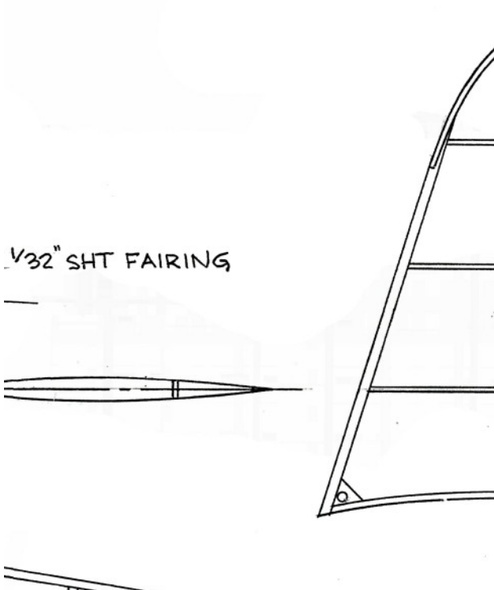
FIN

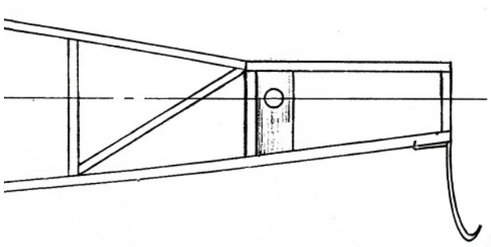
TIP	1/32" SQ
L.E.	1/16" SQ
T.E.	1/32" x 1/8"
SPAR	1/32" SQ
RIBS	1/32 x 5/32"

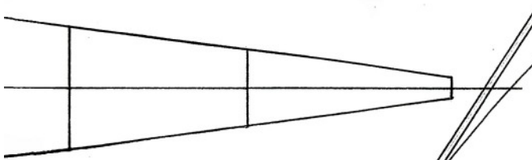
FACN #275

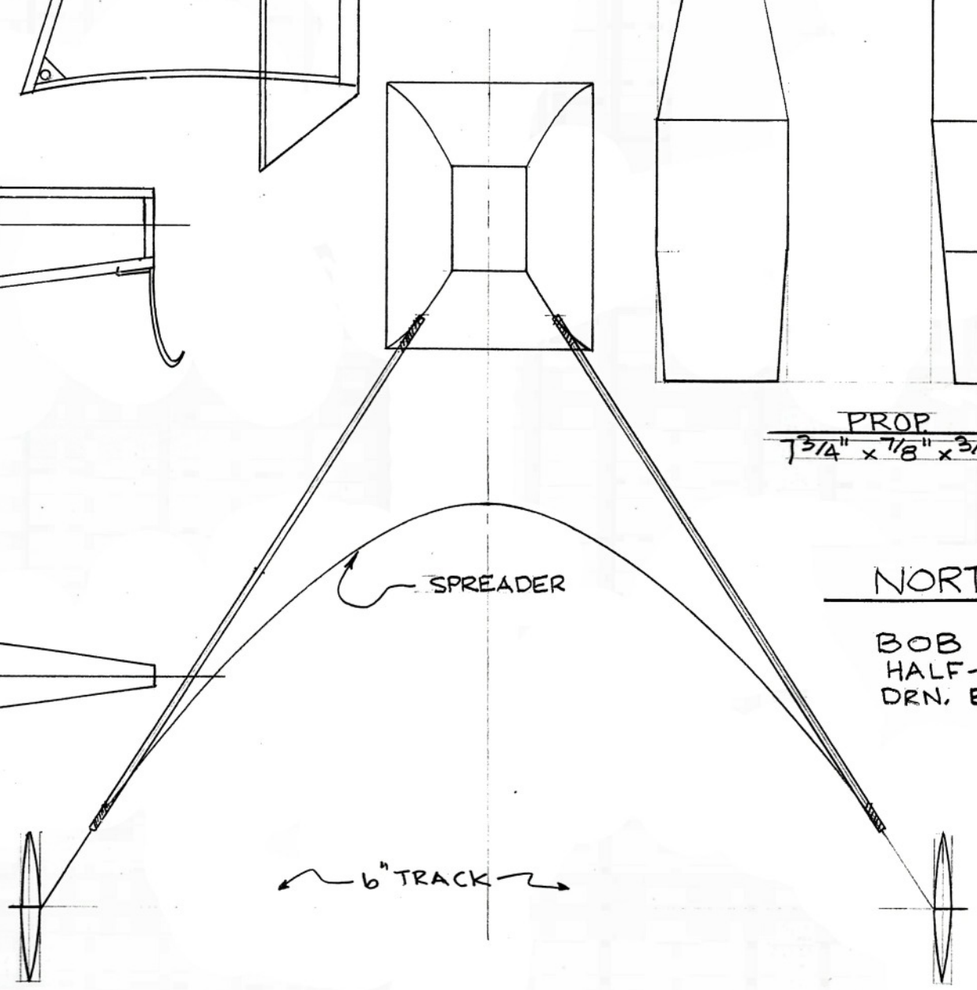


PROP
7 3/4" x 7/8" x 3/4"









NORTHERN STAR
BY
BOB COPLAND
HALF-SIZE WAKEFIELD
DRN. BY D.A. PISHNERY
9/13/10

"NSTRUCTOR"

GLASS BEAD

PIN HEAD HOLDS RUBBER BAND FOR MOVABLE WING MOUNT

1/16" ALUM. TUBE

BIND WITH THREAD-RUB ON PLENTY OF GLUE!

.031" OR .045" MUSIC WIRE LANDING GEAR

USE 1" DIA. PECK WHEELS

MODEL FLIES ON 7" OR 8" PECK PLASTIC PROP.

PYLON - 1/16" SHEET SIDES OF FUSELAGE. DO NOT GLUE TO FUSELAGE.

WING

WING MUST BE FREE TO SLIDE FOR ADJUSTMENTS IN FLYING

3/16" X 3/8" MED. BALSA

OPTIONAL SPLICE

3/16" SQ. WING SLIDER-GLUES TO PYLON SIDES - NOT TO FUSELAGE

STAB COVER TOP	SIDE ONLY
3/32" SQ.	BALSA

FACN #276

ELEVATOR TAB

W-6
W-5
W-4
W-3
W-2
W-1

LEAVE EXTRA TO TRIM OFF FOR EXACT FIT

1/16" BALSA SHEET RIBS

THREAD WRAP

SCRAP FILL

BIT OF PAPER CLIP

RUDDER COVER ONE SIDE ONLY

CARD STOCK

ELEV. TAB

PIN

3/32" SQ. HARD

3/32" SQ. BALSA

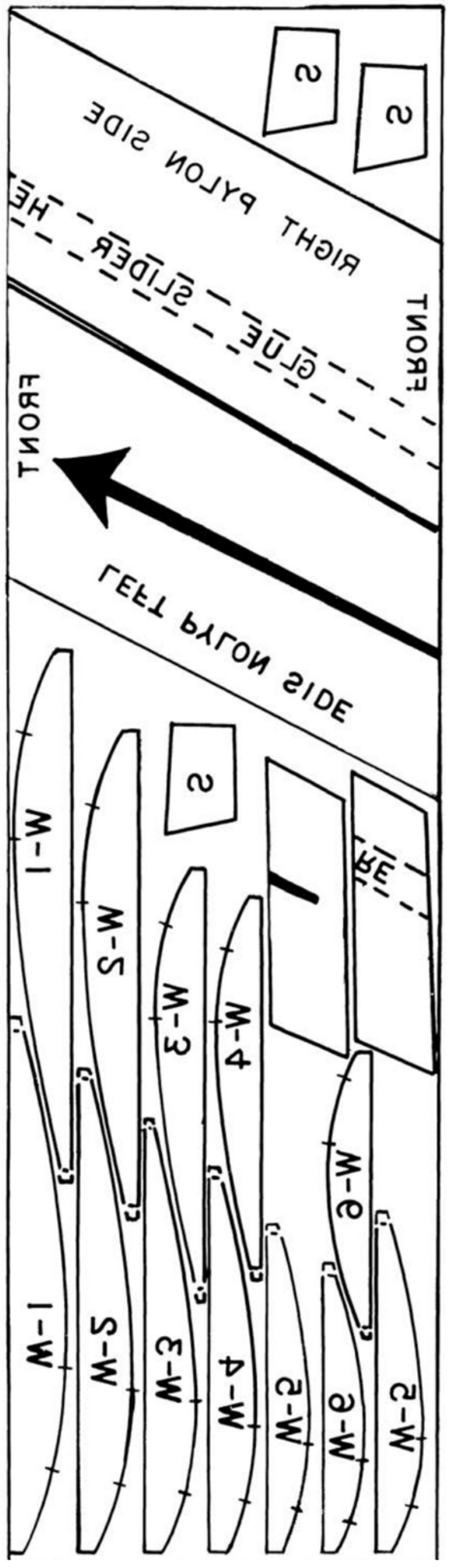
LEFT WING COVER BOTH SIDES

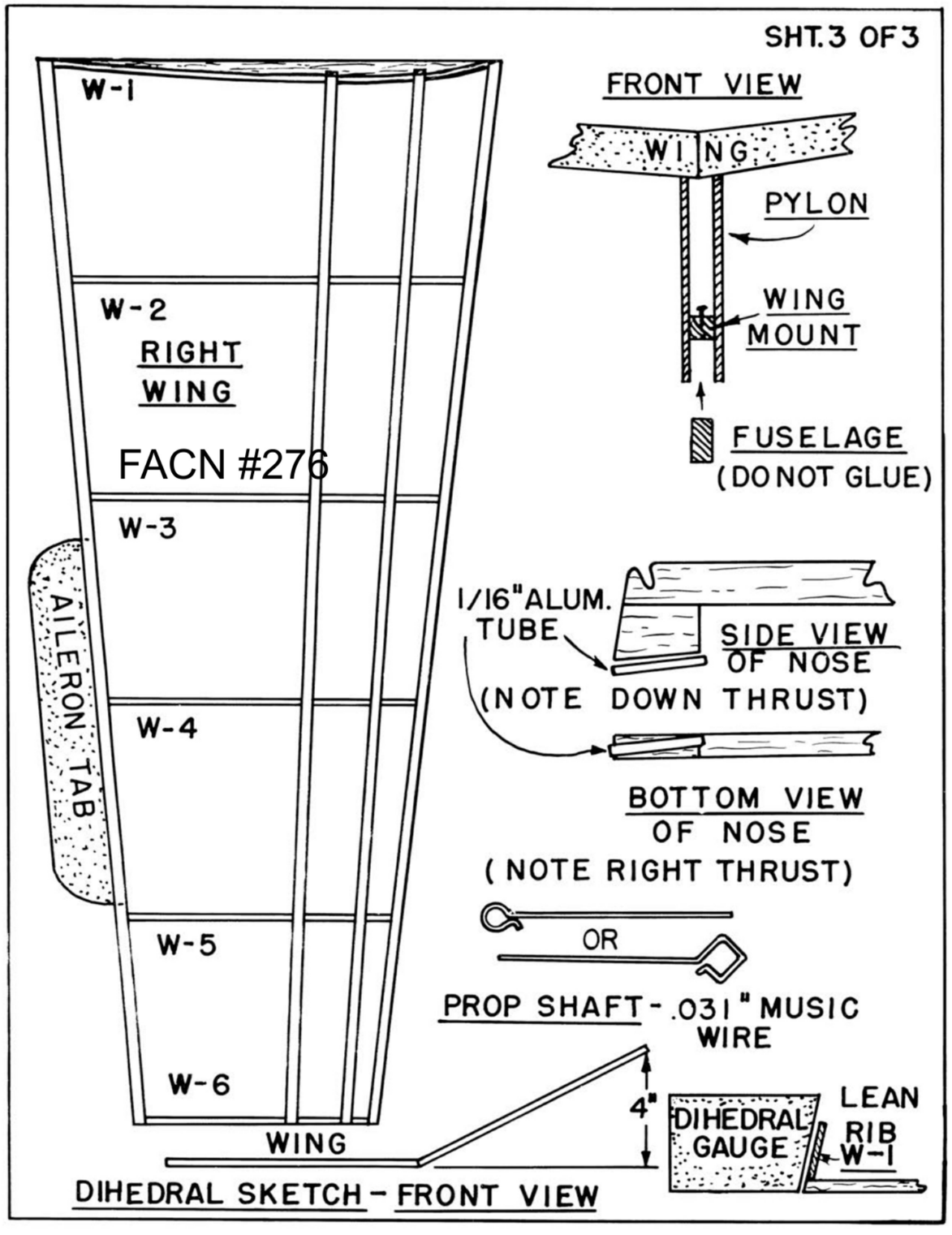
W-6 W-5 W-4 W-3 W-2 W-1

AILERON TAB (2) CARD STOCK

SKY BUNNY

Bill Warner 1988
Model Builder Magazine





FIRST INTERNATIONAL

EASTER SKY BUNNY

POSTAL CONTEST

One design, one day postal fun contest, 12:01 AM to midnight your time, Easter , 2014. Entry fee a $5. bill if you can afford it to cover mailing, ribbons, certificates. Any left over will go to the ASPCA, not Warner's beer fund..

RULES:

1. Open to Bill Warner's Sky Bunny design, no limit to number of entries. Double-covered wing, 17 3/4" span, stock planform and wood sizes.

2.Classes: Jr.(up to age 12), Sr. (13-18,) Open (up to age 65,) and Old Fart (over 65)

3.No limit as to number of flights outdoors or indoors. Your best time counts.

The book "Building the Sky Bunny" from the Hey, Kid series is still available on eBay and on Amazon from under $5 to $25.

The kit is available from A2Z on the internet at https://www.a2zcorp.us/store/ProductDetailNP.asp?Cguid={C95ECF3B-064B-43FE-A9BE-BEE0E467786B}&ProductID=4270&Category=ModelKitsByBrand:Peck%20Polymers for $13.50 - laser cut.

.....

ENTRY / RESULTS FORM - send within 2 weeks after your Easter flights to the above address.

_____name _____ best flight time

_____ address

Enclosed: _____photo _____ $5 suggested to cover costs - sliding scale
To: Bill Warner, 1370 Monache Ave, Porterville, CA 93257