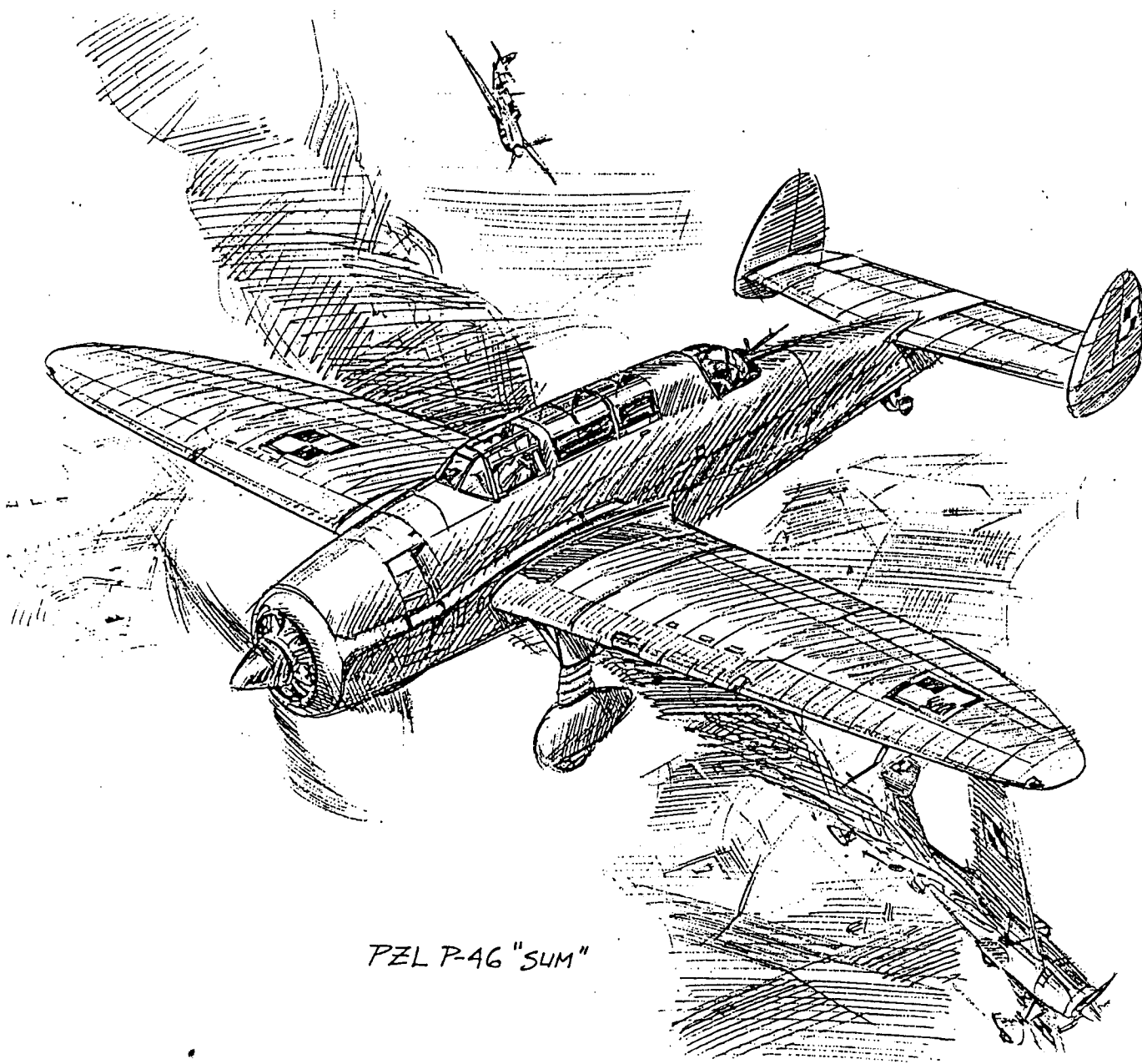


FLYING ACES

Club News

ISSUE NO. 252-178 Mar./Apr. 2010



PZL P-46 "SUM"

B. M. M.

NEWS ON THE WING!

WANTED! SECRETARY FOR THE CinC.
QUALIFICATIONS: Must be able to see into the future, type faster than my two index fingers and be able to proof read my thoughts and writings flawlessly. Yes Clubsters, once again I have been guilty of not being able to foresee every potential scenario, guilty of improper proof reading and infected with typositis.

I don't recall how many times I've typed my email address for this news letter, but the last time was the first time...to the best of my knowledge...that I typed it incorrectly. Please note: facghq@verizon.net is correct.

As I admit my secretarial short comings, here are a few typos that made their way into or out of the rule book: On page 22 in regards to minimum wing span for combat models; the correct size is 13 inches. On page 24 in regards to final score for Jet Catapult models; it is the total of scale points plus bonus points plus fight points. Also in Jet Cat, rule VI - C should read; Rubber shall be ONE LOOP of 1/4 inch or TWO LOOPS of 1/8 inch. On page 33 in regards to Phantom Flash the prop rule "B" should read: One piece molded plastic prop only. On page 29 in regards Pseudo Dime Scale balsa sizes please add this note: Engine cowls may be 1/32 in. sheet.

While on the subjects of Dimers, here's a note to all CD's: Dime Scale and Pseudo Dime Scale may be flown as ONE event at a contest where there are not enough models for either event if flown separately to qualify for a Kanone. It is hoped that the smaller clubs will one) encourage the building of more Dimers and two) that they alternate the scoring system until there are enough Dimers to fly both events. CD's...please note on the Kanone Report which scoring system was used for your event.

And now on the "lighter side" of announcements...a Contra-Prop Mass Launch Event has been added to the flying at the NATS for Saturday, July 17. Organizers and a sponsor have already offered their support so get those egg beaters ready! John Regalbutto is even offering special prizes to the five top placers. Thanks John.

Also added as we have a generous sponsor will be the French Design Event. We'll launch at 1:30 P.M. on Wednesday.

The Stealth Squadron has once again offered to do all the 15% rule weigh ins and will be rather busy at the NATS, so we are moving the AT-6 Enduro to Thursday's schedule to help them spread out the work load. It's the least would could do seeing how they are sponsoring the event.

Speaking of sponsors...\$81.00 is all it takes to sponsor an event at the FAC-NATS. That's five plaques and verbiage: "In Honor of..." or "In Memory of..."

Vendor tables are \$15.00 each like last year. Please contact me for both of the above PDQ!

In this issue are nominees for the 2010 FAC Hall of Fame. Starting next year with the Jan / Feb issue of the FAC News, we will publish all the honored members as a regular feature. I have received several emails wanting to know if someone was already a member or not. I hope this action will inform and continue to honor those who have done so much for the FAC. Current HOF members are elsewhere in this issue.

I have also received requests that our plans list the issue in which they appeared. I'm sure our editor can manage that for you.

O.T. Solid Model Event will be "flown" at the NATS banquet. That's what happens when Ralph Kuenz goes off his medication for more than a few days. Here are the simple rules: Aircraft: Any area. Structure: carved/shaped from solid wood and sheet wood. Cabin area/windows may be painted silver to represent transparency. Props and wheels: may be wood, plastic or metal. Wing span: 10 inch max. Judging: at the usual time and place using FAC Rubber Scale Rules where applicable. High point finalists will have "Fly-Off" at the banquet to determine winner. Vance Gilbert will act as flight director for the F-O. For you spectators, the finalist will be wearing a leather helmet with goggles and a flowing white scarf signed by Jimmy Doolittle, James Stewart and others provided by Don Campbell. This info and a great article on building solid models are in the latest news letter of the Cloudbusters. Need a copy? Contact Ralph Kuenz, 215 W. Orchard, Shepard, MI 48883-0402 or rdkuenz@yahoo.com.

EVERYONE! PLEASE NOTE: The flying schedule for the NATS will be adjusted. Full details will be in the next issue. Until then, keep it simple and see you soon.

Ross P. Mayo, FAC, CinC.

We expect to be out of the dark ages and be completely on the computer as of this newsletter. We have had a lot of help from one of our suppliers. There should be no more receiving two copies.

Receivedg an e-mail from a long standing member who said the grass is growing and the flowers are starting to bloom. Many of you may remember him singing a song he wrote about the FAC at one of our banquets. He calls himself Uncle Bill Warner from California. In a later newsletter we will print a copy of the song.

Received an e-mail from Dave Franks regarding Dave and Marie Rees. The first assisted living center they where at did not work out and they are now in a new home. They would love to hear from all you FAC'ers. There address is The Lodge, Box 233, S. Main Street, Wake Forest, NC 27587. There phone number if 919-435-1480.

Dave Franks made a great suggestion. If people would ask advise about any Dave Rees planes they are building or describe which were their favorites in the past. This way he won't be overloaded with calls.

Letter received from John Regalbuto. He is in the process of fabricating about 30 units of his latest crp version and would like to get the information into the newsletter in time for people to build for July, 2010.

The units are four-bladed, in-spinner crps using the KP tractor and pusher blades.

-----The larger size is 7" in diameter and

weighs--10 grams (includes the blades). It includes the Nason free-wheeler.

----- The smaller unit is 6" in diameter and weighs--9 grams(includes the blades). It includes the Nason free-wheeler, also.

Almost 2 grams can be removed from each unit by scraping the KP blades(which are relatively thick for electric motor use.)

----- A third crp unit is a peanut-sized, in-spinner, four blades which weighs-- 3.7 grams, blades included.

All units are priced at \$25 plus \$6 for Priority Mail shipping. Personal checks are acceptable made out to: John Regalbuto, 11 East Street, Georgetown, MA 01833. Phone 978-352-4834. His e-mail is regal33@verizon.net.

Many of you complained about the new Rules for the next two year. One of our members who admits he does complain wrote the following letter.

Ross:

I am sure you are getting hammered by the nit-pickers on little pet peeves they have about the rules, I have a few too but overall I think these are the best rules ever.

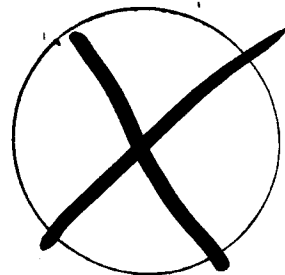
You've done a great job of spelling out the WWII armament and color markings. I get questions bout this stuff constantly and now I can just say "read the rules".

Glad you re-included the Mulligan Thompson -- it doesn't have an advantage over the Cessna CR2/3 anyway. (Maybe you need to ban shoulder wings ...ha ha ha)

Anyway lots of other good stuff in there-

NOTE: DUES STRUCTURE AS OF 1/1/2008 BELOW

IF THE CIRCLE ON THE RIGHT HAS THE DREADED RED "X" IN IT, IT IS TIME TO RENEW YOUR MEMBERSHIP WHICH INCLUDES THE NEWSLETTER. COST IS \$18.00 PER YEAR IN THE U.S.A., COST FOR CANADA IS \$25.00 PER YEAR. COST FOR OVERSEAS IS \$30.00 PER YEAR. All in U.S. DOLLARS. SIX ISSUES PER YEAR, PUBLISHED APPROXIMATLY EVERY OTHER MONTH. PLEASE MAKE CHECKS PAYABLE TO: FLYINGS ACES CLUB, 3301 CINDY LANE, ERIE, PA 16506



-represent hard work by you and Board.
Kudos. Don DeLoach

Thanks Pres for the picture on the front cover of the newsletter. It is a beau.

Our printer left out part of the plan for the Cub which will be in this issue.

A note from Dave Stott: I have always thought that few designers of Embryo models have ever taken advantage of the wide latitude the specs allow and let their imaginations run rampant. Bear witness to the proliferation of rather characterless angular boxy types seen over the years. So, decades back, I wandered far off the compass course and came up with the design enclosed. As you might imagine, it never placed first. But, the reward comes not from gaining a Kanone, but in placing near the front of the pack with such a ship. In the end, I guess that when it comes to the "pack", I just don't run with it.

I have seen many of his models from a long time ago 1969 - 70's and often wondered if they would fly, but they did. I saw him fly these crazy planes and they did fly. Try something different and you might find a great plane.

Captain Larson let us know that David Dulaitis passed away and he is helping his widow sell his library. A copy of the listing is attached.

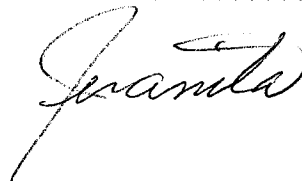
Bill Carey is looking for anyone who has experience in building Gullow's PBY Aircraft model and who built it for radio control. Please contact him at William Carey, 2290 Mud Camp Rd.,, Burkesville, KY 42717.

We had a Steve Patti plan in a recent newsletter and Kenneth Race is interested in obtaining more plans of the The Steve Patti Company. If anyone has any plans or knows how to contact this company, please contact Kenneth W. Race, 906 Liberty Court, Cupertino, CA 95014.

Approval has been obtained to use the New Castle Country/Police Athletic League gym in Wilmington, Delaware every Thursday from 11 a.m. to 1 p.m. till school is out in June. Rubber powered only. FAC'ers welcome.

A note from Al Cleve:

In regards to all the conversation I hear about proper methods for launching under windy conditions: For what it's worth, the system that has worked for me since back in the 1930's is to merely launch with little or no nose attitude and with a few degrees of bank in the direction that the model circles under power. The model, rather than climbing straight ahead into a stall, will instead turn away from the stall, for want of a better explanation, and settle into a normal climb.



**Random Assorted Plans for sale
Sold in groups of 50**

50 plans \$4.00/each inc. shipping
100 plans \$3.85/each inc. shipping
150 plans & higher \$3.50/each inc. Shipping.

**Contact: Juanita Reichel
(814) 833-0314**

2010 FAC HALL OF FAME NOMINATIONS

Here are the 2010 candidates. They qualify for what they have done to promote the success of the Flying Aces Club. You may only vote for three of the nominees. The top five vote recipients will be inducted at the FAC-NATS banquet on July 17th, therefore, get your votes to me by JULY 1, 2010: facghq@verizon.net or 4207 Crosswinds Drive, Erie, PA 16506.

1. **MARK FINEMAN:** A long time member who's FAC Spirit was nurtured by our Founding Fathers. Mark designs, builds, flies, photographs and then publishes his works for all of us to benefit from. His cottage industry supplies the FAC Family with nifty items not found elsewhere else. Each year he donates many of those items to the FAC Raffle. Mark also found the time to edit his local club news letter for several years.
2. **TOM HALLMAN:** Best described as an artist, Tom's models are gorgeous and really should be in museum display cases. In stead, his great flying models are on the flying field with us, in the air above us, and inspiring us to do better with our own creations. He'll take photos and write such an account of an event that those of us not there feel like we were standing beside him as he flew. Tom has also been CO-CD at the Wawayanda, NY contest for the past ten years.
3. **BILL HENN:** Fabulous designer...prolific builder...creator of unique and terrific flying models...intense competitor...and he shares all his found knowledge with any and all who take a moment to read his articles. He has been published in just about every model news letter across the country and now on the web. His writings cover every aspect from the prop to the tail and even include how to research and display one's documentation. The FAC could use more Bill Henn's.
4. **DICK HOWARD:** Although no longer with us, his nickname says it all: "King of the Twins." It's a safe bet to say that his inspiration for designing, building and successfully competing with twins was his WW II exploits flying P-38's in the skies over Italy. Who knows where "multi's" would be today if not championed by Dick in those early years of the FAC. Nearly every magazine and news letter published at least one of his designs with most of the later ones in the *FAC News*.
5. **CAROL KANE:** As proprietor of Shorty's Basement, Carol searches out and then makes available through her web site and at contests many hard to find supplies we FF modelers want and need. She is PDQ in getting hot new items into our hands. And when a modeler is in a bind, a phone call is all it takes to garner immediate service. Pushing the envelope in sales and marketing, she always has the time, energy and generosity to make a donation to the FAC Raffle.
6. **LARRY KRUSE:** Inspired as a lad watching raptors glide effortlessly over the Great High Plains, his first hand launch glider flight was chased for miles by bicycle to watch it land in a fresh cow pie. After college he won his first HLG event thanks to articles in *Flying Models*. That led Larry to a successful writing career. To date he has over 80 different models and 600 articles published as an individual and columnist for various model magazines, including *Flying Models* and the *FAC News*. As a competitor, he holds the rank of AIR Marshall in the FAC. Recently, he was inducted into the NFFS HOF.
7. **TOM NALLEN II:** Son and student of HOF member Tom Nallen I, Tom "2" is one of the "youngest" long time FAC members. He has served on the FAC Council since its inception. Recently, after much arm twisting, Tom accepted a position on the FAC Board of Directors as his thoughtful comments and opinions on every issue presented to him have merit based on experience. It just happens that he is also a pretty darn good builder and flyer.
8. **FERNANDO RAMOS:** Shamelessly admitting to falling in love with airplanes at the tender age of four (4), Fernando's list of "been there, done that" includes: pilot, builder, restorer and owner of full scale aircraft. In the model world, he was news letter editor of the Flightmasters and wrote columns for MB and Model Aviation. When not at the Non-Nats, he is spreading the gospel of the FAC while competing in the British NATS which he reports as "much tougher than the FAC-NATS!" By the way, Fernando has competed in every FAC-NATS since its inception in 1978. Very few can say that.

S.O.S.

Fred Dippel is trying to local a Paul R. Matt Historical Aviation Album, Vol XIV which he has some pages missing in his. He is looking for Pages 219-222 inclusive and 227-240 inclusive. If any member has this book he would like to have you copy these pages and he will be glad to trade a Jabberwock II kit NIB and he will pay the cost of shipping the kit. Please contact him at Fred Dippel, 1713 Quail run, Marion, IL 62959 or his phone is (618) 998-1017.

* * Circular Flight * *

Mumbo Jumbo #143 from the Glue Guru

Decent rubber model flight consists of a large and curved trajectory; wanted is a path of the round and round type. It's not easy to achieve and involves much fiddling with thrust lines, tabs and rudders. Its very difficulty raises the question: why bother? Why not settle for straight line flight?

One advantage of curved flight is that it permits a smaller field to do the job. Given our usual baseball field size aerodrome together with a decent breeze and 30 seconds of flight time, models engaged in straight line flight will leave the field far behind.

Even as we accept the need for a turn, there is a built-in disadvantage. To turn in a stable fashion is to bank, or to lift one wing tip higher than the other. The tipping of the wing means that some of the lift force developed is wasted, for with lift off the vertical, some of it is aimed laterally instead of vertically. In turn, this requires the wing to fly faster or at a larger angle of attack to develop the necessary lift. As a result, our curved flight is less efficient than straight line flight, for more power is required to fly at the greater speed or larger angle of attack required.

A larger angle of attack means that the wing is brought closer to stall, and so is more likely to spin out, in spiral dive fashion, given a seriously incorrect thrust setting.

With these woes an inevitable part of the circular flight picture, is there some compensating advantage, other than that of smaller permissible field size?

The old timers thought so. They sensed straight line flight as inherently unsafe as a result of breezes forcing unwanted changes in angle of attack, with results varying from wallowing in stall to a fast dive. As they saw it, the slow, straight

flying model's reaction to unsteady winds must necessarily be a stall or worse. In their view, circular flight was much steadier and safer. (ref: Aero Modeler Annual 1969-1970 p.54.)

Is it so? I think so.

The very disadvantages of circular flight – higher speed and angle of attack – operate to increase the momentum of the model. As a result, it becomes more resistant to further changes of attitude or direction. In other words, the faster the flight, the less sensitive to wind speed changes.

Should it circle with the torque or against it? Right or left? Much experience has gone into this one, and there is no doubt about the answer: fly right. The model will be much easier to adjust and the worst conceivable type of crash avoided; i.e., spiraling in under torque. Should warps result in a natural tendency to fly left, it is wise to remove the warps. If this is impractical, you might try trim tabs set far out on the wings.

But whatever you do, keep that flight path circular!

* * * * *

An Advert for Myself

Interested in the Red Baron and the reasons for his fame as the greatest fighter pilot of WW 1? It wasn't a matter of genetics, nor was it physical ability, for he was clearly a mediocre aerobatic flyer. Instead, he was one pilot who used his own head to work out suitable tactics, blending aircraft performance with his own oddities to make a winning package. Add in some ballistics common sense and you had a champion's skill.

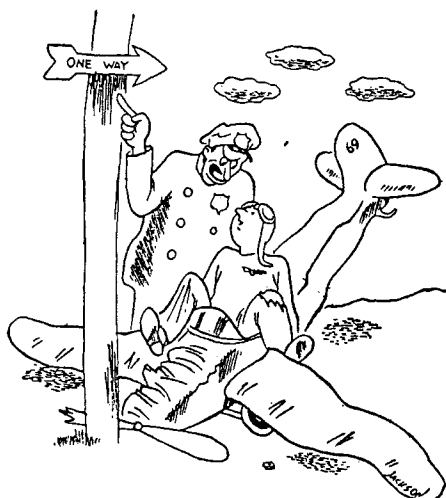
Using the pen name Leon Bennett, the Glue Guru has written the tale in his usual style, one short on math and long on popular science. It's called "*Gunning for the Red Baron*" and is available at Amazon, Barnes & Noble, and your local book store.



WISECRACK-UPS



Taxi in on this runway and pick up a plane load of laughs! In this department, we present a collection of jokes, cartoons, and humorous verse. For all original contributions which we can use here, FLYING ACES will pay \$1. Contributions cannot be returned. Address all letters to WISECRACK-UPS.



"Another one of them guys who don't believe in signs—huh?"

JUST FOLLOWING ORDERS

Instructor (to stude in front pit): Say, why in the devil are you sitting so still and rigid?

Stude: But, sir—you told me to keep my nose level with the horizon.

ONE AT A TIME

Bumley: It certainly took you a long time to bring in that Flying Flea. What delayed you?

Chumley: The traffic tower flagged me to stay up until those two gas models landed.

EXPLAINED

Clerk (in airport hotel): The last pilot who rented this room was an inventor. He developed a new explosive.

Flyer: I suppose those spots on the wall are the explosive.

Clerk: No, sir—they are the inventor.

MOTHER WAS RIGHT

The brass-lunged army instructor was having some trouble training his new group of flyers. One wanted to know what turned the propeller, another asked what the wings were for, and a third queried how the ship could be put in reverse.

Having exhausted all his resources, the instructor tried a new tack.

"When I was a little boy," he said gently, "my mother told me not to cry when I lost my wooden soldiers. Some day, Johnny dear, she said, you will get those wooden soldiers back—"

Then the instructor paused, drew himself up and roared:

"—AND BELIEVE ME, YOU WOODEN HEADED DUMB-BELLS, THAT DAY HAS COME!"

TAKING NO CHANCES

Two prospective passengers stood on the edge of the Los Angeles airport watching the planes take off.

The loud speaker began to blare: "Plane No. 1 leaving for San Francisco."

In a few minutes there came another announcement: "Plane No. 2 leaving for San Francisco." And a little later this was followed with: "Plane No. 3 leaving for San Francisco."

At this, the first man turned to his companion. "Are you going to San Francisco?" he asked. "I w-was intending to," came the reply. "But they've already missed three times, and I'll be danged if I'll risk myself in the fourth!"

TOO SLOW

Pat: The flyin' experts, begorrah, say that rocket-planes will carry passengers across the Atlantic in five years.

Mike: Shure and we could walk it in that.

RESISTANCE

Garrity (in newly-issued two-seater): They said this crate would do 130. And here we're only doing 120 with full throttle. How's that?

Phineas: Well, I guess them manufacturers hadn't figured on you keeping your mouth open. Haw-w-w-w-w!

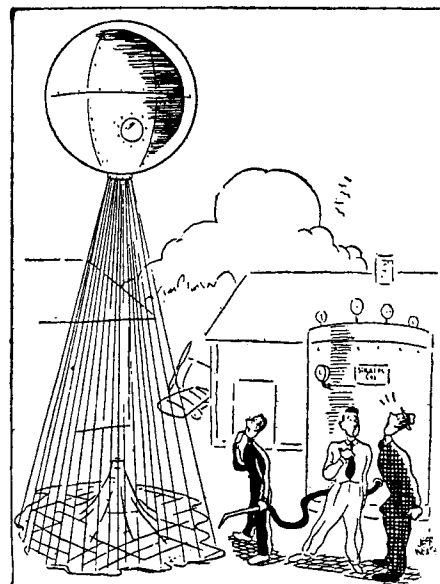
Dumb Dora thinks a supercharger is an extraordinary horse.

OUCH!

Hoozie: I'd say that Busby is a seasoned pilot.

Woozie: "Seasoned pilot"? How do you figure? He just started taking time three days ago.

Hoozie: Yeah, but yesterday he crashed his plane into a carload of pepper.



"Mark my words, Snodgrass, Professor Piccard is going to be a bit exasperated."

TACTICS

Instructor (during war): Now, Smith, if an enemy plane came diving out of a cloud at a hundred miles an hour, what would you do?

Smith: A hundred and fifty miles an hour.

RIDDLE

Blotz: What's the difference between a carpenter and an airline passenger?

Glutz: I'll bite. What is the difference?

Blotz: One planes a board and the other boards a plane.

JUST THE OPPOSITE

Salesman: This second-hand plane business is a tricky game.

Pilot: Everything goes, eh?

Salesman: On the contrary! Nothing goes!

UNEXPECTED JOURNEY

Pilot: Joe is on the way to China in that new army plane.

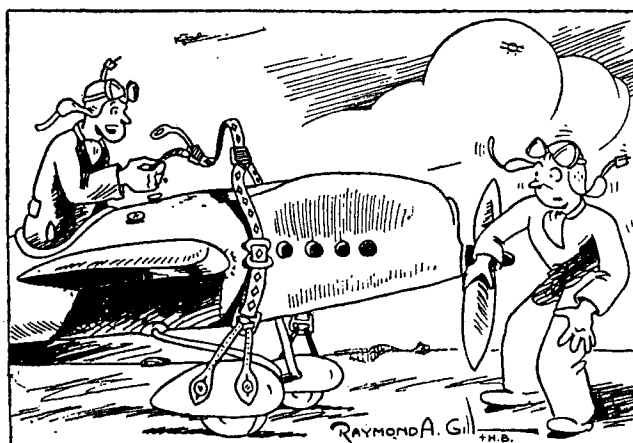
Greaseball: How come?

Pilot: He forgot to pull back on the stick when he did that 9-G dive this morning.

SIMPLE ENOUGH

Dim: Do you know why they didn't use brace wires on the Fokker D-7?

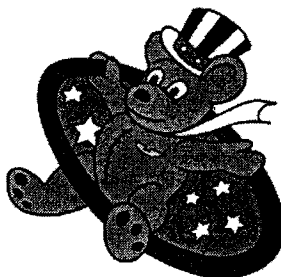
Dimmer: Yeah, so as not to make it too hard for the model builders.



"I lost my shirt in Wall Street—and I ain't aimin' to lose my pants."

McCook Field Squadron- FAC

Final 2-21-10



ANNUAL FF CONTEST

Dates: June 19 & 20, 2010

Location: AMA site, Muncie, Indiana

Saturday- June 19 (8am-5pm)

FAC Rubber Scale
FAC Golden Age-combine
FAC 2Bit + 1 OT Rubber
McCook Field Watson Unlimited Challenge
FAC OT Rubber (cabin)
FAC Power Scale
FAC Rapier Powered Jet Scale
*Flying Aces Moth (one-design event)
FAC Jimmie Allen

Sunday- June 20 (8am-4pm)

FAC Peanut Scale
FAC Embryo Endurance
FAC Dime Scale
FAC No-Cal Profile Scale
FAC OT Rubber Stick
FAC Jet Catapult Scale
FAC Old Time Gas Replica
FAC Modern Civil Scale
**AMA Catapult Glider(Jr,Sr,O)

WW I Combat Mass Launch – 11 AM
Greve Race Mass Launch – 12:30 PM
Twin Pusher Mass Launch -- 2:00 PM

WW II Combat Mass Launch – 11AM
***Cloud Tramp Mass Launch-12:30PM

CD: Dan DeAngulo
937-760-0886
DAD4584@woh.rr.com

CD: Tom Ersted
937-456-1908

CD Emeritus: Frank Scott
937-335-3057

General info: Stu Cummins- secr., stucummins@woh.rr.com

- BOM rule applies (except Cloud Tramp below). (FAC General Rule 1)
- Three Models by three different builders must be entered with each making a qualifying flight for the winner to be awarded a "Kanone". (FAC General Rule 6)
- The FAC 2010 Rule Book will be used for all FAC events.
- FAC only events may be added during the contest, provided the conditions of Rule 1 & 6 (above) are met. Any scoring disputes must be filed on the day of the event.
- *Moth- rules as FAC Nats & Outdoor Champs- (also may fly in one other event- 2-bit or OT rubr.)
- **AMA event 142 rules. best 3 of 6 flights. (Pen used) (Jr), (Sr,O)
- ***Grant MIMLOC rules. No BOM rule.
- Watson Unlimited Challenge Rules: (McCook Special event)
Model must be propelled by 24" length of 1/8" rubber. (Supplied)
Timing is total of best 2 of 3 flights, no max.
There are no other rules!

Entry Fee: \$10. Current AMA License required.
Plaques: 1st Place, Certificates: 2nd, 3rd.
Kanones awarded

The HUNG-Aereon Embryo Endurance Model

By Dave Stott

The inspiration for this design came from two sources. One was a wingless free flight gas powered model which appeared in April of 1954 in Air Trails magazine, or one of its descendants. Roy Clough, Jr., a noted modeler of those times, was the designer. It began as a blimp configuration, evolving into what Roy dubbed "Anti-Grav Martian Space Ship" shown in the insert. The hull was 10 inches in diameter with a 33 inch length. Power was a Wasp .049 engine. It weighed 6 oz. and carried no lifting gas of any sort.

The second inspiration came from a three-hulled helium assisted aircraft built by the Aereon Corp. of New Jersey. The hulls were joined by short wings and stabilizers. The center hull contained the pilot and a small engine driving a quite large geared down pusher prop at the back end. It probably had vertical surfaces, but I cannot remember. It looked much like three dirigibles flying in close formation. It was a proof of concept ship for a larger heavy lift cargo aircraft. The company was dogged by misfortune and finally folded.

Two cardinal rules in aircraft design is to keep as tight a fuselage cross sectional area as possible, and try to keep the area of the fuselage which falls behind the prop disc area as small as possible (Blanked out).

Because the Embryo Endurance rules seem to restrict a wide latitude in design, a strong desire grew to spoof some of those rules and design an Embryo with a fuselage so voluminous that many of the required theoretical $1 \frac{1}{4} \times 1 \frac{1}{2} \times 3$ inch fuselage boxes would rattle around inside of it. Thus, the HUNG-Aereon was born.

It was decided to make the hull 7 inches in diameter. The length was simply determined by cutting a 3 foot long 1/16 sq. balsa strip in half and bending it to a streamline shape. This determined the hull length to be about 15 inches.

Rather than blow slipstream onto the bow of the hull causing great drag with a tractor design, a prop, the same diameter as the hull, was placed at the rear. This caused the hull to completely blank out the prop disc, the other no-no. Yet, it worked well, as the air entering the prop from the front tended to keep the flow over the hull attached, thus lessening drag considerably.

The canard arrangement allowed a very long hook to peg distance for the rubber. The 18 degree sweep of the wings produced effective dihedral. The rear stabilizer was mounted low in cleaner air flow and supported the main landing gear with the wheels recessed in the twin fins. The end plates on the wing roots are supposed to isolate the airflow over the wing

from that of the hull. Maybe they do, and maybe not. They may be too small to be effective.

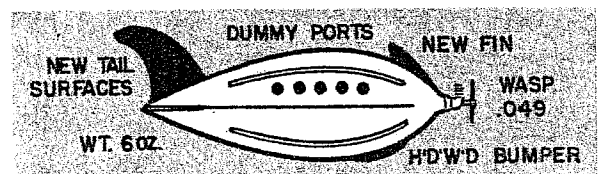
The model was built in 1973, and flew across the Connecticut river and out of sight in 1976. Unfortunately, the only data existing to use in drawing the plan was sketches, two photos, and the fond memory of it. The plan, as presented, includes some small mods to make it easier to flight trim.

The seven inch prop was carved balsa. It had rather narrow blades, as did the full scale three hulled Aereon. A block $\frac{1}{2} \times \frac{3}{4}$ is a good guess at what it might have been. A plastic North Pacific 7 inch would probably do as well. They do not weigh much more than a finished carved balsa one. Power would range from a loop of 1/16 and another of 3/32 combined, to two loops of 3/32. You must experiment here, as the rubber back then was different than that of today. The Hung-Aereon does not need to fly fast.

In the days when the Hung-Aereon darkened the skies, motor length was the hook to peg distance plus a couple of inches of slack. These motors were simply back-wound to shorten their spent length.

One time, when a new motor was installed, it was neglected to be back-wound. The motor was wound and the ship launched. The flight was as usual. But, when the motor unwound, all the slack slid down to the bottom of the hull causing an aft shift of the CG. The Hung-Aereon slowed to a stop in mid air, and without any change in attitude, proceeded to slowly descend vertically! It took almost as long to reach mother earth in this manner as it took in gliding down! The landing was gentle and nothing was broken.

If any of you adventurous Skysters tire of the sky full of typical Embryo models that are as boxy and angular as anything Adolph Rohrbach designed, now is a good time to head for the workbench. For top performance take this bulbous baby to a political rally the night before a contest and get it filled with plenty of hot air! And don't keep it inside the hangar. Park her on the tarmac in the warmth of old sol. Maybe you'd better tie 'er down 'til you're ready for take off, just to be sure!



ROY CLOUGH'S WINGLESS MARTIAN SPACE SHIP

X - AIRCRAFT

by
Fran Ptaszkiewicz

McDonnell XP-85 / XF-85 "Goblin". Company Model Number 27D.

It was first tested in the 1930's era, this idea of a fighter being launched and retrieved from an airborne vehicle. In that time period it was the Curtiss F9C-2 "Sparrowhawk" and the dirigibles U.S.S. "Akron" and U.S.S. "Macon".

The concept was proven and many airborne operations were completed before the two airships were destroyed while operating in weather conditions they were unable to handle.

With the coming of the B-36 bomber having a range of over 10,000 miles and being able to remain airborne for over 30 hours, there was concern that with those types of operating parameters, the big bomber would be vulnerable to hostile action once out of range of protecting fighters.

Thus the old parasite fighter concept was reviewed and a contract awarded to McDonnell Aircraft in St. Louis, MO. for the design and development of an aircraft that could be carried aloft and then retrieved while in flight. It was assumed that with one fighter per B-36 enough protection might be afforded a bomber squadron on its way to a distant target and return, although a smaller bomb load would be the penalty.

In October of 1949, the design stall at McDonnell Aircraft began work on a small jet powered fighter whose one big requirement being, it had to be sized to fit inside the fuselage of the bomber and not slung outside as had been originally planned. Thus this fighter would have to be small and have the wings fold upward as did the sea borne carrier type of aircraft. Its wingspan was 21'-1 $\frac{1}{2}$ " in the extended or flight position and 15'-9 $\frac{1}{2}$ " in the folded position. Tight quarters when considering a bomb bay on the B-36 to be very restricted, not much more than 16' wide. Wing area when extended was only 90 sq. ft., not much for a fighter that was planned to operate at 35,000 feet of altitude. Although the wing planform was swept back 37 degrees, it was considered a semi-flying wing. Length also presented a problem as the number one bomb bay on the B-36 where it was planned to carry the ship had only 16' in which to put the fighters fuselage. So, the measured design length came out to 14'-10 $\frac{1}{2}$ ".

It had a multi-fin rudder combination that measured only 5'-4" from one outside tail to the other. The overall height was 8'-3 $\frac{1}{2}$ ". Actually this assembly could best be described as three fins and a pair of dihedralled stabilizers.

With no landing gear because of its design mission, the "Goblin" was fitted with a retractable hook fitted in the upper nose section just forward of the pilot's windshield.

When in operation, this hook was to be extended for airborne launch and retrieval. Following launch and release from the bomber it would be retracted and fold flush into the fuselage. There were plans to place four .50 cal. machine guns in this same area with the jet engine intake located in the nose. It was a very crowded operating situation.

Two aircraft were completed, ground tested at the company in may 1948 and then moved to what at that time was called Muroc Dry Lake which we all now know as Edwards Air Force Base.

The first prototype was sent to Moffet Field for full scale wind tunnel testing. Sadly it was severely damaged during these tests when it inadvertently fell off the trapeze bar that held it in position. With next to no wind tunnel data available, the decision was made to flight test the second prototype with its mothership.

At this time the Air Force was unable to provide the originally planned B-36 as a carrier, so a modified B-29 designated EB-29B and for some reason dubbed "The Monster" was pressed into service as the test mothership.

On August 23, 1948, the first four flights were conducted hooked up under "The Monster". On the fifth flight when climbing to an altitude of 20,000 feet the "Goblin" was released. Test pilot Edwin Schoch then did fifteen minutes of test flying which indicated some instability problems.

Attempting to hook up to the mother ship proved to be more difficult than originally anticipated. Test pilot Schoch found that the turbulence from the B-29 was preventing him from hooking on to the trapeze bar to complete this test phase. After 10 minutes of attempting to hook on which during the final attempt resulted in a shattered canopy. With fuel running low and the aircraft in a damaged state a belly landing was made on the desert floor. Even with no permanent landing gear the "Goblin" suffered minimal damage.

While in the repair shop, fins were added to the wing tips in an effort to improve stability. Testing then resumed in October 1948 and the launch and retrieval went fairly well. However, on the fifth and sixth flights, hook-on proved impossible and two more desert landings occurred.

In April of 1949 following reworking the hook plus aircraft repairs another attempted test flight commenced. Release went well, however retrieval was unsuccessful and another belly landing in the desert occurred.

The summation following the cancelation of this program was that unfortunately, even the best of pilots the hook-on portion of the retrieval effort was considered a difficult operation and most dangerous. By the end of 1949 the "Goblin" had accumulated only 2 hours and 19 minutes of test flying. At this point the entire program was cancelled.

11.

As a stand alone fighter, the XF-85 could attain a speed of 664 mph at sea level and 581 mph at 35,000 feet which was anticipated to be its operational altitude. With only 30 minutes of endurance and no provision for auxiliary fuel tanks its effectiveness as a fighter could be seriously questioned.

Although the Curtiss "Sparrowhawks" of the 1930's enjoyed considerable success in the parasite fighter mode prior to the loss of their sky-borne carriers, McDonnells XF-85 was not to enjoy a similar amount of operational success. A strange design coincidence between the Curtiss and McDonnell cockpit areas was that both ships would have problems accomadating pilots of much more than 5'-8" in height.

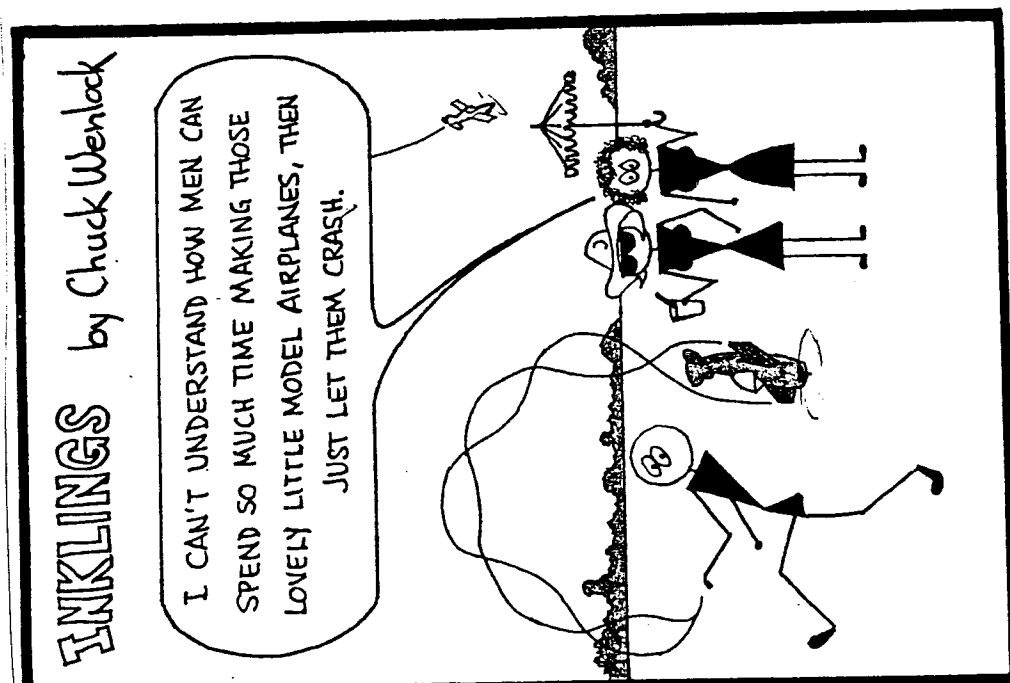
The parasite fighter concept was revived some years later, when in early 1952, a number of Republic's "Thunderflash" aircraft designated RF-84K with retrieval hooks installed were successfull in this mode which was now called the FICON project, Fighter Conveyor.

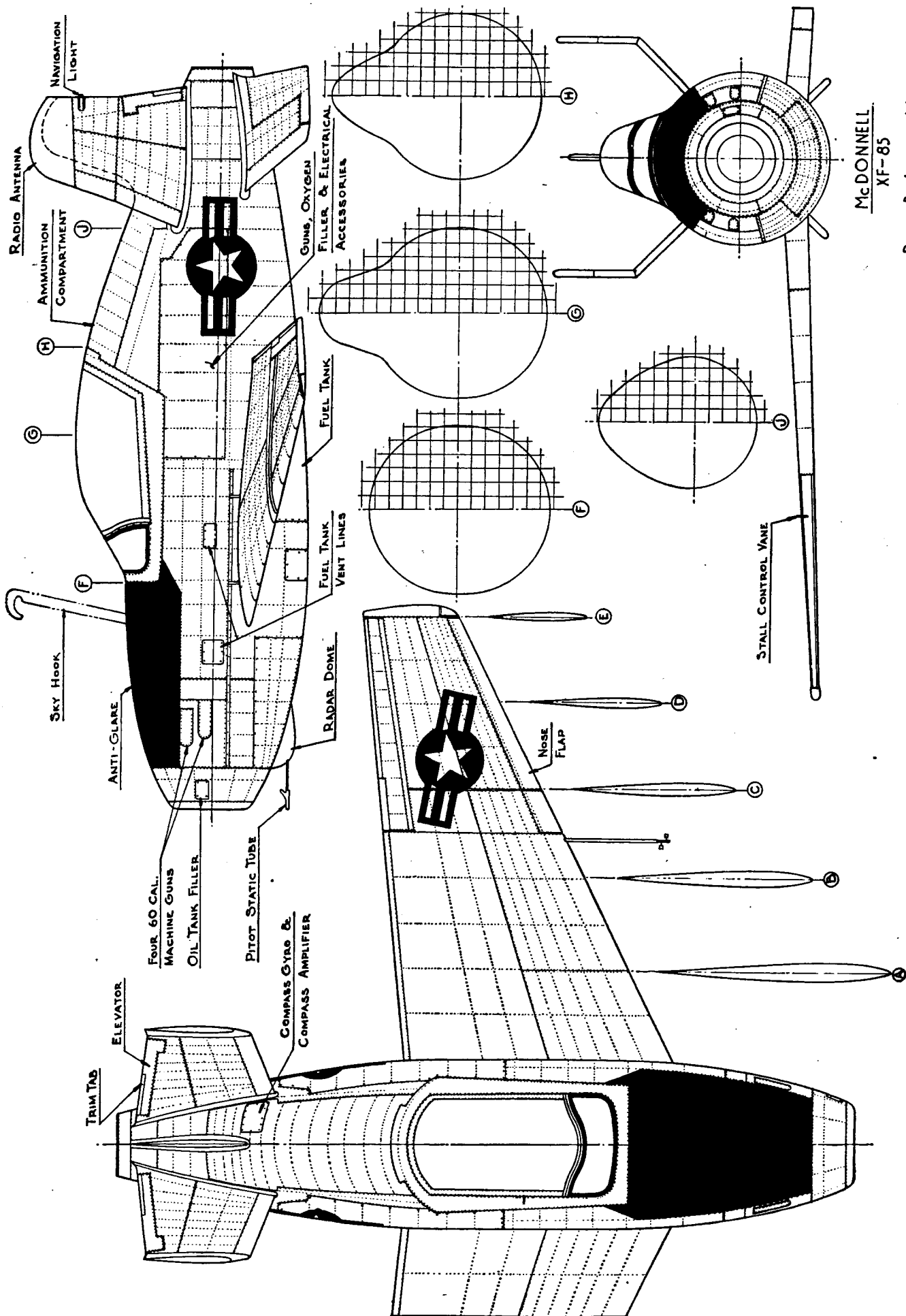
Using a modified Convair B-36, flight testing began in January of 1952 and continued until the Spring of 1954 before being abandoned. Actually a total of 25 Republic F-84s were modified with hooks and from all reports operated successfully. Also before the program a total of 12 B-36s were modified and given the designation GRB-36JF. No reason was given for the cancellation of the program.

So apparently given the right mother-ship / fighter combination the parasite fighter using jet-owered aircraft could be made to work just as in the early airship operations.

The accompanying 3-view drawing is from the drafting desk of late F.A.C. Club member Leonard Wiczorek and was drawn in 1948. The one surviving XF-85 is on display at the Air Force Museum in Dayton, Ohio.

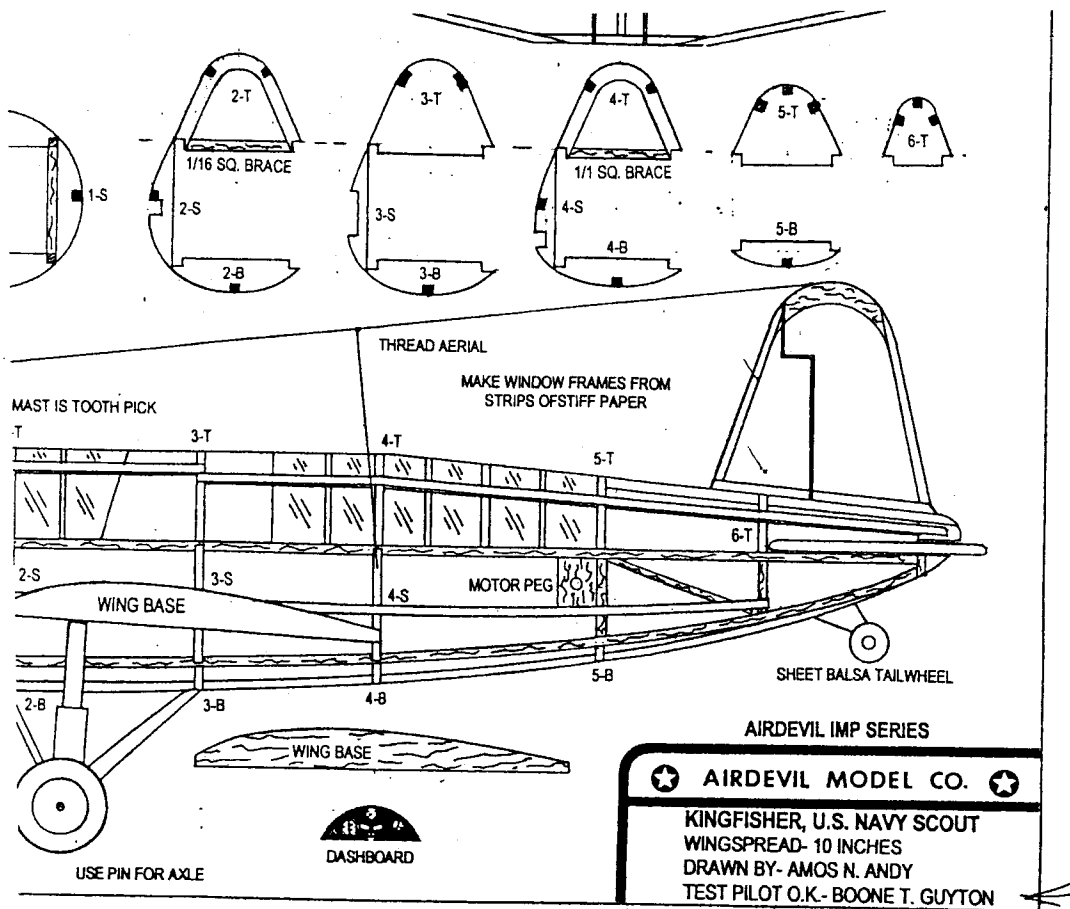
Having had a weekend pass from Fort Dix prior to shipping overseas in June of 1951. I attended the Mirror Model Flying Fair that used to be held on the runway's of Grumman Aircraft at Bethpage, Long Island. There on display among other aircraft was McDonnells surviving XF-85 "Goblin" .





McDONNELL
XF-85

DRAWN BY LEONARD WIECZOREK



Mike Russell thought other members would be interested in just who the "Test Pilot" was. His name is Boone T. Guyton on the Kingfisher US Navy Scout from Dave Stott plan package in the Sept/Oct Newsletter. See following pages on the Test Pilot.

FAC EVENTS AT THE AMA INDOOR NATIONALS

The 2010 AMA Indoor NATS will feature several FAC events at the 119 foot high ceilinged MiniDome at Johnson City, TN. This site is reputed to have the best possible "air." This is an event well worth attending.

For details about the site, motels and to register, contact the event CD Carl Bakay at

carlbakay@hotmail.com or
337-504-4363

You must register prior to May 7.

Here are the FAC events and dates:

Modern Civil Scale — 27 May

WWI Mass Launch — 28 May

Pseudo Dime Scale — 28 May

FAC Scale — 28 May

WWII Mass Launch 29 May

The Cloudbusters sent in there schedule for the following year.

April 18th and 25th at Broome Park

May Indoor Fling Jackson

May 5th and 6th CIA Trim 7 Swap Meet

Muncie

May 8th and 30th Broome Park

June 19th and 20th McCook Squadron Muncie

July 3rd Broome Park

July 13th, 14th, 15th, 16th and 17th FAC Nats

Genesso

August 2nd, 3rd, 4th, 5th and 6th AMA Natl's

Muncie

August 8th and 15th Broome Park

Sept. 9th & 10th FAC Outdoor Champs Muncie

Sept 25th Broome Park

Oct. 2nd and 3rd Ted Dock Memorial Muncie

Oct. 9th, 10th, 17th, 31st

Broome Park Nov 7th Broome Park

THE FLYING ACES CLUB

is a society of unique individuals with a common interest that at times borders on a passion. It is our intent to preserve and promote the traditional building and flying of free flight stick and tissue model aircraft. Although competitive at times, the sharing of innovations, assistance and camaraderie is second nature to all that believe in the unique spirit of the FLYING ACES CLUB.

WHISTLING DEATH

THE TEST PILOT'S
STORY OF THE
F4U CORSAIR

WHISTLING
DEATH

BOONET T. GUYTON

BOONET T. GUYTON



g up to
gy, the
Whistling
finest
pation

(Ret.)
f Staff



ING DEATH

THE TEST PILOT'S
STORY OF THE
F4U CORSAIR

GUYTON

AVIATION / MILITARY HISTORY

\$25.00
(Canada: \$34.00)

WHISTLING DEATH

BOONE T. GUYTON

Whistling Death is the true story, by the test pilot, of the rush to produce the Corsair, the Navy fighter that brought America air superiority over the Japanese Zero in World War II. Here is the crash program—complete with crash landings—powered by the dedicated men and women of the home front who designed and built this revolutionary, tide-turning airplane.

Terrified Japanese pilots dubbed the F4U Corsair "Whistling Death" for the high-pitched shriek that came from its 1,800-hp Pratt & Whitney engine as it dove in for the kill. With the most powerful engine of any World War II fighter, the Corsair became the first to exceed 400 mph. Its six 50-caliber machine guns blazing, the Corsair destroyed 2,140 enemy planes while taking only 189 losses—a success rate better than 11 to 1.

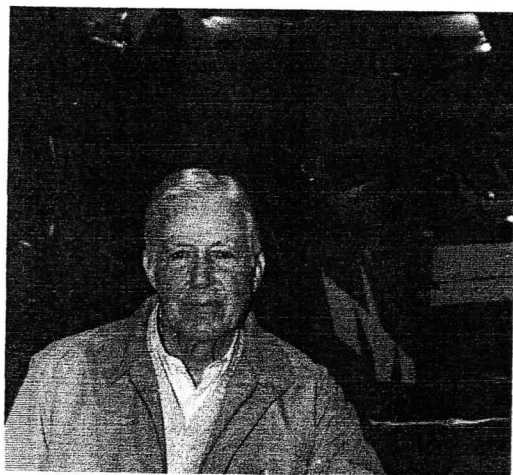
This is a test pilot's story, in the tradition of Chuck Yeager, John Glenn, and others popularized by Tom Wolfe in *The Right Stuff*. Guyton tells a tale of courage in the cockpit, of close calls and crack-ups, including one that he survived literally by fractions of an inch. His coolness under pressure saved his skin many times, and his descriptions of the hairy moments—and there were several—make the pulse beat faster.

(Continued on back flap)

(Continued from front flap)

Whistling Death is also a rare look at World War II as fought on the home front. To a great extent, the war was won in factories like Chance Vought's, when the Axis powers could not keep pace with Allied manufacturing might. It was a team effort that involved everyone, from the engineers to the managers, assembly-line workers, mechanics, and pilots.

And it's a love story, by a man in love with flying and in love with "old bent wings"—the Corsair.



BOONE T. GUYTON, an experimental test pilot at Chance Vought during and after World War II, flew 105 types of aircraft in 45 years as a pilot. He has written two previous books, *Airbase* and *This Exciting Air*, as well as many magazine articles. He lives with his wife in Woodbridge, Connecticut.

Jacket design by Peter A. Davis

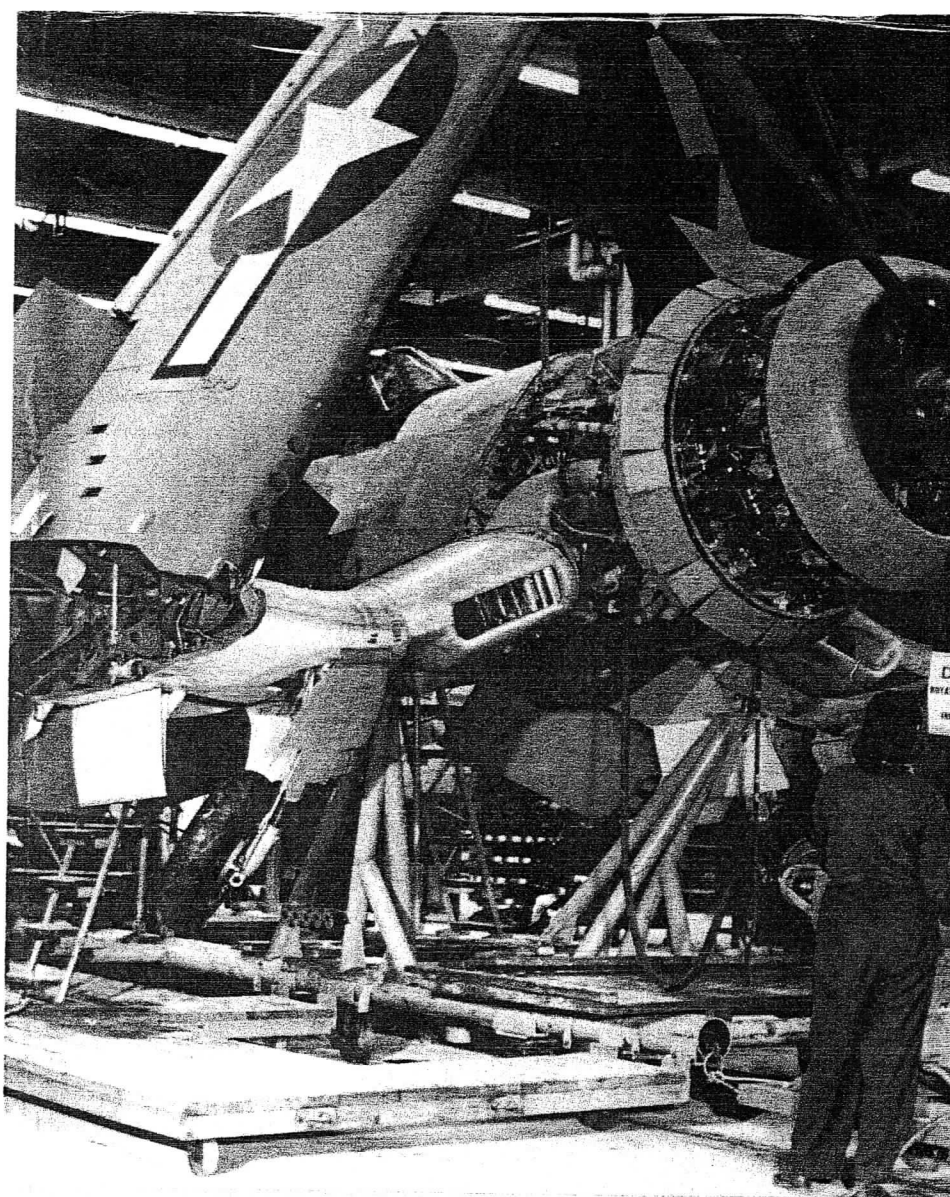
Jacket photographs courtesy of the Boone Guyton Collection
Author photograph by Peter Guyton



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New York

4/91

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"For those of us who lived through the very exciting as well as tumultuous days I and during World War II, Boone Guyton has produced a panoramic view of the dedication, and the courage that prevailed throughout a fully unified American *Death*, the story of the development, production, and combat action of one of our war machines, the F4U Corsair, contains all of the human emotions generated by in a dangerous, high-pressure effort larger than life itself."

Adm. Thomas H. Moore
Former Chairman, Joint Chiefs of Staff

ISBN 0-517-57526-4



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The Flying Aces Club congratulates SERGIO MONTES on his appointment as the new Editor-in-Chief of the 2010 NFFS's Symposium. He is actively soliciting papers for this publication. If you have something or know someone with an article that may be of interest to the NFFS, contact Sergio at montes@iinet.au. The CinC.

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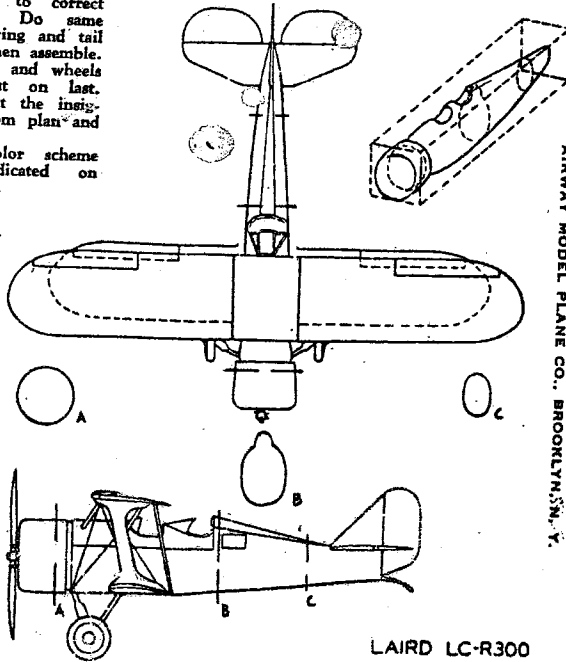
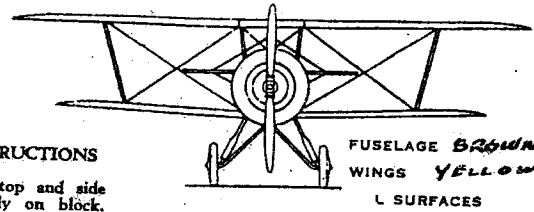
Tel: (813) 634-6985 (except Tues. 9AM-Noon/daily 6-7:30pm)

no fax, E-Mail, website

12B

INSTRUCTIONS

Trace top and side of body on block. With razor blade whittle to correct shape. Do same with wing and tail parts then assemble. Bracing and wheels are put on last. Cut out the insignias from plan and glue. Use color scheme as indicated on drawing.

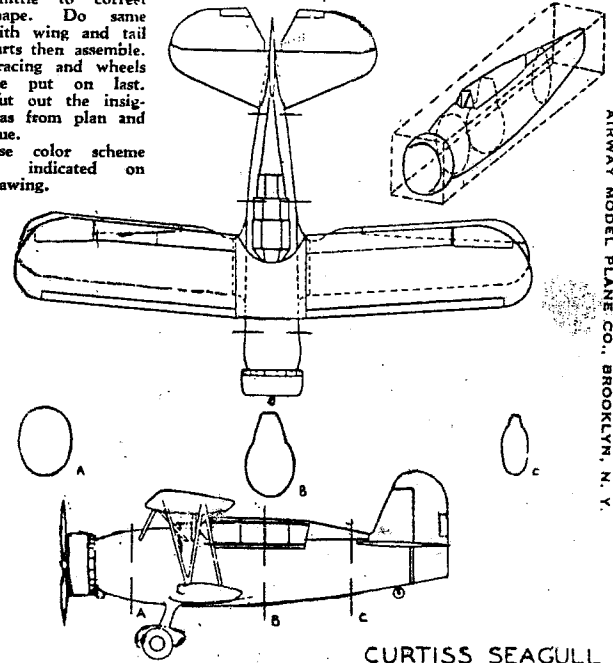
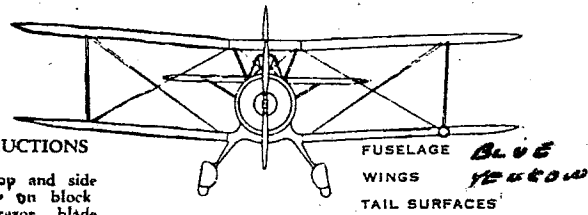


LAIRD LC-R300

12A

INSTRUCTIONS

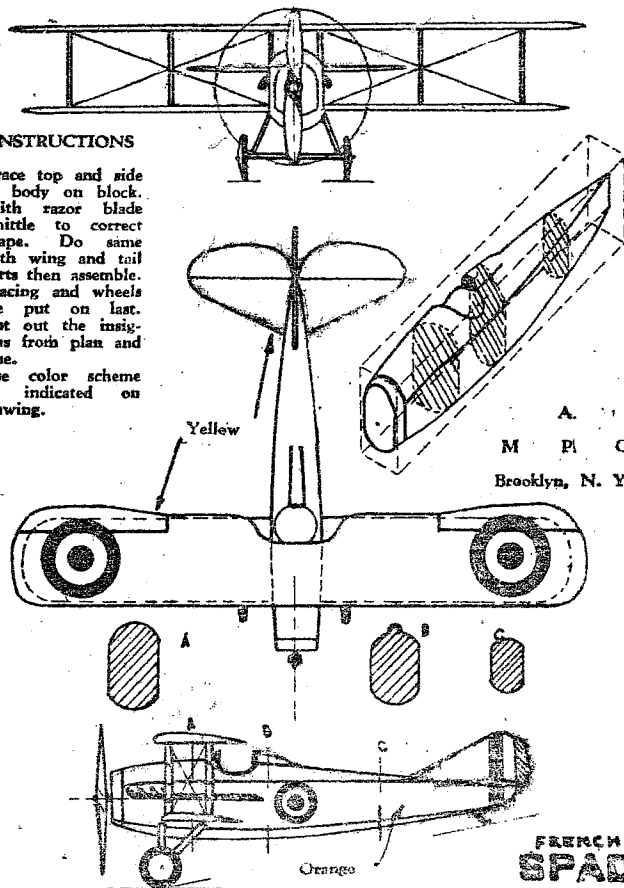
Trace top and side of body on block. With razor blade whittle to correct shape. Do same with wing and tail parts then assemble. Bracing and wheels are put on last. Cut out the insignias from plan and glue. Use color scheme as indicated on drawing.



CURTISS SEAGULL

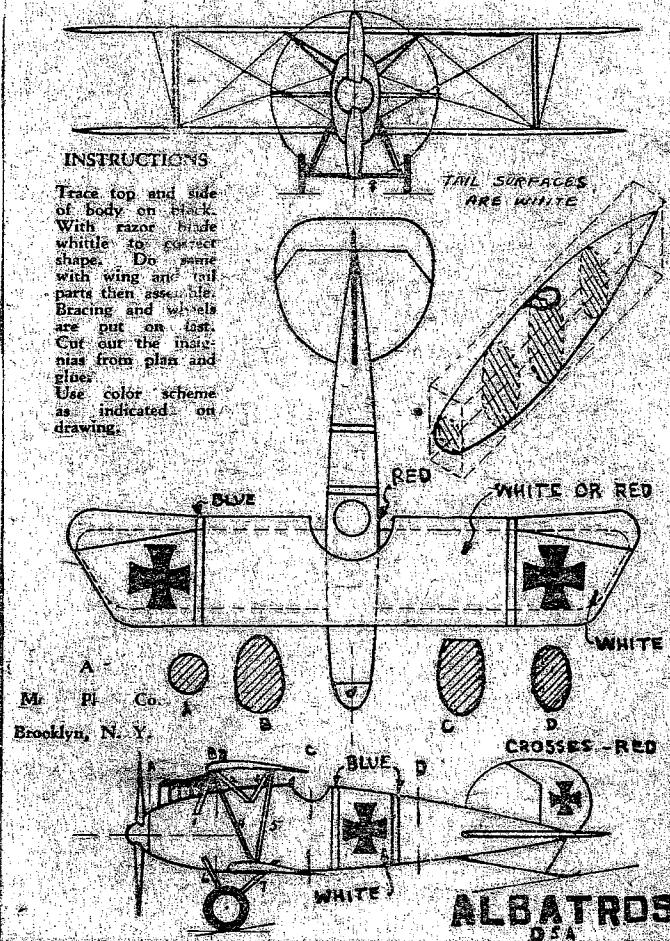
INSTRUCTIONS

Trace top and side of body on block. With razor blade whittle to correct shape. Do same with wing and tail parts then assemble. Bracing and wheels are put on last. Cut out the insignias from plan and glue. Use color scheme as indicated on drawing.

FRENCH
SPAD

INSTRUCTIONS

Trace top and side of body on block. With razor blade whittle to correct shape. Do same with wing and tail parts then assemble. Bracing and wheels are put on last. Cut out the insignias from plan and glue. Use color scheme as indicated on drawing.



GENESEO, NY JULY 14, 15, 16, & 17, 2010
PLEASE PRINT!

NAME _____ CHECK ONE: ☐ JR. ☐ SR/ OPEN _____ GHQ USE: _____
CONTESTANT # _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

HOME PHONE _____ - _____ - _____ EMAIL ADDRESS _____

Please remit all fees with registration form by **JUNE 12, 2010**. Mail entry form and check or International Money Order to FAC, % Juanita Reichel, 3301 Cindy Lane, Erie, PA 16506. GHQ will NOT be able to refund cancellations AFTER June 26, 2010. All contestants must be members of the AMA or foreign equivalent and you MUST present your current card at registration. AMA, MAAC or equivalent # _____

ENTRY FEE: FOR ANY & ALL EVENTS AT THE BIG SHOW IS **\$25.00**. [Contestants 17 or younger fly FREE!] \$ _____
BANQUET TICKETS: THERE ARE A LIMITED NUMBER SO ACT FAST! (#) _____ at **\$33.00 EACH** = \$ _____
 The Saturday evening banquet will be at the Quality Inn – Geneseo, 4242 Lakeville Road, Route 20A, Geneseo, NY 14454

S.U.N.Y. DORM RESERVATIONS...4 NIGHT "SHORT" STAY and 5 NIGHT "LONG" STAY PACKAGES AVAILABLE!
(WAYNE HALL, # 38 ON CAMPUS MAP)

SINGLE occupancy of the **SHORT (4 night)** STAY (7/14 - 7/18 AM) with 4 Breakfasts & 3 Dinners is \$275.00. \$ _____

SINGLE occupancy of the **LONG (5 night)** STAY (7/13 - 7/18 AM) with 5 Breakfasts & 4 Dinners is \$350.00. \$ _____

DOUBLE- occupancy* of the **SHORT (4 night) STAY (7/14 - 7/18 AM)** with 4 Breakfasts & 3 Dinners is \$250.00. \$ _____

DOUBLE- occupancy* of the **LONG (5 night) STAY (7/13 - 7/18 AM)** with 5 Breakfasts & 4 Dinners is \$275.00. \$ _____

If you require a "ground floor room," please let us know with your PAID registration.

* Tell us who you are sharing the SUNY dorm room with: _____, GHQ will notify S.U.N.Y.

University meals times (MARY JEMISON DINING HALL, #32 ON CAMPUS MAP): Breakfast 7:00 A.M. and Dinner 7:00 P.M. Don't be late, they won't wait!

If you plan on staying at the Quality Inn, YOU must PHONE 585-243-0500 and inform the reservation desk you are with the FAC.

WAIVER: I hereby release the FLYING ACES CLUB, INC., the HISTORICAL AIRCRAFT GROUP, INC., Austin Wadsworth, the STATE UNIVERSITY OF NEW YORK (Geneseo), and all other persons and organizations connected with this contest from liability whatsoever for accidents or injury incurred while participating in the 2010 FAC-NATS competition. I also agree to abide by all flying and field rules in force at this contest.

SIGNATURE

Scale judging will be at the Quality Inn on Wednesday July 14th starting at 3:30 P.M. NO contestants admitted to the judging area prior to 3:30 P.M. Vendors may start setting up 1:00 P.M. Judges, runners and other volunteers may start taking in their models at 3:00 P.M.

SCALE JUDGES & RUNNERS WILL HAVE "HEAD OF THE LINE" PRIVILEGES FOR THEIR MODELS!

If you want to be a judge or runner, please contact Ross. Judging will again be done via pairs. New judges are welcomed...what better place to get the experience!

WEDNESDAY
8:30 TO 2:00 P.M.

THURSDAY
8:30 TO 5:00 P.M.

FRIDAY
8:30 TO 5:00 P.M.

SATURDAY
8:30 TO 2:00 P.M.

Embryo	>>>>>>>>>>>>>>/
Dime Scale	>>>>>>>>>>>>>>/
Pseudo-Dime	>>>>>>>>>>>>>>/
No-Cal	>>>>>>>>>>>>>>/
OT Kit / Plan	>>>>>>>>>>>>>>/
2-Bit Plus One	>>>>>>>>>>>>>>/
Phantom Flash	>>>>>>>>>>>>>>/
One Design**	>>>>>>>>>>>>>>/

**FAC Peanut Scale
Low-Wing Mil. Trainer
Rubber Powered Jets
Golden Age Civil
Modern Military
Greve Race***
Thompson Race***
AT-6 Enduro*****

Hi-Wing Peanut
 Rocket / Jet Scale
 Goodyear Race
 Golden Age Military
 Modern Civil
 WW I Finals
 WW II Finals***
(TOP 10 RADIALS)
(TOP 10 IN-LINE)

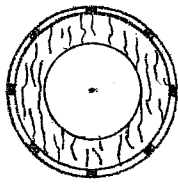
****FLYING ACES MOTH**
**** DETAILS IN**
JAN / FEB
FAC NEWS

OT Stick	>>>>>>>>>>>>>/	(TOP
OT Cabin	>>>>>>>>>>>>>/	
Jimmie Allen	>>>>>>>>>>>>>/	*** 15% RULE...Via Richard
Rubber Scale	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>/	
Jumbo Scale	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>/	
Giant Scale	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>/	
Pioneer Scale	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>/	
Power Scale	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>/	
Fiction Flyers	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>/	
Shell Speed Dash***	WW I Qualifier	Powder
OT Gas Rep.	WW II Radial Qualifier***	B.L.U.
S.L.O.W. @ 7:17 P.M.	WW II In-Line Qualifier***	2:30 to

[illegible]

Powder Puff
B.L.U.R.
2:30 to 4:00 P.M.

SUGGESTED COLORS
 HULL: TWO BELLY PANELS WHITE,
 THE REST BLACK.
 FLIGHT SURFACES* TOP BLACK,
 BOTTOM WHITE



STERN RINGS

USE 7 INCH PROP
 SEE TEXT

DOWN THRUST
 AS NEEDED

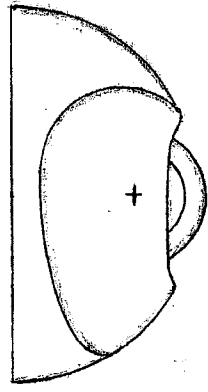
BAMBOO
 STRUT

CENTER
 PYLON

POS.
 STAB.

TWIN
 FINS

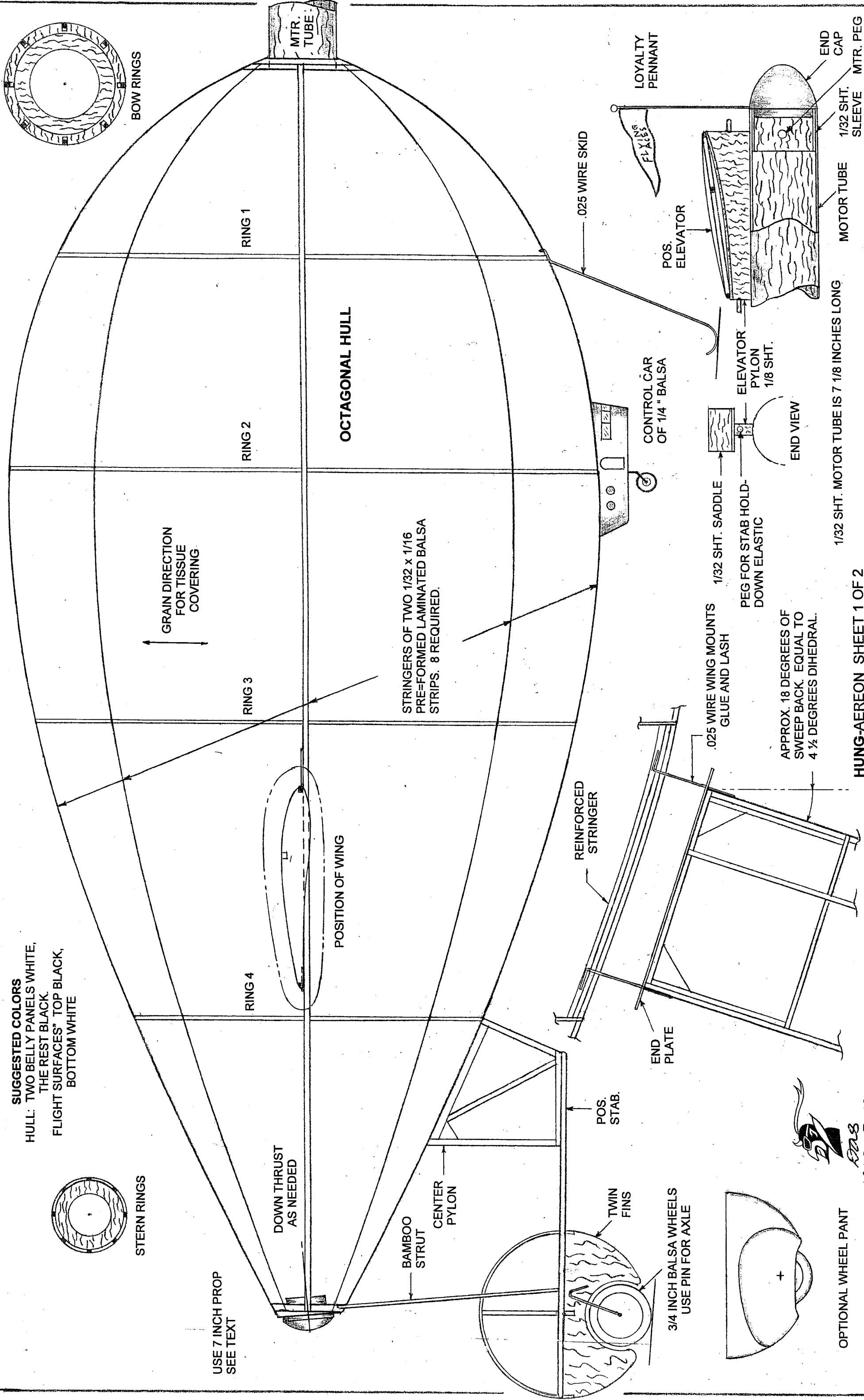
3/4 INCH Balsa WHEELS
 USE PIN FOR AXLE



OPTIONAL WHEEL PANT



1973-2010

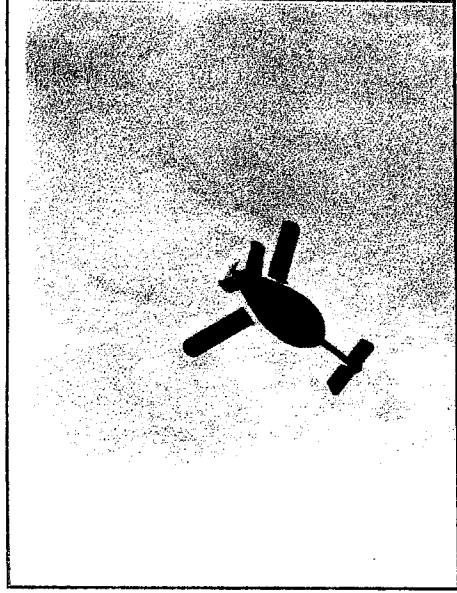


THE HUNG-AEREON

EMBRYO ENDURANCE

RIDE THERMALS BY DISPLACEMENT!
By Dave Stott

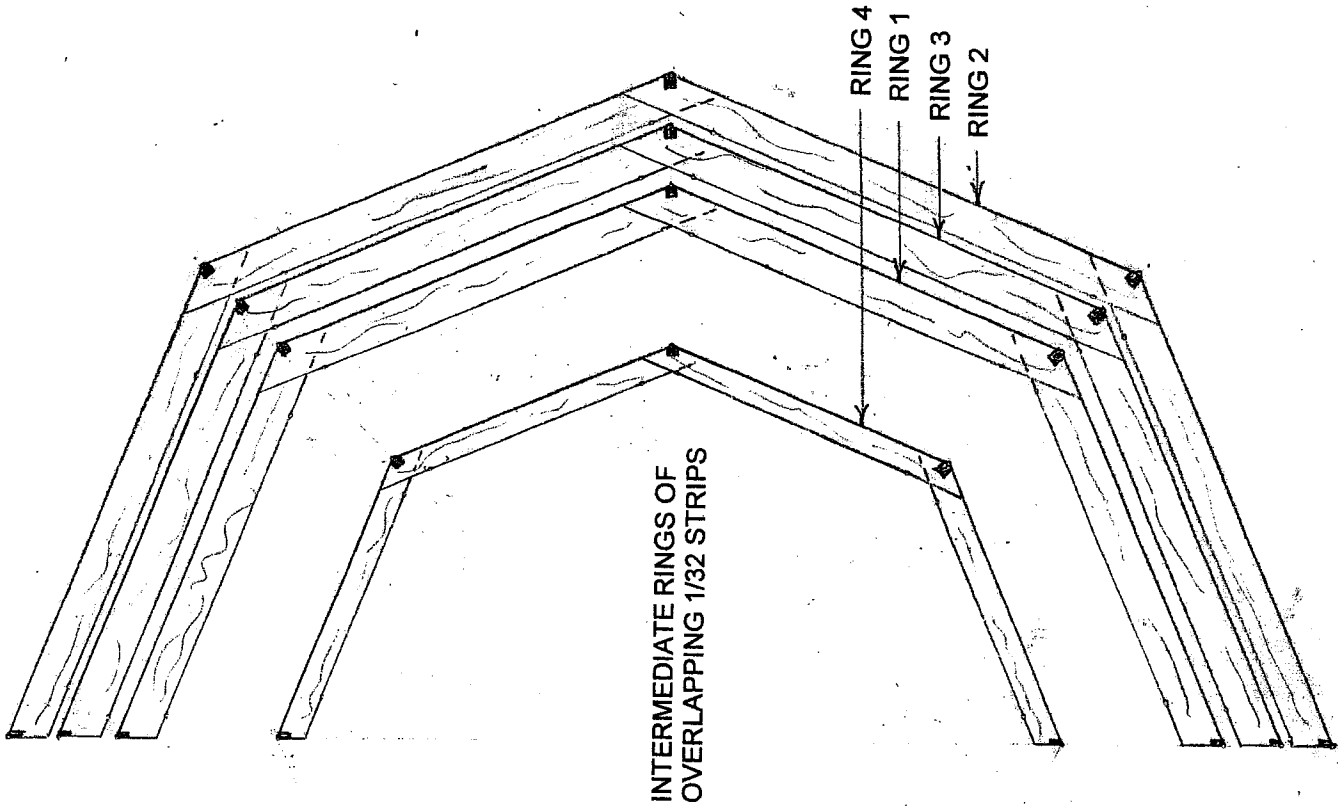
DEDICATED TO "NEVER READY EDDIE" NOVAK
CHARTER MEMBER, FLYING ACES CLUB.



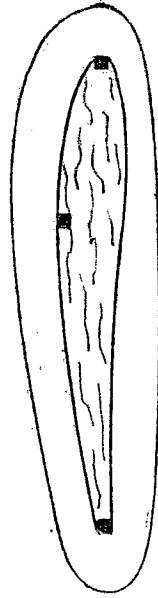
PROTOTYPE IN FLIGHT, 1975



PROTOTYPE IN THE WINDING RIG

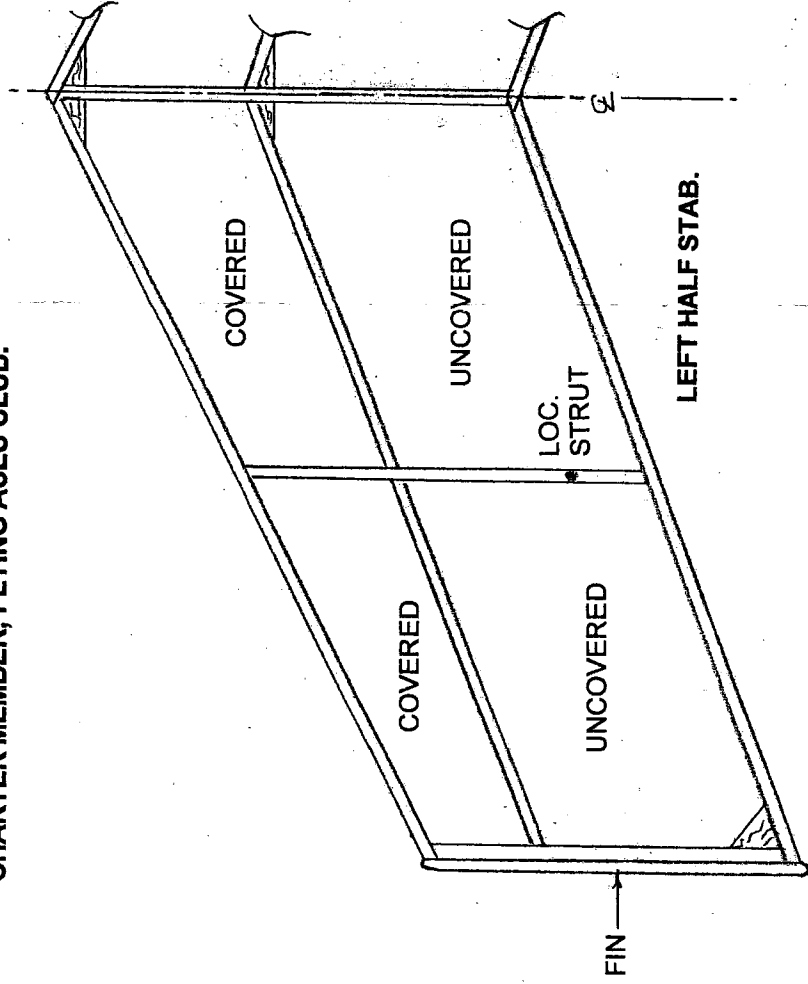


INTERMEDIATE RINGS OF
OVERLAPPING 1/32 STRIPS

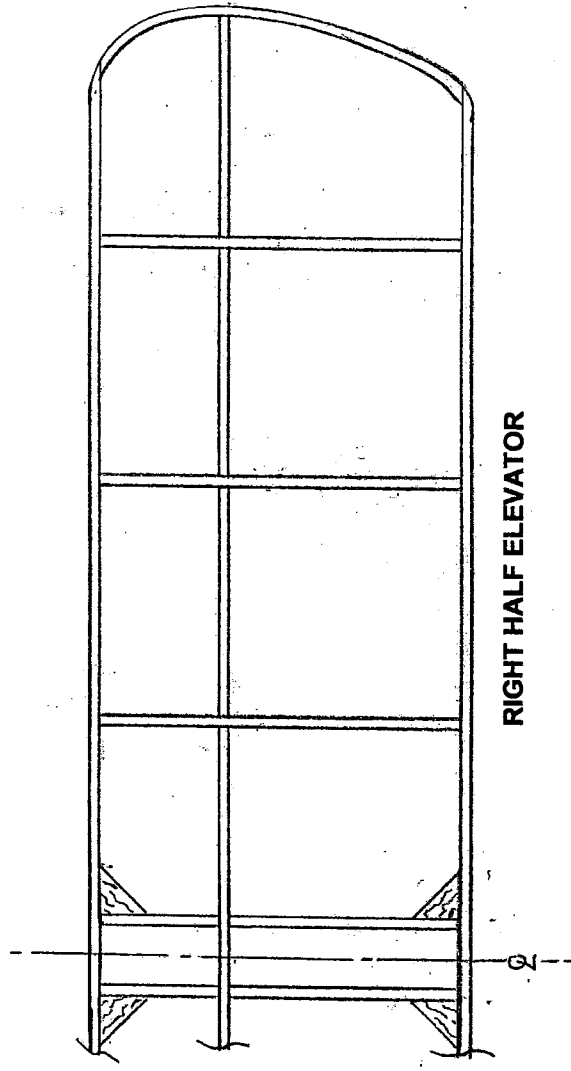


TRUE VIEW OF WING RIB
AND THIN CARD END PLATE

Mar./Apr. 2010



LEFT HALF STAB.

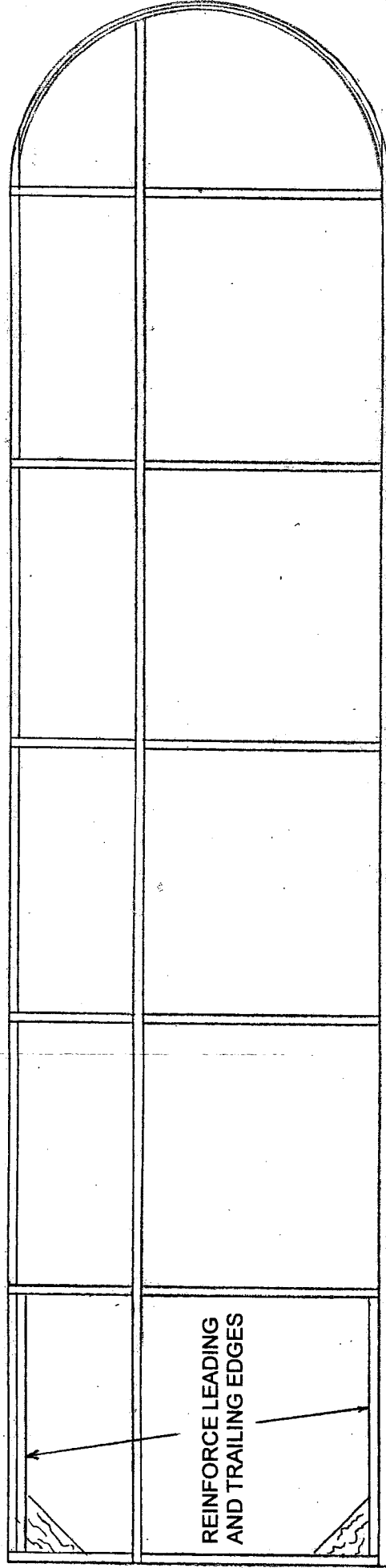


RIGHT HALF ELEVATOR



ELEV. SECT.

LAMINATED TIPS (TYP)

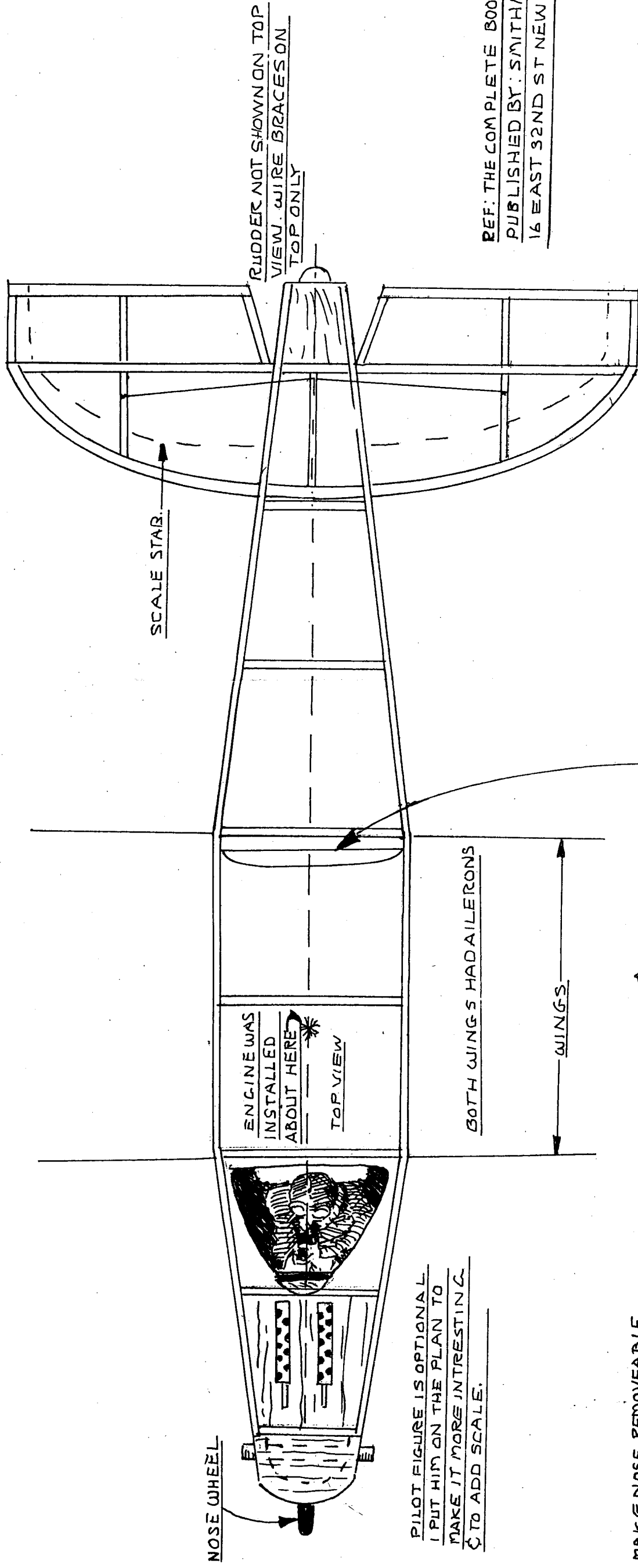


RIGHT WING PANEL



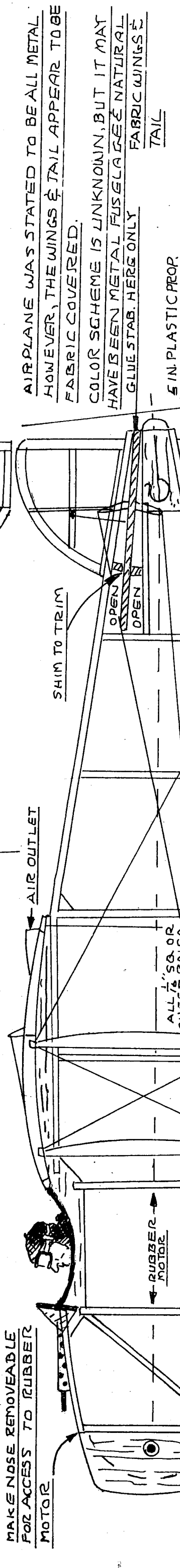
RAS

1973-2010



PILOT FIGURE IS OPTIONAL
I PUT HIM ON THE PLAN TO
MAKE IT MORE INTERESTING.
♢ TO ADD SCALE.

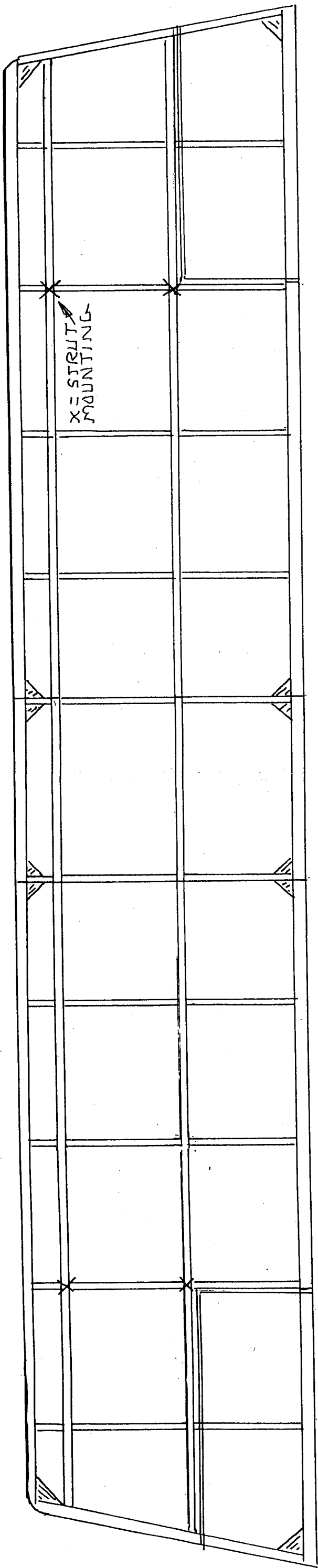
REF: THE COMPLETE BOOK OF FIGHTERS
PUBLISHED BY: SMITHMARK PUBLISHERS
16 EAST 32ND ST NEW YORK N.Y. 10016



LANDING GEAR WHEELS ARE
1 IN. DIA.

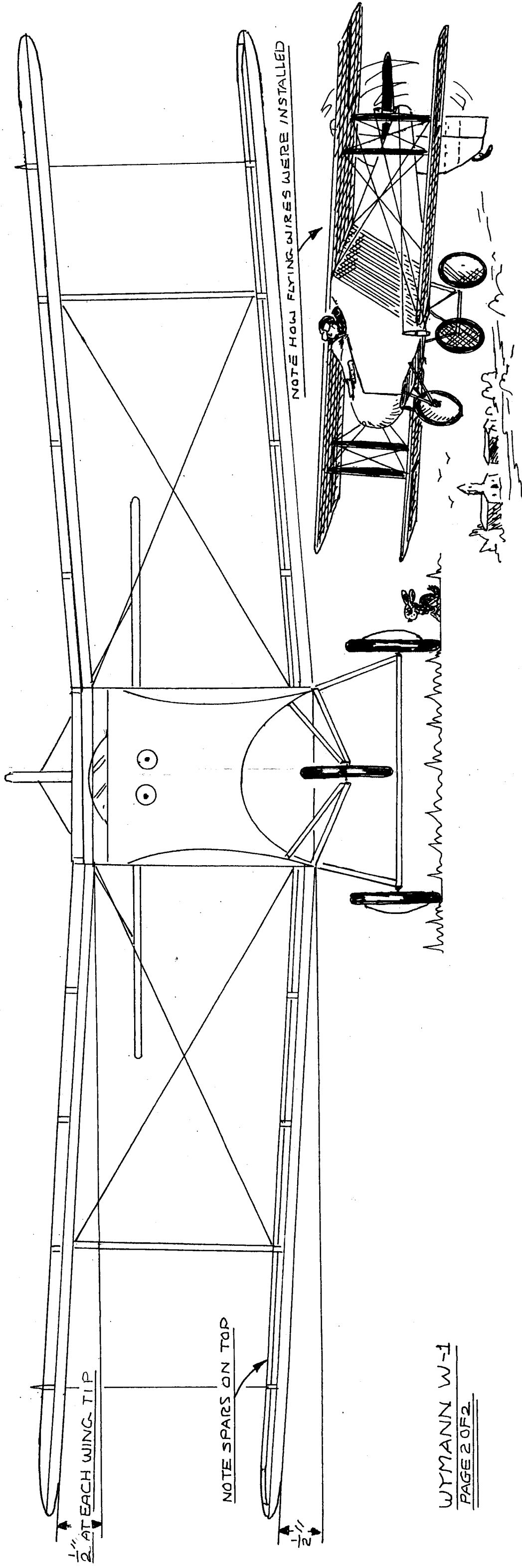
ENGINE WAS AN 80 H.P. CLERGET 1 CYLINDER
ROTARY MOUNTED AT THE CENTER OF GRAVITY.
ADEQUATE COOLING WAS A MAJOR PROBLEM.
TESTING WAS ABANDONED IN DEC 1915
AFTER ONLY TWO SHORT FLIGHTS

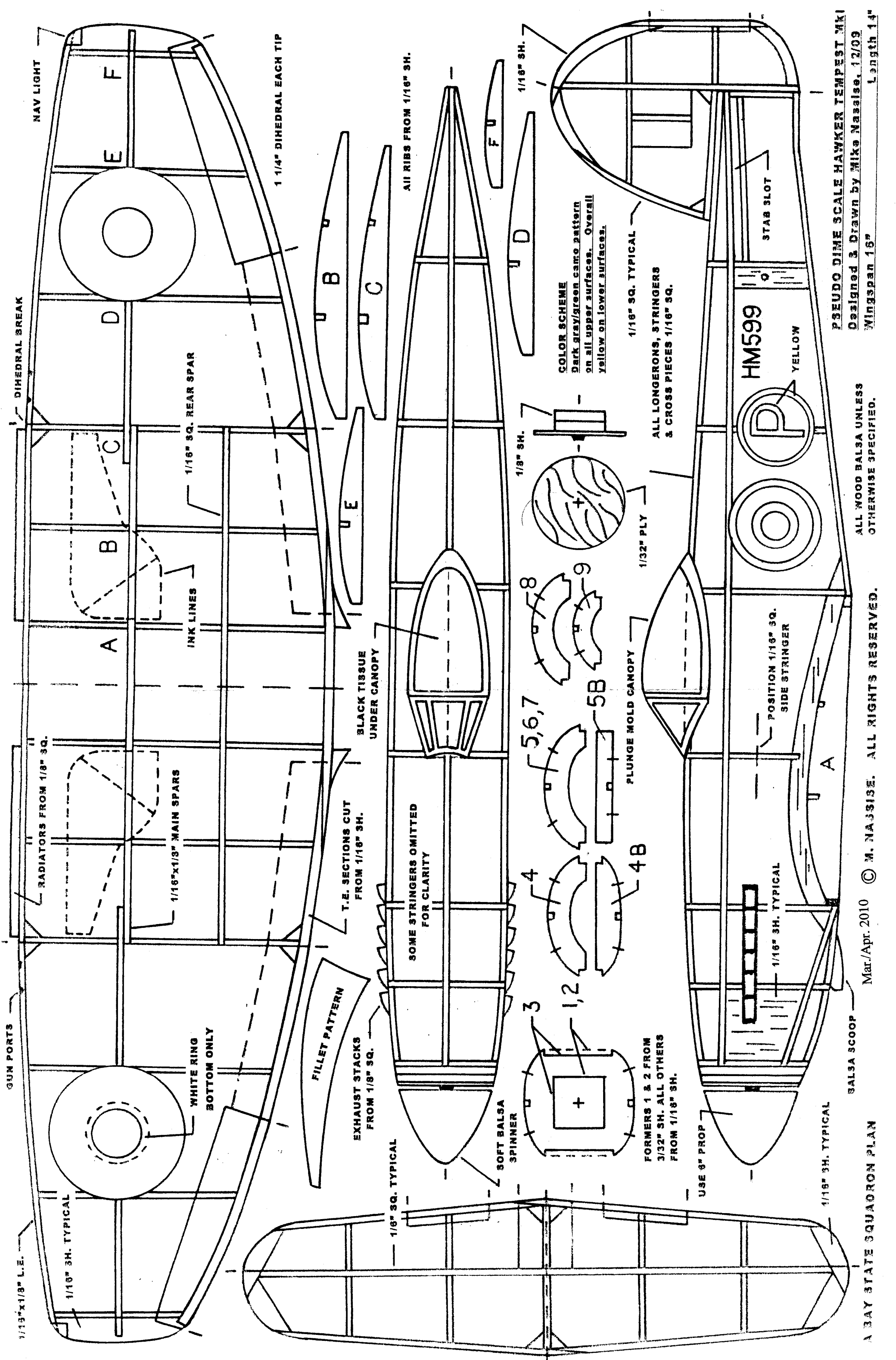
BvMAN W-1
SINGLE SEAT FRENCH FIGHTER
BY: FLORENT BAECKE

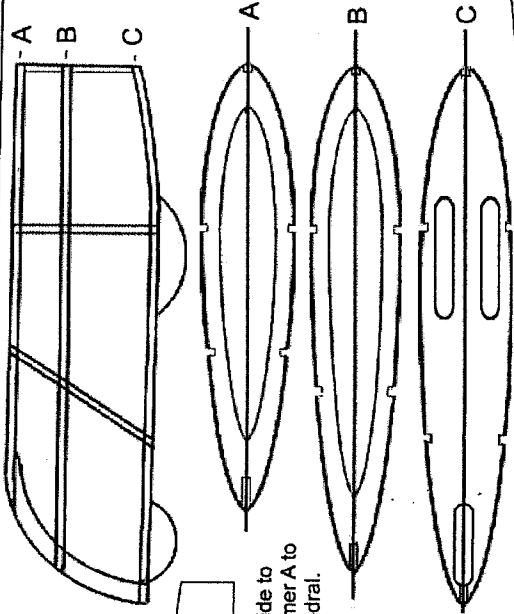
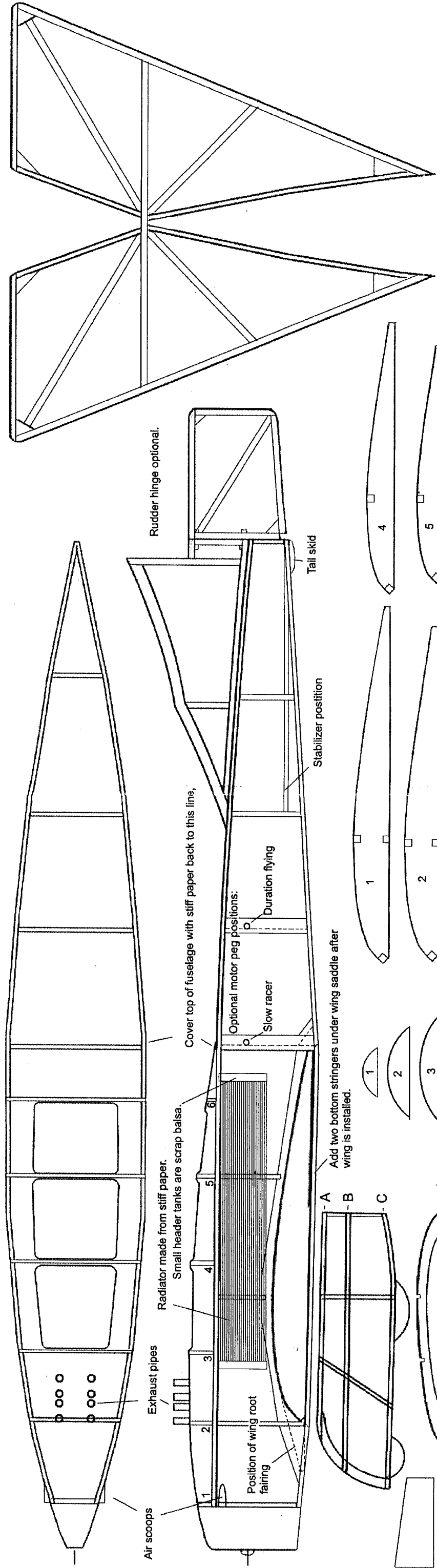


TOP & BOTTOM WING ARE IDENTICAL EXCEPT SPAR LOCATION

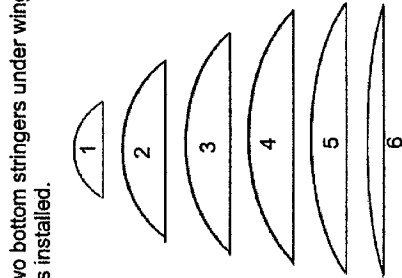
NOTE: SPARS ON TOP OF LOWER WING RIBS & BOTTOM OF TOP WING



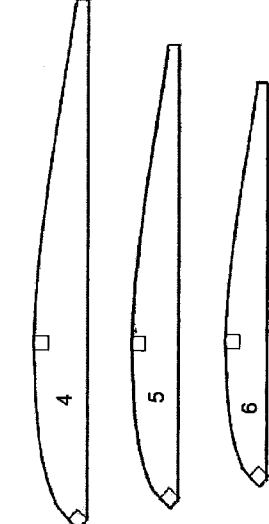
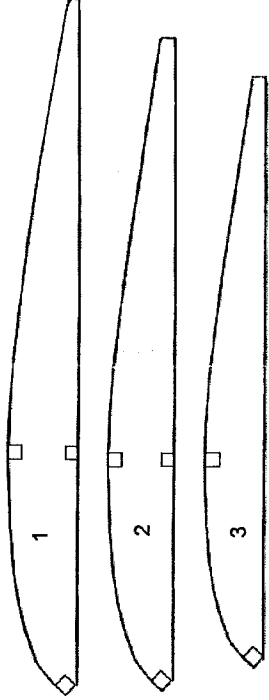




Use dihedral guide to set angle on former A to match wing dihedral.



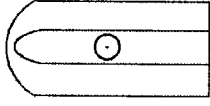
Add two bottom stringers under wing saddle after wing is installed.



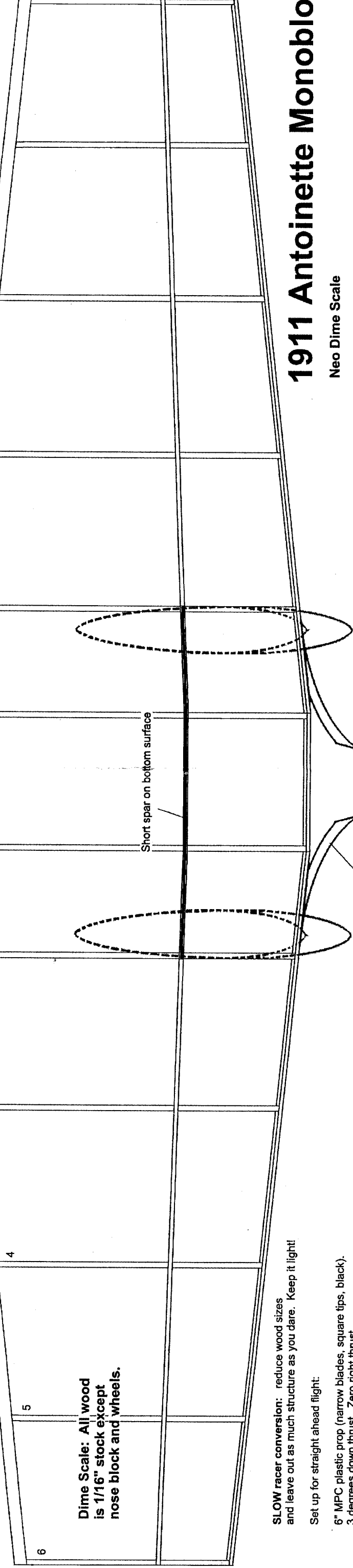
Dihedral break

Color scheme: Overall clear doped linen.
Natural metal panel over engine.
Radiator - copper with black lines.

Nose block.
Carve from soft balsa.



1" dihedral at each tip



Dime Scale: All wood is 1/16" stock except nose block and wheels.

Short spar on bottom surface

Add the leading edge root fairings after installing wing.
Cover top with stiff paper.

SLOW racer conversion: reduce wood sizes and leave out as much structure as you dare. Keep it light!

Set up for straight ahead flight:

6" MPC plastic prop (narrow blades, square tips, black).

3 degrees down thrust. Zero right thrust.

Left rudder.

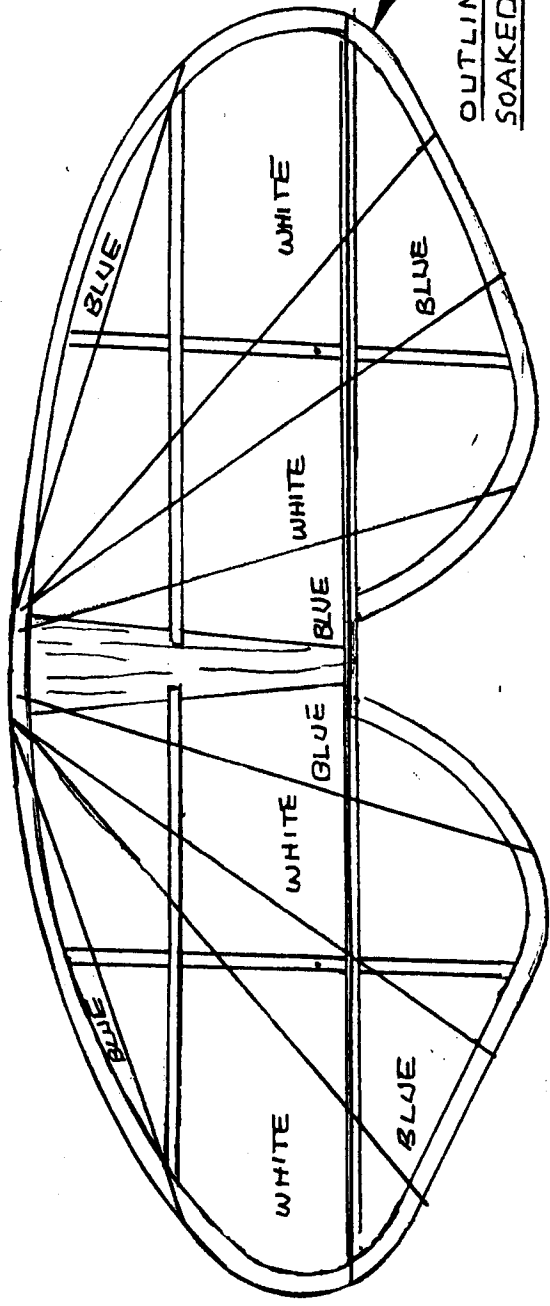
10" loop 1/16" Tan SS - 500 turns.

1911 Antoinette Monobloc

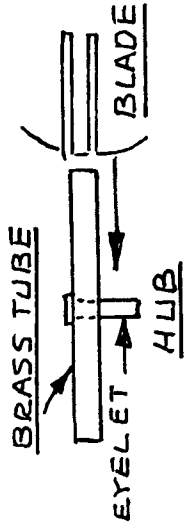
Neo Dime Scale

Wingnut Aero Works

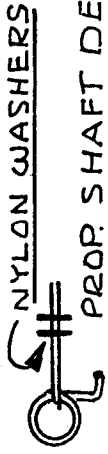
Rich Weber 2009



OUTLINE IS 2 STRIPS OF $\frac{1}{32} \times \frac{1}{16}$ SOAKED STRIPS OF SOFT BALSA



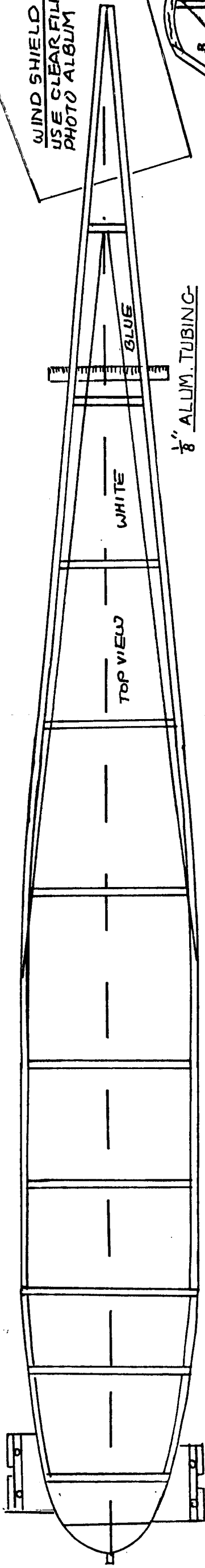
SHOVE BLADES ON TO HUB, SET THE PITCH & C.A. (GLUE)



PROPELLER BLADE
2 REQUIRED

2 PLY OF $\frac{1}{32}$ SHEET
FORM AT 15° ON A
JAR

$1\frac{1}{2}$ "

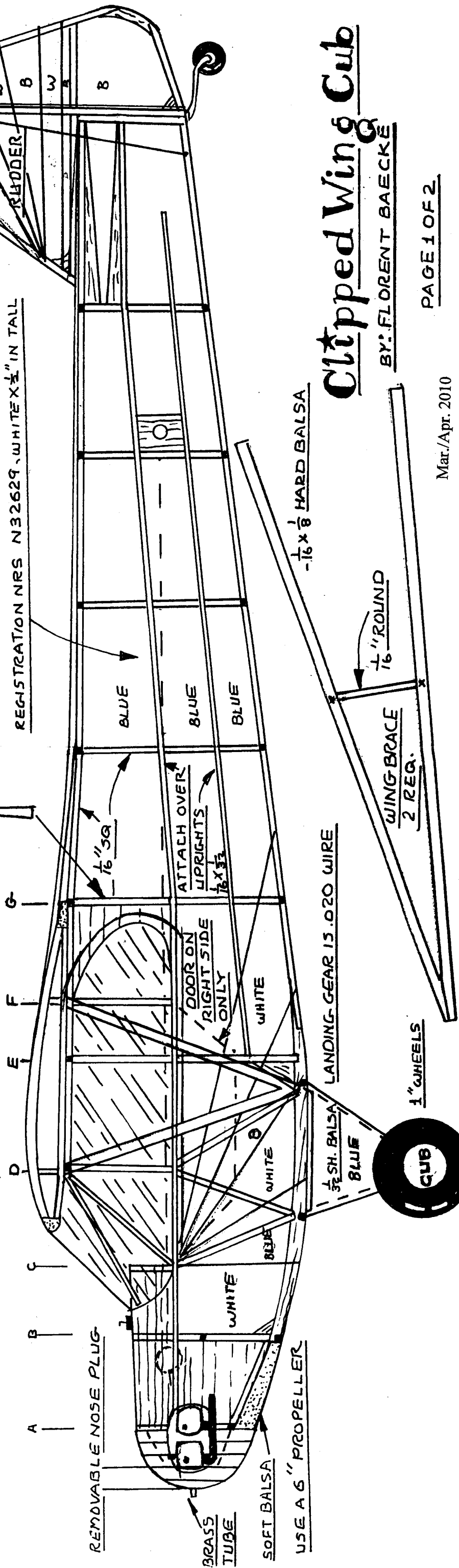
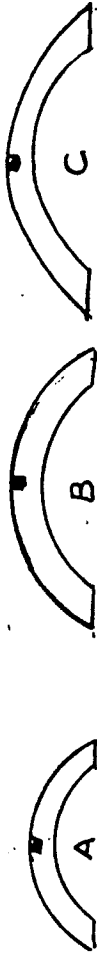


WIND SHIELD TEMPLATE
USE CLEAR FILM FROM A
PHOTO ALBUM

$\frac{1}{8}$ " ALUM. TUBING

AT D, E, F & G

REGISTRATION NRS N32629, WHITE X $\frac{1}{2}$ " IN TALL



LANDING GEAR IS .020 WIRE

$\frac{1}{16} \times \frac{1}{8}$ HARD BALSA

WING BRACE
2 REQ.

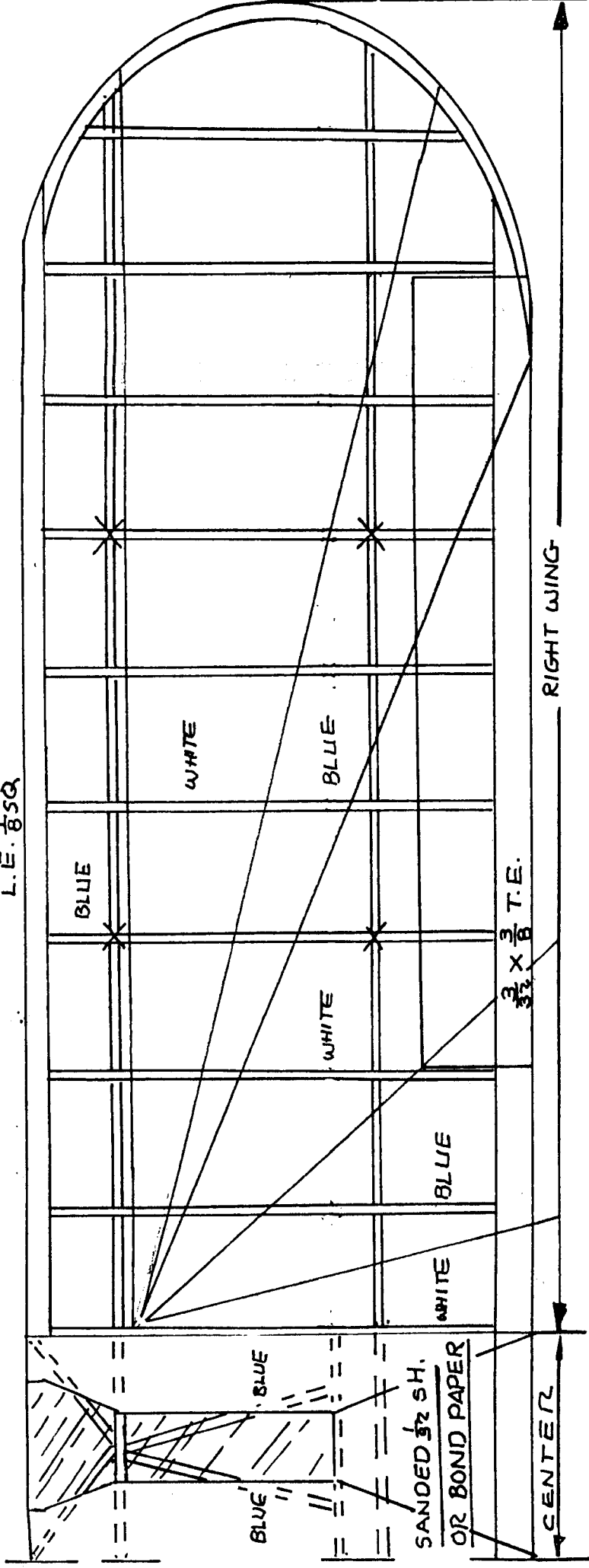
$\frac{1}{16}$ " ROUND

1" WHEELS

Clipped Wing Cub

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L.E. $\frac{1}{8}$ SQ.



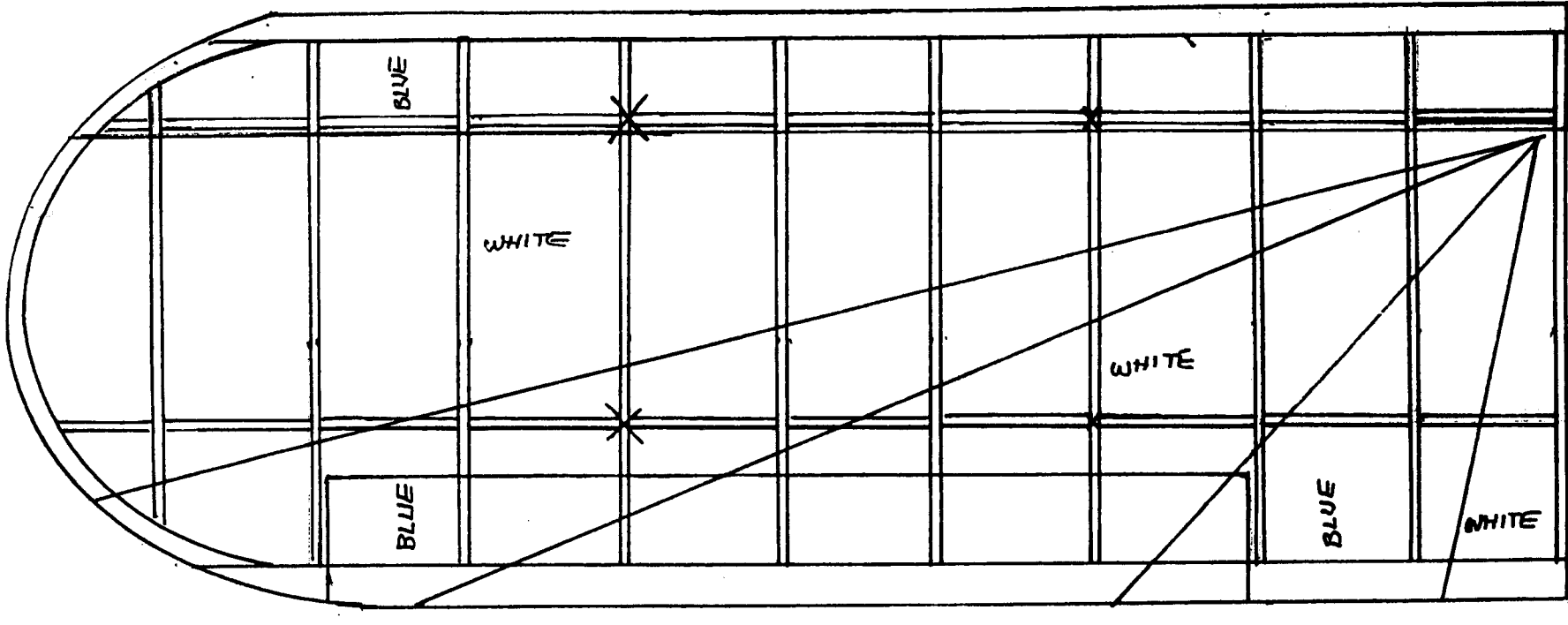
BOTTOM OF RIBS PRE-SANDED $\frac{1}{8}$ " SQ. SPARS $\frac{1}{2}$ SH.

TOP OF RIBS SLICED $\frac{3}{8}$ " WIDE FROM $\frac{1}{2}$ " SHEET

USING A FRENCH CURVE OR A PLYWOOD TEMPLATE

FOR COLOR SCHEME & MARKINGS REF

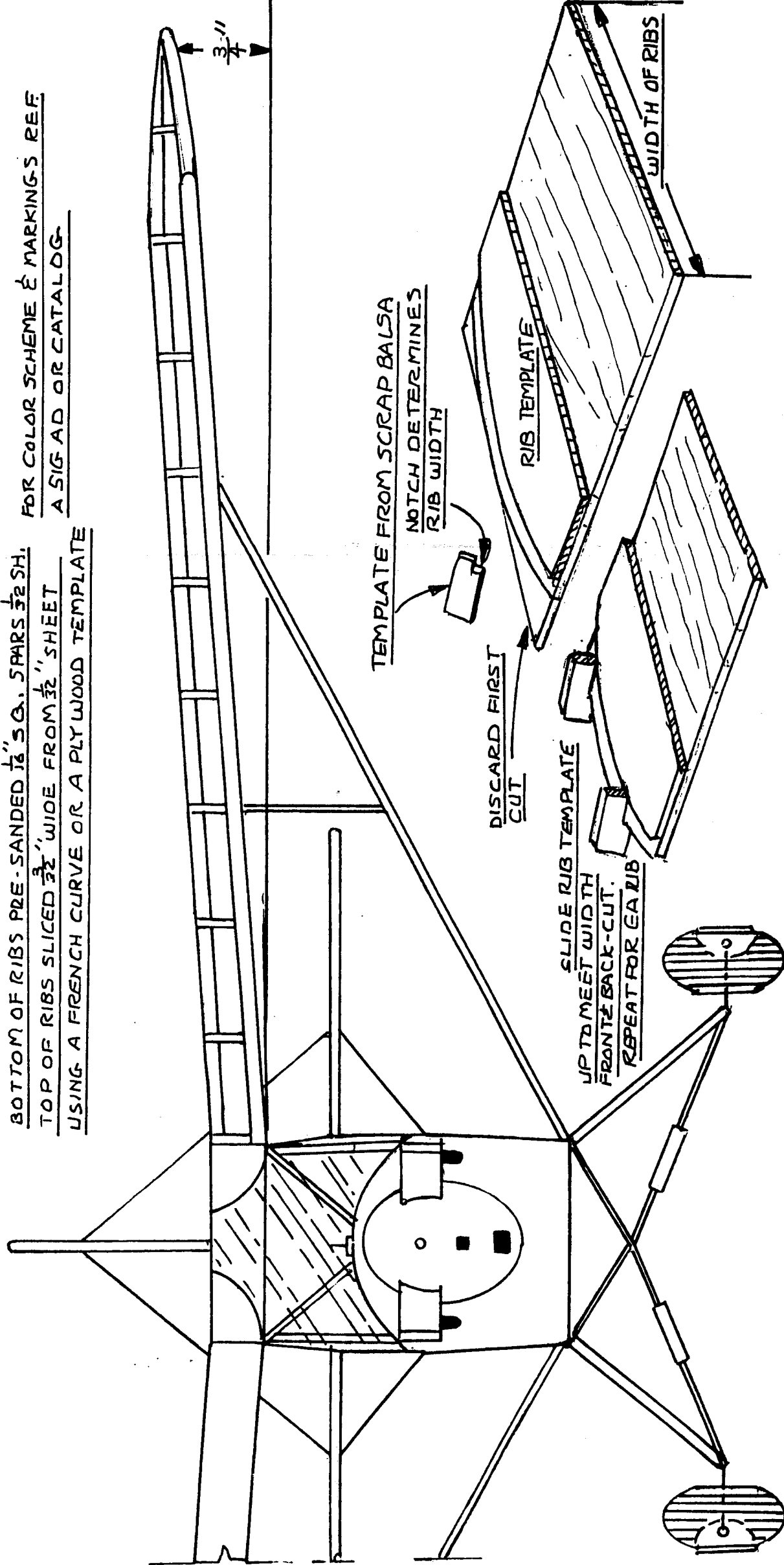
A SIG AD OR CATALOG

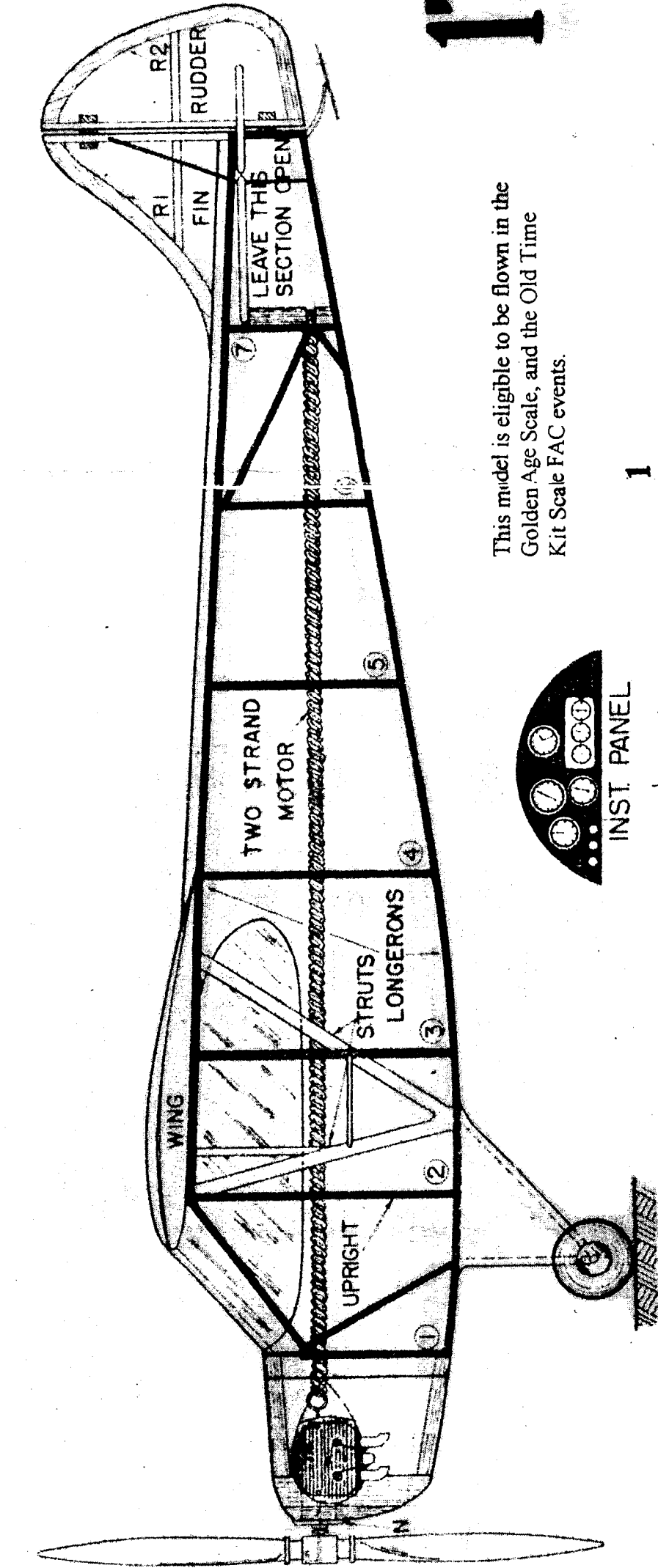
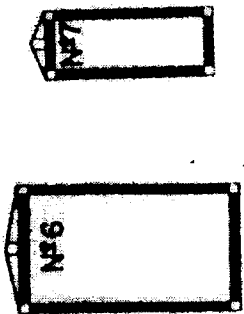
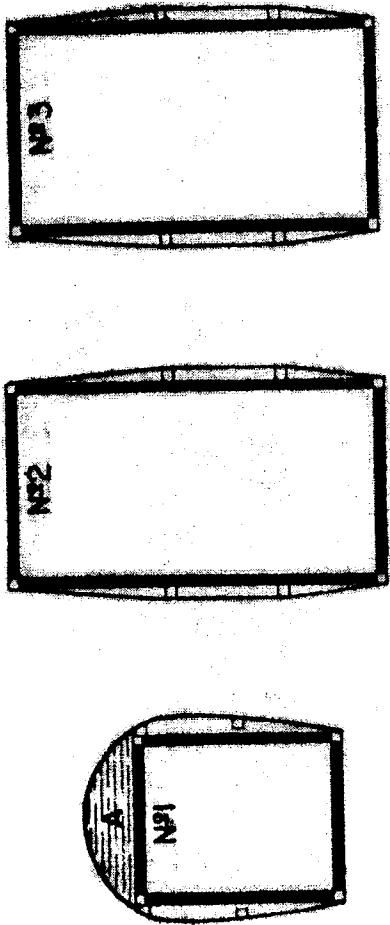
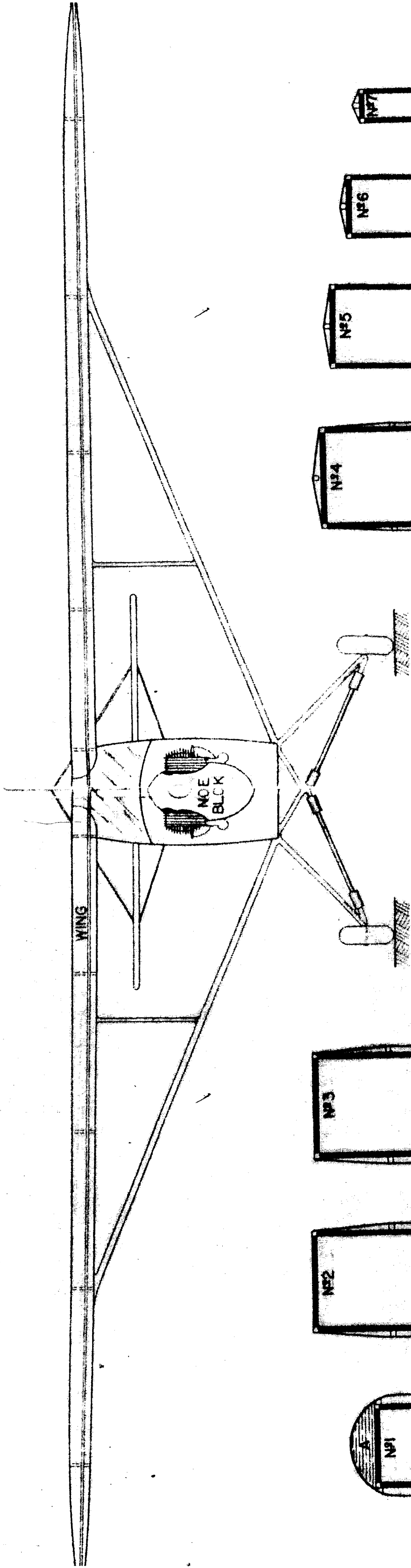


LEFT WING

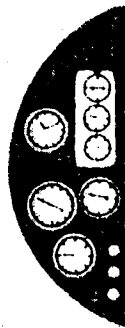
GLIPPED WING-CUB

PAGE 2 OF 2





This model is eligible to be flown in the Golden Age Scale, and the Old Time Kit Scale FAC events.



INST. PANEL

1

JAN./FEB 2010

The F. A. Moth
(Continued from page 56)

spar. Next put the prop shaft on the rubber motor, and you are ready for testing your "sky chariot." Adjust for a flat glide. If the ship stalls, move the wing back. If it tends to bank sharply, turn the rudder opposite the bank; that is, set the rudder so the plane will turn right if it banks to the left sharply, et cetera.

Now for the greatest thrill of model aviation, a first flight. Wind about 60-70 turns and launch. The ship ought to climb gently, circle to the left with torque, and glide in flat. If she doesn't do this, adjust her again. If you have any trouble with the adjustments, write the author in care of FLYING ACES, enclosing a stamped, self-addressed envelope. After you have made final adjustments, oil up your trusty windmill, give her about 100 winds with a 4-1 winder, and watch her play hide and seek in the clouds.

17" 1938 CUB Sport

FLYING SCALE MODEL N°1703 OTT