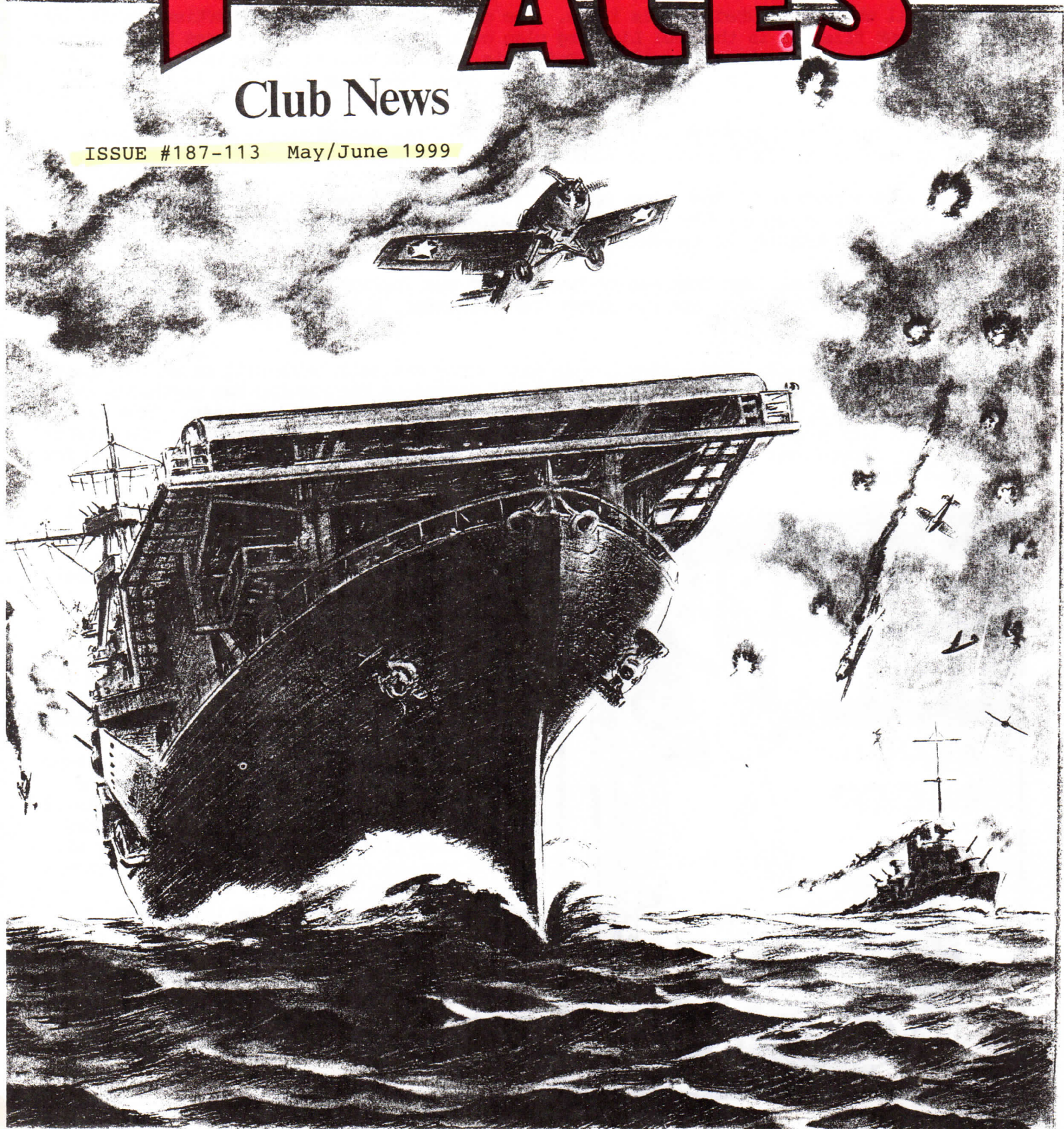


# FLYING ACES

Club News

ISSUE #187-113 May/June 1999





# NEWS ON THE WING!

ABOUT THE COVER--This sketch was one of several that appeared in a folder titled "American Aircraft Carrier" by Jim Ray. This has been in my files for who knows how long, many, many years I'm sure! There are several sketches depicting battle scenes such as this and we may use more of them in future issues.

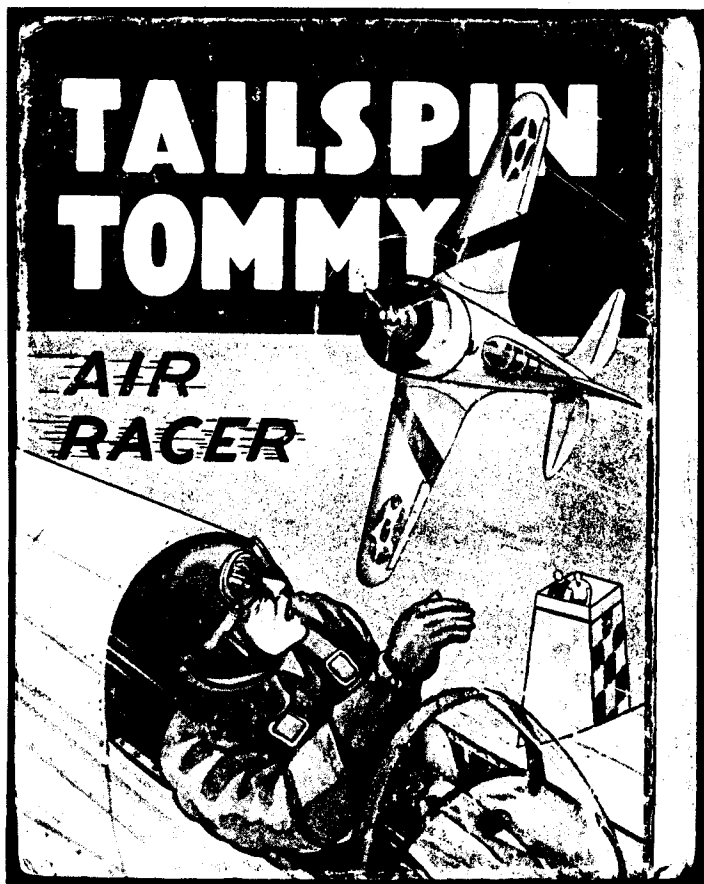
Thanks to all who contributed to this issue. The plans for this one are; Curtiss "Swift" by Comet from our files as is the Paul Lindberg plan of the Sopwith "Camel". Pres Bruning gives us his plan of the Arsenal-DeLanne 10 and Ted Davis sent his plan of the Priesel KEP. Ted says the cover drawing of this aircraft on the Jan./Feb. '99 issue inspired him to draw up this plan. The cover was done by Bill Ceresa on that issue.

Another FACer has left. Jack McRae from Smithtown, N.Y. has passed away and we wish to extend our sympathies to his friends and family.

The Flying Aces Squadron #53 has a new leader. Frank Costello has left the "Blue Angels" Squadron and has been replaced by Tom Shaw, 324 Lafayette Ave., Westwood, N.J. 07675. Good luck to you Tom in keeping the squadron going.

The "Blue Max" medal has been bestowed on two more of our intrepid aviators. Congratulations go to Charlie Hill, from Texas and Don Steeb from Rochester, N.Y. Nice going, Knights of the air!

**EASYBUILT MODELS ARE BACK!** Yes, after a long wait those Easybuilt kits will be on the shelves of your local hobby shops. Dave Niedzielski, right here from the FAC-GHQ has purchased the company and is now filling back orders that have accumulated over the last year. Dave has up-graded the kits with better balsa wood and hopes to improve on other things in the kits as time goes by. Maybe even some new designs. However, see their ad in this issue and send for the newest catalog.



See Roy Hanson's ad in this issue for a deal on Gasparin engines (Co/2). The first engine sells for \$100.00 and additional ones can be had for \$75.00 each. Sounds like a good deal to us. Check them out on the web site: <http://blacksheepsquadron.com>

Another great video from Bill Harding and Harding Aero Productions has just come out and it is a real good instructional one if you want to find out how to make lightweight models, wheels, and spinners. The segment on making spoked wheels is probably worth the price of the tape alone. John Johnston, a master builder and flyer shows how he makes those great models of his. You may not know John, because he does not compete in contests but he is usually at all of the big contests just flying his models and having fun!

See the ad in this issue for this video.

We recently had the opportunity to see the new "Andercraft" kits of the Hawker Hurricane and the Spitfire. Although they are nice kits we have to tell you that they are not eligible to fly in FAC events because the forward fuselage

on both of these is vacuum formed and therefore under the FAC rules cannot compete in our contests. Prices are good and the material is pretty good. If you don't want to compete then these would make fine models. **3.**

Tim Bucher has come out with "Stick and Tissue Modeler's Album" Number Two. I liked volume one better but this is still a good bargain for you Tissue Trimmers. See Tim's ad in this issue, I'm sure you'll want one.

By now you all must have read the new rule book, I hope?? Some of our rules have been taken rather lightly lately and it is time to crack down Clubsters! Especially in areas like the diameter of wheels on the Jimmie Allen and Old Time Rubber models as well as the airfoils on those old crates. We don't like to do this but from now on for the contests at Geneseo and at Muncie you are going to have to show the plan of your model to win an award in the event, Also we have had complaints about the width of some of your fuselages being too wide near the rear rubber peg. Better get them altered or be declared ineligible.

It has been called to our attention that we left out a couple of items in the rules. (we make mistakes too) One is that the wingspans for the Greve and Thompson Races was left out, you should all know that the spans for these events is 24 inches, MAX. In the Old Time Kit Scale event there should have been a rule saying that there shall be no D.T.s in this event. Put it in your head, NOW! Then we won't have a problem on the field.

If you haven't sent in your entry for the FAC Non-Nats at Geneseo please do so as soon as possible. your early entry really does help us with the paperwork. Plus we know about how many contestants we will have. Knowing in advance what we have to be prepared for really can make a difference in the outcome of the contest. The Scale Judging will be done at Peter's Party Complex in Leicester, N.Y. which is only 4 miles from Geneseo.

We are still looking for event sponsors and prize donations so if you are interested in helping along these lines contact me here at GHQ.

After some anxious moments we have the contest at the A.M.A. flying site scheduled for September 18 and 19, 1999. There is an entry form in this issue for that contest as well as the one at Geneseo. Would appreciate early entry on the Muncie contest as well as Geneseo.

#### FAC T-SHIRT SALE

We must liquidate our stock of FAC T-shirts to make room for this year's stock. We are now offering a discount to get rid of what is left. All T-shirts are now priced at \$7.50 each plus \$2.50 postage each. Here is what we have left and some sizes are in very short supply.

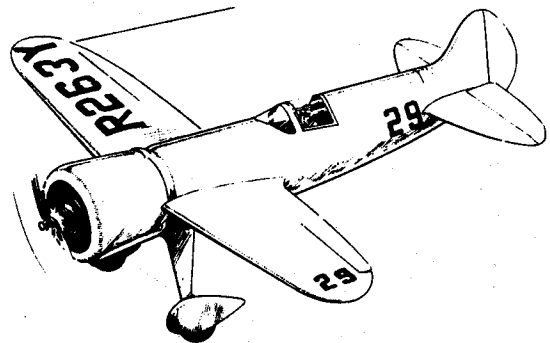
Waco C-7; small [REDACTED] only.

Laird Solution; small, extra large, XX-large, [REDACTED]  
[REDACTED]

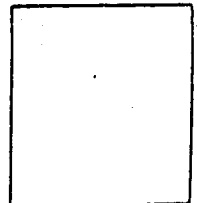
GET 'em while you can! Send your check to  
FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506

BUILD...FLY...WIN...EFF--AAA--CEEE!!!

*Lin*  
Lt. Col. Lin Reichel, CinC-FAC



If the box on the right has the dreaded RED "X" in it, it is time to renew your membership which includes the newsletter. Cost is \$15.00 per year in the United States and Canada. Overseas the cost is \$20.00 per year. Six issues per year published every other month. This is your last issue under your old membership. Please make checks payable to "Flying Aces". Send to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.





SPIN MASTER TOYS announces the creation of a contest for model aircraft powered by their "AIR HOG" air power unit. The model can be of your own design or of an existing design. It can be a scale model or a sport model and must be built using stick and tissue construction. No size limitations.

To get the power unit you will have to purchase the "AIR HOG" model, remove the power unit and install it in your model. You can purchase these models at almost any toy store or store that sells toys. Sorry, but the power unit is not sold separately.

This event will be run at the Geneseo contest this year on Saturday July 17th. Plaques will be awarded through three places and the top six finishers will receive "AIR HOG" kits.

Sounds like a lot of fun! How many can we get to participate?

## FAC Postal Contests

Here are the final standings for our winter 1999 postal contests. Thanks to all who entered. Although entries were down a little this year we still think it is a lot of fun so we will continue to bring these postal contests to you. Look elsewhere in this issue for the summer postal contest announcement.

### INDOOR PEANUT

Pilot	Plane	Time
1. Jack McGillivray	P-51B Mustang	132 sec.
2. Steve Griebeling	Lacey M-10	129 "
3. Barrie Taylor	1911 Bleriot 25	88 "
4. Dave Linstrum	Lacey M-10	73 "
5. didn't sign name	Davis DA-2a	44 "
6. Fred Lemon	Davis DA-2a	43 "
<b>FRANK HIRLEMAN</b>		<b>HAWKER HURRICANE 119 "</b>

### OUTDOOR PEANUT

Pilot	Plane	Time
1. Steve Griebeling	Stinson 125	420 sec.
2. Dave Stott	Kalinin K-4	106 "
3. Tom Hallman	Mart. Buzzard	78 "
4. Al Lawton	Fokker V-23	76 "
5. Al Likley	Andreasson BA4-b	60 "
6. Bill Stoutenburg	Jodel BD-9	57 "
7. Lin Reichel	Cougar	46 "

### INDOOR NO-CAL

Pilot	Plane	Time
1. Barrie Taylor	Heinkel HE-119	512 sec.
2. John O'Leary	Heinkel HE-219	210 "
3. Al Lawton	Mr. Smoothie	157 "
4. Don Steeb	Mr. Smoothie	149 "
5. Bob Clemens	Ohka Flying Bomb	125 "
6. Dave Linstrum	Cassutt Racer	121 "
7. Frank Hirleman	Hawker Hurricane	116 "
8. Dave Stott	Kalinin K-5	107 "
9. Didn't sign name	Maule 5	94 "
10. Fred Lemon	Maule 5	77 "
11. Fred Lemon	Chester Goon	74 "
12. Fred Lemon	F4U Corsair	70 "
<b>TED TOTH</b>		<b>FIKE 157 "</b>

### OUTDOOR NO-CAL

Pilot	Plane	Time
1. Dave Stott	Kalinin K-5	1039 sec.
2. Tom Hallman	Hawker Typhoon	125 "
3. Ed McQuaid	Stinson L-5	25 "
<b>STEVE MCKEOWN</b>		<b>TUADO PLATER 65 "</b>

Congratulations and KANONES to the winners!

## PHOTO PAGE

Left column; Jake Larson as the "Poster Boy" to recruit more FF types into FACers. Maybe it should be "Poster Boy" for R/C. That would drive a lot of them into FAC. Jake's photo.

Oscar Smith prepares his fine flying Bucker as his wife holds for him. Don't know photographer.

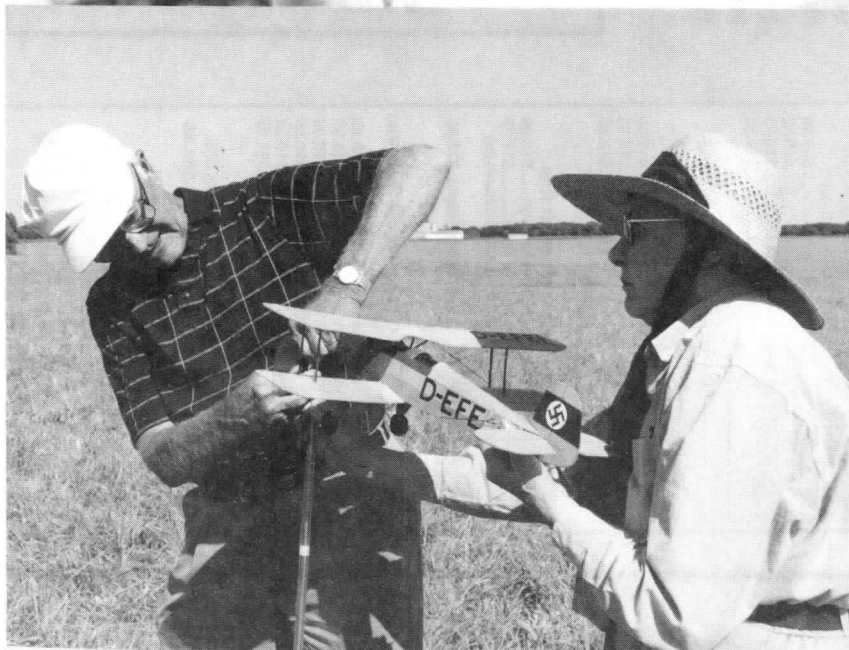
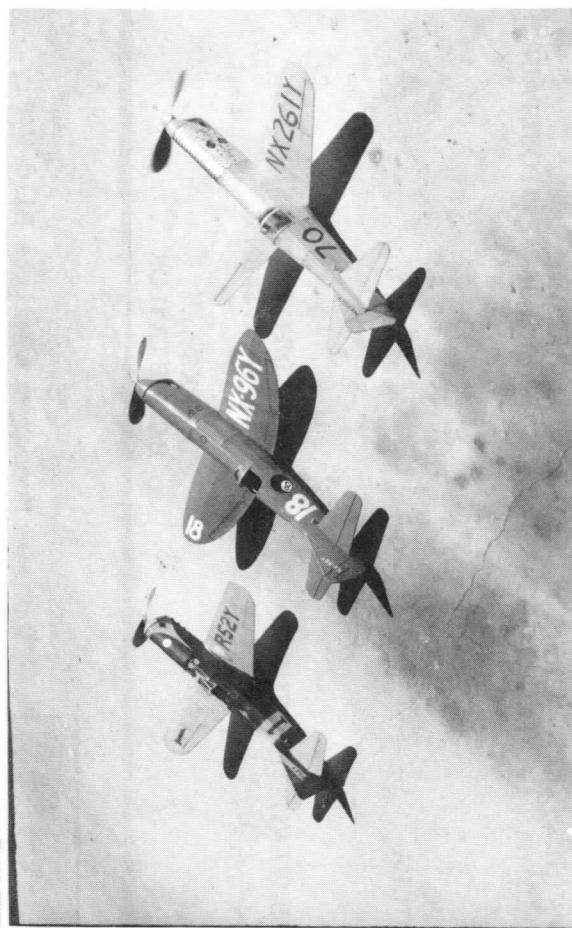
This shot of Bob Boyanowski's giant Rearwin gives you some idea of how large this ship is! 73 inch span! Chris Starleaf and Ed Bojan hold.

Right column; Ray Payne's line-up of Keith-Rider racers. R-2 Bumblebee, R-6 Eightball and R-4 Firecracker. Photo from Ray.

The fearless leader of the "Possum Patrol" and FAC Squadron #57, David Barfield and his FW-190. David's photo.

## WANTED:

The following plans, Peerless kit #114 Firecracker, Peerless kit #107 Stinson Taper-Wing, Peerless kit #103 Waco Cabin, Peerless kit #109 Nieuport 17-C1, Peerless kit #100 Fokker D-8, Comet kit #E19 Ryan ST and the Comet kit #L1 Ryan ST. Will pay all costs. Lin Reichel, 3301 Cindy Lane, Erie, Pa.16506.




NOCAL PLANS FOR SALE  
 LACEY M-10, HEINKEL 119 V-6, IAR 80, YOKOSUKA MXY-7 OHKA "BAKA BOMB" AND THE  
 MILES M-13 HOBBY (NEW) ALL PLANS SHOW COLOR AND MARKINGS  
 ALL PLANS ARE \$3.00 EACH AND \$2.00 POSTAGE OR ALL 5 PLANS FOR \$12.00 POST PAID  
 SEND ORDERS TO:

BARRIE TAYLOR  
 2 THACKERAY AVE.  
 WINNIPEG, MANITOBA  
 CANADA  
 R3K0H1

ALSO HAVE A SOS: WANTED DOCUMENTATION AND COLOR INFO ON THE STINSON  
 VOYAGER AS MODELLED BY EARL STAHL WITH THE 30 1/2" WING SPAN.

THANKS  
 BARRIE TAYLOR

WANTED: Monogram Lamelite Bild-N-Fly  
 series kit, "Mr. Mulligan" and Jetcoo  
 Models "Jet 50" kit or copy of plan.  
 Tom Hallman, 2553 Mill House Rd.,  
 Macungie, Pa. 18062. (610) 395-5656  
 E-Mail MAXFLIART@aol.com



Box 1063 Lorain, Ohio 44055  
 Phone 440-282-8354


**Big Flying Scale Kits**  
 Over Two Foot Span  
 ★ Piper Cub .....\$19.95  
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**Semi-Scale Kits**  
 CO2 or Rubber Power  
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 ★ Stinson Voyager .....\$12.95  
 ★ PC-6 Porter .....\$12.95


**Contest-Sport Kits**  
 ★ Hornet Embryo .....\$12.95  
 ★ Hornet P-30 .....\$17.95  
 Fits P-30 & Pee Wee Rules  
 ★ NEW  
 Bostonian Knight .....\$12.95

**Outdoor Peanut Scale Kits**  
 13" Span  
 ★ Cub .....\$10.95  
 ★ Stinson 125 .....\$10.95  
 ★ Vagabond .....\$10.95  
 ★ Farman .....\$10.95  
 ★ Jodel .....\$10.95  
 ★ Fike .....\$11.95


**PA-16 Clipper**




**Taylorcraft**



**Hornet P-30**



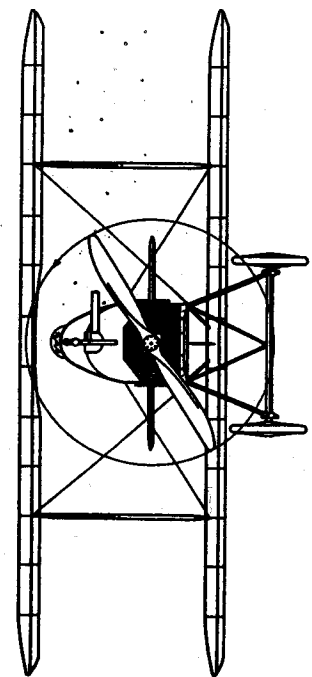
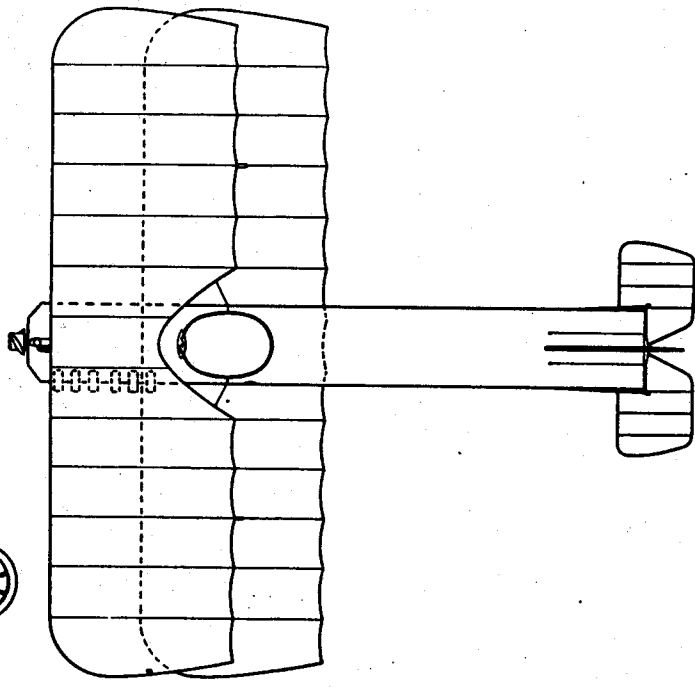
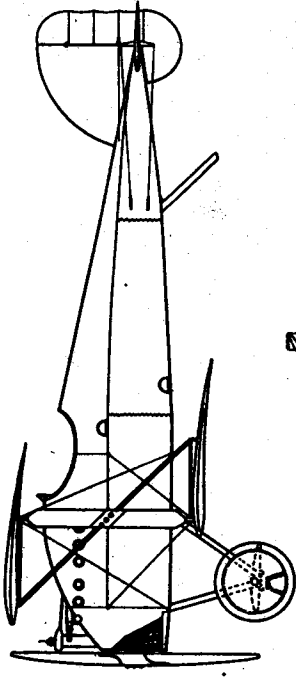
**Farman Mosquito**



1/2 A R/C Gas or Electric Kits Fits Astro 035  
 Taylorcraft.....\$44.95 Stinson 125 .....\$44.95

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Sales benefit the Black Sheep of Burbank.

Roy Hanson, 21410 Nashville Street, Chatsworth,  
 California 91311 or (818) 718-1685 and leave message.

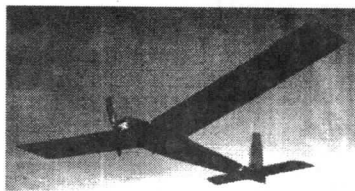


# Stick and Tissue Modeler's Album, Volume 2

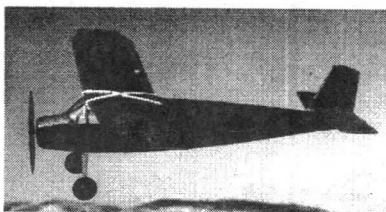
7.

Construction Projects for Free Flight Aeromodelers **NOW AVAILABLE !!!**

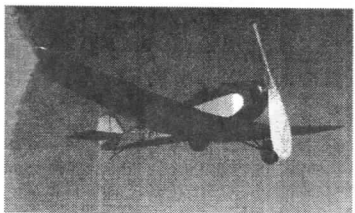
This new book is the second in a series of books on Free Flight modeling prepared by aerospace design engineer and long time modeler Tim Bucher. The book includes detailed construction articles for building the 8 models shown below. The models range in wingspan from 13 to 58 inches and all are proven fliers. The book measures approximately 8 1/2 by 11 inches, has 64 pages, color covers, extensive photographic coverage, and is priced at only \$14.95 plus shipping.



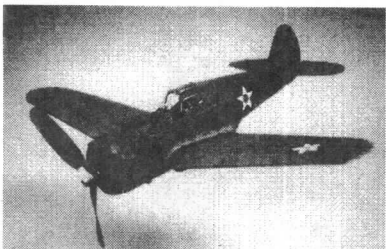
**Sky Demon Electro-Sport 24"**  
span electric by Tim Bucher.  
Full size plan included!



**Micro-Electrocutie 14 1/2"** span  
electric by Tim Bucher.  
Full size plan included!



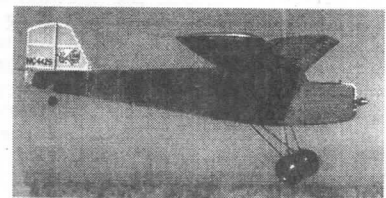
**Hendy Hobo 48"** span  
Rubber Scale by Tim Bucher.



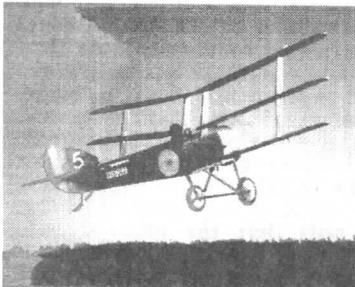
**Curtiss P-36A Peanut Scale** by  
Dennis Norman. Full size plan in-  
cluded!



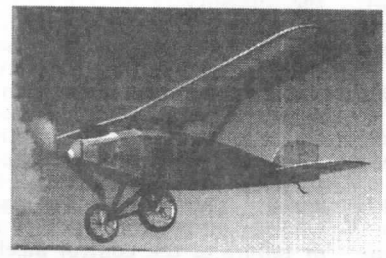
**Plage-Court Torpedo II**  
36" Coconut Scale by Dave Rees



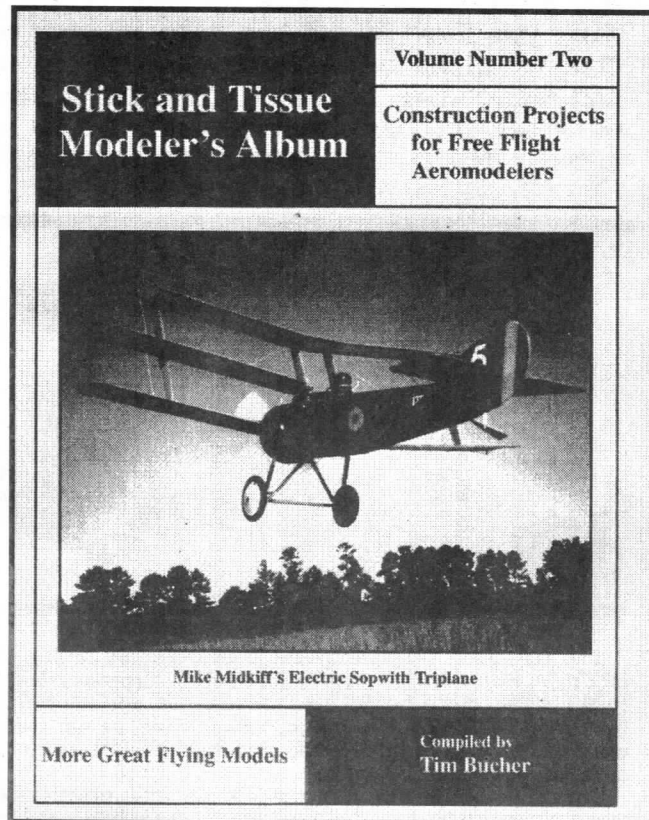
**Curtiss Robin 1/2 A Texaco Scale**  
58" span by Tim Bucher



**Electric Sopwith Triplane 26"**  
span by Mike Midkiff



**Russel-Henderson monoplane**  
Peanut scale by Tim Bucher.  
Full size plan included.



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Album, Vol. 2, at \$14.95 each plus shipping.

Total Enclosed \$ \_\_\_\_\_

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City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**Volume 2 Features More Great Flying Stick  
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**International Airmail:**  
Canada or Mexico add 35%  
Western Hemisphere add 45%  
Europe add 55%  
Australia, Japan, and Far East  
add 65%

## FAC Postal Contests

As you read this the summer postal contest will be underway. This year we will have four events or "Wings" for you to enter. They are; Golden Age Civil, Golden Age Military, Modern Civil and Modern Military. Just fly your model and send your times to GHQ along with the date of your flight, the Wing you flew in and the name of your model. Contest times count too. The contest will end on October 24, 1999. Entries postmarked after October 26, 1999 will not be accepted. BUILD--FLY--WIN...EFF--AAA--CEEE!!!

### NEW FLYING ACES SQUADRON

Squadron #64  
Western Slope Aero Squadron  
Carlo Godel  
2873 Unsreep Ave.  
Grand Junction, Co. 81503

If any of you Skysters live in Carlo's area give him a call, he'll be glad to hear from you.

JULY 3, 1935

19

THE AEROPLANE

### THE COMEDY OF THE AERIAL TORPEDO.



The statement recently given in evidence as to the design of the A.B.C. "Gnat" engine for aerial torpedoes in regard to the claim made by Walton Motors Ltd. for their work in developing the A.B.C. engines, may serve as an adequate excuse for recounting the true and unvarnished story of the abandonment of this scheme.

The underlying idea is quite simple and practicable. A small aeroplane is fitted with wireless controlling mechanism, and carries, instead of a crew, a large explosive charge. The machine is sent off and steered into any desired objective, either an observation post, a kite balloon, airship, or aeroplane, as may be most convenient.

An experimental "aerial torpedo" was accordingly built. The R.A.F. (now R.A.E.) at Farnborough designed the aeroplane part. It was a small highly stabilised monoplane fitted with the A.B.C. "Gnat" of 35 h.p.

A wireless expert, identity unknown, designed a suitable controlling gear.

The whole being assembled, high officials of the Army, the Navy, and of the services of Allied Powers, were conveyed to Laffan's Plain to view the tests.

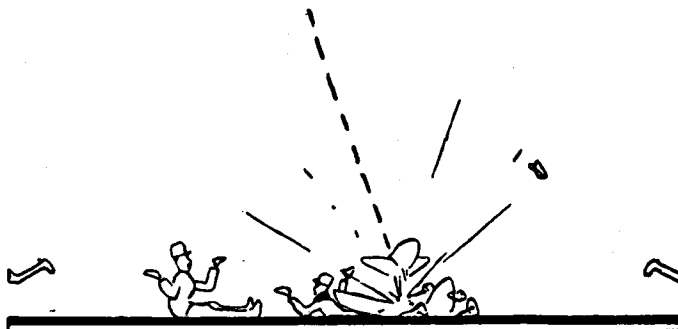
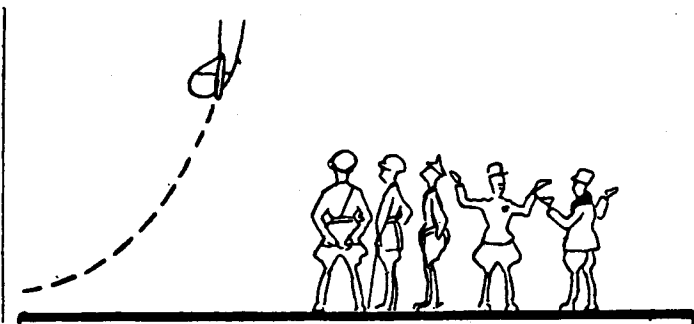
The engine was started, the wireless operator flicked his rudder and elevators to see that the controls were in order, and gave the signal to release the apparatus. The machine rolled forward and swung smartly round towards the nearest group of brass-hats, scattering them in all directions. Violent rudder operations by the control merchant swung her round at a second group, and—as is not altogether surprising—it

was found that the method of distant control was altogether too slow to secure anything like control while the machine was "taxying." For when taxiing it is necessary to correct a coming deviation from truth before the said deviation has become more than a tendency to deviate.

And, as a result, the assembled mighty ones were chased round Laffan's Plain by the infuriated aerial torpedo until her entire petrol supply—fortunately a small one—had run out. The machine never kept straight for a sufficient period to attain flying speed, and it appeared to possess an unerring instinct which led it to pursue the most august and short-winded of the assembled spectators. As a result, although the difficulty of getting such a machine off the ground could have easily been surmounted, it was for some time more than anyone's life was worth to suggest—in those quarters where Policy was decided—that further experiments should be made.

But in due course the generation of brass hats concerned were relegated to other spheres, and the project was revived, and a second assembly of the mighty gathered at Northolt to witness a test. A contraption of rails had been arranged to keep the machine straight while it was gaining flying speed. The torpedo left the rails, left the ground, and, whether on account of faulty design or trim of the "torpedo," or failure of the control mechanism, the apparatus described three-quarters of a loop off the ground, smiting the inoffensive earth nose on just where the assembled multitude had taken their stand.

No further trials have yet been made



AS IT WAS IN THE BEGINNING.—The story of the first experiments with wirelessly controlled aeroplanes.  
Reproduced from "The Aeroplane" of December 21, 1921.



# HOME BUILT SPOKE WHEELS

I have used this system to make spoke wheels 3/4 to 3" dia for rubber powered models in the 12 to 30 inch range. Wheels consist of two-ply balsa rims, aluminum tube hubs, foam tires, and thread spokes.

Step 1: Rims - 2 plies firm balsa laminated cross grain with waterproof glue. Tire blanks - blue foam or grocery trays (5/32 thk kind). Use water soluble (white) glue to spot glue foam to balsa. Parts can be cut out either before or after laminating.

2. Sandpaper tires to round cross section while still assembled.

3. Water-soak until tires can be easily separated from rims.

4. Make 12 tiny razor blade cuts spaced 30° in outer edge of rims. Mark 1-12. Paint now - inner edge of rims silver, tires and outer edge of rims black.

5. Hubs- 1/16 and 3/32 ID alum tube. Cyano together.

6. Assembly fixture: 1/16 dia music wire glued into a sturdy wood base perpendicular to the surface. Accuracy reqd. Glue 3 balsa rim supports to base, located so they will fall between spoke locations. Use 1/8 x 1/2 balsa stock for starters. Supports can be trimmed, built up, or popped off and replaced as reqd to suit your wheel size. All 3 must be same height to prevent wheel wobble.

7. Center a rim on fixture and pin securely. Center hub vertically with washers or other shims and hold down with snug plastic tubing etc.

8. Cut a thread 12 times wheel dia plus a foot or so. Glue end in slot 12. Route over top shoulder of hub and thru slot 7. Pull thread snug, not tight. Check its position on shoulder and cyano in slot. Follow FROM-TO chart, repeating these steps. A piece of wire with a small U-shaped hook in the end is useful. When threading is complete, carefully remove wheel from fixture and lightly cyano threads where they touch hub.

9. White glue tire halves onto rim assemblies. Clamp to overcome tension of spokes. Fill/sand/touchup paint on outer tire surfaces as reqd.

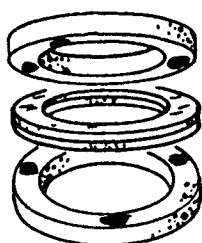
Build up dia of model's axle wire to match 1/16 hole dia in wheels. Use eyelets or tubing. This is usually easier than necking down the wheel hole. If you have questions, write to:

Paul McIlrath  
1524 48th St NE  
Cedar Rapids, Iowa 52402

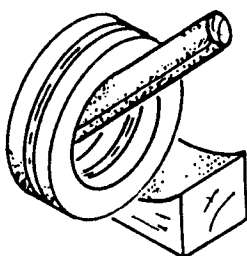
FROM TO ON

12	7	TOP
7	2	BOT
2	9	TOP
9	4	BOT
4	11	TOP
11	6	BOT
6	1	TOP
1	8	BOT
8	3	TOP
3	10	BOT
10	5	TOP
5	12	BOT

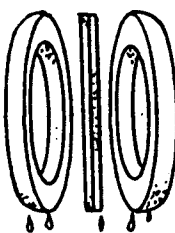
SPOT GLUE  
BLANKS



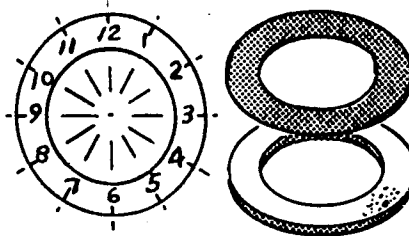
ROUND  
CORNERS



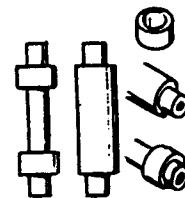
SEPARATE  
PARTS



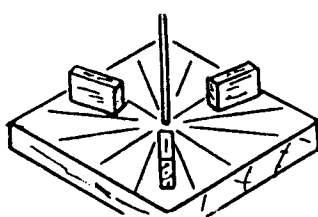
NOTCH RIM AND  
PAINT



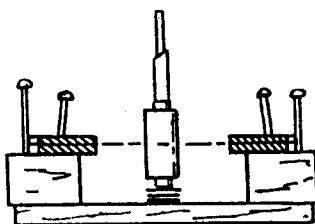
MAKE  
HUBS



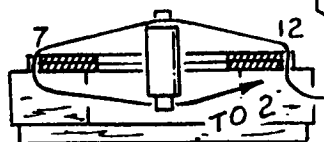
BUILD  
FIXTURE



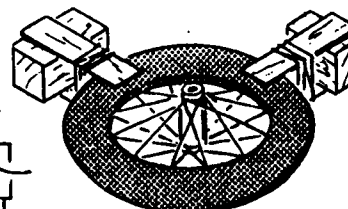
SET UP  
PARTS



SEE  
THREADING  
CHART



THREAD  
SPOKES



REGLUE  
TIRES

continued from last issue....

This airplane was used by Gulf during the years 1940 to 1941 in order to bring attention to the company's support of the light planes Air Cavalcades held at the Miami Air Maneuvers.

During the early years of World War II the Gulfhawk was used very extensively as a research vehicle to test new fuels and lubricants under actual flight conditions.

In 1943 General Hap Arnold Chief of the U.S. Army Air Corps, requested Major Williams to visit various training basis in order to demonstrate a precise type of flying regime and how to maintain good control of the aircraft while in the air. It was also be considered a morale booster.

This was more than a three month tour which included over a dozen fighter-pilot training schools. Williams would first lecture and talk to the line-mechanics, where he would stress the close relationship these men should have with the pilots. This would be followed by a flight demonstration for all base personnel. Here he would fly every flight to perfection making neat and crisp takeoffs and landings.

His self kept total showed 39 lectures and 18 flight demonstrations and over 11,000 air miles flown. As a civilian at this time he donated his time and talent free of charge as his part in assisting the war effort.

Following the war Williams continued his flying demonstrations and in October of 1948 the " Gulfhawk II " was presented to the Smithsonian's Institution's National Air Museum as it was then called. However the master did one more fantastic display of aerobatics at the Washington National Airport. Immediately after landing Williams removed the control stick thereby symbolizing the decommissioning of his most famous aerial steed. Truly a workhorse of the air.

Following the formal presentation of the " Gulfhawk II " to the museum personnel, Major Williams then took possession of " Gulfhawk VI ", a Grumman F8-F " Bearcat ", which devoid of military equipment proved to be a fantastic replacement for his old machine.

During some of his demonstrations he would use " Jato " rockets on take-off. It was said by many observers that the airplane had the appearance of having been shot out of a cannon. Here again the old master was doing research, for the "Jato " type bottles had been used towards the end of the war, their use had been primarily to assist heavily laden aircraft get airborne, particularly from short runways.

Unfortunately this airplane was not to have gained the glory and the noteriety of the other Gulfhawks because while returning from a flight to Miami on his way to New York, Williams ran into foul weather and ever the cautious airman, elected to land safely at New Bern, N. C. and wait out the storm. The airplane had just touched down when the left landing gear leg collapsed, the long-range belly fuel tank split open and the airplane became a raging inferno. Williams was lucky to have escaped, although it was said just barely.

11.  
Following years of declining health, Major Al Williams passed away on his farm, Eyrie, located near Elizabeth City, North Carolina, on June 16, 1958 at the age of 67. He was buried in Arlington National Cemetery.

So, ended the life of a man who espoused aviation and preached air power at every opportunity. He was also credited with having taught the young people of this country to enter a career in aviation and perhaps even some of them to fly.

At one of his many award dinners the speaker intoned. " You have no greater testimony for a man's belief, that you must eat, drink, sleep and live flying if you wish to be a great airman than we have seen through the efforts of Al Williams ".

In retrospect, Major Al endeavored to stimulate the civilian people's interest in things aeronautical and to the value of airplanes in transport, defense and aerial combat, much in the same way modelers try to acquaint the public with models and model flying and the value of this hobby.



Capt. Al Williams, national commander of Junior Aviation, and a scene as he staged acrobatics at races.

## CAPT. AL WILLIAMS, FLYING CHAMPION



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Harold A. Bickford II



12.

Aug. 28-29, 1999

# F.A.C. MIDSOUTH CHAMPIONSHIPS

Arnold Air Force Base, Tullahoma, TN

Saturday 8-5CDT

Sunday 8-4CDT

WW I Combat \*

WW II " \*

No-Cal Scale

Dime Scale

Golden Age (Civln)

Golden Age Biplane

Peanut Scale, Hi Wing

Jumbo Scale \*\*

Rubber Scale \*\*

Greve race \*

Thompson Race \*

Power Scale \*\*

Golden Age Milry

Peanut Sc.(other)

Old Time Rubber

Electric Replica

\* = Mass launch      \*\* = Judged Event  
Judging 10-12 Saturday, but judged events may be flown either day.

No 15% rule. Entry Fee: \$15 Juniors \$5

Dinner Saturday Night, Order off menu.

For maps, motel information, contact:

Gary Morton  
4312 Bill Jones Rd.  
Apison, TN 37302  
423/236-4068

Ollie Benton  
409 Brady Pt. Rd.  
Signal Mtn., TN  
423886-1293 37377

## ERIE MODEL AIRCRAFT ASSN. 1999 CONTEST SCHEDULE

All contests are scheduled to be held at the Prangmore Aerodrome on Millfair Rd., Erie, PA.

ALL CONTESTS ARE RAIN OR SHINE and will be held regardless of the cooperation from the skies out of consideration of our travelers. Flying starts at 10 AM and ends at 5 PM.

MAY 8, SATURDAY ... 5th Annual Warm Sunny Spring Fling Contest... CD Ross Mayo

JUNE 5, SATURDAY ... 26th Annual Great Lakes Scale Contest ... CD Vic Didelot

AUGUST 7, SATURDAY ... 4th Annual Mid-Summer Scramble... CD Joe Barna

SEPTEMBER 11, SATURDAY ... 28th Annual Midwest Scale Meet... CD Ross Mayo

OCTOBER 9, SATURDAY ... 9th Annual EMAA Last Chance Contest... CD Vic Didelot

This last meet will end early at 4 pm to accommodate the banquet which starts at 6:30 PM. Please call to reserve a seat at our banquet. Thank you.

CD - Contest Director

Ross Mayo, 3838 Woodcrest Court, Erie, PA 16506, 814-833-6855

Vic Didelot, 814-838-3263

Joe Barna, 3517 Kristie Dr., Erie, PA 16506, 814-833-4985

Look back on a century of Aviation History  
and attend the

# CELEBRATION OF FLIGHT 1999

Saturday August 28th, 9 AM to 5 PM  
at the Ralph C. Wilson, Jr. Fieldhouse One Bills Drive, Orchard Park, NY 14127



All facets of flight under one roof! Career in aviation seminars throughout the day! Largest kites in the world on display. On going free flight rubber power flying demos. Helicopters, monster 33' Cody Manlifter, U.S. Air Force, Rockets, Ultralight aircraft, Radio controll gliders, powerplanes, helicopters, electric planes, career in flight opportunities, hobby store exhibits, 3000 ft. American flag, meet local flying clubs, models on display by some of the best builders in the country, representing the Western New York Free Flight Society and the Flying Aces Club.

Free parking, Admission \$3.00. For more onfo: Dan Flintjer, 190 Kirby Ave., Lackawanna N.Y. 14218. Phone (716) 826-7420 or (716) 559-3060.

Refreshments available. No food or beverages allowed to be brought in. No pets!

I've often heard it said,  
That to get there you must be dead.  
And that saying never filled me with the "hots"

I'd be happy to be going,  
To where the wind is always blowing,  
At a soft and gentle seven knots.

To where the grass you see,  
Grows halfway to your knee  
And about half of that in hundred acre plots.

A place to trim a free flight  
Into gentle circles, to the right  
And to cushion the crashes of those that go awry.

The shorter grass for saving  
Those that aren't behaving,  
To keep them ready for another flight.

And bare earth plots around  
For those who'd rather "rise off ground"  
Just like any plane had oughter.

And many a shallow lake  
for those of us who'd take  
our planes out to "rise off water".

Somewhere bordering the sea  
With a lake or two, or three.  
That there is such a place I definitely know.

With hills so gently rolling,  
Just perfect for some strolling.  
And just the place to let a free flight go.

Where little fluffy clouds  
Float about in crowds  
To mark each thermal on the plain.

Where the flora and the fauna  
they sure ain't a-gonna  
Interfere with flying of a rubber-powered plane.

With multi-colored bushes there  
Whose leaves are 'zactly one yard square  
Of the lightest tissue that you will ever know.

Where the balsa tree surprises  
By growing in pre-determined sizes,  
Each size in it's own special row.

The leaves of that balsa glade  
Are definitely "Contest Grade"  
And rectangular in different widths and lengths.

Their bark is a special ply  
That would amaze both you and I  
By its suppleness and strength.

The Paulowina prop plant grows  
Among the gummer bushes rows  
And their sap is a kind of instant glue.

Their leaves form props and loops  
For us gummy-bander troops.  
I'd be happy to be there - wouldn't you?

There'll even be some trees  
With optically clear leaves  
Shaped like various canopies and some would even be flat.

For making window panes  
On various old time planes.  
Now could you ask for any more than that?

Except for those who get there before us,  
Names both mundane or glorious  
Will be there to greet us whenever we arrive.

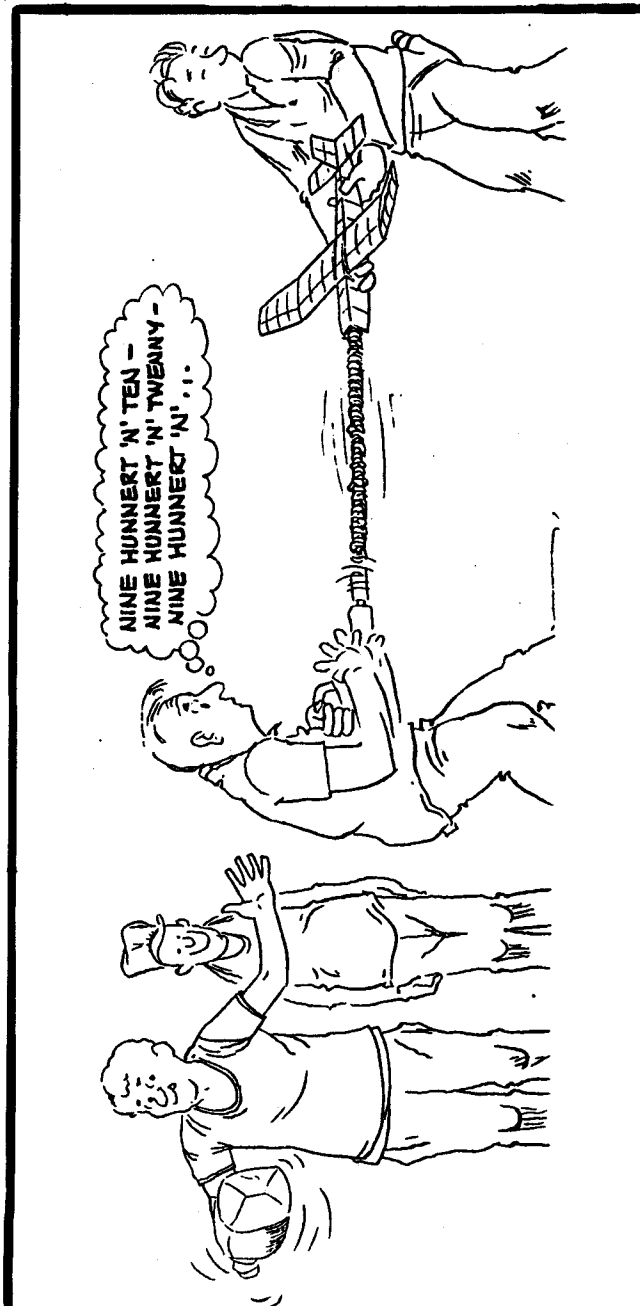
But I guess I'll have to wait,  
Cause it sure ain't in my fate  
To see such a place as that while I'm alive.

And when it's time that I  
Lay me down and die  
I'll do so with the very fervent hope

That the place to which I'm sent  
Is the one of which I've dreamt.  
Of gentle breezes and great big grassy slopes.

Of perfect flying weather  
And friends who get together  
In that paradise where gummy-banders go.

by Capt. A.C."Jake" Larson, USAF Ret.



to the ground along with your new Bonus Point beauty pinned securely in position....

CONTEST BLUES

Al Lawton

You've all heard of a bad hair day but have you ever heard of a bad meet day? You have if you've experienced some thing similar to (or more--God forbid) of the following:

1. During the night before, power was off 1½ hours unbeknownst to you--late alarm--just when you need to get to the field for some early AM pre-event testing.
2. Sixty-five miles down the interstate you discover you have your wife's only set of car keys--she has an early morning appointment. Move over, Rover, the doghouse will have another tenant.
3. Eighty miles down the interstate you realize your folders of documentation are not making the trip--they are neatly arrayed back on the workbench.
4. A half hour after arriving, just as you are getting in some much needed pre-event test hops, the rich food you had last evening begins to exert an inexorable instability in your system--the nearest facility is back down the road about five miles.
5. Your Embryo, on an untimed test flight (without DT set, of course) catches a capricious thermal and requires an hour of searching to find thus putting you way off schedule.

6. You've been to an out-of-state wedding the night before. The first order of business after setting up is test hopping your raceplane prior to the Thompson. But sleep deprived eyes fail to detect one important detail. As you start stretching the motor, the winding caddy, unfettered by its tie-down cord, crashes to the ground, liberating the fuselage forward of the tail from the wing and nose. (this happened to the writer)

7. A yearling Great Dane with moose configuration landing gear suddenly sorties through the flight-line. The scramble to protect models and associated equipment is palpable--but not to fear, for somehow he misses everything. Smell of food bee-lines him to your tailgate. Instantly lunch and dog are gone. The assemblage, grateful it wasn't theirs, share a few of their crumbs.

8. The only available mechanic for the WWII mass launch is Ham-fisted Hennegan. Reluctantly you "sign-him-on". In the second heat, the garrulous Hennegan is busy "chatting-up" his neighbors during the windup and while distracted manages to crunch your P-47 stringers into submission.

9. Preoccupied with the vision of a comely lass in short shorts, a moseying 250 pound "twinkletoes" spectator hooks one of his 14EEEE boots in your winding caddy brace wire--it all crashes

10. After slogging thru a swampy area forming a natural hazard on one border of the field, you are rewarded by the sight of your large Power Scale SE-5 sitting prettily in a small clearing...Relief!..As you start to pick it up you hear the motor 'whirring'. Wow, after all this time that battery is still juiced! But wait, you suddenly remember having switched to a quiet C02 motor!! Just then you re-focus to the cockpit where a slimy tube with a diamond pattern is rocking the ship..... waiting for a major "Gotcha"....

11. The contest day is winding down to conclusion. Time enough though for a third official flight of your high bonus beauty, Jumbo Scale ship. The wind is only whispery evident. Most contestants are finished flying; they lounge in their chairs, basking in the warmth of the late afternoon rays, draining the last dregs of coffee and soda. The wind-up and launch go smoothly; the climbing circles are steady as the waning sun beautifully highlights the tissue translucence. The assemblage watches transfixed at the display of a seemingly perfect flight. Ah, life IS good. But almost imperceptibly, the climb is extending beyond the usual power phase. A rogue thermal cast by a mischievous "Hung" has defied the late afternoon stillness and is gently waiting the model higher and higher, till many minutes later it is OOS....There is a mixture of applause, admiration and condolences from the gang. It is classic "goodnews/badnews" as you drive home with a lifetime memory and thoughts of constructing the next bonus beauty (maybe a higher wing loading???)

A.L. 4-99

PHOTO PAGE

Left column; Bob Schlosberg's Porterfield CP-65, 44" span, powered by a Cox .049 Co/2 unit. Photo by Bob.

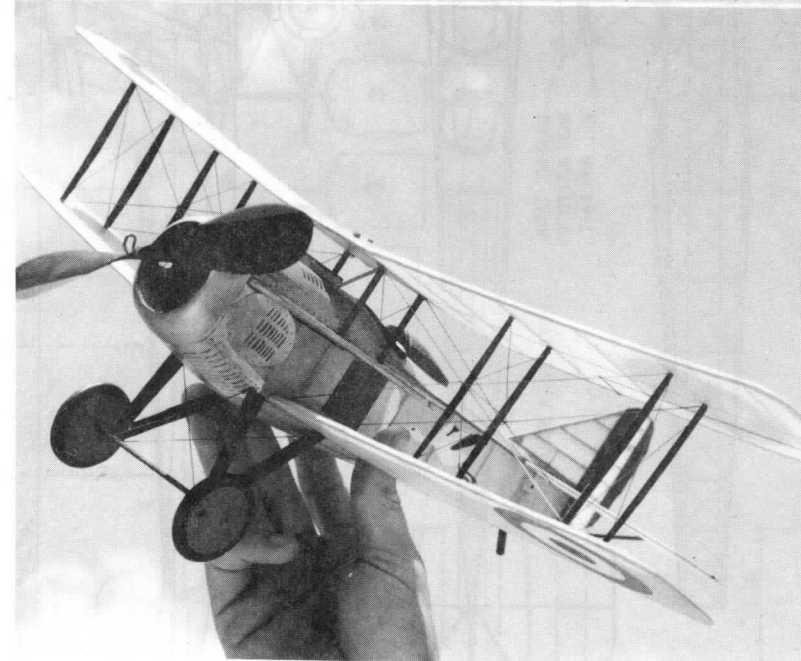
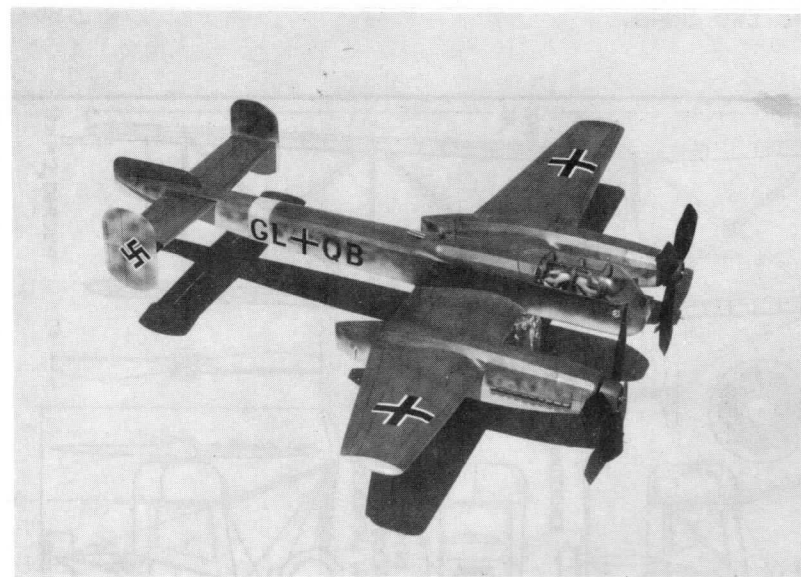
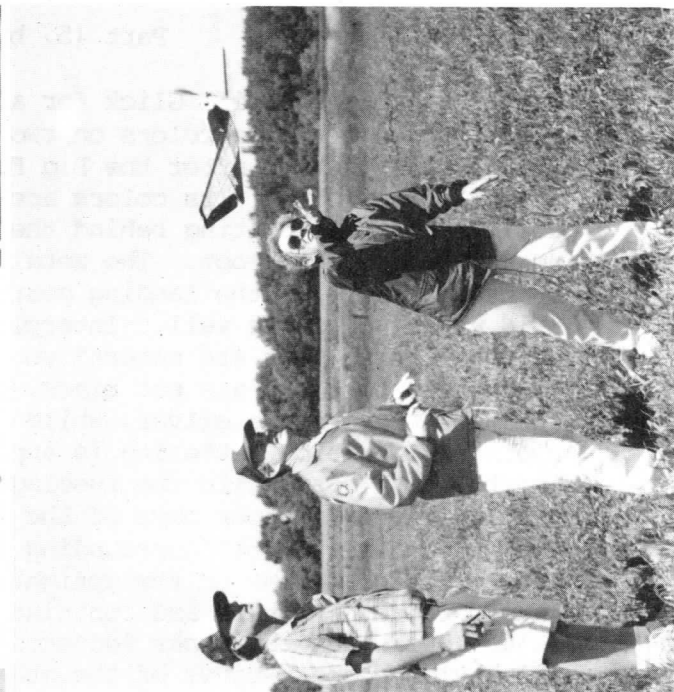
Arado AR-240 by Jane Schlosberg. 28" span, rubber power, flies great! Photo by Hubby Bob.

Glenn Bearry sent this photo of his Spad 7 Peanut model.

Right column; Juanita Reichel launching her Herr kit Beech Bonanza. Onlookers are Paul Boyanowski and Pres Bruning. Photo by Bill Harding.

Ollie Benton sent this photo of Marie Rees preparing her Lockheed Vega for flight. Model done up as Amelia Earhart's plane.





Technical drawing of the Avro 504K aircraft, showing top, side, and detail views with various labels and dimensions.

**Top View:**

- Span: 36'
- 3° DIHEDRAL
- Instrument panel in both cockpits on trainers (B)
- Gravity tank not fitted to all aircraft (C)
- Port inner strut (D)
- 504 K (CIVIL)
- Rear cockpit extended to this point (section D) on G-EBIZ & G-EAIR
- External elevator control as fitted to G-EBYW & G-EBIZ

**Side View:**

- 4° INCIDENCE
- GRAVITY TANK NOT FITTED TO ALL AIRCRAFT
- PORT INNER STRUT
- AVRO 504K
- 10'-0"
- 5'-0"

**Detail Views:**

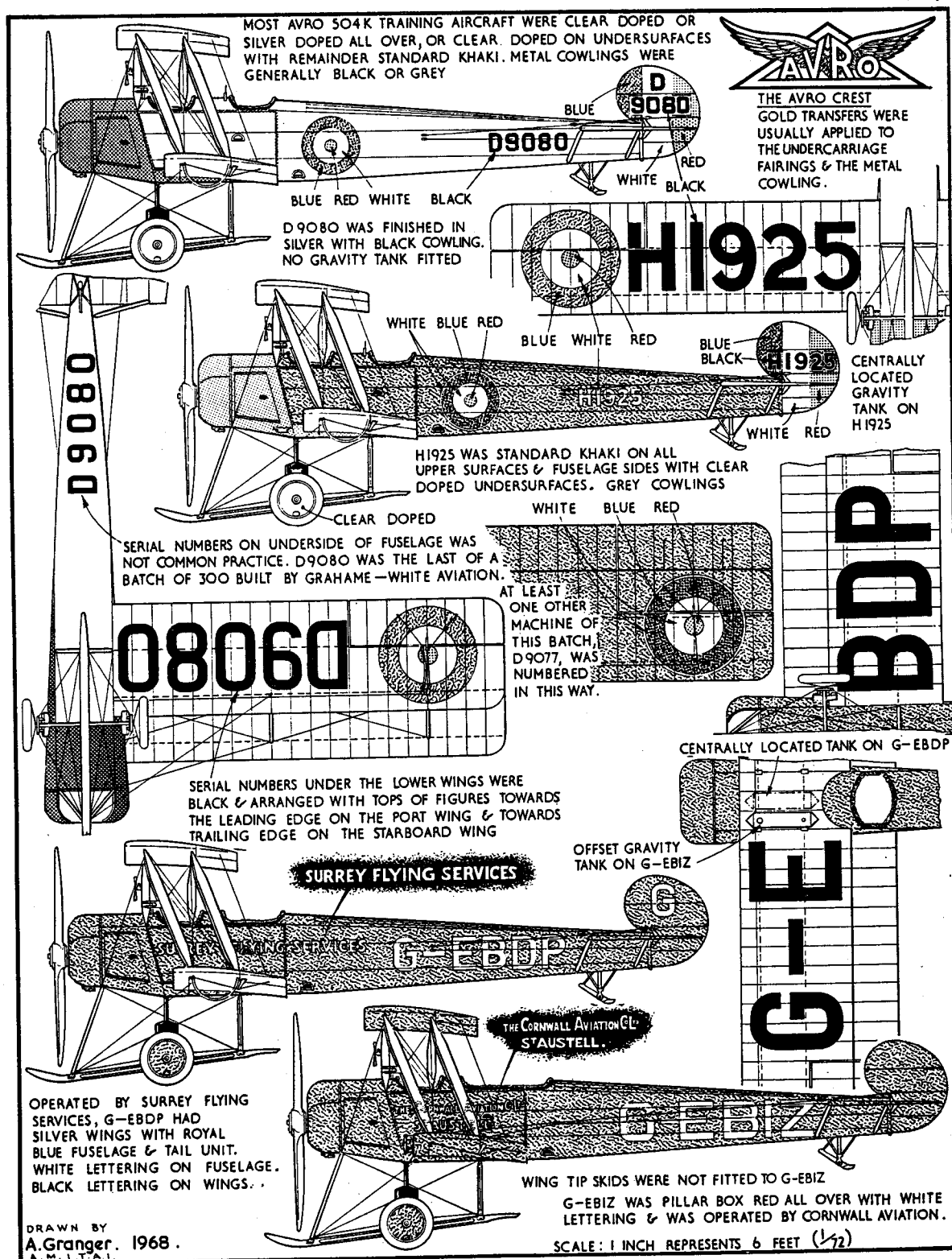
- 2'-0" LOWER ALLEON
- 4'-10" CHORD (BOTH WINGS)
- 1'-10" UPPER ALLEON
- 2'-0" STAGGER
- ALTERNATIVE POSITION OF GRAVITY TANK

**Scale:**

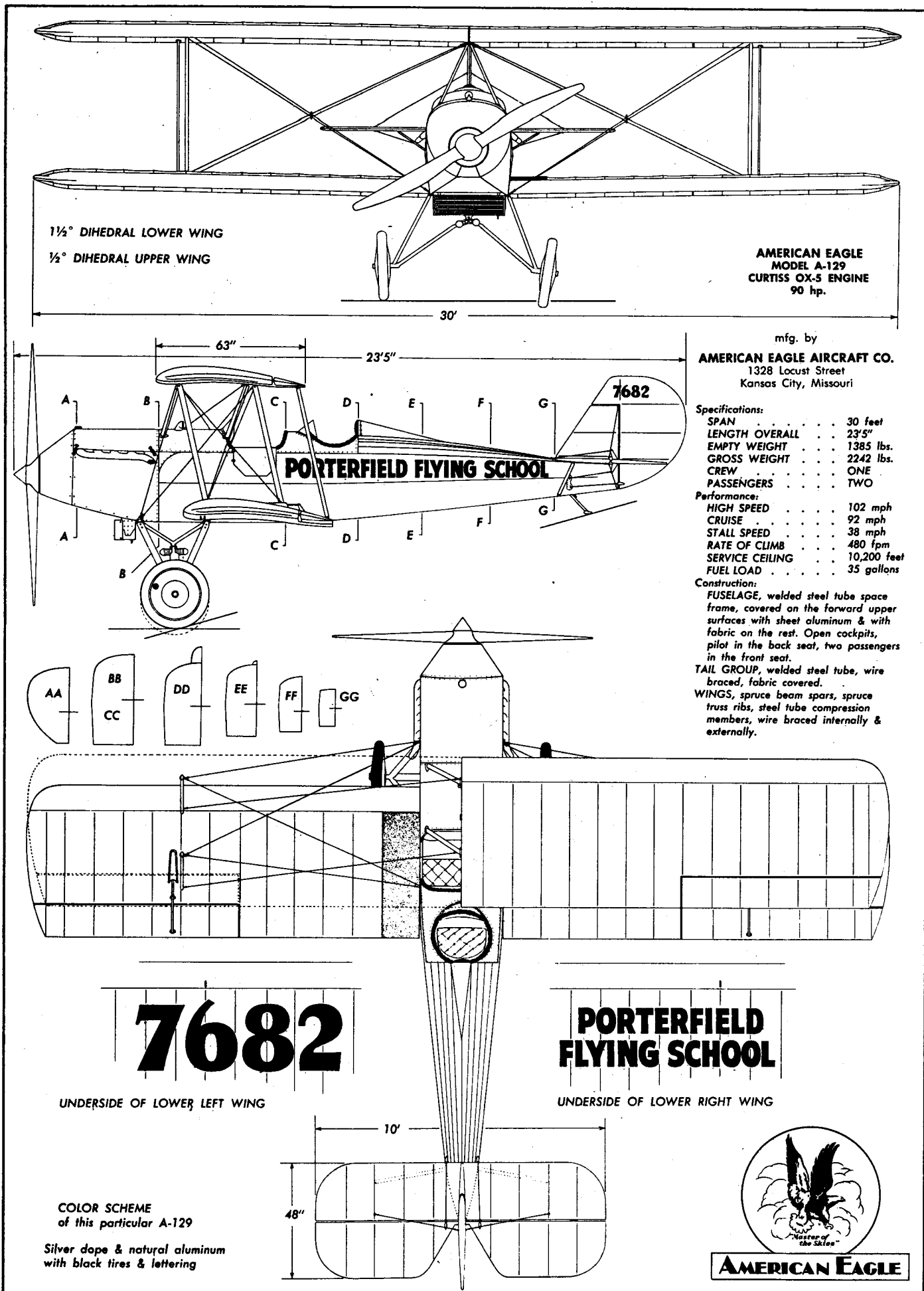
- 29'-5"
- FEET
- METRES

**Drawn by:** A. Granger, 1968

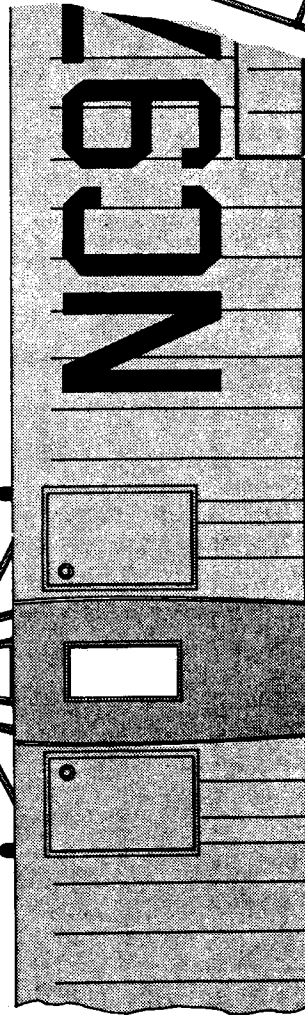
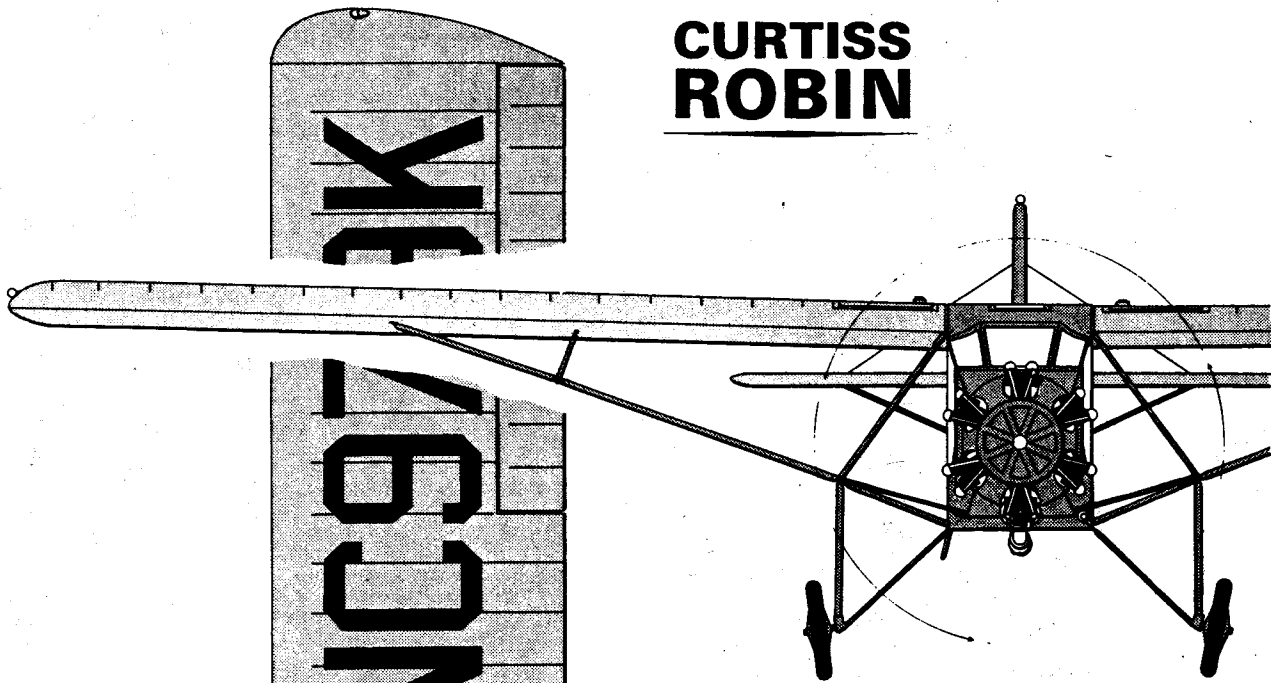
The American Eagle drawing gives the colors of it, but fails to mention that all the sheet metal cowls and panels were left natural aluminium. But, these panels were engine-turned ala Spirit of St. Louis. Starting in 1929, the American Eagle used two different standard factory schemes. Blue fuselage with yellow wings, or red fuselage with grey wings. Accent stripe was the lighter color on the darker fuselage. Fin and rudder were the same color as the fuselage. Metal panels remained as before. Metal panels on the Kinner powered versions were the same color as the fuselages. Wing struts were the light color, landing gear struts the darker, along with the wheels.







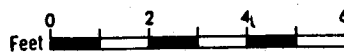
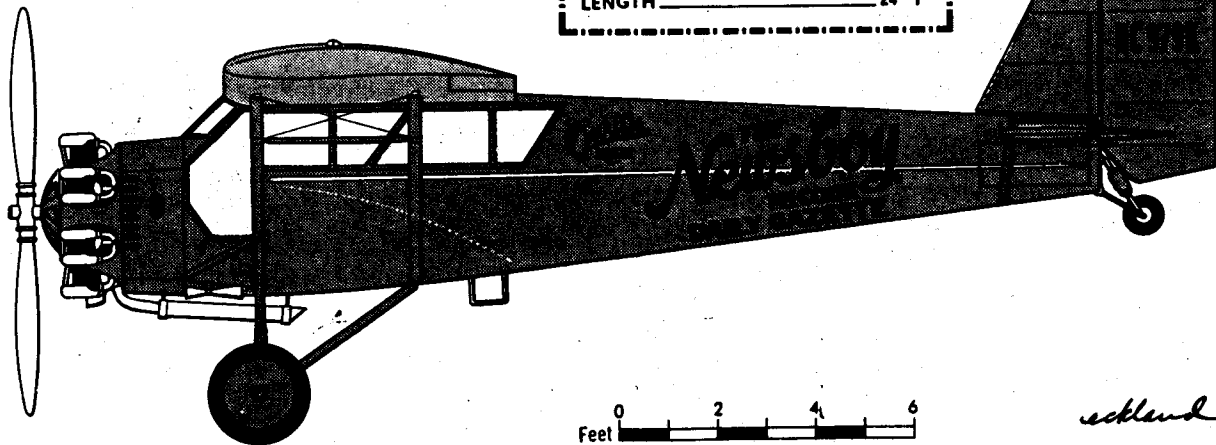
# CURTISS ROBIN



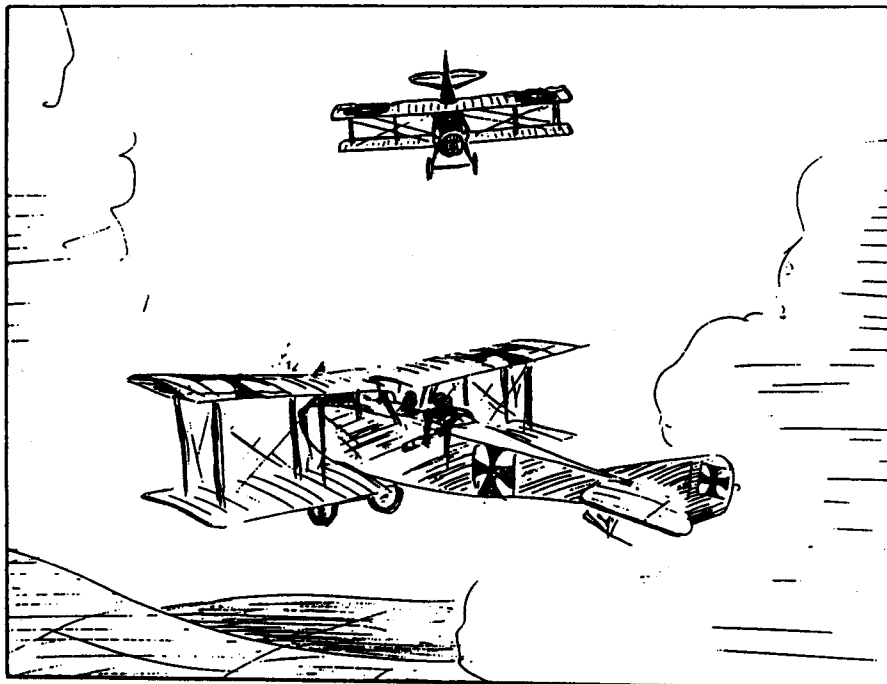
COLORING	
WINGS, TAIL GROUP,	* YELLOW
FUSELAGE STRIPE	* ORANGE
FUSELAGE, STRUTS,	DARK BLUE
WHEEL DISCS	with CREAM OUTLINE
INDICIA	BLACK
NC NUMBERS	BLACK

\* Standard factory scheme

DATA	
ENGINE	170-hp Curtiss C2 Challenger
MAXIMUM SPEED	118 mph
CRUISING SPEED	102 mph
CEILING	12,700 ft
RANGE	510 mi
EMPTY WEIGHT	1576 lbs
GROSS WEIGHT	2440 lbs
SPAN	41' 0"
CHORD	6' 0"
LENGTH	24' 1"



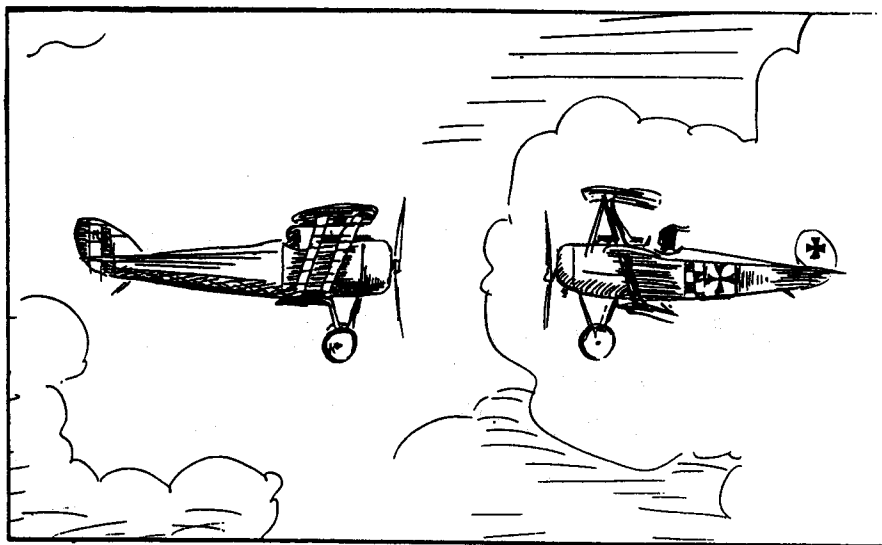
*schlund*



TYPE 1. THE STRAIGHTFORWARD OR "PERFECT CONDITIONS" ATTACK

For this form of attack, it is necessary that the friendly pilot be flying a Spad 13 or better, while the enemy should be in an Albatros C-III with a broken propeller and an observer who is asleep or drunk.

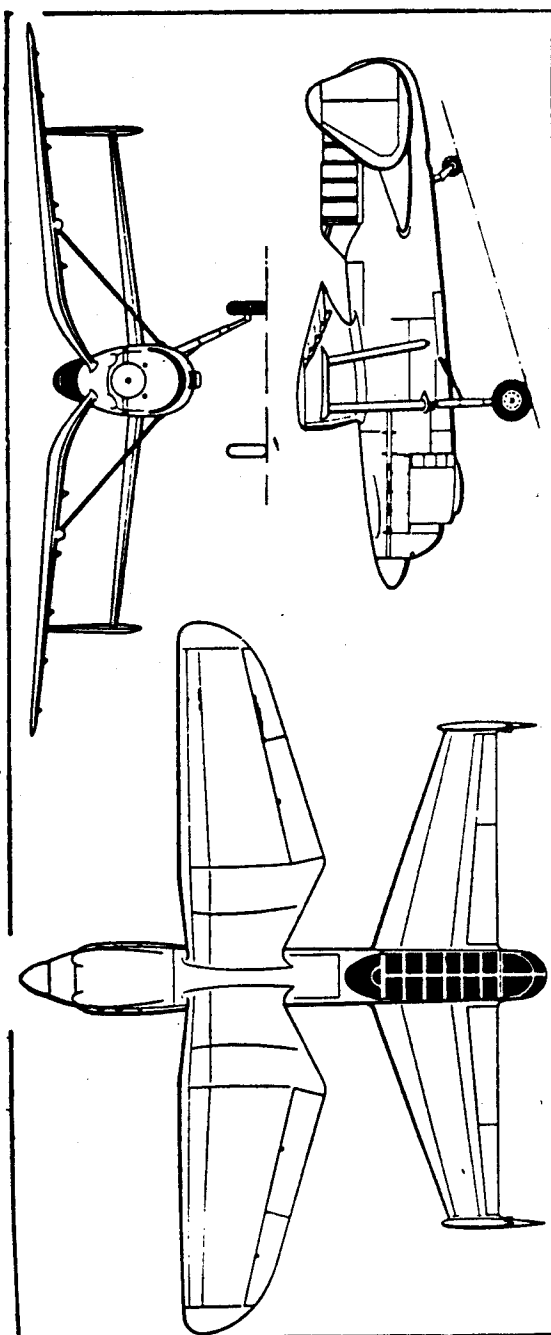
The Spad should first climb to an altitude about one thousand feet higher than the Albatros can possibly attain, then carefully navigate into the glare of the sun. After waiting until the enemy aircraft has ventured at least ten miles on the Allied side of the lines, the Spad pilot may now make his firing run. This form of attack is guaranteed to succeed, provided that the conditions listed above are prearranged and that the ground crew remembered to load the Spad's guns.



TYPE 2. THE HEAD-ON OR "MY FATHER CAN LICK YOUR FATHER" ATTACK

This method is used by a lazy pilot who encounters a lazy enemy pilot, when both are just too lazy to work out any tactic whatever. It is best carried out by the fastest single seater available on the Allied side against its equivalent enemy. These will cause the most dramatic scrunch as the two aircraft meet.

ARSENAL-DELANNE 10



**DIELS ENGINEERING, INC.**

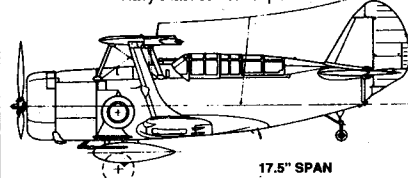
P.O. BOX 263, AMHERST, OHIO 44001

e-mail dielsengr-kellnet.com

Featured Model of the Month

**CURTISS SBC-4 HELLDIVER**

Navy's last combat bi-plane

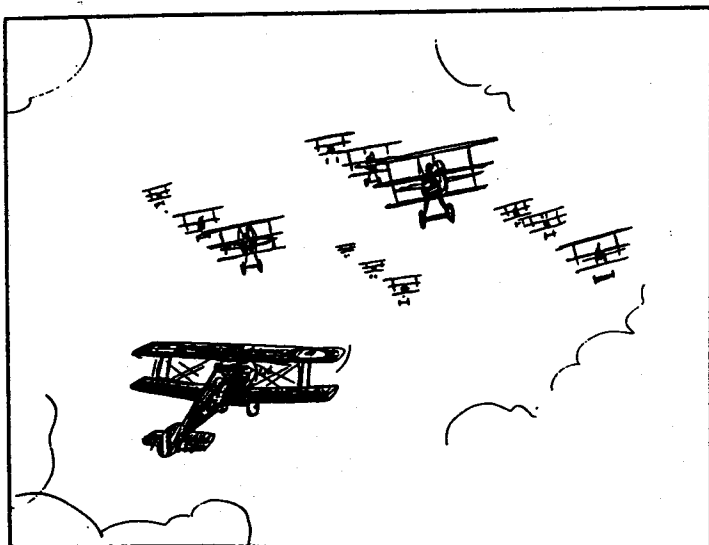


17.5" SPAN

1/24 Scale, rubber powered free flight scale flying model. Complete kit with decals, canopy, Japanese Tissue and more. Kit price \$27.50 each plus \$5.00 shipping. Ohio residents add sales tax.

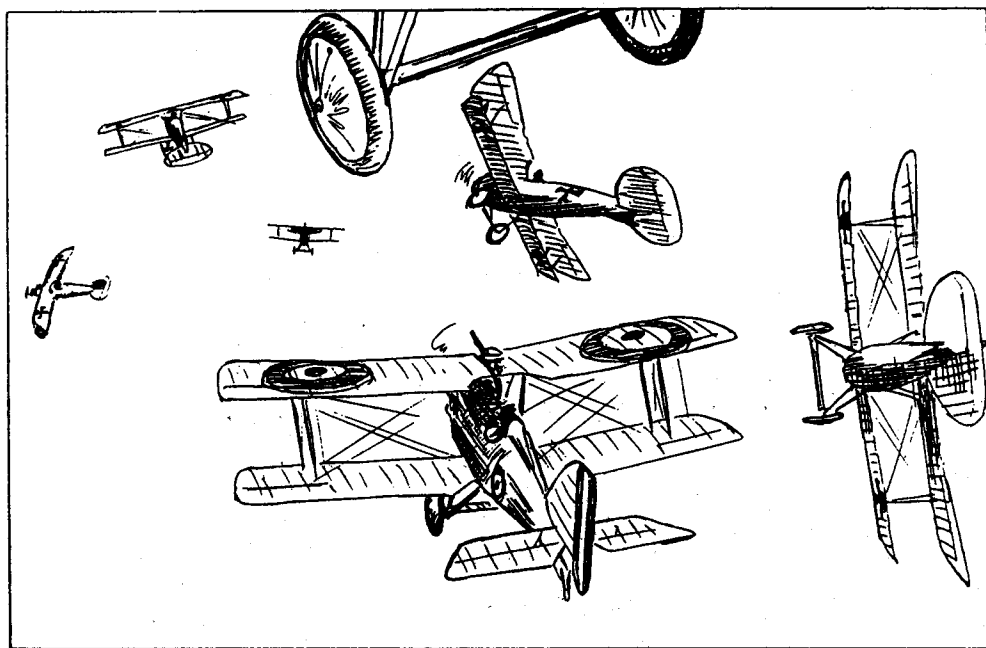
Catalog \$2 or free with order if you ask for it.





TYPE 3. THE SCIENTIFIC OR "INSTANT ACE, BUT DISCRETION IS THE BETTER PART OF VALOR" ATTACK

This method is recommended for newcomers to the front, just up for the first trip in a Camel, who wish to be able to say, "I had a run-in with The Baron today" at every opportunity. The pilot of the Camel should choose a time when a couple of dozen Fokker Triplanes are almost out of fuel and have decided to go home for supper. He should catch them as they are going towards their side of the lines but not have actually reached them. This is important and ensures that when he turns and runs for it, he will automatically be pointed in the right direction and already on his own side of the lines. The Camel should try to approach from below and behind the Fokkers to retain the element of surprise. (Not that they wouldn't have been surprised enough anyway to have one lone idiot attack the lot of them.) Should any one of the enemy pilots show any sign whatever of having seen the Camel, the pilot should, of course, break away without making any attack at all and dive for the protection of the nearest SE5 unit, which he has previously picked out for such an emergency. This is known as discretion, (and he can STILL say he had a run-in with The Baron).



TYPE 4. THE DASHING OR "ONE U.S. CAVALRYMAN IS AS GOOD AS TEN INJUNS" ATTACK

The friendly pilot is flying an SE 5 when he comes upon a formation of six Albatros D 3, which appear from behind a cloud. The SE should immediately fly right into the middle of the formation at great speed, causing their concentrated crossfire to shoot each other down, with any luck. Without any luck, the SE 5 pilot can expect to have his machine sawed in halves by the hail of lead from ten Spendaus. (The other two belong to the leader of the enemy formation, who is so helpless with laughter that he is unable to fire a shot.)

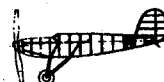
TYPE 5. THE OVERWHELMING SUPERIORITY ATTACK

This is the best kind, if it can be arranged. It is necessary to gather a striking force of 100 SE 5's flying in line abreast, closely followed by an equal number of Bristol Fighters mounting twin Lewis Guns at the rear. The formation simply flies towards Germany, accompanied, of course, by 100 Spads overhead and 100 Camels underneath, all similarly protected by Bristol's; and upon any sign of movement in the sky, all open fire. Since most of the sky over western Germany will become immediately full of flying lead, it is unlikely that any enemy aircraft will be able to stay in the air. This method is used at the ends of wars when the side with all the aircraft has already won anyway, so it does not really influence the battle much, one way or the other. It does, however, help use up all the ammunition which would otherwise lie around until the next war and at last be found to be unfit for use, as some great scientist has invented a better type of gun which unfortunately uses far more expensive bullets.

We concede that the above may not help our side win the first World War, but in any case, this is unnecessary, as we have already done that. What we hope to have done is put a little badly needed humor into a technically excellent journal, which has been more than musty enough and reeking of museums rather than castor oil. Elliot White Springs had fun with his war, and we're with him! We are interested in flying machines, as opposed to rear seat spring retainer keepers and the tensile strength of 18-strand microge piano wire, etc. etc. etc.

## OLD TIME RUBBER PLANS AND "LASER" CUT PARTS

Many Old Time Rubber Plans and Laser Cut Parts are Available



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Introducing a new line of old time plans and Laser cut parts

Plans are CAD drawn by Jim O'Reilly  
Jim has over 60 old time rubber and gas plans  
These laser cut kits have been designed to fly  
Call for my SAM list.

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**HARDING VIDEOS****\*\*\*New Release\*\*\*****Rubber Power Scale Construction Techniques**

This 55-min. video will help you build them better and lighter. Sliced ribs, spoke wheels, balsa spinners, fuselage techniques and much more are highlighted in this video. You will see how easy it is to build laminated wing tips and laminated props. This is one you will want for your library.

**Master Modeler #1, Dennis Norman**

This video takes you beyond the normal construction techniques and brings Master Modeler, Dennis Norman as close as your VCR. You have seen him on the cover of *Flying Models* and marveled at his multi-engine rubber power models. Now, you have the opportunity to learn from the master in the comfort of your own home.

**1997 U.S. Indoor Championships**

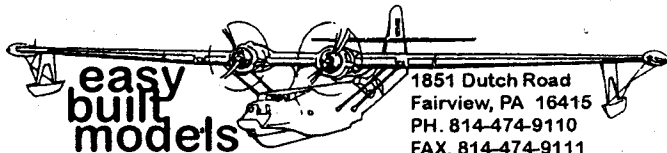
This one will never go out of date. If you thrill to the beauty of rubber powered flight, you will enjoy this video. Features Ron Ganser's 1911 Cessna scale model and Michelle Boyd's winning Aristocrat. Two hand launched glider experts share their techniques. And, if ornithopters intrigue you, here is what makes them go.

All videos are \$19.95 plus \$3.00 Shipping. Ohio Residents add \$1.20 sales tax. Check or M.O. only.

Harding Aero Productions

4782 Unity Line Rd.

New Waterford, OH 44445



1851 Dutch Road  
Fairview, PA 16415  
PH. 814-474-9110  
FAX. 814-474-9111

**NEWS RELEASE**

Easy Built Models has resumed operation at a new location under new ownership. The company, in business since 1932, will continue to offer its line of fun, easy to build and fly kits from the 30's and 40's as well as new entries. Presently the company offers 165 different kits supporting free-flight, gliders, jetex and electric R/C. Catalogs are available by writing to the above address. About 40 - 50% of the current catalog is in stock right now. R/C kits are not available yet.

Phone: 814-474-9110

**FLYING ACES OUTDOOR CHAMPS**

September 18-19, 1999

Time 8:30 am until 4:30 pm each day

AMA National Flying Site

Registration form

Muncie, Ind.

Please print

Name \_\_\_\_\_ AMA No. \_\_\_\_\_  
Street \_\_\_\_\_ Jr/Sr \_\_\_\_\_ Open \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Entry fee \$25.00. flies all events. Please send before August 15th if possible.

Send to; Lin Reichel, 3301 Cindy Lane, Erie, Pa. 16506.

Awards through third place. All Contestants must be members of the AMA or MAAC.

<u>Schedule</u>	<u>Saturday Sept. 18</u>	<u>Sunday Sept. 19</u>
	World War I *	World War II *
	Greve Race *	Thompson Race *
	FAC Scale	Power Scale
	Golden Age Military *	Jumbo Scale
	Dime Scale	Peanut Scale
	Golden Age Civil	No-Cal Scale
	Embryo	Modern Civil
	Old Time Stick	Old Time Rubber
	Jimmie Allen	Modern Military *
	Two Times No-Cal	Old Time Kit Scale

\* Mass launch events. Golden Age Military must have landing gear down. Both Old Time Rubber events must have all flights turned in by 2:00 pm each day to give us time for fly-offs. Jimmie Allen models and Old Time Rubber models must have a plan to show that all aspects of the model are built according to plan, wheels, air-foils, fuselage widths, etc.

Two Times No-Cal must be between 31" and 33" wingspan. No foam allowed, anything else is OK.

Salutations, disciples! Today we shall contemplate the virtues of deliberately roughening our wing surfaces, a procedure long rumored to inspire sizable performance increases. Can it be true? Does disgustingly crude mean a winner, while smooth and slick spells last place? Does Nature abhor good workmanship? Does filling all those thirsty Silkspar pores tax us with extra drag, on top of extra weight?

Unhappily, the area is full of conflicting results. In such a case, the latest word is not always best and there is much to be said for tried and true. I reached for British RAE test report #633, August 1919 just as my cohort, Mr. Bob Thumbsome settled in. "OK, GG--what do the Limeys say?"

"Um, they say wartime German practice was to roughen the undersurface of full scale wings with coarse sand, in the belief that climb was improved. Now climb takes place at a high angle of incidence, near stall, which is where our models fly..."

"All we have to is scratch up our wing bottoms to go OOS? If it was so good why didn't the RAF do it, like the Jerries?"

"The Brits say: 'Artifices of this description have never been attempted...'"

"Hah! No imagination! Pompous twits! Look at the way the Red Baron flew rings around those guys, and all because he scratched up his wings!"

"Perhaps, Mr. Thumbsome. However, the research report goes on to say that a model wing, so roughened, showed a great *decrease* in efficiency..."

"Uh-oh! It was a loser? How come it worked for the Jerries?"

"I suspect that the benefits, if any, depend upon Reynolds Number of the event, and the British model wing was of a completely different number--perhaps only 2 percent of the German full scale effort. Scale counts heavily in aerodynamics".

"You mean the Brits and the Jerries were both right?"

"Yes. Where separation and skin drag effects are concerned, full scale and model air flows are very different."

"Where does that leave us?"

"Full scale experiments mean little to us but there's much to be learned from careful model trial and error work. In this case, the Brits found that lightly roughening the *upper* surface where the profile turned horizontal improved max L/D by about 6%."

"Hah! What good is 6%?"

"Admittedly, cutting wing drag by 6% won't change your life. But it does mean that a spanwise stringer at the right location--where the rib profile goes horizontal--will not only strengthen your wing, but may well give it a better glide. As propositions go, it's not a bad one. After all, we can use that stringer contribution to strength in any event. It makes sense to put it at the optimum location."

"Nah. For 6%? Not worth the trouble. Anyway if that idea is so hot, how come the Red Baron, with those scratched-up wings of his, couldn't catch up with Lieut. May's Camel on the day he got shot?"

"The gain in performance comes only at a large angle of attack--meaning glide, or climb. At the low angle of attack necessary for maximum speed, there is no profit. In fact, there is a loss of a few percent..."

"You mean that scratching stuff slowed the Jerries down?"

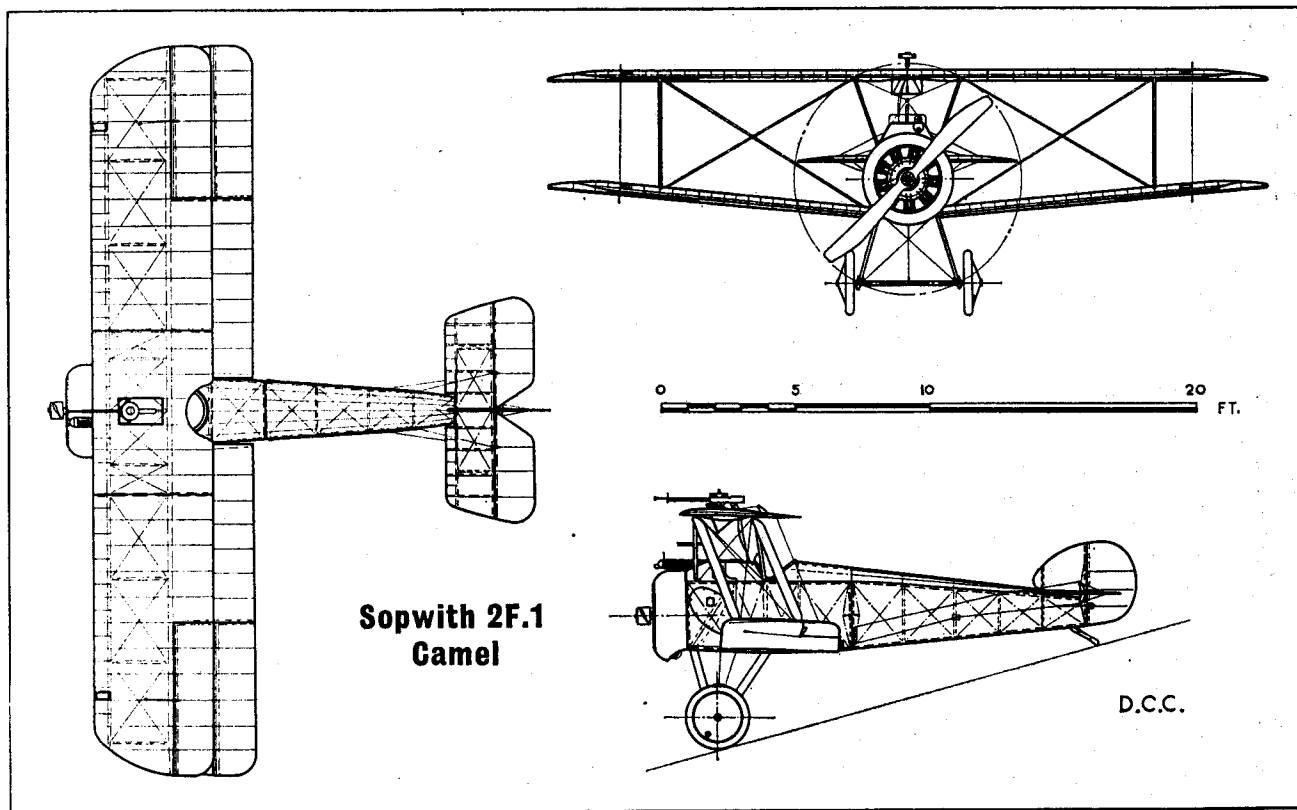
"Yes".

Mr. Thumbsome burst into tears. "And you want me to do that to my model?"

"Speed is not significant to our hobby. It's duration that counts..."

"What counts is saving the Red Baron! You can take that rotten idea and ..."

"Yes, Mr. Thumbsome, yes."



Sopwith 2F.1  
Camel

24.

## FAC NON-NATS, GENESEO, NEW YORK

July 17-18, 1999

## Registration Form

Time 8:30 am till 5:00 pm

Please print

Name \_\_\_\_\_ AMA or MAAC No. \_\_\_\_\_ Jr./Sr. \_\_\_\_\_ Open \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Entry fee, \$25.00 flies all events. No fee for under 18 years of age. Please remit by June 30, 1999 to ease paper work later. Mail entry to Lin Reichel, 3301 Cindy Lane, Erie, Pa. 16506.

Awards through third place. All contestants must be members of the AMA or the MAAC.

ScheduleSaturday July 17Sunday July 18

FAC Scale  
FAC Peanut Scale  
Embryo Endurance  
Pioneer Scale  
Greve Race 15% \*  
World War One Dogfight \* (\*\*\*\*)  
Giant Scale  
Modern Military 15% \*  
FAC Old Time Gas Replica  
FAC Old Time Rubber  
Old Time Kit Scale  
Air Hog Power

Hi-Wing Peanut  
Golden Age Scale  
Jumbo Scale  
FAC Power Scale \*\*  
Thompson Race 15% \*  
World War Two Combat 15% \*  
Dime Scale  
Jimmie Allen  
Earl Stahl Scale \*\*\*  
Goodyear Midget Race \*  
FAC Old Time Stick  
No-Cal Scale

\* These events are mass launch events. \*\* Power Scale will be divided into single and multi-engined model aircraft. \*\*\* Earl Stahl event will be divided into high wing and all other configurations. \*\*\*\* World War One will be for multi-wing model aircraft only. The AIR-HOG event will be for any built-up stick and tissue model powered by the AIR-HOG power unit.

All events are for rubber powered models except for Power Scale, O.T. Electric Gas Replica and the Air-Hog Power event. Co/2 is OK for O.T. Gas. You must show proof of scale to get past the 45 point rule in mass launch events. Pioneer Scale models must be flown in the Pioneer event regardless of size. Giant Scale may be flown either day. Both O.T. Rubber events must have their flights in no later than two o'clock P.M. so we have time for fly-offs, the same is true for O.T. Gas Replica.

I wish to make the following advanced reservations for the contest.

\_\_\_\_\_ entry fees at \$25.00 each \_\_\_\_\_ \$ \_\_\_\_\_  
\_\_\_\_\_ reservations for double occupancy with meals, \$130.00 per person \_\_\_\_\_ \$ \_\_\_\_\_  
\_\_\_\_\_ reservations for single occupancy with meals, \$160.00 per person \_\_\_\_\_ \$ \_\_\_\_\_  
Total \$ \_\_\_\_\_

Please note, we will not be able to refund cancellations after June 30, 1999.  
If you plan to share a room with someone, please indicate their name so we can direct the University to set up the proper room arrangements.  
Your meals at the university will include dinner on Friday July 16, breakfast and dinner on Saturday July 17, breakfast and dinner on Sunday July 18 and breakfast on Monday July 19.

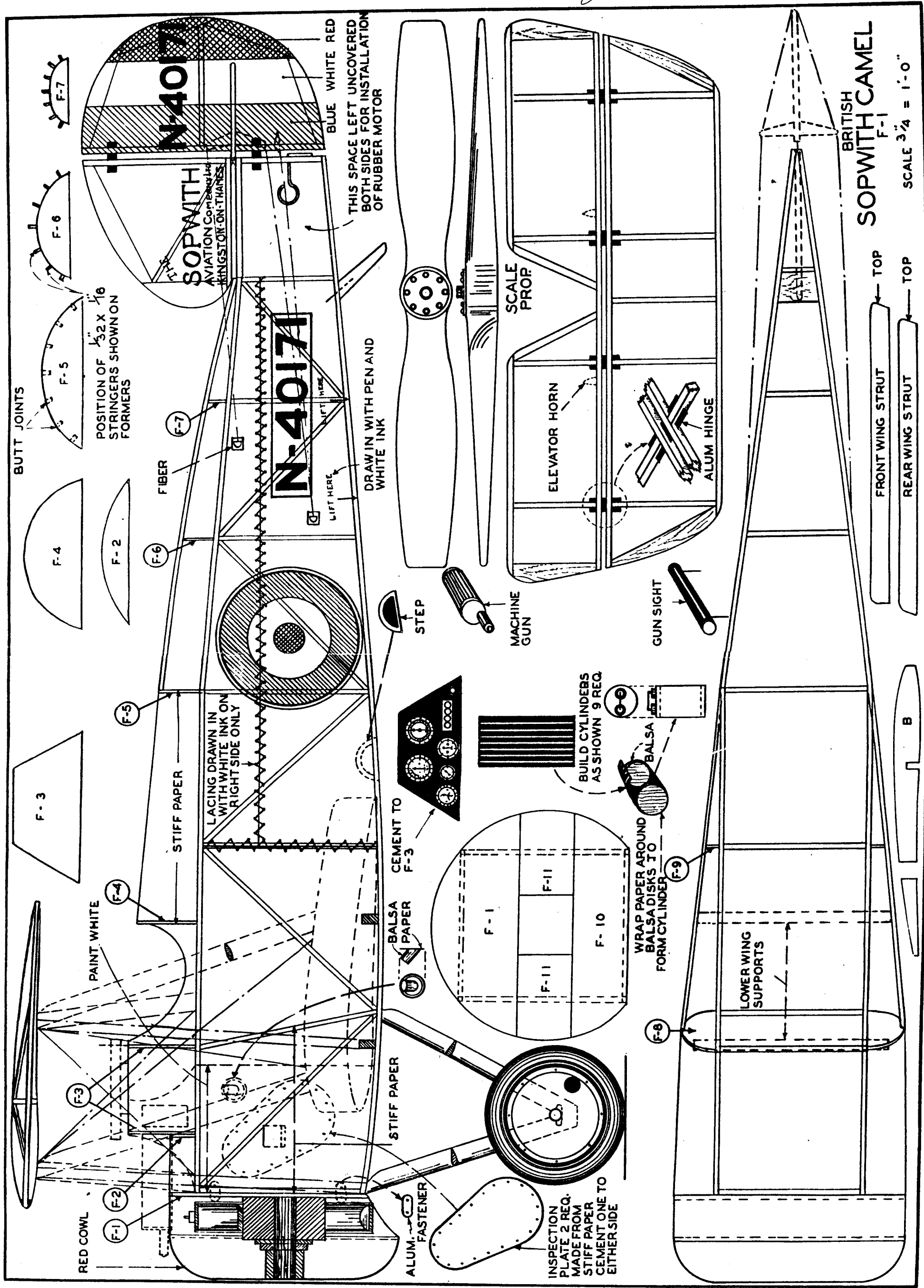
Scale judging will take place at Peter's Party Complex in Leicester, NY on Friday July 16 starting at 2:00 pm. Bring your models there to be scale judged. Giant and Jumbo models will be judged on the field. Giant Scale models may be flown either day.

WAIVER: I (we) hereby release the Historical Air Group, Inc., The National Warplane Museum, The State University of New York (Geneseo), The Flying Aces Club and all other persons connected with this contest from any liability whatsoever for accidents incurred while participating in this contest. I (we) also agree to abide by all flying and field rules in force at this contest.

SIGNATURE \_\_\_\_\_



Paul Lindberg



BRITISH  
SOPWITH CAMEL  
F-1

SCALE 3/4" = 1'-0"

FRONT WING STRUT

REAR WING STRUT

B

LOWER WING  
SUPPORTS

INSPECTION  
PLATE 2 REQ.  
MADE FROM  
STIFF PAPER  
CEMENT ONE TO  
EITHER SIDE

ALUM.  
FASTENER

STIFF PAPER

BALSA  
PAPER

CEMENT TO  
F-3

STEP

MACHINE  
GUN

GUN SIGHT

ELEVATOR HORN

ALUM HINGE

SCALE  
PROP

DRAW IN WITH PEN AND  
WHITE INK

LIFT HERE

N-40171

BLUE WHITE RED

THIS SPACE LEFT UNCOVERED  
BOTH SIDES FOR INSTALLATION  
OF RUBBER MOTOR

N-40171

SOPWITH  
AVIATION COMPANY LTD  
KINGSTON-ON-THAMES

FIBER

POSITION OF 3/32 X 1/8  
STRINGERS SHOWN ON  
FORMERS

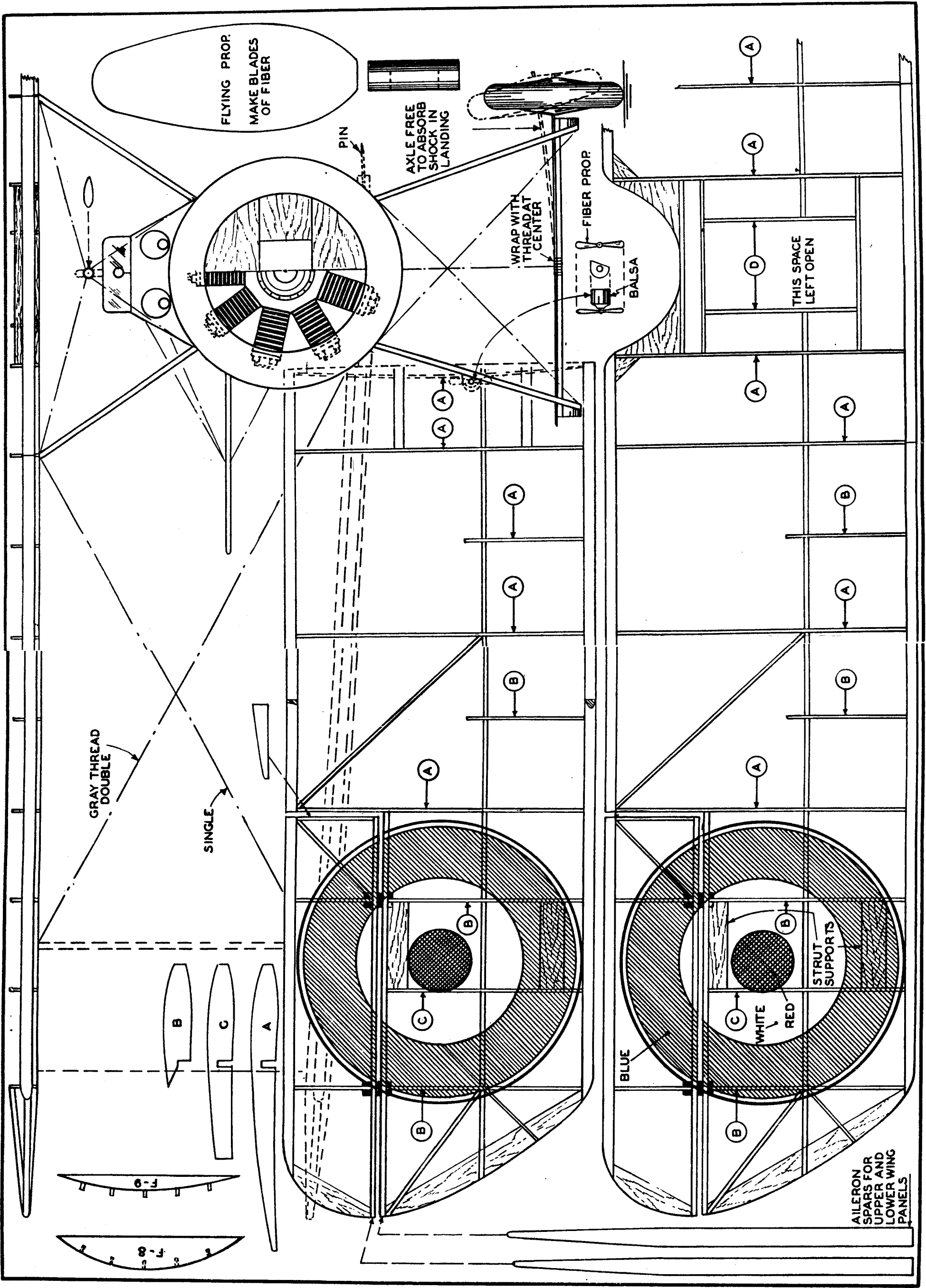
BUTT JOINTS

RED COWL

PAINT WHITE

STIFF PAPER

LACING DRAWN IN  
WITH WHITE INK ON  
RIGHT SIDE ONLY





# CURTISS SWIFT

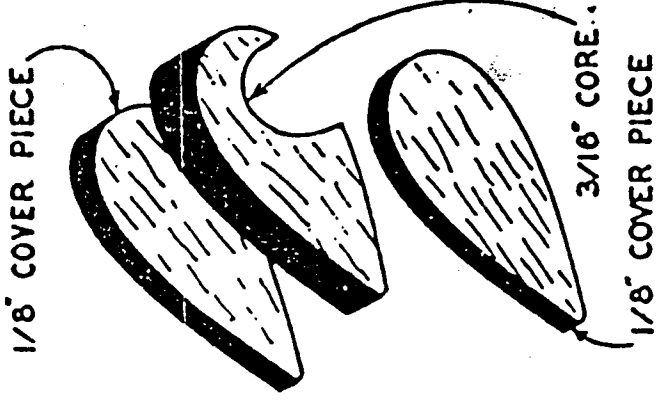
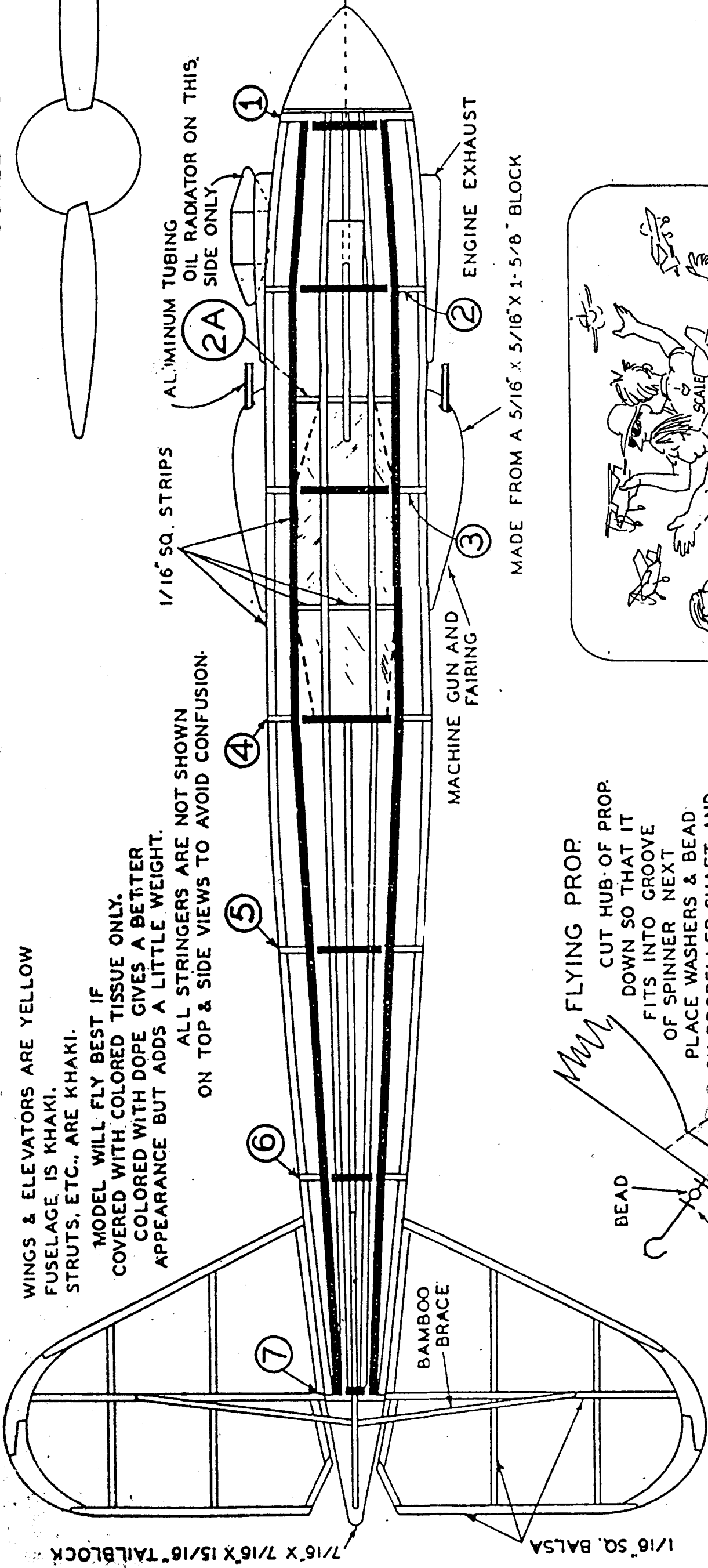
WING SPAN-19" LENGTH-13 3/4" XP-934

SCALE PROP.

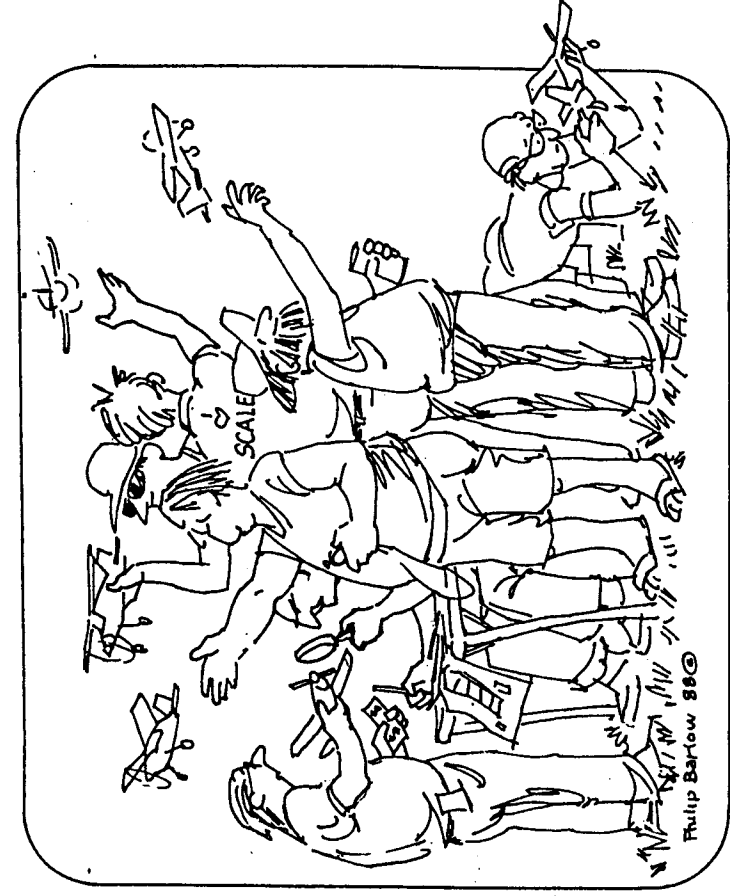
WINGS & ELEVATORS ARE YELLOW  
FUSELAGE IS KHAKI.  
STRUTS, ETC., ARE KHAKI.

MODEL WILL FLY BEST IF  
COVERED WITH COLORED TISSUE ONLY.  
COLORED WITH DOPE GIVES A BETTER  
APPEARANCE BUT ADDS A LITTLE WEIGHT.

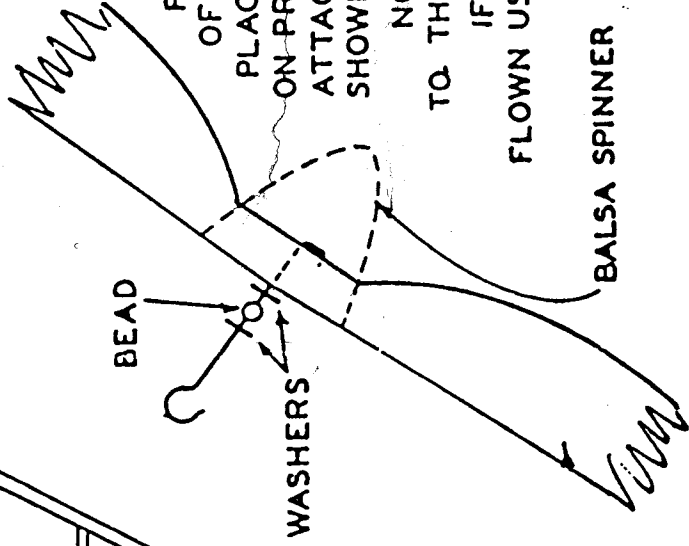
ALL STRINGERS ARE NOT SHOWN  
ON TOP & SIDE VIEWS TO AVOID CONFUSION.



CUT THE COVER  
PIECES FROM THE Balsa  
PRINTED SHEET FOUND  
IN KIT. NEXT CEMENT  
THESE TO THE CORE.  
FINISH BY CUTTING  
TO SHAPE AND SANDING  
SMOOTH. PLACE WHEEL  
IN POSITION & STICK A  
PIN THROUGH TO ACT  
AS AN AXLE.



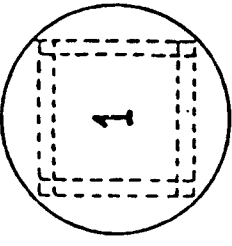
**FLYING PROP.**  
CUT HUB OF PROP.  
DOWN SO THAT IT  
FITS INTO GROOVE  
OF SPINNER NEXT  
PLACE WASHERS & BEAD  
ON PROPELLER SHAFT AND  
ATTACH PROP. TO IT AS IS  
SHOWN AT LEFT  
NOW CEMENT THE PROP.  
TO THE SPINNER.  
IF MODEL WILL NOT BE  
FLOWN USE ONLY ONE WASHER.



Balsa spinner

## STEP TWO

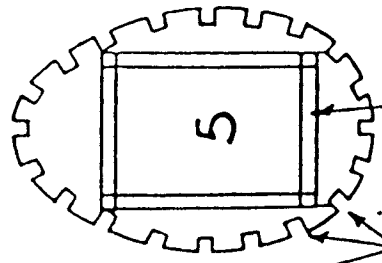
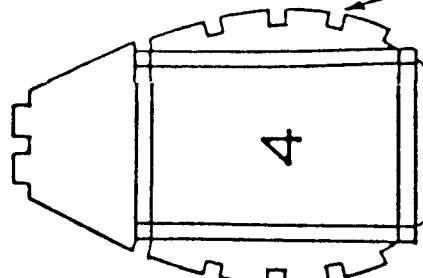
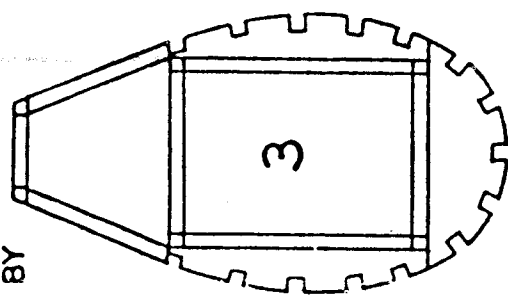
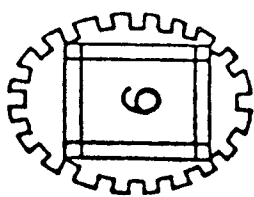
ATTACH THE TWO SIDES TOGETHER TO CONFORM TO OUTLINE SHOWN BY DARK HEAVY LINES IN VIEW ABOVE.



NOTE: STRINGERS ARE BUTTED AGAINST INSIDE OF FORMERS 1 AND 7. NO NOTCHES ARE REQUIRED FOR THESE TWO.



7

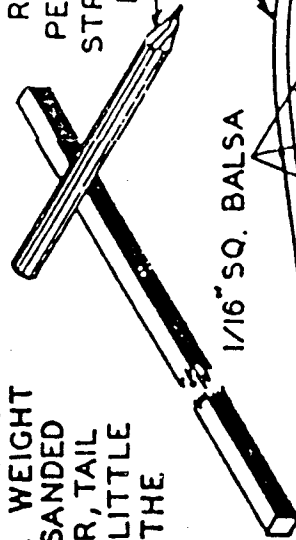


STRINGERS FIT IN THESE NOTCHES PRIMARY STRUCTURE

## STEP THREE

CUT FORMERS OUT FROM THE PRINTED Balsa SHEET AND CEMENT THEM TO PRIMARY STRUCTURE. NEXT CEMENT THE STRINGERS INTO THE NOTCHES OF FORMERS. WEIGHT OF MODEL WILL BE REDUCED IF STRINGERS ARE SANDED DOWN A LITTLE THINNER. WINGS, LANDING GEAR, TAIL ASSEMBLY, ETC. ARE NEXT. THESE PARTS NEED LITTLE EXPLANATION. IT IS A GOOD IDEA TO COVER THE PARTS BEFORE PUTTING TOGETHER.

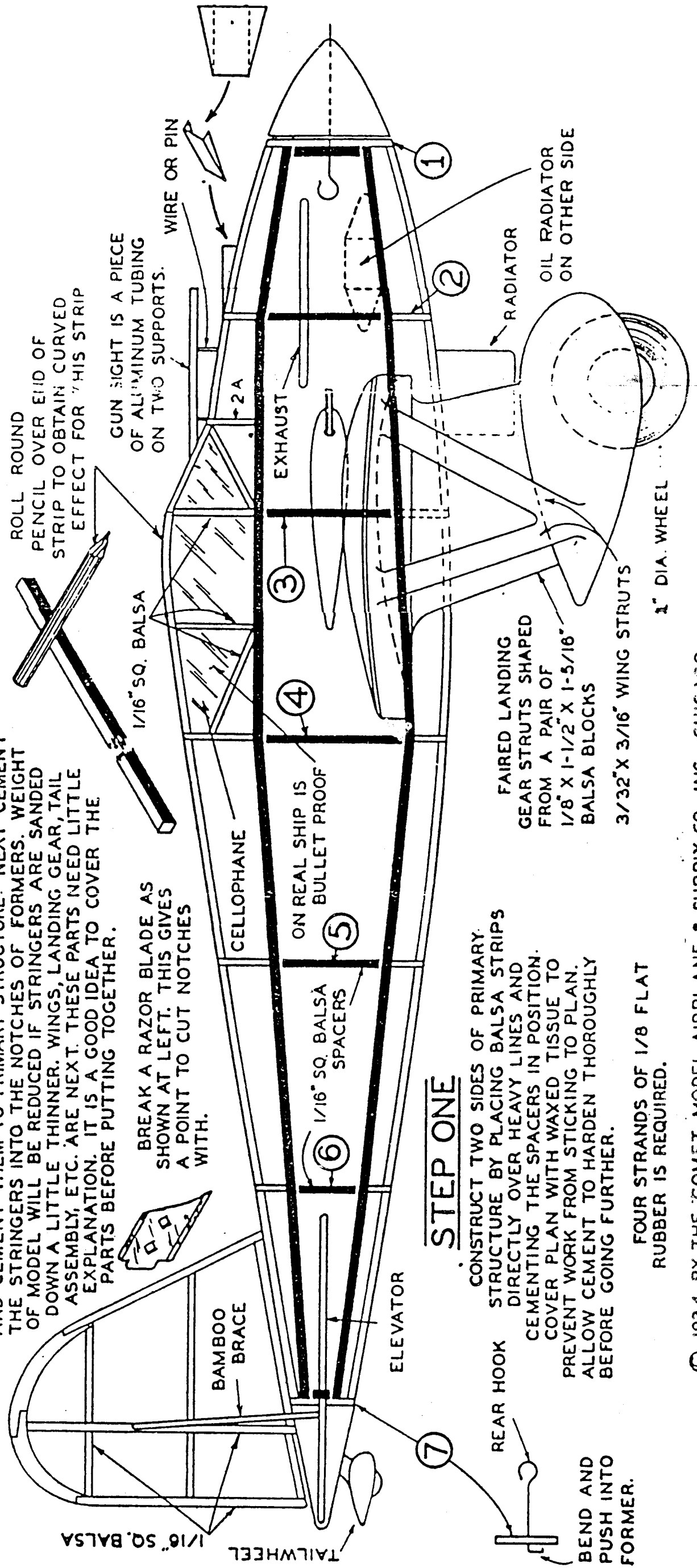
BREAK A RAZOR BLADE AS SHOWN AT LEFT. THIS GIVES A POINT TO CUT NOTCHES WITH.



ROLL ROUND PENCIL OVER END OF STRIP TO OBTAIN CURVED EFFECT FOR "GUN SIGHT"

GUN SIGHT IS A PIECE OF ALUMINUM TUBING ON TWO SUPPORTS.

WIRE OR PIN



## STEP ONE

CONSTRUCT TWO SIDES OF PRIMARY STRUCTURE BY PLACING Balsa STRIPS DIRECTLY OVER HEAVY LINES AND CEMENTING THE SPACERS IN POSITION. COVER PLAN WITH WAXED TISSUE TO PREVENT WORK FROM STICKING TO PLAN. ALLOW CEMENT TO HARDEN THOROUGHLY BEFORE GOING FURTHER.

FOUR STRANDS OF 1/8 FLAT RUBBER IS REQUIRED.

REAR HOOK

BEND AND PUSH INTO FORMER.

FAIRED LANDING GEAR STRUTS SHAPED FROM A PAIR OF 1/8" X 1-1/2" X 1-5/16" Balsa BLOCKS

3/32" X 3/16" WING STRUTS

1" DIA. WHEEL

RADIATOR

OIL RADIATOR ON OTHER SIDE

EXHAUST

CELLOPHANE

ON REAL SHIP IS BULLET PROOF

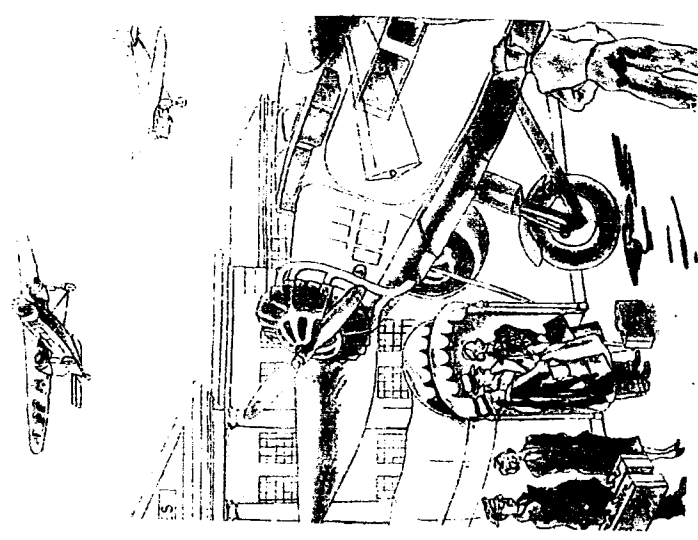
1/16" SQ. Balsa SPACERS

ELEVATOR

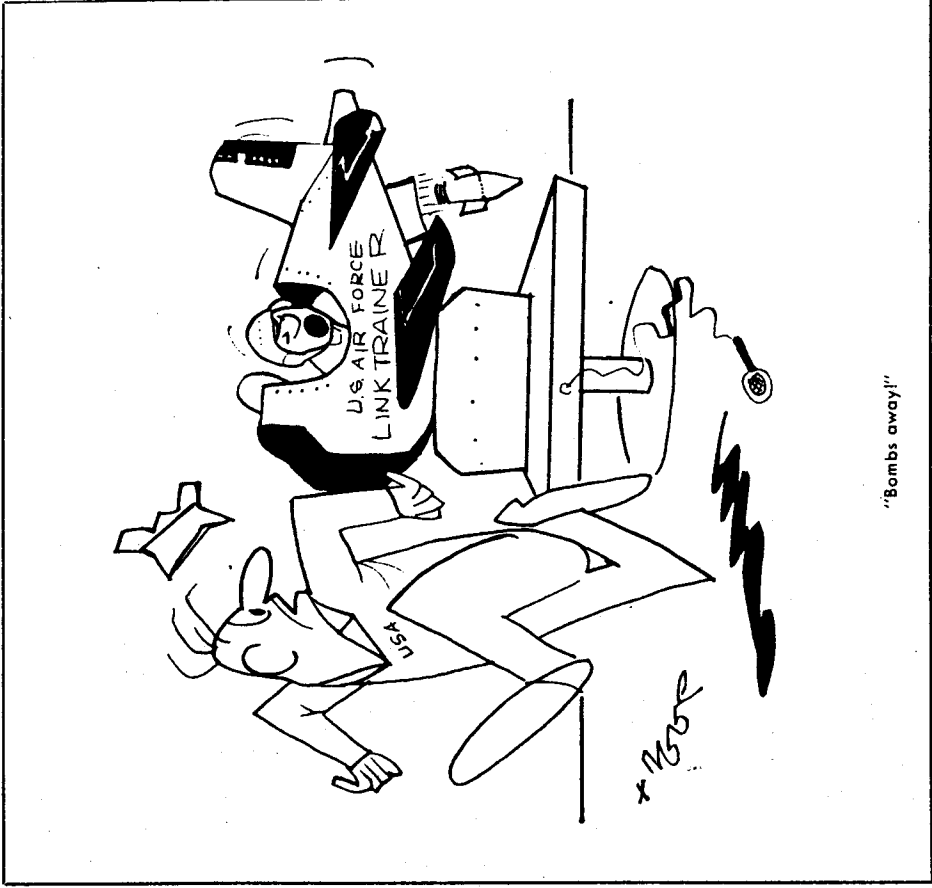
BAMBOO BRACE

1/16" SQ. Balsa

TAILWHEEL







## Genuine Calumet Escadrille

### T-shirts

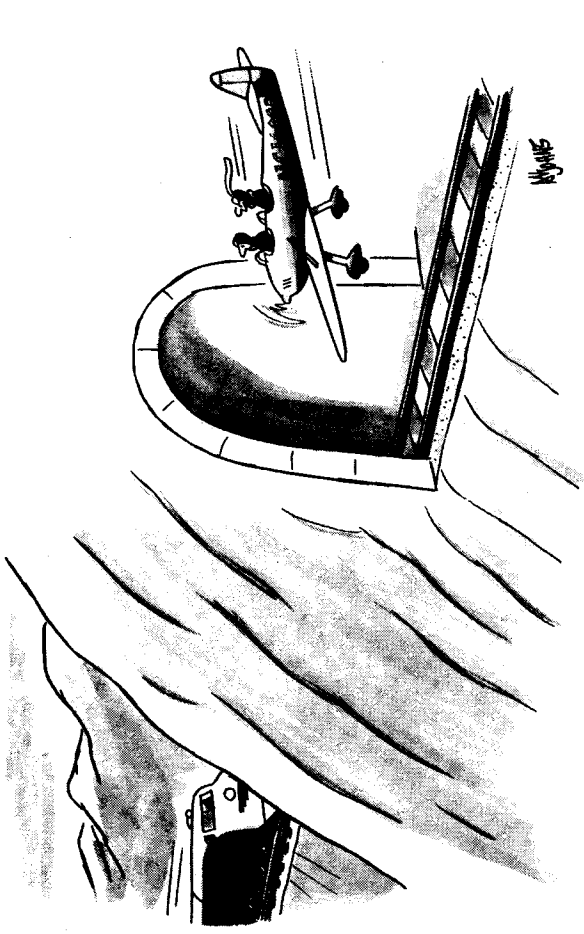
4 color emblem on quality ash cotton

Small, med, large \$14.00 ppd

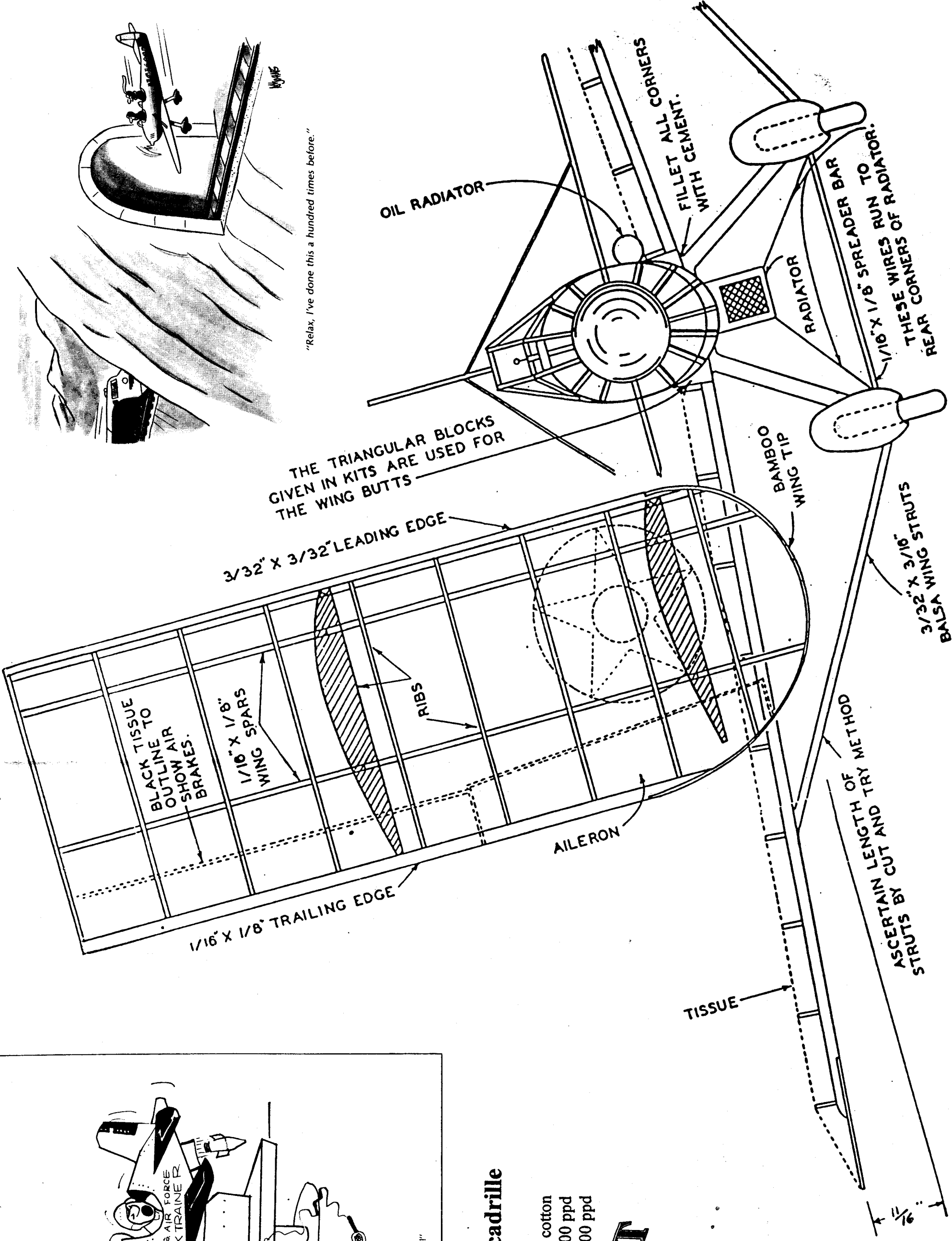
X-large&2X \$16.00 ppd



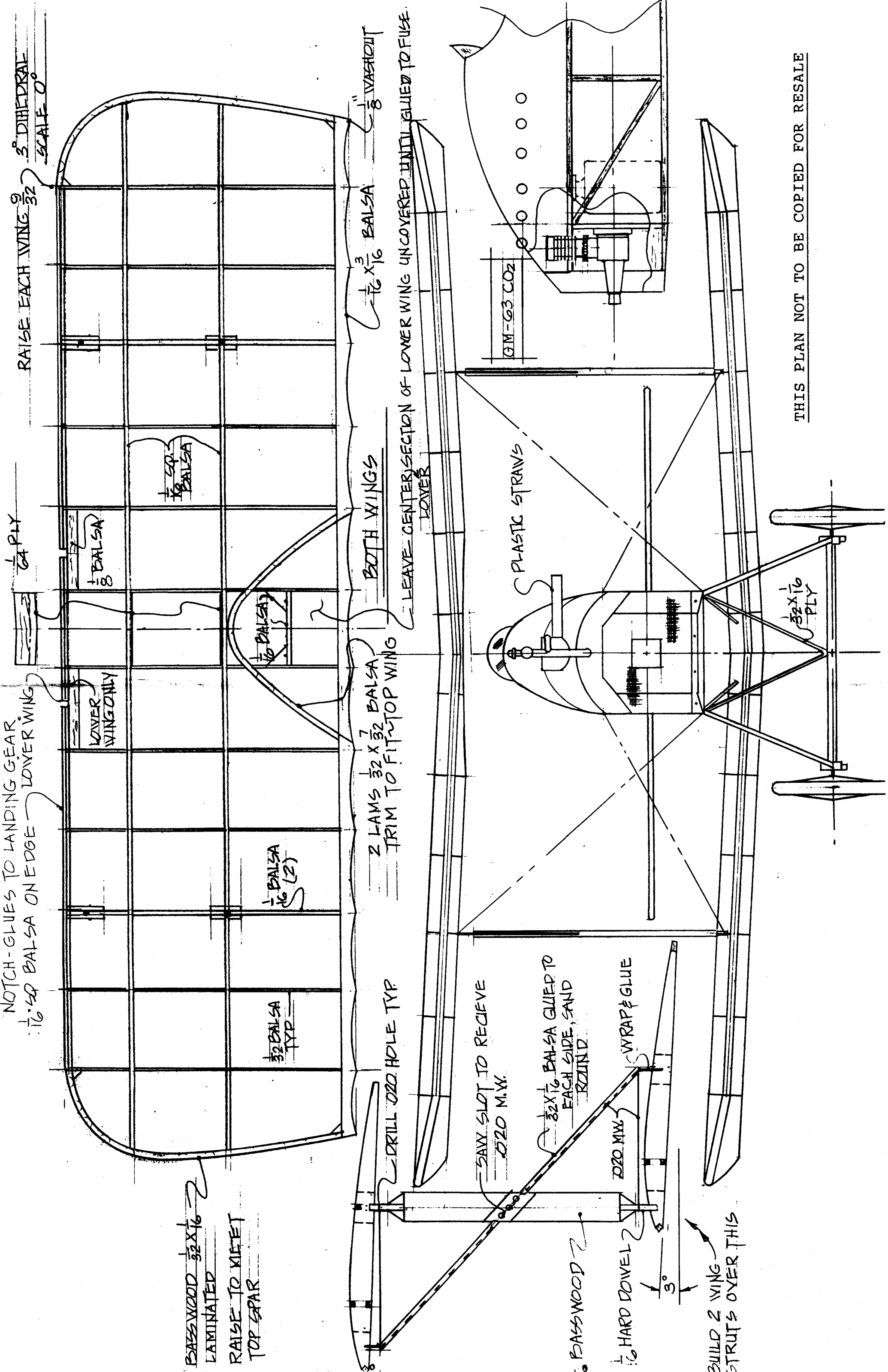
Contact: Les Burdsal  
552 N. Lindberg st  
Griffith, IN 46319  
219-924-1149



"Relax, I've done this a hundred times before."







NOTCH-GLUES TO LANDING GEAR  
1/16" SQ Balsa ON EDGE - LOWER WING

1/4 PLY  
1/8 Balsa

RAISE EACH WING 3/32 3° DIHEDRAL  
SCALE 0°

LOWER WING ONLY

1/8 SQ. 3/32 Balsa

1/16 Balsa (2)

3/32 Balsa TOP

BASSWOOD 3/32 X 1/16  
LAMINATED  
RAISE TO MEET  
TOP SPAR

2 LAMS 3/32 X 7/32 Balsa  
TRIM TO FIT TOP WING

BOTH WINGS

1/16 X 3/16 Balsa  
1/8 VASHOUT

LEAVE CENTER SECTION OF LOWER WING UNCOVERED UNTIL GLUED TO FUSE

DRILL .020 HOLE TOP

SAW SLOT TO RECIEVE  
.020 M.W.

3/32 X 1/16 Balsa GLUED TO  
EACH SIDE, SAND  
ROUND

WRAP & GLUE

BASSWOOD

1/16 HARD DOVEL

BUILD 2 WING  
STRUTS OVER THIS

PLASTIC STRAWS

GM-63 CO2

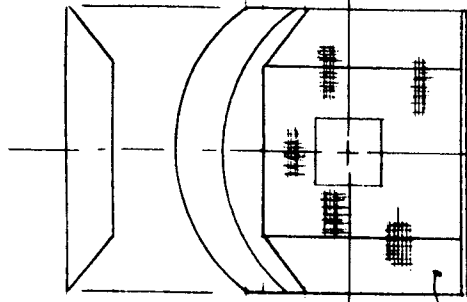
3/32 X 1/16  
PLY

THIS PLAN NOT TO BE COPIED FOR RESALE

LANDING GEAR TRUE LENGTH  
.032 MW MAKE IN TWO PIECES

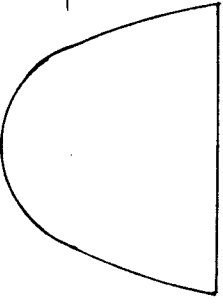
MODEL DATA: "PEANUT" SIZE  
WING SPAN ~ 13" WING AREA ~ 92 in<sup>2</sup>  
HORIZ. TAIL AREA ~ 16 in<sup>2</sup> TAIL/WING ~ 17%  
TOP WING + 2° INCIDENCE BOTTOM WING + 3°  
TAIL VOLUME ~ .406 ASPECT RATIO 3.6

THIS PLAN NOT TO BE COPIED FOR RESALE

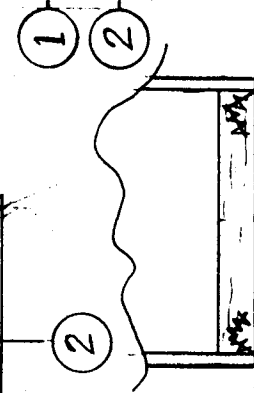
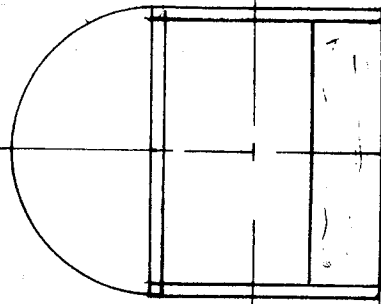


NOSE BLOCK  $\frac{1}{4}$  Balsa

CARVE TOP FROM 1 TO 3  
FROM LIGHT Balsa, HOLLOW



(2T) FOUR LOUVERS  
RIGHT SIDE ONLY

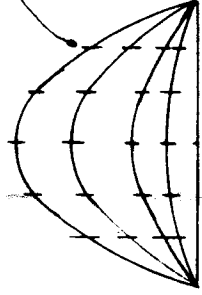


GLUE TO  
LOWER WING

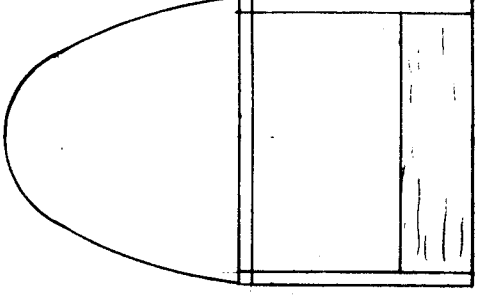
LOWER WING MOUNT

A-A

$\frac{1}{32} \times \frac{1}{16}$  BASSWOOD OR  
 $\frac{1}{16}$  SQ STRINGERS Balsa

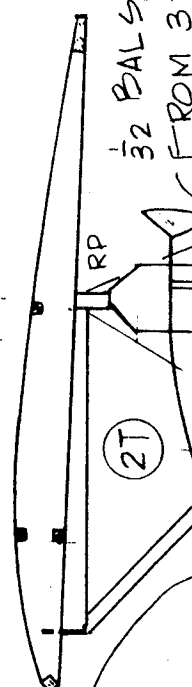


(4) THRU (7)  $\frac{1}{32}$  Balsa

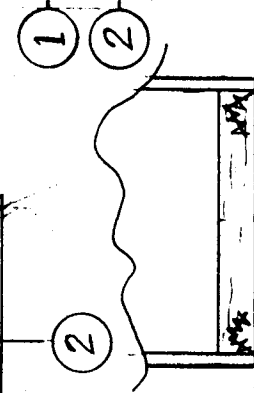
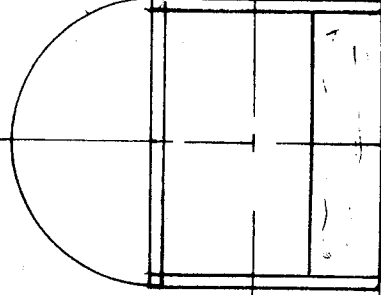


$\frac{1}{16} \times \frac{1}{16}$  Balsa

$\frac{1}{32}$  Balsa  
FROM 3 TO 4



(2T) FOUR LOUVERS  
RIGHT SIDE ONLY



GLUE TO  
LOWER WING

LOWER WING MOUNT

A-A

L.G	WING
$\frac{1}{32}$ Balsa	~ 32 RIBS

$\frac{1}{32}$  MW

$\frac{1}{32}$  PLY OR PLASTIC

$\frac{1}{32} \times \frac{1}{16}$  Balsa LAM

$\frac{1}{16} \times \frac{1}{8}$  Balsa

AUSTRO-HUNGARIAN "PRIESEL KEP" WWI PROTOTYPE  
REFERENCE: "AUSTRO HUNGARIAN ARMY AIRCRAFT OF WWI" BY  
GROSZ, HADDOCK & SCHIEMER PAGES 366, 367, 368 (3 VIEW)  
COLOR SCHEME ~ FUSELAGE & FIN DARK VARNISHED WOOD  
ALL FABRIC COVERED SURFACES  
LINEN CLEAR DOPED (BEIGE) ALUM.  
FROM NOSE TO STATION (2)

TED DAVIS-MAR 1999  
LONDON TN.  
011 493-458-5493