

MAX FAX

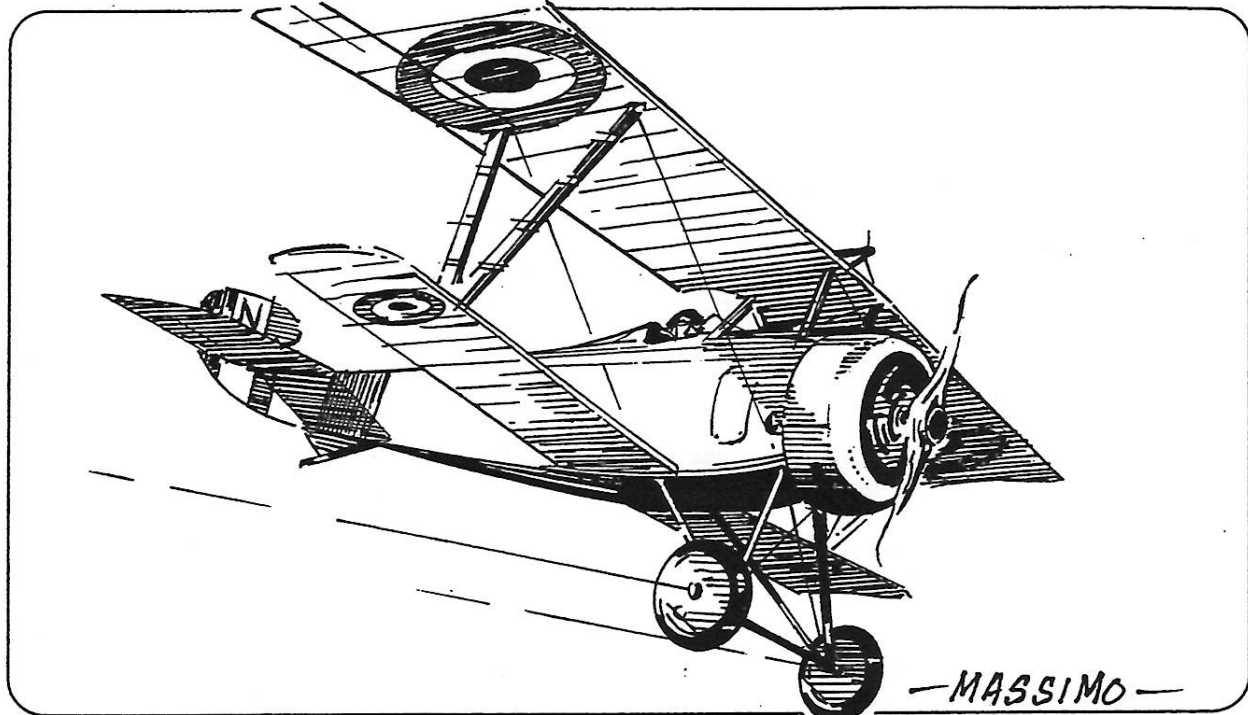


Journal of the D.C. Maxecuters

...home of the dreaded POTOMAC PURSUIT SQUADRON of the Flying Aces Club

Editor: Stew Meyers

May - June 1997



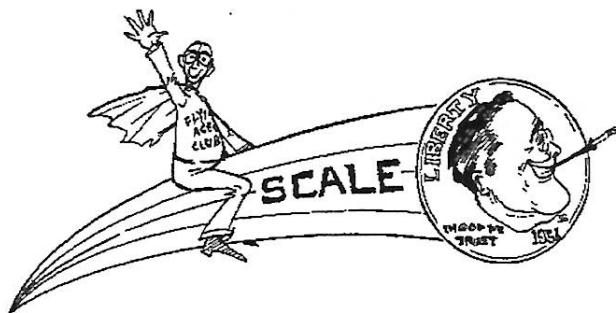
COMING ATTRACTIONS

MAY 10th	Reading Indoor Air races See flyer in this issue	Reading, PA
JUNE 7th	Second Cuckoo Scale contest See flyer in this issue	Cuckoo, VA
JULY 19 - 20	Flying Aces Contest (off year) Contact Lin Reichel, 3301 Cindy La. Erie, PA 16506	Geneseo, NY
SEPT 6th	DC Maxecuters Summer Contest Details to be announced	Comsat, MD
SEPT 26 - 27	Kudzu Flying Corps Land & Lake Deatils to be announced	NC

FOURTH BIG DIME SCALE ISSUE - SIX PLANS !

THE INSIDE SCOOP

Stew Meyers



The theme of this Forth Dime Scale Issue is "new" dime scale. I get on my soap box about over complicated rules elsewhere in this issue. New Dime Scale is anything built in the spirit and style of the old dimers, but done recently. Air-Devils fall into this category but the Gregor in this issue is a bit too complicated to really fit as a dimer and Dave Stott calls it a 25¢ Deluxe Kit. I might add that the Jones in the last issue is also a little over built for a dimer. Heavens, don't think I advocate outlawing these. I am merely suggesting that if some parts were left out and the LE and TE were replaced by 1/16 Sq. they would better fit the spirit, be lighter and fly better. Not everybody has balsa that levitates like Allan does. I am also including the 20" Comet T-Craft since so many local Maxecuters have built it and love it. While we are on the subject of big dimers, I am including a page from the 1940 AMCO (Comet) catalog advertising these. All are great flyers that should be encouraged not prohibited. At the other end of the scale I am including a page of 10 inch Five Centers and plans for the 5¢ Bellanca and an Air-King Monocoupe form Stottsky. Maybe I shall do some Quarter Scale Comet 'E' series in the future. By the way, I hate the idea of scaling these to an arbitrary 16 inch span with out altering the structure to match the size. Another New Dimer is the 15 inch Bellanca Jr., redone from existing plans to fit the dimer spirit. The center fold is a Meyers Majorly Morphed Megow Nieuport Scout in the Bill Miller mode. My partner in this crime and other illustrations is Massimo. As usual, if I include it, I have built and flown it (except for Stotts goodies). We also have a technical article on props by Al Flesher.

This issue is a bonus issue to make up for the lack of plans and technical goodies in the last issue. Not that the index to the last 20 years of MAXFAX is not useful for some one who has all of them. The sad fact is we have limited numbers of the last SIX issues only, you may get these by writing me and enclosing \$3.50 each. If I have run out of the particular issue(s) you have asked for I will extend your subscription by 3 months, but no refunds! If you must have another back issue because of Allan's index write him, not me!

Allan Schanzle
20008 Spur Hill Dr.
Gaithersburg, MD 20879

PHOTO PAGE

1. Our editor for this issue is our 'Ten Center' maestro Stew Meyers, seen here with his Vega.
2. Don Srull working hard to get his Lanzo into contention at last year's Pensacola SAM Champs; what a great flying field courtesy of Jack Bolton.
3. How about this for a great 'dummy' engine installation. Ask Don how he did it for his Grumman Skyrocket.
4. Herb Kothe seen doing some last minute adjustments to his Lanzo 'Puss Moth' for the SAM Champs. Herb won the Old Time Rubber Scale event in Pensacola with this aircraft. Herb also won the 'Jimmy Allen' and 'Commercial Rubber' events there.
5. Roland Schmitt built this beautiful 1/2 Texaco R/C Scale Poncelet. It is a great flyer just like Hurst's little electric job. Would be great for the Scale MAXECUTER FAC R/C tryouts.
6. A HiLine Mini-6 powered Pietenpol by Phil Cox heading out over the fields of the Muncie AMA site, Labor Day weekend 1996. These are great FAC meets run by our 'fearless leader' Lin Reichel every year over labor Day weekend at a terrific flying site (probably one of the best in the eastern half of the States). Don't miss the next one!
7. Dave Stott is ready for this summer's 'GOODYEAR MIDGET RACE' event in July's FAC meet at Geneseo; here is Dave's photo of his 1948 Thompson & Balboni Special.
8. Our old friend Nick Ropar down in the southwest came up with something different with this unusual configuration. It is a Blohm & Voss BV P 170; a 30 inch span FAC RUBBER SCALE 'bonus point' grabber.

The contents of these issues are as follows:

May-Jun 96:Bowers & Raykow- 25" Farman F250 by Bowers Air-King Curtiss P6E, Mr. Mulligan, Page Racer, & Boeing P26A

July-Aug 96:Meyers- 3rd Dime Scale Issue Megow Tcraft on floats Comet Vultee attack, Corben Super Ace, & Hawker Hurricane Construction notes, Torqure Meter, Dime Scale Rules, Srull 15% tactics.

Sep-Oct 96:Pittman- Jabiru comments Libella 11 Bates Monoplane E-mail Allan's Shop

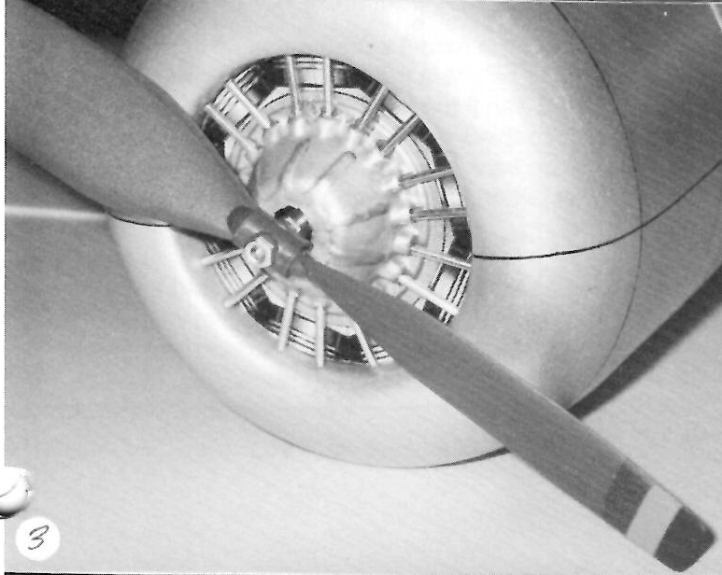
Dec-Nov 96:Schanzle-Pasped Skylark, Tail wheel tales, Felix Gutman Outdoor Endurance Job, 96 Maxecuter Fun-Fly results, Pearl Harbor, Clark Y airfoils

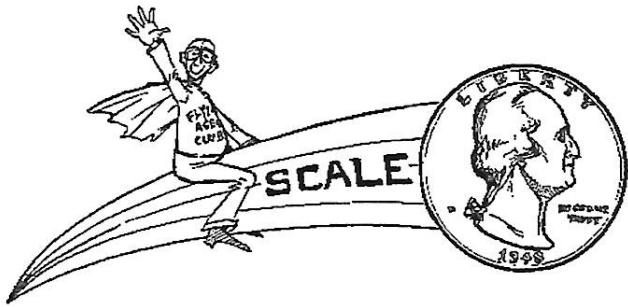
Jan-Feb 97:Schmitt und Srull- Aronstein 15% tactics Lewars Aeronca Champion John Low N3N-3 Simperts B-2 Stealth catapult glider Hurst's Shop

Mar-Apr 97:Schanzle-Ben Jones S-125 and Index to 20 years of MaxFax

Write or E-mail me if you are interested in a compendium of technical articles and construction hints as a separate booklet. I just might do a MAX-TECH-FAX.

StewMeyers@aol.com or Stewme@erols.com



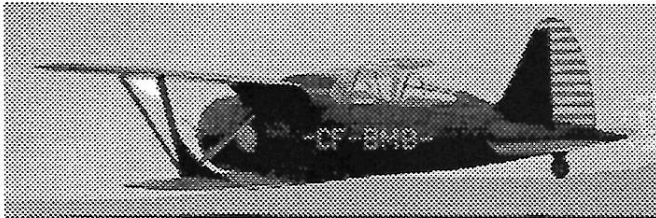


A SPECIAL QUARTER SCALE BONUS

GREGOR FDB-1

By Dave Stott

Undoubtedly one of the most pleasing in appearance of all the biplane fighter designs conjured up before the complete dominance of the monoplane, the Gregor looks as if it had flown right off a page of a Bill Barnes novel.



How it has escaped being modeled before now is a wonder. The prototype was built by the Canadian Car and Foundry, Ltd. in hopes of it being adapted by the RCAF. With the urgency for fighters in Mother England, Canadian aircraft industry was given over to the manufacture of Hawker Hurricanes. This put an end to the development of what would probably have become the last biplane fighter to enter service anywhere in the world. The Grummanesque appearance of the Gregor is by no means a coincidence. Canadian Car and Foundry had been building Grumman FF-1 "Goblin" aircraft under license for a number of years.

The Gregor had become lodged in my mind in pre-teen years, mostly from admiring the 3-view drawing in Model Airplane News drafted by current day FAC, Len Wiczorek. Layout began with the intention of creating a No-Cal model, but a nagging conscience won out and the final drawing was for a model in 3-D.

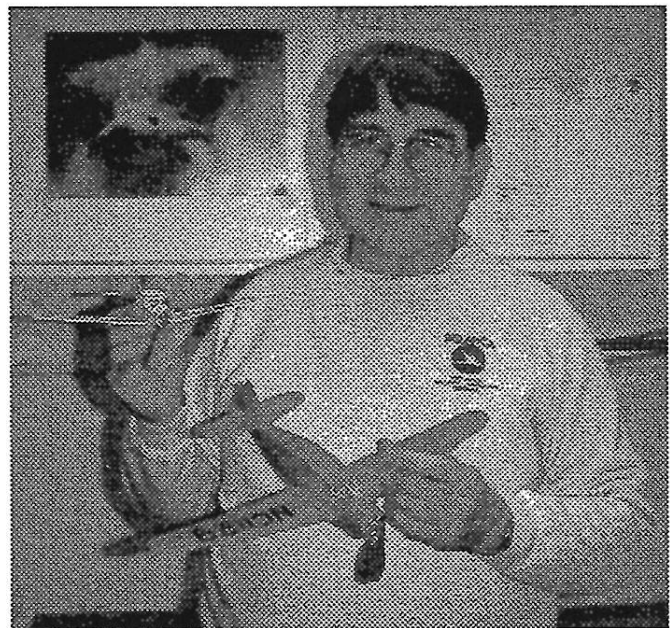
Although the drawing is for a 16" wing span model, the prototype was built with the drawing enlarged to 18" in span. At 18 inches, the structure does not get strung out too much, and wood sizes remained unchanged. A jig was built of sheet balsa in order to join the two sections of each top wing panel to assure the 149° gull angle. Each top wing panel is covered after the gull angle has been built in. The upper section of the fuselage between formers 2 and 4 is left uncovered to facilitate mounting of the top wing panels, after which the covering is

completed with stiff paper panels. The top wing is mounted first; the bottom wing last, also using a stiff paper panel to fair in the belly contours. The stabilizer is a one piece structure glued to the bottom of the side keels of the fuselage. The foam tail cone is of course added last.

The dummy wheel halves are made from soft grain 3/32 balsa, shaped and warped to fit the fuselage contour. Carburetor inlet and landing gear hinge fairing are foam. The aircraft was sometimes fitted with a spinner, the shape of which is shown in the plan view, and sometimes not. Having only an old toy Mattel vacuum former, the canopy was formed in three pieces.

All up weight of the model turned out at 49 grams, a great deal of it being ballast in the short nose. Power is 4 strands of 1/8 Tan II turning a 7" Peck plastic prop. Down thrust is 7°, coupled with 1° of right thrust. Balance point is 1-3/4 inches back from the leading edge of the top wing. Flight pattern is right under power, and right in glide.

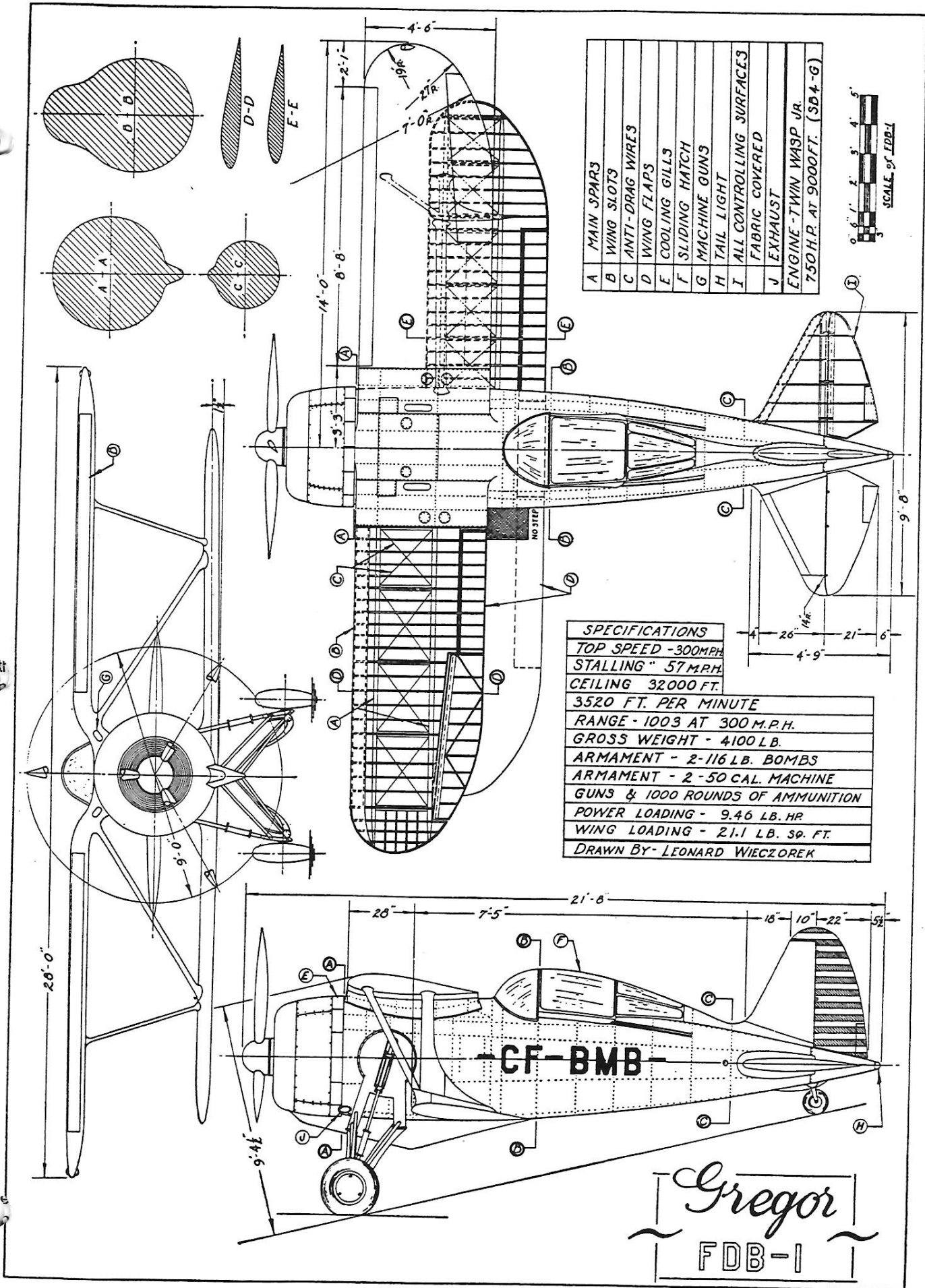
It seems quite logical that an electric powered version could be successfully made. The additional weight of the electric system being compensated in good measure by the removal of nose ballast requirements.

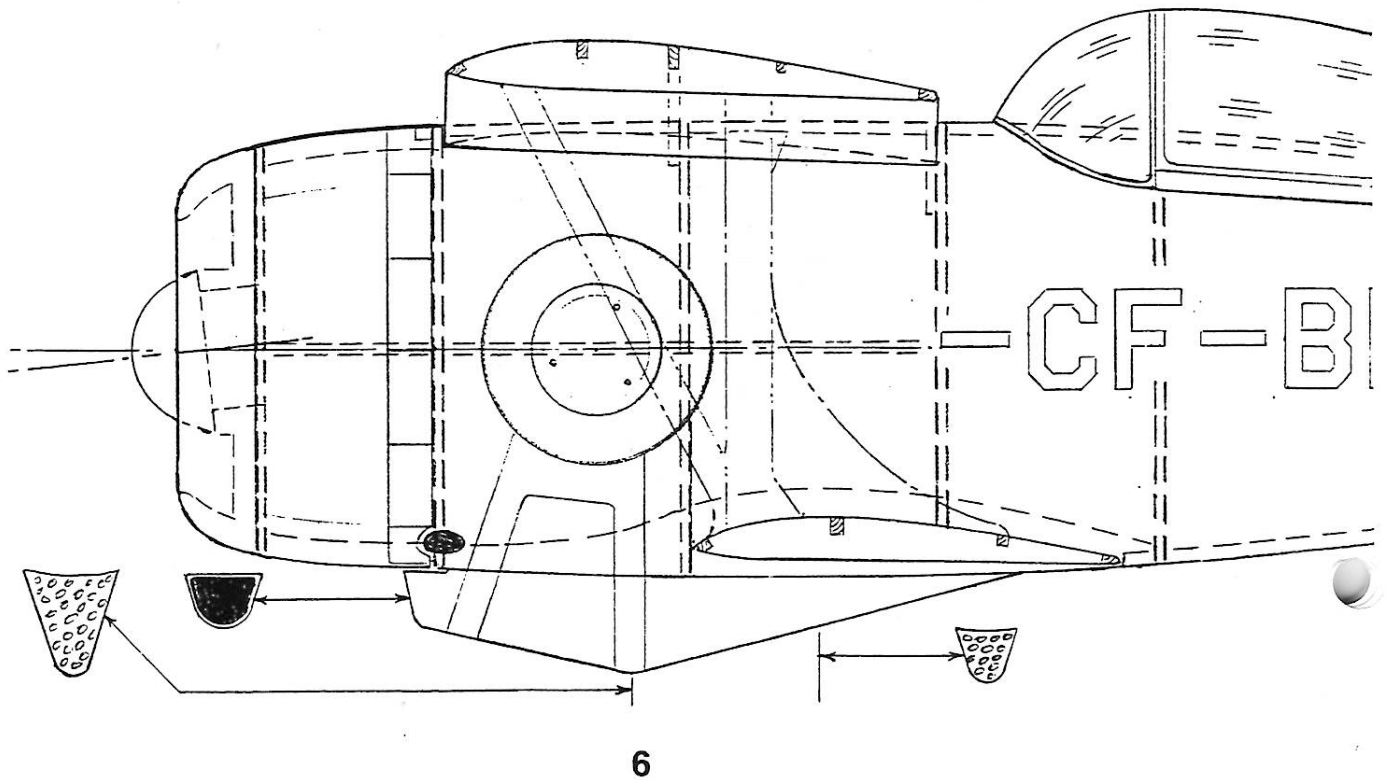
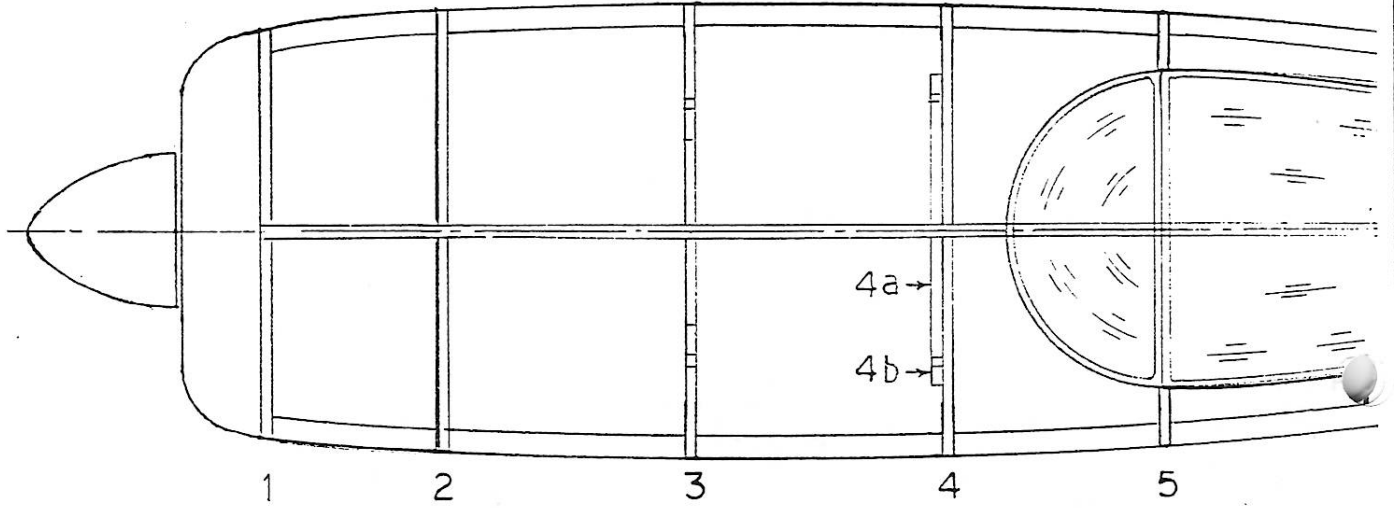
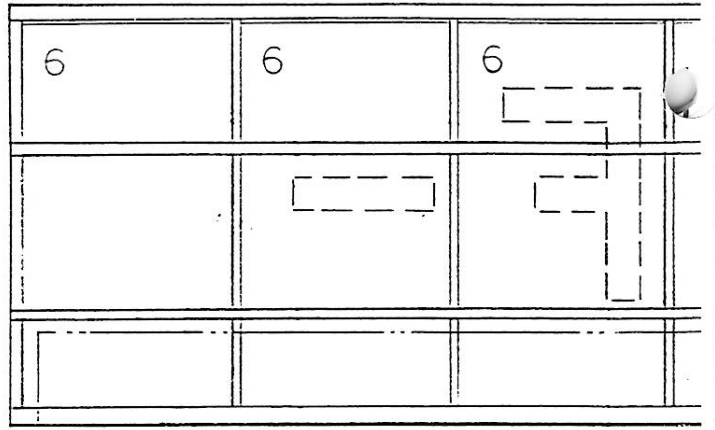
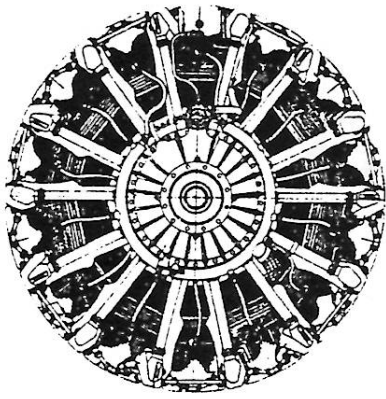


Four Strange birds seen at Tom's

Phinias Pinkum's construction hint...

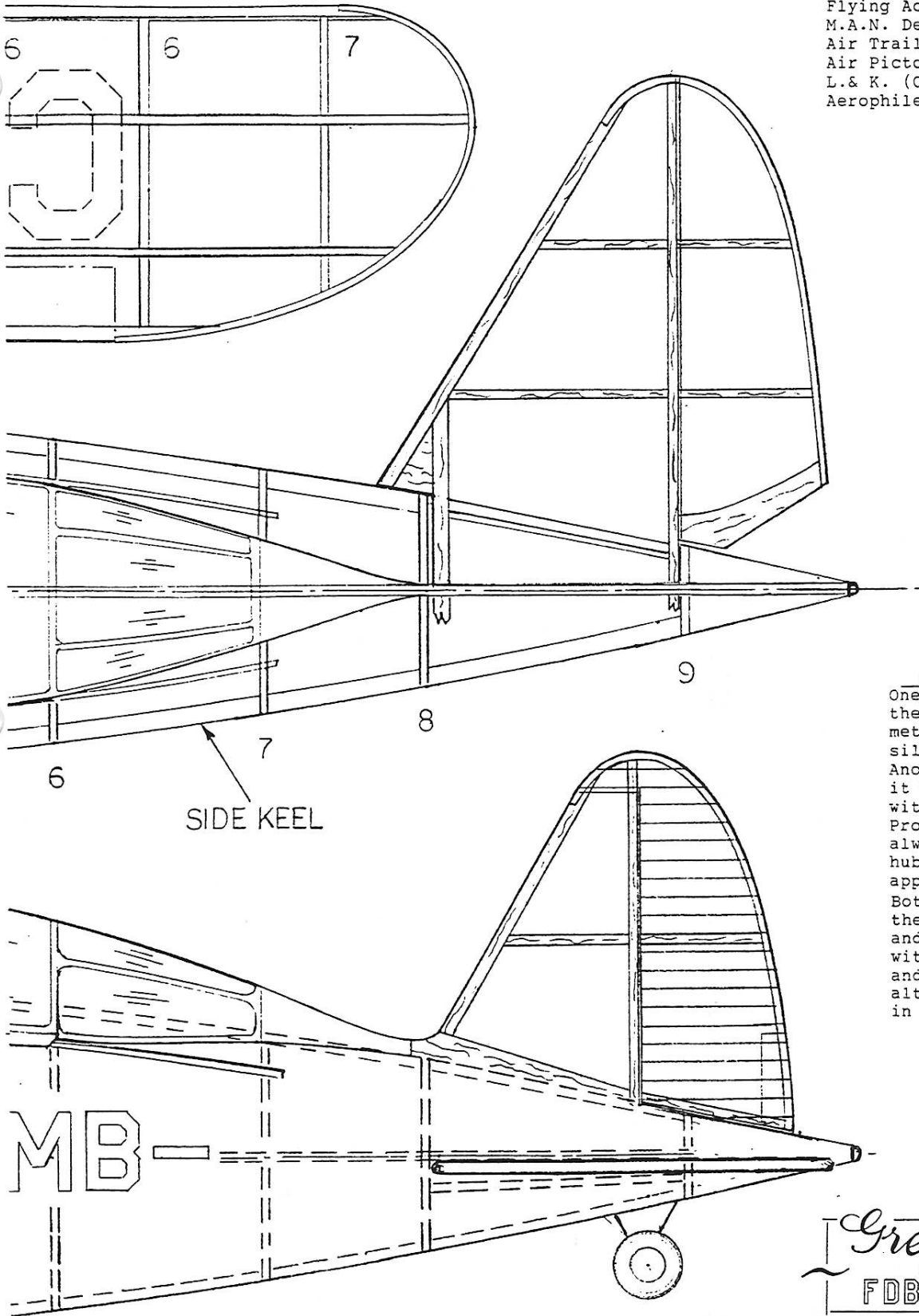
There has been some silly worrying on the inter-net over whether tail surfaces have been sanded too much on dime scales. Clemens has suggested he likes to see the ink on the print wood to show. So, go ahead laminate the outline to the width necessary to match the kit print wood. Radius the ends like the print wood and ink on the lines he likes to see that delineate the joined pieces that give so much warp trouble. Might as well ink on a part number too keep the rules freaks happy. Haw!





REFERENCES

Flying Aces, Nov. 1939.
M.A.N. Dec. 1943.
Air Trails, Mar. 1950.
Air Pictorial, Dec. 1972.
L. & K. (Czech) #17, 1982.
Aerophile, Vol. 2, No. 1.



COLOR SCHEME

One source describes the ship as all over metallic blue with silver markings. Another source says it was gunmetal gray with white markings. Prop spinner was not always used. Wheel hubs and spinner are apparently silver. Both sources agree the rudder was red and white striped with red at the top and bottom for 21 alternating stripes in all.

Gregor
FDB-1

THIS DRAWING NOT TO BE COPIED FOR
SALES PURPOSES

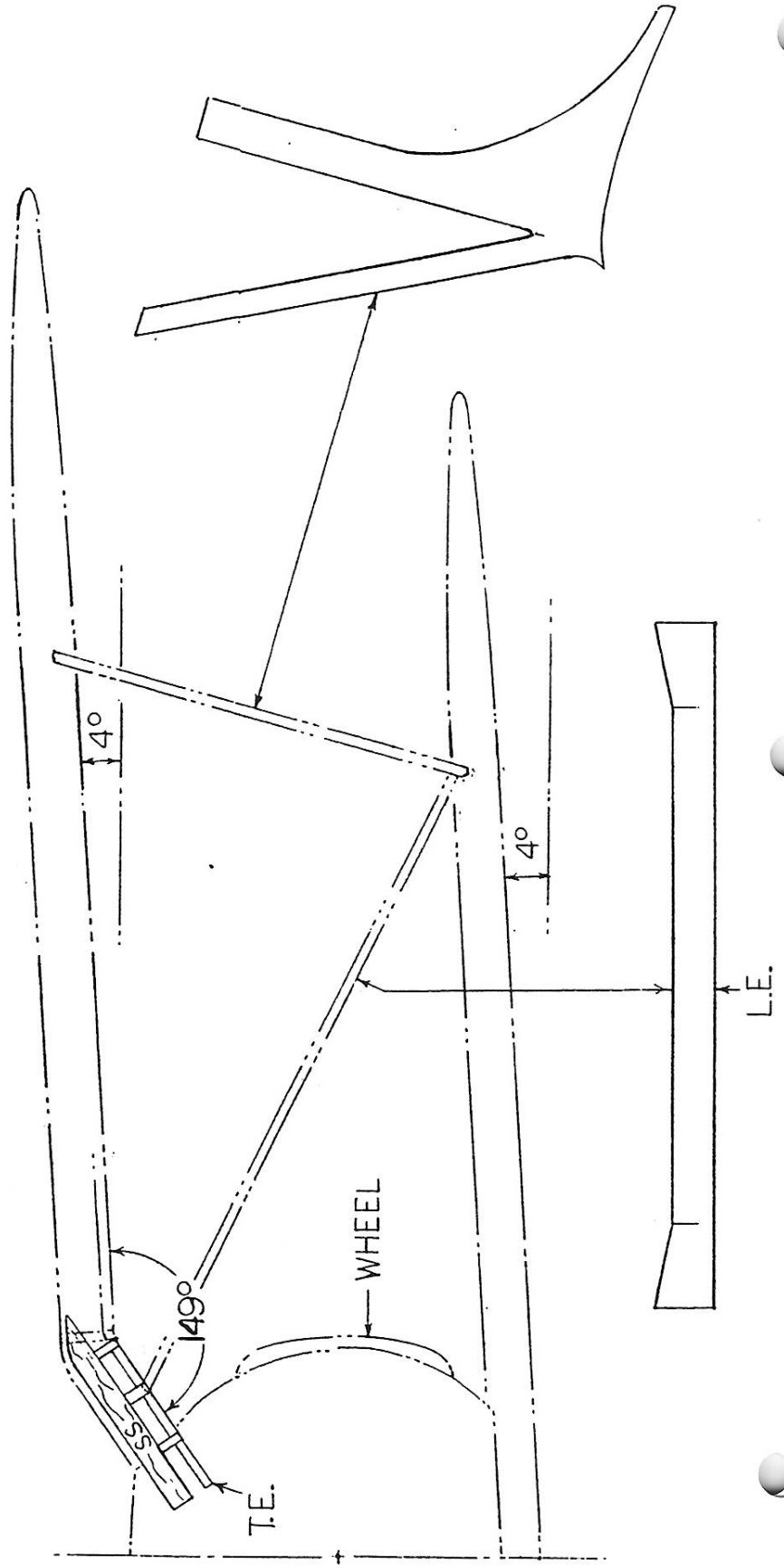
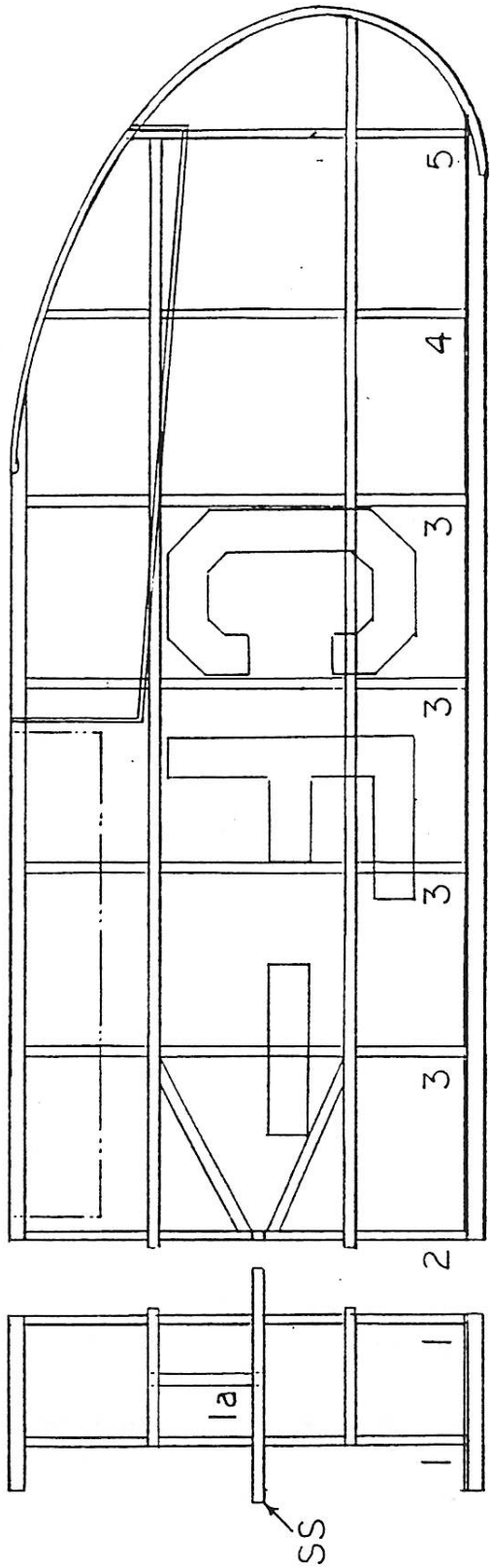
★ AIRDEVIL MODEL CO. ★

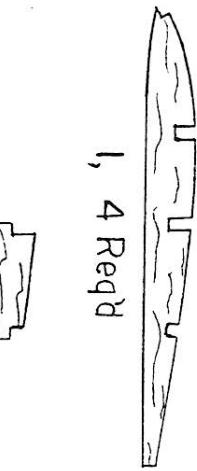
★ DELUXE KIT ★

WINGSPREAD-16" PRICE-25¢

DRAWN BY- *STATTsky*

TEST PILOT O.K.- *Brenfew*





1, 4 Req'd



1a, 2 Req'd



2, 2 Req'd



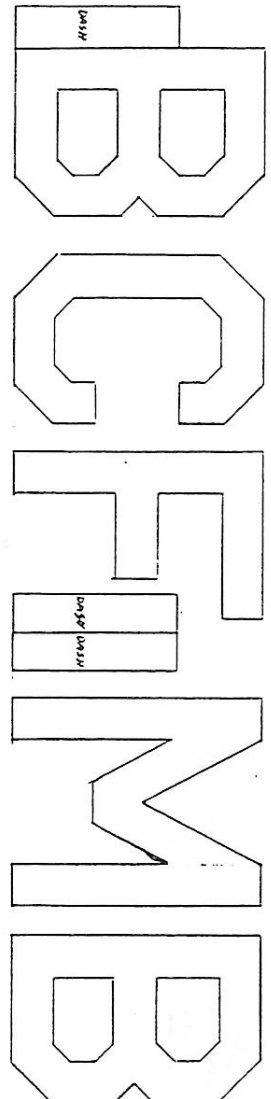
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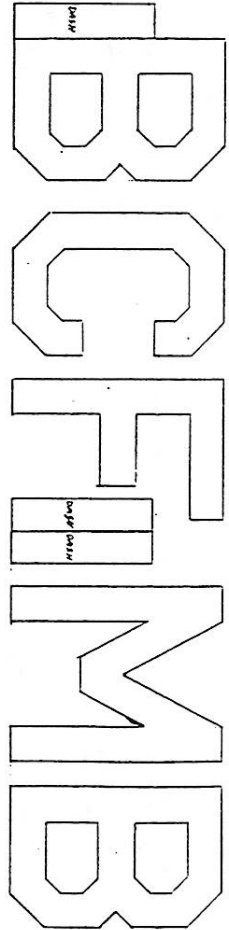
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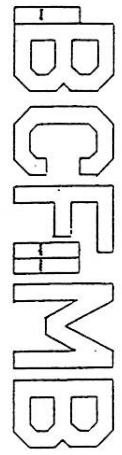
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TOP WING



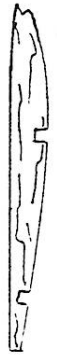
BOTTOM WING



FUSELAGE



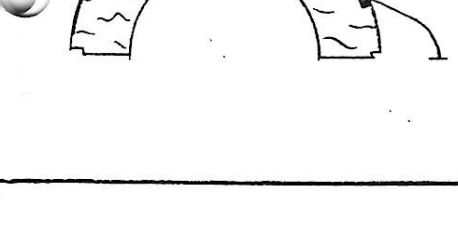
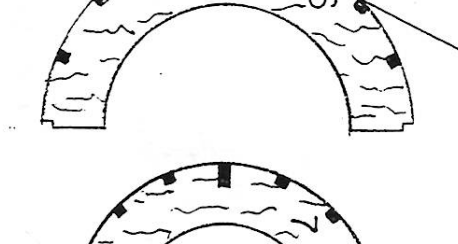
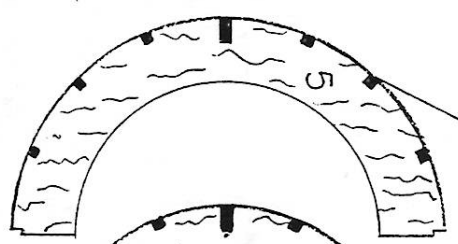
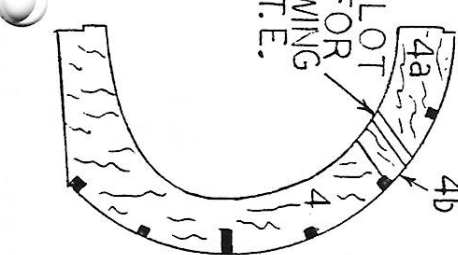
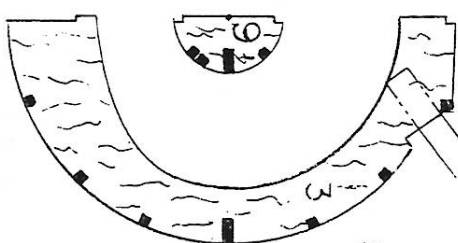
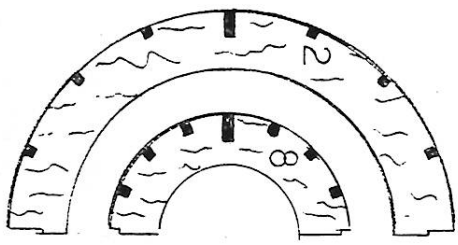
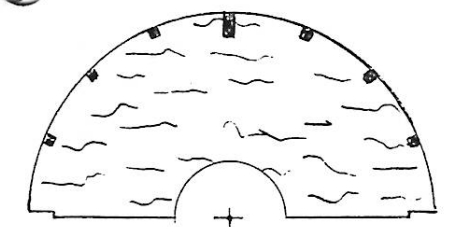
6, 10 Req'd



7, 2 Req'd

WING PART
"SS"

CANOPY

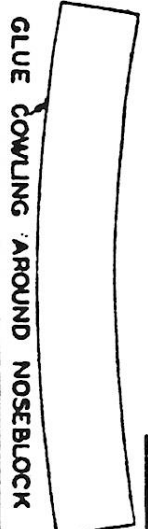
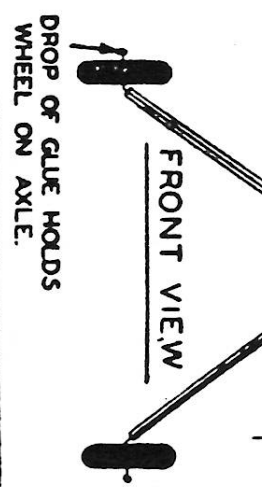
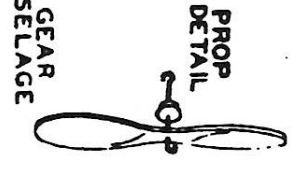
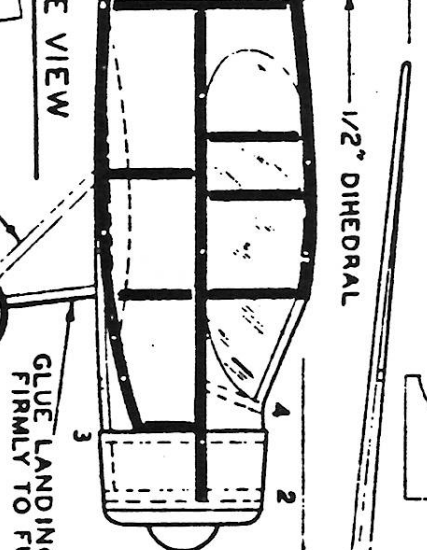
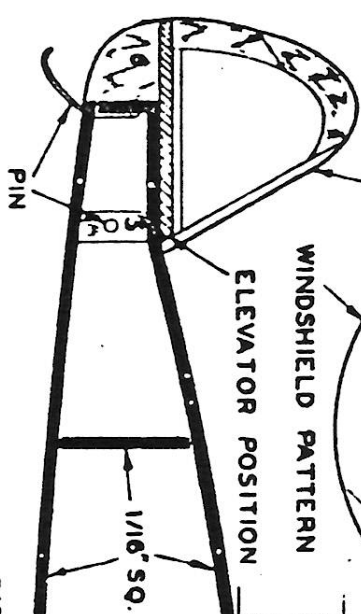
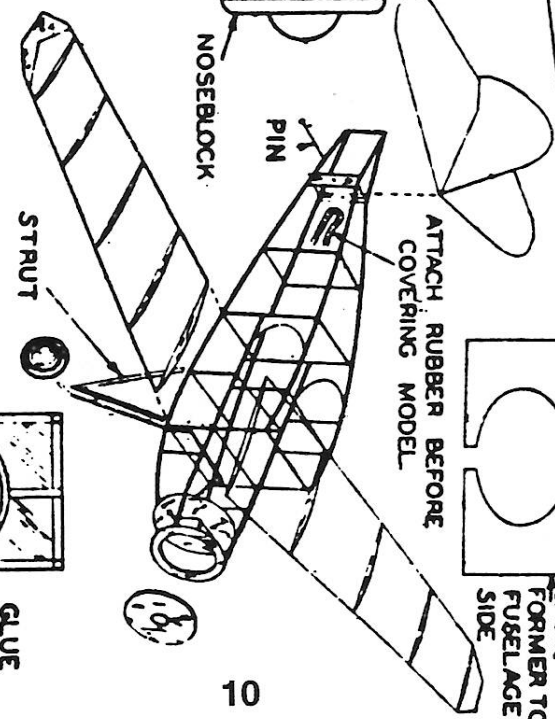
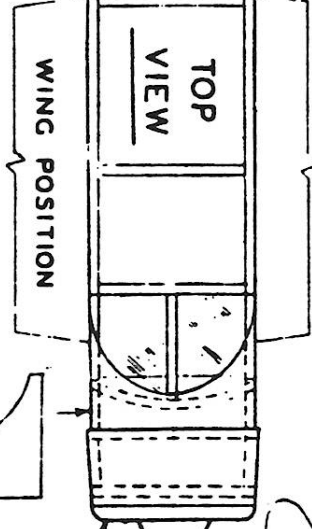
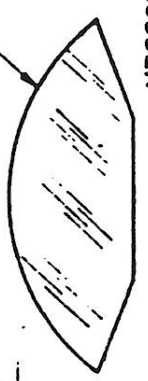
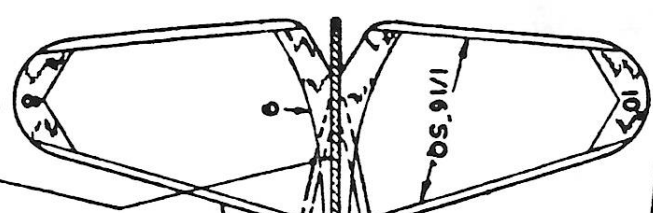
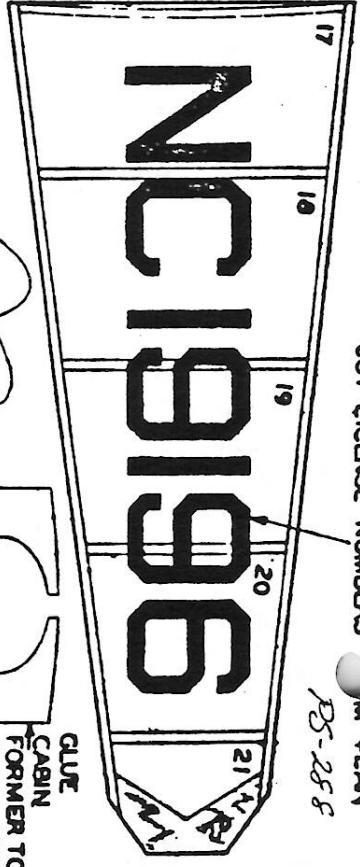
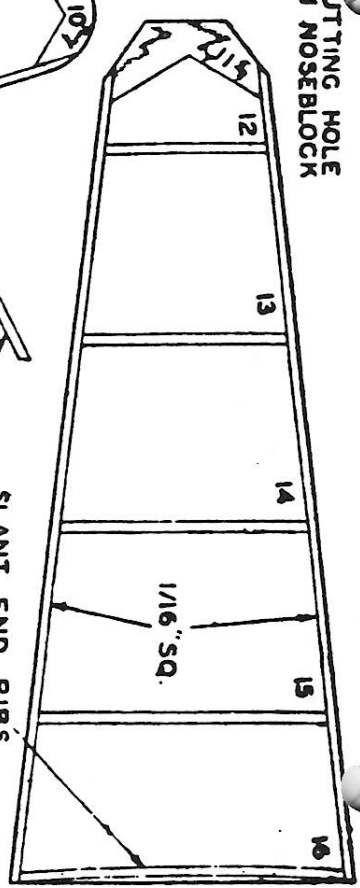


NCIL
CUTTING HOLE
IN NOSEBLOCK

CEMENT NOT INCLUDED IN KIT. PAINT IT FROM YOUR DEALER.

CUT LICENSE NUMBERS FROM PLAN

PS-258

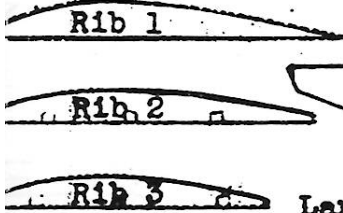
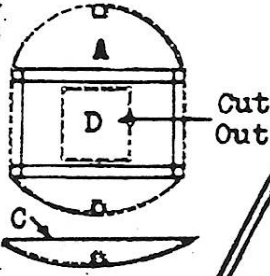
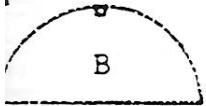


BELLANCA
WING SPAN 10 | LENGTH 6-1/8
DRAWN BY Edward Egan | KIT NO. W 9

MONOCOPY
BMS-12

AIR-KING MODEL CO. 2001 S. E. 10th
Portland, Oregon

Instrument Panel - Cut out & cement on pc. B



Landing Gear Pattern

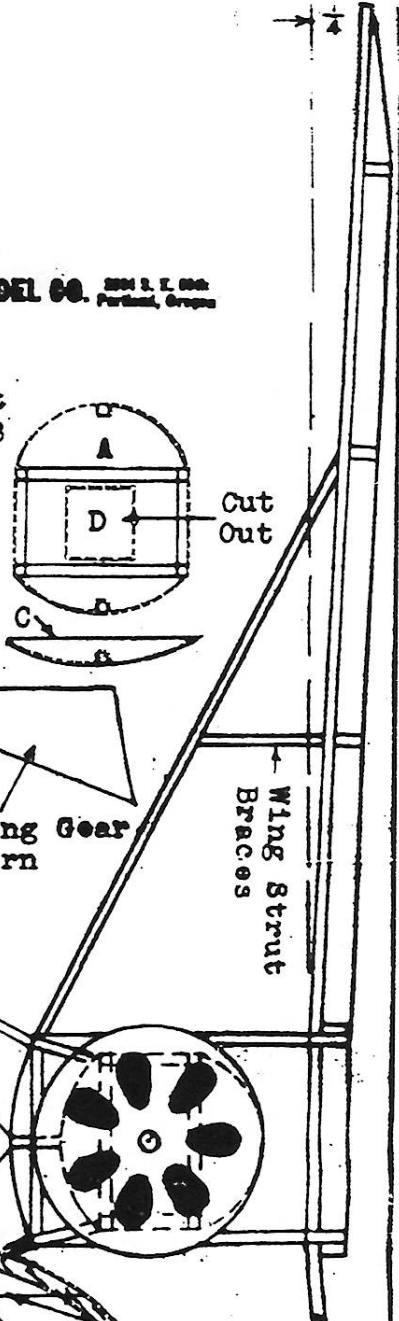


Wire Braces - Ends act as axels for wheels.

. balsa



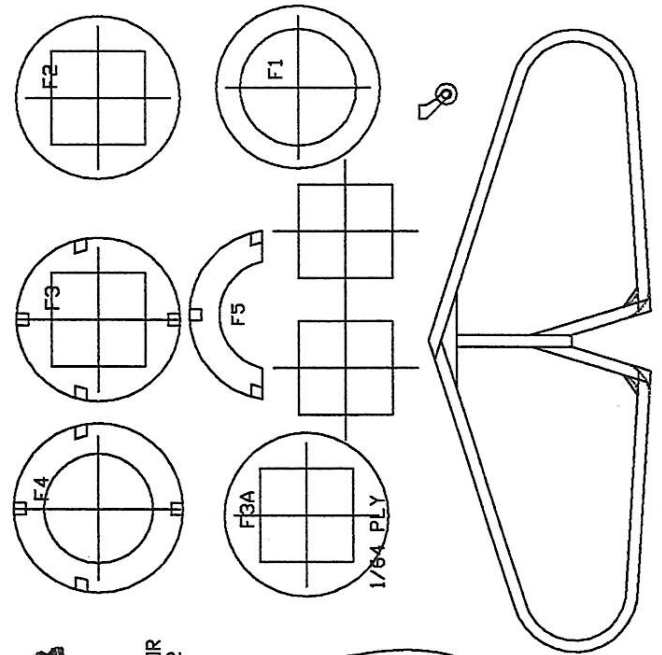
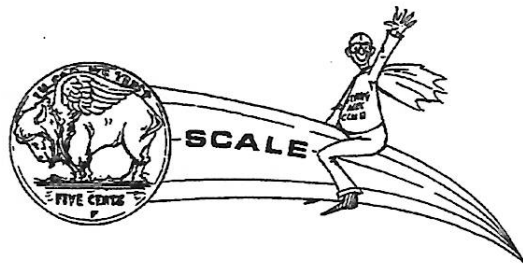
from balsa with stiff . Piece D is glued to in A making complete rubber motor.



Wing Strut Braces

Design on wings, rudder, wheel pants, is cut from darker tissue & is glued over lighter tissue

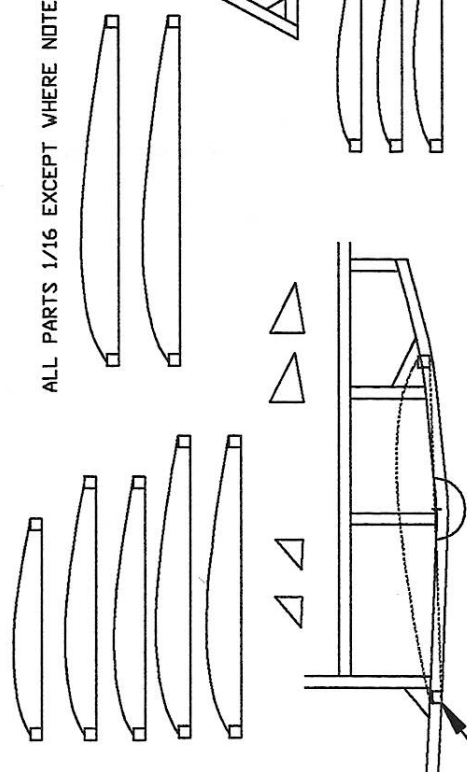
Outline aileron with black ink



DUMMY MOTOR
GLUE TO F2

ALL PARTS 1/16 EXCEPT WHERE NOTED.

Bellanca Jr. Kit W-9



NOTCH LONGERONS TO ACCEPT WING LE & TE

DIME SCALE STUFF AND NONSENSE (the 16 rule)

Rumblings by Stew Meyers

The essence of the rules promulgated by Bob Clemens and adopted by the FAC HQ states dime scales are a 16 inch span model of a pre 1942 model constructed to correspond to the construction practices of the era as shown on the plans with a few curiously selected modern techniques blessed. Modern plans such as Air Devils that meet the spirit of a dime scale (what ever that is) also qualify.

The problem exists in defining what a "Dime Scale" is. The range of models that sold for a dime is large and they are not all comparable in scale detail, intrinsic weight, moments, drag, size, or the resultant flying ability. There are lots of models that can qualify as 'Ten-centers' and I have built many of them. But to me based on my ab initio model building, the Comet one star A series defines the genus. Penn Valley Hobby Center* has taken over Jack Fike's Scale Flite Models repro kits for 46 of them plus Megows, Peerless, and Burds. The quintessential features of the breed are a simple light structure constructed entirely of 1/16 sq. and 1/16 sheet balsa parts with enough fidelity to scale to be easily identifiable or at least well distinguished from others of the ilk. There were a minimum of ribs. Quite often single surface covering was used, and of course no colored dope; these are flyers! The fuselage cross section is simplified. The insignia and markings were black and white and cut from the plan. The only music wire used is for the prop shaft. The nose 'block' is 1/16th sheet with a hard wood thrust button. A four inch machine carved balsa prop is supplied along with hard wood wheels pin mounted to the 1/16 sq landing gear.

The Megows tended to be even further out of scale and cruder featuring 1/8 x1/16 and 1/32 sq. strips as well as 1/16th sq. and a block of balsa in the nose. Bill Miller has reworked a few of these as "Miller Moderately Modified Megows". I must say I really like what he has done. I have built a few of the original Megows and they fly great but some are really out of it. (A radial engine on a SPAD?). In fact I have produced a "Meyers Majorly Morphed Megow" version of the Nieuport Baby Scout which appears in this issue. That is not to say that some of the Megows don't look great. The F28 Ryan ST is a classic!

While on the subject of Megows I ought to mention scaling. During the '40s Fred took some of his 30 inchers and released half sized versions as kits for 10 cents. The F65 Stuka and F63 Henschel are examples of this. Scaling results in the original 3/32 sq. longerons coming close to 1/20th sq. These are called out as 1/16 on the plans. There are also lots of little pieces and 1/32 sq. stringers and formers that should probably be 1/20th or 1/32 sheet. This results in a rather scale like model that is much too detailed to fit what I consider to be the spirit of dime scale. I can, however, document that these sold for a dime in 1942.

The proposed new Maxecuter rules state you can enter any thing in dime scale that resembles a 30's dime scale kit and is under 16 inches in span and over 16 grams in weight (less rubber). This "Klutz Klass" probably will be predominately built from 1/16th balsa. If it doesn't seem to fit the criteria, the CD can heave it out. (An authentic dime scale plan could be used to plead your case but is other wise unnecessary except to amuse those present). Only the winners will be weighed. No static judging or timing. No construction rules. Mass launch to keep it simple. If it goes out sight or up a tree or a vent shaft and can't be weighed, you lose! Of course you can laminate if you have a thing against warped surfaces. With a 16 gram minimum empty weight we don't expect to see ghost ships and the difference in weight between laminated and sheet outlines of less than half a gram dosen't mean much. No need to specify double covered wings. The average weight of the 25 dimers I have built turns out to be 16 grams. They have tended to get lighter over time as I did less beefing up.

I should mention here that not every Maxecuter is unanimous on this. Dave Aeronstein and Frank Rowsome like to build lighter and we will probably have a few "Ghost Class" events with no weight limits to amuse them (and me as well). I also favor allowing 20 inchers to compete. [See the back cover] We will probably have a "Big Dimer" event for these as well occasionally and let the 20 inch 50¢ Scientifics fly in it as well.

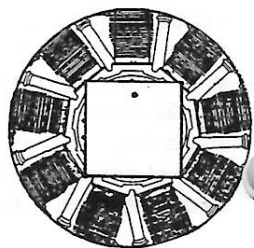
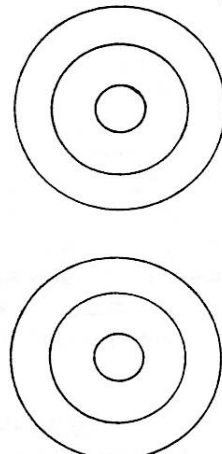
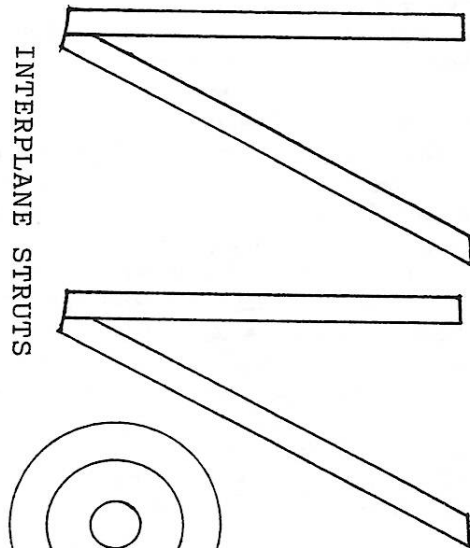
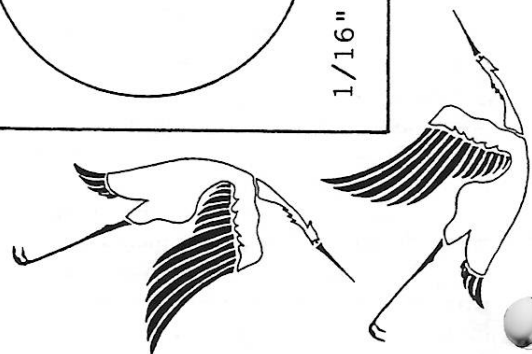
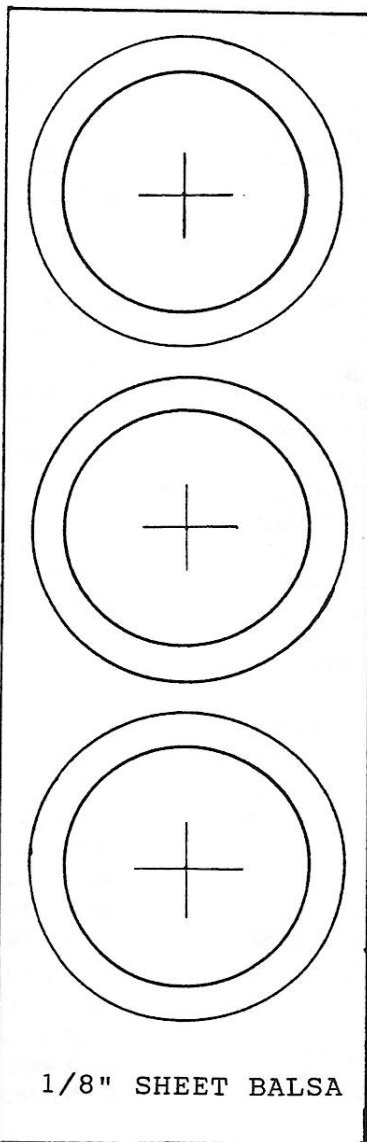
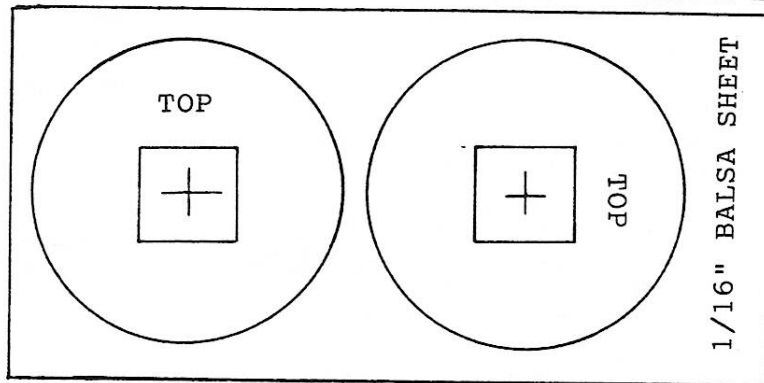
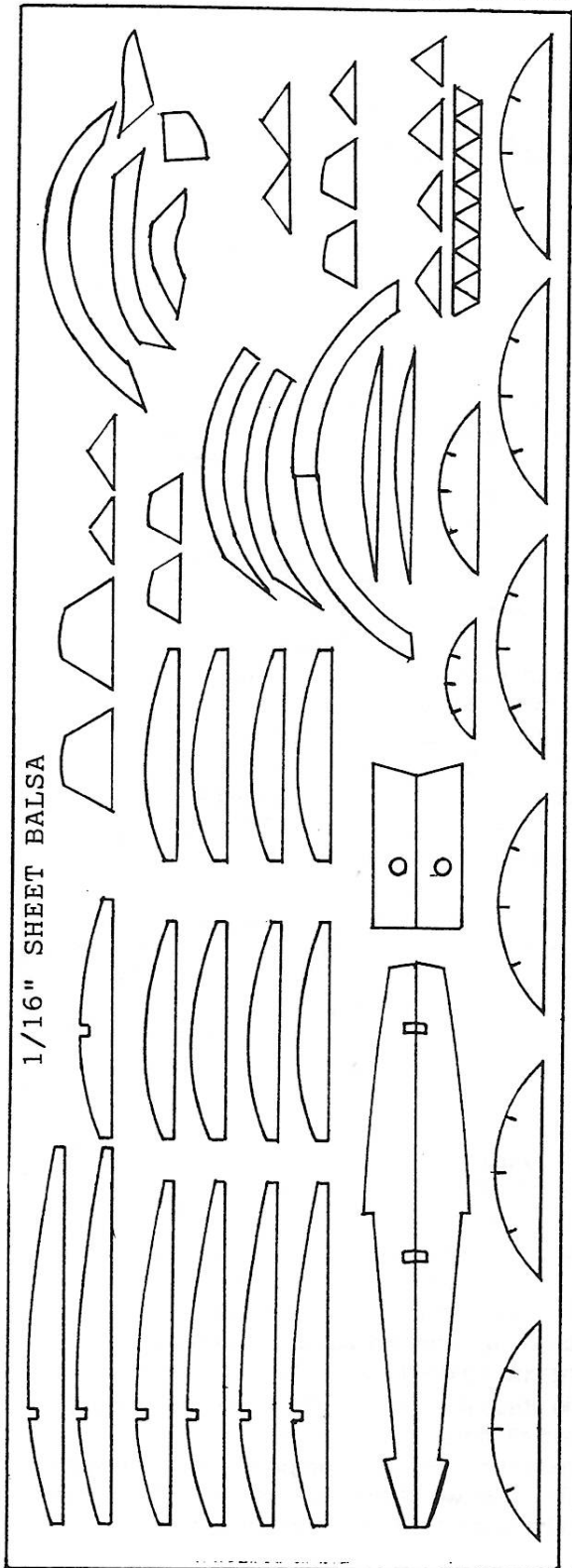
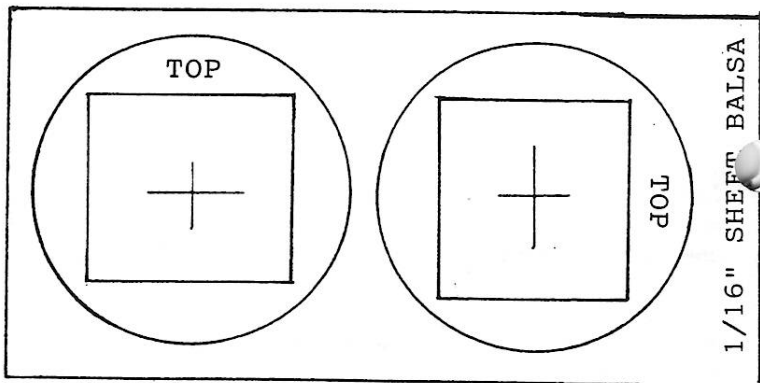
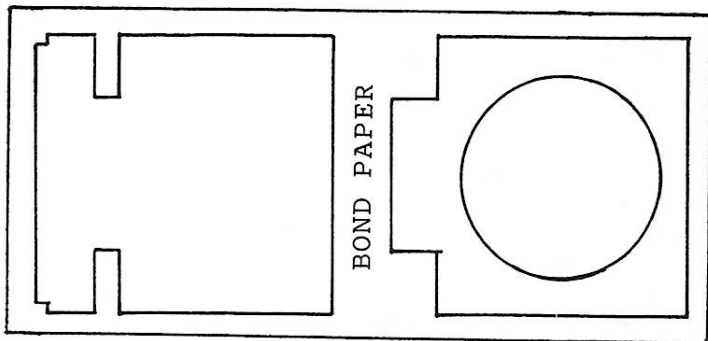
Of course you could enter a dimer in any other mass launch event, if it were sufficiently scale for that event (40 pts min) provided you did not enter it in dime scale as well. (the old no one model in two events rule). We really don't see dime scale as a judged event which is what Bob Clemens rules recently submitted to the FAC HQ seem to be all about and certainly no one could consider them a threat in FAC scale.

The Klutz Klass 16x16 rule should encourage more skysters to build a simple dimer and get it to fly well. A noble end in itself! Since I have been building dimers I have found that I have learned to build lighter and trim better. A dimer goes together quickly and makes for more experience. They are fun! Enough harangue...

A word of warning about 60 year old model plans. The typical dime scale plan has been reproduced by a copier some of which haven't been perfectly isotropic. Plus they weren't always perfectly drafted originally. Just for jollies, run a copy of your plan on thin or nearly transparent paper. Reverse it and lay it over the original. You will find quite often that neither the wings or stab are symmetrical about the center line. These idiosyncracies don't really affect the flight all that much, but do present some difficulty in precision building. I will often redraft these in AutoCad and use the mirror function to gain symmetry or oil the plans and build on the back side. The print wood may not match the plan either. I ether redraft it or cut it oversize and trim to fit.

*Penn Valley Hobbies
837 W. Main St.

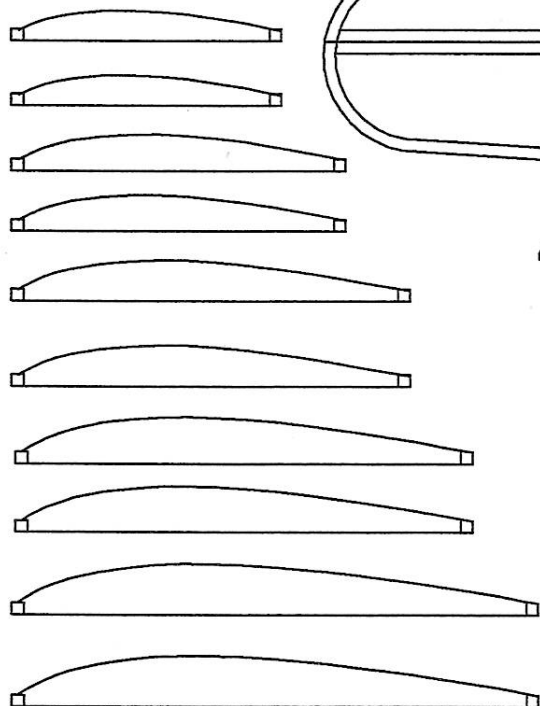
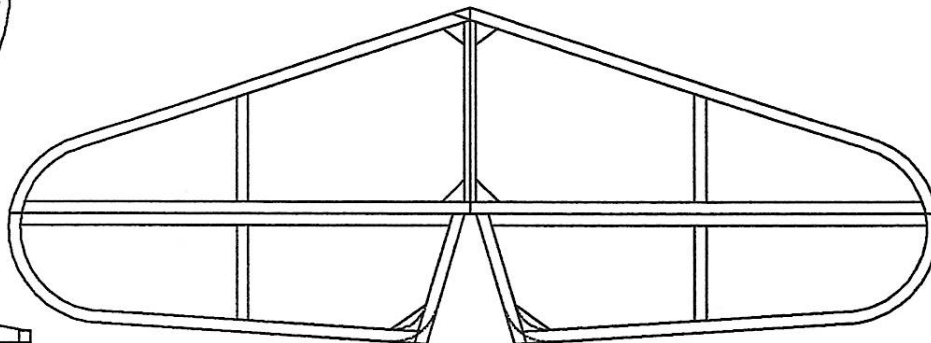
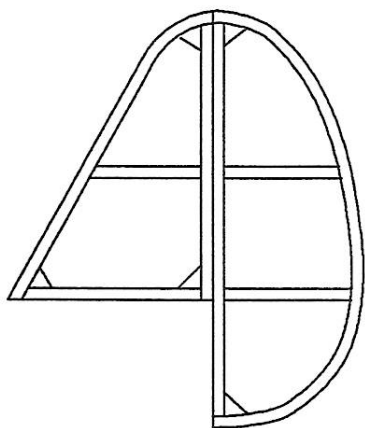
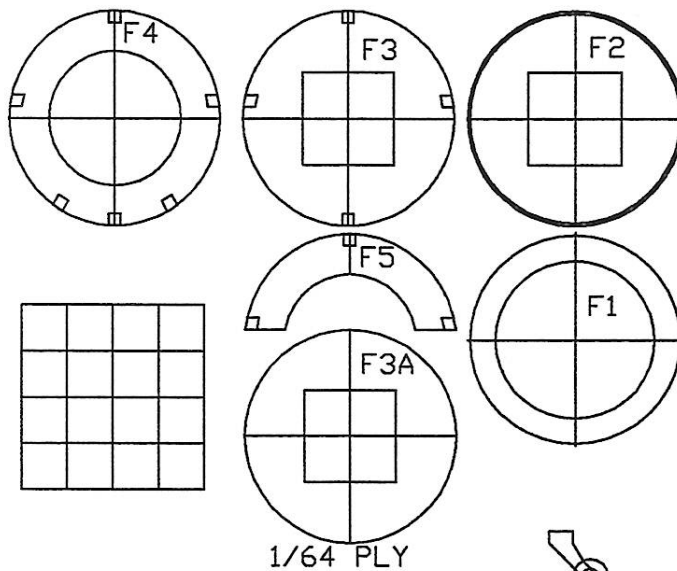
(215) 855-1268
Lansdale, PA 19446



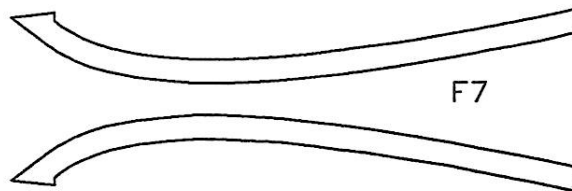
BLELLANCA JR. PARTS SHEET



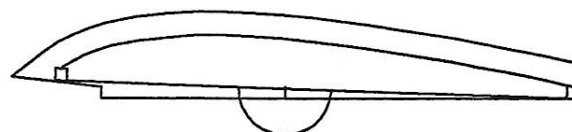
DUMMY MOTOR
GLUE TO F2



ALL PARTS 1/16 EXCEPT WHERE NOTED.



PAPER PATTERN



SPAR NOTCH NOT SHOWN
MARK AND SAND IN PLACE
AFTER ASSEMBLY.

WHEEL ACTULLY GLUED TO RIB W5
GLUE THIS PATTERN TO PLAN TO
PROVIDE FOR PROPER WING INCIDENCE.

Thoughts About Propeller Efficiency

By Al Flesher

Dave Aronstein's article about design considerations for 15% rule models in the January/February 1997 MaxFax was very enlightening. Dave issued a challenge for someone else to write about the subject of propeller efficiency. It has been 40 years (GASP!) since my undergraduate courses, so I had to search the cobwebs of my memory. I thought I would give it a shot.

Propeller efficiency as stated in its simplest form is thus:

$$\eta_p = \frac{\text{power output}}{\text{power input}}$$

For purposes of calculation this becomes:

$$\eta_p = \frac{C_T n^2 D^4 V}{C_P n^3 D^5} \quad (1)$$

where

η_p	=	Propeller efficiency
C_T	=	Coefficient of thrust
C_P	=	Coefficient of power
n	=	Rotational speed, rev/sec
D	=	Propeller diameter, feet
V	=	Advance velocity, ft/sec

Fortunately, the intimidating equation (1) reduces to:

$$\eta_p = \frac{T V}{P} \quad (2)$$

where

T	=	Thrust, pounds
P	=	Power, HP

What does equation (2) mean to the scale modeler? Well, it means that if we can increase thrust while holding velocity and power the same, prop efficiency will increase. It also means that if we can lessen power while holding thrust and velocity the same, prop efficiency will increase. It is safe to assume that, for a given airplane, we have no control over velocity for properly controlled flight, so it will be considered a constant.

Thrust can be calculated with the following relationship:

$$T = C_T \rho n^2 D^4 \quad \text{or} \quad C_T \rho = \frac{T}{n^2 D^4}$$

where

$$\rho = \text{Air density, slug/ft}^3$$

If we now say that C_T and ρ do not change, we can determine the effect of changing a propeller thus:

$$\frac{T_1}{n_1^2 D_1^4} = \frac{T_2}{n_2^2 D_2^4}$$

Using equation (4) to calculate the effect of increasing the diameter of a prop by 50% while reducing its rotational speed to one-half, we find that the larger prop will have 26% more thrust.

To calculate power, P , this is the relationship:

$$P = C_P \rho n^3 D^5$$

Again keeping C_P and ρ constant, we can determine the effect of the larger prop on power thus:

$$\frac{P_1}{n_1^3 D_1^5} = \frac{P_2}{n_2^3 D_2^5}$$

This calculation tells us that the larger prop uses 5% less power than the smaller one. Remember, the large prop is rotating at half the speed of the smaller prop.

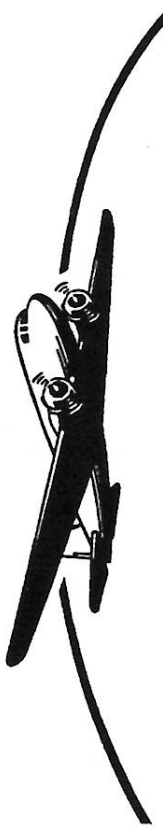
Now, what is the effect of the larger prop on efficiency? We can determine that by going back to equation (2):

$$\eta_p = \frac{T V}{P} = \frac{1.26 V}{0.95} = 1.33 V$$

If advance velocity, V , stays constant, the larger prop will increase efficiency by 33%.

What's the bottom line? It appears we knew it all the time: bigger is better. Keep in mind that the above qualitative analysis examines only two of the most important variables in propeller design. Quantifying prop efficiency is not only dependent on diameter and rotational speed but thrust and power coefficients as well. In the aircraft industry the latter two parameters are determined by experiment. A family of curves is generated, each for a particular blade pitch angle. From these curves and the operational envelope of the aircraft best efficiency is calculated. It varies typically between 0.5 and 0.85.

So, what can we do to determine the elusive efficiency of our model propellers? Not much unless someone has a wind tunnel.



READING INDOOR AIR RACES
SATURDAY MAY 10, 1997 - 9AM to 4PM
DKI HANGAR - READING AIRPORT - READING, PA

EVENTS FLOWN ALL DAY **MASS LAUNCH EVENTS** ***

- FAC SCALE **** WORLD WAR I 11AM
- POWER SCALE POST WWI MILITARY* 12PM
- DIME SCALE ** DIME SCALE 12:45PM
- GOLDEN AGE SCALE ** PEANUT SCALE 1:30PM
- 5 GM NO-CAL NO-CAL 2PM
- 10 GM BOSTONIAN BOSTONIAN 3PM
- HARVEY WALLBANGER*****

FAC RULES - JUDGING STARTS AT 10AM
TROPHIES AWARDED THROUGH THIRD PLACE

 AIRCRAFT ENTERED IN A DIME EVENT, CAN ONLY FLY IN OTHER DIME EVENTS
 * ANY MILITARY AIRCRAFT FROM 1919 TO THE PRESENT
 ** TOTAL OF THREE OFFICIAL FLIGHTS IS SCORE.
 *** ONE MASS LAUNCH PER AIRCRAFT
 **** INCLUDES PEANUT AND JUMBO AIRCRAFT
 ***** HARVEY WALLBANGER AWARD GOES TO FLYER WITH ATTITUDE

SPONSORED BY THE SKYSCALERS

CONTEST DIRECTORS:

TOM HALLMAN - 610-395-5656
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SECOND CUCKOO SCALE CONTEST

Saturday, June 7, 1997
9 AM to 4 PM
 at Bill Saunders Farm (see map)
 Sponsored by the
D.C.Maxcutters & CAAMA



EVENTS:

- FAC Scale Mass Launches**
- World War I
 - World War II
 - Golden Age Racers
 - Post WW II Military & Commercial

Timed Events Three Flight totals

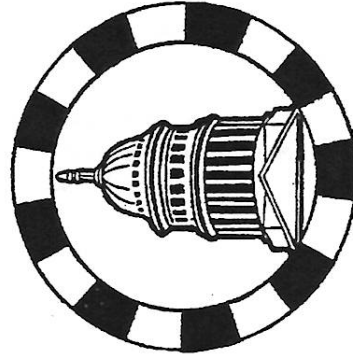
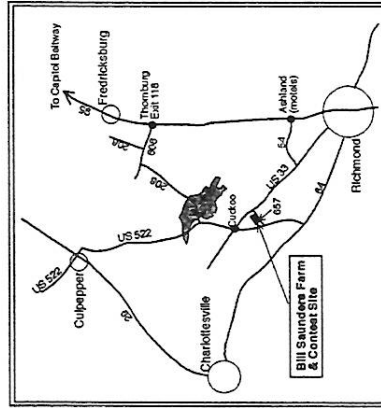
- FAC Golden Age scale
- AMA/SAM Catapult Glider
- SAM Old Timer Cabin Rubber
- SAM Old Timer Stick Rubber
- AMA P-30 Rubber

SPECIAL NOTES

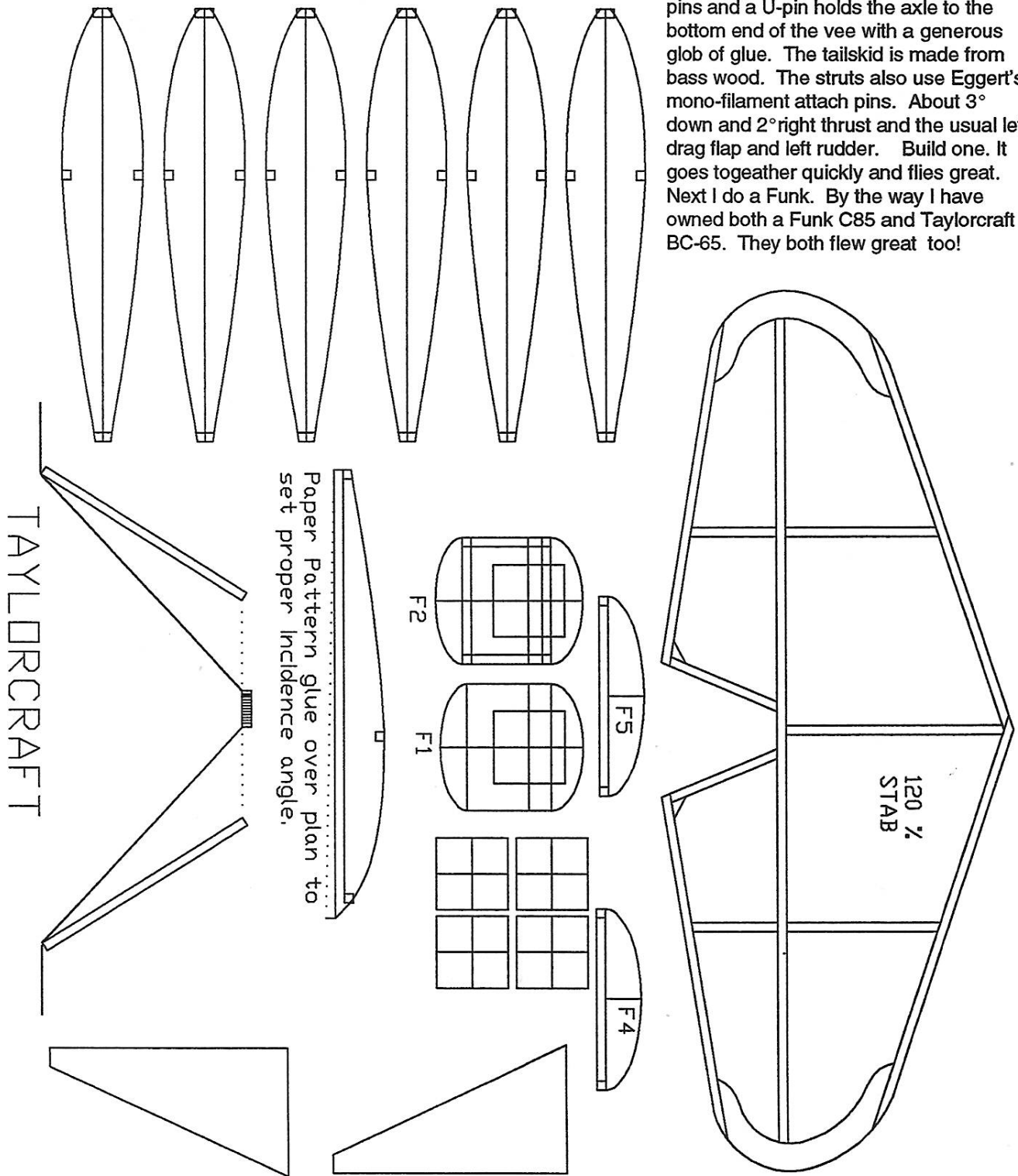
1. Certificates to third place
 2. Flat entry fee of \$10.00 covers all events
 3. Scale judging to be informal ; visual inspection for 45 point minimum.
- No scale or bonus points. Flight scores only to be used for determining winners.

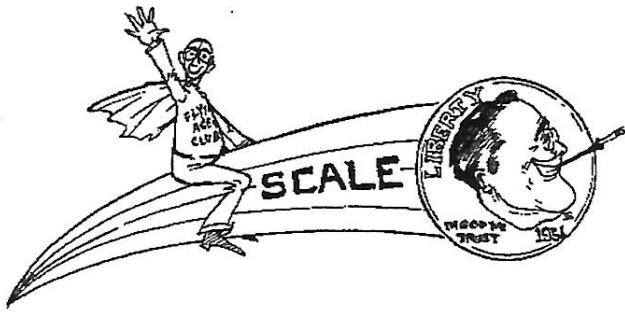
CONTEST DIRECTOR

Dave Franks, (804) 272-1520,
10130 Epsilon Rd. Richmond, VA 23235

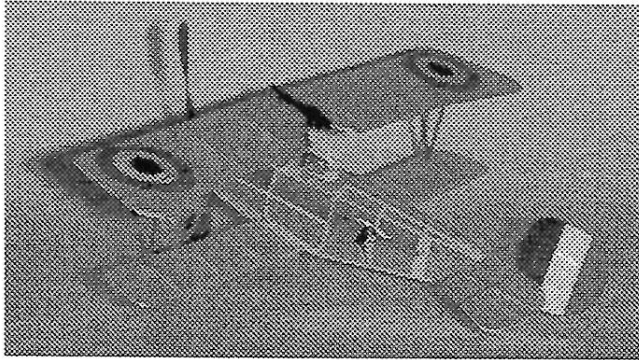


The 20 inch Taylorcraft After reading the Clemens proposed rules I reduced the Comet Taylor craft plans to 16 inches. It just didn't look right to me so I built it at 20. When I showed it off to the gang three requested plans and three more said they had built it and loved it. No body wanted the 16 inch version! They were right It flies like gangbusters. Mine came out to 14 grams when ballasted to take 4 strands of .046 Tan II 16 inches long weighing 2 grams with a 6" Peck prop and Peck wheels. I finished it 10 minutes before I left the house for our last indoor session of the year. I managed to beat Dave Aronstein's lighter Vultee in the Dimescale mass launch contest in every sortee and did 61 seconds in the final heat when we both put in a few more winds. I built it just like the plans except that I enlarged the stab and set the one piece wing at 1.5° incidence. This parts sheet shows these changes and under carriage details. The V-wire that is the axle is bound to a piece of 1/16th sq. with thread and this is glued in the bottom of the fuselage. The landing gear vees are glued to the fuselage longerons with mono-filament pins and a U-pin holds the axle to the bottom end of the vee with a generous glob of glue. The tailskid is made from bass wood. The struts also use Eggert's mono-filament attach pins. About 3° down and 2° right thrust and the usual left drag flap and left rudder. Build one. It goes together quickly and flies great. Next I do a Funk. By the way I have owned both a Funk C85 and Taylorcraft BC-65. They both flew great too!

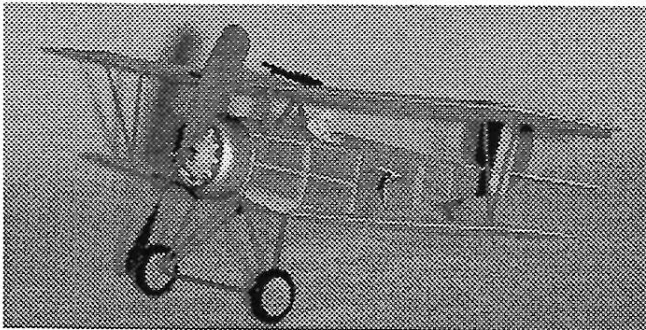




Meyers Majorly Morphed Megow

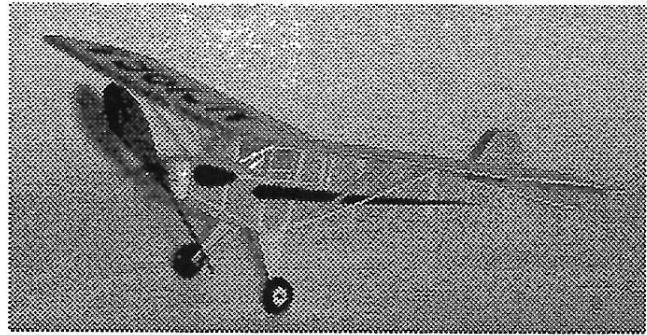


OK, so the Megow 'Nieuport Baby Scout' Kit F-20 is so far out of scale the only way to recognize it is because the name is spelled right. It is also difficult to build and nose heavy. I hollowed out the nose block until I could see light through it, went to a balsa prop and still had clay on the non-scale wire tail skid. I built the original exactly per the Megow plan except for a top spar and wire in the U/C. This has proven to be a rugged good flying, if unrecognizable, model at 15 grams with the tail ballast.



The mods that I have imposed on it bring it closer to a N-11 or N-17, but not so close as to be able to tell which. This is a ten center after all. The Megow top plan view is not too bad, but the profile and head on view are way off. By shortening the nose and going to scale type cabins the model becomes easier to build as well as recognize. The cowl is now a simple cylinder with a rounded leading edge and no fancy hard to carve non-scale flair at the back. The wings and stab are per the original except for some extra wood to mount the cabins and a top spar in the top wing and the inverse taper which made every rib different has been removed from the lower wing. The fuselage has a more typical Nieuport belly with a shorter

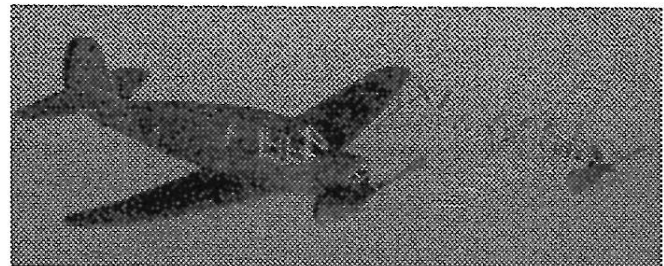
but still not quite scale nose. The under carriage has a narrower track and is closer to scale. The rudder has been rounded to a more Nieuport shape. The mod uses scale rigging not shown or used on the Megow. After some initial trouble, traceable to wing warps, it now flies quite well. With 4 strands of 1/16th black rubber 16 inches long it weighs the same was the original but the ballast is on the nose not the tail. This is really too much power as it blasts off the gym floor in a left climbing turn with a yaw to the right and screams around in rather tight left circles for 30 seconds. As the power dies the pattern is better. I might say I use a left drag flap and 6° down and 4° right with a touch of left rudder. With a longer Tan II motor and less right thrust and left rudder it should do much better. I might even go to .080 rubber outside. Bill Ceresa has taken the raw CAD plan that I built from and inked it in the Megow mode.



20" Comet Taylorcraft

Construction hints: Eberhard Faber makes a Design 2 Colorless Blender felt tip which is used to blend their other colors. The pointy end can be pulled off and the contents replaced with acetone. Having an acetone felt tip makes transferring xeroxed or laser printed patterns to balsa dead easy. Just trace around the back of the pattern over the balsa and presto - crisp, accurate printwood.

Another pen pal is the Sanford permanent Vis-a-Vis overhead projector marker. This writes on plastic, glass, and doped surfaces. I have been using the extra fine point. This is great for peanuts and dimers for a light control outlines. It dries water proof, and can be doped over without smearing. Larger points are available for larger models and it comes in colors other than black. This performs better for me than a 'Sharpie' by the same company.



DIME SCALE & NICKLE BELLANCA JRs

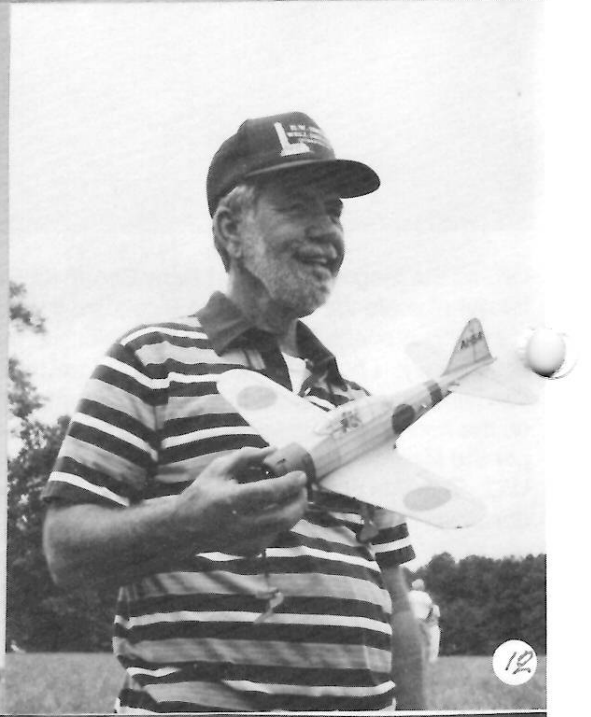
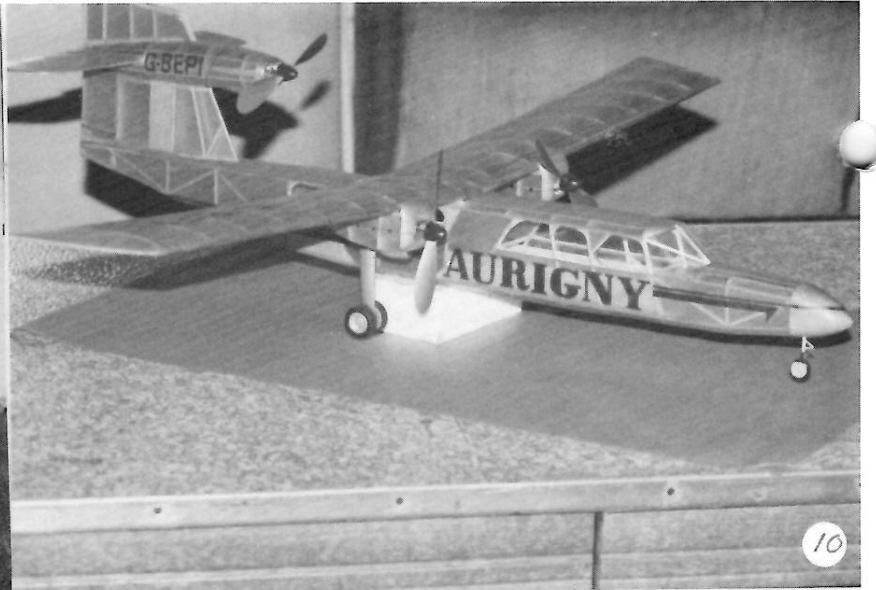
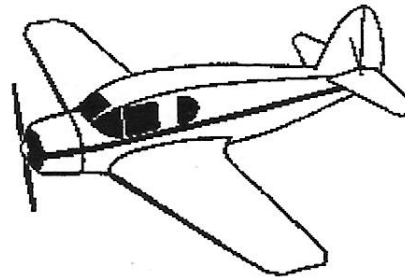


PHOTO PAGE CONTINUED

9. A beautiful photo (specially in it's original color) by Scott Paisley of one of our younger transplanted old friends, Mike Escalante. The photo was taken at a 'Cactus Squadron' meet in what looks like their great alfalfa field.
10. Now here is something a little different, an electric powered Trislander by Pete Mathis; photo by Pete.
11. Jack Moses brought this pretty little Kari Keen Coupe to Muncie a couple of years ago. Jack did his usual superb color trimming of a difficult scheme. Believe the plan was by Dave Livesay and published in the FAC news a few years back.
12. Claude Powell waiting for the WWII launch with his Zero (Bob Peck's?) at last summer's Maxecuter contest.
13. Bill Bell and his P-47 from the Golden Age kit at COMSAT; a beautiful rendition from a good kit.
14. Our second story man Kevin Sharbona with his BOSTONIAN at St. Andrews this past winter.



rudder to the fuselage tail post. The non-scale tail skid is replaced by the tail wheel and the main gear are represented up under W5 rather than down with a non-scale fuselage mount. The gear pivot is bolted to the front spar on a real Bellanca. Use a strip of black tissue from the leading edge to the wheel to represent the cavity between the spars that the gear legs retract into. The paper patterns shown on the plans fit rather well. I use vellum with colored tissue doped to it since the vellum kinda disappears and it all looks like stiff tissue. The squares on the parts page are obviously used to make up a nose plug. Reinforce the nose by putting in four 3/8 wide braces running longitudinally between F-3 and F-4 and add the 1/64th ply nose doubler F-3A. These aren't here for decoration; snag a wire and the gym floor is hard! I used a peck thrust button and a swing clutch. With two strands of 1/16th 15 inches long, it likes 3° down and 2° right. I use a left drag flap and left rudder and fly a left-left pattern. I have used similar techniques with the Porterfield and Cessna to create "New Dime Scalers".



Nickel scale Bellanca JR kit W9

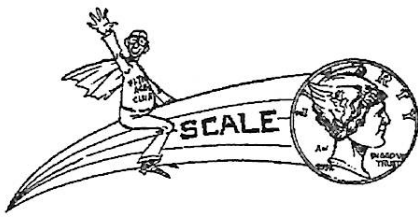
The parts sheet for the nickel version, kit W-9,

is not just a reduction of the dime scale sheet. It looks like it, but each part is really redrawn to fit, as the models do not really scale. An explanation of how to do the mystery wing-fuselage joint, since the wing has no spar it is easy to make a one piece wing and set the fuselage in the center section. It is necessary to notch the bottom longerons to get the proper incidence. I put in gussets over these notches to carry the load. I built the wing center section over the top view of the fuselage and then put the center section over the wing plans and built the outer panels to fit one at a time. I used gussets at the root in the outer panels, but not the center section which must fit around the fuselage. A thickness of bond paper is a good clearance between these. And of course I laminated the tail surfaces and made the wing tips from 1/16 sq. This little turkey went together in two nights and will get covered when I get this newsletter done.

New Dime Scale Bellanca Jr.

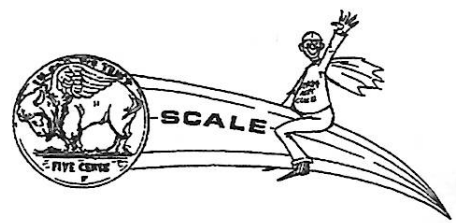
Background: Comet had a few W series five centers out in the thirties. One of these was the Bellanca Jr kit W-9. Later on in the sixties when they put out new versions of these and some ten centers in the 3xxx series the Bellanca Jr. was again included as 3102. Unfortunately these combine the quasi scale approach of the 'nickeleers' with the die crunch heavy construction in vogue at the time. By using the outlines and dime scale construction techniques one can come up with a nice flying light model that is no worse to the eye than the typical dime scale. I have done this with the Cessna Airmaster, Porterfield and the Bellanca Jr. I am including the original Bellanca plan as well as instructions to make my lightened version which weighs 9 grams with a Peck plastic prop. The main problem I have had flying is keeping it out of the rafters. I have kept the small tail shown on the plan and when disturbed by contact with a light or I-beam it usually does not recover before hitting something else (like the floor or walls) at a higher velocity.

Construction: The parts page has a paper pattern. This is essentially an enlarged F7 with the proper incidence built in. Glue it over the plan and build the rest of the fuselage side of 1/16th sq. per the plan omitting F-9 which will be made from tissue and replace F-8 with 1/16 sq. Install a 1/4 inch wide rear motor peg holder one bar further forward. The wing center section is narrowed by 1/8 inch to 1 inch inside dimension between ribs W4. The wing LE, TE, and tips are made from 1/16th sq. over the plans. 3/4" dihedral is added to both tips when the outer panels are glued to the center section. The tail is built as shown on the parts page using laminated construction. I did not bother hinging them but rather hinged the entire



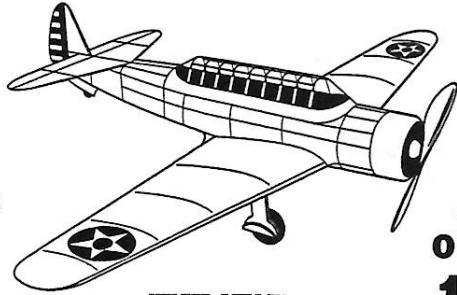
FOURTH DIME SCALE ISSUE

MAY - JUNE 1997



20 IN. Amco FLYERS!

**6
NEW
20"
FLYERS**



**VULTEE ATTACK
KIT No. A35**

**AT
ONLY
10¢**

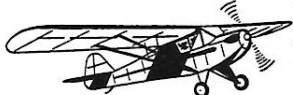
Flash! 6 New 20" Flyers. Just 10c. All newest up-to-the-minute design. All are classy BIG models, that really fly. Well designed plans make them very easy to build. A Big Value for a dime!



North American No. A32



Allied Sport No. A30



Taylorcraft No. A33



Akron Funk No. A31



Spartan Fighter No. A34

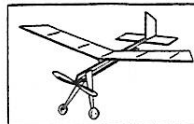
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AMCO'S 5¢ SURPRISE

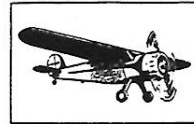
BIG 10" FLYERS

Imagine being able to buy a FLYING model kit for 5c. Each kit contains plenty of balsa printed sheets, balsa strips, tissue paper, rubber, clearly

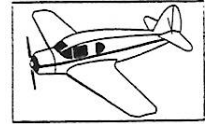
marked plans, propeller, bent wire music wire landing gear, wheels, propeller shaft, thrust button, etc. See these dandy flyers at your Amco dealer.



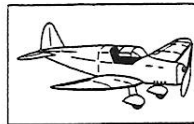
No. W1 BABY R.O.G.



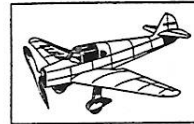
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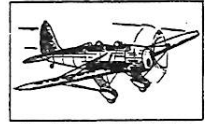
No. W9 BELLANCA



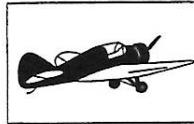
No. W2 AERONEER



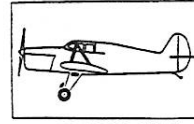
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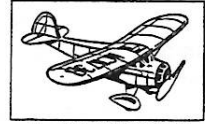
No. W10 RYAN TRAINER



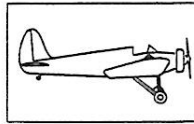
No. W3 DART



No. W7 MILLER RACER



No. W11 MONOCOUCHE



No. W4 SECURITY



No. W8 FAIRCHILD



No. W12 HOWARD

4



NOTE: Your Dues Are Due



CLUB OFFICERS President: Hurst Bowers, 1640 Birch Rd., McLean, VA 22101
 Secretary: Bert Phillips, 1709 Crofton Pky, Crofton, MD 21114-2305
 Treasurer: Stew Meyers, 8304 Whitman Dr., Bethesda, MD 20817

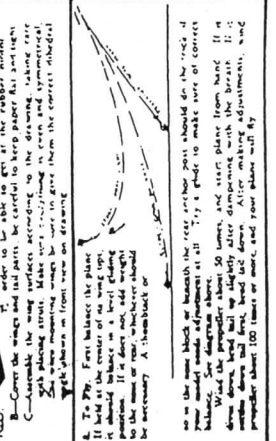
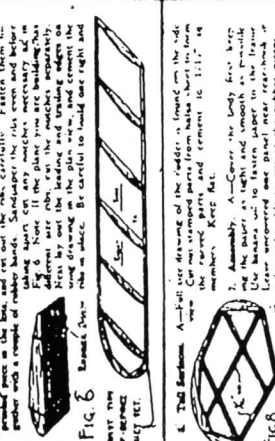
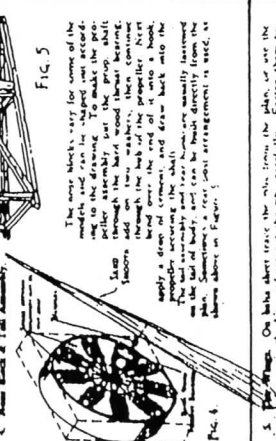
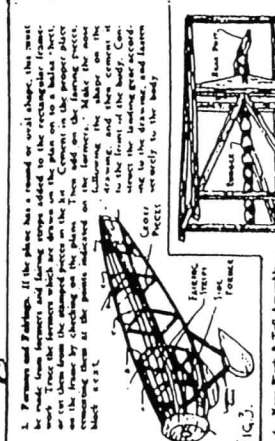
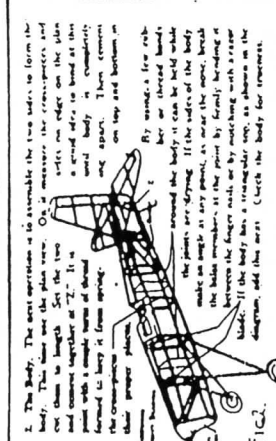
MEETINGS - The D.C. Maxecuters hold meetings on the first Tuesday of every month at the College Park Airport, the oldest operating airport in the U.S.

MEMBERSHIP - Dues for membership in the D.C. MAXECUTERS are \$15 per year for residents of the USA, Canada, and Mexico, and \$25 for all other countries. Your mailing label indicates the year and month of the last issue of your current membership. A red "X" in the box above is a reminder that your dues are due. Send a check, payable to the "D.C. MAXECUTERS", to the treasurer.

MCGOW'S MODEL AIRPLANE SHOP
 R. E. Coe, Manager and Maurice Brown, Philadelphia, Pa.

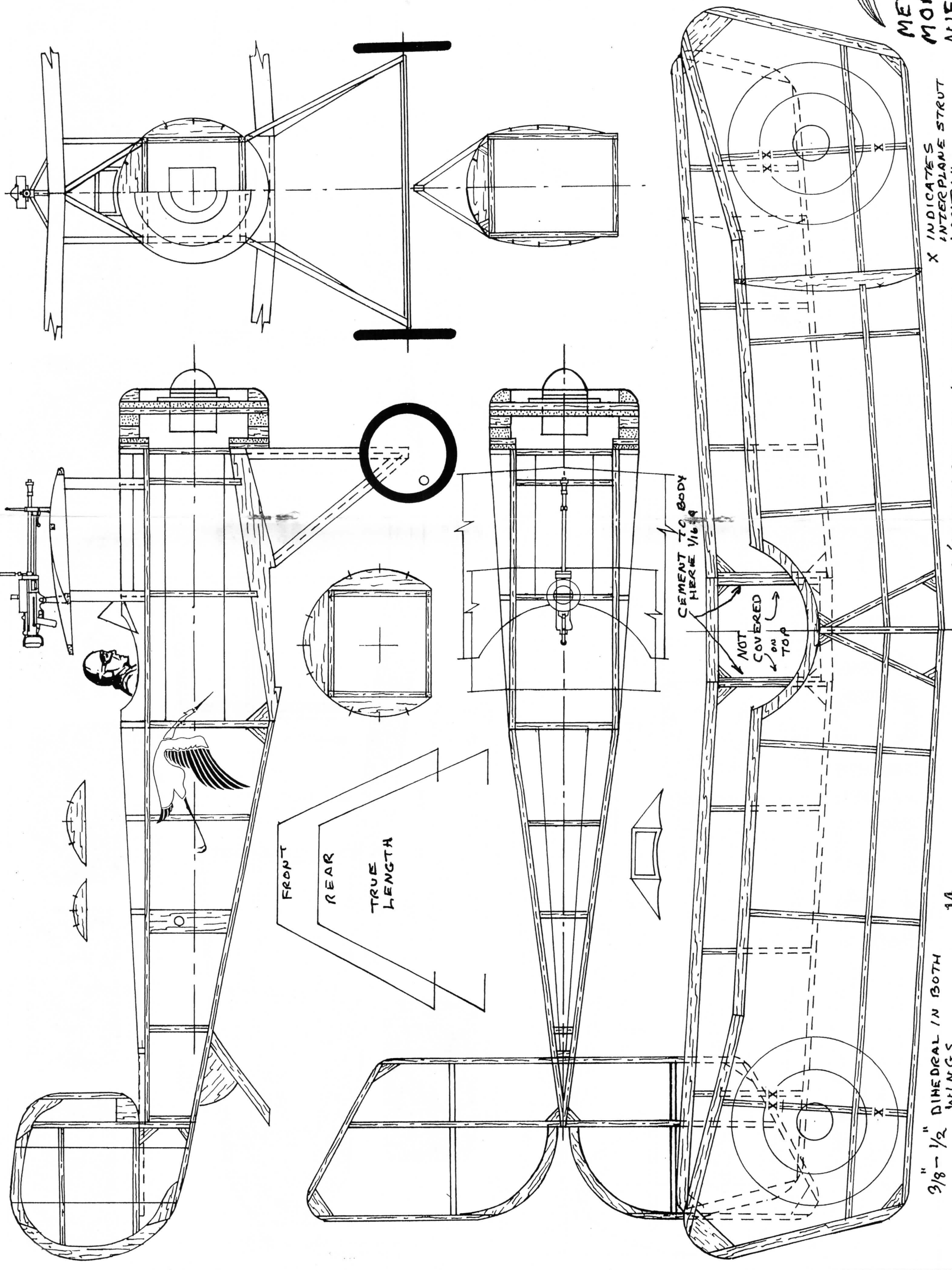
CONSTRUCTION NOTES

1. The first step in building the model is to lay the drawing out on a work table, drawing board or plywood panel. Fasten it down with thumb tacks. Then, with a sharp pencil, draw the outline of the fuselage, wings, tail, landing gear, etc. on the table with a straight edge. Then, with a sharp pencil, draw the outline of the fuselage, wings, tail, landing gear, etc. on the table with a straight edge. Then, with a sharp pencil, draw the outline of the fuselage, wings, tail, landing gear, etc. on the table with a straight edge.



SCALE

MEYERS MAJORLY
MORPHED MEGOW
NIEUPOORT SCOUT



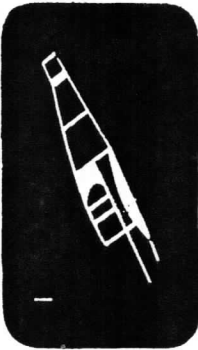
3/8 - 1/2" DIMEDRAL IN BOTH WINGS

2-97 TRACED BY BILL CERCA

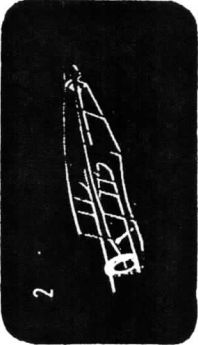
X INDICATES INTERPLANE STRUT LOCATION

15

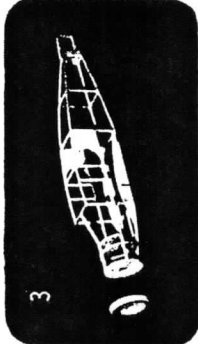
TO BUILD IT - FOLLOW THESE STEPS



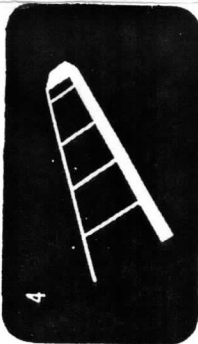
BUILD THE FUSELAGE SIDES ON THE SHADED LAYOUT BELOW. PUT WAX PAPER OVER THE PLAN FIRST TO KEEP THE GLUE FROM STICKING TO IT. USE STRAIGHT PINS TO HOLD THE STRIPS.



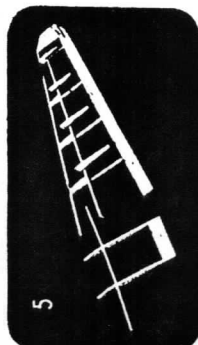
WHEN THE SIDES ARE MADE, GLUE FORMER F4 WHERE IT BELONGS BETWEEN THE TWO SIDES. NOW CEMENT BOTH BACK ENDS TOGETHER.



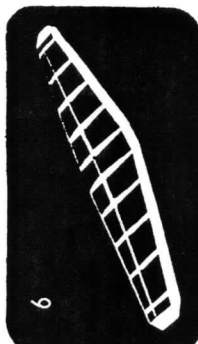
WHILE THAT IS DRYING, CUT THE CROSS-BRACES YOU WILL NEED - 2 OF EACH. (SEE FUSELAGE TOP VIEW) NOW CEMENT THESE WHERE THEY BELONG WITH ALL THE F PARTS-----LOOK AT THE SIDE VIEW.



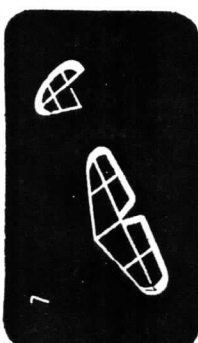
BUILD THE LEFT AND RIGHT WING ON THE LAYOUT. PUT WAX PAPER OVER IT FIRST, THEN PIN DOWN THE LEADING AND TRAILING EDGES. NOW GLUE IN WING TIPS W1 AND W2-----THEN ALL THE BASE STRIPS.



NOW YOU CEMENT ALL THE FRONT RIBS AGAINST THE BASE STRIPS. NEXT, CEMENT THE SPARS AGAINST THE RIBS. THE LAST THING YOU DO IS CEMENT ALL THE BACK RIBS.



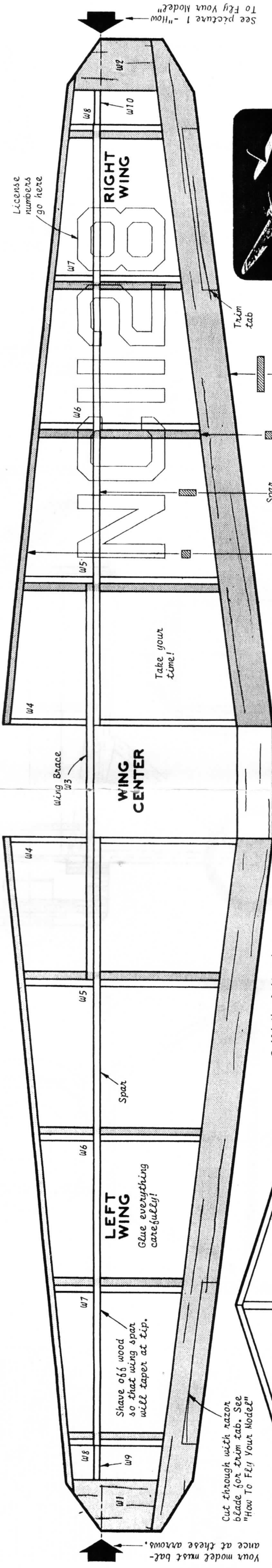
CEMENT WING BRACE W3 TO CENTER RIBS W4 OVER THE LAYOUT AFTER YOU'VE BUILT THE WINGS. GLUE THE TRAILING EDGE PIECE TO IT. WHEN IT'S DRY, CEMENT IT BETWEEN THE WING FRAMES TO FINISH THE WING.



BUILD THE STABILIZER AND RUDDER OVER THE PLAN AS YOU DID THE WING AND FUSELAGE SIDES. ALL OF YOUR AIRPLANE'S FRAMEWORK MUST BE SANDPAPERED A LITTLE BEFORE COVERING IT WITH TISSUE.



COVER THE RUDDER, STABILIZER, FUSELAGE AND WING WITH TISSUE BEFORE YOU GLUE THESE TOGETHER. USE CLEAR DOPE FOR STICKING THE TISSUE AND COVER ONLY A FEW INCHES AT A TIME. IT DRIES FAST.

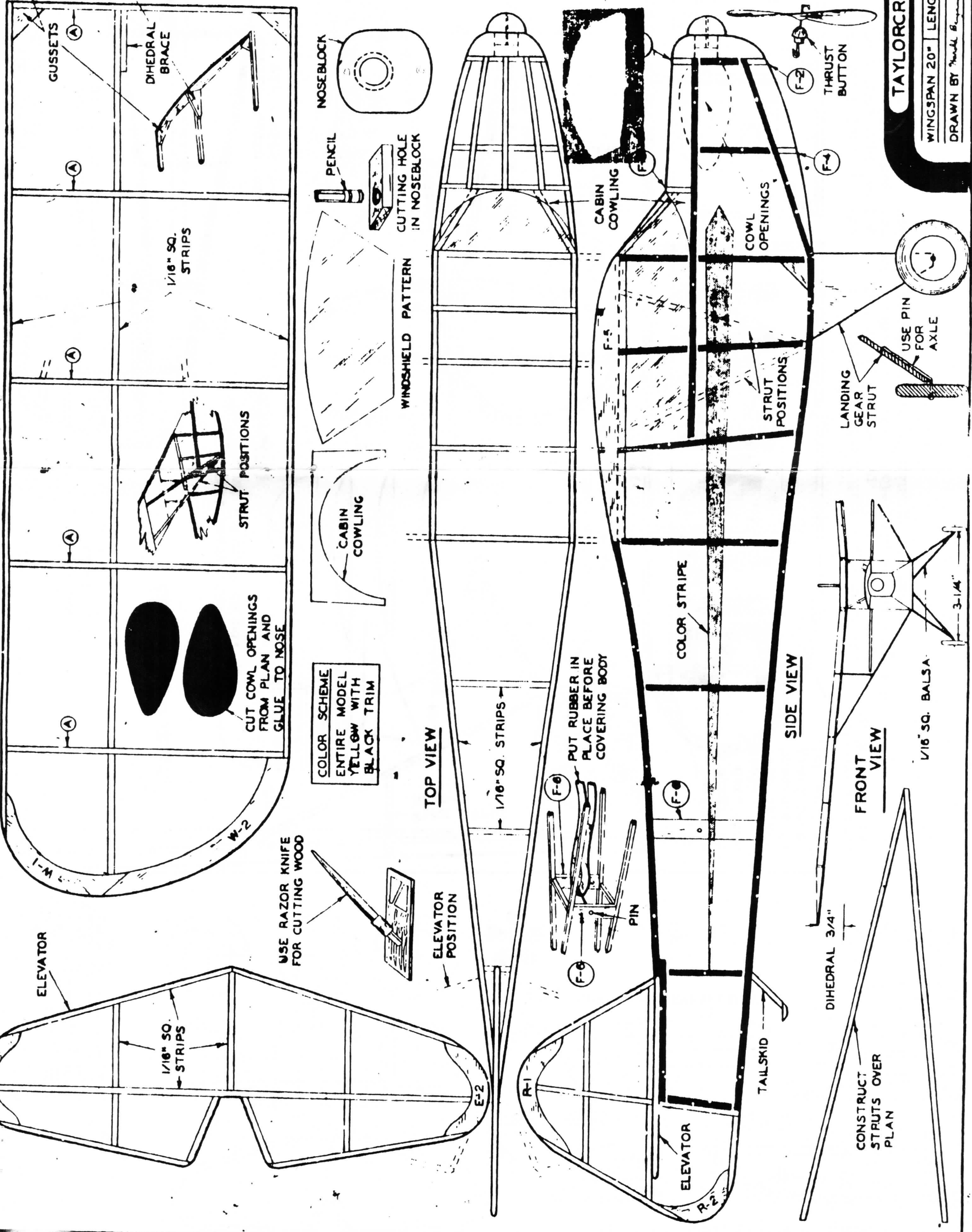


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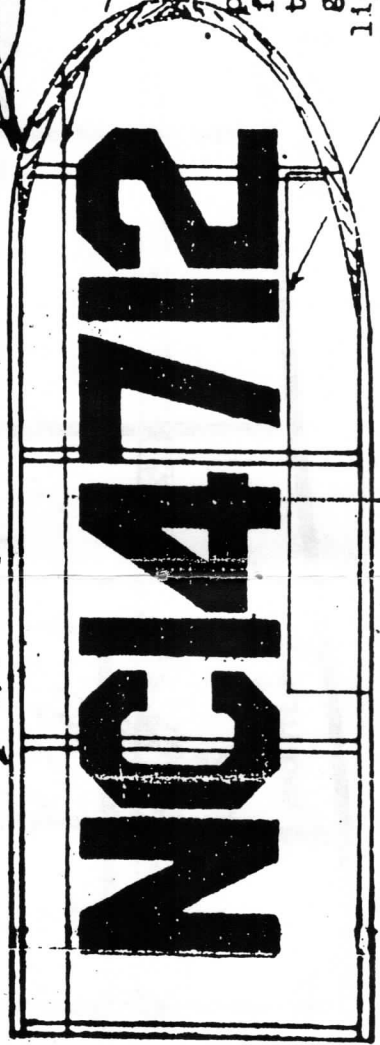
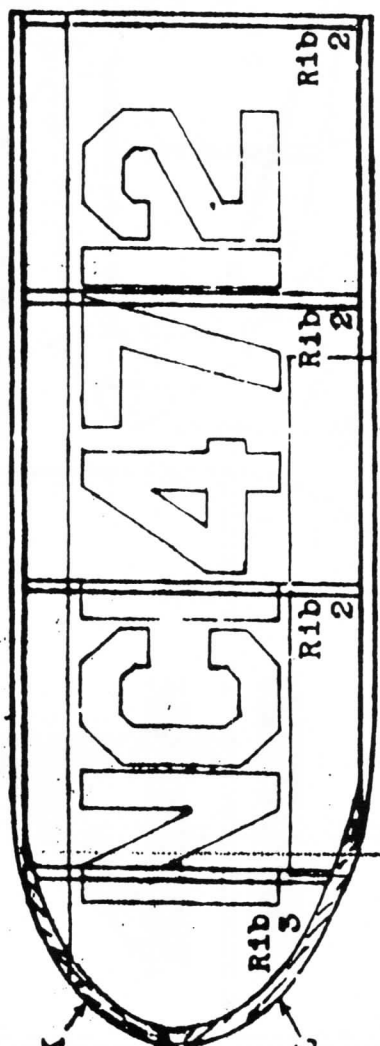
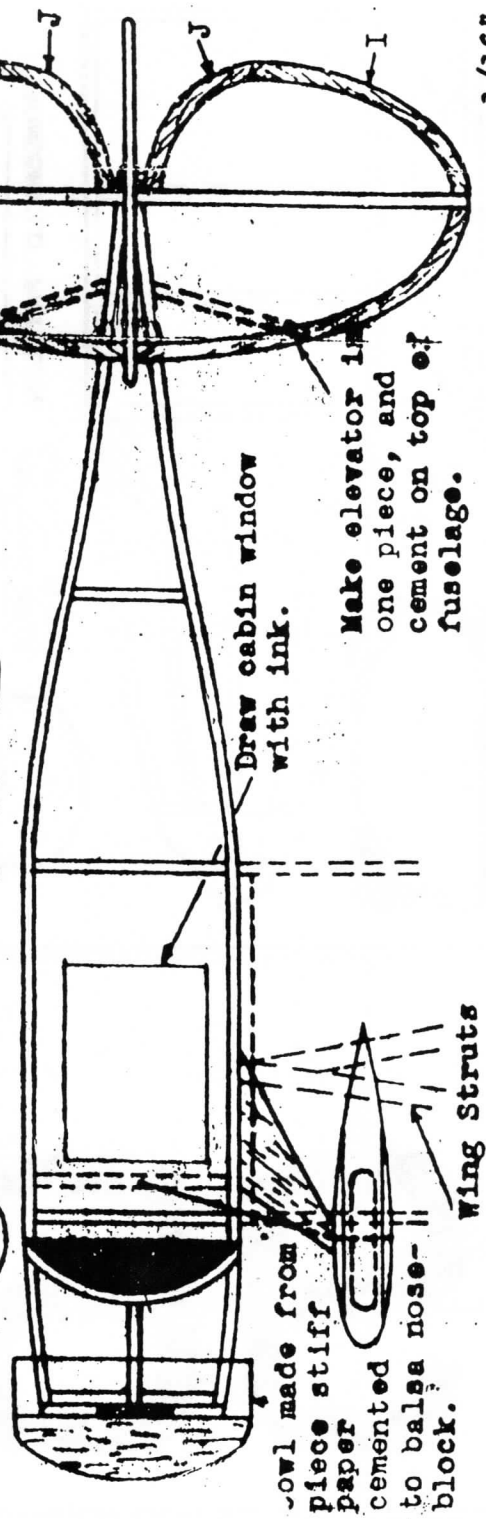
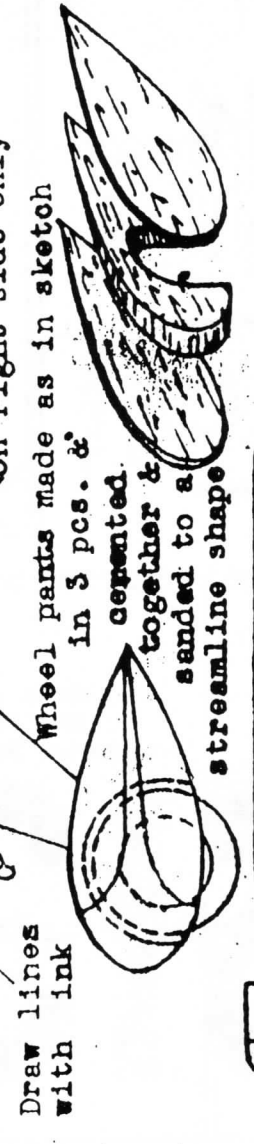
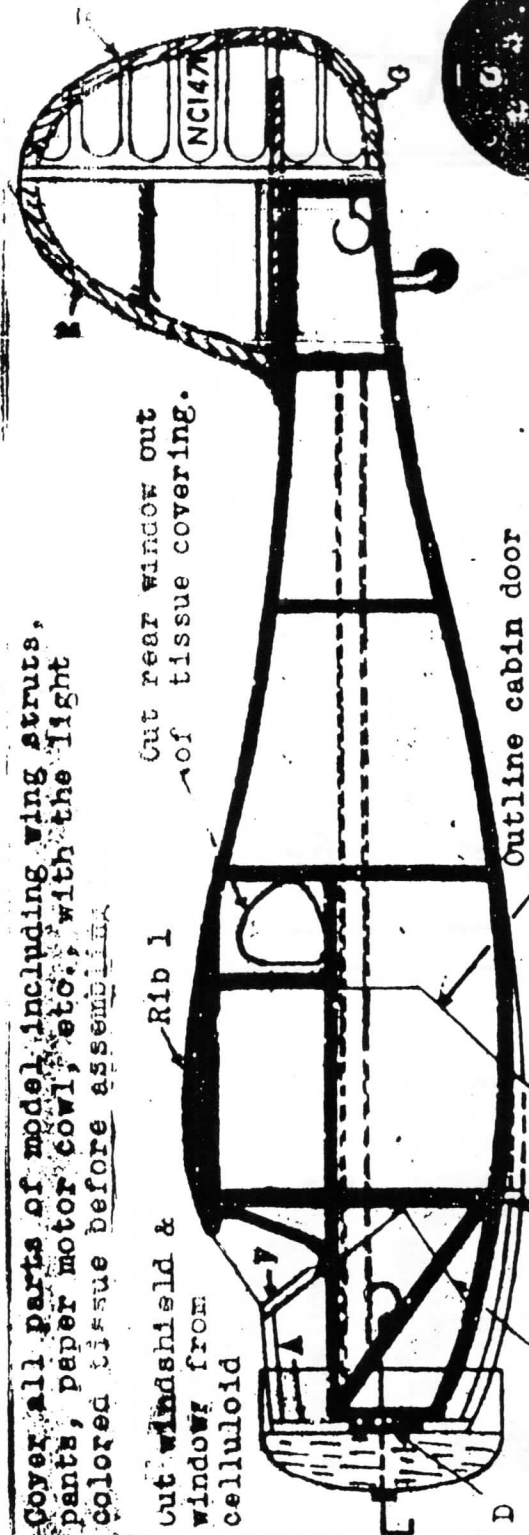
CUT LICENSE NUMBERS FROM PLAN AND GLUE TO TOP OF WING.

TAYLORCRAFT

WINGSPAN 20" LENGTH 12-1/2"
DRAWN BY *W. B. Taylor* KIT NO. A33

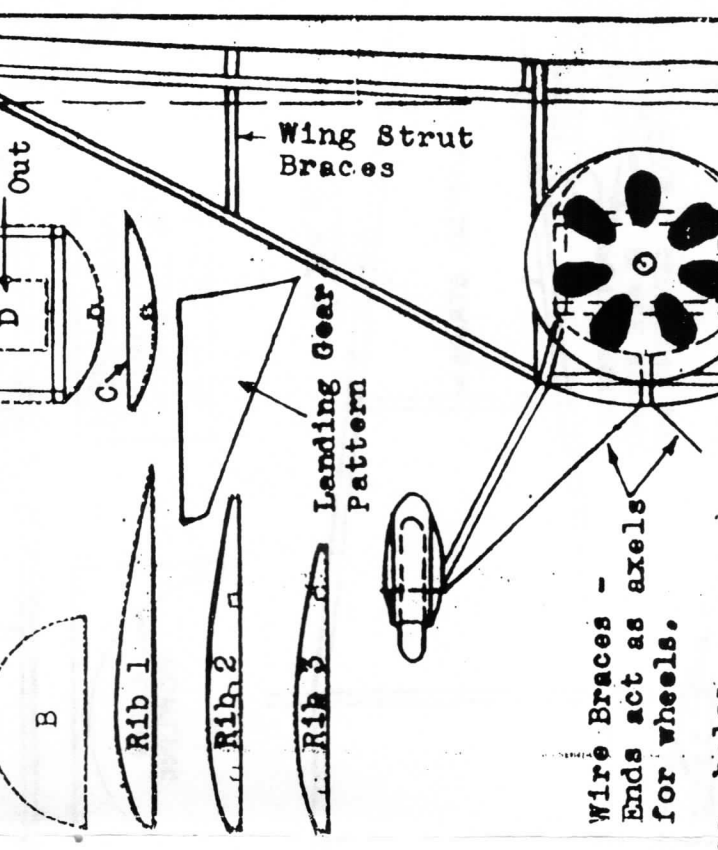
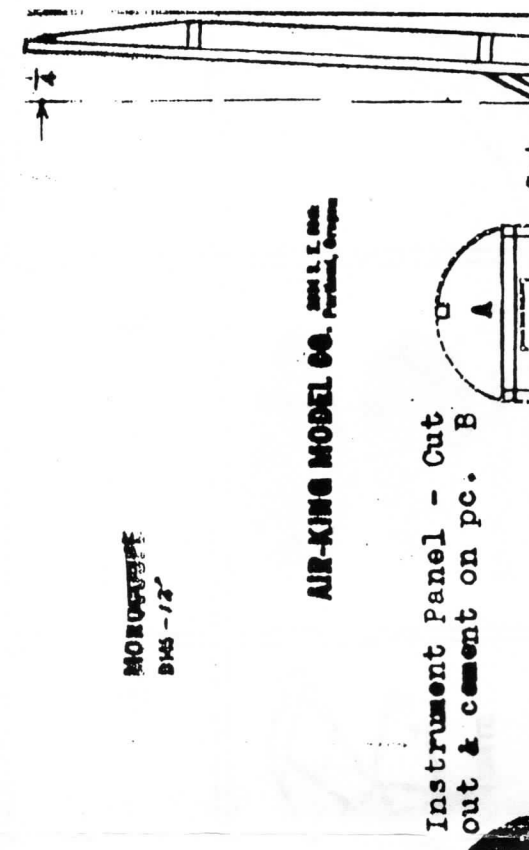


Cover all parts of model, including wing struts, pants, paper motor cowl, etc., with the light colored tissue before assembly.

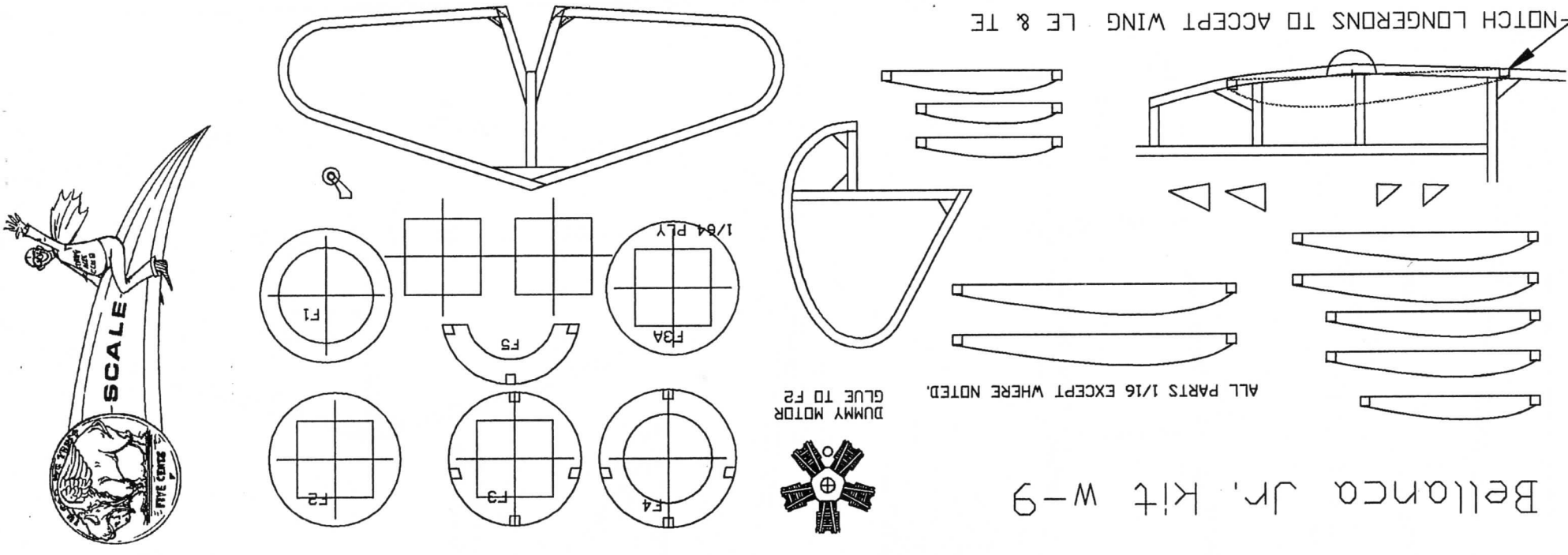


Build two fuselage sides from 1/16" sq. balsa, as indicated by the solid lines. Glue frames together with 1/16" sq. cross braces on top and bottom then give on formers A, B, and C where indicated.

Noseblock is carved & sanded from balsa with stiff paper cemented on for cowl. Piece D is glued to back of noseblock. D fits hole in A making complete cowl. Removable for changing rubber motor.



Outline aileron with black ink



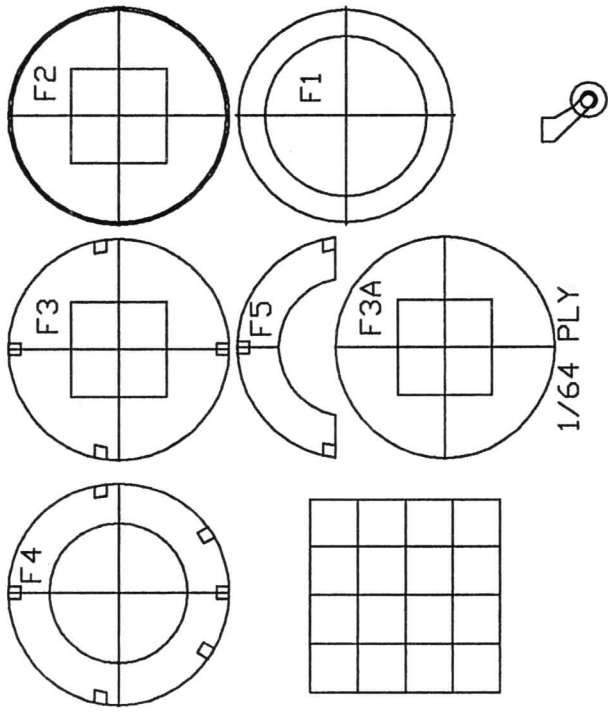
Bellanca Jr. Kit W-9

ALL PARTS 1/16 EXCEPT WHERE NOTED.
DUMMY MOTOR
GLUE TO F2

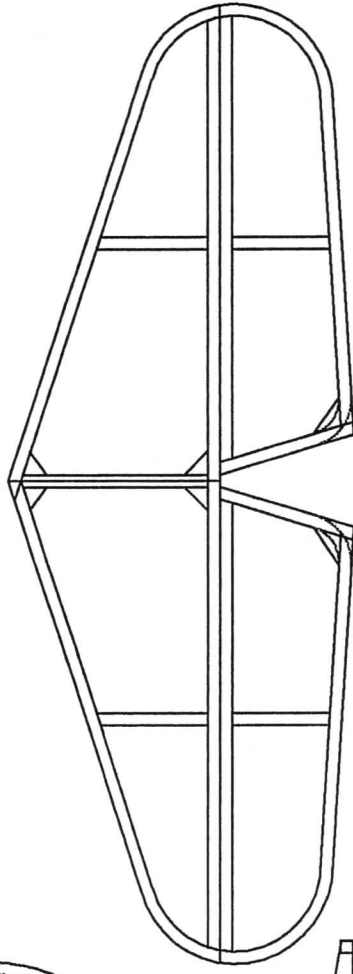
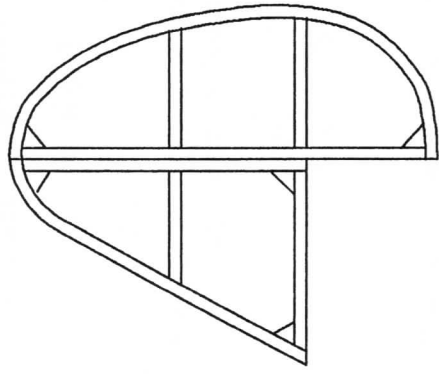
BLELLANCA JR. PARTS SHEET



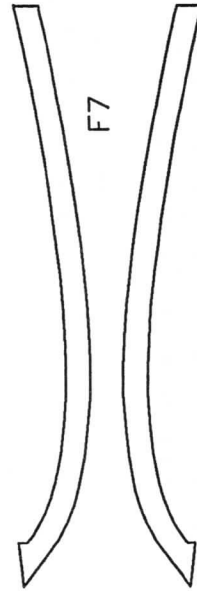
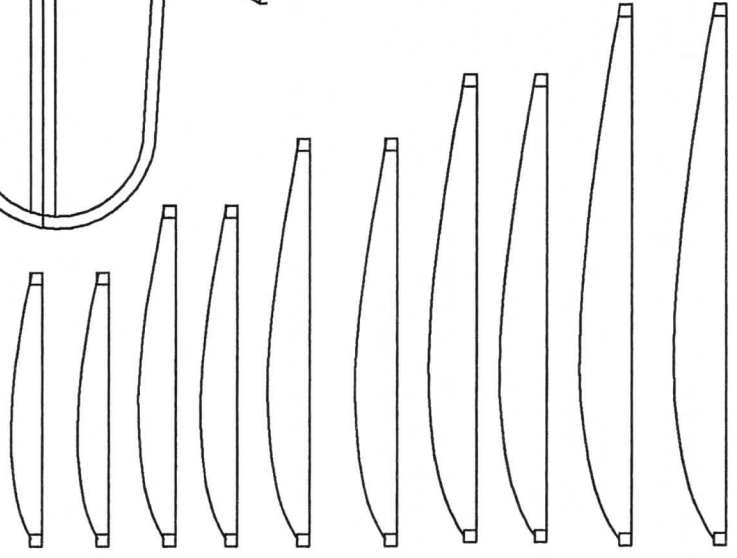
DUMMY MOTOR
GLUE TO F2



1/64 PLY



ALL PARTS 1/16 EXCEPT WHERE NOTED.



PAPER PATTERN



SPAR NOTCH NOT SHOWN
MARK AND SAND IN PLACE
AFTER ASSEMBLY.

WHEEL ACTUALLY GLUED TO RIB W5
GLUE THIS PATTERN TO PLAN TO
PROVIDE FOR PROPER WING INCIDENCE.

