

MAX FAX

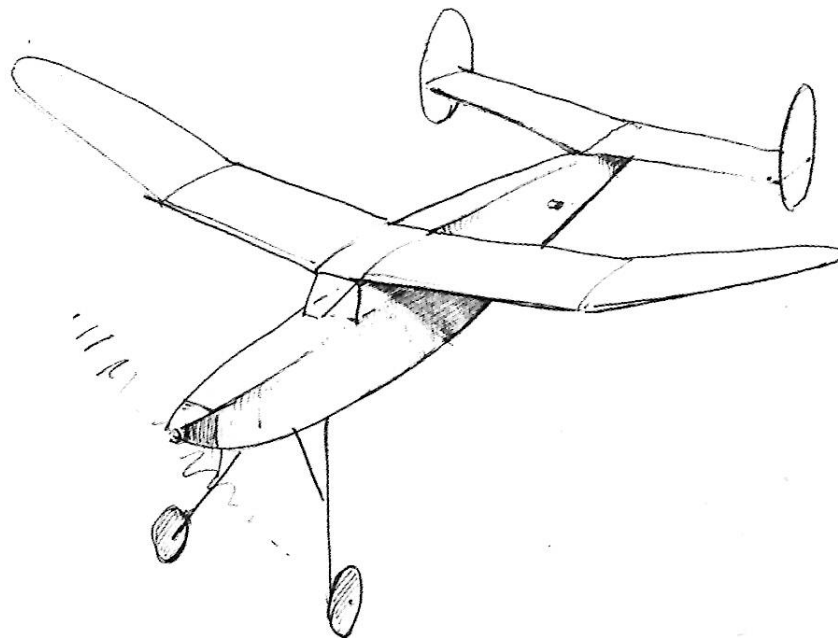


Journal of the D. C. Maxcuters

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

Editor: Stew Meyers

MAY-JUNE 2011



ANOTHER HALF SIZED WAKEFIELD ISSUE

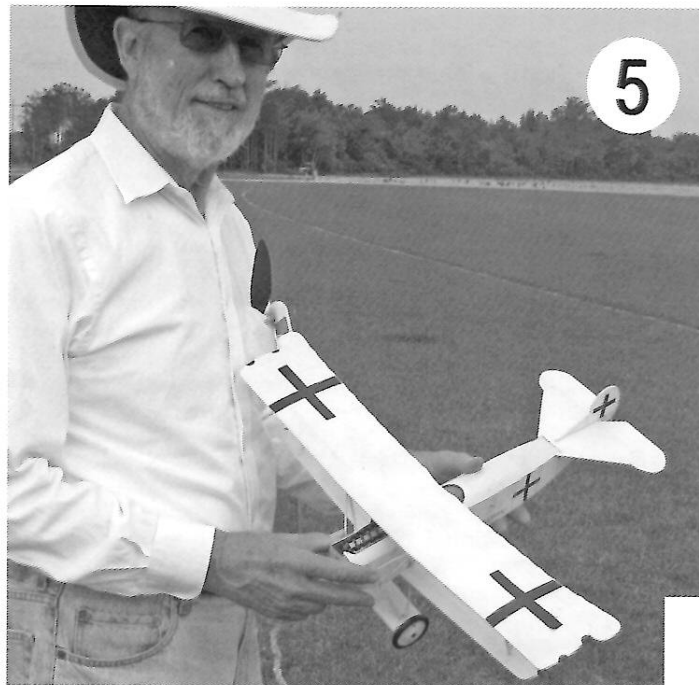
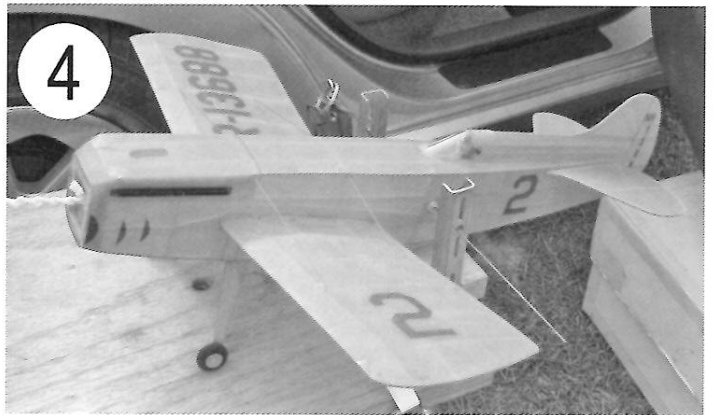
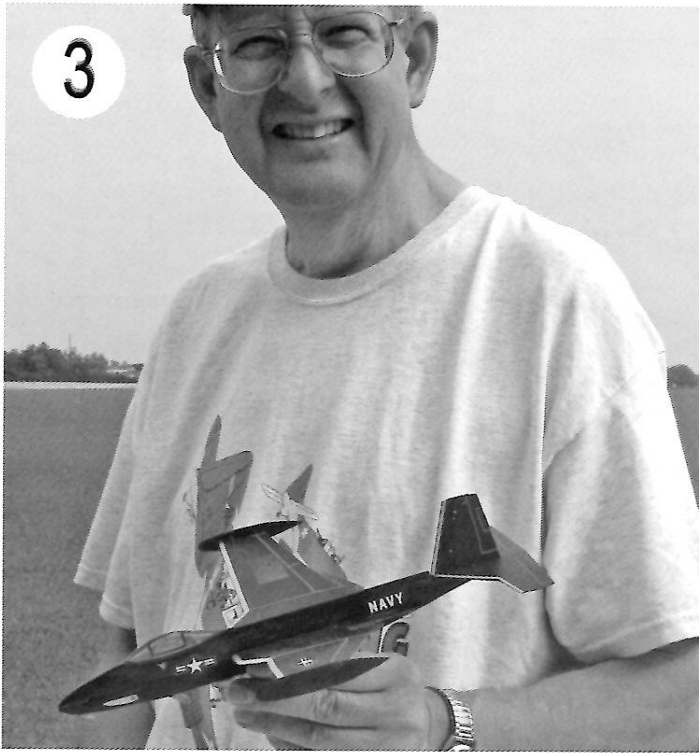
COMING ATTRACTIONS

Flying at the Bauer Community Center
CLOSED FOR THE SEASON

JUNE 22-25, 2011 WESTFAC Mk.III Denver, Co.
www.westernfac.com

Non-Nats Geneseo, NY July 13, 14, 15 check web site for details.
www.flyingacesclub.com

FOR MORE CONTESTS SEE
www.flyingacesclub.com/FACcontests.html



MaxFax MAY-JUNE 2011

Stew Meyers Editor

50% Wakefield Issue Bis

Yep, this is another 50% Wakefield issue. No MaxFax is not going 50% Wakefields all the time, every time, despite this being one. It's just that I am dependent on what guys submit, and the last issue scared up some new plans. Don Srull came up with some doctored Zaic drawings for the *Red Swan* by Henry Tubbs and a nifty Swedish entry by Arnie Blomgren. Jim Coffin found a R/N *Super Snooper* kit in his stash and scanned the plan and print wood then reduced them by 50%. The latter two have twin tails which some of us have always admired.

Since four of the Wakefield plans we have presented require spinners, republishing an article by Dick Howard on the subject seems appropriate.

I notice I had the wrong date on this page in the last issue. The proof reader is on notice...

The Kudzu results are in this issue. We had 23 contestants. The weather turned out to be much better than the grim forecast. No rain during the day and winds less than forecast. There were some thermals, George White and I both lost our Weber Staggerwing Dimers OSS. I'll let the Grand Champ give a detailed report.

I tried out my Excel spread sheet scoring system and it worked! Doug Griggs brought a portable WAN unit and we were able to link the main computer to a hand held I-Pad. The mass launches were run using the I-Pad in the field rather than a clip board. The results were then ported back to the main computer. At the end of the meet there was no wait to compute the results. It took less than a minute. Some minor quirks were found and corrected. This was dry run for the FAC Geneseo Non-Nats, and I am now writing the program for that event.

PAGE 2 PHOTOS from KUDZU 2011 photos by Jullie Farrell

1. Dave and Marie Rees arrived at Raeford with their son, Dan. Here they prepare Dave's Mr. Mulligan for the Races Mass Launch.
2. Stefan Prosky with his Farman Carte Postale., he finished just out of the money with his X-18.
3. Glen Simperts took second place in Jet Cat with his Banshee.
4. Dave Mitchell's Bonzo never made it to the Races prop problems.
5. George White bagged four second places including WW I with this Midkiff design D-7.
6. John Houck entered this P-40 Flying Tiger in FAC scale.

NOTE: Half scale Wakefield models that were designed before 1946, have raised cabins with clear windows, and have landing gear also appear to qualify for FAC OT Rubber cabin. However, they do not qualify for 2Bit+1 OT Rubber. Read the rules carefully to determine eligibility.

Kudzu contest results for May 14-15 2011			
Grand Champ			PLACE
WALT	FARRELL		1
GEORGE	WHITE		2
DAVE	MITCHELL		3
JOHN	DIEBOLT		4
WALTER	COLLINS		5
			number of entrants
MASS LAUNCH EVENTS			
WW I			5
WALT	FARRELL	MARTINSYDE	1
GEORGE	WHITE	FOK D7	2
DAVE	MITCHELL	AVIATIK	3
WW II			7
WALT	FARRELL	FIAT	1
GEORGE	WHITE	P-39	2
JOHN	HOUCK	C-W 21 B	3
RACERS			5
WALT	FARRELL	MR SMOOTHIE	1
DAVE	MITCHELL	ORION	2
GEORGE	WHITE	CESSNA CR3	3
DIME SCALE			9
GEORGE	WHITE	STAGGERWING	1
WALT	FARRELL	ARADO	2
DAVE	MITCHELL	CESSNA AW	3
MOD CIVIL/ MILITARY			8
WALT	FARRELL	CESSNA 140	1
DAVE	MITCHELL	VAGABOND	2
WALTER	COLLINS	COUGAR	3
GA CIVIL/ MILITARY			9
WALT	FARRELL	VEGA	1
MARK	HOUCK	LINCOLN AP	2
CLAUDE	POWELL	TAYLOR CUB	3
FAC TIMED			
EMBRYO			10
MARK	HOUCK	PRAIRIE DOG	1
GEORGE	WHITE	HORNET	2
CHARLES	SHEPHERD	DREAMER	3
NAVY			5
WALT	FARRELL	SKYRAIDER	1
GEORGE	WHITE	T-6B	2
CLAUDE	POWELL	SKYRAIDER	3

Kudzu results continued on page 18

HOW TO MAKE PROPELLERS FROM DAIRY FOOD CONTAINERS

By Dick Howard

Originally printed in the February 1986 Issue of Model Builder

(These comments by George White.....

Based upon consultation with my sea-daddy Gene Smith, who's used Howard's techniques, and my own experience, your friendly editor has expanded on some of the explanations which were not clear in the original article.)

If you want to improve your rubber-powered airplane's performance with props that won't break after a hard landing, AND if you happen to like cottage cheese(a lot!), then read on! *(Ed. Note: The plastic in cottage cheese and similar dairy food containers has apparently changed since 1986. They are now too rubbery. A better source of prop material today is the upper 2/3 of a 32oz plastic soft drink cup. Just be sure the plastic is semi-hard and not the mushy stuff that much dairy food now comes in. You can also make peanut size props from 32oz soft drink bottles, but that plastic is a bit thin for anything larger.)*

I've been experimenting with homemade plastic propellers for several years and though they may not be quite as efficient as commercial props, they definitely do have certain advantages: any size is possible, any pitch, any number of blades, desired rotation, they're nearly unbreakable, and fun to make.

Props have been made, using the jig pictured, from 2-3/4 inches for a 6-inch span Fike, to, a 12-inch, 3-bladed prop for my jumbo 36-inch span (Douglas) 046A. Also, I've made a four-bladed prop for an AJ-1 twin and a five-bladed prop for a turbo-prop Meteor twin, both counter-rotating ... all from plastic dairy food containers.

Some builders have thanked me for my efforts, while others are still cursing me for their failures and wasted time. I've included in this article a full-size jig pattern to make the task easier, along with photos to help explain the process. Stick with me—you'll probably be glad you did!

Begin by making your jig from a piece of wood 1x 2-1/2x10 inches. The dimensions are not that critical, but accuracy is. The hardest part will be cutting the angled saw kerfs accurately — I used a Zona saw because of the thin blade. Care must be taken to keep the cut 90 degrees to the edge of the jig while maintaining the correct angle (either 45 or 50 degrees). A table saw could be used but shims would have to be glued in to reduce the width of the cut. Drill one hole 3/32" as shown on the diagram for the prop truing shaft. All other holes are drilled with a 1/8-inch drill bit.

Prop spinners can be made of balsa, pine, or maple, depending on how much or how little weight the model needs up front. They are shaped using a Moto-tool or electric drill with a 1/8-inch drill bit reversed in the chuck as a mandrel.

Center drill the spinner blank slightly undersized for a press fit on the mandrel. If the blank is drilled 1/8 inch, a drop of cyano will secure it for shaping, and it can be twisted off later. *(Ed note: Some Duco or Ambroid would be much easier to remove by simply soaking in thinner. If you laminate several thicknesses of wood for the spinner, and use carpenter's or other water based glue, soaking the finished spinner in thinner makes removal of the mandrel easy.)*

After shaping and sanding, remove the spinner from the mandrel and push a length of 1/8-inch brass tubing through the hole so that approximately 1/2-inch protrudes from the base. This, in turn, is placed in the spinner index hole in the jig. Make two pencil marks 180 degrees apart on the base of the spinner for a two-blade prop, or three marks 120 degrees apart for three blades, using the correct lines on the jig.

The spinner is then placed in the appropriate hole, at the pitch angle chosen, with one of the pencil marks on the index line of that hole. *(Ed Note: Dick left out much explanation here. Which of the four holes you place the spinner in will be determined by the size of your spinner, You'll need to try putting the spinner in various holes so that the middle of the cut will intersect the midline of the prop as closely as possible. On a larger spinner the cut will need to start farther from the prop centerline and the middle of the cut will need to be higher on the spinner so that the shaft in the spinner will need to be in a hole farther from the angled cut in the jig. As to whether to use the 45° angle cut or the 50° angle cut, I can only speculate that the larger the prop, the more likelihood you'll need to use the 50° angle.)* Hold it securely in that position while a blade slot is cut using the Zona saw. After the first slot is cut, the spinner is rotated so the next mark is on the same index line and another slot is cut. When all the slots are cut they can be widened slightly and radiused to match the curve of the blades using a strip of sandpaper.

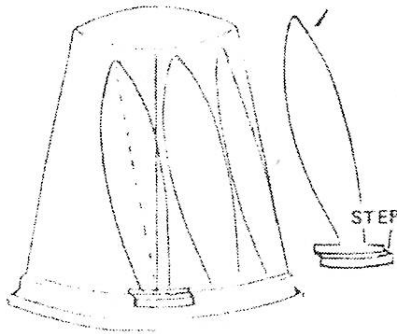
Blades are cut from a plastic container, like the kind that contains cottage cheese, yogurt or similar products (see above). My particular preference is cottage cheese cartons. A blade pattern is cut from the container at approximately 15 degrees *(There's a more scientific approach to determining this angle in an article on the PFFT website entitled "Prop From Plastic Bottle")* to the left of perpendicular. As you can see in the diagrams, when cutting out the first blade leave a one inch (wide "T") at the base of the blade including the step but minus the lip to aid in making the subsequent blades. The first blade is then placed on the step of the container and consecutive blades are drawn by tracing around the first one and then repeating the pattern around the container, keeping the step of the pattern blade on the step of the container. This should ensure uniformity. Blades for reverse or clockwise rotation must be cut 15 degrees to the right of perpendicular.

CONTINUED ON PAGE 17

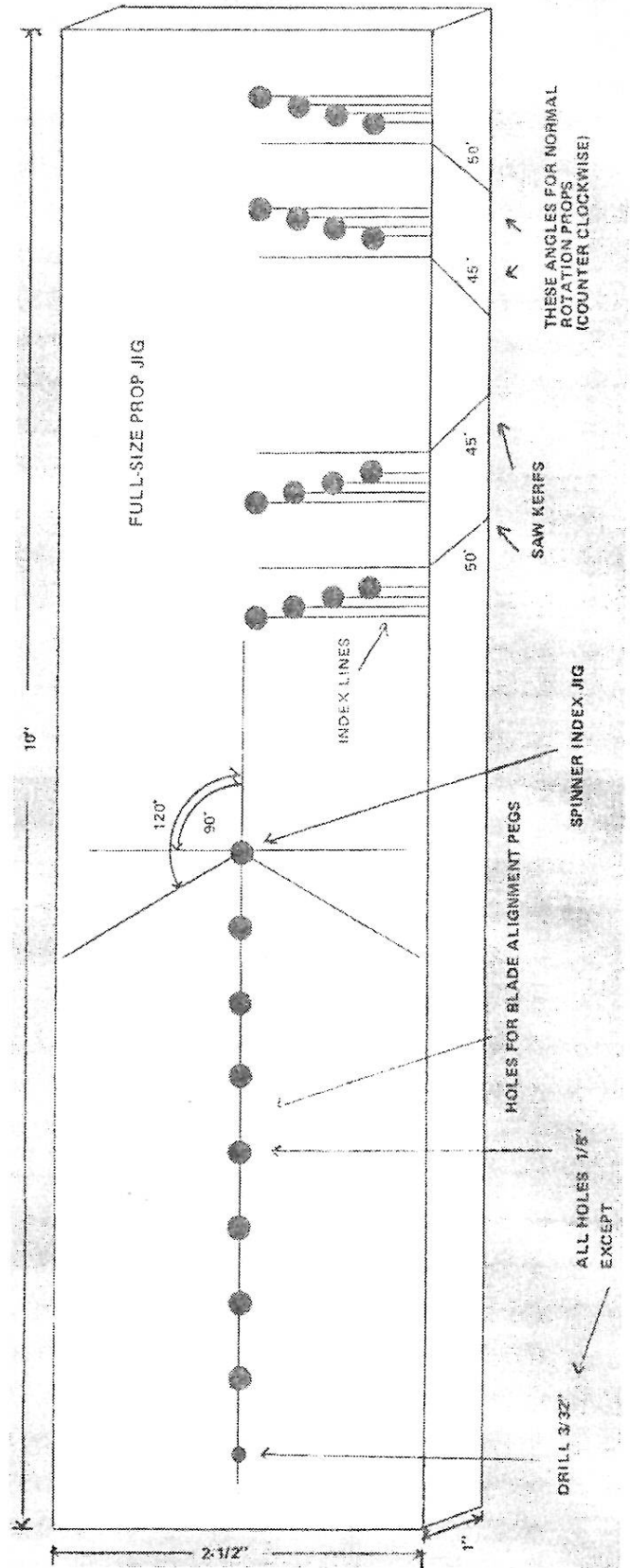
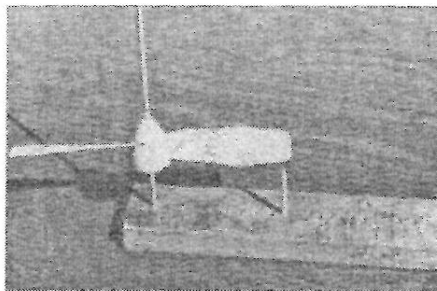
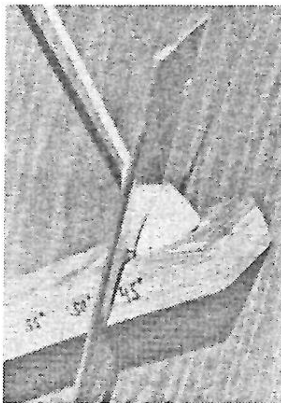
The finished blades (minus the "T" base) are pushed into the spinner slots. With the 1/8" brass tube still in the spinner, insert a piece of 3/32" brass tubing in it and place the 3/32" tube in the 3/32" "Truing" hole at the far end of the jig. The 1/2" length of 1/8" tubing extending below the bottom of the spinner will keep the spinner at a reasonable height above the jig. Use a short piece of dowel in one of the other holes as a guide as you see in the photo to make sure the prop blades are rotating in the same plane. You may need to use slivers of wood in the spinner slots to form wedges to raise or lower the blade tips. When you're satisfied, use thick CA to glue the blades in place and use accelerator to prevent any further movement. If prop weight is critical, remove the brass tubing and replace with 1/8-inch aluminum tubing, secured with regular cyano. (Brass is always preferable for use with prop shafts due to its resistance to wear. Otherwise, leave the brass tubing in the spinner and bush the tubing down with 3/32 o.d. tubing for a 1/16- inch prop shaft or again with 1/16" Special Shapes thin walled brass tubing for a .047 shaft, or a standard 1/16-inch o.d. tubing for an .032 shaft. Cut the combined tubing off to the correct length so that the tubing just reaches the front of the spinner. For a free wheel ramp, cut a very short piece of 5/32 brass tubing and CA it on the very front of the tubing, and use a dremel to cut a free wheel ramp in the 5/32 tube.)

The finished propeller is balanced by scraping the heavy blade with a single edge razor blade. Blades for props larger than six inches will have to be reinforced or laminated using cyano as an adhesive. Acetone, M.E.K., or even lacquer thinner can be used, but they tend to leave the plastic a little soft.

BLADE PATTERN



FOR NORMAL OR COUNTER CLOCKWISE ROTATION



Kudzu contest results for May 14-15 2011			
FAC TIMED CONTINUED			
2 BIT OT RUBBER			3
CLAUDE	POWELL	BANTAM	1
JOHN	HOUCK	SCOTCH MONOPED	2
WALT	FARRELL	F A MOTH	3
NO-CAL			4
WALTER	COLLINS	CESSNA	1
GLEN	SIMPERS	P-40-C	2
WALT	FARRELL	DAUNTLESS	3
JIMMY ALLEN			0
JET CAT			6
JOHN	DIEBOLT	ARADO 234	1
GLEN	SIMPERS	BANSHEE	2
WALT	FARRELL	CANBERRA	3
HARD CORE SCALE			
FAC SCALE			6
DAVE	MITCHELL	P-80	1
WALT	FARRELL	MILES FALCON	2
WALTER	COLLINS	COUGER PEANUT	3
FAC POWER			1
WALT	FARRELL	BEECH D-17	1
AMA EVENTS			
TOWLINE GLIDER			2
CARL	DOWDY	JET STREAM	1
BRADLEY	GLASS	JESSIE JAMES	2
P-30			3
DANIEL	EISERT	1 NITE	1
MARK	HOUCK	BIG BIRD	2
DONALD	QUALLS	94% SPARKY	3
HAND LAUNCH GLIDER			1
KIT	BAYS	HLG	1
CATAPULT GLIDER			4
JOHN	DIEBOLT	??	1
KIT	BAYS	CAT	2
WALT	FARRELL	??	3
FLASH X-18			9
JOHN	DIEBOLT	X-18	1
DAVE	MITCHELL	X-18	2
BRADLEY	GLASS	X-18	3

Dan Eisert is a Junior flying in his first contest. He edged out Mark Houck by one second to win P-30. Needless to say he was dead chuffed.

The X-18's flew great. However, both Dan Driscoll and I broke ours before we could post official times.

We had no Jimmy Allen's and only one FAC power model.

Wally was the clear Grand champ, I didn't need the spreadsheet to see that. George White finally beat him in Dimescale with a coin toss when both of their planes went OSS at about the same time.

D. C. MAXECUTERS

CLUB OFFICERS

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Secretary: David Mitchell 230 Walnut St. NW., Washington, DC 20012

Treasurer/Editor: Stew Meyers, 8304 Whitman Dr., Bethesda, MD 20817

MEETINGS - The D.C. MAXECUTERS hold meetings at 8:00 pm on the first Tuesday of every month at the Riderwood Village Square Clubhouse. 3148 Gracefield Rd Silver Spring, MD 20904
A map is on the website.

MEMBERSHIP - Dues for membership in the DC MAXECUTERS are \$20 per year for residents of the USA, Canada, and Mexico, and \$25 for all other countries. You may now use **PayPal** at the website: www.dcmaxecuter.org

Your mailing label indicates the year and month of the last issue of your current membership. A red "X" in the box below is a reminder that your dues are due. Send a check, payable to the "D.C. MAXECUTERS", to the treasurer, Stew Meyers.

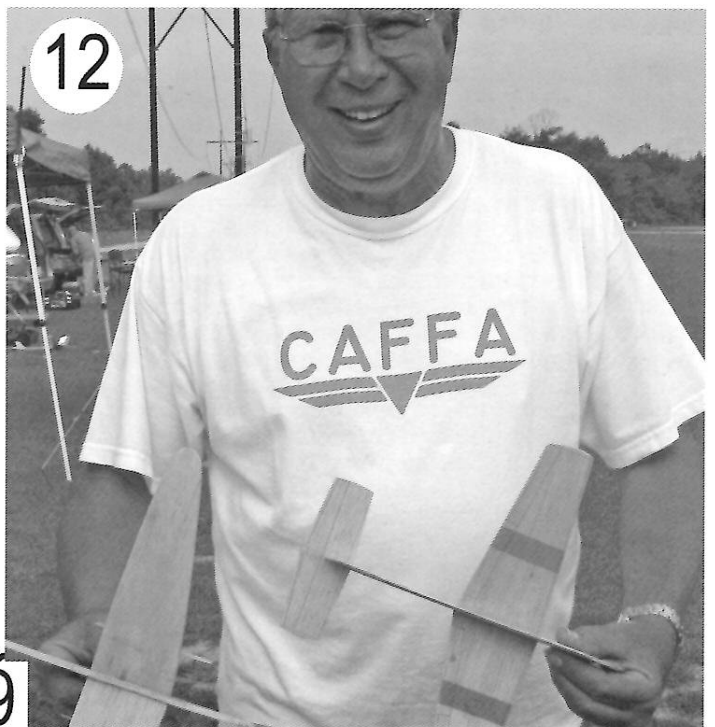
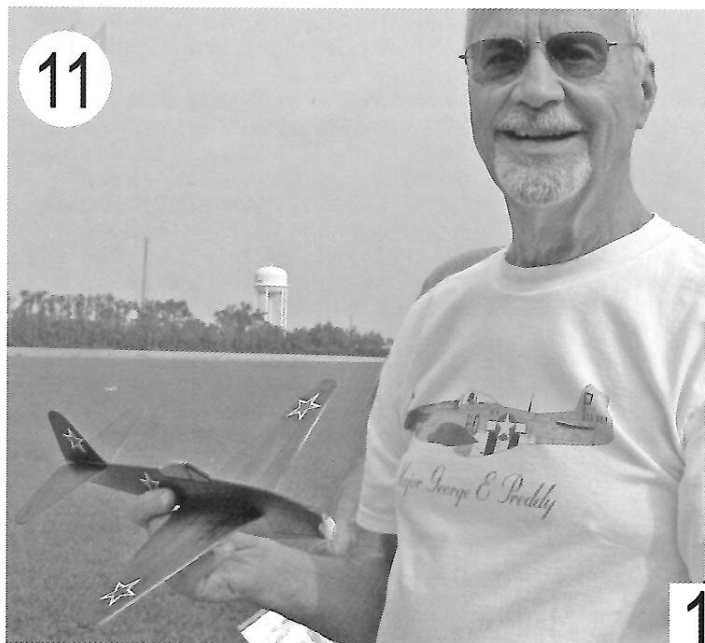
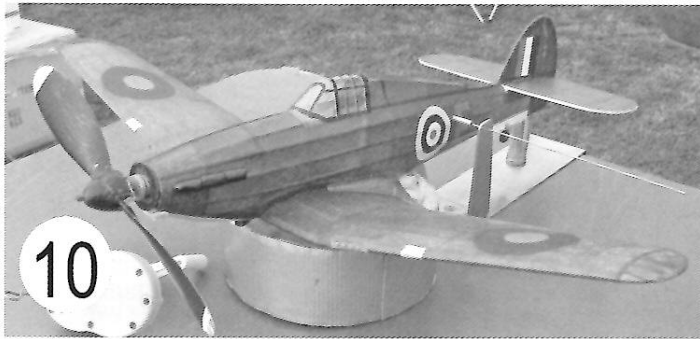
PUBLISHING DATES - Six issues of MaxFax are sent each year as close to the nominal dates as possible, but since this is a volunteer publication nothing is guaranteed except that six issues will be sent to all members.

CONTACTS - Material for the newsletter and membership questions should be addressed to Stew Meyers phone 301-365-1749. Email gets immediate attention. stew.meyers@VERIZON.net

PAGE 19 PHOTOS FROM KUDZU 2011

Photos by Jullie Farrell

7. Grand champ Wally with his WWI winning Martinsyde.
8. Claude Powell and his ALLENBAUGH A entrant in the Races. Claude was the recipient of a magnificent tool chest built by our mentor Bill Sheppard.
9. Dave Mitchell with his FAC Scale winning P-80.
10. Claude Powell's nifty Tom Nallen designed "Hurrybox".
11. Ray Rakow with his Yak 15 Jet Cat.
12. John Diebolt, our co- contest director with a couple of his HLG's. His X-18 went OSS.



MaxFax MAY-JUNE 2011



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CONTENTS:

HALF SCALE WAKEFIELDS

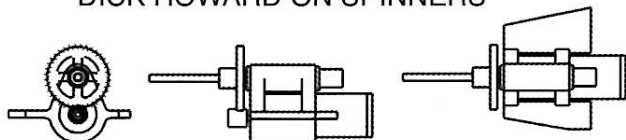
R&N SUPER SNOOPER KIT
PLAN AND PRINT WOOD

1949 SWEDISH WAKEFIELD
BY ARNE BLOMBERG

RED SWAN 1951 2nd PLACE
BY HENRY TUBBS

MAY 14-15 KUDZU KONTEST
RESULTS AND PICTURES

DICK HOWARD ON SPINNERS

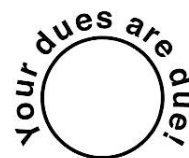


Full size three views of the ParkZone J-3 motor and gear box

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KUDZU AS SEEN BY THE GRAND CHAMP

Wally Farrell

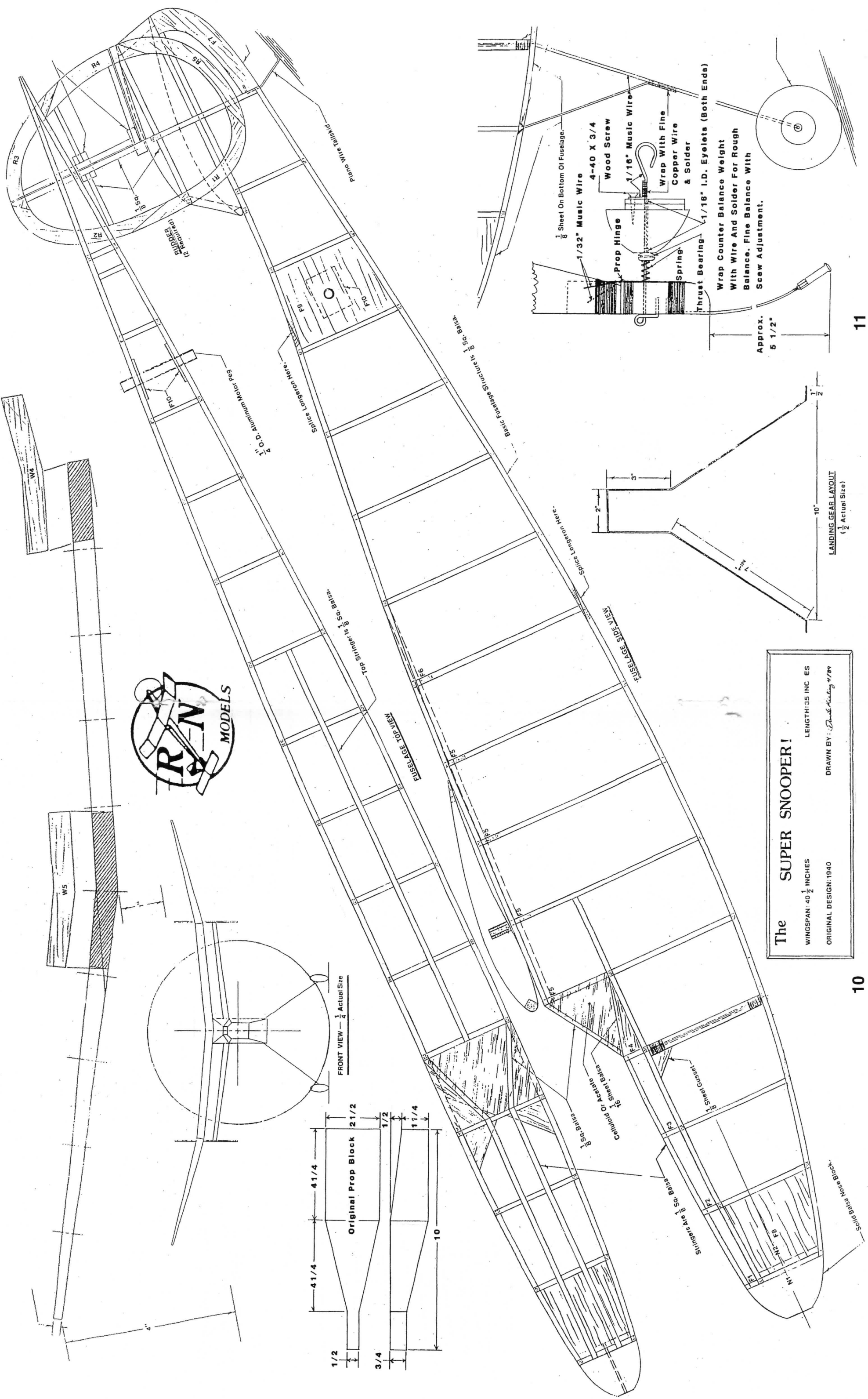
It was great to see everyone, and in particular George and Joyce White, who made it all the way from Florida. We had some good toe to toe heats in the Mass Launches. In the combined Modern event, Dave Mitchell and I made it to the final, with his Vagabond vs my Cessna 140.....I was psyched....but Dave had a bad launch and the Vagabond went in hard to the left. He had more bad luck on Sunday (read on). My embryos both put in times under 10 secs...they are both sitting in a dark box to think over what they have done, I mean really. Mark Houck is ruling that embryo table with his Prairie Bird. I cracked up my electric Staggy trying to get an official....I was the only one to enter the event. I flew catapult and jet catapult gliders but just couldn't get the planes to stick in a thermal. I think John Diebolt took these events (again). Sunday brought another surprise, Dave and Marie Rees came with their son Dan. It was great to see them. Dave had his Fairey Fulmar proxy flown for WWII since we were getting set up to fly that upon his arrival. Glen Simperts did the honors. Later in the afternoon, Dave Rees flew his Mr. Mulligan in one of the final mass launches. It was great to share the launch line with him again. Dave continues to teach me stuff, not just about airplanes, but grace, determination and style. What a guy!

There were a couple of events on Saturday that were remarkable. My favorite was WWII. In the first heat, George White's Aircobra nearly left the field when his d/t didn't trip. He decided to risk the plane since the d/t wouldn't work, and we had a great final heat. In dime scale ML, Dave Mitchell came in 3rd with a flight of "only" 3 minutes...George and I waved goodbye to our planes, and George won the event with a coin toss. But the most unusual of the ML's was Golden Age. I flew my brand new Vega...it was going pretty well for a new ship. As I retrieved my plane, the story came back that Mark Houck was still in...he had managed to land his Lincoln AP right into the wing of Dave Mitchell's Stinson which had just landed. How much more random could things be? For the final heat, Mark Houck and I broke our motors, making it a cake walk for Claude Powell. Mark and I tossed our planes for 2nd and 3rd. It was a hoot!

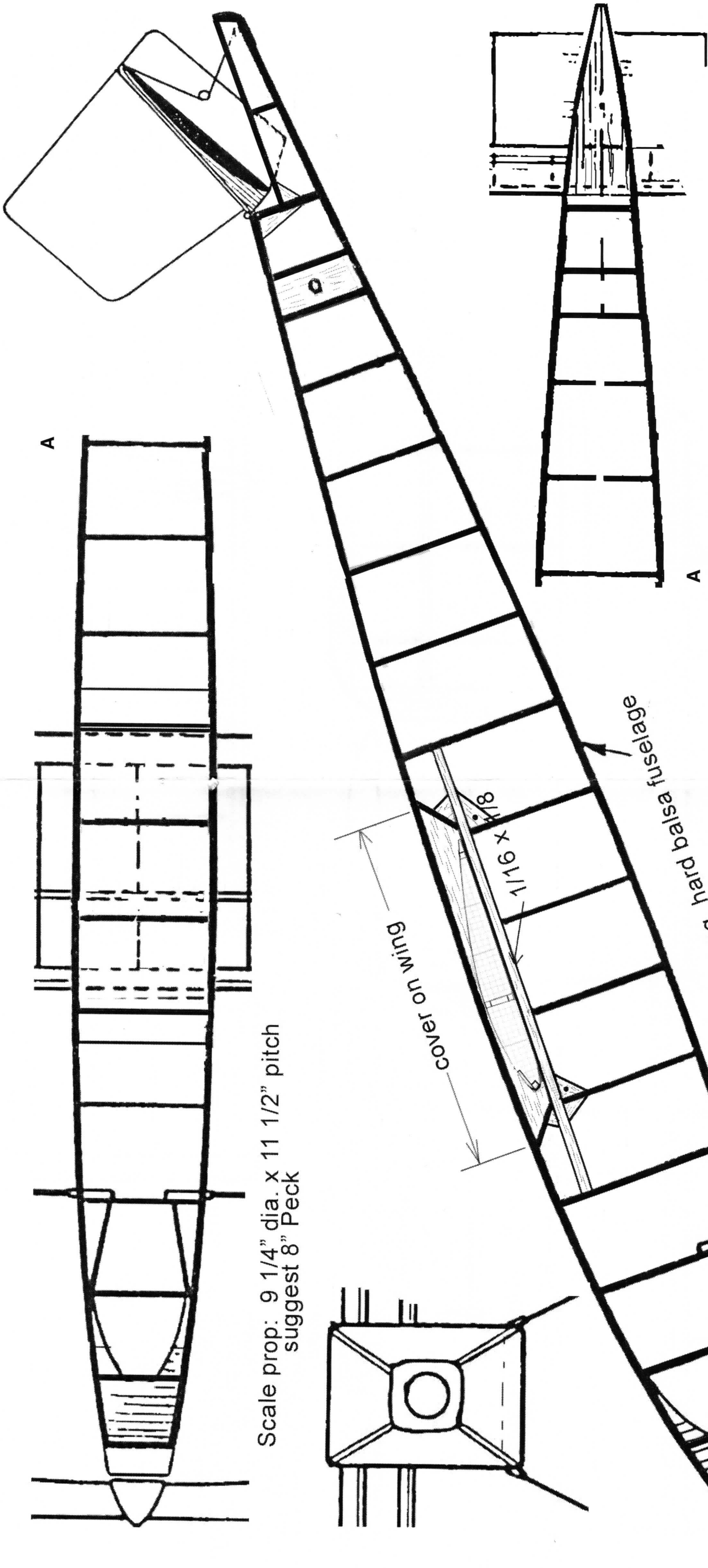
In the FAC two bit + 1 event, I flew my 20 year old FAC Moth. It did two flights under 60 seconds which is why I still had it after all this time- It did not have a d/t either. On the final flight, I decided to take out some of the downthrust. It flew great, got a max and landed deep in the woods. The only part I will miss is the hand carved prop.

A bunch of us showed up with the Zaic X-18 but I managed to snap my fuselage on a hard landing right at the bearing. I barely got in 3 officials. Some guys were flying the heck out of them, including our Pres, Stephan P. It was great to have him at the meet. Similarly, I cracked up my no-cal. I believe one of the Houcks took that event as they so often do. Although I still wanted to fly, the wind had picked up and the meet ended just a little early. This probably saved me from putting my new P-30 in the woods, since as we know, I lack good judgement at times.....

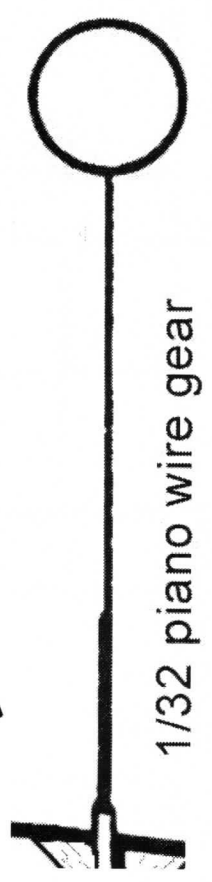
My sincere thanks to all of the Maxcutters and the folks in CAFFA for making the meet possible. In addition to the field, it was great to share meals with friends and talk airplanes. A great weekend for sure. This is a great meet, with a great venue and I hope that more fliers will make it next time!



The SUPER SNOOPER!
 WINGSPAN: 40 1/2 INCHES
 LENGTH: 35 INC ES
 ORIGINAL DESIGN: 1940
 DRAWN BY: *David K. King* 4/89



Scale prop: 9 1/4" dia. x 11 1/2" pitch
 suggest 8" Peck



7/8" dia. wheels

1949 Swedish Wakefield
 by Arne Blomberg, Stockholm

half size, Don Srull 4-2011

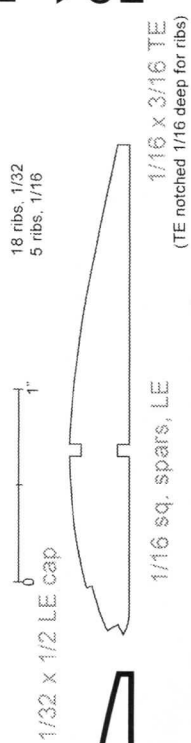
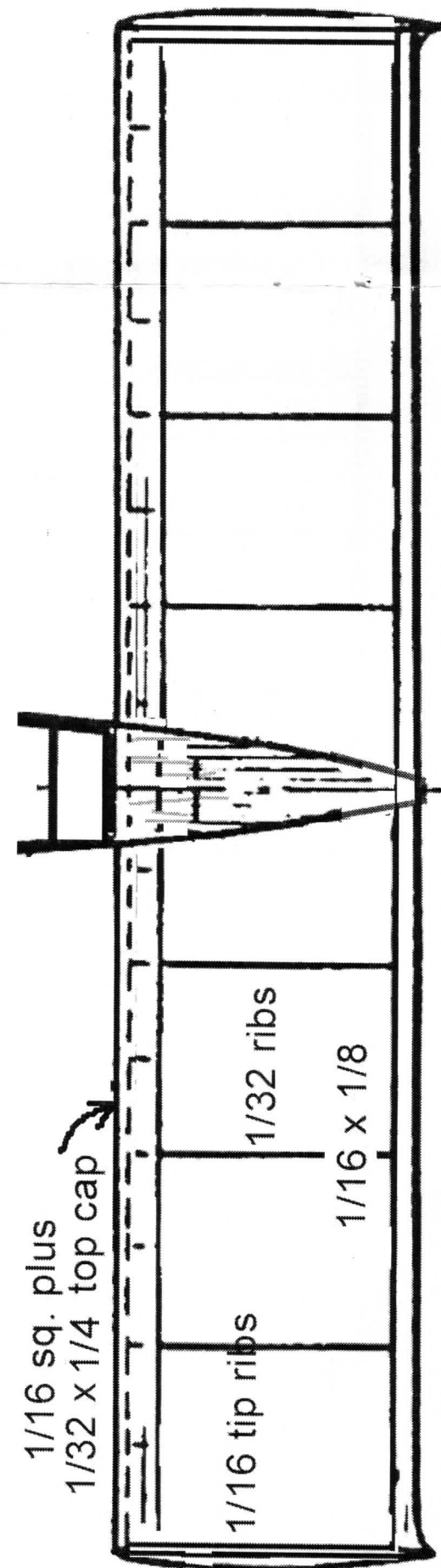
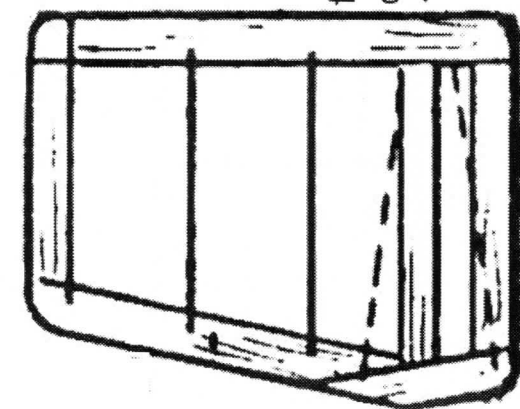
p 1 of 2

DON SRULL HAS ALREADY SCALED ALL THE DIMENSION ON THIS PLAN AND ELIMINATED EVERY OTHER RIB.

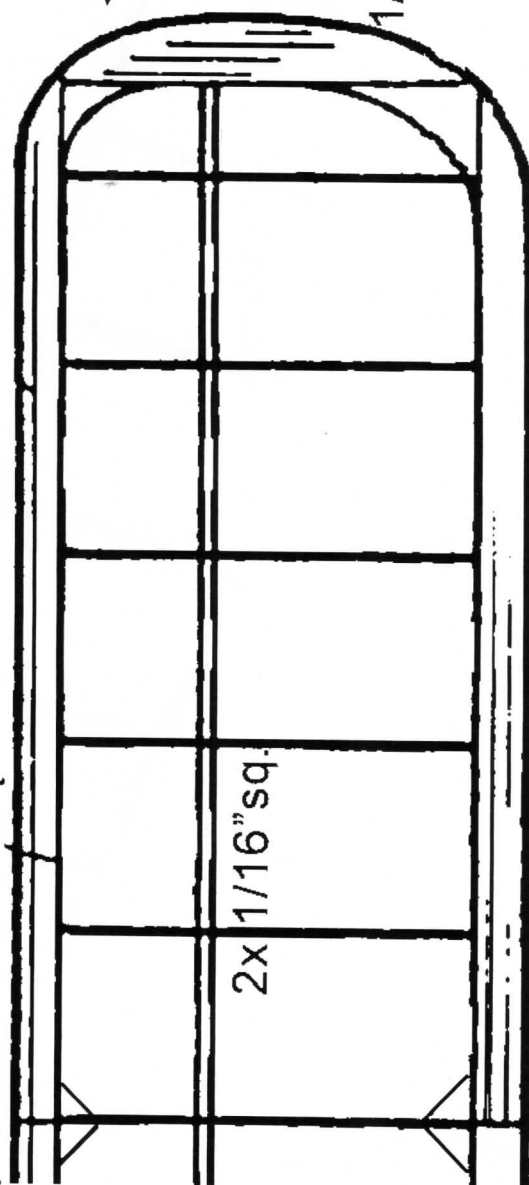
THE ORIGINAL ZAIC DRAWINGS SHOW A POP UP DT TAIL AND THAT THE MODEL WEIGHED 110 GRAMS AND FLEW WITH 120 GRAMS OF RUBBER.

DON SUGGESTS MAKING THE STABILIZER RIBS FROM RECTANGULAR BLANKS GLUED IN PLACE AND SANDED TO AN AIRFORI SHAPE. THE TOP AT THE LEADING EDGE CAN THEN HAVE A NOTCH FOR THE 1/32 CAP SANDED WITH AN EMORY BOARD.

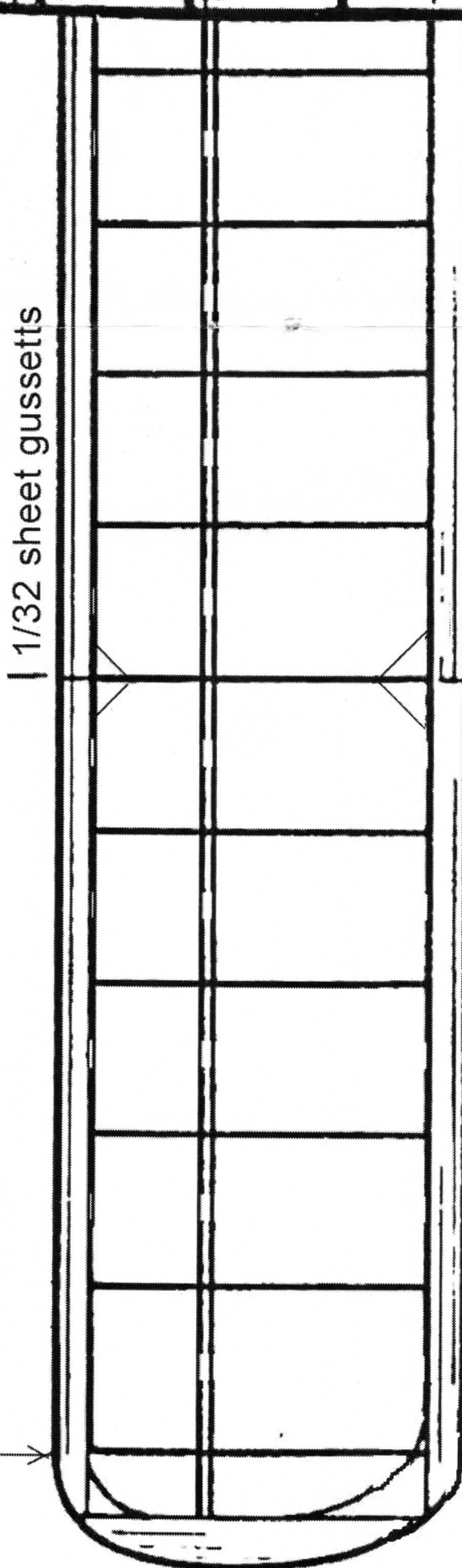
YOU NEED A SPINNER. CHECK OUT THE ARTICLE BY DICK HOWARD IN THIS ISSUE.



1/16 sq. plus 1/32 x 1/4 cap



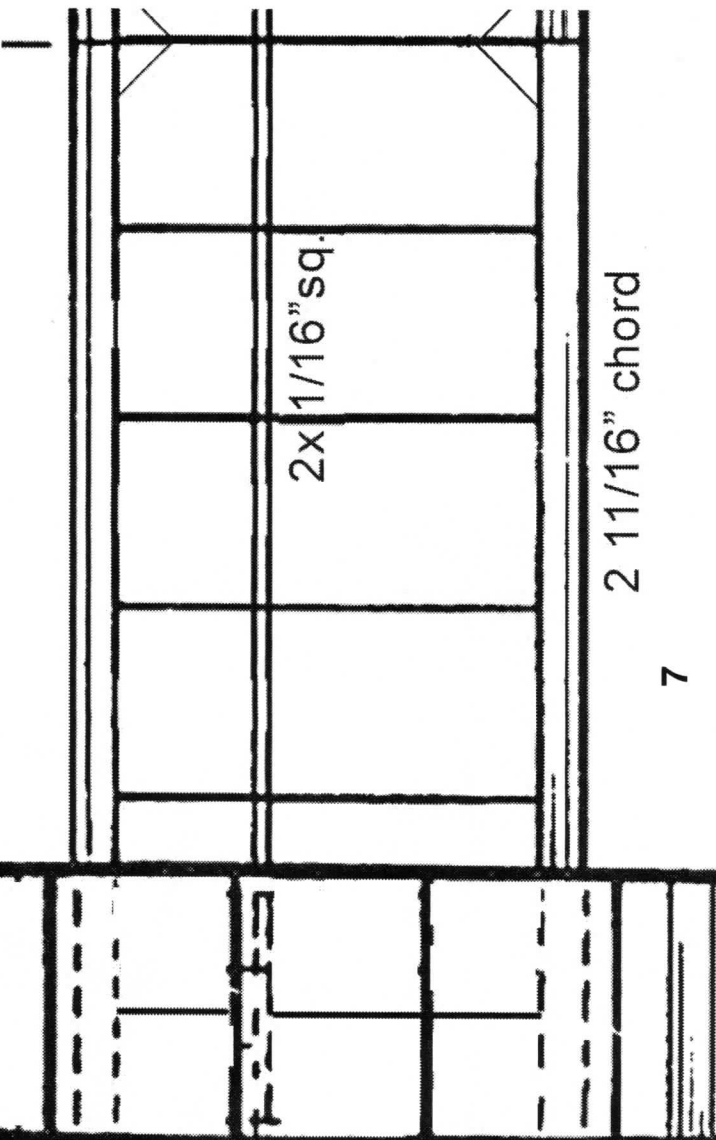
1/32 sheet gussetts



1949 Swedish Wakefield
by Arne Blomberg, Stockholm

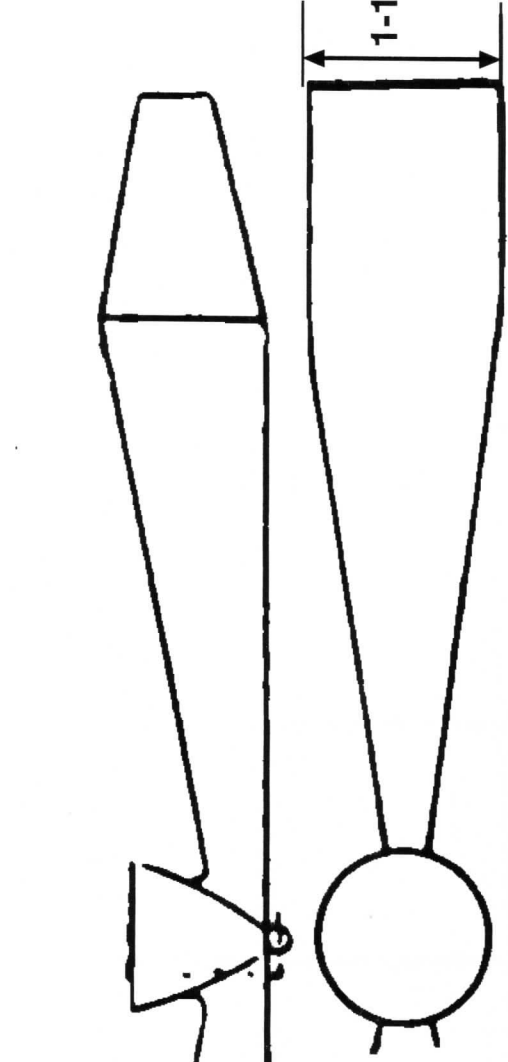
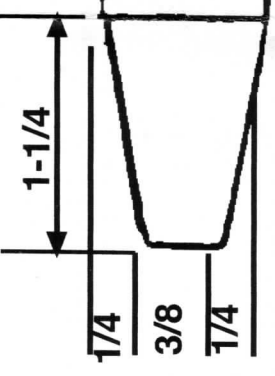
half size, Don Srull 4-2011

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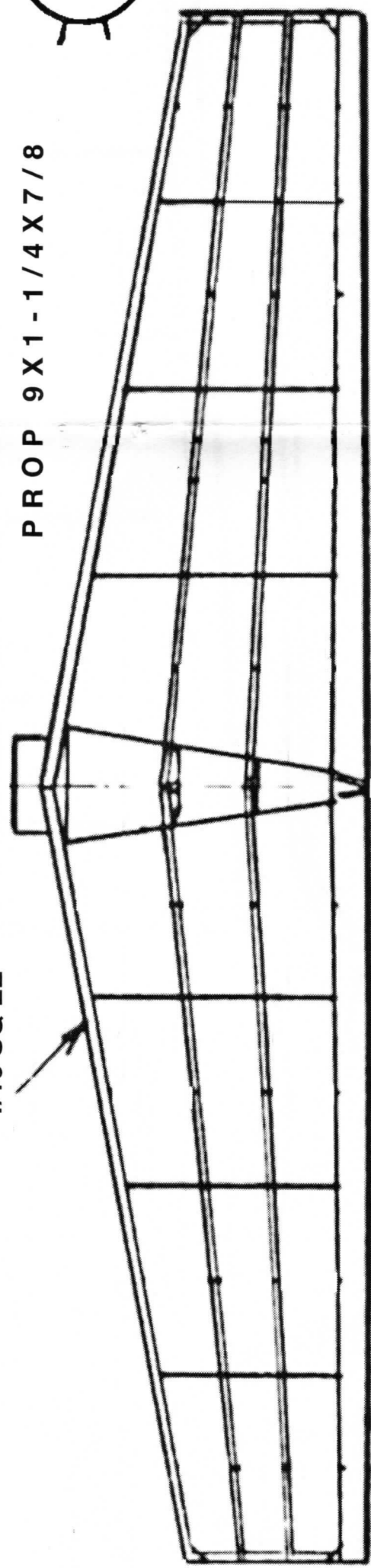
1/32 STAB RIB 1/32X1/16 SPARS
MAKE FROM A RECTANGULAR
BLANK SANCED TO SHAPE
AFTER GLUING IN PLACE THEN
NOTCHED FOR SPARS.

1/16 SQ LE



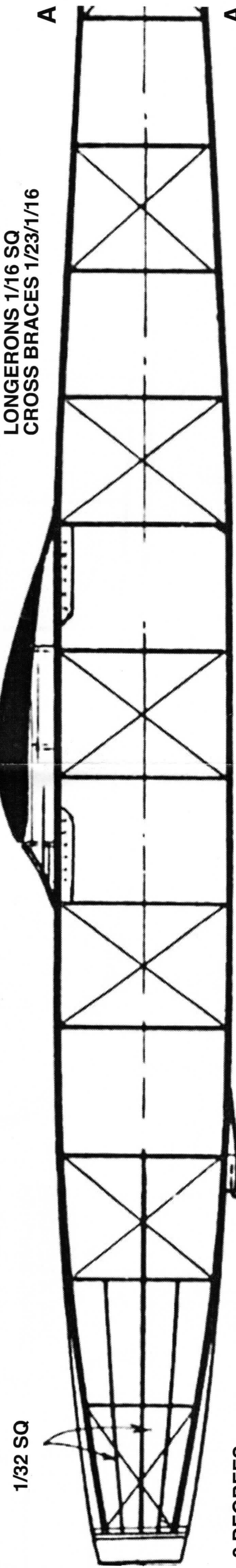
PROP 9 X 1 - 1/4 X 7/8

DON SRULL HAS ALREADY SCALED ALL THE
DIMENSIONS ON THIS PLAN AND ELIMINATED
EVERY OTHER RIB AS THE ORIGINAL HAD 1/32 RIBS.
THE FUSELAGE PLAN MATES AT SECTION A-A.
THE 5/16 HIGH WING MOUNT BOX IS REQUIRED TO
MEET THE CROSS SECTION RULE.



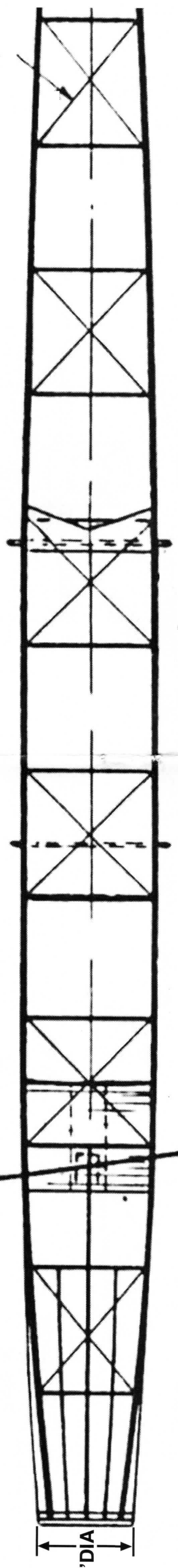
TE 1/16 X 1/4

LONGERONS 1/16 SQ
CROSS BRACES 1/23/1/16



1/32 SQ

2 DEGREES
DOWN

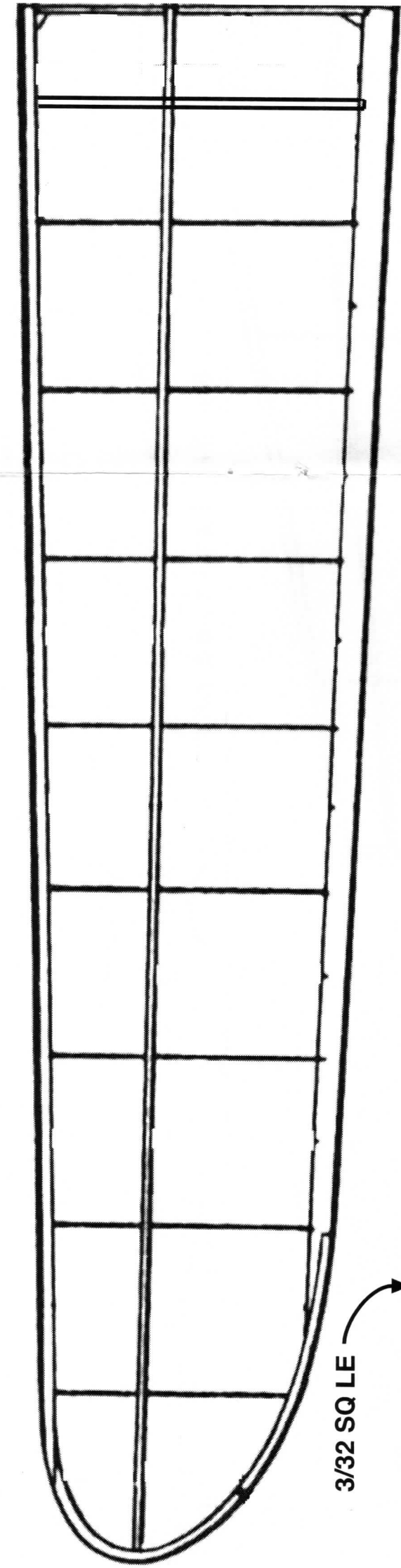


1" DIA

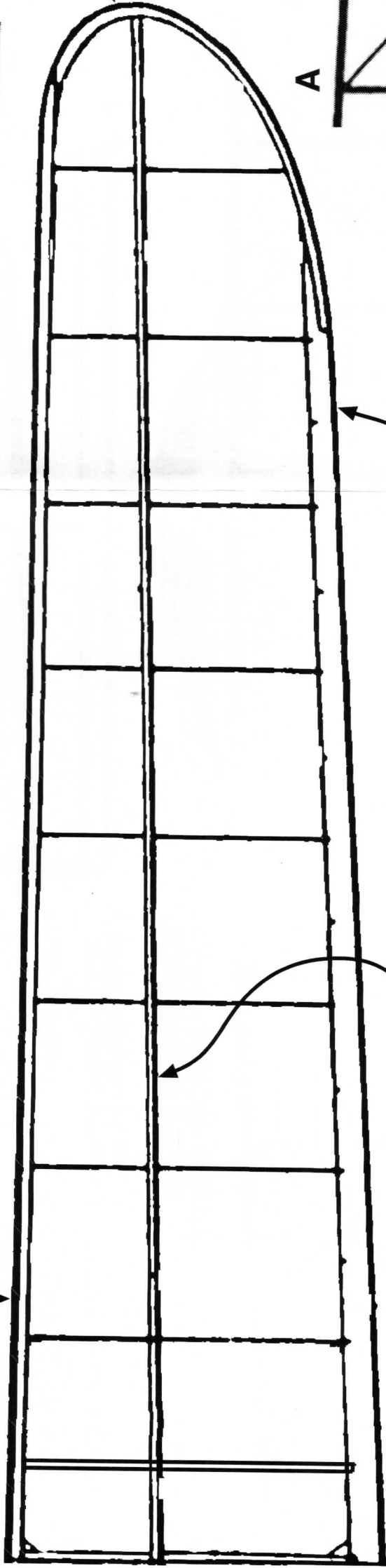
BASIC FUSELAGE BOX IS 1-3/4 X 1-3/8
ORIGINAL MODEL WEIGHT 3-3/4 OZ
POWERED BY 16 STRANDS OF 1/4 X 1/24 X 50" PERRELLI
WEIGHING 4-3/4 OZ.

Dr. Fair

RED SWAN
2ND PLACE 1951 WAKEFIELD
HENRY TUBBS ENGLAND

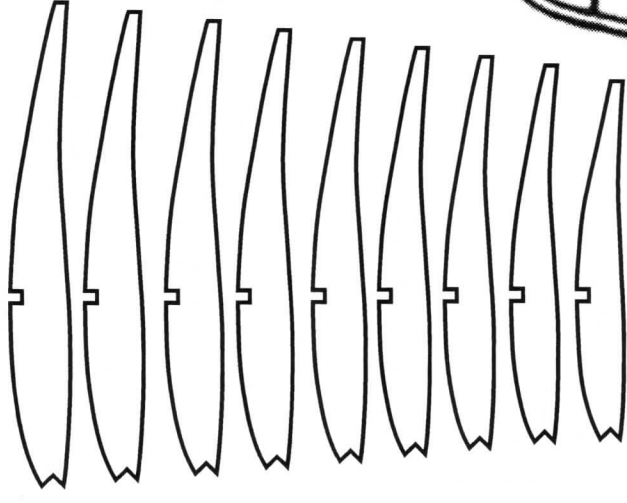


3/32 SQ LE



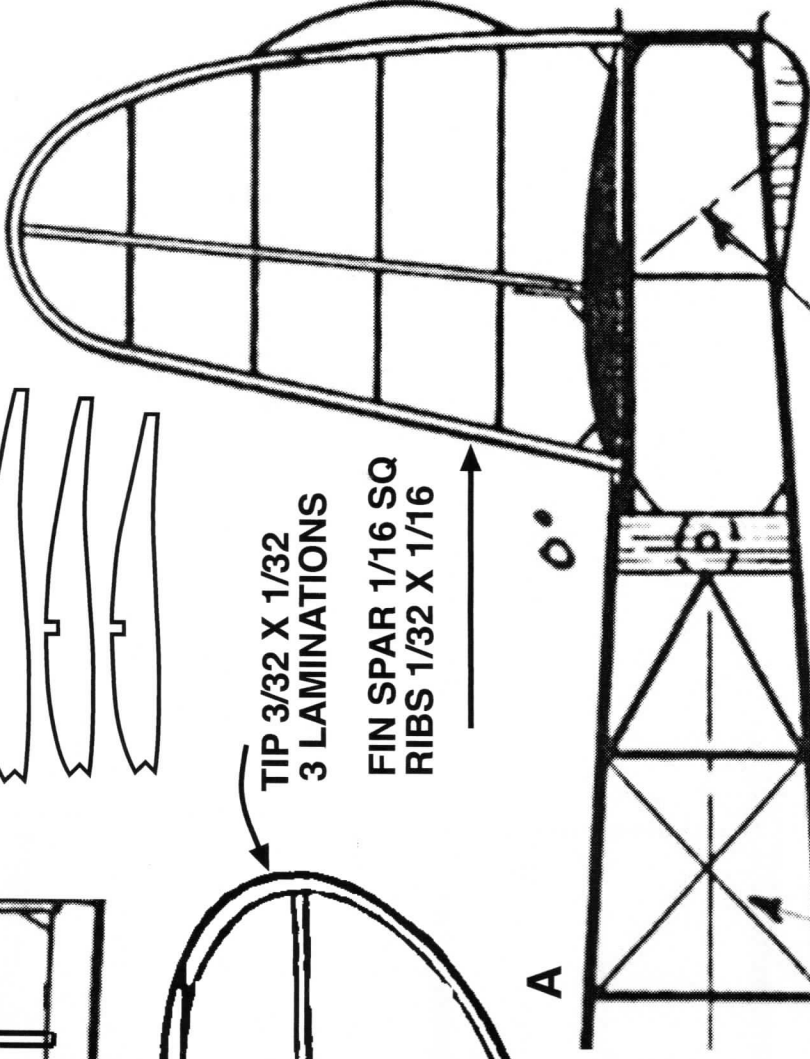
1/16 SQ SPAR

1/16 X 1/4 TE



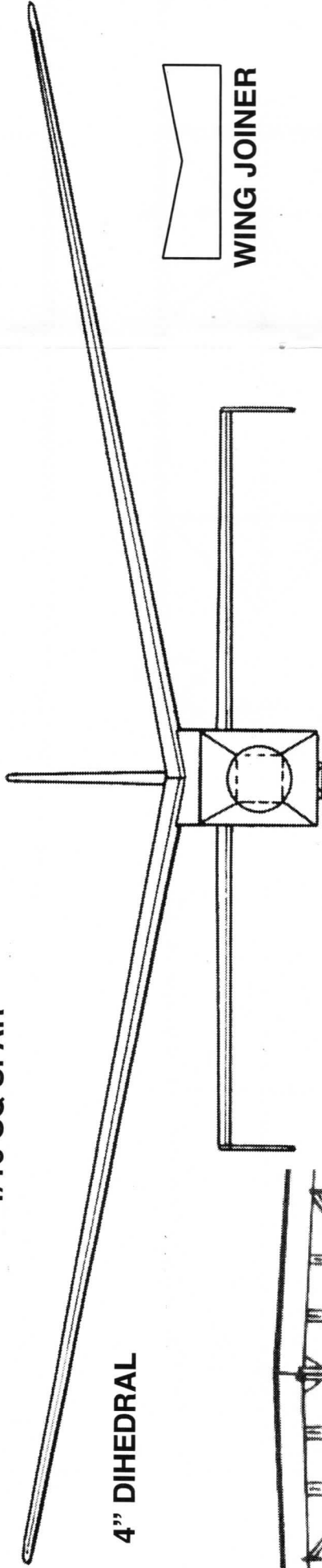
FIN OUTLINE
1/16 X 1/32
LAMINATION

TIP 3/32 X 1/32
3 LAMINATIONS
FIN SPAR 1/16 SQ
RIBS 1/32 X 1/16

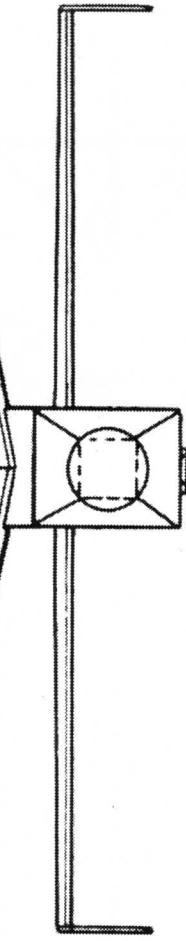


0°

4" DIHEDRAL



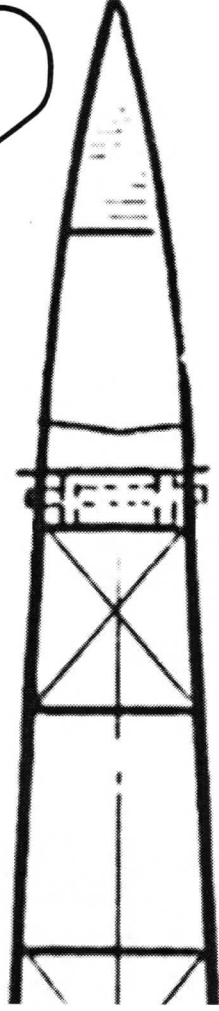
WING JOINER



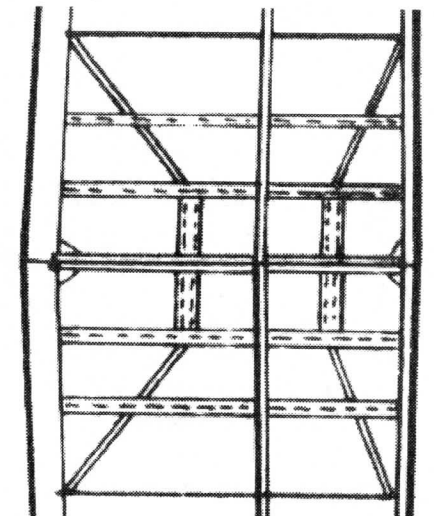
THREAD

TIP FINS

HARD 1/32



THE ORIGINAL HAD A 2 PIECE WING THAT JOINED AT THE CENTER WITH TUBES AS SHOWN IN THE SCRAP VIEW TO THE LEFT. ON THIS HALF SIZED MODEL THIS IS UNNECESSARY. INSTEAD USE A DIHEDRAL JOINER AT THE SPAR AND GUSSETS AT THE LE AND TE. COVER THE WING HALVES BEFORE JOINING. SHEET THE INNERMOST BAYS ON TOP WITH 1/32 . LEAVE THE BOTTOM INNERMOST BAYS UNCOVERED ON BEFORE JOINING. THE WING MOUNT BOX IS GLUED TO THE JOINED WING AND ACTS AS A FURTHER DIHEDRAL SLUPPORT.



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