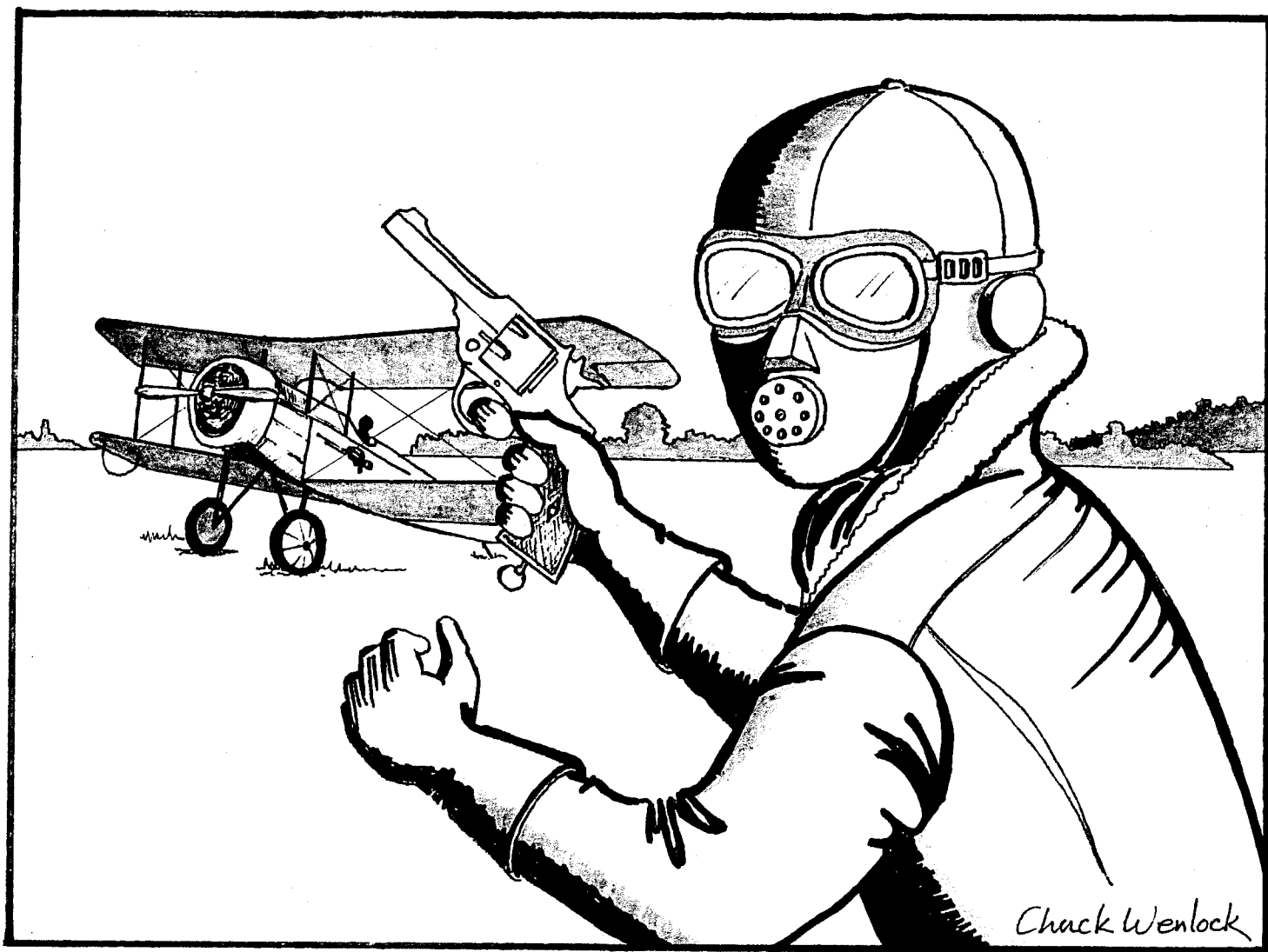


FLYING ACES

Club News

ISSUE #239-165 Jan./Feb. 2008



"I WAITED IN THE BRISTOL AS THE PILOT
OF THE RED FIGHTER CLIMBED FROM HIS COCKPIT."



Welcome to the year 2008! HAPPY NEW YEAR to all Clubsters everywhere! Thanks to all who contributed to this issue. The cover art was done by Chuck Wenlock and the plans are from John Blair (Sperry Messenger), Lloyd Willis, Australia, (Piper Tri-Pacer), Derek Buckmaster (Bristol M1 Gypsy Racer) and from our files here at GHQ is a Guillows Vought Cosair, early version.

There is something going on on the internet that irks me at times, and the biggest thing is the FAC rules. Someone will contact us and say, "When did you change this/that rule. I just seen it on the internet." I don't know who dreams up these things but let me tell you all that if you don't read it in the official FAC rulebook don't believe, it's probably just someone that's trying to create some turmoil in the ranks! And, the 2008 FAC rule book is included with this issue of the newsletter. Additional rule books can be purchased from FAC GHQ for \$4.00 each.

Don't forget when you send in your dues for 2008 that they have been raised to \$18.00 per year. Still a great deal! The last time we raised the dues was in 1995 and prices have really had a big up-turn since then. We just had to do it!

Three members have gone to the "Big Thermal In the Sky". Ray Black from Las Cruces, N.M., Casimier Grevera from Sunnyvale, Ca., and Bill Noonan from San Diego, Ca. We extend our condolences to their families and friends for their loss, as well as ours.

We have just been alerted to the fact that the French fighter, the former Nieuport Company, CAO-200 is now eligible for WW-II combat. Only 12 aircraft were finished before the Nazi took over France but one of these aircraft managed to enter combat against the dreaded Luftwaffe and succeeded in shooting down a Heinkel 111. Just enough to make it OK for the WW-II event.

This is from Lonnie Cope about the color of the wings on the Hughes H-1 racer. Lonnie has a friend who was a purchasing agent for Hughes and passed by the racer many times and seen both sets of wings and he says that both sets were blue.

I got a note from Claude Powell about the offer I made for anyone building the Northrop XP-56 from the plan in the last issue which stated that anyone building one and getting a qualifying flight would get a prize. Well, Claude suggests that if 3 of them show up at Geneseo we have a mass luanch for them instead. Good idea Claude, we can do it as well as give the prize too! To the building board Skysters!

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

Col. Lin Reichel, CinC, FAC

The FLYING ACES CLUB

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

NOMINATIONS FOR THE FAC HALL OF FAME

Clubsters, it is now time for you to nominate worthy candidates for the FAC Hall of Fame. These candidates qualifications must be for what they have done to promote the success of the Flying Aces Club. This is the highest honor that we can bestow upon them so think about your nominees very carefully before you send their names in to GHQ. We will publish the names of the candidates in the March/April issue of the newsletter and then you can vote for the candidates that you think are the most worthy of this high honor. The top three candidates with the most votes will be inducted into the FAC Hall of Fame at the FAC Nats banquet on July 19, 2008. Send your nominees names and qualifications to; FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506 no later than March 31, 2008.



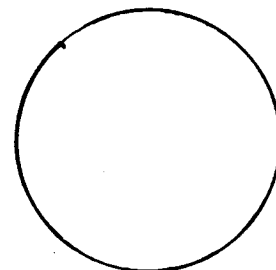
MEMBERS OF THE FAC HALL OF FAME

DAVE STOTT	LIN REICHEL
BOB THOMPSON	DON SRULL
EARL STAHL	RALPH KUENZ
BOB LEISHMAN	PRES BRUNING
DAVE REES	EARL VAN GORDER
BILL WARNER	BILL HANNAN
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TOM NALLEN, I	JOE FITZGIBBON
BOB ROGERS	JUANITA REICHEL
ROSS MAYO	BOB CLEMENS
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MIKE MIDKIFF	ED NOVAK
JACK MOSES	LEN WIECZOREK
WALT MOONEY	GORDON ROBERTS
LEON BENNETT	DAVE NIEDZIELSKI
VANCE GILBERT	PECK-POLYMERS
MIKE NASSISE	BOB SCHLOSBERG



NOTE NEW DUES STRUCTURE BELOW

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



Why Free Flight Scale?

Vance Gilbert

Arlington MA

[This is the third segment of Vance Gilbert's series on flying scale. In Part 1 (January, p. 13), Vance covers many particulars on setting up biplanes and low-wing subjects for optimum performance. The second installment includes well-honed steps toward gaining reliability and satisfaction from tri-motored models and flying wings.—Ed.]

Tri-motors

For a while, these ships were a way of life for me in the Flying Aces Club (FAC). As I was a nearly exclusive builder of between-the-wars airliner models (with a few deviations) during this period, they hold a special allure for me. I couldn't get enough of the view from the rear, as one of these ships left my hand, all props churning. Satisfying, to say the least.

FAC's bonus-point structure was revised so that tri-motors, while having more motors, props, and drag to deal with, get five points less than a twin. I agree: A tri-motor will fly (after a fashion) with one of the outboards hung up; a rubber twin won't.

One way to look at tri-motor flying is that the outboard motors provide thrust, yet cancel each other out; then you are left with a single-engined ship to work on. This is especially true if the outboard props counter-rotate. You simply have to give each a bit of downthrust; then, using the center prop, you can deal with any gyroscopic progression, turn or anything else you need to consider.

This having been said, great tri-motor flyers like Don Srull, Chris Starleaf and Dave Rees will swing all three props in the same direc-

tion. Often, on 30-37 in. ships, they will use a 9.5-in. Peck for the center prop and some cut-down 8-inchers for the outboards. They'll point all the thrustlines down 3 degrees and right 2 degrees.

No arguing with their incredible successes: I've done the same on my 5-engined ANT 14, as I was dreading making four counter-rotators! Again, I'd rather think less about any angled thrust adjustments; just custom-make some props and point anything that needs it, pointed downward.

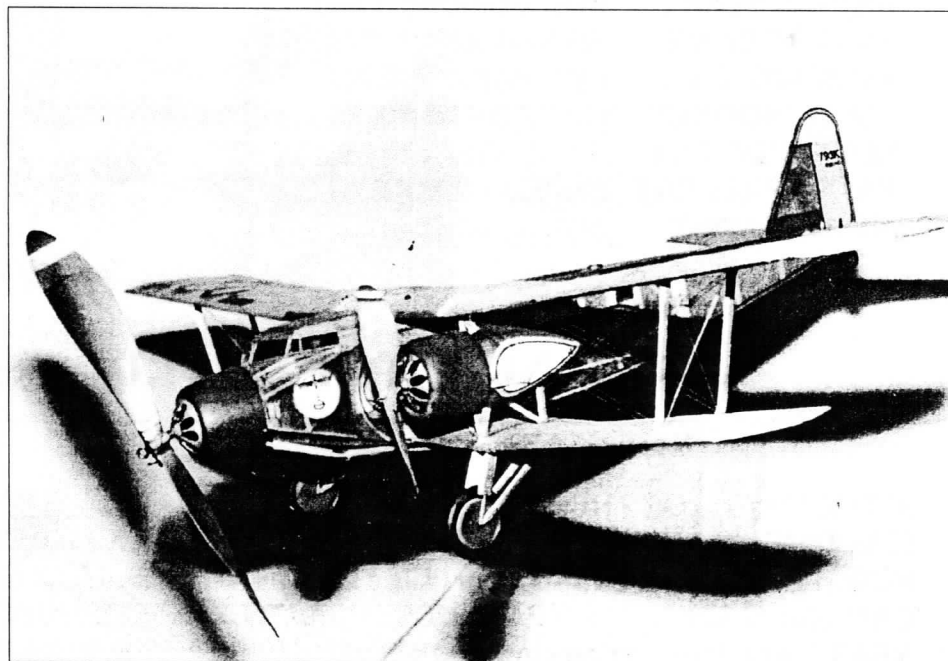
You occasionally hear some talk about how all the bonus points garnered by a tri-motored subjects are barely earned because, save for a few examples, there aren't many tri-motors that truly earn their keep with what seems to be the marginal motors and props they swing on the outboard. The

rules state "reasonable thrust," but seldom do these motors provide enough to actually fly the plane.

Well, I once did an experiment with my Boeing 80A tri-motored biplane. I made numerous flights with just the center motor, and other flights with the outboards wound. I found that while the ship was able to fly on just the center motor, it would not "punch through," consistently giving flights in the 40-second range.

With the outboards wound, it seemed to head up, angel-style for consistent minute or near-minute flights. Those experiments provided pretty good proof that these seemingly auxiliary outboard appendages do in fact add appreciably to the plane's overall power.

My approach to tri-motors is basically to combine one twin and one single-powered ship. All flight surface settings are whatever they



The author's 1928 Boeing 80-A, the first U.S. airliner designed for passenger comfort and convenience. It also employed the first female flight attendants. They had to be registered nurses and under 30 years of age. (Gilbert pics)

need to be for that configuration of airplane (high-wing, low-wing, biplane), so they aren't of great issue here. If you can trim a Piper Cub, you can trim a tri-motor.

Flying Wings

When perusing the flightline at an FAC contest you will see magnificent attempts by all kinds of modelers of planes of all configurations: Bipes, pusher canards, low-winged jobs and twins will litter the table, ready for scale judging and readily being ogled by other modelers. But nothing draws the eye towards itself in that "will-it-fly?" fashion as will a flying wing.

I believe folks are drawn towards this configuration because it seems to defy convention. Things "are missing" on a flying wing, even though the first airplane hands-on aircraft enthusiasts can put their mitts on is a flying wing! Yes, the lowly folded-paper airplane . . . so there's really nothing new under the sun, is there?

I was enraptured by Don Srull's Lippisch P-13 low winged, push-pull flying wing at the 1986 FAC Nats. I immediately bought both plans (he has built them as 26-in. span for FAC Scale and as 37-in. span for FAC Jumbo Scale). Yet I never built one. But the story doesn't end there.

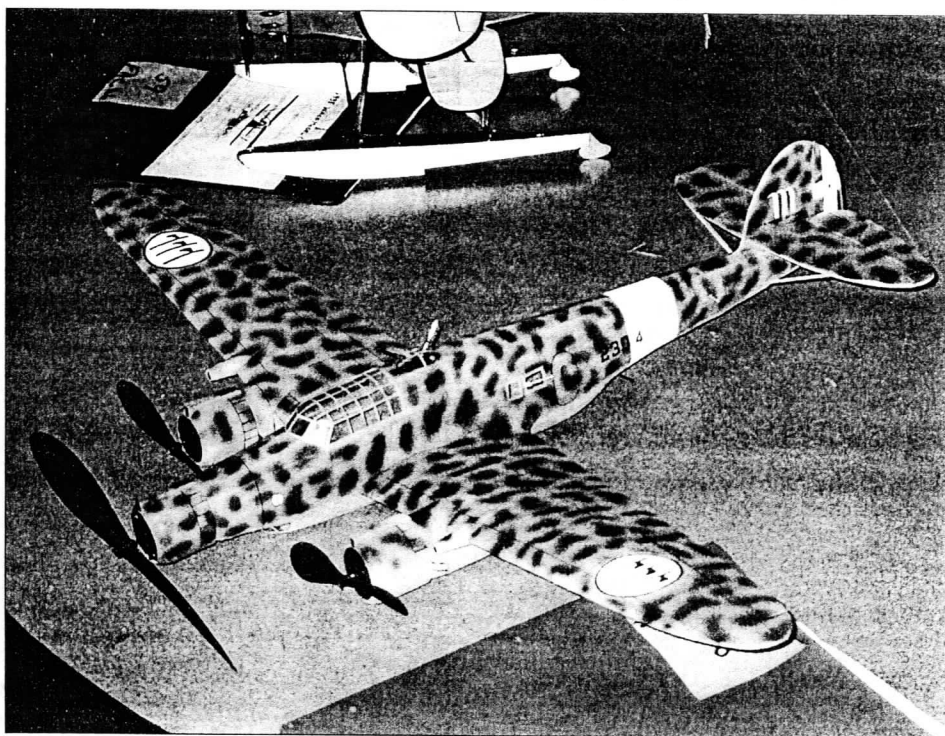
I studied his article on these ships (July 1986 *Model Aviation*) until it was absolutely dog-eared. I even have parts memorized. This is not only because the article broke such ground as a flying-wing treatise, but because there are such nuggets in it for *any* type of rubber scale modeling that they render the article nearly biblical.

Go to the AMA Web site (www.modelaircraft.org) and order it pronto. You won't be sorry. Study that one and any article written by Dave Rees on his Coconut Scale ships and you'll be a successful and winning Rubber Scale mod-

eler, guaranteed.

And while you're at it, order the plan for Barnaby Wainfan's

Cyrano 2 flying wing P-30. It features many solid innovations and a winning pedigree.



Spectacular Cant.Z1007 by Dave Rees (Goldsboro NC). This all-wood tri-engines ship formed the backbone of Regia Aeronautica's medium bomber was also used for reconnaissance and anti-shipping duties. Top speed was 280 mph.



Vance Gilbert's magnificent model of the Cant. Z506, which had a 24-yr career: 12-passenger commercial seaplane; bombing and torpedo duties during WWII; plus reconnaissance, troop and cargo transport. It then flew rescue until 1959.

My experience with scale flying wings speaks to three ships:

- A push-pull Lippisch sport lightplane that flew great under power and fell out of the sky like a leaf in the “glide”;

- A 5-engined (three pushing, two pulling) Lippisch monster “dog” (based on a remote little 3-view that used up so much good 5-lb wood that I used wood out of its rib centers for a smaller project);

- A Northrop YB-49 bomber, successful enough to win Jumbo Scale at the 1987 AMA Nats in Galeville NY (with Don Srull’s help and guidance, I might add). Plans of this beast were finally published in *Maxfax*, the DC Maxecuters’ newsletter.

The 42-in. span YB-49 preferred a howling wind, was stable, and the prop on the rear-most portion of the center nacelle was all but invisible in flight. At 100 feet it was just a chevron-shaped silver glint. Truly impressive.

I wish I could say that this ship was some sort of innovation, but it wasn’t. It really was a plan-view of the real ship with rib sections, washout, and dihedral all being an extrapolation of Don Srull’s Lippisch designs.

The key to a swept-wing flying wing, as I see it, is that the tips act as tail, although Barnaby Wainfan refutes this idea, and hey, who am I to argue with him? That said, all I know is that the combination of;

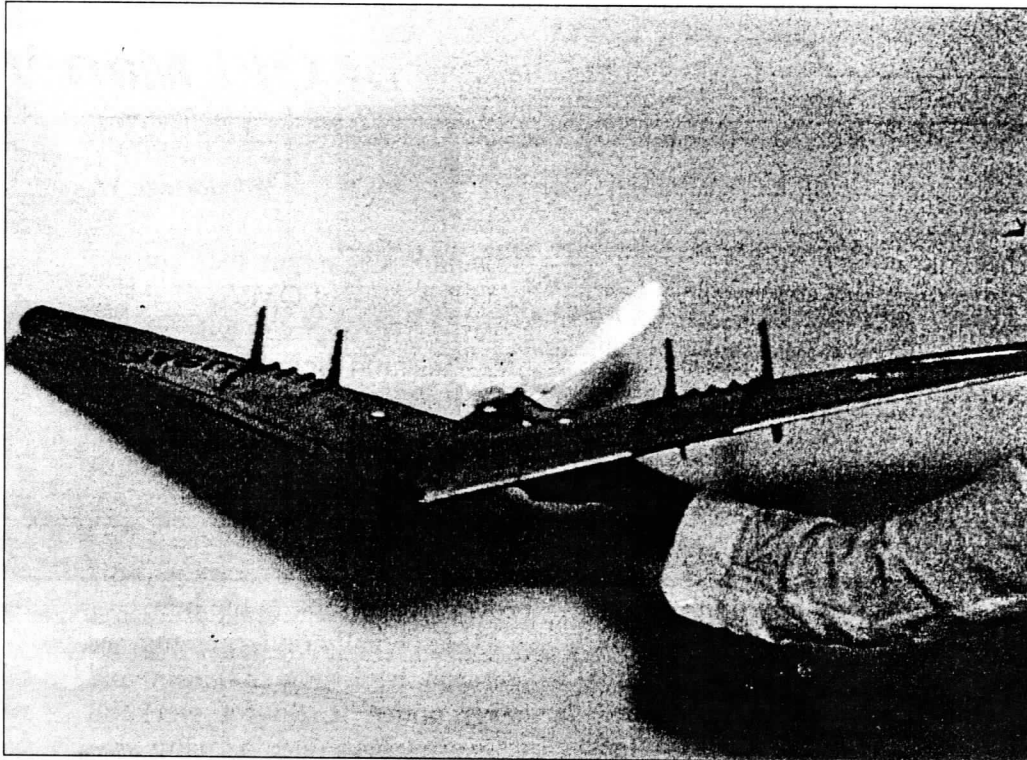
- (1) sweep (sometimes extreme),

- (2) airfoil change—reflex to symmetrical to “upside down” at the tips;

- (3) dihedral (1.5 in. per 36 in span) and finally,

- (4) washout (.75-1.5 in. per 36-in. span) is extremely stabilizing, and Don’s designs employ all of these “stabilizers”.

I still don’t understand why plank flying wings work as well



Vance's YB-49, which he says was a stable model that didn't mind wind at all. The original Northrop YB-49 was a conversion from the B-35. Modifications included installing eight turbojet engines and vertical aft fins.

as they do, but even Mr. Wainfan admits to a certain amount of “loop tendency” with his planks if one is not careful. This tendency is not an issue with the Srull reflex/change-airfoiled Lippisch.

Most impressive at the last FAC Nationals was Tom Nallen II’s Pterodactyl biplane flying wing. I do believe that Tom had at least three of the aforementioned four flying-wing “requirements” (I believe his airfoil was a nearly thinned out Clark Y). It subsequently flew like it was on rails.

Other past great wing performers have been by Al Backstrom, Larry

Peavey and Frank Rowsome. The latter were flying Srull’s Lippisch with 26-in. span. Frank’s Lippisch made me a bridesmaid at the 2005 Non-Nats in Geneseo NY.

These ships are impressive and they fly. All of the wings I can think of also employ cut-away adjustable elevons (for turn tweaking), plus some down and side thrust adjustments.

Again I implore you to go download, purchase, or go rustling through the basement for that July 1986 Lippisch article in *Model Aviation*. I guarantee that your scale modeling will be posi-

**I've messed with Model Airplanes quite a spell;
When someone asks me why, I cannot tell –
I wonder, though, what Balsa Vendors buy
One half so precious as the stuff they sell.**

Joe (Omar) Wagner

Having sat with me through our traditional post-Wawayanda debriefing session recently, Pete O'Tewbe, the self-proclaimed Poet Laureate of the FAC, retired to his customary table at the far rear corner of the Growlery Pub for several days, working himself into a creative frenzy via continuous ingestion of the Guinness, liverslices fried with crustcrumbs, and back issues of *Model Builder* that I supplied upon his command. The end result of his orgy of artistic indulgence is presented here for your pleasure.

--Dave Mitchell

AS FLOWS WAWAYANDA, SO PROSE GROWS, FROWLY (The Cup)

Pete O'Tewbe, PLFAC

If ever could a field of grass
Be called both right and wrong;
If ever was a plain could pen
A sweet and bitter song,
That field is Wawayanda, friends;
Her emerald green attire
Is rent by gashes deep and cruel,
bestocked with muck and mire.
But stay.....
You have not been? You know her not?
Then let me sketch the scene:
She lies amongst the onion fields
and rolling hills serene.
Her scope is fair; her base leg long;
Her clear hypotenuse
Will stoke the flier's fierce desire
to turn his creature loose.
And should the wind be on the wing
In line with all them ditches,
You're like to shout "Almighty Hung!"
And bless your lucky britches.
But when the winds blow 'cross the cuts
(and who's to say they won't?)
You're thrice as like to find you swim
as are to find you don't.
Ask "Stinky" Ernst, who could not fly
Except he take a bath;
Or "12-Pack" Meyers, whose plane preferred
The dark and drunken path...
Or countless others, victims all,
Sad knights of sticks and glue
Who'll scarce refrain from sobbing "aye"
When asked if I am true.

O, feeling dread! to watch the plane,
Return'd from wond'rous flight
That, as it circles to the ground
Drops strangely out of sight!
Consumed by Hades? Rent to dust?
Did'st vanish in the air?
Nay, but became a sodden mass
A gnat in Neptune's hair...

...and there to lie 'til clenched and white,
Its master's hand arrives,
He crossed the field in double time
In hope the bug survives,
Leaping chasms, fleet with fear,
His heart is in his cup
And when he strains to grasp the plane
He tumbles bottoms-up.
Yet does it live? Is not the wing
The same wing as before?
Does not the fuselage, dripping wet,
The motor still hold store?
And is the sun not shining bright,
The tissue but to dry,
And is there any diff'rence to
The casual passer-by?
The answer echoes off the hills
And fills the azure skye,
"YES!" or "NO!" (depending on
which question it supplies),
And by the by, the ditch forgot,
The fliers wind 'em up,
And drink the heady wine that brims
The Wawayanda cup.

THE CLEVELAND FREE FLIGHT SOCIETY

A.M.A. sanctioned Indoor Contest & Record Trials

Saturday, April 5, 2008 Kent State University Fieldhouse
Schedule of events, (AMA & Jetco)

7:30 am, building opens (test flying)

- 8:00 to 11:00, 1. Hand launch glider
2. Standard class catapult glider
3. Unlimited catapult glider
8:30 4. EZB, scoring is the best of 5 officials.
To 5. F1L (1.2 gram EZB)
6:00 6. Limited penny plane
7. Mini-stick, best flight of 5 officials
20 second minimum
9:00 to 3:00 8. 7 gram Bostonian, AMA rules
9:00 to 4:00 9. Jetco R.O.G., CFFS rules

FLYING ACES EVENTS

- 9:00 10. FAC Peanut Scale
To 11. High Wing Cabin Peanut
4:00 12. Golden Age Civil Scale
13. No-Cal Profile Scale, 3 flight total
Minimum weight 6.2 grams without
Motor.
14. Phantom Flash, best 2 of 5 officials
15. WW-II Combat, flown at 12:30
16. WW-II No-Cal Combat, minimum
Weight, 6.2 grams without motor
Flown at 3:30

Please note; Different models must be flown in WW-II No-Cal & No-Cal Profile Scale.

The field house will be open from 4:00 pm until 8:00 pm
For AMA Record Trials.

For your information;

1. All events are JSO combined.
2. Steering of models; as Per AMA rule book.
3. Entry fees, open \$30.00, Junior \$2.00
4. Very important; Yoy must provide your own table and Chairs. No indoor RC flying permitted during the contest and All flyers must have a valid AMA license.

Awards; Prizes will be awarded for 1st place in each event that there are three flyers with official flights. There will also be certificates. There must be 3 official flyers in an event to win a prize or receive a certificate.

Contest Directors: Michael C. Zand
5803 East Ash Rd.
Independence, Ohio 44131
216-524-3480 imzand@hotmail.com

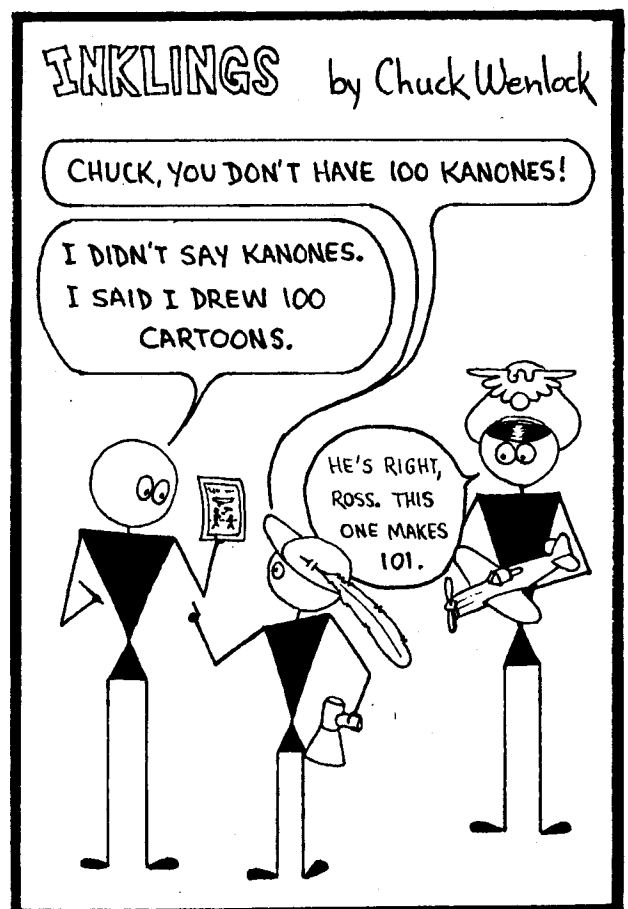
Don Slusarczyk
868 Eaglewood Dr.
Willoughby, Ohio 44094
Don.slusarczyk.com

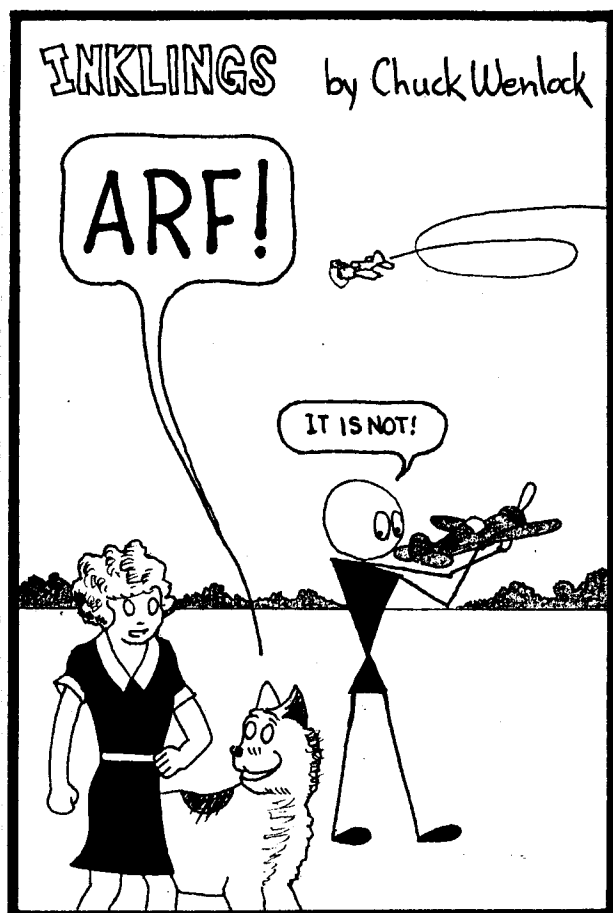
Jetco ROG Rules

1. Build from plan with no structural changes.
2. Any commercial plastic prop may be used.
It may be cut down to 5 1/2 ". Prop may be
Altered by sanding and/or cutting to size.
3. Tissue covering.
4. Model must ROG.
5. Unlimited attempts. Official flight is 20 sec.
2 attempts equal 1 official. Best of 5 flights.
An attempt is an ROG.
6. Any prop bearing or prop hanger may be used.
7. Center section of wing may be flat.
8. Minimum weight of model without rubber is
3.5 grams.
9. No camber (baggy tissue).

Phantom Flash Rules

1. Model must be built according to plan. Wheels
Must turn and any type of prop may be used.
2. Markings must be on model, either cut from plan
Or similar paper.
3. Rubber band to hold wing is optional, but model
Must weigh a minimum of 3.5 grams without motor.
Scoring, total of 2 qualifying flights (20 sec. official)





FAC NEWSLETTERS BACK ISSUES. FAC-GHQ, 3301 CINDY LN., ERIE, PA. 16506 \$3.00 per issue, postpaid

189-115	Sept./Oct.	1999
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217-143	May/June	2004
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235-161	May/June	2007
236-162	July/Aug.	2007
237-163	Sept./Oct.	2007
238-164	Nov./Dec.	2007

Piper Tri-Pacer Specification

Span 29 ft. 3 in.
Length 20 ft. 9 in.
Height 8 ft. 4 in.
Weight
Empty 1,100 lb.
Loaded 2,000 lb.

Piper PA-22 Tri-Pacer

Power plant: One 150-h.p. or 160-h.p. Lycoming engine.
Maximum speed (150 h.p.) 139 m.p.h., (160 h.p.) 141 m.p.h.
Ceiling 15,000 ft.
Range 500 miles plus.
Rate of climb 725 ft./min.
Wing loading 13.5 lb./sq. ft.

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ONE OF A KIND

by
Fran Ptaszkiewicz

A true one of a kind design, this very unique circular wing aircraft was the product of a model builder by the name of Arthur Sack, a Bavarian farmer and most enthusiastic model builder, who beginning in 1940 and working alone in his private workshop, developed an unusual type of airplane.

After building, flying and testing this configuration for over six years in model form, Herr Sack then proceeded to construct a full sized man-carrying version he designated AS-6. This following his last test model the AS-5 which had a wingspan of 5.0 feet. Sadly I was unable to locate any information on what motive power he used in all his model attempts prior to the building of his full scale project. Best guess might be rubber or possibly a gas engine.

The AS-6 was of all wooden construction and had a wingspan of 16ft-4in with a total wing area of 128.75 sq. ft.. It was a single place airplane and the fuselage length was 21ft-0in. An Argus 10C-3 engine having 240 hp, driving a two bladed fixed pitch propeller provided the power. Flying surfaces consisted of ailerons, a fin and rudder which were fuselage mounted with the stabilizer-elevator being mounted to the fin. The fixed landing gear as well as the cockpit canopy appear to have been possibly salvaged from a Messerschmitt Bf-109. A tailskid rather than a tail wheel was also used.

During the completion of his AS-6, Herr Sack approached the personnel of a rocket fighter group that was equipped with the Messerschmitt Me.163 "Komet" aircraft. This fighter unit, I/JG 400 was located at Luftwaffe base "Brandis" near the city of Leipzig, Germany. There he asked them for assistance in carrying out testing of his design. They agreed. Ground and flight testing began in April 1944. Initial test's proved unsuccessful and although Sack attempted to improve his airplane, the Luftwaffe at that point were more involved with their rocket fighter in the defense of the homeland and were no longer interested in continuing the project.

Interesting point here is the Sack AS-6 and the Me.163 "Komet" were both of a flying wing configuration.

I have not been able to locate any performance figures relative to the type of testing carried out and what the short falls in the design may have been.

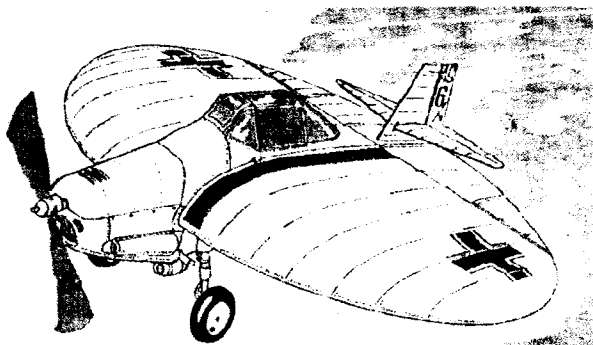
Sadly this airplane was given the unlikely name of the "Fliegende Bierdeckel" ("Flying Beertray") by some of the less than enthusiastic Luftwaffe personnel.

With the Russian troops closing in on the fighter base at Brandis, the field had to be abandoned and as a result the AS-6 was destroyed during the retreat. A rather sad and untimely end for this design.

It was unfortunate that Arthur Sack was unable to see the fruition of his design, created by his many years of continuous model building and test flying.

Who knows how close his full scale aircraft came to being a successful project. With not too much documentation available, it is difficult to envision what role this unusual airplane would have played in the Luftwaffes operations had there been more test work and time available.

I have to thank Bill Dahlgren of Glenview, Illinois for providing me with a good 3-view drawing which led me to do some research and resulted in the completion of this story of the "Sack AS-6".



CACTUS SQUADRON WINTER QUEST 2008

CONTEST DIRECTOR - BOB SCHLOSBERG (480-941-8778)
ALTERNATE - JOE MCGUIRE (480-924-4313)

SUNDAY APRIL 20
AT THE CACTUS SQUADRON SKYLINE FIELD
08:00 - 13:00

FAC COMPETITION RULES APPLY
CONSULT FLYING ACES RULE BOOK FOR COMPLETE RULES

THREE NON-JUDGED (3 FLIGHT) TIMED EVENTS:

EMBRYO ENDURANCE
FAC OLDTIMER RUBBER
GOLDEN AGE CIVIL SCALE **

TWO MASS LAUNCH EVENTS

MODERN CIVIL SCALE **
GOLDEN AGE CIVIL SCALE **

(**REMINDER - FOR THE CIVIL SCALE EVENTS THE 45 MIN. SCALE POINT
CRITERIA APPLIES)

TROPHIES WILL BE AWARDED FOR 1ST & 2ND PLACES
NO AMA LICENSE REQUIRED!

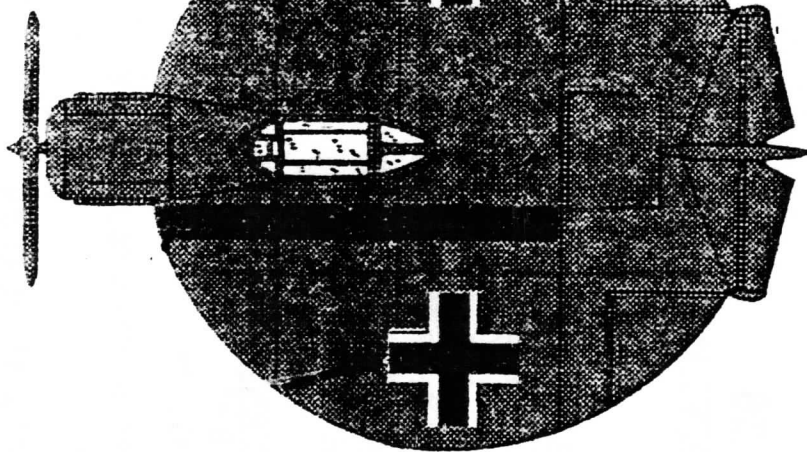
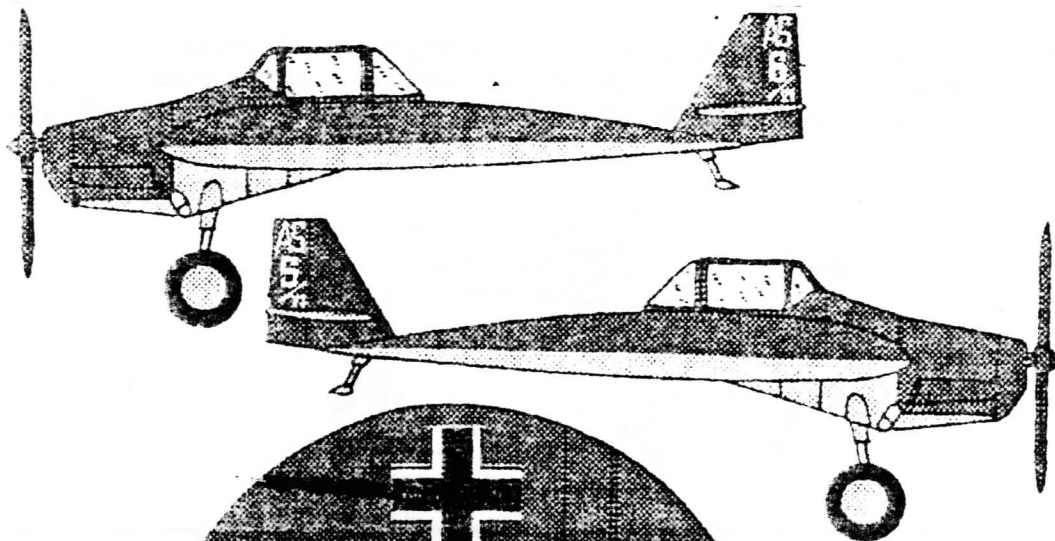
ENTRY FEES:

\$5.00 PER EVENT

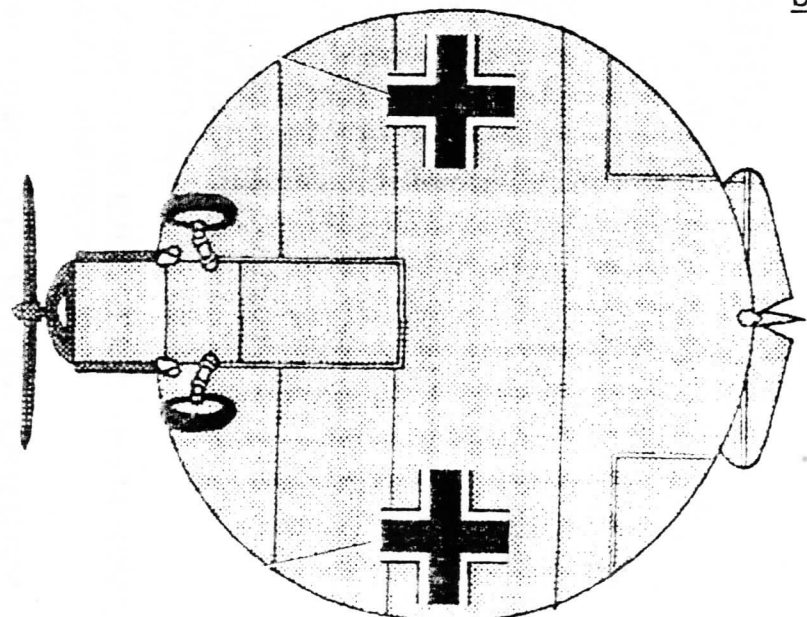
MAX ENTRY FEE - \$ 10.00

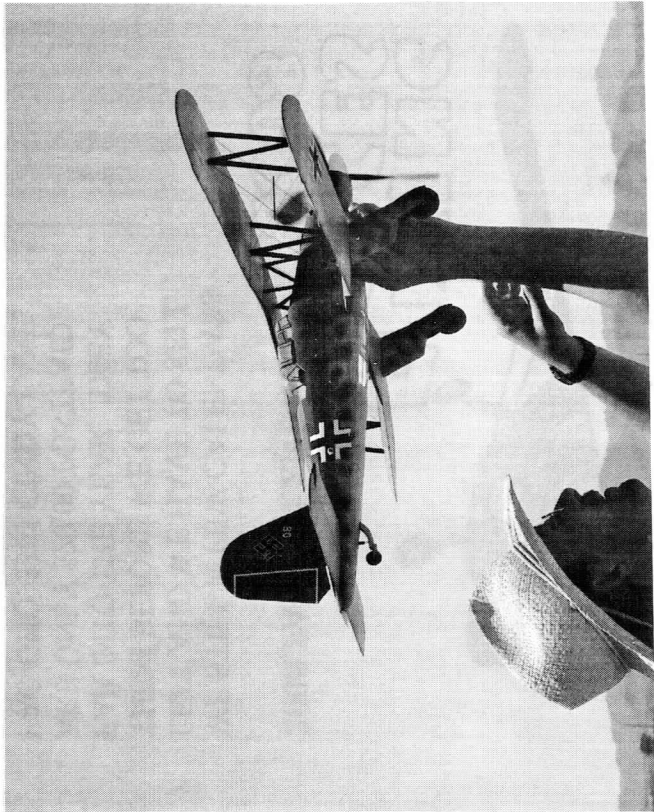
ALTERNATE CONTACTS:

JOE MCGUIRE 480-924-4313
RALPH HUDSON 602-275-7310

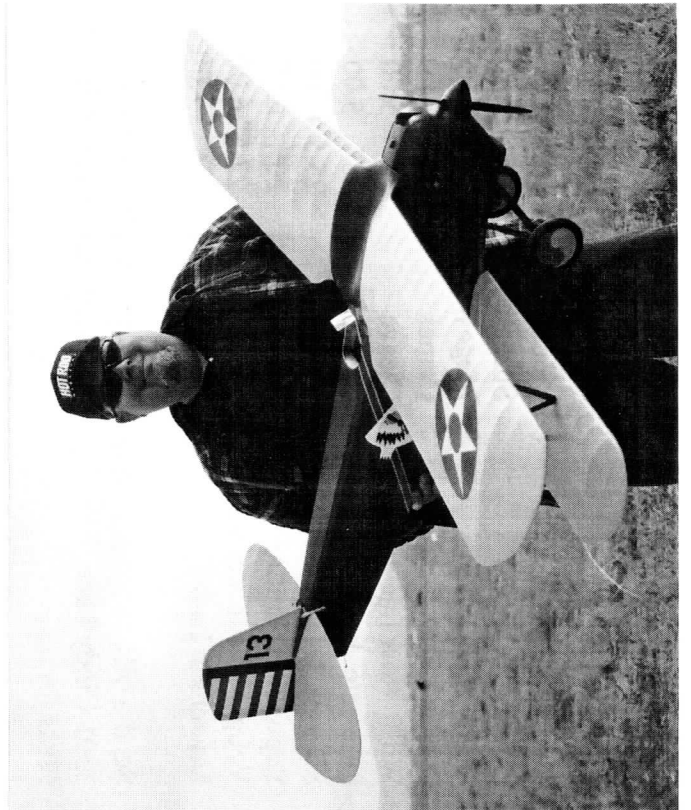


SACK AS-6





Photos from the Southwest FAC Regionals by John Oldenkamp. Top; Bob Wetherell with a Waco UEC, diesel power, finished 3rd. Feisler 16 by Rich Adams, 2nd in Jumbo. Bottom; Charlie Hill and his Junkers from a Rocky Top kit, another view of Kevin Sherman and his huge Berliner Joyce P-16 for Power Scale.



CAMCO KITS

CAMCO'S LATEST KIT IS NOW AVAILABLE; THE PITCAIRN FLEETWING, 16" SPAN, DESIGNED BY DAVE STOTT, \$15.00. ALSO AVAILABLE; REARWIN CLOUDSTER, \$14.00, HOLLYWOOD HAMILTON, \$14.00 AND JIMMIE ALLEN SPECIAL, \$14.00. SHIPPING \$7.25. CAMCO, 3301 CINDY LANE, ERIE, PA. 16506

COMET KIT POSTAL

THE COMET KIT/PLAN POSTAL CONTEST IS NOW IN PROGRESS. FLY YOUR COMET SCALE MODELS, AS MANY AS YOU WISH, AND AS MANY MODELS AS YOU WISH. EVERY TIME YOU BETTER A SCORE WITH A PARTICULAR MODEL, SEND IT IN TO; FAC-GHQ, 3301 CINDY LN., ERIE, PA. CONTEST TIMES COUNT TOO. CONTESTS ENDS ON SEPT. 30, 2008. ENTRIES POSTMARKED AFTER OCT. 2, 2008 WILL NOT BE ACCEPTED.

POSTAL CONTEST

WE ARE STARTING A POSTAL CONTEST AS YOU READ THIS. THERE WILL BE 4 DIVISIONS; INDOOR PEANUT, OUTDOOR PEANUT, INDOOR NO-CAL, OUTDOOR NO-CAL. FLY YOUR MODEL AND SEND YOUR TIMES TO; FAC-GHQ, 3301 CINDY LANE, ERIE, PA. 16506. CONTEST TIMES ALSO COUNT. WHENEVER YOU BETTER A TIME WITH A PARTICULAR MODEL SEND IN THE TIME. ENTER AS MANY MODELS AND AS MANY TIMES AS YOU WANT. CONTEST CLOSES ON APRIL 30, 2008. ENTRIES POSTMARKED AFTER MAY 1, 2008 WILL NOT BE ACCEPTED.

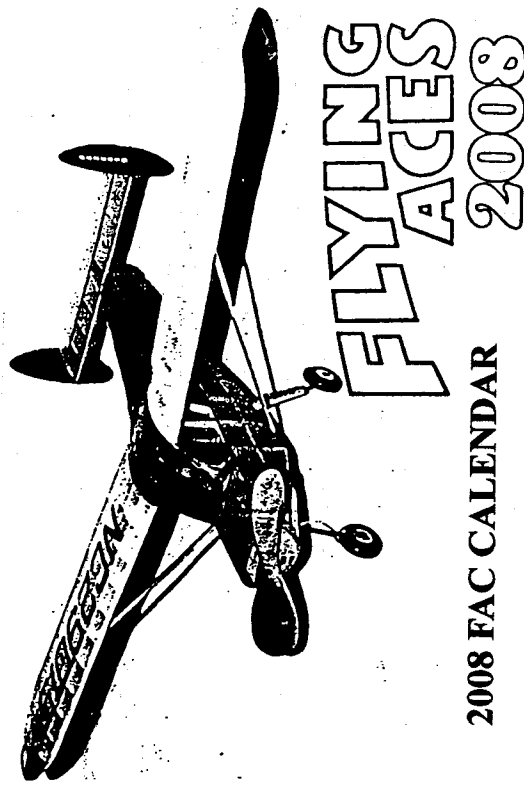
WANTED; STEVE KANYUSIK,
4067 BROOKFIELD BLVD.,
STERLING HTS., MI. IS LOOKING
FOR PLANS OF THE KEYSTONE
B-5 BOMBER. WOULD LIKE TO
HAVE A PLAN IN THE 20" TO 30"
WINGSPAN IF POSSIBLE.



NEW PLANS AVAILABLE

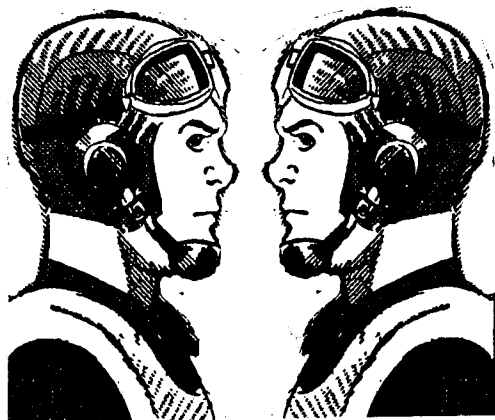
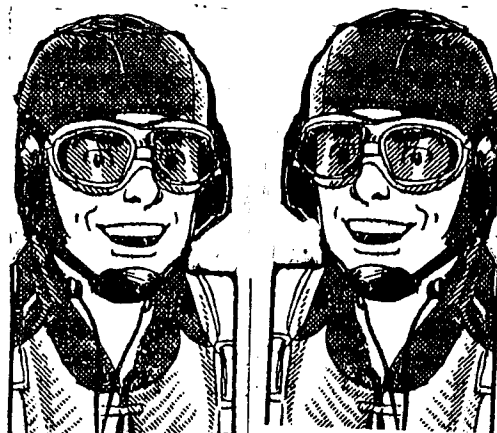
Stout Outdoor O.T.R.	Model Aircraft	30"	\$5.00
Fairchild "24"	Sturiale	26"	5.00
Curtiss Hawk P-6E	Megow	20"	5.00
Sparky	Comet	32"	6.00
Wolf (tow line glider)	Cleave	30"	5.00
Interstate L-6	Cleave	28"	5.00
Swoose (old time rubber)	Cleave	25.5	5.00
Sopwith 1/2 Strutter	Tom Nallen I	20"	6.00
Vought Vindicator SB2U	Tom Nallen I	22.5"	6.00
Lavochkin La-11	Tom Nallen I	22"	7.00

Send a self addressed stamped envelope to; FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506 for a complete list of Plans for sale.



2008 FAC CALENDAR

WE STILL A FEW CALENDARS LEFT AND WE HAVE TO SELL THEM BEFORE WE GET TOO FAR INTO THE YEAR. THEY ARE ONLY \$20.00 POSTPAID. FAC-GHQ, 3301 CINDY LANE, ERIE, PA. 16506.



INKLINGS

by Chuck Wenlock

GREAT IDEA TO BRING AN UMBRELLA, HONEY.

CAPITAL AREA FREE FLIGHT ASSOCIATION & KUDZU FLYING CORPS present Spring 2008 Contest AMA - FAC

Saturday, May 17, 9AM - 5PM
Carolina Sod Farm (old field), Raeford, NC

Mass Launch Events:

- 10:30AM WWI Biplanes
- 11:30AM Combined Racers
- 12:30PM WW2 Fighters
- 1:30PM Modern Civil Scale
- 2:30PM Navy Airplane (any country, any era)

Timed Events:

- AMA - Hand Launched Glider
- AMA - Catapult Glider
- AMA - P-30 Rubber
- AMA - Towline Glider A1/F1H (100 Foot Towline)
- FAC - Jet Catapult Glider
- Unlimited Jet Catapult
- FAC - Embryo
- FAC - Golden Age
- FAC - Dime Scale
- Peanut
- Junior Ready to Fly - No Fee (Plane and rubber provided by CD)

Special Event:

- Dave Rees Vega - Mass launch if we have 5 or more entries
Less than 5 entries will be flown with the Golden Age timed event

Entry Fee - \$5.00

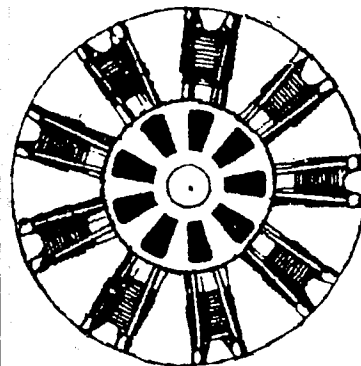
CD: John Diebolt (919) 467-1025 jdiebolt@mindspring.com
526 Heater Drive, Cary, NC 27511
Maps to flying field available upon request

Awards to Third Place

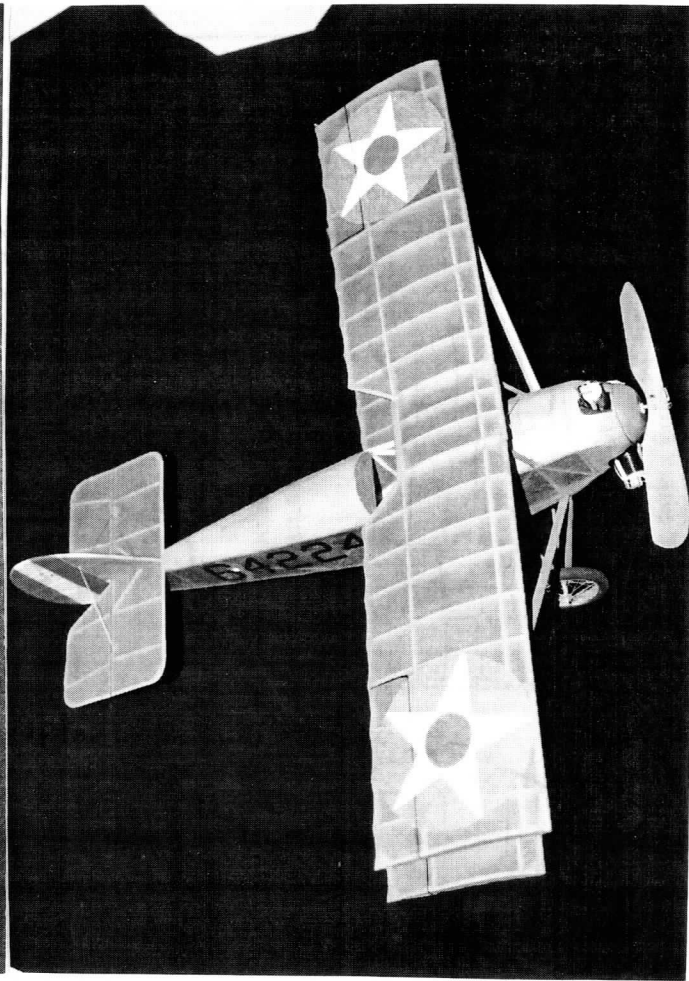
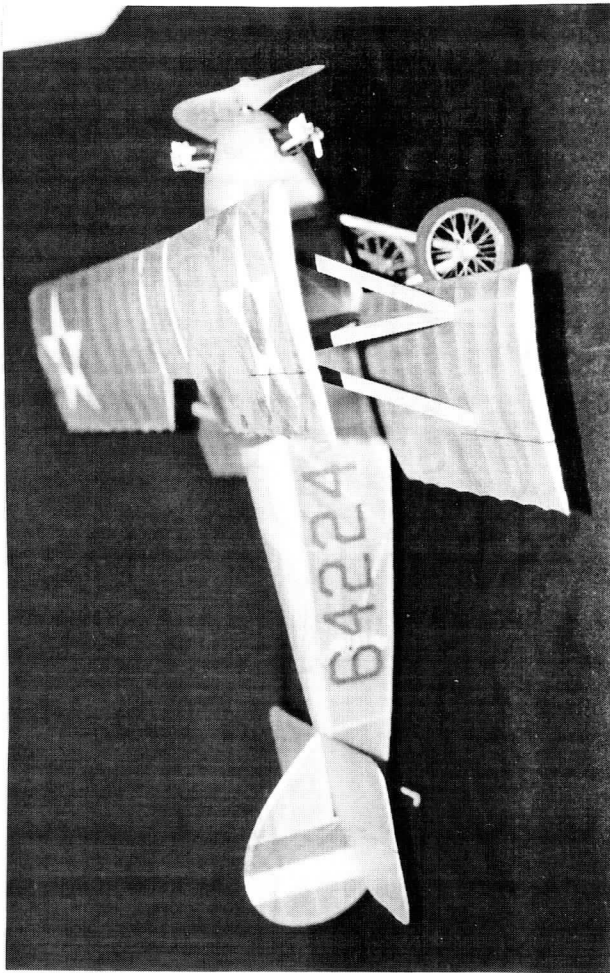
HERE ARE THE ANSWERS TO THE I.D. CONTEST IN THE LAST ISSUE

Here we have the answers and the winner of last month's I.D. contest. This contest came right out of an old issue of our favorite magazine of old, "Flying Aces". The answers were copied right from the magazine. We had only two entries and the winner was Frank Beatty from Granite City, IL. Frank was wrong on only two of the aircraft. The other entry was from Ed McQuaid from West Reading, Pa. Because there were only two entries we decided to give them both a prize for their efforts. Each will receive a copy of an old "Flying Aces" magazine.

1. Boeing Monomail—Hornet engine (Pratt & Whitney).
2. DeHaviland 5 (war-time)—LeRhône 110 h. p. engine.
3. Curtiss 01G (Falcon)—Prestone Conqueror engine.
4. Handley-Page Hannibal—Four Bristol "Jupiter" 450-500 h. p. engines.
5. Curtiss 02C-1 (Hell-Diver)—Wasp engine (P. & W.) 500 h. p. engines.
6. Dewoitine D.33—Hispano-Suiza 650 h. p. engine.
7. Great Lakes Sport Trainer—Cirrus 90 h. p. engine.
8. Fokker XO-27 Observation—Two Prestone Conquerors.
9. Consolidated Fleet Trainer—Kinner 125 h.p. engine.
10. Curtiss AT-5—Wright J-5 220 h. p. engine.
11. Fokker D. VII—Mercedes 180-220 h. p. engine.
12. Bristol Bulldog—Jupiter engine.
13. General Mailplane—Wasp engine.
14. DeHaviland Moth—Gypsy 90 h. p. engine.
15. Barling Bomber—Six Libertys, 400-450 h. p. each.



Here are some more engines from Jake Larson



Two photos by John Blair of his Sperry Messenger.
John's plan is in this issue.



Judges at work at the 2007 FAC Non-Nats.
Left to right; Jack Moses, Fred Wunsche, Fred Gregg,
Chris Starleaf, Pres Bruning and Fran Ptaszkiewicz.

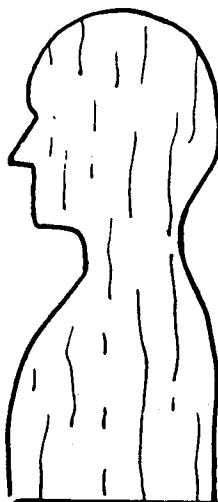
Bob Clemens

CARVE YOURSELF A Balsa Pilot

You don't have to be a sculptor to use this simple six-step formula to achieve realistic looking pilots. And...you'll get brownie points from scale judges!

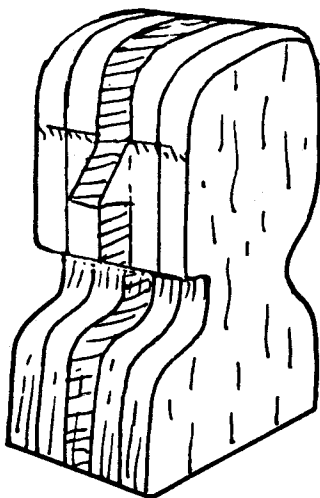
STEP 1.

Cut this center template out of 1/4" or 1/8" sheet balsa or scrap. NOTE: Only this CENTER section has the "NOSE".



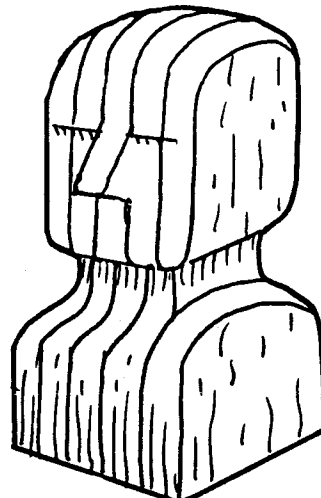
STEP 2.

All other laminates must conform to center shape. Start sanding to match.



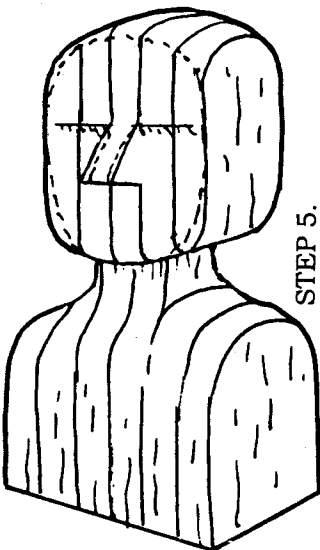
STEP 3.

Cut underside of pilot head to begin to approximate neck width.



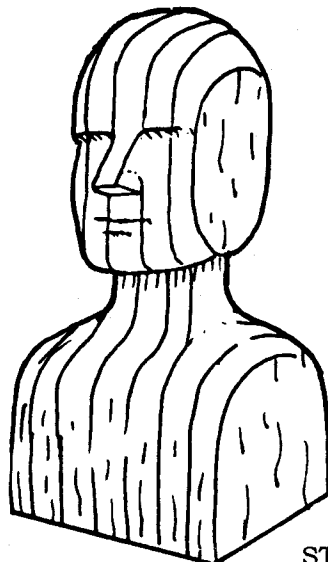
STEP 4.

Using finished pilot in Step (6) as a guide draw outline of face and head on flat face of (4).

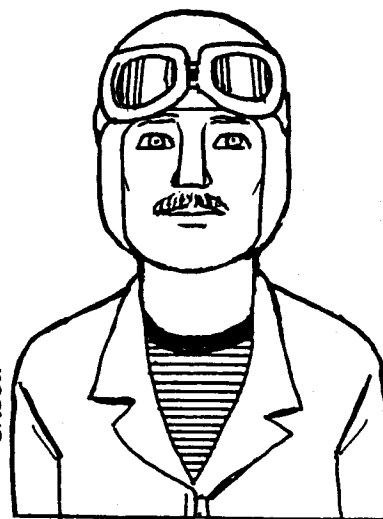


STEP 5.

Continue sanding to finish head, neck and shoulders. Important. Add laminates to achieve full shoulder width.

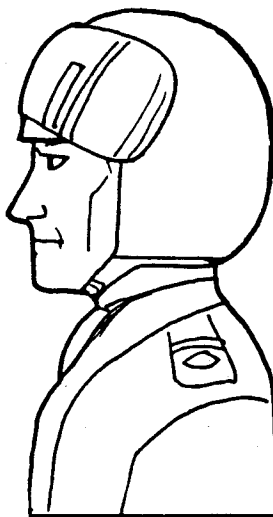


match drawing in Step (6). Thin "Nose" slightly if using 1/4" sheet.

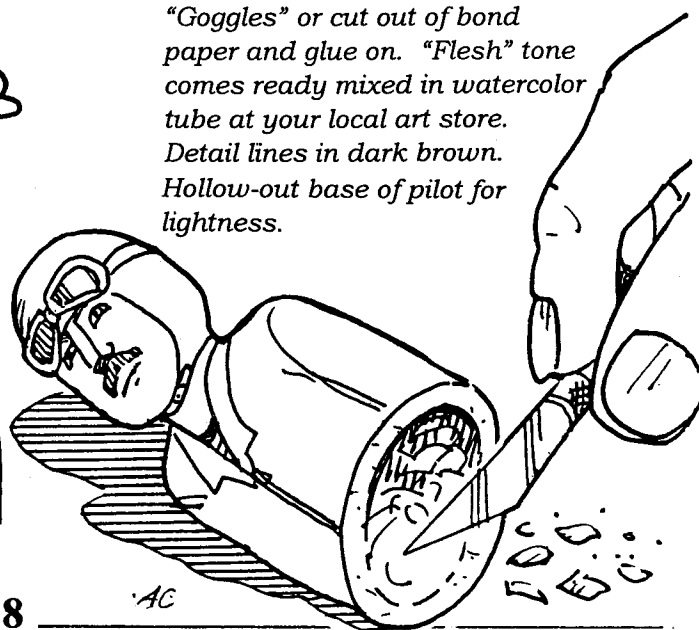


STEP 6.

Paint finished pilot. Paint on "Goggles" or cut out of bond paper and glue on. "Flesh" tone comes ready mixed in watercolor tube at your local art store. Detail lines in dark brown. Hollow-out base of pilot for lightness.



Use same formula for Jet Pilot or antique flyer.



Enlarge or reduce these drawings for different scale pilots. You can substitute blue foam for balsa

PUBLISHED WITH THE PERMISSION OF A.C. ANSON (AIR WARS)

OF MODEL PLANES AND LITTLE BOYS

My eight year old looked up at me
And heaved a heavy sigh...
"What seems to be the trouble, son?"
I asked the little guy.

"I've got nothing to do," he said;
"It's too hot for playing ball;
I've won all my computer games,
And T.V. bores me most of all."

"I've got an idea, buddy boy;
Let's build a model plane."
"Gee dad, that sounds like fun," he said;
"Something different for a change."

So we drove to the hobby shop
And he picked out a kit...
He liked the picture on the box;
Couldn't wait to open it.

When we got home and looked inside,
He thought we'd been short changed...
Just some sticks and tissue there;
No sign of the aero-plane.

"This don't look like the picture, dad;
Where are the wings and tail?"
"We have to build those things," I said;
But not with hammer and nail.

I taped down the construction plan;
Got the hobby knife and glue.
We'll have to measure carefully,
Cut, sand, and cement too.

For nearly a month of weekends,
Building the airplane was our lot.
"When will it be finished, dad?"
Instant gratification?---- NOT!

He had to learn to read the plan,
And perform each step just right.
And, when at last, the frame was done
It checked out true and light.

Then came the tissue covering...
(The trickiest job, no doubt)
It must be stuck down carefully,
Then shrink the wrinkles out.

At last our plane was ready,
And we installed the rubber band.
We took it to an open field
And wound it up by hand.

You've done a good job building, son,
But to be sure and launch it right,
You'd best let me be the one
To send it up on this first flight.

That first flight ended with a stall,
After curving to the right.
Nose weight and thrust adjustment
Then straightened out the flight.

"Now that it's adjusted," he said,
With a twinkle in his eye,
"Didn't I help to build it, dad?
When is it my turn to try?"

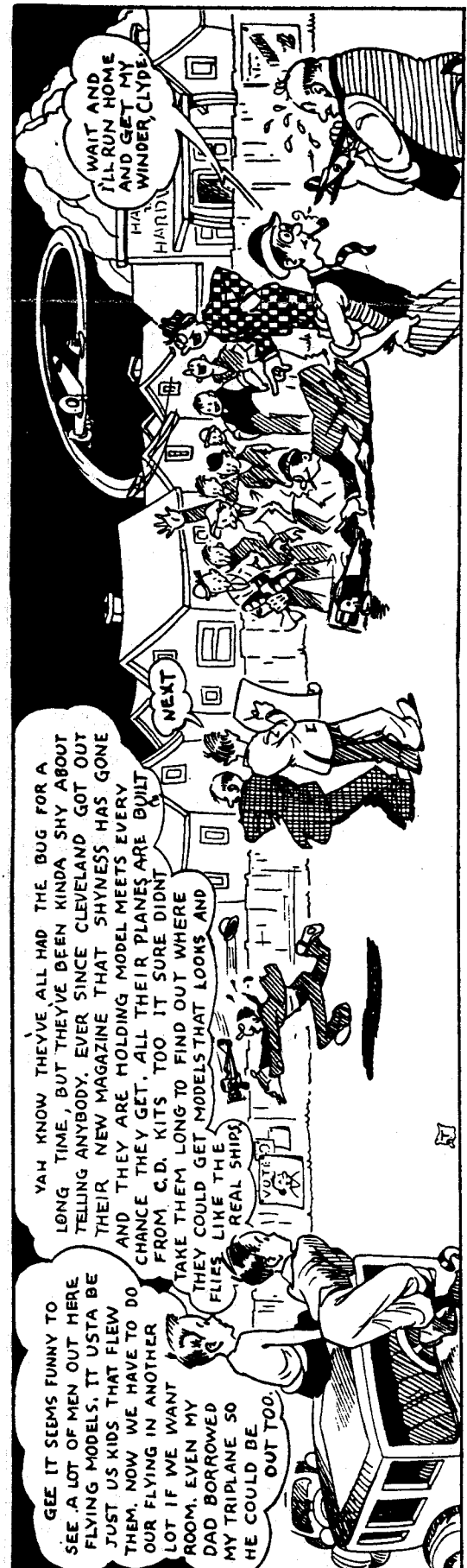
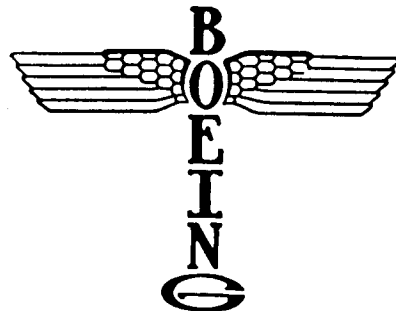
I looked down at my little lad,
Thinking of the hours spent
In loving cooperation;
And what this time has meant.

He's learned the value of a plan;
Of instructions followed through;
Satisfaction of a job well done;
And of having patience too...

Then, as he faced the gentle breeze
And, with a little push, let fly;
We watched with pride our little plane
Climb into the clear blue sky...

For all the dads who love airplanes...
And all their little boys

BY C. Alan Reggio



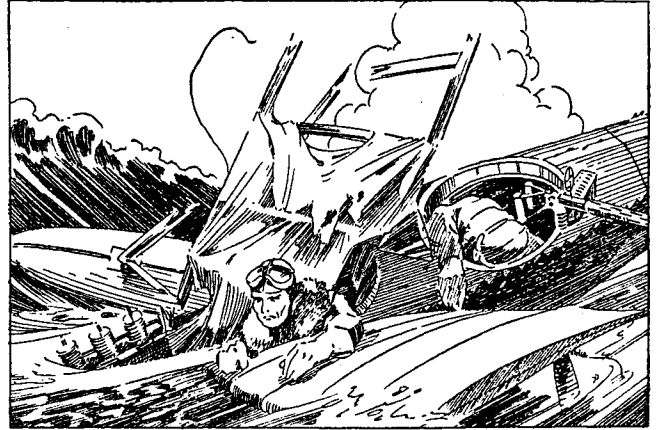
They Had What It Takes

XV—MAJOR ALEXANDER de SEVERSKY—MASTER DESIGNER

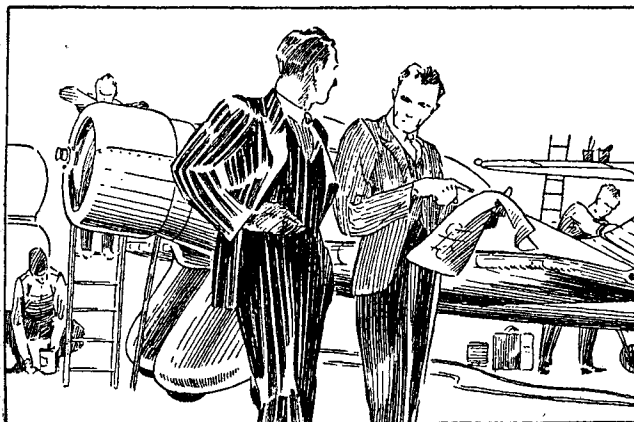
By ALDEN McWILLIAMS



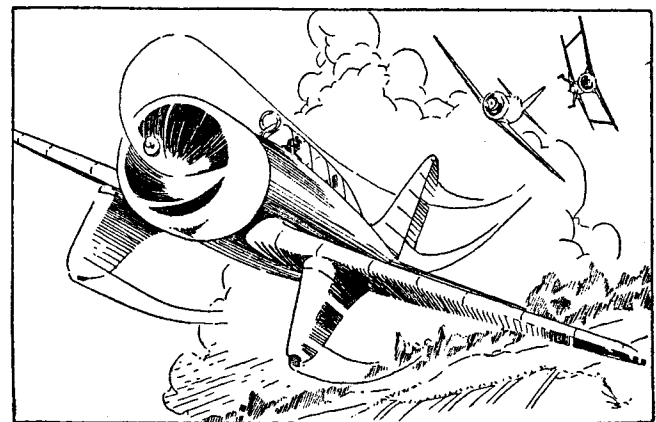
1—Alexander Procofieff de Seversky—called "Sascha" by his friends—was born at Tiflis, Russia, in June 1894. He enjoyed a good education. Then when the War broke out, he joined the Russian Naval Air Service and was stationed in the Baltic Sea area. Here, he developed a practical pontoon-ski undercarriage and won immediate recognition from his government.



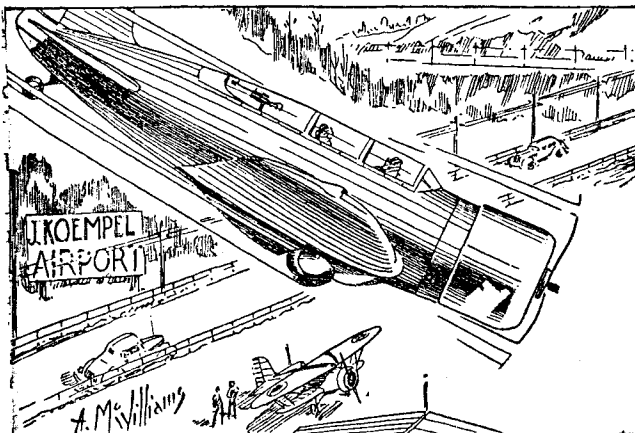
2—But Fate was not smiling. For Seversky was shot down on his first battle flight—a bombing raid over the Gulf of Riga. His observer was killed, and he himself lost his right leg in the crash. Nevertheless, Seversky came through this blow undaunted. Fitted with an artificial limb, he took to the air again and accounted for 13 enemy ships before Russia quit the War.



3—When a U.S.-bound aero mission to which he had been named was nipped in the bud by the Revolution, Seversky came on to America anyway, became a citizen in '27, and a Reserve Corps Major in '28. Then, in '31, the brilliant Russian formed the Seversky Aircraft Corporation at Farmingdale, L.I., and took up the multiple duties of president, designer, and test pilot.



4—First of the firm's jobs was the Demonstrator, an amphibian featuring a wheeled-pontoon gear. It proved its mettle by chalking up a 230-m.p.h. speed record, whereupon Seversky revamped it into landplane form and entered it in a military competition. Swivel-chair experts greeted this move with ridicule—but the sleek ship quickly won a 35-plane Army contract!



5—That plane became the Army's renowned BT-8 basic trainer. Then another Seversky—the striking P-35 pursuit—reeled off 315 m.p.h., "clicked" in similar fashion, and brought an additional government contract for 85 ships. At present, the famed designer is demonstrating still another job in South America. This is his new 300-m.p.h., 7-gun, 2-place "convoy fighter."



6—Since the day, years ago, when the Czar presented him with a gold sword in honor of his War achievements, Seversky has won ever-increasing repute. He is celebrated not only as one of the world's half dozen top-flight aircraft designers but also for his invention of the bomb sight used by the U.S. and Britain and for his development of a device for mid-air refueling.

BUILDING TIPS

From Bruce Conway; To transfer paper patterns to wood, or copying balsa parts sheets from collectable old kits. First copy to black line on white paper. Use white out to clean up the copy. Next copy in reverse image on heat transfer (t-shirt transfer) paper. Finally, place over your balsa wood and with iron on hotter'n'hell, iron on to the balsa wood. Pull the paper up as you go. Takes a little practice but can be fine enough to help in restoring old kits as well.

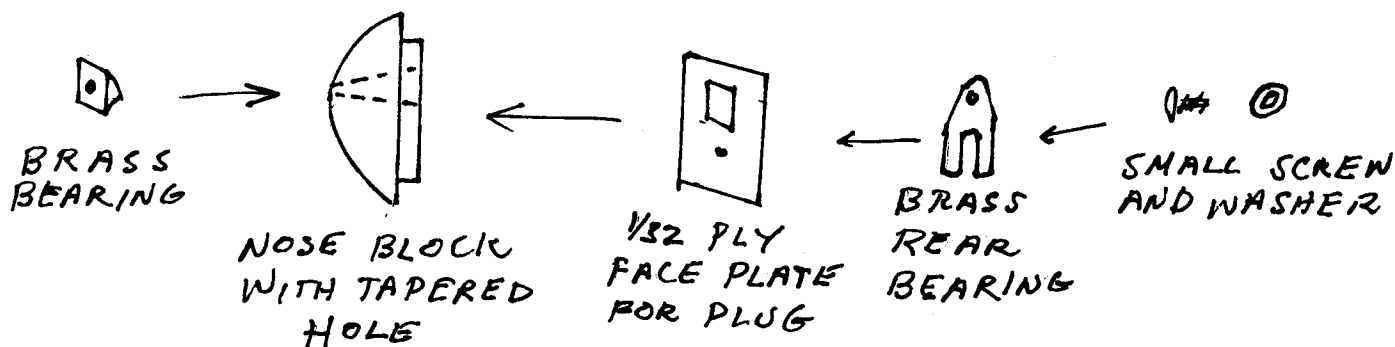
"Punch out" parts falling out in your old kits? Sheet wood splitting? Temporarily tape small tabs--the face side, then spray glue a fine white tissue to the back side of parts sheet. Will hold forever. This is also a good way of adding strength and avoid splitting small parts when cutting them out for building.

From Chris Junker; I always copy print wood before cutting out the pieces. They are then mirror printed. The mirror printed pattern is then laid on the balsa with copy side against the balsa. I then wipe through the copy paper with a paper towel soaked in acetone which gives a clear print onto the balsa.

From Larry Aycock; This is a poor man's method of making decals, I use copier paper cut into 3" X 5" squares or larger depending on need. Tape each corner down to cardboard that has been covered with Saran Wrap. I then use thinned white Elmer's glue-all. (straight from the bottle is too thick) I mix it with water until I have a consistency that is easily brushed, I use a 1/2 " artist brush. I coat the paper with one coat of glue and let dry using a fan for faster drying. After the glue on the paper has thoroughly dried, I then begin to spray several very light coats of pigment paint over the glue surface. (too much paint, too quick, tends to soak through the glue and holds it to the paper much longer) After the paint has dried it can be cut into numbers and letters. It takes about 3 to 5 minutes in the water for the painted strip to turn loose from the paper.

From John Blair;

AN INFINITELY ADJUSTABLE THRUST LINE



SAW THIS IN A MAGAZINE MANY YEARS AGO. NO MORE UNSIGHTLY WOOD SHIMS! "WORKING" NOSE BALLAST!

I've used this for a long time. It makes "fine trimming" really easy. On a nice scale model, you can make an attractive nose block and not worry about "messing it up" with shims.

FLYING ACES NATS DAILY EVENT SCHEDULE

Thursday July 17

FAC Scale
Jumbo Scale
Giant Scale
Pioneer Scale
Power Scale
Fiction Flyer

Friday July 18

FAC Scale
Jumbo Scale
Giant Scale
Pioneer Scale
Power Scale
Fiction Flyer

Saturday July 19

FAC Scale
Jumbo Scale
Giant Scale
Pioneer Scale
Power Scale
Fiction Flyer

Events listed for all 3 days can use all 3 days to get in their 3 flights. We will use the 3 flight average of your flights. If you fly 1, 2, or 3 flights your total flight score will be divided by 3 for your flight score.

Hi-Wing Peanut
Shell Speed Dash (Greve)
Shell Speed Dash (Thompson)
World War One Dogfight*
No. Am. AT-6 Race*
Old Time Stick
Embryo R.O.G.
Jimmie Allen R.O.G.
Modern Military
Golden Age Civil Scale
Contra-Prop Scale (rubber)

FAC Peanut
Thompson Race*
B.L.U.R. Race
World War Two Combat*
Guillows Fairchild 24*
Old Time Rubber R.O.G.
Dime Scale
Rapier Jet Scale
Golden Age Military
Modern Civil Scale
No-Cal Scale, depends on the weather what day we fly.

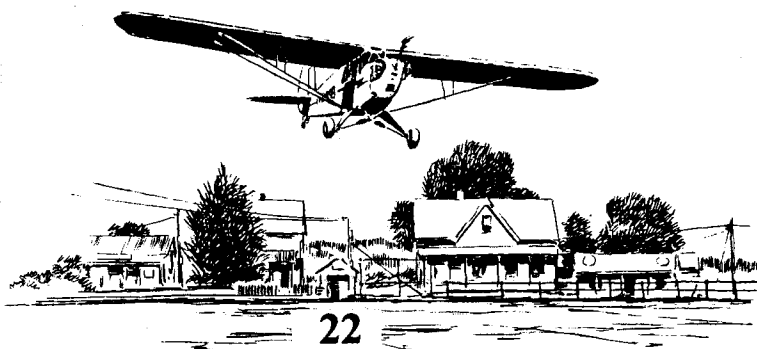
GHQ Peanut
Greve Race*
O.T. Gas Replica
Goodyear Race*
Military Low Wing Trainer*
2 Bit + 1 O.T. Rubber R.O.G.
Old Time Sparky R.O.G.
Jet Scale (rubber power)
Old Time Kit/Plan Scale
Aerol Race

Events marked with an asterisk are mass launch events. The Greve Shell Speed Dash, Greve Race, World War Two and the North American AT-6 events will use the 15% rubber rule. The No. Am. AT-6 models must also use a 7 inch Peck plastic prop.

The following models must fly in their own events; Dime scale, Rapier Jet scale, Rubber Jet scale and Pioneer scale with this one exception, Pioneer Dime models must fly in the Pioneer scale event!

Plans must be presented in the Fairchild 24, Dime Scale, Two Bit + 1 Old Time Rubber and the FAC O.T. Kit/Plan events. These events will be judged on the field. It is also your responsibility to get your Embryo models judged on the field. Golden Age Civil & Golden Age Military, Modern Civil & Modern Military models will be judged on the field after their first flight. Bring your documentation!

Scale judging will commence at approximately 2:00 pm on Wednesday July 16th at the Quality Inn. This includes the Jumbo & Giant models as well. No one admitted to the judging room before 2:00 pm. Vendors may set up after 12:00 pm.



*** * Blockage and Drag * ***
Mumbo Jumbo # 133 by the Glue Guru

In choosing a prototype for scale modeling we feel uneasy about the choice between draggy configurations. Obviously anything encumbered by radiators, bombs, guns, fuel tanks, etc. will provide extra drag serving to hold down endurance. At issue is: how much? Will that extra bit of blockage ruin everything?

Good tests in this area are rare. NACA meant well, but their basic output of data was aimed at full scale designers, and not really applicable to our needs. One series of truly useful tests was run by MIT back in the days of the Great War [*FLIGHT*; Sept. 13, 1917; p.946]. Here wind tunnel engineer Alexander Klemin was interested in the effect of blockage on wing performance, as given by the resulting L/D ratio.

This ratio describes the drop in altitude per unit of horizontal traverse. For example, if in glide, the wing altitude drops one foot for every ten feet of horizontal movement, the L/D is ten; if half a foot of drop for every ten feet of motion, the L/D is twenty and so on. For most of the wings we use, twenty is a very respectable, desirable number.

For test purposes, he used a rectangular 18 inch span, 3 inch chord size wing, carved to a section rather like the flat bottomed Clark-Y that most of us use. To this he added a high drag block, simulating a radiator, some 2 inches long and 3/8 inch square. At all times it was placed against the flow, with its long dimension parallel to that of the wingspan.

For test purposes, he mounted the block at a number of spots. These included: (A) on the top surface at 20% chord back from the leading edge;

(B) on the top surface at 80% chord back from the leading edge.

(C) on the bottom surface at 80% chord back from the leading edge.

(D) on the bottom surface at 20 % chord back from the leading edge.

With the block screwed on, he proceeded to run classic wind tunnel L/D tests, varying angle of attack while measuring lift and drag. For our purposes, the maximum value he obtained for each of the A,B,C, and D configurations is a good index to performance.

With no block at all – just the bare wing – he got 17, which is pretty good. Going to (A), the resulting maximum was 6, which is terrible. The (B) setup offered a max of 11; that of (C) equaled 13; and so did (D)–it offered the same value of 13.

What can we conclude? Blockage effect varies according to the location of the block. All wing blockage lowers wing efficiency, but that placed on the top surface is much more detrimental than the same block located on the lower surface. However, if a radiator must be placed on top, try to locate it towards the trailing edge.

Best is location on the lower surface. Here, results don't depend on fore and aft positioning. You can put that radiator just about anywhere down under and the resulting L/D should still supply a decent glide.

An Advert for Myself

For the Glue Guru type of reasoning extended to the Red Baron's fighting and flying, you might check out "Three Wings for the Red Baron" and "Gunning for the Red Baron" by Leon Bennett, available at all the usual bookstores including Amazon and Barnes & Noble.

30th ANNIVERSARY OF THE FLYING ACES NATIONALS!!!

REGISTRATION FORM--FAC-NATS MK, XVI--GENESEO, N.Y. July 17, 18, 19, 2008

(please print)

Name _____ Address _____ Jr. _____ Open _____

City _____ State _____ Zip _____ AMA or MAAC No. _____

Entry fees at \$25.00 each (flies all events) _____ \$ _____

Banquet tickets at \$30.00 each with no dormitory reservations _____ \$ _____

Reservations for double occupancy with meals & banquet at \$200.00 each _____ \$ _____

Reservations for single occupancy with meals & banquet at \$250.00 each _____ \$ _____

Total enclosed _____ \$ _____

No entry fee for contestants under 18 years of age. All contestants must be members of the AMA or the MAAC. Please remit entry fee by June 15, 2008 so as to ease paper work later on. Mail entries to: Lin Reichel, 3301 Cindy Lane, Erie, Pa. 16506. We will be unable to refund cancellations after June 20, 2008. If you plan to share a room with someone please indicate their name so we can direct the university to set up the proper arrangements. _____

Awards through five places in each event. Contest times are as follows; July 17th, 8:30 am till 5:00 pm, July 18th, 8:30 am till 5:00 pm & July 19th, 8:30 am till 3:30 pm.

Waiver: I/we, hereby release the 1941 Historical Aircraft Group, Inc., Austin Wadsworth, the State University of N.Y. Geneseo, the Flying Aces Club, Inc., all other persons and other organizations connected with this contest from any liability whatsoever for accidents incurred while participating in this contest. I/we, also agree to abide by all flying and field rules in force at this contest.

SIGNATURE _____

We can use some volunteers to help out in various areas of the contest such as scale judges, event directors, etc. If you can/will spare a little time and help out it will be a great help for the rest of us who devotes the whole time there to making this contest a success. If you are willing to help please notify GHQ as soon as possible.

We are also looking for event sponsors and prize donations. If you are willing to help out in this area it will be greatly appreciated also. It takes all of this effort from a lot of people to make this thing work!

A note on the price of the banquet, sorry for the big increase in the price but the Quality Inn is now running all events held there. Since the renovations everything has gone up in price there.

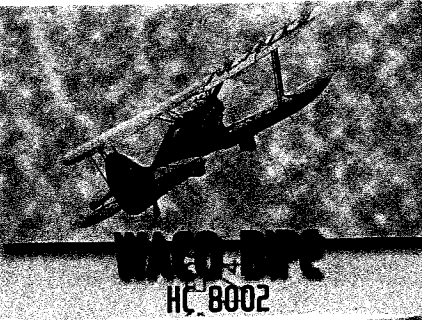
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P-51 MUSTANG
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SPITFIRE
HC 8102



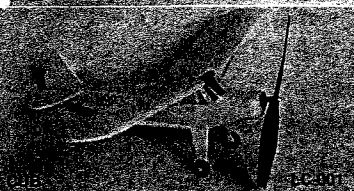
P-40 WARHAWK
HC 8103



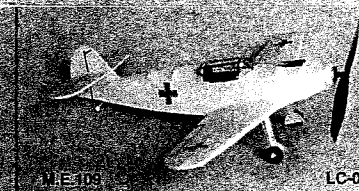
SPITFIRE



REARWIN SPEEDSTER



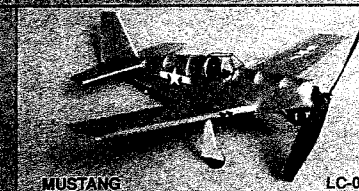
CUB



ME 109

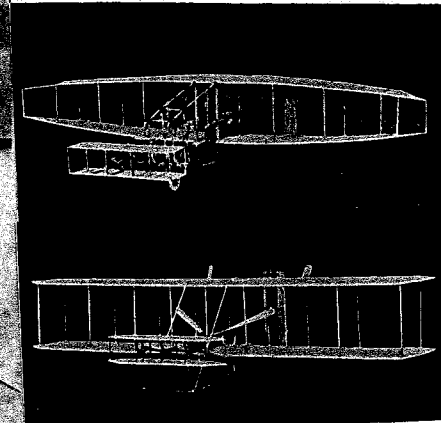


MUSTANG



MUSTANG

MODEL AIRPLANE KITS \$16.00
 Peanut Scale 13" Wingspan, Laser Cut Parts,
 LC-001 CUB LC-004 Citabria
 LC-002 ME 109 LC-005 Mustang
 LC-003 Spitfire LC-006 Rearwin Speedster



STATIC MODELS \$20.00
 1903 Wright Flyer - 24" Wingspan (laser cut parts)
 Silver Dart (Bell Museum) 24½" Wingspan

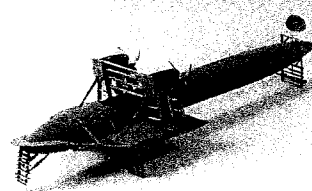
All Orders 25% Discount

Hobby Craft Kits- \$25.00

- Six Kits 24" HC 8001 Citabria
 19 3/4" HC 8002 Waco-bipe
 22 7/8" HC 8003 Super Chipmunk
 H 8101 P-51-Mustang
 H 8102 Spitfire
 24 1/2" H 8103 P40 Warhawk

Note: Limited number of kits

Laser Cut Parts,



BOAT HYDROFOIL GRAHAM BELL 1907
 TB1003 H.D.4 30" Long \$36.00

Email for complete list FAA grade balsa and spruce and basswood.

All sizes available
 Light balsa on request
 5 to 7 lbs.

New Product

• FAA SELECT GRADE BALS

1/64 balsa sheet 18" long
 3" @ \$1.50
 Can be 36" long extra for shipping
 1/32 x 1/32 x 18" bass or balsa wood
 laser cut @ \$0.20 strip

Light Wood- 5#-7#
 1/16 x 3 = \$3.00
 3/32 x 3 = \$3.25
 1/8 x 3 = \$3.50
 1/16 X 4 X 24 in. 2.65

also 1/40 - 1/32 - 1/25 - 1/20 sheet
 @ 1/16 sheet prices. 1/16 x 3 36" 1.81

Tel: 905-945-5647
 Fax: 905-945-4169
 Email: lcdw@sympatico.ca

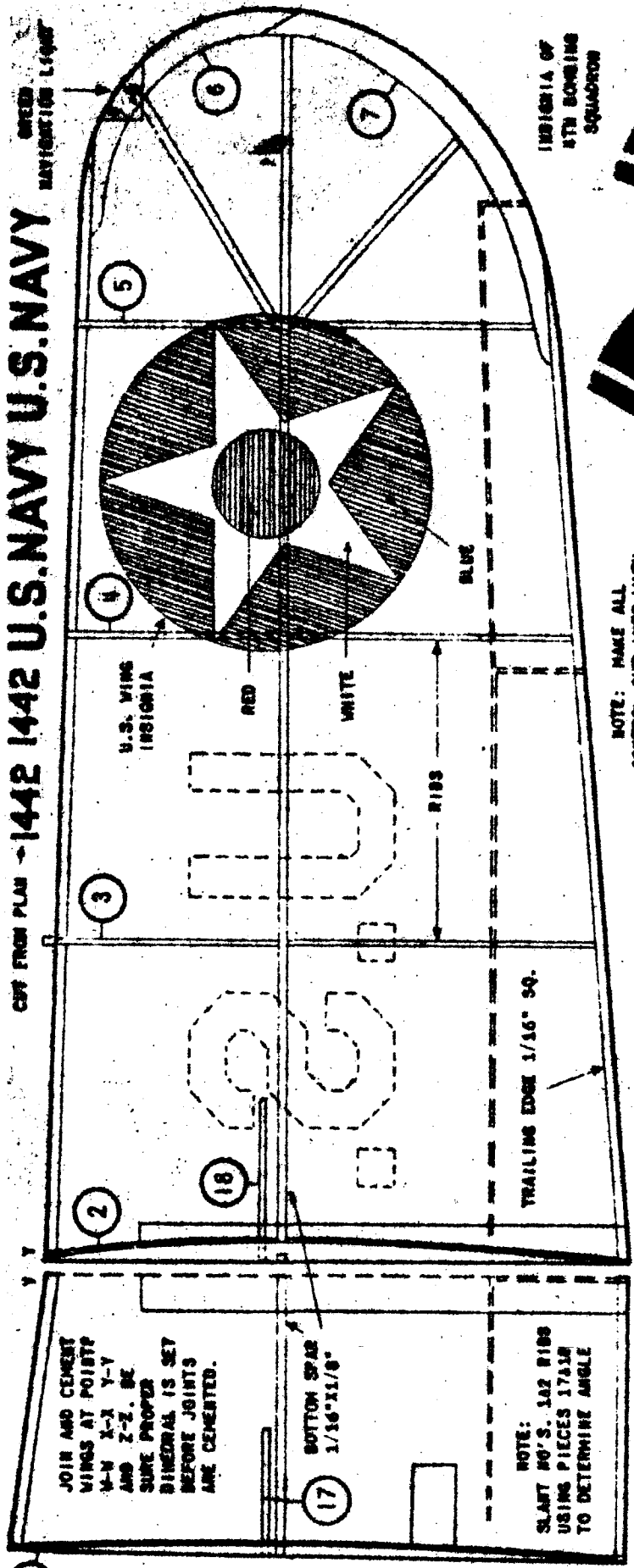
DON'S FLY LITE TISSUE (White, Wet Strength
 10 Sheets 25" x 36" (9 grams per sheet - same as
 Silkspan)

- \$8.00 Postage \$3.00

Cheque or money order accepted.
 Allow 3 weeks for delivery.

Total Order _____

 Total _____
 Canada Tax pst 8% gst 5% _____
 Total _____
 FRT. 15% - Order. Min \$6.00



INSIGNIA OF
17TH BOMBING
SQUADRON

NOTE: MAKE ALL
CONTROL OUTLINES WITH
RULING PEB AND BLACK INK.

RIGHT WING
LAYOUT

CUT FROM PLAN
AND CEMENT TO
SIDE OF FUSELAGE

POSITION
OF STABILIZER

U S N A V Y

NOTE:
TRACE ALL STIFF PAPER
PATTERNS FROM PLAN TO
STIFF WHITE PAPER. CUT
OUT AND ROLL OR BEND TO
SHAPE AND CEMENT IN
PROPER POSITIONS.

PATTERN NO. 2

NOTE:

PIN PLAN TO A WORK BOARD.
THEN PIN A SHEET OF WAX PAPER
OVER LAYOUTS TO PREVENT FRAMES
FROM STICKING TO PLAN DURING
THE CONSTRUCTION.

5

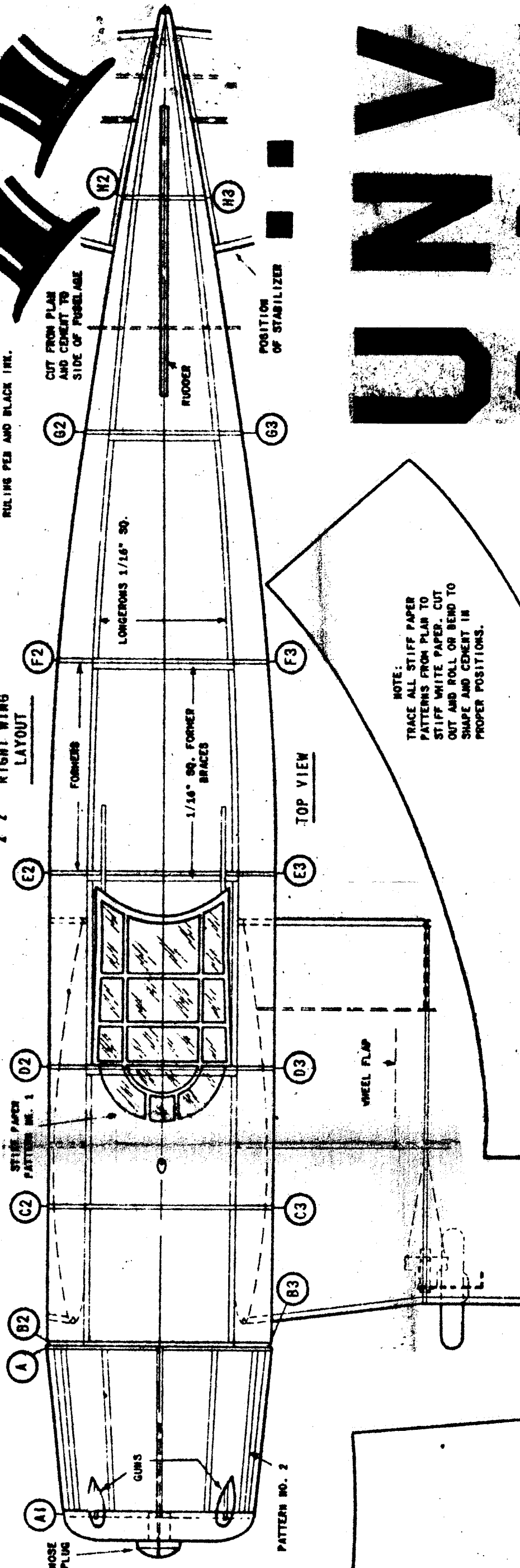
GULLOW'S

VOUGHT CORSAIR

30-31 Wing Span 20" Length 14"

U.S. Amphibious fighter and bomber

PAUL K. GULLOW - WAKEFIELD, MASS.



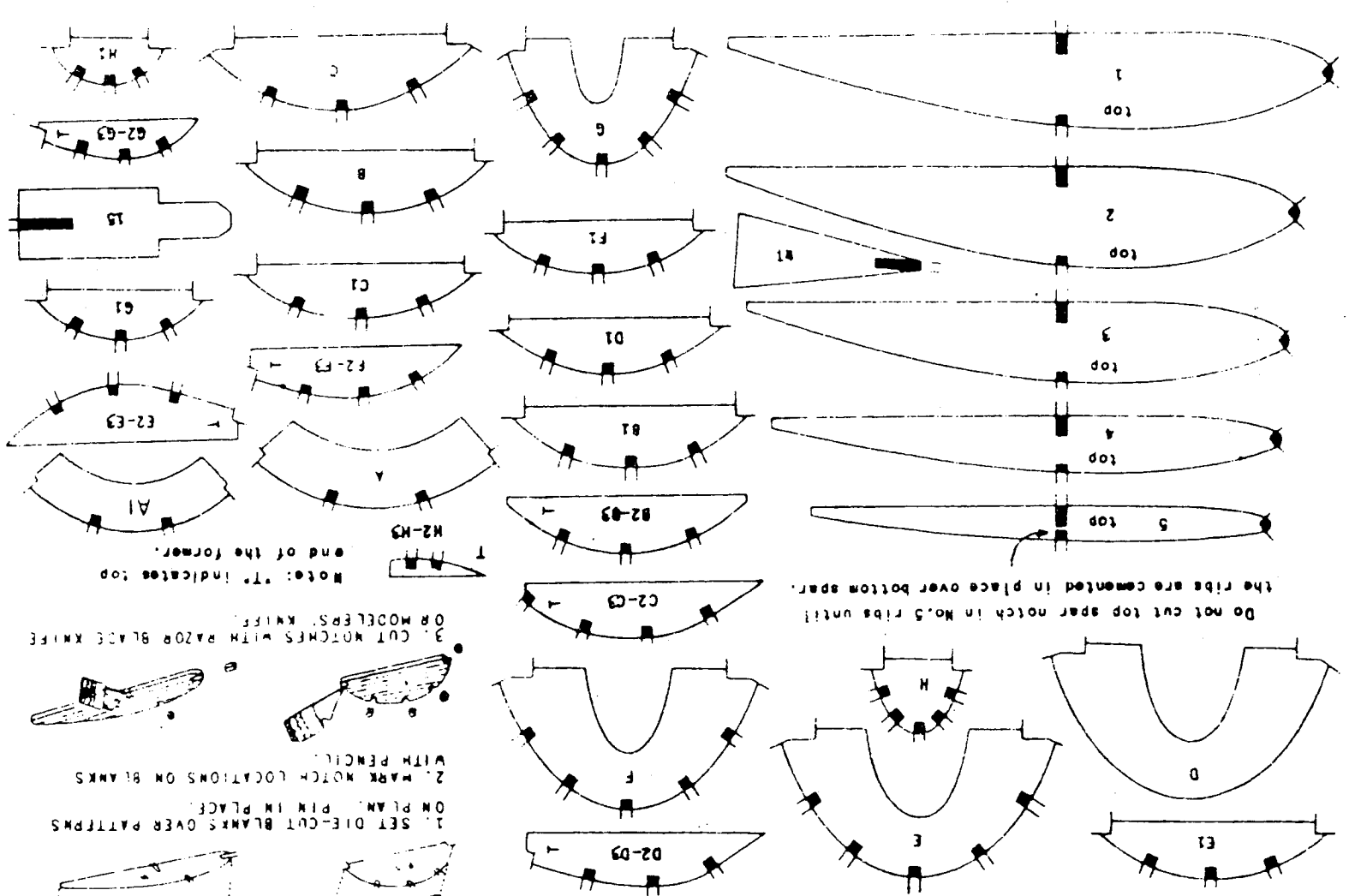
STIFF PAPER
PATTERN NO. 1

PATTERN NO. 2

PATTERN NO. 1
FRONT OF CABIN

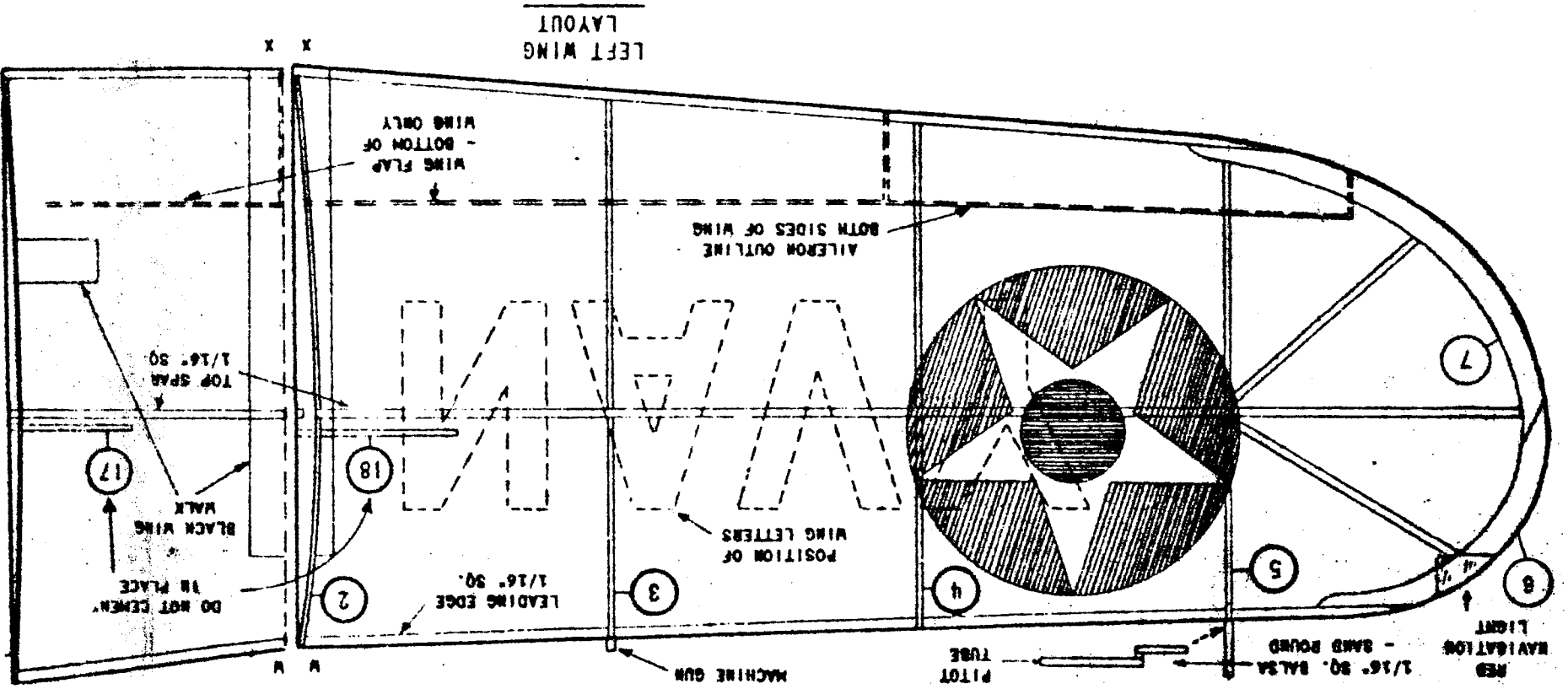
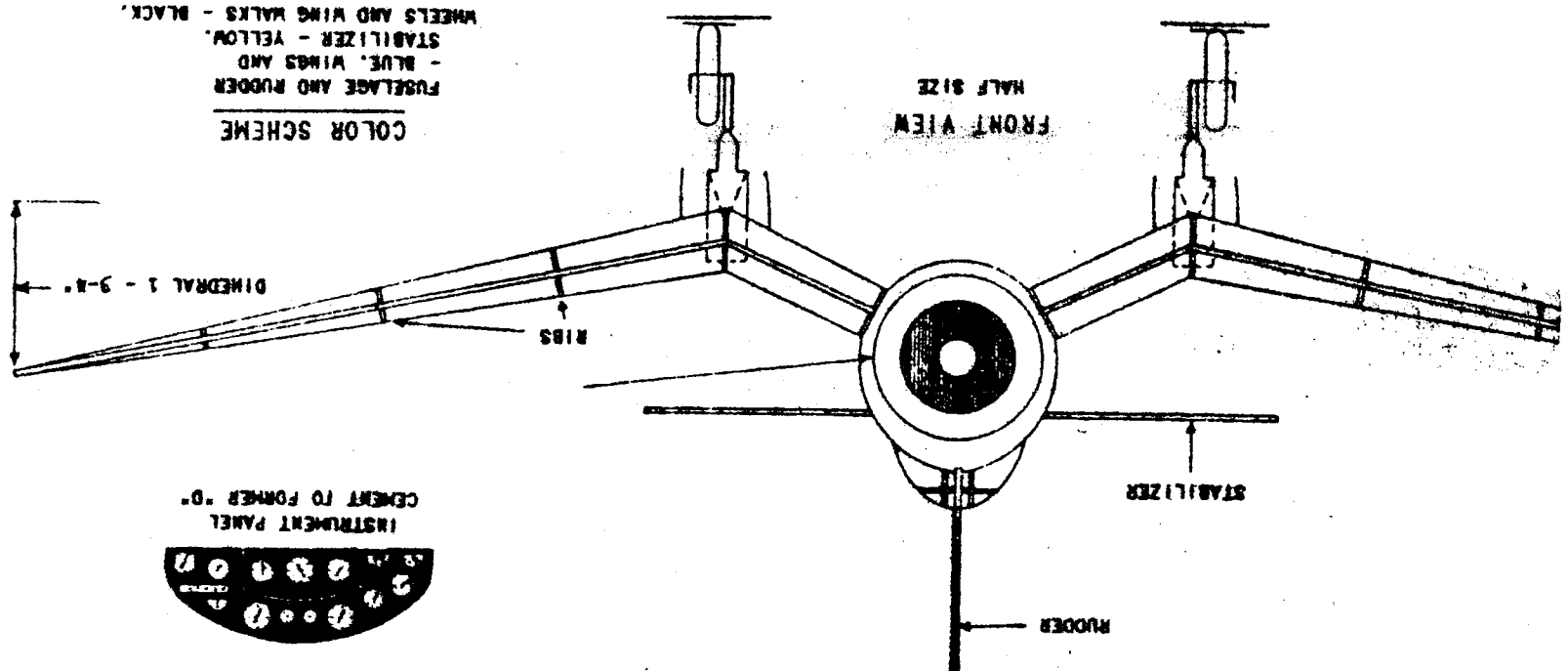
VOUGHT CORSAIR

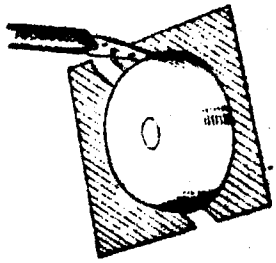
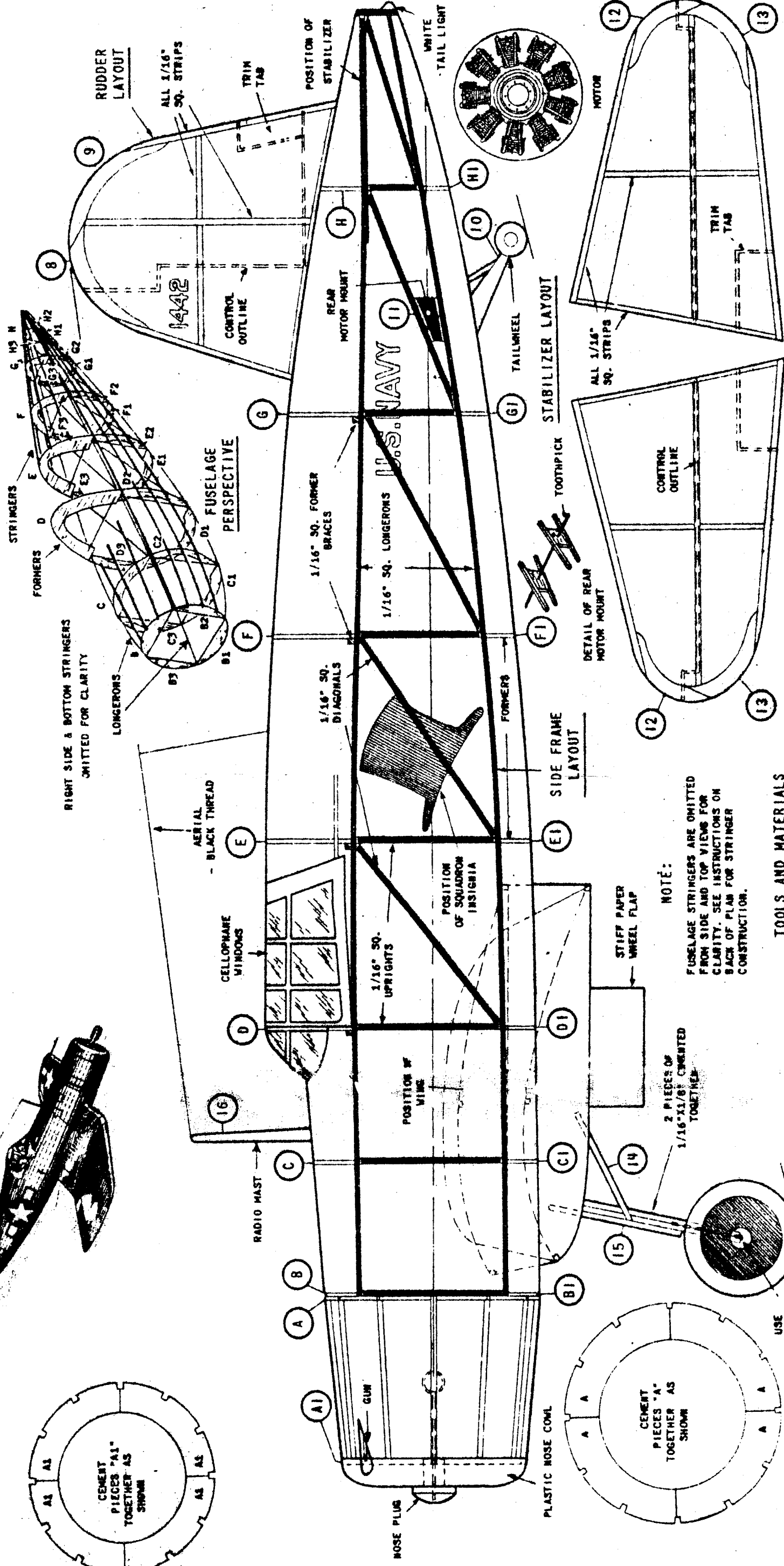
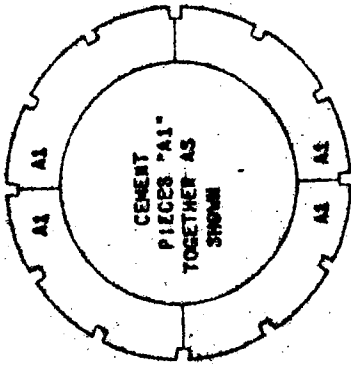
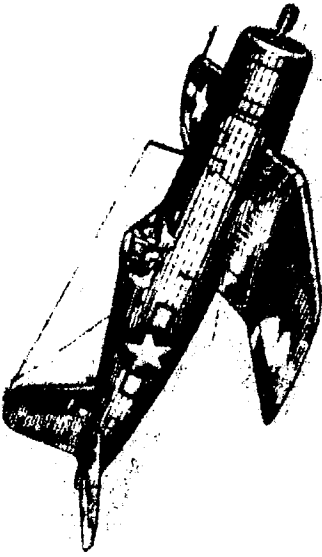
RIB and FUSELAGE FORMER NOTCHING PATTERNS



Do not cut top spar notch in No. 5 ribs until the ribs are cemented in place over bottom spar.

INSTRUMENT PANEL
CEMENT TO FORMER "D"



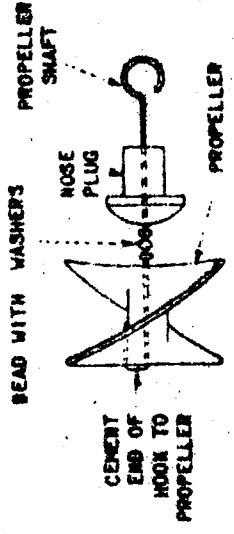


PLASTIC NOSE COWL
CUT COIL FREE FROM FORMED SHEET, THEN CUT NOSE PLUG HOLE AS SHOWN.

MR. MODEL BUILDER:
STUDY PLAN AND INSTRUCTIONS CAREFULLY BEFORE PROCEEDING WITH CONSTRUCTION. THE GENERAL CONSTRUCTION PROCEDURE IS AS FOLLOWS: 1. BUILD THE FRAMES 2. COVER THE FRAMES 3. ASSEMBLE THE MODEL COMPLETELY BY STEP INSTRUCTIONS ARE FINISHED ON THE BACK OF THIS PLAN.

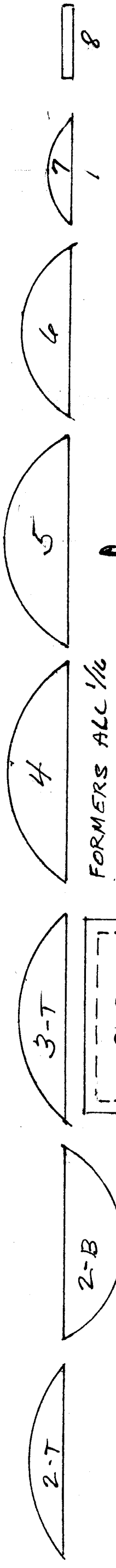
- TOOLS AND MATERIALS REQUIRED.**
1. MODEL AIRPLANE CEMENT FOR JOINING PARTS. AIRPLANE CEMENT FRAMES TACKLING. TACKLING TO THE FRAMES. BOTH NOSE AND TAIL ASSEMBLY AT YOUR LOCAL HOBBY DEALER. AT YOUR CHAIN STORES.
 2. MODEL BUILDERS KNIFE OR SINGLE EDGE RAZOR BLADE.
 3. NEEDLE NOSE PLIERS FOR BENDING 1/32" WIRE LANDING GEARS.
 4. SCISSORS FOR CUTTING THE TISSUE.
 5. A PENCIL AND METAL EDGE RULER.
 6. SOME WAX PAPER AND A WORK BOARD.

NOTE:
FUSELAGE STRINGERS ARE OMITTED FROM SIDE AND TOP VIEWS FOR CLARITY. SEE INSTRUCTIONS ON BACK OF PLAN FOR STRINGER CONSTRUCTION.



COPYRIGHT 1968
BY PAUL K. GULLOW

ABOUT 30" OF 1/32"x1/8" RUBBER THREAD, TIED AND LOOPED AS SHOWN IS REQUIRED TO FLY THIS MODEL. THIS CAN BE OBTAINED FROM YOUR LOCAL HOBBY DEALER.

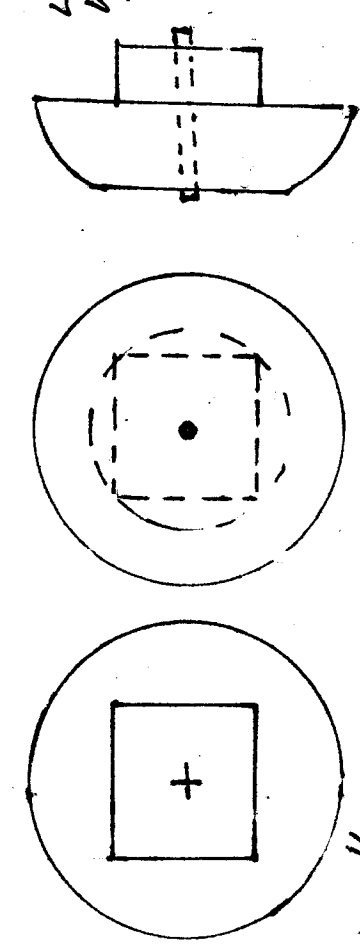


AILERON STRUT
 $\frac{1}{16}$ DOWEL.

INTERPLANE AND
LIFT STRUTS $\frac{3}{32} \times \frac{1}{4}$

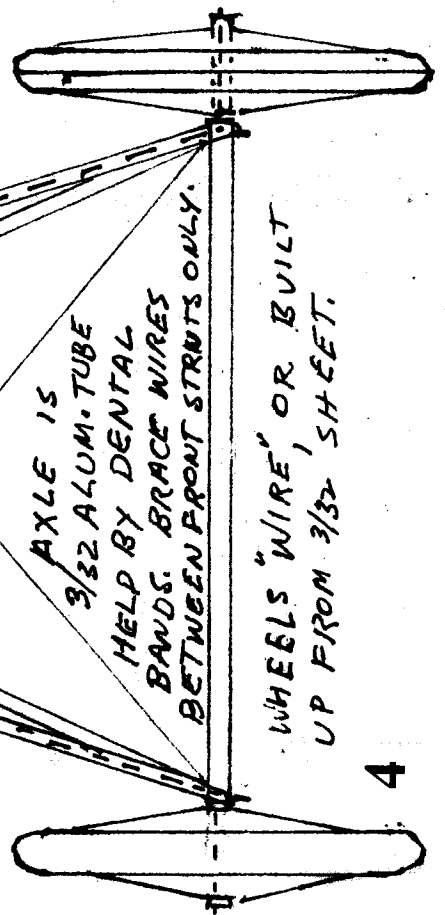
WING PANELS ARE MOUNTED BY
"WIRE & TUBE" METHOD FOR
"KNOCK OFF" CAPABILITY, BLOCK
UP FUSELAGE, MOUNT WINGS IN
PLACE, "FIDDLE" TUBE LOCATION
UNTIL INCIDENCE
IS IDENTICAL.
WHEN ALL IS
DRY, "SCAB ON"
SCRAP Balsa TO
HOLD TUBES SECURE.

LANDING GEAR IS .025
WIRE FAIRED WITH
 $\frac{1}{32} \times \frac{3}{16}$ Balsa.



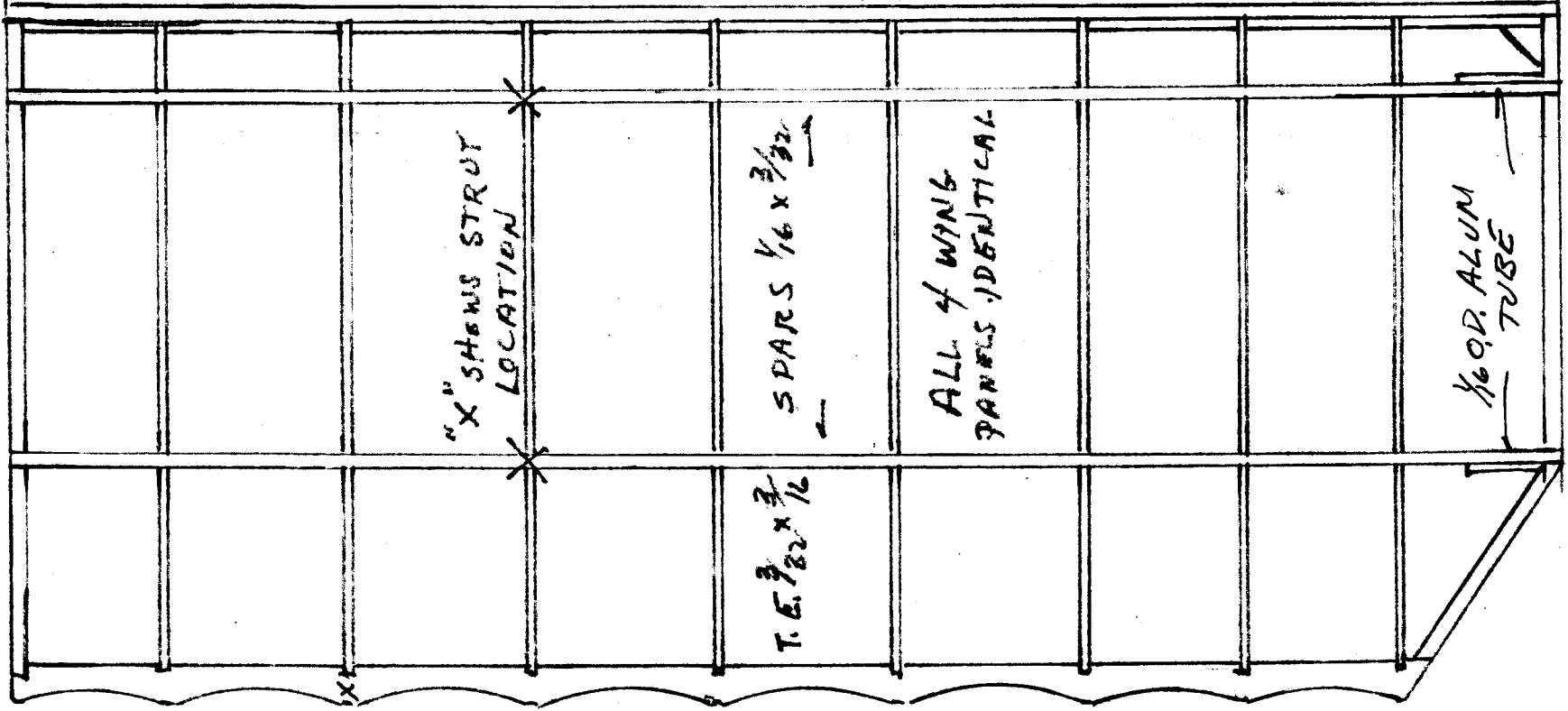
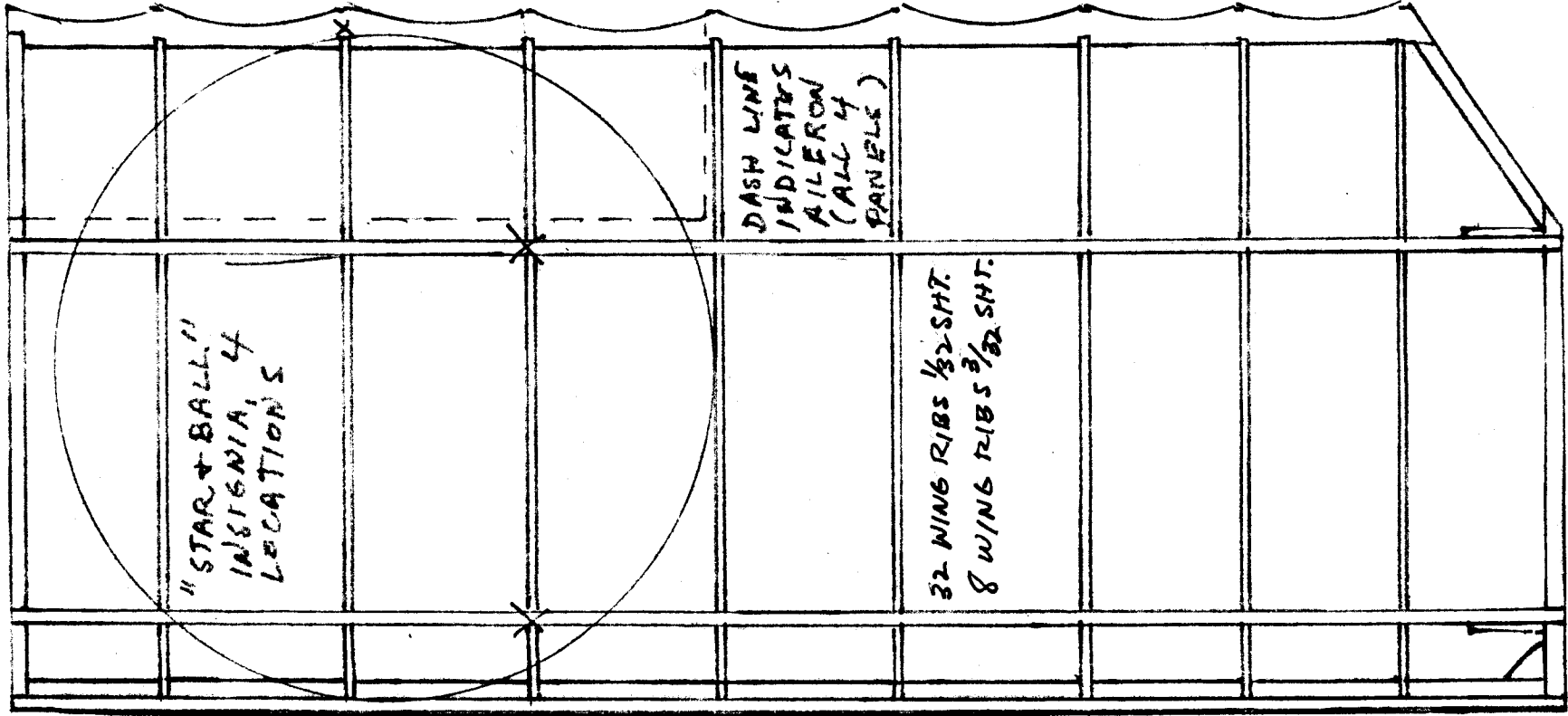
AXLE IS
 $\frac{3}{32}$ ALUM. TUBE
HELP BY DENTAL
BANDS. BRACE WIRES
BETWEEN FRONT STRUTS ONLY.

WHEELS "WIRE" OR BUILT
UP FROM $\frac{3}{32}$ SHEET.

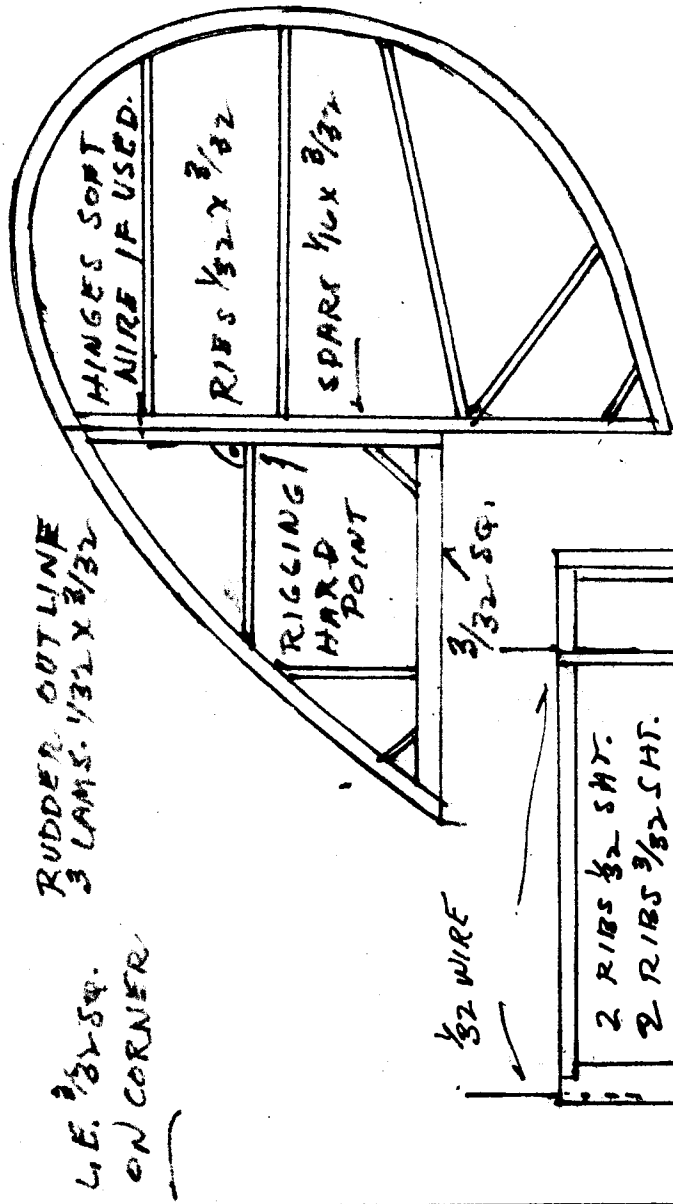
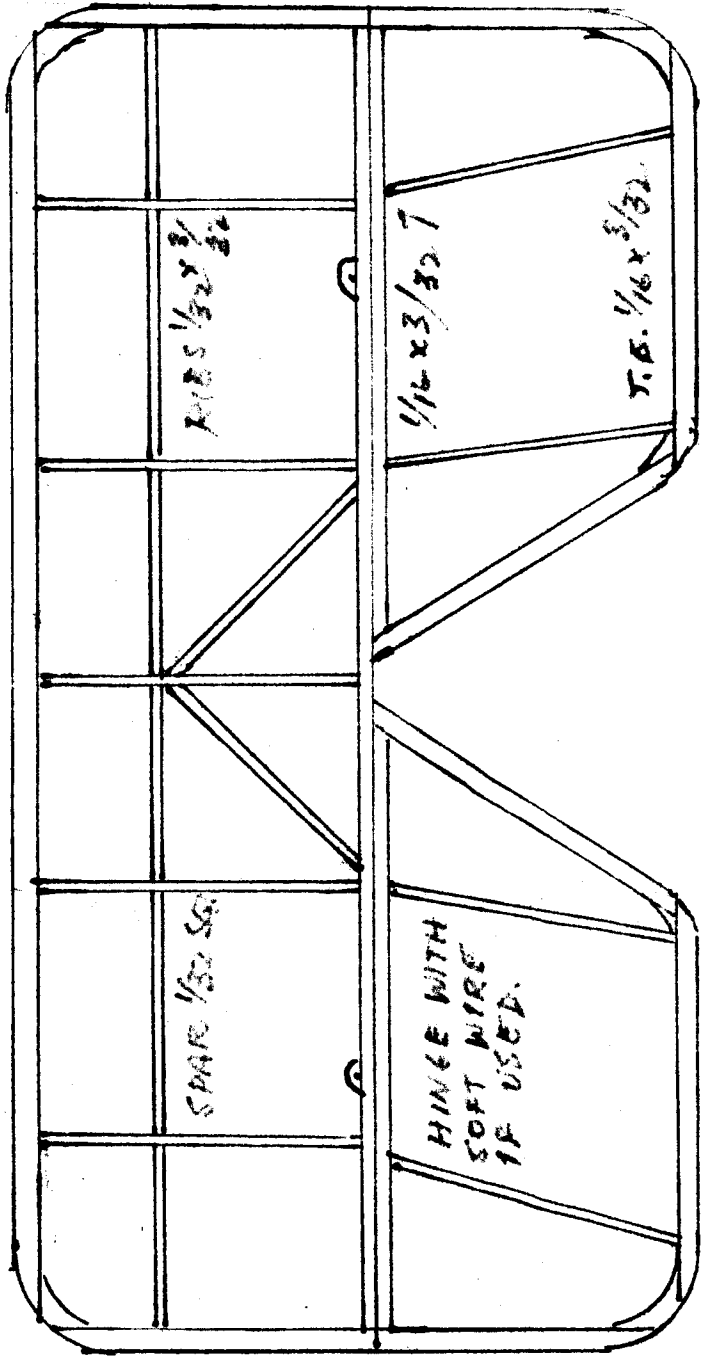


SPERRY "MESSENGER"
SCALE 1" = 1' SPAN: 20"
John Blair 2006
SHEET 3 OF 3

"SCALLOPS" SIMULATE ORIGINAL
WIRE TRAILING EDGE.

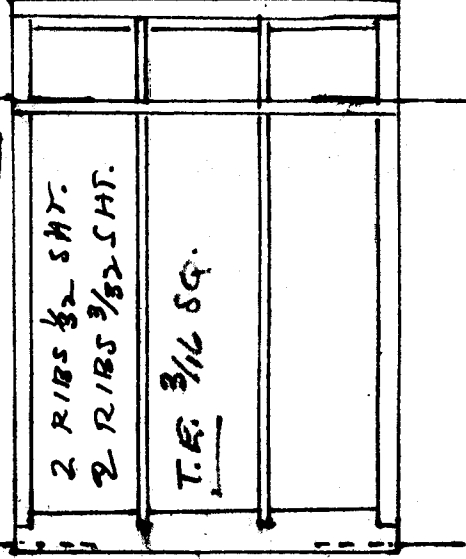


L.E. $\frac{3}{32} \times \frac{1}{4}$

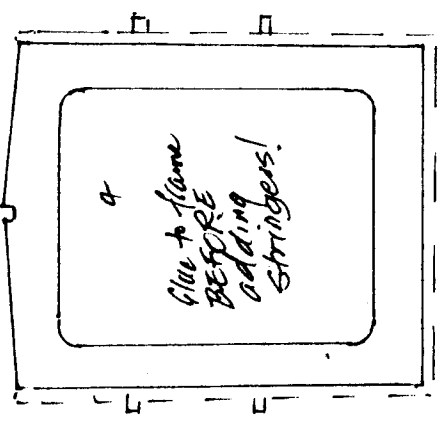
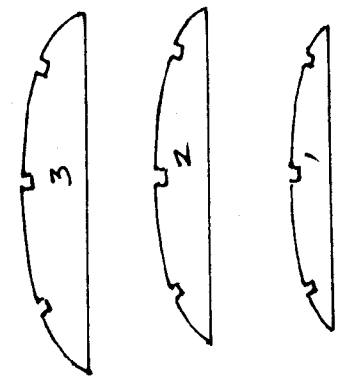
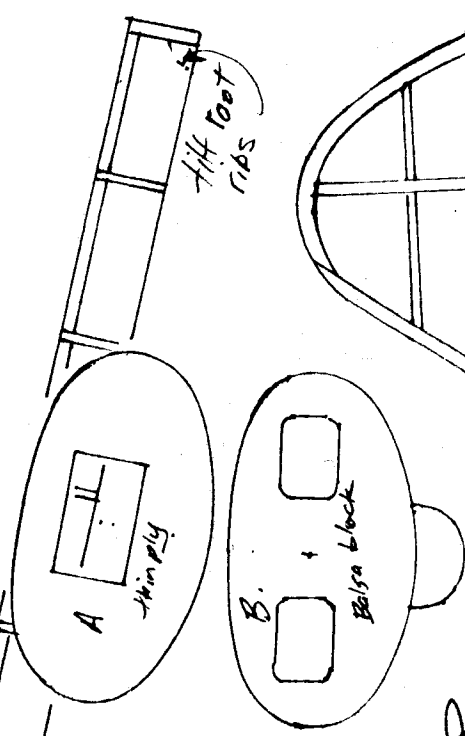
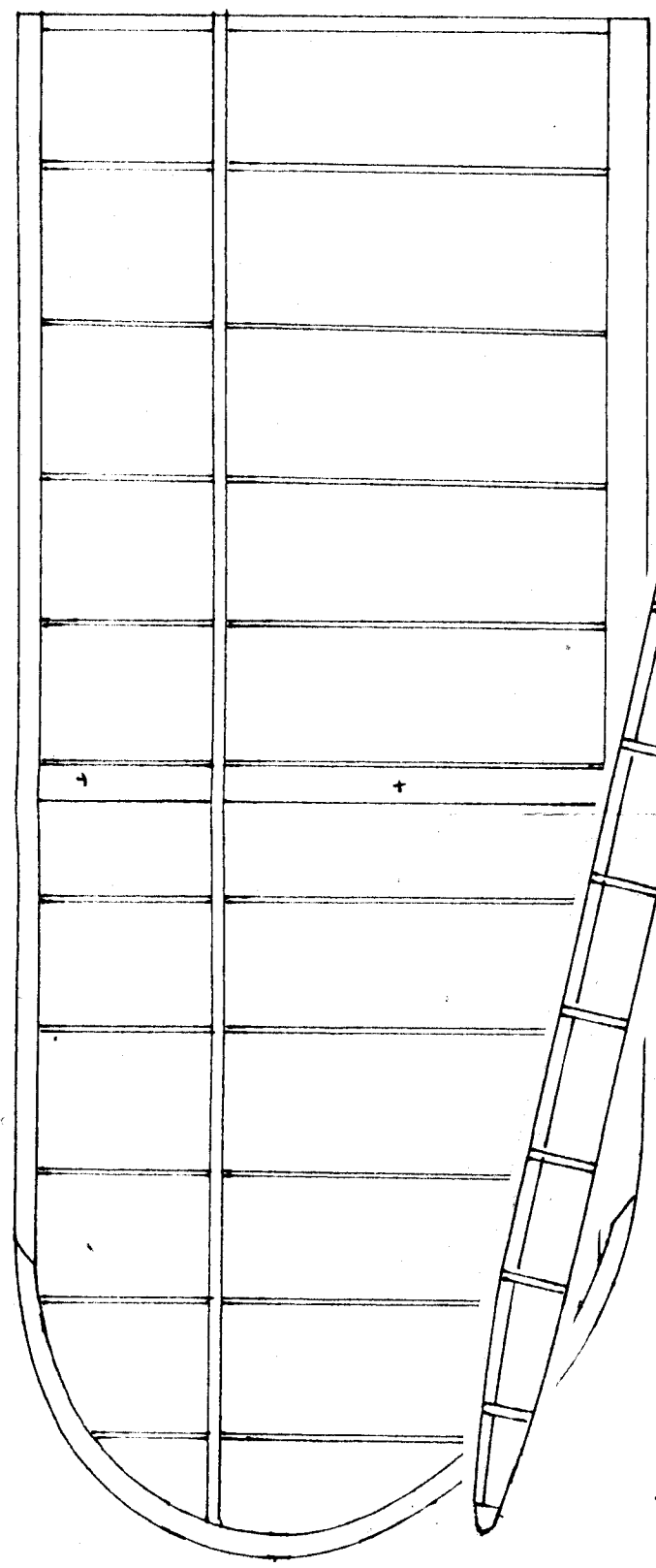
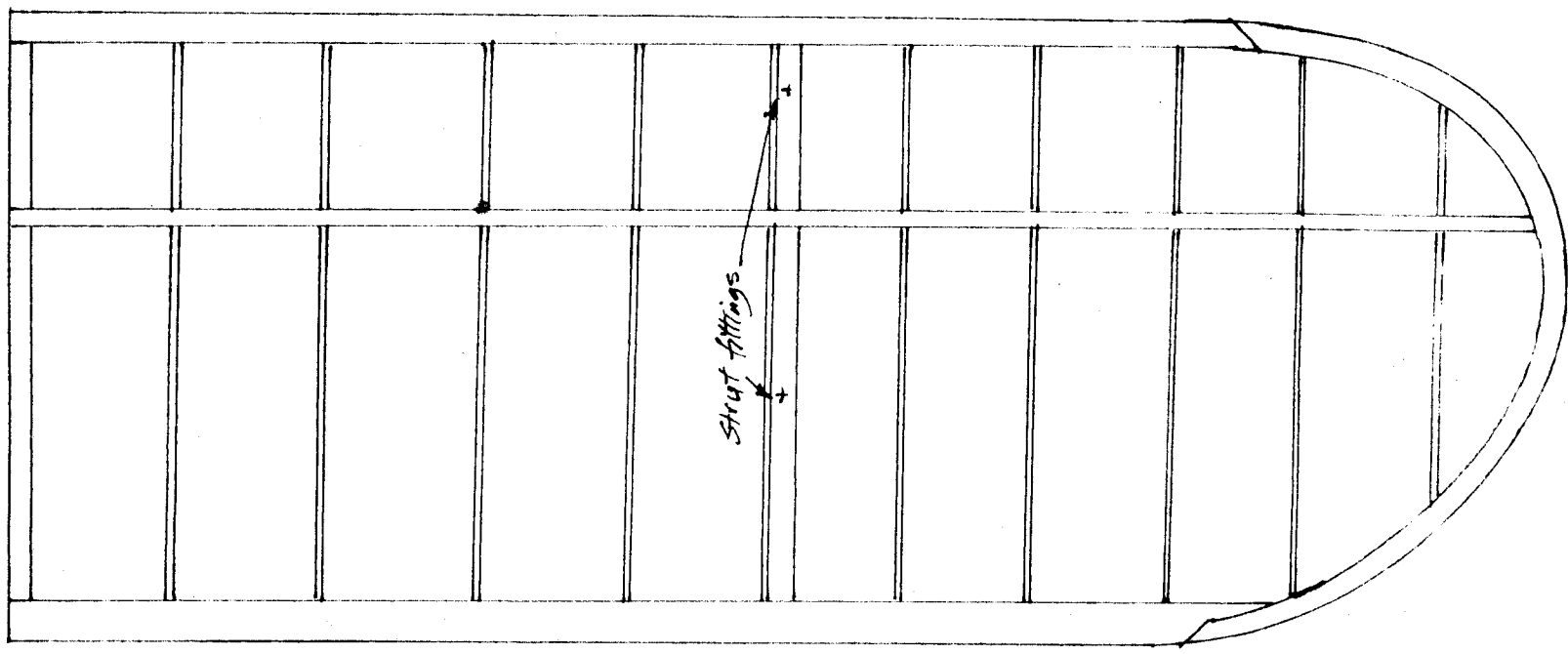


RUDDER OUTLINE
3 LAMS. $\frac{1}{32} \times \frac{3}{32}$

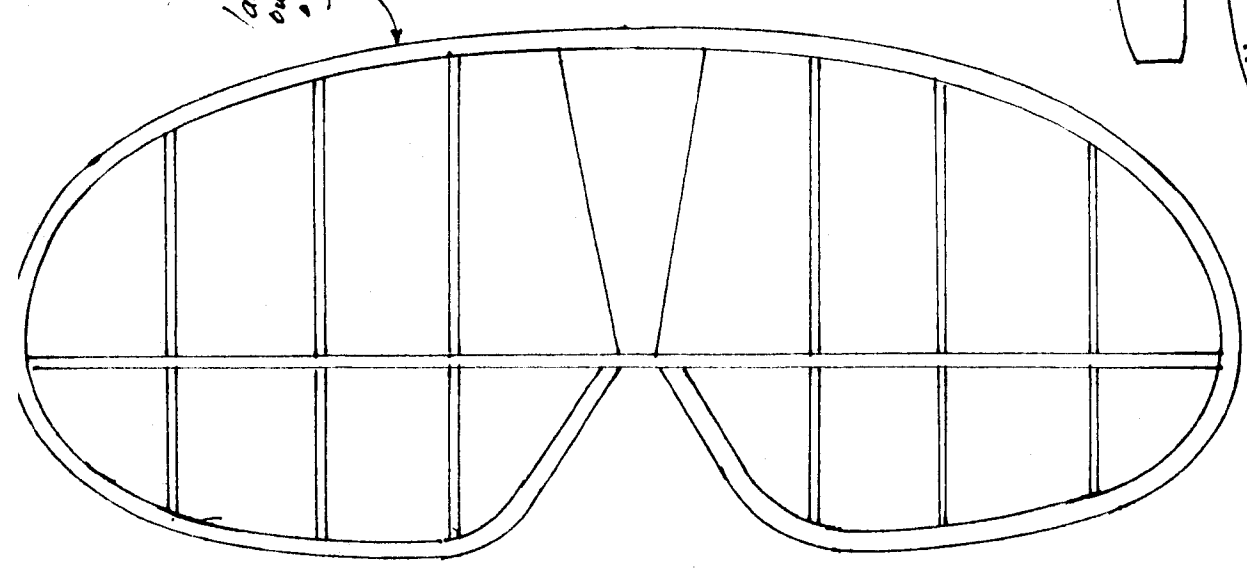
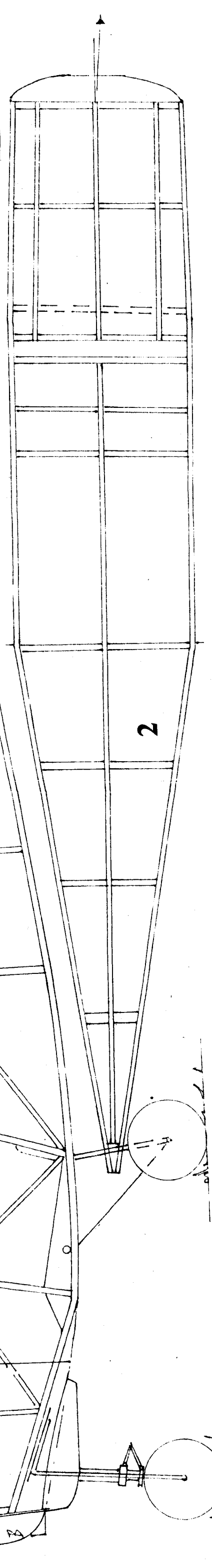
L.E. $\frac{3}{32}$ SQ.
ON CORNER

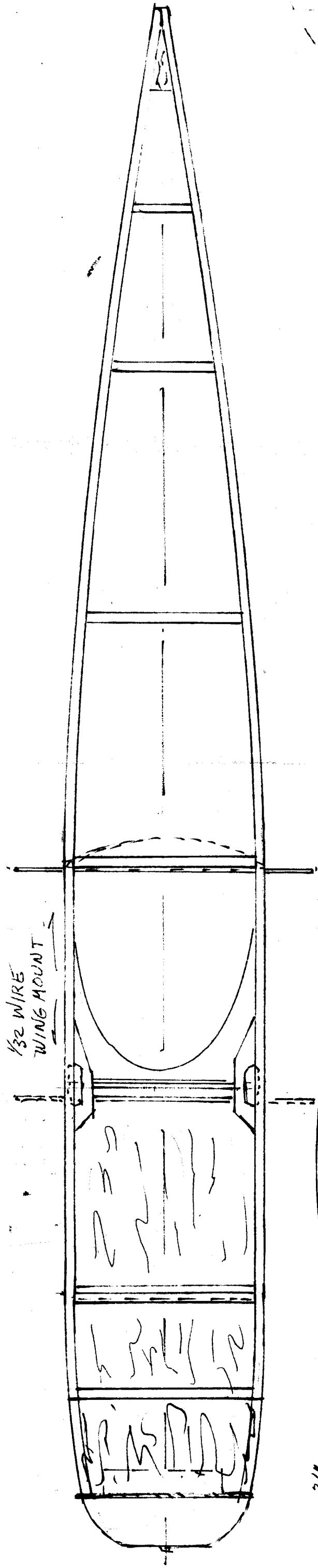


SPERRY "MESSENGER"
SCALE: 1"=1' SPAN: 20"
John Blair 2002
SHEET 2 OF 3



PIPER TRIPACER
 DRAWN FOR FLYING ACES DAWNUNDER
 by Lloyd Willis 2006





USE $\frac{3}{16}$ " SCALE WMS.
BROS. CYLINDERS

STA. 4 TO STA. 8: TOP OF FUSELAGE
COVERED WITH $\frac{1}{64}$ " (.020) SHEET.

1 2 3
SOFT
BLOCK

6

7

8

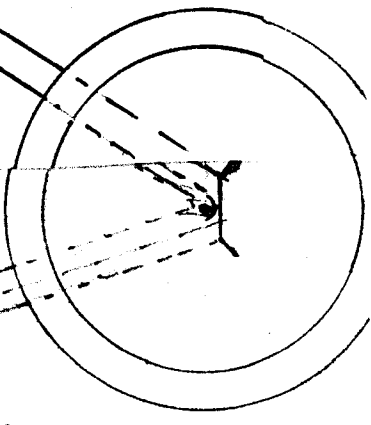
LONGERONS AND
UPRIGHTS $\frac{3}{32}$ " SQ.
DIAGONALS $\frac{1}{16}$ " \times $\frac{3}{32}$ "

F. 1: $\frac{3}{32}$ " SHEET

USE FLAT TOOTH PICK
FOR TAILSKID

ENGINE IS
60 H.P. LAWRENCE.

REAR L.G. LEG IS FREE
TO MOVE INSIDE FUSELAGE.



SPERRY "MESSENGER"

SCALE 1"=1' SPAN 20"

John Blair 2006

SHEET 1 OF 3