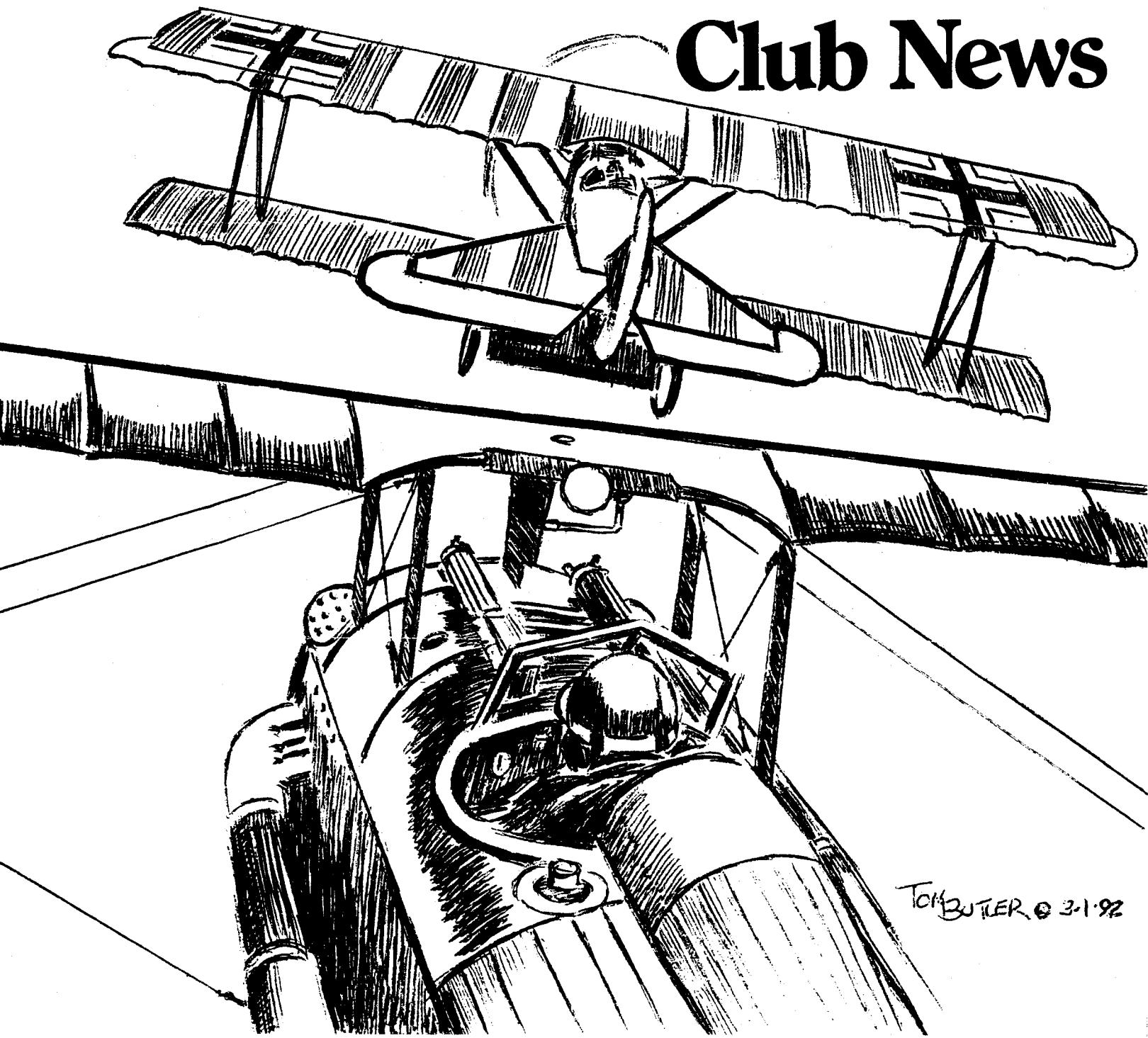


FLYING ACES

ISSUE #156-82 Mar./April 1994

Club News



2.

NEWS ON THE WING!

One more fine action cover drawing by Tom Butler. Looks like another Hun is going "West". Thanks Tom and thanks to all of the other Skysters who contributed to this issue.

In this issue you will find that our plan are now on one sheet, not cut up so that you have to join them together to build the model. From now on we will be presenting all of our plans to you in this manner if possible.

Since the last issue we have added three more squadrons to our little air force. If you live near any of them give them a call, they'll be glad to have you join them.

Squadron #44
The Buckeye Aero Squadron
George Bredehoft
815 Licking View Drive
Heath, Ohio 43056-1539

Squadron #45
James River Pursuit Squadron
Denis Greaney
541 Latane Drive
Richmond, Va. 23236

Squadron #46
Gulf Coast Gumband Squadron
John Sperry
16335 Perdido Key Drive
Pensacola, Fla. 32507

We have lost another of our Clubsters. Claude Curry of Anchorage, Ky. passed away on Jan. 13, 1994. We wish to extend our sympathy to all of his friends and family. He will be missed.

Does anyone know the breaking point for the new Tan-2 rubber? We would like to present it in the newsletter if someone has experimented along those lines. How many winds per inch etc.

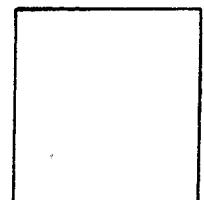
Now for some news on the FAC-Nats Mk. IX. We have had to move the banquet off campus. Because the university banquet facilities can no longer guarantee us the use of the large banquet room and the attendance has been so large we are forced to move. We also must move the banquet from Saturday night to Sunday night. Also the location is changed. We will be holding the banquet at Peter's Party Complex in Liecester, NY which is only 4 miles away from Geneseo. They can seat almost 4 hundred and we can park right outside the doors. The food is GOOD, too! Liecester is located on route 20A west of Geneseo. We hope this will not inconvenience anyone but we really had no choice.

Entries are coming in at a record pace for the Nats and we expect a new record for entries again as we continue to grow. Remember to please get your entry forms in to GHQ as soon as possible, it will be greatly appreciated.

We have two more event sponsors for the FAC-Nats. Diels Engineering is going to sponsor the FAC Scale event and Bill Teseny from the Alamo Escadrille is personally going to sponsor the Golden Age Scale event. If anyone or any company wishes to sponsor an event please contact GHQ for particulars. Also, prize donations for the raffle will be accepted. We already have some electric motors, a ride in an airplane, a book and a lifetime membership in the FAC.

We have submitted a sanction request from AMA for a contest to be held at Muncie, Ind. at the AMA flying site on the Labor Day weekend. The events will be; WW II, FAC Scale, Embryo, Multi-Wing Aircraft, Pioneer Scale, Hi-Wing Peanut, FAC Peanut, FAC Old Time Rubber, WW I, Greve/Thompson Races, Power Scale, Jumbo Scale, Golden Age Scale, No-Cal Scale. This early announcement will give you time to prepare for this one. Plan to be there if you can, It is a great place to fly. BUILD--FLY--WIN...EFF--AAA--CEEE!!! Lt. Col. Lin Reichel, CinC-FAC

If the box on the right has the dreaded RED "X" in it, it is time to renew your membership which includes the newsletter. Cost is \$10.00 per year in the United States and Canada. Overseas the cost is \$15.00 per year. Six issues per year published every other month. This is your last issue under your old membership. Please make checks payable to "Flying Aces". Send to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.



Snow and cold maintain their firm grip on the "Front". Gazing out the window at the rapid downfall of snow-the 12th storm of the season-we dreamily transpose the effect of the harsh conditions on mythical military operations. Hence the following hot air, which wafts between WWI and occasional contemporary times and things, hopefully will help dispel some of the severe wintry effects. It's a letter from a Pinkham Field pilot to his parents.

Hangar #1
February 12th

Dear Mom and Dad,

This is SOME winter! Our patrols, when we can make them, are more battles against the elements than versus the bad guys. Yesterday one of the new chaps, some character by the name of Phineas, thought he would make points with the C.O. by demonstrating a faster method of clearing the ramp of snow. He reasoned that prop blast should do the job efficiently and quickly. As he swiveled his Spad (#1313) to line up the tail, a combination of swirling wind-blown snow and cold induced watery eyes permitted Murphy's Law to surface with malicious glee----Phineas failed to see two Nieuports centered on the ramp. As our hero opened the throttle, the blast tumbled both ships, reducing them to splintered wood and debris--a plus for keeping the pot-bellied stoves stoked but a big minus with the C.O. and his staff. After some head scratching, aided and abetted by copious amounts of cognac, they agreed on a most diabolical of punishments: All his long johns were confiscated!

Some of the pilots have cut holes in the fuselage side covering and fly hunkered down out of the icy slipstream. Makes for easy scanning against side attacks but is hell for frontal passes. The ack emmas complain bitterly about having to patch the inevitable rips emanating from the peepholes in the fabric. One wag suggested the doughnuts from the mess hall were so tough they could be stitched around the peepholes as reinforcing rings.

One of the B Flight chaps, returning from a long patrol, started his landing approach but found to his horror he couldn't work the engine cutoff switch due to ice-cube-like fingers and layers of mittens. With 'blipping' the rotary engine out of the question, the landing became a wild series of speedy bounces the last of which crunched the doomed bird into the mess hall, wreaking more havoc than a high school cafeteria food fight. The good news: The unfortunate pilot was so numb from the cold he didn't feel the extent of his injuries for 24 hours.

The cold takes its toll in different ways. The leading aces from both sides scheduled a duel "mano à mano" over the south meadows. In spite of fancy cushion and fist pounding, neither could get his guns unjammed. Totally frustrated, they had to settle for hurling insults and monkey wrenches at each other. Next day they went at it again--same result initially--recalcitrant guns failed to fire. They sparred futilely until the SPAD driver, an ex pitcher in double A ball, dipped into his bag of tricks...iced snowballs. After a few balls he began to throw strikes into the D-7's tailfeathers and leaving them tattered. The D-7 had to withdraw for a recovering job. Before landing, the exuberant SPAD driver bombed the C.O.'s hut with his remaining "ammo".

One morning the C.O. wanted to get a recce mission up even though all air ops were cancelled due to a heavy snowfall during the night. Realizing some form of unusual takeoff would be required, he craftily sifted through various schemes. A catapult was considered but rejected due to time constraints and so it went till suddenly the bulb lit! Some form of skis should do it. But skis from where? Through his office window he suddenly saw two boys joyously sliding down Durham Hill. The C.O. paid them an outrageous price for their Flexible Flyers, throwing in two well worn copies of Playboy to seal the deal. He had ack emmas attach the sleds on the wheel axles of his favorite Nieuport. Yes! He would fly the mission and receive an Air Medal for being up in the only plane to observe ground troops of the enemy advancing on the assumption there'd be no eyes in the sky! The takeoff went well until the right sled caught in a drift. The ensuing skid rapidly led to a slow motion cartwheel. Centrifugal force propelled the flailing leader head first into a large snowbank, thus ending the dream of glory. Three pilots who witnessed the drama had to be hospitalized for hypothermia after rolling endlessly in the snow with fits of uncontrollable laughter.

As you can see, folks, there's not much to report. Oh, forget the cookies and please send scarf, mittens and L.L.Bean longjohns instead.

Love from your son,

Eggbert

"Grayhawk" Lawton

(3)

ENLARGING THE PATTERN TO FIT YOUR MODEL:

One of the most striking features of WWI German and Austrian aircraft was the unique four and five color lozenge pattern camouflage fabric applied to many of them. Simulating this on models has traditionally demanded time consuming exercises that have discouraged many.

Those attempting the lozenge look for rubber powered scale models have tried a variety of approaches. In the March, 1977 issue of Model Aviation magazine Ralph D. Kuenz, at page 29, described a method using intricate master patterns, specially mixed inks and stamps to apply each color. Others have used paint, magic markers, and even cut pieces of colored tissue to create the elaborate mosaic effect. Many have produced handsome results, but all have worked hard to do it.

Thanks to the advent of color copiers and some recent discoveries it is now possible to instantly create beautiful lozenge coverings for rubber powered models by use of the following technique which, for clarity, is presented in outline form as follows:

(1) GETTING A FULL COLOR LOZENGE PATTERN:

To start you need a full color sample of the lozenge pattern intended for your model. You might prepare a pattern yourself, but it will take a lot of time and effort. Fortunately this is unnecessary as a wide selection of full color decal sheets now exists for a variety of WWI German and Austrian aircraft. Samples may be found at your local hobby shop, but if not, do not despair.

An excellent selection of lozenge camouflage decals is available from American/Gryphon Decals who will send you a catalog for three first class stamps mailed to their address at 4373 Varsity Lane, Houston, TX 77004. Lozenge pattern decals should also be available from Microscale Industries, Inc. who will send you an illustrated catalog of their wares for the sum of \$4.00 sent to them at P.O. Box 11950, Costa Mesa, CA 92627.

(2) MAKING A "BLOCK" OF PATTERN FOR YOUR MODEL:

Commercially prepared sheets of lozenge pattern decal usually come with the decal pattern printed in several strips on the sheet. The strip widths presumably correspond to the scale widths of the fabric used to cover aircraft and generally static scale modelers apply the decal strips, one at a time, to their models in the appropriate directions with the strips being placed side by side to create a "solid" effect on the finished model.

A similar procedure could be used for covering a rubber powered scale model with printed tissue, but it would involve numerous overlapping (and weight producing) seams as strips of tissue were joined into pieces large enough for the model. A better method for our purposes is to assemble the strips of decal pattern into a block of pattern. Do this by carefully trimming and arranging the decal sheets or by simply transferring the strips of decal pattern to white artist's board. The resulting "block" of pattern should, of course, approximate the proportions of the tissue sheets upon which you will ultimately print your pattern.

Most commercial lozenge decal patterns come in standard scales of either 1:72 ($1" = 6$ ft), or 1:48 ($1" = 4$ ft, or $1/4" = 1$ ft). Having noted the scale of your decal sheet, you next need to determine the scale of the model which you will be covering. For example, if your model is to a scale of 1:24 ($1". 1/2" = 1$ ft) then 1:48 ($1/4" = 1$ ft) decal pattern would be enlarged by 200% to be correct for your model.

Having determined the relative scales of your pattern and your model, you next need to have your pattern copied with a Canon color copier to the size correct for the scale of your model. Most Canon copiers will enlarge to a maximum of 11x17" and I recommend that you enlarge your patterns to fit paper of that size. Be sure to make enough color copies to provide sufficient surface for your model. Generally I recommend making at least one sheet more than you think you will need.

(4) PRINTING YOUR LOZENGE PATTERN ON TISSUE:

Once you have your full color photocopy of the lozenge pattern of your choice enlarged to the scale of your model you will be ready to transfer the pattern to Japanese tissue. Any color tissue may be used, but it is best to use white or off white tissue to maintain color accuracy. To assure yourself a smooth, undistorted, surface, stretch your tissue on a frame just large enough for you to attach all four edges of the tissue sheet securely to the frame with tape. Having done so, spray or brush water on the tissue and set it aside to dry and shrink. Japanese tissue usually has a shiny side and a dull side. It is best to place the tissue shiny side down (against the frame) as a clearer print will be obtained if the shiny side is toward the photocopy as the printing process occurs.

With your tissue preshrunk and stretched tight on a frame, next place one of the full colored sheets of photocopy pattern on a piece of ceiling tile, building board, or other smooth working surface cut small enough to fit inside the frame (thus permitting the tissue stretched on the frame to come in complete contact with the photocopy when the frame is placed over the building board). This step is important because the building board surface slipped inside the frame enables you to press on the tissue firmly without fear of puncturing it as you make your print.

With the shiny side of your tissue now pressed firmly against the color photocopy of the lozenge fabric, you are now ready to "print". This is done either by using a Chartpak (a brand of artist's marking pens) "Blender" or by applying clear nail polish remover or other acetone based solvent using a "pad" folded up from a sheet of paper towel. The "Blender" releases just enough clear solvent to effect a transfer without over soaking the tissue. I recommend it as your first choice for printing. If a "Blender" is not available, then use care not to over soak the tissue with clear finger nail polish remover, etc. as it can cause "bleeding" which will destroy the characteristic geometry of the lozenge pattern.

After applying the acetone based solvent as mentioned above, wait approximately 30 to 60 seconds and then carefully peel the photocopy away from the tissue. This is part of the "art" which you will have to master. If you pull the color photocopy away from the tissue too quickly, then pigment from the ink will still be soft and stringy and will create a "haze" which can mar the look of your finished print. If you wait too long to pull the color photocopy from the tissue, then the solvent may dry to the point where the tissue will tear because it has gotten too dry and become stuck to the photocopy. After peeling the color photocopy from the tissue, you will note that the pigment on the tissue is much lighter and less intense than that on the color copy. Do not be alarmed by this. Once applied to your model, the printed tissue will more closely approximate the look actual lozenge fabric covering on weathered WWI German aircraft than the full strength color on the photocopies.

(7) CONCLUSION:

Using the techniques described above, it is now possible to quickly create WWI German lozenge pattern tissue in full color quickly and easily. Knowing this, the challenge becomes deciding which lozenge covered subject to model first!

You
wait
too
long
to
pull
the
color
photo-
copy
from
the
tissue,
then
the
solvent
may
dry
to
the
point
where
the
tissue
will
tear
because
it
has
gotten
too
dry
and
become
stuck
to
the
photo-
copy.
After
peeling
the
color
photo-
copy
from
the
tissue,
you
will
note
that
the
pigment
on
the
tissue
is
much
lighter
and
less
intense
than
that
on
the
color
copy.
Do
not
be
alarmed
by
this.
Once
applied
to
your
model,
the
printed
tissue
will
more
closely
approximate
the
look
actual
lozenge
fabric
covering
on
weathered
WWI
German
aircraft
than
the
full
strength
color
on
the
photo-
copies.

(5) "SEALING" THE PRINTED TISSUE:

Once you have transferred all the lozenge pattern that you want to your Japanese tissue and before you remove the tissue itself from the stretching frame, I recommend that you "seal" the colored tissue by spraying it with one (1) light coat of clear, flat, lacquer. Testors "Dull Cote" (#1260 Dull Over Coat) is a widely available clear lacquer over coat which works very well for this purpose.

(6) COVERING YOUR MODEL:

Once you have sealed the lozenge tissue, you will be ready to begin covering your model with it. Do this by removing one panel (or section) of lozenge printed tissue at a time as needed for part of the model being covered. By working carefully, this will leave the remainder of the tissue stretched smooth and flat on the frame while you apply individual pieces to your model.

Because the dye on the tissue may be soluble in conventional dopes, I do not recommend attaching the tissue in a "conventional" way. Instead, edge the perimeter of each piece being covered with a glue stick. There are several brands of glue sticks available, but I have had particularly good success with those manufactured by Dennison. The glue stick, is, of course, a low tack adhesive which may not permanently attach the tissue to your model, but it will temporarily attach it to the frame while not "attacking" the tissue as a water based glue might.

Once you have positioned a tissue panel on the model and have "finger tightened" it in place, trim its edges with a sharp blade. To permanently adhere the tissue to the model, apply a light, narrow, bead of Titebond or similar aliphatic glue to the edges of the tissue panel. Having applied the glue, then gently burnish it down with a finger to secure the edge of the tissue piece. The glue will dry flat and will not be noticeable. If there are small wrinkles in the tissue after you have applied it to the model, you can remove them by lightly spraying or brushing water over the tissue which will then shrink on the frame.

Looking Back At Canadian Aviation

Art Doten, MAAC 95L

Fokker Universal
Wingspan: 47' 9"
Length: 33'
Engine: 1-220 h.p. Wright J5
Maximum Speed: 126 m.p.h.

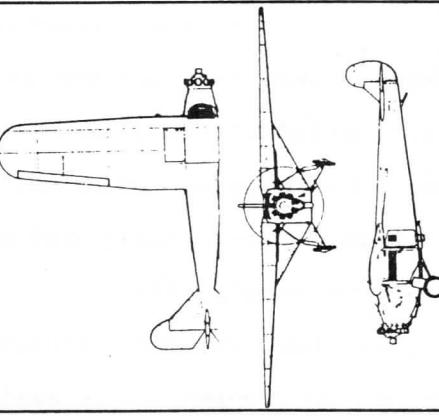
Date: December, 1926. The date the Fokker Universal came to Canada. It was built by the Atlantic Aircraft Corporation, Fokker's American subsidiary in New Jersey. The construction of the 4/5-seat Universal was the usual Fokker method of fabric covered welded steel-tube fuselage and tail surfaces, with the wing of all wooden construction.

Of the 45 U.S. built aircraft, Western Canada Airways operated 12 in Canada. The Universal was available when the Canadian north was ready to be pioneered by the "Bush" aircraft. The Fokker Universal of Western Canada Airways did their share of contributing to this part of Canadian aviation history.

In 1931 a new company, Independent

Airways, was formed by Grant

McConachie. His first aircraft, G-CAGD,



References: Bush Pilot With A Briefcase
by Ronald A. Keith. *Pioneering In Canadian Air Transport* by K.M. Molson.
A model of this aircraft is one of many that can qualify for the Canadian Aviation Historical Society's Special Achievement Award, presented annually at the Canadian Nat'l. Assn. □

Taken from the magazine of the Model Aeronautics Assn. of Canada.

* * Prop Parameters * *

Mumbo Jumbo #61 from the pen of the Glue Guru

Salutations, disciples! Today we shall consider aspects of Rubber Scale prop design. Each of our props represent a series of trade-off decisions, balancing effectiveness, practicality and appearance. How are these decisions best made? What are the constraints?

Efficiency goes with the least hindrance to induced flow. In practice, as the prop diameter is made larger, it is easier to induce more of a flow through the disc area and efficiency increases. For similar reasons, as blade area is made large through use of a broad blade, the blocking of disc area results in a drop of efficiency. In other words, what is wanted is a huge diameter and a tiny blade width. Helicopters approach this ideal. Our props can't be so proportioned, partly because the necessary landing gear length doesn't exist. Those who would fly this sort of prop configuration without a landing gear face a severe tripping hazard upon landing, with much blade breakage. In short, so long as our rules prohibit folding props, enormous diameters are impractical. None the less, the concept continues to live on as an ideal: as the right way to go, were it not for pesky difficulties.

What can be done is to press for the largest practical diameter. Usually something larger than 25% wingspan is used and as much as 40% wingspan is carried by many designs. Below 20%, life becomes difficult. Not only does efficiency suffer for lack of swept disc area, but the necessity to absorb torque forces the use of a broad blade; a blade made broader with each inch less diameter, until it begins to resemble a marine prop. While such things work - the model flies - the usual result is a terrible performance under power, a worse glide and a weird appearance. It's better to go with a minimum of 25% wingspan, avoiding such abominations. Earl Stahl, a giant among us, usually opted for about 33% wingspan, a very respectable figure and one worth emulating.

As for blade width, the trade-off is one of efficiency (narrow is better) vs torque absorption (broad is better). Moving too far in either direction is unwise. Most of us use something in the neighborhood of 12% diameter for max width; it is likely that our collective folk wisdom is near optimal.

Peanut & No-Cal Scale Postal Meet News

The Peanut and No-Cal Postal Contest is now on Skysters! This contest will end on May 30, 1994. Entries postmarked after May 31, 1994 will not be accepted. All you have to do to enter is fly your model, peanut or no-cal, time them and send the time, name of the model and the wing you flew it in to FAC-GHQ. The four wings are; Outdoor Peanut, Indoor Peanut, Outdoor No-Cal and Indoor No-Cal. Contest times count too. Fly as many models as you wish as many times as you wish. Every time you better a score with a particular model send it in. Send scores to; FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506. Scores to date:

OUTDOOR PEANUT

<u>Pilot</u>	<u>Plane</u>	<u>Time</u>
1. Wayne Brock	Mr. Smoothie	76 sec.
2. Doc Martin	Waco	62 "
3. George Nunez	Caudron 460	47 "
4. Ron Hummel	Lemberger LD-20b	46 "
5. George Nunez	Brewster Buffalo	45 "
6. Walt Leonhardt	Nesmith Cougar	39 "
7. Ron Hummel	Messerschmitt ME-109	32 "

INDOOR PEANUT

<u>Pilot</u>	<u>Plane</u>	<u>Time</u>
1. George Nunez	Ol' Ironsides	96 sec.
2. Tommy Westlin	Fike "E"	77 "
3. Tom Hallman	Mr. Smoothie	65 "
4. Jim Anderson	Ord-Hume	46 "
5. George Lewis	Maboussin 40	45 "
6. Tommy Westlin	Caudron "N"	41 "
7. George Bredehoft	White Monoplane	32 "
8. Tommy Westlin	Albatros D-3	27 "

OUTDOOR NO-CAL

<u>Pilot</u>	<u>Plane</u>	<u>Time</u>
1. Ron Hummel	Olds Tailwind	935 sec.
2. Mike Ransom	F4U Corsair	291 "
3. Dave Linstrom	Farman Postale	125 "
4. Mike Ransom	OS2U Kingfisher	105 "
5. Walt Leonhardt	Martin MO-1	42 "

INDOOR NO-CAL (not in order)

<u>Pilot</u>	<u>Plane</u>	<u>Time</u>
Jim Anderson	Tipsy Jr.	71 sec.
Dan Benner	Grunman F4F	137 "
Chuck Powell	Taylorcraft	111 "
Jeff Englert	Farman Postale	59 "
Chuck Powell	Cassutt Racer	119 "
Paula DiDonato	Waterman Gosling	53 "
Tom Derber	Rider R-2	41 "
Mike Matrie	Arsenal DeLanne 10	81 "
Jan Jones	Plymocoupe	49 "
Barrie Taylor	Bristol Scout "D"	195 "
John Vorhees	Farman Postale	296 "
Michael Spiess	Grunman F4F	119 "
George Bredehoft	Dayton-Wright RB-1	63 "
Barrie Taylor	Lacey M-10	338 "
Kristina Luzzi	Fike "E"	66 "
Sidney Gilbert	Lacey M-10	155 "
Frank Hirleman	Cosmic Wind	114 "
Dave Braun	P-47 Thunderbolt	133 "
George Lewis	Waterman Gosling	223 "
George Bredehoft	Republic A-10	27 "

Lil-Planes® Kits

a P-NUT type kit spans 13"
Design by Dave "VTO" Linstrom

1. Martin MO-1 Pub. Aug. M.B. 93
2. Pilatus Porter
3. Kitfox (a home built)
4. Curtis Jenny Monoplane

**\$8.95
post paid**


MFG. BY
MODEL AIRCRAFT LABS.
108 S. LEE ST.
IRVING, TEXAS 75060

S.O.S.--S.O.S.

Wanted; A plan or 3-view of the S.A.I. 207 that shows fuselage cross sections. Ken Race, 906 Liberty Ct., Cupertino, Ca. 95014

Wanted; Any info on the Gwinn Aircar, Fran Ptasziewicz, 23 Marlee Dr., Tonawanda, NY 14150.

Barrie Taylor, 378 Harcourt St., Winnipeg, Manitoba, Canada R3J3H7 is still looking for scale info for the Spartan Cabin. Can anyone help?

MICRO-ELECTRIC



FLYING

FREE FLIGHT MICRO-4 MOTOR

- For 50-70 sq in models
- Suitable for many 10s and 25s designs!
- Entire system weighs only 20 grams!
- **MICRO-4 Total System Package** includes everything you need to fly: motor, 2x50mAh NiCd's, prop, switch, instructions and charger parts (less 3 dry cells)
- FREE Plan Included!

MICRO-4 Total System Package

\$17.95

Please add \$2.50 postage/handling to your total

PO BOX 11588, GOLDSBORO, NC 27532

FLYING ACES PLANS

We are still offering the FAC Plan Packets to you. Price is \$8.00 each Plus \$2.00 each for postage. Pack #1 has 10 plans on 16 sheets (11 X 17), Pack #2 has 11 plans with the same format. All of these plans have appeared in the very early issues of the newsletter and most of you have probably never seen them. Your continued support by purchasing these plan packs continues to keep our overall operating costs to a minimum.

Send your order to; FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.

Guillow's Plans Sought

Through correspondence with Alison G. Smith, President of Guillow's, it has been learned that because of vandalism done by young hoodlums in 1969, the entire collection of older plans (pre-1969, out-of production kits) were lost in a fire. In response to our suggestion, Mr. Smith indicated that Guillow's would like to maintain a file of these old plans, and they have ample space to keep such a file, so that requests for the old plans can be honored. If you have an old Guillow's plan you'd be willing to send to the company, or even a good photocopy, send it to:

Alison G. Smith, President, Guillow's, Inc., P.O. Box 229, Wakefield, MA 01880-0329.

There was such a request for one of their old plans that prompted the correspondence. H.G. Frautschy, 1313 Geneva Rd, Menasha, WI 54952 is looking for a copy of the 1955 plan for Guillow's Mig-15. If you have a copy of the plans, he'd like to have a copy. Let him know what you are looking for - he works at EAA HQ, and has a good collection of old magazines to refer to if you need something from an old magazine.

Contest Results

Please send all contest results directly to; Roy Courtney, Box 88, Elma, N.Y. 14059.

FAC Squadrons

For a list of all FAC Squadrons send a self-addressed, stamped envelope to; FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.

Contest Calendar

April 9....Guillow's kit contest, Palmetto Squadron, FAC #12, David Smith, 6715 Lake Arcadia Lane, Columbia, S.C. 29206.

April 16-17..MIAMA Indoor Meet #6 at MacDill-Tampa. Miami Hanger FAC #11. FAC events. Doc Martin, 2180 Tigertail Ave., Miami, Fla. 33133.

...Erie Model Aircraft Assn. FAC #1. Millfair Rd. site. FAC Scale, Peanut, Embryo, Golden Age Scale, FAC OT Rubber, Jumbo, FAC Electric OT, HLG, Greve/Thompson Race, WW II Combat, Golden Age Military, Dime Scale, Comet kit/plan Scale, Pioneer Scale, FAC Power Scale. Ross Mayo, 3838 Woodcrest CT., Erie, Pa. 16506 (814) 8336855.

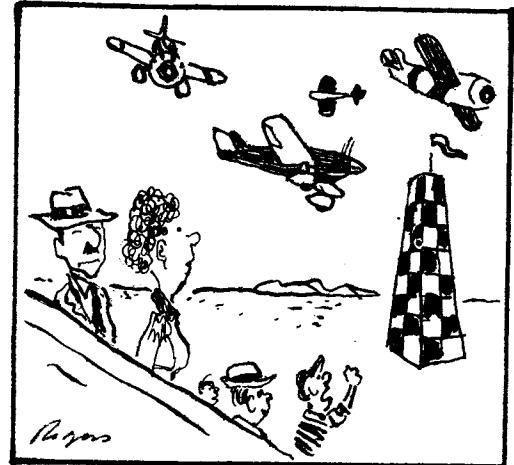
April 17...18th Annual Snowbird Indoor Meet at Edinboro University, Edinboro, Pa. Erie Model Aircraft Assn. FAC #1. FAC Scale, Peanut, G.A. Scale, 7 gram Bostonian, WW I Peanut Dogfight, WW II No-Cal, Blatter 40, A-6, No-Cal 5+ grams, Pioneer Scale. Vic Didelot, 4410 Lorna Lane, Erie, Pa. 16506 (814) 838-3263.

April 23-24..Mosquito Squadron, FAC #14. Many FAC events. Steve Bacom, 836 Banbury Dr., Port Orange, Fla. 32119. (904) 788-7309.

April 24...Cactus Squadron FAC #7. Spring Kanone Quest. FAC OT Rubber, Embryo, FAC Scale, Peanut, Civil Post 1918, AT-6 Texan One Design, Races, WW II. Bob Schlosberg (602) 941-8778.

May 1.....Inside Swing, Sports Dome, Burton, Mi. Detroit Cloudbusters FAC #4. FAC Scale, Peanut, No-Cal 5 grams, Bostonian, Blatter 40, Ministick, A-6, G.A. Scale, HLG, Catapult Glider, F1D, EZB, Intermediate Stick. Dave Livesay, 1911 Carmanbrook Pkwy., Flint, Mi. 48507 (810) 232-0354.

FAC SOCIAL NOTES:
Dumb Dora attended the
Cleveland Air Races



"Why are the pylons square when they have to round them?"

WHAT COLOR WAS IT?

Part 6. By Dave Stott.

In the addenda to part 4 of this series we mentioned a Stinson in service with the state of Maine, Fish and Game Warden. This is a civil airplane in government service, which we will cover more of here. But also in part 6 we will cover some military ships that served "out of uniform".

STINSON: At least two SR-10 models served in the New York City Police Department in the late 1930s and early 1940s. In the Jan. 1940 issue of Popular Aviation there is an article on them with some good photos and the coloring is given. They were green and white, the green being a pretty deep, almost black.

FLEET: Model 8, (see "U.S. Civil Aircraft", Vol. 5, by Juptner)

One of these ships was also in service with the N.Y.C.P.D.

Also, The New York State Police Department had at least one.

A photo of the state's job can be found in the Dec. 1931 issue of Popular Aviation magazine. The coloring is given thus, "the fuselage being a dark grey while the metal work is done in black. The wings are yellow, and adorning each side of the fuselage are replicas of the state seal." The stabilizer was also probably yellow like the wings.

STINSON: SR-10 of the N.Y.C.P.D., further photos of this ship can be found accompanying the 3-view by Bjorn Karlstrom in "American Aircraft Modeler", Oct., 1970. See also Nov. 1939, and Nov., 1947 Air Trails magazine.

In the book, "Waldo, Pioneer Aviator", by Waldo Waterman with Jack Carpenter, page 350, it states that all Dept. of Commerce aircraft were painted black and orange. This opens a lot of doors. The list on the following page was taken from the March 1990 "Vintage Airplane" and states the ships have been given "NS" registration. It appears that later on, perhaps about 1938, the "NS" was dropped for "NC" followed by a two digit number that may have corresponded to the old "NS" number. I have noticed that all the D of C airplanes have "US" on the opposing wing panels. "US", not "U.S.", no periods used. At any rate, I guess we can count on 'em being black and orange. (Check out the Kinner Playboy photos in Juptner's "US Civil Aircraft", Vol. 6, page 195 & 196. She's sporting the "US" on one wing and the "NS24" on the other, which sure jibes with the listing on the following page. Hence, she's black and orange.

HOWARD DGA: Cabin, probably a DGA-9, photo in Oct., 1938 Popular aviation magazine.

STINSON: SR-9. Photo in "US Civil A/C", Vol. 7, pg. 95.

BOEING: F4B-4. Our first "out of uniform" ship. Pictured on pg. 57, Popular Aviation, Jan. 1940, and page 18 of the Sept. 1940 issue of good ol' Flying Aces magazine.

FAIRCHILD: 71. A little story is attached to this one, pictured on pg. 27, Dec., 1927 Popular Aviation magazine. It is an old style 71 wherein the aft fuselage becomes triangular in cross section. Now, most older FAs are familiar with Donald Keyhoe, ace story writer for the ol' Flying Aces

What Color Was It? Pt. 6, cont'd.

magazine and creator of fictional aero heroes like G-2 agent, Captain Philip Strange, and 'tween wars hero, Dick Knight. Keyhoe may be familiar to some other FAs as the writer of books dealing with UFOs. But, not too many are aware that Donald Keyhoe was appointed Aide to Colonel Charles Lindbergh on the tour of the USA that was flown after the great N.Y. to Paris solo. And Keyhoe made the tour in this same ship we speak of here, in company with the Spirit of Saint Louis.

The Fairchild was flown by Lindy's old barnstorming pal, Phil Love. Keyhoe's book, "Flying With Lindbergh", tells all about the trip. (Putnams, 1928), but you won't find a good photo of the Fairchild there, unfortunately. Now for the list.....

AIRCRAFT REGISTERED TO THE BUREAU OF AIR COMMERCE BY REGISTRATION

All of the aircraft have NS registrations because this series was reserved for federal and state agencies. The date following the registration is the year of manufacture. The entries with an asterisk "*" are from a source other than the 1936 register.

NS-1	Buhl: Airster, 1927*	NS-37	Fairchild: 24 C8-C, 1934
NS-2	Stinson: Jr SR, 1933	NS-38	Waco: UEC, 1932
NS-3	Buhl: Airster, 1927	NS-39	Monocoupe: D-145, 1934
NS-4	Monocoupe: 110, 1932	NS-40	Stinson: Jr R, 1932
NS-5	Bellanca: CH-300 Pacemaker, 1929	NS-41	Monocoupe: D-145, 1934
NS-6	Stinson: Jr SR, 1933	NS-42	Monocoupe: 110, 1933
NS-7	Stinson: Reliant SR-5E, 1934	NS-43	Lambert Monocoupe: D-145, 1934
NS-8	Bellanca: 300-W Pacemaker, 1929	NS-44	Fairchild: 24 C8-A, 1933
NS-9	Stinson: Reliant SR-5E, 1934	NS-45	Lambert Monocoupe: D-145, 1934
NS-10	Laird: LC-B, 1927	NS-46	Lambert Monocoupe: D-145, 1934
NS-11	Stinson: Reliant SR-5E, 1934	NS-47	Lambert Monocoupe: D-145, 1934
NS-12	Waco: UEC, 1932	NS-48	Lambert Monocoupe: D-145, 1934
NS-13	Stinson: Reliant SR-5A, 1934	NS-49	Lambert Monocoupe: D-145, 1934
NS-14	Monocoupe: 110, 1933	NS-50	Lambert Monocoupe: D-145, 1934
NS-15	Stinson: Reliant SR-5A, 1934	NS-51	Lambert Monocoupe: D-145, 1934
NS-16	Waco: UKC, 1934	NS-52	Lambert Monocoupe: D-145, 1934
NS-17	Stearman: C-3B, 1928	NS-53	Lambert Monocoupe: D-145, 1934
NS-18	Stearman: C-3B, 1928	NS-54	Lambert Monocoupe: D-145, 1934
NS-19	Waco: UKC, 1934	NS-55	Lambert Monocoupe: D-145, 1934
NS-20	Waco: UKC, 1934	NS-56	Lambert Monocoupe: D-145, 1934
NS-21	Kinner: Playboy R, 1934	NS-57	Beechcraft: B-17-L, 1935
NS-22	Kinner: Playboy R, 1934	NS-58	Stinson: SM-8A, 1930
NS-23	Kinner: Playboy R, 1934	NS-59	Stinson: SM-8A, 1930
NS-24	Kinner: Playboy R, 1934	NS-60	Stinson: Reliant SR-5E, 1934
NS-25	Kinner: Playboy R, 1934	NS-61	Stinson: Reliant SR-5A, 1935
NS-26	Stinson: SM-8B, 1930	NS-62	Stinson: Reliant SR-5A, 1934
NS-27	Stinson: SM-8B Special, 1930	NS-63	Stinson: Reliant SR-5A, 1934
NS-28	Monocoupe: 110, 1931	NS-64	Stinson: Reliant SR-5A, 1935
NS-29	Monocoupe: 110, 1931	NS-65	Weick: W-1, 1934
NS-30	Monocoupe: 110, 1931	NS-66	Beechcraft: A-17-FS, 1935
NS-31	Fairchild: 24 C8-C, 1934	NS-67	Curtiss-Wright: 15-D Sedan, 1931
NS-32	Bellanca: CH-300 Pacemaker, 1929	NS-68	Curtiss-Wright: 15-D Sedan, 1931
NS-33	Fairchild: 24 C8-C, 1934	NS-69	Bellanca: E Pacemaker, 1933
NS-34	Fairchild: 24 C8-C, 1934	NS-70	Bellanca: E Pacemaker*
NS-35	Fairchild: 24 C8-C, 1934	NS-71	Bellanca: E Pacemaker*
NS-10Y	Stinson: SM-8A, 1930	NS-72	Bellanca: E Pacemaker*

9.

The Glastonbury Modelers

Spring Fling ☆

JUNE 12 at DURHAM, CT.

→ 12 EVENTS 12 ↓

1. FAC Scale/Jumbo; combined.
2. GHQ Peanut Scale; Uses the old multi-player equalizer.
3. No-Cal Scale; Profiles with a 16" span limit.
4. Embryo Endurance; Card table airdrone.
5. Ten Cent Scale; Total of 3 officials. Pseudos OK by C.D.
6. Victory Models; Total of 3 officials. Per plan only.
7. World War One Peanut; Mass launch. No experimental crates.
8. W.W.II; 24" span limit, no experimental jobs.
9. Racer Mass Launch; See note below.
10. Catapult Jet; Profile or 3-D. Official launcher only.
11. P-30; AMA rules.
12. HLG; AMA rules.

One wonders what a letter to any of these government offices might bring in reply to availability of old photos of their aircraft. Who knows?

ADDENDA

Thanks to FAC "Corporal" Tony Faranda for the following.

FAIRCHILD: Model 45. NC16864. All orange, dark blue stripes and registration with white pin stripes.
 Model 45. NC15955. All silver with dark blue stripe and lettering.

Model 45: NC15????0. All red with dark blue stripe and registration with white pin stripe.
 Model 21: Light blue fuselage, yellow wings, stabilizer and rudder.

Model 41. Yellow with red trim.

Model 51. All cream.

Model 71. Canadian military. All yellow with RAF tail stripes and roundels.

Model 82 CNI-1 Red and black with white pin stripes. Photo in 1938 Jane's, page 82c.

KREIDER-REISNER: KR-21. NC359N. Red fuselage, rudder, and struts. Yellow wings and stab.
 KR-31. NC7780. Willow green fuselage, rudder and wing struts, black L.G.struts, silver wings & stab.
 KR-34. N831N. Red fuselage & struts, white nose and stripe, light blue wing and stab.

And so ends this series. It has been presented in a pretty haphazard fashion and may not even have been worth printing, but it is something where there was little or nothing.

S.O.S.--S.O.S.

Wanted; 3-views and other scale info for the Vought O3U-3 Corsair on floats. Bill Lober, 4 Lucille Dr., Syosset, NY 11791.

What Color Was It? Pt. 6, cont'd.

U.S. Customs Dept., Border Patrol.

CURTISS FALCON: Well, it turns out that these Falcons were not military jobs serving "out of uniform", but ex- Postal Service Airmail Falcons powered by the venerable Liberty engines. Although no actual coloring is stated, they (there were two of them) were described as sporting "rattler camouflage", meaning they must have been colored as is the rattle snake as they served along the Mexican border. (It is the first known instance of dapple camouflage used in desert operations to me.) These ships are pictured in the Sept. 1934 Flying Aces magazine. They sport a government seal on the fin and 16 stripes on the rudder representing the 16 states of the union when the department began. Lotsa history here, skyters. The Falcons were acquired by the Customs Dept. in the same way drug dealers of to-day forfeit their possessions when they are caught red handed. In the case of the two Falcons, it was a "former W.W.I ace" who was the smuggler.

One wonders what a letter to any of these government offices might bring in reply to availability of old photos of their aircraft. Who knows?

ADDENDA

Thanks to FAC "Corporal" Tony Faranda for the following.

FAIRCHILD: Model 45. NC16864. All orange, dark blue stripes and registration with white pin stripes.
 Model 45. NC15955. All silver with dark blue stripe and lettering.

Model 45: NC15????0. All red with dark blue stripe and registration with white pin stripe.
 Model 21: Light blue fuselage, yellow wings, stabilizer and rudder.

Model 41. Yellow with red trim.

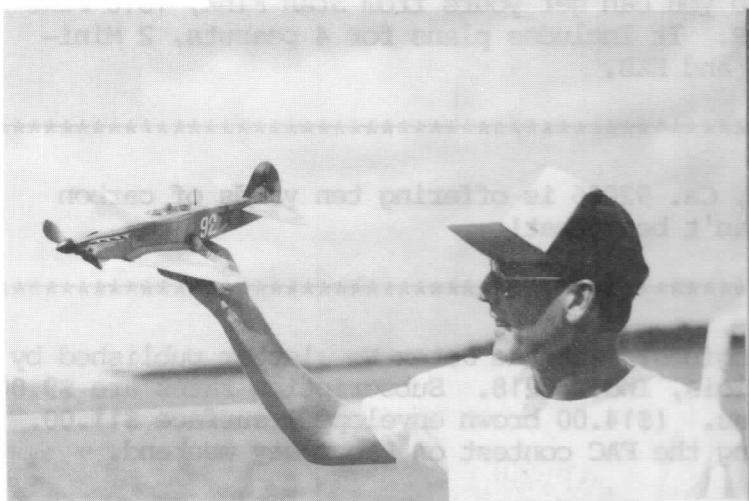
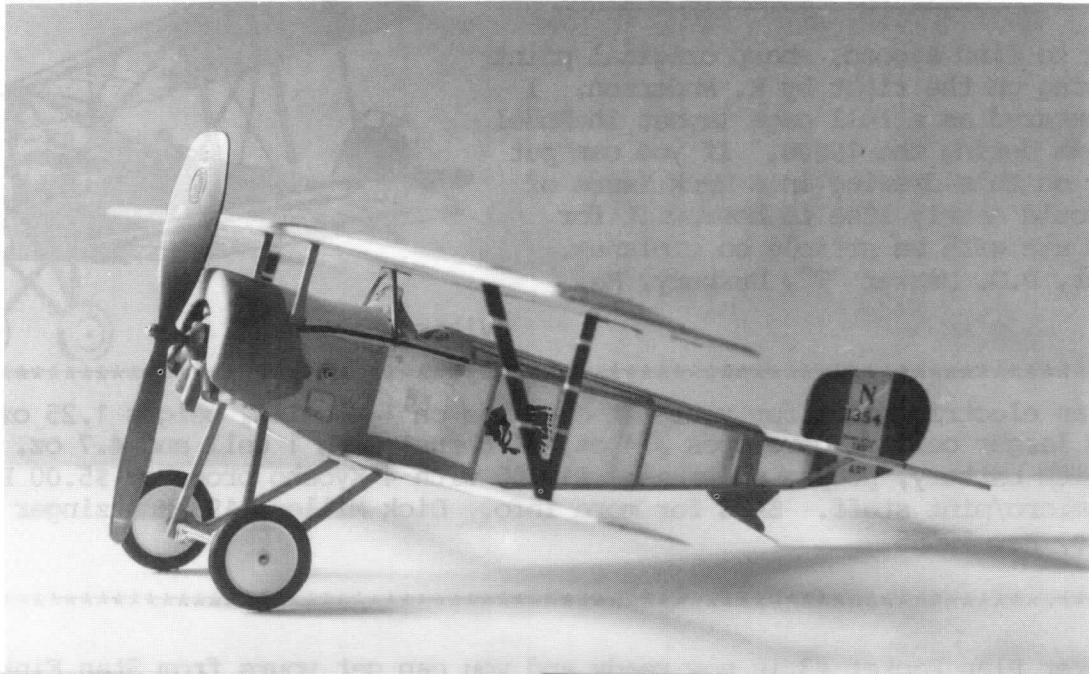
Model 51. All cream.

Model 71. Canadian military. All yellow with RAF tail stripes and roundels.

Model 82 CNI-1 Red and black with white pin stripes. Photo in 1938 Jane's, page 82c.

KREIDER-REISNER: KR-21. NC359N. Red fuselage, rudder, and struts. Yellow wings and stab.
 KR-31. NC7780. Willow green fuselage, rudder and wing struts, black L.G.struts, silver wings & stab.
 KR-34. N831N. Red fuselage & struts, white nose and stripe, light blue wing and stab.

And so ends this series. It has been presented in a pretty haphazard fashion and may not even have been worth printing, but it is something where there was little or nothing.



Top photo; Nieuport 11 "Bebe" by Ray Boldt. Model built from a Comet kit. Nice!

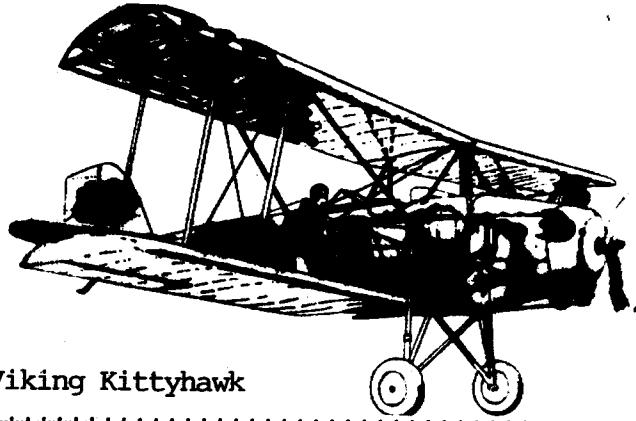
Middle Row; Paul Boyanowski and his own design Yak 9. Nice flyer! Plans in this issue. Aeronca seaplane. Builder unknown, looks like another Comet product.

Bottom Row; Still another Comet kit. This one of the Curtiss Carrier Pigeon by Lindsey Smith from England.

Mr. Smoothie built from plans that appeared in the FAC News. Model by Jiro Sugimoto. Plan by Dave Livesay

12. CAN YOU HELP ME ON THE FOLLOWING MATTER?

I am trying to find a good, sharp original print of the drawing on the right by R. Anderson. I think it appeared as a full page layout in Model Airplane News during the 1960s. If you can put your finger on this drawing in a back issue of M.A.N., I would dearly like to borrow it for copying and use with an article on biplanes.
Bob Whittier, P.O. Drawer "T", Duxbury, Ma.
02331.



Viking Kittyhawk

Have I got an electric motor for you! It operates on 1-4 cells, weighs 1.25 oz., uses 110m AH and larger cells. Developes 3/4 oz. of thrust with 1 cell and 4.7 oz. with four. \$15.00 PP with battery, props, switches; \$10.00 with 4 Kyosho props or \$5.00 PP without. Additional micro/mini stuff. SASE for more info. Dick Miller, 193 Huntzinger Road, Wernersville, Pa. 19565

The Domeduster Plan Packet #3 is now ready and you can get yours from Stan Fink, 1810 Pine St., Philadelphia, Pa. 19103 for just \$8.00 PP. It includes plans for 4 peanuts, 2 Mini-sticks, 1 Pistachio, a No-Cal, Bostonian, HLG and EZB.

Barry Berman, 1375 N. Broadway E-6, Escondido, Ca. 92026 is offering ten yards of carbon fiber for just one dollar plus a SASE. You can't beat that!

Interested in Jetex flying, plans, fuel and engines? Get the Jetex Newsletter published by Roger Wathen, 3242 N. DeQuincy St., Indianapolois, Ind. 46218. Subscription rates are \$9.00 in the U.S., \$10.00 Canada, ans \$12.00 overseas. (\$14.00 brown enveloped) surface \$11.00. Roger may hold a Jetex contest at Muncie during the FAC contest on Labor Day weekend.

Tim Lavender wishes to tell us of a "Glue Pen" for 69¢, 50 cc, transparent & non-toxic. Also, a Magnum 44 permanent marker from Sanford. It can be used to make tissue look like it was sprayed with paint! Both of these items were purchased at the local K-Mart.

Contest Calendar

May 7.....Reading Indoor Air Races, Reading, Pa. S.O.T.S. FAC #8. No-Cal, Bostonian, WW I, Peanut, Golden Age, FAC Scale, Coconut Scale. Tom Sanders (215) 249-1409 or Tom Hallman (610) 395-5656. Fun fly at same site--April 16.

May 14-15..MIAMA INDOOR Meet #7. Same as April 16-17.

June 3-4...FAC Johnson City, Tn. FAC Scale, No-Cal, Kit Plan Scale, Pistachio Scale, FAC Hi-Wing, Bostonian, G.A. Scale, Coconut Scale, Gran Prix. Jim Miller, 107 Lorelei Dr., Fayetteville, Ohio 45118.

We model flyers have to depend mainly upon propellers for the impetus to get our miniature planes (except gliders) airborne. (Ducted fans are really just small-diameter, multi-bladed props.) Yet too few modelers truly understand propellers: exactly how they work, and why.

The Brits call propellers airstreams. This name suggests that they thread themselves along through the atmosphere in the same way that a spinning nut runs down a bolt.

That concept's false. A propeller is a rotating airfoil, not a screw. It pulls itself through the air in just the same way a wing produces lift: by deflecting the gas molecules in the air it strikes. A prop pushes these behind it, and obtains forward propulsive force as a reaction.

True, the "pitch" of a propeller is figured as if the prop was intended to screw into something solid. A "9-6" prop has its blade undersurfaces twisted so they'd move forward six inches if rotated once through, say, a block of clay. (The underside angle is smaller toward the tips than at the hub, because the tips travel farther circumferentially. The slower-moving inner portions of the blades thus need to be more steeply inclined, so they'll "advance" the same distance per revolution as the fast-travelling tips do.)

In actuality, the propeller's slanted undersurface is merely what provides the angle of attack its airfoil requires to generate "lift". However, the way a wing airfoil produces its lift differs markedly from the way a prop develops its thrust. In flight, a wing moves forward into an essentially motionless atmosphere.

But a propeller pulls the air it works in towards itself.

If a model wing's angle of attack exceeds about 10 degrees, it "stalls", and the airplane stops flying. But rubber model props can work just fine with blade undersides tipped 50 degrees and more! Such steeply-angled surfaces surely ARE "stalled", when they start revolving. However, the reason an airfoil stalls isn't that its lifting ability vanishes at high angles. Its DRAG shoots way up first. The excessive drag of a stalled wing begins by slowing its aircraft; THEN lift drops in consequence. The airplane quits flying and becomes a falling object.

When a high-pitch propeller begins spinning, its airfoil's "stalled", all right. But power from the motor (or rubber) keeps the prop rotating anyway, despite the excessive drag its blades are developing. (This is what causes most of the "torque surge" we notice when we release the propeller of a fully-wound rubber model. Hold the airplane a second or two before launching, to let the prop airflow stabilize, and the savage left-twisting effect largely disappears.)

The "lift" that the prop airfoil produces pushes its working air backwards (the "slipstream"); then more air gets sucked in from the front to take its place.

The blade's effective attack angle is lessened by this incoming airflow, because that air's already moving in the desired direction when the blade strikes it. Thus drag goes down; thrust goes up; incoming and outgoing slipstream velocities both increase. Within a second or so, the whirling propeller establishes its own optimum "working environment".

This explains why propellers don't "unload" in flight as much as you might expect. Most "unloading" occurs immediately after the prop begins spinning. The incoming airflow automatically adjusts the angle at which it meets the blades, until optimum effectiveness occurs for that particular prop diameter, blade shape & pitch, and available power.

Of the variables affecting the amount of thrust a propeller develops, the most important are diameter and rpm. Thrust increases when either of those go up: in proportion to the square of the rpm, and the fourth power of the diameter. If you speed a given prop up from 10,000 to 14,142 rpm, its thrust output will double. And if you spin a ten-inch prop at the same rpm as a geometrically-similar 5-incher, the thrust developed will be 16 times as great.

Naturally, the power available to turn the propeller enters strongly into all this. A big prop absorbs more horsepower than a small one; one with high pitch needs more power than a low one. Thrust doesn't come as a free gift!

The working efficiency of any reactive propulsion system (propeller, jet, or rocket) is found by comparing the velocity of the powered vehicle to the relative velocity of its "backflow". If these were the same for an airplane (an impossible condition), its propulsion would be 100% efficient, and there'd be no slipstream behind the aircraft. The air it had moved through would stay as motionless as the railroad track behind a speeding locomotive. However, the closer we can approach this ideal with a propeller-driven aircraft, the higher its efficiency.

The thrust that keeps our airplanes flying comes from the reaction that results from accelerating a mass of air rearward. If this mass is low, like that behind a small-diameter propeller, it has to be accelerated quite a lot to provide appreciable thrust. Efficiency suffers. On the other hand, the larger air mass acted upon by a big prop needs much less acceleration to achieve high thrust output. (That's why a single-bladed propeller can outperform multi-bladers: for the same shaft power it's significantly bigger in diameter.)

Another important factor in propeller performance is blade stiffness. If a prop has flexible blades, they'll bend and twist under the forces generated by torque, flywheel action, and aerodynamic effects. There's little likelihood that such bending and twisting could improve efficiency.

ERIE MODEL AIRCRAFT ASSN.

That is, if a propeller is optimally designed and made for a specific purpose, any distortion to its shape in operation has to be detrimental to its performance.

The most efficient propellers have "helical pitch" from hub to tip, because every part of the rotating blades produces drag that requires power to overcome. Ideally, every part of those blades should also produce its full quota of thrust. Now, the lift-drag ratio (L/D) of an airfoil maximizes at a certain attack angle. Both above and below that angle, L/D lessens -- usually quite a lot.

I proved this to my own satisfaction thirty years ago, during experiments with electric-powered models. The batteries and motors I used then (Marx "Milliperm" and the 5-pole, silver-brush motor from the Bonner "Digimite" servo) put out JUST enough power for sustained flight -- provided that I used the right propeller.

No commercially available prop could keep my primitive electric airplanes flying. I had to hand-carve my own specially-designed propellers -- and it took helical-pitch, thin-bladed propellers with narrow hubs to achieve truly successful electric-powered flight. During these experiments I was amazed to discover that the amount of pitch had far less effect on performance than blade shape and stiffness. By the way, these were control-line models, and comparing performance was easy.

When a propeller alters its pitch by flexing under power, the angular change increases the farther out from the hub it occurs. That's exactly the opposite of what's needed for efficiency. Even "controllable pitch" props, whose blades pivot axially instead of deforming torsionally, lose efficiency in so doing. The angular change is identical from root to tip, instead of becoming smaller the farther it gets from the hub.

I've performed many experiments with identically-shaped model airplane props made from materials with different flexibilities. In every test -- with "gas motors", CO₂, rubber, and electric power -- the stiffer the blade, the higher the thrust output!

Stiffness is the main reason today's reinforced plastic propellers for "gas motors" work so much better than the more flexible plain nylon props common 20 years ago. And the added stiffness provided by, say, tissue-covering a thin-bladed "outdoor rubber" prop improves its efficiency in just the same way.

One more method of improving model propeller efficiency: sand the forward half of the front surface with medium sandpaper, to produce a region of parallel hub-to-tip scratches. (Leave the back surfaces as smooth as glass.) This provides the same sort of "turbulation" efficiency-improving effect as multi-spars do on a model wing.

The Erie Model Aircraft Assn. is holding its annual banquet and would like to invite all who would like to please join them.

The date....April 16, 1994
The place....Ramada Inn; I-90 & exit 8.
The time....Happy hour 6:00 pm, Dinner 7:00 pm.
The menu....Either stuffed pork chops or 1/2 baked chicken.
The price....\$13.00 per person.

For reservations; Vic Didelot, 4410 Lorna Lane, Erie, Pa. 16506, Ph. 814-838-3263
no later than April 12, 1994.

Guest speaker to be announced. Also in attendance will be Earl Van Gorder the most famous columnist from Flying Models magazine. Come join us in an evening of madcap and mirth! If you wish to stay overnight at the motel the phone number is 814-825-3100. BE THERE!!

AEROINDEX

P.O. Box 5124
Hamden, Ct. 06518

WINGS AND AIRPOWER INDEXES

A complete index to all of the articles published in Sentry Books' Wings and Airpower magazines. Every article is at your fingertips, along with key information. A must for the aviation buff, historian, or scale modeler.

PRINTED SEQUENTIAL INDEX: \$4.50 post paid
TOPIC INDEX: \$4.50, post paid
SPECIAL! Both indexes for \$8.00

INDEX ON DISK for IBM-type computers. Yearly files, 1971 to now. Both topic and sequential listings are given plus two useful utilities, BROWSE and PRINTOUT. Please specify disk size. \$9.95 post paid. NEW!! INDEX ON DISK for MacIntosh! \$9.95 post paid.

UPDATES

If you already have an index, here's how to bring it up-to-date: Send the logo from your disk and \$4.95. You'll receive a complete, updated disk. Have a printed index? Tell us which index you have and what years you need.. The updating fee is 75 cents per year, or 60 cents per year if three or more years are ordered. There's no shipping charge if page updates are ordered with other merchandise. Otherwise, include 30 cents per order.

AVIATION MAGAZINE BACK ISSUES

Looking for that hard-to-find issue to complete your collection? We carry an extensive stock of old aviation and model airplane magazines: Wings & Airpower, Air Classics, Model Airplane News, Air Trails, and many, many more. We buy and sell aviation magazines from a single issue to an entire collection.

Send your "want list" for availability and a price quote - or send a long, self-addressed stamped envelope (two first class stamps) for the current back issue list.

How many times have we heard a clubster refer to those good old F.A.'s? The thought in most cases are the mid 30's to early 40's, those $8\frac{1}{2}$ by $11\frac{1}{2}$ inch slick mags with colorful covers by C.B. Mayshark and A. Schomburg. Inside these covers could be found smashing air yarns by D. Keyhoe, J. Archibald, A. Whitehouse and many more. Along with numerous plane photos and data, the FAC news and model plans by distinguished Aero designers that are familiar to all. These were appropriately billed as "Three Aviation Magazines in One!".

Since the club and its newsletter is directly founded on the ideals and enjoyment set forth in these cherished documents, it may be interesting to go back where these got their start.

Like several air pulps and aviation mags in the late 20's, F.A.'s were made airborne through the interest that was injected in aviation by the famous flight in May, 1927 of the late "Lone Eagle", Charles Lindberg. Dates are noteworthy since the first issue found the bookstands in September of 1928.

Harold Hersey edited this 7 by 10 inch wood-pulp collection of air stories. The early covers were crude with little research and some with no story connection, never the less they still had a lot of appeal. The stories contained in these "pulps" were less appealing to the juvenile sense of imagination, since the Super Hero and the Aeronautical Science Fiction that was to be his setting wouldn't be introduced until F. A.'s third year.

One of the F.A.'s earliest writers used the pseudonym "Ace Williams" exchanging it for Arch Whitehouse a few years after publication. "Ace" must be credited as one of F.A.'s earliest and most lasting contributors. In the second issue, Oct. 1928, his exposure to the real situation is clearly shown. In "Death Dive", Lt. Jimmy Jordan attached to the R.N.A.S. overcomes the contempt held for the Yankees in the earlier days of American participation by single-handed capturing a German U-boat in a Sopwith Baby Scout. In the same issue stories concerning Sky Gangsters and Air Adventure were told.

Although model plans didn't start to appear until 1932, as early as Nov. 28, Vol. 1 #3*, an eleven page article complete with drawings, titled "How to Build and Fly Your Own Glider", full sized, was featured by A.W., naturally!

Under the new editorship of A.A. Wyn in 1931, F.A. took a different traffic pattern. The cover art work was handled by Paul J. Bissell. The style was a circled picture that depicted a famous W.W. I Air Battle or an illustration of the Aces in action. Ex. ("The Death of Immelman" Nov. '31)

Phil Strange and Phineas Pinkham under the direction of Major Keyhoe and Joe Archibald made their appearance. The new exclusive World War One Western Front format was aimed at the younger generation rather than the veterans or barber shop readers. This new policy was to be carried on for several years.

The first "white paper sheets" with model plans and snapshots of the war were introduced in 1933, they were contained as centerfolds. Plan renderings and instructions were capably handled by Avrum Zier and Ben Sheresaw.

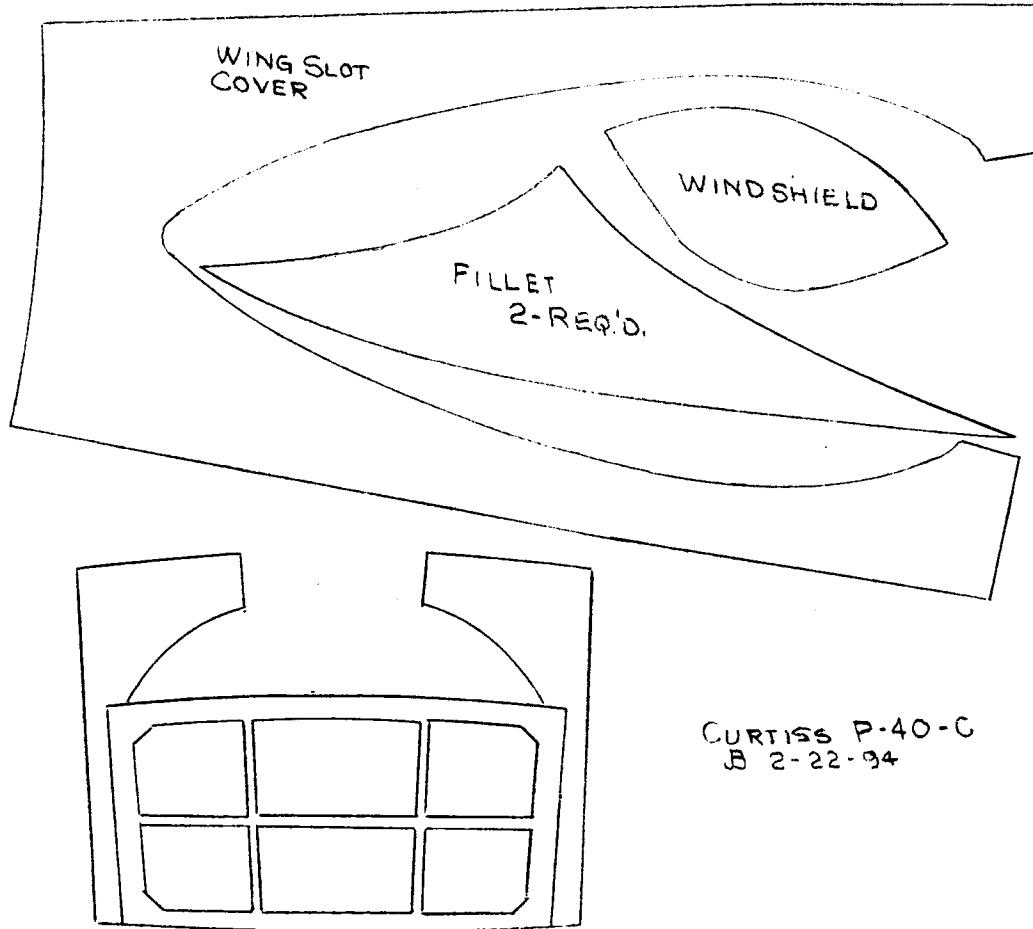
The "Flying Aces Club News" was in full swing, getting its start around Jan. of 1933. In the July '33 issue, Capt. E.V. Rickenbacker and Rear Admiral R.E. Byrd have their letters of acceptance published.

"Flying Aces" was becoming a thicker magazine with more appeal, identifying with the full sized magazine that it was to become in November of 1933. In this same year F.A. reduced its price from 20 to 15 cents, probably a competitive move with the times and other publishers. Can any Clubster imagine this offer-

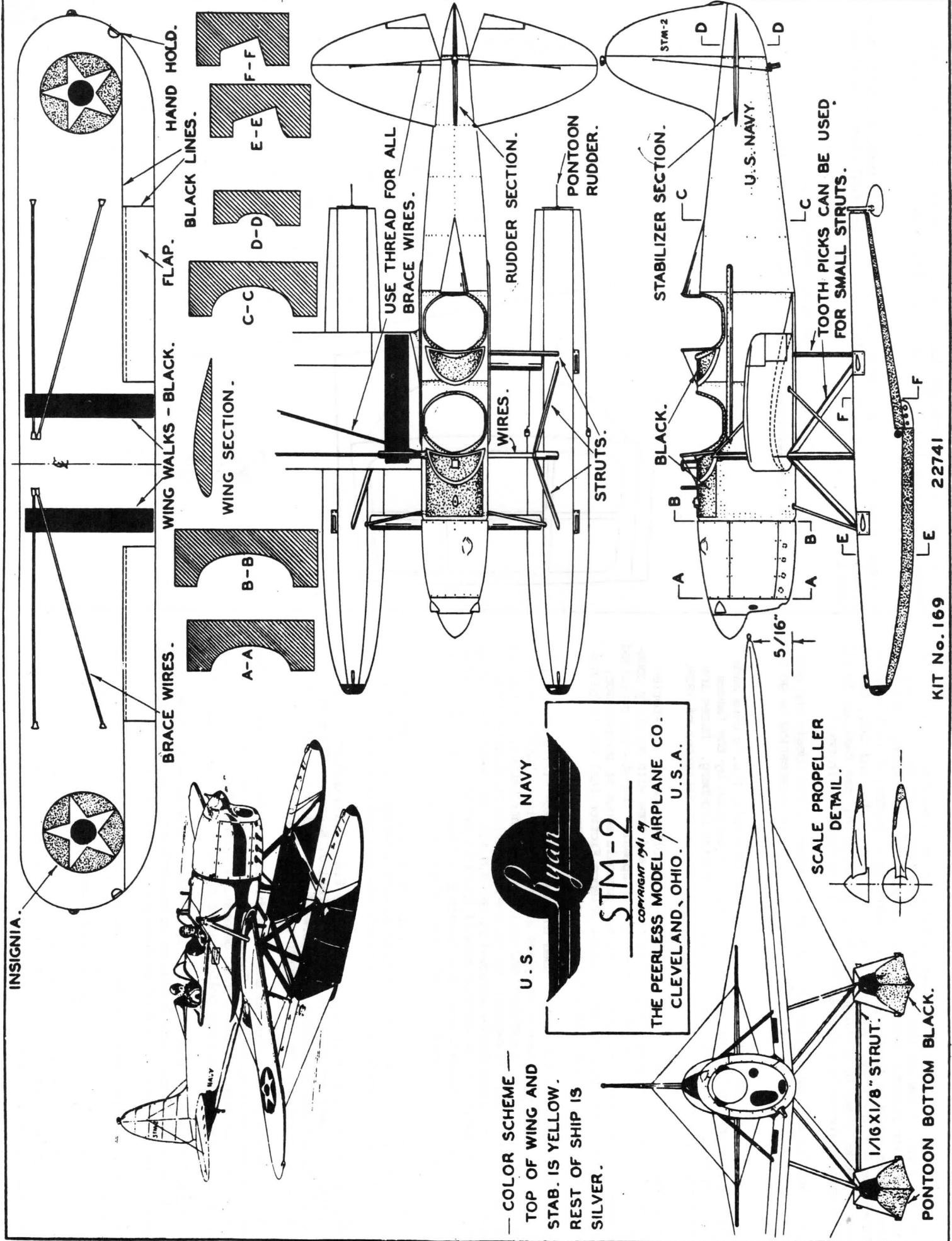
ing in competition? Although this is just a short sketch of the beginning, it makes a heart warm to know the spirit is still kept alive in the art of rubber scale modeling.

* (1932, a series was run through the courtesy of U.S. Model Air Craft Corp. It was of scale W.W. 1 models. Although good, they fell short of what was to come in the future.

Jim Hyka, Captain, FAC



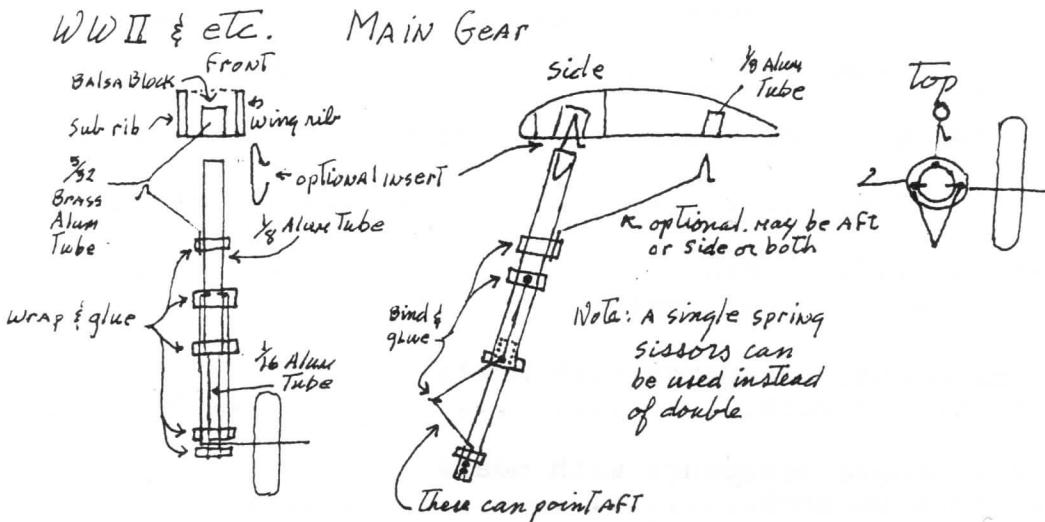
15.



Shock Absorbing Landing Gear

by Jake Larson

Part Nine



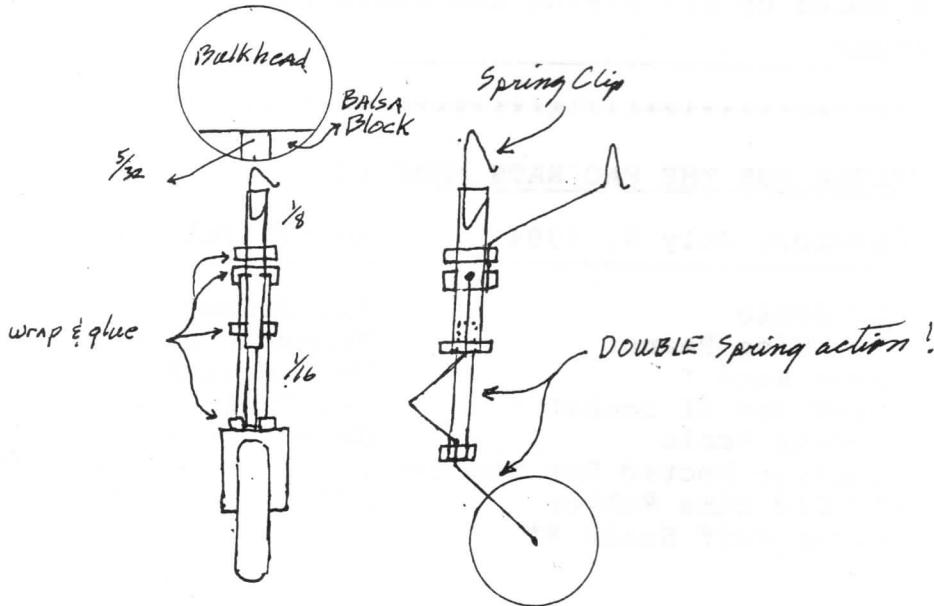
These work fairly well BUT there IS a weight cost. The smallest I've used them on is 16 in span. They do pop off if the spring clip is used throughout (N) They WILL poke holes in the tissue so put 1/32 sh. Balsa between wing ribs from L.E. to T.E. in L.G. area & then cover with tissue

WW II & etc Nose Gear

A. May be same as Main

or

B. Front



Again, Beware of weight cost! They DO work but are too heavy for anything less than 16 in span & 16 span is iffish (unless you're NOT competing) Best saved for 20 in and longer spans.

S.O.S.--S.O.S.

Wanted: Plans and/or scale info wanted for the following aircraft, Piaggio PC-7, Guillemin J.G. 40-22, French LeRandem SFCA 'leTaupin. Will pay for copying. Sidney Gilbert, 955 Patterson Dr., Sarasota, Fla. 34234.

WEST WINGS			
WW-09	Hawker Hart	25"	\$20.95
WW-08	Puss Moth	24"	\$16.95
WW-06	F-111 Stealth	15"	\$16.95
WW-10	Westland Widgeon	24"	\$15.95
WW-03	Hawker Sea Fury	22"	\$19.95
WW-04	Spitfire Mk.22/24	25"	\$19.95
WW-21	Mig-29 (profile)	12"	\$7.95

Hundreds more in our catalog!

FLAIR

KEL KRAFT

Airsell

SIG

HANNAN'S HANGAR

WEST WINGS

FREEBORN MODELER'S PINS

WHEELER easy build models

Hobby Supply South
5060 Glade Road
Acworth, GA 30101
404-974-0843
404-974-6243 fax

Catalog \$3.00

Call or write for yours today!
Dealer Inquiries welcome

18.

REGISTRATION FORM
FAC-NATS MARK IX

MAIL TO; Lin Reichel, 3301 Cindy Lane, Erie, Pa. 16506

Name _____ Address _____

City _____ State _____ Zip _____ AMA No. _____

I wish to make the following advanced reservations for the FAC Nats Mk. IX.

____ entry fees at \$20.00 each.....\$_____

____ banquet tickets at \$16.00 each.....\$_____
(with no dormitory reservations)

____ reservations for double occupancy with meals
and banquet at \$163.00 each.....\$_____

____ reservations for single occupancy with meals
and banquet at \$206.00 each.....\$_____

Total enclosed....\$_____

Please note that we are unable to refund cancellations after June 15, 1994.
If you plan to share a double occupancy with someone, please indicate their
name so we can direct the University to set up the proper room arrangements.

Second person _____

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

SIGNATURE _____

EVENT SCHEDULE FOR THE FAC NATS MARK IX

Friday July 8, 1994

Shell Speed Dash
World War One Dogfight *
Embryo Endurance
No-Cal Scale
Aerol Trophy Race *
Golden Age Scale (civil)
FAC Old Time Rubber
Modern Military ** *
Golden Age Military * **

Saturday July 9, 1994

FAC Scale
High Wing Peanut
Greve Race *
World War II Combat *
Pioneer Scale
Electric Ducted Fan Scale**
FAC Old Time Rubber
Powder Puff Scale **

Sunday July 10, 1994

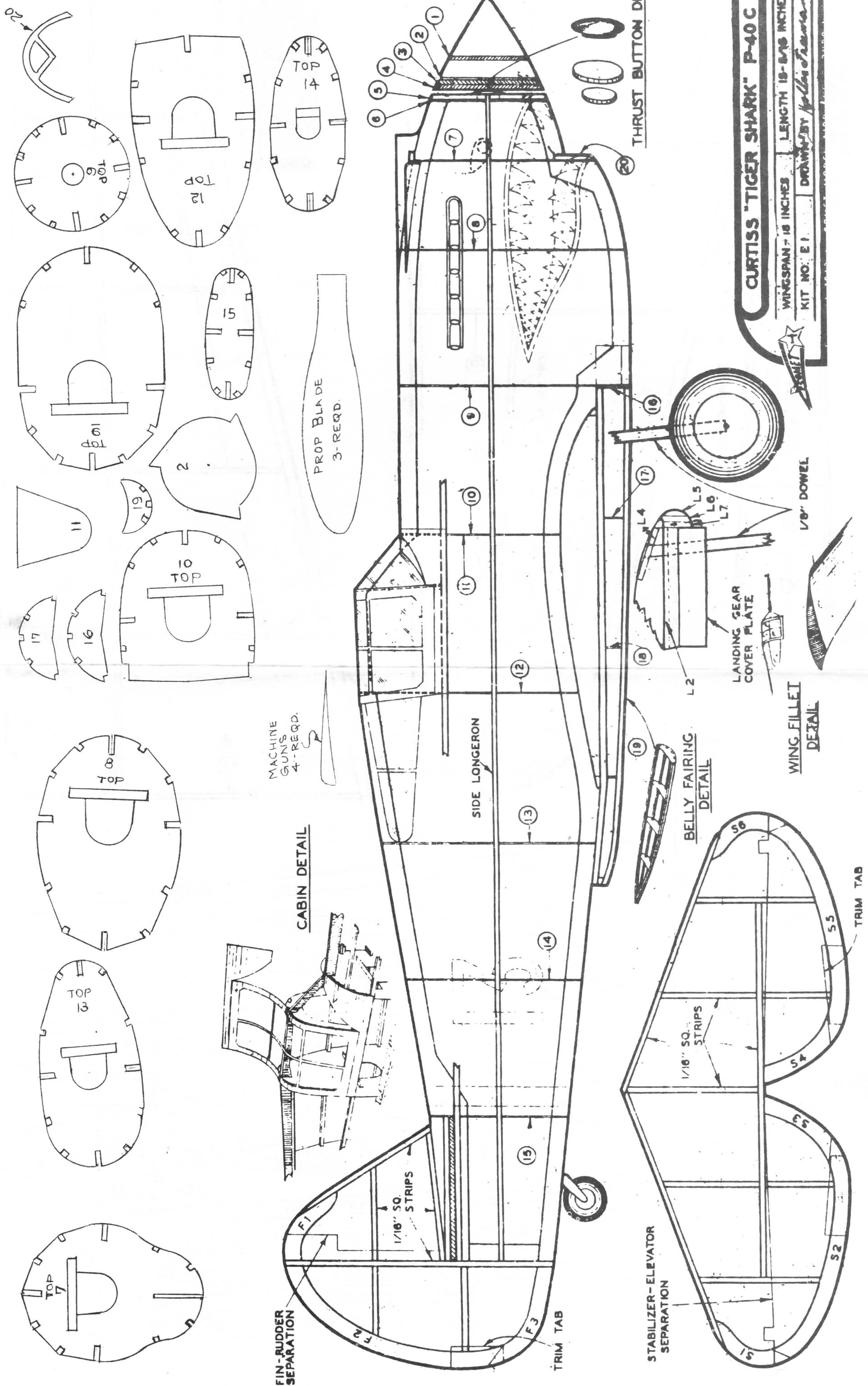
FAC Peanut
Thompson Race *
WW I Peanut Dogfight *
FAC Power Scale
Jumbo Scale
Electric O.T. Gas **
FAC O.T. Rubber Flyoff
Flying Horde *

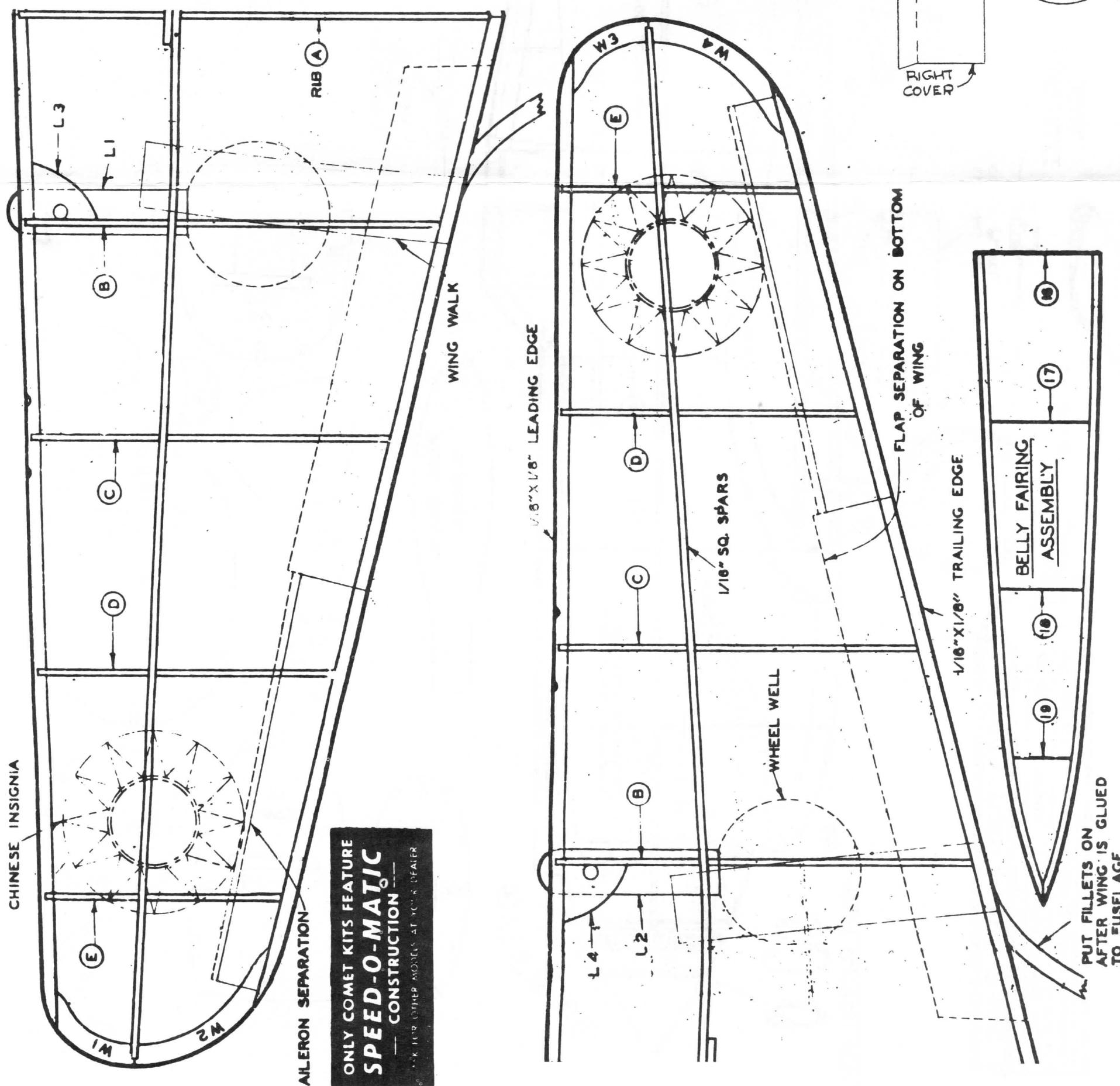
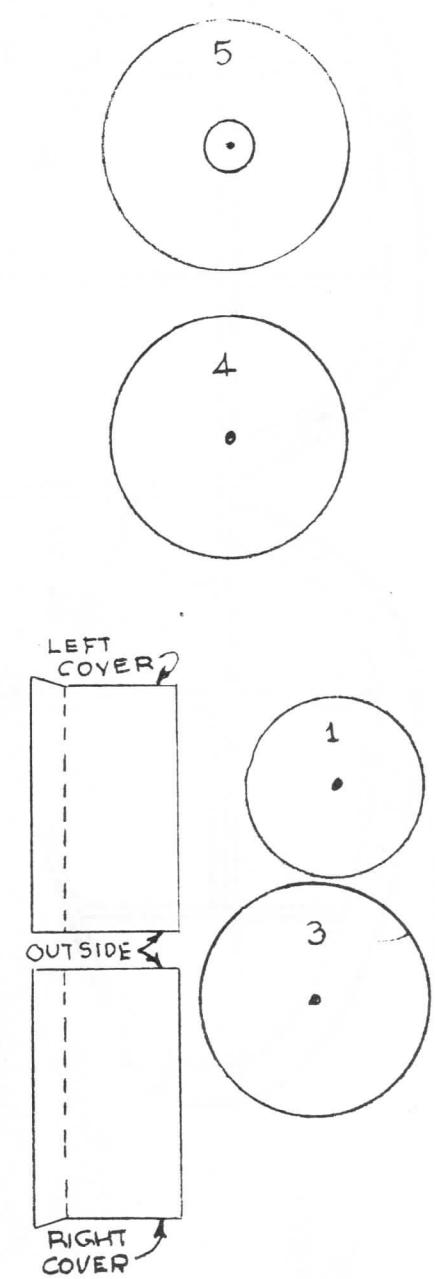
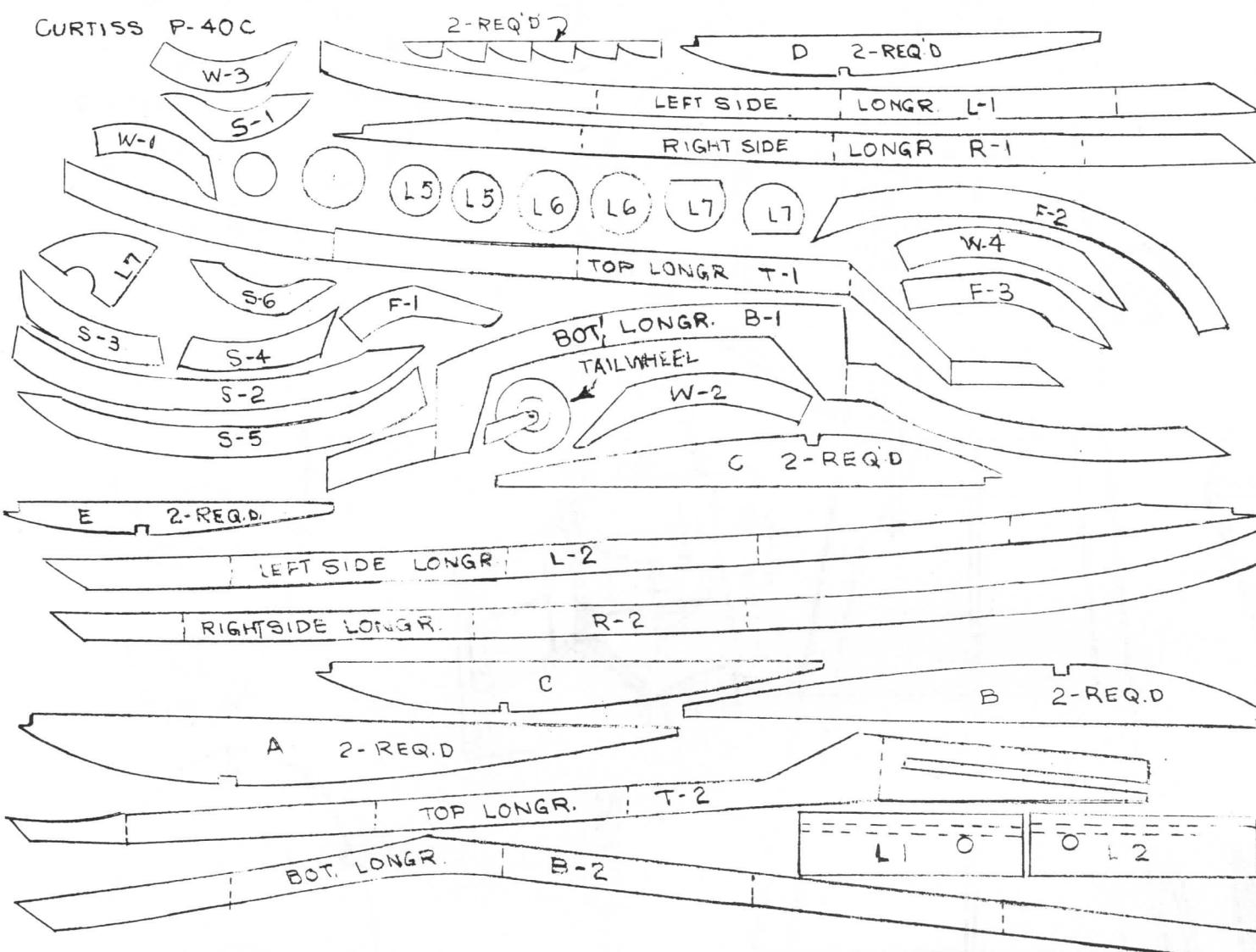
* Mass launch events

** See rules in Issue #154-80 Nov./Dec. 1993.

Contest Directors; Lin Reichel and Dave Livesay.

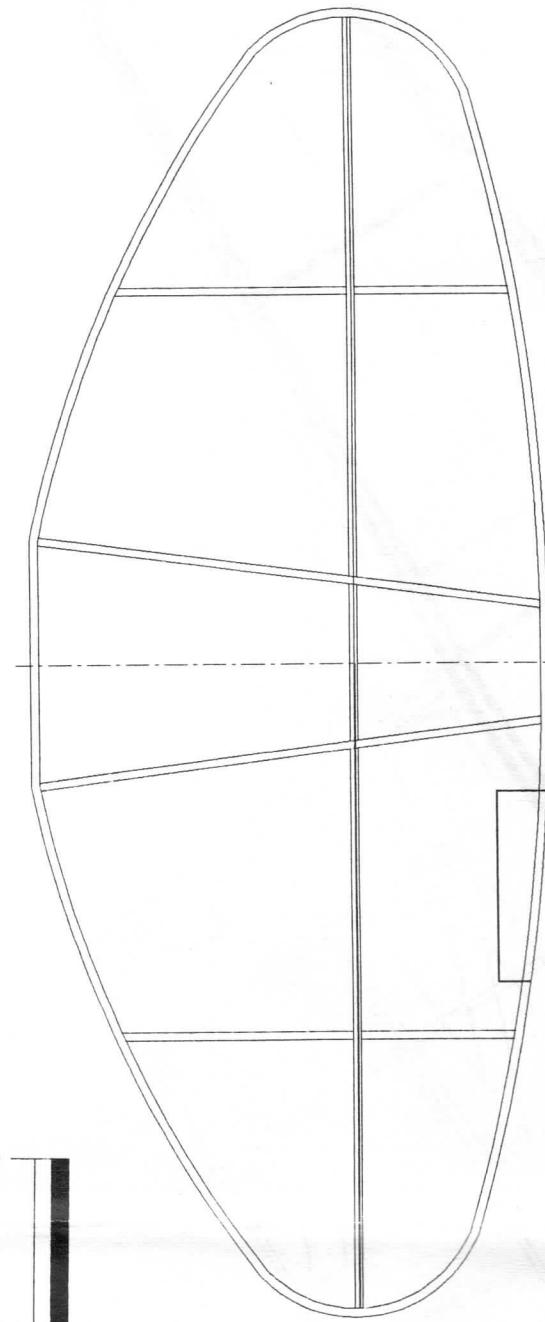
Check-in time at the University will start at 1:00 pm until ? on Thursday July 7, 1994.
(As of this date we do not know which dormitory we will be assigned to.)





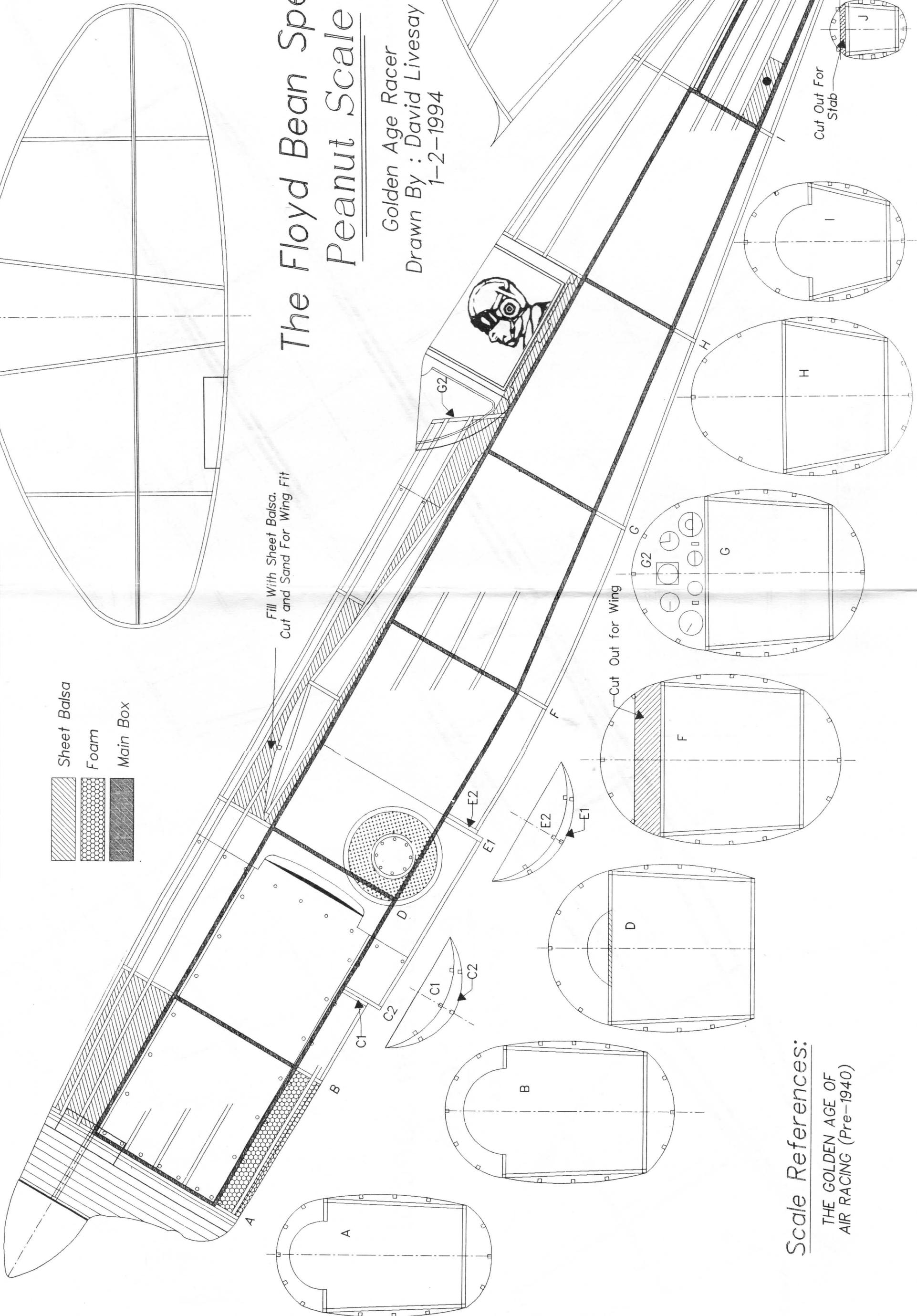
The Floyd Bean Special Peanut Scale

Golden Age Racer
Drawn By : David Livesey
1-2-1994



Sheet Balsa
Foam
Main Box

Fill With Sheet Balsa.
Cut and Sand For Wing Fit



Scale References:

THE GOLDEN AGE OF
AIR RACING (Pre-1940)

Color Scheme:

All Yellow With Brown Scallops
& Brown Wing Numbers Outlined
with Red Stripe About $5/16$ " Wide.
Rudder Registration Number Black.

Scallops Top Of Wing Only

The Floyd Bean Special Peanut Scale

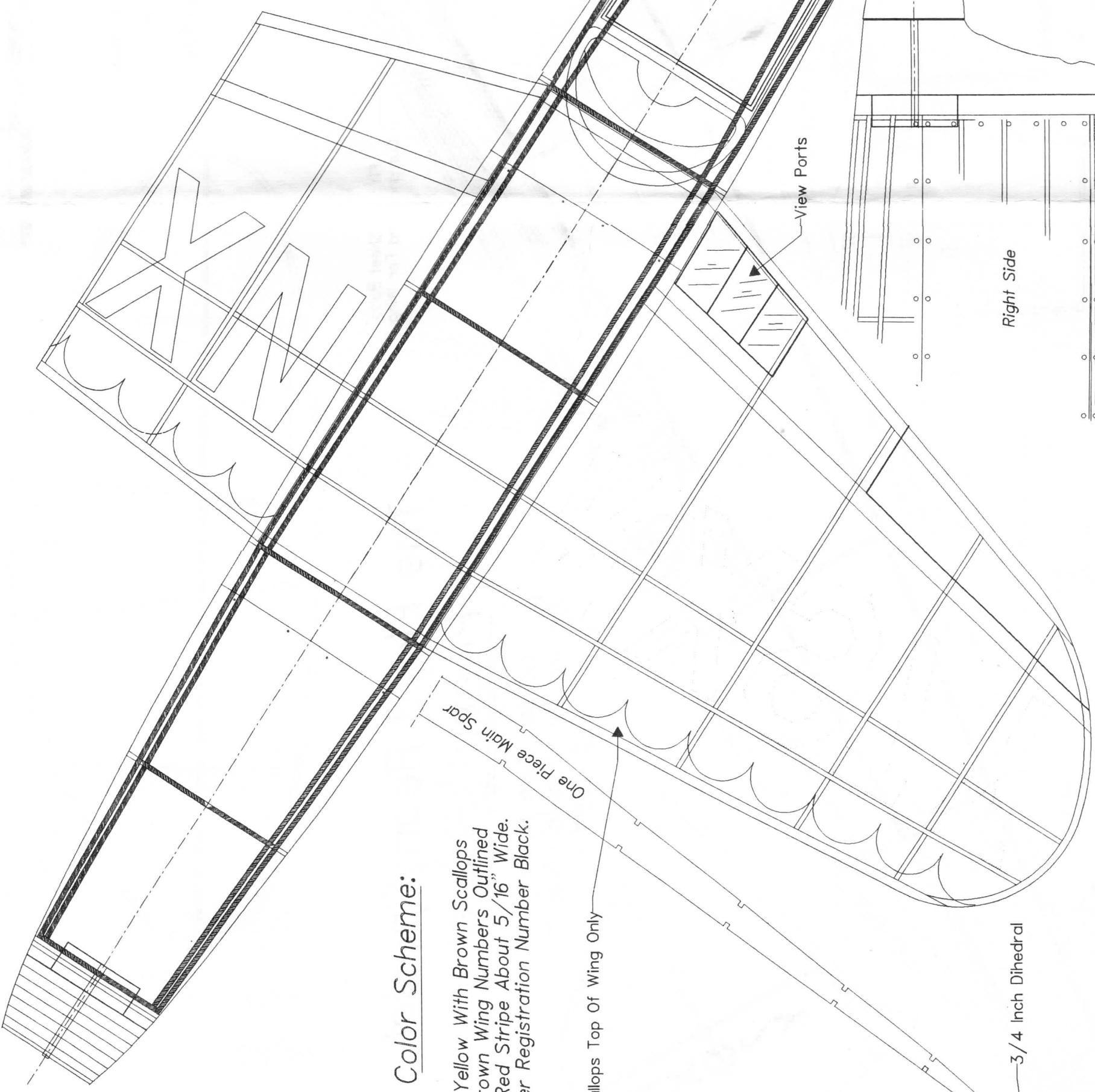
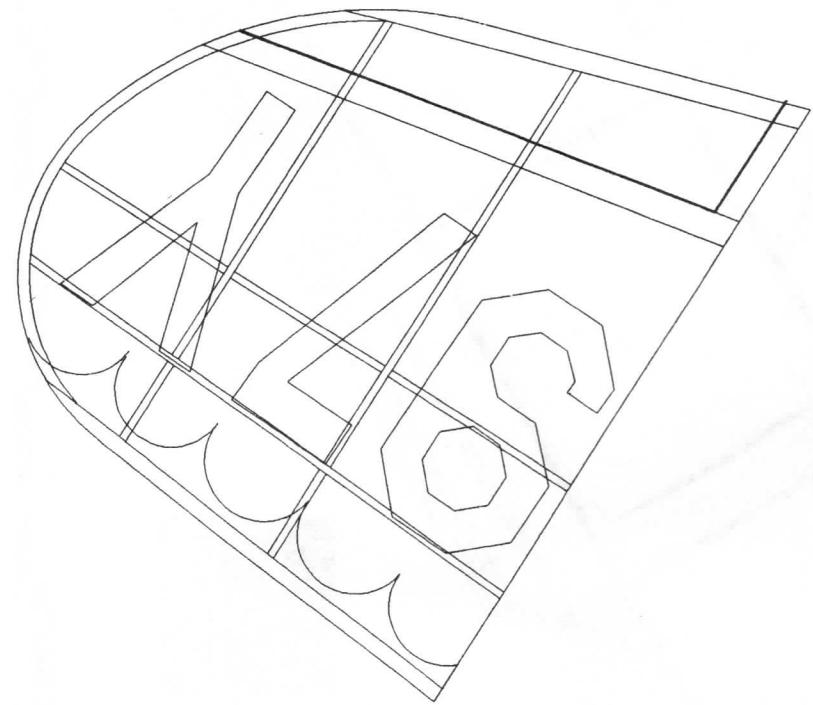
Golden Age Racer

Scale Stab

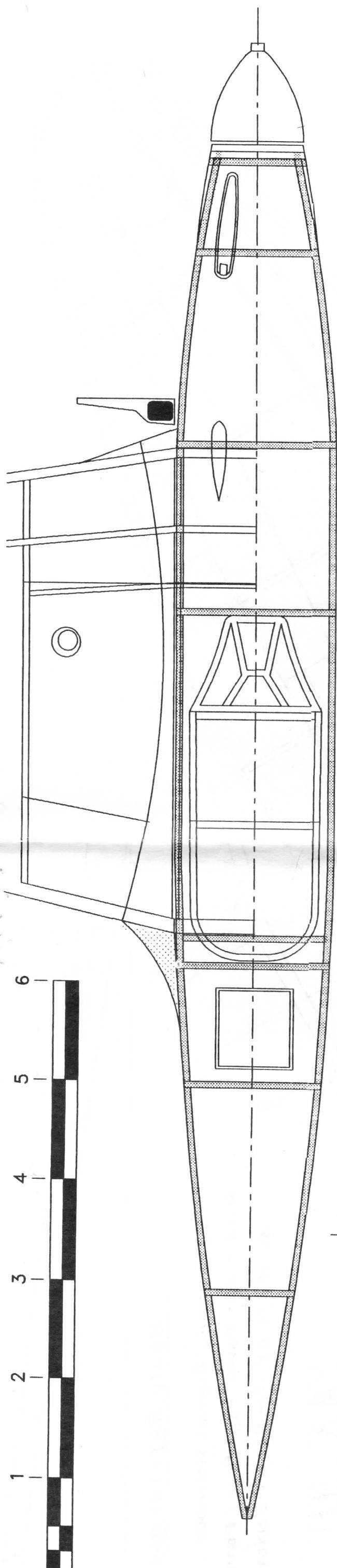
Right Side

$3/4$ Inch Dihedral

One Piece Main Spar



View Ports



YAK 9D

WWII Russian Fighter

Drawn By: Paul Boyanowski
Traced By: Dave Livesay (3-14-93)

