

MAX FAX



Journal of the D. C. Maxcutters

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

Editor: Stew Meyers

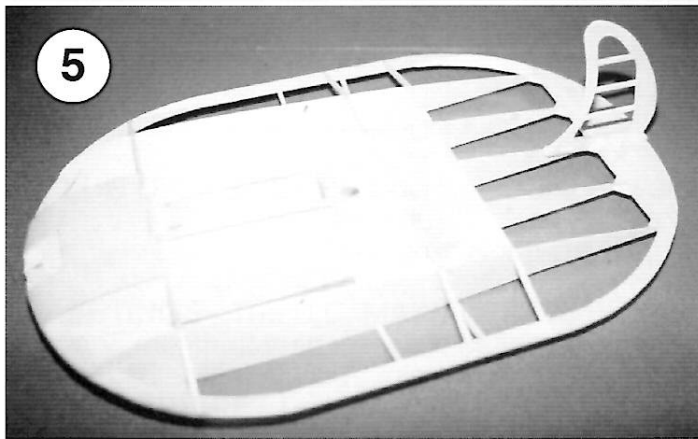
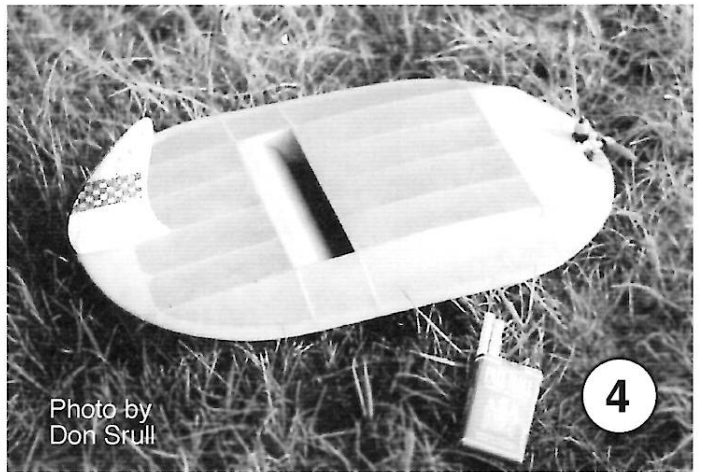
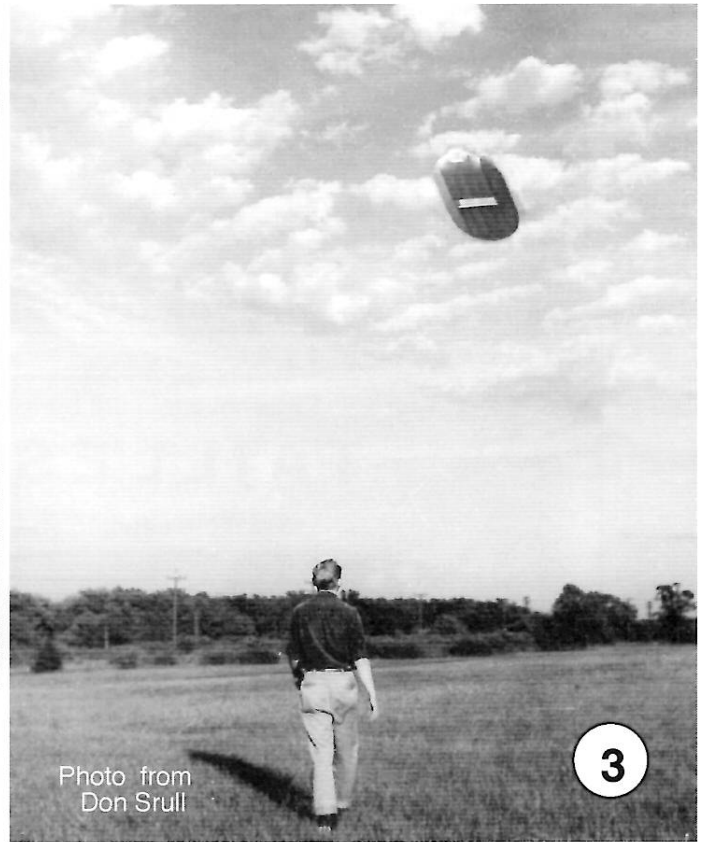
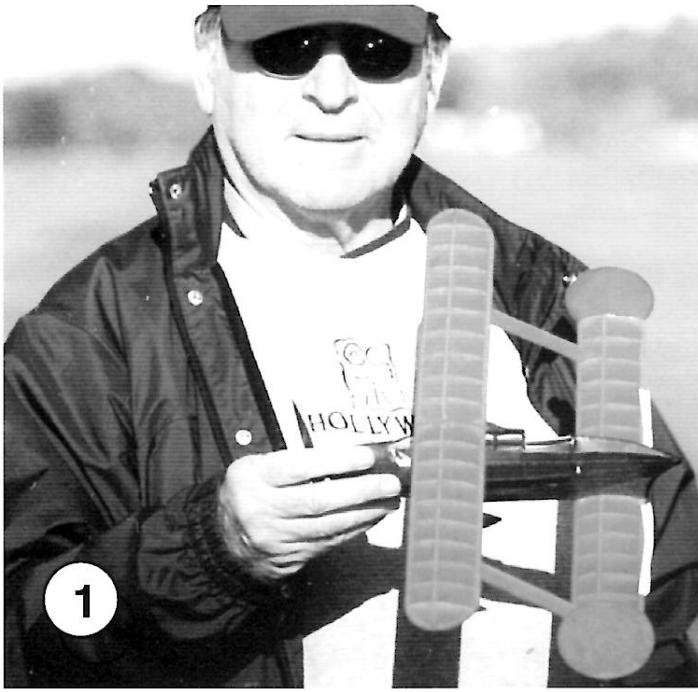
JULY-AUGUST 2002

TAILLESS ISSUE



COMING ATTRACTIONS

- | | |
|-------------------|---|
| JULY 18_21, 2002 | FAC NATS AT GENESEO, NEW YORK |
| AUG 25 _30, 2002 | SAM CHAMPS AT AMA FIELD, MUNCIE INDIANA |
| SEPT 7_8, 2002 | FLYING ACES OUTDOOR CHAMPIONSHIPS AT AMA FIELD,
SATURDAY AND SUNDAY, MUNCIE, INDIANA |
| SEPT 13_14,, 2002 | KUDZU CONTESTS AT GOLDSBORO AND RAEFORD |
| SEPT 21_22, 2002 | FIFTH ANNUAL EMPIRE STATE INDOOR CHAMPIONSHIPS AT THE
RALPH C. WILSON JR. FIELDHOUSE, INDOOR PRACTICE FACILITY OF
THE BUFFALO BILLS FOOTBALL CLUB, LOCATED NEAR ORCHARD PARK,
NEW YORK FOR INFO CONTACT HUGH JONES
(585) 663_1489 HUGHSTER@ROCHESTER.RR.COM |
| NOV 10, 2002 | NATIONAL BUILDING MUSEUM FLYING 10AM TO 4:30PM
(More info inside) |
| JAN 19, 2003 | NATIONAL BUILDING MUSEUM FLYING 10AM TO 4:30PM |
| MAR 23, 2003 | NATIONAL BUILDING MUSEUM FLYING 10AM TO 4:30PM |



Tailless Issue

Stew Meyers: Editor

THE PINKHAM FIELD IRREGULARS
22 SQUADRON, FLYING ACES CLUB
4304 MADISON AVE.
TRUMBULL, CT 06611

8/1/01

We have been planning a "Wings & Things" issue. The Air Trails Saucer plans were among the stuff collected. Several Maxcuters, besides myself had built it with success. When Tom passed Dave Stotts's letter and the Flying Aces plans for the 'Mystery Tailless' on to me; that was it! I had built several Delanne type models as a kid, and the plan-form has always appealed to me. So here they are. Unfortunately the photos in the Saucer article are really poor and can only be excused in the fact that they prove it flies and the Flying Aces photos are of genuine pulp mag quality. I have therefore not tried to reproduce these pages exactly, but I to convey the feeling of the era. Fortunately Don Srull has provided some shots from 50 years ago of his saucer.

I confess I had built a Saucer as a kid, and had no intention of building the "Tailless". However, while drawing up the "Tailless" plans, I thought I would put one together to check out my modifications. I am happy I did, it's a fun flyer. I also decided to build the Saucer for micro R/C and have some notes on building and flying it.

Pat provided the Jimmie Allen page from a book on Kansas Aviation History. The cover "art" is the best photo from the Flying Aces article. Note we have three NBM events this winter. Russ suggests a new WWII Guillow's event and dropping No-Cal. If you have an opinion contact Russ. Finally we have a page on mylar-tissue covering swiped from the Windy-Sock and an trim article by John Hunton. Note new GWS low votage motor for free flight.

PHOTOS Page 2

1. Our Editor Stew with his reproduction of .the "Mystery Tailless' after modification and enlargement of the vertical tails.
2. The model in flight with temporarily enlarged vertical tails and temporary U/C installation. -- a good flyer.
3. The other aircraft plan in this MAXFAX; this time an original photo of a young Don Srull flying his 'saucer' somewhere in Michigan.
4. Don's photo of his 'saucer' resting in the grass next to a pack of 'PallMalls' --- probably Don's choice of the evil weed that day!
5. Stew is building a reproduction of his original 'saucer' but powered this time with an electric and of course with R/C.
6. Allan Schanzle's latest, a Fairchild 21 with CO2 ready for covering. Hopefully this will be the subject of a future MAXFAX plan.
7. Another aircraft built from the MAXFAX plans in a recent issue (the Request) but converted to rubber power by Jerry Persh seen here launching it.

Hi Tom,

Over the many years of modeling I have built something over sixty models from plans in the old flying Aces magazines. Most of them with mods of some sort. Some reduced in size, a few enlarged. Whatever I thought might make them have a better chance at being a decent flyer. A few have been dogs, most mediocre, and some very surprising. This little ship was one of the surprises.

Unfortunately. I have nothing in the way of photos of it save two poses that rival the worst that came out of the U.S.S.R. You know the kind. Where the camera lens was made from the bottom of an empty vodka bottle and the photographer had consumed the contents. But, I *do* remember what might be all of the mods I made to this little aero tyke.

The rest of the changes noted are incidental by comparison. I may have used a little platform under that forward wing, I just can't remember.

Of course, I do not expect that you might ever build this thing. It is just that long as I am sending you this plan I would like you to know how to make it work should you or someone else *ever* build one.

Whether or not anything learned from this model might be of benefit in building a scale Delanne, I am not certain. But, I do think that the scale Delanne fins might be too small judging from what I have learned from this one. Only a test would tell. At any rate, enjoy looking 'er over.

Dave

PS Did I put the guns on mine? Why, any true FAC would do that! We gotta be ready to combat that Bad Guy Sqdn, nest paw? Also used plastic skulls in pilot and gunners positions to retain an aura of "MYSTERY". Skulls from Halloween earring. Also a sinister Skull & crossed machine guns insignia on the tail and wing. This was the insignia of the "Philadelphia Skull Sqdn." of the original FAC.

To all those who received the Dreaded Red X on the last issue and know they paid up, an apology is in order. We were running late in getting it out and communications broke down between my self and the Treasurer. I elected to go with the data base from the previous issue. -Stew

From the pages of the April 1940 *Flying Ace's* Mag Experimentation is the life of progress Likewise, research is the life of modeling. So it is that you fellows who are on your toes can carry along that tradition by stepping off the tried-and-true path and building experimental flyers that bear promise of contributing to American aero science. Yes, maybe you yourself have the "makin s" of ideas that will aid in advancing aviation. That's why we urge you to—

Try this Novel "Mystery Tailless"

Robert F. Parkhill
Of the Air Corps Technical School

When Roger Parkhill shipped us his plans for the "Mystery Tailless" he enclosed the following letter. And it's so much to the point that we thought all of you fellows would like to read it:

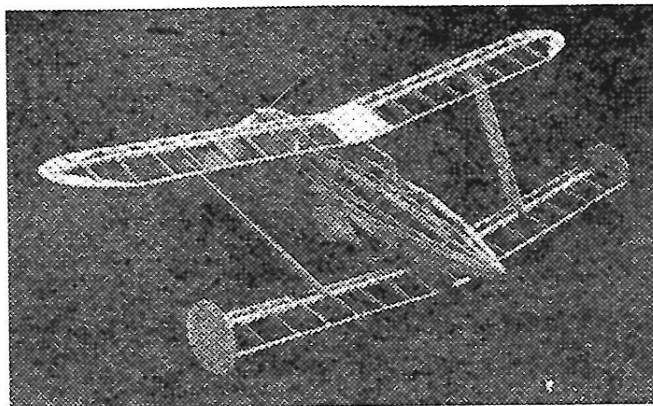
"Here is a design intended for the builder who, not satisfied with the conventional type of model airplane, likes to experiment with something new and original. I have built several successful ships along this 'stagger decalage' principle in the last ten years. (Editors note Wings have stagger' when they are not directly over each other—that is, when one is forward or backward of the other And 'decalage' refers to the angle between the chord lines of the two airfoils when the wings are not mounted at the same angle.) And one of these models, a combination pusher-puller stick, was exhibited at the 1933 World's Fair in Chicago."

"In the expectation that a model built along these lines may be of interest to your readers who like to experiment, I am submitting plans of a simple pursuit, The 'Mystery Tailless' is what I named it—but there's absolutely no mystery in the principle of its design."

"I would welcome criticism and suggestions from those who build this ship, for I firmly believe that the design and flight characteristics could be vastly improved through research."

BY COMBINING a decalage angle of approximately three degrees - with a large stagger of 45 degrees or more, a wing arrangement of two large panels mounted biplane fashion will provide a stable setup for consistent flight.

A large model of this design is now being tested by the French Air Corps. Known as the Delanne Fighter, the plane is a two-place reconnaissance and bombing plane with retractable landing gear and tapered, cantilever wings. Nothing is known, however, of its performance or its present disposition.



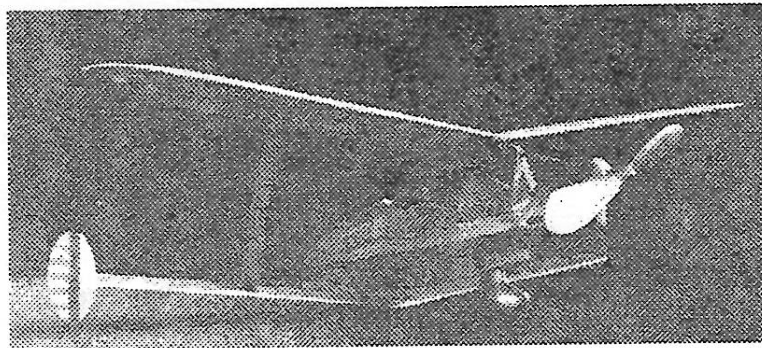
To Construct the Fuselage

TRACE the bulkheads, "A," "B," "C," "D" "AA," and the nose bulkhead, onto 1/32" sheet balsa. Carefully cut out each former with a sharp razor blade, mark the position of each stringer, and glue the bulkhead halves together. From a piece of 1/8 by 1/4" hard balsa, cut the wing mount and fuselage backbone 3-1/4" long. Glue formers "A," "B," and "C" in their respective places on this piece. Cement the 1/16" square balsa stringers in position. And after the glue has set sufficiently, add the other bulkheads to the assembly, fastening in place with pins until the cement is sufficiently hard to hold them in place. Glue the stringers together at the rear.

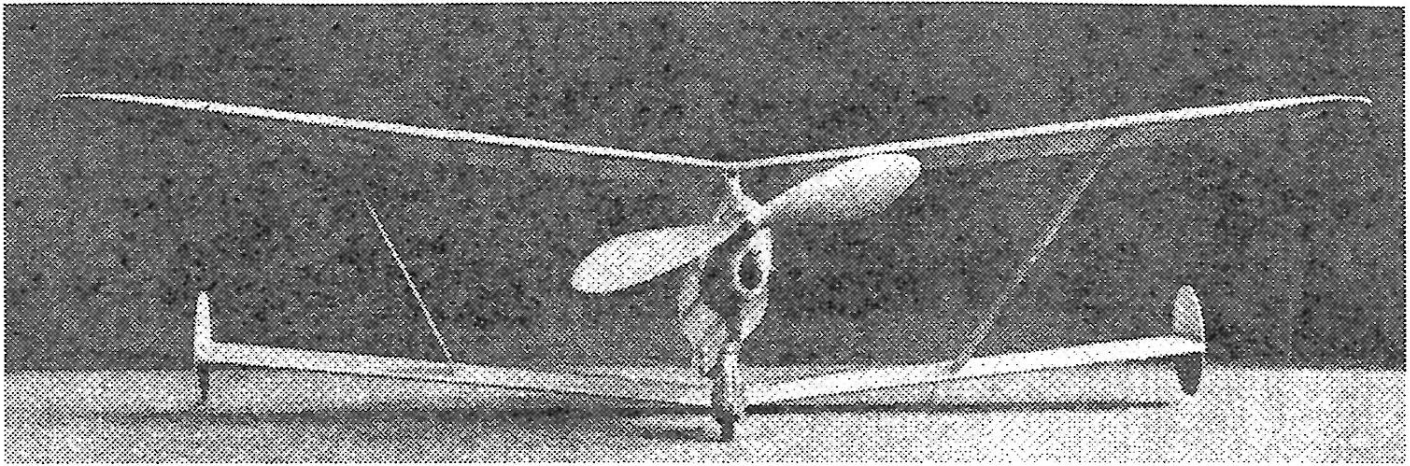
Cover the entire front of the plane, from bulkhead "AA" to the nose bulkhead with 1/64" sheet balsa and add the small balsa radiator and exhaust,

From a piece of medium balsa, carve the rear keel and lower wing mount to the shape shown, tapering the piece from a maximum, of 7/16" by 1/4" to a point. This piece may be hollowed out if desired. "Carve the wheel pants and supports from two halves using medium-soft balsa. Make the pants sufficiently wide and hollow enough to contain a 1" diameter wheel without friction when revolving. Reinforce the wheel mount with .016 piano wire and 1/16" hard balsa. Glue one half of a small dress snap on bulkhead "E" (the other half is cemented to the motor stick).

Cover the fuselage with Japanese tissue, using separate strips between each two stringers. Cover the windows with thin, clear celluloid. (Hot-water-washed negatives from roll film are excellent for this use.)



(Dave Stott's notes are in **bold italics**)



(Dave Stott's notes are in *bold italics*)

The Wing Cellule

MAKE 36 ribs from 1/32" sheet, follow the outline on the plans. Trace the wing-tip and fin outlines upon 1/32 sheet balsa, also. With a sharp razor blade, cut around each outline; then finish the edges with fin sandpaper.

Lay a piece of transparent wax paper over the wing layouts and construct the wings upon a flat surface, such as a drawing board. Pin the component flat to the layout and do not free them until the glue has dried sufficiently.

Be sure to make a right and left half for each wing. The upper panel has elliptical tips, the lower wing is cut off square at section 'AA.'

Glue the wings together at their centers, being careful to secure a dihedral angle of 1-3/4" at each tip. Cover the wings with Japanese tissue, sprinkle with water, and fasten flat to a board while the paper is drying.

Glue the fins in place on the tip of each half of the lower wing. **Needed 3" fins-DS.** Bend four wing clips from .016 piano wire, and glue these in place on the leading and trailing edge of each wing. Be sure the clips fit securely on their fuselage mounts without scoring the wood. **Did not use wire mounts see plan mods-DS.** Dope and decorate the wings and fins as desired.

Making the Motor and Prop

CUT a motor stick, 8-1/2" long, from 1/8" by 1/4" hard balsa. Glue the remaining dress snap half in place on the rear of this stick. **No motor stick used- DS.**

Carve a duplicate nose bulkhead from 1/8" sheet balsa and reinforce the front of the model with this section. Carve a nose piece from soft balsa to the dimensions and shape shown. Glue the motor stick securely in place on this nose piece. Pierce the nose piece and glue a small brass washer in position on the front for a bearing.

Bend the rear rubber hook to shape from .016 piano wire and cement in place on the end of the motor stick.

Bend the propeller shaft from .016 piano wire and glue in place on the propeller blank before actually carving.

After the air screw has been properly carved, sanded, and balanced, glue a small piece of balsa on the front center of the propeller and, when dry, carve and sand to the shape of a spinner. Use two or three small brass washers for prop bearings.

Flying the Model

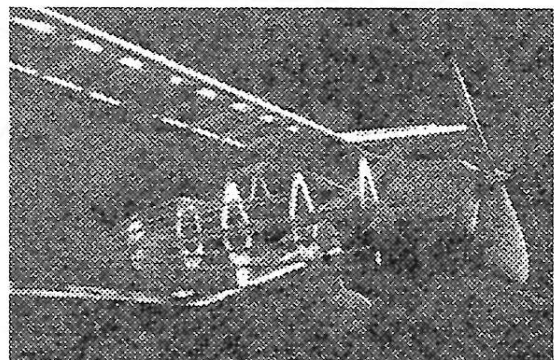
PLACE four strands of 1/8" flat rubber on the motor stick. **Used one loop of 1/8" FAI tan.** Mount the upper wing as far forward as it will go, making sure that the angle of incidence is zero. **Had to use + incidence.** Fasten the lower wing in place its leading edge about even with bulkhead "D" at an angle of incidence approximately minus three degrees.

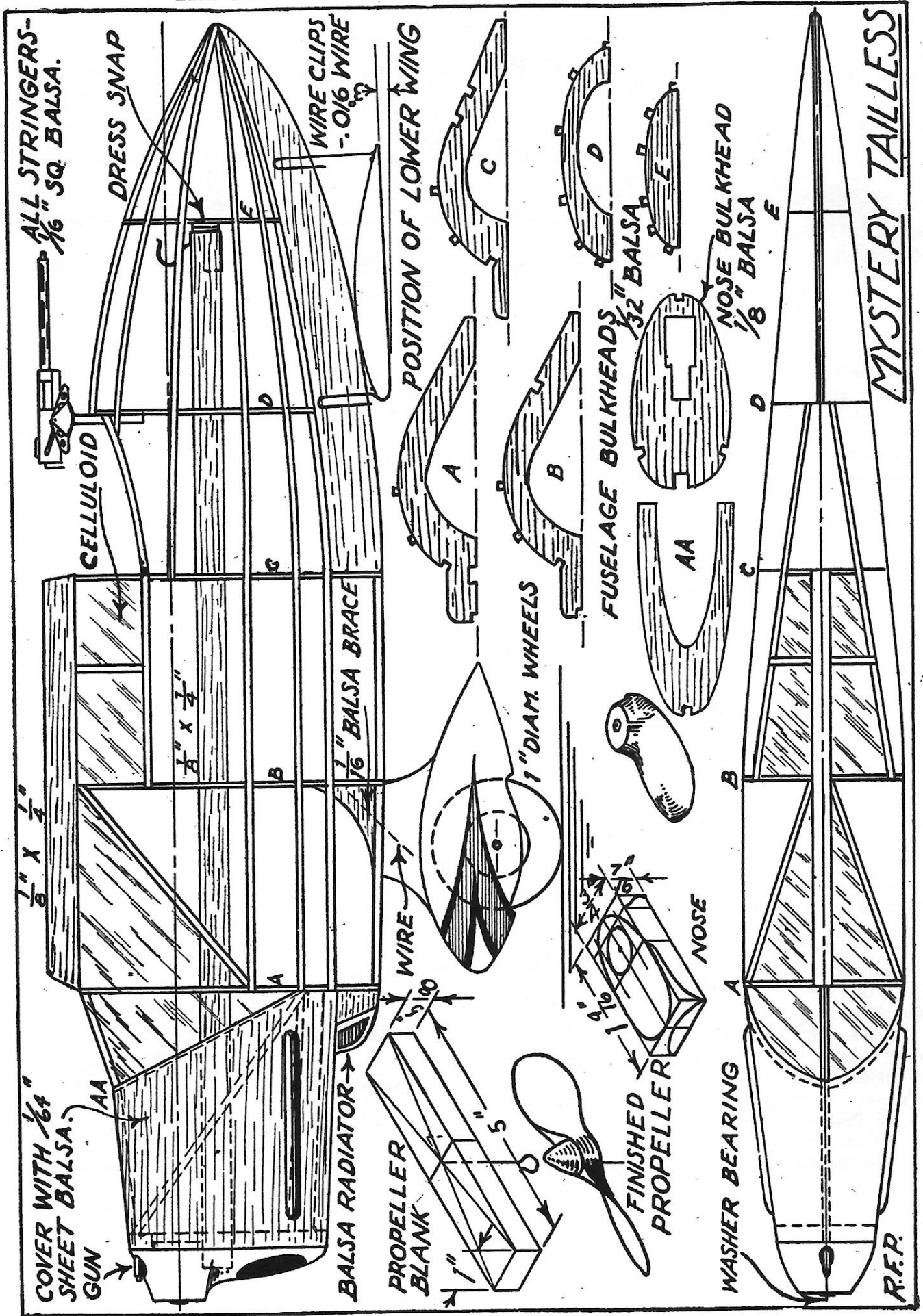
Glide the model carefully over a grassy spot until a smooth, even sinking rate is achieved. If possible, make all adjustments with the lower wing, leaving the upper wing at a zero angle of incidence. **Did the opposite.**

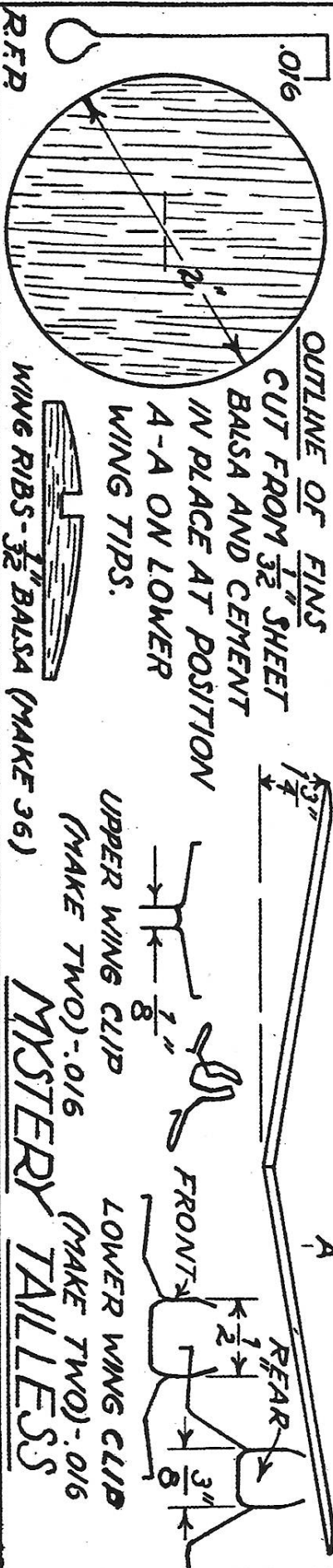
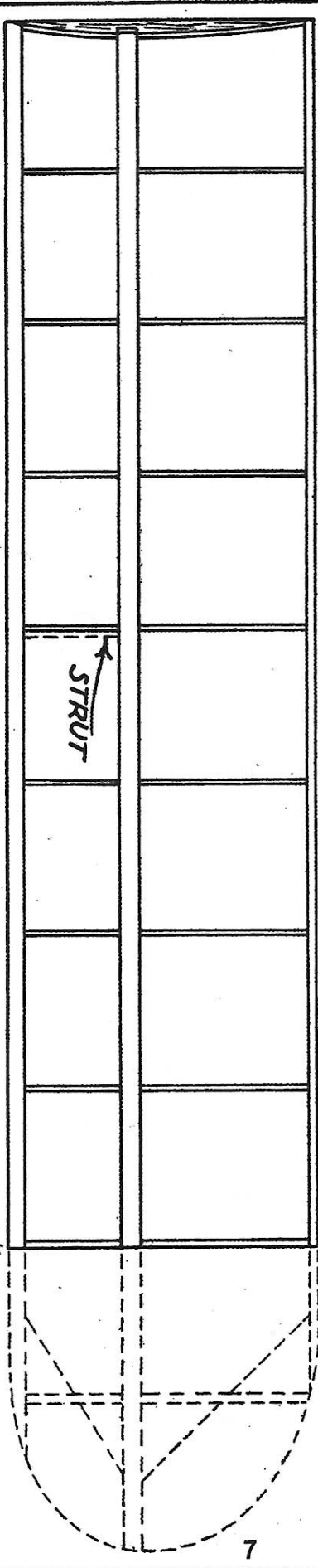
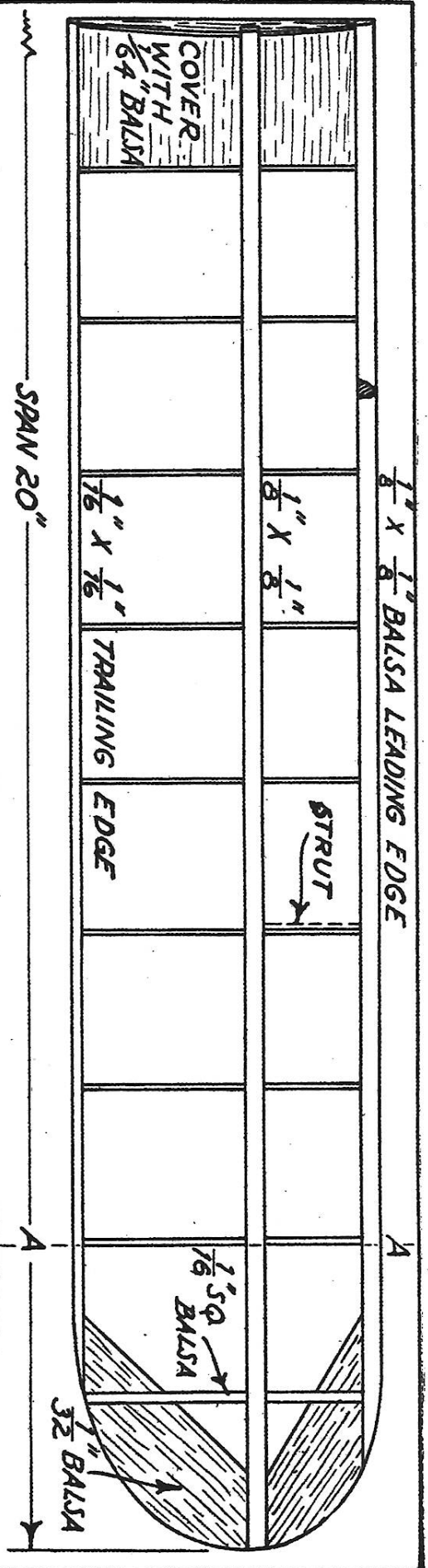
To counteract excessive torque action, either bend the wing-tip fins or wet the covering of the upper wing, placing a wash-in or wash-out on either side as desired.

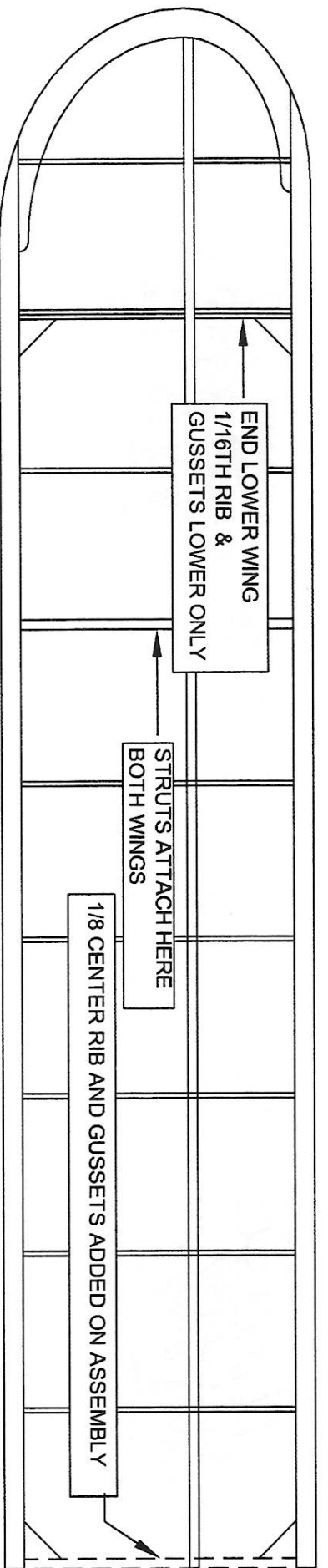
After the "Mystery Tailless" is correctly adjusted, the appearance may be improved by an addition of 1/2" wide struts, cut from 1/32 sheet balsa. **Struts not used.**

Now that you've completed your work, you might like to experiment and try to get better flights. And if you come across any system or improvement in your aero-delving that you believe interesting, please pass it on to me care of the FLYING ACES Model Editor.









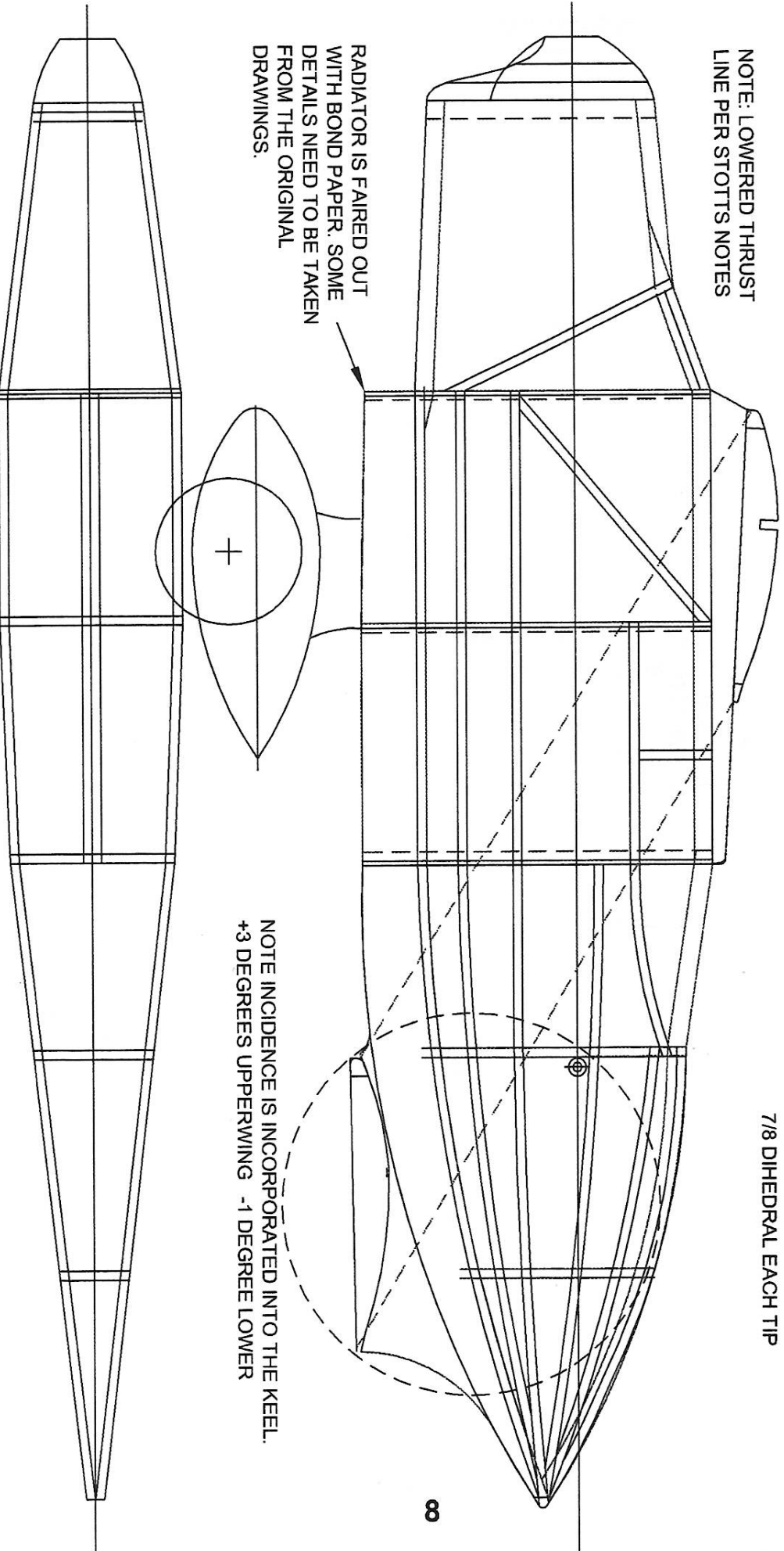
NOTE: LOWERED THRUST
LINE PER STOTTS NOTES

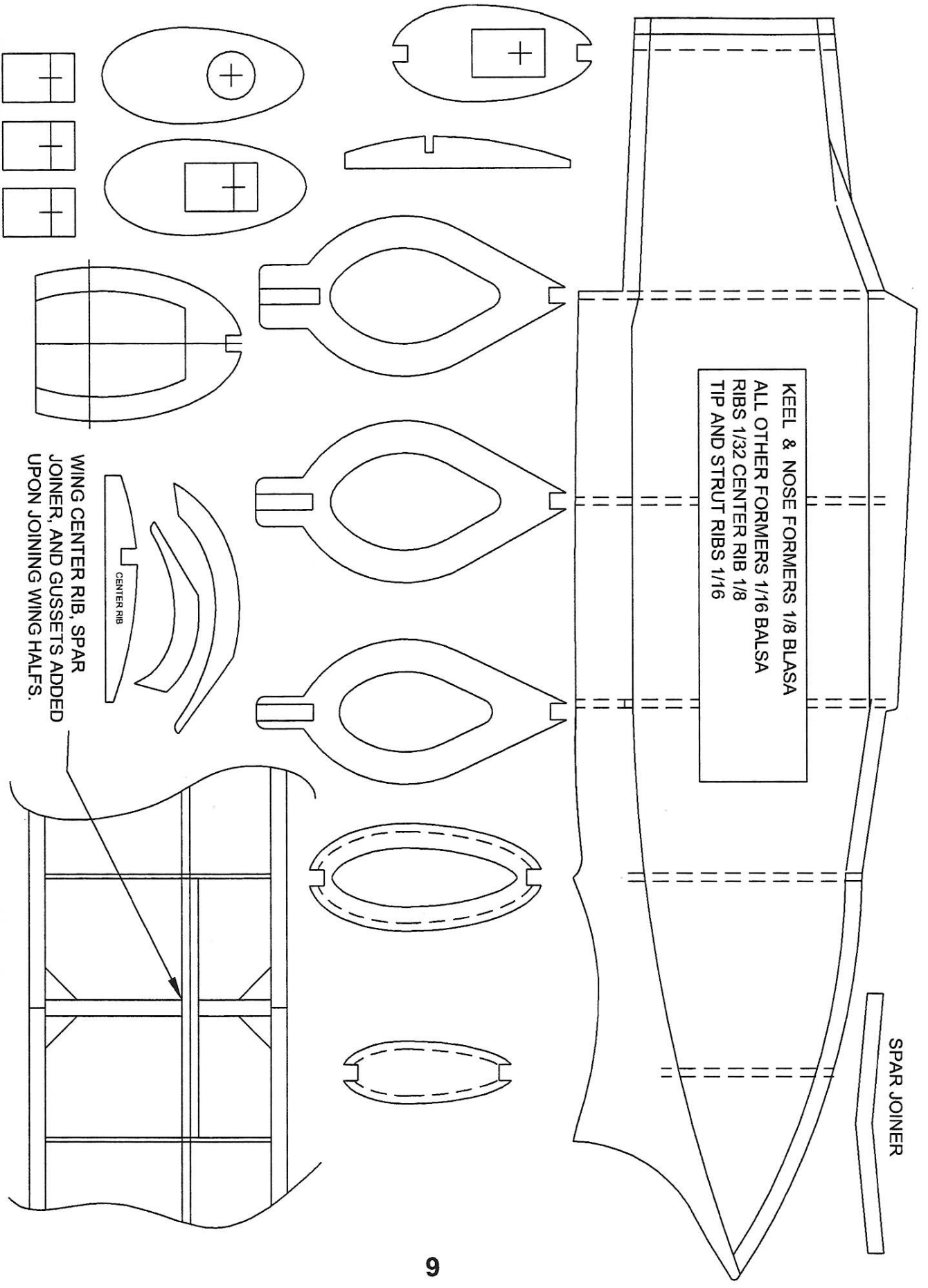
7/8 DIHEDRAL EACH TIP

RADIATOR IS FAIRED OUT
WITH BOND PAPER. SOME
DETAILS NEED TO BE TAKEN
FROM THE ORIGINAL
DRAWINGS.

NOTE INCIDENCE IS INCORPORATED INTO THE KEEL.
+3 DEGREES UPPERWING -1 DEGREE LOWER

8





KEEL & NOSE FORMERS 1/8 BLASA
 ALL OTHER FORMERS 1/16 BALSA
 RIBS 1/32 CENTER RIB 1/8
 TIP AND STRUT RIBS 1/16

SPAR JOINER

CENTER RIB

WING CENTER RIB, SPAR JOINER, AND GUSSETS ADDED UPON JOINING WING HALFS.

Build Your Own FLYING SAUCER

ROY L. CLOUGH JR.

She flies through the air with the greatest of ease, transition from powered flight to glide is smooth, the glide itself is slow and the let-down gentle. It is spin-proof and one of the most stall-resistant models ever built, yet when forced into a stall it recovers cleanly without the violent oscillations usually associated with "tailless" types.

It has been observed many times to climb steadily at a 45 deg. angle into a stiff breeze, yet it may be trimmed for straightaway speed dashes at a surprising clip with the little infant power plant.

We can hear the free flight fans: "How can that thing possibly fly? It has nothing suggestive of dihedral—what keeps it from rolling over?" Or, "We've tried these generally delta type models before—fine as long as a gust doesn't upset them, but everybody is familiar with the stall and endless dive characteristics produced by longitudinally disposed lifting surfaces. And how can you rig a thing like that to climb under power, yet still glide nicely—with a symmetrical section, yet!"

This model has the answers. Behind it lie a dozen experimental saucer-deltas, both free flight and control line, several bent crankshafts and at least one broken crankcase.

Worries about surface warpage are a thing of the past; the model is one unit, you build it, you cover it, and there she is, all ready to go. Nothing to twist out of shape, nothing that must be assembled "just so" every time it is to be flown. In addition to this the model is extremely difficult to smash up, and lastly, if it lands in a tree it will usually slip down through the branches to the ground without hanging up. --That's not a strictly aeronautical consideration, to be sure, but a rather endearing characteristic to those who must do their flying near wooded areas.

Some background: A number of experiments with gliders, prior to powered flight attempts, fixed the ideal aspect ratio at the three-quarter mark. That aspect ratio of .75 (Non-rectangular aspect ratio determined by formula - $\text{Span}^2 / \text{Total lift area} = A/R$) seemed about right. At higher figures longitudinal stability began to suffer, and as the length, or chord was increased producing an AR of less than .75, lift began to drop very rapidly, plus introducing an oscillating stall from side to side in a nose-up condition at low speeds.

It was found that the airfoil section had to be practically symmetrical if optimum performance and efficiency were desired. The reason for this is that strongly reflexed sections produced as much drag, in a practical sense, as the tail they were supposed to eliminate. In the .75 configuration another factor—short span—prevented any effective root-tip incidence variation, and it was felt that it would also introduce lateral instability, particularly since the machine would have no dihedral angle in the usual sense.

By experience with symmetrical sections on other, conventional free flight models, it had been found that the

lift of such a section is quite adequate, possibly because of a lower drag factor, quite as high as some of the highly touted under camber wings, provided they are operated at the proper angle of attack.

This may surprise some model designers who feel that a symmetrical, or full streamline section is a "no lift" section. That this isn't true becomes, evident when one considers they are operated at a high angle of attack. We have the empirical evidence of control-line stunt models using such sections which invariably out-glide and out-perform even right-side-up maneuvers by top cambered wing types.

In addition to this I had been flying a sport free fighter of 40" span and full symmetrical foil for six months with excellent results (I predict there will be a swing toward symmetrical sections on free flight when their many advantages—particularly their insensitivity to power fluctuations—become better known). Thus the symmetrical section was decided upon.. It had the lift, it had very low drag, it would permit high speeds or high climbs, and it greatly simplified construction problems and made for good geometric design balance and straightforward building.

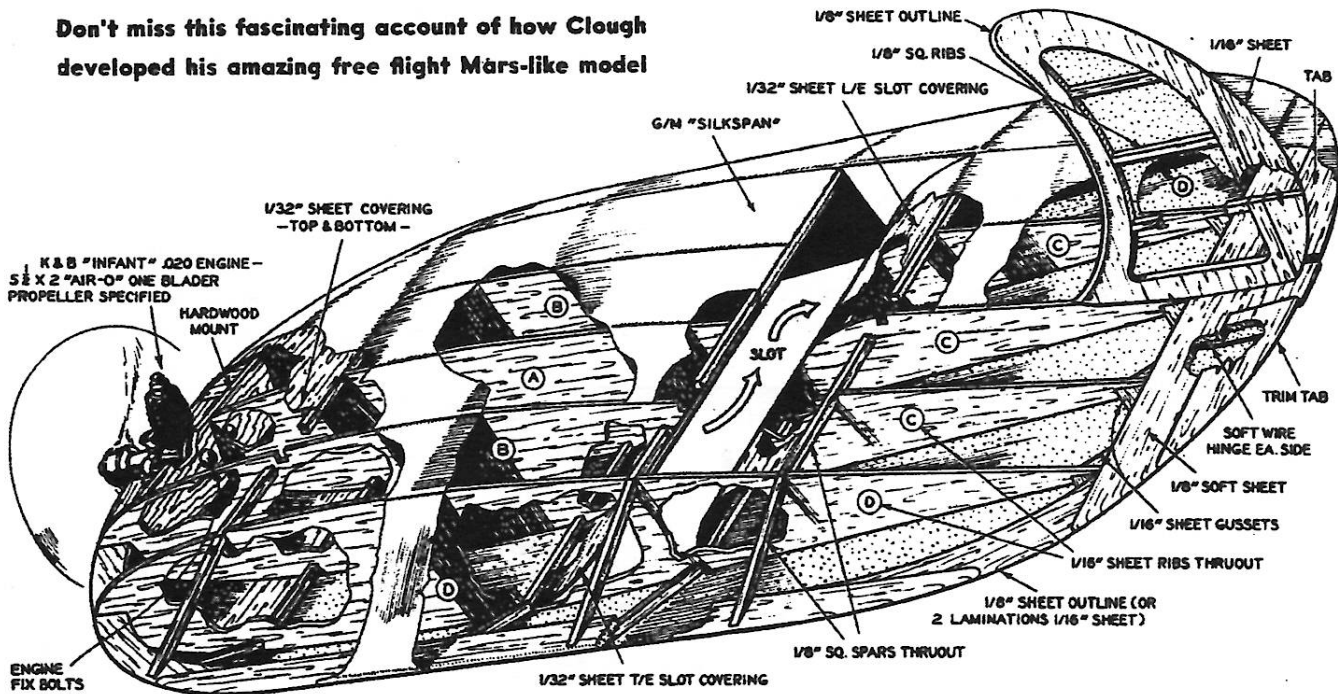
This was fine. But it also had a zero pitching moment, which, while assuring fine neutral stability, unfortunately assured as well a near-zero ability to recover from a longitudinal displacement. We struggled with this one through several early designs. They flew well, steadily and fast, with no tendency to stall by their own devices—yet sooner or later a gust would account for them, force them up into a stall, and that particular model would end its career in a screaming dive to the ground.

Attempts to provide a recovery couple seemed always to clutter up the design with auxiliary stabilizing surfaces (similar to the "safety" stab used on some of the British delta-wing jets) or pointed back toward reflex surfaces. During this time it was established also that there had to be a considerable amount of area up forward. This was necessary to prevent side-wise tumbling (I believe this is a sort of rapid span-wise rather than chord-wise stall) and this pointed directly to the "Flying Platter" configuration. Here the sweep-back was more gentle; yet still enough to take over the functions usually performed by dihedral angle.

At this point the use of slots was tried. It was found that slots would not prevent a stall, but would increase the angle before it broke. A few more experiments established that careful placing of the slot would result in a slight recovery couple from a dive, since the top side of the wing, favored by the slot, would generate more lift in a sudden acceleration. However, the recovery took far too long and secondary stalls frequently developed.

The leading-edge slot was not the answer, or, if it was, it had to be movable proportionately to the dynamic pressure. Frankly; I could not see this for models. The engine vibration factor is much too high, the scale effects are much too rugged; it would be a practical impossibility to design a floating slot which could withstand vibration, yet be light enough to operate without absorbing the advantages of its use in added weight and complication.

Don't miss this fascinating account of how Clough developed his amazing free flight Mars-like model



This led to paper cut-out gliders weighted with pins and slotted in some rather improbable places; at the center, around the rim, and finally at a point about one-third forward from the trailing edge. This looked good and as a result more gliders were cut out and the location of the slot nailed down, its present position being fixed empirically.

And it works.

The recovery from a forced stall is clean. Yet the model will not stall of itself. What has been done, in effect, is to build in a tail surface, but with a difference; this one operates to raise the tail when the model is flown at a high angle of attack, yet it will also raise the nose when flown (in the glide, usually) at negative angles. At flat angles it does not bring on a loop or dive.

Construction is very simple. Make up the 1/8" balsa outline, or, if you prefer, laminate it from 1/16" sheet. The ribs offer no difficulty, 1/8" sq. spars maintain the alignment. The motor mount is simply a piece of pine or plywood. The slot section and the reading edge of the Saucer are covered with 1/32" sheet, although you may wish to use 1/16" on the bottom front section for additional ruggedness since the Saucer has no landing gear. The rudder must be put on square and true and the trim flaps are cut into the trailing edge of the model after it is finished. Cover and finish with fuel-proof dope.

The C.G. location should be within half inch or so of the location shown on the plan; not very critical, since the tabs can be used for minor corrections. Make sure the motor is mounted accurately with no up-thrust; a faint down thrust is permissible but not needed, generally speaking.

Test-glide over tall grass with a loop of solder replacing the prop. (Use a one-blader set to stop blade up, for

flying.) If the model is true and balances correctly a level shove should take it out in a smooth flat glide. If it dives a bit use a touch of tab to bring the nose up. If it stalls—by this I mean if it oscillates from side to side as it goes forward—then it is tail heavy enough to require a bit of ballast up forward. No real zoom and plunge stall can develop in test gliding unless you shove it nose-high with practically no speed at all.

Now for powered flight adjustments: Several are possible. It depends upon what you want. Note that in the photos no ventral fin is shown, although there is one on the plan.

You will not need this fin for straightaway flights; in fact, lowering the CLA by the use of this fin is not at all desirable if high directional stability is desired. On the other hand, if you want tight circles, the fin should be used.

The original model would fly straight out, or in 150-foot left-hand circles without the fin and without spiraling in on rudder tab alone. However, tightening up the circle, either right or left will result in a descending spiral unless the ventral fin is used, or, alternatively, the model trimmed excessively tail-heavy. Offsetting the thrust line to the left with the rudder set right produces safe tight circles and a good flight pattern.

For speed dashes use just enough right rudder to counteract torque roll and shim in a little down thrust to prevent the model from climbing, and of course, don't use the fin. All flights are H/L.

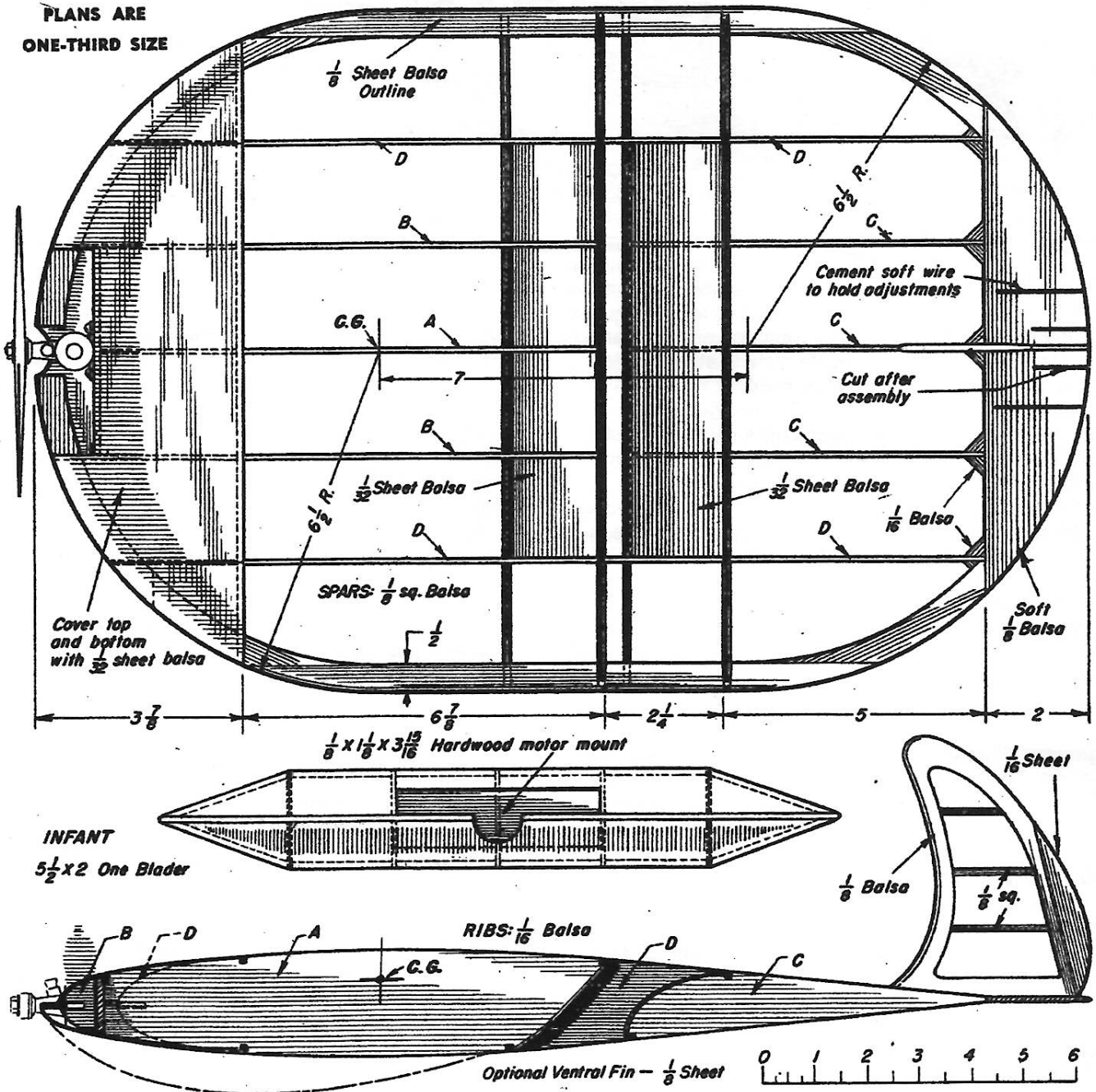
AUGUST 1952 AIR TRAILS

Building the Saucer

Stew Meyers

The plans are enlarged to full scale. A very few mods have been made to accommodate an electric motor and servos. Primarily, two "A" ribs are spaced 3/4" to either side of the original center rib position. This means the central rib does not need to be cut back. (Electric motors extend beyond the firewall.) This also creates a center well to house the radio equipment. These "A" ribs are under cut by 1/16th" top and bottom aft of the sheeted nose. A piece of 1/16th sheet is added to the top surface between the "A" ribs just ahead of the slot to help mount the servos. A piece of 1/16th ply

wood is added just behind the front sheeting to mount the switch and charge jack. 1/16 x 3/16 cap strips extend from the switch mount to the servo mount to stiffen the "A" ribs and keep the covering from distorting the hatch. The bottom of the hatch is covered with cross grain 1/16 medium balsa to mount the battery. The rudder can be mounted more easily and securely, if a 1/64" plywood tab is let into the fin and the stab is slotted for it. The completed Saucer with a 9 x 110 Nimh battery, Puma motor, GWS 8-6 prop, GWS receiver and ESC, switch harness and charge jack, and 2 x HS-50 servos weighs 158 grams the area is 223 square inches. A free flight version with the same motor could fly on 8 x 50 mahr NICads and weigh an ounce less with a timer.



Saucer flight results

Stew

The weather could not have been better at our freshly mowed secret sod field: 80 degrees, low humidity, no clouds, gentle thermals, and no wind! Most of the gang was there: Pat, Don, Jack, Burt, Dan, & Wally. On the first attempt the saucer sagged into the ground. I put it back on a new GWS charger to peak it and tried again with a hefty launch from Jack. It now flew in the ground effect, but would not turn to the left; to the right it spiraled in. It turned out the rudder was offset to the right. I straightened it and charged it up again.

This time it climbed up to about 20' on the verge of a stall. The saucer will fly at a high angle of attack and just rock from side to side slightly as it sheds vortexes, but it won't stall. I buzzed the gang at the pits while trying to keep it in the air and avoid the cars. They scattered; it was not a high speed pass. The control was positive, but not snappy. The next flight caught a thermal and went up a couple of hundred feet. By this time the fin was loose and flopping from side to side with the rocking. The carbon pins used to attach it were of no use due the low bearing strength of the soft balsa used. I have since cured the fin flop problem with a 1/64th plywood tab and run to nine cells and a GWS 8-6 prop which make the take off less dicey. On eight cells you had to heave it to get it up to flying speed. I found a discus toss worked pretty well. Once it got up to speed, it flew majestically with decent control.

Now it flies ok R/C, but would be more fun as a free flight. It's a high drag model requiring as much power as a full rigged biplane. 9 cells and a 8-6 prop is mandatory for R/C. Staggering around in ground effect on the verge of a stall may be ok for a free flight, but not R/C. Control with the elevon surfaces shown is adequate, but not crisp. You might want to enlarge them and/or add rudder. A GWS motor might not be amiss for more power..

Russ's Rules for NBM events

New event Guillows W.W.II 500 series kits, rules:

1. Must use the kit wood supplied.
2. Must use decals, cowls and canopy
3. The cowl maybe modified for adjustments and made removal for access.
4. Colored Jap tissue maybe substituted for kit tissue.
5. Dihedral maybe increased slightly
6. Landing gear may be used in event.
7. Stab/fuse area maybe opened to allow for adjustment.
8. Rear rubber motor mount maybe relocated
(This event will also be flow at the Spring Eastern States Competition)

Here are the events this November at the NBM.

Mass Launch Events:

1. W.W.I
2. W.W.II (Guillow's rules?)
3. Racers any plane that was entered or flown in any type of race. Contestant must supply proof if requested.
4. Golden Age/Modern Civilian
5. Bogus Bostonian (ROG)
6. W.W.II Fighter NoCal, no clipped wing versions
7. Delta Dart, JR/SR only, Open,
8. Peanut, no Fike, Lacey, Hosler Fury, or the ilk.
9. 10centers (no kanone just have fun).

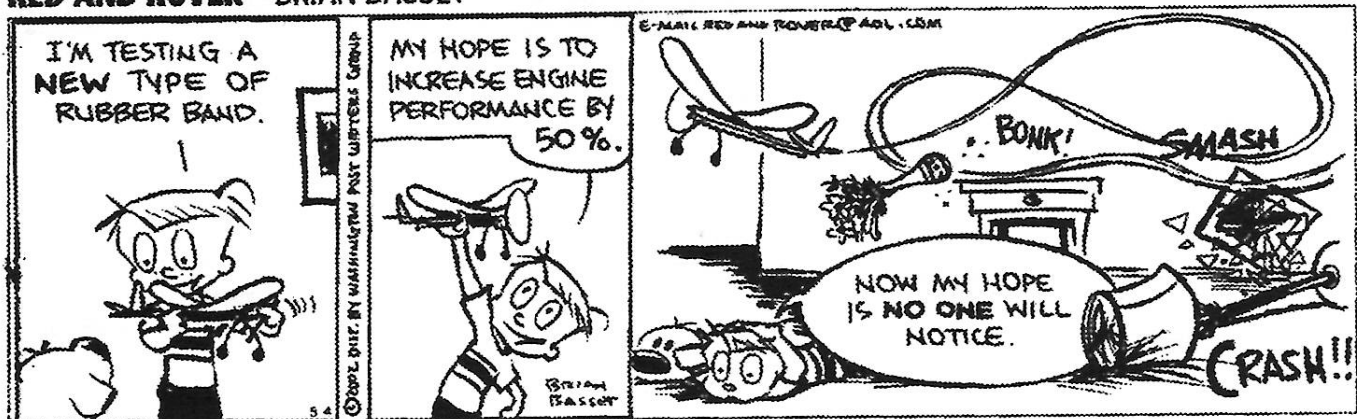
Timed Events:

1. ButterFly
2. ROG classic: Peck ROG or Baby ROG or Phantom Flash ROG or Pussy Cat etc.

No Bostonian, No NoCal (not enough true entries). I will drop others if not enough interest. Mass Launch events go quickly. What do you think?

Contact Russ at (717)-428-0717 or russell.sandusky@verizon.net

RED AND ROVER BRIAN BASSET



JIMMIE ALLEN

Richard Funk, 17, Wins Jimmie Allen Air Races

25,000 Watch 300 Fly Their Stick
And Tissue Rubber-Powered Airplanes

Swope Park Site of Second Annual Event

Kansas City, Ma, July 2, 1934. Richard Funk, age 17, was winner of the second annual "Jimmie Allen Air Races" yesterday at Swope Park. He was presented a gold watch and airline tickets for a TWA flight to St. Louis to attend a major league baseball game.

Jack Seaver, 15, took second place, and also received a gold watch.

Thousands of automobiles braved their way through the dust to Swope Park yesterday as some 25,000 people came to watch 300 young men fly their stick and tissue rubber-powered model airplanes. The air show was sponsored by the Advertising Club of Kansas City, 128 Hotel Baltimore, Kansas City, Missouri.

The Air Races were a rousing success, and it is expected that they will become an annual summer event.

Jimmie Allen Flying Club

The Jimmie Allen Flying Club was founded by Skelly Oil Company. Children who persuade their parents to stop at Skelly filling stations are rewarded with a free or low cost model airplane. The airplanes are made by the Country Club Aero Supply Company of Kansas City.

Air Adventures of Jimmie Allen

Skelly also sponsors the "Air Adventures of Jimmie Allen," a radio program on WDAF radio. The show, first broadcast on February 23, 1933, is about a teenager named Jimmie Allen who is learning to fly. Youngsters who listen become flying cadets.

Allen is played by John Frank. Other cast members are Art Ellison, Al Christi, and Randall Jesse. Shelby Storck plays Speed Robertson, and Jimmie's girlfriend is played by Twila Coiner.

Bill Ong, well-known Kansas City aviation pioneer, established a series of flying lessons that are given away as promotions for the radio show.

This information adapted from "The 'Air Adventures of Jimmie Allen'" at <http://www.eri.com/~microres/story.html> and personal correspondence with Stan Wilson. Copyrighted material used by permission.



Jimmie Allen as he appeared in the movies. The inscription reads "Happy Landings Always. Jimmie Allen."

Radio Friends of SKELLY OIL Meet Jimmie Allen and the PARAMOUNT STARS who helped him make his thrilling new movie, "THE SKY PARADE". See Jimmie and his pals at your favorite theater when "THE SKY PARADE" comes to town



Jimmie Allen and the Paramount stars who helped him make his thrilling new movie "THE SKY PARADE."

The new GWS low voltage motor GW/LPS-RLC-B with a 5:1 gear ratio and an 8-6 or 8-4.3 prop would make a dynamite free flight motor. This draws about 2 amps on three 110 nicads. Available from Balsa Products as the LPS-B Light Power System. 4:1 & 6:1 gear ratios are also available. I am running tests on this puppy now. This motor is probably the answer for powering the 24" Guillow's WWI free flights.

Cox Sky Cruisers...Superb!

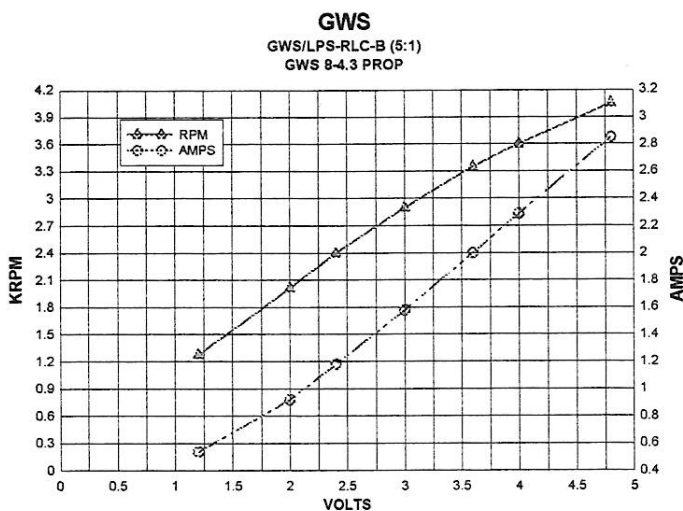
John Hunton

A new product available in Walmart stores is the Cox Sky Cruiser, and electric powered "rechargeable flying plane". The low wing version (there is a high winger available also) has very nicely cast foam parts, a good wing foil and a smoothly finished fuselage. The model assembles quickly, except for letting glue on the tail group dry. The low wing model is shaped like a Mustang and looks great. It is my recommendation, however, to not even try to fly this model right out of the box. Even though the electric motor is installed with down and right thrust, if the Mustang does not clobber in to the left with power, it will clobber in to the right in glide.

There is a very simple way to fix this model so it will fly exceptionally well. My Mustang does about 30 seconds on a 30 second charge with the fix, and they say you can charge up to 60 seconds. Here is the fix:

Cox has a piece of plastic at the left aileron giving permanent up aileron to try to counteract torque. Remove this gadget and tape the aileron level. Tape a dime under the right wing tip. Test glide the model over tall grass and add left rudder until it glides straight. Now add clay at the tail until it glides efficiently (about half the weight of the dime on mine). Charge up about 10 to 15 seconds and fly. As you continue to refine trim during short flights you may want to bend in a little down elevator. With this set-up you will notice that there are little or no torque effects at all. You can trim to climb out turning in either direction and in the glide it will turn the same direction. The above changes will give you a fine flying model. I know that someone like Don Srull or John Worth will put RC in one of these Cox models before long.

The main reason for writing about the right wingtip weight anti-torque device is that it will work for any model in which you really want to get rid of torque effects. Try it!



Tissue Over Mylar

Graham Knight recently posted to the Free Flight Mailing List on the Internet a covering technique which he says he has used "for a few years now on models from outdoor Peanuts to 60" span gas models, and the covering on all of them is still as good as the day I applied it." Also, "the end result is lighter than tissue alone, the mylar being lighter than extra coats of dope, it is affected less by damp, and is more puncture resistant." Our friends in the United Kingdom, Graham's home, probably do have to apply more dope than we do here in the Southwest because of dampness there. Recently, however, your editor has come to believe that we should be applying more dope. While we want to avoid the extra weight, flying a model with saggy tissue (we do get many mornings with high humidity, contrary to expectations) is probably more detrimental to endurance than the added weight of dope would be. Not only does the saggy tissue indicate a temporary increase in weight, but the increased drag probably affects flight even more. Also, the many patch jobs as the model suffers hard knocks can't help the weight problem, either. We need to consider the method Graham describes as follows:

".....Sanding seal the airframe as usual (Editor: a couple of coats of dope with sanding smooth in between), then cover it with 5-micron mylar, using thinned contact adhesive (thin with dope thinners until it doesn't string when you dip a brush in it), which should be brushed on the frame and allowed to dry. The mylar is then applied using a covering iron (Editor: the kind used to apply Monokote) to activate the adhesive, just as if you were covering with any other heat-shrink film. Use the iron just enough to remove any wrinkles. If possible don't take the mylar right up to the edge of the panel; try to leave a strip of bare wood for the tissue to stick to. If you can't do this, then make sure the tissue panels overlap each other at the edges so you get a tissue-to-tissue bond. Next cut your panel of tissue slightly oversize, dampen it with a plant sprayer (don't soak it), lay it over the mylar and brush through with a thinned NON-shrink dope mixture until the tissue adheres. Then just overlap and trim the tissue as usual. You will probably experience some white blooming from the water, but this is easily removed by wiping over with a soft cloth dampened with thinner. Don't get it too wet or the tissue will separate from the mylar.. One coat of dope should be enough; the mylar is airtight, so more dope will just add weight. Don't use shrinking dope unless you have a really stubborn wrinkle to remove. The water will shrink the tissue enough; adding shrinking dope as well will just warp the frame. "A refinement is to use silvered mylar to create a very opaque covering ; this is especially useful on scale models where you don't want the framework showing through. Another is to create multi-color designs using panels of contrasting color tissue, overlapping them slightly at the join. The mylar underneath will support the join. "Try a couple of test panels to make sure you have the method right before trying it on a model....."

Tailless Tales

Stew

Upon further perusal of the plans and photos, it becomes obvious that the design is based upon the wing 'cellule' which consists of the two wings and the joining interplane struts. This establishes the 45° stagger 3° decalage. The fuselage is a power pod attached by the wire wing clips. I prefer Dave's method of wing attach, I hate bending up those wire parts. When Dave dispensed with the struts, I think he need to increase the rudder size because of the loss of strut area.

When I go to build from old plans, I usually do some checks to see if the parts fit. Looking at the rear keel/wing attach, it seemed a bit wide (1/4") to fair out from the extensions on the bottom of "A", "B", & "C". The undercarriage attach also looks weak. Former "AA" is definitely too narrow. The construction is a curious combination of 1/32" sheet and 1/16th stringers with the heavy balsa keels attached to the 1/32 bulkheads with very little glue area.

I feel it would be better to make a full bottom keel from light 1/8th sheet running from "A" to the rear end incorporating the lower wing mount. The 1/8" sq extension forward of "A" locates the nose bulkhead. This greatly aids in constructing the rear end of the fuselage and provides a more rugged undercarriage attachment. I have redrawn the fuselage incorporating these mods and the thrust line changes Dave suggests. I also show horizontal keels to aid in assembly.

Note that Dave reduced the width of the prop block from 1" to 3/4" which increases the pitch. Modern FAI tan is more powerful than the old stuff, thus one loop replaces four strands of 1/8th. Use a normal aluminum tube rear peg aft of former "D". While we are at it if we set the bottom wing at zero and put the incidence in the top we can reduce the required down thrust.

The wing does not require enough modification to redraft. I would probably make that spar 1/16 x 1/8, (1/8 veridical) make the tips 1/16 x 3/16, and the trailing edge 1/16 x 1/8. I would also pin the upper wing to the mount beam (which you can taper to provide 3° of incidence) with tooth picks after I had the incidence right. You can dispense with the sheeting which is used to accommodate the wire mounts. If you are going to use the interplane struts, the ribs they attach to should be 1/16th stock. Note the tail skids attach there. The root ribs should be 1/16th as well. If you don't use interplane struts, in addition to larger fins you probably need some short struts from the fuselage to the wing.

The wing 'cellule' could be made up off the ship and assembled with the struts using Claude's method and a dummy fuselage spacer and then mated with the fuselage. The photos show about half the dihedral shown on the plans which I decided to use. I started to draw up the modified plans and got hooked. I had to build it!

PHOTOS Page 23

8. A truly beautiful Fairchild enlarged to 28 inches wingspan from Earl Stahl plans by Bob Schlosberg; powered with a Cox .01 converted to CO2 with a 10cc tank. You really should see this one in living color.

9. And from Lindsey Smith his Minnow Peanut resplendent in it's bronze finish.

10. Another from Lindsey, his perky Curtiss racer from plans in a previous issue of MAXFAX.

11. Tom Hallman has restored his 'Baka Bomb' and it is ready for WWII at Geneseo this summer.

12. How many remember this dazzling aircraft, an AMA Nats power scale winner many years ago when AMA had an interest in free flight scale!

13. Pat Daily sent this photo of his GWS Tiger Moth which looks great with scale like finish and landing gear; a great Micro R/C flyer and a good trainer for thumble thumbs like me.

14. This is a rubber scale model believe it or not from our English correspondent Richard Crossley. It really looks good in the original color finish.

15. Bob Flickinger worked his magic with the Golden Age Kit of the Great Lakes. All it needs is an 'airship landing hook' to imagine the flights to the Akron and Macon.

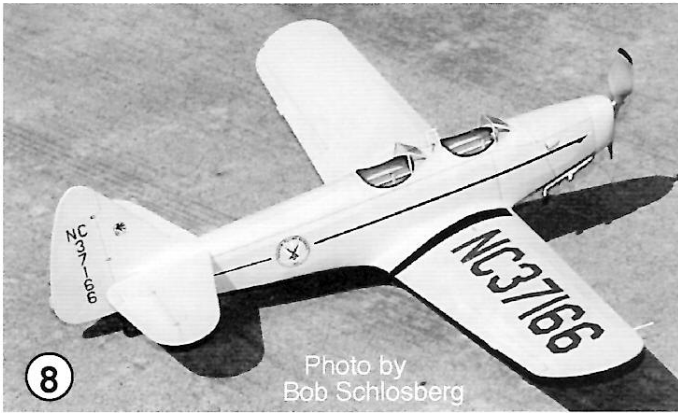
16. Another Bob, this time Bob Kreplin brought this very pretty Piper to a recent Maxecuter Meeting.

I had drawn the angled struts up in 3-D, but even so getting the ends beveled correctly was maddening. After several days of pain trying to get them right, I threw in the towel and made them vertical.

Test flight results:

The balance point appears to be the trailing edge of the top wing. I needed more decalage (looks like 5° rather than 3° is required). I added a 3/16 tab to the rear wing to give me some more up as I had both wings and the struts glued securely on. I thought with less dihedral than shown on the original plans and the strut area, I could get away with the fin shown on the plans. However, I needed 2 more square inches of fin area on each fin to kill off the squirrels. This results in the 2.75" dia fin shown on the revised plans. Dave, as usual, had it right!

I have revised the plans to show these modifications. Since I am using a 6" peck rather than the 5" prop shown on the plans, 4 strands of 3/32 seems to be indicated. This proved to be more than needed, the zoom climb was impressive but a longer sustained power run would be better. (18 " of 80 thou. ought be about right.) It really flies quite well and I wish I had figured how to mount a DT.



8

Photo by Bob Schlosberg



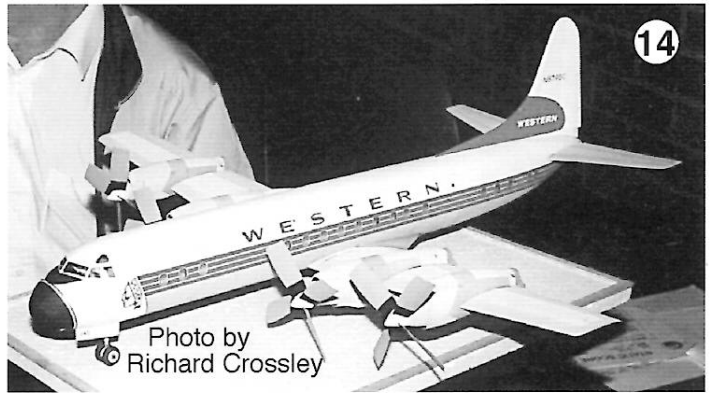
13

Photo by Pat Daily



9

Photo by Lindsey Smith



14

Photo by Richard Crossley

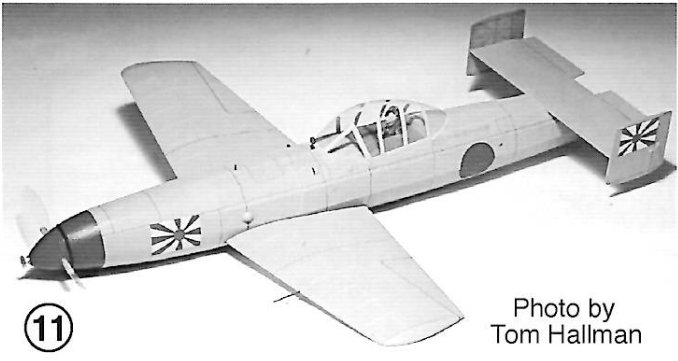


10

Photo by Lindsey Smith



15



11

Photo by Tom Hallman



12

Photo by Bill Warner



16

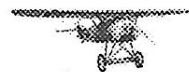


KUDZU SEPT 13 & 14 2002
CONTACT DAVE REES (919-778-6653)
 FLYER IN LAST ISSUE

KUDZU SPECIAL EVENT



Over the past two years, we have published the plans for all 12 of the Guillow's 18" WWI series. These models are the subject for the special event at the Kudzu meet. Bill Shepard is making another custom tool box for the prize. Any of these models or the DPC reproduction kits are eligible built at the original size. The structure may be lightened, but the general outlines should be retained. Of course, you need a pilot(a profile at the least), guns, and rigging. No foam structure. Rubber power only. The models should reflect either the kit color scheme or some other authentic WWI colors backed up by a photo or drawing. The allies will fight it out (mass launch sorties) as will the central powers. The best three of each will then go against each other to see who gets the box and who gets boxed. A contestant may enter both an allied and central powers aircraft. If both make it to the finals one may be proxy flown.



NOTE: Your Dues Are Due



CLUB OFFICERS - President: Hurst Bowers, 1649 Birch Rd., Mclean, VA 22101
 Secretary: Bert Phillips, 1709 Crofton Pky, Crofton, MD 21114-2305
 Treasurer: Norm Davison, 14008 Castaway Dr., Rockville, MD 20853
 Editor: Stew Meyers, 8304 Whitman Dr., Bethesda, MD 20817

MEETINGS - The D.C. MAXECUTERS hold meetings at 8:00 pm on the first Tuesday of every month at the College Park Airport, the oldest continuously operating airport in the world. Daylight savings rule not in effect.

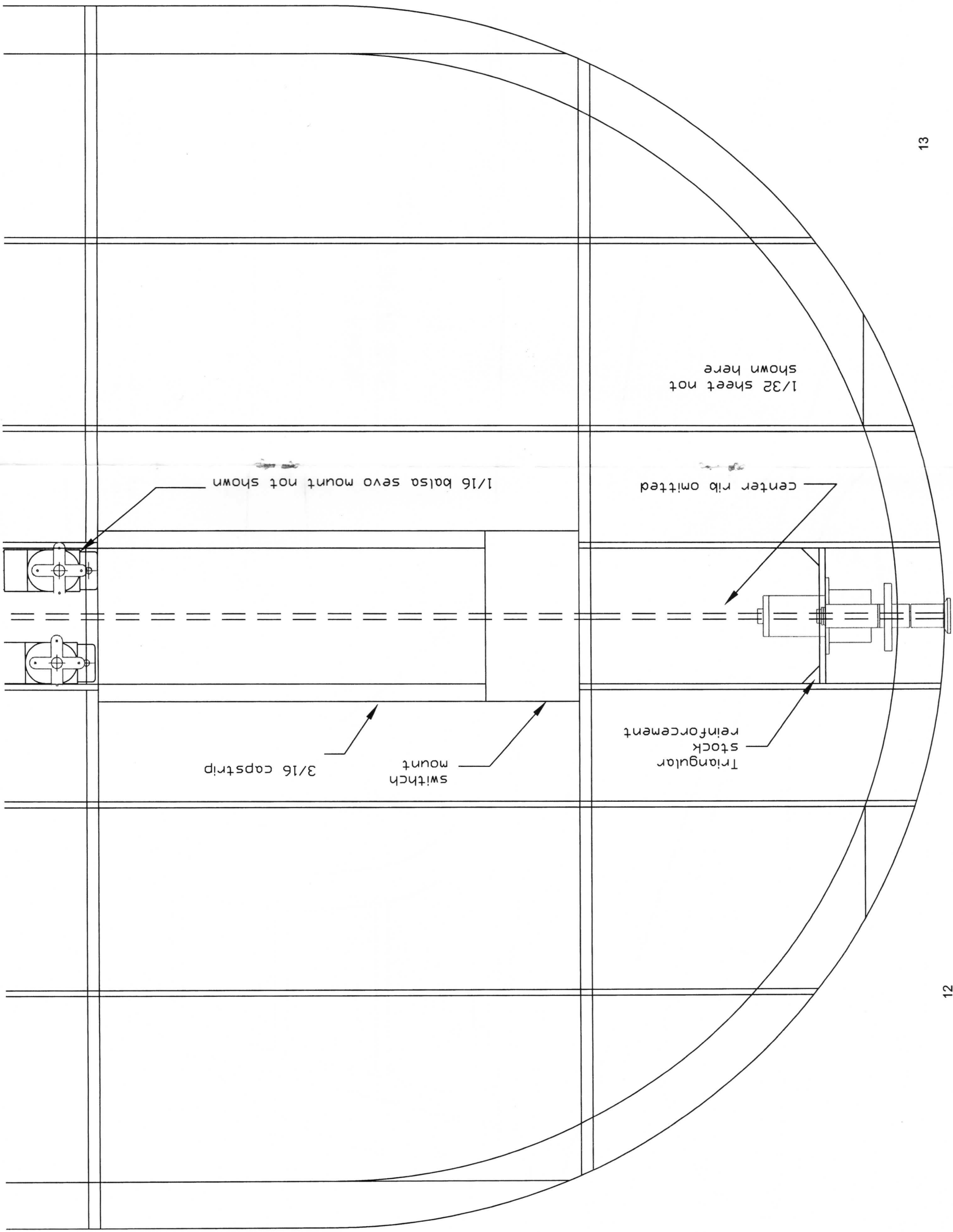
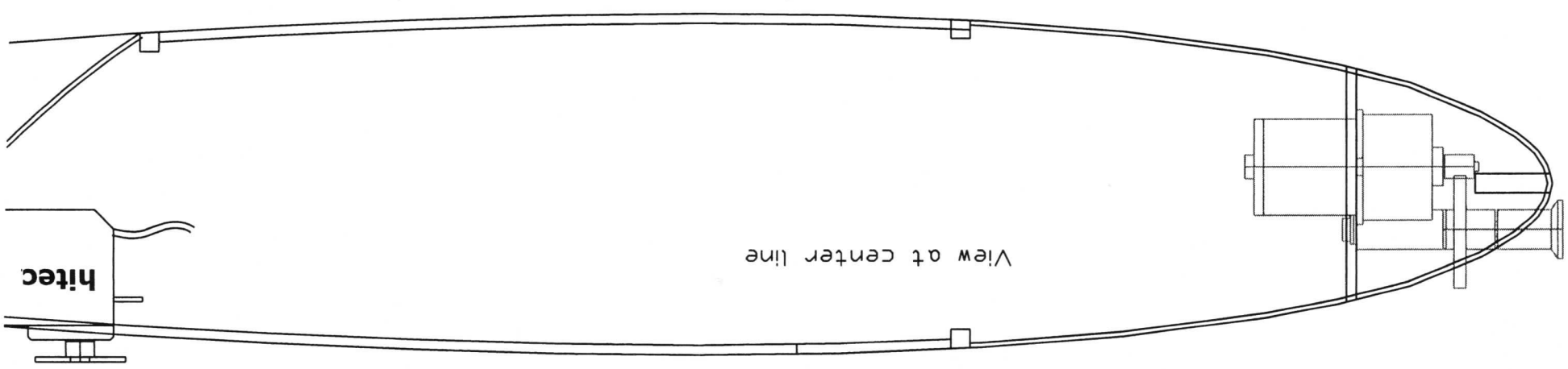
MEMBERSHIP - Dues for membership in the D.C. MAXECUTERS are \$15 per year for residents of the USA, Canada, and Mexico, and \$25 for all other countries. Your mailing label indicates the year and month of the last issue of your current membership. A red "X" in the box above is a reminder that your dues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

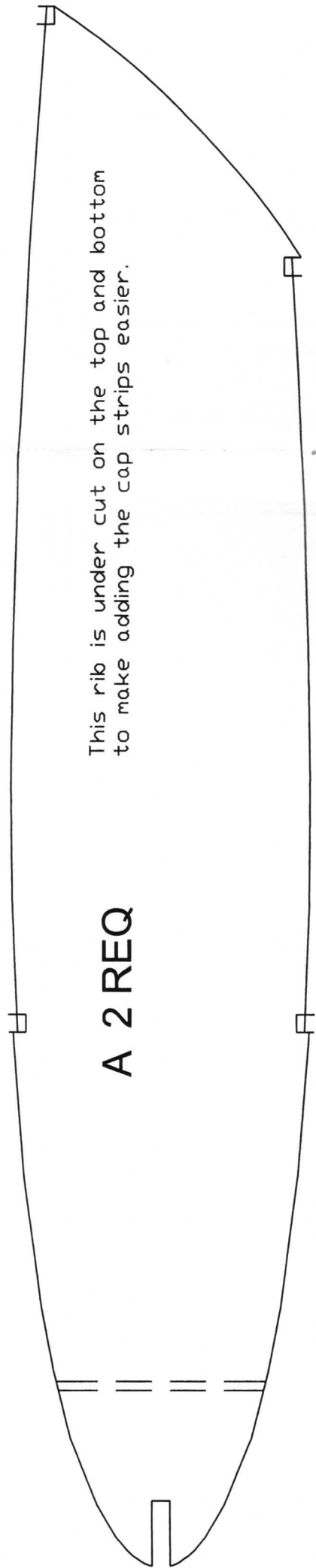
Send a check, payable to the "D.C. MAXECUTERS", to the treasurer, Norm Davison.

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

CONTACTS - Material for the newsletter and membership questions should be addressed to Stew Meyers phone 301-365-1749. E:mail gets immediate attention. stew.meyers@erols.com

Maxecuter web site: www.maxecuter.com





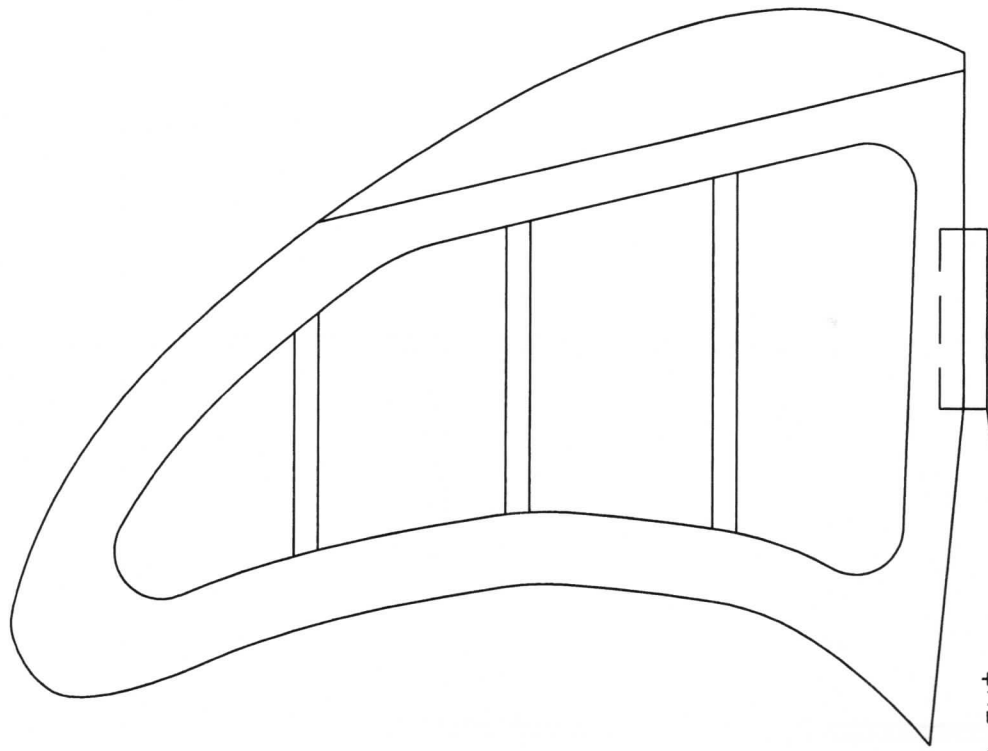
This rib is under cut on the top and bottom to make adding the cap strips easier.

A 2 REQ

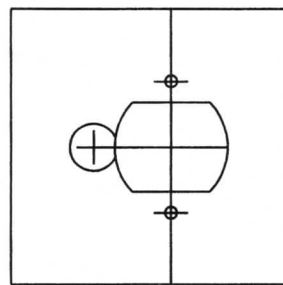


**RIBS FROM 1/16
FIN 1/8 SHEET**

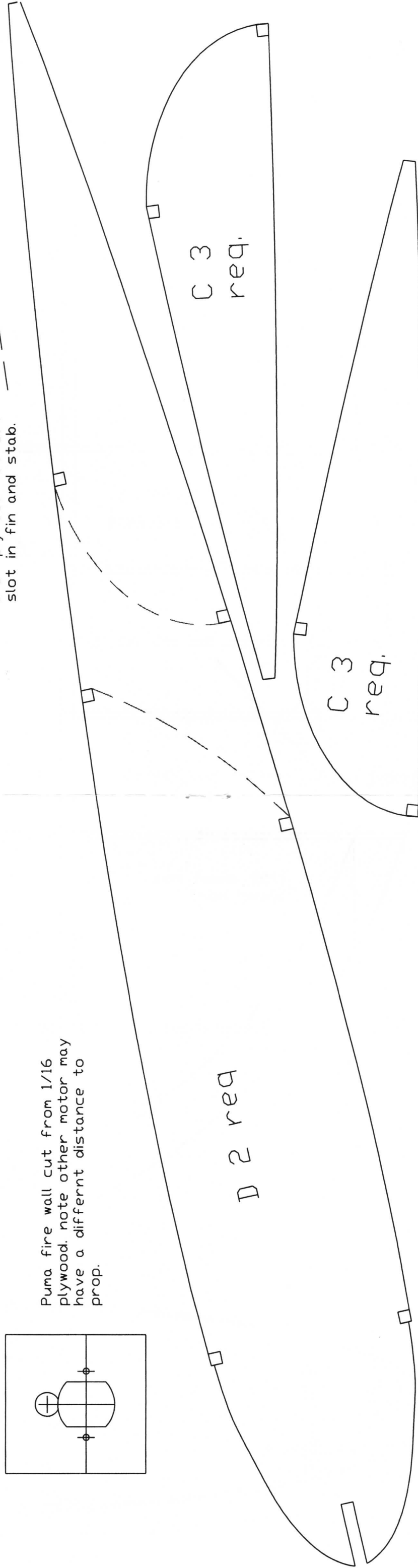
**B 2
req.**



1/64 plywood tab cut slot in fin and stab.



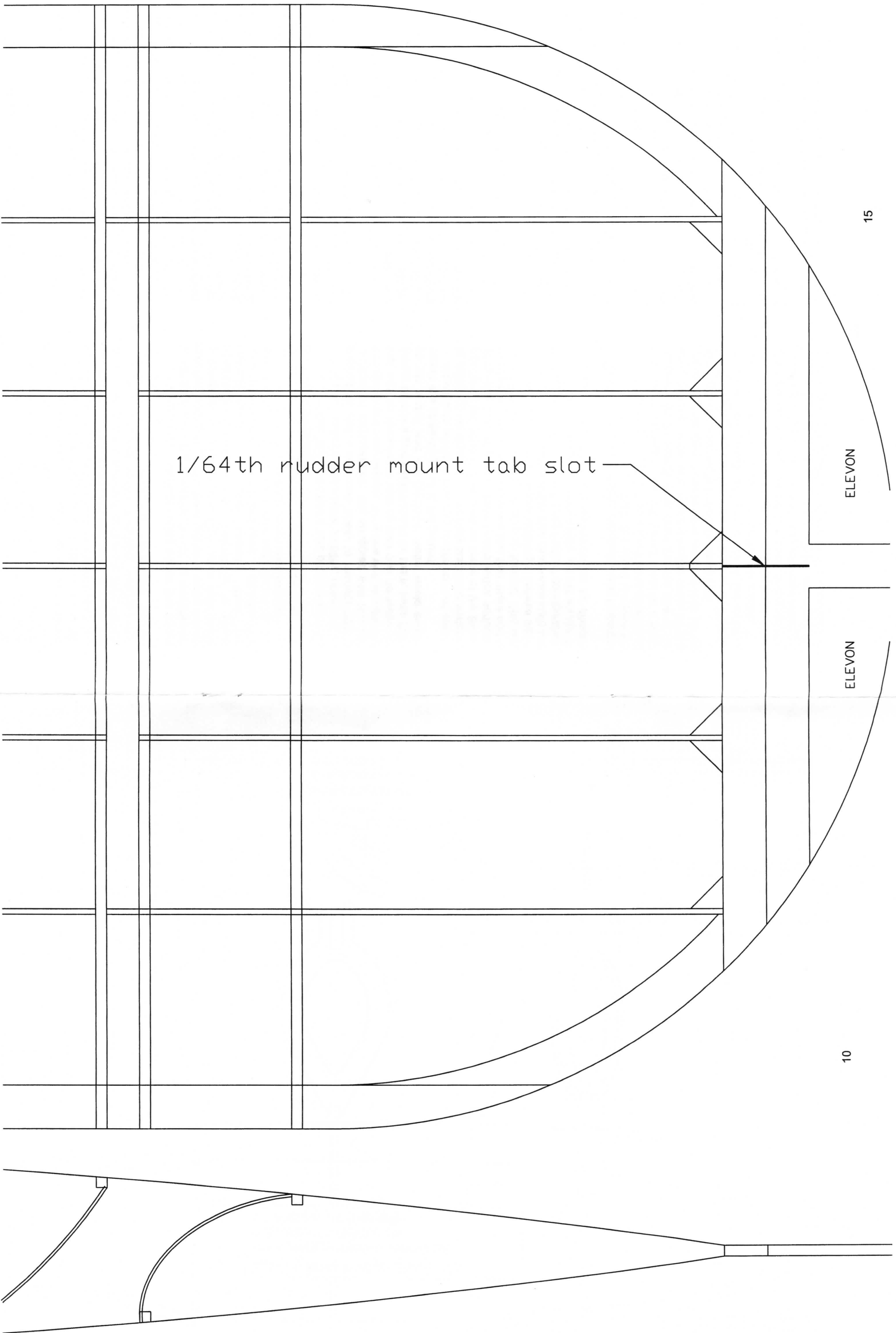
Puma fire wall cut from 1/16 plywood. note other motor may have a differnt distance to prop.



D 2 req

**C 3
req.**

**C 3
req.**



1/64th rudder mount tab slot

ELEVON

ELEVON

10

15