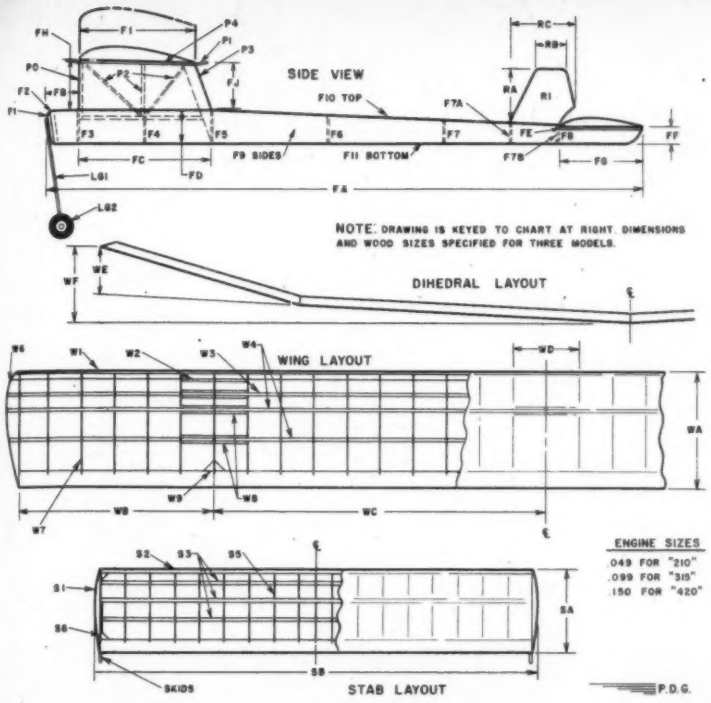

DIMENSIONS – INCHES				WOOD SIZES – (S) SHEET				
MODEL	"210"	"315"	"420"	MODEL	"210"	"315"	"420"	
FA	26"	33"	36"	F1	1/16" PLY	1/8" PLY	1/4" PLY	
FB	1-1/4"	1-3/8"	2"	F2	1/16" PLY	1/8" PLY	1/4" PLY	
FC	6"	7"	8"	F3	1/16" (S)	3/32"(S)	3/32"(S)	
FD	1-1/4"	1-5/8"	2"	F4	1/16" (S)	3/32"(S)	3/32"(S)	
FE	1/8"	3/16"	1/4"	F5	1/16" (S)	3/32"(S)	3/32"(S)	
FF	3/4"	7/8"	1"	F6	1/16" (S)	1/16" (S)	3/32"(S)	
FG	4"	4-1/2"	5"	F7	1/16" (S)	1/16" (S)	3/32" (S)	
FH	2-1/2"	2-3/4"	3"	F7A	1/16" (S)	1/16" (S)	3/32" (S)	
FI	5"	6"	7"	F7B	1/16" (S)	1/16" (S)	3/32" (S)	
FJ	2-1/4"	2-1/2"	2-3/4"	F8	1/16" (S)	1/16" (S)	3/32" (S)	
RA	3-1/4"	3-3/4"	4-1/4"	F9	1/16" (S)	1/16" (S)	3/32" (S)	
RB	1-1/4"	1-1/2"	1-3/4"	F10	1/16" (S)	1/16" (S)	3/32" (S)	
RC	4-1/4"	4-1/2"	4-3/4"	F11	1/16" (S)	1/16" (S)	3/32" (S)	
				W1	1/16"x 3/16"	3/32" x 1/4"	1/8" x 3/8"	
				W2	3/32" x 3/16"	1/8" x 1/4"	3/16" x 3/8"	
WA	5"	6"	7"	W3	1/8" x 1/4"	3/16" x 3/8"	1/4" x 1/2"	
WD	9"	11"	13"	W4	1/8" x 1/8"	5/16" x 3/16"	1/4" x 1/4"	
WC	12"	15"	18"	W5	1/8" x 3/4"	3/16" x 7/8"	1/4" x 1"	T.E.
WD	3"	3-1/2"	4"	W6	1/16" (S)	3/32" (S)	1/8" (S)	
WE	1-7/8"	2-5/16"	2-3/4"	W7	1/32" (S)	1/16" (S)	1/16" (S)	
WF	3"	3-3/4"	4-1/2"	W8	1/16" (S)	3/32" (S)	1/8" (S)	
				W9	1/16" (S)	3/32" (S)	1/8" (S)	
				R1	3/32" (S)	1/8" (S)	5/32" (S)	
SA	4"	4-1/2"	5"	S1	1/4" x 1/4"	3/8" x 3/8"	1/2" x 1/2"	
SB	18"	22"	26-1/2"	S2	1/8" x 1/8"	3/16" x 3/16"	1/4" x 1/4"	
				S3	3/32" x 1/8"	1/8" x 3/16"	3/16" x 1/4"	
				S4	3/32" x 1/2"	1/8" x 5/8"	3/16" x 3/4"	T.E.
				S5	1/32" (S)	1/16" (S)	1/16" (S)	
LG1	1/16"	3/32"	1/8"	S6	1/16" (S)	3/32" (S)	1/8" (S)	
LG2	1"	1-1/4"	1-1/2"	PO	3/16" x 3/4"	3/16" x 3/8"	1/4" x 1/2"	
				P1	3/32" DOWEL	1/8" DOWEL	3/16" DOWEL	
SKIDS	1/16" (S)	1/16" PLY		P2	1/8" x 1/8"	3/16" x 3/16"	1/4" x 1/4"	
				P3	3/32" x 1/2"	1/8" x 5/8"	3/16" x 3/4"	T.E.
				P4	1/32" PLY	1/16" PLY	1/8" PLY	

Vertical take-offs (VTO) come natural to the Space Tigers. Chart, top, will allow the expert reader to build .049, .09, as well.

Seafaring job as marine engineer didn't stop author from cooking up a swell free flight. Smaller versions sure getting attention.

SPACE TIGER

by RICHARD OSCAR PAUL

Off land or water this .15 powered free flight has what it takes—but is not cranky. Adjustments built in.

► The Space Tiger is the result of several years work and a series of designs to perfect a contest model which would be second to none at International finals and local elimination meets.

At the finals, the world's finest builders gather with one thought in mind, to win the world's model airplane championship for the country they represent. The model first has to show its merits in several contests in the builder's own country, winning a place in the four-man team, selected from the highest flight times, to represent that country.

The Space Tiger has no wins to its credit, but has made a good showing to satisfy me and all those who witnessed this model in flight. I am sure that the expert and beginner will find this article a most important feature to help stimuate interest in free flight, especially among the kids now coming up. My main purpose in writing this article is to give the less experienced modeler an equal chance to build a model of this type for hot contest competition which is now limited to a select few.

The Space Tiger was *(Continued on page 43)*

Space Tiger

(*Continued from page* 13)

built in three sizes, as you will notice from the pictures attached to this article. I have presented this article with a table chart, for building other sizes as featured in St. Jean's Ramrod design, June, 1956 MAN.

With this table chart, you shouldn't run into trouble. The construction is simple and rugged. If the plans are followed closely, you shouldn't have any with weight or adjustments, as the latter are built into the model.

FUSELAGE: Cut the fuselage parts from 3/32" sheet unless otherwise stated. After sanding them to shape, cement the two sides together with bulkheads 3, 4 and 5, bringing rear end together with pins, and then cementing bulkheads 6, 7, 7A, 7B and 8. Lay out pylon slot and rudder slot and cut out same, being sure to aline top sheet to sides so the pylon and rudder are in dead center of fuselage frame. After top sheet is dry, trim scrap off tip sheet to a taper in line with sides. Now build the pylon frame on plans. While it is drying, cement bulkheads 1 and 2 which are made of ¼" sheet plywood. Then cut rudder, sand to shape, and cement in place. Now install fuel tank near nose of fuselage. Remove pylon frame from plans and cement in place in fuselage, adding plenty of cement to pylon frame and bulkheads.

Now that bulkheads 1 and 2 are dry, cement them in place at nose of model. When dry, drill holes in bulkheads 1 and 2 for blind nuts, which are to be cemented or soldered in place; hole location in bulkheads 1 and 2 plus bulkheads A and B, depending on the engine you decide using. Cut six ribs and cement to sides of pylon frame. Plank side of pylon with 1/16" sheet in vertical position, trim scrap off pylon and cement pylon platform made of ¼" plywood on top of pylon. Cement bottom sheet in place, and stabilizer platform, also made of ⅜" sheet. Sand all edges round and dope and sand between coats. Two coats dope required.

WING: Begin wing by cutting out ribs, taking notice of platform ribs in dotted lines and extra large slots in ribs for gussets at tip and center breaks for dihedral details. Next, notch wing rib locations in trailing edge stock. Build up trailing edge to line up with rib under camber and pin securely. Now add leading edge which is made up of two pieces; one ¾ x ¾", one 3/16 x 3/8". Pin these in place, making sure that you leave at least one inch overhang for wing tips.

Install ribs, cement in place, and add top spar which is ¼" sq. When dry, remove from plans, adding bottom spars ¼ x ½" and ¼" sq. Now cement scrap ⅛" sheet in-between spars at the wing tip. Trim to shape, add gussets to dihedral breaks when wing is built up to proper dihedral. Cement same and, when dry, sand to shape, then giving frame two coats of dope, sanding between coats.

STABILIZER: The stabilizer construction follows the same style as the wing.

COVERING: You can use Jap tissue or Silkspan throughout the model. Apply tissue dry, using a mixture of dope and cement to adhere it to the framework. Work carefully and slowly to get a neat smooth job. When wing and stabilizer are covered, spray the tissue with a light coat of water, allow to dry before going further. The water will shrink the tissue tight. When dry, apply four coats of thinned fuel proofed dope. The weight is important so don't apply more dope than required, since this will only cut down the performance of the model.

FLYING: After attaching the wing and stabilizer, test glide the model in tall grass. If the model stalls, add clay to nose for proper trim. When you are satisfied with the glide which should be very flat, prepare the model for its first flight under power.

The rudder tab is used to adjust the angle and size of circle under power. The tab is not used for glide adjustment. The tab only counteracts right thrust setting—which is built in. If the model takes off but goes into VTO climb position, a 1/32 in. left offset of the tab will open up the climb circle, giving better recovery after the engine quits. Never use right tab as it will cause model to wind in under power.

For glide adjustment tilt left side of the stab high—as seen from the rear. Do this with a 3/32 in. balsa shim at the edge of the stabilizer platform. A couple of spots of cement will hold the tab setting. The model then will turn left in the glide.

Be sure to light the dethermalizer fuse as you cannot take chances. From here on, you are on your own. I adjust my model to go right in large circles under power, and left tight turns in the glide. With this flight pattern, I find no loss due to model stalling or diving.

Be sure to run your engine rich for the first two or three flights in order to see how the model handles. When you are satisfied with its adjustments, lean out the engine and be sure you have the timer set for only five seconds when flying other than contests. Remember, this is a hot contest ship and will be out of sight in nothing flat unless you control your timer.

In all three model sizes you will find that you have a model that will hold its own in any contest. Due to my occupation as a merchant marine engineer I was unable to attend contests. With my comeback to model flying, I for one, hope to enter the Wakefield and FAI power event and all other contests in 1957.

On November 6, 1955 I went flying as usual at Pennsylvania Ave. and Belt Parkway, but the wind was so rough that the regular RC boys stood about the fire warming themselves while I adjusted my timer and test ran the engine of my Space Tiger .15. I decided to see what this ship could do with a 20 mile wind. As I was about to launch my ship, I discovered my timer became defective, but because of the high blowing winds I didn't feel this would carry my ship very far, so after several protests from John Zaic and some of the RC boys, I decided to let her go, which, much to my surprise, the "Space Tiger" headed vertically up to about 1500 feet, when it leveled off as the engine quit.

It must have caught a thermal because in a few minutes my ship had climbed up and out of sight. On November 22, 1955, I was phoned by a party out in Bethpage, Long Island, which is over 30 miles from the original flying site. I was asked to pay $20.00 for the return of my ship which the boy's father had picked up near the Grumman Aircraft Corp. flying field. After several arguments about private property, I finally paid $10.00 for my model's return. Let this be a lesson!

PAA Junior Jet

(*Continued from page* 29)

Total of the best of two flights was 2 minutes 20.2 seconds.

Construction of the Junior Jet model is very simple. The wings are cut to shape from ⅛" x 3" sheet balsa and sanded to the airfoil shape shown. Next, cut out the center portion of each wing panel as shown and add 1/16" x 3/16" ribs. Sand the ribs to airfoil shape after the cement has thoroughly dried. Block up each wing panel to obtain the proper dihedral and sand the bevel on the center joint using a flat sandpaper block. Pre-cement the center wing joints and, when dry, cement the two halves together with a liberal coating of cement. Finally, cover the wing panels on top and bottom with tissue paper, shrink the paper with water, and apply one coat of clear dope.

The fuselage boom should be made from hard ¼" sheet balsa. Be careful not to sand the areas where wing and elevator mount. These should be flat for easy mounting of the surfaces. Cut the elevator and rudder from quarter-grained 1/16" sheet balsa and sand to a streamline shape as shown. Cement the elevator and rudder in place, carefully lining them up with the fuselage boom. Next, cement the wing in place. The built-up portion of the fuselage now can be added. Cut two fuselage sides from 1/16" balsa. Mount a 1/16" hard balsa bulkhead on the front of the fuselage boom. Now cement the beveled edges of the fuselage sides to the fuselage boom at "A" as shown and also cement them to the sides of the bulkhead. When these cement joints are dry place the second 1/16" bulkhead in position ⅛" in front of the other one and then bend in the fuselage sides so they can be cemented and pinned to the tapered nose block. After the cement points of all fuselage components are dry, add the 1/16" plywood mount for the Jetex motor. Then cement the two 1/16" balsa bottom panels

(*Continued on page* 52)