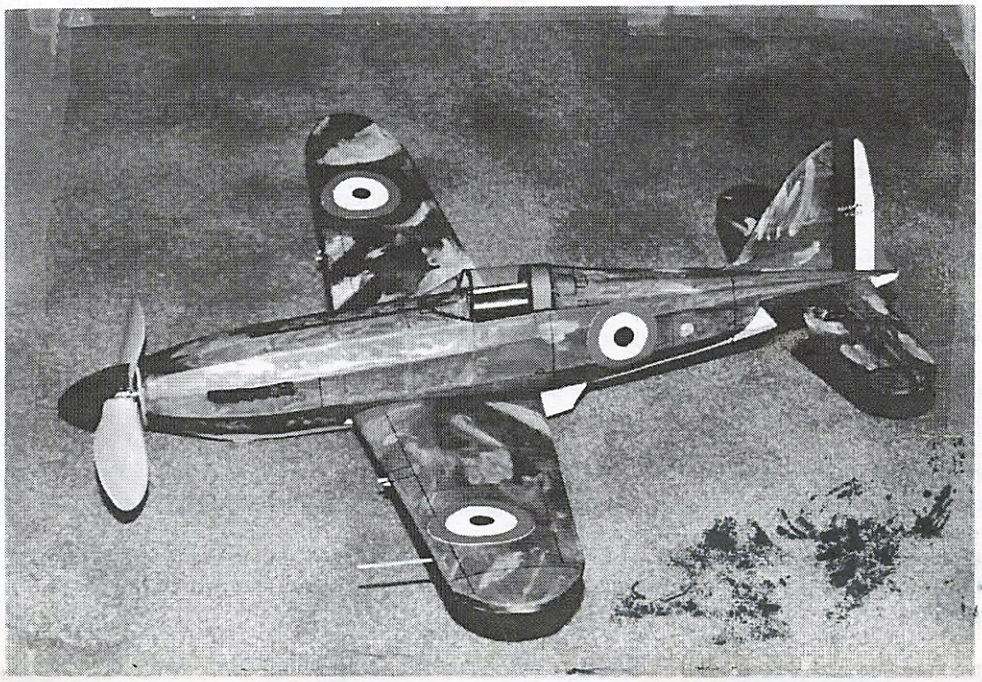
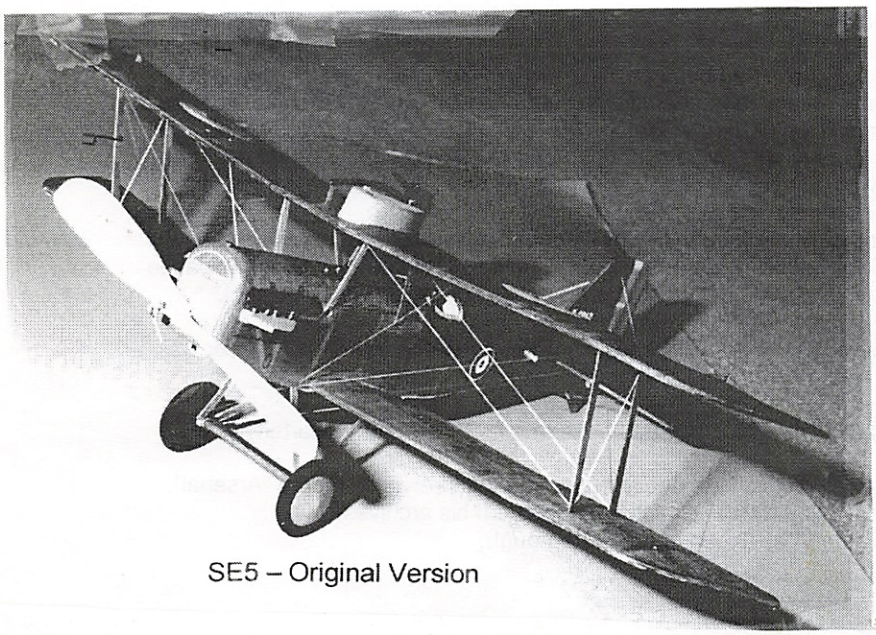
CROSSWINDS
#118

16" French Arsenal Fighter – 1939
16-3/4" Original SE5



CROSSWINDS
RUSS BROWN
4909 N. SEDGEWICK
LYNDHURST, OH 44124



SE5 – Original Version

44094388476 R001

The Arsenal VG 33 Model:

I chose to make the fuselage for this model using the light weight 'longeron as stringer' method I have been using on rounded fuselage planes for several years, starting with the "Hellcat" that appeared in an earlier issue of "Crosswinds". This amounts to building a right and left side of the fuselage box frame using semi formers for the uprights instead of square balsa sticks. To make the right side exactly opposite to the left, simply rub light machine oil on the fuselage plan to make it translucent, then turn the plan over to build the right side frame.
When the two side frames are complete, join them together at the rear and insert the front longeron stubs into little square holes in former #1. You will note that former #1 is cut greatly oversize and trimmed down to final size after the longerons and stringers have been added. This is a new idea that seems to work very well and certainly holds the stringers in position while the glue sets. Make the holes in former #1 with a 1/16" drill. To make those for the longerons square, I used a tiny square needle file. Add former #5T and #5B next and then work fore and aft to add the other top and bottom formers.

The former patterns are easily transferred to balsa sheet by rubbing a felt tip marker 'colorless blender' or a wad of cotton soaked in lacquer thinner over the patterns held face down against the balsa sheet. (The labels on the patterns are reversed so they will read properly when transferred to the balsa.).
Note that the lower longerons between former #1 and former #5 are bowed outward. This presents no building problem, but it is important to have the grain for the nose filler NF running vertical. The longeron bow will add about .02" downthrust to the model, which is desirable.
Stringers are made of 1/20" balsa and can be pushed into the round 1/16" holes in former #1and pulled through to their final position
The two lower side stringers should contact the wing saddles 'WS' for the entire length of the saddles. Add these first.
I suggest you refer to the article by Claude Powell in the October, 2006. issue of "Flying Models" for a good method for stringer alignment using these lower side stringers as a reference and starting point.
There is one center stringer on the bottom between former #1 and former #5. It is not necessary to extend this stringer farther aft, but it does fill out the nose contour nicely.

I built the wing on my Arsenal using a light 1/16" x 3/16" trailing edge as shown by the broken line. I filed notches in the trailing edge for each rib to give them more glue area, but you may prefer to use harder 1/16" x 1/8" balsa for this piece and do without the rib notches.
After all stringers are glued in place, sand the saddles and rear motor anchor to blend in to the fuselage contour, then sand scallops into the formers between stringers, with fine sandpaper wrapped around a ½" dia. dowel, to prevent a "starved horse" look in the covering.

Cut the wing spar from medium 1/16" sheet so it is 1/8" wide at the root and only 1/16" square at the tips. The spar is on the upper wing surface only to prevent bowing and to provide the maximum strength for minimum weight. Dihedral braces for the L.E. and T.E. can be made of 1/64" plywood. I like to file spar notches in wing ribs after they are in position on the building board to ensure that the spar will be perfectly straight. Just file right over the spar outline on the plan.
The stabilizer and rudder have been enlarged 12% to improve stability. Stab ribs are made from 1/20" x 3/32" light balsa and sanded to an airfoil shape. The 1/20" spar on top is necessary to prevent bowing.

Now cut away the material from formers #5B and 6B that will interfere with placement of the wing. It may be necessary to sand the wing saddle openings a little to allow the wing to slip in. It should be a snug fit, but not so tight that the covering will be snagged when the wing is inserted. Check to see that the stabilizer will be level with the wing when it is inserted. If it isn't, sand the stabilizer platform pieces SP till the stab and wing line up perfectly. Do not sand the longerons under the wing because they determine the 2 degrees of decalage designed in.

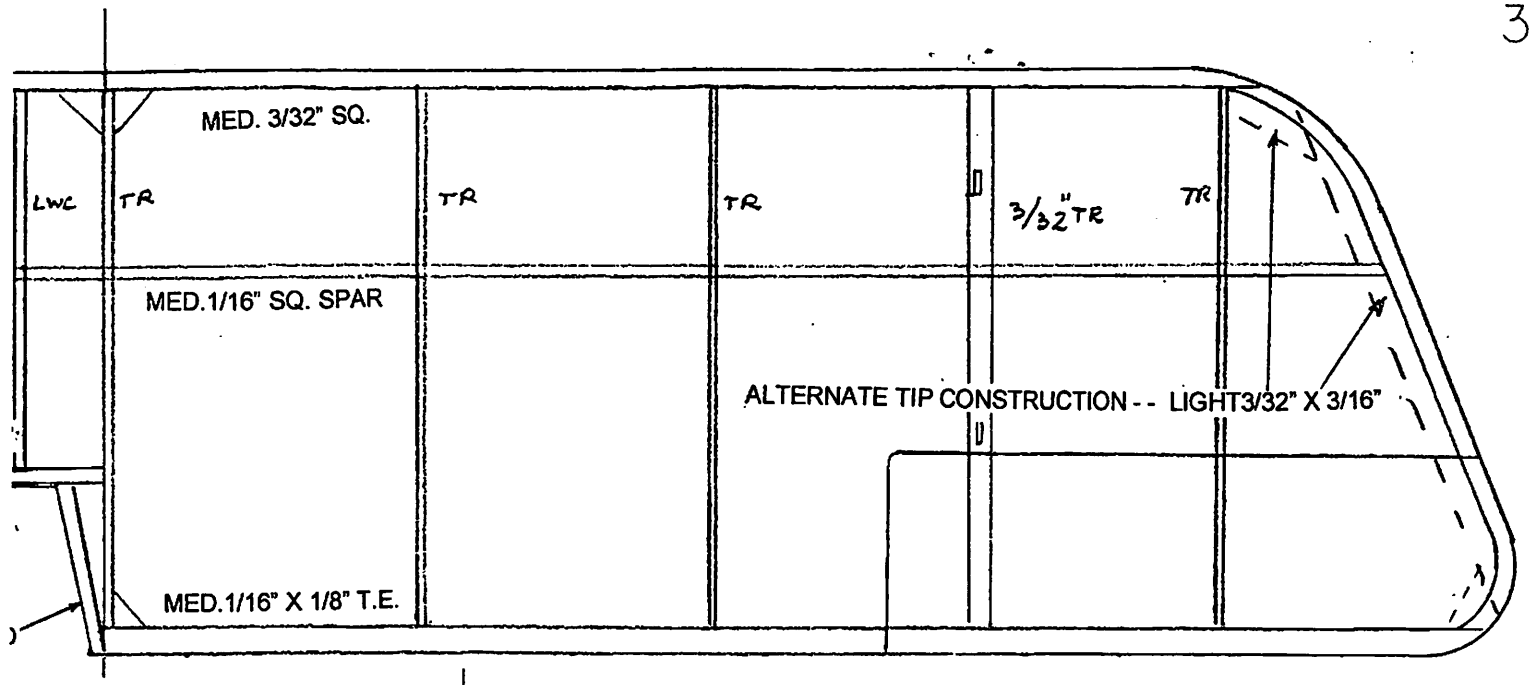
The canopy may be vacuformed if you wish, but I made mine from .003 acetate cut to the pattern on the plan. Don't forget the instrument panel which is glued to former #6T.
I covered the top surfaces of the "Arsenal" with green tissue which had been chalked with olive chalk on its dull side, and used white tissue on the undersides. The tissue was water shrunk then coated with matte "Krylon" spray. I then painted the bottom of the fuselage with two coats of thin, light gray acrylic paint from a Testor's "Hobby and Craft Acrylic Paint Set". This paint covered very well with only two coats, but I did not use it on the flying surfaces to avoid extra weight. I found that small dabs of it can be easily smeared on the green covering with a finger tip, after the Krylon has dried, to simulate camouflage mottling. Of course, an air brush could also be used if you have one.
I made French roundels from red, white and blue trim strip. You will need to put white trim strip material under the red on the upper surfaces because red trim strip is transparent and will let the green tissue color dominate if not backed up with opaque white. I used a circle cutting compass to cut these pieces. It is quite easy and the resulting roundels are very brilliant.

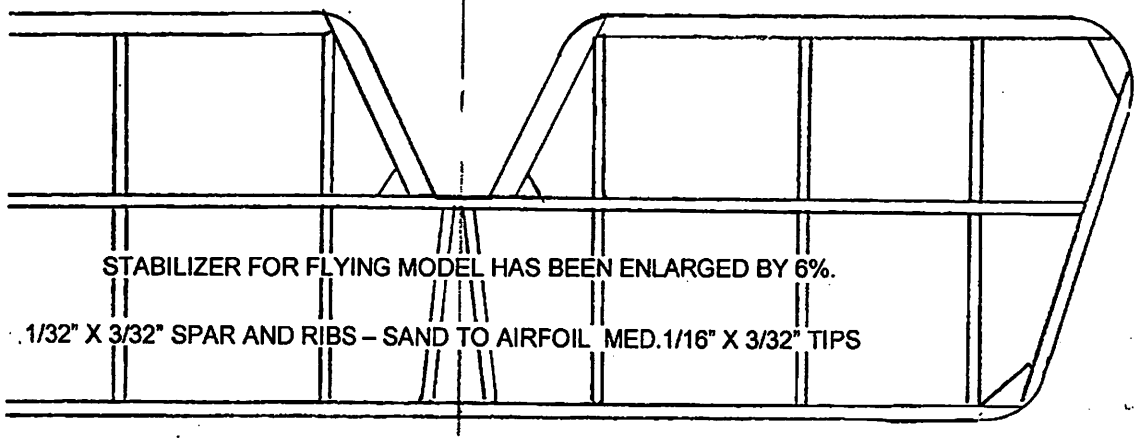
The bare framework of my "Arsenal" weighed 5.8 grams without spinner or prop. The completed model without rubber was 15.8 grams. I used a balsa prop and balsa spinner and 4 strands of 3/32" rubber at twice the hook distance.

Note that the prop and airfoil designs were copied from articles by Bill Henn that appeared in "Free Flight Quarterly".

Many thanks to Rich Weber and Russ Brown for sending me much of the documentation and three views for the "Arsenal".
My plan was adapted from a Czech model plan by Lubomir Koutny which Rich provided from his archives.
Additional material came from "The Complete Book of Fighters" by Green and Swanborough.

Happy landings and warm thermals! Steve Griebling for "Crosswinds"

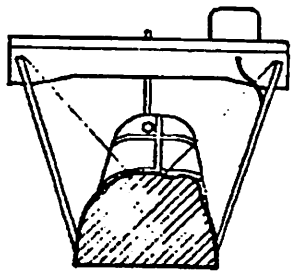




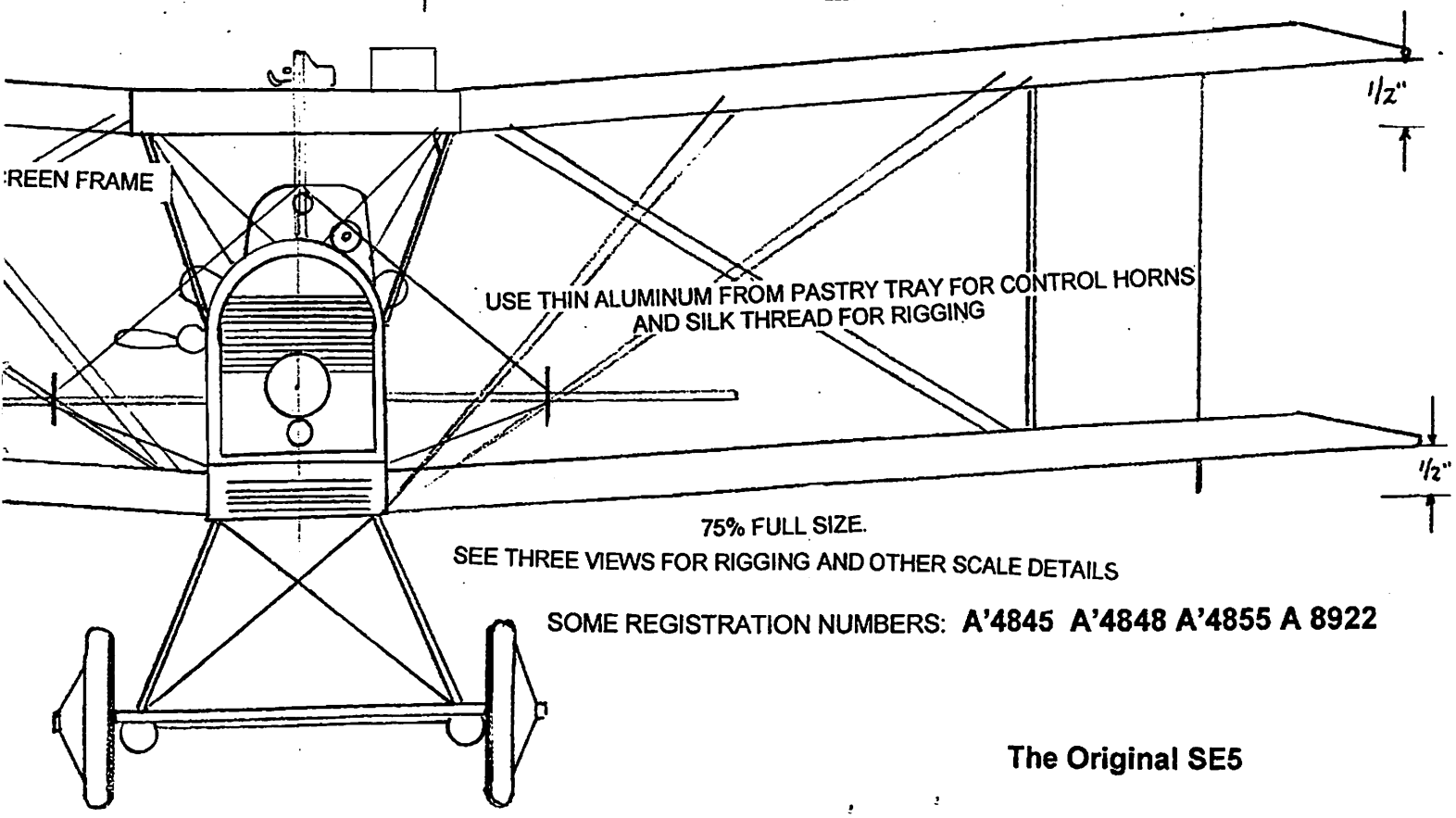
STABILIZER FOR FLYING MODEL HAS BEEN ENLARGED BY 6%.

.1/32" X 3/32" SPAR AND RIBS – SAND TO AIRFOIL MED.1/16" X 3/32" TIPS

16 3/4" SPAN



Front

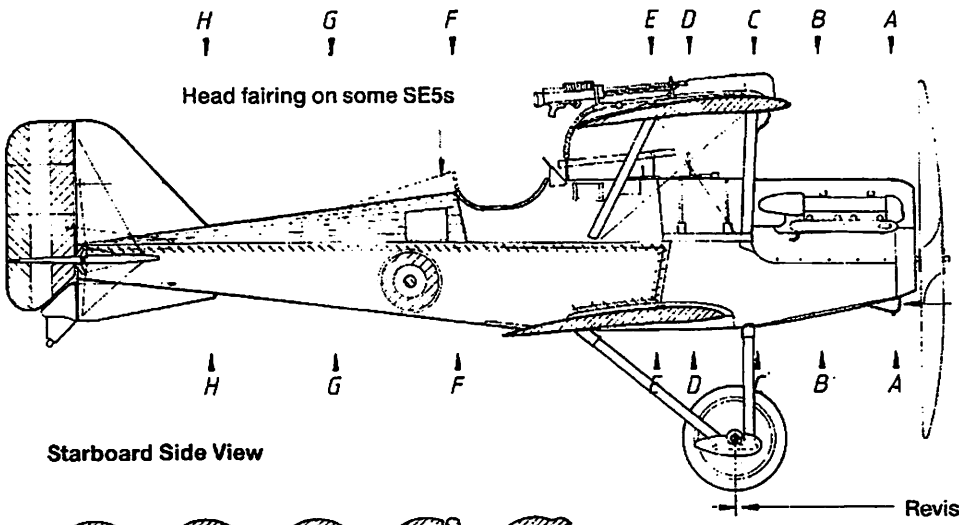


75% FULL SIZE.

SEE THREE VIEWS FOR RIGGING AND OTHER SCALE DETAILS

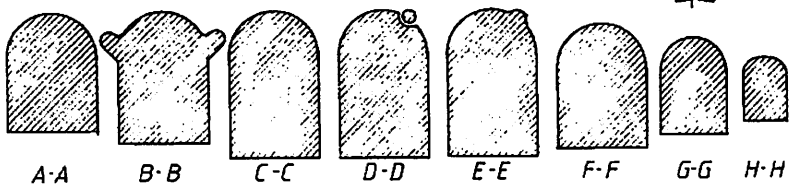
SOME REGISTRATION NUMBERS: **A'4845 A'4848 A'4855 A 8922**

The Original SE5



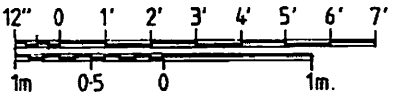
Starboard Side View

Revised undercarriage on later SE5s moved axle forward 1.1/2"

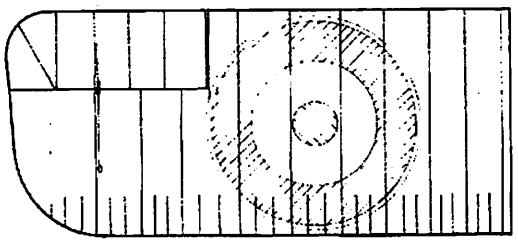


Fuselage Sections

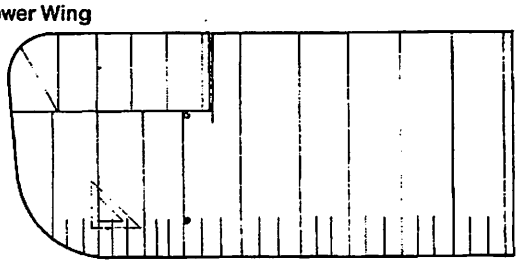
1/48th SCALE DRAWINGS

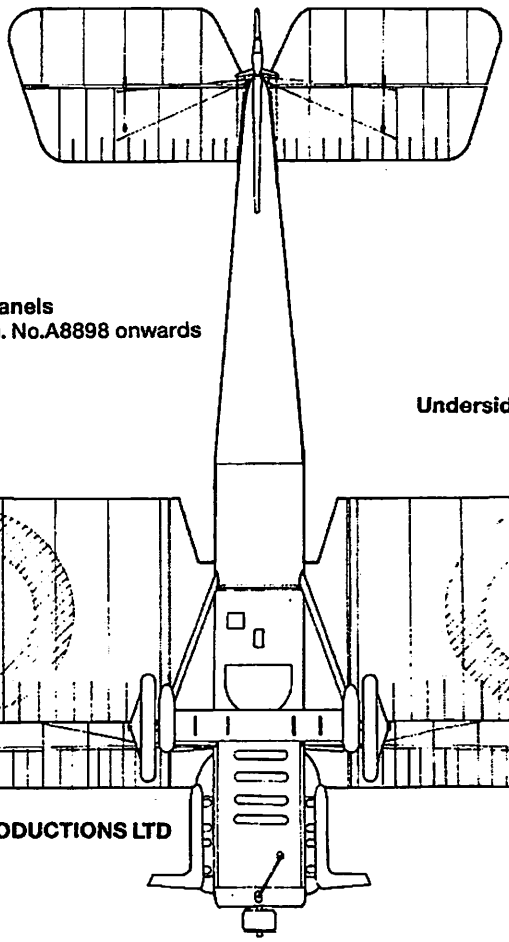


Top Wing



Lower Wing

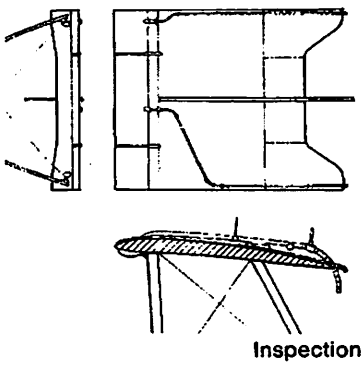




Detail of Later Wing Panels
Used on second batch. No.A8898 onwards

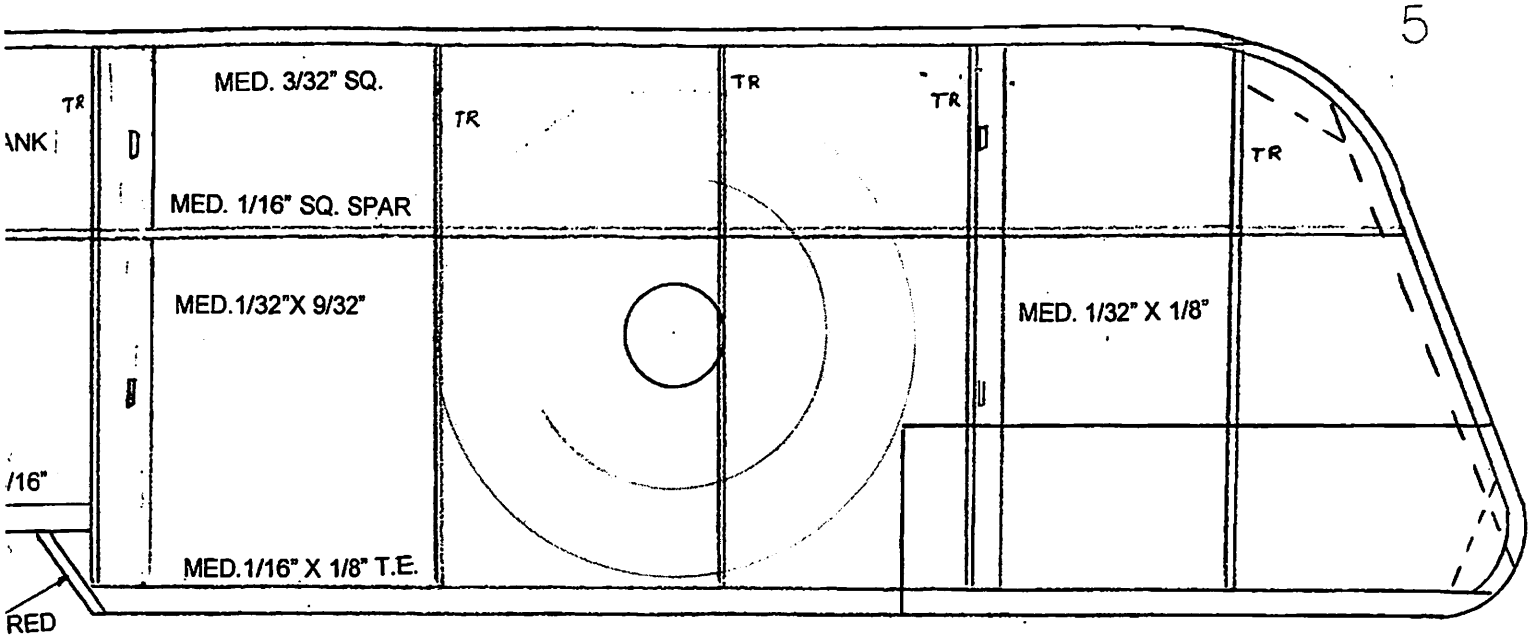
Underside

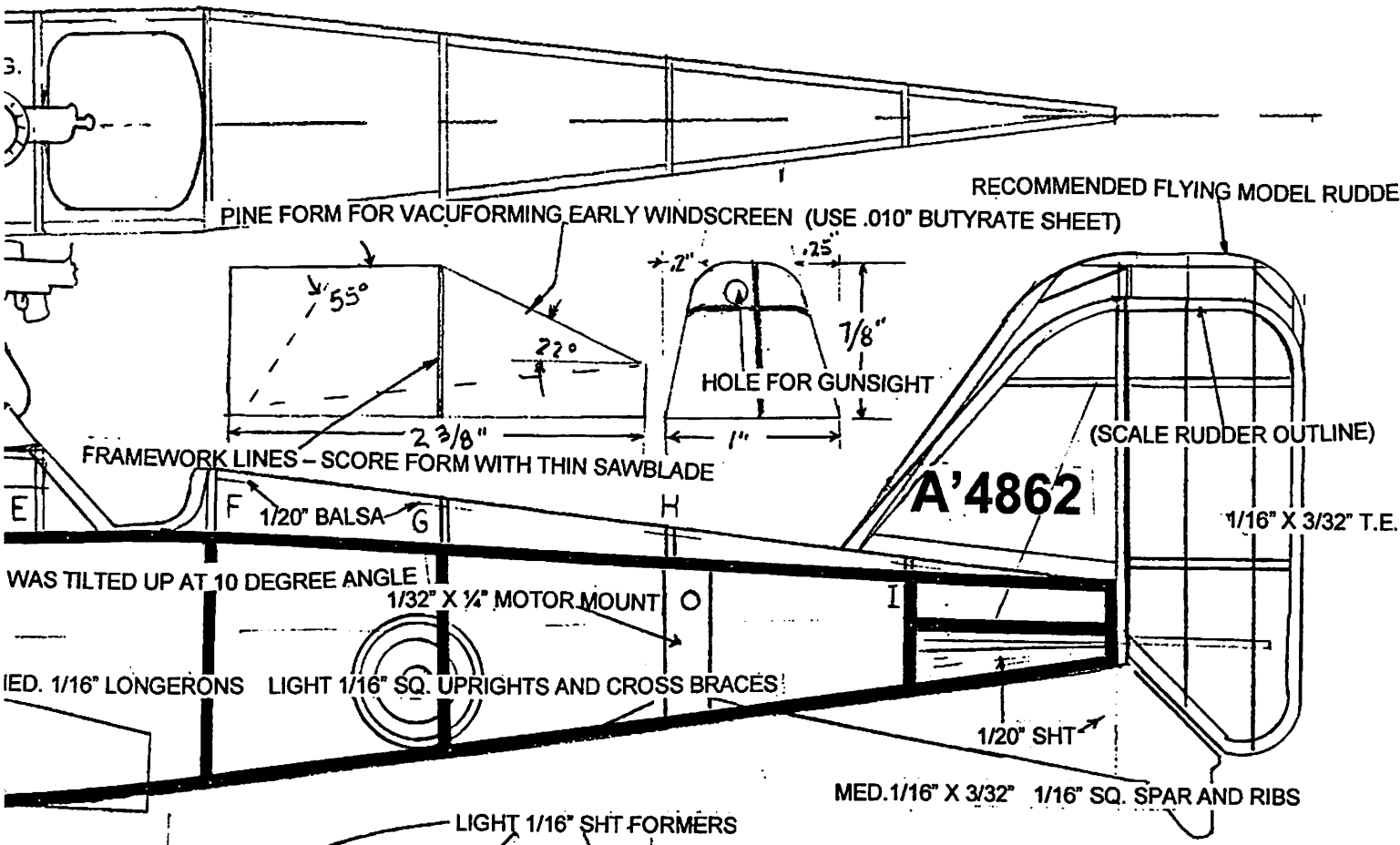
Detail of Later Centre Section
With gravity fuel tank and water tank in the leading edge

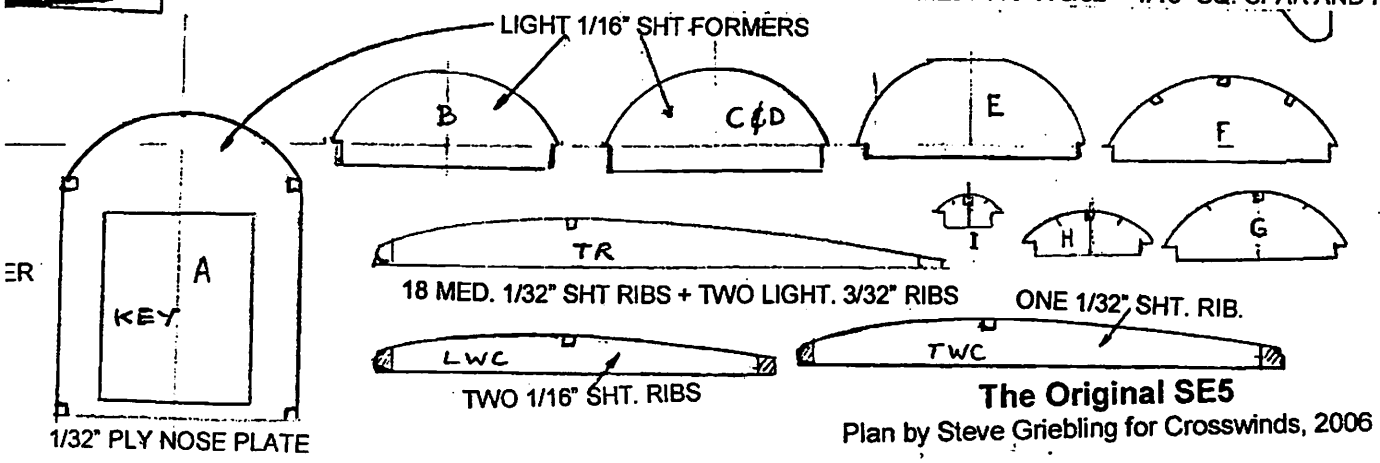


Inspection panel

Drawn and traced by IAN R. STAIR © 1991 IAN R. STAIR and ALBATROS PRODUCTIONS LTD







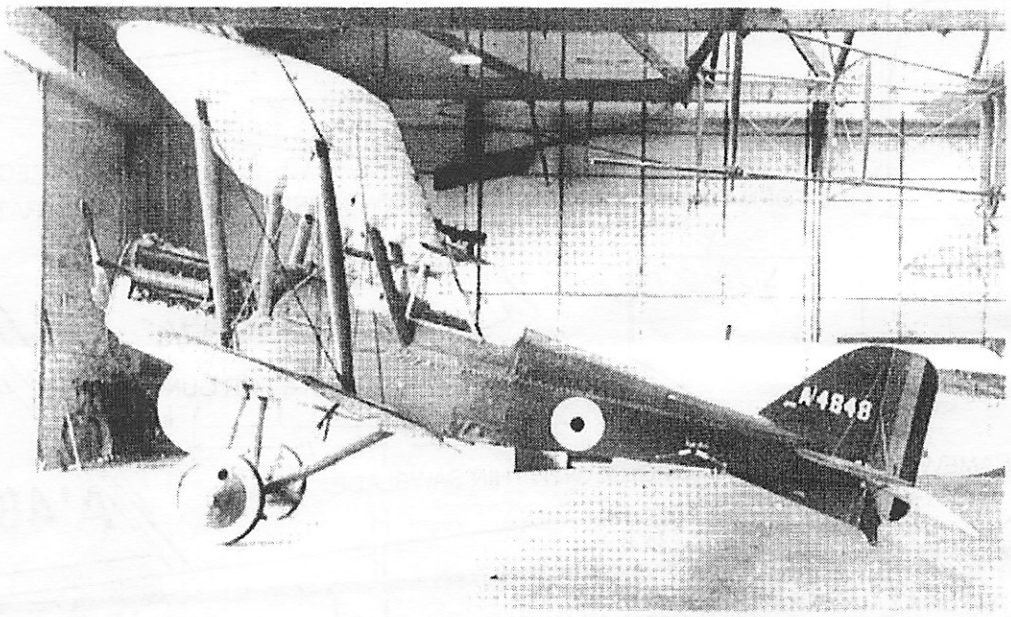
The Original SE5

Plan by Steve Griebling for Crosswinds, 2006

Right, the first production SE5, A4845, photographed at Martlesham Heath in March 1917. It had been submitted for final inspection at the RAF on March 1, and received its Approved Note at 7.50 pm on March 2, being fitted with the Aries-made engine No. 10054 WD.10119 driving a T.28051 airscrew, No.16797; its Vickers gun was No.358, its Lewis No.22839; it had 'L'-shaped exhaust manifolds and a slipstream-driven petrol pump under the fuselage. Martlesham did not enthuse, and was particularly critical of the SE's lateral control, and of the cumbersome windscreen. The inadequacy of A4845's lateral control was blamed for the aircraft's crash on March 29. (*T.J Hefferman*)

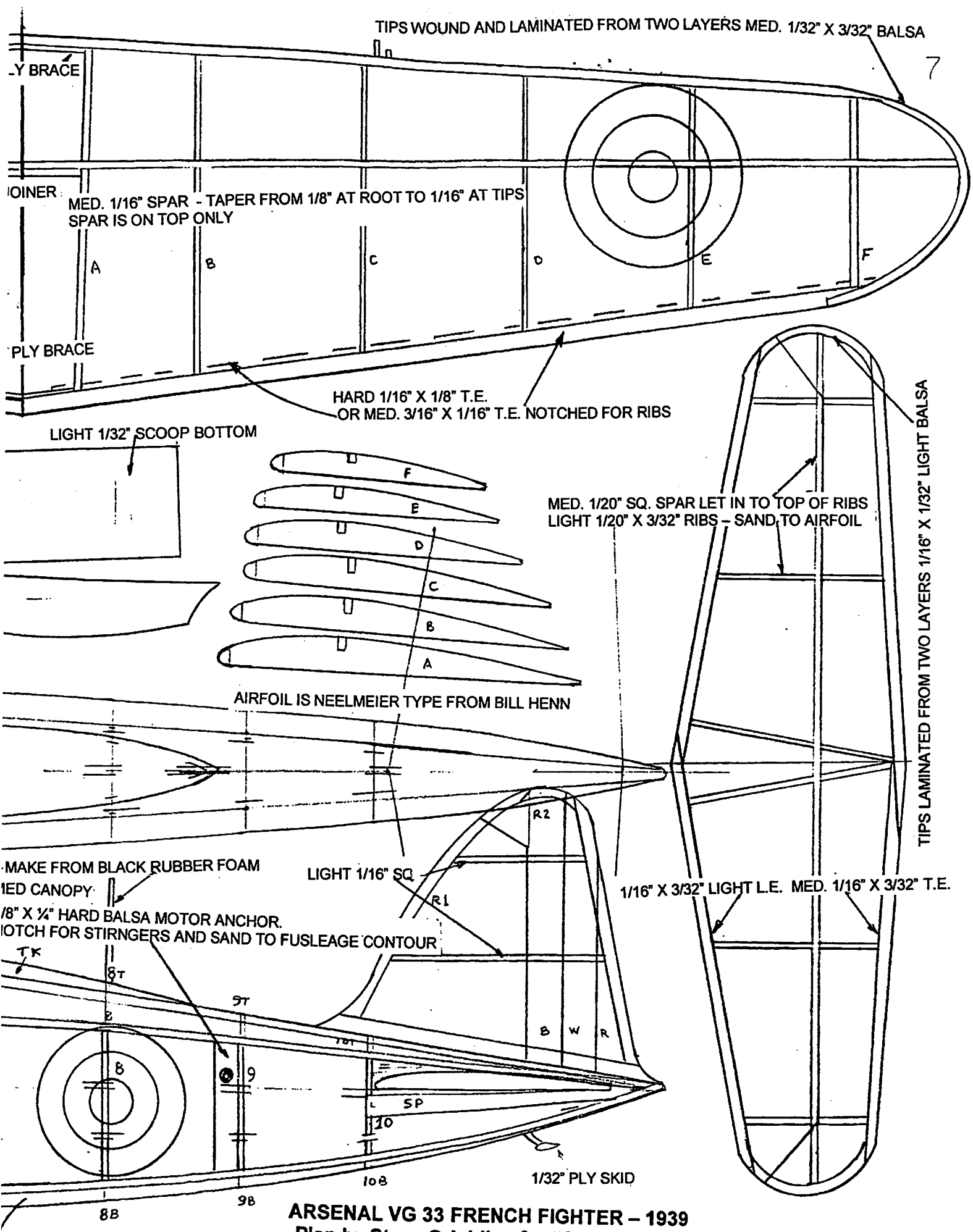


Centre, the fourth production SE5, A4848, was essentially similar to A4845. Its Approved Note was granted on March 5 1917, and by March 16 it was with No.56 Squadron at London Colney. Shortly after it reached France, A4848 was allocated to the Training Brigade, but this was amended on April 11 and it remained with No.56. While being flown by Captain H Meintjes on April 29 it sent down an Albatros scout out of control, and on May 2 Meintjes destroyed an Albatros two-seater west of Corbehem, again on A4848.



Right, London Colney aerodrome on the morning of April 7 1917, and No.56 Squadron, RFC, prepares for its flight to France. Leaning on A4855 in this photograph is Lt. Cecil A Lewis, MC, who led the squadron on its cross-Channel flight to Vert Galant, and was later to describe the departure and flight in his classic book *Sagittarius Rising*. A4855's Approved Note had been dated March 11 1917, when it had engine No.10072 WD.10122 (evidently soon changed), Vickers gun No.A.668 and Lewis gun No.19287 'E'. When photographed at London Colney it had acquired a head fairing behind the cockpit; this was generally similar to the fairing on Ball's A4850 (see photographs on pages 12 and 13). A4855 was in





ARSENAL VG 33 FRENCH FIGHTER – 1939

Plan by Steve Griebling for "Crosswinds"

The Original SE5

Every so often one comes upon a project that is unique and unusually interesting. The early SE5 was one of those for me.
There are so many plans for the more well known SE5a that it didn't seem necessary to create another one, but I am unaware of any plans for the original SE5, so this one might appeal to those modelers who want something historically important and different.
I am indebted to Rich Weber, President of the Cleveland Free Flight Society, and Russ Brown, its principal Contest Director, for providing so much wonderful source material on this plane. Their archives must be voluminous indeed!
The truly unique features of the original SE5 are the greenhouse, the wing mounted fuel tank and the more angled wing tips. Several batches and minor modifications of the original design were produced in 1917 before the more significant changes resulted in the SE5a, but all the original SE5s appeared to have the 150 h.p. Hispano Suiza engine with its low positioned prop shaft. The first SE5 appeared in December 1916 as A4561 but the wings of this machine collapsed in flight, resulting in the death of its pilot Major Goodden. Somewhat later SE5s had strengthed wings and blunter tips. The greenhouse was replaced rather early on with a more conventional triplex windscreen because some pilots feared it would interfere with their emergency exiting in a crash and the top mounted fuel tank was moved to a position inside the wing center section to reduce drag.
The first production batch of SE5s had registrations of A4845 through A4868. The model plan shown here (A'4862) was flown by Lt. R.T.C. Hoidge in "C" Flight. It was colored khaki on top surfaces, bottom of the fuselage and wheel covers. The struts, undersides of the wings and stabilizer were tan varnished.

Construction of the model is conventional. (Note: Make former "A" from 1/16" balsa and face it with the plywood nose plate, cut to the same pattern, after the decking is in place).

I strongly recommend the following building sequence to facilitate the mounting of the wings and struts:

1. Build all the framework as usual and cover, shrink and dope all of them except for the bottom of the fuselage. (note: I recommend covering the bottom of the wings first, and gluing the tissue to the bottom of each 1/32" rib to keep the rib from bowing when the tissue shrinks.) Make sure there are no warps in the wings before you proceed. If there are, water spray the tissue and pin the wings to a flat surface and let them dry, but be sure the warps and eliminated! Now apply the roundels and draw the control surface outlines with a "Sharpie" fine line pen. You can make the roundels from 'Trim Strip' using a circle cutting compass to cut them out, or use decals.

2. Make two of the wing strut setting fixtures, very accurately, of very hard balsa or hardwood.

3. Cut thru the tissue and strut mounting ribs and plates on both wings where the struts will be located, making sure the slots are 1/32" wide and 3/16" long. The slots into the 3/32" thick ribs on the bottom wing should not go all the way thru; 1/16" deep should be enough. The slots in the fuselage must be cut nearly vertical, because the cabane struts are almost vertical viewed from the front. I recommend a Swiss pattern flat file following the initial #11 Xacto knife cut for opening these slots. The Swiss pattern files are .020 thick – ideal for these slots and for filing stringer notches.

4. Cut away the longerons under the lower wing mounts, fit and glue the bottom wing in position, then fit tapered 1/16" pieces under the wing to replace the cut away longerons.

5. Glue the rear ends of the L.G. armature wires into the crack between the lower wing trailing edge and the fuselage cross brace. (The front of the armature should have been glued into position before the fuselage was covered, but the rear legs should have been loose till now.

6. Strap the strut fixtures with rubber bands (not too tight!) to the bottom wing, close to the interplane strut locations, so the trailing edge will rest against the ½" balsa piece of the fixture where it joins the 3/16" horizontal. The bottom surface of the wing should be in contact with the top of the lower rail of the fixture. (see the photo).

7. Add the top wing and strap it to the top of the fixture with rubber bands, so its trailing edge rests against the ½" balsa strip at the rear of the fixture. This sets the correct stagger.

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www.ww1aero.org or www.skywaysjournal.org

8. Place the interplane struts in their respective slots. I recommend making the struts from 1/32" x 5/32" basswood and staining them brown with a felt tip (Berol - light brown) marker. You might find it necessary to taper their ends a little to make it easier to insert the struts in their sockets. Double check to make sure the bottom surfaces of the wings are perfectly parallel to each other before you glue the struts in place. Also check to be sure the top wing is centered over the fuselage.

9. When the interplane strut adhesive has dried, move the strut fixtures inboard and slide the cabane struts up thru the bottom of the fuselage and thru the fuselage slots, into the slots in the bottom of the top wing. Check again for wing parallelism before you glue them in place.

10. Add tapered 1/16" strips under the lower wing center ribs to blend into the fuselage longerons and cover the bottom of the fuselage, shrink the tissue and dope it.

11. Now start adding all the rigging. Refer to the three view drawings for the rigging locations. I like to use 50 denier silk thread for most rigging, but Lycra thread, available form Shorty's Basement is also a very good material for this. Use a fine quilting needle for the rigging. You'll find that basswood is almost buttery, and pierces beautifully with no need to predrill holes in the struts for the rigging.

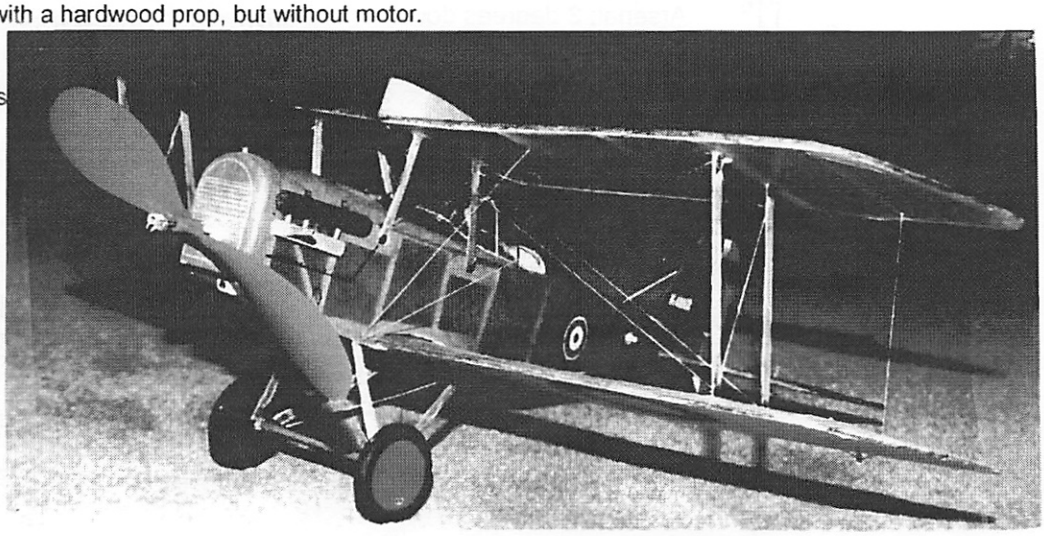
12. If you want to make the model even more impressive, it's not too much trouble to add control horns and control cables. Make the horns from the thin aluminum used in supermarket pastry trays. Pierce or drill holes in the aluminum for the control cables before you cut the horns. Make them about 3/32" wide and ½" long. Cut two of them in half for the aileron horns. Carefully cut slots thru the ribs with a very sharp #11 blade and work the horns thru these slots and glue 'em with model cement, top and bottom, both sides, so the tissue will not tear away. When the glue is dry, thread the control cables per the three view drawing, thru the ribs, horns etc. and glue them in place.

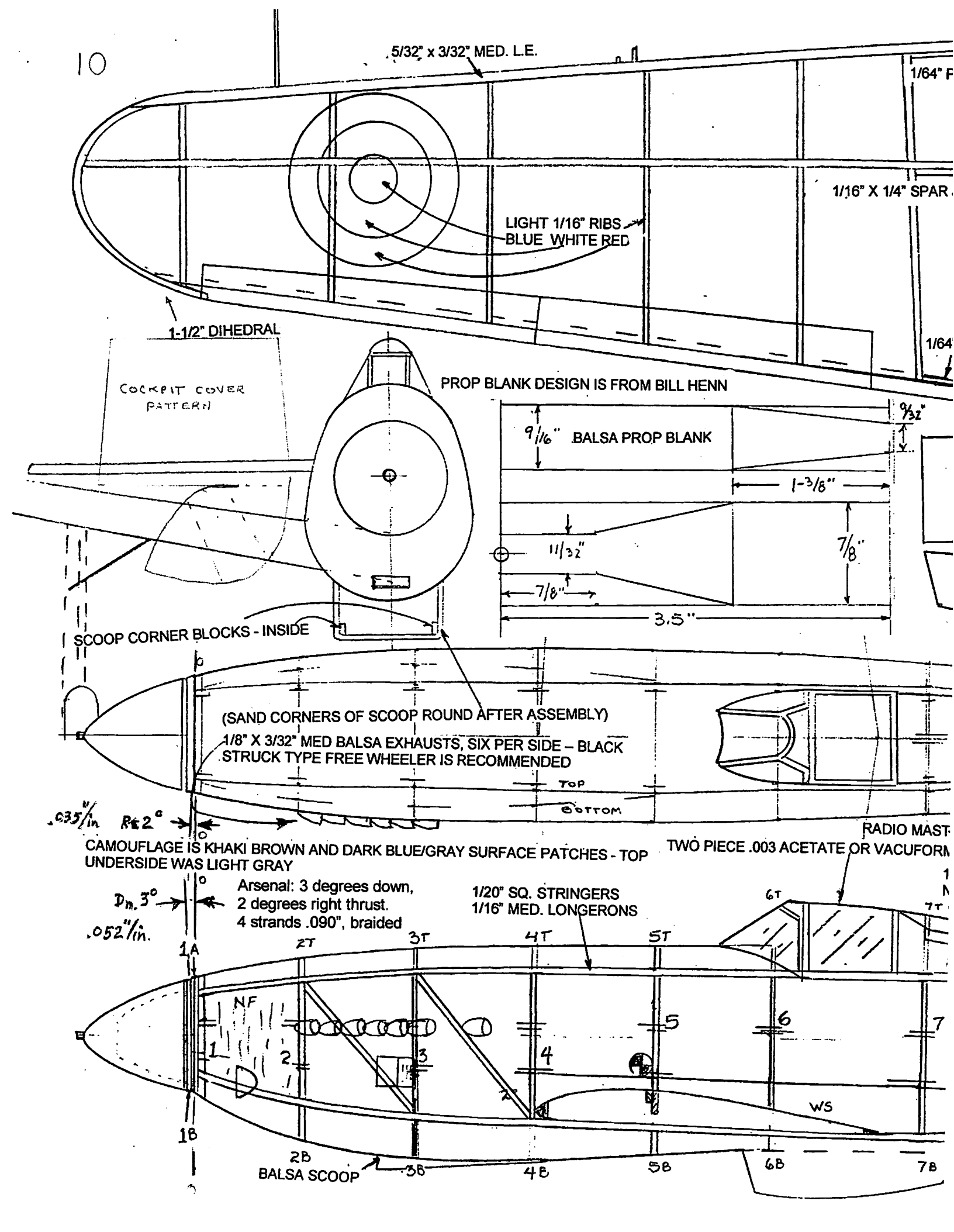
Make the noseblock key from hard ¼" thick balsa and fit it carefully so it is a very snug fit into the 1/32" plywood nose plate.

The fuselage plan shows the later, small, windscreen, but the original windscreen, which is more interesting, is shown as a vacuformed piece. I found it difficult to make this windscreen of two pieces of thin acetate, but it's not impossible – so the vacuformed windscreen is recommended. Note the hole for the gunsight. The Vickers gun and its gunsight are pointed up at a 10 degree angle. You can either pierce thru the decking for the Vickers, or do as I did, and skive the gun jacket so it appears to go thru the decking into the cockpit. It does not go thru the windscreen, but under it, with its breech accessible to the pilot.
I made the Foster mount for the Lewis gun from 1/32" plywood, It is glued to the top of the greenhouse and to a 1/16" long standoff on the center of the top wing. Make the guns and sight from light balsa and paint 'em black.
The unusual exhaust stacks, just behind the nose block, are made from 3/16" aluminum tubing squeezed into an oval shape. I glued them over short hard balsa pegs glued and set into the manifolds.
Turn the wheels from light ¼" balsa, with 1/16" aluminum tubing bushings, on a Dremel tool. Paint the tires and backs black and, after they are added to the axles, cover the outside with green paper cones to simulate the fabric covering used on these WWI planes.
This high drag model will require a low pitched prop. You might as well use a 7" commercial plastic prop since you will need nose ballast anyway. Use a free wheeling clutch, because this model should have a glide! There is a little space in the elevator slot for shimming adjustments, but 2 degrees of decalage should be good. Glue the rudder only to the sternpost till trimming is complete, then put a drop of cement at its leading edge to keep it from changing adjustment.

My model weighed 22 grams with a hardwood prop, but without motor.

Happy landings!
Steve Griebling for Crosswinds

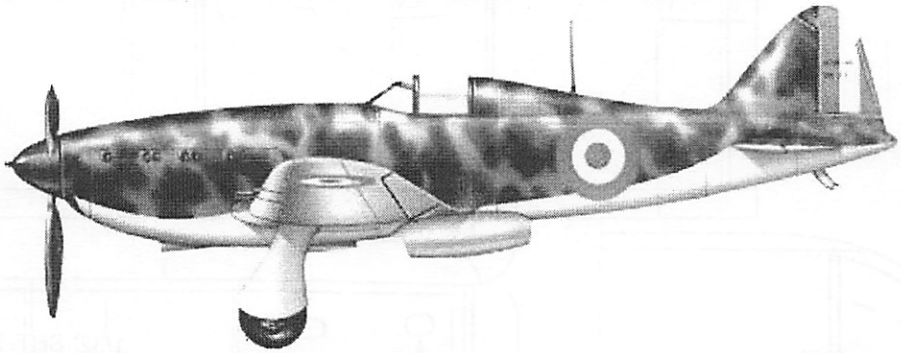



5/32" x 3/32" MED. L.E.
1/64" P
1/16" X 1/4" SPAR
LIGHT 1/16" RIBS
BLUE WHITE RED
1-1/2" DIHEDRAL
1/64
COCKPIT COVER
PATTERN
PROP BLANK DESIGN IS FROM BILL HENN
9/16" BALSA PROP BLANK
9/32"
1-3/8"
11/32"
7/8"
7/8"
3.5"
SCOOP CORNER BLOCKS - INSIDE
(SAND CORNERS OF SCOOP ROUND AFTER ASSEMBLY)
1/8" X 3/32" MED BALSA EXHAUSTS, SIX PER SIDE – BLACK
STRUCK TYPE FREE WHEELER IS RECOMMENDED
TOP
BOTTOM
.035"/in
Rt 2°
RADIO MAST
CAMOUFLAGE IS KHAKI BROWN AND DARK BLUE/GRAY SURFACE PATCHES - TOP
UNDERSIDE WAS LIGHT GRAY
TWO PIECE .003 ACETATE OR VACUFORM
Dn. 3°
.052"/in.
Arsenal: 3 degrees down,
2 degrees right thrust.
4 strands .090", braided
1/20" SQ. STRINGERS
1/16" MED. LONGERONS
1A
2T
3T
4T
5T
6T
7T
NF
1
2
3
4
5
6
7
WS
1B
2B
BALSA SCOOP
3B
4B
5B
6B
7B

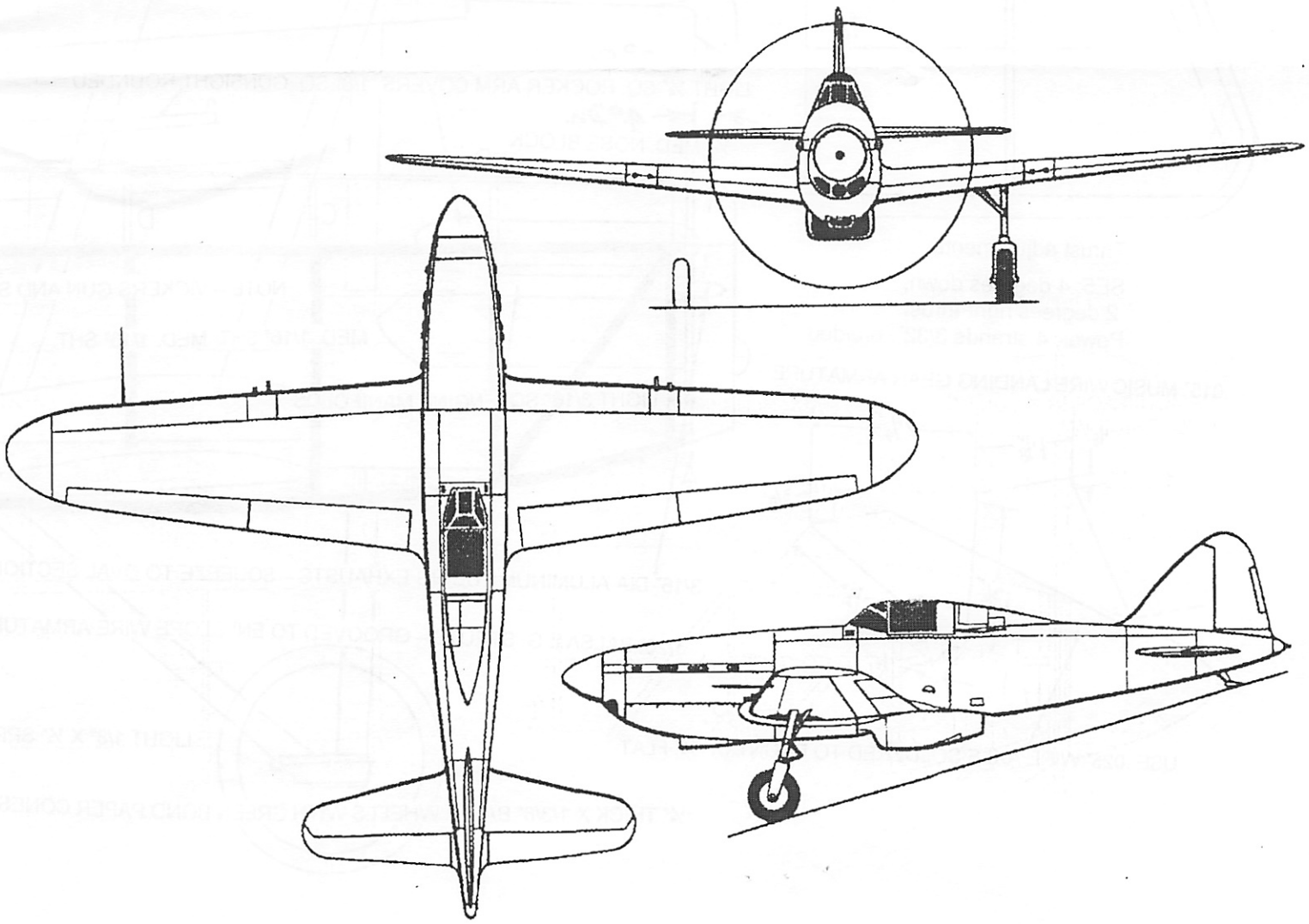
Flight testing the Arsenal and SE5 models

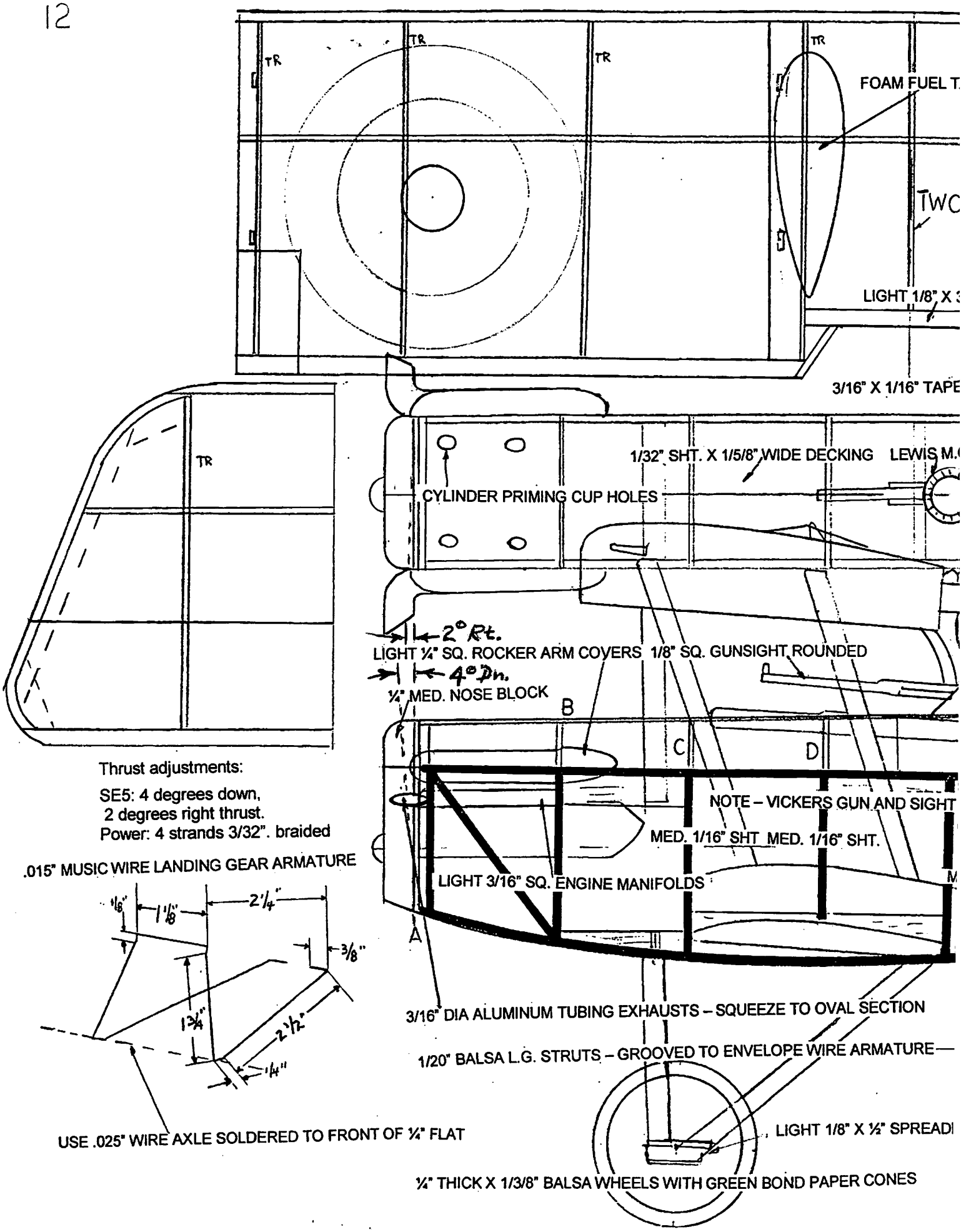
My "Arsenal" model balanced almost perfectly without added ballast when powered with 4 strands of .090 rubber at twice the hook length but using balsa prop and spinner. It needed about 3 degrees of right thrust and 2 degrees of down thrust. I built in just a touch of left rudder to make sure it would circle left, which is desirable for all low wing models.
Since the balance point is not far from the mid point of the rubber motor, changing motor sizes will not have a great effect on the center of gravity, but always check it anyway.

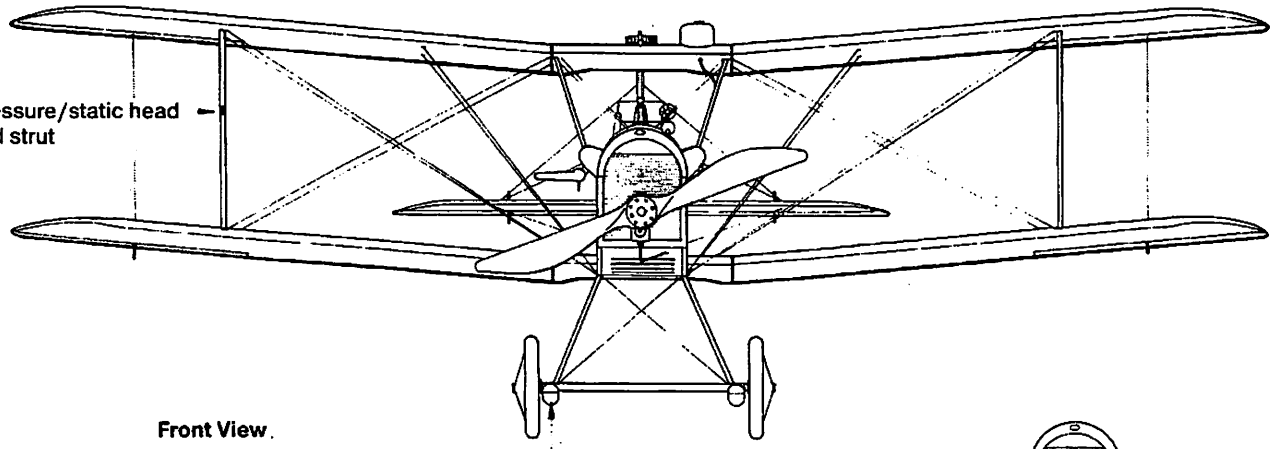
The SE5 is powered with 4 strands of 1/8" flat and uses a 7" commercial Peck Polymers plastic prop which has the low pitch needed for biplanes. A 3/32" shim under the top of the nose block provided the necessary down thrust and a couple of #4 x ½" brass wood screws in the rear of the nose block provided the necessary nose weight to achieve the correct balance point.



vg33 profile.jpg (94K, 800 x 340)

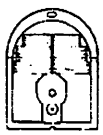



TR
TR
TR
TR
FOAM FUEL T
TWO
LIGHT 1/8" X 3
3/16" X 1/16" TAPE
1/32" SHT. X 1/5/8" WIDE DECKING
LEWIS M.G.
CYLINDER PRIMING CUP HOLES
2° Rt.
LIGHT ¼" SQ. ROCKER ARM COVERS
1/8" SQ. GUNSIGHT ROUNDED
4° Dn.
¼" MED. NOSE BLOCK
B
C
D
NOTE – VICKERS GUN AND SIGHT
MED. 1/16" SHT
MED. 1/16" SHT.
LIGHT 3/16" SQ. ENGINE MANIFOLDS
A
3/16" DIA ALUMINUM TUBING EXHAUSTS – SQUEEZE TO OVAL SECTION
1/20" BALSA L.G. STRUTS – GROOVED TO ENVELOPE WIRE ARMATURE
LIGHT 1/8" X ½" SPREADI
¼" THICK X 1/3/8" BALSA WHEELS WITH GREEN BOND PAPER CONES
USE .025" WIRE AXLE SOLDERED TO FRONT OF ¼" FLAT
Thrust adjustments:
SE5: 4 degrees down,
2 degrees right thrust.
Power: 4 strands 3/32". braided
.015" MUSIC WIRE LANDING GEAR ARMATURE
1/8"
1 1/8"
2 1/4"
3/8"
1 3/4"
2 1/2"
1/4"



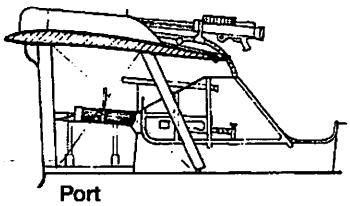
Front View.

Fairings often removed in service



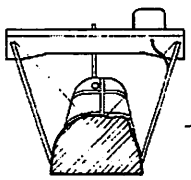
Later Radiator
With shutters

Lewis gun in reload position

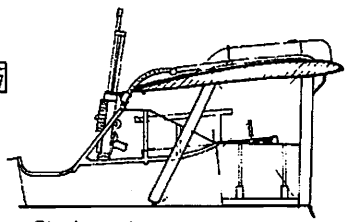


Port

Detail of Early Windscreen

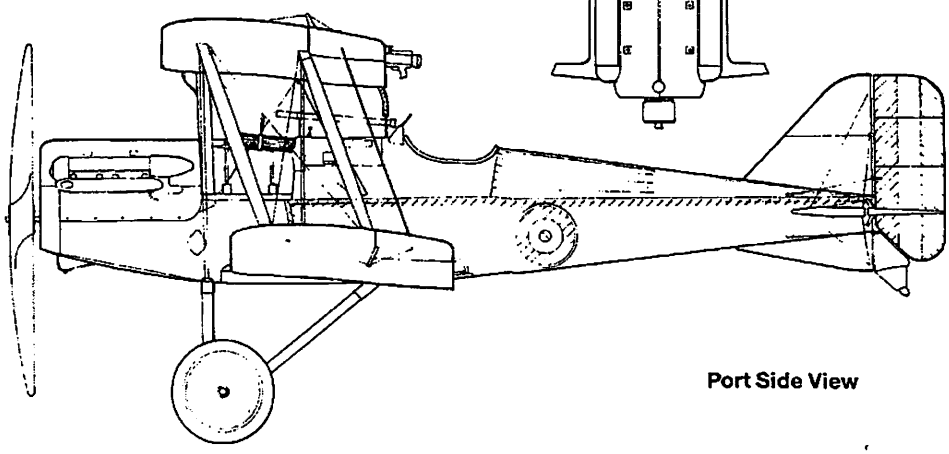


Front

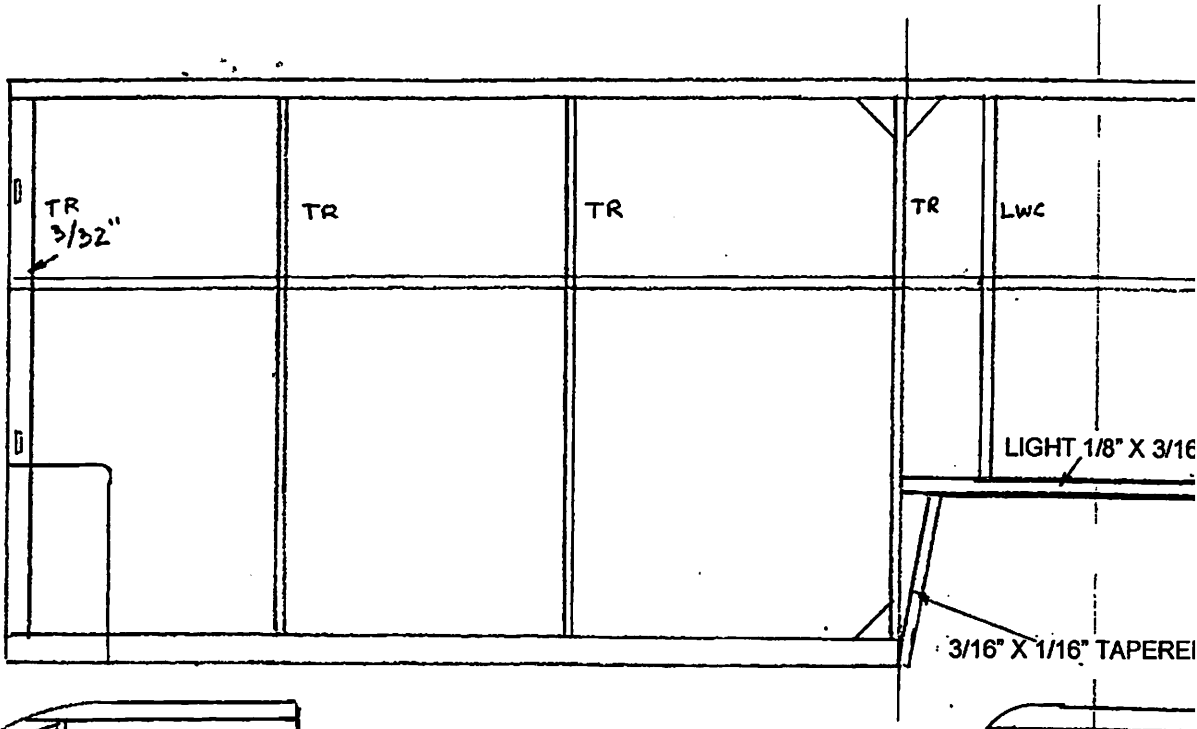


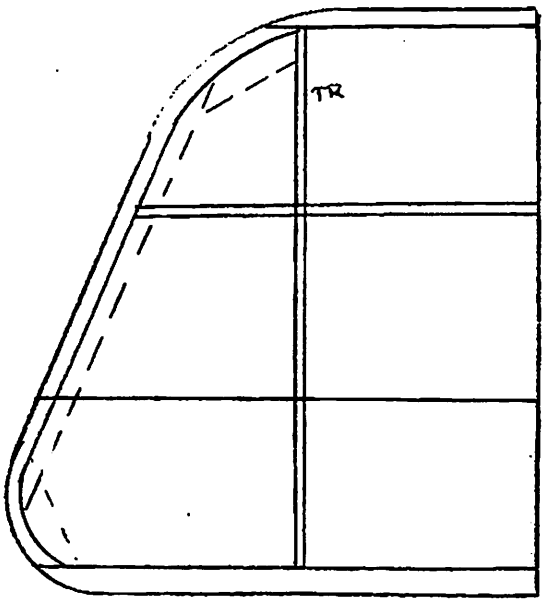
Starboard

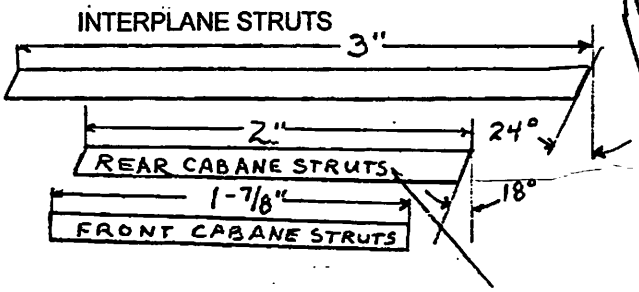
Plan

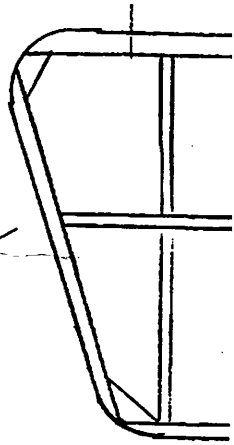


Port Side View



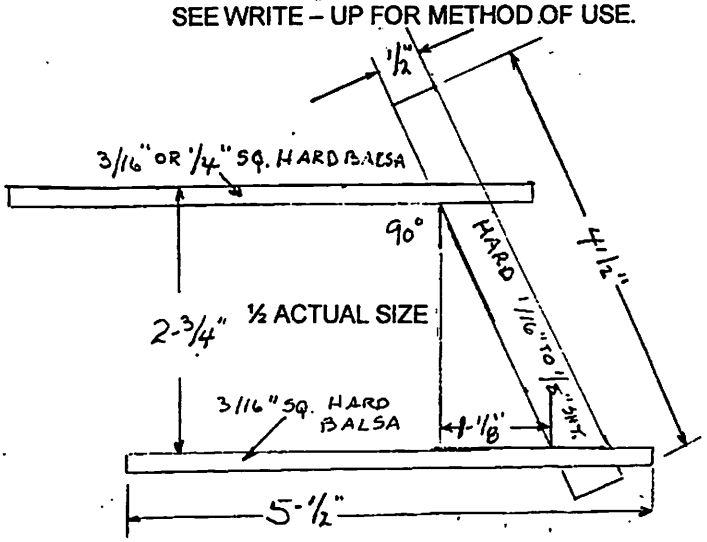


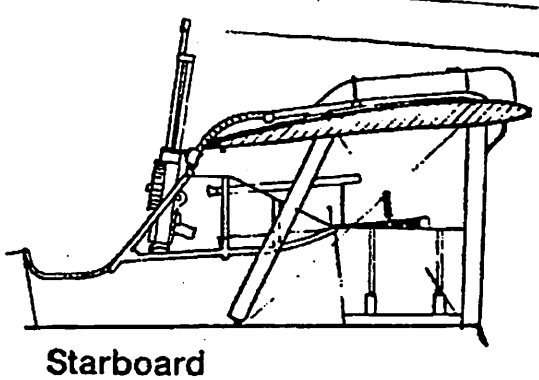




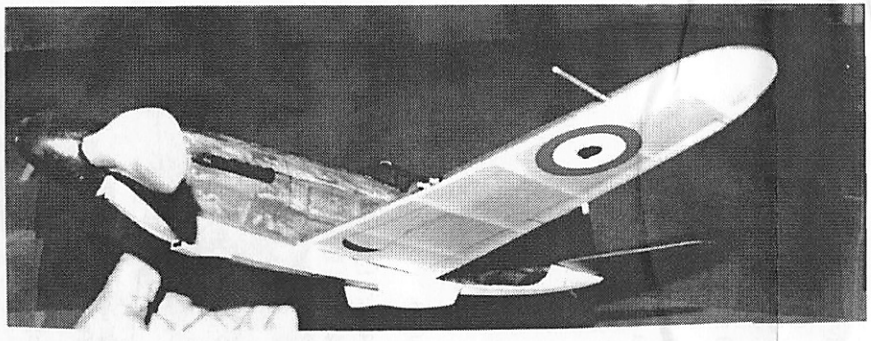
FOSTER MOUNT WAS ATTACHED TO TOP CENTER OF ORIGINAL WINDSC

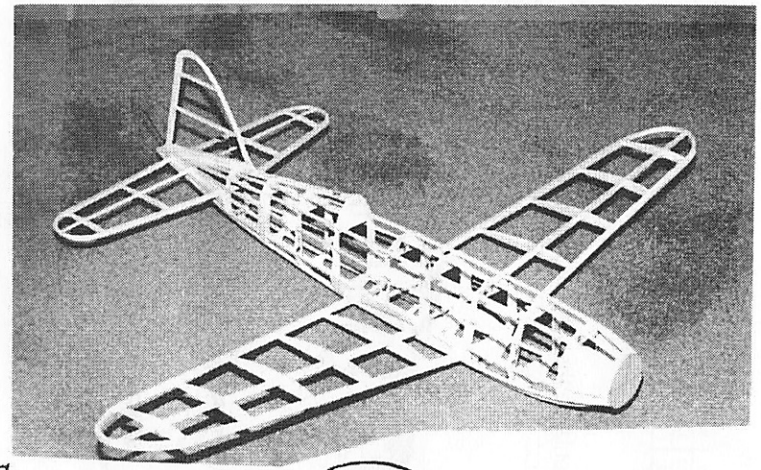
STRUT SETTING FIXTURE- MAKE TWO.
SEE WRITE – UP FOR METHOD OF USE.





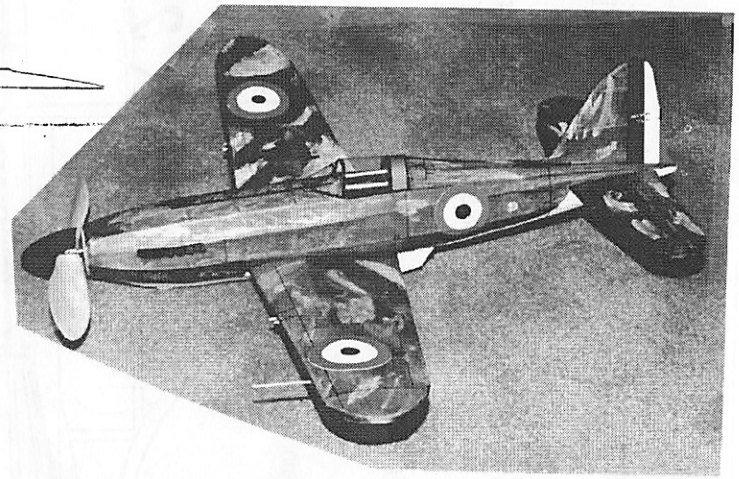
Starboard





ARSENAL VG 33 1/16" SHEET

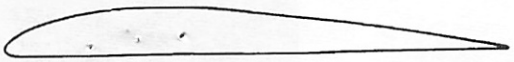
1/32" PLYWOOD



ARSENAL VG 33 1/20" SHEET

MODEL BUILDER
FEBRUARY 1974

Darned Good Airfoil No. 2 - NEELMEYER



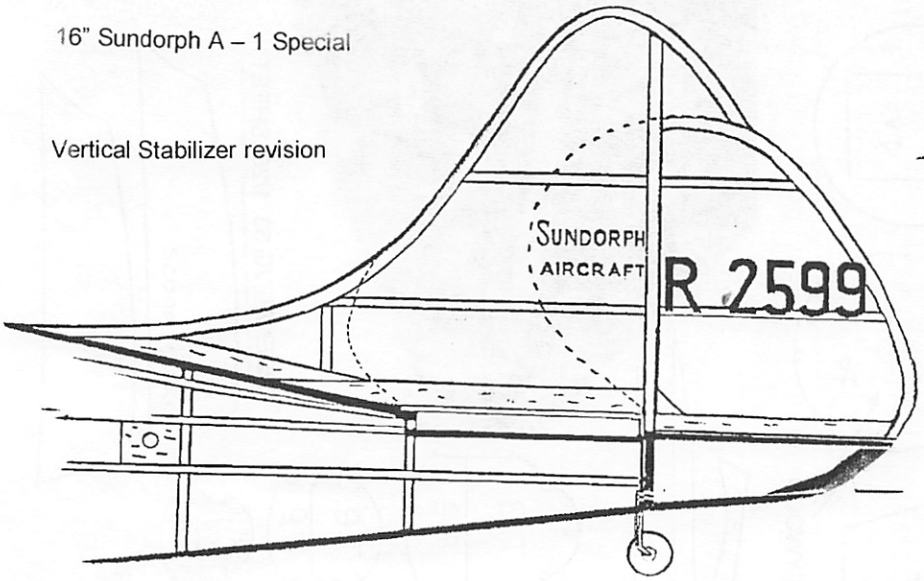
STATION	0	2.5	5	7.5	10	15	20	25	30	40	50	60	70	80	90	100
UPPER	1.40	3.85	5.10	6.05	6.80	7.85	8.50	8.80	8.90	8.70	7.80	6.70	5.30	3.70	2.00	0.30
LOWER	1.40	0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ODDS AND ENDS

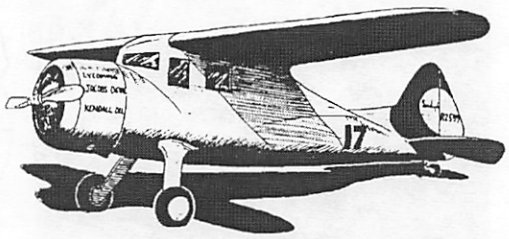
The drawing below is provided by "Wingnut" Rich Weber who has found it necessary to enlarge the vertical stabilizer on his Sundorph Special to improve stability.

16" Sundorph A – 1 Special

Vertical Stabilizer revision



CROSSWINDS
117



SUNDORPH A-I

ARSENAL VG 33 FRENCH FIGHTER OF 1939

The "Arsenal" VG 33 was a clean, light weight fighter derived from the earlier VG 30 and was built entirely of wood. It was first flown in 1939. Although 1000 machines were ordered, only 160 of them were partially built but only nineteen were completed. Twelve were flown from Villacouby by the Vichy Air Force at Châteauroux, and they were taken over by the Nazis during the occupation of France in June, 1940.

VG 33's were armed with a 20 mm. cannon firing through the spinner and four 7.5 mm. MAC 1934 M 39 machine guns mounted in the wings.

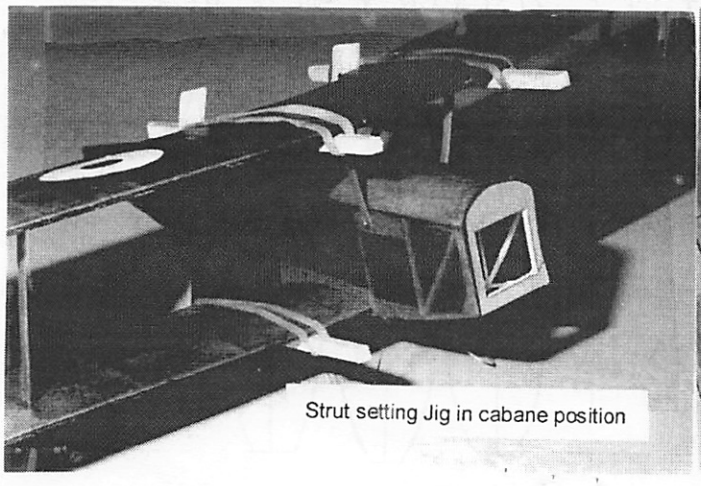
The aircraft had excellent performance reaching a top speed of 347 mph. They were manufactured by the Arsenal de l' Aéronautique who started their development in 1937, and finished by the Chantiers Aero-Maritimes de la Seine at Sartrouuville but they never saw active duty in the war. The engine used was an 860 hp. Hispano Suiza 12Y31.

Empty weight was 4,519 lbs. and loaded weight was 5,855 lbs. Span: 35.5', Length: 28', Height: 10'10".

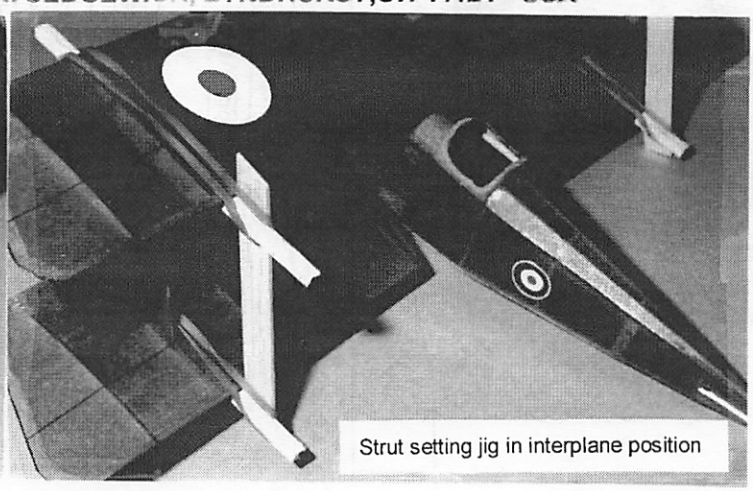
References: Fighters, Vol. One "Warplanes of the Second World War" by William Green
Drawings by Dennis I. Punnett – Hanover House.
"The Complete Book of Fighters" by William Green and Gordon Swanborough
"The Encyclopedia of Military Aircraft" by Enzo Angelucci

Many thanks to Rich Weber (Wingnut) and Russ Brown for providing much of the information and drawings.

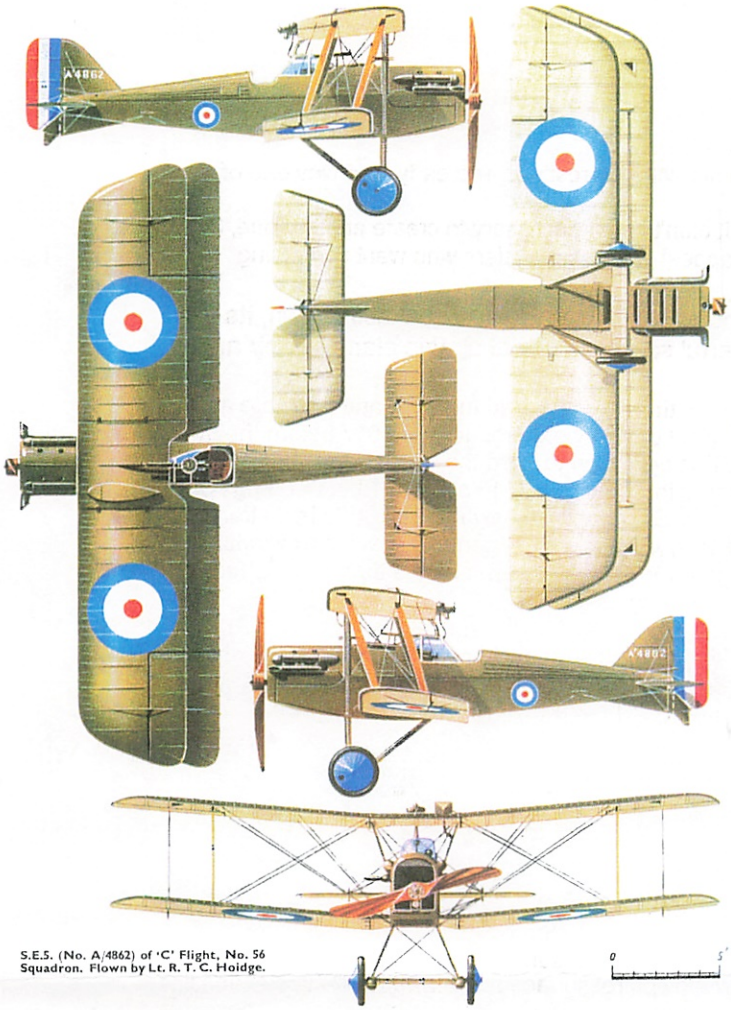
CROSSWINDS READERS WITH THE DREADED RED X AT ISSUE RENEWAL CODE #118 OR LOWER CAN SEND $16 PER YEAR TO RUSS BROWN 4909 N. SEDGEWICK, LYNDHURST,OH 44124 - USA



Strut setting Jig in cabane position



Strut setting jig in interplane position



S.E.5. (No. A4862) of 'C' Flight, No. 56 Squadron. Flown by Lt. R. T. C. Hoidge.



Ball's A'4850 with lt. yellow center panel on top wing.



Ball's S.E.5 (A'4850) of No. 56 Squadron, as at London Colney, March/April 1917.



S.E.5 (A'8903). Typical aircraft of second production batch in its original form. This a/c was subsequently used by No. 56 Squadron.



S.E.5 (A'8913) of No. 56 Squadron, Bekesbourne, late June 1917. Lt. K. K. Muspratt's aircraft.



S.E.5 (A'8898) of No. 60 Squadron, early summer 1917. Fern leaf emblem on fin.

Sq. No.60, A Flight in red trim

Most of Sq. No.60, A Flight had white edged red fins.



Sq. No.60, B Flight in yellow trim

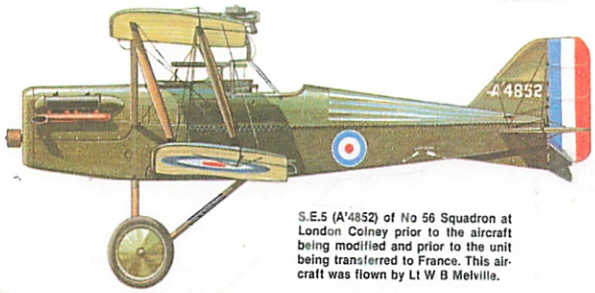


Sq. No.60, C Flight in blue trim

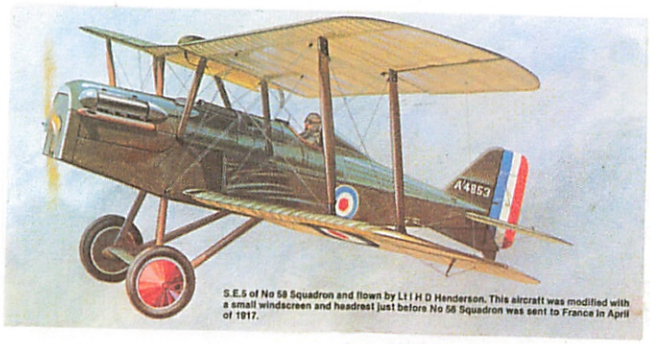


S.E.5 (A'4856) of No. 60 Squadron, early summer 1917.

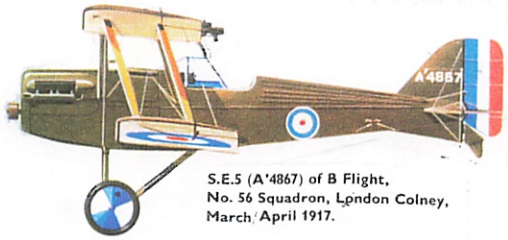




S.E.5 (A'4852) of No 56 Squadron at London Colney prior to the aircraft being modified and prior to the unit being transferred to France. This aircraft was flown by Lt W B Melville.



S.E.5 of No 56 Squadron and flown by Lt I H D Henderson. This aircraft was modified with a small windscreen and headrest just before No 56 Squadron was sent to France in April of 1917.



S.E.5 (A'4867) of B Flight, No. 56 Squadron, London Colney, March/April 1917.

Royal Aircraft Factory S.E. 5