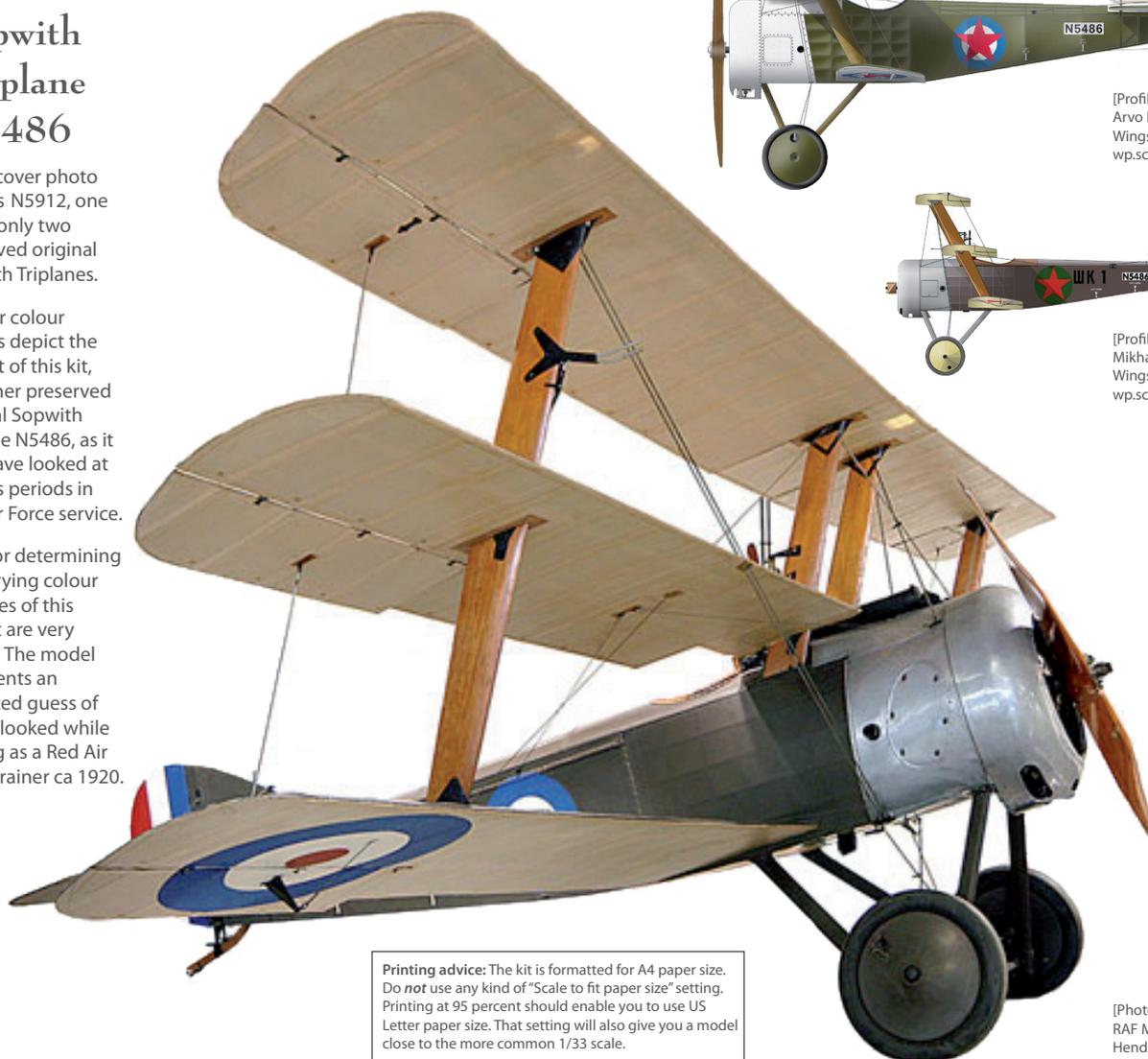


A paper model of Sopwith Triplane N5486

Large cover photo depicts N5912, one of the only two preserved original Sopwith Triplanes.

Smaller colour profiles depict the subject of this kit, the other preserved original Sopwith Triplane N5486, as it may have looked at various periods in Red Air Force service.

Data for determining the varying colour schemes of this aircraft are very scanty. The model represents an educated guess of how it looked while serving as a Red Air Force trainer ca 1920.



Printing advice: The kit is formatted for A4 paper size. Do *not* use any kind of "Scale to fit paper size" setting. Printing at 95 percent should enable you to use US Letter paper size. That setting will also give you a model close to the more common 1/33 scale.



[Profile courtesy Arvo L. Vercamer Wings Palette, wp.scn.ru]



[Profile courtesy Mikhail Bykov Wings Palette, wp.scn.ru]

[Photo courtesy RAF Museum, Hendon]

Sopwith Triplane 1/32 scale

The prototype appeared in May 1916 and was found to be highly manoeuvrable with a phenomenal rate of climb.

Both the Royal Flying Corps and the Royal Naval Air Service ordered the type but policy changes led to the Triplane only being used by the Royal Naval Air Service on the Western Front.

Several of the Royal Naval Air Squadron pilots scored many victories while flying the type and it made such a profound impression on the Germans that a specific request was made to their aircraft manufacturers to design and produce triplane fighters. Only the Fokker Dr.I was built in quantity and it gained fame as the aircraft frequently flown by Manfred von

Richthofen. The triplane concept had a brief life and in less than two years it had been eclipsed by the new and more powerful biplane fighters on both sides.

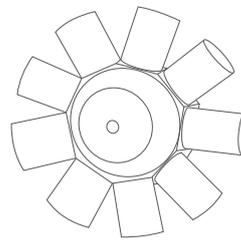
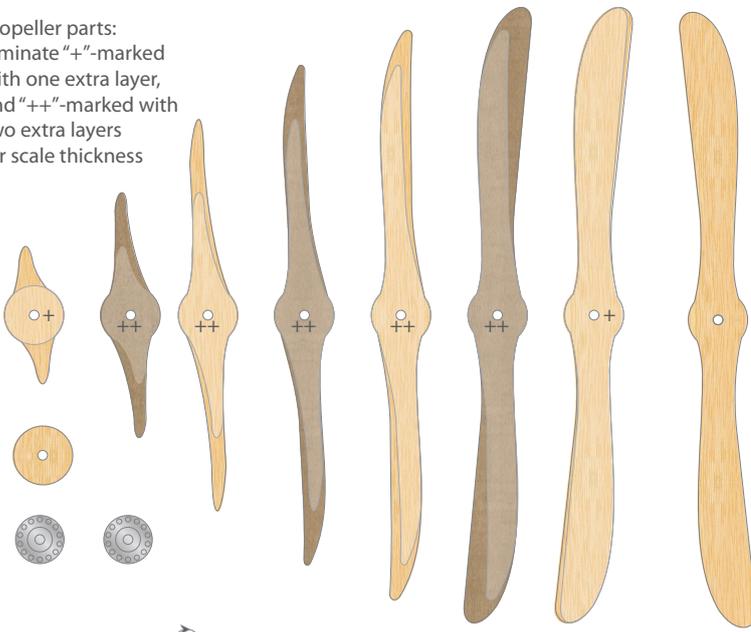
Only two authentic Sopwith Triplanes remain in existence. N5486 was supplied to the Russian Government for evaluation in May 1917. In Russia, the aircraft was fitted with skis and used operationally until captured by the Bolsheviks. The aircraft then served in the Red Air Force, probably as a trainer, and was rebuilt many times. Today, N5486 is preserved at the Central Air Force Museum, Monino, Russia.

While marked like the version in this kit, the aircraft did not carry any gun.

Data (original):

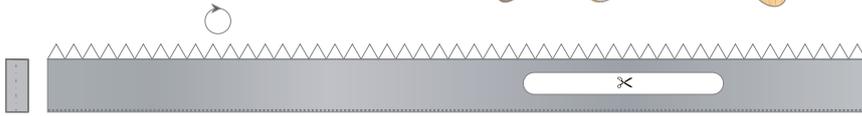
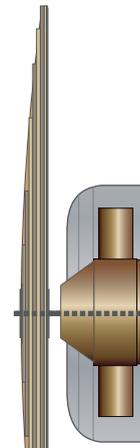
Length:	18 ft 10 in (5.73 m)
Wingspan:	26 ft 6 in (8 m)
Height:	10 ft 6 in (3.2 m)
Wing area:	231 ft ² (21.46 m ²)
Empty weight:	993 lb (450 kg)
Loaded weight:	1,415 lb (642 kg)
Powerplant:	Clerget 9B rotary, 130 hp (96 kw)
Maximum speed:	117 mph (187 km/h) at 5,000 ft (1,830 m)
Range:	280 mi (450 km)
Service ceiling:	20,500 ft (6,250 m)
Wing loading:	6.13 lb/ft ² (29.92 kg/m ²)
Endurance:	2 hrs 45 min
Time to altitude:	6.33 min to 6,500 ft (1,980 m)

Propeller parts: laminate "+"-marked with one extra layer, and "++"-marked with two extra layers for scale thickness

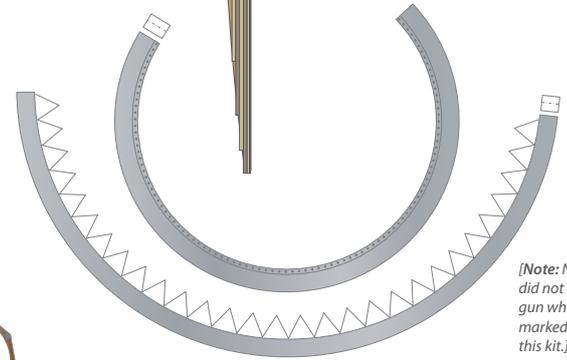


Cowling parts

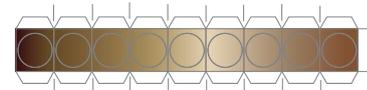
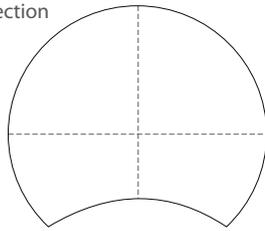
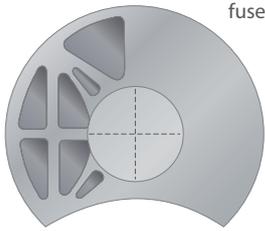
Engine, prop, cowling & firewall may be built as a separate unit. Glue built-up engine to metal-coloured firewall bulkhead. Mount built-up cowling on firewall, and finally prop on a suitable shaft. Parts for a properly rotating engine will have to be devised by the builder.



Firewall bulkhead (++) engine section fuse section

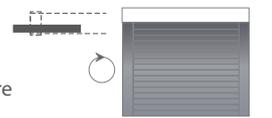


[Note: N5486 did not carry a gun while marked like in this kit.]

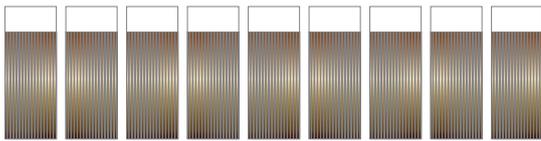


Crankcase:
- main part
- front parts
- rear parts

Gun parts



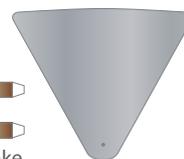
Small wire part for barrel



Cylinders left, cylinder heads below

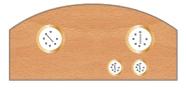


Exhaust funnel, bend inwards

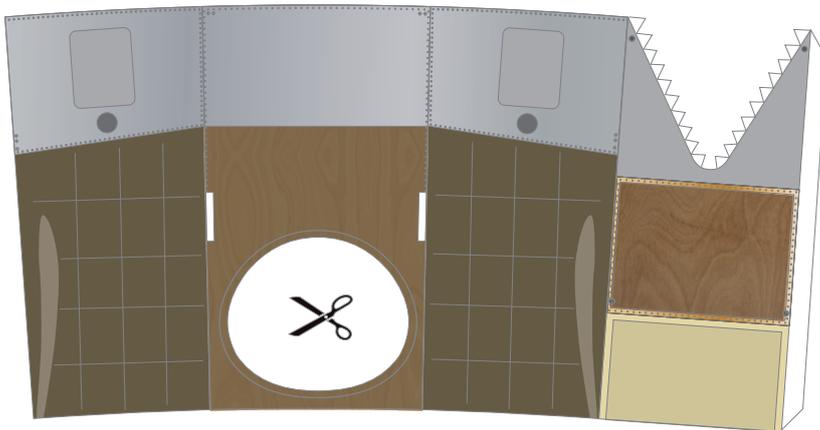


Air intake (goes on each side where marked)

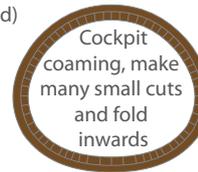
See full-size sideview on last page for panel position. Laminate bottom layer ++. Tape over instrument faces in that layer with clear tape. Cut out instrument faces in top layer. Then join the two layers.



Instrument panel



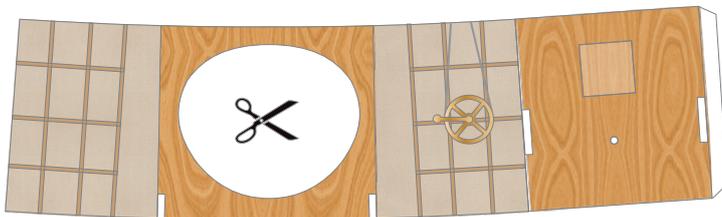
Cockpit inside below; stab trim wheel on right side



Cockpit coaming, make many small cuts and fold inwards



Seat parts



Bulkhead fuse section aft (++)

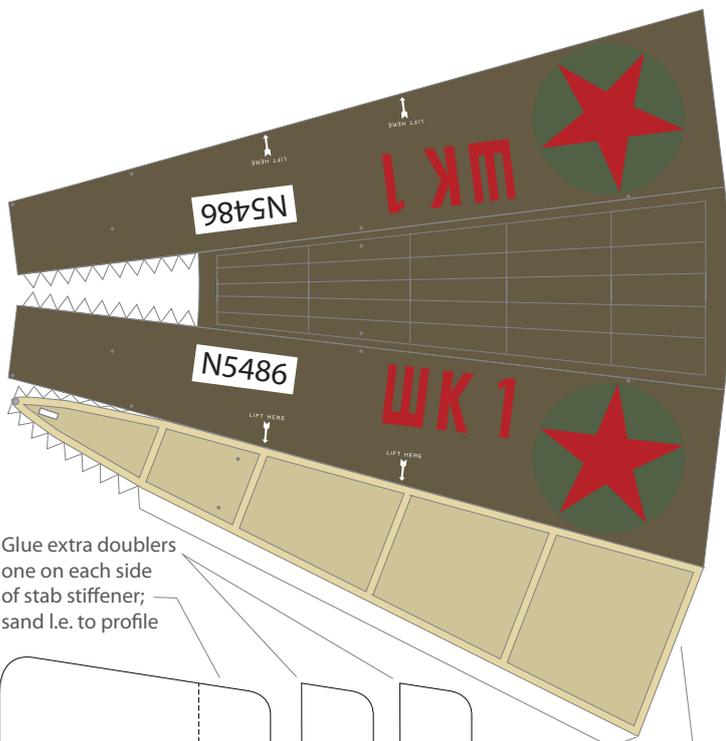


Double parts marked "++" with card ca 0.3 mm or two extra layers of the paper you use for printing. Double all parts marked "+" with one extra layer.

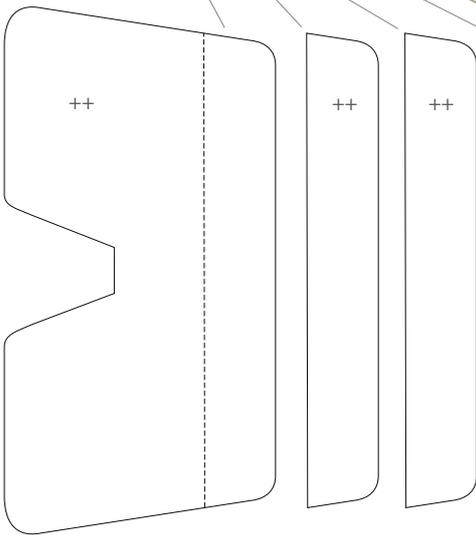
Prop parts need careful edge-colouring in two shades.

The design uses the traditional method of fuselage in three sections, joined at the engine firewall, and the cockpit bulkhead. Be sure to sand adjoining formers to exactly the same shape. Glue tabs on cowling sections may be dispensed with, and sections butt-glued, or joining strips devised.

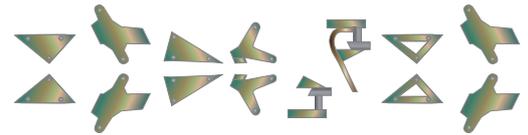
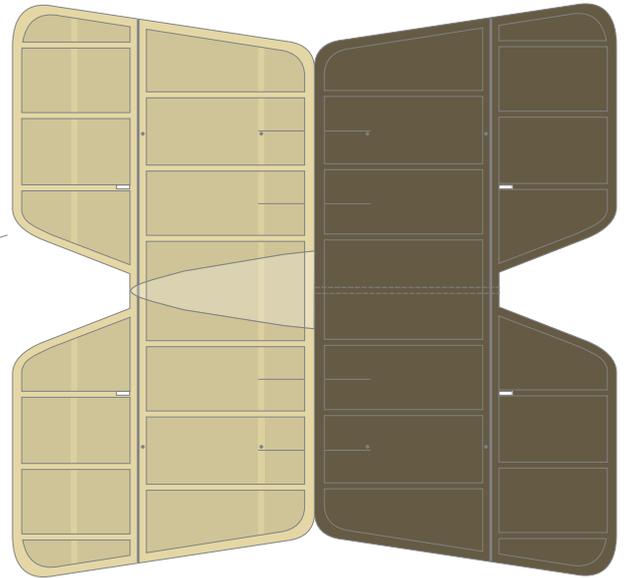
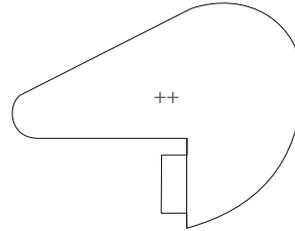
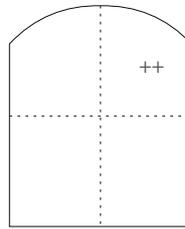
Download a very detailed Clerget engine 1/33 scale model by Richard Schulten from: <http://home.planet.nl/~schul923/submersible.html>
Download an advanced 1/33 layered prop from: <http://www.papermodelers.com/forum/downloads.php?do=file&id=79>



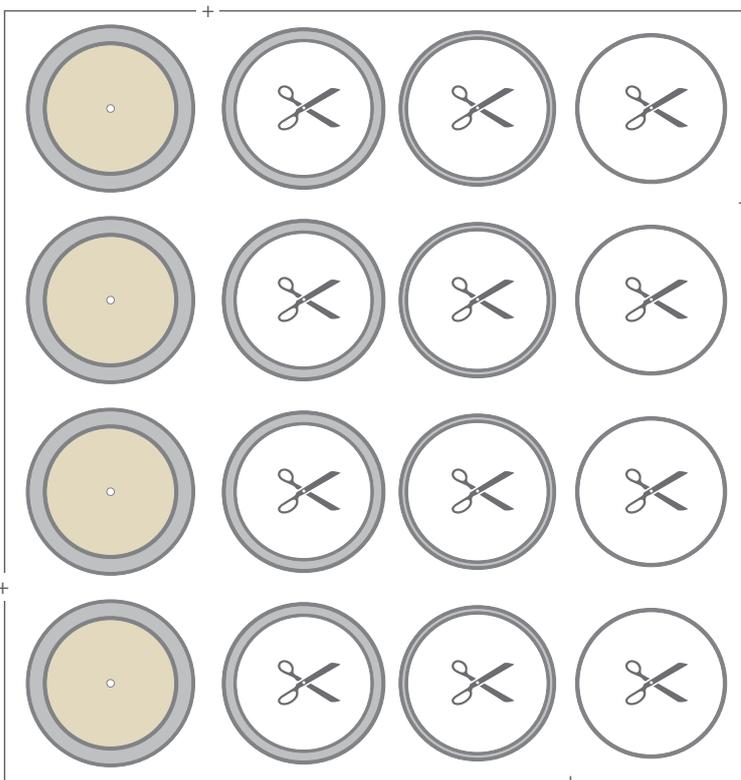
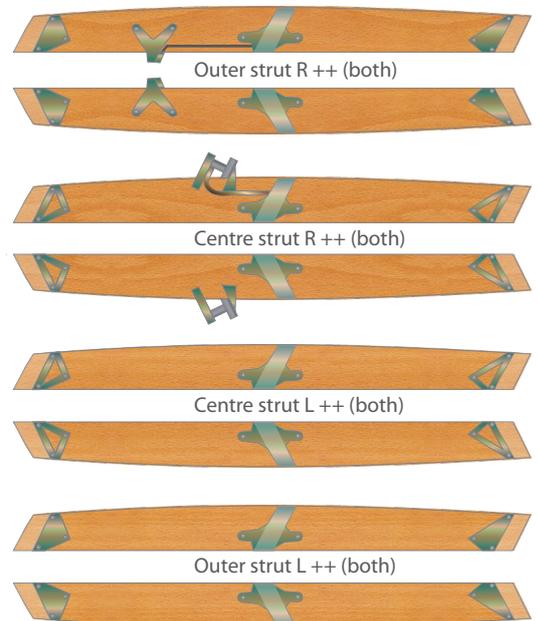
Glue extra doublers one on each side of stab stiffener; sand i.e. to profile



The underside of the wings, stab, and fuselage are clear doped linen ("CDL"), which is slightly translucent. That is why the spars are marked on the underside of the stab & elevator, but not on the top side, which is painted khaki brown ("PC12"). That is also why you should score the ribs only, not the spars, from the back (unprinted) side; the ribs touch the covering material, while the spars do not. Refer to cover photo.



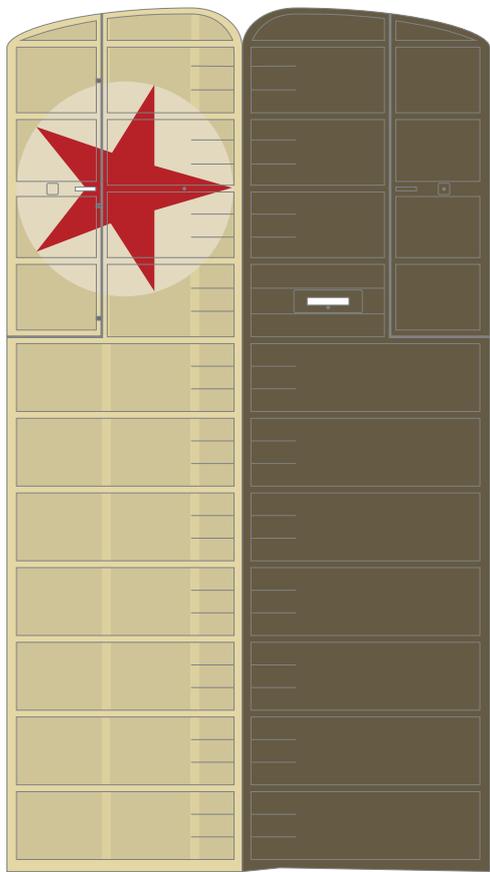
Strut fitting doublers above optional. Refer to cover photo. Use glued-up top wing as template for aligning wings. Dihedral is 3.5 mm each wingtip. Distance between leading edges is equal, 31.5 mm (diagonally). Use full-size sideview on last page to check positioning.



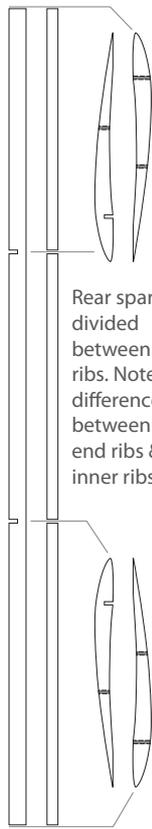
Mark positions for stab ribs and top fuselage stringers on unprinted side (not formers or spars). Score from the backside (only fore-aft direction) with a very dull knife or your favourite embossing

tool. Do the same for forward fuselage part on p. 1, but score that part both vertically & horizontally to achieve the chequered pattern typical for the cockpit area of several Sopwith aircraft.

For a proper wheel/tyre profile, laminate "+"-marked parts with an extra layer. Paint with glue, mixed with desired shade of grey or black, before glueing spoke coverings in place.

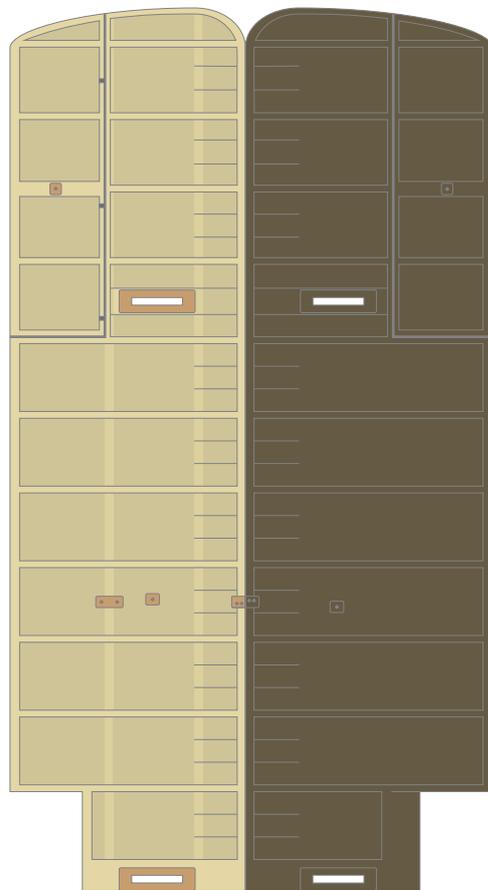


Right lower wing

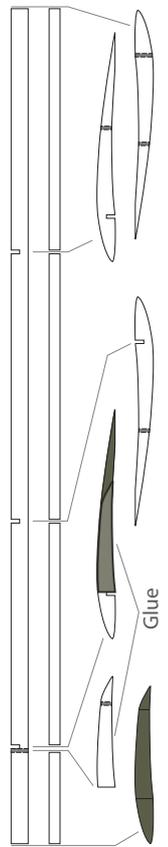


Rear spar divided between ribs. Note difference between end ribs & inner ribs.

Scale rib shown for comparison



Right mid wing

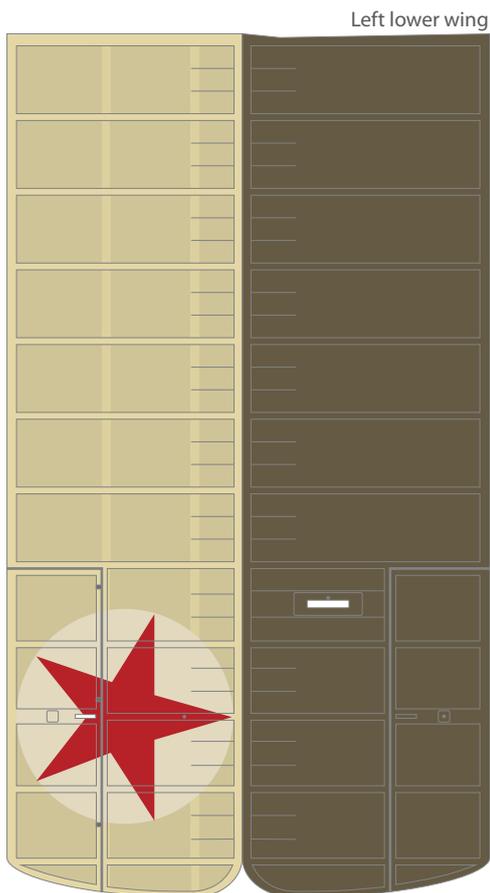


Spar & ribs required for each wing (typical)

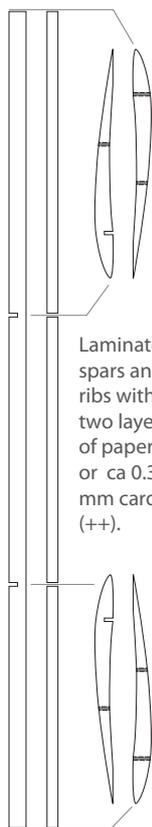
Mark scale rib positions, both main & nose, on the back of the parts and score, same as the stabilizer. Do not score spar lines on bottom of wings. Score aileron separation lines from the printed side. (Do the same for elevator & rudder.)

When you score to bend the wing pieces along the leading edge, score from the backside along several parallel lines close to each other, to help get a nicely rounded leading edge.

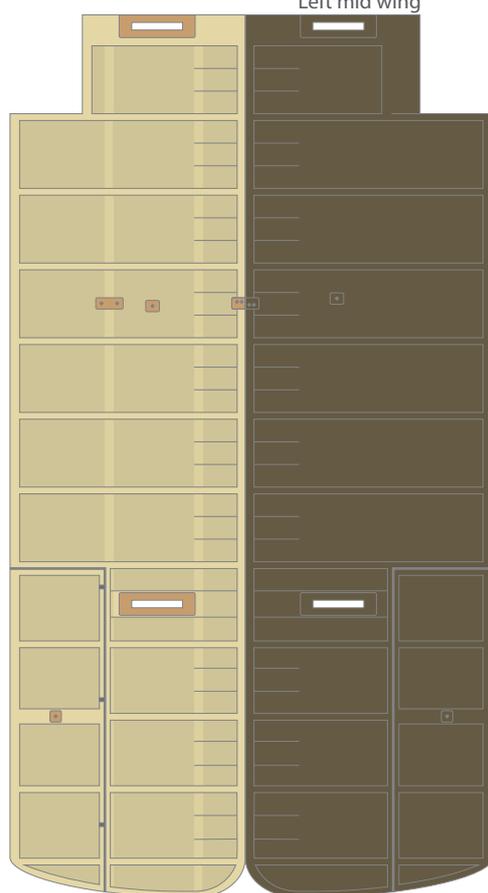
When mounting the wings note the 3.5 mm dihedral each wingtip, apparent in the three-view drawings and the cover photo. Sand joints in top and bottom wings before gluing them to the top center section, and fuse, respectively.



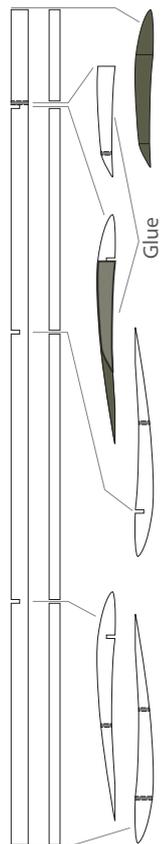
Left lower wing



Laminate spars and ribs with two layers of paper or ca 0.3 mm card (++).



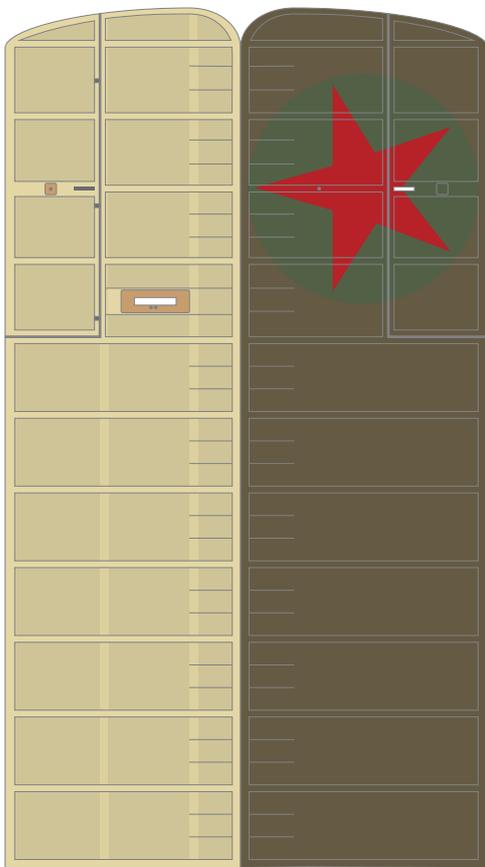
Left mid wing



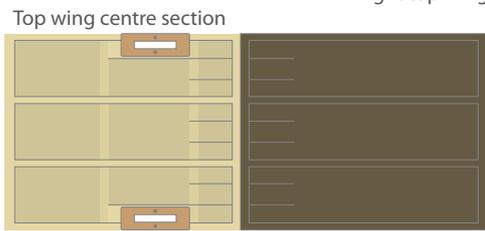
Rigging notes: Where rigging wires are to be attached or pass through parts they are marked with a dot like this: •. Study the instruction sketches and cover photo. Pre-glue long strands of

rigging wires in the wing parts. Pre-glue similar small loops or eyelets of wire in the fuselage. Knots made here when rigging the finished aircraft will simulate turnbuckles which as a rule were attached

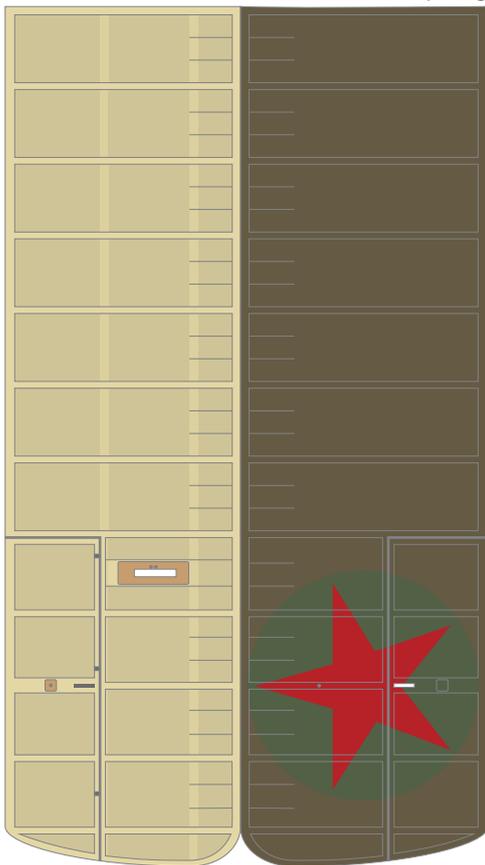
at the "lower, inner, forward" ends of rigging wires. **The rigging wires are:** 1) Flying wires (double) from the top of the outer struts to the lower fuselage longerons, just in front of the lower wing, passing



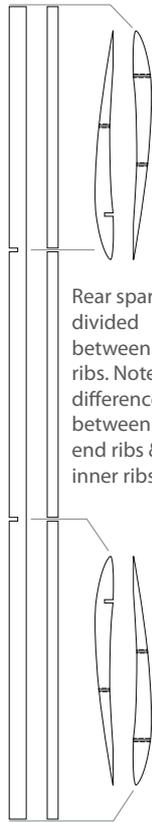
Right top wing



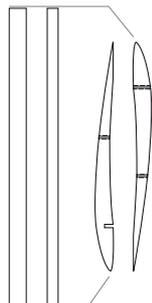
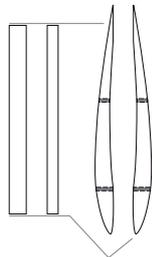
Top wing centre section



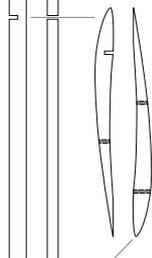
Left top wing



Rear spar divided between ribs. Note difference between end ribs & inner ribs.



Laminate spars and ribs with two layers of paper or ca 0.3 mm card (++).

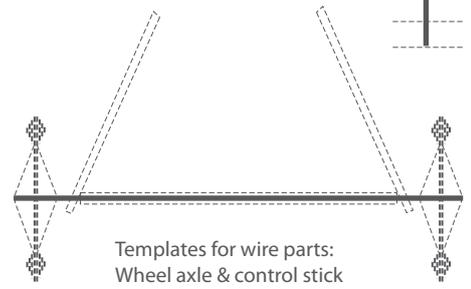


Wrap handle of control stick with thread

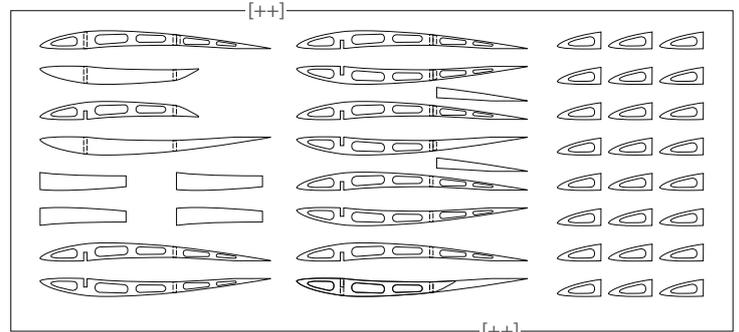
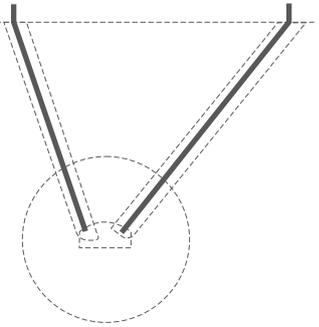
Ribs and spars follow the general outline and positions of the full-scale original (simplified sketch above). There is no need to make more than the four ribs per wing indicated on the main spar, and the rear spar itself is optional.

The builder who wishes to build a very detailed inner wing structure can do so by printing enough ribs and spars on wood-coloured paper.

One wing made like this, e.g. the mid wing on one side, with optional internal wire bracing and large cut-outs in the covering, will demonstrate the original structure very effectively. Such a full set of ribs for one wing (plus a few spares) is included below. A scale drawing of the mid wing inner structure is included on the last page.

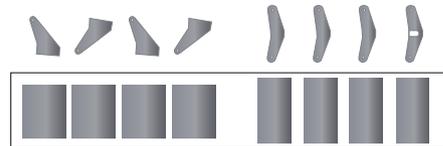


Templates for wire parts: Wheel axle & control stick above, U/C legs below. Make from soft floral wire, available in several diameters.



Impeller & wire part for pump (left). Pitot tube wire parts (right).

Fold & glue



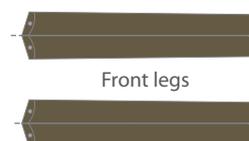
Rudder horns, 4 x ailerons, 2 x elevator, rudder & skid; fold and glue with an extra layer inside.



Skid, laminate each ++ and join. Glue top against bottom of stab. Wire part for skid steering horn

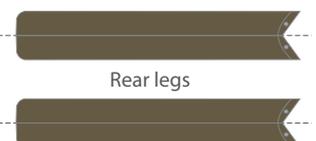


Wheel axle fairing (left) with endplates (right).



Front legs

Fold leg parts and wheel axle fairing around U/C wire parts and glue.



Rear legs

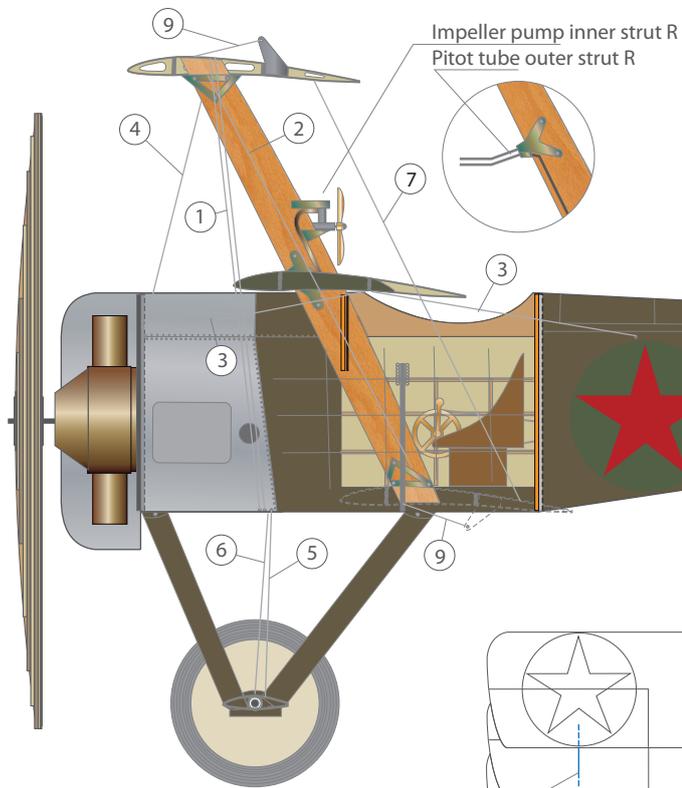
(cont. from previous page:)

through the leading edge of the mid wing. 2) Landing wires (single) from the top of the centre struts to the bottom of the outer struts, passing through the middle of the mid wing. 3) Drag &

anti-drag wires, from the middle of the underside of the mid wing, to the upper fuselage longerons, at the firewall in front, and aft of the cockpit in the rear. 4) Centre section crossed wires from the top of

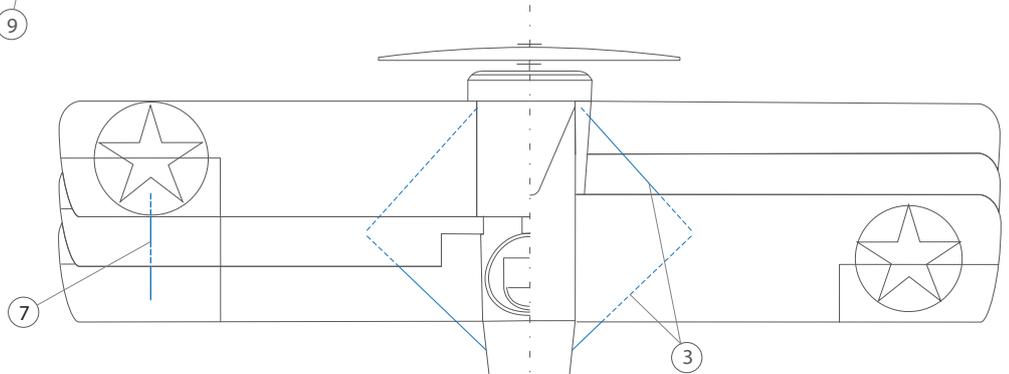
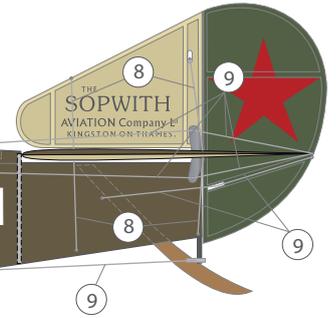
the centre struts to the upper longerons of the fuselage at the firewall. Landing-gear wires: 5) One crossed set from the lower fuse longerons in front of the lower wing to the wheel axle fairing; and

(cont. next page)

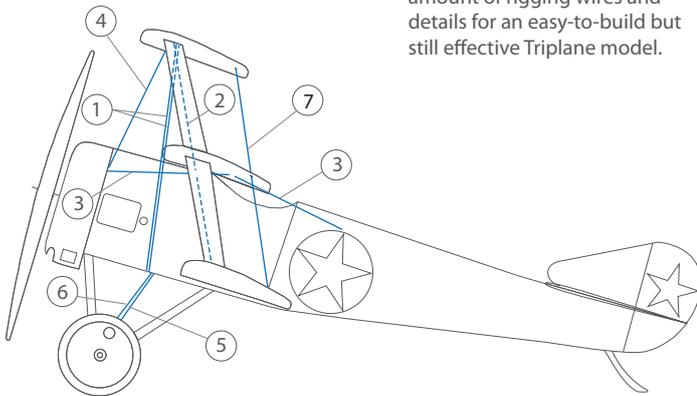


- Key to rigging wires:**
1. Flying wires (double)
 2. Landing wires
 3. Drag & antdrag wires
 4. Centre section cross wires
 5. Landing gear X-wires
 6. Landing gear axle wire
 7. Aileron connecting wires
 8. Stab & fin wires
 9. Rudder control wires (misc.)

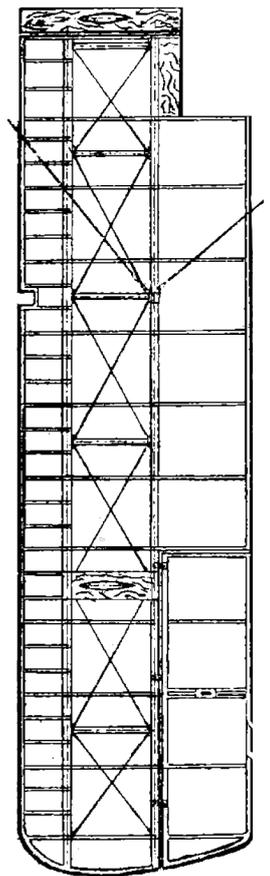
Painted fields under red stars is a result of painting over original British, imperial Russian, and first versions of red star insignia in several stages.



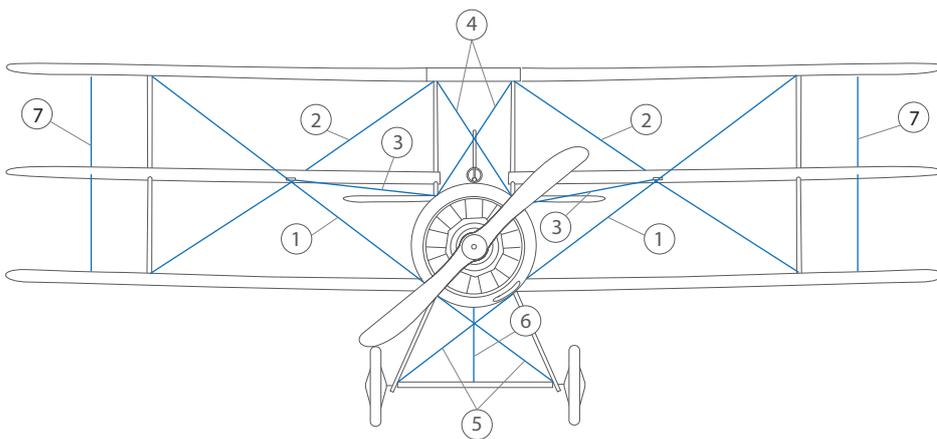
Small 3-view sketches are half size of model. They show minimum amount of rigging wires and details for an easy-to-build but still effective Triplane model.



Mid wing internal structure (scale reference drawing):



Numbers for wires refer to rigging notes starting on p. 4. For a quick reference, see list of wires at the top of this page.



(cont. from previous page:)

6) one single load-carrying wire from the center of the fuselage underside to the center of the wheel axle fairing. 7) Aileron connecting wires. 8) Stab and fin wires, two sets, from the fin through the stab down to the lower fuse longerons. 9) Elevator, rudder, skid, and aileron control horn wires.

Notes on the kit:

This kit is a reworking of a model originally designed by the anonymous designer "Bug forever" and published as a free download at the now defunct model.icegroup.ru site. It is republished here as a free download. Part outlines and instructional sketches mostly stem from the

original, although this version includes major corrections, changes & additions. Colouring, markings, textures, part numbers, and text have been completely reworked for greater scale fidelity and clarity. Feedback & comments to:

Leif.Ohlsson1@comhem.se