SOPWITH 7F1 SNIPE

BY-PLANES

THE AIRCRAFT

The Snipe was intended as a replacement for the Camel and with its higher powered Bentley BR2 engine exemplified the ultimate in rotary engined aircraft design. The aeroplane went into production in the Spring of 1918; deliveries started in the middle of that year and it finally became operational in September, 1918, serving first with No. 43 Squadron R.A.F. Other squadrons to use the Snipe operationally were No. 44 Squadron Australian Flying Corps and No. 208 Squadron R.A.F. During its brief wartime career the Snipe showed itself to be fast and highly manoeuverable and was used in the main on escort duties. An interesting feature for the time is that oxygen equipment and electrical heating were standard fittings. The great majority of operational Snipes had plain ailerons with small fin and standard horn balanced rudder. Later machines were fitted with a large fin, redesigned rudder and horn balanced upper ailerons. These modified aircraft appeared in November, 1918. Although large contracts had been placed, the Armistice caused most of the orders to be cancelled and production ceased altogether in March, 1919. After the War the Snipe served with several peacetime squadrons and was at one time the mainstay of the post-war fighter arm. It was finally withdrawn from service in 1927. The most outstanding exploit associated with the Snipe is that concerning Major W. G. Barker's single handed encounter against overwhelming odds on 27th October, 1918. On that day he was due to fly to England and in fact his telescopic sight had been removed for the homeward flight. Once airborne however and, as always, on the lookout for trouble, he spotted a two seater Rumpler at about 20,000 feet over its own lines. He climbed to the attack and despite accurate defensive fire from the observer the German machine finally broke up after Barker's third pass at it. (Major Barker, a Canadian, was attached to No. 201 'Camel' Squadron at the time and his was the only Snipe to serve with that squadron It should be noted that the distinctive markings on Barker's Snipe were not those pertaining to No. 201 Squadron). Almost simultaneously Barker was wounded in the right thigh by a bullet from a Fokker DV11 that had caught him unawares. Despite this he succeeded in shooting it down. Turning for home he then found himself in the middle of a large formation of enemy aircraft (variously estimated at 20 or 60) and he was able to destroy two of them before being wounded again this time in the left thigh. Not surprisingly he lost consciousness sending the Snipe into a spin only to recover to find yet another large formation of the enemy around him. Using the last of his ammunition he managed to send one more down even though his left elbow had been shattered by a bullet earlier in the fight. Skilfully evading a screen of fighters he managed to reach the British lines where his tattered machine crash landed and turned over. Major Barker was awarded the Victoria Cross for his exploits and the fuselage of his Snipe is preserved in the Canadian War Museum, Ottawa. The serial of this aircraft, E8102, shows it to have been built by the parent Sopwith Aviation Company at Kingston upon Thames.

Data (Production aircraft)

Power	–	1 230 h.p. Bentley BR2 rotary engine.
Armament	–	2 fixed synchronised Vickers machine guns.
Span	–	with plain ailerons – 30ft. with balanced ailerons – 31ft. 1in.
Length	–	19ft. 2in. with original rudder. 19ft. 10in. with later rudder.
Max speed	–	@ 10,000 ft. 115 mph after 24 hrs flying.
Endurance	–	3 hours.

THE MODEL

Note: Alternative parts are included in the kit to enable one of two versions to be built. The modifications involved concern the upper ailerons and fin and rudder assembly and these are dealt with under the appropriate headings in the instructions.

Before you begin – Please read instructions right through two or three times and study assembly drawings carefully. It is essential to familiarise yourself with each stage of construction before work is begun. You will need the following tools and materials:–

Craft Knife	Various small files	Fine drills	Stretched sprue or fine wire
Scriber	Small pair scissors	Wet and Dry paper (500 grade)	Masking tape
Pair dividers	Tweezers	Liquid polystyrene cement	Interior Polyfilla
Set square	Rubber bands	5-minute epoxy adhesive	

Cutting Out – (The small pips caused by the forming process are best removed before cutting commences). Cut or scribe each part from the sheet, except the struts which are dealt with later, and break away excess plastic. Soak a piece of wet and dry paper and lay on a flat surface (plate glass is ideal) and carefully sand all edges flat. Particular attention should be paid to the trailing edges of all flying surfaces which should be as sharp as possible. Check progress from time to time with scale drawing. To maintain rigidity the front of the cowling is best removed, by scoring with a pair of dividers, before cutting the cowl from the sheet. Cut away the curved area at bottom of cowl as indicated on the forming. Cut away the following areas from each fuselage half:– (1) the propeller shaft location in the centre of the firewall; (2) cockpit– to maintain rigidity leave the forward 3/8" of the horizontal shelf intact; (3) housing for exhaust arch. This involves cutting the triangular area marked on the firewall and underside of nose. The appearance will be improved if the two small holes at the lower forward end of the fuselage panels, just above the side exhaust vents, are drilled or filed out. The upper nose panel in front of the cockpit requires careful treatment. Remove the forward cockpit area including the small rectangular panel immediately above and behind the machine gun troughs. Drill or file the rear end of machine gun troughs leaving bottom of troughs intact to house machine guns. Again, the model is improved if the two circular openings in front of the cartridge chutes are filed out.

Struts – refer to diagram. All struts, including undercarriage, are formed on .020" sheet. The arrangement of the struts on the sheet is such that when the sheet is cut lengthwise into two halves and placed back to back, the sides of each component are in exact register. The following procedure is recommended:– (refer to diagram) (i) cut the .020" sheet lengthwise as indicated – the position of this cut is not critical; (ii) using a straight edge and sharp blade, cut along the leading edge of the first wing strut and (iii) along the trailing edge of the last two centre section struts on each half. The two half sheets may now be held firmly together with bulldog clips with the edges of cuts (ii) and (iii) in line with one another. This will bring the sides of all the struts exactly in register. Sand the leading edge of the first strut to shape and brush liquid cement along the join. When dry, cut strut away completely along trailing edge and run cement along join. When dry sand to shape and trim to length. Proceed in this manner for remainder of struts and undercarriage. Note that inboard struts have convex leading and trailing edges.

Assembly – refer to diagram.

Fuselage – check the two fuselage halves for alignment. Locate and cement the two bulkheads in position in the starboard fuselage half. Cement seat to pedestal on floor and cement into fuselage. Any interior detailing required on the cockpit sides should be added at this stage. Add control column from stretched sprue. Cement exhaust arch into fuselage checking for accurate alignment. Cement fuselage halves together and when dry smooth joint line. Locate and cement small transverse former 3/8" to rear firewall. Cement upper nose panel in position checking alignment along fuselage sides. The curved front of this panel must be contoured to accommodate the top of the engine cowling as shown on drawing. Check location of machine guns with breech blocks resting on small former and barrels aligned along troughs. Do not cement at this stage. Locate and cement centre section struts.

Tailplane – cement two tailplane undersurfaces to top half of tailplane and cement in position on fuselage. Add selected fin and rudder assembly.
Note. It is advisable to paint fuselage and tailplane before wings are assembled. Refer to painting instructions.

Wings – cement top and bottom halves of all wings noting that lower wing panels are 1/8" ~~shorter~~ longer than the upper. If modified ailerons are selected cut out plain ailerons from upper wings and cement balanced ailerons in their place. Note that part of the wing tip must be trimmed to accommodate the horn balance – see scale drawing. Cement top and bottom halves of centre section adding shaped rib (from scrap .040") in centre section opening – see scale drawing. Cement lower wings to fuselage checking for correct dihedral. Cement upper wings to centre section, again checking dihedral angle. Locate and cement top centre section to centre section struts on fuselage checking that upper wing trailing edge is parallel to lower wings. Cement wing struts in place noting that inboard struts are wider than the outer which have straight and parallel sides.

Undercarriage – locate and cement axle, from rod supplied, between upper and lower halves of axle fairing. Cement undercarriage struts to fuselage and cement axle assembly to struts noting that the axle stubs should sit in the V's of the undercarriage struts. Epoxy wheel discs (supplied on .020" sheet) to inner face of wheels and cement wheels to axle.

Engine assembly – locate and cement small circular spacer to front of engine bulkhead and drill right through for prop shaft. Paint inside of cowling and front of bulkhead matt black. Drill out and file to shape the two vents on the lower starboard side of the cowling. Epoxy head of nail into propeller boss and check for alignment. Place engine into cowling followed by bulkhead cementing latter flush with rear edge of cowling. Apply epoxy to rear of propeller boss and locate prop shaft through engine and bulkhead. Check propeller and engine are securely epoxied together – remembering this is a rotary engine! When dry secure end of prop shaft with small piece of styrene and epoxy. Check propeller and engine rotate freely. Cement engine cowling to firewall locating the cutaway on the cowling with the exhaust arch under the nose.

Final details – make pitot head, tailskid and venturi from scrap and cement in position indicated on drawings. Add elevator, rudder and aileron control horns from .005" sheet. Add crashpad to trailing edge of centre section from plastic rod. After painting model locate and epoxy machine guns in position in channels with breech blocks resting on small former.

Painting – Major Barker's machine. (The use of Humbrol Authentic Set No. 12 is recommended). Upper surfaces of fuselage, wings and tailplane, khaki (PC10). Forward fuselage metal panels including cowling and ply decking, medium grey. Underside of wings, tailplane and rear fuselage, light cream. Undercarriage legs and wheel discs, khaki. Propeller, dark/light brown laminate. Cockpit coaming, centre section and machine gun crashpads leather. Wing and centre section struts, varnished wood.
No. 17 Squadron aircraft Silver doped overall except forward fuselage panels and cowling, natural (dull) metal. Propeller grey except for central boss area, dark brown. Centre section and wing struts, varnished wood. Undercarriage struts, silver. Wheel discs, blue. Paint instrument panel light brown, apply decal and cement in position between breech blocks.

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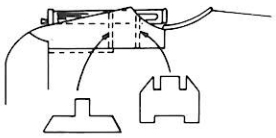
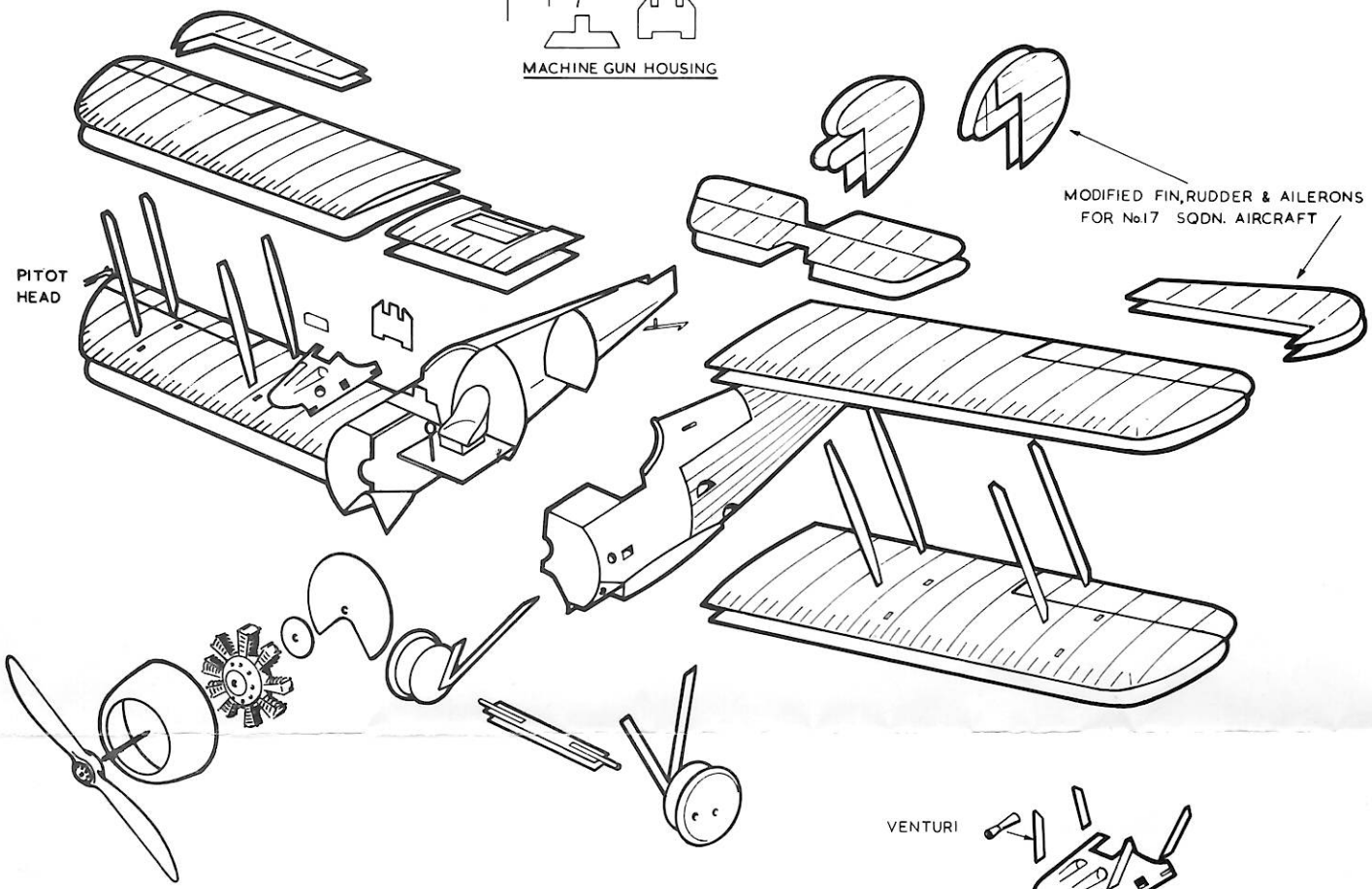
BY-PLANES



MACHINE GUN HOUSING



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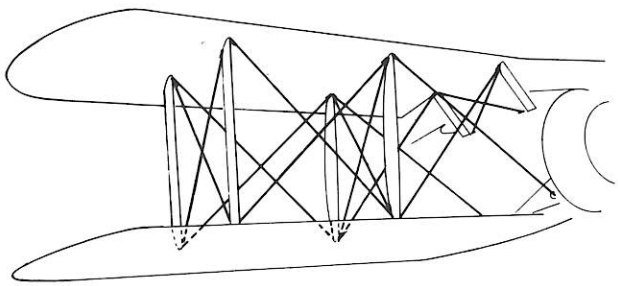
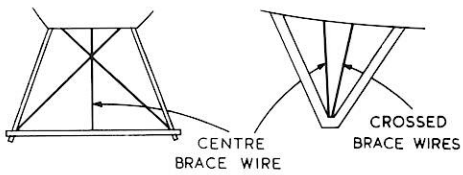
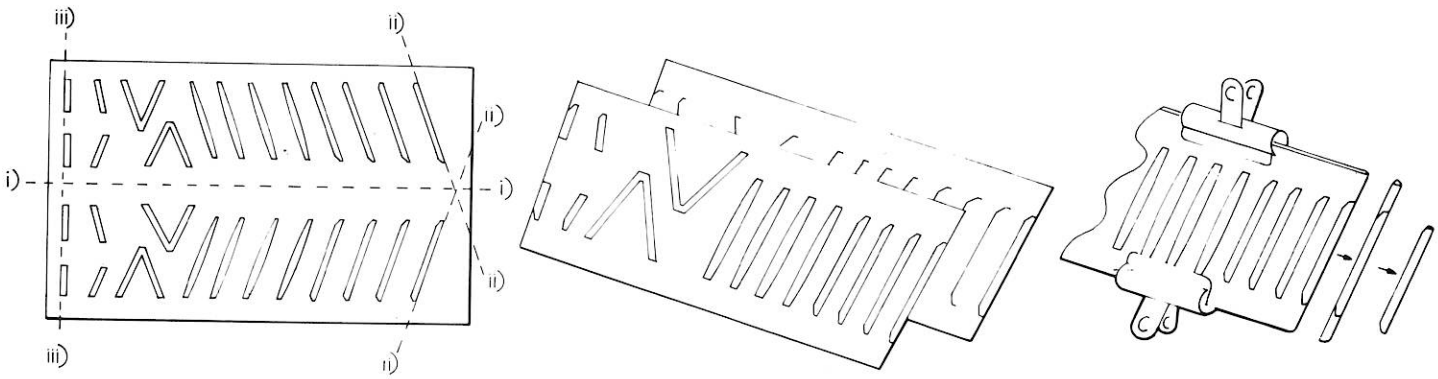


WING BRACING STARBOARD SIDE



UNDERCARRIAGE BRACING

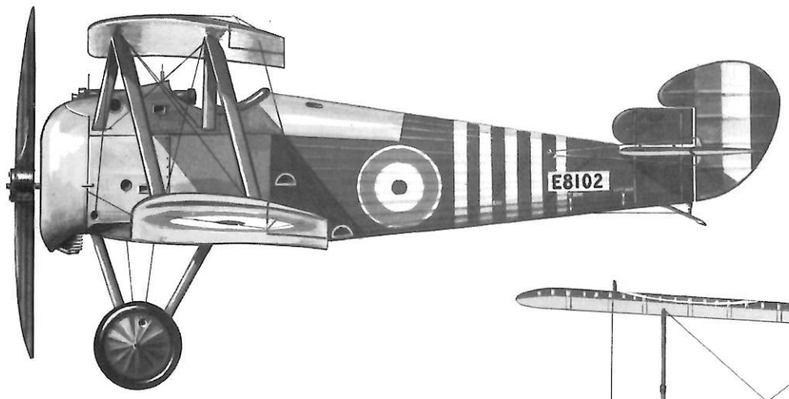


STRUT ASSEMBLY

SOPWITH 7F1 SNIPE

1/48 SCALE

BY-PLANES



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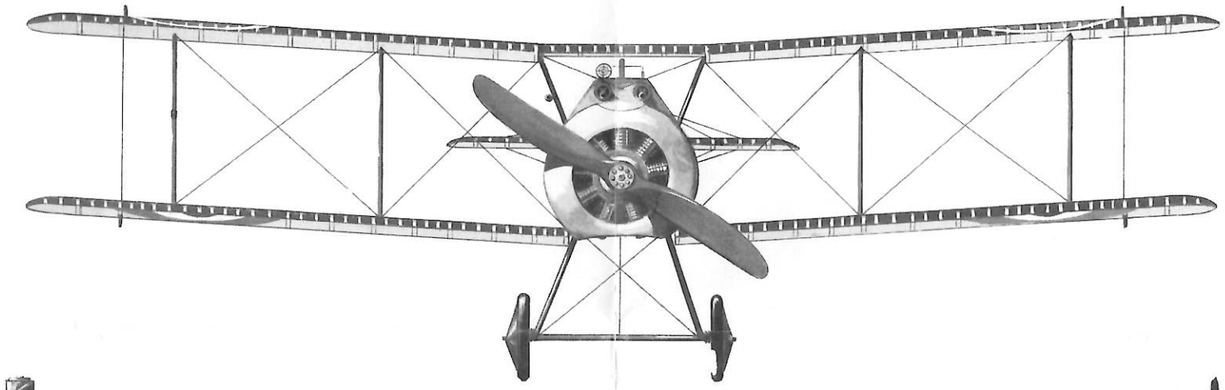

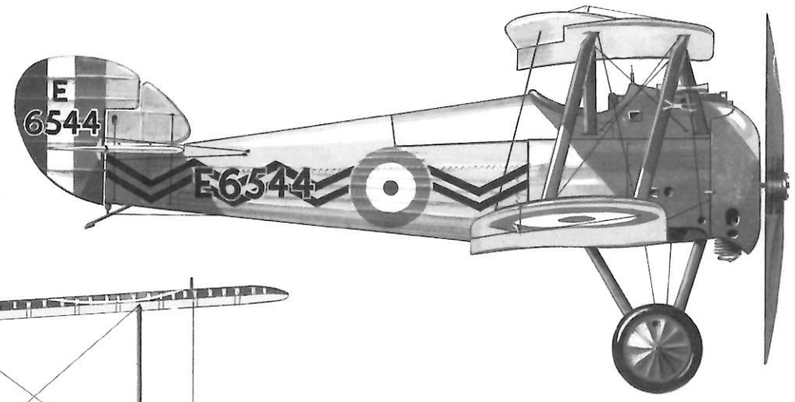

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SNIPE OF No.17 SQUADRON R.A.F.

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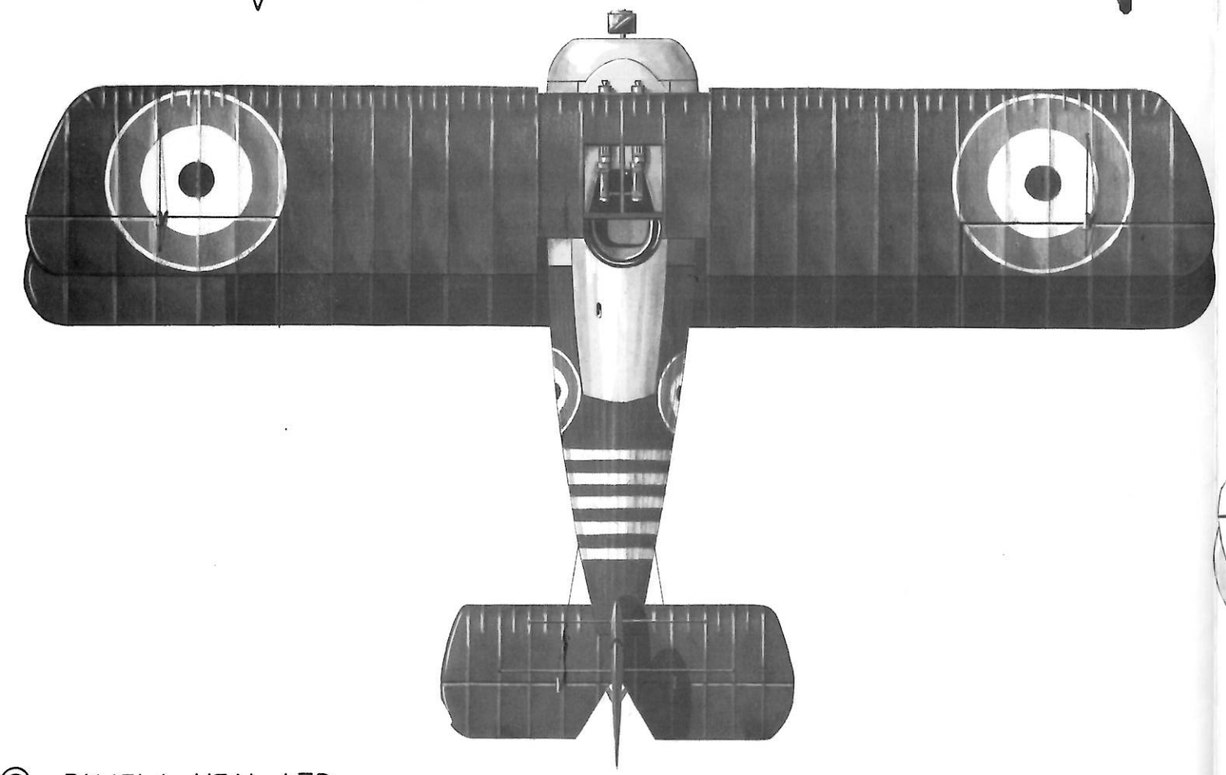

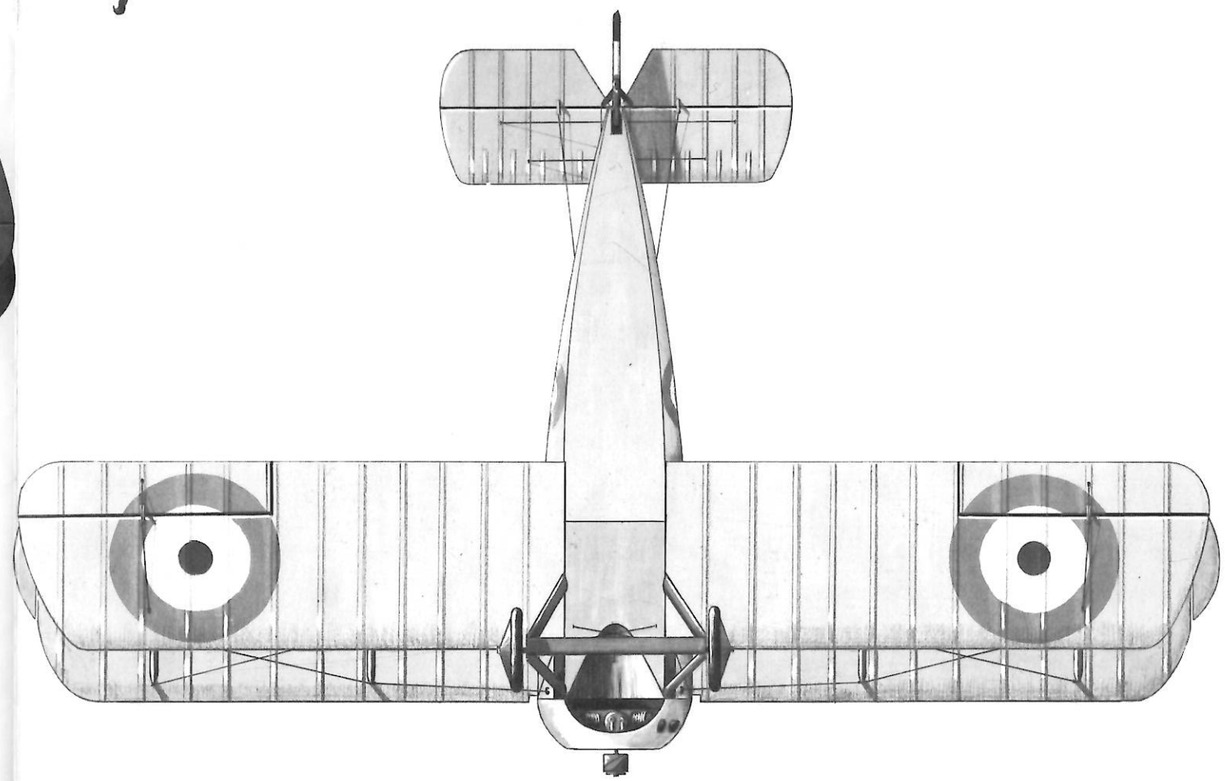

FEET