

Fokker F.VIIa Novoexport injection kit¹

Monoplane passenger

Scale 1:72

The Fokker F.VIIa was the temporary culmination of Fokker's initial passenger plane development. The aircraft, which appeared in March 1925, accommodated two pilots and eight passengers. It was an improved version of the F.VII (main modifications were a new wing and a completely revised undercarriage) and set, together with its derivatives the three-engined F.VIIa/3m and the F.VIIb/3m, the standard for passenger transport in the 1920's. The aircraft was also marketed in the USA, where it received the designation Model 6.



For a description of the kit is referred to that of the Fokker F.VIIb/3m Southern Cross kit by Zvezda; both kits are identical except for the packaging (Novoexport in a plastic bag and Zvezda in a box) and the price (the Novoexport kit is far cheaper). Both are in fact the old Frog kit.

The instruction sheet gives step-by-step instructions to assemble the plane. As I have modified the kit to represent an F.VIIa with Bristol Jupiter engine, I have adapted them for the differences between the F.VIIa and the F.VIIb/3m.

References 1 through 9 report the dimensions of the F.VIIa. There is some variation in the length quoted, which may be explained by the different engines built in. Franquinet (ref. 3), Hegener (ref. 4), Postma (ref. 10) and Vredeling (ref. 11) give a three-view drawing of the aircraft. I have used the bold printed values as reference.

	<i>Ref.</i>	<i>1:72</i>	<i>model</i>
<i>Span</i>	19.30-19.32 m	268.1-268.3 mm	266.0 mm
<i>Length</i>	14.35- 14.60 m	199.3- 202.8 mm	203.5 mm
<i>Height</i>	3.69- 3.90 m	51.3- 54.2 mm	50.8 mm
<i>Engine</i>	Bristol Jupiter VI, 450 hp; Bristol Jupiter IX, 480 hp		
<i>Crew</i>	2		
<i>Passengers</i>	8		

Building the model

As I have modified the Novoexpert F.VIIb/3m kit to obtain a model of an F.VIIa, I will limit this description to the modifications I have made. They were:

- Fuselage (the windows - not standard for the Southern Cross -, passenger stairs and rudder),
- Rudder,
- Wing,
- Engine and propeller,
- Undercarriage,
- Decals.

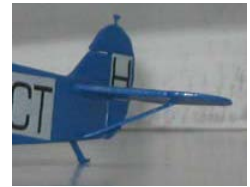
The F.VIIb/3m Southern Cross had been adapted for the Pacific Ocean crossing, and one of the modifications was the accommodation of additional fuel and oil tanks in the passenger cabin. As a consequence the cabin windows had been changed. So to obtain the F.VIIa I had to change the model back. I have cut out the windows over the full length as derived from drawings and photographs and



have also enlarged the windows in the cabin door. The new windows I have produced from transparent plastic sheet, on which I have painted the fuselage frame tubes in the colour of the fuselage. There were no cabin stairs included in the Novoexport kit, so I have produced them from 0.4 mm brass wire and leftover cooling shroud of LMG 08/15 machine guns.

Rudder

The rudder of the F.VIIa was different from that of the F.VIIb/3m, it was smaller and the top was more rounded. Also, on the top there was an extension carrying a navigation lights. This has been produced from scrap plastic bits.



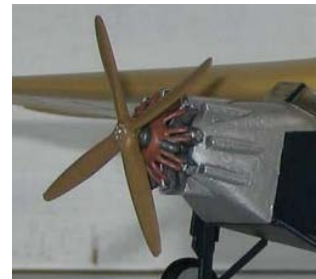
Wing

Originally the wing of the real F.VIIb/3m has been obtained adding a section of 2.40 m with constant cord to the root of the F.VIIa wing. So consequently the reverse action, removal of 33.3 mm of the wing centre section after assembly of the wing of the Novoexport kit, should do the job. Making carefully two saw cuts normal to the top surface of the wing each 16 mm from the centreline (that is the surface that is kept horizontal to obtain a slight effective V-shape of the wing), cutting the central piece of 20.3 mm wide (the width of the fuselage) from the remaining constant cord section, gluing both wing halves to the central section and finishing the joint with Tamyia putty gave the desired result. A last modification was the removal of the lower wing surface reinforcements at the locations where the F.VIIb/3m engine mountings were attached.



Engine

The Wright engines supplied with the kit are too small to pass for the larger Bristol (or Gnome Rhone) Jupiter engine and are missing the characteristic exhaust system of that engine. I have used the Aeroclub² Jupiter VI engine and exhaust, and also an 11' 6" diameter four-blade propeller of the same brand. The fuselage nose section has been modified with cylinder fairings made from scrap plastic material. Careful applying putty and sanding well achieved the desired result.



Undercarriage



Major modification was to remove the wing mounted engine pods from the vertical landing gear style and eliminating the two horizontal struts between these pods and the fuselage and their attachment points to the fuselage. At the left the F.VIIb/3m configuration, in the middle the modified F.VIIa configuration, at the right a detail from the real plane is shown. I also closed the rubber band springs at top and bottom of the spring pods by means of putty, as many F.VIIa's appeared to

have that, although the picture of the H-NACT at the top of this description shows fully uncovered springs.

Painting

The KLM paint scheme is not really covered by the standard available Humbrol colours. The dark blue is very dark, almost black; I mixed that from Midnight Blue (15) and Black (21). The light blue is a shade darker than Sea Blue (47), so I mixed some French Blue (14) in it. The shape of the border between the two I sketched on transparent paper, fitting it trial and error on the fuselage. When it was satisfactory, I have cut it out from plasticard to transfer the shape to both sides of the fuselage.



Decals

The registration H-NACT has been custom produced with an inkjet printer and the white backed decal sheets of BEL INC (ref. 12). The Fokker logo, the KLM logo, the golden band between the dark and light blue part of the fuselage and the text “KONINKLIJKE LUCHTVAART MAATSCHAPPIJ” under the windows have been copied from other documentation and decal sheets and Photo-shopped to some pale resemblance of gold on a dark blue fond. Again, although the result is about acceptable, it shows that there is no real solution for home-producing light coloured decals³, unless printing them on white decal sheets with a background colour that exactly matches the colour of the area they are applied on.



Final assembly

I have not added control cables and control horns (did not do that at that time yet). No problems have been met in assembling the plane, although I feared that the landing gear vertical strut would not support the model's weight. But luckily an injection model is lighter than a resin kit, so it held. Below some pictures of the completed model are included.





References

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¹ Fokker F.VIIb/3m kit modified into F.VIIa.

² www.aeroclub.co.uk; production of white metal accessories has been discontinued.

³ I have this problem also with white registration numbers. I have found no other alternative than look for vaguely resembling lettering and character sizes in commercially available decals, which is really nasty when it concerns the old-fashioned registration numbers of for example the Dutch Army air corps prior to the 1930's. A solution is to draw the decals in CorelDraw and order ALPS decals from a specialized printing shop.