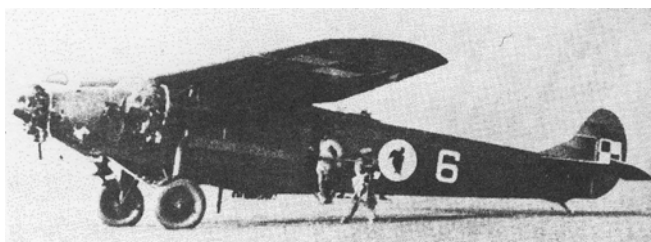


# Fokker F.VIIb/3m-M AZmodel<sup>1</sup> injection kit

## Monoplane bomber

Scale 1:144

The Fokker F.VIIb/3m-M was a military version of the F.VIIb/3m passenger plane. It has been used as a bomber in Czechoslovakia, Poland and the Netherlands and as a military transport in Great Britain. The bomber version was license produced in Czechoslovakia by Avia and in Poland by Plage I Laskiewicz. Design modifications by this last firm in 1928 were extensive. Ref. 5 contains some photographs of the bomber version. The engines are reported to be Pratt & Whitney Wasps in ref. 4, but some pages in Polish from another publication (ref. 6) list the characteristics of all Polish F.VIIb/3m versions and state that the bomber version had Skoda-Wright engines of 220 hp, the Wasp engine being used for a heavier and slightly faster combined transport-bomber version with shorter range.



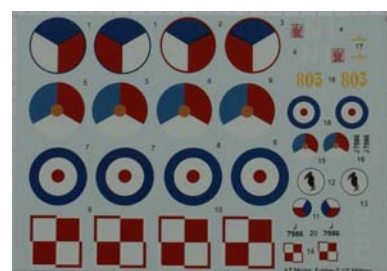
According to most sources the military three-engined Fokker F.VII's having served with the Dutch Air Force (LVA) with registration numbers 801, 802 and 803 (the 803 is subject of this kit) were F.VIIa/3m's (so with the smaller span). If you want to model that plane: Remove 8.3 mm at each side of the fuselage from the wing center section. Note that also the location holes for the undercarriage should change accordingly. The roundels should be applied at the wing tips, not in the middle of the wing as shown on the box. And you have to shorten the undercarriage legs by 2 mm to reduce the models height.



The kit includes injection molded parts for most of the aircraft components, resin parts (the three engines), a piece of wire for the exhausts and photo-etched parts for the instruments panel and control columns, engine nacelle struts, control horns, tail plane bracing struts, tail skid, landing lights and cabin stairs. Decals are included for four military versions and a printed piece of transparent plastic for the windshield and the cabin windows for the Dutch version. Windows for the British version are listed in the instruction sheet, but not included in



the kit. Neither are windows and modification instructions for the Czech and Polish version. The injection-molded parts include two and three blade propellers and two versions for the fuselage, a short nosed one for the British and Dutch versions and a long nosed one for the Czech and Polish versions. I decided to build the Polish version.



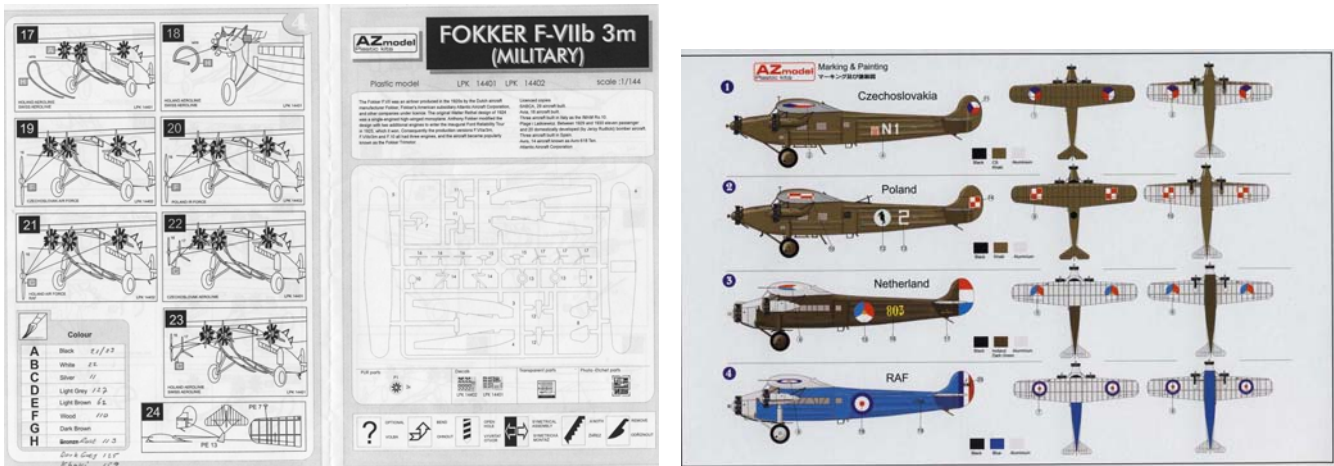
The injection-molded parts need quite some cleaning before assembly. The instruction sheet gives an overview identifying the parts and step by step illustrated assembly instructions. It also includes summary painting instructions, while the box illustrates the finished state of the model with three-view drawings for each of the versions.

### Paint scheme

I have applied the following paint scheme (Humbrol colour codes) and generally followed the painting instructions on the box and in the instruction sheet.

Silver	11	Black	21/33	White	22	Aluminium	56	Light brown	62
Wood	110	Dark grey	125	Light grey	127	Khaki	159		

I have always a problem in applying the aluminium paint with a brush; it generally shows up quite streaky. So for the model I have replaced it by silver.



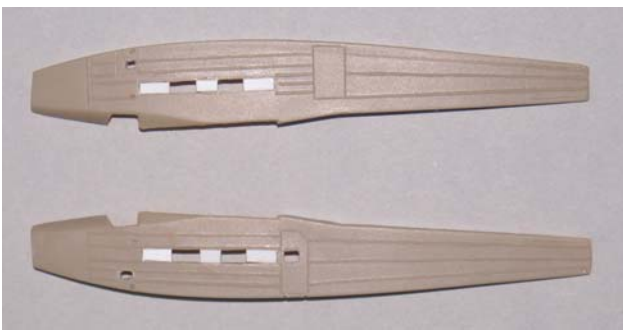
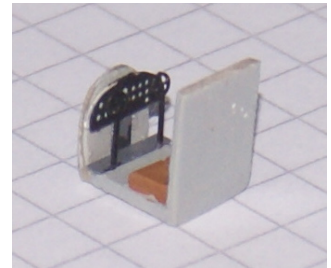
In my literature collection I have some pages of an unidentified Polish publication (ref. 6) stating the dimensions for the military version of the F.VIIb/3m, given in parentheses in the table below.

	<i>Ref.</i>	<i>1:144</i>	<i>model</i>
<i>Span</i>	21.69-21.88 (21.70 <sup>2</sup> ) m	150.6-151.9 (150.7) mm	149.4 mm
<i>Length</i>	14.30-14.56 (14.50) m	99.3-101.1(100.7) mm	103.6 mm
<i>Height</i>	3.45-3.90 (3.90) m	24.0-27.1 (27.1) mm	30.7 mm
<i>Engine</i>	3 Skoda-Wright; 220 hp each		
<i>Crew</i>	2+		
<i>Armament</i>	1 fixed machine gun, 3 movable machine guns, 1500 kg bombs		

The span is quite accurate, length and height are slightly too large.

**Cockpit and fuselage**

The cockpit is well detailed for this scale thanks to the photo-etched instrument panel and control column, although little of it is visible once the model is fully assembled. I have painted the part of the instrument panel, which ends up under the dials of the instruments, white and the remainder matt black before folding it in place and attaching it with a small drop of cyano glue.



The cabin windows must be modified for the Polish and Czech version. I have done that by gluing strips of Plasticard in the long cabin window openings to create the two smaller rectangular windows. In addition I have made two rectangular openings in the lower forward fuselage. The two fuselage halves do not fit well.



They need considerable sanding and rework with putty to yield an acceptable result. To support the cockpit floor I have glued two small pieces of scrap plastic in the forward fuselage. Next thing is to attach the two elevator halves. As the have to be fitted at exactly the location of the top stringer at the rear of the fuselage, I have removed the last 9 mm of the moulded profile and sanded the surface flat to obtain a proper fit. Fitting the rudder poses no problems. A fit check with the wing showed that 1 mm plastic had to be removed from the rear cockpit wall. The cockpit as-



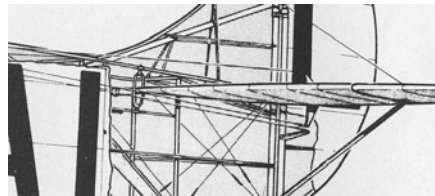
sembly has been glued in place with two drops of cyano glue on the supports (I have glued all painted surfaces with cyano glue. When used glue for polystyrene the surfaces need to be cleaned from paint before applying the plastic cement). The result is shown in the picture above. This is the last time you can admire the well-detailed instrument panel!

The Polish version of the F.VIIb/3m-M had a machine gun position at the top of the fuselage just behind the wing. The kit instructions suggest using a drill bit of 5mm to make a hole in the fuselage at that location, but when doing so, there is a good chance of splitting the fuselage over length. I have drilled a hole of 2 mm, and enlarged it with a small file to the correct diameter. The machine gun and its support have been produced from scrap plastic and 0.4 mm metal wire.



Prior to painting the fuselage and tail surfaces the photo-etched elevator and rudder control levers have been glued in place. The control mechanism levers are slightly over-dimensioned. However, when made to scale they become too small to handle properly. The cyano glue did not attach very well to the metal; the joint was very brittle. I had to use viscous cyano in ample quantities to obtain a joint resisting to painting.

I have drilled 0.3 mm holes at the location where the cables leave their guidance tubes attached to the fuselage (about one horizontal tail plane chord before the tail plane leading edge; see the pictures at the left taken from my building report of the Broplan Fokker F.VIIa). Holes have also been drilled to accommodate the vertical tail plane bracing cables.



## Wing

After joining the upper and bottom wing surface the joint needs quite some rework with sanding and applying putty. After that I have applied a first coat of paint to check that all gaps had been sufficiently filled. After some minor retouch work and after having mounted the photo-etched aileron control horns, I have painted the wing according to the painting instructions on the box. 0.3 mm holes have been drilled at the location where the control cables leave the wing and the wing has been joined to the fuselage. The instruction sheet suggests the lights should be mounted on top of the wing. As I have unable to find photographs confirming this, I have mounted them under the wing close to the leading edge and painted khaki.

Next the decals are applied. The wing and fuselage surface, where they should be applied, is first covered with a layer of satin clear varnish and the decals are applied with Micro Set and Micro Sol (on the fuselage) solution to get a smooth, painted-on appearance. According to photographs of other Polish air force planes of the time the wing insignia should be positioned slightly more outboard (about one "square" from the tip). As the wing decals are rather large, I have applied them just inboard of the aileron levers. When dry the whole plane has been provided with a coat of satin varnish.

## Engines

The resin parts representing the engines are very small and fragile; I took away the excess material at the rear side by gluing the front side to double-sided foam tape, providing a hold to sand carefully the backside away. This worked reasonably well. The engine nacelles have been painted khaki and the strut attaching it to the fuselage dark grey. I have painted the engines gloss black and the valve rods silver with an almost dry brush. The engines have been glued first to the nacelles to get a better hold on the tiny things. The photo-etched engine nacelle suspension struts have been painted dark grey before assembly to the nacelle. During assembly I have continuously test fitted the nacelle to wing and fuselage. The holes in the wing for mounting the nacelles are not in the correct position (to far outward), hence do not serve any purpose. I have filled them with putty and retouched the paintwork just before assembly. The rear strut of the rear support pyramid of the nacelles is too long; about 3 mm has to be cut off to achieve a proper positioning of the nacelle under the wing.



I have bent the exhausts of the wing-mounted engines in shape according to the instruction sheet from the copper wire included in the kit using the handle of a brush to obtain a nice circular shape. I have left them in their natural colouring and have fixed them to the engines with a very small drop of glue prior to attaching the nacelles to the wing. The forward holes intended to mark the location of the forward V struts is obstructed by the exhaust; I left it like that as it was too late to fill the holes with putty and drilling new ones, and they will hardly be remarked once the struts are attached. At this moment I have also bent the exhaust of the fuselage mounted engine and fixed it with a very small drop of glue. The nacelles have been mounted first to the fuselage with thick cyano glue and have been held in place until dry. Then the tripods at the rear of the nacelle have been secured to the wing with a drop of glue. The four V-struts have been fixed first to the nacelle and then with a drop of glue to the wing.

### Undercarriage

The holes in the fuselage, where the undercarriage struts should fit, are not deep enough. I have used a 0.6 mm drill to get them at the right depth. All struts have been painted dark grey before assembly. The rubber spring boxes in the main landing gear legs have been painted khaki. First the vertical leg has been glued to the nacelle on the inversed aircraft, and immediately afterwards the struts to the fuselage. After adjustment a drop of glue has been applied to the joint between the vertical leg and the struts to the fuselage. Finally the wheels have been mounted. The height of the model is too large; it could have been adjusted by taking 2 mm off the vertical undercarriage strut. This would also have reduced the deviation from vertical of that strut.



### Final assembly

The two-blade propellers have been painted silver. It is difficult to see which side must be mounted in the engine (both ends do not fit in the hole in the engine). I have decided to fit the fattest side in the engine and used a 1.0 mm drill to make them fit in the hole in the engine. The cabin windows have been produced with Humbrol Clearfix<sup>3</sup>. It is easier to make the cabin windows before the engines are attached to the wing; they are easier to reach, especially the small window at the bottom of the nose. When dry, the traces on the paintwork can be easily removed. I have cut out the windshield, bent it and adjusted it slightly after trial fitting. It has been fixed using white glue.

By this time I had lost one of the navigation lights. I have made one resembling roughly the shape out of 0.25 mm metal strand. Painting it khaki made it about acceptable. The wing navigation lights have been painted green and red.

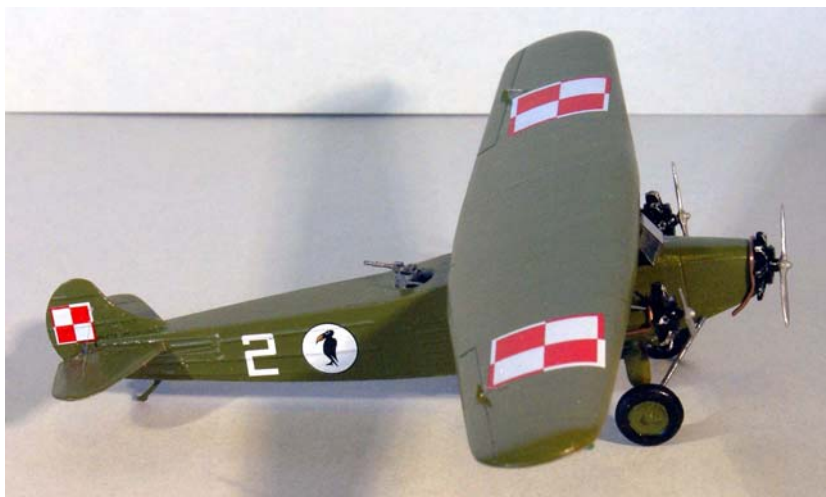
Vertical tail plane bracing cables made of 0.06 mm fishing line have been mounted. I have used the same material for the control cables to ailerons, rudder and elevator. The photo-etched tail plane struts, painted dark grey, which have a different (wider) shape than those of the civil version, have been mounted after the tail control cables were glued in place. To complete the model the cabin stairs I had to make one of 0.4 mm wire, because again I lost the photo-etched stairs) and the machine gun have been glued in place.

I have one (bad quality) picture of the Polish F.VII/3m-M with bombs racks under the fuselage, so I assume it is the same as for the F.VIIa/3m-M of the Dutch Army Air Department (LVA), of which I have a good picture (below at the left). It shows 9 bombs of probably 100 to 150 kg suspended in bomb racks under the fuselage. I have modelled the bomb racks by simple vertical small strips and glued the six 1:72 scale 25 lbs bombs I had in my stock box to it (below at the right from Pavla Models W 72-63 RAF WW2 Weapons set; it remains difficult to find these accessories). Finally I glued the antenna (?) in place under the fuselage.



Below some pictures of the finished model are shown.





## References

1. H. Hegener, *Fokker, The Man and the Aircraft*, p. 190, ISBN 0-8168-6370-9, 1961
2. H. Hooftman, *Alles over de Fokker Friendship, Fokker Verkeersvliegtuigen van F.1 tot F.28*, p. 35, L.J. Veen's Uitgeversmij N.V., Amsterdam, 1963
3. H. Hooftman, *Van Brik tot Starfighter, Deel I: Met stofbril en leren vliegkap*, pp. 113-117, La Rivière & Voorhoeve, Zwolle, 1962
4. <http://www.dutch-aviation.nl/pictures/Fokker/Civil>
5. Anon., *History of the Polish Air Force*, p. 90
6. Anon., *unknown title*, pp. 222-223, 226-227.

<sup>1</sup> www.legatokits.cz

<sup>2</sup> Values in brackets are taken from ref. 6 for the Polish bomber version.

<sup>3</sup> It is better to make the windows before attaching the engines. If you do it at the end of assembly like I did, you risk damaging paint and decals if you remove the dried Clearfix threads from it.