

Fokker F27 Mk.400M Maritime Patrol Aircraft ESCi injection kit

Monoplane sea reconnaissance and patrol

Scale 1:72

The F.27 Friendship was the first post-war Fokker passenger plane and was the largest commercial success of the company. However, the project had a difficult start and on some moments the Fokker management considered ending the production.

The F.27 prototype flew in November 1955 and different variants of the aircraft stayed in production until 1987, when it was replaced by its derivative the Fokker 50. The F.27 was designed as a Douglas DC-3 replacement, and found its way all over the world, in developed as well as undeveloped countries.

The Mk.400 Maritime Patrol Aircraft¹, which first flew on March 25, 1976, was one of the last versions of the Friendship and was intended for maritime reconnaissance and patrol, being a cheaper alternative than aircraft like the Lockheed Orion. To this purpose it was equipped with radar and other avionics for detection of surface vessels. It was sold amongst others to Spain and the Dutch Royal Air Force (KLu). The KLu used two aircraft, registered as M-1 and M-2, as successors to the Lockheed Neptune in combined operations with the Dutch Royal Navy to patrol the seas in the Dutch West Indies. In total 15² copies of the F.27 MPA and its armed derivative the Sentinel have been built.



insignia and an instruction sheet. As I want to build the model in KLu colours, I have obtained from a fellow modeler a set of decals by Dutch Decal for that version.

The kit is very complete and allows building the aircraft with undercarriage lowered or retracted. The in-

The kit comes in a carton box and contains the plastic parts, clear plastic parts for the cockpit and cabin windows, a sheet of decals for a demonstration version with a Dutch registration but Spanish national



struction sheet explains the building process by steps with drawings and includes summary painting instructions.

An article in *Modelbouw in Plastic* (ref. 5) lists the defects of the kit³ relative to the real aircraft, and gives many suggestions for improvement. The ones I will incorporate I have

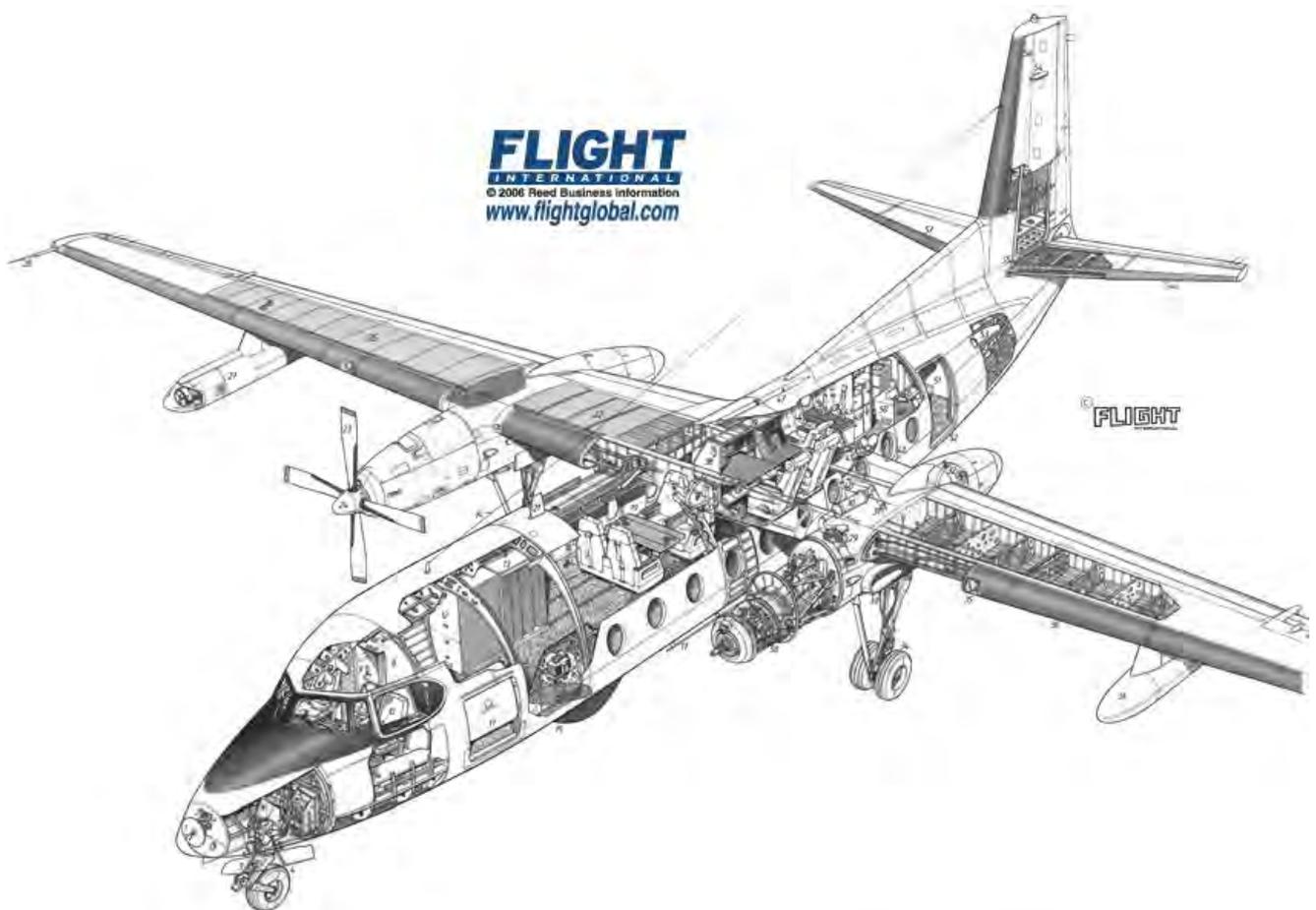
included in Appendix A. The author of the article is very critical about the correctness of the ESCi kit, and in fact condemns it as “unusable”, but I have decided to ignore that. The Modelbrouwers modeling forum contains a building report of the ESCi F.27 kit (ref. 6) with some useful detail.

Modelbouw in Plastic (ref. 5) reports the dimensions of the Mk.400 and the Mk.500, while *De Leeuw* (ref. 3) gives the best overview of all F.27 aircraft produced. On the Internet other references can be found. Ref. 7 is contains some pictures of the cabin interior, although some of the racks visible in these pictures are clearly containing (flight) test equipment.

	Ref.	1:72	model
Span	29.00 - 29.40 m	402.8 - 408.3 mm	404.0 mm
Length	23.56 - 25.06 ⁴ m	326.5 - 348.1 mm	324.0 mm
Height	8.50 - 8.71 ⁵ m	118.1 mm	120.0 mm
Engine	Rolls-Royce Dart R.Da.7 Mk.532 ; 2x 1,910 hp, 2 x 2.2 kN		
Crew	6-8		

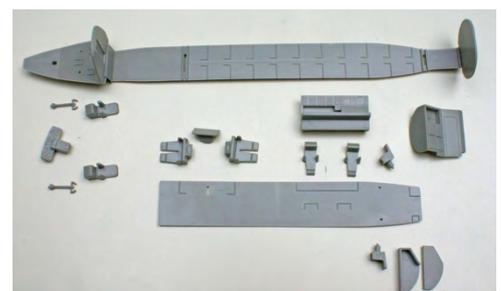
General

The Flight archives contain a nice cut-away drawing of the Fokker F.27 MPA, reproduced below

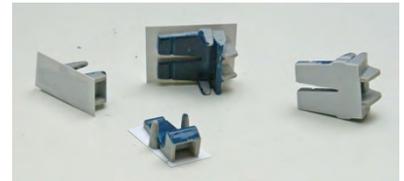


Cockpit and cabin

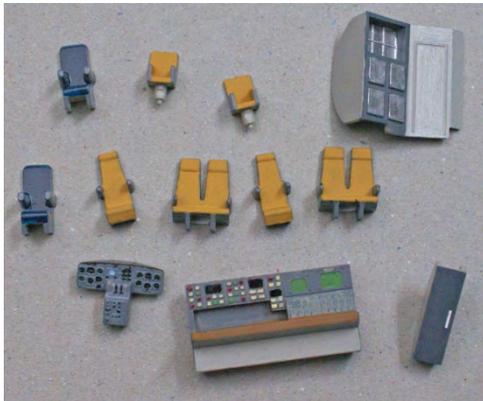
The cabin furniture is rather complete, but the cockpit equipment is very limited. I will add at least some levers, the overhead instrument panel and rudder bars. For the interior decoration there is nothing more than the very limited painting instructions in the sheet coming with the kit. De Leeuw (ref. 2) contains a good picture of the cockpit that I will use and on the Internet I have found a movie of the Spanish MPA (ref. 8), showing quite some detail of the interior and in ref. 7 some black and white pictures of cockpit and cabin of the prototype can be found. I will use these as guideline for the cabin decoration, although the cabin configuration of the prototype was quite different, as much flight test equipment was carried.



The cabin seats in the kit are missing their backs. As they will be visible in the completed model, I have provided them with a back from 0.13 mm plastic sheet.



I first thought to paint the seat padding blue (Humbrol 15), because that was the standard factory colour, but I could find no proof that this applied to the



MPA, so I changed that to sand (Humbrol 63), except for the pilots' seats, which were generally blue. The framework of the seats I have painted medium grey (Humbrol 156), the armrests will be painted black (Humbrol 85).

For the radar console I had no real example, so I have painted the radar screen green (Humbrol 131) and the buttons in arbitrary fashion red, green and pale yellow, the desk light brown (Humbrol 119), as well as the table top. The larger panels I have painted black. The hatches in the pantry cabinet have been painted aluminium.

The dials on the instrument panel, painted medium grey, have been painted black; they will be dry-brushed with white later on. The screen of the automatic pilot I have painted light blue (Humbrol 47).

The inside of the fuselage walls and the bulkheads I have painted light grey (Humbrol 129) and a strip of about 4 mm above the floor level black, as could be seen on the video (ref. 8). The floor of the cockpit has been painted dark grey (Humbrol 154), the floor of the cabin mid blue (Humbrol 109), except for the part at the forward door, which



had a metal floor pattern moulded in it, which I kept aluminium. The picture shows a dry fit of the floor and the pantry in the fuselage.



The rear door slides backwards along the fuselage wall, so I had to remove part of the rear bulkhead to accommodate a door in opened configuration. The cabinets to be located in the forward part of the cabin I have constructed from a bulkhead included in the kit, which belongs to the passengers version of the model, some pieces of 0.5 mm plastic sheet, strip of 0.13 x 0.5 mm strip and a piece of 0.5 mm plastic rod. I have also made two handrails from 0.5 mm rod, which will be mounted at both sides of the step I have made between cabin and cockpit.



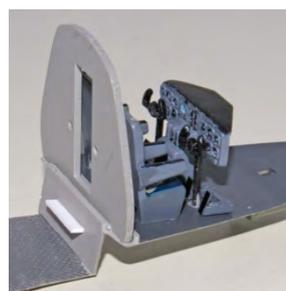
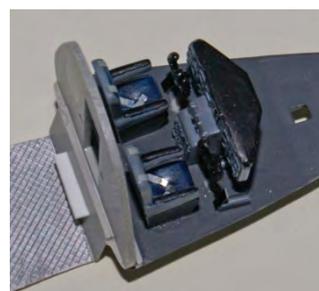
I have glued the cabin and cockpit furniture in place and have dry-fitted the assembly in the fuselage. Both the forward cabinets and the pantry/toilet block needed to be adjusted to fit well and I had also to modify the nose wheel bay to move the interior to the correct location.



Next I have made seat belts from grey painted tape and piece of aluminium tape for the buckles and glued them in place on all seats.



One of the pilot seats got loose in the process, which gave me the opportunity to make a close-up picture. Another detail I have added were the clamps for the pantry



boxes, made from metal wire painted with red transparent Humbrol 1321, and two rudder bars. I have glued control columns and rudder bars in place. The control columns were too long and had to be shortened with some three millimeters; the picture has been taken before retouching the damage.

I have first glued the floor in the fuselage with normal plastic cement. When that had dried well I have glued the cabinets and the pantry/toilet block in place with thick cyanoacrylate.



I have also produced a simple overhead panel in the cockpit from 0.25 mm plastic sheet, painted medium grey. The large vents have been made of 0.8 mm rod, in which I have drilled a 0.4 mm hole. I have drilled some superficial holes in the panel to simulate switches and dials placed on it, and glued it in place with thick cyanoacrylate. This panel will be glued in place once the fuselage has been closed.

I have glued a piece of thick plastic strip in the cabinet next to the rear door and mounted a piece of 0.5 mm brass rod in it to fit it solidly to the cabin floor to prevent that it will come loose when closing the fuselage. I have glued the cabinet to the floor with thick cyano. On the picture the cabinet is skewed but that has been corrected since then.



Fuselage

Major shortcoming of the ESCi kit is the circular cross section of the fuselage. The actual cross section has a discontinuity at the place of the cabin floor, the lower part having a larger radius than the upper part.

To model this I have used the method as outlined in ref. 6. First a strip of 1 x 1 mm plastic has been glued under the panel line indication the floor position. I have then sanded the forward and rear parts of the strip flush to the fuselage and filled the room between strip and fuselage up with putty, tangential to the fuselage surface. When the putty had dried I have sanded the excess away. As the surface did not look very smooth, I have applied a layer of grey primer over the area, and sanded that after it was dry. At the same time I have corrected the shape of the forward and rear part to form a smooth transition towards the nose and tail section. The spots that stayed grey I have treated a second time with putty. Although the sanding has been a dirty job, which took rather a lot of time, the result is quite satisfactory.

As the F.27 MPA had no large cargo door, I have also glued it in the fuselage and treated the joints with putty.



The rear window and the rear door at the right side have met the same fate; the window was not present in the KLu (and Spanish) MPA and the door had not the full height, but was a small service door⁵, as inside the cabin the pantry and the toilet were located here. The door, having a single curvature, fitted quite badly in the double curvature fuselage, so a lot of sanding was required, and a new door outline has been engraved.



Unfortunately the handles on the door surface had to be sacrificed in the process. I have remodeled new one with a 2 mm disc punched out of 0.13 mm plastic sheet and a piece of 0.25 mm metal wire.

I have painted the lower part of the fuselage dark sea grey with Humbrol 123, which agreed best with the colour on pictures of the KLu F.27 MPA. This was mainly intended to see whether the engraving and plastering job was all right, but also to get an impression, whether the final finish would correspond well with the original. Only one spot on the wall and the removed window needed some more putty and some engraved panel lines had to be done anew.



I have also given the top of the fuselage a layer of white paint (Humbrol 22). Only after applying the paint, I discovered that I had engraved the escape hatch on the wrong place, so I had to engrave it again, and remove the wrong engravings. Also some irregularities showed up above the door engravings that had to be treated with putty.



With the cabin and cockpit interior mounted I have dry-fitted the two fuselage halves together. This required quite some tape, as the parts were rather deformed. I have also fitted the cockpit windows in place, for which I had to adjust the opening in the fuselage a bit, but overall it fitted well as shown in the close-up at the right, and should not leave gaps when mounted. I have also given the lower part of the fuselage down to the discontinuity in the cross section its final coat of dark grey, as it could still be easily reached in this phase.



As I plan to mount some lighting in the cabin to make the interior a bit more visible, I have decided to model the wing box in the fuselage, as is the case with the real aircraft. I have constructed it from 0.5 mm plastic sheet and have glued it in the right fuselage half.

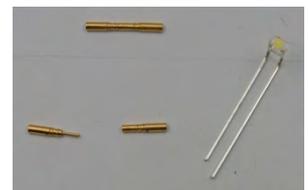


I have also constructed a bulkhead in forward from the instrument panel (the white thing in the picture) and have filled the nose, the space under the cockpit floor and under the forward part of the cabin floor with lead fishing weights to balance the model. I have glued the lead in place with white glue.

I have also mounted the forward and rear doors in place in open position. Although in reality they are not visible when open, I have mounted them in such a way that a small edge is visible.



When the fuselage is closed, very little can be seen of the interior, so I have decided to mount a small LED against the wall of the pantry. I have bent the wires of the LED to point the beam forward in the cabin. To connect the LED to the wiring I have used two female/male crimp connector pins, which have a diameter of 1.5 mm. I have soldered the LED to the female pins and drilled two holes at the correct pitch and location through the underside of the fuselage and the two floors. After testing the solder joint the connectors have been mounted flush with the fuselage skin and secured with thick cyanoacrylate glue.



I have also prepared a set of four 1.5 Volt batteries and the wiring, in which I have included two 100 Ohm resistors. The pictures show the LED in the cabin and illustrate the visibility in the cabin through the windows. Finally I have painted the leads in the cabin the same light grey as the walls.



A last test before closing the fuselage has been producing cabin windows with Kristal Klear. As the area of the windows is quite large, I was not sure this would be successful, and if it would fail I had to mount the original windows of the kit from the inside. I have applied one window with a generous amount of Kristal Klear on a toothpick, a procedure, which is not easy and had to be repeated several times. Once the aperture was closed, the excess Kristal Klear could be removed quite easily with a damp tissue. It took a full



day for the Kristal Clear to dry and to become transparent. The result was satisfactory, except for the inclusion of a number of air bubbles, which I noticed too late to remove. Removal of the window, once dry, was quite easy and left a clean window edge, so failed windows can be easily replaced.

As the observation windows came loose already a couple of times when handling the model, I have secured them with a couple of drops of thick cyanoacrylate glue, taking the risk of decreased transparency. This is anyhow a minor problem, as direct visibility through these windows is rather bad. The last thing I did before closing the fuselage was to remove the dark grey paint that had spilled into the window frames.

Closing the fuselage was not easy, as it was quite deformed and the operation had to be done in stages. I have started with the top rear fuselage and the tail, using both normal and ultra thin plastic cement. I have continued with the lower part of the fuselage and the forward top part, and finished with the nose section. In spite of applying ample tape and elastic band, the glue did not hold well, and the fuselage halves kept sliding, so I have used thin cyanoacrylate glue to fix the halves on a number of places.



The panel lines were aligned quite well on bottom and rear part of the top, but had a slight mismatch at the forward top fuselage and the nose. As the joint between both fuselage halves was anyway not smooth and had to be reworked, this offered the opportunity to correct this defect.

I have carefully separated the rudder from the fin before starting the sanding-putty-sanding-engraving operation. On second view the misfit seemed less severe than I had first thought.



After sanding the joints between the two fuselage halves I have painted the remaining part of the lower surface dark grey. The first coat did not cover completely, and there were some spots, where the joint or sanding marks were still visible. I have treated these with putty and have sanded then with 1200 grade sanding paper, before applying a second coat of paint.



Some details on the lower part of the fuselage were still missing. I have made two scoops on the forward fuselage from 1.2 mm plastic rod, in which I have drilled a 0,6 mm hole. Having cut the end off under a slant angle I have glued them with a drop of thin cyano on the place indicated in ref. 5 and visible on a number of photographs.



I have cut off the pins of the radome and sanded it such that it fitted snugly under the fuselage. I have glued it slightly more to the rear than intended by the kit producer with thick cyanoacrylate.

The tail bump of 6 mm length and 2.5 mm height I have cut and sanded from a piece of 2 mm thick strip and glued in place with thin cyano. Finally I have given all items a coat of dark grey paint.



When this had dried I have given the fuselage a last (third) coat of Humbrol 123 and have removed the masking tape.



Next I have masked the dark grey part of the fuselage and have started to paint the upper surface white. As usual the white paint covered badly and four coats of paint were needed to cover well.

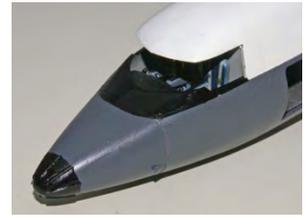




The MPA has a large anti-glare panel on the top of the nose. I have first cut that from paper, and when it fitted well I have copied it on a piece of wide tape to use as a mask.

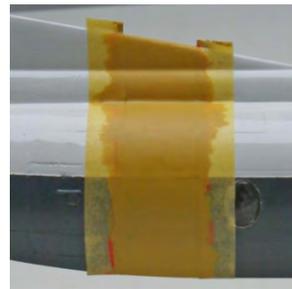
Another detail I have added is the stringers at the outside of the radar radome, a typical feature of the Fokker F.27. I have modeled that with short pieces of 0.25 mm thick metal wire, glued in place with thin cyanoacrylate. Next I have painted anti-

glare panel, the big radar radome under the belly and the nose radome black.



Comparing the anti-glare panel with the drawing and photographs, it did not look right; it is in reality quite large, and its lower edge is horizontal in side view. So I have drawn and cut a new mask and repainted the anti-glare panel, taking care that the old shape was not visible any more.

I have first attempted to paint the fluorescent orange-red band (Humbrol 209) directly over the white and dark grey, but the paint covers badly and is almost transparent, so there will always be a colour difference. On advice of a fellow modeler I have first applied three coats of matt yellow paint (Humbrol 24), and have then applied three coats of orange-red, which gave a good result. After removing the tape I have removed paint that had crept under the tape with a wooden toothpick.



I have made the windows with Microscale Kristal Clear, which I have applied with a toothpick, moving it from right to left over the window opening. This went quite easy, if I made sure that the fluid was well in contact with the window edge and closing the opening in one go. Air bubbles are visible as dark spots in the white fluid and can be moved easily with a toothpick to the edge, where they disappear. After drying, which takes a couple of days, only one of the windows showed a small air bubble, which I have left as it was very close to the edge. Although Kristal



Klear dries quite transparent, it rather distorts the view, as can be seen on the picture at the left, taken with the interior light on; the radar console is visible, but cannot be seen very clearly.



Wing and tail surfaces

I have glued upper and lower part of both wing halves together. As I want to construct the model with extended flaps and separated ailerons, I have drawn their outline on the wings, correcting it next to the engine nacelles, as the edge of the flaps should be normal to the trailing edge of the wing. I have then cut out the outboard flap from the wing with a sharp knife. The edges of the wing skins I have thinned with a mail file.



In order to prevent undue deformation of the wing I have decided to finish first this outboard flap before continuing with the inboard flap and the aileron. To fill up the gap in the wing I have made an insert of the length of the flap from 2 x 3 mm plastic strip, thickened with a piece of 0.25 mm strip half the length inboard. This assembly I have sanded until it fitted well in the wing gap, and added a strip of 0.13 mm plastic sheet on top, as I wanted to mount this strip a bit recessed relative to the trailing edge of the wing skins, where the wing thickness is slightly larger. To manipulate the strip I have glued two



0.4 mm metal wires in it, which allow pulling the strip out if required while mounting it.

I have glued the strip in the wing. When the glue was dry I have pushed the metal wire in and cut the wire off short. The flap itself I have given a leading edge made from 1.2 mm diameter plastic rod, filled up inboard with a bit of 0.25 mm strip. I have finished the leading edge with putty and sanding, and have given it a coat of grey primer.

Next I have removed the inboard flap and the aileron from the wing, and I have made strips to close the gaps in the wing the same way as I have done that for the outboard flap; inboard with strip of 2 and 0.25 mm thick, for the aileron a strip of 1 mm sheet and a strip of 0.5 mm, both sanded to fit the gap. The leading edge of the inboard flap I have made of a 2.5 mm tube, and of course lots of putty, the leading edge of the aileron is formed completely from putty. The picture shows all components.

I have glued all strips in the wings and have closed the open ends of control surfaces and wing trailing edge with putty. Flaps and ailerons have been treated several times with putty and have been sanded until the leading edges had the correct profile and fitted well in the recesses in the wing. I have not corrected the flap engraving, as the "double flap" impression is not disturbing in my opinion.

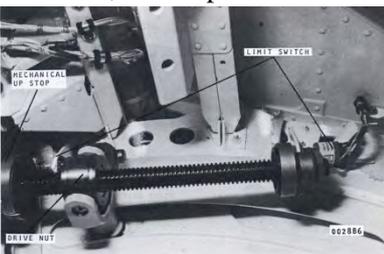
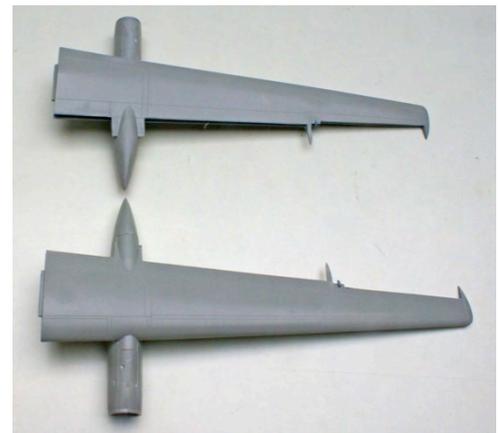
The fairings for the control mechanism of ailerons and aileron trim tab are missing in the kit. I have made them from sesame seeds sliced in half and fixed them on the wing and on the aileron with a drop of thin cyanoacrylate glue.

The outboard flaps will be mounted in their maximum extended position, which is 35 degrees down and slightly moved backwards. So the flap fairings have been reconstructed to a position corresponding to the extended flap. For the fairing in the middle of the flap that was easy; I have just cut it off on the engraved line, glued the forward part in the slot under the wing, and have adjusted the rear part such that it fitted well when the flap was deflected downwards⁶.

However, in this phase I realized that something was not correct: the flaps did not have a support next to the engine nacelles, while a picture⁷ of the real aircraft showed that they were directly supported from these. So I have taken saw and knife again to take away the part of the trailing edge next to the nacelles, such that the flaps, when extended, just would not touch the nacelle.

The result of this exercise was of course that the span of the flaps was too small, which I have corrected by gluing pieces of sheet material of varying thickness to them, and sanding that to the correct profile and span.

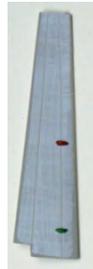
On the engine nacelles there are two scoops missing. I have produced these from 2.3 mm plastic tube with an inner diameter enlarged to 1.5 mm. I have cut of two small ends in a skewed shape and sanded these until they gave the correct impression. Their location I have derived from the 1:72 scale sketch included in ref. 5. The photograph at



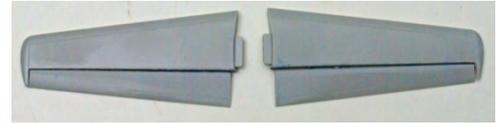
the left shows that also quite some putty was required to repair the joints between nacelle and wing and two crimp marks at the bottom near the undercarriage fittings.

I have made two cut outs in the wing leading edge to accommodate the landing lights and I have also prepared two templates to fit the flaps with the correct deflection angle (35° for the outboard flaps, 23° for the inboard flaps).

After joining the upper and lower halves of the horizontal tail surfaces I have separated the elevator halves from the stabilizer. The elevator engravings in the kit are incorrect at the root, so I have cut of three millimeters and have glued that but in the recess in the vertical tail.



The gap in the rudder and fin I have filled up with pieces of strip and sheet of varying thicknesses and filled with putty. On the picture a print of the Fokker F.27 MPA decal in its final size is also visible. I have modeled the missing fairings for the rudder trims on the left side with sesame seeds cut in half.

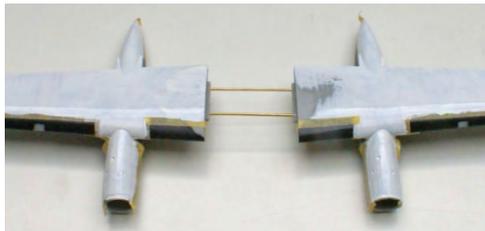


I have masked the space for the landing lights with Microscale Mask⁸ and have painted the de-icing boots on wing and tail plane leading edges black. The wheel bays have been painted a lighter shade of grey (Humbrol 125).

When the de-icing boots had dried, I have masked them with tape and have given the upper surface of the wing and the nacelle their first coat of white. As usual the white paint covers quite poorly, so three or four coats were needed. I received a warning from a fellow modeler that the wing fitted very badly to the fuselage, when he built the model. A first check with my kit showed that indeed the roundness of the wing was slightly more than that of the fuselage; the difference was 0.1 to 0.2 mm. So I have locally sanded the wing roots until they matched the wing center section well.



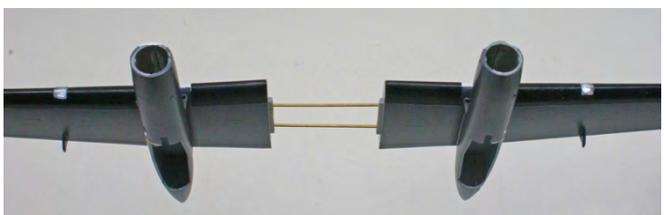
Fellow modelers, who had built the same kit, reported that the wings did not fit well the shape of the wing center section of the fuselage and that the connection between wings and fuselage was rather weak. A dry fit showed indeed that the wing curvature was larger; the wing surface was in the middle 0.2 mm higher than the center. So I have carefully sanded the wings, until the curvature fitted that of the center section. To reinforce the connection to the fuselage I have drilled two 1 mm holes in each of the wing tabs and mounted 1 mm brass rod in them.



The top surface needed four coats of white paint before being covered well. The lower surface of the wings and nacelles has been painted the same dark grey as the fuselage, and the part of the nacelles has been painted steel metal (Revell xxx). This still has to be treated to resemble burnt metal.



The landing lights in the wing I have made from 3 mm discs punched out of aluminium tape and the landing light covers from a strip of transparent plastic cut to the correct width and formed in boiling water. After adjusting the size I have glued the covers



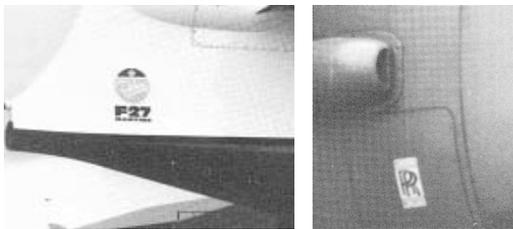
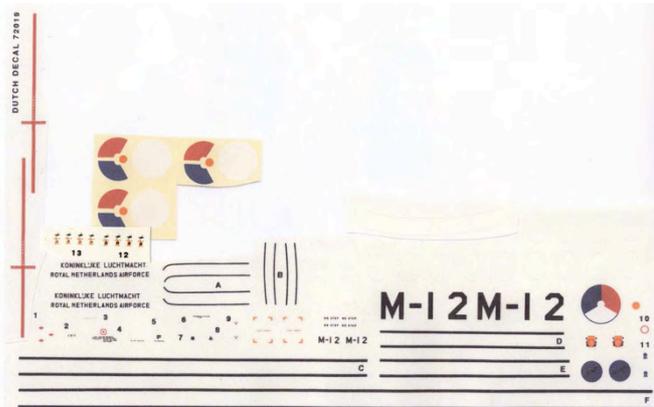
in place with Kristal Klear.

I have painted the de-icing boots of the horizontal tail surfaces black and the lower surfaces dark grey. The top surface needed again four coats of white to cover well.



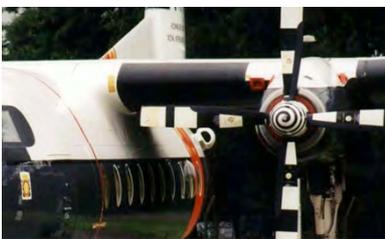
Decals

From a fellow modeler I have received the F.27 MPA part of the Dutch Decal 72019 set, with some IPMS Dutch Royal Air Force roundels added. The set is specifically intended for the ESCi kit and includes an instruction sheet indicating the location of all decals. It also includes the white border for the cabin windows, which was quite a relief, as this would have been probably very difficult to paint. I have exposed the decal set, which dates from 1992, to a generous sun treatment to remove the yellowing of the supporting film.



The Fokker logo in the Dutch Decal set is too small, and in black and white, while a picture in the IPMS article clearly shows that it is in colour, as shown in the picture at the left. So I have scanned the colour logo on the cover of an old Fokker report, imported it in CorelDraw and have added the text under it. The Rolls Royce logo on the nacelles is missing in the decal sheet. I have copied it from the Internet⁹ and imported in the drawing.

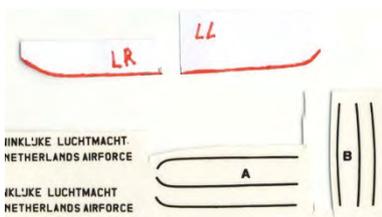
I have resized the logos to the size shown in the photographs, 4 mm high for the Fokker logo, and 2.5 mm high for the Rolls Royce one. I will apply this last one over a piece of white decal sheet. On some of the pictures in ref. 5 Collins logos are visible on the antennae. So I have copied them from the Internet and reduced the round one to 3 mm wide (bottom antenna) and the text one to 2 mm wide (top antenna).



I have also added strips of black (0.8 and 1.0 mm wide) in case I will need more black striping than available on the Dutch Decal sheet. I have drawn small yellow stripes visible on the photographs at the wing root and the orange objects - some kind of inlets - visible on the wing leading edge just inboard



of the engines and on both sides of the engine nacelles next to the wing leading edge. I have decided to make also a decal for the black surface behind the cockpit windows and I have made the small red triangles to replace the red V's in the original decal sheet, as recommended in ref. 5. The decals have been printed on transparent decal paper.

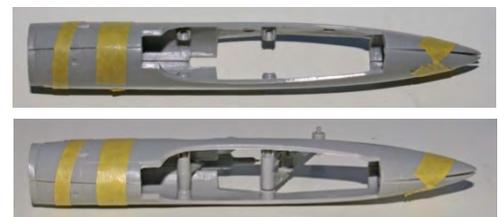


The decals for the cheat lines separating the grey and white area on the nacelles in the Dutch Decal sheet had quite a sharp curve up towards the wing, which I could not fit on the model as I had painted it. So I have copied the actual form of the separation on paper, scanned that in and drawn new, 0.5 mm wide cheat lines for both sides of the two nacelles. Again I have also drawn some additional strips of 0.8 and 1.0 mm wide



Undercarriage and engine nacelle

The way indicated in the kit for the undercarriage assembly is to do so before gluing the halves of the engine nacelles together. As it is more convenient to mount the undercarriage in a later stage of the construction, I have investigated a method to achieve this. I have cut away the upper part of the mounting recesses at one side of the na-



celle and sanded a bit of the recesses at the other side, such that the two parts of the undercarriage leg can be moved from the underside up into the nacelle, put with one pivot (the left one in this case) into the intact mounting point and then snapped the other side in place in the other. The forward strut (drag strut) has to be inserted first. Although I did a dry fitting of this method, I still had to take some more material away from the left side when mounting the undercarriage after the nacelle had been glued to the wing. The final result, however, is a quite solid connection, even without glue¹⁰.



On the other nacelle I have tried an alternative method to insert the undercarriage leg directly from the underside. This method is illustrated in Appendix A.



The undercarriage itself has to be changed considerably. The kit contains the configuration as found on the civilian versions of the F.27, but the MPA has the military reinforced configuration, which contains an additional strut. Also the forward strut is attached to a bracket, protruding in front of the wheel and positioned slightly above the wheel axle, and there is no sign of the flat surface at the bottom of the strut.

So I have modified the main landing gear strut by adding a forward extension from pieces of 1 mm thick plastic sheet to it and I have shortened the forward strut to fit it. I also had to bend the transverse connection between main strut and forward strut a bit to fit well.

I have glued a piece of 1 mm plastic rod in the hole which was supposed to receive the traverse strut, as the forward strut will now be positioned more forward. The lower transverse connection I will make from 0.8 mm plastic rod.



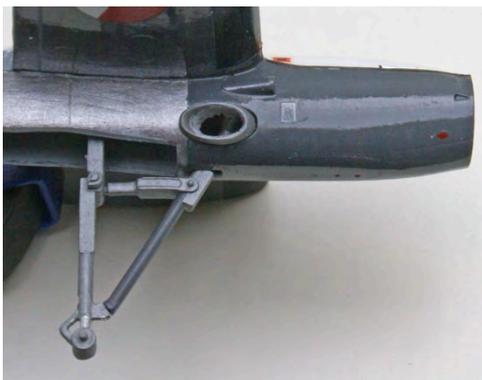
To fit the undercarriage parts I have constructed from plastic strip material a simple jig reproducing the mounting points of the two main landing gear struts. Some minor modifications to the transverse connecting link were required to fit it well.

The nose wheel in the kit is not to scale and is missing detail. I have produced a larger wheel of xx mm diameter from 2 mm thick plastic sheet and have produced the suspension mainly from scratch, using various bits of plastic sheet, strip and rod and some metal wire. The only part I have used from the original nose wheel is the upper part of the leg. The leftovers are shown at the left in the picture. As the construction looked a bit flimsy it has been reinforced with 0.4 mm brass wire, glued with ample thick cyanoacrylate.

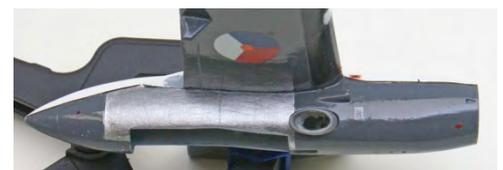


I have painted the nose wheel leg aluminium and the landing light medium grey. The reflector is a 3 mm round of aluminium tape. A drop of Kristal Klear forms the glass cover of the landing light.

Next step in the assembly is the application of the (many) decals. The inkjet printed cheat lines have been applied to the nacelles, as well as the Rolls Royce logo and many small items of the decal sheet.



The engine exhausts as modeled in the kit were not very convincing; even when painted black they



did not generate an impression of depth. The solution was evident: I have opened them up. The pictures also show that in this phase I have also applied the roundels on the wing, the orange on and near the wing leading edge. The "NO STEP" decals in front of the

flaps and the yellow home-printed decals on the wing leading edge have been applied too, but are not visible in the picture.

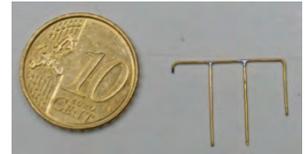
When that was done I could mount the undercarriage legs. Snapping them in place went rather easy, even with the nacelles mounted under the wings. However, the top of the forward strut is now visible through the exhaust opening. I have corrected that by painting the top of the strut black.

Final assembly



First thing I have done was to fit the finished wings on the fuselage and to check the balance of the model. The lead in the nose was sufficient to prevent that the MPA became a tail sitter and the joints between wing and fuselage were quite all right.

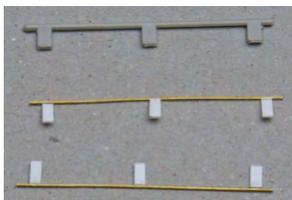
Before the final assembly could really start, I had still to produce a number of small items. Under the escape hatch in the top of the rear fuselage a handrail has to be mounted. I have produced that from 0.4 mm soldered brass wire.



Each of the nacelles has five drains, three straight ones before the landing gear bay and two T-shaped ones after. I first thought to produce the straight ones from 0.9 mm plastic rod, in which I had drilled a 0.5 mm hole, but then I remembered having bought once 0.8 x 0.6 brass tube, which is a lot better for it.



I have cut the bits of tube with a small grinding wheel to the right size, threaded them on a piece of 0.4 mm brass wire and painted them dark grey. The T-shaped drains I have produced from 0.6 mm plastic tube. I have left them together to make painting easier, and have separated them after the painting.

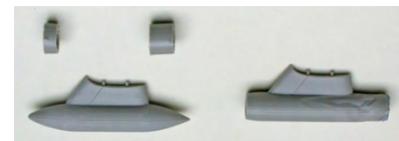


The ADF antennae in the kit are quite crude, so I have produced new ones from 0.4 mm brass wire and 0.25 mm plastic sheet. The other antennae are not at the right location and have not the right dimensions, so they have been removed from the fuselage. I have produced new ones from 0.5 mm plastic sheet and from a copper strip, as this last one will have to withstand the force of the tensioned antenna wire from the fuselage to the top of the tail.



The pitot tubes in the kit are quite fat, I have replaced them with tubes made from 0.7 and 0.5 mm plastic tube.

According to ref. 5 the pylon tanks are about 12 mm too long, so I have shortened one of them to that size. The other one I have modified to incorporate the searchlight. The picture shows what happens I you try to fill one end with Revell putty; it took more three days for the plastic to harden again.



In the end I have cut the soft end piece off and replaced it by a rear part built up from pieces of 2 mm plastic sheet. I have also constructed mould from a piece of wood and a strip of 0.13 mm plastic sheet for the glass canopy, which must fit over the searchlight at the front. I have sanded the mould nicely round and to the correct diameter.



I have carried out a number of tests with pieces of transparent packing plastic, heated over a tea light. It was quite difficult to produce a half sphere without creases, but in the end it worked well when using a hole of slightly larger diameter as negative mould and heating the plastic well.

It was quite difficult to produce a half sphere without creases, but in the end it worked well when using a hole of slightly larger diameter as negative mould and heating the plastic well.

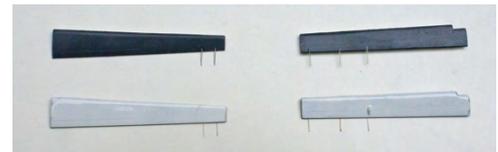




The picture at the left shows the final result, a thin and perfectly clear “canopy”. Above it in the picture is the front wall and below it the searchlight itself. The searchlight body has been treated twice with putty and sand paper to remove all traces of the chemical melting process.

After many cycles of applying putty and sanding the search light pylon finally looks acceptable; even after a week the plastic had not hardened well. On the drawing in ref. 5 a small forward extension of the pylon is present. I have made that of a piece of 1 mm thick plastic.

Finally a nasty operation still had to be executed on the two pylons. In the kit they are perfectly parallel to the fuselage, but on pictures and on the drawings in ref. 5 the clearly point a bit downwards. So I have modified the interface with the wing to reflect that configuration. I have glued a small piece of 0.75 mm brass wire in the top of the pylon, that fits in a hole in the wing to make a firm joint.



The ailerons and elevator halves carry electrical discharge wires. I have produced these from 0.25 mm metal wire and glued them to the control surfaces with thin cyanoacrylate on the locations indicated in ref 5.

On the right side of the nose the MPA has an angle of incidence sensor, which I have produced from plastic scrap. The window wipers I have made from 0.25 mm metal wire and 0.4 x 0.13 mm plastic strip.



I have painted the propellers according to the painting scheme included in ref. 5 and the decal sheet¹¹, with the exception that I have replaced the white with aluminium (Humbrol 56), as on the colour pictures there is clearly a shade difference between the white of the upper surface of the wing and the propeller, which is more greyish. To make handling of the propellers easier I have glued them on a 0.8 mm steel wire, which will be removed before mounting the propellers. The spirals on the propeller hubs are black on all pictures I have found, but the decal sheet includes white decals for this purpose. I have tried to make these spirals from 0.5 mm wide straight decal strip, but that did not work well, the strip could not follow the curvature (propeller at the right in the picture). So in the end I have drawn them with a black fine-liner (propeller at the left). The shape of the spiral I have refined by applying white paint with a very fine brush. Finally I have applied the decals to each of the propeller blades.



On the fuselage I have applied the white ovals around the cabin windows. It appeared that the Kristal Clear remains very sensitive to water; it becomes again opaque. Luckily this disappears again when drying, but it is undesirable and can be prevented by coating the windows with clear gloss varnish, which has the added advantage of better adherence of the decals.



I did not look well at the photographs and did not count the decals on the sheet well: only the eight flat windows have the white oval; the observer windows and the window in the orange band don't. So I had to remove this last one and transfer it to the other side of the fuselage. I have also applied the Fokker logo on the rear of the fuselage and the black cheat lines along the orange band.



I have mounted the cockpit windows and applied the decal for the black-coated window behind it. The cockpit window had to be adjusted to fit well and I have filled the remaining gap between fuselage and window with Kristal Klear.

Next I have put the cheat lines between the dark grey and white part of the fuselage, lining their lower edge up with the top of the grey part. This way a small part of grey remains visible over the windows. I have treated them amply with Microscale Sol to make them fold well over the paint ridge.

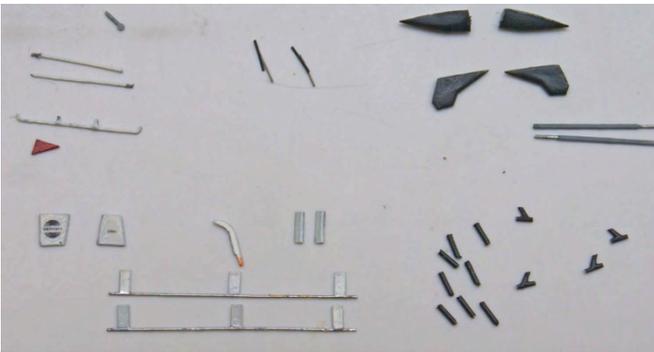


When that had well dried I have mounted the other decals on the left fuselage and tail according to the instruction sheet of Dutch Decal. As usual the Dutch roundel (an IPMS decal composed out of four parts) required much correction before it fitted well, showing no white at the edges and between the red and blue. Also these decals have been richly treated with Sol to prevent silvering. The right side of the fuselage has been treated the same way.

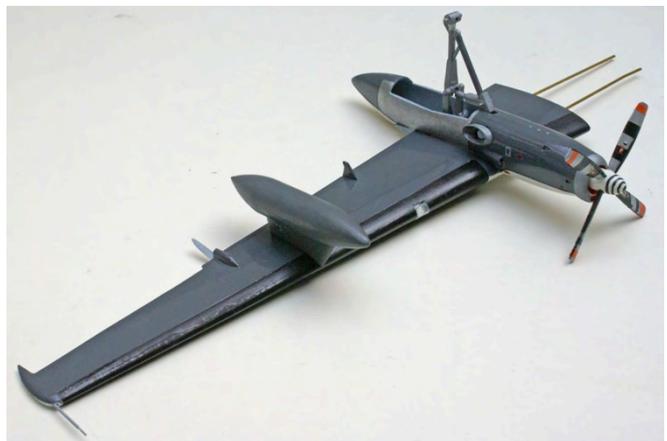
The (old) Dutch Decal decals are very stiff, and even after the Sol treatment I still expected some silvering. On advice of a fellow modeler I have treated all decals with DACO Products Decalsetting strong version, which indeed made them adhere better to the surface over the irregularities.



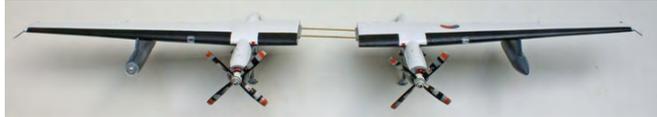
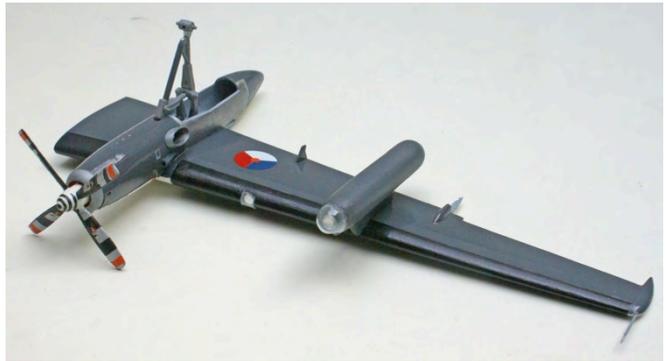
The picture below at the right shows the wings dry fitted to the fuselage, the picture below at the left shows the remaining small items that will be mounted after finishing the model with satin varnish. These are from the top clockwise: the window wipers, the flap mechanism fairings, the pitot tubes, the T-shaped drains, the straight drains, the ADF antennae, two antennae to be mounted under the rear fuselage, the support for the long wire antenna, the two Collins antennae with decals applied, a small triangle to be mounted under the forward fuselage, the handrail to be mounted under the escape hatch, two rain gutters for the doors (a third one still needs to be produced) and the incidence sensor. Also missing are the two antennae that have to be placed high on the vertical stabilizer.



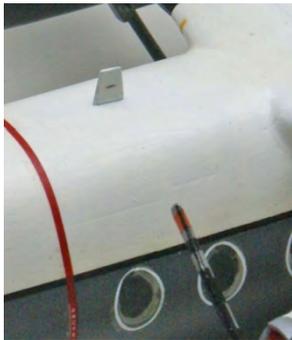
Now the wings can be finished. First I have drilled small, 0.4 mm superficial holes in the many intakes and outlets moulded with the nacelle and retouched the paint of nacelles and wings where required. I have mounted the reinforcement of the landing gear (a small strut running skewed upwards from the forward strut to the main landing gear leg, made from 0.8 mm plastic rod) and painted it aluminium. The front of the engine has been painted red to simulate the intake covers. I have attached the propellers to the frontal piece of the engine, checking that they were still free to rotate, and cemented the front piece in place. I have also mounted the two pitot tubes at the wing tips.



The external tank has been glued with thick cyanoacrylate under the left wing and the searchlight under the right wing. To make the connection to the wing better I have a small 0.75 mm pin-hole connection between pylons and wing. Although I had spent much time adjusting the fitting between wing and pylons such that tank and searchlight were pointing slightly downwards, there still was a quite wide gap between wing and pylons, which I have filled with white glue, removing the excess with a damp cotton



stick. The flaps, ailerons, drain pipes, wheel doors and wheels will only be mounted when the wings and fuselage have been assembled together.



I have produced the two small antennae for the vertical tail plane from 0.5 mm plastic sheet and painted them white. They have been glued to the tail plane with thin cyano. I have glued the Collins antenna on the top of the fuselage with thick cyanoacrylate. The other antennae will be glued in place later.



I have put with a piece of thin metal wire a small drop of thick cyano in the superficially holes, which I had drilled beforehand in the underside of the engine nacelles and have placed the straight and T-shaped drains in them. When the glue had dried, I have painted the exhaust parts of the straight drains dark grey and those of the T-shaped drains black.

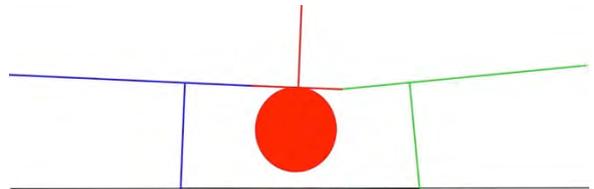


The undercarriage doors have been glued in place with thick cyanoacrylate next. The length of the rearward doors needed to be reduced to fit well. It was also not very easy to mount them, because there is very little room available to put the doors in the right orientation and the two tiny protrusions on each door provide very little gluing area. I have also mounted one wheel on

each of the landing gear legs, as I still want to produce a better resin copy for the missing wheel, and will need one original to do so.



As can be seen on the pictures wings and tail planes have been glued to the fuselage. When examining a picture taken from the front the left wing appeared to be pointing too much upwards, even the vertical tail plane seemed to be not vertical at all. The difference of the distance from wing tip to ground was more than eight millimeters. To correct this I have “broken” the joint of the left wing (an advantage of using cyanoacrylate glue, which “snaps” easily under force), have reapplied the glue and put the model upside down to dry.



Measurements of the model after correction yielded the following results (all dimensions in mm).



This translates into a slope difference between the wheels of 0.25 degree, which is negligible. The three mm difference in the last entry is the combined effect of the misalignment of the wing in top view (less than 0.5 mm), the horizontal misalignment (one tip higher than the other: 0.04 degree, and one wheel higher than the other: 0.25 degree) and non-orthogonality of the vertical tail plane. This last error could be maximum 0.8 degrees based on the numbers, which is acceptable (and cannot be corrected anyhow, as the vertical tail is one integral part of the fuselage).

	right	left
Distance wing tip to ground [mm]	51.0	50.7
Distance of wing upper surface to ground outboard of to nacelle [mm]	46.6	46.5
Distance wing tip to top of tail [mm]	256	253

Next one by one the small details have been applied. The handrail below the emergency hatch has been glued in place and the two rain gutters (0.25 mm white painted metal wire) above the rear doors.

I have glued the ADF antennae and the Collins antenna to the underside of the fuselage. Ref. 5 states that there is a "marker plate" mounted under the forward fuselage, but gives no other details than that it is grey. I have assumed there is some text on it, so I have modeled it by means of a text decal



from an instrument decal sheet. I have also glued the small, red triangle under the fuselage and have mounted the nose wheel undercarriage doors. The decals on these last ones still have to be sealed.



Next I have glued the window wipers under the front cockpit windows. I have made anti-collision lights from 1 mm plastic rod, the end of which I have sanded round and



Painted with red, transparent paint and have glued them in place, one under the fuselage, one on top of it, one on the top of the vertical tail plane and one at the utmost rear end of the fuselage. On that same location I have also glued a silver

Painted white lamp, produced the same way as the red ones. The incidence sensor, which still has to be painted, has also been glued in place.

Ref. 5 indicates some white light at the outboard side of the nacelles. They seem to be spotlights illuminating the wing leading edge. I have modeled these with 1 mm diameter rounds punched out of aluminium tape.

I have glued the flaps at the maximum deflection angle with three dots of thick cyanoacrylate and kept them in position with a piece of tape. As the model was now badly accessible, the order of assembly was important. I have started with the inboard flaps and have mounted the outboard flaps after that. The picture shows quite well the different inboard and outboard flap deflections.



The part of the middle brackets at the underside of the outboard flaps, which I had cut off before, had to be cut on the correct size before gluing it in place, as the configuration of the ex-

tended flaps changed considerably compared to the original stowed position. I have shaped the lower half of the outboard flap fairing to fit the same deflected position as the flap and glued it in place. In this stage I have also applied a dark wash to the undercarriage doors and the wheel bays.

When the flaps had set, I have glued the rudder and elevator halves in a neutral position, as I could not think of a specific reason to give them a deflection. Again I have used the standard technique: Three small dots of thick cyano and some pieces of tape to hold the control surface in position until the glue has set. Although I have been very careful, I have lost the tip of the left pitot tube for the third or fourth time.

Next the ailerons have been glued in place, again in neutral position.



I have painted the right and left navigation lights on the wing tips with transparent red and green paint (Humbrol 1321 and 1325 respectively). When this had been done, I have thoroughly checked the paint and varnish and retouched these where necessary.



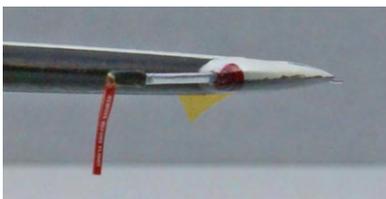
The REMOVE BEFORE FLIGHT tags have been produced from DACO Products decals. The instruction sheet advises to fold the decals around a small rectangle of plastic cut from the bag the decals come in, and treat them with DACO Decalsetting Medium. When they had dried the decals delaminated quite easily from the plastic, so I have glued them with a diluted solution of Microscale Kristal Klear to the plastic.



With this treatment they adhered well. I have pierced the small attachment hole with a needle and cut them out with a sharp, new blade. Although the tags are rather stiff, the result is quite acceptable¹².



I have glued the REMOVE BEFORE FLIGHT tags with the text on both sides to the pitot tube protection cover, made from a piece of black painted tape and the longer tags with text on one side to the engine inlet covers. Of course in the process one of the ailerons broke loose, which explains the bit of tape hanging from it on the picture.



I have drilled a small, 0.3 mm hole in the leading edge of the vertical tail plane at the spot where the antenna has to be attached. I have glued a length of black painted 0.06 mm fishing line in the hole with thin cyanoacrylate and attached it to the small, curved antenna mast on the forward top fuselage with thick superglue, tensioning it with a piece of tape. When dry, I have removed the excess line with a sharp knife.



Last thing to be done was to attach the two wheels still missing on the model¹³. Below some pictures of the finished model are shown. I have also built a diorama around the Maritime. A description is included in Appendix B.









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4. W.C.J. Westerop, *Fokker en de twintigste eeuw: een historische relatie*, p. ??, ISBN 90-9011870-5, 1998
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<http://modelbrouwers.nl/phpBB3/viewtopic.php?f=1&t=6437&p=123143&hilit=troopship#p123143>
7. Photographs F.27 MPA prototype interior,
<http://www.maritiemdigitaal.nl/index.cfm?event=search.getdetail&id=120025201>
8. Fokker video Spanish F.27 MPA, http://www.youtube.com/watch?v=CvjLvEhIP7Y&feature=player_detailpage
9. Photographs KLu F.27 MPA, <http://cdn-www.airliners.net/aviation-photos/photos/8/5/1/1633158.jpg>
10. Video KLU F.27 MPA, http://www.youtube.com/watch?v=PWGIYMOF4Ck&feature=player_detailpage

Appendix A Photographs and other documentation of the Fokker F.27M MPA

List of modifications (derived from refs. 5 and 6)

M = Modelbrouwersforum Fokker 27-400 ESCi schaal 1:72 (ref. 6);
I = Modelbouw in Plastic, Nr. 4 1993, Jaargang 22 (ref. 5); **red** = not applicable or not done; **grey** = partly done; **blue** = not implemented.

Item	Modification	Reference
All	Paint scheme	Icov
Antennae	Add missing antennae	I82(24)
Antennae	ADF antenna	I87(59/62)
Antennae	Collins antenna	I87(52)
Antennae	Wire antenna	I86(33)
Decals engine	Make Rolls Royce decal	I85
Decals	Make new decal nr. 9 (triangle)	I84,I87(65)

Item	Modification	Reference
engine		
Decals fuselage	Increase decal nr. 11 (Fokker logo & type name) height to 4 mm ¹⁴	I84, I87(61)
Decals fuselage	Location black line over windows	I84
Engine nacelle	Triple drains	I86(31)
Engine nacelles	Drains and scopes	I86(32)
Fuselage	Close and detail cargo door	I82,

Item	Modification	Reference
		M0609, M1110
Fuselage	Close rear cabin window at right side	I82(27)
Fuselage	Correct shape & position of scoops rear fuselage; remove protection bars ¹⁵	I82(29), M2709
Fuselage	Cross-section	M0609, I81(7)
Fuselage	Engrave escape hatch above right rear window including bar	I82(30)
Fuselage	Engrave or cut out wide forward door	I82
Fuselage	Enlarge tail bump and place 3 mm rearward	I81(11)
Fuselage	Incidence sensor	I86(70)
Fuselage	Intake scoops	I86(71)
Fuselage	Marker plate	I87(60)
Fuselage	Move belly radome 2 mm aft	I82(25)
Fuselage	Navigation light (red)	I87(57)
Fuselage	Rain water gutters above doors	I86(35)
Fuselage	Red and white light	I87(56)
Fuselage	White light	I87(58)
Interior	Move radar console a bit forward away from observer windows ¹⁶	I82(26)
IPMS resin kit	Correct shape engine exhausts	I84(47)
IPMS resin kit	Correct shape rear engine nacelles	I84
IPMS resin kit	Use engine nacelles	I84
IPMS resin kit	Use pylon tanks and search light	I84
Main landing gear	Detail	I81(21)
Main landing gear	Increase size of aft wheel door	I82(23)
Main landing gear	Lengthen wheel door on landing gear leg	I82(23)
Nose wheel	Enlarge size and detail	I81, M1110
Nose wheel	Lengthen doors	I81, M1110
Tail	Decrease width and separate elevator	I81(14)
Tail	Emphasize contour or separate rudder	I81(13)
Tail	Rudder mounting	M1110
Tail	Trim tab fairings at left side vertical tail plane	I81(12)
Windshield	Window wipers	I86(34)
Wing	Aileron fairing bubble wing top side	I81(19)
Wing	Correct flap engraving next to engines (normal to trailing edge)	I81(16)
Wing	Flap mounting	M1110
Wing	Increase flap width 6 mm and correct aft wing-fuselage fairing	I81(15)
Wing	Landing lights in wing leading edge	I81(20)
Wing	Modify flap engraving to single flap configuration	I81(17)
Wing	Navigation lights (green right, red left)	I87(54)
Wing	Pitot tubes at both wing tips (alu)	I87(53)
Wing	Red line on wing leading edge (both sides) ¹⁷	I87(69)
Wing	Separate ailerons	I81
Wing	Separate flaps	M2009, M2709
Wing	Static dischargers	I86(30)
Wing	Trim tab fairing	I81(19)
Wing tanks	Decrease length by 10 mm	I82
Wing tanks	Include search light	I82

Photographs Fokker F.27 MPA from the Internet (KLu Squadron 326)



[Source: <http://www.hottail.nl/basevisits/2000/0726-Eindhoven/images>]



[Source: <http://www.hottail.nl/basevisits/2000/0726-Eindhoven/images>]



[Source: <http://www.hottail.nl/basevisits/2000/0726-Eindhoven/images>]



[Source: <http://karo-aviation.nl/photo/pages/F-27%20rmlaf.htm>]



[Source: <http://karo-aviation.nl/photo/pages/F-27%20rmlaf.htm>]



[Source: <https://plus.google.com/photos/109309507096324313126/albums/5625029583418531361/5625029622267501394?banner=pwa&gpsrc=pwr1&pid=5625029622267501394&oid=109309507096324313126>]



[Source: <https://plus.google.com/photos/109309507096324313126/albums/5625029583418531361/5625029622267501394?banner=pwa&gpsrc=pwr1&pid=5625029622267501394&oid=109309507096324313126>]



[Source: <https://plus.google.com/photos/109309507096324313126/albums/5625029583418531361/5625029622267501394?banner=pwa&gpsrc=pwr1&pid=5625029622267501394&oid=109309507096324313126>]



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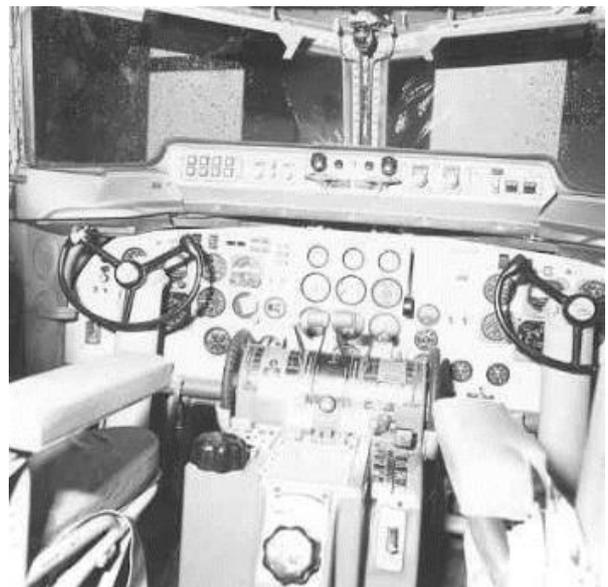
[Source: ANP]



[Source: <http://www.maritiemdigitaal.nl>]



[Source: <http://www.maritiemdigitaal.nl>]



[Source: <http://www.maritiemdigitaal.nl>]



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[Source: <http://www.maritiemdigitaal.nl>]



[Source: De Leeuw (ref. 3)]

Interior colours derived from movie (ref. 8)

Cabin seat padding	Sand (H63)
Cockpit seat padding	Dark blue (H15)
Floor	Medium blue (H109)
Instrument panels	Medium grey (H156)
Racks	Dark grey (H125)
Radar console	Black panels (H85) in sand frame (H63)
Seat arm rests	Black (H85)
Seat frame work	Medium grey (H156)
Table & desk top	Light brown/pale yellow (H119)
Walls	Very light grey (H129)
Walls	Black (H85) along floor 0.3 m (4 mm) wide

Painting scheme exterior (ref. 5)

Lower half fuselage & underside wings	Dark sea grey (H123)
Upper half fuselage & upper side wings	White (H22)
Band around aft fuselage	Orange glow (H209)
Landing gear and propellers	Aluminium (H56)
Engine exhausts	Gun metal (H53)

Alternative undercarriage mounting

I have investigated an alternative mounting method for the main undercarriage legs after wing and nacelle assembly and painting has been completed. In this method the two undercarriage parts are snapped in place upwards. The modification of the attachment points in the nacelle is shown in the picture below.



The lower part of the left recesses has been removed in the direction the strut has to be inserted, while part of the opposite recess has been sanded away to allow tilting the strut to snap it in place. In my case I had to do that only for the forward leg, as the rear recess at the left side was hardly present on the part. Disadvantage of this method is that it is rather difficult to modify the forward recess.

Replacing main landing gear wheels

Somewhere in the process I had lost one of the original main wheels. Using the other three wheels as a template, I have attempted to make a cast in modeling plaster. The result was not very convincing, as can be seen on the picture at the right. As I doubted whether it would look better after the painting job, I have continued my attempts to obtain a spare copy from fellow modelers and finally



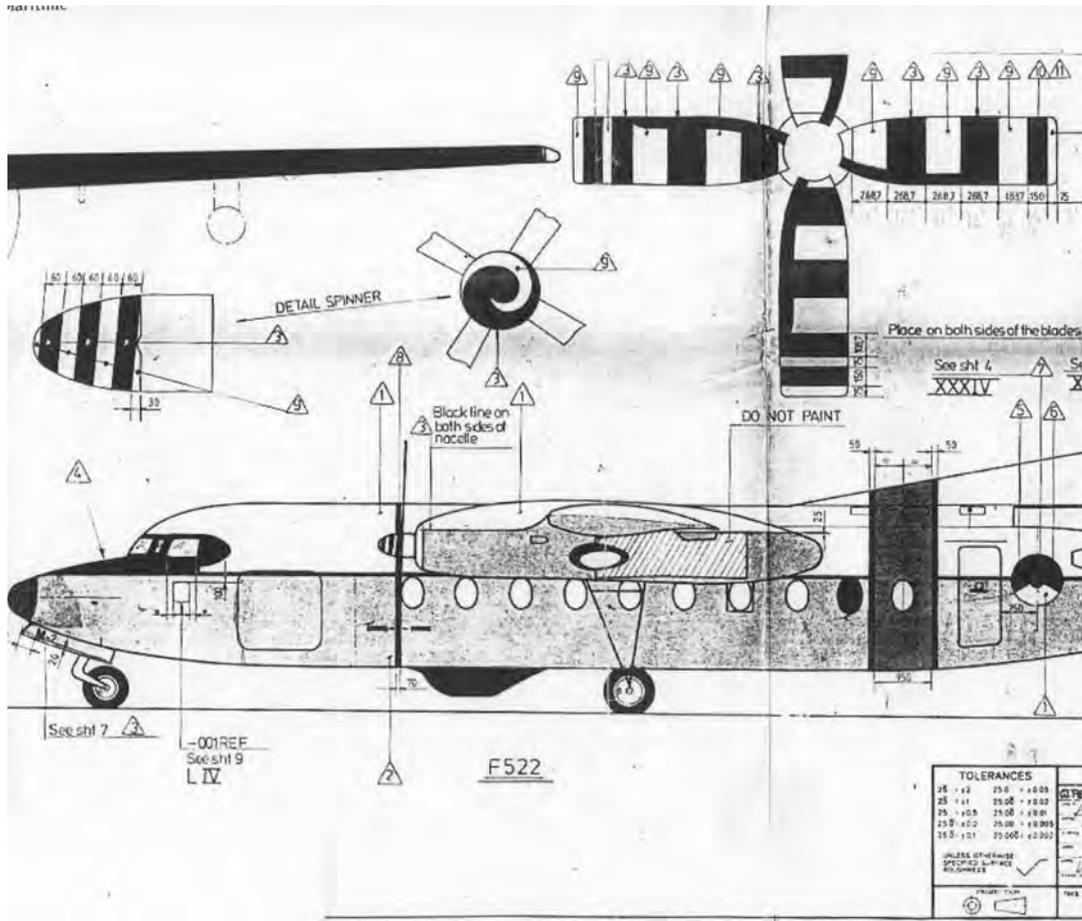
succeeded to get a full set of four wheels. They had however a lightly larger diameter than the original wheels, so I had to remove the two wheels that I had mounted already from their "axle" and mount the four new wheels.



Of course that did not work well; the axle was weaker than the glue joint. I have drilled a new, well centered 1 mm diameter through the lower part of the landing gear strut and have mounted a small piece of 1 mm brass rod in it.



F27 MPA paint scheme



[Source: Dutch Decal; Fokker drawing]

Appendix B: Diorama: Fokker F27 MPA at Hato, Curacao

The example for the diorama was the photograph, reproduced from [//karo-aviation.nl/photo/pages/F-27%20rmlaf.htm](http://karo-aviation.nl/photo/pages/F-27%20rmlaf.htm), of the KLu (Royal Netherlands Air Force) Fokker F27 MPA, based at the Hato Airfield on Curacao for patrol duties in the Carabian, reproduced at the right. So I had to find some ground equipment carts resembling those in the picture, build a work stand, the concrete weights next to the wheels and a stairs to be placed at the open cabin door.



A convenient kit for the carts was the Hasewaga 1/72 US Aerospace Ground Equipment set 35006, shown at the right. From this set I have included the air conditioner unit, the generator unit and the high-pressure compressor unit, the three bottom units in the picture. The hydraulic unit is of no use, as the F27 had not a hydraulic, but a pneumatic system.



The colour had to be adapted to yellow, which meant that the decoration had to change also, as white and yellow lettering and warning stripes would not show up on the yellow background. Also, I had to replace the *U.S. Air Force* text by *Koninklijke Luchtmacht*. So I have produced new black decals to replace the original ones and strips of black to apply under the yellow texts.



The stairs, work stand, concrete blocks on their support and wheel chocks I have produced from scratch from various plastic profiles and sheet, plus some left over parts in the F27 kit.

The carts were relatively easy to assemble, although the small items were difficult to handle. The hoses and lines in the kit were, on the contrary, difficult to be put in shape. The vinyl core and the extended spring



outer side were much too stiff to enable bending in the desired shape.

As a ground plane I have used a piece of 5 mm MDF, on which I have painted grey concrete slabs and glued some grass decoration stuff. I have also constructed a base to accommodate the electronics for the cabin illumination. The two pictures show some intermediate stages of the building and decoration process.

Applying the, often very small, decals took quite some time; I have spent at least two hours per cart. But the final result was quite satisfactory. I have sealed the decals with clear satin varnish.



I have made the ground plane for the diorama from 6 mm MDF sheet, 445 mm wide and 410 mm deep, which I have painted with a white wood primer. On it I have scratched squares of 150 by 150 mm, which I have painted grey with a mix of grey and sienna gouache. The joints I have accentuated with soft black pencil, and a piece at the back I have modelled as grass with Bush modelling material, applied in thinned white glue.



I have mounted the ground plane on a plinth of 12 by 45 mm pine, about 5 mm larger on all sides than the ground plane. At the location of the connectors for the LED cabin illumination (the orange band around the fuselage) I have drilled two 3 mm holes to feed the wires through.

Next I have made the Perspex showcase from 2 mm thick acrylic glass



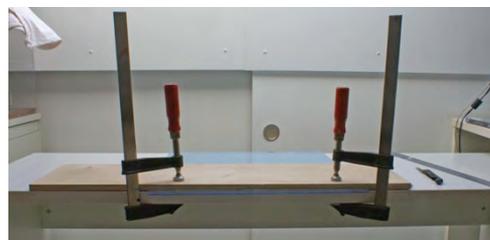
sold in do-it-yourself shops, which has the advantage you don't have to saw the Perspex, but can cut it. The picture at the left shows the tools needed to cut the pieces of Perspex to the correct sizes: a flat and stiff piece of wood with a straight edge (I use a strip of 12 mm thick multiplex for it), two clamping devices, a fine liner, that writes well on Perspex a steel ruler and a special scratching device for acrylic glass (also sold in the DIY-shop).



Prior to cutting the glass I have removed the blue plastic foil from the one side of the glass, where the foil is generally least adhering. I have left the foil on the other side of the glass to protect it from scratches, as the glass is rather soft. I have taken the top panel at all sides 3.5 mm wider than the ground plane, which brings its dimensions to 452 x 417 mm. So from the sheet of 500 by 1000 mm of glass that I had bought I have cut a first strip of 417 mm wide, which did leave enough material to cut front, back and side panels of 140 mm high. The front and rear panel will be 452 mm wide, the side panels 413 mm, as the glass is 2 mm thick.

Each cut has first been carved (one by one) along the steel ruler with the carving tool; in general ten times carving suffices to obtain a clean break. Special attention must be paid to the beginning of the cut; there the material must be cut in the opposite direction to prevent irregular breaking of the corners of the sheet.

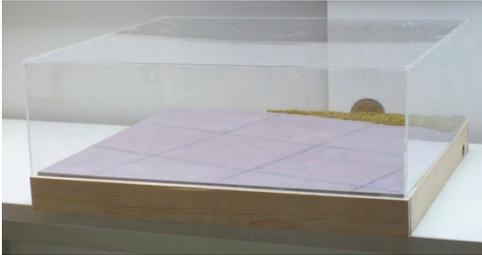
Then the sheet has been clamped one or two millimeters next to the break line between a sturdy, flat workbench or table and the piece of wood and the free hanging piece of Perspex is forced down, until it



breaks. This process generally works well for strips down to 40 mm wide (at a sheet width of 500 mm); for narrower strips the break is often not straight and extensive sanding will be required. But even in this case it did not go well everywhere, as can be seen on the picture; the strip at the right broke irregular and the edge of the panel had to be corrected.

When I had made the first cut of the top panel, I noticed that the ground plane was not orthogonal and I have adapted the shape of the top panel to that of the ground plane¹⁸.

I have cut all panels and have sanded all edges with 120 and 280 grain sandpaper, glued on a block of wood. I have then applied at each 10 centimeters small pieces of transparent tape (the sticky type, not the invisible one) to the top panel and the short sides of the front and rear panel to keep side and top panel together while the glue dries. As glue I have used Bison Hard Plastic Glue, which glues well, but is hard to apply. I have not been able to find an adhesive with equal properties, but which can be applied with a brush. I have glued the side panels have



been glued in place in the following order: rear panel and left panel together, right panel and front panel.

After the glue had dried and the tape had been removed, I have fitted the showcase on the ground plane.



The two leads for the LED determine the location of the model in the diorama, so I have connected them to the model and positioned the Maritime parallel to the concrete slab joints. I have then placed the wheel chocks in front of the wheels and fixed them with some drops of thin cyanoacrylate glue to the platform. When that had caught I have fixed



the other half of the chocks behind the wheels, creating in this way a reproducible position of the aircraft.

Next I have placed the concrete weights as they were in the pictures, one in front of the nose wheel, the other two inboard and slightly forward of the main wheels. I have placed them at the right location with an end of plastic rod and have glued them to the platform with a drop of thick superglue under the middle support.



The air conditioning hoses of the Maritime were connected to the fuselage near the rear cabin door and to the rear cockpit window at the starboard side of the aircraft. I will not connect them to the model, as it does not seem very logical that the air conditioning is working, while the cabin doors are open, but I will put the end of one hose close to the rear door and a second hose rolled up near to the air conditioner cart. This fixes also the location of that cart, the wheels of which has been glued to the platform with thin cyano. I have bent the hoses in the right shape, glued them to the fittings in the cart and fixed them to the platform with a bit of superglue.

The stairs and the work stand go at the other side of the aircraft. I have glued the small wheel to the platform with small drops of superglue.

The generator cart goes to the right of the nose, and I will connect the electrical cable to a small hole, that I will drill in the nose. I have placed the high pressure cart a bit behind the left nacelle. From "eye height" that gives the picture below.





I have then removed the Maritime from the diorama to prepare for the wash to give the set up a much used appearance.

Prior to the wash I still had to finish up some of the



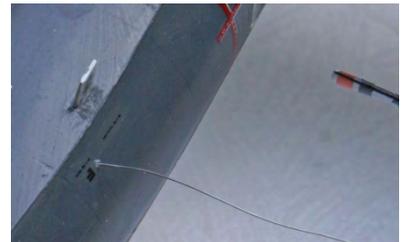
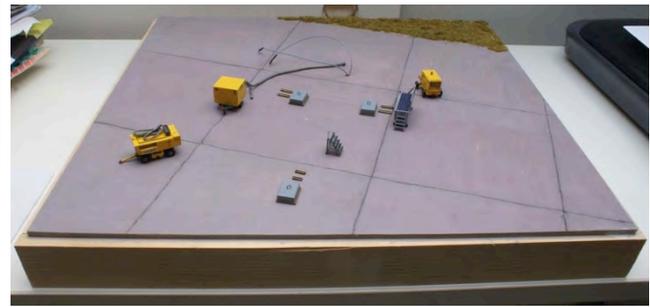
ground equipment. The power cable from the generator unit to the aircraft is delivered as two separate and stiff wires instead of a joint, two-way cable and they are difficult to bend in shape. So I first have taped the two wires together and glued them with thick cyanoacrylate. I have also made a "connector" of a piece of 0.25 mm metal wire at the connector side that fits in a 0.3 mm hole in the fuselage. The location of the connector is clear from a picture of the F.27 of the Fokker Friendship Association that I found on the Internet.

When the glue of the power cable had dried, I have glued the other end of the cable in the holes under the generator cart chassis and have put the connector in the hole in the fuselage. I have bent the cable in shape and have fixed it with tape and drops of thick cyanoacrylate glue to the platform.

The last thing to do before applying the wash was to put the two yellow poles with blue lamps, which are indicating the edge of the platform, on their place. The picture at the right shows the final composition of the diorama in its showcase.

To make the scene a bit livelier I have put some figures with it, collected from the service cart kit, another Hasewaga kit and the airfix kit of WW II RAF personnel, which came closest to Royal Netherlands Air Force personnel. Humbrol xxx gave just the correct colour for their uniforms. I have also put a light mast on the diorama, which came from some old model railway surplus.

The last thing to do was to complete the electronics for the lighting of the cabin and the floodlight (12 V power supply, PWM dimmer and LED series resistors). Below some pictures of the final result.







¹ De Leeuw (ref. 3) reports it was a Mk.500.

² Reported by De Leeuw (ref. 3); *Flight* reports 17 F.27 Maritimes sold.

³ And also for the Airfix kit of the Fokker F.27.

⁴ Last value Mk. 500, first value all other series.

⁵ I have found only one picture of the KLu F.27 Maritime, on which this door is clearly visible.

⁶ I have done this only after assembly of the flaps to the wings.

⁷ The picture is of a Fokker 50, but the flap mechanism has not been changed from the Fokker F.27.

⁸ Apparently I had not put enough masking fluid (or it is not suitable to apply it in sharp edged cavities), because after the painting I could only find some shreds of the masking in the corners instead of a continuous film.

⁹ I could not find a black on pure white Rolls Royce logo.

¹⁰ This method could also be applied for the Airfix Fokker F.27 kit, unless one wants to keep the basic option open in that kit to mount the undercarriage in a (partly) retracted configuration.

¹¹ See also the paint scheme in the annex.

¹² Later on I have performed a test to eliminate the plastic layer. This is quite feasible, when folding the decal over a sharp knife-edge and then pressing both sides together. As the resulting flag is very thin cutting the excess transparent edges must be done very carefully.

¹³ I have replaced the original wheel with new copies obtained from a fellow modeler (see the appendix).

¹⁴ Comparison with pictures showed that 4 mm is the correct height, and not 6 mm as stated in ref. 5.

¹⁵ In the ESCi Maritime kit no bars are present.

¹⁶ This criticism is incorrect; the radar console is not in front of the observer window and fits exactly the position as indicated in the drawings in ref. 5.

¹⁷ This criticism is incorrect too; the red line is not present on photographs.

¹⁸ Normally this is not a problem. However, when gluing the side panels in place, the right orientation of the top panel must be carefully determined, as it is not symmetrical any more.