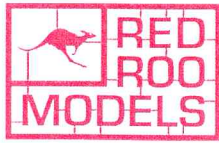
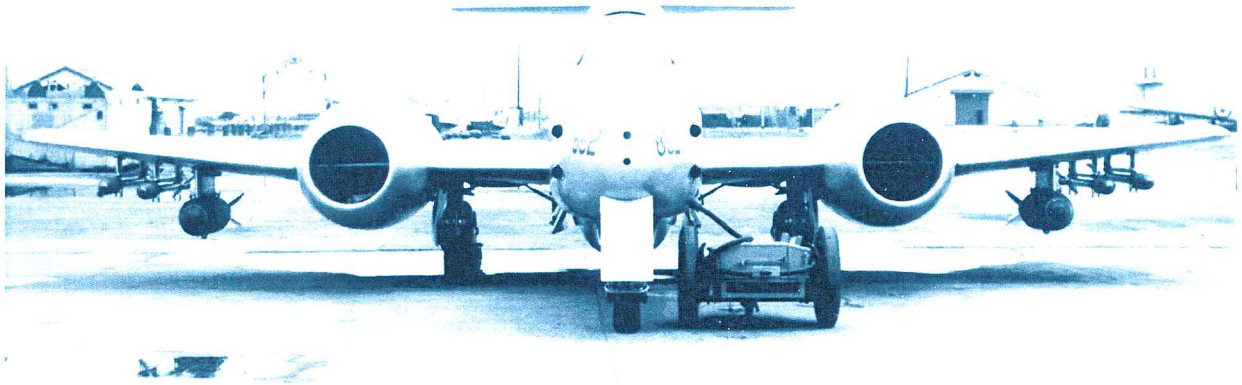


RRR48193



77 Squadron RAAF Meteor Mk.8 Bomber 1/48 Scale Conversion Set For the Aifix Meteor Mk.8 (Kit No. A09182)



A77-862 in the final trials configuration with the outboard rockets.

Meteor Bomber History

When the role of Number 77 Squadron, RAAF, in the Korean War was changed from air to air combat to ground attack their Meteor aircraft were fitted with up to 16 air to ground 3 inch rockets. In addition to the four 20 mm cannons, these were used to devastating effect on the invading North Korean and Chinese armed forces. To supplement these weapons the Air Staff decided that they should also carry bombs.

Number 491 (Maintenance) Squadron, based at Iwakuni in Japan, the unit responsible for 77 Squadron's Meteor maintenance, designed a bomb pylon late in 1952 but it was not a success for technical reasons. Gloster Aircraft was asked to develop a pylon and a pair of these were taken to Japan in April 1953 by Flight Lieutenant J.A. Rowland, the chief test pilot of Aircraft Research and Development Unit, and Flight Lieutenant J.V. Cohen – both officers were also Aeronautical Engineers.

A new Meteor Mk.8, A77-862, was allocated for trials to carry either 500 lb or 1000 lb bombs. The first flight was made with 500 lb bombs on 18 May 1953 from Iwakuni, progressing to 1000 lb bombs over the next two days, utilising both British and American bombs. Whilst the aircraft could carry all this extra weight, aerodynamically the modifications created excessive turbulence over the ailerons causing loss of control around 320 knots, this prevented any concept of dive bombing. RAF tests at Boscombe Down in England had the same result.

The other test Meteor, A77-17, returned to 77 Squadron in Korea on 28 May, however, the capacity to carry bombs remained a requirement. Rowland and Cohen, using the facilities of 491 Squadron designed and constructed prototype pylons that were deeper (ie 10 inches) so that the disturbed airflow around the bomb was further away from the ailerons, improving the control characteristics.

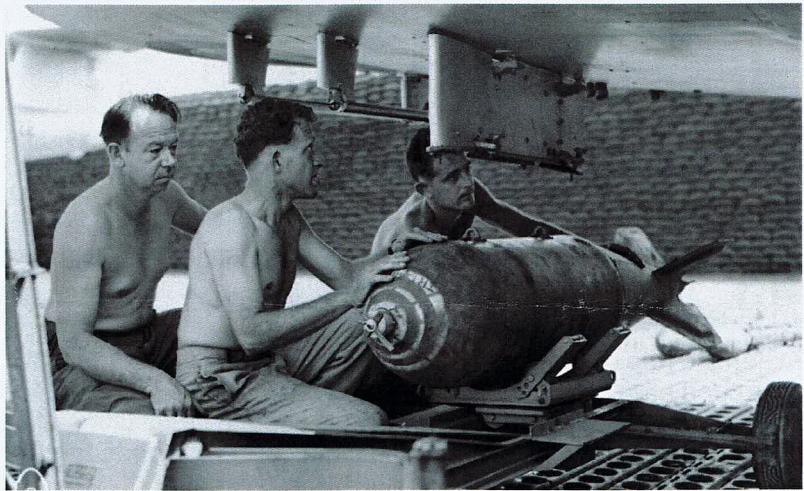
A major advantage of the new pylons was that they simply connected to the existing wing tank release hook, only a few minutes work, whereas the Gloster items took four hours to install. Removal of the new units was quickly effected by operating the jettison control in the cockpit, leaving the aircraft ready to accept the fuel drop tanks (used for ferry flights).

Flight Lieutenant Rowland continued these trials, finding that the improved handling permitted speeds up to 480 knots and also that 60 lb rockets could be carried on the two outer stations. He recalls that he flew some 45 hours over four months to and from Kimpo and many trips with bombs, the result being that the Meteors were cleared to operate with two 500 lb bombs provided the spring trim tab aileron was incorporated. A number of 77 Squadron pilots also flew test missions, however the Korean War Armistice was signed effective 27 July 1953 and it is believed that no bombing missions were carried out.

However, an order for 120 pylons (60 aircraft sets) was placed with a Japanese factory in Kure, with many official inspections taking place to verify that the high structural strength requirements were being achieved. Eventually the first locally made pylons (8 sets) arrived at Iwakuni on 13 April 1954. Another 16 sets arrived at the end of that month. As the squadron returned to Australia at the end of 1954, these pylons were never used in anger.

Flight Lieutenant J.A. Rowland was eventually promoted to Air Chief Marshal and was knighted by Queen Elizabeth II. Following his retirement from the RAAF he served as Governor of New South Wales for eight years. Sir James Anthony Rowland, AC, KBE, DFC, AFC died on 27 May 1999 (aged 76) in Sydney, New South Wales.

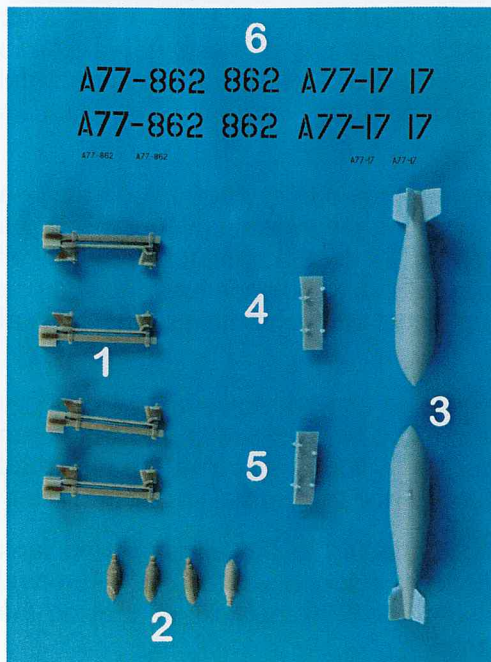
The photograph to the right shows a 500 lb bomb being loaded onto the pylon on A77-862.



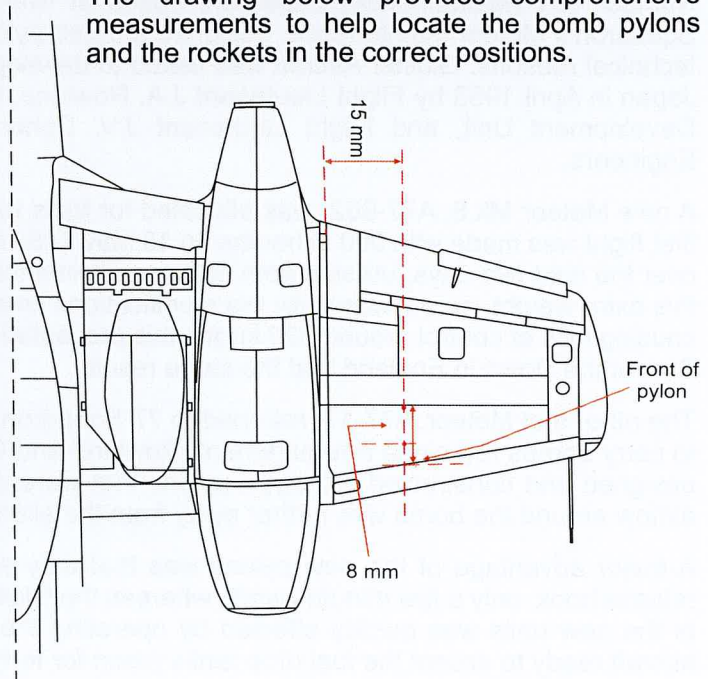
Parts List

1. 4 x 3 inch rockets.
2. 4 x 60 pound warheads.
3. 2 x 1000 pound bomb, British.
4. 1 x pylon, left hand.
5. 1 x pylon, right hand.
6. 5 x decal sheet.

See photo below.



The drawing below provides comprehensive measurements to help locate the bomb pylons and the rockets in the correct positions.



Using this Conversion Set

Carry out these instructions prior to assembly of the wings. As these parts are 3D printed resin, they are fragile and should be handled with care. Use CA glue (super glue) for attachment.

Step 1

Before assembly of the lower wing refer to Step 18 of the kit instructions. To locate the bomb pylons, hold the lower wing up to a strong light and mark the front and rear holes for the wing drop tanks on the outer surface with a pencil. Draw a chordwise line between these marks. This is 15 mm from the wing joint cover.

The rear mounting mark is 13.5 mm aft of the front span wise spar line. Measure 8 mm forward and mark for the front mounting point so that the front edge of the pylon is at the front spar line. Check the spacing against the bomb pylon and countersink at these marks so that the pylon is a flush fit to the wings. Refer to the drawing on page 2.

Note: the pylons hang vertically and are marked P (Port) and S (Starboard) on their upper edge.

Step 2

If modelling A77-862, the holes for the outer two rocket rail assemblies should be drilled at this stage. Note that the outer rails have to be fitted after the roundel has been applied. The rails also hang vertically. Refer to the two photographs below and on page 4.

The bomb pylons were finished the same as the airframe in Aluminium lacquer. The rubber seal around the base, resting against the wing skin, was black. The bombs were painted Flat Dark Green (approximately FS34079) or Flat Olive Drab (FS34087) with a red or white nose ring.

The rocket rails and pylons were finished in Aluminium lacquer. The rocket bodies were semi-gloss Dark Green (approximately FS24079). The 60lb warhead was Matt Black and sometimes bore a white tip or ring. The rocket attachment saddles were a dull silver colour.

Build Options for A77-17

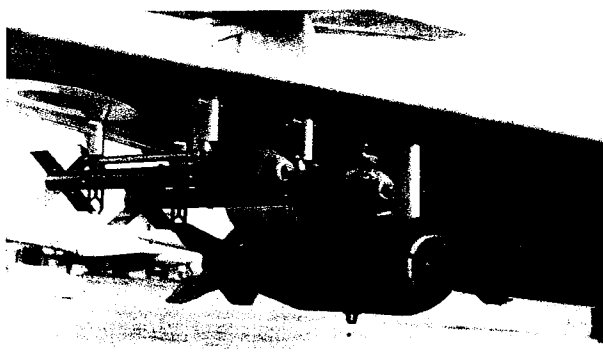
Use the half hard canopy, kit part F3. Use the twin trim tab ailerons, kit parts C21/C23 and C20/24. Make sure to fit the small diameter engine air intakes, kit parts A1 and A2. Use the radio compass fairing supplied in the kit, kit part F7.

Build Options for A77-862

Use the half hard canopy, kit part F3. Use the twin trim tab ailerons, kit parts C21/C23 and C20/24. Be sure to fit the large diameter engine air intakes, kit parts A3 and A4. Use the radio compass fairing supplied in the kit, kit part F7.

Painting

Follow the kit instructions with regard to colour selection and application. The RAAF serial number replaces the RAF one. The '17' or '862' is placed on the nose as per the photos. The small serial number goes on the left-hand side of the nose section of the ventral tank.



Additional Enhancement Notes for the Airfix 1/48 Scale Meteor Mk.8 Kit

These construction notes were compiled by Richard Hourigan.

Fuselage:

1. The two upper cannon barrels are missing on part D30 so glue two short lengths of 1 mm (0.040 in) tubing in the bulkhead recess to match the lower barrels.
2. The square hole under the forward fuselage aft of the nose wheel bay is a double access panel, not a recess. Fill with a square of 0.015 in plastic card. Engrave a centreline across it to form two access panels 7 mm x 14 mm.
3. The raised panel underneath the forward fuselage in front of the wing should be a flush access panel. Sand down flush and rescribe the outline as this is necessary for a flush fit of the ventral fuel tank.
4. Step 31; Window part F10 is incorrect. There is no window, this is the cabin stale air outlet valve port. Do not fit the window, back the hole with plastic card and paint matt black or apply matt black paint to the side panel D36 before fitting into the fuselage.
5. The two fuel cap covers on top of the centre fuselage seamline should be sanded flush with the seam. Replace with two discs of plastic card, 3.52 mm in diameter and 0.005 in thick or engrave if you have no suitable plastic card.
6. The forward fuselage fuel filler cap is missing adjacent to the rear edge of the centre canopy track, on the right-hand side. Add a disc of plastic card the same size as described in point number 5.
7. There are no handles on the canopy. There is a handle on the inside of the canopy and one on the left-hand side of the lower canopy skirt externally, just behind the canopy bow. To add, drill holes using a Number 80 drill and glue in a square U channel shape 2.5 mm long and position 0.5 mm from the front of the canopy skirt.
8. Fit the pull-down handle on the external foot step part E21 as per the description above.
9. Parts E37 and E38 on the ventral tank in Step 45 are only for target towing aircraft. Do not fit these parts as they are not applicable for RAAF combat aircraft.
10. The aerial, part E19, in Step 45 should be left off as it is not applicable for RAAF aircraft.
11. RAAF aircraft require the Radio Compass antenna. Add part F4 on the upper centreline of the fuselage 1 mm behind the rear fuel tank cover line. Drill a small hole inside the radio compass and fill with orange paint.
12. Kit aerial E36 is not applicable to RAAF aircraft. Leave this part off and add two whip aerials, 10 mm long, at 11.5 mm and 41 mm behinds the rear tank cover on the centreline.
13. The kit canopy does not fit down completely over the canopy rail. File a small slot in the rear edge.
14. The half hard canopy needs a vertical bulkhead on top of the shroud, part E25. Cut this from plastic card and mount on the shroud just behind the vertical line in the canopy. Scratch build new canister and pipe and fit to the new bulkhead.

Wings:

1. Wingtip navigation light covers are solid. File these out and glaze with a clear sprue off-cut, sand to shape and polish. Drill into the rear face and paint red and green inside the hole before gluing in place.
2. The three lower identification lights adjacent to the tail of the ventral tank are represented as solid panels. Counter sink drill to the edge of the circles. Paint the left hand one red; the right hand one green and the aft one amber – as viewed from underneath, looking forward.
3. The air compressor cowling is missing from on top of the left-hand engine air intake leading edge. Carve a tear drop shape from strip 0.125 in (8 mm) square and 4 mm long. Glue on top of the leading edge 0.125 in (8 mm) from the right-hand side of the inner wall, looking aft. The rounded front of the air compressor faces forward.
4. The generator cooling air intake is missing on the leading edge of the intake wing section on the left-hand side of both engines. Drill a hole using a Number 66 drill in the leading edge after wing assembly 0.1 in from the left-hand side of the inner intake wall (looking aft).

5. Correct over size dimensions for the engine air intakes. The short chord intakes are 26 scale inches internal diameter and 52.75 scale inches long. The long chord intakes are 21.5 scale inches internal diameter and 57.68 scale inches long. To correct this problem for the short chord intakes (parts E3 and E4) heat form a strip of 0.020 in x 0.156 in plastic card into a circle and glue inside the intake lip. Sand back the front face 1 mm and re-profile the outer shape, including removal of the incorrect radial panel line. For the long chord intakes (parts E5 and E6, use 0.015 in x 0.156 in plastic strip and sand back the from face 1 mm and re-profile (50 mm length).
6. The external vent is missing from the outer lower rear edge of the engine air intakes. Make the vent from 2 mm long x 1.5 mm wide and 1 mm high plastic strip. The outlet faces aft.
7. Step 43b and 45b have incorrect part numbers for the intake liners for the long chord intakes. Test fit inside the intake on the wing to ensure correct fit.
8. No tread on all three wheel tyres. Note that both the main wheels have the brakes facing to Port. Replace the kit wheels with aftermarket wheels from Red Roo or Eduard.

Tail Plane:

The left-hand tail plane parts C1 and C4 may be short moulded on the trailing edge fairing. To fix this insert a piece of 0.010 in plastic strip between the rear edges of the fairing when gluing together. Fill and sand to match the fin fairing length

Landing Gear:

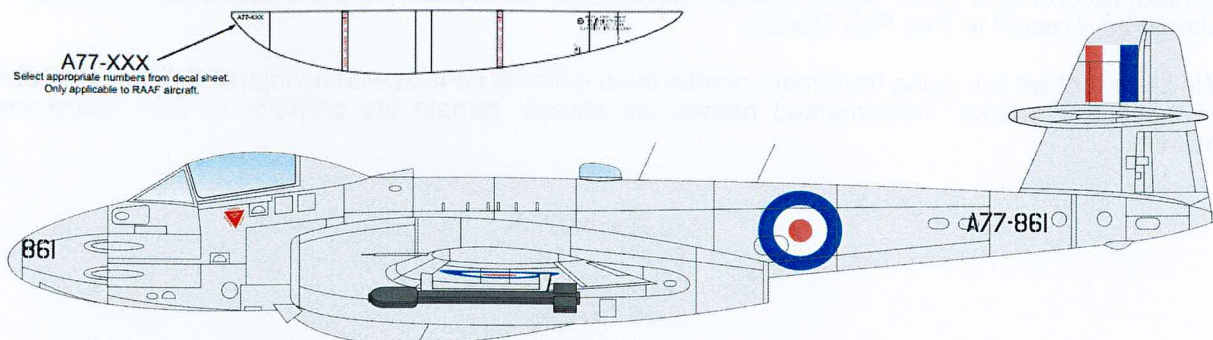
1. Add the missing retract link between the outer main gear door and leg. Use as short length of wire between and lug on the door and the leg, 4 mm x 0.014 in diameter.
2. The nose gear side doors do not have retractor arms so make these from plastic strip or wire between the corner cut out on the doors and the rear bulkhead (part D30).

Cockpit:

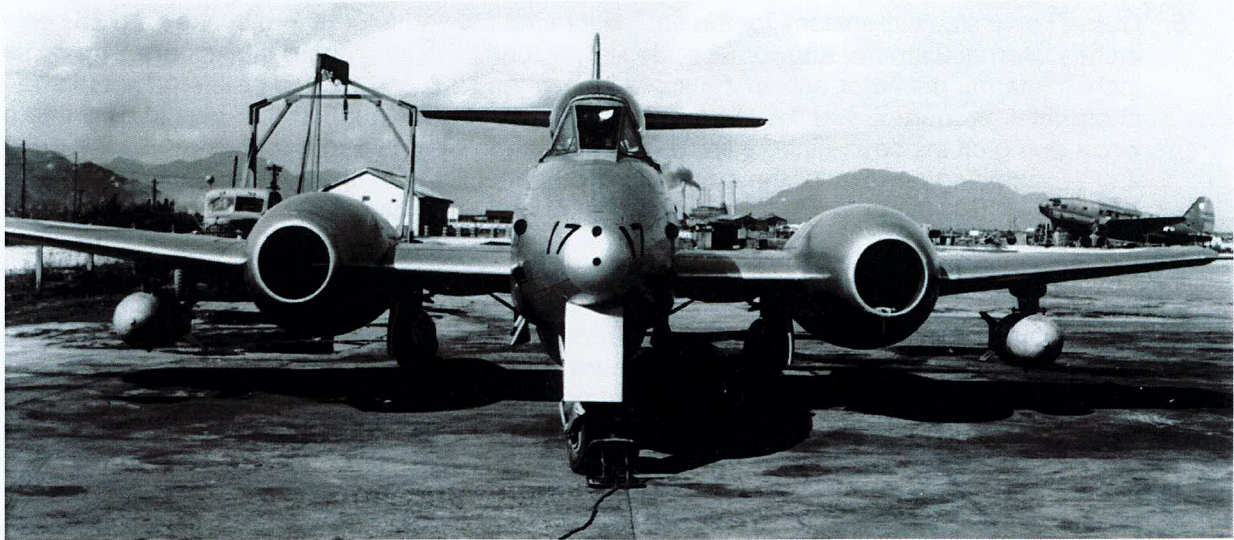
1. Delete yellow dot on the lower section of the instrument panel. To correctly depict the AC volt meter paint the dial black – note it is not a blanking plate.
2. There are no rudder pedals in the cockpit. To make the heel slides and rudder pedals cut a piece of 3 mm diameter plastic tube by 5 mm long in half lengthwise. Bend and glue/solder brass wire into a D shape 3 mm wide and 2 mm high. Glue the flat of the D across the open edges of the tube 1 mm back from the front. Glue to the floor either side of the nose wheel bulge, butting against the angled entry edges of the ejector seat foot guards. Paint the slides black and the loop a leather colour.
3. The nose weight indicated in Step 33 is insufficient. Fit at least 100 grams of weight as far forwards as possible.

Stencils:

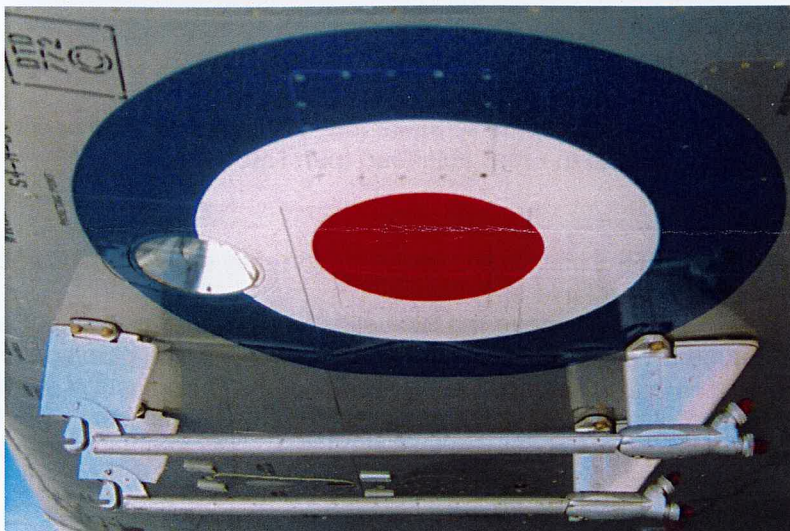
The kit stencil decals have many errors. Do not use these, replace with the correct stencil decals from Red Roo.



The drawing above illustrates the position of the national markings and serial for A77-861 which was typical of the application on 77 Sqn Meteors in Korea.



A77-17 in the trials configuration before the addition of the outboard rockets.
Photo below shows the position of the outboard rocket rails.



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Acknowledgement

This resin conversion set was designed by the Red Roo Models technical team and produced by Brian Dimmick.

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