Peter Hall's ATLANTIC MODELS

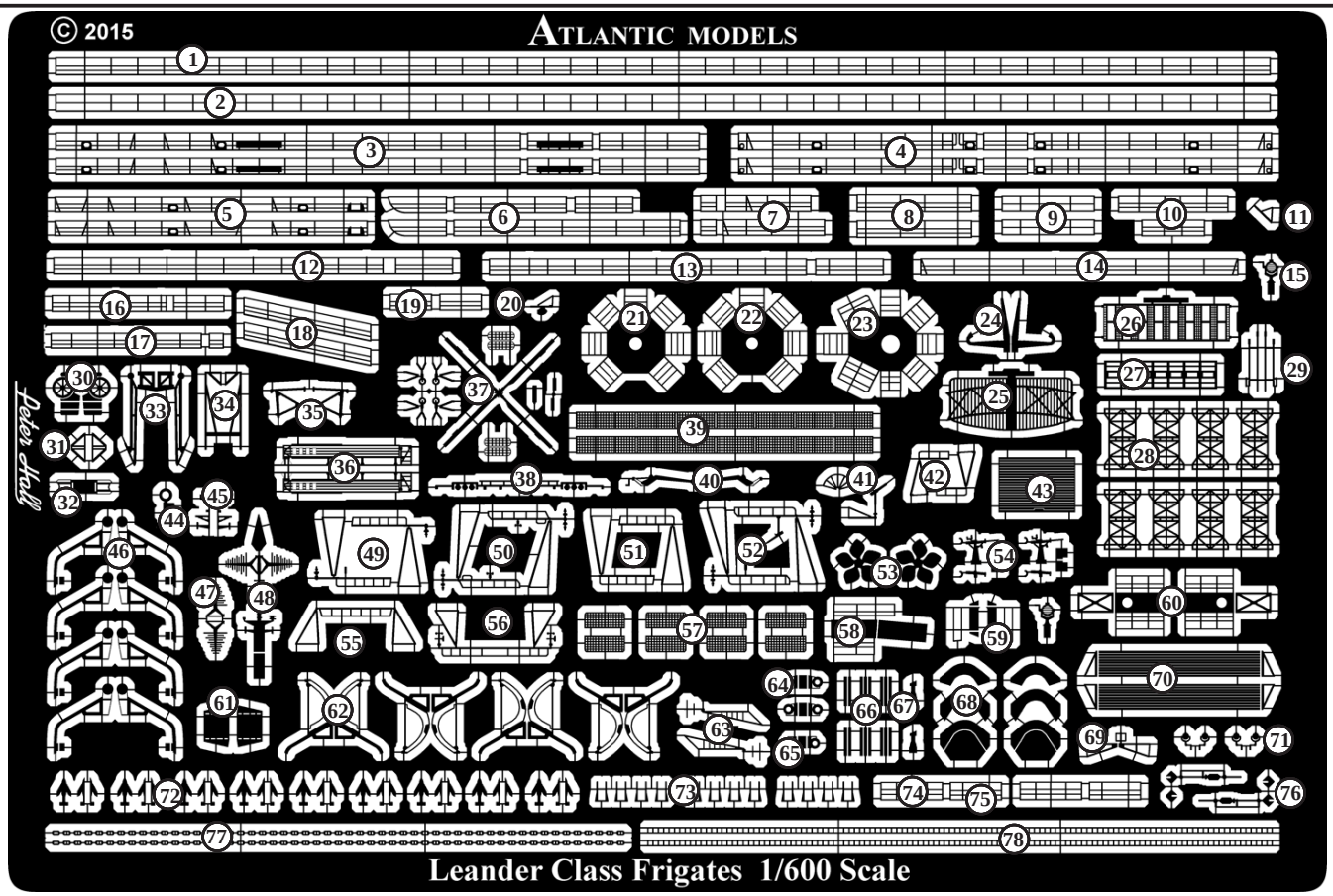
1/600 Scale

HMS Leander

Royal Navy Frigate

Photo-etched detail set to fit the **Airfix** kit

Parts List



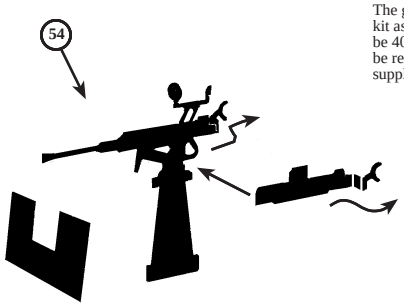
Not to Scale

1. Railings (Stock 3 Bar)
2. Railings (Stock 2 Bar)
3. Railings (Main Deck Sections)
4. Railings (Stern Sections)
5. Railings (Focsle)
6. Railings (Boat Deck)
7. Railings (Ikara House Deck)
8. Railings (Satcom Platforms)
9. Railings (Oerlikon Enclosures)
10. Railings (978 Radar Platform)
11. Main Mast Gaff
12. Railings (Mortar Well)
13. Railings (Hangar Roof)
14. Railings (VDS Well)
15. Searchlight)
16. Railings (Auxiliary Con Position)
17. Railings (Fore Mast Top Platform)
18. Railings (Focsle Ramp)
19. Railings (Funnel Deck)
20. GPI Unit Gaff
21. Forward Director Platform
22. Aft Director Platform (Ikara)
23. Aft Director Platform (Gun)
24. LW-02 Antenna Mounting
25. Hollandse LW-02 Radar Antenna
26. 965 Radar Antenna Front Face
27. 965 Radar Antenna Rear Face
28. 965 Radar Antenna Inner Mesh Screens
29. 965 Radar Antenna Lower Counter Bars
30. VDS Gantry Head
31. VDS Gantry Head Braces
32. VDS Body Cradle
33. VDS Gantry Main Frame
34. VDS Gantry Inner Frame
35. Bridge Front RAS Frames
36. Accommodation Ladders (Stowed)
37. Wasp Helicopter Parts
38. Flight Deck Lighting Bars
39. Flight Deck Safety Nets
40. Paravane Crane
41. Sword & Shield Antenna
42. Yardarms (Funnel)
43. Hangar Door
44. Fore Mast Top Pole Dish (Early)
45. Fore Mast Top Pole Array (Early)
46. Boat Davit Lower Legs
47. Fore Mast Top Pole Antenna (Late)
48. Fore Mast Top Pole (Late)
49. Yardarms (Main Mast)
50. Yardarms (Fore Mast Sides)
51. Yardarms (Main Mast Ikara)
52. Yardarms (Fore Mast Sides Ikara)
53. 5 Bladed Propellers
54. 20mm Oerlikon Mountings
55. Yardarms (Fore Mast Rear Array)
56. Yardarms (Fore Mast Rear Array Ikara)
57. Hanagr Roof and Ikara Deck Safety Nets
58. Ikara Deck Walkway
59. Main Mast Access Platforms
60. Aft Mounted SCOT Platforms
61. Aft Life Raft Racks
62. Boat Davit Upper Sections
63. Yardarms (Fore Mast Front Angled)
64. VDS Gear Winches (Deck)
65. VDS Winch (Well Bulhead)
66. Corvus Chaff Launcher Tubes
67. Chaff Launcher Mounting Pintle
68. Chaff Launcher Enclosure Assembly
69. Fore Mast Front DF Antenna
70. Life Raft Canister Shelves
71. Signal Lamps
72. Sea Cat Missiles
73. Sea Cat Launcher Rails
74. Chaff Launcher Enclosure Railings
75. Chaff Launcher Front Deck Railings
76. Dan Buoys
77. Anchor Chain
78. Vertical Ladder Stock

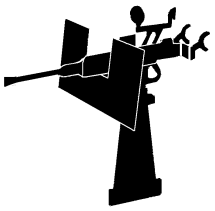
General Instructions

1. Do not remove the etched parts from the fret until you are ready to use them.
2. Before assembly, soak the etched parts in a suitable solvent, such as white spirit, to de-grease the surfaces for painting. It is recommended that the entire fret be primed with an acrylic automotive primer, such as Halfords Grey Primer before assembling any of the parts.
3. Cyanoacrylate adhesive (Super glue) or contact adhesive such as a white PVA glue may be used. These can be applied with a pin or piece of stretched sprue.
4. When removing parts from the fret, place the fret on a hard surface, such as a smooth ceramic tile, in order to prevent parts bending whilst cutting through the holding tabs. It is suggested that a No.10 rounded type of modelling knife blade is used for this purpose.
5. When shaping or bending a part, a straight edged blade such as a chisel blade will give a good sharp corner, or alternatively an Atlantic Models Folding Tool ATT 01 or ATT 02 may be found to be useful
6. If a part is bent incorrectly, lay it on a hard flat surface and roll it flat with a cylindrical object such as a modelling knife handle.

20mm Oerlikon Mounting



The gun mountings supplied in the Airfix kit as parts 27 & 28 are probably meant to be 40mm Bofors mountings. These need to be replaced with the 2omm mountings as supplied in this detail set.



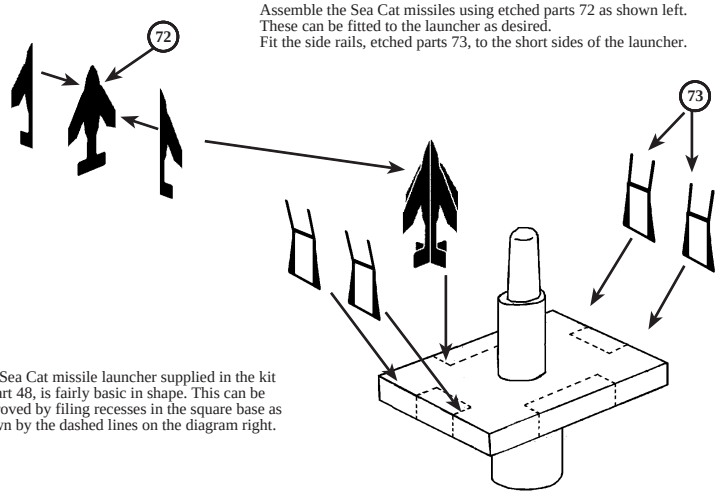
Fold the shoulder rests on each part of the gun body so that they areset apart when the gun body doubler is fitted. Fit the doubler plate to the gun body so that the long part fits over the gun body making it double thickness.

Fit the gun shield centrally to the locating lug just below the mid point on the gun.

Make two and fit to the upper superstructure in place of kit parts 27 & 28.

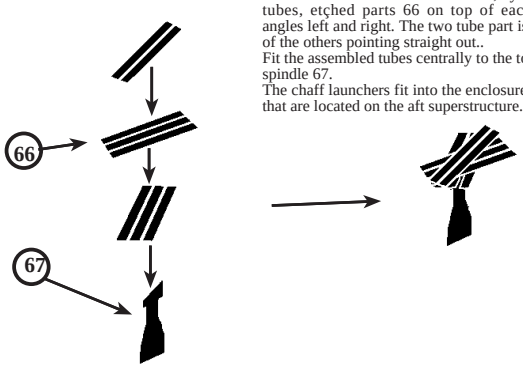
Sea Cat Missile Launcher

Assemble the Sea Cat missiles using etched parts 72 as shown left. These can be fitted to the launcher as desired.
Fit the side rails, etched parts 73, to the short sides of the launcher.



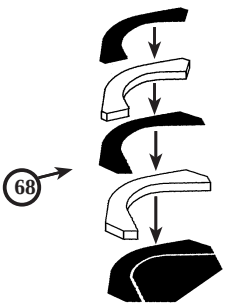
The Sea Cat missile launcher supplied in the kit as part 48, is fairly basic in shape. This can be improved by filing recesses in the square base as shown by the dashed lines on the diagram right.

Corvus Chaff Launcher Assembly

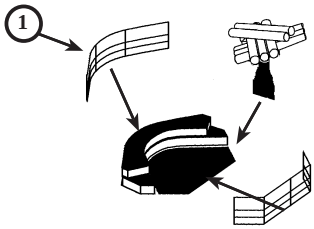


Assemble the corvus chaff launcher, by layering the rocket tubes, etched parts 66 on top of each other, at equal angles left and right. The two tube part is then fitted on top of the others pointing straight out..
Fit the assembled tubes centrally to the top of the mounting spindle 67.
The chaff launchers fit into the enclosures, etched parts 68, that are located on the aft superstructure.

Corvus Chaff Launcher Enclosure Assembly



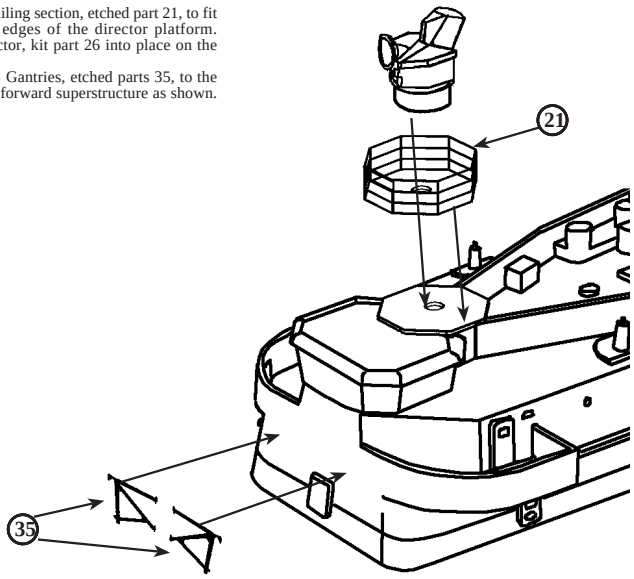
The chaff launcher enclosures are not included in the kit, but were fitted to all of the Leander class frigates during their main years of service. There is no easy way of providing these items due to their awkward shape, but to help with a template method of construction.



Start with the top level from etched parts 68, laminate the brass top plate to a piece of 20thou thick (0.5mm) plastic card with super glue. Cut the plastic card to the shape of the brass plate. Repeat the process with the second layer which is slightly larger. When the plastic card is shaped into the brass plates, fit the lower layer onto the base plate using the etched line as a locating guide and secure into place. Fit the top layer centrally onto the lower layer, giving a set of steps on each side. Cut and shape the lengths of railing to the edges of the enclosure, from the stock railing supplied. Fit the chaff launcher assembly, centrally onto the base of the enclosure. Make two of these.

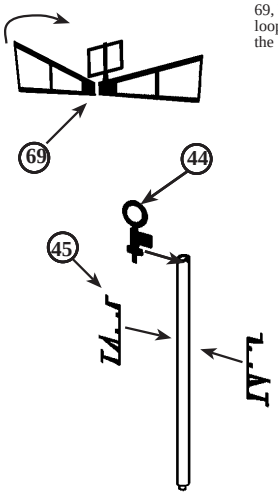
Bridge Fittings Location

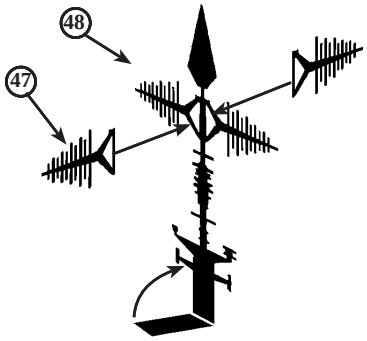
Shape the railing section, etched part 21, to fit around the edges of the director platform. Fit the director, kit part 26 into place on the platform.
Fit the RAS Gantries, etched parts 35, to the front of the forward superstructure as shown.



Fore Mast Antenna Assembly

Fold the mounting bracket frame of the DF antenna, etched part 69, back so that they are forming a 'V'. Assemble the DF antenna loop as shown left. Fit the vertical bars on the mounting frame to the front face of the fore mast.

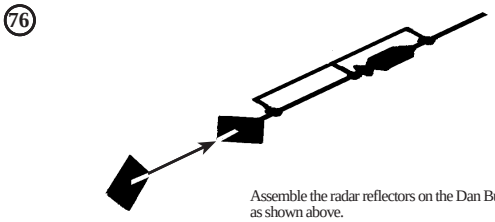




If the early mast top pole is to be fitted to the fore mast, use etched parts 44 & 45, fitted to the sides of the mast pole as shown above. The horizontal strips of moulded plastic must first be removed from the pole.

If the late mast top pole is to be used then fit the sensor array, etched parts 48 and 49, so that they are fore and aft and athwartships, at 90º intervals. Fold the base up to form a double thickness for ease of locating to the foremast top platform.

Dan Buoy Assembly

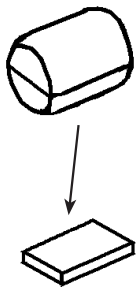


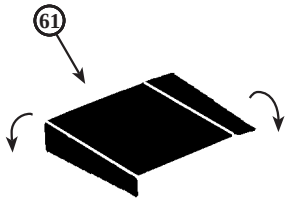
Assemble the radar reflectors on the Dan Buoys, etched parts 76, as shown above.
Fit the rectangular bracket arrangement onto the side railings on each stern quarter.

The colour of the reflector and body of the Dan Buoys varied from Dayglo Orange which was the most common, to Red and White 90º alternate sections

Life Raft Stowage Assembly

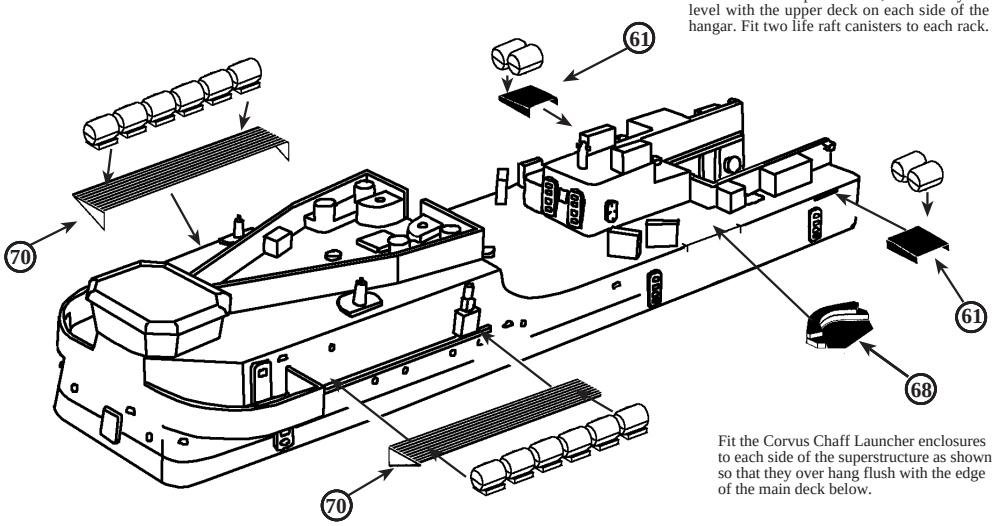
The early type of box containers for the life rafts have been supplied in the kit, which are incorrect for the Seacat fitted ships. To modify these using the parts supplied in this set, a bit of scratch building is required as detailed below.





Make the new style life raft canisters by cutting 2.5mm lengths of 1mm (40 thou) diameter plastic rod, and fitting them to 2mm strips of 0.75mm (30 thou) wide plastic strips. Make 16 of these.
Fold down the side supports of the aft life raft racks, etched parts 61, to 90º as shown above. Fit these to the superstructure deck edge just aft of the chaff launchers

Life Raft Shelf and Canister Stowage Locations

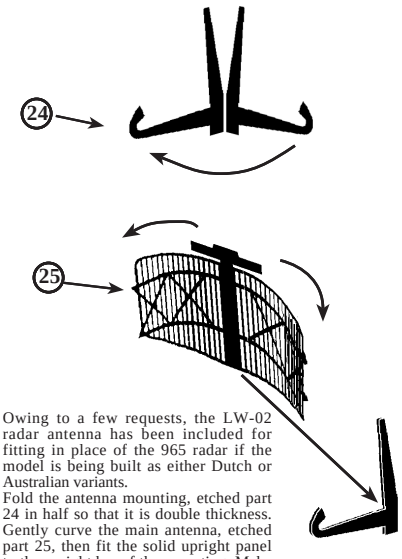


Fit the aft life raft racks, etched parts 61, to the sides of the aft superstructure, so that they are level with the upper deck on each side of the hangar. Fit two life raft canisters to each rack.

Fit the Corvus Chaff Launcher enclosures to each side of the superstructure as shown so that they over hang flush with the edge of the main deck below.

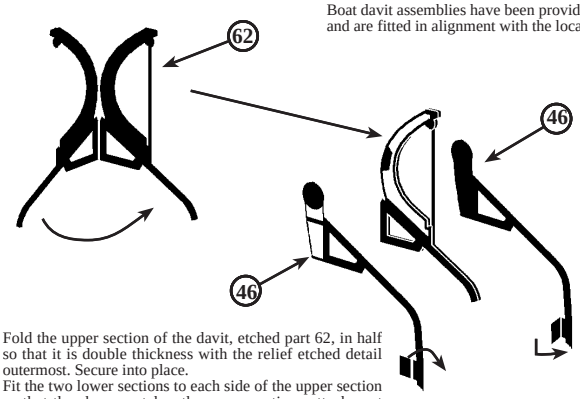
Fold down the end angled brackets on etched parts 70 to 90º. Fit these shelves into place on the sides of the superstructure, so that they are on the same level as the bridge wing decks. Fit six life raft canisters to each side shelf as shown above.

Hollandse LW-02 Radar Antenna



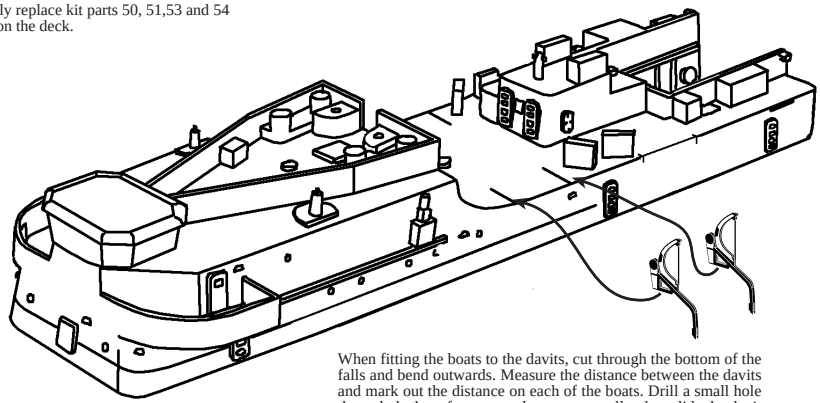
Owing to a few requests, the LW-02 radar antenna has been included for fitting in place of the 965 radar if the model is being built as either Dutch or Australian variants.
Fold the antenna mounting, etched part 24 in half so that it is double thickness. Gently curve the main antenna, etched part 25, then fit the solid upright panel to the upright bar of the mounting. Make sure the antenna curve is dished forwards around the dipole

Boat Davit Assembly and Location



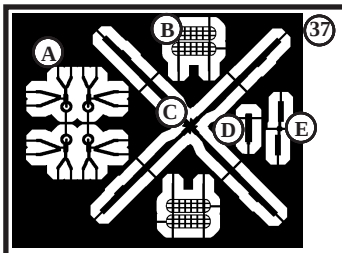
Boat davit assemblies have been provided to directly replace kit parts 50, 51,53 and 54 and are fitted in alignment with the locating holes on the deck.

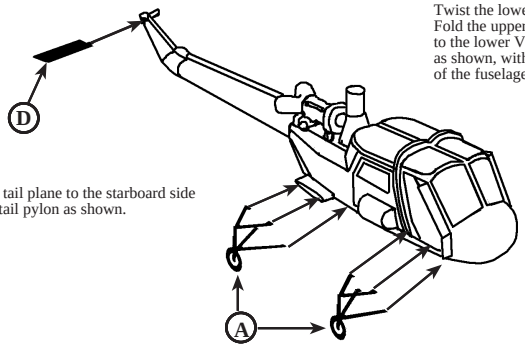
Fold the upper section of the davit, etched part 62, in half so that it is double thickness with the relief etched detail outermost. Secure into place.
Fit the two lower sections to each side of the upper section so that the shape matches the upper sections attachment bracket. Make four of these.



When fitting the boats to the davits, cut through the bottom of the falls and bend outwards. Measure the distance between the davits and mark out the distance on each of the boats. Drill a small hole through the boat from top to bottom, centrally, then slide the davit falls through the holes until the boat is snug against the davits,

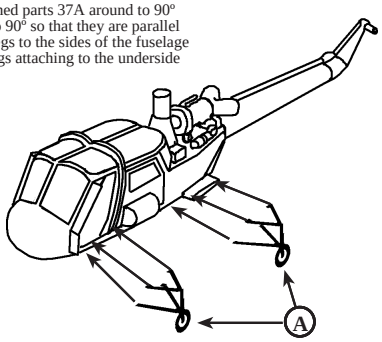
Wasp HAS1 Helicopter Assembly



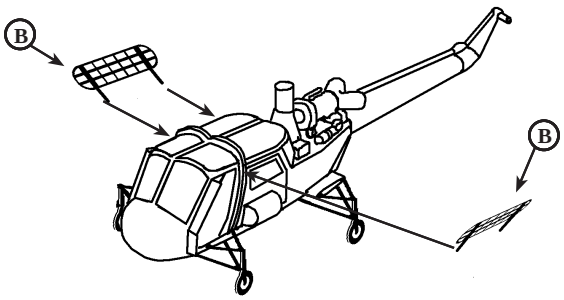


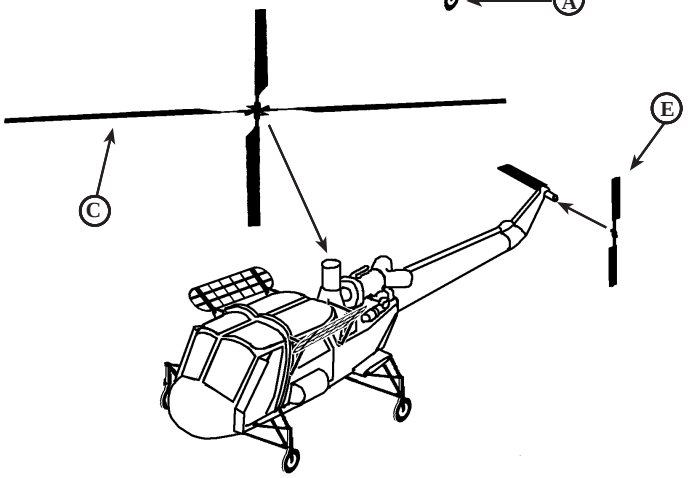
Fit the tail plane to the starboard side of the tail pylon as shown.

Twist the lower ‘V’ shaped legs on etched parts 37A around to 90º Fold the upper ‘V’ shaped legs down to 90º so that they are parallel to the lower V. Fit the undercarriage legs to the sides of the fuselage as shown, with the ends of the lower legs attaching to the underside of the fuselage.



Fit the flotation bag containers, etched parts 37B, so that the forward attachment legs fit to thedoor post between the front and rear doors.

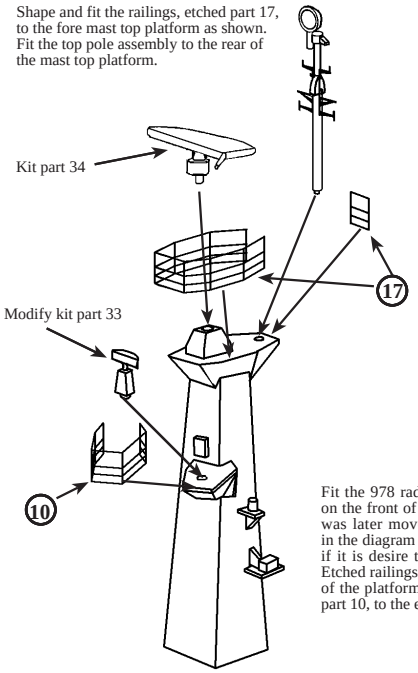


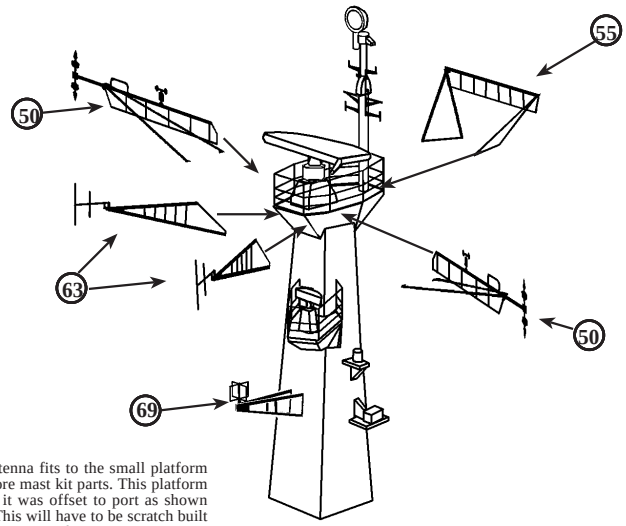


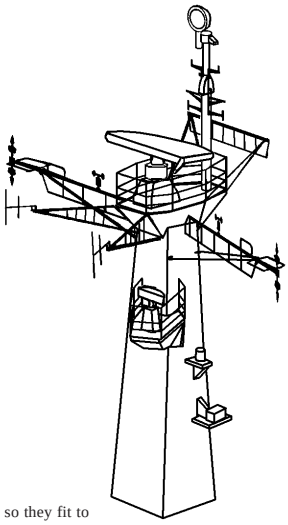
Fit the main and tail rotors blades as shown above, replacing kit part 62 directly.

Fore Mast Assembly

Shape and fit the railings, etched part 17, to the fore mast top platform as shown. Fit the top pole assembly to the rear of the mast top platform.



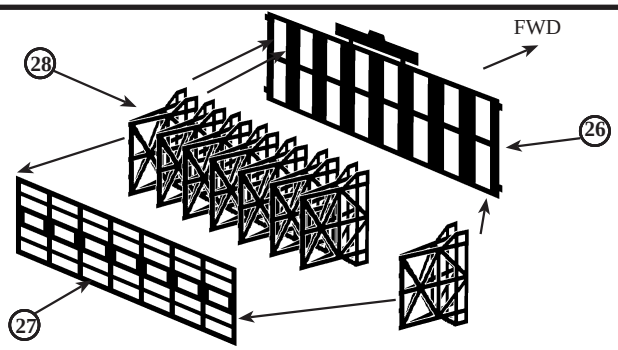


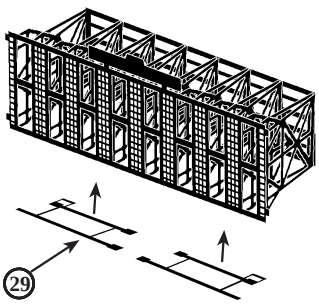


Fit the 978 radar antenna fits to the small platform on the front of the fore mast kit parts. This platform was later moved so it was offset to port as shown in the diagram left. This will have to be scratch built if it is desire to have the platform in this position. Etched railings have been supplied to fit to either one of the platforms. Shape and fit the railings, etched part 10, to the edges of the offset platforms as shown.

Twist the rear yardarm support brackets, etched parts 62,around so they fit to each side of the mast top platform as shown above.
Twist the V shaped legs on the side yardarms, etched parts 50, around so that the legs pass down each side of the yardarm. Attach the yardarms to the sides of the top platform overhang.
Fit the forward yardarms, etched parts 63, under the mast top platform overhang so that they are toed outwards.
Fit etched part 69 to the front of the fore mast as shown.

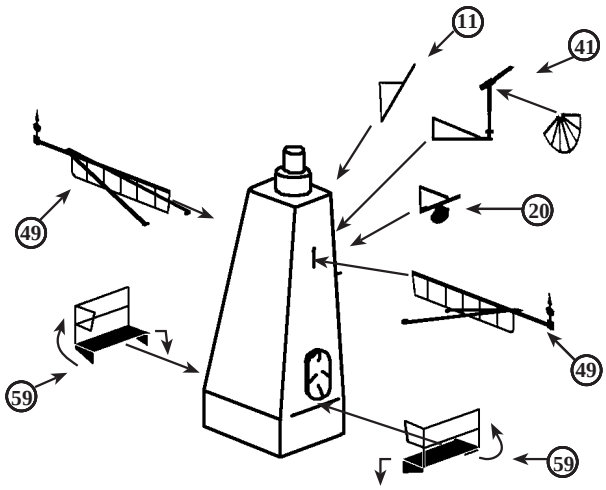
965 Radar Antenna Assembly





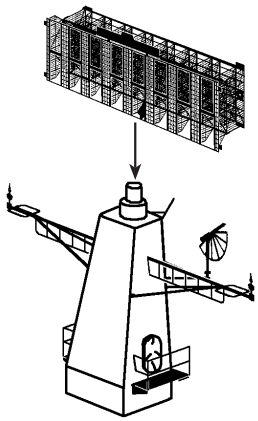
To assemble the 965 Antenna, first fit the Inner Frames, etched parts 28,to the vertical bars on the Front Face, etched part 26, as shown above. Each of the Inner Frames folds vertically down the centre line, to form a 'V' shaped part, with the front verticals fitting on each side of the openings on the front face.
Fit the Rear Face Plate, etched part 27, to the rear of the assembly, fitting the vertical bars onto the rear vertical bars on the point of the 'V' of the Inner Frames.
Fit the Counter Frames 29, to the underside of the antenna.
Fit the assembled radar antenna to the mounting peg on the top of the main mast, kit parts 43 and 44. This directly replaces kit part 45.

Main Mast Assembly



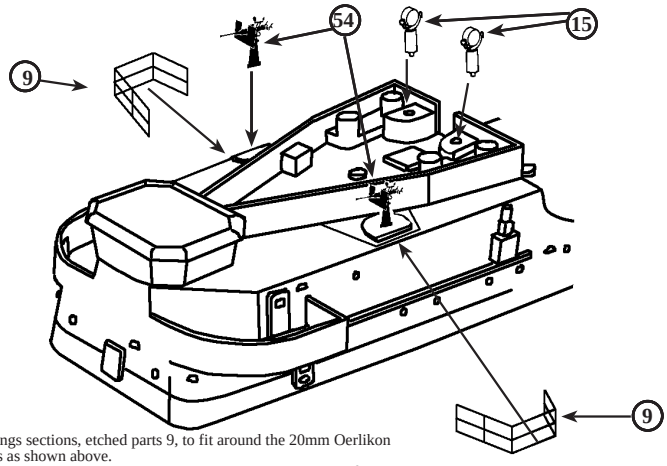
Twist the V shaped support legs of the yardarms, etched parts 49, around so that the legs pass down each side of the yardarm. Use these to replace kit parts 46 and 47.
Fit the Sword and Shield Antenna, etched part 41, to the port aft corner of the main mast.
The horizontal beam fits on the same level as the top rail of the yardarms. Fit the Ensign Gaff, etched part 11, to the rear face of the main mast as shown. Fit the GPI mounting, etched part 20 centrally to the rear face of the main mast.
Fold down the support brackets on the access platforms, etched parts 59, to 90º then fold the railings up to 90º and shape the forward section to fit against the mast when the platform is in place. Fit the platforms on each side of the mast below the side access hatches.

965 Radar Antenna Location



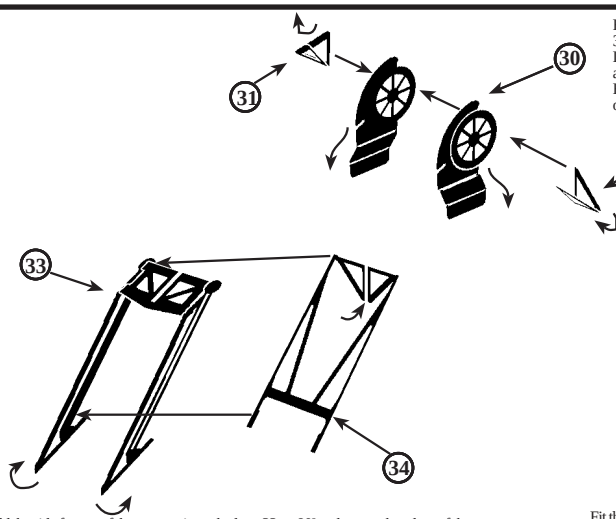
Fit the completed 965 radar antenna, so that the narrow lug on the top of the main mast fits into the locating 'V' formed by the centre mesh screens.

20mm Oerlikon Location



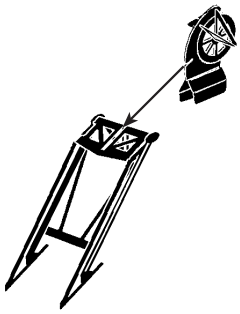
Shape the railings sections, etched parts 9, to fit around the 20mm Oerlikon gun mountings as shown above.
Fit the searchlights, parts 15, to the locating holes on the raised platforms on the signal deck. These platforms will need to be made from plastic card.

Variable Depth Sonar (VDS) Pit Head Gear Assembly



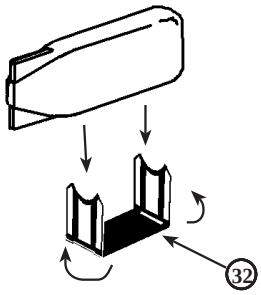
Fold the lower sections of the pit head wheel, etched part 30, to the shape shown so that it fits over the VDS body.
Laminate the two parts together so thay are double thickness at the top.
Fold etched parts 31 to form a 'V' that fits against the spokes of the pit head wheel as shown below.

Fold the side frames of thesupport rig, etched part33, to 90º and secure the edges of the top plate into place as shown above so that the feet of the frame are parallel. Fit the bracing frame etched part 34 so that the long edges locate along the inside of the thicker side bars on etched part 33



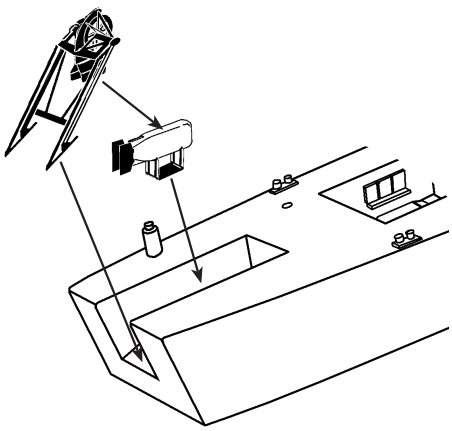
Fit the pit head wheel assembly so that slot in the rear fits over the corresponding slot in the support frame top plate.
This assembly directly replaces kit parts 65, 66 and 67.

VDS Body and Cradle Assembly



Fold up the ends of the VDS cradle, etched part 32 to 90º so that they are parallel.
Make a VDS body from a flat piece of 40thou (1mm) thick plastic card shaped roughly to that shown above. Fit the VDS body into the cradle as shown.

VDS Location



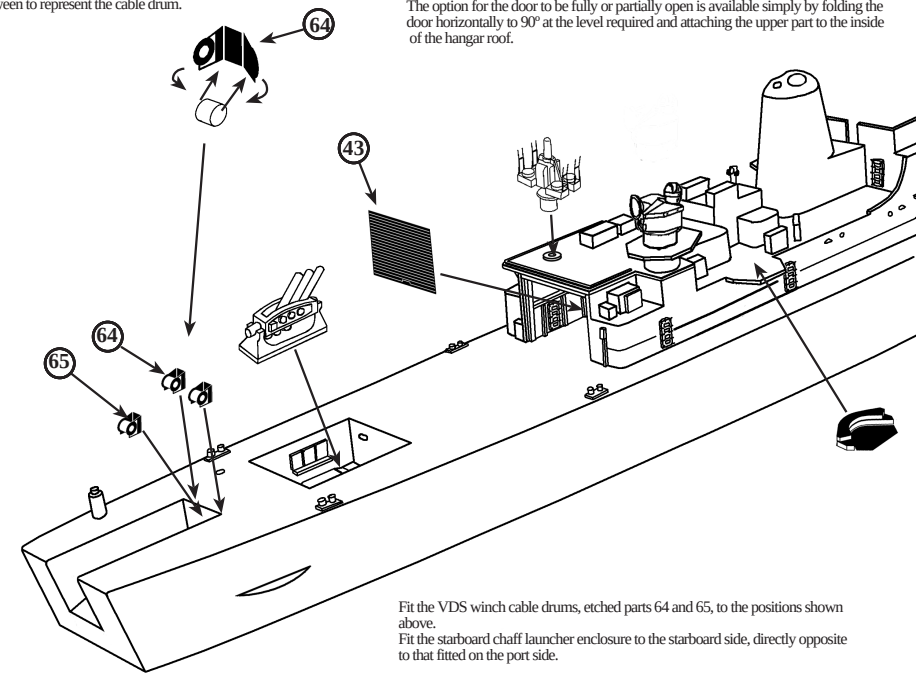
Fit the VDS body and cradle assembly into the stern well so that the bottom of the cradle locates centrally onto the horizontal deck.
Fit the support frame and pit head gear assembly so that the shaped guide channel below the pit head wheel fits over the top of the VDS body. The feet of the support frame fit to the rear of the downward angled deck on each side of the opening in the stern.

Some of the ships in this class did not have the VDS gear fitted and had the well plated over. If it is desired to build one of these ships, then use some 40 thou plastic card to plate over the well and stern openings.

Aft Fittings Locations

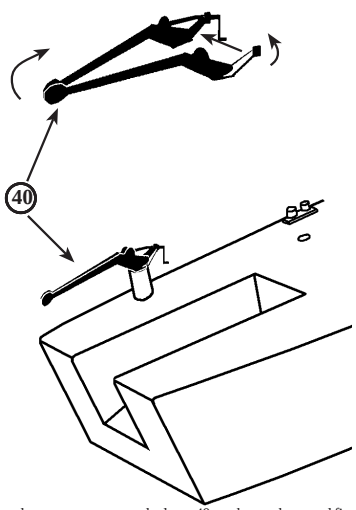
Fold the sides of the cable reels, etcehd parts 64 and 65 to 90º so that they are parallel, then fit a length of rod or sprue in between to represent the cable drum.

Fit the Sea Cat Missile Launcher into place at the locations shown on the hangar roof.
Fit the hangar door, etched part 43, into place as a direct replacement for kit part 60.
The option for the door to be fully or partially open is available simply by folding the door horizontally to 90º at the level required and attaching the upper part to the inside of the hangar roof.



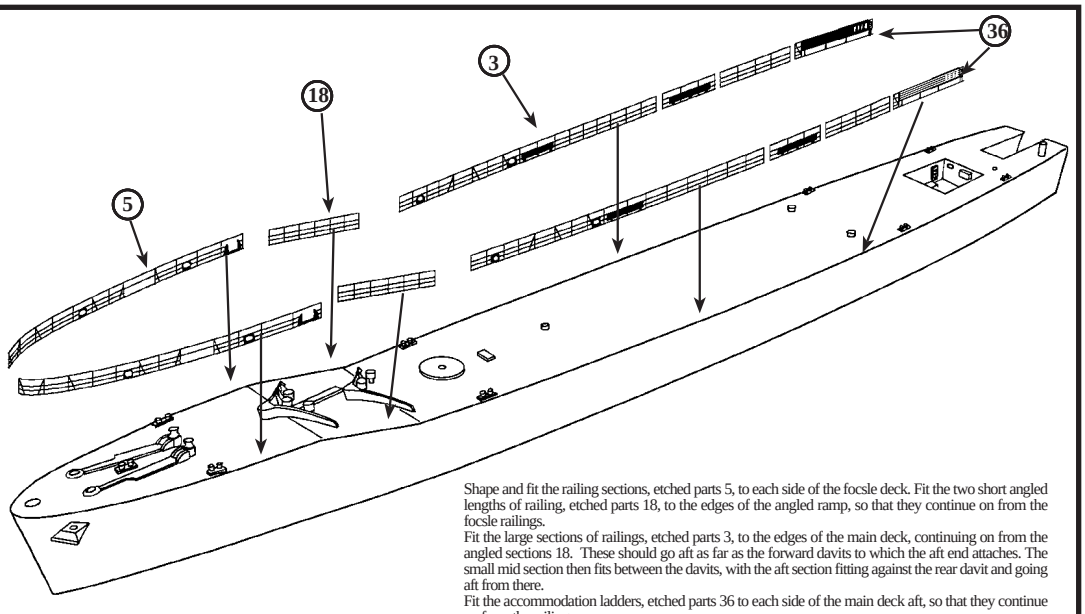
Fit the VDS winch cable drums, etched parts 64 and 65, to the positions shown above.
Fit the starboard chaff launcher enclosure to the starboard side, directly opposite to that fitted on the port side.

Paravane Crane Assembly



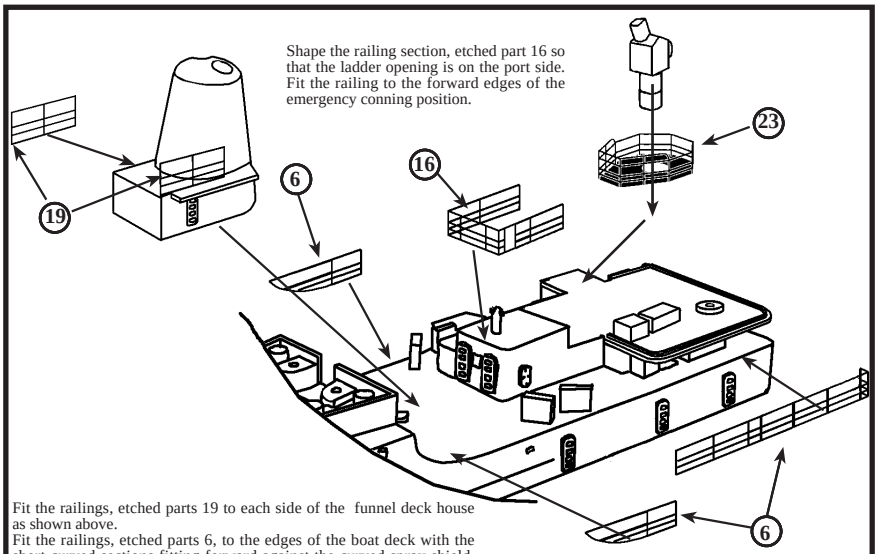
Shape the paravane crane, etched part 40, as shown above and fit to the top of the mounting pillar on the stern deck. This replaces kit part 68.

Main Deck Railings Location



Shape and fit the railing sections, etched parts 5, to each side of the focsle deck. Fit the two short angled lengths of railing, etched parts 18, to the edges of the angled ramp, so that they continue on from the focsle railings.
Fit the large sections of railings, etched parts 3, to the edges of the main deck, continuing on from the angled sections 18. These should go aft as far as the forward davits to which the aft end attaches. The small mid section then fits between the davits, with the aft section fitting against the rear davit and going aft from there.
Fit the accommodation ladders, etched parts 36 to each side of the main deck aft, so that they continue on from the railings.

Superstructure Railings Location

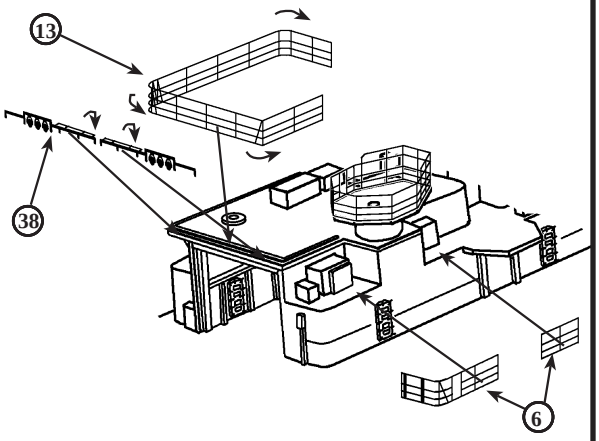


Shape the railing section, etched part 16 so that the ladder opening is on the port side. Fit the railing to the forward edges of the emergency conning position.

Fit the railings, etched parts 19 to each side of the funnel deck house as shown above.
Fit the railings, etched parts 6, to the edges of the boat deck with the short curved sections fitting forward against the curved spray shield. Fold up the railings on the director platform, etched part 23, to 90º secure into place at the joins. Fit the director through the hole in the middle of the platform, until it is half way up the tower then secure into place.

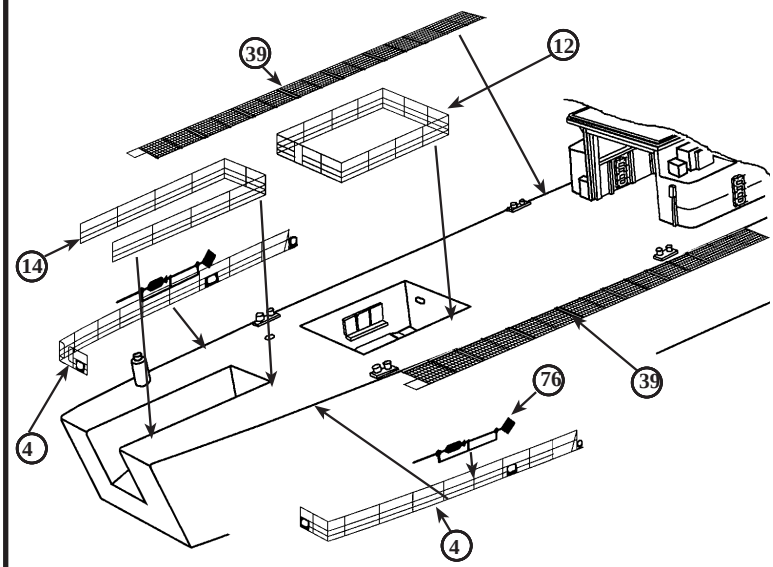
Helicopter Hangar Fittings Location

Shape and fit the railings section , etched part 13, around the edge of the hangar roof. Fit the two shorter sections of railing from etched part 6, to the deck edges on the starboard side of the hangar.



Fit the flight deck lighting bar, etched part 38, to the rear edge of the hangar roof. The inner attachment frame will need to be folded to 90º to give the lighting bar clearance from the rear of the hangar.

Flight Deck Railings and Safety Net Location



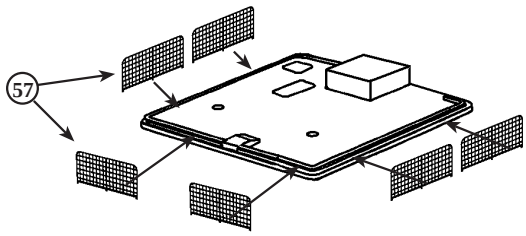
Shape and fit the railings section, etched part 12, around the edge of the mortar well. Note: When the helicopter was on deck or flying, these railings would be collapsed or removed.
Shape and fit the railings around the VDS well, etched parts 14. Shape and fit the two long sections of railing, etched parts 4 and fit to each side of the stern as shown above.
Fit the Flight Deck Safety Nets, etched parts 39, to the edges of the flight deck in either the raised or lowered positions as the model requires.

Exocet and Ikara Leander Modifications

The following sections cover some of the main modifications to the antennas, masts and Seacat.

Hangar Roof Nets Location

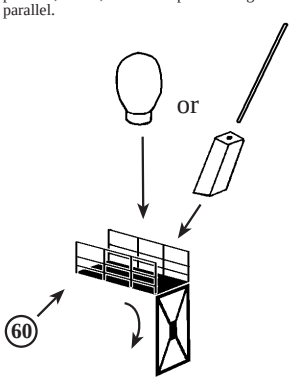
Some of the ships in the class that had a second Sea Cat missile system mounted on the hangar roof, were fitted with folding safety nets around the deck edges. On some ships the original railings were retained and on others there was a combination of both nets and railings.



Research the particular ship being modelled and fit the nets to the location required in either the raised or lowered position as desired. If railings are being used as well, then sections of the railings, etched parts 57 can be used.

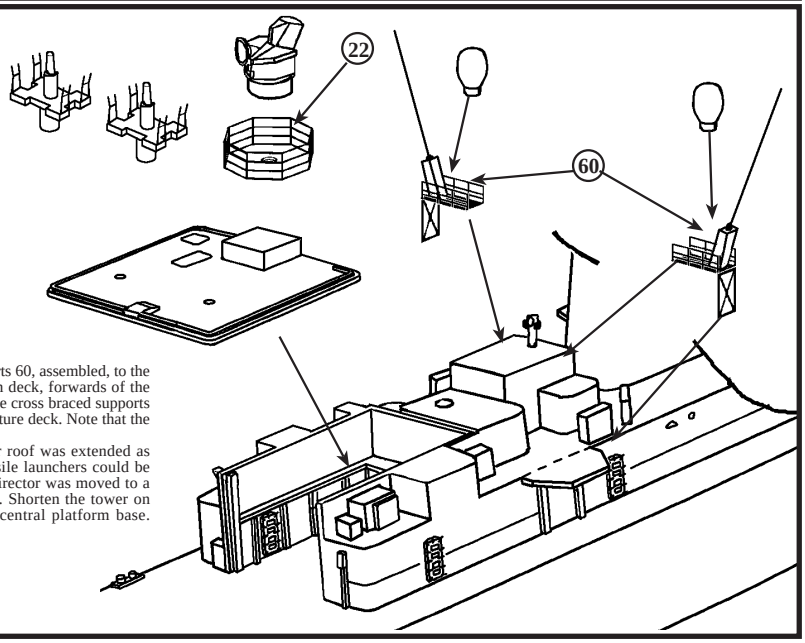
HF Whip Aerial Assembly

Fold down the cross braced platform support on etched parts 60, to 90º, then fold up the railings so that they are parallel.



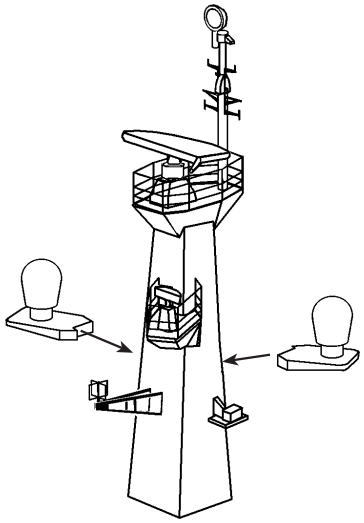
Make a whip aerial by cutting a short length of square section plastic strip, and drilling into one end. Insert a length of wire or stretched sprue to make the aerial. Angle the bottom end of the square section so that the aerial is towed outwards from the ships centre line. These were fitted to the Ikara Leanders. On the Exocet fitted ships, the SCOT radomes were fitted to these platforms instead of the whip aerials. Make a pair of radomes from 2.5mm diameter plastic rod as shown above.

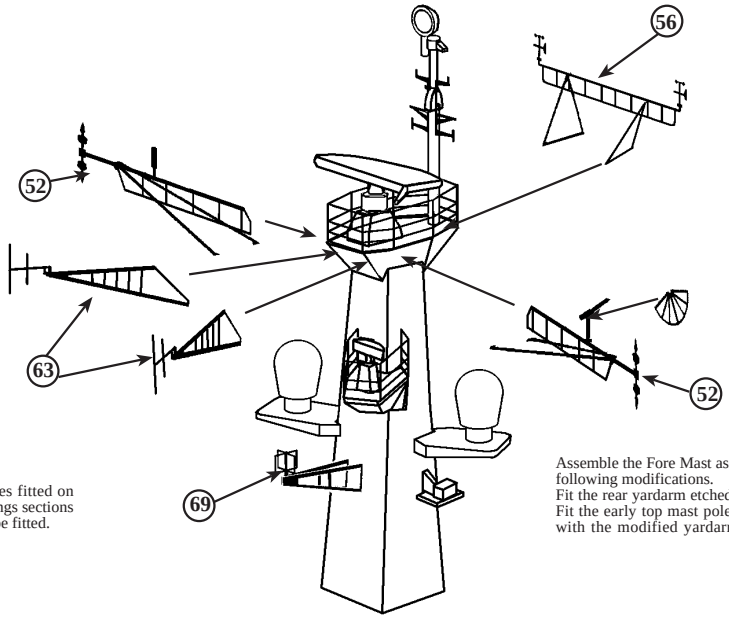
Sea Cat Missile System & Whip Aerial Mounting Location

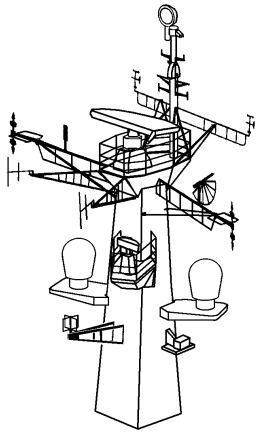


Fit the whip aerial platforms, etched parts 60, assembled, to the edges of the auxiliary conning position deck, forwards of the deck stowage lockers. The bottom of the cross braced supports should fit to the edges of the superstructure deck. Note that the main mast has been omitted for clarity.
On the modified Leanders, the hangar roof was extended as shown right, so that two Sea Cat missile launchers could be fitted. The positions are shown. The director was moved to a central position behind the main mast. Shorten the tower on the director so that it may fit to the central platform base.

Fore Mast Yardarm & SATCOM Radome Location



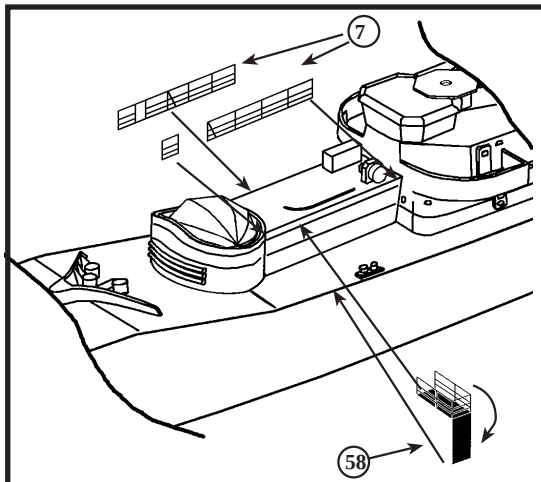




The Ikara modified Leander class, had the SATCOM radomes fitted on platforms on each side of the Fore Mast as shown above. Railings sections etched parts 8, are provided to fit these platforms should they be fitted.

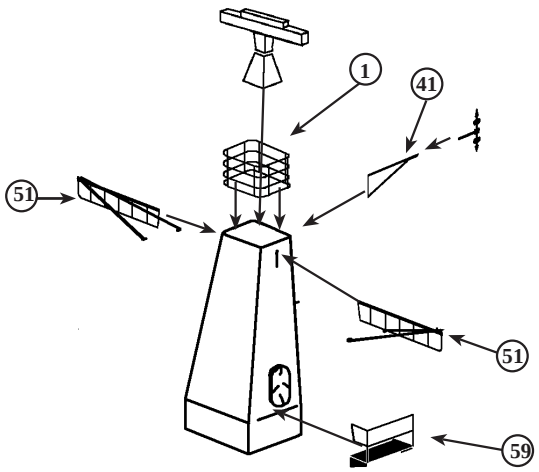
Assemble the Fore Mast as described in the main kit instructions, with the following modifications.
Fit the rear yardarm etched part 56, instead of the shorter etched part 55.
Fit the early top mast pole. Replace the side yardarms, etched parts 50, with the modified yardarms, etched parts 52, fitted in the same way.

Ikara House Railings & Walkway



Fit the railings sections, etched parts 7 to the top edges of the Ikara missile handling room, so that the shorter single length fits onto the starboard side forward of the stowage locker. The port side railing short length fits forward up to the circular edge of the Zareba, leaving a gap for the vertical ladder access and the extended walkway, before continuing aft to the front of the superstructure.
Fold the railings on the Extended Walkway, etched part 58, up to 90º then fold the end section to 90º to join the two side sections across the end of the platform. Fold the end support panel down to 90º. Fit into place against the port side of the missile handling room at the aft part of the gap in the railings.

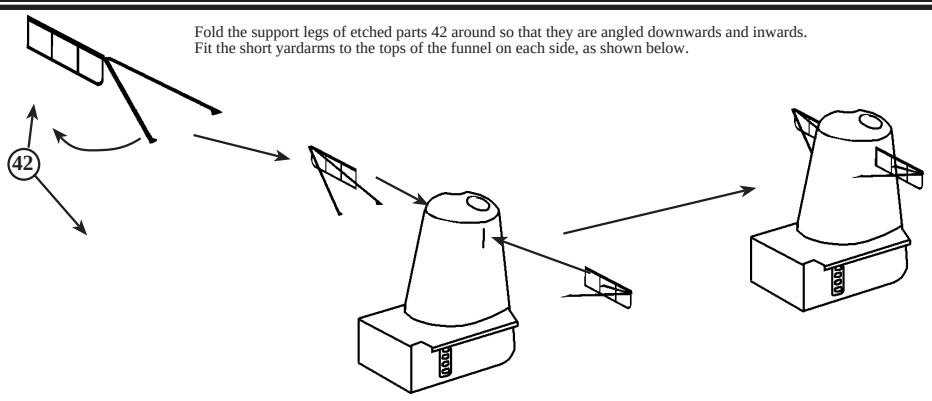
Main Mast Fittings Location



Twist the V shaped yardarm stays around to 90º then pass the legs of the stays down each side of the yardarms as shown above
Fit the inner ends of the main mast yardarms, etched parts 51, to the sides of the mast as shown. The top rail of the yardarm should be positioned .5mm below the top edge of the mast. Cut the vertical pole from the end of etched part41, then fit the yardarm to the rear of the main mast in the place of the Gaff, etched part 11, on the standard main mast. Remove the outer end from one of the yardarms, etched parts 49, and fit the outer end of etched part 41 as shown. Fit only one of the access platforms, etched part 59, to the port side of the mast only.

Funnel Yardarms Location

Fold the support legs of etched parts 42 around so that they are angled downwards and inwards.
Fit the short yardarms to the tops of the funnel on each side, as shown below.



1 Hillview Grove, Easington, Durham, SR8 3NT. UK Tel. 0191 5271574
e.mail:peter@atlanticmodels.net Website http://www.atlanticmodels.net