

**Leander Class Frigate**  
**H.M.S. LEANDER**  
**1972 - 1989**  
**1/350 Scale**

The Type 12 (Improved) or *Leander* Class Frigates that were introduced into Royal Navy service from the early 1960's, were the most numerous of any of the classes of ships of the modern era.

The design of the *Leander* class was based on the earlier *Whitby* and *Rothsay* class Type 12 hull, which had already proved it's excellent sea keeping qualities, but had a simplified superstructure layout which included a built in helicopter hangar. The hull was built up flush with the main deck at the stern, which gave a better protected area for the variable depth sonar installation as well as improved deck space around the mortar well .

The *Leander* class Frigates were split into three batches and were built between 1959 and 1973. The first batch of 10 was fitted with Y100 machinery the second batch of 6 having the upgraded Y136 machinery fitted. The third batch of 10 ships were known as the Broad Beam *Leander*'s and had a hull that was wider by 2 feet to accommodate the Y160 machinery fit.

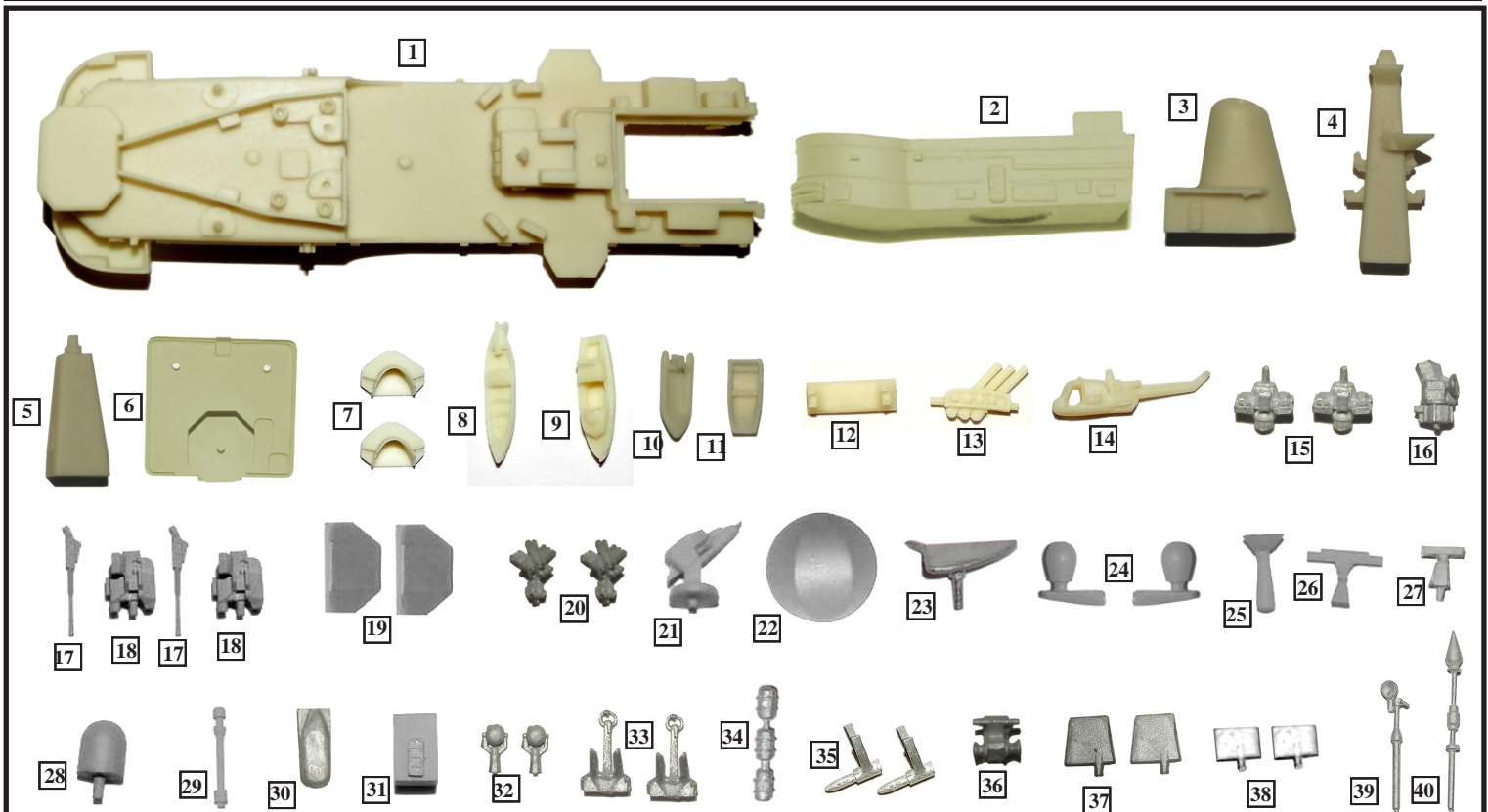
*HMS Leander*, was the name ship of the first batch of the *Leander* class and was laid down at Harland and Wolff of Belfast on 10th April 1959. Originally intended to be a *Rothsay* Class Frigate to name *HMS Weymouth* the plans were changed for her completion as a new *Leander* class ship. She was launched on 28th June 1961 and commissioned into service on 27th March 1963.

Her early years between 1963 and 1970 were spent in her original fit as a general purpose frigate with the twin 4.5" Mk6 gun turret mounted on the fore deck. During this period she deployed to the West Indies as the standing guardship on two occasions and also to the Pacific as part of a group deployment. In June 1970 *HMS Leander* was taken in hand by the dockyard for her modernisation program where she underwent conversion to an anti submarine role. This involved the removal of her 4.5" gun turret, which was replaced by the Ikara missile launcher and the large handling room in between the forward part the superstructure and the launcher zarea. The Sea Cat missile armament was also increased by adding an additional launcher to the starboard side of the hangar roof and centralising the director just behind the main mast. The large 965 radar antenna was also removed, with just the IFF antenna remaining. The 20mm Oerlikons on each side of the fore mast were replaced with 40mm Bofors to increase the gun armament weight.

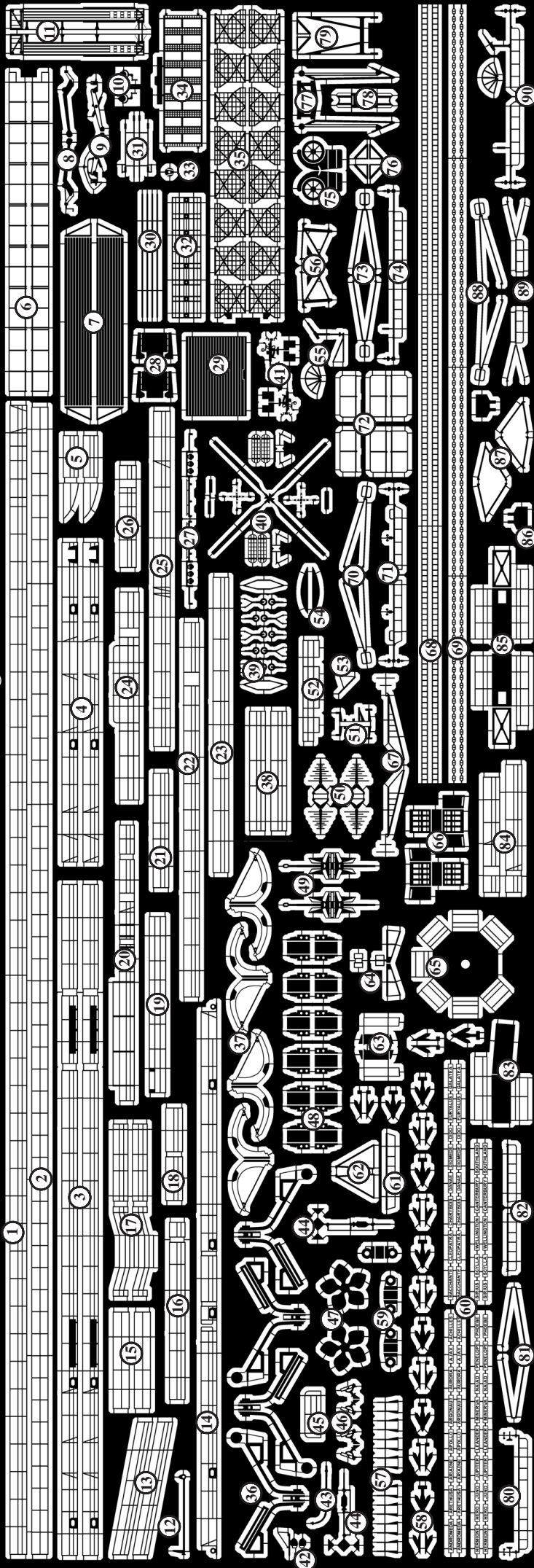
The IKARA Anti Submarine Missile system was originally developed by Australia, for fitting to their warships as a fast reaction weapon that could deliver an anti submarine acoustic torpedo, by throwing it, up to ten miles using a specially constructed rocket. This eliminated the need for the ship to close on the target or take the time flying to the target with helicopter-delivered torpedoes.

*HMS Leander* remained in service until 1986, during which time she was deployed all over the world, including participation in the "Cod Wars" off Iceland. In 1987 *HMS Leander* was placed in reserve as part of the standby squadron. She could not be sold on to another Navy because of a rule involving the Ikara. Her career came to an end in 1989 when she was used as a target during a naval exercise and sunk.

**Resin & White Metal Parts List**



- |                                      |                            |                            |                                 |
|--------------------------------------|----------------------------|----------------------------|---------------------------------|
| 1. Main Superstructure Unit          | 11. Punt                   | 21. Ikara Missile Launcher | 31. SCOT House                  |
| 2. Ikara Housing                     | 12. Mortar Mounting Base   | 22. Ikara Zarea Cover      | 32. Searchlights                |
| 3. Funnel                            | 13. Limbo AS Mortar Mk10   | 23. 993 Radar Antenna      | 33. Anchors                     |
| 4. Fore Mast                         | 14. Wasp Helicopter        | 24. SCOT Radomes           | 34. Life Raft Canisters         |
| 5. Main Mast                         | 15. Sea Cat Launchers      | 25. Cone Antenna           | 35. Propeller Bearings          |
| 6. Hangar Roof and Director Platform | 16. GWS22 Director         | 26. IFF Antenna            | 36. Aft Deck Windlass           |
| 7. Chaff Launcher Enclosures         | 17. 40mm Gun Barrel        | 27. 978 Radar Antenna      | 37. Rudders                     |
| 8. 27' Whaler                        | 18. 40mm Gun Mounting      | 28. Ikara Tracking Radome  | 38. Stabiliser Fins             |
| 9. 25' Cheverton Motor Boat          | 19. 40mm Gun Platforms     | 29. Telemetry Antenna      | 39. Fore Mast Top Array (Early) |
| 10. Gemini Inflatable Boat           | 20. Corvus Chaff Launchers | 30. VDS Sonar Body         | 40. Fore Mast Top Array (Late)  |



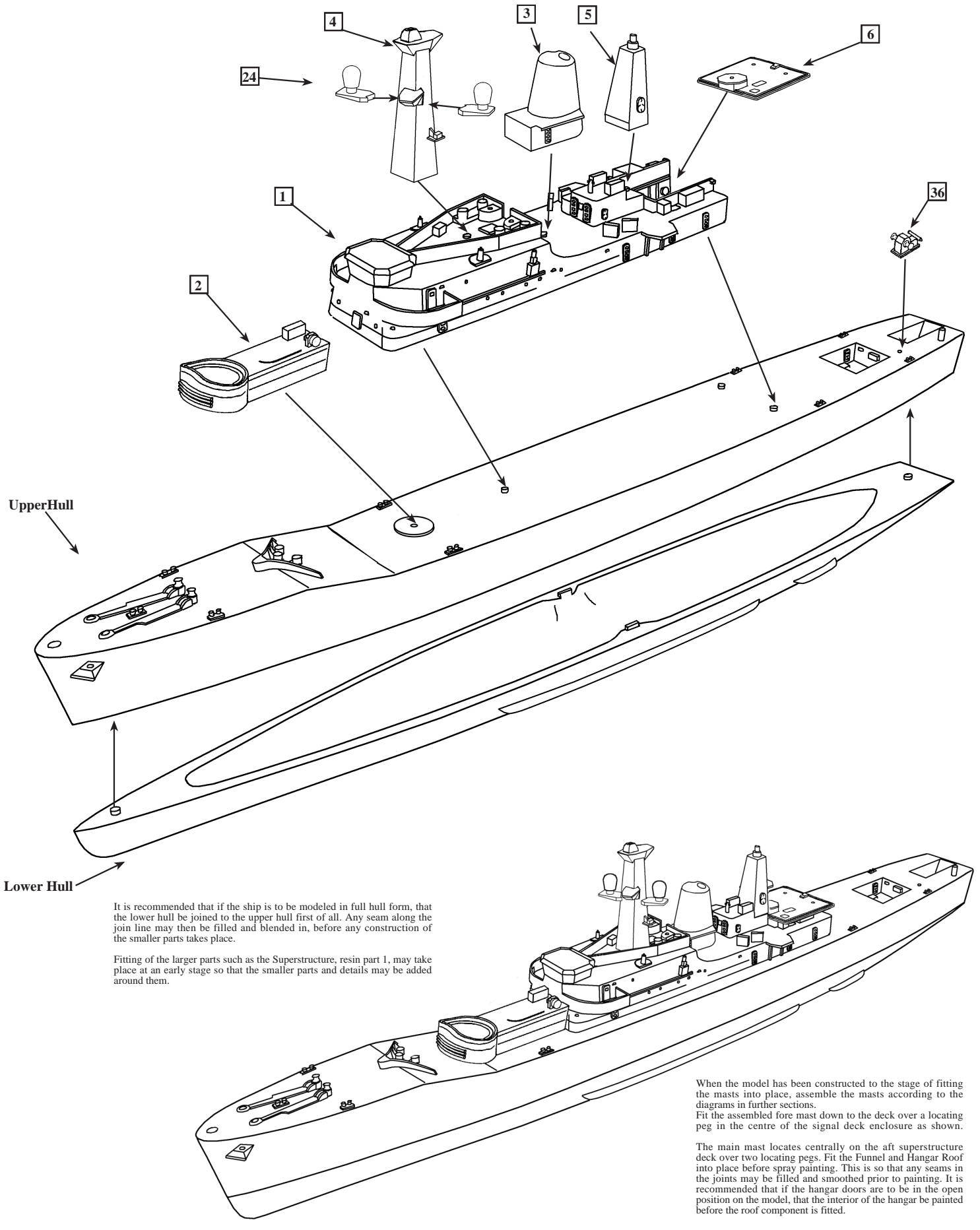
- |                                   |   |                                       |  |
|-----------------------------------|---|---------------------------------------|--|
| 1. Railings 3 Bar Stock           | 37. Boat Davit Upper Section            | 62. Fore Mast Rear Yard Supports      | 73. Yardarm Supports (Main Mast)       |
| 2. Railings 2 Bar Stock           | 38. Railings (SATCOM Platform)          | 63. Main Mast Lower Platforms         | 74. Yardarms (Main Mast)               |
| 3. Railings (Main Deck)           | 39. Wasp Helicopter Undercarriage Parts | 64. Fore Mast Front DF Antenna        | 75. VDS Gantry Pit Head Wheel          |
| 4. Railings (Focсле)              | 40. Wasp Helicopter General Parts       | 65. Aft Director Platform (Ikara)     | 76. VDS Gantry Pit Head Stays          |
| 5. Railings (Superstructure Step) | 41. Single 20mm Oerlikon Mountings      | 66. Fuel Can Stowage Racks            | 77. VDS Gantry Side Arms               |
| 6. Flight Deck Safety Nets        | 42. Glidepath Indicator Light           | 67. Yardarms (Fore Mast Forward)      | 78. VDS Gantry Centre Bracing          |
| 7. Life Raft Cannister Shelves    | 43. Bridge Roof Davit                   | 68. Vertical Ladder Stock             | 79. VDS Sonar Body Cradle              |
| 8. Paravane Crane (Manual)        | 44. Dan Buoy                            | 69. Mast Top Antenna Array (Late)     | 80. Fore Mast Aft Yardarm (Ikara)      |
| 9. Paravane Crane (Hydraulic)     | 45. Railing (Mortar Platform)           | 70. Yardarm Supports (Fore Mast Side) | 81. Main Mast Yardarm Stays (Ikara)    |
| 10. Signal Lamps                  | 46. Chaff Launcher Flare Gun            | 71. Yardarms (Fore Mast Side)         | 82. Main Mast Yardarms (Ikara)         |
| 11. Accommodation Ladders         | 47. Propeller Blades                    | 72. Safety Nets (Hangar Roof)         | 83. Ikara House Walkway                |
| 12. Seacat Telemetry Antenna      | 48. Life Raft Cannister Racks           |                                       | 84. Railings (Ikara House Roof)        |
| 13. Railings (Focсле Ramp)        | 49. Anchors                             |                                       | 85. Aft Whip Antenna Platforms (Ikara) |
| 14. Railings (Stern)              | 50. Mast Top Antenna Array (Early)      |                                       | 86. VDS Sonar Body Fins                |
| 15. Railings (Oerlikon Enclosure) | 51. Mast Top Antenna Array (Late)       |                                       | 87. Fore Mast Top Pole Braces          |
| 16. Railings (Fore Mast Top)      | 52. Railings (Main Mast Top Ikara)      |                                       | 88. Fore Mast Side Yardarm Stays       |
| 17. Railings (Chaff Launchers)    | 53. Main Mast Gaff                      |                                       | 89. Funnel Yardarms                    |
| 18. Railings (Funnel Platform)    | 54. Prop Guard Buffers                  |                                       | 90. Fore Mast Side Yardarms            |
|                                   |   | 55. Sword and Shield Antenna          |  |
|                                   |   | 56. RAS Gantries                      |  |
|                                   |   | 57. Seacat Launcher Rails             |  |
|                                   |   | 58. Seacat Missiles                   |  |
|                                   |   | 59. VDS Deck Winches                  |  |
|                                   |   | 60. Ships Name Plates                 |  |
|                                   |   | 61. Fore Mast Rear Yard               |  |
|                                   |   | 62. Fore Mast Rear Yard Supports      |  |
|                                   |   | 63. Main Mast Lower Platforms         |  |
|                                   |   | 64. Fore Mast Front DF Antenna        |  |
|                                   |   | 65. Aft Director Platform (Ikara)     |  |
|                                   |   | 66. Fuel Can Stowage Racks            |  |
|                                   |   | 67. Yardarms (Fore Mast Forward)      |  |
|                                   |   | 68. Vertical Ladder Stock             |  |
|                                   |   | 69. Mast Top Antenna Array (Late)     |  |
|                                   |   | 70. Yardarm Supports (Fore Mast Side) |  |
|                                   |   | 71. Yardarms (Fore Mast Side)         |  |
|                                   |   | 72. Safety Nets (Hangar Roof)         |  |

## General Precautions

When assembling a Resin / Photoetched metal kit, certain precautions must first be taken.

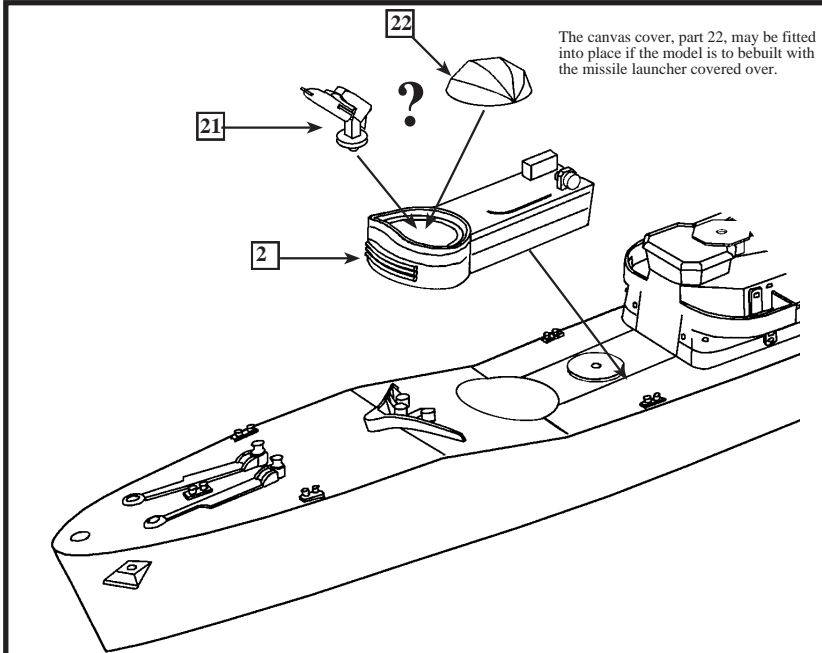
1. Resin dust can be harmful if inhaled. It is recommended that you wear a suitable dust mask when drilling or sanding resin parts.
2. Cyano adhesives (super glues ) are generally used to assemble this type of kit. Care must be taken when using this type of adhesive as it will bond in seconds. Follow the advice on the container.
3. Wash resin parts in a solution of warm soapy water before assembly. This will remove any residual mold release agents and ensure a good key for painting.
4. Soak photoetch parts in a suitable solvent, such as white spirit, to degrease the surfaces prior to painting.

### Main Structural Parts





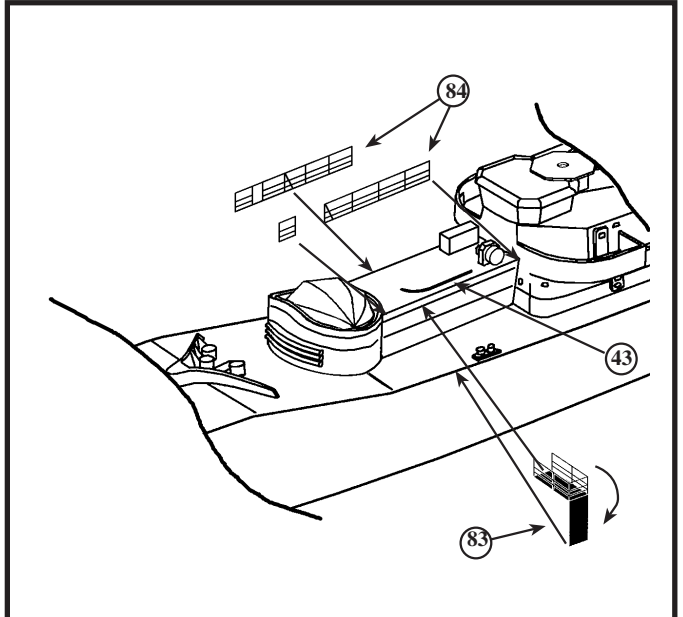
### Ikara Housing Assembly



The canvas cover, part 22, may be fitted into place if the model is to be built with the missile launcher covered over.

Remove the moulded details on the forecastle deck, of the second breakwater and mushroom vents, plus the moulded hatches on the front of the superstructure where the Ikara handling room comes against it. Leave the circular gun base in place as a location for the Ikara Zareba. Smooth the surfaces from where the details have been removed. Fit the Ikara Zareba, resin part 2, in to place as shown above. The option has been given where the Zareba itself can be built in the open or covered position. To model in the open position, it is recommended that the Ikara missile be finished before fitting. A live missile would be painted White where a practice shot would be Blue or Red. Fit into position at desired angle inside the circular housing.

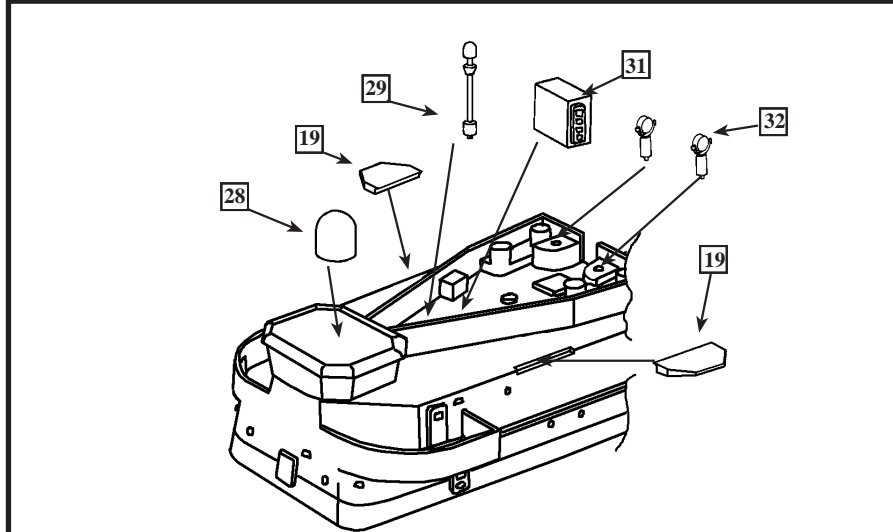
### Ikara House Railings & Walkway



Fit the railings sections, etched parts 84 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.

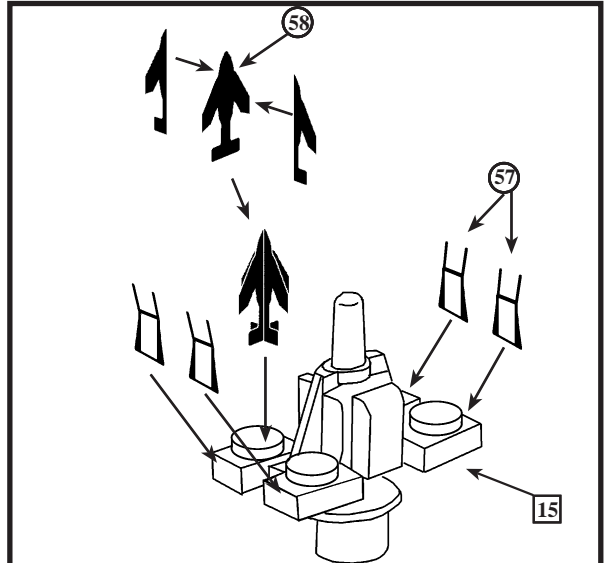
Fold the railings on the Extended Walkway, etched part 83, up to 90° then fold the end section to 90° to join the two side sections across the end of the platform. Fold the end support panel down to 90°. Fit into place against the port side of the missile handling room at the aft part of the gap in the railings.

### Tracking Radar & Gun Deck Extensions



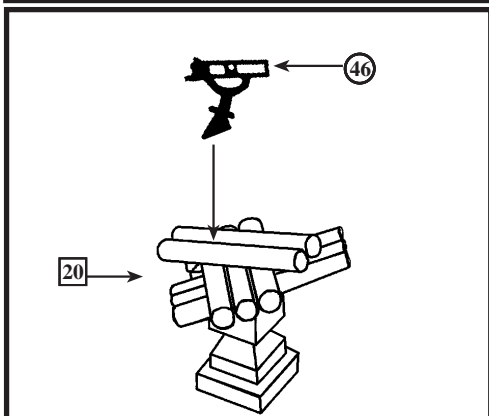
Fit the tracking Radome, part 28, centrally to the rear of the bridge roof. Fit the SATCOM Office, part 31, centrally across the front of the Fore Mast as shown above. Fit the Telemetry pole antenna, part 29 on the centre line midway between the SATCOM office and the rear of the bridge. Mark out the position of the two gun deck extensions, that should fit centrally along the side of the 20mm bases plates. Cut a shallow recess sufficient to fit the deck extensions, parts 19, flush to the superstructure deck. Remove the moulded detail for the 20mm gun mountings from the top of the superstructure.

### Sea Cat Missile Launcher



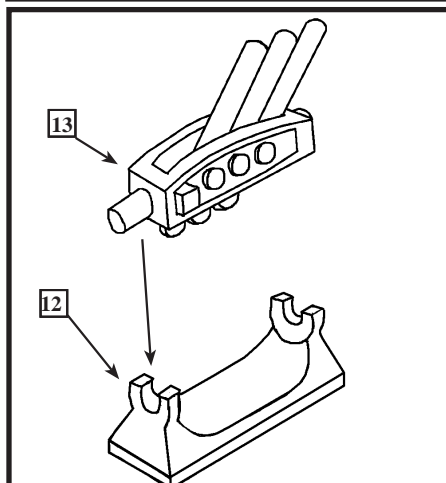
Assemble the Sea Cat missiles using etched parts 58 as shown above. These can be fitted to the launcher as desired. Fit the side rails, etched parts 57, to the short sides of the launcher.

### Corvus Chaff Launcher Assembly



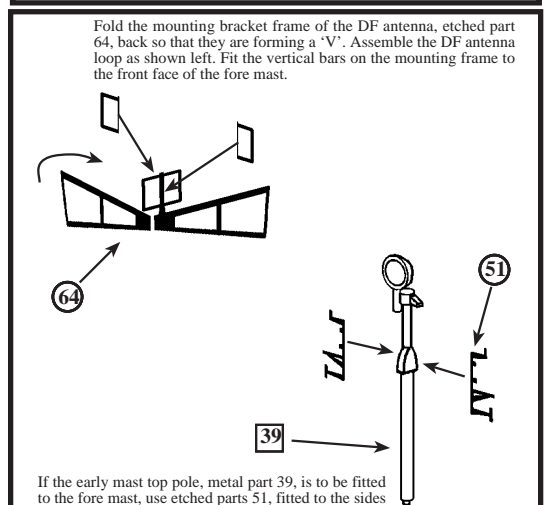
Fold the flare tubes, etched parts 46, in half to make them double thickness with the relief etched detail outer most. Fit to the top of the chaff launchers, metal parts 20 so that the foot locates between the top two tubes. Make two of these.

### Mortar Mk10 Assembly



Fit the Mortar Mk 10 Barrel unit, resin part 13, so that the hinge lugs locate in the recessed ends of the Mounting base, resin part 12. The mortar barrels can be angled sideways as desired.

### Fore Mast Antenna Assembly

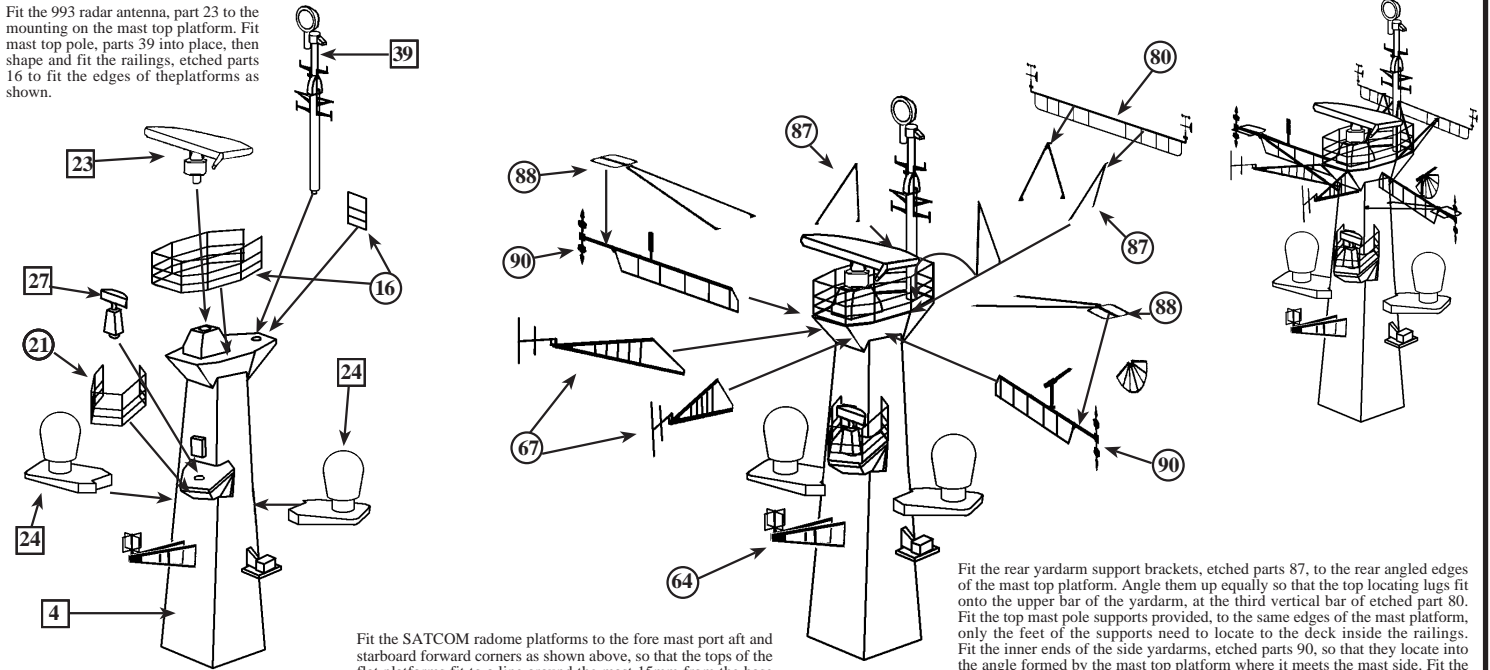


Fold the mounting bracket frame of the DF antenna, etched part 64, back so that they are forming a 'V'. Assemble the DF antenna loop as shown left. Fit the vertical bars on the mounting frame to the front face of the fore mast.

If the early mast top pole, metal part 39, is to be fitted to the fore mast, use etched parts 51, fitted to the sides of the mast pole as shown above.

## Fore Mast Yardarm & SATCOM Radome Location

Fit the 993 radar antenna, part 23 to the mounting on the mast top platform. Fit mast top pole, parts 39 into place, then shape and fit the railings, etched parts 16 to fit the edges of the platforms as shown.

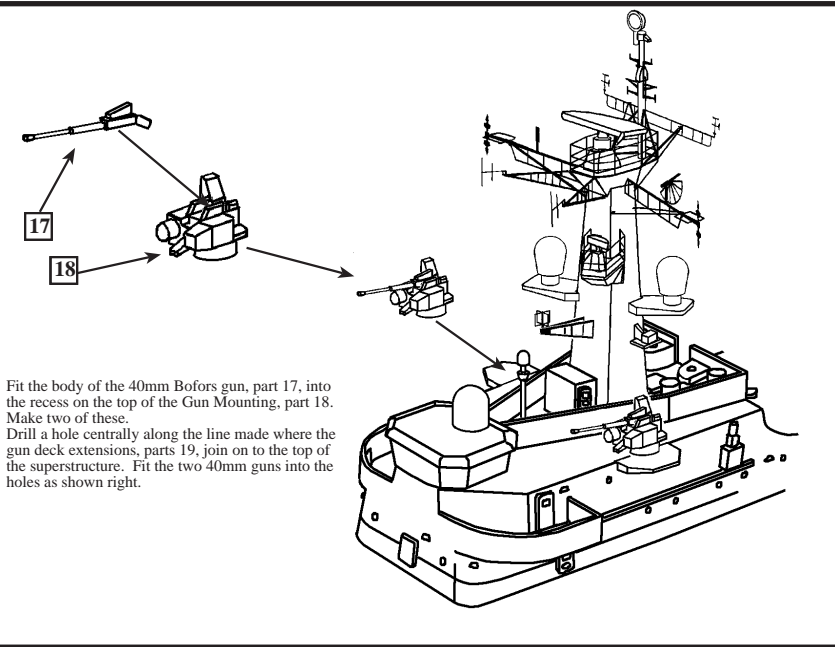


Fit the SATCOM radome platforms to the fore mast port aft and starboard forward corners as shown above, so that the tops of the flat platforms fit to a line around the mast 15mm from the base of the mast. Shape and fit the railings, etched parts 38, to the edges of the SATCOM platforms when secured to the mast.

Fit the rear yardarm support brackets, etched parts 87, to the rear angled edges of the mast top platform. Angle them up equally so that the top locating lugs fit onto the upper bar of the yardarm, at the third vertical bar of etched part 80. Fit the top mast pole supports provided, to the same edges of the mast platform, only the feet of the supports need to locate to the deck inside the railings. Fit the inner ends of the side yardarms, etched parts 90, so that they locate into the angle formed by the mast top platform where it meets the mast side. Fit the support stays, etched parts 88, so that the loop antennas fit on top of the outer ends of the yardarms. Angle the stays downward until they touch against the mast then fix into place.

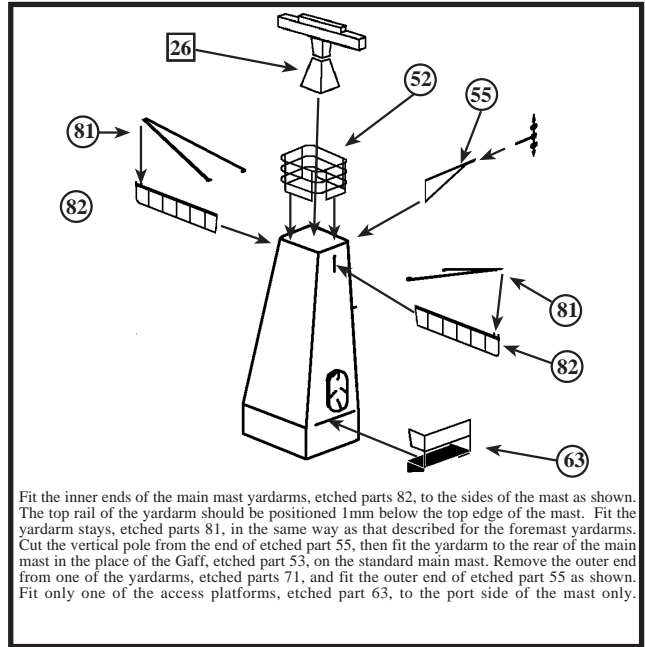
Fit the 978 radar antenna, part 27, to the offset platform at the front of the mast. Shape and fit the railings, etched part 21, to the edges of the offset platforms as shown.

## 40mm Bofors Gun Mountings



Fit the body of the 40mm Bofors gun, part 17, into the recess on the top of the Gun Mounting, part 18. Make two of these. Drill a hole centrally along the line made where the gun deck extensions, parts 19, join on to the top of the superstructure. Fit the two 40mm guns into the holes as shown right.

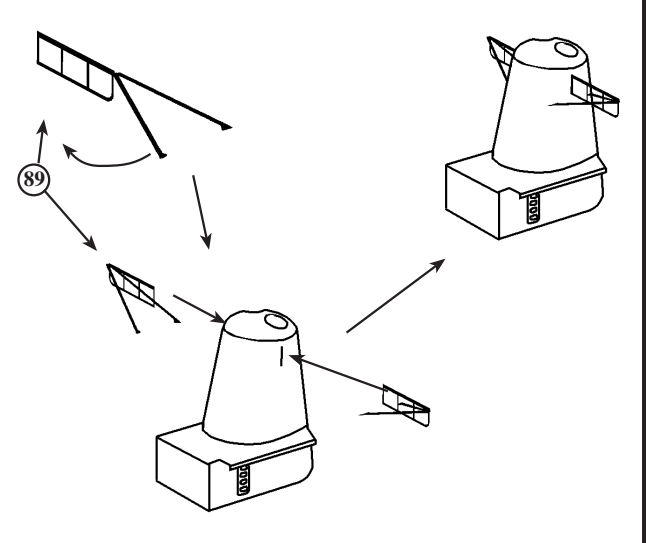
## Main Mast Fittings Location



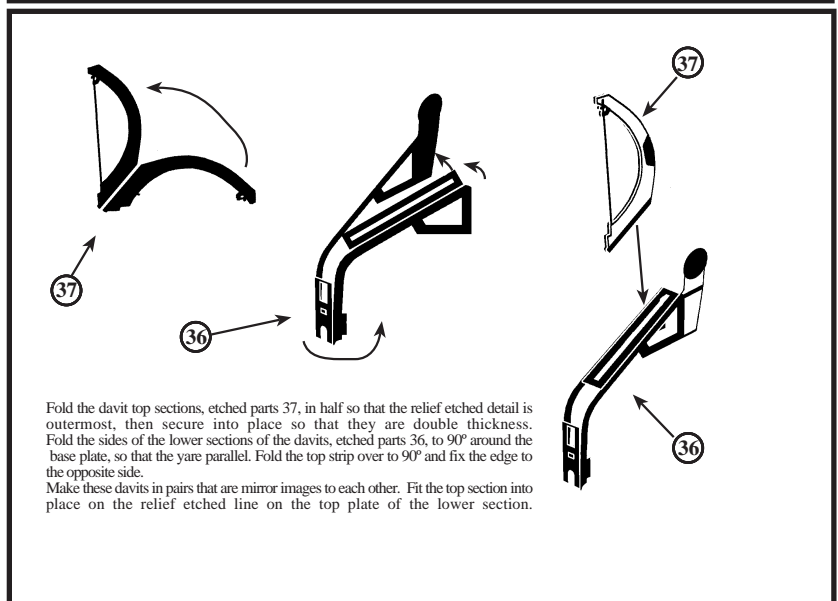
Fit the inner ends of the main mast yardarms, etched parts 82, to the sides of the mast as shown. The top rail of the yardarm should be positioned 1mm below the top edge of the mast. Fit the yardarm stays, etched parts 81, in the same way as that described for the foremast yardarms. Cut the vertical pole from the end of etched part 55, then fit the yardarm to the rear of the main mast in the place of the Gaff, etched part 53, on the standard main mast. Remove the outer end from one of the yardarms, etched parts 71, and fit the outer end of etched part 55 as shown. Fit only one of the access platforms, etched part 63, to the port side of the mast only.

## Funnel Yardarms Location

Fold the support legs of etched parts 89 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.

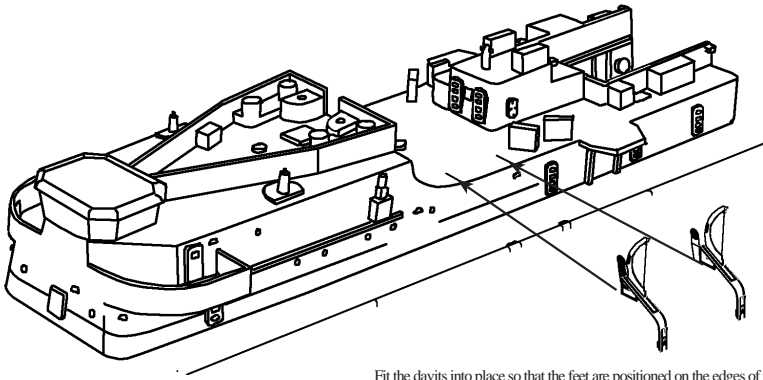


## Boat Davit Assembly



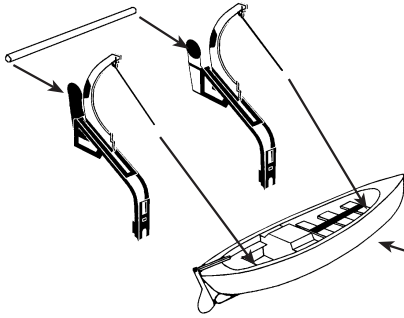
Fold the davit top sections, etched parts 37, in half so that the relief etched detail is outermost, then secure into place so that they are double thickness. Fold the sides of the lower sections of the davits, etched parts 36, to 90° around the base plate, so that the yare parallel. Fold the top strip over to 90° and fix the edge to the opposite side. Make these davits in pairs that are mirror images to each other. Fit the top section into place on the relief etched line on the top plate of the lower section.

## Boat Davit Locations

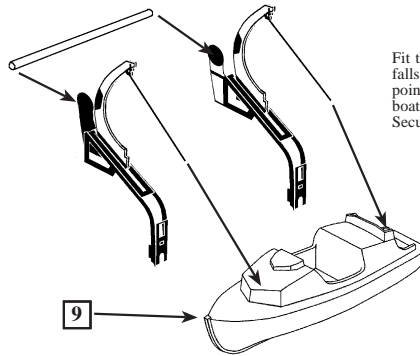


Fit the davits into place so that the feet are positioned on the edges of the main deck. The bottom of the horizontal bracket should fit onto the superstructure deck at the location shown above. This is the same on both sides.

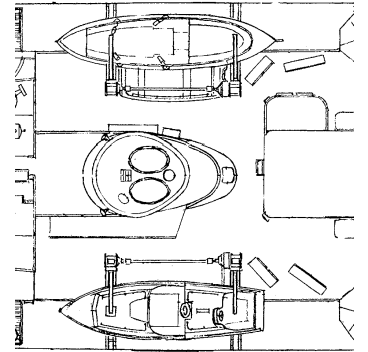
Cut a length of plastic rod or stretched sprue to fit between the davits as shown



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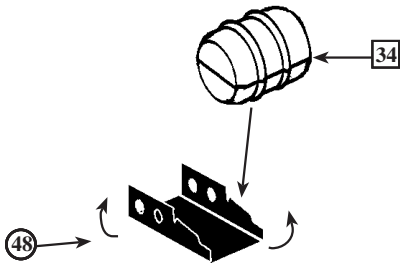
9



Boat Davit Location

Fit the boats in to place by measuring the distance of the falls from the davits, then drilling through the boat at those points forward and aft. Feed the falls down through the boat, until the boat is in the correct position on the davits. Secure in to place

## Life Raft Stowage Assembly

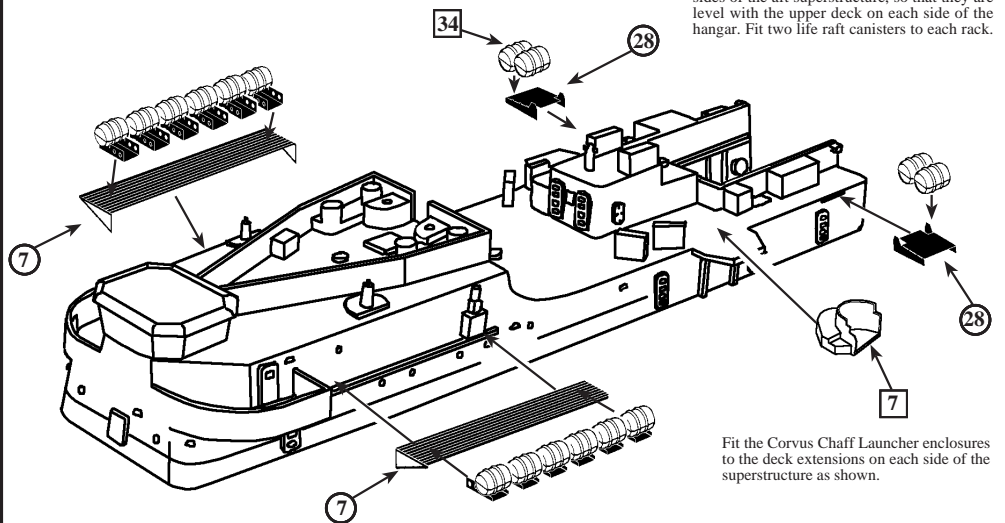


Fold up the sides of the life raft canister racks, etched parts 48, so that they are parallel. Remove the life raft canisters, parts 34, from the molding strips so that each canister is separate, then fit to the angled part of the rack as shown above.

For the aft pair of life raft racks, fold down the sides of etched parts 28, so that they are parallel, then fit directly to the edge of the deck on the aft superstructure.



## Life Raft Shelf and Canister Stowage Locations

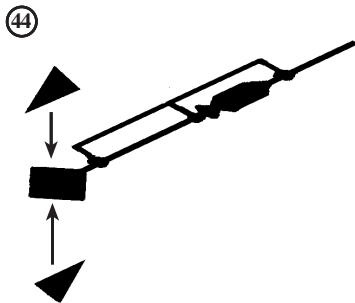


Fit the aft life raft racks, etched parts 28, to the sides of the aft superstructure, so that they are level with the upper deck on each side of the hangar. Fit two life raft canisters to each rack.

Fold down the end angled brackets on etched parts 7 to 90°. Fit these shelves into place on the sides of the superstructure, on top of the locating strip provided. Fit six life raft canisters on their ejector racks to each side shelf as shown above.

Fit the Corvus Chaff Launcher enclosures to the deck extensions on each side of the superstructure as shown.

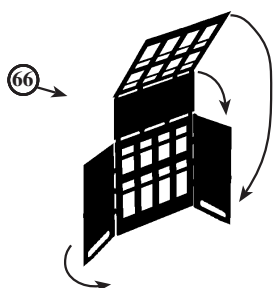
## Dan Buoy Assembly



Assemble the radar reflectors on the Dan Buoys, etched parts 44, 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 90° alternate sections

## Fuel Can Rack Assembly

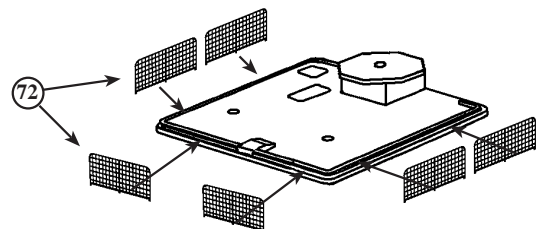


Fold the sides of the fuel can rack round to 90° so that they are parallel, then fold the top and front panels down in stages of 90° so that they form a box construction rack.

These racks are meant to contain the Jerry cans of fuel required by the ships boats. They are usually positioned on the edges of the deck between the mortar well and the VDS well. They have a quick overboard release capability due to the flammable contents and are painted red.

## Hangar Roof Nets Location

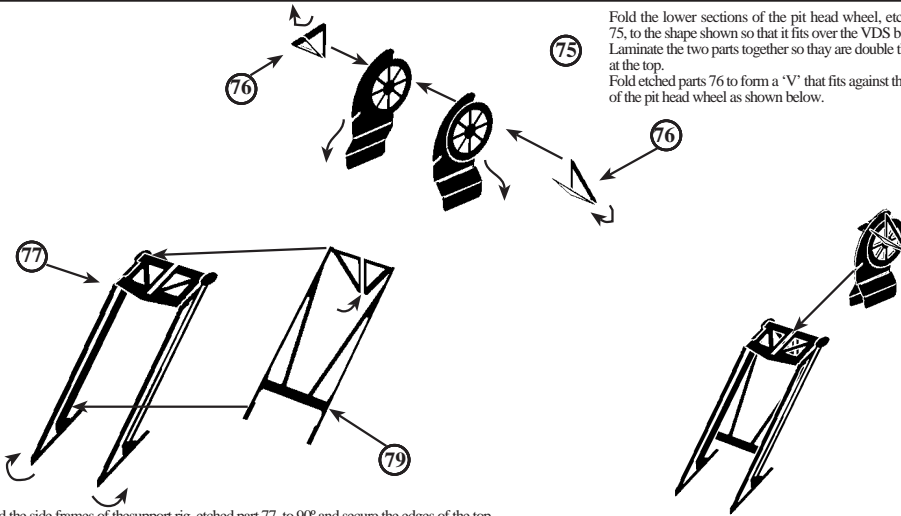
Some of the ships in the class that had a second Sea Cat missile system mounted on the hangar roof, were fitted with folding safety nets around the deck edges. On some ships the original railings were retained and on others there was a combination of both nets and railings.



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 25 can be used.

### Variable Depth Sonar (VDS) Pit Head Gear Assembly

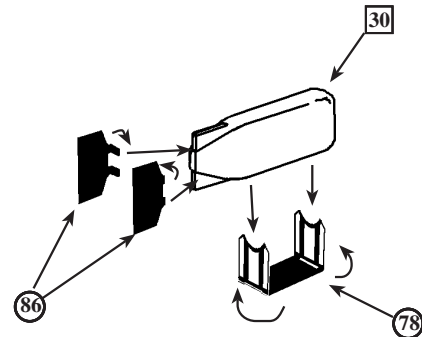
Fold the lower sections of the pit head wheel, etched part 75, to the shape shown so that it fits over the VDS body. Laminate the two parts together so they are double thickness at the top. Fold etched parts 76 to form a 'V' that fits against the spokes of the pit head wheel as shown below.



Fold the side frames of the support rig, etched part 77, to 90° 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 79 so that the long edges locate along the inside of the thicker side bars on etched part 77.

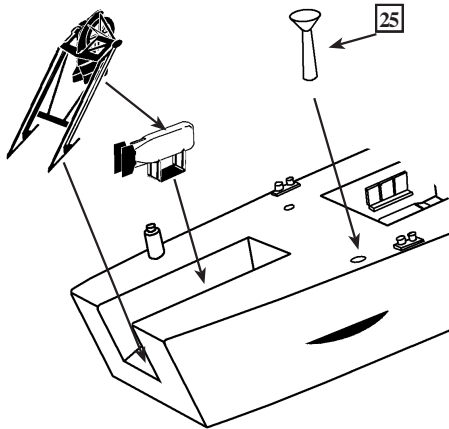
Fit the pit head wheel assembly so that slot in the rear fits over the corresponding slot in the support frame top plate.

### VDS Body and Cradle Assembly



Fold up the ends of the VDS cradle, etched part 78 to 90° so that they are parallel. Turn the attachment lugs on the stabiliser fins inwards and fit the fins to the rear of the VDS body. Fit the VDS body into the cradle as shown.

### VDS Location

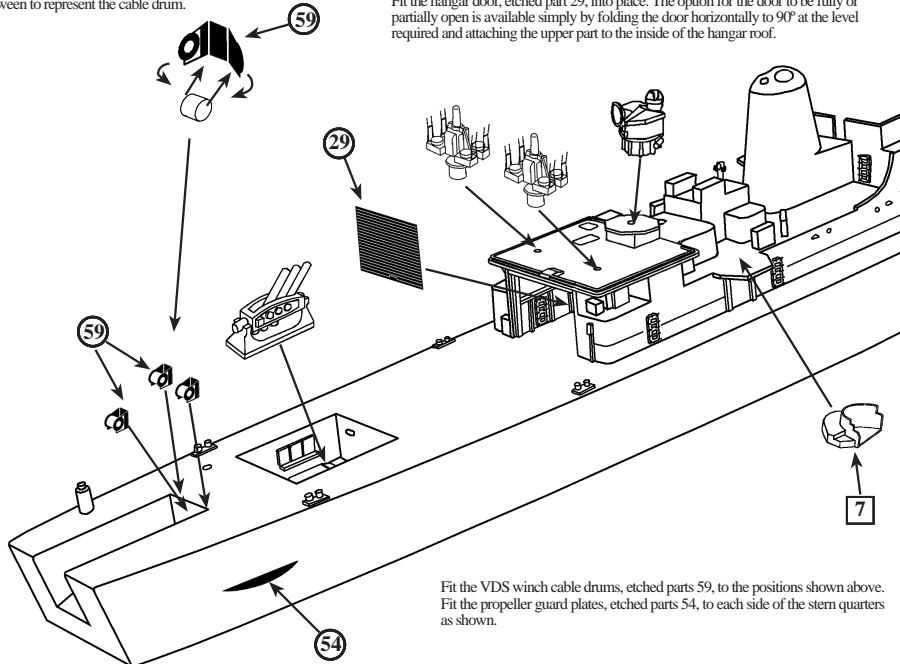


Remove the transom plate from across the rear of the VDS well and smooth in the sides. Fit the VDS body and cradle assembly into the stern well so that the bottom of the cradle locates centrally onto the horizontal deck. Fit the support frame and pit head gear assembly so that the shaped guide channel 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. Fit the cone antenna to the starboard side deck edge, halfway between the mortar well and the VDS well, as shown above.

### Aft Fittings Locations

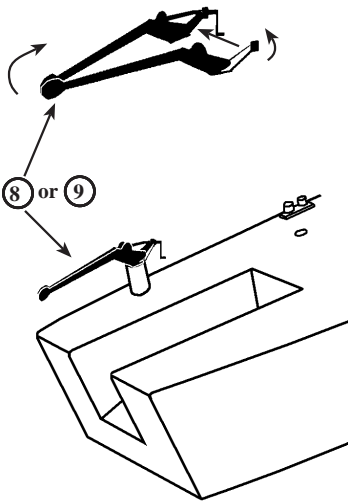
Fold the sides of the cable reels, etched parts 59 to 90° so that they are parallel, then fit a length of rod or sprue in between to represent the cable drum.

Fit the Sea Cat Missile Launchers and Director into place at the locations shown on the hangar roof. Fit the hangar door, etched part 29, into place. The option for the door to be fully or partially open is available simply by folding the door horizontally to 90° at the level required and attaching the upper part to the inside of the hangar roof.



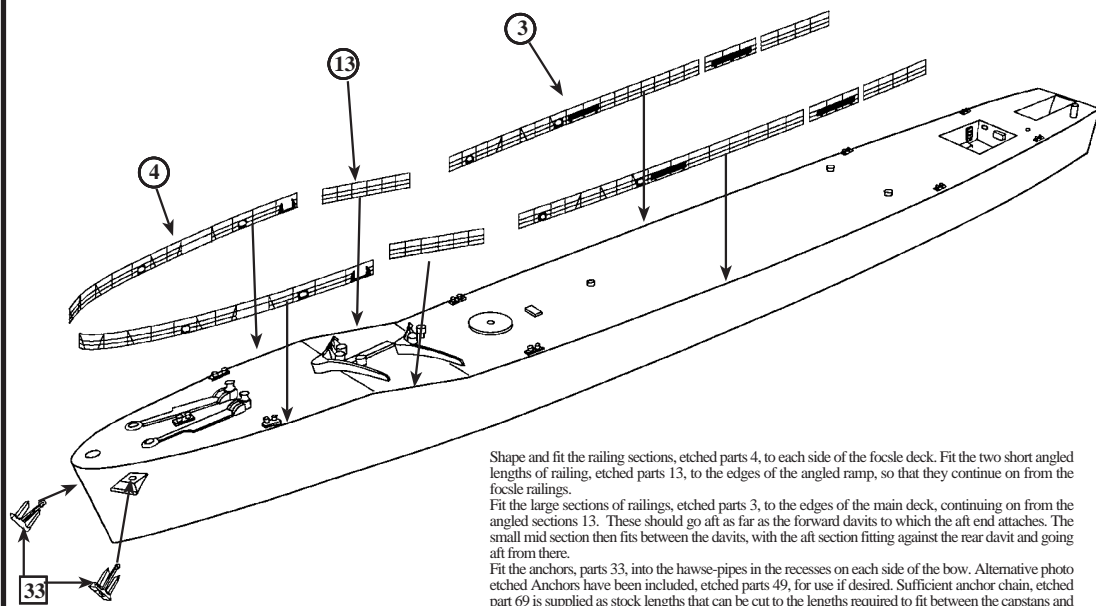
Fit the VDS winch cable drums, etched parts 59, to the positions shown above. Fit the propeller guard plates, etched parts 54, to each side of the stern quarters as shown.

### Paravane Crane Assembly



Shape the paravane crane, etched part 8, as shown above and fit to the top of the mounting pillar on the stern deck. The alternative crane, etched part 9, is a late model fitted during the refits on some ships of the class. Further research to establish which ones would have to be done.

### Main Deck Railings Location



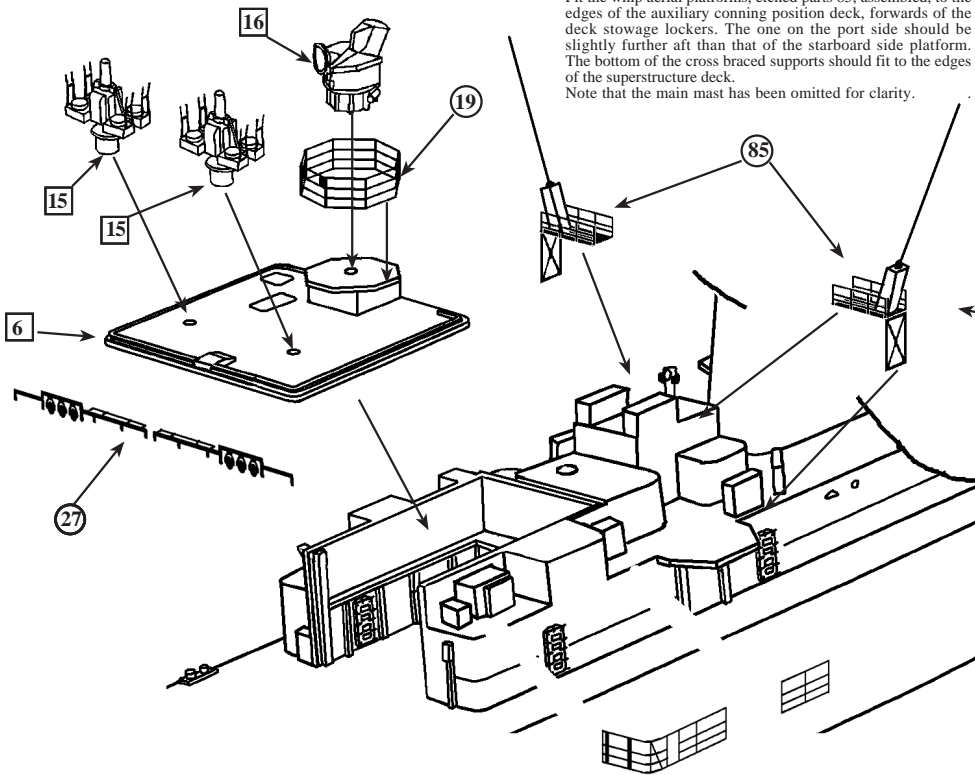
Shape and fit the railing sections, etched parts 4, to each side of the focsle deck. Fit the two short angled lengths of railing, etched parts 13, to the edges of the angled ramp, so that they continue on from the focsle railings.

Fit the large sections of railings, etched parts 3, to the edges of the main deck, continuing on from the angled sections 13. 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 anchors, parts 33, into the hawse-pipes in the recesses on each side of the bow. Alternative photo etched Anchors have been included, etched parts 49, for use if desired. Sufficient anchor chain, etched part 69 is supplied as stock lengths that can be cut to the lengths required to fit between the capstans and the hawse pipe openings on the focsle deck.



## Sea Cat Missile System & Whip Aerial Mounting Location



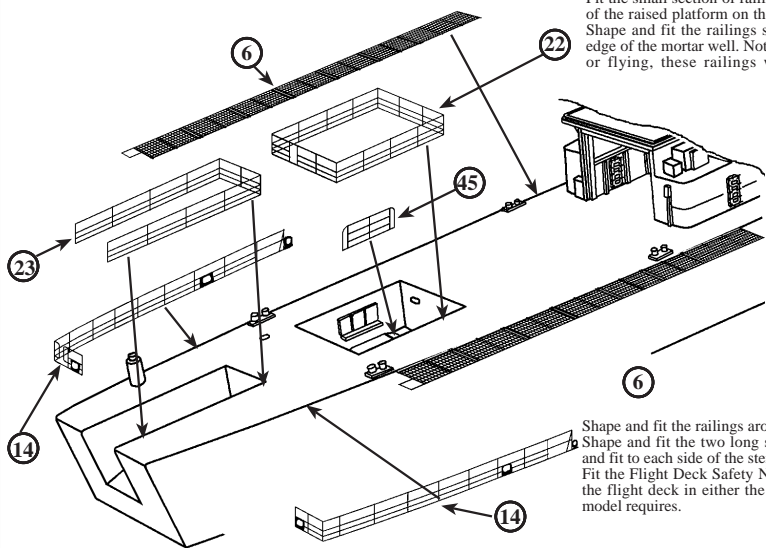
Fit the whip aerial platforms, etched parts 85, assembled, to the edges of the auxiliary conning position deck, forwards of the deck storage lockers. The one on the port side should be slightly further aft than that of the starboard side platform. The bottom of the cross braced supports should fit to the edges of the superstructure deck.  
Note that the main mast has been omitted for clarity.

Fold down the cross braced platform support on etched parts 85, to 90°, then fold up the railings so that they are parallel. Fold the end section across to join on to the opposite side.

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

Use the redundant railing section, etched part 19, to fit to the edges of the director platform. Fit the GWS22 director unmodified, to the platform. Fit the helicopter approach light and flight deck floodlight bar to the rear edge of the hangar roof. This is done by folding the attachment rail on top of the bar, inwards to 90° so that it locates on the edge of the decking.

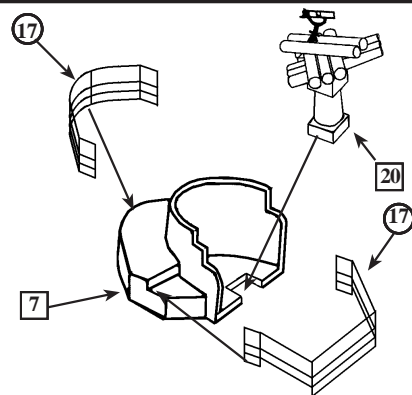
## Flight Deck Railings and Safety Net Location



Fit the small section of railing, etched part 45 to the inner edge of the raised platform on the starboard side of the mortar well. Shape and fit the railings section, etched part 22, around the edge of the mortar well. Note: When the helicopter was on deck or flying, these railings would be collapsed or removed.

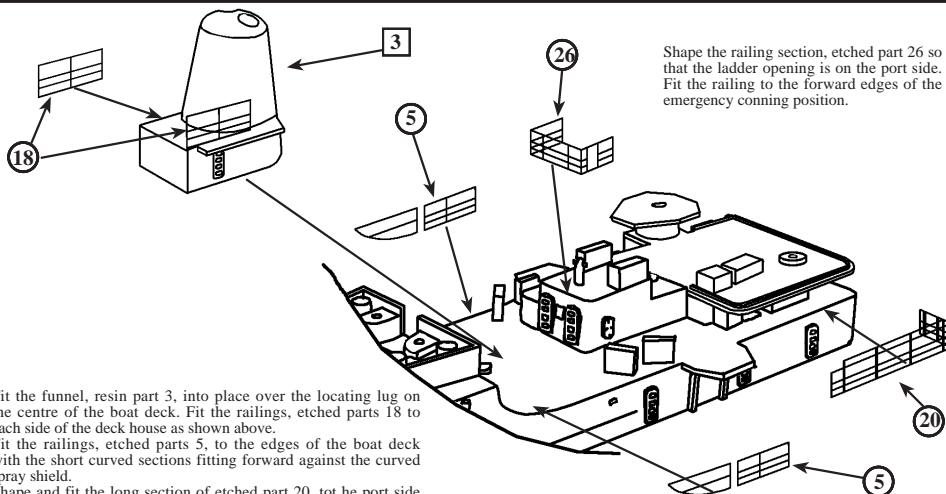
Shape and fit the railings around the VDS well, etched parts 23. Shape and fit the two long sections of railing, etched parts 14 and fit to each side of the stern as shown above. Fit the Flight Deck Safety Nets, etched parts 6, to the edges of the flight deck in either the raised or lowered positions as the model requires.

## Chaff Launcher Assembly



It is recommended that the Corvus Chaff Launcher enclosures be fitted to the deck extensions at the rear of the superstructure before fitting the parts. Cut out a rectangular notch in the bottom of the enclosure to receive the base of the launcher. Fit the launcher into place, then shape and fit the straight railing section of etched part 17, to the rear platform on the chaff launcher enclosure. Shape and fit the angled forward section of railing 17, to the stepped area of the enclosure as shown above.

## Superstructure Railings Location



Fit the funnel, resin part 3, into place over the locating lug on the centre of the boat deck. Fit the railings, etched parts 18 to each side of the deck house as shown above. Fit the railings, etched parts 5, to the edges of the boat deck with the short curved sections fitting forward against the curved spray shield. Shape and fit the long section of etched part 20, to the port side of the hangar, with the raised part forming the hangar roof support.

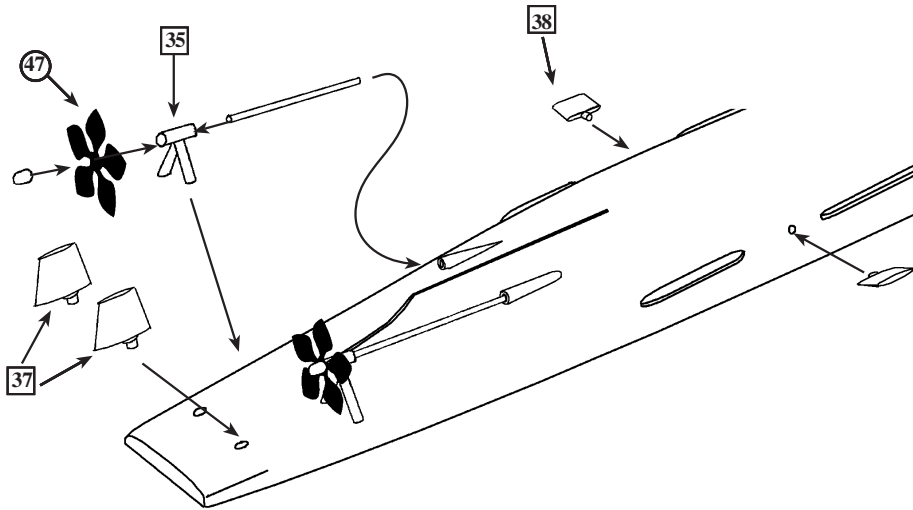
Shape the railing section, etched part 26 so that the ladder opening is on the port side. Fit the railing to the forward edges of the emergency conning position.



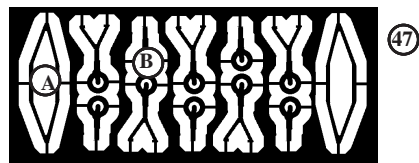
## Propeller and Rudder Assembly

If the kit is being built as a full hull model, prepare the lower hull and fit to the upper hull as described at the beginning of these instructions. Fit the Stabiliser fins, parts 38 to the locating holes on the lower hull between the bilge keels. Cut two 30mm lengths of the 1mm diameter brass rod stock provided, to make the propeller shafts. Cut the front of the hub boss from the bearing and retain. Fit the propeller, etched part 47, centrally to the flat face on the front of the 'A' frame bearing. Re-fit the hub boss to the front of the propeller as shown right. Fit the propeller shaft assemblies to the lower hull so that the open end of the shaft fits in to the hull sleeve.

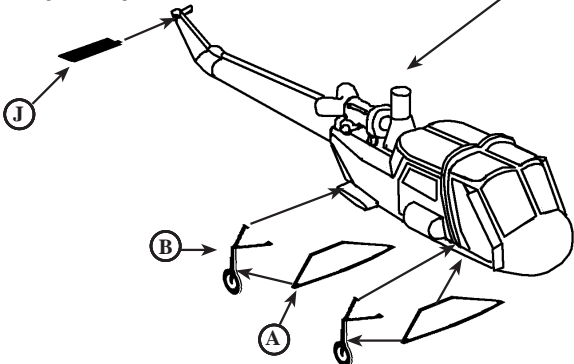
The legs of the A-frame may need to be trimmed in length to get the A-frame to sit correctly on the hull, but there is sufficient length on both legs to do this. Fit the rudders, metal parts 37, in to place in the locating holes on the stem.



## Wasp HAS1 Helicopter Assembly

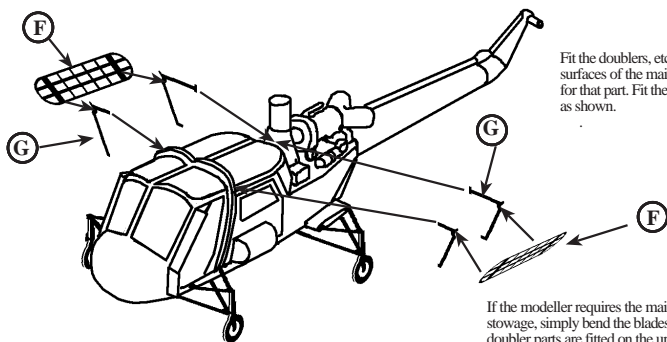


Cut a groove in the top of the tail opposite to the tail rotor attachment, and fit the stabiliser wing etched part 49J in to place.



Assemble the starboard side undercarriage legs in the same way as described for the port side.

Fold the flotation bag shells, etched parts 49F, in half so that the relief etched detail is outermost. Fit the flotation gear attachment frames, etched parts 49G, so that the forward frames fit onto the outside of the yolk frame between the front and rear doors. The rear frame fits with the top foot on the front of the main rotor gearbox and the lower foot on the engine deck. The flotation bag shells then fit with the lower edges slotting into the point of the attachment frames at the thick relief etched lines.



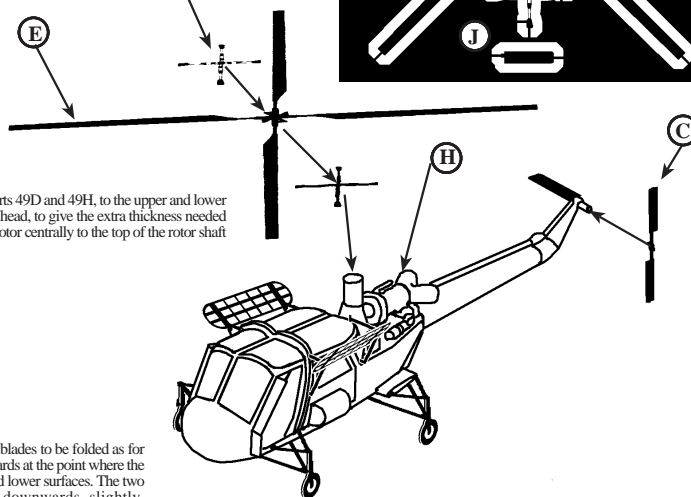
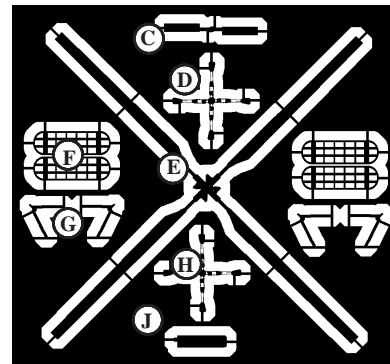
Fit the doublers, etched parts 49D and 49H, to the upper and lower surfaces of the main rotor head, to give the extra thickness needed for that part. Fit the main rotor centrally to the top of the rotor shaft as shown.

If the modeller requires the main rotor blades to be folded as for storage, simply bend the blades rearwards at the point where the doubler parts are fitted on the upper and lower surfaces. The two front blades would be angled downwards slightly.

Fold the undercarriage legs 47B in half so that they are double thickness with the relief etched detail outer most. Secure into place. Fold the 'V' frame on top of the undercarriage legs to 90°. Make 4 of these.

Fit the lower undercarriage attachment frames to the underside of the fuselage, so that the rear of the front frame is in line with the main door pillar, and the rear frame is in alignment with the small stub wings. The two parallel sections of each frame fit onto the underside of the fuselage centrally.

Fit the front undercarriage to the fuselage so that the ends of the top 'V' frame fit on to the fuselage forward with the rear foot in line with the door pillar. The point of the lower frame should attach to the inside of the leg just above the wheel. The rear leg top 'V' frame feet fit onto the outside edge of the stub wing, and again the point of the lower frame should attach to the inside of the leg just above the wheel.



## Wasp Helicopter Colour Guide



  
 Humbrol 96  
 RAF Blue Grey



Other Colours Used

Ships Flights Codex Numbers  
 422/HMS Aurora. 426/HMS Arethusa 433/HMS Euryalus  
 452/HMS Galatea 460/HMS Ajax473/HMS Dido  
 476/HMS Leander 324/HMS Naiad

Matt Black..... Wheel Tyres, Undersides of Rotor Blades.  
 Light Grey... Top Surfaces of Rotor Blades, Cockpit Interior  
 Red and White .... Tail Rotor Blade Tips  
 Gloss Black.... Tail Rotor Blades

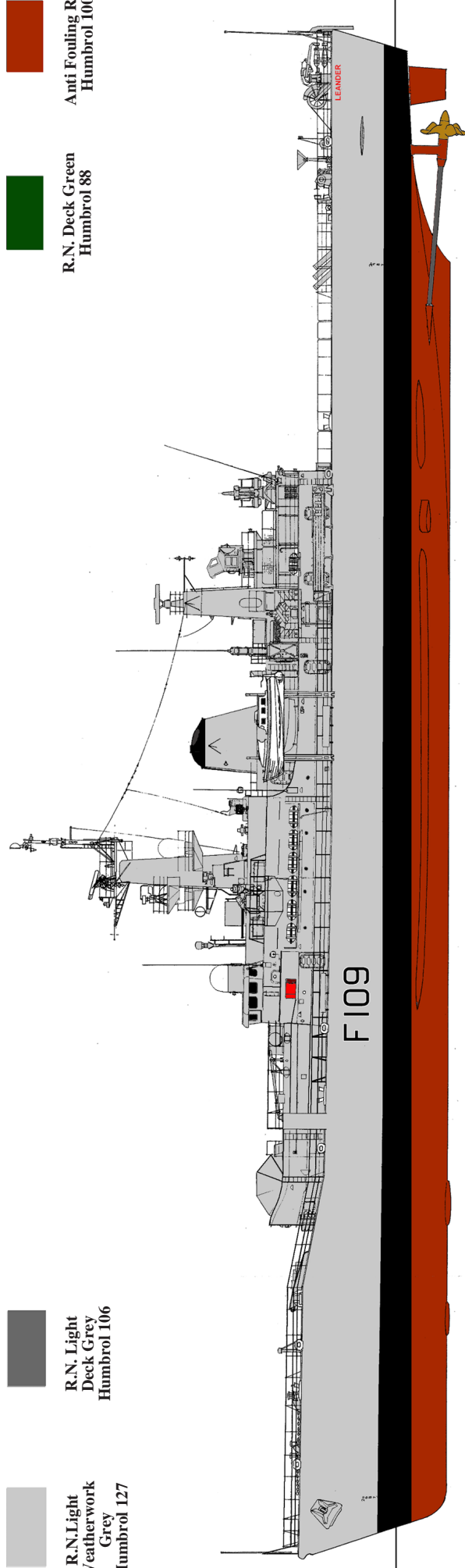
Main Colour Chart and Painting Guide

 R.N. Light  
Weatherwork  
Grey  
Humbrol 127

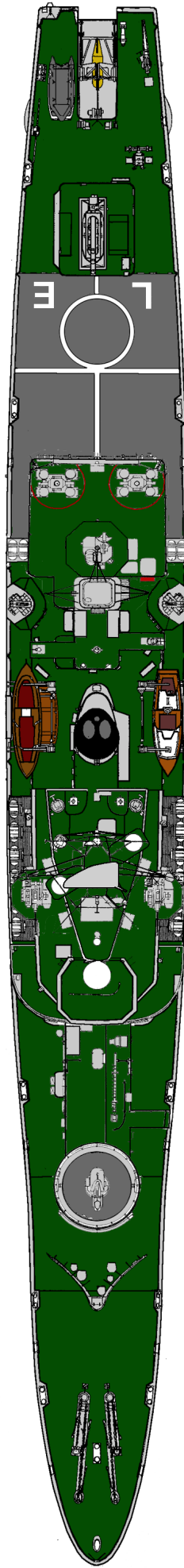
 R.N. Light  
Deck Grey  
Humbrol 106

 R.N. Deck Green  
Humbrol 88

 Anti Fouling Red  
Humbrol 100



HMS LEANDER 1976



Pennant Numbers & Flight Deck Code Letters for all IKARA Leanders

F114 HMS Ajax / AJ    F38 HMS Arethusa / AR    F10 HMS Aurora / AU  
 F104 HMS Dido / DO    F15 HMS Euryalus / EU    F18 HMS Galatea / GA  
 F109 HMS Leander / LE    HMS F39 Naïad / NA

The colour guide above shows the main scheme and the areas covered. There are smaller less obvious areas that are listed below.

Matt Black

Upper parts of Masts and Exhaust Stacks. Gun Barrels. Waterline Boot Topping.

Matt White

Fore Mast Top Array. Life Raft Canisters. Bollards and Fairleads. Coachwork on Motor Boat

Bronze

Propellers. Elevation Discs on 4.5" Guns.

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