Belcher Bitlets No.1: CH124A Modifications

Kit: Fujimi Sea King 1/72

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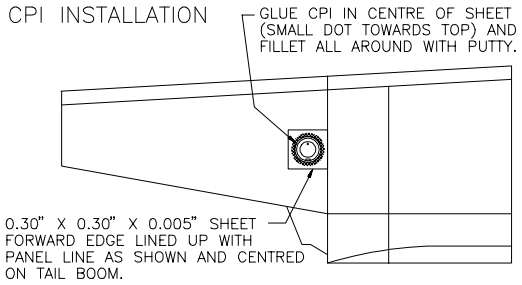
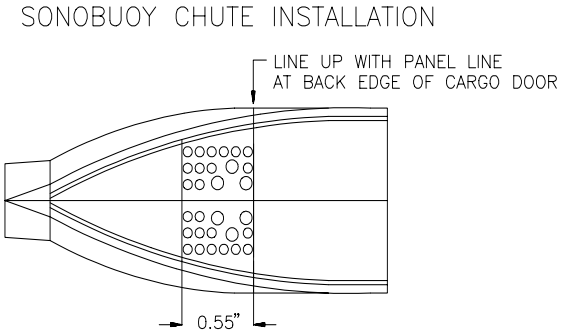
Background

Around 1980, all Canadian CH-124A Sea Kings were fitted with a fuselage mounted sonobuoy launching system which can accomodate both flares and sonobuoys. Externally, it appears as a number of open tubes protruding from the bottom of the aft fuselage. At about the same time, Sea Kings were fitted with a Crash Position Indicator (CPI), a transponder designed to break away from the aircraft and emit a homing signal in case of a crash. It is mounted on a plate fixed to the aft starboard side of the tailboom.

In 1990, a Canadian Naval Task Group was sent to the Persian Gulf to assist with the embargo of Iraq. Prior to departure, six Sea Kings (12410, 412, 413, 417 and 426) were modified to improve their self-defence capabilities and their ability to monitor shipping. These modifications included fitting a FLIR turret, an AN/ALQ-144 IR jammer, an M130 Flare dispenser, an AN/ALE-37 chaff/flare dispenser and radar warning receivers.



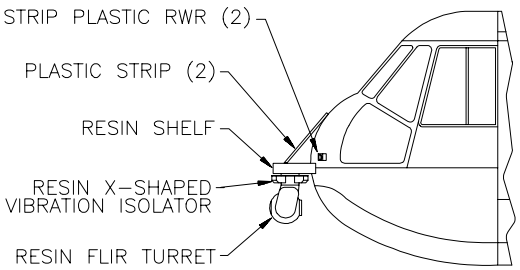
CPI Assembly Instructions: Cut a piece of the 0.005" sheet supplied, 0.30" square. Roll it over a paintbrush handle to give it a slight curve, and glue it into position as shown on the sketch. Sand the backing from the resin CPI and using cyanoacrylate, glue it into position in the centre of the sheet, with the small dot up. Use your favourite filler to form a smooth fillet all around the CPI. When painting, the top half of the inverted piepan shaped part is painted red, the bottom white; the rest is the same colour as the airframe.

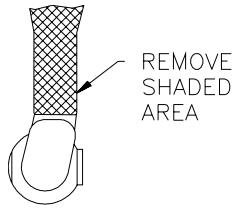


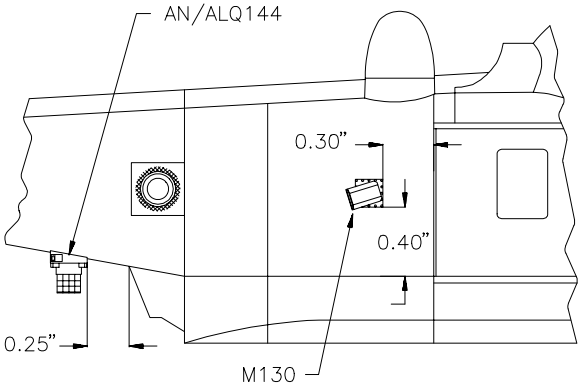
Sonobuoy Launcher Assembly Instructions: Because this piece spans the entire bottom of the fuselage, it is easier to finish the basic fuselage construction first, then cut a slot across the bottom of the fuselage and fit it in. Once glued in place with cyanoacrylate (be careful not to get any in the holes!), it should be filed and sanded flush with the bottom and sides. This is the time to prime and check seams, before adding the tubes!

Sonobuoy Launch Tubes: Two sizes of aluminum tubing are supplied for you to construct your launcher tubes. The full size launcher tubes are cut away on their aft sides but in 1/72 scale, this would be very difficult to represent, so I recommend you simply cut the tubing to the correct length (3/16"). If you wish to try to represent the cut-away tubes, you're on your own! When installing the tubes in the launcher, ensure they all point straight down! They fit fairly snugly in the launcher, so you should be able to position them well and then apply a small amount of cyanoacrylate to hold them in position. The tubes are painted the same colour as the airframe.

FLIR Turret / Forward RWR Installation: This is supplied in three resin pieces. Sand the backing from the shelf and the X-shaped vibration isolator and trim the FLIR turret as shown. The shelf is glued to the nose of the aircraft, its top in line with the edge of the nose window frame. This shelf is supported by two angle struts which span the small door in the nose. These can be represented by 0.020" x 0.020" square strip. Below the shelf, glue the isolator (flat side on top), then the turret. The mounting arms really are slanted slightly forward, so don't try to straighten things up! The IR sensor ball is given in its normal stowed position with the lens facing the aircraft. The shelf and supports are airframe colour, while the vibration isolator and FLIR are black. A pair of black cables run from the aft top part of the FLIR to a plug in the nose, just to the starboard side of the shelf.On either side of the shelf are installed two box-shaped radar warning receivers (RWR). These can be represented by small pieces of strip 0.030" x 0.040" x 0.060" long, with a small dot on the face. The bottom of these are in line with the top of the shelf.

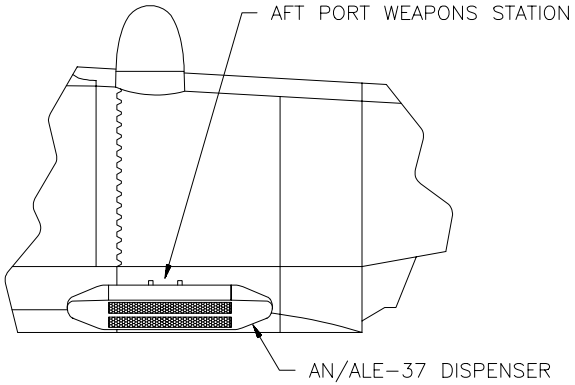






M130 Flare Dispenser / AN/ALQ-144 IR Jammer

Glue on the M130 in the indicated position: Base is airframe colour, dispenser is black. The base of the ALQ144 is really a U-shaped metal bracket, open in front and rear. Careful use of a file will allow you to remove the inside of the'U'. The small triangular based RWRs can be represented by tiny bits of strip on either side of this base at the aft end. Glue the jammer to the bottom of the tailboom where indicated. The base is grey, upper cylindrical section black, lower section metallic blue or gold, depending on how you look at it. A cable runs from the forward side of the upper section of the jammer to a plug on the underside of the tailboom about 0.10" ahead.



AN/ALE-37 Chaff / Flare Dispenser

This unit is carried on the aft weapons station, port side only. No other stores are carried. The dispenser appears to be a lighter grey than the airframe colour, while the dispenser chute arrays are very dark grey; the ejector rack is natural aluminum.

Other Modifications

Canadian CH-124 Sea Kings are not identical to other navy's machines, but most of the differences are internal. The modeller should fill in the middle fueling port on the port side, and add the tail probe for the hauldown system. Check the references for antenna placement; this varied over time, so try to get good photos of the machine you want to build.

Some time prior to the Gulf War mods, CH-124s were fitted with a strake on the aft port fuselage to improve stability in the hover. It runs from a point in line with the centre of the radome to the last panel line before the tail fold joint; it appears to be aligned with a longitudinal rivet line about 16" over from the driveshaft cover . I would use Evergreen 0.010" x 0.060" strip.

Gulf War Sea Kings also had a Global Positioning Satellite (GPS) receiver fitted. It was mounted on a U-shaped plate over the tail rotor shaft cover. This is too small to include but is easy to scratchbuild. About 0.10" forward of the tailboom / fuselage joint, glue a 0.10" square of 0.010" card to the top of the shaft cover and the same size square on each side. In the centre of the top surface, glue another piece of 0.015" card (about 0.06" square). Voila ...GPS!

The dipping sonar equipment was removed and the hole in the floor capped with a cylindrical plug which stands about 6" high. Do not install the dipping sonar in the well in the fuselage bottom.

Finally, these machines had a door mounted light machine gun fitted. The parts for this are not included, since to see it, you would have to open the aft door, and then you really should detail the interior, which (trust me) is a heck of a lot of work. Better to leave the door shut!

Markings

All but the earliest Sea Kings were overall grey 501-109 until about 1984, when they received the current lo-vis scheme. Markings were black numbers, red and white flag and red/white/blue roundels. These are available in the correct sizes from a variety of sources. See references for details.

The current scheme (which covers the Gulf War birds) is overall semi-gloss grey FS 26173 (available from Xtracolour), with a small anti-glare area on the nose of a slightly darker grey. For markings, Arrow Graphics makes a line of dark grey code and roundel decals. Nose numbers are 18", side numbers are 24" as is the roundel. The flag on the tailboom is 14-1/2" high. The Canada wordmark is 9", with 6" overall height for the Flag / Canadian Forces / Forces Canadiennes logo. Just to make your life difficult, these were hurry-up modifications installed over existing paint schemes. This presents a problem in the nose area where the shelf actually covers part of the a/c nose number. I recommend you install the mods, paint the model and then trim decals to fit.

References

1. IPMS Canada RT Vol 15 No.3: (Interior views and early colour schemes of CH-124s)
2. IPMS Canada RT Vol 16 No.6 (Lo-vis paint scheme)
3. IPMS Canada RT Vol 23 No.4 (Detail photos of Gulf War CH-124s).
4. Famous Airplanes of the World No.15 Sikorsky Sea King, Burindo Co.: Not much on CH-124s, but if you like Sea Kings, you should have this book

Special thanks to Francois Huot, Graham Mansell and Steve Sauve for information on this equipment.