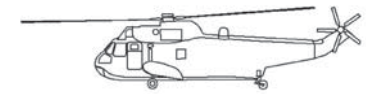


Belcher Bits BB-16: Liberator GRV Dumbo Radome / Leigh Light 1/48

**Belcher
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Intended kit: Revell Monogram B-24D

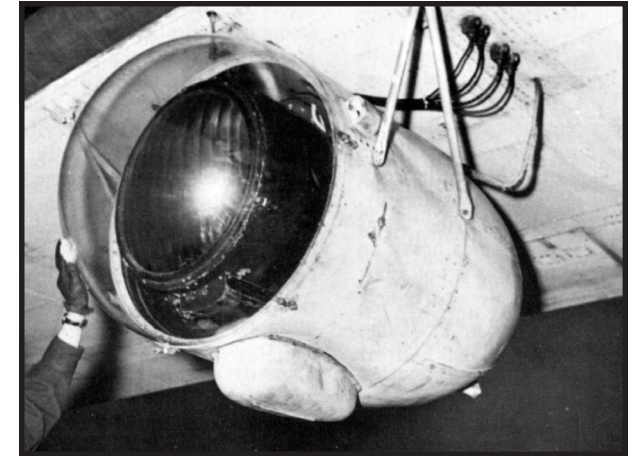
The Coastal Command use of the long range B-24 for anti-submarine work was the beginning of the end of the U-Boat menace in the North Atlantic; it meant there was less opportunity for submarines to surface away from convoys to recharge batteries and receive radio directions. The B-24 had the range for the work required as well as the capacity for the load in addition to the radar fit, and the speed necessary for the attack. Earlier Coastal Command aircraft such as the Consolidated Canso (PBY) used Yagi antenna and underslung weapons which slowed the aircraft down (and they were never speedy to start with) so that a depth charge attack on a surfaced submarine often turned into a shooting match.

The B-24D (or Liberator GR V in RAF service) were delivered to the RCAF with the ASV Mk III centimetric radar fitted in either a retractable radome replacing the belly turret, or the Dumbo radome below the nose greenhouse. Aircraft of several Coastal Command squadrons were equipped with the GR V; one of the more successful was BR(10) Sqn of the RCAF, which operated a number of these aircraft.

The RCAF preferred the nose radome over the retractable unit but when the GR VI (based on later B-24Gs with nose turrets) came into service with 10(BR) and 11(BR) Sqns, the retractable belly radome was re-introduced.

Another British A/S innovation was the Leigh Light. Developed by Wing Commander Leigh, it was essentially a large naval searchlight mounted in a housing. The light pointed forward but was partially trainable, so it could be used on the run-in to a night attack to both illuminate and blind the surfaced subma-

rine. The first installation replaced the dustbin retractable lower turret on the Wellington with a similar mount for the Leigh Light. A later development housed the light in a streamlined pod slung under the wing. This large pod added considerably to the drag of the aircraft but the B-24 had the necessary power and generating capacity to operate the unit. This pod was also tried on a Swordfish, complete with a large battery pod under the fuselage. It is hard to imagine this would have made a successful anti-submarine platform. However, on the Liberator and Canso it was more successful and helped with terminal target identification when the submarine was initially picked up by the more rudimentary radars. The use of the Leigh Light gradually waned, although the use of powerful searchlights continued on maritime patrol aircraft until the seventies (such as Shackleton, Neptune and Argus).



Dumbo Radome

Carefully cut off the bottom of the nose transparency (kit part 105) just below the bottom frame. Trim 1/16" (1.5mm) from the front of the flight deck (kit part 19).

The GR Vs did not fit the nose guns as in the B-24D. The left nose window (kit part 106) requires modification. Sand the inside smooth, removing the bump for the nose gun and polish. Fit the window in place and fill the edges and the depression for the gun; sand and polish. When painting the aircraft, mask off a clear window in the upper portion of this part as shown in Figure 1.

Paint and assemble the kit as per instructions, but leave out all the nose guns. Fit the nose radome

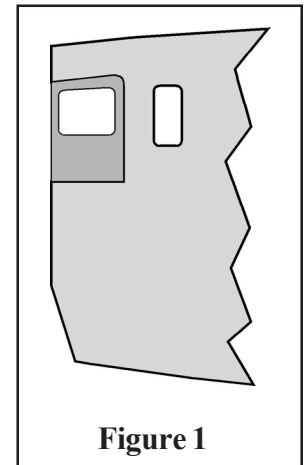
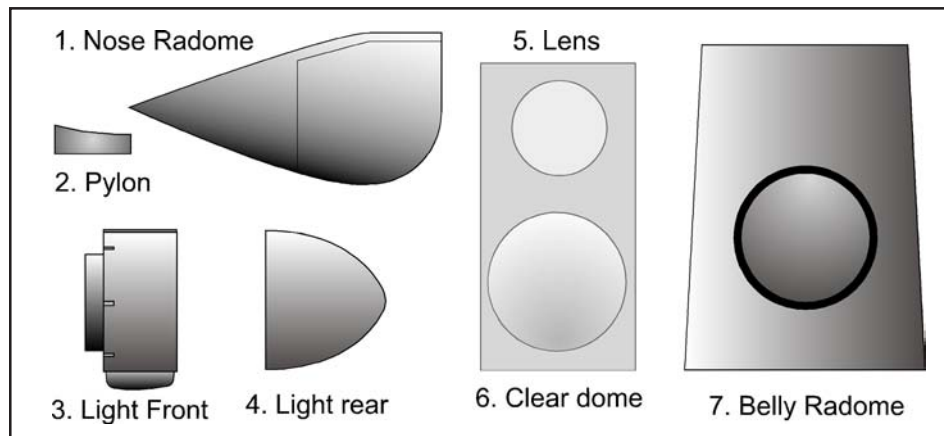
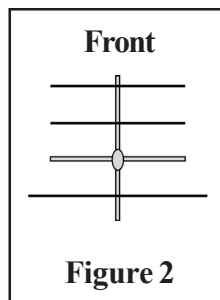


Figure 1

casting (Part 1) in place; test fit with the shortened nose transparency. Note that the radome fairing slightly protrudes into the opening of the nose gear well. This seems very odd but is confirmed by photographs. Remember that on the B-24D and earlier models, the nose gear doors actually retracted inside the wheel well.

Make a Yagi antenna from brass wire or stretched sprue according to Figure 2 (shown 1/48 scale) and install where the forward nose 0.50" gun was to go. Note the third bar back is heavier and there is a egg shaped fairing at the intersection.



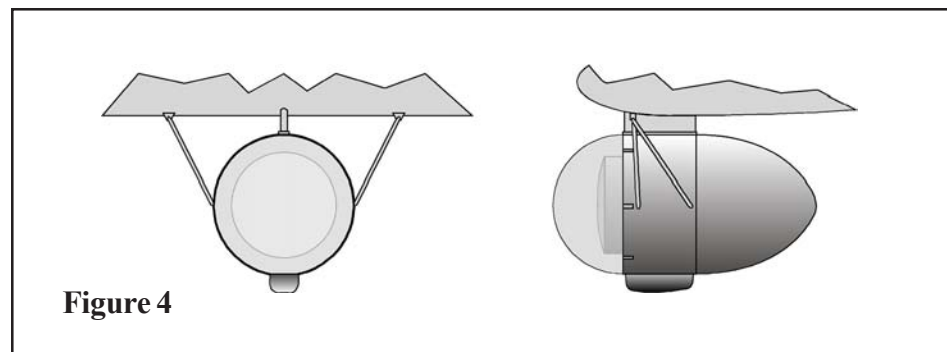
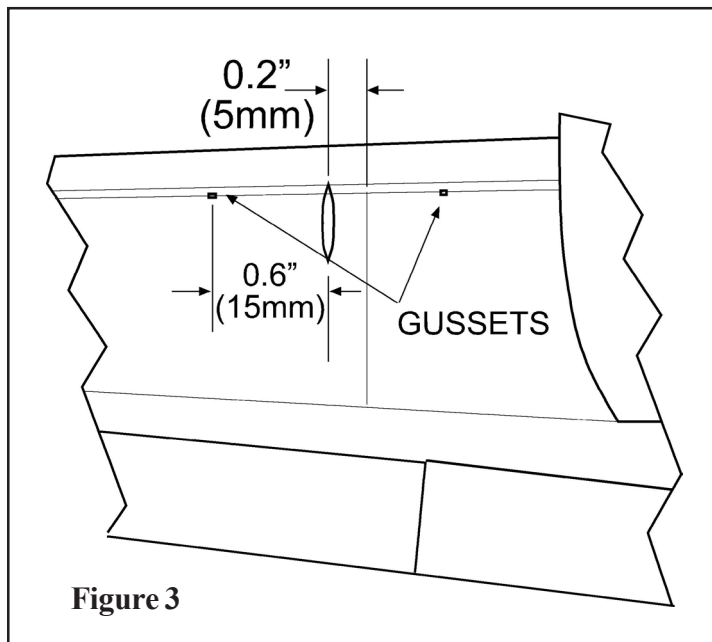
Belly Radome

This would have been seen on earlier GR Vs and all GR VIs (as well as USAAC pathfinder B-24Ds and USN PB4Y-1 and 2). It housed the same SRC517 radar antenna as the Dumbo variants. It is included in this kit as a bonus. Please note that it would NEVER have been seen on the same airframe as a nose radome; one or the other, but not both! The resin item (Part 7) represents the radome in its retracted position; simply replace the belly panel (kit part

102 for the B-24D, or kit part 2 for the B-24J).

Leigh Light

Both the front (Part 3) and rear portions (Part 4) of the pod have a small step moulded on their flat faces. Sand these parts so their mating surfaces are flush and glue together. Paint the inside of the searchlight silver, and the rest



of the front section of the pod black. Trim the vacuformed searchlight lens, sand the base smooth and glue in place with the lines vertical. Trim the vacuformed clear fairing, test fit to the light pod and when satisfied, glue in place ... you may wish to leave this step to the model's completion, since the light pod is painted white the same as the rest of the aircraft. Just mask off the interior of the pod.

The pylon (part 2) is glued in place under the starboard wing, 0.2" (5mm) outboard of the panel line indicated in Figure 3. Also shown is the location of two small gussets which serve as attachment points for the pod struts. Make from small chips of plastic strip.

I suggest using a drill and some brass or steel wire to reinforce the pod / pylon joint. When glued in place cut some 0.020" (0.5mm) plastic rod or stretched sprue to represent the cross bracing on both inboard and outboard sides of the pylon, as shown in Figure 4.. You may also wish to run some wires as shown on the photo. Pod, pylon and all bracing is white, wires are black.

References

The best and perhaps only decent reference is unfortunately out of print. Nonetheless, it may be available (at least in Canada) through library loans and is well worth grabbing if you see a copy. I hope your copy still includes George Hopp's excellent drawings supplied in a pocket in the rear; mine disappeared some time before I got the book.

1. Consolidated Liberator and Boeing Fortress, Carl Vincent, Canada's Wings, 1976

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