

Belcher Bits BB-22: Early Tactical Nukes 1/48

Background

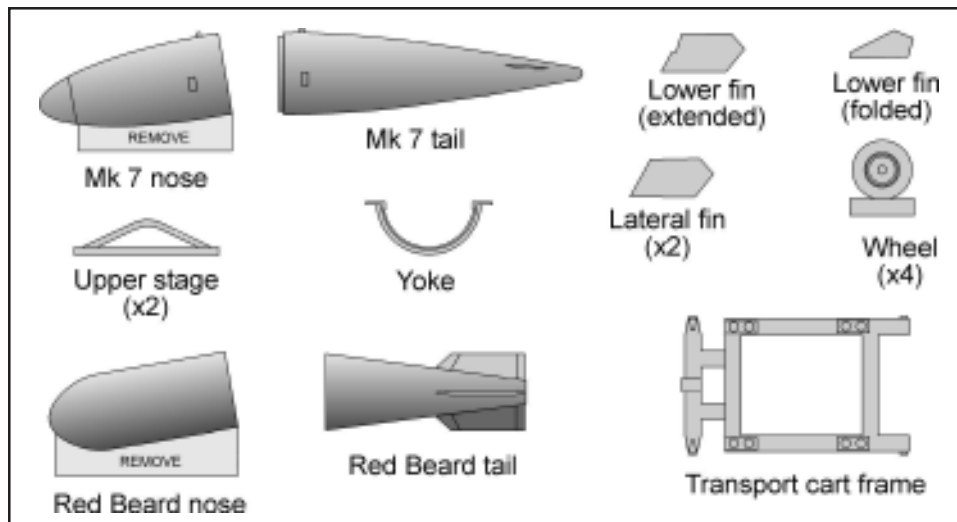
The first nuclear bombs were large and heavy, so much so that new jet powered bombers were developed based on size of the bomb bays required to carry them. By the mid-50s, fusion weapons (H-bombs) became the new strategic weapons and fission bombs became feasible as tactical weapons.

In the US, the first tactical nuclear bomb was the Mk 7. This incorporated a typical fission warhead (complete with modern safety features such as removable 'pit') into a streamlined case of only 30.5" diameter weighing just 1680 lbs. This allowed the weapon to be carried externally by a wide variety of fighter-bombers such as the F-84 and F-100. Although small by nuclear standards, it was still a large weapon, and needed a foldable lower tail surface to allow sufficient ground clearance.

The weapon entered USAF service in 1952 and remained in service (with various mods) for fifteen years until replaced by the Mk 28 and Mk 43 bombs.

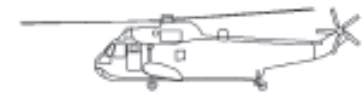
This weapon was also used by the RAF for its tactical nuclear forces in Germany flying Canberra B(1).8s. The bomb came into RAF service in 1960 and lasted just 5 years, ending with the cancellation of the TSR.2 and the RAF tactical bomber role in SACEUR.

The UK also developed its own tactical nuclear weapons. The first was Red Beard, also referred to as the Target Marker, 2000 lb. (what a way to mark a target ... with a mushroom cloud). Red Beard was 28" in diameter, 144" long and weighed 2000 lb. It was originally developed to provide the Fleet Air Arm with a nuclear strike capability, carried on Sea Vixens from 1960-68. Red Beard was carried semi-recessed in the bomb bay of the Buccaneer from 1963-71. Apparently, the Supermarine Scimitar was cleared to carry this weapon as well, although no photos exist of this aircraft so armed.



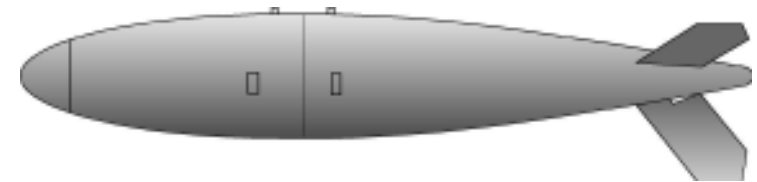
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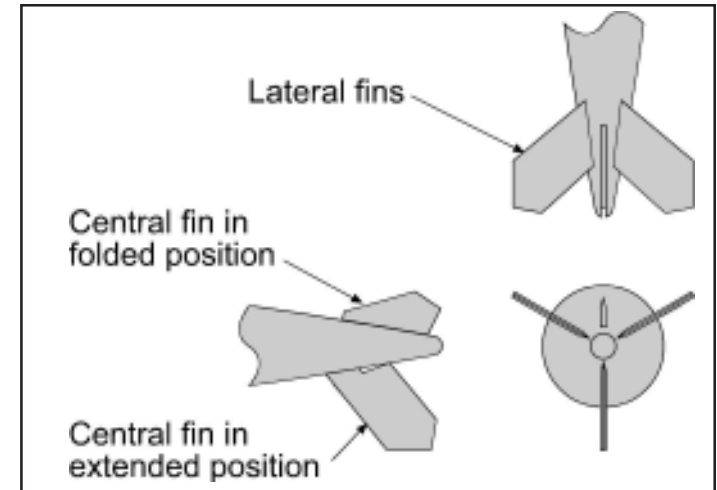
This weapon was also used by the RAF for its nuclear strike forces in Cyprus and Singapore flying Canberra B.15/16s from 1961 until being disbanded in 1969.

Detailed information is scant, but Red Beard's shape shows its aerodynamic origins with the Grand Slam bombs of WWII, although with a rounded instead of ogive nose. The tail fins apparently incorporated extensions which deployed on release; the only photo found of a Red Beard being dropped clearly shows the span of the tail fins is greater than that seen on the ground.

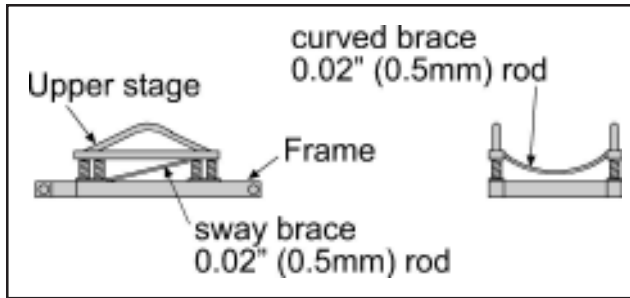


Mk 7 Assembly

Glue the nose section to the tail section, lining up the bomb shackles on top and fill the seam. If you will displaying the weapon on an aircraft, sand off the transport lugs on each side. The two lateral fins are glued in position where indicated on the tail (see right). You can then either glue on the central fin in the folded position on top (if on the aircraft), or deployed position on the bottom.



Basic colour scheme was painted aluminum with a brownish fibreglass nose cone; inert 'shapes' were sometimes overall medium blue.



Mk 7 Transport Cart

The Mk 7 had a unique transport cart with spring-mounted upper stage. Sand the base of the frame to remove flash. Remove the four wheels from their casting blocks, touch up the bases and glue each to the frame, using the small discs

on the frame ends as locators. Clean up the upper stage sides and carefully cut out the flash between the base and the arched tubes. Glue these sides directly on top of the springs on the frame.

Not supplied with the set are the two curved pipes joining the upper stages at the front and rear; use a length of 0.020" (0.5mm) rod, bent to shape and glued in place as per Figure 2 above.

Clean up the yoke and carefully remove the flash in the centre. It is easier to glue the yoke on the bomb than fit the bomb to the finished cart, so paint the yoke at this stage. Fit it over the bottom of the bomb, lining up the ends of the yoke arms with the transport lugs on the bomb sides. The yoke is glued in position, sitting on top of the arched tubes of the tray sides.

The cart was typically overall olive green (although I'll bet some were painted Air Force blue or even yellow). The springs would be natural metal.



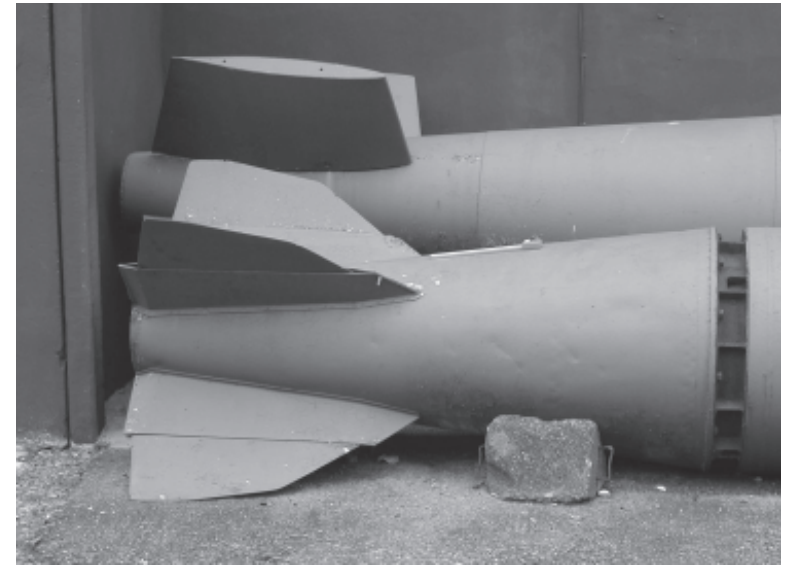
Red Beard Assembly

Glue the nose section to the tail section, lining up the bomb shackles. Basic colour scheme was overall dark green, likely with a light green stripe around the nose. Photos indicate some stencilling in white, but text is illegible (likely 'Do not drop' or something just as inane). Photo of a Red Beard in FAA service shows a simple transport cart. One other photo shows a very complex cart (complete with fenders) carrying a Red Beard fitted with a strongback-type bomb suspension and complex sway braces. I'm guessing this was the way the bomb was carried in the Canberra bomb bay but cannot confirm.

A Mystery (non-nuclear) Bomb

Sitting outside the Dumfries & Galloway Air Museum in Scotland are a couple large bombs; the one in back is clearly a Grand Slam, but the short guy in front is a mystery. It has been identified on the net as a Tallboy but in fact is too small for that, and the tail section is not correct for that bomb. When I visited the museum (specifically to see this bomb) I was told that it was a special design proposed for the Canberra but not taken into service. What is particularly interesting is the tail section looks similar to a Red Beard, although not identical according to drawings I have seen. However, the tail fins have extendable sections and since the base parts look very much like the Red Beard

items, I am betting that the extendable Red Beard fins probably looked like the mystery bomb ones illustrated here. We may never know the whole story, but past experience shows that once something appears in print, people who know more about the subject show up.



References

1. **The History of the US Nuclear Arsenal**, James Gibson, Bison Books 1989
2. Air International, July 2005 (Britain's Tactical Nuclear Forces)
3. Various pieces of information mined from the internet.