



DEFENCE UNEXPLODED ORDNANCE WEBSITE ORDNANCE INFORMATION SHEET

**ALL UXO MAY BE HAZARDOUS IF DISTURBED
DO NOT TOUCH – TAKE A PHOTO – MARK THE LOCATION – CALL THE POLICE**

AIRCRAFT PROJECTILE – 20MM HIGH EXPLOSIVE INCENDIARY

Description

- The 20mm High Explosive Incendiary (HE/I) is a projectile primarily fired by the automatic guns of numerous Australian/Allied aircraft. These munitions have been used from WWII to the present.
- RAAF aircraft fitted with the 20mm gun included the CAC Boomerang (1940s), Bell Airacobra P-400 (1940s), Supermarine Spitfire (1940s), DH 98 Mosquito (1940s-50s), DAP Beaufighter (1940s-50s), Avro Lincoln (1940s-50s), Gloster Meteor (1940s-early 1960s), DHA 100 Vampire (1950s-60s), De Havilland Sea Venom (1950s-70s), McDonnell-Douglas F-4E Phantom (1970s), McDonnell-Douglas F/A-18A Hornet Present (1980s to Present).
- RAN aircraft fitted with 20mm guns included the Fairey Firefly, De Havilland Sea Venom, Hawker Sea Fury and McDonnell Douglas A4G Skyhawk (1960s-80s).
- The HE/I projectile is designed to damage its target in one or both of two ways: via a high-explosive charge and/or via its incendiary (fire-causing) effects. Variants of the HE/I projectile may include (not all may have been used by aircraft):
 - **High Explosive, Incendiary (HE/I)** – UK munitions usually red and filled with TNT; US with CE (red) or Pentolite (pink).
 - **High Explosive, Incendiary, Tracer (HE/I/T)** – UK munitions green and filled with TNT.
 - **Semi-Armour Piercing, High Explosive, Incendiary (SAP/HE/I)** – TNT; red with white tip.
- Unexploded items of this type are found throughout Australia mostly in/near areas used for aircraft Air-to-Ground firing practices or on air force bases – typically on or just below the surface.

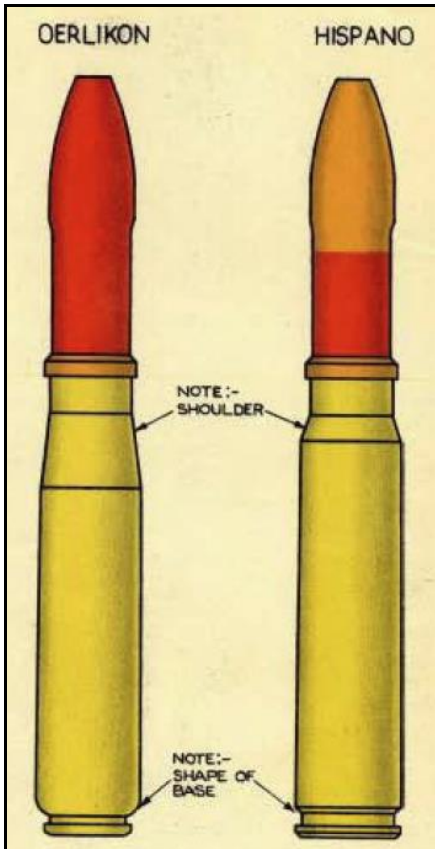
Technical Data

A variety of differing models ('Marks' or 'Mk') have been used in Australia – both Commonwealth and US designs. Despite minor differences in the various Marks, they are all approximately the same in their appearance, composition and method of operation.

- Munition length : approx. 175-185mm
- Projectile length : approx. 80-85mm
- Projectile diameter : maximum diameter 20mm
- Total weight : Munition – approx 260 grams; projectile – approx 130 grams.
- Fuse/Burster : Contains a fuse and explosive which can be easily detonated.
- Filling : 2-14 g high explosive (e.g. TNT, RDX or CE) and an incendiary composition.
- Identification :
 - The projectile is typically steel and may have one or more bands of colour (depending on the type of munition and country of origin).
 - Red or yellow colouring or bands were most often used to denote HE munitions however other colours may have been used or colours may have faded over time. **Treat all found munitions as dangerous.**

The information in this document is provided for interest only, it is not to be used or relied on for any other purpose. Further information on UXO can be found at: <http://www.defence.gov.au/uxo>

Images



**Figure 1 - WWII-era 20mm HE/I (L to R)
- UK colour, US colour**

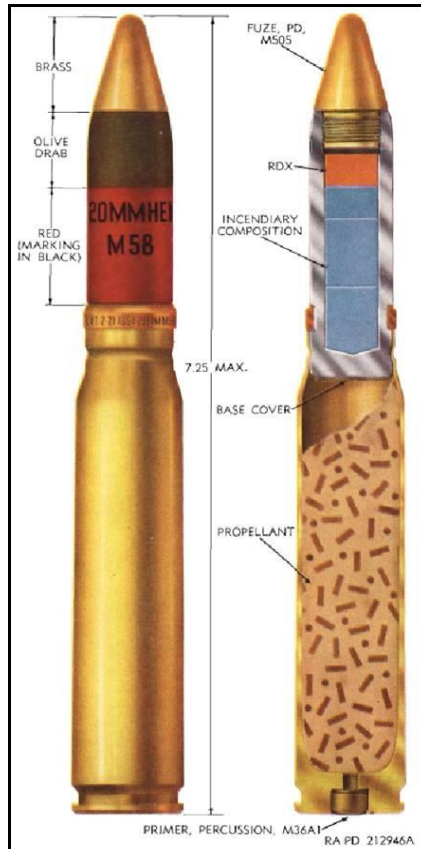


Figure 2 - Example 20mm HE/I (US)



**Figure 3 - Size comparison of common WWII aircraft gun ammunition (L to R)
- .303", .5" and 20mm Hispano**



Figure 4 - Belt-fed 20 mm Hispano gun on a Hurricane aircraft



Figure 5 - 20mm ammunition from disposal activity.