Australian Government
Department of Defence

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

MARINE MARKER – MARK 25

Description

- The Marine Marker, Mark 25 (Mk 25) is a smoke-and-flame pyrotechnic used for sea-surface reference-point marking. The Mk 25 is most commonly used in Search & Rescue operations, anti-submarine warfare and maritime research (e.g. determining wind direction and velocity). It can be launched by hand or by sonobuoy launcher from either aircraft or surface ships.
- The Mk 25 contains a water-activated battery and red phosphorous pyrotechnic composition. When seawater activates the battery, the red phosphorous pyrotechnic composition is ignited. Yellow flame and white smoke are emitted for 10-20 minutes – once the signal is expended, a small scuttling charge should sink the container.
- There are a number of variations of the Mk 25 Marine Marker – all of which function in the same manner. Both military and commercial types have been made and used (other nation's and commercial variants may have different names). In addition, a wide variety of other marine markers have been used by Australian and other military forces as well as commercial and research organisations from WWII to the present.
- Both unexpended and expended markers are often found in maritime areas and washed ashore. A number of incidents have occurred with the Mk 25 (and other markers) due to unexpended phosphorus or a build-up of a phosphorous-type crust – this has occasionally resulted in either fire injury/damage or low-order detonation (rupturing of the case) if the item is disturbed or re-exposed to water. The marker also contains a small explosive charge which may cause injuries.

Technical Data

- Length : approx. 470 mm
- Diameter : approx 75 mm
- Weight : approx 1.7 kg
- Fuse/Burster : Contains a water-activated initiation system.
- Filling : Contains red phosphorous pyrotechnic composition and explosive scuttling pellet.
- Identification :
  - The body of the Mk 25 marker is normally made of aluminium or metal alloy; often unpainted (silver or metallic in colour) or painted grey.
  - It may have one or more bands of colour (usually green) with red hazard warnings on a white background.
  - Other colours may have been used or colours may have faded over time. It can be difficult to distinguish between dangerous and safe items - **treat all found munitions as dangerous**.

Images

Figure 1 - Marine Marker KC-25 (inert) – commercial variant of the Mk 25

Figure 2 - US Navy Aircrew deploys a MK-25 marine location marker
(Public domain photograph from defenseimagery.mil)

Figure 3 - Marine Marker Mk 25, Mod 3

Figure 4 - Marine Marker functioning on water

Figure 5 - Marine Marker C2A2 (similar to Mk 25) washed ashore onto beach

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MARINE MARKER – MARK 58

Description

- The Marine Marker, Mark 58 (Mk 58) is used for all types of air-to-sea surface marking that use smoke and flame. The Mk 58 can be launched day or night from high-speed aircraft, helicopters or surface ships to provide a long-burning, smoke and flame reference-point on the ocean's surface. It is used for various operations including anti-submarine warfare (ASW), marking a survivor in the water during search and rescue (SAR) operations, man-overboard markings and as a target for practice bombing at sea.
- The Mk 58 consists of a water-activated battery, starter mix and two pyrotechnic candles of a red phosphorus composition. The marker is activated when water enters the battery port and the starter mix is ignited. The starter mix then lights the first pyrotechnic candle, which burns for 20 minutes, then initiates the second candle. The complete marker produces a continuous yellow flame and white smoke for a total of 40-60 minutes for at least 4.5-5.0 km under normal operating conditions.
- There are a number of variations of the Mk 58 Marine Marker – all of which function the same. Both military and commercial types have been made and used (other nation's and commercial variants may have different names). In addition, a wide variety of other marine markers have been used by Australian and other military forces as well as commercial and research organisations from WWII to the present.
- Both unexpended and expended markers are often found in maritime areas and washed ashore. A number of incidents have occurred with the similar marine markers due to unexpended phosphorus or a build-up of a phosphorous-type crust – this has occasionally resulted in either fire injury/damage or low-order detonation (rupturing of the case) if the item is disturbed or re-exposed to water.

Technical Data

- Length : approx. 545-555 mm
- Diameter : approx 120-130 mm
- Weight : approx 5.8-5.9 kg
- Fuse/Burster : Contains a water-activated initiation system.
- Filling : Contains 2.3 kg red phosphorous pyrotechnic composition.
- Identification :
  - The body of the Mk 58 marker is normally made of steel coated with an alloy; often unpainted (metallic in colour) or painted grey.
  - It may have one or more bands of colour (usually green) with red hazard warnings on a white background.
  - Other colours may have been used or colours may have faded over time. It can be difficult to distinguish between dangerous and safe items - **treat all found munitions as dangerous**.

Images

Figure 1 - Marine Marker KC-58 (inert) - commercial variant of the Mk 58

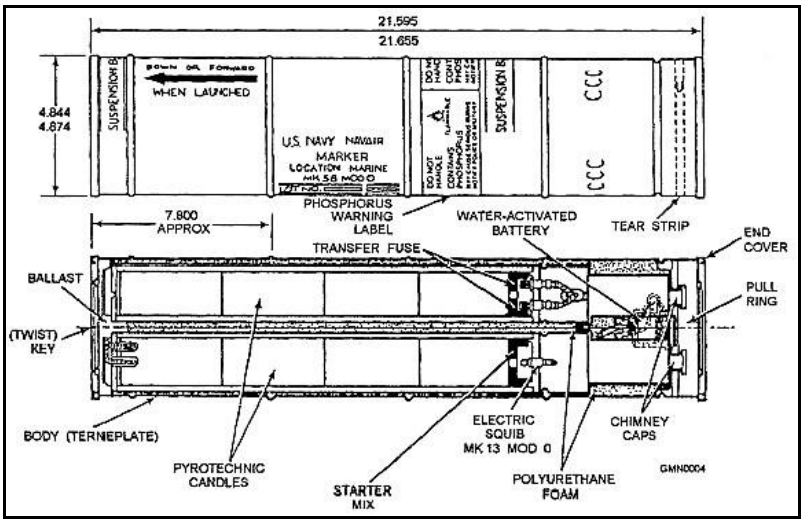

Figure 2 - Marine Marker Mk 58

Figure 3 – RAAF Hercules C-130J crew member from No.37 Squadron prepares to drop a Mark 58 Marine Marker during a Search and Rescue (SAR) - off the Nth Coast of Qld, 2009

Figure 4 - Marine Marker functioning on water

