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

PROJECTILE - 37MM

Description

- The 37mm was the first dedicated anti-tank gun used by the US Army in large numbers. It was introduced in 1940 and continued service in the Pacific Theatre for the duration of the war, being removed from service in 1945. The 37mm gun was also used in a variety of tanks, armoured cars and aircraft as well as provided as sub-calibre ammunition for some guns (75-155mm).
- 37mm ammunition was used by in Australia during WWII by both US and Australian forces equipped with the M3 Stuart Light Tank and the M3 Lee/Grant Medium Tank. The 37mm towed anti-tank gun was also regularly fired by US forces undergoing training in Australia during WWII.
- Australian usage after WWII was limited to weapons such as the Staghound Armoured Car (1943/4 to 1970; equipped with a 37mm M6 gun) and some aircraft.
- Several types of projectile were used including:
  - **Armour Piercing, Tracer** (AP/T) - for aircraft, generally no explosive content or fuze.
  - **Armour Piercing, Capped, Tracer** (APC/T) - generally no explosive content or fuze.
  - **High Explosive**, **Base Detonated, Tracer** (HEBD/T) – for land guns/tanks, contains fuze and explosive.
  - **High Explosive**, **Tracer** (HE/T) – for aircraft, contains a fuze and explosive.
  - **Canister** (Can) - for land guns/tanks; not strictly a projectile - contains 122 steel balls.
  - **Sub-Calibre** (Sub-cal) - for land guns/tanks, contains a fuze and explosive.
  - **Target Practice, Tracer** (TP/T) - for land guns/tanks, no explosive content or fuze.
  - **Drill** (Drill) – no explosive content or fuze.
  - **Blank** (Blnk) - no projectile.

Technical Data

- Munition length : approx. 315-370 mm (176 mm sub-cal)
- Projectile length : approx. 105-165 mm
- Projectile diameter : approx. maximum 37 mm
- Total weight : Munition – approx 1.2-1.6 kg, Projectile – approx 0.8-0.9 kg
- Fuse/Burster : May contain a sensitive fuze and explosive which can be easily detonated
- Filling : approx 38-50 g high explosive (TNT, Tetryl, etc)
- Identification : The projectile may have one or more bands of colour - red, yellow or green bands/stripes were most often used to denote hazardous munitions however 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

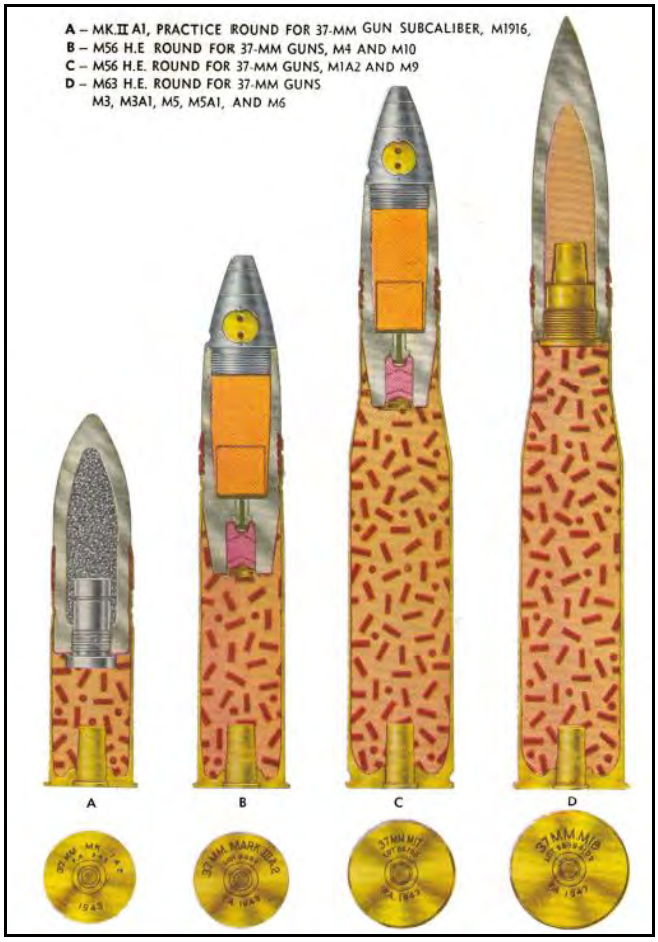

Figure 1 - Various US 37mm munitions

Figure 2 - Relative size of 37mm ammunition

Figure 3 - 37MM HEBD artillery projectile - in good condition

Figure 4 - 37MM HEBD artillery projectile - found on the Sunshine Coast, QLD

Figure 5 - US troops with 37mm antitank gun - Townsville, 1942 (AWM ID 150479)

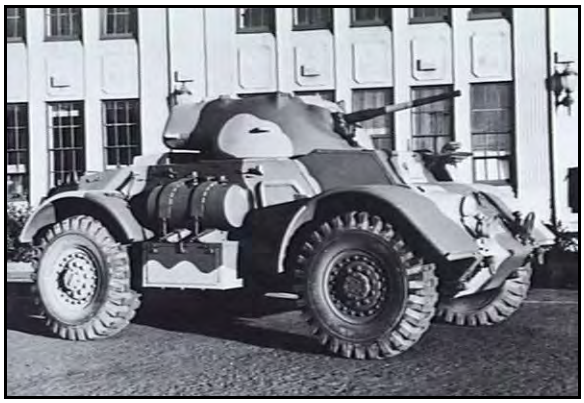

Figure 6 - Staghound Armoured car with 37mm gun (Australia) (AWM ID 127724)

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

PROJECTILE – 40MM (BOFORS)

Description

- The 40mm Bofors is an automatic anti-aircraft (AA) gun first manufactured by the Swedish company Bofors in 1930 (40mm L/60) and is the most prolific anti-aircraft weapon ever made. In the 1950's it was improved to the L/70 model with an increased rate of fire. 290 guns were manufactured in Australia during WWII and the last Australian Bofors was decommissioned from the RAN in 2007.
- The Australian Army used both carriage-mounted (towed) and vehicle-mounted anti-aircraft guns and also occasionally used the Bofors in an anti-tank (direct fire) role during WWII. The Australian Navy used the Bofors 40mm guns aboard almost every ship in the period 1940s-1990s and it was the main weapon aboard the *Fremantle-class* patrol boats into the 2000's.
- Many variants of the 40mm projectile have been developed - the more common types of projectile used in Australia included the following:
  - **High Explosive** (HE) and **High Explosive, Incendiary** (HE/I) – normally contained a nose fuse, explosive bursting charge and, for HE/I, an incendiary composition.
  - **High Explosive**, **Tracer, Self Destruct** (HE/T/SD) and **High Explosive**, **Incendiary, Tracer, Self Destruct** (HE/I/T/SD) – normally contained a nose fuse, bursting charge, incendiary and/or tracer composition and a Self Destruct (SD) feature which destroyed the projectile after a specified time (modern times are approx 17 seconds).
  - **Armour Piercing** (AP), **Semi Armour Piercing** (SAP) and **Armour Piercing, Capped, Tracer** (APC/T) - solid shot; normally no explosive content or fuse.
  - **Target Practice, Tracer** (TP/T or Prac/T) - normally contained a nose fuse and low explosive (gun powder) and/or smoke composition.
- Widespread and frequent usage by US and Australian armies and navies (Regular, Reserve/Militia & VDC) at many locations within Australia – both onshore and offshore. Most often deployed near air bases and on the coast. UXO are usually found on the surface or shallow-buried (<300mm).

Technical Data

- Munition length : approx. 400-500 mm (depending on type & fuze)
- Projectile length : approx 130-185 mm (depending on type & fuze)
- Projectile Diameter : approx maximum 40 mm
- Projectile weight : approx 0.62-1.1 kg (depending on type); (complete munition 2.4-2.6 kg)
- Fuse/Burster : Nose/base fuse and bursting charge which may be easily detonated
- Filling : approx 90-100 g high explosive (e.g. TNT, CompB, etc)
- Identification : Hazardous variants of the projectile are often painted olive drab, yellow or green with bands of yellow, green or red/red crosses. Practice variants were often painted white, blue or black. **Caution: This munition has been widely used by various countries and over a long period of time - other colours may have been used or colours may have faded over time. Treat all found munitions as dangerous**.

Images

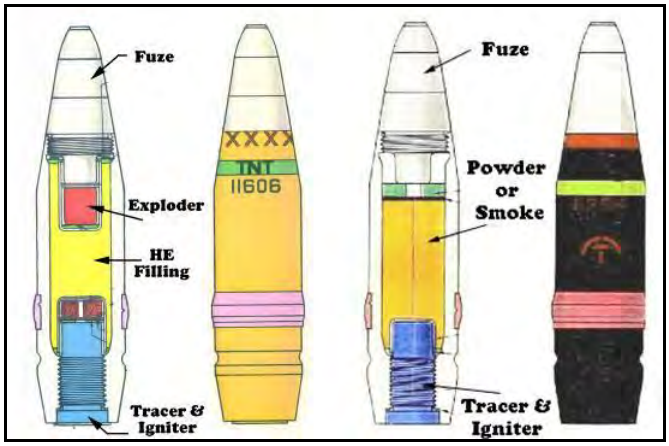

Figure 1 - 40mm Bofors projectiles c. 1944 (LtoR): HE/T (cutaway), HE/T, Prac/T (cutaway), Prac/T (colours & markings may vary)

Figure 2 - Unexploded 40mm projectile

Figure 3 - Australian Volunteer Defence Corps (VDC) live-firing 40mm Bofors - North Head, Sydney, NSW, 1944 (AWM ID 150479)

Figure 4 - Australian 40mm Bofors mounted on 3-ton truck (AWM ID number 127874)

Figure 5 – 40mm Bofors UXO

Figure 6 - Modern 40mm x 365 L/70 ammunition

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

PROJECTILE - 75MM

Description

- The US 75mm gun saw service in WWI, WWII and the Korean War. It was used as an anti-tank gun, in Lee and Sherman tanks and also mounted in aircraft. A 75mm pack howitzer was developed in the 1920's for ease of movement through rugged terrain; in 1942, it was further developed for airborne deployment. Variations of the pack howitzer were also used in self propelled gun mounts.
- The British adopted the round but bored out a QF 6 pounder to accept the US 75mm ammunition (known as the QF 75mm) which was mounted in early Churchill and Matilda tanks.
- During WWII, 75mm Pack Howitzers were issued to at least two Australian Mountain Batteries and were used to supplement some anti-tank units. US forces also practiced with these in Australia prior to deployment in the pacific.
- Numerous types of 75mm projectile were produced including the following:
  - **High Explosive** (HE) – MkI, M48; contained a nose or base fuse and high explosive.
  - **High Explosive - Anti-Tank** (HEAT) - used only in pack howitzers; filler is Pentolite.
  - **Armour Piercing, Tracer** (AP/T, APC/T) - mostly solid projectiles (M72) however some variants contained a nose or base fuse and explosive (e.g. M61).
  - **Smoke** (Smk) - MkII, M64 & M89; filled with titanium tetrachloride (FM), chlorsulfonic acid-sulphur trioxide mixture (FS) or white phosphorus (WP).
  - **Chemical** (Gas) - MkII and M64; filled with various toxic chemicals.
  - **Shrapnel/Canister** (Shrap/Can) – Mk1 consists of 270 lead balls; T30 Canister used quite widely in the Pacific Theatre during WWII.
- Unexploded items of this type are most often found in/near areas used by the Army for artillery practices – typically on or just below the ground surface. Dumped items may also be found offshore.

Technical Data

- Projectile length : approx. 330-350 mm
- Projectile diameter : approx. 75 mm
- Projectile weight : projectile – approx 3.0-7.2 kg
- Fuse/Burster : super-quick or delay nose or base fuzes; some contain a burster charge.
- Filling : 65-750 grams of high explosive depending on munition.
- Identification : The cartridge is usually plain brass although a steel cartridge was also. Munitions for the howitzer are painted with 75mm H; for use in the M2-M6 guns they are painted 75mm G. The projectile may have one or more bands of colour. Red, yellow or green bands/stripes were most often used to denote HE munitions however 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

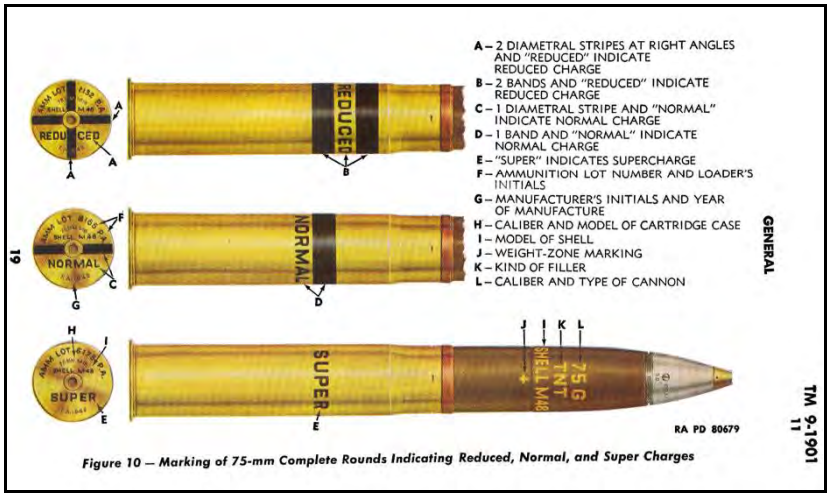

Figure 1 – US 75mm HE ammunition – WWII era

Figure 2 - A lieutenant adjusts the fuse of a 75mm HE tank munition – 1942 (AWM ID 012775)

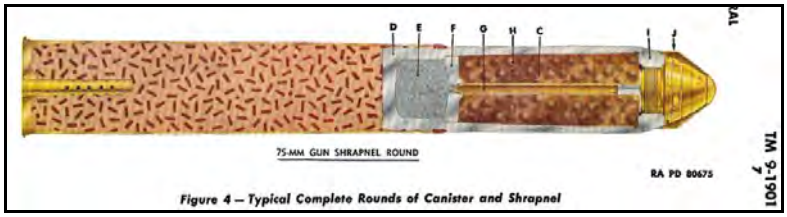

Figure 3 - US 75mm HE ammunition – WWII era

Figure 4 - 75mm WP projectile found on the Atherton Tablelands, Nth QLD

Figure 5 - 75mm HE projectile found in the Coomera area, SE QLD

Figure 6 - Australian tank crew firing the 75mm gun of a General Grant M3 tank - Moorebank, NSW, 1944 (AWM ID number 082369)

Figure 7 - US soldiers firing a 75mm Pack Howitzer - Eastern Australia, 1943 (AWM ID 015650)

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

PROJECTILE – 105MM

Description

- The 105mm Howitzer (M2, M101) was the standard light field artillery gun for US Forces in WW2 and was extensively used by the US in Australia and the Pacific. Variations of the 105mm Howitzer have been developed including the M102 (mid-1960s), the UK L118/US M118 Light Gun (1970's) and the UK L119/US M119 (c. 1989). The L118 variant was manufactured in Australia in the 1990's as the Hamel gun and the L119 is currently used by Australian forces. M2A2/L5 Pack Howitzers were also used by Australian forces during the Malay Emergency and the Vietnam War. The Leopard AS1 Tank also uses a 105mm gun as its main armament.
- Many variants of the 105mm projectile were produced including the following:
  - **High Explosive** (HE) - contains a nose fuse and TNT high explosive.
  - **High Explosive, Anti-Tank** (HEAT) – contains a base fuze and Pentolite high explosive.
  - **Chemical** (Chem) - fitted with a fuze and burster charge; filled with a toxic agent (usually Mustard Gas).
  - **Smoke** (Smk) – either White Phosphorus (WP) or Hexachlorethane (HC); base ejection and burster types used.
  - **Shrapnel /Canister** (Shrap/Can) - consists of lead balls and a bursting/propelling charge.
  - **Anti-Personnel, Tracer** (APERS-T) - Flechette, used during the Vietnam War. Similar to the canister, but uses 8000 small flechettes as shrapnel.
  - **Illumination** (Illum) – normally a base ejection projectile containing a parachute flare.
  - **Practice** (Prac) - M3 howitzer only – 127 g of black powder and 1.37 kg of inert material.
- Unexploded items of this type are most often found in/near areas used by the Army for artillery practices - typically on the ground surface up to 1.5m deep. Dumped items may occasionally also be found offshore.

Technical Data

- Munition length : approx. 830-950 mm
- Projectile length : approx. 380-420 mm
- Projectile diameter : approx. 105 mm
- Total weight : Projectile - approx 13.0-15.5 kg
- Fuse/Burster : Frequently contain an explosive fuse & burster/base ejection charge. Super-quick or delay fuses were used.
- Filling : varied between 65-750 grams of high explosive (TNT, Dunnite, Explosive D) depending on munition.
- Identification : Normally cast iron/steel. Hazardous variants of the projectile are often painted yellow, green, black or grey with bands of yellow, red, green or blue. **Caution – this munition has been widely used by various countries over a long period of time - other colours may have been used or colours may have faded over time. Treat all found munitions as dangerous**.

Images

Figure 1 - 105mm projectiles made at the St Mary's Ammunition Factory (Sydney). LtoR: Smk (WP), Illum, Prac, Smoke (HC) and HE. Foreground – 105mm cartridge. (AWM ID P05173.002)

Figure 2 - A 105mm artillery shell being rammed into the breech by Australian artillery gunners - Vietnam, 1967 (AWM ID COL/67/1122/VN)

Figure 3 - Various 105mm projectiles used during the Vietnam War. LtoR: Anti Personnel (Flechette); High Explosive; Parachute Flare, Smoke (WP) (AWM ID P01636.017)

Figure 4 - Unexploded 105mm HE projectile found in the Rockhampton area, QLD.

Figure 5 - Expended 105mm Smoke showing expended smoke pots.

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

PROJECTILE – 5.5 INCH

Description

- The British Breech Loaded 5.5 inch (BL 5.5") Medium gun was developed in 1939 to replace the WWI 60 pounder and the 6" Howitzer and issued to selected Australian artillery units during WWII. It remained in Australian service until progressively replaced by the US M198 155mm (1980s). 35 were still in service in 1982 and the last firing in Australia occurred in 1983.
- Initially only 100lb (45.35kg) HE and Smoke projectiles were available - an 80lb (36.28kg) projectile became available in 1944 to increase the range of the gun. Despite its smaller size, the 80lb contained more explosive filler than the 100lb. Variable Time (VT) or proximity fuzes (T100) were available after 1944, which provided a more accurate 'air burst'.
- Various types of projectile were produced for the BL 5.5" including the following:
  - **High Explosive** (HE) - contains a nose fuse and TNT high explosive.
  - **Smoke** (Smk/BE) - Base ejection shell; multiple colours and screening smoke.
  - **Incendiary** (Incend) - Base ejecting, manufactured the same as a smoke shell.
  - **Chemical** (Chem) – For use with toxic chemicals; base ejection shell.
  - **Illumination** (Illum) or **Flare** (Flare TRBE) - Base ejection, multiple colours.
  - **Drill** (Drill) – no explosive content or fuse. Inert.
- Unexploded items of this type are most often found in/near areas used by the Army for artillery practices - typically buried up to 2.0m deep but occasionally just below the surface. Dumped items may also be found offshore.

Technical Data

- Projectile length : approx. 736 mm
- Projectile diameter : approx 140mm (5.5")
- Projectile Weight : approx 36.2 - 45.35kg (approx 80-100lb)
- Fuse/Burster : Some types contain an explosive fuse & burster.
- Filling : approx 3.0-6.8 kg of high explosive or other filler depending on munition.
- Identification :
  - Projectile normally constructed of cast iron/steel.
  - Hazardous variants of the projectile are often painted yellow, green or grey with bands of yellow, red or green.
  - **Other colours may have been used or colours may have faded over time. Treat all found munitions as dangerous**.

Images

Figure 1 - Artillery Gunner cleaning a 5.5 inch shell before loading - Italy, 1943 (Gade (Lt), War Office official photographer. Imperial War Museums photograph TR 1501)

Figure 2 - Loading 5.5 in projectile into the gun breech - Italy, 1944. Image cropped from Imperial War Museums photograph NA 12734)

Figure 3 - 5.5 in medium gun – 1941 (War Office official photographer. Imperial War Museums photograph **H 8692)**

Figure 4 - 5.5 in 80lb HE projectile

Figure 5 – Unexploded 5.5 in HE projectile found on Sunshine Coast, Qld

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

PROJECTILE - 2 POUNDER

Description

- The Quick Firing 2 Pounder (QF 2 pr) was first introduced in 1937 as a light tank gun, however it was soon utilised as an anti-tank gun. Australian production of 2 pr anti-tank guns and munitions commenced in Melbourne and by Holden SA in 1941 and continued until 1945. These were widely used by Australian infantry and anti-tank units at firing ranges and on shorelines around Australia.
- The 2 pr declined in use as a tank gun in Europe however saw continued use in the Pacific. The 2 pr was the standard gun on armoured cars - the Daimler armoured car (used by Allied forces throughout WW2 and in Malaya) utilised the 2 pr as its main armament until it was retired from Service during the 1950's. The *Matilda II* and *Sentinel* tanks also utilised the 2 pr as their main armament.
- Several types of projectile were produced including the following:
  - **Practice** (Prac) "Flat Head" & **Practice, Tracer** (Prac/T) – solid projectile (no fuse however may contain a tracer element).
  - **Armour Piercing, Tracer** (AP/T, APHV/T, APCBC/T) – some models contained a small explosive charge; may contain a tracer element.
  - **Armour-Piercing, Composite Non-Rigid** (AP/CNR) - used with the Littlejohn adaptor; no explosive content or fuse.
  - **High Explosive** (HE), Point Detonated & Base Detonated – contained a fuse and explosive; base-detonated models were manufactured for the Australian Army by fitting Bofors HE shells to anti-tank cartridges and using a base fuse.
- Unexploded items of this type are most often found in/near areas used by the Army for artillery practices – typically on or just below the ground surface. Dumped items may occasionally also be found offshore.

Technical Data

- Munition length : approx. 390mm (flat head) to 475mm (APCBC)
- Projectile length : approx. 110mm (flat head) to 140mm (solid shot & HE)
- Projectile diameter : approx. maximum 40mm
- Total weight : Munition – approx 1.8-2.2 kg, projectile – 0.6-1.3 kg (depending on type)
- Fuse/Burster : May contain a simple explosive fuse which can be easily detonated
- Filling : Up to 85 grams of high explosive (AP/T - Lyddite/Picric acid; HE - TNT/RDX)
- Identification :
  - The projectile may have one or more bands of colour. Red, yellow or green bands/stripes were most often used to denote hazardous munitions however 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 - Australian troops firing a 2 pr anti-tank gun at Mount Samson, Qld (AWM ID number 068227)

Figure 2 - Australian Matilda Tanks fitted with 2 pr guns in New Guinea, 1944 (AWM ID number 075960)

Figure 3 - Various 2 pr complete munitions (L to R): Prac Flat Head, AP/T, APCNR/T, HE Mk I, HE, HE/T Mk XI, HE/T Mk VII
(Note: Colours/markings of projectiles may vary)

Figure 4 - Unexploded 2 pr & 6 projectiles

Figure 5 - Recovered 2 pr projectiles (including 'flat heads')

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

PROJECTILE - 6 POUNDER/57MM

Description

- The Quick Firing 6 Pounder 7 cwt (QF 6 pr) was an anti-tank gun introduced to replace the QF 2-pounder and as a main armament for tanks. It was introduced in 1942 and discontinued in the 1960's. 6 pr anti-tank guns were manufactured in Australia from 1941 to 1945 by General Motors Holden in South Australia. They were widely used by Australian anti-tank units throughout Australia and were still in service being used for training until the 1950's. The 6 pr gun was also installed as the main armament in the *Churchill* (Mark IV) and *Valentine* tanks (Mk VIII to X).
- The British 6 pr was adopted by the US forces and designated the 57mm for use in the 57mm Gun M1 as their main anti-tank weapon. Ammunition was interchangeable between the British and US guns. US forces in Australia during WWII undertook live firing practices using US manufactured guns.
- Several types of projectile were produced including the following:
  - **High Explosive** (HE & APCBC/HE) – contained a nose or base fuse and high explosive.
  - **Armour Piercing, Tracer** (AP/T, APC/T, APCBC/T, US M70) – most were solid projectiles (no explosive or fuse) however some variants contained a nose or base fuse and explosive.
  - **Armour Piercing, Composite Rigid** (APCR) Mk I - solid shot (no explosive content or fuse).
  - **Armour Piercing, Discarding Sabot** (APDS) Mk I - solid shot (no explosive content or fuse).
  - **Practice** (Prac) – may be 'flat head' or tapered; usually no explosive content or fuse.
- Unexploded items of this type are most often found in/near areas used by the Army for artillery practices – typically on or just below the ground surface. Dumped items may occasionally also be found offshore.

Technical Data

- Munition length : approx. 585-610mm
- Projectile length : approx. 155-265mm
- Projectile diameter : approx. 57mm
- Total weight : Munition – approx 5.1-6.3 kg; projectile – approx 1.4-3.3 kg (approx 6lb)
- Fuse/Burster : May contain an explosive fuse & burster which may be easily detonated
- Filling : Varied - 30-400 grams of high explosive (TNT, Dunnite, Explosive D)
- Identification : The cartridge is usually plain brass however the projectile may have one or more bands of colour. Red, yellow or green bands/stripes were most often used to denote HE munitions however 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 – Complete US 57mm Armour-Piercing Capped (APC) ammunition

Figure 2 – UK/Aust complete 6 pr munitions showing colours of various types of projectiles (colours & markings may vary)

Figure 3 - Australian-made 6 pr anti-tank gun and ammunition (AWM ID number 012983)

Figure 4 - Churchill IV tanks fitted with a 6 pr gun – Egypt, 1942 (AWM ID number 025250)

Figure 5 - Unexploded 2 pr & 6 pr Armour Piercing (AP) projectiles

Figure 6 - US 57mm projectile found in the field by munitions experts (only experts should handle munitions)

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

PROJECTILE – 17 POUNDER

Description

- The Quick Firing 17 Pounder (QF 17 pr) was developed in WWII to improve the tank-destroying capability of Allied forces. The 17 pr was of British design but manufactured in Australia from 1943 until the end of the war. It was primarily used an anti-tank gun - the Australian *Sentinel* (AC4) and *Cruiser* (AC3) tanks also trialled the gun however these did not make it into service. Australian forces used the 17 pr during WWII and the Korean War until they were withdrawn from service in 1962.
- Various projectiles were used including the following (not all may have been used in Australia):
  - **High Explosive, Tracer** (HE/T or HE/HC/T) – contains a nose fuze and high explosive filling.
  - **Armour Piercing, Tracer** (AP/T) & **Armour Piercing, Capped, Tracer** (APC/T) – various models ('Marks'/Mk); usually solid shot. No fuze but tracer is explosive.
  - **Armour Piercing, Capped, Ballistic Cap, Tracer** (APCBC/T) – usually solid shot (no explosive content or fuze however tracer is explosive).
  - **Armour Piercing, Discarding Sabot** (APDS) - solid shot (Tungsten core); no explosive content or fuse.
  - **Smoke** - both screening and coloured, base ejection; contains a fuze and explosive burster.
  - **Practice, Tracer** (Prac/T) – cast iron or steel solid shot; 'reduced charge' variants were "Flat Head"; no explosive content or fuze but tracer is explosive.
- The 17 pr was used in Australia primarily by specialist anti-tank units. The weapon's relatively flat firing trajectory usually results in 17 pr projectiles being found on the surface or shallow-buried (<0.5m).

Technical Data

- Munition length : approx 760-850mm
- Projectile length : approx 230-320mm
- Diameter : approx maximum 76-77 mm
- Projectile weight : 5.8 to 8.4 kg (~ 17lb); APDS approx 3.5 kg
- Fuse/Burster : May contain a fuse and bursting charge which can be easily detonated
- Filling : HE – approx 0.9 kg high explosive (e.g. TNT)
  Smk - TBC
- Identification : The body of the munition is usually made of brass and some may have painted black bands (e.g. APDS). The colour and markings on the projectile varied according to the contents – often painted black or buff with bands coloured white, blue, green, red and/or red crosses (red crosses indicated that the explosive filling was suitable for use in hot climates). Other colours may have been used or colours may have faded over time. **Treat all found munitions as dangerous**.

Images

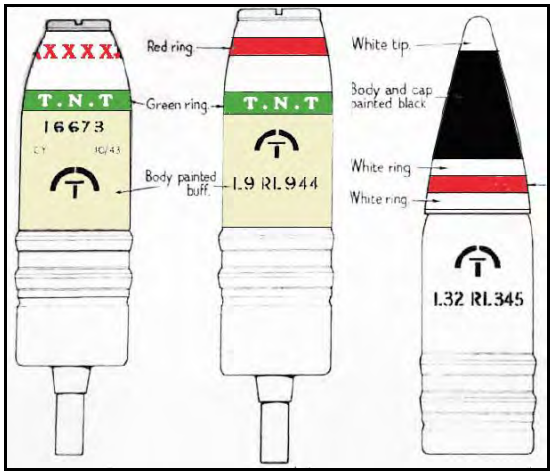

Figure 1 – Markings of 17 pr projectile (without fuzes) - L to R: HE/T, HE//HC, APCBC/T (examples only - colours may vary)

Figure 2 - New 17 pr undergoing proving tests - Fort Gellibrand, Vic, 1943 (AWM ID number 029418)

Figure 3 - Example 17 pr complete munitions (LtoR): APDS, APC, APCBC

Figure 4 – Member of 3RAR anti-tank platoon loading a shell into a 17 pr anti-tank gun – Korea, 1952 (Photographer - Hobson, Phillip Oliver; AWM ID HOBJ3284)

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

PROJECTILE - 18 POUNDER

Description

- The Quick Firing 18 Pounder (QF 18 pr) was a field artillery gun introduced into Australian service in 1906. It was the standard field artillery gun during WWI into WWII when it was progressively replaced by the QF 25 pr and finally withdrawn from service c. 1945. During WWII it was primarily used in Australia for coastal defence and training.
- Several types of projectile were produced – the most common included:
  - **Shrapnel** (Shrap) – these were the only shell available prior to 1914/5 and were fitted with a time and percussion fuse together with a bursting charge of high explosive to throw out the shrapnel.
  - **High Explosive** (HE) - a High Explosive (HE) shell was introduced in 1914 that contained Lyddite (a picric acid based explosive) which was later replaced by TNT. A 'streamlined' version was also later introduced.
  - **Smoke** (Smk) - White Phosphorus (WP) projectiles first became available after 1916; fitted with a time and percussion fuse together with a bursting charge of high explosive.
  - **Chemical** (Chem) – introduced 1918 into British Army (unknown if used in Australia).
  - **Incendiary** (Incend) – these were shrapnel shells with thermite pellets; introduced 1918.
  - **Armour Piercing** (AP) – contained a base fuse and explosive.
  - **Star** – similar to shrapnel except that reduced charges were used; fitted with a time and percussion fuse together with a bursting charge of high explosive.
- Unexploded items of this type are most often found in/near areas used by the Army for artillery practices and on coastlines – they may be found on or just below the ground surface or buried up to 2.0m deep. Dumped items may occasionally be found offshore.

Technical Data

- Projectile length : approx. 250-265mm
- Projectile diameter : approx. maximum 84mm
- Total weight : Munition – approx 9.5-10.7 kg; Projectile – approx 8.0-8.6 kg (approx 18lb)
- Fuse/Burster : May contain an explosive fuse & burster which can be easily detonated
- Filling : HE - approx 0.5 kg explosive (Gunpowder, Lyddite, Trotyl/TNT, Amatol)
  Smoke – White Phosphorus (weight TBC)
- Identification :
  - The projectile may have one or more coloured bands to denote the different type of filling - red, yellow, green or black bands/stripes were most often used however 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

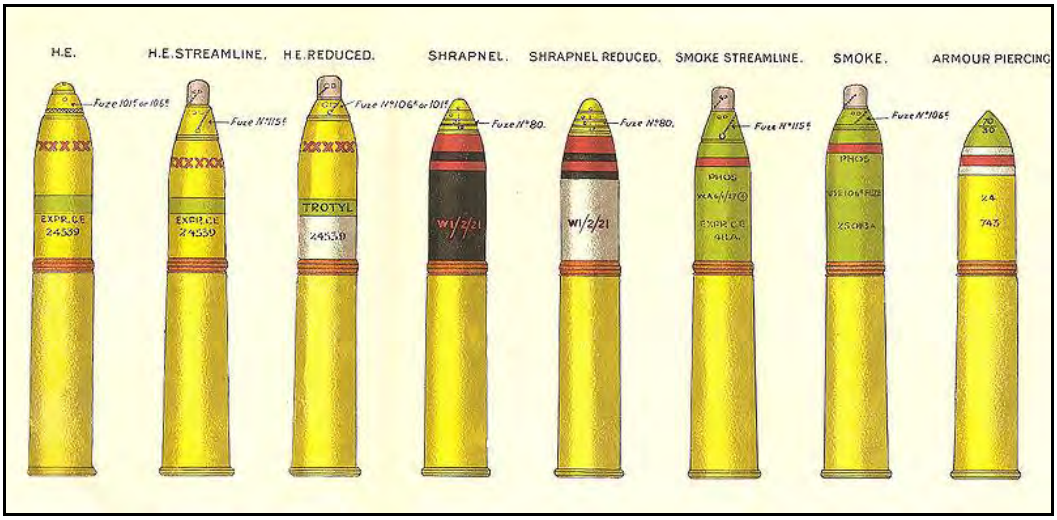

Figure 1 - 18 pr munitions showing markings for various types of projectile ('Incendiary' not shown)
(Note: Colours/markings may vary)

Figure 2 - Australian troops live-firing an 18-pounder at Caloundra, Qld in 1939 (AWM ID number P01485.012)

Figure 3 - 18 pr UXO found on the surface near Logan, SE QLD

Figure 4 - 18 pr HE/Shrapnel UXO recovered from the field

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

PROJECTILE - 20 POUNDER

Description

- The Quick Firing 20 Pounder (QF 20 pr) was a British-designed tank gun introduced to replace the QF 17 pr. Australian usage was primarily the main armament of the Centurion tank – the Australian Army's variant (Centurian Mark III) arrived in 1952, served in Vietnam and was eventually phased out by 1977 (replaced by the Leopard I tank).
- The Australian Army's Mk III Centurions (later Mk V) were equipped with a 20 pr Mk I gun and carried a basic load of 65 rounds of 20 pr shells. A total of 138 tanks were purchased including Armoured Recovery Vehicles (ARV), Bridge-layers and Tank-dozers plus 1 x ARV and 7 x gun tanks from New Zealand (the gun tanks were dismantled for use as spares).
- Several types of projectile were used – some made at armament factories in Australia - including:
  - **High Explosive, Tracer** (HE/T) & **High Explosive, Squash Head** (HESH) - contains a fuze, exploder and high explosive.
  - **Smoke** (Smk) – a 'Base Ejection' (BE) projectile which contains a fuse, burster and smoke composition.
  - **Canister** (Can) – not strictly a projectile; filled with pellets (no explosive content or fuse)
  - **Armour Piercing, Capped, Tracer** (APC/T) & **Armour Piercing, Capped, Ballistic Cap, Tracer** (APCBC/T) - solid shot (no explosive content or fuse)
  - **Armour Piercing, Discarding Sabot, Tracer** (APDS/T) - Tungsten Carbide insert, solid shot, weighing approx 4.1-4.5 kg. No explosive content or fuse however tracer compound is explosive.
  - **Practice -** No explosive content or fuse.

Technical Data

- Munition length : approx 520-620 mm
- Projectile length : TBC
- Projectile diameter : approx maximum 84mm
- Projectile weight : Varies – APDS 4.1-4.5 kg; HE 7.8 kg (approx 20lb); Smk approx 10 kg
- Fuse/Burster : May contains an explosive fuse and burster which can be easily detonated
- Filling : HE - contains approx 0.6-0.75 kg high explosive (TNT or RDX/TNT)
- Identification :
  - The projectile may have one or more bands of colour (depending on the specific type of munition).
  - Red or yellow bands/stripes 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**.

Images

Figure 1 - 20 pr ammunition for Centurian tank
(LtoR): HE (yellow), Canister, HE (olive drab), APCBC, APDS, Smk, Blank/empty cartridge

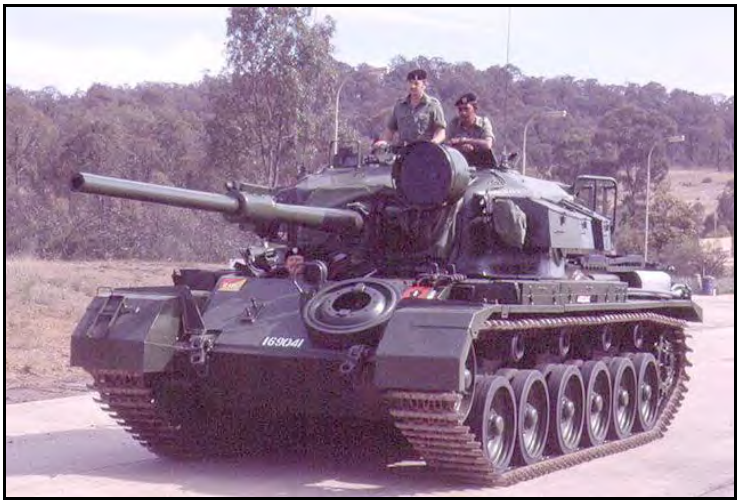

Figure 2 - Australian Centurian tank

Figure 3 - 20 pr Prac (TP APDS) & HE
(AWM ID number REL35661 & REL35662)

Figure 4 - Centurian tank firing at Holsworthy, NSW

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

PROJECTILE – 25 POUNDER

Description

- The British Quick Firing 25 pounder (QF 25 pr) artillery gun was introduced during WWII and was the primary artillery piece of the Commonwealth Forces until the 1960's. Guns were built in Australia starting in 1942 by GMH and other companies and Australian Army usage continued until 1965 when the 25 pr was replaced by the 105mm Howitzer.
- A short barrelled version (the '*QF 25 pr Short*') was designed and manufactured in Australia specifically for jungle warfare in PNG (air transportable and easily broken down for transport). Issued in 1943, it used the same ammunition as the standard QF 25 pr but was deemed obsolete in 1946. The Australian self-propelled gun '*Yeramba*' (post-WWII) also used the QF 25 pr gun.
- Variants of the 25 pr projectile produced included the following:
  - **High Explosive** (HE) - contains a nose fuse and high explosive; Variable Time (VT) or proximity fuzes (T97) were available for the 25 pr HE ammunition after early 1944.
  - **Armour Piercing, Tracer** (AP/T) & **Armour Piercing, Ballistic Cap, Tracer** (APBC/T) - Solid shot with no explosive element apart from an integral tracer.
  - **Smoke** (Smk) - Base ejection or bursting projectile; White Phosphorus or coloured smoke. Propaganda material/leaflets were sometimes installed into empty smoke shells for dispersion.
  - **Chemical** (Chem) - base ejection shell filled with a toxic agent (usually Mustard Gas).
  - **Flare** (Flare) and **Illumination** (Illum) - base ejection or bursting projectile typically containing a parachute flare (bright white or multiple colours).
  - **Practice, Tracer** (Prac/T) & **SH Practice, Tracer** (SH Prac/T) – solid shot or filled with an inert high explosive substitute. No explosive other than tracer.
- Unexploded items of this type are most often found in/near areas used by the Army for artillery practices - typically on the ground surface up to 1.5m deep. Dumped items may also be found offshore.

Technical Data

- Projectile length : approx. 285-350 mm
- Projectile diameter : approx. 87.6mm (3.45")
- Total weight : Projectile - approx 11.33kg (approx 25lb)
- Fuse/Burster : Typically contain an explosive fuse & burster/expelling charge.
- Filling : HE - varied between 450-900 grams of high explosive (TNT, Amatol, RDX).
  Smk/Chem – approx 400-1500 grams of smoke, chemical or incendiary.
- Identification : Normally cast iron/steel. Hazardous variants of the projectile are often painted yellow, green or grey with bands of yellow, red or green. **Caution – this munition has been widely used over a long period of time - other colours may have been used or colours may have faded over time. Treat all found munitions as dangerous**.

Images

Figure 1 - Various 25 pr munitions – L to R: Smoke, Armour-piercing (Pre-1955 UK markings), HE (RDX/TNT), HE projectile (Amatol, Pre-1955 UK markings), Smoke projectile (Pre-1955 UK markings)

Figure 2 - Australian artillery gunner with 25 pr HE projectile – PNG, 1943 (AWM ID 062765)

Figure 3 - Standard (left) and Short (right) 25-pounders. This is the prototype, which was fitted with a gun shield that was later removed (AWM ID 085823)

Figure 4 - Unexploded 25 pr projectile found at Coomera, SE QLD

Figure 5 - Unexploded 25 pr HE projectile found on the Sunshine Coast, SE QLD

