

## Heavier support weapons

### Javelin

<b>Type of system</b>	Fire and forget
<b>Missile weight</b>	11.8kg
<b>Warhead weight</b>	8.4kg
<b>Missile length</b>	110cm
<b>Flight time</b>	7sec per 1000m
<b>Effective range</b>	2000m
<b>Min range</b>	65m direct attack

The Javelin weapon system was introduced to the Australian Army to engage and destroy current and anticipated enemy armour at ranges beyond that achievable with previous shoulder-fired anti-armour systems.

The system also offers the capability to destroy fortifications and bunkers, as well as slow-moving or hovering helicopters.

Combat arms units employ Javelin as a dismounted, shoulder-fired weapon, but it can also be fitted to vehicle platforms.

Targets are engaged by locking on to their heat signature and, once fired, there is no further requirement to guide the missile, which allows the firer to get up and go before being counter attacked.

Javelin has two modes – direct attack or top attack. In direct attack, the rocket flies directly to the target, just like a bullet. In selectable top-attack mode, the rocket initially flies a similar path before arching up to about 150m then down in the last seconds to hit the target almost vertically from the top – most vehicles' (even tanks) most vulnerable aspect.

The missile has two warheads – the first to set off explosive-reactive armour, the second to penetrate base armour.



PIC CORPORAL CHRIS MOORE

### F2 Mortar

The mortar 81mm F2 is a crew-served, indirect-fire support weapon. It is distinguished from other indirect-fire systems by its capability to sustain a high rate of fire using a variety of ammunition.

The mortar is primarily a man-portable weapon system that can also be deployed using other agencies such as helicopters, wheeled vehicles or APC mortar vehicles.

In the man-pack mode, additional personnel are required to carry ammunition.

The mortar is easily detectable by its distinctive noise and flash when firing. It is extremely vulnerable to detection by weapon-locating radar because of the long time of flight, high trajectory and relatively slow velocity of its ammunition.

Mortar crews are generally not capable of defending themselves while simultaneously conducting missions. The mortar can fire at ranges from 200m to 4900m depending upon the type of ammunition used.



PIC CORPORAL HAMISH PATTERSON

<b>Calibre</b>	81mm
<b>Weight</b>	36.6kg [without sight]
<b>Barrel length</b>	1280mm
<b>Muzzle velocity</b>	225m/sec
<b>HE shell</b>	4.2kg
<b>Rate of fire</b>	Up to 12 rounds per minute sustained 20 rounds per minute for short period

<b>Calibre</b>	155mm
<b>Weight</b>	4100kg
<b>Length</b>	10.7m deployed configuration 9.5m towed configuration
<b>Rate of fire</b>	5 rounds per minute rapid 2 rounds per minute sustained
<b>Effective range</b>	24km conventional rounds 30km improved rounds

### M777

The M777 Light-Weight Towed Howitzer (LWTH) is the latest artillery piece to be employed by the Australian Army, replacing the L119 105mm light gun and the M198 155mm medium gun in Royal Regiment of Australian Artillery units in the 1st Division (Reserve artillery units will convert to mortars).

Army says this new equipment is a significant advance in its capabilities as the gun has a much higher level of digital connectivity allowing more rapid, safe and accurate application of effects across the battlespace.

M777 can link with Australian and allied networks providing accurate and timely responses as required to support ground forces in all weather conditions, day or night.

M777 provides direct support to combat troops through offensive and defensive fires with conventional and precision-guided projectiles.

It can also employ illuminating and smoke projectiles.

M777 will be towed behind the Mack gun tractor and eventually the Mack replacement procured under Project Land 121.

It can also be lifted by a CH47 Chinook helicopter or carried in the C17 Globemaster and C130 Hercules and is deployable by Navy watercraft and amphibious vessels.



PIC LEADING SEAMAN PAUL BERRY

### L119

The L118 light gun is a 105mm towed howitzer. It was originally produced for the British Army in the 1970s and has been widely exported since, including to the United States, where a modified version is known as the M119A1.

The proper military name for this weapon is "Gun, 105mm, Field, L119" but it is almost always just called "the light gun".

The L119 variant has a different barrel [a slightly shorter L20 ordnance with a percussion firing mechanism] for firing the ubiquitous US M1-type ammunition, giving the gun a max range of 11,400m.

In Australian service, the light gun was usually towed behind a Unimog – though even a Land Rover was capable.

However, the L119 is being phased out of service in Australia – the last reserve unit giving up its guns in June this year [see CONTACT issue #35, p22].

<b>Weight</b>	2130kg
<b>Caliber</b>	105mm
<b>Elevation</b>	-100 to 1244 mils
<b>Traverse</b>	100 mils left or right
<b>Rate of fire</b>	Maximum 8 rounds per minute for 3 minutes Sustained 3 rounds per minute for 30 minutes
<b>Max range</b>	13.7km conventional round; 19.5km rocket assisted



PIC SERGEANT BRIAN HARTIGAN

NOTE: Where [many] statistics and 'facts' listed above differ from those of other publically available sources [including relevant manufacturers], we have mainly used the official ADF figures on the grounds that in-service weapons may have been customer-modified. Where ADF information and figures are not available or obviously incorrect (e.g. barrel length of F2 Mortar, listed by Defence as 128mm:-), we used other sources, especially Wikipedia.