Daily Ammunition Expenditure Rate

The predicted amount of ammunition, in terms of the required rate of use, expressed in rounds-per-gun per-day.

Daily Sight Tests

The tests carried-out daily at the guns to check for parallelism (see: *Parallelism* and *Sights*).

Danger Close

The engagement of a target that is close to friendly troops.

Data Display Unit

Located at the gun position the unit (DDU) displays the relevant information and firing data transmitted from the command post.

Datum Point

When surprise is required in an offensive operation guns, if possible, do not register the intended targets by firing. A process known as 'silent registration' is undertaken where the necessary predicted bearings and ranges to the targets are provided to the guns by the command post, based on a trigonometrical process; however, this data does not allow for the current meteorological conditions (ie. wind speed and direction, and air temperature). To obtain the relevant meteorological data a datum point is selected, to which both the bearing and range are accurately known. Shortly before engaging the targets the datum point is registered with live-fire, and any changes in the bearing and range to successfully engage the point are applied to the information already predicted for the offensive targets.

Defensive Fire

Artillery fire used to break-up enemy forces attempting to attack the gun position.

Defensive Fire (SOS)

(see: Defensive Fire Tasks)

Defensive Fire Tasks

Precautionary targets, selected by an Infantry commander as part of a defensive fire plan, which are sited close to the Infantry position and are intended to break-up an enemy attack. The difference between 'defensive fire' (DF) and 'defensive fire tasks' is that the latter are specifically forecast targets, prepared in anticipation and for which the artillery is forewarned. The most important of a unit's DF Tasks is called the DF (SOS) task and is normally selected to cover the unit's most vulnerable area, or the most likely route of an enemy approach. In delicate situations, the supporting artillery of an infantry unit may lay the guns onto the SOS task when the guns are not actually engaging another target.

Depth of Rifling

The measurement from the top of a barrel's land to the bottom of its groove (see: *Bore*).

Detachment

The gunners who serve an Artillery gun or missile launching system. At times they are also referred to as 'gun numbers', with their particular 'number' defining their duties in action (eg. the detachment commander is the 'Number 1').

Detachment Commander

The NCO that commands a gun/launcher detachment. His responsibilities include ensuring that the correct firing data is

applied to the sighting system (ie. range and bearing); the gun is laid correctly; the correct ammunition (with the correct fuze and propellant) is loaded and he is responsible for checking for any crest clearance obstacles. He is also responsible that the gun fires at the correct moment in strict accordance with the GPO's orders

He is also responsible for the servicing of the equipment (including carrying-out sight tests) and the training, control and welfare of the detachment.

Detonation

An un-controllable and destructive force. Projectiles detonate when hitting a target or when the time or proximity fuze initiates detonation above a target.

Development of Rifling

The rifling in a barrel develops within the shot seating in a portion known as the development of rifling (see: *Shot Seating*).

Dial Sight

A sight for measuring horizontal angles, thereby laying the gun for line. It consists of a fixed main scale, for laying the gun in the desired initial position (the centre of arc – given by a line from the director), and a slipping scale upon which the bearings to fire-on, to engage a target, are set. It is a removable device that fits into the gun's sight bracket (see: *Centre of Arc* and *Director*).

Difference Altitude

The difference in altitude between two points (usually the gun position and a target).

Direct Action Fuze

A fuze that functions instantaneously on impact with the target.

Direct Fire

Fire with the gun's sight aimed directly at the target.

Direct Support

Artillery units giving direct support to a battle group/unit will give priority to the requirements of that group/unit for fire support; the fire support is normally guaranteed. Direct support units provide forward observers, communications, liaison and advice to the battle group/unit. Direct support units have responsibility for fire planning and the coordination of all offensive support, at every level of command from sub-units upwards.

Direction

A grid bearing, ordered to the nearest 10 mils, of a reference line along which the observer will order target grid corrections, to the gun-line command post, when adjusting fire onto a target (with a laser range finder the direction may be ordered to the nearest one mil). The 'direction' may be ordered using any of the following grid lines:

- * Line OT (Line Observer-to-Target): This is a direct line from the observer's position to the target.
- * Line GT (Direction Gun-to-Target): This is a direct line from the gun position to the target.
- * Any arbitrary, easily distinguished reference line (eg. a prominent road).

Direction GT

(see: Direction)

Director

A theodolite-type device (also known as an 'Aiming Circle') which can measure angles in both azimuth and elevation, and is used to lay the guns accurately in the required centre of arc. It

can also be used for simple survey purposes.

Director of Artillery

The senior officer who is the head of the Royal Regiment of Australian Artillery.

Distribution of Fire

Normally guns fire at a set (common) bearing and range, and the projectiles will then land in the same pattern as the lay-out of the guns at the gun position. However, when required the distribution of the fire can be altered so that the projectiles of all the guns will land at a set location (eg: at one point, or in a straight line).

Drift

Corrections applied a gun's bearing to compensate for the progressive lateral deviation of the projectile which results from the spin imparted by the rifling of the bore (barrels with a right-hand (clockwise) twist impose a drift of the projectile to the right once it leaves the muzzle; therefore the correction to compensate for this is to the left).

Driving Band

All conventional projectiles fired from guns with rifled barrel bores are fitted with driving bands. A soft metal band (generally copper) and it is fitted into the circumference of the projectile towards its rear end; upon firing the band cuts into the lands of the bore. The band has two functions: to impart spin on the projectile and to seal-off the propellant gases behind the projectile, thereby giving uniform ballistics (ensuring all the gases are kept in the bore to drive the projectile) and preventing scoring of the bore due to the escape of hot gases past the projectile.

Droop

The sagging effect on the muzzle of a barrel on its trunnions.

Drop

A correction used by an observer to indicate that a decrease in range along the observer target line (Line OT) is required.