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Bad Ram	If a projectile is loaded into the breech with insufficient force to engage it correctly into the rifling it will not allow the full pressure of the propellant to build up when fired and this would cause the projectile to fall erratically. When it is recognized that the projectile has been badly rammed it is ejected; however, if it cannot be ejected the detachment commander reports "Bad Ram" and the GPO then passes the order onto the observer who is then responsible for ordering the projectile to be fired at a safe location.
Ballistics	The science of the motion of a projectile (see: <i>Internal Ballistics</i> , <i>Intermediate Ballistics</i> and <i>External Ballistics</i>).
Ballistic coefficient	The ability of a projectile to overcome air resistance by reason of its mass and shape. Basically, the ballistic coefficient increases with the weight of the projectile, but decreases as the diameter of the projectile increases (eg. a low air density, which occurs at a high altitude, or with a higher air temperature, implies a larger coefficient and consequently better carrying-power of the projectile in flight).
Ballistic Angles	Angles associated with the projectile's trajectory. Vertical ballistic angles are: <ul style="list-style-type: none">* Angle of Departure: The angle between the line of departure (of the projectile from the gun's muzzle), when the gun is fired, and the horizontal plane (see: <i>Elevation</i>).* Angle of Sight: The vertical angle between a gun and the target; it may be one of elevation or depression.* Angle of Projection: The angle for a given point on a projectile's trajectory between the line of departure and the line of sight.* Angle of Descent: The angle (at a given point on the trajectory) between the line of arrival and the line of sight to the target.* Angle of Arrival: The angle for a given point on the projectile's trajectory between the line of arrival (to the target) and the horizontal plane.* Angle of Impact: The angle between the line of arrival and the surface of impact, at the point of impact.* Angle of Incidence: The angle, drawn at right angles at the point of impact, between the line of arrival of a projectile and the surface of the target.
Ballistic Point of Graze	The point at which the trajectory intersects the horizontal plane through the trunnions.
Barrage	A moving or stationary line of artillery fire providing a protective screen behind which troops can advance or defend (when moving to support an advance onto the enemy it is referred to as a rolling barrage).

Barrel	A 'tube' that houses a complete round and directs the projectile when fired. Rifling on the inner surface of the barrel rotates the projectile (normally clockwise) so as to maintain its direction and to prevent the projectile tumbling in flight.
Base Ejection Shell	A projectile that has its payload ejected from its rear (base) (eg. smoke and illumination projectiles) (see: <i>Projectile</i>).
Basic-structure	The gun's carriage supporting the barrel and includes the wheels, trails, saddle support, and axle (see: <i>Super-structure</i>).
Battery	The basic unit of artillery. A 'fixed' fortified structures in which artillery pieces were placed (eg. 6 inch coastal guns) was also termed as a battery (see: <i>Air Ground Operations Battery, Combat Service Support Battery, Gun Battery, Ground Based Air Defence Battery, Headquarters Battery, Locating Battery, Sense Warn and Locate Battery</i>).
Battery Area	The area into which a battery is deployed. For a gun battery it includes the gun platforms, the command posts (including a second back-up command post), the wagon lines (where the gun tractors (the vehicle that tows the gun and carries the gun's detachment, ammunition and stores) are located, and the ammunition point (see: <i>Gun Area</i>).
Battery Captain	<p>The battery captain (BK) is the second-in-command of the battery and commands the battery gun position on behalf of the battery commander (BC). He is responsible for planning the layout of the gun position and the deployment of the guns upon their arrival. He is also responsible for planning and commanding the position's local defence (he is referred to as a BK so as not to confuse the abbreviation with that of the battery commander – BC).</p> <p>In a locating battery the battery captain's duties included that of the operations officer (OPSO) (see: <i>Second-in-Command</i>).</p>
Battery Centre	The geometrical centre of all the battery's guns in the gun position location. All measurements of line (bearing) and range to a target are calculated from this point.
Battery Command Post	<p>The battery command post is commanded by the gun position officer (GPO), a lieutenant, and the second-in-command is the operator command post sergeant (OPCP SGT). Other personnel within the post are operators command post (OPCPs), made-up of junior NCOs and private rank soldiers, and signallers.</p> <p>The command post receives the information to engage targets (eg. the location and altitude of the target) and then calculates the necessary data to be applied to the guns (eg. the bearing and elevation to the target).</p> <p>The command post also records target information and is responsible for survey within the gun area (see: <i>Gun Position Officer and Operator Command Post</i>).</p>
Battery Commander	The battery commander (BC) is an officer, of the rank of major, who commands a battery. The BC of a gun battery does not deploy with the unit, he deploys with the commanding officer of the infantry battalion that the battery is supporting. The BC is

responsible for advising the infantry commander with regard to the employment of artillery fire support and may himself call-in artillery fire support.

The battery commander of the regiment's headquarters battery is the unit's operations officer (OPSO). (see: *Operational Control*).

Battery Commander's Assistant

An operator command post sergeant who is the second-in-command of the battery commander's party. His duties include checking the battery commander's details, relating to a call for fire support (the "independent check"), before the officer calls-in the fire. The assistant is fully trained in calling-in supporting fire and, when the situation dictates, may carry-out the duties of the BC.

Battery Commanders' Course

The Artillery-related promotion course attended by Artillery captains and temporary majors, to gain the relevant artillery specific qualifications for promotion to major.

The course no longer exists. Now officers, from all corps, preparing for sub-unit command attend both a Combat Officers Advanced Course and a Pre-Command Course.

Battery Grid

The survey (fixation and orientation) state of a battery's location taken using basic survey methods (eg. using a magnetic compass and a map resection). Firing information produced by the battery is only relevant to that unit (see: *Regimental Grid, Theatre Grid, Fixation and Orientation*).

Battery Guide

The battery guide (BG), a warrant officer class two, is responsible to the battery commander (BC) on all matters regarding technical gunnery. In action his primary duties include assisting the battery captain (BK) in planning the layout of the gun position and the deployment of the guns upon their arrival. He is responsible for the distribution of ammunition within the battery area and may also be available as a duty officer within the battery command post (BCP). The position is 'junior' to that of the battery sergeant-major.

Battery Headquarters

A gun battery's headquarters is made-up of the battery commander (BC), the battery captain (BK), the battery sergeant-major (BSM) and the orderly room clerks.

Battery Leader

The officer responsible for commanding the deployment of a gun battery to a new gun position.

During a 'Quick Action' (see: *Quick Action*) the battery leader is responsible to ensure that the call for fire is acknowledged and indicate to the gun group that a 'Quick action' is to occur. The officer is then to plot both the target and gun locations, determine the appropriate direction of fire to the target, deploy the guns in the nearest suitable position, determine the grid of the battery centre (and pass-on this information to the GPO) and lay the guns in the required bearing to the target.

Battery Left

(see: *Battery Right*)

Battery Observation Post

(see: *Observation Post*)

Battery Quartermaster-Sergeant	The battery quartermaster-sergeant (BQMS) is the senior NCO within a battery who is responsible to the battery captain (BK) for the unit's logistics, such as rations, stores and equipment (the rank was a staff sergeant, however, it is now a sergeant rank).
Battery Right	An order for the guns to fire one round at a time, in sequence, from the right-hand most gun across to the left-hand most gun (or from left to right: 'Battery left'). The GPO may nominate to the guns the sequence that the guns are to fire or he may control the firing from the command post by ordering individual guns to fire at the appropriate time.
Battery Sergeant-Major	The battery sergeant-major (BSM), a warrant officer class 2, is the senior warrant officer within a battery. The BSM is the main 'link' between the unit's officers and the other ranks. In action he is responsible for the distribution of ammunition to the gun position (both gun and small arms), the collection of expended ammunition produce (ie. fired cartridge cases) and the disposal of unused charge bags. He also assists the battery captain (BK) with regard to the defence of the gun position and is responsible for any prisoners-of-war taken within the area. He is also responsible for advising the battery commander (BC) on matters relating to the career management of the unit's soldiers, unit discipline, and ceremonial and protocol procedures. He may also be available as a duty officer within the battery command post (BCP).
Battlefield Meteorological System	A stand-alone meteorological system capable of producing computer and ballistic meteorological data for artillery surface-to-service weapons and target acquisition.
Bearing	The horizontal angle along which the ordnance (gun) is aligned to engage a target.
Bearing Picket	Also known as a Survey Picket; consists of a marker driven into the ground with an attached card giving the co-ordinates (grid reference) of the bearing picket and accurate bearings, from the picket, to relevant reference points. The battery director is set-up over the picket and is then orientated using the reference points. A bearing and a distance from the peg can be used to fix the location of a selected gun (see: <i>Director</i> and <i>Aiming Point</i>).
Bluebell	The radio appointment title for the senior RAEME (Royal Australian Electrical and Mechanical Engineer) member within the unit or at the gun position.
Bombardier	<p>The Artillery's equivalent to corporal. The most junior NCO in artillery was referred to as bombardier, which is derived from an early artillery piece called the bombard (used at the Battle of Crecy in 1346, the first battle in which the English employed artillery). There were problems with the Bombards: at times they could be just as deadly to the detachments as they could be to the enemy, for they were known to blow up as the charge was ignited, therefore the dangerous task of firing the piece fell to the most junior NCO, hence the rank bombardier.</p> <p>The Royal Artillery did away with the rank of corporal in 1920 and replaced it with that of bombardier; the new rank of lance</p>

bombardier was then introduced. The Royal Regiment of Australian Artillery made the change in 1924.

Bore	The interior of a gun's barrel through which the projectile travels when fired. The size of a gun is often known by its calibre, which is measured across the barrel's lands (eg. 105 mm) (see: <i>Barrel and Lands</i>).
Box Trail	A rigid structure trail designed in the shape of a hollow box. The piece generally provides sufficient room for elevation within restricted traverse limits (eg. 25 Pounder QF Gun) (see: <i>Trail</i>).
Bracket	Two projectiles, one of which lands over the target (in range) and the other lands short of the target (see: <i>Target Round</i>).
Breech	The rear end of a barrel into which ammunition is loaded.
Breech Loading	A gun in which the ammunition (a projectile and separate charge bags) is loaded through the breech at the rear of the barrel. The breech screw mechanism, containing the firing mechanism, is screwed into the breech ring and, when closed, the screw prevents the propelling gases from escaping from the breech when the gun is fired (obturation) (see: <i>Quick Firing</i>).
Breech Mechanism	<p>The mechanism, activated by an operating lever, that opens the breech for loading and closes it to withstand the rearward thrust of propellant gases when the gun is fired; it also contains the firing mechanism.</p> <p>There are two basic types of breech mechanism, dependent on the type of ammunition used; breech loading (BL), a screw which also provides obturation when the gun is fired, and quick firing (QF) which has a sliding block.</p>
Breech Ring	The piece attached to the breech-end of the barrel and houses the breech mechanism (see: <i>Breech Mechanism</i>).
Buffer	A device that is a component of a gun's recoil system, which absorbs the shock of the gun firing and reduces the strain on the carriage (see: <i>Recoil System and Recuperator</i>).