

Glossary

Abbreviations and Acronyms

A

- AC . . . . .aiming circle
ACE . . . . .aviation combat element
ADA . . . . .air defense artillery
ADAM-L . . . . .area denial artillery munitions-long duration
ADAM-S . . . . .area denial artillery munitions-short duration
ADCON . . . . .administrative control
ADP . . . . .ammunition distribution point
AFATDS . . . . .advanced field artillery automated system
AFSC . . . . .assistant fire support coordinator
ALOC . . . . .administrative and logistics operation center
AMC . . . . .at my command
AMREP . . . . .ammunition report
AO . . . . .area of operation
AOR . . . . .area of responsibility
APICM . . . . .antipersonnel improved conventional munitions
Arty . . . . .artillery
ASP . . . . .ammunition supply point
ATIZ . . . . .artillery target intelligence zone
AXO . . . . .assistant executive officer
AZ . . . . .azimuth

B

- BA . . . . .basic allowance
BAS . . . . .battalion aid station
BC . . . . .battery center
BCS . . . . .battery computer system
BDA . . . . .battle damage assessment
BLT . . . . .battalion landing team
Bn . . . . .battalion
BOC . . . . .battery operations center
BSA . . . . .beach support area
Btry . . . . .battery
BUCS . . . . .backup computer system

C

- C3 . . . . .command, control, and communications
Cal . . . . .caliber
CAS . . . . .close air support
CBR . . . . .counter-battery radar

## MCWP 3-16.1 Marine Artillery Operations

1	CCIR	commander's critical information requirement
2	CFL	coordinated fire line
3	CFE	call for fire
4	CFFZ	call for fire zone
5	CFZ	critical friendly zone
6	CM	corrective maintenance
7	COA	course of action
8	COC	combat operations center
9	COF	conduct of fire
10	Comm	communications
11	ConOps	continuity of operations
12	CP	command post
13	CPREP	command post report
14	CSB	common sensor boundary
15	CSMO	close station march order
16	CSR	controlled supply rate
17	CSS	combat service support
18	CSSA	combat service support area
19	CSSD	combat service support detachment
20	CSSE	combat service support element
21	CZ	sensor zone

22

### 23 D

24	DAP	distant aiming point
25	DISREP	displacement report
26	DNE	do not exceed
27	DOA	day of ammunition
28	DODAC	department of defense activity code
29	DOS	day of supply
30	DP	decision point
31	DPICM	dual purpose improved conventional munition
32	DS	direct support
33	DST	decision support template
34	DTG	date/time group
35	DU-V	ammunition dump – class V
36	DVST	digital voice secure telephone
37	DZ	drop zone

38

### 39 E

40	EDME	electronic distance measuring equipment
41	EEI	essential elements of information
42	EFAT	essential field artillery task
43	EFST	essential fire support task
44	ELOS	electronic line of sight
45	EOD	explosive ordnance disposal

## MCWP 3-16.1 Marine Artillery Operations

1	EOL . . . . .	end of orienting line
2	EPW . . . . .	enemy prisoner of war
3	ET . . . . .	execution template
4	EW . . . . .	electronic warfare
5		
6		<b>F</b>
7	FAC . . . . .	forward air controller
8	FAC (A) . . . . .	forward air controller (airborne)
9	FASCAM . . . . .	family of scatterable mines
10	FAX . . . . .	facsimile
11	FD . . . . .	fire direction
12	FDC . . . . .	fire direction center
13	FDO . . . . .	fire direction officer
14	FFCC . . . . .	force fires coordination center
15	FIRECAP . . . . .	fire capability report
16	FIREP . . . . .	firing report
17	FLASHREP . . . . .	flash report
18	FLOT . . . . .	forward line of own troops
19	FMF . . . . .	fleet marine force
20	FO . . . . .	forward observer
21	FPF . . . . .	final protective fire
22	FSC . . . . .	fire support coordinator
23	FSCC . . . . .	fire support coordination center
24	FSCM . . . . .	fire support coordinating measure
25	FSSG . . . . .	force service support group
26		
27		<b>G</b>
28	GB . . . . .	green bag (M3A1 propellant)
29	GCE . . . . .	ground combat element
30	GDU . . . . .	gun display unit
31	GPS . . . . .	global positioning system
32	GS . . . . .	general support
33	GS-R . . . . .	general support-reinforcing
34		
35		<b>H</b>
36	HA . . . . .	hide area
37	HB/MPI . . . . .	high-burst/mean point of impact
38	HE . . . . .	high explosive
39	HE/Q . . . . .	high explosive/quick
40	HF . . . . .	high frequency
41	HMMWV . . . . .	high-mobility multipurpose wheeled vehicle
42	How . . . . .	howitzer
43	HPT . . . . .	high payoff target
44	HQ . . . . .	headquarters
45	HST . . . . .	helicopter support team

## MCWP 3-16.1 Marine Artillery Operations

1	HVT	high value target
2		
3		<b>I</b>
4	ICM	improved conventional munitions
5	IFSAS	initial fire support automated system
6	Illum	illumination
7	IPB	intelligence preparation of the battlefield
8		
9		<b>L</b>
10	LAN	local area network
11	LAR	light armored reconnaissance
12	LD	line of departure
13	LNO	liaison officer
14	LOC	lines of communications
15	LOS	line of sight
16	LP	listening post
17	LZ	landing zone
18		
19		<b>M</b>
20	M	meter
21	MAGTF	Marine Air-Ground Task Force
22	MAP	mission, ammunition, position
23	Mar	Marine
24	MBA	main battle area
25	MCOO	modified combined obstacle overlay
26	MCT	maintenance contact team
27	MDS	meteorological data system
28	MEDEVAC	medical emergency evacuation
29	MEF	Marine expeditionary force
30	Met	meteorology
31	METT-TSL	
32	MEU	Marine expeditionary unit
33	MHE	material handling equipment
34	MLRS	multiple launch rocket system
35	mm	millimeter
36	MOUT	military operations on urbanized terrain
37	MOPP	mission oriented protective posture
38	MORTREP	mortar report
39	MOS	military occupational specialty
40	MRL	multiple rocket launcher
41	MSR	main supply route
42	MST	maintenance support team
43	MTO	message to observer
44	MULE	modular universal laser equipment
45	MVV	muzzle velocity

# MCWP 3-16.1 Marine Artillery Operations

1	
2	<b>N</b>
3	NAI . . . . . named area of interest
4	NBC . . . . . nuclear, chemical, and biological
5	NGS . . . . . national geodetic survey
6	NIMA . . . . . national imagery and mapping agency
7	NSFS . . . . . naval surface fire support
8	NSN . . . . . national stock number
9	<b>O</b>
10	OL . . . . . orienting line
11	O/O . . . . . on-order
12	OB . . . . . order of battle
13	OP . . . . . observation post
14	OPCON . . . . . operational control
15	OS . . . . . orienting station
16	
17	<b>P</b>
18	PA . . . . . position area
19	PADS . . . . . position and azimuth determining system
20	PCFF . . . . . priority in calls for fire
21	PE . . . . . probable error
22	PEB . . . . . pre-expended bin
23	PiBal . . . . . pilot balloon
24	PLGR . . . . . precision lightweight global positioning system receiver
25	PLRS . . . . . position location reporting system
26	PPM . . . . . parts per million
27	POL . . . . . petroleum, oils, and lubricants
28	Pos . . . . . position
29	PWR . . . . . prepositioned war reserves
30	
31	<b>Q</b>
32	QE . . . . . quadrant elevation
33	
34	<b>R</b>
35	RAAMS-L . . . . . remote antiarmor mine system-long duration
36	RAAMS-S . . . . . remote antiarmor mine system-short duration
37	RAP . . . . . rocket assisted projectile
38	RB . . . . . red bag (M119A2)
39	Regt . . . . . regiment
40	Rein . . . . . reinforced
41	Res . . . . . reserve
42	RLT . . . . . regimental landing team
43	ROE . . . . . rules of engagement
44	RP . . . . . release point; rally point
45	RRP . . . . . repair and replenishing point

## MCWP 3-16.1 Marine Artillery Operations

1	R&S	reconnaissance and surveillance
2	RSOP	reconnaissance, selection, and occupation of position
3	RSTA	reconnaissance, surveillance, and target acquisition
4		
5		<b>S</b>
6	SASSY	supported activities supply systems
7	SCP	survey control point
8	SEAD	suppression of enemy air defense
9	Sec	second
10	SHELREP	shelling report
11	SIC	survey information center
12	SIMO	simultaneous observation
13	SITEMP	situation template
14	SLCP	ship loading characteristics pamphlets
15	SMK	smoke
16	SPEARR	security, position, establish communications, azimuth of fire, record, recon
17	SOP	standing operating procedure
18	SP	start point; sentinel post
19	SPOTREP	spot report
20		
21		<b>T</b>
22	TAI	target area of interest
23	TAOR	tactical area of responsibility
24	TAREP	target report
25	T/E	table of equipment
26	Tgt	target
27	TIO	target information officer
28	TLDH	target location designation hand-off system
29	TLE	target location error
30	TM	technical manual
31	TNT	trinitrotoluene
32	T/O	table of organization
33	TOF	time of flight
34	TOT	time on target
35	TPC	target processing center
36	TPL	timed phase line
37	TVA	target value analysis
38		
39		<b>U</b>
40	UAV	unmanned aerial vehicle
41	UHF	ultra high frequency
42	UTM	universal transverse mercator
43		
44		<b>V</b>
45	VE	velocity error

**MCWP 3-16.1 Marine Artillery Operations**

1	VHF . . . . .	very high frequency
2		
3		<b>W</b>
4	WB . . . . .	white bag (M4A2 and M119 propellant)
5	WP . . . . .	white phosphorus
6		
7		<b>X</b>
8	XO . . . . .	executive officer

## MCWP 3-16.1 Marine Artillery Operations

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### 1 Definitions

#### 3 A

5 **Acquire (JP 1-02)** - 1. When applied to acquisition radars, the process of detecting the  
6 presence and location of a target in sufficient detail to permit identification. 2. When applied to  
7 tracking radars, the process of positioning a radar beam so that a target is in that beam to  
8 permit the effective employment of weapons. See also **target acquisition**.

10 **Adjust fire (JP 1-02)** - In artillery and naval gunfire support: 1. An order or request to initiate  
11 an adjustment of fire. 2. A method of control transmitted in the call for fire by the observer or  
12 spotter to indicate that he will control the adjustment.

14 **Adjustment of fire - (JP 1-02)** Process used in artillery and naval gunfire to obtain correct  
15 bearing, range, and height of burst (if time fuzes are used) when engaging a target by observed  
16 fire. See also **spot**.

18 **Administrative control - (JP 1-02)** Direction or exercise of authority over subordinate or  
19 other organizations in respect to administration and support, including organization of Service  
20 forces, control of resources and equipment, personnel management, unit logistics, individual  
21 and unit training, readiness, mobilization, demobilization, discipline, and other matters not  
22 included in the operational missions of the subordinate or other organizations. Also called  
23 ADCON.

25 **Advance Party** - A group of unit representatives dispatched to a planned new position in  
26 advance of the main body to prepare the position for the arrival of the unit and its equipment.

28 **Aiming circle** - An optical instrument used to orient the tube of an indirect fire weapon in a  
29 desired direction. This instrument can measure both the horizontal and vertical angles.

31 **Aiming post** - A striped rod used in pairs as a close-in aiming point.

33 **Air defense - (JP 1-02)** All defensive measures designed to destroy attacking enemy aircraft  
34 or missiles in the Earth's envelope of atmosphere, or to nullify or reduce the effectiveness of  
35 such attack.

37 **Alternate position - (JP 1-02)** The position given to a weapon, unit, or individual to be  
38 occupied when the primary position becomes untenable or unsuitable for carrying out the  
39 mission. The alternate position is located so that the unit can continue the mission it had when  
40 in its primary position.

42 **Ammunition - (JP 1-02)** see **munition**.

44 **Ammunition report** - A report used to maintain an accurate ammunition status of firing units.



## MCWP 3-16.1 Marine Artillery Operations

1  
2 **ammunition supply point** - An area designated to receive, store, reconfigure, and issue class  
3 V material. It is normally located at or near the division area. (MCRP 5-12D)  
4

5 **amphibious objective area** - (DOD, NATO) A geographical area, delineated in the initiating  
6 directive, for purposes of command and control within which is located the objective(s) to be  
7 secured by the amphibious task force. This area must be of sufficient size to ensure  
8 accomplishment of the amphibious task force's mission and must provide sufficient area for  
9 conducting necessary sea, air, and land operations. (Joint Pub. 1-02)  
10

11 **amphibious assault ship (general purpose)** - (DOD) A naval ship designed to embark,  
12 deploy, and land elements of a landing force in an assault by helicopters, landing craft,  
13 amphibious vehicles, and by combinations of these methods. Designated as LHA. (Joint Pub 1-  
14 02). A ship capable of transporting approximately 1,900 troops with the helicopters, boats,  
15 and amphibious vehicles to land them. (MCRP 5-12C)  
16

17 **amphibious assault ship (multipurpose)** - The largest and most versatile amphibious ship.  
18 While similar to the LHA in design, it also has a convertible role allowing it to accomodate  
19 twenty AV-8B aircraft and four light airborne multipurpose system (LAMPS) III helicopters.  
20 This enables the commander, amphibious task force to control the sea while projecting power  
21 ashore. Also called LHD. (MCRP 5-12C)  
22

23 **Angle-T** - (JP 1-02) In artillery and naval gunfire support, the angle formed by the  
24 intersection of the gun-target line and the observer-target line.  
25

26 **Area fire** - A volume of fire delivered in a prescribed area, generally for neutralization  
27 effects.  
28

29 **Area of operations** - (JP 1-02) An operational area defined by the joint force commander for  
30 land and naval forces. Areas of operation do not typically encompass the entire operational  
31 area of the joint force commander, but should be large enough for component commanders to  
32 accomplish their missions and protect their forces.  
33

34 **Area of responsibility** - (JP 1-02) The geographical area associated with a combatant  
35 command within which a combatant commander has authority to plan and conduct operations.  
36 2. In naval usage, a predefined area of enemy terrain for which supporting ships are  
37 responsible for covering by fire on known targets or targets of opportunity and by observation.  
38 Also called **AOR**.  
39

40 **Area target** - (JP 1-02) A target consisting of an area rather than a single point.  
41

42 **Artillery Fire Plan** - A part of the operation plan of the supported unit or force which  
43 contains the necessary information and instructions pertaining to the employment of artillery.  
44 The fire plan consists of three parts: the basic document, the target list, and schedules of fires.  
45

## MCWP 3-16.1 Marine Artillery Operations

1 **Artillery Groupment** – Temporary formations used when one unit must exercise greater  
2 control over another unit than is inherent in a reinforcing mission. When a suitable artillery  
3 headquarters is unavailable, an artillery battalion or battery may be attached to another or like  
4 size to form an artillery groupment.  
5

6 **Artillery preparation – (JP 1-02)** Artillery fire delivered before an attack to destroy,  
7 neutralize, or suppress the enemy's defense and to disrupt communications and disorganize the  
8 enemy's defense. The preparation is planned by a direct support field artillery battalion or  
9 higher echelon in coordination with the ground commander. It is an intense volume of fire  
10 delivered in accordance with a time schedule. The fires normally commence prior to H-hour  
11 and may extend beyond it. They may start at a prescribed time or be held on call. The duration  
12 of the preparation is influenced by factors such as the fire support needs of the entire force,  
13 number of targets and firing assets, and available ammunition.  
14

15 **Artillery target intelligence zone** - An area in enemy territory that the maneuver commander  
16 wants to monitor closely. Weapon locations in this zone will be reported immediately. Their  
17 priority is exceeded only by targets in a critical friendly zone or a call-for-fire zone.  
18

19 **Assault Fire – (JP 1-02)** 1. That fire delivered by attacking troops as they close with the  
20 enemy. 2. In artillery, extremely accurate, short-range destruction fire at point targets.  
21

22 **Assign – (JP 1-02)** 1. To place units or personnel in an organization where such placement is  
23 relatively permanent, and/or where such organization controls and administers the units or  
24 personnel for the primary function, or greater portion of the functions, of the unit or  
25 personnel. 2. To detail individuals to specific duties or functions where such duties or  
26 functions are primary and/or relatively permanent. See also *attach*.  
27

28 *Attach* - (JP 1-02) 1. The placement of units or personnel in an organization where  
29 such placement is relatively temporary. 2. The detailing of individuals to specific functions  
30 where such functions are secondary or relatively temporary, e.g., attached for quarters and  
31 rations; attached for flying duty. See also **assign**.  
32

33 **At my command – (JP1-02)** In artillery and naval gunfire support, the command used when it  
34 is desired to control the exact time of delivery of fire.  
35

36 **available supply rate** - (NATO) The rate of consumption that can be allocated considering the  
37 supplies and facilities available for a planned operation or a given period. (Joint Pub. 1-02)  
38

39 *Aviation combat element* - (JP 1-02) The Marine air-ground task force  
40 (MAGTF) element that is task organized to provide all or a portion of the functions of Marine  
41 Corps aviation in varying degrees based on the tactical situation and the MAGTF mission and  
42 size. These functions are air reconnaissance, antiair warfare, assault support, offensive air  
43 support, electronic warfare, and control of aircraft and missiles. The ACE is organized around  
44 an aviation headquarters and varies in size from a reinforced helicopter squadron to one or  
45 more Marine aircraft wing(s). It includes those aviation command (including air control

## MCWP 3-16.1 Marine Artillery Operations

1 agencies), combat, combat support, and combat service support units required by the situation.  
2 Normally, there is only one ACE in a MAGTF.

3  
4 **Azimuth of fire** - The direction, expressed in mils, that a battery is laid (oriented) on when it  
5 occupies a position.

6  
7 B

8  
9 **Backup computer system** - A hand-held computer used as the primary backup to the battery  
10 coputer system .

11  
12 **Barrage fire** - (JP 1-02) Fire which is designed to fill a volume of space or area rather than  
13 aimed specifically at a given target. See also fire.

14  
15 **Base-ejection shell** - A type of projectile that ejects its payload from the base, such as the  
16 ICM projectile.

17  
18 **Basic load** - (JP 1-02) The quantity of supplies required to be on hand within, and which can  
19 be moved by, a unit or formation. It is expressed according to the wartime organization of the  
20 unit or formation and maintained at the prescribed levels.

21  
22 **Basic load of ammunition** - the amount of ammunition a unit is authorized to maintain to  
23 initiate combat and sustain itself until resupplied.

24  
25 **Battery center** - (JP 1-02) A point on the ground, the coordinates of which are used as a  
26 reference indicating the location of the battery in the production of firing data. Also **called**  
27 **chart location of the battery**.

28  
29 **Battery computer system** - An automated data processing system located in the firing battery.  
30 Consists of three major components: lightweight computer unit, power distribution unit, and 1  
31 to 12 gun display units. Used to compute accurate firing data and as a digital communications  
32 interface.

33  
34 **Battery operations center** - A facility established to serve as an alternate FDC and as the  
35 battery command post.

36  
37 **beach support area** - (DOD) In amphibious operations, the area to the rear of a landing force  
38 or elements thereof, established and operated by shore party units, which contains the facilities  
39 for the unloading of troops and materiel and the support of the forces ashore; it includes  
40 facilities for the evacuation of wounded, enemy prisoners of war, and captured materiel. (Joint  
41 Pub. 1-02)

42  
43 **Blood agent** - (JP 1-02) A chemical compound, including the cyanide group, that affects  
44 bodily functions by preventing the normal utilization of oxygen by body tissues.

## MCWP 3-16.1 Marine Artillery Operations

1 **Boresighting** - The process by which the optical axes of the weapon sights are aligned parallel  
2 to the axis of the cannon tube. The primary methods of boresighting are the distant aiming  
3 point, the testing target, or standard angle. Boresight is verified with the M140/M139  
4 alignment device.  
5

### 6 C

7  
8 **Caliber** - 1. The diameter of the bore of a weapon; obtained in rifled weapons by measuring  
9 between opposite lands. 2. Diameter of a projectile. 3. Unit of measure used to express , the  
10 length of the bore of a weapon. The number of calibers is determined by dividing the length of  
11 the bore of the weapon (from breech face of the tube to the muzzle) by the diameter of its bore.  
12

13 **Call for fire – (JP 1-02)** A request for fire containing data necessary for obtaining the required  
14 fire on a target.  
15

16 **Call for fire zone** - An area in enemy territory that the maneuver commander considers  
17 extremely important to neutralize fires from by immediate counterfire.  
18

19 **Cancel – (JP 1-02)** In artillery and naval gunfire support, the term, “cancel,” when coupled  
20 with a previous order, other than an order for a quantity or type of ammunition, rescinds that  
21 order.  
22

23 **Cancel check firing – (JP 1-02)** The order to rescind **check firing**.  
24

25 **Cannibalize** - (DOD, NATO) To remove serviceable parts from one item of equipment in  
26 order to install them on another item of equipment. (Joint Pub 1-02)  
27

28 **Cannot observe – (JP 1-02)** A type of fire control which indicates that the observer or spotter  
29 will be unable to adjust fire, but believes a target exists at the given location and is of sufficient  
30 importance to justify firing upon it without adjustment or observation.  
31

32 **Cease fire – (JP 1-02)** A command given to air defense artillery units to refrain from firing  
33 on, but to continue to track, an airborne object. Missiles already in flight will be permitted to  
34 continue to intercept.  
35

36 **Cease loading – (JP 1-02)** In artillery and naval gunfire support, the command used during  
37 firing of two or more rounds to indicate the suspension of inserting rounds into the weapon.  
38

39 **Centers of gravity – (JP 1-02)** Those characteristics, capabilities, or localities from which a military  
40 force derives its freedom of action, physical strength, or will to fight.  
41

42 **Centigray (cGy)** - A unit of absorbed dose of radiation (one centigray equals one rad).  
43 The term centigray (1/100 of a gray) (one gray equals 100 rads) has replaced the term rad and  
44 is the equivalent of one rad.  
45

## MCWP 3-16.1 Marine Artillery Operations

1 **Charge – (JP 1-02)** 1. The amount of propellant required for a fixed, semi-fixed, or separate  
2 loading projectile, round or shell. It may also refer to the quantity of explosive filling  
3 contained in a bomb, mine or the like. 2. In combat engineering, a quantity of explosive,  
4 prepared for demolition purposes.  
5

6 **Checkfiring – (JP 1-02)** In artillery and naval gunfire support, a command to cause a  
7 temporary halt in firing.  
8

9 **Checkpoint – (JP 1-02)** 1. A predetermined point on the surface of the Earth used as a means  
10 of controlling movement, a registration target for fire adjustment, or reference for location. 2.  
11 Center of impact; a burst center. 3. Geographical location on land or water above which the  
12 position of an aircraft in flight may be determined by observation or by electrical means. 4. A  
13 place where military police check vehicular or pedestrian traffic in order to enforce circulation  
14 control measures and other laws, orders, and regulations.  
15

16 **Chemical agent – (JP 1-02)** A chemical substance which is intended for use in military  
17 operations to kill, seriously injure, or incapacitate personnel through its physiological effects.  
18 The term excludes riot control agents, herbicides, smoke, and flame.  
19

20 **Chemical defense – (JP 1-02)** The methods, plans and procedures involved in establishing and  
21 executing defensive measures against attack utilizing chemical agents. See also **NBC defense**.  
22

23 **Chemical dose – (JP 1-02)** The amount of chemical agent, expressed in milligrams, that is  
24 taken or absorbed by the body.  
25

26 **Circular error probable – (JP 1-02)** An indicator of the delivery accuracy of a weapon  
27 system, used as a factor in determining probable damage to a target. It is the radius of a circle  
28 within which half of a missile's projectiles are expected to fall. Also called **CEP**.  
29

30 **Close column –** A convoy in which vehicles move at intervals of less than 100 meters.  
31

32 **Close support – (JP 1-02)** That action of the supporting force against targets or objectives  
33 which are sufficiently near the supported force as to require detailed integration or  
34 coordination of the supporting action with the fire, movement, or other actions of the  
35 supported force. See also **direct support; general support; mutual support; support**.  
36

37 **Close supporting fire – (JP 1-02)** Fire placed on enemy troops, weapons, or positions which,  
38 because of their proximity, present the most immediate and serious threat to the supported unit.  
39 See also **supporting fire**.  
40

41 **Collective call signe – (JP 1-02)** Any call sign which represents two or more facilities,  
42 commands, authorities, or units. The collective call sign for any of these includes the  
43 commander thereof and all subordinate commanders therein. See also **call sign**.  
44

## MCWP 3-16.1 Marine Artillery Operations

1 **Collocation – (JP 1-02)** The physical placement of two or more detachments, units,  
2 organizations, or facilities at a specifically defined location.  
3

4 **Combat essential equipment** - Those items of equipment whose availability is essential and  
5 indispensable for the execution of the combat and training missions of the unit. Although  
6 current directives establish what equipment is combat essential, commanding officers will  
7 make the final determination as to whether this equipment or any other item is combat essential  
8 for his command.  
9

10 **Combat power – (JP 1-02)** The total means of destructive and/or disruptive force which a  
11 Military unit/formation can apply against the opponent at a given time.  
12

13 **Combat service support – (JP 1-02)** The essential capabilities, functions, activities, and tasks  
14 necessary to sustain all elements of operating forces in theater at all levels of war. Within the  
15 national and theater logistic systems, it includes but is not limited to that support rendered by  
16 service forces in ensuring the aspects of supply, maintenance, transportation, health services,  
17 and other services required by aviation and ground combat troops to permit those units to  
18 accomplish their missions in combat. Combat service support encompasses those activities at  
19 all levels of war that produce sustainment to all operating forces on the battlefield.  
20

21 **Combat service support areas** - (DOD) An area ashore that is organized to contain the  
22 necessary supplies, equipment, installations, and elements to provide the landing force with  
23 combat service support throughout the operation. (Joint Pub 1-02)  
24

25 **Combat service support detachment** - A separate task organization of combat service support  
26 assets formed for the purpose of providing rearming, refueling, and/or repair capabilities to the  
27 Marine air-ground task force or designated subordinate elements; e.g., a battalion conducting  
28 independent operations or an aircraft squadron operating at a remote airfield. The combat  
29 service support element normally provides the command element a combat service support  
30 detachment. Also called CSSD. (MCRP 5-12D)  
31

32 **Combat service support element – (JP 1-02)** The Marine air-ground task force (MAGTF)  
33 element that is task-organized to provide the full range of combat service support necessary to  
34 accomplish the MAGTF mission. The CSSE can provide supply, maintenance, transportation,  
35 deliberate engineering, health, postal, disbursing, prisoner of war, information systems,  
36 exchange, utilities, legal, and graves registration services. The CSSE varies in size from a  
37 Marine expeditionary unit (MEU) service support group (MSSG) to a force service support  
38 group (FSSG). Normally, there is only one combat service support element in a MAGTF.  
39

40 **Command – (JP 1-02)** 1. The authority that a commander in the Armed Forces lawfully  
41 exercises over subordinates by virtue of rank or assignment. Command includes the authority  
42 and responsibility for effectively using available resources and for planning the employment of,  
43 organizing, directing, coordinating, and controlling military forces for the accomplishment of  
44 assigned missions. It also includes responsibility for health, welfare, morale, and discipline of  
45 assigned personnel. 2. An order given by a commander; that is, the will of the commander

## MCWP 3-16.1 Marine Artillery Operations

1 expressed for the purpose of bringing about a particular action. 3. A unit or units, an  
2 organization, or an area under the command of one individual.

3  
4 **Command and control – (JP 1-02)** The exercise of authority and direction by a properly  
5 designated commander over assigned and attached forces in the accomplishment of the mission.  
6 Command and control functions are performed through an arrangement of personnel,  
7 equipment, communications, facilities, and procedures employed by a commander in planning,  
8 directing, coordinating, and controlling forces and operations in the accomplishment of the  
9 mission. Also called **C2**.

10  
11 **Command and control system – (JP 1-02)** The facilities, equipment, communications,  
12 procedures, and personnel essential to a commander for planning, directing, and controlling  
13 operations of assigned forces pursuant to the missions assigned.

14  
15 **Command element – (JP 1-02)** The Marine air-ground task force (MAGTF) headquarters.  
16 The CE is a permanent organization composed of the commander, general or executive and  
17 special staff sections, headquarters section, and requisite communications and service support  
18 facilities. The CE provides command, control, and coordination essential for effective planning  
19 and execution of operations by the other three elements of the MAGTF. There is only one CE  
20 in a MAGTF.

21  
22 **Commander's estimate of the situation – (JP 1-02)** A logical process of reasoning by which  
23 a commander considers all the circumstances affecting the military situation and arrives at a  
24 decision as to a course of action to be taken to accomplish the mission. A commander's  
25 estimate which considers a military situation so far in the future as to require major  
26 assumptions is called a commander's long-range estimate of the situation. See also **estimate of**  
27 **the situation**.

28  
29 **Command post – (JP 1-02)** A unit's or subunit's headquarters where the commander and the  
30 staff perform their activities. In combat, a unit's or subunit's headquarters is often divided into  
31 echelons; the echelon in which the unit or subunit commander is located or from which such  
32 commander operates is called a command post.

33  
34 **Command post report –** A report used to report the time of opening and closing of the CP  
35 and the location of the new CP.

36  
37 **Common control (artillery) – (JP 1-02)** Horizontal and vertical map or chart location of  
38 points in the target area and position area, tied in with the horizontal and vertical control in use  
39 by two or more units. May be established by firing, survey, or combination of both, or by  
40 assumption.

41  
42 **Common grid –** A common grid is the sum of all components of relative survey, as well as the  
43 geodetic system, coordinate system, and the projection/grid system of the operational area.  
44 Through these components all fire support and targeting assets are oriented the same, to  
45 prescribed accuracies, with respect to azimuth, position, and elevation.

## MCWP 3-16.1 Marine Artillery Operations

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1  
2 **Common sensory boundary** - A line established by the division artillery or FA brigade that  
3 divides TA areas of search into dose and deep areas for the AN/TPQ-36 and AN/TPQ-37  
4 respectively. This boundary is established to prevent target duplication and maximize range  
5 capabilities of the radars.

6  
7 **Complete round** – (JP 1-02) A term applied to an assemblage of explosive and nonexplosive  
8 components designed to perform a specific function at the time and under the conditions  
9 desired. Examples of complete rounds of ammunition are: a. separate loading--consisting of a  
10 primer, propelling charge, and, except for blank ammunition, a projectile and a fuze. b. fixed  
11 or semifixed--consisting of a primer, propelling charge, cartridge case, a projectile, and,  
12 except when solid projectiles are used, a fuze. c. bomb--consisting of all component parts  
13 required to drop and function the bomb once. d. missile--consisting of a complete warhead  
14 section and a missile body with its associated components and propellants. e. rocket—  
15 consisting of all components necessary to function.

16  
17 **Concentrated fire** – Fire from a number of weapons directed at a single point or small area.  
18 In Marine artillery, the term *massed fire* is synonymous with concentrated fire.

19  
20 **Concept of operations** – (JP 1-02) A verbal or graphic statement, in broad outline, of a  
21 commander's assumptions or intent in regard to an operation or series of operations. The  
22 concept of operations frequently is embodied in campaign plans and operation plans; in the  
23 latter case, particularly when the plans cover a series of connected operations to be carried out  
24 simultaneously or in succession. The concept is designed to give an overall picture of the  
25 operation. It is included primarily for additional clarity of purpose.

26  
27 **Contingent zone of fire** – (JP 1-02) An area within which a designated ground unit or fire  
28 support ship may be called upon to deliver fire. See also **zone of fire**.

29  
30 **Continuity of operations** – (JP 1-02) The degree or state of being continuous in the conduct  
31 of functions, tasks, or duties necessary to accomplish a military action or mission in carrying  
32 out the national military strategy. It includes the functions and duties of the commander, as  
33 well as the supporting functions and duties performed by the staff and others acting under the  
34 authority and direction of the commander.

35  
36 **Continuous fire** – (JP 1-02) 1. Fire conducted at a normal rate without interruption for  
37 application of adjustment corrections or for other causes. 2. In field artillery and naval gunfire  
38 support, loading and firing at a specified rate or as rapidly as possible consistent with accuracy  
39 within the prescribed rate of fire for the weapon. Firing will continue until terminated by the  
40 command end of mission or temporarily suspended by the command cease loading or check  
41 firing.

42  
43 **Continuous illumination fire** - (JP 1-02) A type of fire in which illuminating  
44 projectiles are fired at specified time intervals to provide uninterrupted lighting on the target or  
45 specified area. See also **coordinated illumination**.



## MCWP 3-16.1 Marine Artillery Operations

1  
2 **Control – (JP 1-02)** 1. Authority which may be less than full command exercised by a  
3 commander over part of the activities of subordinate or other organizations. 2. In mapping,  
4 charting, and photogrammetry, a collective term for a system of marks or objects on the Earth  
5 or on a map or a photograph, whose positions or elevations, or both, have been or will be  
6 determined. 3. Physical or psychological pressures exerted with the intent to assure that an  
7 agent or group will respond as directed. 4. An indicator governing the distribution and use of  
8 documents, information, or material. Such indicators are the subject of intelligence community  
9 agreement and are specifically defined in appropriate regulations. See also **administrative**  
10 **control; operational control; tactical control.**

11  
12 **Converged sheaf – (JP 1-02)** The lateral distribution of fire of two or more pieces so that the  
13 planes of fire intersect at a given point. See also **open sheaf; parallel sheaf; sheaf; special**  
14 **sheaf.**

15  
16 **Convoy – (JP 1-02)** 1. A number of merchant ships or naval auxiliaries, or both, usually  
17 escorted by warships and/or aircraft, or a single merchant ship or naval auxiliary under surface  
18 escort, assembled and organized for the purpose of passage together. 2. A group of vehicles  
19 organized for the purpose of control and orderly movement with or without escort protection.

20  
21 **Corrective maintenance** - (NATO) Maintenance actions carried out to restore a defective item  
22 to a specified condition. See also preventive maintenance. (Joint Pub. 1-02)

23  
24 **Counterbattery fire – (JP 1-02)** Fire delivered for the purpose of destroying or neutralizing  
25 indirect fire weapon systems.

26  
27 **Counterfire – (JP 1-02)** Fire intended to destroy or neutralize enemy weapons. (DOD)  
28 Includes counterbattery, counterbombardment, and countermortar fire. See also **fire.**

29  
30 **Counterfire reference grid** – A series of 5-kilometer squares covering a zone of action used to  
31 rapidly orient target acquisition assets and firing units to a target area.

32  
33 **Counterintelligence – (JP 1-02)** Information gathered and activities conducted to protect  
34 against espionage, other intelligence activities, sabotage, or assassinations conducted by or on  
35 behalf of foreign governments or elements thereof, foreign organizations, or foreign persons,  
36 or international terrorist activities. Also called **CI**. See also **counterespionage;**  
37 **countersabotage; countersubversion; security; security intelligence.**

38  
39 **Countermechanized fire** – Fire delivered against active enemy mechanized units.

40  
41 **Countermortar fire** – Fire especially directed against enemy mortars.

42  
43 **Counterpreparation fire – (JP 1-02)** Intensive prearranged fire delivered when the imminence  
44 of the enemy attack is discovered. (DOD) It is designed to: break up enemy formations;

## MCWP 3-16.1 Marine Artillery Operations

1 disorganize the enemy's systems of command, communications, and observation; decrease the  
2 effectiveness of artillery preparation; and impair the enemy's offensive spirit. See also **fire**.

3  
4 **Course of action – (JP 1-02)** 1. A plan that would accomplish, or is related to, the  
5 accomplishment of a mission. 2. The scheme adopted to accomplish a task or mission. It is a  
6 product of the Joint Operation Planning and Execution System concept development phase.  
7 The supported commander will include a recommended course of action in the commander's  
8 estimate. The recommended course of action will include the concept of operations, evaluation  
9 of supportability estimates of supporting organizations, and an integrated time-phased data base  
10 of combat, combat support, and combat service support forces and sustainment. Refinement of  
11 this data base will be contingent on the time available for course of action development. When  
12 approved, the course of action becomes the basis for the development of an operation plan or  
13 operation order. Also called **COA**.

14  
15 **Covering fire – (JP 1-02)** 1. Fire used to protect troops when they are within range of enemy  
16 small arms. 2. In amphibious usage, fire delivered prior to the landing to cover preparatory  
17 operations such as underwater demolition or minesweeping. See also **fire**.

18  
19 **Crater analysis** - Process by which the direction to an artillery or mortar unit is determined  
20 from analysis of the shell crater. Additionally, shell fragments are collected to determine the  
21 type of shell that caused the crater.

22  
23 **Crest – (JP 1-02)** A terrain feature of such altitude that it restricts fire or observation in an  
24 area beyond, resulting in dead space, or limiting the minimum elevation, or both.

25  
26 **Critical friendly zone** - An area in which are located friendly units or units that the maneuver  
27 commander designates as critical.

28  
29 **Cueing** - External actions or inputs that cause a surveillance or target acquisition device to turn  
30 on and search a suspect area.

## 31 32 D

33  
34 **Damage assessment – (JP 1-02)** 1. The determination of the effect of attacks on targets.  
35 (DOD) 2. A determination of the effect of a compromise of classified information on national  
36 security. See also **civil damage assessment; military damage assessment**.

37  
38 **Day-of-ammunition** - Unit of measurement of replenishing ammunition expressed as a  
39 specified number of rounds, or items of bulk ammunition as may be appropriate per weapon,  
40 unit, individual kit, set, or using device required for one day of combat. (MCRP 5-12C)

41  
42 **Danger close – (JP 1-02)** In artillery and naval gunfire support, information in a call for fire  
43 to indicate that friendly forces are within 600 meters of the target. certain cases,  
44 administrative information and information on the sensors employed.

## MCWP 3-16.1 Marine Artillery Operations

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1  
2 **Dead space – (JP 1-02)** 1. An area within the maximum range of a weapon, radar, or  
3 observer, which cannot be covered by fire or observation from a particular position because of  
4 intervening obstacles, the nature of the ground, or the characteristics of the trajectory, or the  
5 limitations of the pointing capabilities of the weapons. 2. An area or zone which is within  
6 range of a radio transmitter, but in which a signal is not received. 3. The volume of space  
7 above and around a gun or guided missile system into which it cannot fire because of  
8 mechanical or electronic limitations.

9  
10  
11 **Deep supporting fire – (JP 1-02)** Fire directed on objectives not in the immediate vicinity of  
12 our forces, for neutralizing and destroying enemy reserves and weapons, and interfering with  
13 enemy command, supply, communications, and observations. See also **close supporting fire;**  
14 **direct supporting fire; supporting fire.**

15  
16 **Deliberate occupation** - The occupation of a position by a unit that has been fully prepared for  
17 occupation by the advance party; for example, howitzer positions have been selected and initial  
18 deflections provided to the gun guides.

19  
20 **Destruction – (JP 1-02)** A type of adjustment for destroying a given target.

21  
22 **Destruction fire – (JP 1-02)** Fire delivered for the sole purpose of destroying material objects.  
23 See also **fire.**

24  
25 **Destruction fire mission – (JP 1-02)** In artillery, fire delivered for the purpose of destroying a  
26 point target. See also **fire.**

27  
28 **Detachment – (JP 1-02)** 1. A part of a unit separated from its main organization for duty  
29 elsewhere. 2. A temporary military or naval unit formed from other units or parts of units.

30  
31 **Direct air support center – (JP 1-02)** The principal air control agency of the US Marine air  
32 command and control system responsible for the direction and control of air operations directly  
33 supporting the ground combat element. It processes and coordinates requests for immediate air  
34 support and coordinates air missions requiring integration with ground forces and other  
35 supporting arms. It normally collocates with the senior fire support coordination center within  
36 the ground combat element and is subordinate to the tactical air command center. Also called  
37 **DASC.**

38  
39 **Direct fire – (JP 1-02)** Gunfire delivered on a target, using the target itself as a point of aim  
40 for either the gun or the director.

41  
42 **Direct support – (JP 1-02)** A mission requiring a force to support another specific force and  
43 authorizing it to answer directly the supported force's request for assistance. See also **close**  
44 **support; general support; mutual support; support.**

## MCWP 3-16.1 Marine Artillery Operations

1 **Direct support artillery – (JP 1-02)** Artillery whose primary task is to provide fire requested  
2 by the supported unit.

3  
4 **Direct supporting fire – (JP 1-02)** Fire delivered in support of part of a force, as opposed to  
5 general supporting fire which is delivered in support of the force as a whole. See also **close**  
6 **supporting fire; deep supporting fire; supporting fire.**

7  
8 **Dispersion – (JP 1-02)** 1. A scattered pattern of hits around the mean point of impact of  
9 bombs and projectiles dropped or fired under identical conditions. 2. In anti-aircraft gunnery,  
10 the scattering of shots in range and deflection about the mean point of explosion. 3. The  
11 spreading or separating of troops, materiel, establishments, or activities which are usually  
12 concentrated in limited areas to reduce vulnerability. 4. In chemical and biological operations,  
13 the dissemination of agents in liquid or aerosol form. 5. In airdrop operations, the scatter of  
14 personnel and/or cargo on the drop zone. 6. In naval control of shipping, the reberthing of a  
15 ship in the periphery of the port area or in the vicinity of the port for its own protection in  
16 order to minimize the risk of damage from attack.

17  
18 **Displacement –** 1. The act of leaving a position before occupying another. 2. The undesired  
19 movement of a sight caused by traversing the tube or by the shock of firing.

20  
21 **Displacement report –** A report used to report the displacement of a firing battery or element.  
22 The DISREP is submitted when the unit can no longer fire from its present position due to  
23 displacement.

24  
25 **Distant aiming point –** An aiming point at least 1,500 meters from the pieces.

26  
27 **Distributed fire – (JP 1-02)** Fire so dispersed as to engage most effectively an area target. See  
28 also **fire.**

29  
30 **Distribution of fire –** The pattern of bursts in the target area; the sheaf.

31  
32 **Distribution point – (DOD, NATO)** A point at which supplies and/or ammunition, obtained  
33 from supporting supply points by a division or other unit, are broken down for distribution to  
34 subordinate units. Distribution points usually carry no stocks; items drawn are issued  
35 completely as soon as possible. (Joint Pub. 1-02)

36  
37 **Doctrine – (JP 1-02)** Fundamental principles by which the military forces or elements thereof  
38 guide their actions in support of national objectives. It is authoritative but requires judgment in  
39 application.

40  
41 **Dud – (JP 1-02)** Explosive munition which has not been armed as intended or which has failed  
42 to explode after being armed.

43  
44 **Dump – (DOD, NATO)** A temporary storage area, usually in the open, for bombs,  
45 ammunition, equipment, or supplies. (Joint Pub. 1-02)

## MCWP 3-16.1 Marine Artillery Operations

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### E

1  
2  
3  
4  
5 **Electronic line of sight** - A straight, unobstructed path from the transmit antenna of an emitter  
6 to either a reflecting object or a receive antenna.  
7

8 **Emergency mission** – Mission occupying a position, from the march, in response to a call for  
9 fire, without prior reconnaissance or preparation of the position. See also **hip shoot**.  
10

11 **End of mission** – (JP 1-02) In artillery and naval gunfire support, an order given to terminate  
12 firing on a specific target.  
13

14 **End of orienting line** - A point on the orienting line marked by any sharply defined  
15 permanent or semipermanent object such as a steeple, flag-pole, or stake. It should be visible  
16 during darkness.  
17

18 **Explosive ordnance** – (JP 1-02) All munitions containing explosives, nuclear fission or fusion  
19 materials and biological and chemical agents. This includes bombs and warheads; guided and  
20 ballistic missiles; artillery, mortar, rocket, and small arms ammunition; all mines, torpedoes,  
21 and depth charges; demolition charges; pyrotechnics; clusters and dispensers; cartridge and  
22 propellant actuated devices; electro-explosive devices; clandestine and improvised explosive  
23 devices; and all similar or related  
24 items or components explosive in nature.  
25

### F

26  
27  
28 **Field storage location** – A controlled, limited-access area in which a unit having custody of  
29 nuclear weapons stores them. Its primary purpose is to prevent unauthorized and uncontrolled  
30 access to the weapons.  
31

32 **Final protective fire** – (JP 1-02) An immediately available prearranged barrier of fire  
33 designed to impede enemy movement across defensive lines or areas.  
34

35 **Fire** – (JP 1-02) 1. The command given to discharge a weapon(s). 2. To detonate the main  
36 explosive charge by means of a firing system. See also **barrage fire; call fire; close**  
37 **supporting fire; concentrated fire; counterfire; counter-preparation fire; covering fire;**  
38 **deep supporting fire; destruction fire; direct fire; direct supporting fire; distributed fire;**  
39 **grazing fire; harassing fire; indirect fire; interdiction fire; neutralization fire; observed**  
40 **fire; preparation fire; radar fire; registration fire; scheduled fire; searching fire;**  
41 **supporting fire; suppressive fire; unobserved fire; zone fire.**  
42

43 **Fire capabilities chart** – (JP 1-02) A chart, usually in the form of an overlay, showing the  
44 areas which can be reached by the fire of the bulk of the weapons of a unit.  
45

## MCWP 3-16.1 Marine Artillery Operations

1 **Fire capability report** – A report providing the firing status of an artillery battery or element.  
2 The report is made when a unit occupies a new firing position and is ready to fire, or when a  
3 change occurs in the number of weapons available (e.g., a gun out of action due to enemy  
4 action or a mechanical malfunction).

5  
6 **Fire control – (JP 1-02)** The control of all operations in connection with the application of fire  
7 on a target.

8  
9 **Fire control alignment tests** - tests performed to determine if the on-carriage fire control  
10 equipment, the gunner's quadrant, and the alignment device are in correct adjustment.

11  
12 **Fire control radar – (JP 1-02)** Radar used to provide target information inputs to a weapon  
13 fire control system.

14  
15 **Fire control system – (JP 1-02)** A group of interrelated fire control equipment and/or  
16 instruments designed for use with a weapon or group of weapons.

17  
18 **Fire direction center – (JP 1-02)** That element of a command post, consisting of gunnery and  
19 communication personnel and equipment, by means of which the commander exercises fire  
20 direction and/or fire control. The fire direction center receives target intelligence and requests  
21 for fire, and translates them into appropriate fire direction.

22  
23 **Fire for effect – (JP 1-02)** 1. Fire which is delivered after the mean point of impact or burst is  
24 within the desired distance of the target or adjusting/ranging point. 2. Term in a call for fire to  
25 indicate the adjustment/ ranging is satisfactory and fire for effect is desired.

26  
27 **Fire mission – (JP 1-02)** 1. Specific assignment given to a fire unit as part of a definite plan.  
28 2. Order used to alert the weapon/battery area and indicate that the message following is a call  
29 for fire.

30  
31 **Fire planning** – The planning conducted by each supporting arm agency in response to the  
32 supported commander's fire support plan. Establishing essential tasks and a scheme of fires,  
33 scheduling of fires, provisions for attacking targets of opportunity, positioning of firing  
34 elements and observers, communications, combat service support, and computation of firing  
35 data (as applicable) are some of the aspects involved in fire planning.

36  
37 **Firepower – (JP 1-02)** 1. The amount of fire which may be delivered by a position, unit, or  
38 weapon system. 2. Ability to deliver fire.

39  
40 **Fire support coordination center – (JP 1-02)** A single location in which are centralized  
41 communications facilities and personnel incident to the coordination of all forms of fire  
42 support. See also **supporting arms coordination center**.

## MCWP 3-16.1 Marine Artillery Operations

1 **Fire support coordinator** – The officer in charge of the fire support coordination center. He  
2 is the direct representative of the commander, landing force for the planning and coordination  
3 of all available fire support.  
4

5 **Fire support plan** – The fire support plan is a tactical plan prepared by the FSC, containing  
6 the necessary information for the employment of fire support in the operation. It consists of  
7 the Concept of Fires, Essential Fire Support Tasks (EFSTs), and the Scheme of Fires.  
8

9 **Firing chart – (JP 1-02)** Map, photo map, or grid sheet showing the relative horizontal and  
10 vertical positions of batteries, base points, base point lines, check points, targets, and other  
11 details needed in preparing firing data.  
12

13 **Firing point – (JP 1-02)** That point in the firing circuit where the device employed to initiate  
14 the detonation of the charges is located.  
15

16 **Firing position** – A specific location occupied or to be occupied by the firing battery or  
17 element.  
18

19 **Formations** – Weapons emplacement in a position area as selected by the battery commander.  
20

21 **Forward air controller (airborne) – (JP 1-02)** A specifically trained and qualified aviation  
22 officer who exercises control from the air of aircraft engaged in close air support of ground  
23 troops. The forward air controller (airborne) is normally an airborne extension of the tactical  
24 air control party. Also called **FAC(A)**.  
25

26 **Forward line of own troops – (JP 1-02)** A line which indicates the most forward positions of  
27 friendly forces in any kind of military operation at a specific time. The forward line of own  
28 troops normally identifies the forward location of covering and screening forces. Also called  
29 **FLOT**.  
30

31 **Forward observer – (JP 1-02)** An observer operating with front line troops and trained to  
32 adjust ground or naval gunfire and pass back battlefield information. In the absence of a  
33 forward air controller, the observer may control close air support strikes.  
34

### G

35  
36  
37 **General support – (JP 1-02)** That support which is given to the supported force as a whole  
38 and not to any particular subdivision thereof. See also **close support; direct support; mutual**  
39 **support; support**.  
40

41 **General support artillery – (JP 1-02)** Artillery which executes the fire directed by the  
42 commander of the unit to which it organically belongs or is attached. It fires in support of the  
43 operation as a whole rather than in support of a specific subordinate unit.  
44

## MCWP 3-16.1 Marine Artillery Operations

1 **General support-reinforcing – (JP 1-02)** A tactical artillery mission. General support-  
2 reinforcing artillery has the mission of supporting the force as a whole and of providing  
3 reinforcing fires for another artillery unit.  
4

5 **Grazing fire – (JP 1-02)** Fire approximately parallel to the ground where the center of the  
6 cone of fire does not rise above one meter from the ground. See also **fire**.  
7

8 **Ground combat element – (JP 1-02)** The Marine air-ground task force (MAGTF) element  
9 that is task-organized to conduct ground operations. The GCE is constructed around an  
10 infantry unit and varies in size from a reinforced infantry battalion to one or more reinforced  
11 Marine division(s). The GCE also includes appropriate combat support and combat service  
12 support units. Normally, there is only one GCE in a MAGTF.  
13

14 **Gun (JP 1-02)** 1. A cannon with relatively long barrel, operating with relatively low angle of  
15 fire, and having a high muzzle velocity. 2. A cannon with tube length 30 calibers or more. See  
16 also **howitzer**.  
17

18 **Gun carriage – (JP 1-02)** A mobile or fixed support for a gun. It sometimes includes the  
19 elevating and traversing mechanisms.  
20

21  
22 **Gun-target line – (JP 1-02)** An imaginary straight line from gun to target.  
23

### H

24  
25  
26 **Hang fire – (JP 1-02)** An undesired delay in the functioning of a firing system.  
27

28 **Harassing fire – (JP 1-02)** Fire designed to disturb the rest of the enemy troops, to curtail  
29 movement, and, by threat of losses, to lower morale. See also **fire**.  
30

31 **Hasty defense – (JP 1-02)** A defense normally organized while in contact with the enemy or  
32 when contact is imminent and time available for the organization is limited. It is characterized  
33 by improvement of the natural defensive strength of the terrain by utilization of foxholes,  
34 emplacements, and obstacles. See also **deliberate defense**.  
35

36 **Hasty occupation** - The occupation of a position that has not been fully prepared for  
37 occupation by the advance party.  
38

39 **Hasty survey** - Techniques used to establish rapid and sufficiently accurate direction and/or  
40 position data through simplified procedures and with cannon battery TOE equipment.  
41

42 **Helicopter support team** - (DOD, NATO) A task organization formed and equipped for  
43 employment in a landing zone to facilitate the landing and movement of helicopter-borne  
44 troops, equipment and supplies, and to evacuate selected casualties and enemy prisoners of  
45 war. (Joint Pub. 1-02)



## MCWP 3-16.1 Marine Artillery Operations

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1  
2 **High angle fire – (JP 1-02)** Fire delivered at angles of elevation greater than the elevation that  
3 corresponds to the maximum range of the gun and ammunition concerned; fire, the range of  
4 which decreases as the angle of elevation is increased.  
5

6 **High-payoff target** – Those high-value targets that must be acquired and successfully attacked  
7 for the success of the friendly commander's mission.  
8

9 **High-value target** - Those assets that the enemy commander requires for the successful  
10 completion of his mission.  
11

12 **Hip Shoot** – Occupying a position from a convoy without prior reconnaissance and firing from  
13 this position in response to a call for fire. See all **emergency mission**.  
14

15 **Howitzer – (JP 1-02)** 1. A cannon which combines certain characteristics of guns and mortars.  
16 The howitzer delivers projectiles with medium velocities, either by low or high trajectories. 2.  
17 Normally a cannon with a tube length of 20 to 30 calibers; however, the tube length can  
18 exceed 30 calibers and still be considered a howitzer when the high angle fire zoning solution  
19 permits range overlap between charges. See also **gun**.  
20

### I

21  
22  
23 **Illumination fire** – Fire designed to illuminate an area. Illumination fire is used to observe  
24 enemy operations and movements, to adjust observed fire during hours of darkness, and to  
25 provide assistance to friendly night operations.  
26

27 **Immediate counterfire** – The attack of the enemy's indirect fire systems that are inflicting  
28 heavy damage on friendly forces.  
29

30 **Indirect fire – (JP 1-02)** Fire delivered on a target that is not itself used as a point of aim for  
31 the weapons or the director.  
32

33 **Infiltration – (JP 1-02)** 1. The movement through or into an area or territory occupied by  
34 either friendly or enemy troops or organizations. The movement is made, either by small  
35 groups or by individuals, at extended or irregular intervals. When used in connection with the  
36 enemy, it infers that contact is avoided. 2. In intelligence usage, placing an agent or other  
37 person in a target area in hostile territory. Usually involves crossing a frontier or other  
38 guarded line. Methods of infiltration are: black (clandestine); grey (through legal crossing  
39 point but under false documentation); white (legal).  
40

41 **Intelligence preparation of the battlefield** – IPB is the process of understanding the  
42 battlefield, the enemy, and the options presented. The objective of IPB is the early  
43 identification of probable courses of enemy action. It is a continuous, systematic, labor-  
44 intensive process. It begins with analysis of enemy doctrine and capabilities in a geographical

## MCWP 3-16.1 Marine Artillery Operations

1 area, the terrain, and the effects of weather on that terrain. The products of IPB are graphic  
2 overlays and templates used to visualize and predict enemy intentions.

3  
4 **Interdiction fire** – Fire placed on an area or point to prevent the enemy from using the area or  
5 point.

6  
7 **Intermediate maintenance (field)** - (DOD) That maintenance which is the responsibility of  
8 and performed by designated maintenance activities for direct support of using organizations.  
9 Its phases normally consist of: **a.** calibration, repair, or replacement of damaged or  
10 unserviceable parts, components, or assemblies; **b.** the emergency manufacture of nonavailable  
11 parts; and **c.** providing technical assistance to using organizations. (Joint Pub. 1-02)

### 12 13 14 **J**

15  
16 **Joint Munitions Effectiveness Manual-Special Operations – (JP 1-02)** A publication  
17 providing a single, comprehensive source of information covering weapon effectiveness,  
18 selection, and requirements for special operations munitions. In addition, the closely related  
19 fields of weapon characteristics and effects, target characteristics, and target vulnerability are  
20 treated in limited detail required by the mission planner. Although emphasis is placed on  
21 weapons that are currently in the inventory, information is also included for some weapons not  
22 immediately available but projected for the near future. Also called **JMEM-SO**.

### 23 24 **K**

25  
26 **Killing zone – (JP 1-02)** An area in which a commander plans to force the enemy to  
27 concentrate so as to destroy him with conventional weapons or the tactical employment of  
28 nuclear weapons.

### 29 30 **L**

31  
32 **Laid** - A weapon is laid when the axis of the tube is accurately aimed in a predetermined  
33 direction.

34  
35 **Laser rangefinder – (JP 1-02)** A device which uses laser energy for determining the distance  
36 from the device to a place or object.

37  
38 **Lateral spread – (JP 1-02)** A technique used to place the mean point of impact of two or more  
39 units 100 meters apart on a line perpendicular to the gun-target line.

40  
41 **Laying** – The process of orienting a weapon for direction.

42  
43 **List of targets – (JP 1-02)** A tabulation of confirmed or suspect targets maintained by any  
44 echelon for informational and fire support planning purposes. See also **target list**.

## MCWP 3-16.1 Marine Artillery Operations

1 **Logistics** - (DOD) The science of planning and carrying out the movement and maintenance of  
2 forces. In its most comprehensive sense, those aspects of military operations which deal with:  
3 **a.** design and development, acquisition, storage, movement, distribution, maintenance,  
4 evacuation, and disposition of materiel; **b.** movement, evacuation, and hospitalization of  
5 personnel; **c.** acquisition or construction, maintenance, operation, and disposition of facilities;  
6 and **d.** acquisition or furnishing of services. (Joint Pub. 1-02)  
7

8 **Lot** - (**JP 1-02**) Specifically, a quantity of material all of which was manufactured under  
9 identical conditions and assigned an identifying lot number.  
10

11 **Low angle fire** - (**JP 1-02**) Fire delivered at angles of elevation below the elevation that  
12 corresponds to the maximum range of the gun and ammunition concerned.  
13

### M

14  
15  
16 **MAGTF** - (**JP 1-02**) A task organization of Marine forces (division, aircraft wing, and service  
17 support groups) under a single command and structured to accomplish a specific mission. The  
18 Marine air-ground task force (MAGTF) components will normally include command, aviation  
19 combat, ground combat, and combat service support elements (including Navy Support  
20 Elements). Three types of Marine air-ground task forces which can be task organized are the  
21 Marine expeditionary unit, Marine expeditionary brigade, and Marine expeditionary force. The  
22 four elements of a Marine air-ground task force are: **a.** command element (CE)--The MAGTF  
23 headquarters. The CE is a permanent organization composed of the commander, general or  
24 executive and special staff sections, headquarters section, and requisite communications and  
25 service support facilities. The CE provides command, control, and coordination essential for  
26 effective planning and execution of operations by the other three elements of the MAGTF.  
27 There is only one CE in a MAGTF. **b.** aviation combat element (ACE)--The MAGTF element  
28 that is task organized to provide all or a portion of the functions of Marine Corps aviation in  
29 varying degrees based on the tactical situation and the MAGTF mission and size. These  
30 functions are air reconnaissance, antiair warfare, assault support, offensive air support,  
31 electronic warfare, and control of aircraft and missiles. The ACE is organized around an  
32 aviation headquarters and varies in size from a reinforced helicopter squadron to one or more  
33 Marine aircraft wing(s). It includes those aviation command (including air control agencies),  
34 combat, combat support, and combat service support units required by the situation.  
35 Normally, there is only one ACE in a MAGTF. **c.** ground combat element (GCE)--The  
36 MAGTF element that is task organized to conduct ground operations. The GCE is constructed  
37 around an infantry unit and varies in size from a reinforced infantry battalion to one or more  
38 reinforced Marine division(s). The GCE also includes appropriate combat support and combat  
39 service support units. Normally, there is only one GCE in a MAGTF. **d.** combat service  
40 support element (CSSE)--The MAGTF element that is task organized to provide the full range  
41 of combat service support necessary to accomplish the MAGTF mission. CSSE can provide  
42 supply, maintenance, transportation, deliberate engineer, health, postal, disbursing, enemy  
43 prisoner of war, automated information systems, exchange, utilities, legal, and graves  
44 registration services. The CSSE varies in size from a Marine expeditionary unit (MEU) service

## MCWP 3-16.1 Marine Artillery Operations

1 support group (MSSG) to a force service support group (FSSG). Normally, there is only one  
2 combat service support element in a MAGTF.

3  
4 **Main battle area – (JP 1-02)** That portion of the battlefield in which the decisive battle is  
5 fought to defeat the enemy. For any particular command, the main battle area extends rearward  
6 from the forward edge of the battle area to the rear boundary of the command's subordinate  
7 units.

8  
9 **Main supply route - (DOD, NATO)** The route or routes designated within an area of  
10 operations upon which the bulk of traffic flows in support of military operations. (Joint Pub.  
11 1-02)

12  
13 **Maintenance area - (DOD)** A general locality in which are grouped a number of maintenance  
14 activities for the purpose of retaining or restoring materiel to a serviceable condition. (Joint  
15 Pub. 1-02)

16  
17 **Maneuver -** Maneuver is the movement of forces in relation to the enemy to secure or retain  
18 positional advantage. It is the dynamic element of combat--the means of concentrating forces at  
19 the critical point to achieve the surprise, psychological shock, physical momentum, and moral  
20 dominance which enable smaller forces to defeat larger ones.

21  
22 **Mark – (JP 1-02)** 1. In artillery and naval gunfire support: a. to call for fire on a specified  
23 location in order to orient the observer/spotter or to indicate targets; b. to report the instant of  
24 optimum light on the target produced by illumination shells. 2. In naval operations, to use a  
25 maritime unit to maintain an immediate offensive or obstructive capability against a specified  
26 target.

27  
28 **Marking fire – (JP 1-02)** Fire placed on a target for the purpose of identification.

29  
30 **Mass – (JP 1-02)** 1. The concentration of combat power. 2. The military formation in which  
31 units are spaced at less than the normal distances and intervals.

32  
33 **Maximum rate of fire –** The rate of fire that a weapon can continue for a short period without  
34 seriously overheating.

35  
36 **Meteorological data – (JP 1-02)** Meteorological facts pertaining to the atmosphere, such as  
37 wind, temperature, air density, and other phenomena which affect military operations.

38  
39 **Mil –** A unit of measurement for angles. There are 6,400 mils in a complete circle.

40  
41 **Misfire – (JP 1-02)** 1. Failure to fire or explode properly. 2. Failure of a primer or the  
42 propelling charge of a round or projectile to function wholly or in part.

43  
44 **Mission – (JP 1–02)** 1. The task, together with the purpose, that clearly indicates the action  
45 to be taken and the reason therefor. 2. In common usage, especially when applied to lower

## MCWP 3-16.1 Marine Artillery Operations

1 military units, a duty assigned to an individual or unit; a task. 3. The dispatching of one or  
2 more aircraft to accomplish one particular task.

3  
4 **Mission-essential materiel – (JP 1-02)** 1. That materiel which is authorized and available to  
5 combat, combat support, combat service support, and combat readiness training forces to  
6 accomplish their assigned missions. 2. For the purpose of sizing organic industrial facilities,  
7 that Service-designated materiel authorized to combat, combat support, combat service  
8 support, and combat readiness training forces and activities, including Reserve and National  
9 Guard activities, which is required to support approved emergency and/or war plans, and  
10 where the materiel is used to: a. destroy the enemy or his capacity to continue war; b. provide  
11 battlefield protection of personnel; c. communicate under war conditions; d. detect, locate, or  
12 maintain surveillance over the enemy; e. provide combat transportation and support of men  
13 and materiel; and f. support training functions, but is suitable for employment under  
14 emergency plans to meet purposes enumerated above. These items are identified by table of  
15 authorized materiel control number in an enclosure to the Marine Corps Bulletin in the 3000  
16 series. Also called MEE.

17  
18 **Multiple launch rocket system** – The multiple launch rocket system (MLRS) is a highly  
19 mobile, rapid-fire, surface-to-surface, free-flight rocket and guided missile system. It is  
20 designed to complement cannon artillery; to attack the enemy deep; and to strike at counterfire,  
21 air defense, and high-payoff targets.

22  
23 **Munition – (JP 1-02)** A complete device charged with explosives, propellants, pyrotechnics,  
24 initiating composition, or nuclear, biological or chemical material for use in military  
25 operations, including demolitions. Certain suitably modified munitions can be used for  
26 training, ceremonial or nonoperational purposes. Also called **ammunition**. (Note: In common  
27 usage, “munitions” (plural) can be military weapons, ammunition, and equipment.) See also  
28 **explosive ordnance**.

29  
30 **Muzzle velocity – (JP 1-02)** The velocity of a projectile with respect to the muzzle at the  
31 instant the projectile leaves the weapon.

### 32 N

33  
34  
35 **Naval surface fire support – (JP 1-02)** Fire provided by Navy surface gun, missile, and  
36 electronic warfare systems in support of a unit or units tasked with achieving the commander’s  
37 objectives. Also called **NSFS**.

38  
39 **NBC defense**--Nuclear defense, biological defense, and chemical defense, collectively. The  
40 term may not be used in the context of US offensive operations.

41  
42 **Nerve agent (JP 1-02)** A potentially lethal chemical agent which interferes with the  
43 transmission of nerve impulses.

44  
45 **Net call sign – (JP 1-02)** A call sign which represents all stations within a net.

## MCWP 3-16.1 Marine Artillery Operations

---

1  
2 **Neutralization fire – (JP 1-02)** Fire which is delivered to render the target ineffective or  
3 unusable. See also **fire**.

4  
5 **Neutralize – (JP 1-02)** As pertains to military operations, to render ineffective or unusable.  
6

### 7 8 O

9 **Objective – (JP 1-02)** The physical object of the action taken, e.g., a definite tactical feature,  
10 the seizure and/or holding of which is essential to the commander's plan. See also **target**.

11  
12 **Objective area – (JP 1-02)** 1. A defined geographical area within which is located an objective  
13 to be captured or reached by the military forces. This area is defined by competent authority  
14 for purposes of command and control. (DOD) 2. The city or other geographical location  
15 where a civil disturbance is occurring or is anticipated, and where Federal Armed Forces are,  
16 or may be, employed.

17  
18 **Obscuration fire –** Fire delivered to suppress the enemy by obscuring his view of the  
19 battlefield.

20  
21 **Observed fire – (JP 1-02)** Fire for which the point of impact or burst can be seen by an  
22 observer. The fire can be controlled and adjusted on the basis of observation. See also **fire**.

23  
24 **Observer-target line – (JP 1-02)** An imaginary line straight from the observer/spotter to the  
25 target.

26  
27 **On-call – (JP 1-02)** 1. A term used to signify that a prearranged concentration, air strike, or  
28 final protective fire may be called for. 2. Preplanned, identified force or materiel requirements  
29 without designated time-phase and destination information. Such requirements will be called  
30 forward upon order of competent authority. See also **call for fire**.

31  
32 **On-call target – (JP 1-02)** In artillery and naval gunfire support, a planned target other than a  
33 scheduled target on which fire is delivered when requested.

34  
35 **Open column –** A convoy in which vehicles move at intervals of 100 meters.

36  
37 **Open sheaf – (JP 1-02)** The lateral distribution of the fire of two or more pieces so that  
38 adjoining points of impact or points of burst are separated by the maximum effective width of  
39 burst of the type shell being used. See also **converged sheaf; parallel sheaf; sheaf; special**  
40 **sheaf**.

41  
42 **Operational control – (JP 1-02)** Transferable command authority that may be exercised by  
43 commanders at any echelon at or below the level of combatant command. Operational control  
44 is inherent in combatant command (command authority). Operational control may be

## MCWP 3-16.1 Marine Artillery Operations

1 delegated and is the authority to perform those functions of command over subordinate forces  
2 involving organizing and employing commands and forces, assigning tasks, designating  
3 objectives, and giving authoritative direction necessary to accomplish the mission. Operational  
4 control includes authoritative direction over all aspects of military operations and joint training  
5 necessary to accomplish missions assigned to the command. Operational control should be  
6 exercised through the commanders of subordinate organizations. Normally this authority is  
7 exercised through subordinate joint force commanders and Service and/or functional  
8 component commanders. Operational control normally provides full authority to organize  
9 commands and forces and to employ those forces as the commander in operational control  
10 considers necessary to accomplish assigned missions. Operational control does not, in and of  
11 itself, include authoritative direction for logistics or matters of administration, discipline,  
12 internal organization, or unit training. Also called **OPCON**.

13  
14 **Operations center – (JP 1-02)** The facility or location on an installation, base, or facility used  
15 by the commander to command, control, and coordinate all crisis activities.

16  
17 **Order of battle – (JP 1-02)** The identification, strength, command structure, and disposition  
18 of the personnel, units, and equipment of any military force.

19  
20 **Ordnance – (JP 1-02)** Explosives, chemicals, pyrotechnics, and similar stores, e.g., bombs,  
21 guns and ammunition, flares, smoke, napalm.

22  
23 **Organic – (JP 1-02)** Assigned to and forming an essential part of a military organization.  
24 Organic parts of a unit are those listed in its table of organization for the Army, Air Force, and  
25 Marine Corps, and are assigned to the administrative organizations of the operating forces for  
26 the Navy.

27  
28 **Organization for combat** – A process which places an artillery unit within an organization  
29 (i.e., establishes a command relationship) and assigns the unit a tactical mission.

30  
31 **Organizational maintenance** - (DOD) That maintenance which is the responsibility of and  
32 performed by a using organization on its assigned equipment. Its phases normally consist of  
33 inspecting, servicing, lubricating, adjusting, and the replacing of parts, minor assemblies, and  
34 subassemblies. (Joint Pub. 1-02)

35  
36 **Orienting angle** - A horizontal clockwise angle from the line of fire to the orienting line.

37  
38 **Orienting line** - A line of known direction in the battery area that serves as a basis for laying  
39 the battery for direction. The azimuth of the orienting line is the direction from the orienting  
40 station to a designated end of the orienting line.

41  
42 **Orienting station** - A point established on the ground which has directional control. The  
43 aiming circle is set up over this point to lay the pieces by the orienting angle method.

44

## MCWP 3-16.1 Marine Artillery Operations

1 **Overlay – (JP 1-02)** A printing or drawing on a transparent or semi-transparent medium at the  
2 same scale as a map, chart, etc., to show details not appearing or requiring special emphasis on  
3 the original.

### P

4  
5  
6  
7 **Parallel sheaf – (JP 1-02)** In artillery and naval gunfire support, a sheaf in which the planes  
8 (lines) of fire of all pieces are parallel. See also **converged sheaf; open sheaf; sheaf; special**  
9 **sheaf.**

10  
11 **Planned target – (JP 1-02)** In artillery and naval gunfire support, a target on which fire is  
12 prearranged.

13  
14 **Point target – (JP 1-02)** 1. A target of such small dimension that it requires the accurate  
15 placement of ordnance in order to neutralize or destroy it. 2. nuclear--A target in which the  
16 ratio of radius of damage to target radius is equal to or greater than 5.

17  
18 **Position area** – An area that is occupied, or to be occupied, by an artillery unit with its  
19 elements disposed to provide artillery support. Position area do not constitute a rigid  
20 restrictive area for the artillery unit. They should be considered only as guides to be followed  
21 as closely as the mission, terrain, and tactical situation permit.

22  
23 **Prearranged fire – (JP 1-02)** Fire that is formally planned and executed against targets or  
24 target areas of known location. Such fire is usually planned well in advance and is executed at  
25 a predetermined time or during a predetermined period of time. See also **fire; on call;**  
26 **scheduled fire.**

27  
28 **Precision fire** – Fire used for registration and for attack and destruction of point targets.

29  
30 **Predicted fire – (JP 1-02)** Fire that is delivered without adjustment.

31  
32 **Preventive maintenance** - (DOD) The care and servicing by personnel for the purpose of  
33 maintaining equipment and facilities in satisfactory operating condition by providing for  
34 systematic inspection, detection, and correction of incipient failures either before they occur or  
35 before they develop into major defects. (Joint Pub. 1-02)

36  
37 **Primary position** - The position from which a battery intends to perform its assigned mission.

38  
39 **Priority of fire** – Guidance to a fire support planner to organize and employ fire support  
40 means in accordance with the relative importance of the maneuver unit's missions.

41  
42 **Priority target – (JP 1-02)** A target that firing units lay on while not engaged in a fire  
43 mission. It is designated as critical by a maneuver commander on the basis of type, location, or  
44 time sensitivity. Generally, one battery will be laid on each priority target (as with an FPF).



## MCWP 3-16.1 Marine Artillery Operations

1 **Projectile – (JP 1-02)** An object projected by an applied exterior force and continuing in  
2 motion by virtue of its own inertia, as a bullet, shell, or grenade. Also applied to rockets and  
3 to guided missiles.

### Q

7 **Quadrant elevation – (JP 1-02)** The angle between the horizontal plane and the axis of the  
8 bore when the weapon is laid. (DOD) It is the algebraic sum of the elevation, angle of site, and  
9 complementary angle of site.

### R

13 **Radar**--A radio detection device that provides information on range, azimuth and/or elevation  
14 of objects.

16 **Radar fire – (JP 1-02)** Gunfire aimed at a target which is tracked by radar. See also **fire**.

18 **Radar report** – A report used by the artillery to control and coordinate the use of the radars of  
19 the counterbattery radar platoon. The report is used by the counterbattery radar platoon and  
20 the controlling artillery unit.

22 **Radiation dose – (JP 1-02)** The total amount of ionizing radiation absorbed by material or  
23 tissues, expressed in centigrays. (DOD) The term radiation dose is often used in the sense of  
24 the exposure dose expressed in roentgens, which is a measure of the total amount of ionization  
25 that the quantity of radiation could produce in air. This could be distinguished from the  
26 absorbed dose, also given in rads, which represents the energy absorbed from the radiation per  
27 gram of specified body tissue. Further, the biological dose, in rems, is a measure of the  
28 biological effectiveness of the radiation exposure. See also **absorbed dose; exposure dose**.

30 **Radiation dose rate – (JP 1-02)** The radiation dose (dosage) absorbed per unit of time. (DOD)  
31 A radiation dose rate can be set at some particular unit of time (e.g., H + 1 hour) and would  
32 be called H + 1 radiation dose rate.

34 **Radiation exposure state – (JP 1-02)** The condition of a unit, or exceptionally an individual,  
35 deduced from the cumulative whole body radiation dose(s) received. It is expressed as a  
36 symbol which indicates the potential for future operations and the degree of risk if exposed to  
37 additional nuclear radiation.

39 **Radiation intensity – (JP 1-02)** The radiation dose rate at a given time and place. It may be  
40 used, coupled with a figure, to denote the radiation intensity used at a given number of hours  
41 after a nuclear burst, e.g., RI-3 is a radiation intensity 3 hours after the time of burst.

43 **Radiation sickness – (JP 1-02)** An illness resulting from excessive exposure to ionizing  
44 radiation. The earliest symptoms are nausea, vomiting, and diarrhea, which may be followed  
45 by loss of hair, hemorrhage, inflammation of the mouth and throat, and general loss of energy.

## MCWP 3-16.1 Marine Artillery Operations

1  
2 **Radiation scattering – (JP 1-02)** The diversion of radiation (thermal, electromagnetic, or  
3 nuclear) from its original path as a result of interaction or collisions with atoms, molecules, or  
4 larger particles in the atmosphere or other media between the source of the radiation (e.g., a  
5 nuclear explosion) and a point at some distance away. As a result of scattering, radiation  
6 (especially gamma rays and neutrons) will be received at such a point from many directions  
7 instead of only from the direction of the source.

8  
9 **Radioactive decay – (JP 1-02)** The decrease in the radiation intensity of any radioactive  
10 material with respect to time.

11  
12 **Radiation sickness – (JP 1-02)** An illness resulting from excessive exposure to ionizing radiation. The  
13 earliest symptoms are nausea, vomiting, and diarrhea, which may be followed by loss of hair, hemorrhage,  
14 inflammation of the mouth and throat, and general loss of energy.

15  
16 **Raid – (JP 1-02)** An operation, usually small scale, involving a swift penetration of hostile  
17 territory to secure information, confuse the enemy, or to destroy installations. It ends with a  
18 planned withdrawal upon completion of the assigned mission.

19  
20 **Rally point –** A feature identifiable on the ground and on a map used for assembly and  
21 recovery of vehicles and personnel following an enemy attack.

22  
23 **Rate of fire – (JP 1-02)** The number of rounds fired per weapon per minute.

24  
25 **Ready – (JP 1-02)** The term used to indicate that a weapon(s) is loaded, aimed, and prepared  
26 to fire.

27  
28 **Rear area – (JP 1-02)** For any particular command, the area extending forward from its rear  
29 boundary to the rear of the area assigned to the next lower level of command. This area is  
30 provided primarily for the performance of support functions.

31  
32 **Rear operations -** Military actions conducted to support and permit force sustainment and to  
33 provide security for such actions. (MCRP 5-12C)

34  
35 **Reconnaissance by fire – (JP 1-02)** A method of reconnaissance in which fire is placed on a  
36 suspected enemy position to cause the enemy to disclose a presence by movement or return of  
37 fire.

38  
39 **Reconnaissance, selection, and occupation of position -** A procedure used by artillery units  
40 to assist the rapid and orderly movement of the artillery unit from a position area, assembly  
41 area, or a march column into a position from which it can deliver the fire support required to  
42 accomplish its mission.

43  
44 **Record as target – (JP 1-02)** In artillery and naval gunfire support, the order used to denote  
45 that the target is to be recorded for future engagement or reference.

## MCWP 3-16.1 Marine Artillery Operations

1  
2 **Recovery operations** - (DOD) Operations conducted to search for, locate, identify, rescue,  
3 and return personnel, sensitive equipment, or items critical to national security (Joint Pub 1-  
4 02). **1.** Those operations executed to recover personnel and/or equipment. **2.** Extricating  
5 damaged or disabled equipment and moving it to locations where repairs can be made.  
6 Recovery is the primary responsibility of the using unit. (MCRP 5-12C)  
7

8 **Registration** – (JP 1-02) The adjustment of fire to determine firing data corrections.  
9

10 **Registration fire** – (JP 1-02) Fire delivered to obtain accurate data for subsequent effective  
11 engagement of targets. See also **fire**.

12  
13 **Registration point** – (JP 1-02) Terrain feature or other designated point on which fire is  
14 adjusted for the purpose of obtaining corrections to firing data.  
15

16 **Reinforcing** – (JP 1-02) In artillery usage, tactical mission in which one artillery unit  
17 augments the fire of another artillery unit.  
18

19 **Release point** – (JP 1-02) A well-defined point on a route at which the elements composing a  
20 column return under the authority of their respective commanders, each one of these elements  
21 continuing its movement towards its own appropriate destination.  
22

23 **Repeat** – (JP 1-02) In artillery and naval gunfire support, an order or request to fire again the  
24 same number of rounds with the same method of fire.  
25

26 **Rounds complete** – (JP 1-02) In artillery and naval gunfire support, the term used to report  
27 that the number of rounds specified in fire for effect have been fired. See also **shot**.  
28

29 **Rules of engagement** – (JP 1-02) Directives issued by competent military authority which  
30 delineate the circumstances and limitations under which United States forces will initiate and/or  
31 continue combat engagement with other forces encountered. Also called **ROE**.  
32

### S

33  
34  
35 **Scheduled fire** – (JP 1-02) A type of prearranged fire executed at a predetermined time.  
36

37 **Scheduled target** – (JP 1-02) In artillery and naval gunfire support, a planned target on which  
38 fire is to be delivered at a specific time.  
39

40 **Schedule of fire** – (JP 1-02) Groups of fires or series of fires fired in a definite sequence  
41 according to a definite program. The time of starting the schedule may be ON CALL. For  
42 identification purposes schedules may be referred to by a code name or other designation.  
43

44 **Schedule of targets** (JP 1-02) In artillery and naval gunfire support, individual targets, groups  
45 or series of targets to be fired on, in a definite sequence according to a definite program.

## MCWP 3-16.1 Marine Artillery Operations

- 1  
2 **Scheme of maneuver (JP 1-02)** The tactical plan to be executed by a force in order to seize  
3 assigned objectives.  
4
- 5 **Screening fire** – Fire delivered to mask friendly maneuver elements and to conceal the nature  
6 of their operations.  
7
- 8 **Searching fire – (JP 1-02)** Fire distributed in depth by successive changes in the elevation of a  
9 gun. See also **fire**.  
10
- 11 **Sector – (JP 1-02)** 1. An area designated by boundaries within which a unit operates, and for  
12 which it is responsible. 2. One of the subdivisions of a coastal frontier.  
13
- 14 **Sector of fire – (JP 1-02)** A defined area which is required to be covered by the fire of  
15 individual or crew served weapons or the weapons of a unit.  
16
- 17 **Security area** – The forward of the three echelons of a defensive sector. It is the area forward  
18 of the forward edge of the battle area out to the forward positions initially assigned to the  
19 security forces. The ground combat element commander may extend the lateral boundaries of  
20 subordinate units forward of the forward edge of the battle area, giving them responsibility for  
21 the security area within the sector to the forward limit of their boundaries, or he may assign a  
22 security force to operate across the entire ground combat element frontage.  
23
- 24 **Self-propelled weapon** – A weapon that has its cannon permanently installed on a full tracked  
25 vehicle which provides its own automotive power.  
26
- 27 **Semi-fixed ammunition – (JP 1-02)** Ammunition in which the cartridge case is not  
28 permanently attached to the projectile. See also **ammunition**.  
29
- 30 **Sensor – (JP 1-02)** An equipment which detects, and may indicate, and/or record objects and  
31 activities by means of energy or particles emitted, reflected, or modified by objects.  
32
- 33 **Separate loading ammunition – (JP 1-02)** Ammunition in which the projectile and charge are  
34 loaded into a gun separately. See also **ammunition**.  
35
- 36 **Serial – (JP 1-02)** 1. An element or a group of elements within a series which is given a  
37 numerical or alphabetical designation for convenience in planning, scheduling, and control.  
38 (DOD) 2. Any number of aircraft under one commander, usually conveying one air-  
39 transportable unit or subunit to the same objective.  
40
- 41 **Shear – (JP 1-02)** In artillery and naval gunfire support, planned planes (lines) of fire that  
42 produce a desired pattern of bursts with rounds fired by two or more weapons.  
43
- 44 **Shelling report – (JP 1-02)** Any report of enemy shelling containing information on caliber,  
45 direction, time, density and area shelled.

## MCWP 3-16.1 Marine Artillery Operations

1  
2 **Shifting fire – (JP 1-02)** Fire delivered at constant range at varying deflections; used to cover  
3 the width of a target that is too great to be covered by an open sheaf.

4  
5 **Shot – (JP 1-02)** In artillery and naval gunfire support, a report that indicates a gun, or guns,  
6 have been fired. See also **rounds complete**.

7  
8 **Situation map – (JP 1-02)** A map showing the tactical or the administrative situation at a  
9 particular time.

10  
11 **Situation report – (JP 1-02)** A report giving the situation in the area of a reporting unit or  
12 formation.

13  
14 **Slant range – (JP 1-02)** The line of sight distance between two points, not at the same level  
15 relative to a specific datum.

16  
17 **Special ammunition supply point – (JP 1-02)** A mobile supply point where special  
18 ammunition is stored and issued to delivery units.

19  
20 **Special sheaf – (JP 1-02)** In artillery and naval gunfire support, any sheaf other than parallel,  
21 converged, or open.

22  
23 **Special staff – (JP 1-02)** All staff officers having duties at a headquarters and not included in  
24 the general (coordinating) staff group or in the personal staff group. The special staff includes  
25 certain technical specialists and heads of services, e.g., quartermaster officer, antiaircraft  
26 officer, transportation officer, etc.

27  
28 **Splash – (JP 1-02)** 1. In artillery and naval gunfire support, word transmitted to an observer  
29 or spotter five seconds before the estimated time of the impact of a salvo or round. 2. In air  
30 interception, target destruction verified by visual or radar means.

31  
32 **Spot – (JP 1-02)** 1. To determine by observation, deviations of ordnance from the target for  
33 the purpose of supplying necessary information for the adjustment of fire. 2. To place in a  
34 proper location. **(DOD)** 3. An approved shipboard helicopter landing site. See also **ordnance**.

35  
36 **Start point –** A well defined point on a route at which a movement of vehicles begins to be  
37 under the control of the commander of this movement. The first vehicle of a convoy crosses  
38 the start point at a specified time.

39  
40 **Submunition – (JP 1-02)** Any munition that, to perform its task, separates from a parent  
41 munition.

42  
43 **Supplementary position –** A position selected for accomplishment of a specific mission other  
44 than the primary mission.

45

## MCWP 3-16.1 Marine Artillery Operations

1 **Support – (JP 1-02)** 1. The action of a force which aids, protects, complements, or sustains  
2 another force in accordance with a directive requiring such action. 2. A unit which helps  
3 another unit in battle. Aviation, artillery, or naval gunfire may be used as a support for  
4 infantry. 3. A part of any unit held back at the beginning of an attack as a reserve. 4. An  
5 element of a command which assists, protects, or supplies other forces in combat.  
6

7 **Supported commander – (JP 1-02)** The commander having primary responsibility for all  
8 aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation  
9 planning authority. In the context of joint operation planning, this term refers to the  
10 commander who prepares operation plans or operation orders in response to requirements of  
11 the Chairman of the Joint Chiefs of Staff.  
12

13 **Supporting artillery – (JP 1-02)** Artillery which executes fire missions in support of a specific  
14 unit, usually infantry, but **remains under the command of the next higher artillery**  
15 **commander.**  
16

17 **Supporting commander – (JP 1-02)** A commander who provides augmentation forces or other  
18 support to a supported commander or who develops a supporting plan. Includes the designated  
19 combatant commands and Defense agencies as appropriate.  
20

21 **Supporting fire – (JP 1-02)** Fire delivered by supporting units to assist or protect a unit in  
22 combat. See also **close supporting fire; deep supporting fire; direct supporting fire.**  
23

24 **Suppression – (JP 1-02)** Temporary or transient degradation by an opposing force of the  
25 performance of a weapons system below the level needed to fulfill its mission objectives.  
26

27 **Suppression mission – (JP 1-02)** A mission to suppress an actual or suspected weapons system  
28 for the purpose of degrading its performance below the level needed to fulfill its mission  
29 objectives at a specific time for a specified duration.  
30

31 **Suppression of enemy air defenses – (JP 1-02)** That activity which neutralizes, destroys, or  
32 temporarily degrades surface-based enemy air defenses by destructive and/or disruptive means.  
33 Also called **SEAD.**  
34

35 **Suppressive fire – (JP 1-02)** Fires on or about a weapons system to degrade its performance  
36 below the level needed to fulfill its mission objectives, during the conduct of the fire mission.  
37 See also **fire.**  
38

39 **Survey control point – (JP 1-02)** A survey station used to coordinate survey control.  
40

41 **Survey information center – (JP 1-02)** A place where survey data are collected, correlated,  
42 and made available to subordinate units.  
43

44 **Survivability move –** A displacement for the purpose of increasing the artillery unit's chance  
45 of survival.

## MCWP 3-16.1 Marine Artillery Operations

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1  
2 **Suspected target** – A possible target that requires further correlation or additional information  
3 before it is considered a target.

4  
5 **Sustained rate of fire** – (JP 1-02) Actual rate of fire that a weapon can continue to deliver for  
6 an indefinite length of time without seriously overheating.

7  
8 **Sweeping fire** – A method of fire where weapons fire a constant quadrant elevation with  
9 several deflections in direct relation to the direction of fire.

### 10 11 T

12  
13 **Tactical air command center** – (JP 1-02) The principal US Marine Corps air command and  
14 control agency from which air operations and air defense warning functions are directed. It is  
15 the senior agency of the US Marine air command and control system which serves as the  
16 operational command post of the aviation combat element commander. It provides the facility  
17 from which the aviation combat element commander and his battle staff plan, supervise,  
18 coordinate, and execute all current and future air operations in support of the Marine air-  
19 ground task force. The tactical air command center can provide integration, coordination, and  
20 direction of joint and combined air operations. Also called **Marine TACC**.

21  
22 **Tactical area of responsibility** – (JP 1-02) A defined area of land for which responsibility is  
23 specifically assigned to the commander of the area as a measure for control of assigned forces  
24 and coordination of support. Also called **TAOR**.

25  
26 **Tactical control (JP 1-02)** Command authority over assigned or attached forces or commands,  
27 or military capability or forces made available for tasking, that is limited to the detailed and,  
28 usually, local direction and control of movements or maneuvers necessary to accomplish  
29 missions or tasks assigned. Tactical control is inherent in operational control. Tactical control  
30 may be delegated to, and exercised at any level at or below the level of combatant command.  
31 Also called **TACON**.

32  
33 **Tactical fire direction** – The control of one or more units in the selection of targets to attack,  
34 designation of the unit or units to fire, selection of the method of attack, and selection of the  
35 most suitable ammunition for the mission.

36  
37 **Tactical map** – (JP 1-02) A large-scale map used for tactical and administrative purposes.

38  
39 **Tactical march** – The movement of a unit or an element under actual or simulated combat  
40 conditions.

41  
42 **Tactical mission** – Defines the fire support responsibility of an artillery unit, normally a  
43 battalion, to a supported unit or to another artillery unit.

44

## MCWP 3-16.1 Marine Artillery Operations

1 **Tactics – (JP 1-02)** 1. The employment of units in combat. 2. The ordered arrangement and  
2 maneuver of units in relation to each other and/or to the enemy in order to use their full  
3 potentialities.

4  
5 **Target – (JP 1-02)** 1. A geographical area, complex, or installation planned for capture or  
6 destruction by military forces. 2. In intelligence usage, a country, area, installation, agency, or  
7 person against which intelligence operations are directed. 3. An area designated and numbered  
8 for future firing. 4. In gunfire support usage, an impact burst which hits the target. See also  
9 **objective area**.

10  
11 **Target acquisition – (JP 1-02)** The detection, identification, and location of a target in  
12 sufficient detail to permit the effective employment of weapons. See also **target analysis**.

13  
14 **Target analysis – (JP 1-02)** An examination of potential targets to determine military  
15 importance, priority of attack, and weapons required to obtain a desired level of damage or  
16 casualties. See also **target acquisition**.

17  
18 **Target category –** Those categories used to facilitate the processing of target data, particularly  
19 the maintenance of counterfire target files.

20  
21 **Targeting (JP 1-02)** 1. The process of selecting targets and matching the appropriate response  
22 to them, taking account of operational requirements and capabilities. 2. The analysis of enemy  
23 situations relative to the commander's mission, objectives, and capabilities at the commander's  
24 disposal, to identify and nominate specific vulnerabilities that, if exploited, will accomplish the  
25 commander's purpose through delaying, disrupting, disabling, or destroying enemy forces or  
26 resources critical to the enemy.

27  
28 **Target list – (JP 1-02)** The listing of targets maintained and promulgated by the senior echelon of  
29 command; it contains those targets that are to be engaged by supporting arms, as distinguished from a "list of  
30 targets" that may be maintained by any echelon as confirmed, suspected, or possible targets for informational  
31 and planning purposes. See also **list of targets**.

32  
33 **Target of opportunity – (JP 1-02)** 1. A target visible to a surface or air sensor or observer,  
34 which is within range of available weapons and against which fire has not been scheduled or  
35 requested. 2. nuclear--A nuclear target observed or detected after an operation begins that has  
36 not been previously considered, analyzed or planned for a nuclear strike. Generally fleeting in  
37 nature, it should be attacked as soon as possible within the time limitations imposed for  
38 coordination and warning of friendly troops and aircraft.

39  
40 **Target overlay – (JP 1-02)** A transparent sheet which, when superimposed on a particular  
41 chart, map, drawing, tracing or other representation, depicts target locations and designations.  
42 The target overlay may also show boundaries between maneuver elements, objectives and  
43 friendly forward dispositions.

44



## MCWP 3-16.1 Marine Artillery Operations

1 **Target prediction** – Predicting a target’s existence and location by analyzing available combat  
2 information and intelligence.

3  
4 **Target selection standards** – Criteria established by the G-2/S-2 of the supported unit to  
5 determine if data is a target or a suspected target. The standards are based on the enemy’s  
6 demonstrated use of deception and the susceptibility of our collective systems to such  
7 deception. The artillery S-2 makes recommendations on the establishment.

8  
9 **Target value analysis** – A method for providing a systematic determination of which target  
10 out of the entire target array should be attacked for the greatest tactical benefit.

11  
12 **Technical fire direction** – The conversion of requests for fire to appropriate firing data and  
13 fire commands.

14  
15 **Terrain march** – An off-road movement.

16  
17 **Time of flight** – (JP 1-02) In artillery and naval gunfire support, the time in seconds from the  
18 instant a weapon is fired, launched, or released from the delivery vehicle or weapons system to  
19 the instant it strikes or detonates.

20  
21 **Time on target** – (JP 1-02) 1. Time at which aircraft are scheduled to attack/photograph the  
22 target. 2. The actual time at which aircraft attack/photograph the target. 3. The time at which  
23 a nuclear detonation is planned at a specified desired ground zero.

24  
25 **Towed weapon** – A weapon which must be moved by an external prime mover, such as a  
26 truck or a tractor. The weapon is detached from the prime mover for firing.

27  
28 **Train** - (DOD) **1.** A service force or group of service elements which provides logistic  
29 support, e.g., an organization of naval auxiliary ships or merchant ships or merchant ships  
30 attached to a fleet for this purpose; similarly, the vehicles and operating personnel which  
31 furnish supply, evacuation, and maintenance services to a land unit. **2.** Bombs dropped in short  
32 intervals or sequence. (Joint Pub. 1-02)

33  
34 **Trig list** – (JP 1-02) A list published by certain Army units which includes essential  
35 information of accurately located survey points.

### U

36  
37  
38  
39 **Unmanned aerial vehicle**--A powered, aerial vehicle that does not carry a human operator,  
40 uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely,  
41 can be expendable or recoverable, and can carry a lethal or nonlethal payload. Ballistic or  
42 semiballistic vehicles, cruise missiles, and artillery projectiles are not considered unmanned  
43 aerial vehicles. Also called **UAV**.

## MCWP 3-16.1 Marine Artillery Operations

1 **Unobserved fire – (JP 1-02)** Fire for which the points of impact or burst are not observed. See  
2 also **fire**.

### W

6 **Weaponneering** - (DOD) The process of determining the quantity of a specific type of lethal or  
7 nonlethal weapons required to achieve a specific level of damage to a given target, considering  
8 target vulnerability, weapon effect, munitions delivery accuracy, damage criteria, probability  
9 of kill, and weapon reliability. (Joint Pub 1-02)

### Z

13 **Zone and sweep fire** – A method of fire which combines zone fire and sweeping fire, and is  
14 valuable in attacking large, regular-shaped targets.

16 **Zone fire – (JP 1-02)** Artillery or mortar fires that are delivered in a constant direction at  
17 several quadrant elevations. See also **fire**.

19 **Zone of action – (JP 1-02)** A tactical subdivision of a larger area, the responsibility for which  
20 is assigned to a tactical unit; generally applied to offensive action. See also **sector**.

22 **Zone of fire – (JP 1-02)** An area into which a designated ground unit or fire support ship  
23 delivers, or is prepared to deliver, fire support. Fire may or may not be observed. See also  
24 **contingent zone of fire**.

MCWP 3-16.1 Marine Artillery Operations

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