MCT 3.2.3 Conduct Aviation Delivered Fires

The MAGTF commander, based on recommendations by the ACE commander, determines the allocation of aviation effort within the MAGTF. The air section assists the current fires section and is directly responsible for all matters pertaining to the use of aviation fire assets in battle. It maintains close contact with the Marine Tactical Air Command Center (TACC), monitors the Air Tasking Order (ATO), and focuses on reactive targeting in the MAGTF deep battle per targeting principles. Aviation electronic warfare (EW) aircraft protect assault support aircraft through electronic attack, electronic support, and electronic protection. Electronic attack can be used to deceive the enemy by sending misleading information about assault forces' speed, altitude, direction, and size and involves the use of electromagnetic, directed energy, or antiradiation weapons to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability and is considered a form of fires. (JP 1, 0-2, 3-0, 3-01, 3-02, 3-01.1, 3-01.4, 3-01.5, 3-03, 3-05.2, 3-06, 3-07.1, 3-07.2, 3-08, 3-09, 3-09.1, 3-09.3, 3-10.1, 3-18, 3-30, 3-31, 3-51, 3-52, 3-53, 3-60, MCWP 3-2, 3-16, 3-22, 3-22.2, 3-23, 3-23.1, 3-23.2, 3-24, 3-25, 3-25.4, 3-26)

M1	Percent	Assigned aviation targets successfully prosecuted.
M2	Percent	Of assigned targets destroyed.
M3	Number	Of assigned targets engaged with firepower.
M4	Time	To plan aviation electronic warfare.
M5	Percent	Of enemy assets disabled by aviation electronic warfare.

MCT 3.2.3.1 Conduct Offensive Air Support (OAS)

Offensive air support (OAS) is conducted against enemy installations, facilities, and personnel to directly assist in the attainment of MEF objectives by the destruction of enemy resources or the isolation of his military force. The firepower, mobility, and flexibility provided by OAS are critical in establishing favorable conditions for deep, close, and rear operations. The principal effects created by OAS are neutralization and destruction. (JP 1, 0-2, 3-0, 3-01, 3-01.1, 3-01.4, 3-01.5, 3-03, 3-05, 3-05.1, 3-05.2, 3-06, 3-07.1, 3-07.2, 3-08, 3-09, 3-09.1, 3-09.3, 3-10.1, 3-18, 3-30, 3-31, 3-40, 3-51, 3-52, 3-53, 3-60, MCWP 3-23, 3-24, 5-11.1, NDP 1, NWP 3-01.10, 3-01.12, 3-22.5 Series, 3-56, Navy-wide Air Warfare Plan)

M1	Percent	Of assigned targets destroyed.
M2	Number	Of assigned targets engaged with firepower.
M3	Percent	Of enemy operations delayed or canceled due to Air War actions.
M4	Number	Of enemy units capable of carrying out mission at end of engagement.
M5	Percent	Of enemy targeted weapons launch an attack after engagement.
M6	Percent	Radar coverage of surveillance area.

MCT 3.2.3.1.1 Conduct Close Air Support (CAS)

To employ aircraft in support of land operations by attacking hostile targets close to friendly ground forces. It includes preplanned and immediate close air support (CAS) missions, positive identification of friendly forces and positive control of aircraft, and enhances ground force

operations by delivering a wide range of weapons and massed firepower at decisive points. (JP 1, 0-2, 3-0, 3-09.3, 3-30, 3-31, MCWP 3-23, 3-23.1, 3-24, 5-11.1, NDP 1, NWP 3-05, NTTP 3-02.2)

M1	Number	COA denied to enemy due to friendly interdiction.
M2	Number	Friendly branches/sequels formerly closed to joint force (not feasible/acceptable) become feasible/acceptable because of friendly interdiction.
M3	Percent	Of enemy targets engaged.
M4	Percent	Of targets attacked with desired effects.
M5	Y/N	Collateral damage does not exceed limits defined by ROE.
M6	Percent	Of friendly forces covered by CAS.
M7	Time	Response time of selected target attack systems.
M8	Number/Percent	Incidents of fratricide.

MCT 3.2.3.1.2 Conduct Deep Air Support (DAS)

To conduct air action against enemy targets at such a distance from friendly forces that detailed integration of each mission with fire and movement of friendly forces is not required. Deep air support (DAS) missions are flown on either side of the fire support coordination line; the lack of a requirement for close coordination with the fire and movement of friendly forces is the qualifying factor. These military actions are designed to isolate, shape, and dominate the battlespace and influence future operations. A MARFOR commander and staff, to include the Deep Ops Cell, will conduct deep targeting to support shaping actions and concept of operations. (JP 1, 0-2, 2-01.1, 2-01.3, 3-0, 3-03, 3-05, 3-05.1, 3-05.2, 3-07.2, 3-09, 3-30, 3-31, 3-53, 3-60, 5-0, 5-00.1, 5-00.2, MCWP 3-2, 3-23, 3-23.2, 3-24, 5-12C, CJCSM 3122.01/02C/03A (JOPES), NDP 1, 2, NWP 3 Series)

M1	Percent	Of desired results achieved by expected conclusion of a given phase or time line.
M2	Percent	Of selected targets have accurate coordinates available.
M3	Percent	Of targets susceptible to non-lethal kill allocated to non-lethal attack systems.
M4	Time	To identify target as HPT.
M5	Hours	After receipt of Orders to identify HPTs.
M6	Hours	After receipt of Orders to review Prohibited Target (PT) guidance.
M7	Hours	After receipt of Orders to review FSCM guidance.
M8	Hours	Before ATO-cycle begins, JTCB Guidance is passed to targeting agencies (e.g., JFACC).
M9	Hours	For the targeting cycle to be completed.
M10	Number/day	Targets administratively processed during a given phase or time requirement.
M11	Percent	Minimum of intercepts CID prior to engagement.
M12	Percent	Of CAP entry into the MEZ/JEZ positively controlled by E-2 or ACU designated as a shooter in the zone.
M13	Incidents	Of Blue-on-Blue engagements.
M14	Incidents	Of Blue-on-White engagements.
M15	Minutes	Blue Print procedures initiated by ADC for unknown or suspect tracks in the CIEA.

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MCT 3.2.3.1.2.1 Conduct Air Interdiction Operations

Conduct air operations as part of the JFC's campaign of MARFOR major operation to destroy, neutralize, or delay the enemy's military potential. (JP 1, 0-2, 3-0, 3-03, 3-09, 3-30, 3-31, MCWP 3-2, NDP 1, NWP 3 Series)

M1	Number	COA denied to enemy due to friendly interdiction.
M2	Percent	Of enemy forces or materials diverted, disrupted, delayed or destroyed before effectively used against friendly organizations.
M3	Percent	Of enemy LOC capacity, required for offensive operations, disrupted or destroyed.
M4	Percent	Of enemy logistics flow, required for operational forces, disrupted or destroyed.
M5	Percent	Of enemy operational forces diverted, disrupted, delayed or destroyed by joint force interdiction before they enter the JOA/theater of operations.
M6	Number	Friendly branches/sequels formerly closed to joint force (not feasible/acceptable) become feasible/acceptable because of friendly interdiction.
M7	Percent	Of enemy targets engaged.
M8	Percent	Of targets attacked with desired effects.
M9	Y/N	Collateral damage does not exceed limits defined by ROE.
M10	Percent	Of attacking systems penetrate to target to deliver ordnance.
M11	Percent	Of friendly COAs altered or discarded due to offensive enemy action.
M12	Minutes	After target identification to complete attack.
M13	Percent	Of missions, with given times on target, make those TOTs.

MCT 3.2.3.1.2.2 Conduct Armed Reconnaissance

To conduct a mission that finds and attacks targets of opportunity (i.e., enemy materiel, personnel, facilities) in assigned areas. An armed reconnaissance operation is a response to targets that are not known or briefed in advance. (JP 1, 0-2, 3-0, 3-09, 3-30, 3-31, MCWP 3-2, 3-25.10)

M1	Time	To identify target and coordinate effective fires.
M2	Percent	Of HVT targets identified receiving immediate fires.

MCT 3.2.3.2 Conduct Anti-air Warfare (Offensive Anti-air Warfare (OAAW))

To conduct actions required to destroy or reduce to an acceptable level the enemy air and missile threat. To perform and synchronize attacks on enemy offensive air capabilities throughout the depth of the operational area. This task seeks to gain control of the air and then allow friendly forces to exploit this control. (JP 1, 0-2, 3-0, 3-01, 3-01.4, 3-09, 3-30, 3-31, MCWP 3-2, 3-22, 3-22.2, 3-25.4, NDP 1, NWP 3 Series)

M1	Percent	Of preplanned targets successfully attacked during operation.	
M2	Percent	Of enemy forces destroyed, delayed, disrupted, or degraded.	
M3	Percent	Of attacking systems penetrate to target to deliver ordnance.	
M4	Percent	Of friendly COAs altered or discarded due to offensive enemy action.	
M5	Time	To complete all phases of attack.	
M6	Percent	Of missions, with given times on target, make those TOTs.	
M7	Percent	Air threats engaged prior to Weapons Release Line (WRL).	

MCT 3.2.3.2.1 Conduct Suppression of Enemy Air Defenses (SEAD)

To coordinate, integrate, and synchronize attacks, which neutralize, destroy, or temporarily degrades surface or subsurface-based enemy air defenses by destructive and/or disruptive means. (JP 1, 0-2, 3-0, 3-01, 3-01.4, 3-09, 3-30, 3-31, MCWP 3-2, 3-22, 3-22.2, 3-25.4, NDP 1, NWP 3-56.1 NTTP 3-03 Series, 3-13.1)

M1	Percent	Of enemy air defenses destroyed.
M2	Percent	Of enemy air defense capabilities neutralized by non-lethal means.
M3	Percent	Of friendly air losses due to enemy air defenses.
M4	Percent	Of friendly air sorties attacked by enemy air defense.
M5	Percent	Of enemy air defenses require re-attack.
M6	P(h)	Probability of a hit.
M7	P(k)	Probability of kill given a hit.
M8	Time	To complete all phases of attack.
M9	Time	Persistence of degraded effect on enemy.
M10	Percent	Of missions, with given times on target, which make those TOTs.

MCT 3.2.3.2.2 Conduct Offensive Counterair (OCA)

To conduct offensive counterair (OCA) operations that destroys, disrupts, or limits enemy air power as close to its source as possible. (JP 1, 0-2, 3-0, 3-01, 3-09, 3-30, 3-31, MCWP 3-2, 3-22, 3-22.2, 3-25.4)

M1	Time	To eliminate enemy air threat.
M2	Percent	Enemy air assets destroyed.
M3	Percent	Enemy air power disrupted by OCA.
M4	TBD	

MCT 3.2.4 Conduct Ground Delivered Fires

To conduct ground delivered fires that directly support land, maritime, amphibious, and special operations forces to engage enemy forces, combat formations, and facilities in pursuit of tactical and operational objectives. The ground combat element (GCE) plans, integrates, and coordinates all fire support for its own artillery and mortar fires within its area of operations, and integrates fires with maneuver in close operations. Surface-to-surface joint fire support includes organic Army and Marine Corps artillery, rocket, missile, and naval surface fire support (NSFS) systems. NSFS includes the enhanced capabilities of Navy fire support ships, to include the addition of missiles. (JP 1, 0-2, 2-0, 2-01, 2-01.1, 2-01.3, 2-03, 3-0, 3-01, 3-02, 3-05, 3-05.1, 3-05.2, 3-06, 3-07.1, 3-07.2, 3-08, 3-09, 3-10, 3-10.1, 3-18, 3-30, 3-31, 3-40, 3-53, 3-60, 5-0, 5-00.1, 5-00.2, MCWP 3-16, CJCSM 3122.01/02C/03A (JOPES))

M1	Percent	Of targets attacked with desired effects.
M2	Percent	Of operational maneuver delayed, disrupted or modified due to lack of operational fires.
M3	TBD	

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MCT 3.2.4.1 Conduct Direct Fires

To take the enemy under fire using lethal and non-lethal gunfire delivered on a target, using the target itself as a point of aim for either the gun or the gunner. Examples include small arms, tanks, antitank weapons, automatic weapons, and directed energy weapons. Attack helicopter fires are included here. This task includes use of direct fire with maneuver; direct fire is inherently connected to maneuver. Positioning of direct fire under firepower does not change that close relationship with maneuver. (JP 1, 0-2, 3-0, 3-01, 3-02, 3-05, 3-05.1, 3-05.2, 3-06, 3-07.1, 3-07.2, 3-08, 3-09, 3-10, 3-10.1, 3-18, 3-30, 3-30, 3-31, 3-40, 3-53, 3-60, MCDP 1-0, MCWP 3-11.1, 3-12, 3-15.1, 3-15.4, 3-16, FMFM 3-18, NDP 1, 6, NTTP 3-02.2)

M1	Percent	Of targets attacked with desired effects.
M2	Percent	Of operational maneuver delayed, disrupted or modified due to lack of operational fires.
M3	Number	Of friendly branches/sequels formerly closed to joint force (not feasible/acceptable) become feasible/acceptable due to friendly operational fires.
M4	Number	Incidents of fratricide while attacking targets in support of operational maneuver.

MCT 3.2.4.2 Conduct Indirect Fires

To apply indirect fire ground-based weapon systems to delay, disrupt, destroy, suppress, or neutralize enemy, equipment (including aircraft on the ground), materiel, personnel, fortifications, and facilities. (JP 1, 0-2, 3-0, 3-01, 3-02, 3-05, 3-05.1, 3-05.2, 3-06, 3-07.1, 3-07.2, 3-08, 3-09, 3-10, 3-10.1, 3-18, 3-30, 3-30, 3-31, 3-40, 3-53, 3-60, MCWP 3-16, FMFM 3-18, NDP 1, 6, NTTP 3-02.2)

M1	Percent	Of targets attacked with desired effects.
M2	Percent	Of operational maneuver delayed, disrupted or modified due to lack of operational fires.
M3	Number	Of friendly branches/sequels formerly closed to joint force (not feasible/acceptable) become feasible/acceptable due to friendly operational fires.
M4	Number	Incidents of fratricide while attacking targets in support of operational maneuver.

MCT 3.2.4.2.1 Attack Deep Targets

MEF coordinates and conducts attack of deep targets using direct air support, armed reconnaissance in their interdiction role, maneuver, surface fires, and SOF. To conduct operations to destroy, neutralize, or delay the enemy's military potential. Actions are conducted at such distance from friendly forces that detailed integration of each mission with the fire and movement of friendly forces is not required. (JP 1, 0-2, 3-0, 3-01, 3-02, 3-05, 3-05.1, 3-05.2, 3-06, 3-07.1, 3-07.2, 3-08, 3-09, 3-10, 3-10.1, 3-18, 3-30, 3-31, 3-40, 3-53, 3-60, MCWP 3-2, 3-16, 3-22, 3-22.2, 3-23.2, 3-25.3, 3-25.4, NDP 1, NWP 3 Series)

M1	Number	COA denied to enemy due to friendly interdiction.
M2	Percent	Of enemy forces or materials diverted, disrupted, delayed or destroyed before effectively used against friendly organizations.
M3	Percent	Of enemy LOC capacity, required for offensive operations, disrupted or destroyed.
M4	Percent	Of enemy logistics flow, required for operational forces, disrupted or destroyed.

M5	Percent	Of enemy operational forces diverted, disrupted, delayed or destroyed by joint force interdiction before they enter the JOA/theater of operations.
M6	Number	Friendly branches/sequels formerly closed to joint force (not feasible/acceptable) become feasible/acceptable because of friendly interdiction.
M7	Percent	Of enemy targets engaged.
M8	Percent	Of targets attacked with desired effects.
M9	Y/N	Collateral damage does not exceed limits defined by ROE.
M10	Percent	Of attacking systems penetrate to target to deliver ordnance.
M11	Percent	Of friendly COAs altered or discarded due to offensive enemy action.
M12	Minutes	After target identification to complete attack.
M13	Percent	Of missions, with given times on target, make those TOTs.

MCT 3.2.4.3 Conduct Counterfire Operations

Counterfire is intended to destroy or neutralize enemy weapons and includes counterbattery, counterbombardment, and countermortar fire. In Joint Air Attack Team (JAAT) operations, counterfire missions employ the same request, planning, coordination, control, and execution procedures used to support ground operations. (JP 1, 0-2, 3-0, 3-01, 3-02, 3-05, 3-05.1, 3-05.2, 3-06, 3-07.1, 3-07.2, 3-08, 3-09, 3-10, 3-10.1, 3-18, 3-30, 3-31, 3-40, 3-53, 3-60, MCWP 3-16, 3-43.3)

M1	Minutes	After target identification to complete attack.	
M2	Percent	Of targets attacked with desired effects.	
M3	Percent	Radar coverage of surveillance area.	
M4	TBD		

MCT 3.2.4.4 Provide Illumination/Smoke

To provide smoke or obscurants to conceal friendly positions and to screen maneuvering forces from enemy observation. To provide illumination fires to detect enemy forces or to support offensive actions. Tasks include obscuring/screening immediate area and/or wide area. (JP 1, 0-2, 3-0, 3-01, 3-02, 3-05, 3-05.1, 3-05.2, 3-06, 3-07.1, 3-07.2, 3-08, 3-09, 3-10, 3-10.1, 3-18, 3-30, 3-31, 3-40, 3-53, 3-60, MCWP 3-2, 3-16, 3-22, 3-22.2, 3-23.2, 3-25.3, 3-25.4, NWP 3-05, NTTP 3-02.2, 3-13.1)

M1	Percent	Of targets correctly identified and illuminated.
M2	Percent	Of targets properly illuminated during smart weapon's time of flight.

MCT 3.2.4.5 Conduct Survey Operations

To conduct survey and meteorology (met) analysis to determine and mark locations for occupation by firing units, which are necessary for accurate artillery fires. Artillery regiments and battalions maintain survey capabilities. The regiment HQ battery has a met section that provides electronic and visual met data to support artillery operations. (MCWP 3-16.7)

M1	Time	Tentative survey order is prepared within 30 minutes after receiving the
		commander's guidance regarding survey requirements.
M2	Accuracy	Survey is established to an accuracy of 1:1,000 or greater on the grid of the battalion SCP.
M3	Accuracy	Height is established to +/- 2.0 meters.
M4	Accuracy	Direction is established to +/- 0.1 mils times the number of main scheme angles.
M5	TBD	

MCT 3.2.5 Control Supporting Arms

Fire support coordination is a continuous process of evaluating fire support needs or missions, analyzing the situation, and planning and orchestrating the implementation of the fire support plan while in a continually changing environment. The process enables the commander to use his available firepower to influence the action while ensuring the safety of his troops. The fire support coordination center (FSCC) is a single location in which are centralized communications facilities and personnel incident to the coordination of all forms of fire support. Facilities, equipment, and material are provided by the headquarters to which the FSCC belongs. Supporting arms units provide representatives and equipment necessary for conducting coordination targeting, and communications functions for their respective arms. (MCWP 3-11.4, 3-23, 3-25.3, 3-25.5, 3-31.1, 3-43.3)

M1	Number	Of assets available	_
M2	Percent	Of targets attacked with desired effects.	
M3	Time	Required to ready assets for fire support.	
M4	TBD		

MCT 3.2.5.1 Control Ground Surface Fires

To control ground surface fires with the intent to degrade the ability of enemy forces to conduct coordinated operations and/or perform critical tasks. The political nature and need to maintain legitimacy makes careful mission analysis and precise use of lethal ground surface fires essential. Lethal fires are to be used only when necessary to protect the force and require precise planning, control and delivery to prevent unwanted collateral damage and avoid possible public affairs repercussions. Collateral damage can have an adverse impact on a fragile civilian infrastructure and in maintaining the support of the local population. The force must ensure it coordinates its ground fire support coordinating measures with its analysis of the rules of engagement. This task includes all efforts taken to control the battlespace by commanders, strikes against High Payoff and High Value Targets such as C4I facilities/nodes and ammunition storage facilities throughout the theater, and efforts undertaken to undermine the enemy's will to fight, including interdiction efforts. This function includes all airborne platforms performing this task. (MCDP 1-0, MCWP 3-11.4, 3-16, 3-23, 3-25.3, 3-25.5, NTA 3.2.2)

M1	Percent	Of attacking systems penetrate to target to deliver ordnance.	
M2	Minutes	After target identification to complete attack.	
M3	Percent	Of enemy forces destroyed, delayed, disrupted, or degraded.	
M4	Number	Of enemy surrender each day.	
M5	Percent	Of preplanned targets successfully attacked during operation.	
M6	P(h)	Probability of a hit.	

M7	P(k)	Probability of kill given a hit.
M8	Percent	Of total target list successfully engaged.
M9	Time	After strike of previous round to provide adjustment data.
M10	P(h)	Probability of hit given ability to illuminate target.
M11	Time	To complete all phases of attack.
M12	Percent	Of missions, with given times on target, make those TOTs.
M13	Number	Of weapons required to destroy/disable target.
M14	Minutes	Required to develop accurate plot and issue firing orders.
M15	Percent	Accuracy of plotting procedures.
M16	Percent	Of scheduled missiles launched.
M17	Units	Of scheduled missiles launched.
M18	Hours	Between request for and ordnance on target for an immediate mission.
M19	Units	Number of missiles transferred to re-load pool.
M20	Units	Number of missiles remaining in re-load pool.
M21	Units	Missiles failed to launch.
M22	Percent	Of bombs dropped first pass.
M23	Percent	Of bombs scheduled to launch.
M24	Instances	Of focused-strike targets acquired by radar.
M25	Percent	Of focused-strike targets acquired by FLIR.
M26	Percent	Of first run focused-strike "no drop" (mechanical).
M27	Instances	Of first run focused-strike "no drop" (mechanical).
M28	Percent	Of first run focused-strike "no drop" (switchology).
M29	Instances	Of first run focused-strike "no drop" (switchology).

MCT 3.2.5.2 Control Close Air Support

To control close air defense support operations by both fixed- and rotary-wing aircraft conducted against enemy air or air defense systems before they can launch or assume an attacking role. Air defense support can be broken down into two categories: active air defense or passive air defense. Active air defense is direct defense action taken to destroy attacking enemy aircraft or missiles or to nullify or reduce the effectiveness of such an attack. Measures include use of aircraft, interceptor missiles, air defense artillery, non-air defense weapons in an air defense role, and electronic countermeasures. Passive air defense constitutes all measures, other than active, taken to minimize the effects of hostile air action. These measures include the use of cover, concealment, camouflage, deception, dispersion, and protective construction. This function includes all airborne platforms performing this task. (JP 3-09.3, MAWTS 1, MCWP 3-11.4, 3-23, 3-23.1, 3-24, NTA 3.2.8)

M1	Number	Of COAs denied to enemy due to friendly interdiction.
M2	Number	Friendly branches/sequels formerly closed to joint force (not feasible/acceptable) become feasible/acceptable because of friendly interdiction.
M3	Percent	Of enemy targets engaged.
M4	Percent	Of targets attacked with desired effects.
M5	Y/N	Collateral damage does not exceed limits defined by ROE?
M6	Percent	Of friendly forces covered by fire support.
M7	Time	Response time of selected target attack systems.
M8	Number/Percent	Incidents of fratricide.



MCT 3.2.5.3 Control Naval Surface Fire Support (NSFS)

To control and organize fire support assets providing support for operations. This includes the assignment of direct and general support missions to NSFS; direct support, general support, and general support reinforcing missions to artillery. This task also provides air apportionment and allocation functions. This function includes all airborne platforms performing this task. (MCWP 3-16, NTA 3.2.8.1)

MI	Number	Of assets available.
M2	Time	Required to ready assets for fire support.
M3	Percent	Of available asset prepared.
M4	Number/Percent	Asset shortfall.

MCT 3.2.6 Conduct Non-lethal Fires

To employ means designed to impair the performance of enemy personnel and equipment. This task includes employing incapacitating agents, deceptive maneuvers, battlefield psychological activities, electronic attack against enemy systems (jamming and weapons using electromagnetic or directed energy), and countering target acquisition systems. Conduct non-lethal attack against personnel, equipment, and installations to neutralize or degrade their combat capability or contribution. (JP 1, 3-0, 3-02, 3-05, 3-11, 3-13, 3-51, 3-53, 3-58, NDP 1, NWP 3-05, NTTP 3-13.1)

M1	Percent	Of targets attacked with desired effects.
M2	Percent	Of operational maneuver delayed, disrupted, canceled, or modified due to lack of operational fires.
M3	Number	Friendly branches/sequels formerly closed to JF (not feasible or acceptable) become feasible or acceptable due to friendly Non-lethal Engagements.
M4	Percent	Of enemy performance degradation, due to non-lethal attack.
M5	Time	Persistence of degraded effect on enemy.
M6	Time	To achieve desired impact on enemy personal or equipment.

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Logistics

MCT 4 PERFORM LOGISTICS AND COMBAT SERVICE SUPPORT

To sustain forces in the combat zone by arming, fueling, fixing equipment, moving, supplying, manning, maintaining visibility over, and by providing personnel and health services. Includes logistic support, as necessary, to U.S. agencies and friendly nations or groups. (JP 1-05, 3-0, 3-01.1, 3-07.1, 3-08, 3-09, 4-0, 4-01, 4-01.4, 4-01.7, 4-02, 4-03, MCWP 4-1, 4-11, NDP 1, NWP 4-01, 4-08, NAVSUP PUB Series, NAVSUP P485)

M1	Days	Of supply in theater.	
M2	Tons	Of backlogged support requirements.	_
M3	Number	Of backlogged support items.	
M4	Percent	Of required logistics in place to support campaign.	
M5	Days	From request until items are received in theater.	

MCT 4.1 Conduct Supply Operations

The combat supply support element (CSSE) commander's primary concern is providing the MAGTF commander with initial supplies when deployed and resupply when supply requirements change. Supplies consist of ten classes of materials and items used in the equipment, support, and maintenance of, and universal to all, U.S. military forces. The ten classes of supplies are: Class I-Subsistence; Class II-Clothing and Individual Equipment; Class III-Petroleum, Oils, Lubricants (POL); Class IV-Construction Materials; Class V-Ammunition; Class VI-Personal Demand Items; Class VII-Major End Items; Class VIII-Medical/Dental Supplies; Class IX-Repair Parts; and Class X-Non-Military Programs. To plan, coordinate, conduct, and monitor the reception, storage, issue, and resupply of materiel for MEF units. This task includes receipt, storage, inventory control, issuance of end items, repairables, consumable materiel, and management of retrograde efforts. (JP 3-0, 4-0, MCWP 4-1, 4-11, 4-11.7, NDP-4, NWP 4-08, NAVSUP PUB Series)

MI	Days	To begin unloading of ships/aircraft upon arrival in theater.
M2	Days	Late delivery of replenishment stocks.
M3	Days	Of supplies stockpiled to support campaign.
M4	Percent	Of required reception and onward movement support was available at the time and place required.
M5	Days	Of sustainment supply supported by available facilities.
M6	Percent	Of available host-nation support was incorporated into filling replenishment requirements.
M7	Percent	Of the support policies and procedures were completed using the JOPES planning process.
M8	Constraints	Have been identified for supply.
M9	Shortfalls	Have been identified for supply.
M10	Percent	Of Constraints/Shortfalls in supply have alternatives.
M11	Percent	Of OPLANs address time-phased operating and safety levels (of supply).

M12	Tons/Day	Of supplies delivered to operational forces.
M13	Percent	Of planned supplies actually delivered.
M14	Hours	After receipt of the Warning Order concept of replenishment requirements developed.

MCT 4.1.1 Conduct Aviation Supply Operations

The aviation combat element (ACE) has unique requirements and a different supply network. The ACE receives certain supplies from the Aviation Supply Department (ASD), which provides support and executes all functions dealing with the inventory, storage, and management of Navy-provided supply and materiel, and other supplies from the Marine Corps Supply System (MCSS). The logistic support for the ACE are the Marine Aviation Logistics Squadron (MALS) and the Marine Wing Support Squadron (MWSS). The MALS provides aviation logistics support for the Marine Aviation Group (MAG) and below. To conduct, plan, coordinate, monitor, and assess aviation logistics and supply support operations. This task includes identification of requirements (fuels, ordnance, repair parts, support equipment, IMA asset, etc.), logistics sourcing and coordination with Navy, other services, HNS (Host Nation Support), and ashore and afloat aviation repair facilities. The establishment, operation, and maintenance of aviation logistics information systems should be a priority task. (MCWP 3-21.2, 4-1, 4-11.7)

M1	Percent	Of required reception and onward movement support was available at the time and place required.
M2	Days	Of sustainment supply supported by available facilities.
M3	Percent	Of available Host Nation Support was incorporated into filling replenishment requirements.
M4	Percent	Of the support policies and procedures were completed using the JOPES planning process.
M5	Constraints	Have been identified for supply.
M6	Shortfalls	Have been identified for supply.

MCT 4.1.1.1 Manage Aviation Supply Response

The supply response division of the Aviation Supply Department (ASD) is responsible for the initial screening and technical research of all requisitions assigned by the Naval Aviation Logistics Command Management Information System (NALCOMIS). The supply response division will refer consumable requisitions that cannot be filled from supply officer stores to the appropriate supply point of entry. The supply response division is also responsible for the reconciliation and monitoring of all outstanding direct turn-over (DTO) requisitions except for custodial, pre-expended bins and service market items. (MCWP 3-21.2)

M1	Percent	Consumable requisitions successfully referred.
M2	Number	Initial screenings conducted.
M3	TBD	

MCT 4.1.1.2 Conduct Consumables Management (Aviation Supply)

The consumables management division of the ASD is responsible for the procurement, receipt, storage, issue, delivery, and inventory of all consumable material and consists of five branches: receiving, delivery, storage, control and pre-extended replenishment. Consumable management is directed toward providing and maintaining levels of consumables required to sustain the planned levels of combat activity for the estimated duration and at the desired level of intensity to achieve military objectives. It is the responsibility of the combatant commanders, in close coordination with the Services and Defense agencies, to conduct consumables management in force sustainability operations. (JP 1-0, 4-0, 5-0, MCWP 3-21.2)

M1	Percent	Ordered consumables received on time.
M2	Percent	Ordered consumables issued on time.
M3	TBD	

MCT 4.1.1.3 Conduct Repairables Management

To conduct maintenance checks and services to quickly identify potential problems and repairability of equipment. Preventive maintenance management provides quick turnaround repairs by component replacement, minor repairs, performance of scheduled services, and calibration. For aviation, the repairables management division of the ASD is responsible for repairables allowance management, procurement, receipt, storage, issue, delivery and inventory of all repairable materiel. (JP 4-0, MCWP 3-21.2, 4-1, 4-11, NDP 4, NWP 4-07, 3M MANUAL, OPNAVINST 4790.4, NSTM 001)

M1	Percent	Equipment out of service for maintenance or repair.	
M2	Percent	Operational ready of equipment.	
M3	Percent	Of TPFDD maintenance units deployed and operational.	
M4	Percent	Of equipment deadlined for supply.	
M5	Percent	Zero balance APL lines.	
M6	Days	Average combat equipment down time.	
M7	Days	Turnaround time for repair of priority combat equipment.	
M8	Hours	To obtain replacement parts, once they are identified.	

MCT 4.1.1.4 Conduct Aviation Supply Accounting

The supply accounting division of the ASD is responsible for all tasks related to maintaining and reporting the financial accounts granted to the ASD. The supply account division consists of two branches: 1) the end use branch which maintains and reports all end use accounts allocated to the ASD, and is divided by operating target (OPTAR) funding; and, 2) the stock fund branch which reports transactions affecting the Navy Working Capital Fund (NWCF) special accounting class (SAC) 207 inventory and verifies the financial processing of all transactions processed by the MALS. (MCWP 3-21.2)

M1	Percent	ASD financial accounts correct.
M2	Number	Thousands of dollars in error.
M3	TBD	

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MCT 4.1.1.5 Conduct Squadron Support

The squadron support division of the ASD is responsible for receiving, processing, and monitoring all requirements for aeronautical-related custodial materiel and maintaining custody records for all organizational allowances. It consists of two branches: 1) the Customer Assistance Branch, which maintains all requirements for aeronautical-related custodial material; and, 2) the Custody Records Branch, which maintains the custody record calls for all organizational allowance material, and maintenance assist modules/test bench installations, and formulates the quarterly and annual budgets and the mid-year budget review for all custodial materiel. (MCWP 3-21.2)

M1	Number	Custodial assets monitored.
M2	Percent	Customer assistance requests satisfied.
M3	TBD	

MCT 4.1.1.6 Conduct Supply Management

To provide all required supplies when and where the user needs them. To include requesting, procuring, receiving, storing and issuing supplies. (JP 3-0, 4-0, 4-01, MCWP 4-1, 4-11, NDP 4, NWP 4-01 Series, 4-08, 4-09, NAVSUP P484, P485, NTA 4.6.2)

M1	Days	To begin the unloading of ships upon arrival in theater.
M2	Days	Late delivery of replenishment stocks.
M3	Days	Of supplies stockpiled to support campaign.
M4	Percent	Of required reception and onward movement support was available at the time and place required.
M5	Days	Of sustainment supply supported by available facilities.
M6	Percent	Of available Host Nation Support was incorporated into filling replenishment requirements.
M7	Percent	Of the support policies and procedures were completed using the JOPES planning process.
M8	Constraints	Have been identified for supply.
M9	Shortfalls	Have been identified for supply.
M10	Percent	Of Constraints/Shortfalls in supply have alternatives.
M11	Percent	Of OPLANs address time-phased operating and safety levels of supply.
M12	Tons/Day	Of supplies delivered to operational forces.
M13	Percent	Of planned supplies actually delivered.
M14	Hours	After receipt of the Warning Order, to develop concept of replenishment requirements developed.
M15	Percent	Of critical replenishment stocks experienced late delivery.

MCT 4.1.1.7 Conduct Aviation Ordnance Support

The aviation ordnance division of the ASD provides the MALS with logistical and management support of Class V(A) ordnance, aircraft armament equipment (AAE), and armament weapons support equipment (AWSE), by interpreting and implementing policies and procedures for the MAG. The aviation ordnance staff support tasks include: the management and distribution of

authorized noncombat expenditure allocation (NCEA); assisting the MAG in developing testing and training requirements; ensures storage requirements for prepositioned war reserve materiel requirements assets are identified, including buildup and delivery of class V(A) ammunition stock points, advanced bases, and forward arming and refueling points; and manages the MAG's ordnance safety program. (MCWP 3-21.2)

M1	Percent	Storage requirements for prepositioned war reserve identified.
M2	Time	Required for buildup and delivery of class V(A) ammunition stock points.
M3	TBD	

MCT 4.1.2 Conduct Ground Supply Operations

To conduct ground supply operations to support the MAGTF. Supply is separated into ten classes based on physical characteristic or purpose, and requires the longest forward planning and most detailed planning data system to sustain the MAGTF's throughput requirements and includes six functions: requirements determination (routine, preplanned, or long range), procurement, storage, distribution, salvage, and disposal. To coordinate the transportation of supplies from vessels in stream to the shore when other means are unavailable (i.e., lack of port facilities). To construct, maintain, and operate Logistics Over-The-Shore (LOTS) and Joint LOTS facilities to provide for movement of equipment, personnel, and supplies from amphibious and follow-on echelon shipping in the absence of established port facilities. This task is accomplished through the erection of elevated causeway sections, lighterage for ship-to-shore transport, and the emplacement of Amphibious Assault Bulk Fuel Systems (AABFS) and Offshore Petroleum Distribution Systems (OPDS). (JP 1, 4-0, 4-01.6, MCWP 4-1, 4-11.7, NDP 1, 4, NWP 3-02.21, 4-01 Series, NTTP 3-02.3)

M1	Tons	Of supplies offloaded per day.
M2	Percent	Of authorized equipment and supplies available to conduct offload.
M3	Percent	Of supplies lost or destroyed during offload.
M4	Hours	Lost for maintenance.
M5	Percent	Capacity lost for maintenance.

MCT 4.1.2.1 Determine Requirements

To determine the supply requirements needed for those commodities essential to begin and sustain combat operations and that balance the MAGTF deployment, employment, and support, to maximize the overall effectiveness of the force. Marine Corps operational logistics tasks orients on force closure, sustainment, reconstitution and redeployment of Marine forces in theater. (MCWP 4-1, 4-11.7)

M1	Time	To provide effective planning and management of operational efforts.
M2	Days	To establish intermediate and forward support bases.
M3	Percent	To support employment of geoprepositioned and maritime prepositioned assets.

M4	Hours	To support arrival and assembly of forces in theater, and their reception, staging, onward movement and integration.
M5	Time	To coordinate logistic support with joint, other-Service, and host nation agencies.
M6	Days	To reconstitute and redeploy MAGTFs and maritime prepositioning forces (MPFs) for follow-on missions.

MCT 4.1.2.2 Conduct Procurement

To conduct procurement operations of those supplies and items of equipment a commander determines is needed to begin and sustain operations. The Marine Corps is given special funds for the purchase of Class VII (major end items), or are given the items as initial issue. Acquisition of repair parts and maintenance supplies required for these items will be the responsibility of the Marine Corps. Secondary items are purchased through stock funds (operating budget funds). Supply will procure these items through the General Services Administration (GSA), Defense Logistics Agency (DLA), or from civilian manufacturers and contractors for the Marine Corps. These items are then stored in warehouses for eventual purchase by using units. (MCWP 4-11.7)

M1	Number	Constraints identified for supply.
M2	Number	Shortfalls identified for supply.
M3	Time	Procurement to receipt.
M4	TBD	

MCT 4.1.2.3 Provide Storage

To provide storage operations, or safekeeping of supplies and equipment, in a ready-for-issue condition in support of MAGTF warfighting capabilities. The storage function includes the process of receipting for supplies and equipment from a source, and the responsibility for maintaining accurate inventory controls. Packaged food supplies, clothing, construction materials, major end items and repair parts basically require simple shelter and security. Perishable food supplies require refrigeration. Medical supplies are stored at the FSSG's medical logistics, and have specific requirements. Class III and Class V ammunition supplies have special or unique storage requirements due to hazard potential. (MCWP 4-1, 4-11.7)

M1	Yes/No	Items identified items that need storing?	
M2	Percent	Of total food supplies stored in theater.	
M3	Percent	Of medical supplies stored in theater.	
M4	TBD		

MCT 4.1.2.4 Conduct Distribution Operations

To conduct operations for the MAGTF in the requisition and issue of supplies and equipment to using units or to intermediate supply points for future issue. The distribution process has two steps: to requisition, identifying the user's needs and the priority of the requirement; and, to issue, provide supplies and equipment based on the commander's priorities and availability of the item. (MCWP 4-11.7)

M1	Percent	Supplies issued based on commander's priorities.
M2	Time	To ship Distribution Operations supplies to receiving point.
M3	TBD	

MCT 4.1.2.4.1 Conduct Bulk Liquid Operations

Water and fuel make up the greatest quantities of supply required by the Marine Air Ground Task Force (MAGTF) to conduct modern warfare. Bulk liquid operations includes: forward arming and refueling point (FARP) procedures for aircraft and vehicles at locations near or beyond the forward edge of battle area (FEBA); coordinating the provision of fuel and petroleum products (petroleum, oils, and lubricants) and water to operating forces; monitoring, managing and forecasting fuel and water requirements; distribution of water and petroleum products based on unit requirements and availability; and receiving, storing and distributing fuel in an expeditionary environment using hose line and bladder systems augmented by available trucks, railways and pipelines. To provide fuel and petroleum products (petroleum, oils and lubricants) to aircraft, weapon systems and other equipment. (JP 4-0, 4-01, 4-03, MCWP 4-1, 4-11, 4-11.6, NDP 1, 4, NWP 3-02, 3-56.1, 4-01, 4-01.4, 4-04.1, 4-08 Series, NAVSUP PUB Series, NTA 4.2)

Hours After receipt of Warning Order for staff to develop a replenishment concept. M1 M2 Of daily Class III provided by host nation. Percent M3 Operational delay due to fuel shortages. Days M4 Percent Of attempted fuel deliveries destroyed by enemy action. M5 Gallons Per Day Of required fuel delivered to theater. M6 Percent Of required fuel delivered to theater. Supply of required fuel in place to support campaign. M7 Days M8 Percent Of required lift available. Of TPFDD units deployed and operative. M9 Percent M10 Gallons Lost to spills. M11 Percent Lost to spills. M12 Time Lost on station. M13 Percent Of needed fuel quantity correctly identified. M14 Percent Of fuel available versus requirements. M15 Percent Of needed fuel transferred. M16 Gallons Lost to enemy action. M17 Gallons Per Day Of required fuel provided at FARP. M18 Time Time off station. M19 Percent Of maximum capacity experienced. M20 Gallons Per Day Of required fuel provided by EFS. M21 Percent Of fuel available versus CVBG requirements.

MCT 4.1.2.5 Conduct Salvage Operations

To obtain damaged, discarded, condemned, or abandoned allied or enemy material both ashore and at sea. Includes monitoring and management of recovered material from initial identification to ultimate disposal, disposition or repair. The salvage process encompasses the recovery, evacuation, receipt processing, storage, reclamation, and reissue of material, to include captured

material. Salvage is property that has some value beyond that of its basic material content, is not economically repairable, and can no longer be used for its intended purpose. Salvage collection points are established points which receive salvage items, usually from the disposal collection points, for reissue. (MCWP 4-11.7, NTA 4.13)

M1	Days	To complete recovery of objects on board.
M2	Days	To return objects to port or required delivery destination.
M3	Percent	Of equipment operational ready.
M4	Percent	Of TPFDD maintenance units deployed and operational.
M5	Days	Equipment down time (average).
M6	Days	Turnaround time for repair of priority equipment.
M7	Number	Qualified salvage divers available.
M8	Days	From Warning Order to arrival on station.
M9	Percent	Of material identified.
M10	Percent	Of material recovered.
M11	Percent	Of material disposed.
M12	Percent	Of material repaired.

MCT 4.1.2.6 Conduct Disposal

To conduct the disposal process, or eliminating excess, obsolete, or unserviceable property. Disposal may include transfer, donation, sale, or abandonment. It does not include redistribution or reissue. Consumable supplies are disposed of by the local using unit. When a unit is deployed, controlled, serialized and major end items must be sent to salvage collection points for disposal. In an exercise or contingency environment, vehicles used to bring in supplies can be used to send disposal items to the rear. Items such as clothing and canvas can be reclaimed by laundering and renovation. More durable items have scrap metal value, and certain items may contain radioactive and/or other controlled substances which just be forwarded through salvage channels to a property disposal unit. (MCWP 4-11.7)

M1	Percent	Total property disposed.	
M2	Percent	Disposed property classified as obsolete.	
M3	Percent	Disposed property classified as excess.	
M4	Percent	Disposed property classified as unserviceable.	
M5	TBD		

MCT 4.2 Conduct Maintenance Operations

To repair, maintain and modify weapon systems and equipment (e.g., communications and electronics, wheeled/tracked vehicles, aircraft, weapons and guidance systems, missile support systems, and medical equipment), to ensure continued support to forces operating ashore during the repair process; and to ensure coordination of the internal task force repair, maintenance, and modification assets. This task includes the provision of repair parts and end items at the right place and time and all the actions taken before, during, and after battle to keep equipment operational. (JP 4-0, NDP 4, NWP 4-07, MCWP 4-1, 4-11, 4-11.4, 3M MANUAL, OPNAVINST 4790.2, 4790.4, NSTM 001)

M1	Hours	After receipt of WO, command staff has developed concept and policies for equipment repair, maintenance and evacuation, and establishment of rear area
		facilities.
M2	Percent	Of the support policies and procedures completed using the JOPES planning process.
M3	Days	Average equipment down time.
M4	Percent	Average equipment down time.
M5	Percent	Of TPFDD maintenance units deployed and operational.
M6	Percent	Of equipment deadlined for maintenance.
M7	Percent	Of equipment deadlined for supply.
M8	Percent	Zero balance APL lines.
M9	Percent	Of equipment failures successfully repaired.
M10	Days	Average equipment down time.
M11	Days	Turnaround time for repair of priority combat equipment.
M12	Percent	Of rear area facilities secure.
M13	Percent	Of available host-nation repair, replenishment and distribution assets integrated
		into meeting the operational requirement.
M14	Hours	To obtain replacement parts, once they are identified.
M15	Percent	Depth of APL lines.
M16	Percent	Of the support policies and procedures completed using JOPES planning process.
M17	Percent	Of equipment operational ready.
M18	Hours	To obtain replacement parts, once they are identified.
M19	Percent	Equipment down time compared to required operational time.
M20	Units	Average FMC aircraft available.
M21	Total	FMC aircraft available.
M22	Percent	FMC aircraft available.
M23	Number	FMC aircraft embarked.

MCT 4.2.1 Conduct Aviation Maintenance Operations

Aviation maintenance is the function of retaining material in, or restoring it to, a serviceable condition. Its phases include servicing, repair, modification, modernization, overhaul, rebuild, test, reclamation, inspection, condition determination, and the initial provisioning of support items. The term has a very general meaning, ranging from a matter of minutes of squadron servicing, to a matter of months of industrial activity rework; the provision of maintenance material itself is within the meaning. Maintenance should be qualified to convey a specific meaning. (OPNAVINST 4790.2J)

M1	Hours	After receipt of Warning Order for staff to develop a replenishment concept.
M2	Days	After required date, replenishment stocks delivered.
M3	Percent	Of minimum safety level of build up stocks maintained at staging areas.
M4	Percent	Of fire missions delayed or not completed due to munitions shortfall.
M5	Percent	Of high priority targets attacked required re-attack because preferred munitions not available.
M6	Percent	Of required reception and onward movement support available.
M7	Days	Of supply supported by available facilities.
M8	Percent	Of units' missions delayed due to shortfall of major equipment items.
M9	Hours	After Warning Order to determine of suitable munitions available within theater.
M10	Percent	Of replenishment stocks delivered prior to required date.

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M11	Time	Off station.
M12	Percent	Of maximum capacity experienced.
M13		To complete the evolution.

MCT 4.2.1.1 Conduct Organic Aircraft Maintenance

To conduct aircraft maintenance which is the responsibility of, and performed by, a using organization on its assigned equipment. Its phases normally consist of inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies. (OPNAVINST 4790.2J)

M1	Percent	Aircraft not mission capable (maintenance).
M2	Percent	Aircraft classified as Special Instructions Tactical (SPINTAC).
M3	Number	Aircraft not mission capable (maintenance).
M4	Number	Aircraft classified as SPINTAC.
M5	TBD	

MCT 4.2.1.2 Conduct Intermediate Maintenance

Maintenance which is the responsibility of, and performed by, designated maintenance activities for direct support of using organizations. Its phases normally consist of calibration, repair or replacement of damaged or unserviceable parts, components, or assemblies; the emergency manufacture of nonavailable parts; and the provision of technical assistance to using organizations. (MCWP 4-11.4, OPNAVINST 4790.2J)

MI	Percent	Aircraft not mission capable (intermediate maintenance).
M2	Percent	Aircraft not mission capable (supply).
M3	Number	Aircraft not mission capable (intermediate maintenance).
M4	Number	Aircraft not mission capable (supply).
M5		

MCT 4.2.1.2.1 Perform Avionics Maintenance

The Avionics Branch is responsible for overall division administrative duties, as well as, I-level maintenance on avionics equipment. Depending on the type of aircraft supported, the avionics maintenance branch may have up to five work centers: communications/navigation, electrical/instrument repair, automatic test equipment, electronic warfare, and radar. (MCWP 3-21.2, OPNAVINST 4790.2J)

M1	Percent	Of aircraft not mission capable (intermediate avionics maintenance).
M2	Number	Of aircraft not mission capable (intermediate avionics maintenance).
M3	TBD	

MCT 4.2.1.2.2 Conduct Support Equipment (SE) Maintenance

To conduct support equipment (SE) maintenance and non-IMRL equipment maintenance required to make an aeronautical system, command and control system, support system, subsystem, or end item of equipment (SE for SE) operational in its intended environment. This includes all equipment required to launch, arrest (except Navy shipboard and shore based launching and arresting equipment), guide, control, direct, inspect, test, adjust, calibrate, gauge,

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measure, assemble, disassemble, handle, transport, safeguard, store, actuate, service, repair, overhaul, maintain, or operate the system, subsystem, end item, or component. (OPNAVINST 4790.2J)

M1	Percent	Of Support Equipment down (maintenance).
M2	Number	Of Support Equipment down (maintenance).
M3	TBD	

MCT 4.2.1.2.3 Manage Cryogenics

Management of cryogenics is conducted by the AVLOG of the MALS maintenance department. As part of I-level maintenance, the mission is to enhance and sustain the combat readiness and mission capability of supported activities by providing quality and timely material support at the nearest location with the lowest practical resource expenditure, and consists of on- and off-equipment material support in the manufacture of selected aeronautical components, liquids, and gases (cryogenics). The maritime prepositioning ship squadron (MPSRON) mobile facility also supports cryogenic operations for FW and/or RW aircraft. (MCWP 3-21.2)

M1	Percent	Of aircraft not mission capable (cryo).
M2	Number	Of aircraft not mission capable (cryo).
M3	TBD	

MCT 4.2.1.2.4 Conduct Aviation Ordnance Support

To conduct aviation ordnance support. The primary responsibility of the AVLOG aviation ordnance branch is managing class V(A) munitions and serving as the principal point of contact for coordinating aviation ordnance matters and policy between the supported MAGs and the functional type commander (TYCOM). The branch also monitors the noncombat expenditure allocation (NCEA) provided to sustain the supported MAGs; manages aircraft armament equipment (AAE); and monitors the Aviation Ordnance Certification/Qualification Program as administered by subordinate commands. (MCWP 3-21.2)

Ml	Percent	Aircraft sorties launched with fully required ammo load.
M2	Number	Class V(A) munitions issue points established.
M3	TBD	

MCT 4.2.1.2.5 Conduct Aviation Maintenance Data Collection and Analysis

The MALS maintenance department coordinates control of aircraft maintenance, data collection and analysis performed by, and in support of, squadrons and units. Under the cognizance of the MAG CO, materiel condition and combat readiness of assigned weapons system and equipment is also conducted by the MALS maintenance department, as well as, maintaining liaison with supported squadron maintenance material control centers and the aviation supply department (ASD), to ensure adequate validation and reconciliation of outstanding requirements is undertaken. (MCWP 3-21.2)

M1	Percent	Outstanding requirements validated.
M2	Number	Oil sample analyses conducted per 25 flight hours.
M3	TBD	

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MCT 4.2.2 Conduct Ground Equipment Maintenance

To conduct ground equipment maintenance operations. Maintenance involves those actions taken to retain or restore materiel to serviceable condition. The purpose and function of equipment maintenance are universally applicable, but the Marine Corps has developed distinct applications for the support of ground-common and aviation-unique equipment. Maintenance includes eight functions: inspection and classification; servicing, adjusting and tuning; testing and calibration; repair; modification; rebuilding and overhaul; reclamation; recovery and evacuation. Maintenance operations also involves three levels: depot, intermediate, and organizational. These levels are applicable to both ground and aviation maintenance. (MCWP 4-1)

M1	Percent	Ground equipment down (maintenance).
M2	Percent	Required ground equipment in theater.
M3	TBD	

MCT 4.2.2.1 Conduct Inspection and Classification

To conduct inspection and classification operations. Inspection and classification are the first and last tasks that a user and maintenance activity perform on equipment. Inspection is checking or testing an item against established standards, and determines maintenance requirements and satisfactory performance. Classification is the assignment of an item to a maintenance category based on established procedures. The assigned classification determines who repairs the item and where the repairs are made. (MCWP 4-11.4)

M1	Number	Equipment inspections conducted.
M2	Number	Equipment classifications conducted.
M3	TBD	

MCT 4.2.2.2 Conduct Service, Adjustment and Tuning

To conduct servicing, adjustment, and tuning tasks. Servicing may include all repairs or maintenance, including adjustment and tuning. Tuning is a process of adjusting equipment to achieve precise functioning, and often refers to engine adjustments. These tasks refer to maintenance performed on operable equipment, including equipment that the maintenance activity has just repaired. (MCWP 4-11.4)

M1	Number	Service/adjustment/tuning tasks performed.
M2	Man-hours	Of service/adjustment/tuning tasks executed per day.
M3	TBD	

MCT 4.2.2.3 Conduct Testing and Calibration

To conduct testing and calibration maintenance of precision instruments. These instruments may be components of larger items, or they may be maintenance test equipment. Testing compares the accuracy of the instrument to an established standard. Calibration is the adjustment of

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precision instruments that have deviated from their standards. Establishment of maintenance shop facilities for calibration and repair of equipment in support of and ensuring force combat readiness is necessary. Maintenance facility layout must be planned providing efficient workflow, safety to personnel, and economic use of repair equipment. (MCWP 4-11.4)

M1	Number	Precision instruments calibrated.
M2	Man-hours	Of calibration tasks executed per day.
M3	TBD	

MCT 4.2.2.4 Conduct Repair

To conduct repair operations on equipment. Repair is the return of an item to serviceable condition through correction of a specific failure or unserviceable condition. The repair cycle starts when the maintenance activity removes an unserviceable part or reparable component. It ends when the maintenance activity reinstalls the replacement part or reparable component, and places the equipment back in service. (MCWP 4-11.4)

M1	Time	Average repair cycle.
M2	Man-hours	Of repair activity conducted per day.
M3	TBD	

MCT 4.2.2.5 Conduct Modification

To conduct modification changes to the design or assembly characteristics of a system, end item, component, assemblies, subassemblies, or parts. A modification's purpose is to improve equipment functioning, maintainability or reliability (usually a normal modification), or its safety characteristics (urgent modifications). Maintenance activities routinely apply normal modifications to upgrade otherwise operable equipment. (MCWP 4-11.4)

M1	Number	Modifications conducted.
M2	Man-hours	Of modification activity conducted per day.
M3	TBD	

MCT 4.2.2.6 Conduct Rebuilding and Overhaul

To conduct rebuilding and overhaul operations on equipment. Rebuilding restores items to like new condition. The rebuilt item's appearance, performance, and capabilities are the same as originally manufactured. Overhauling restores items to a serviceable condition under maintenance serviceability standards. Rebuilding is a depot maintenance function. Overhauling may be either a depot or intermediate maintenance function depending on the item. (MCWP 4-11.4)

M1	Time	Average rebuild cycle.	
M2	Percent	Of maintenance facility devoted to rebuild production lines.	
M3	Man-hours	Of rebuild activity conducted per day.	
M4	TBD		

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MCT 4.2.2.7 Provide Reclamation

To provide reclamation support operations for equipment. Reclamation is action taken to restore condemned, scrapped, abandoned, or damaged material, parts, and components. Reclamation actions include repair, refabrication, or renovation. The maintenance activity returns reclaimed items to the supply system and is a depot function. (MCWP 4-11.4)

M1	Percent	PEIs successfully reclaimed.
M2	Man-hours	Of reclamation activity conducted per day.
M3	TBD	

MCT 4.2.2.8 Conduct Recovery and Evacuation Operations

To conduct recovery and evacuation operations. Recovery is the process of retrieving or freeing immobile, inoperative, or abandoned materiel. It includes returning the material to operation or taking it to a collection point for repair, evacuation or disposal, and is the responsibility of the owning unit. Evacuation moves material from one combat service support (CSS) maintenance activity to another for repair or disposal and includes moving equipment between the owning units maintenance site and the supporting combat service support element (CSSE). Evacuation is the responsibility of the CSSE. Tasks include obtaining damaged, discarded, condemned, or abandoned allied or enemy materiel, recovering and evacuating disabled equipment, identifying enemy and friendly materiel, and determining routes. (JP 0-2, 1, 3-02, 4-0, 5-00.2, MCRP 4-11.4A, MCWP 4-11.4, NDP 4, NWP 3-02.1, 3-06.M, 3-10, 4-04.1, 4-07)

M1	Days	To complete recovery of objects.	
M2	Days	To return objects to port or required delivery destination.	
M3	Percent	Of equipment operational ready.	
M4	Percent	Of TPFDD maintenance units deployed and operational.	
M5	Days	Equipment down time (average).	
M6	Days	Turnaround time for repair of priority equipment.	
M7	Days	From Warning Order to arrival on station.	
M8	Percent	Of material identified.	
M9	Percent	Of material recovered.	
M10	Percent	Of material disposed.	
M11	Percent	Of material repaired.	

MCT 4.3 Conduct Transportation Operations

To distribute logistic support in the form of material, support services, and personnel to military units and others by employing transportation services. To move material or personnel by towing, self-propulsion, or carrier via any means, such as railways, highways, waterways, pipelines, oceans, Logistics Over-The-Shore (LOTS), Joint LOTS (JLOTS), and airways. This task includes technical operations and moving and evacuating cargo, personnel, and equipment. At aerial and sea ports of debarkation, responsibilities of transportation support include off-load, operational control of the ports and beaches, and management of the throughput. (JP 1, JP 0-2, 3-07.3, 4-0, 4-01, 4-01.2, 4-01.6, 4-05, MCWP 4-1, 4-11, NDP 1, 4, NWP 3-02.3, 4-01 Series, NTA 4.5)

M1	Days	Delay in operations due to late arrivals.
M2	Percent	Of fire missions delayed or canceled due to ammo shortfall.
M3	Percent	Of required support material was distributed during execution at the time and place required.
M4	Percent	Of total supplies moved in JOA.
M5	Days	Delay in operations due to problems in distributing supplies in theater.
M6	Percent	Of supplies sent to correct destination.
M7	Percent	Of supplies lost or destroyed enroute.

MCT 4.3.1 Conduct Embark Support

Plan and coordinate loading personnel, equipment, or supplies from a means of transportation at terminals (ports, airfields, beaches). Includes review and approval of embarkation plans and orders. (JP 1, 3-0, 3-02, 3-02.1, MCRP 4-11.3G, NDP 1, 4, NWP 3-02 Series, 3-02.21, 3-3-02.3, 4-01)

M1	Percent	Of equipment fully operational before embark vs. after embark completed.
M2	Time	To initiate movement.
M3	Percent	Of staged forces and equipment embarked according to loading and berthing plan.
M4	Percent	Of forces and equipment combat loaded.
M5	Percent	Of forces and equipment loaded within established time requirements.
M6	Hours	To complete offload.
M7	Number	Persons required to conduct offload.
M8	Tons	Equipment offloaded.
M9	Number	Persons offloaded.

MCT 4.3.2 Conduct Port and Terminal Support

To conduct and coordinate the offloading, transport, storage, and repair of equipment/material with the supporting CSSE, MPF, and MSC vessels. The MLC will provide a port operations control group (POCG) at the sealift port of embarkation (SPOE) or sealift port of debarkation (SPOD) and maintain liaison with the deploying/arriving unit, the LMCC, Navy port operations officer, or other port officials. To provide a facility at which cargo or personnel are loaded, unloaded, or handled in transit. To provide mobile deployment/redeployment of unit equipment and supplies in support of designated elements. Port and terminal operations consist of: ship-to-shore movement; shore-to-shore operation; logistics over-the-shore operations; joint logistics over-the-shore; inland waterway operations; inland terminal operations; and, staging area operations. Tasks include providing loading equipment, dunnage, and other loading aids as agreed upon during planning, as well as, providing technical assistance, emergency maintenance, fueling/defueling capabilities, and other related services as determined necessary by the LMCC to accomplish the mission, and to develop ground traffic patterns within the SPOE/SPOD.

(JP 1, 4-0, 4-01.5, NDP 4, MCWP 4-1, 4-11, NWP 3-10, 4-01 Series, NTTP 3-02.3)

M1	Number	Passengers per day transported in support of operations.
M2	Ton miles	Of supplies and equipment transported per day.
M3	Hours	To establish a JMC (Joint Movement Center) upon arrival in theater.
M4	Percent	Of scheduled transport movements accomplished on schedule.
M5	Hours	Until offload completed after arrival.

M6	Days	Downtime for critical facilities.
M7	Days	Required to make facilities operational.
M8	Number	Of berth facilities/anchorages available.
M9	Percent	Of port operations equipment available.
M10	Percent	Of conformance to vessel turnaround schedule.
M11	Time	In excess of time scheduled for dredging required for completion.
M12	Number	Of navigational incidents.
M13	Days	Vessels delayed by berth crowding or inaccessibility.

MCT 4.3.3 Conduct Motor Transport Operations

To conduct motor transport operations, or surface transportation using wheeled vehicles. The most versatile mode of transport, it links the aerial ports, ocean ports, supply centers, rail, and inland waterway terminals. During combat operations, motor transport links CSS units and combat units and is an all-weather mode of transport that the MAGTF commander can use over any trafficable terrain, to include off-road. Motor transport units can move any type of cargo, and can provide local, line or zonal hauls. The Marine Corps motor transport system provides an effective means of meeting the requirements of the landing force for ground transportation, and provides elements of the MAGTF with tactical and logistical motor transport support. Support includes transportation of personnel, weapons, communications equipment, cargo and shelters. (MCWP 4-11.3)

M1	Percent	Motor transport assets mission capable.	
M2	Percent	Of required motor transport assets in theater.	
M3	TBD		

MCT 4.3.4 Conduct Air Delivery Operations

To conduct and provide support of aerial delivery equipment and systems, including parachute packing, air item maintenance, external sling load, and rigging supplies and equipment. The Helicopter Support Team (HST) performs tasks within the landing zone area. Helicopterborne air delivery operations require detailed planning and integration at all levels of both the ground and amphibious forces, and must support units in a rapidly changing environment. (JP 1, 3-0, 4-0, MCWP 3-11.4, 3-21.2, 4-1, 4-11, 4-11.3, NDP-4, NWP 4-01, NAVSUP PUB Series)

M1	Percent	Of equipment undamaged.	
M2	Percent	Of personnel receive injuries.	
M3	Percent	Of air deliveries on time, on target.	
M4	Percent	Of drops in zone.	
M5	Percent	Of personnel receiving incapacitating injuries.	
M6	Time	To prepare, maintain, and mark landing sites.	
M7	Time	To remove or mark obstacles.	
M8	Time	To erect wind direction indicators, panels, and range lights (used during night operations).	
M9	Time	To establish and maintain required communication.	
M10	Time	To reconnoiter and select areas for supply dumps and other combat service support installations, HST command post, casualty evacuation stations and defensive positions that provide landing zone security.	

M11	Number	Of personnel to direct and control helicopter operations and support units within	
		the landing zone.	
M12	Hours	To unloads helicopters (including external lifts).	
M13	Hours	To loads cargo nets, pallets, and slings on board helicopters.	
M14	Hours	To loads enemy prisoners of war and casualties on board helicopters.	
M15	Time	To issues supplies.	
M16	Number	Of personnel established to maintain supply records (i.e., supplies received,	
		issued, and available) and vehicle ground control.	
M17	Number	Of personnel to maintain the helicopterborne unit's basic load at the prescribed	
		level.	
M18	Percent	Of Passes requests for replenishment (i.e., basic load, supplies not contained in	
		the helicopter loading zone dumps, on-call serials) to the helicopterborne unit	
L		tactical-logistical group that is collocated with the helicopter direction center.	
M20	Time	To establish a situation map and information center.	
M21	Number	Of personnel to provides emergency helicopter repair and refueling as required.	
M22	Number	Of personnel to performs fire-fighting duties in the landing zone.	

MCT 4.3.5 Provide Freight/Passenger Transportation

To provide freight/passenger transportation, including the procurement of both DOD and commercial transportation assets. This task encompasses the movement of personnel, equipment, and supplies via all modes of transportation (air, bus/truck, rail, and water), and includes planning for troop movements on scheduled or chartered trains, aircraft, and buses in CONUS and overseas. It also entails port calling of passengers for overseas movement. (MCWP 4-11.3)

M1	Tons	Cargo transported.
M2	Number	Passengers transported.
M3	TBD	

MCT 4.3.6 Conduct Materials Handling Operations

To conduct materials handling operations involving the movement of materials to, through, and from productive processes; in warehouses and storage; and in receiving and shipping areas. To provide specialized mechanical devices to assist in rapid handling (off-loading aircraft, landing craft, and shipping, and uploading to other means of transportation or storage) of supplies, materiel, and equipment. This task includes providing qualified personnel to operate materials handling equipment (MHE) and weight handling equipment (WHE). (MCWP 4-11.3, NTA 4.5.5)

M1	Hours	To attain all required MHE.
M2	Percent	Of authorized MHE.

MCT 4.4 Conduct General Engineering Operations

To conduct general engineering operations, repairing and construction of facilities, and to provide water, utilities, and other related infrastructure. To review OPLANs, combat and civil engineer support plans and approve MARFOR engineer plans. Coordinate base development, advance base functional components (ABFC), and manage the wartime construction program.

Plan and support bulk liquid (fuel and water) construction and operation requirements. Oversee the expeditionary airfield (EAF) plans and operations. Source and allocate EAF material and support. Dismantle fortifications and to construct and maintain facilities and communications networks that give physical structure to the lines of communication. Assemble and erect predesigned structures. Construct expeditionary CSS facilities and cantonment areas. This activity includes the following: building/maintaining forward staging bases, restoring rear area, sustaining LOC, supporting construction, and acquiring or producing construction material.

M1	Time	To identify and marshal forces to construct/dismantle facilities in OA.
M2	Time	Establish berthing and subsistence support.
M3	Time	To restore essential utilities in the rear areas.
M4	Time	To reestablish damaged LOCs.
M5	Time	To restore POD/APOD to handle required shipping.
M6	Percent	Of tasks correctly assigned (right engineers /location/time).
M7	Percent	Of facilities are under weatherproof cover.
M8	Percent	Of supplies under weatherproof cover at sustainment bases.

MCT 4.4.1 Conduct Engineer Reconnaissance

To conduct engineer reconnaissance, or collecting data that provides engineers within a MAGTF, information on terrain, hydrographics, meteorological, and infrastructure (e.g., built-up areas, transportation networks, utilities, existing natural or manmade obstacles) necessary to support the commanders with their planning for ongoing or future operations. Engineer reconnaissance is vital to successful MAGTF operations and reconnaissance missions relate not only to the engineer mobility mission but also to the countermobility, survivability, and general engineer missions. (JP 3-34, 4-04, MCWP 3-17)

M1	Time	To correctly provide MLC to existing bridges.
M2	Percent	Of Bridges correctly classified.
M3	Time	To correctly classify LOC.
M4	Percent	Of LOCs correctly classified.
M5	TBD	

MCT 4.4.2 Conduct Horizontal/Vertical Construction

To conduct and perform expedient soil stabilization, drainage system installation, and surveying operations as necessary to conduct expeditionary horizontal construction. Horizontal construction is required to shape the terrain to meet the operational requirements of the MAGTF and includes MSR construction and/or maintenance; expeditionary airfields; site preparation for structures or construction of base camps, command posts, and maintenance facilities for use by the MAGTF. Planning considerations for vertical construction include (total requirement for each type of facility): beddown; maintenance; command centers; hospitals; bunkers; EPW compounds; existing structures and facilities; amount of new construction required; Host Nation Class IV availability; Unit Class IV stocks; and, number of engineer units available. To increase the capacity of all LOC(s) to include airfields, road networks, staging areas, supply bases, and

ports of debarkation in operational areas to accommodate the throughput necessary to support the joint forces and multinational forces campaign, major operations, and routine support requirements. To acquire, maintain, and allocate to subordinate organizations battlespace (ground areas, air space) to conduct operations and provide logistics services. (JP 1-0, 0-2, 3-0, 4-0, 4-01, 4-01.5, 4-04, 4-05, MCWP 3-17, NDP 4, NWP 3-10, 4-01, 4-04, 4-04.1 Series)

M1	Time	To identify and marshal forces to construct/dismantle facilities in OA.
M2	Percent	Of tasks correctly assigned (right engineers/location/time).
M3	Percent	Of facilities that are under weatherproof cover.
M4	Time	Delay in scheduled arrivals due to LOC interruption.
M5	Time	Average delay in scheduled arrivals due to LOC interruption.
M6	Percent	Of maintenance equipment/supplies on hand to maintain routes.
M7	Percent	Of LOCs useable.
M8	Percent	Of LOCs available that are useable and required.

MCT 4.4.2.1 Construct/Maintain Expeditionary Airfields and Landing Zones (LZs)

Construct expeditionary airfields (EAFs), forward operating bases (FOBs), landing zones (LZs), and vertical/short takeoff and landing (V/STOL) pads to include sub-base prep and matting installation. Construct and install facilities such as fuel farms and revetments. Perform rapid runway repair and base recovery after attack. (JP 3-0, 3-31, 3-52, MCDP 1-0, 3, MCWP 3-21)

M1	Days	To construct, improve, or repair required airfields and LZs.
M2	Percent	Of movement time increased due to enhancement requirements.
M3	Days	To respond to an event (e.g. natural disaster).
M4	Hours	Delayed in executing plans due to required route construction or repair.
M5	Casualties	Suffered while overcoming construction or repair requirements, depicted in percentage and total numbers.

MCT 4.4.2.2 Conduct Rapid Runway Repair

To conduct rapid runway repair (RRR), a task conducted during base recovery after an attack or damage on airfield runways and taxiways. Materials, procedures, and techniques for rapid repair of bomb-damaged airfield runways and taxiways provide quick recovery and support for tactical aircraft launch and recovery operations. RRR is a type of large-scale horizontal construction operation that requires immediate results, are usually spontaneous, and are performed without the benefit of construction drawings or standardized plans. RRR planning should predicate on the worst-case possible, and on historical-based data that aid in determining the needs for a particular airbase. (MCWP 3-17)

M1	Time	To repair required airfields and LZs.
M2	Percent	Of runways repaired.
M3	TBD	

MCT 4.4.3 Conduct Facilities Maintenance

To conduct facilities maintenance operations. Existing facilities improvement, wood and masonry repairs, and structural reinforcement are construction projects requiring vertical construction engineering techniques. (MCWP 3-17)

M1	Days	To construct, improve, or repair existing facilities.
M2	Man-hours	Of facilities maintenance activity conducted per day.
M3	TBD	

MCT 4.4.4 Conduct Demolition and Obstacle Removal

To conduct demolition and to provide for clearance of obstacles from an operational area. (JP 1, 3-0, 3-15, MCWP 3-17, 3-17B, NDP 1, NWP 3-02.13, 3-15 Series, 3-15.2, 4-04.1M)

MI	Percent	Increase in distance traveled due to obstacles.
M2	Casualties	Suffered while overcoming or bypassing obstacles.
M3	Percent	Reduction in average speed of movement due to obstacles.

MCT 4.4.5 Conduct Explosive Ordnance Disposal

The explosive ordnance disposal (EOD) support to the MAGTF is conducted by the support engineer and wing engineer units (i.e., MSSG, ESB (in the FSSG), and Marine Wing Support Squadron (MWSS)). These operations include clearing ordnance, rendering ordnance and unexploded ordnance (UXO) safe, identifying, collecting, and evaluating and exploiting foreign ordnance. (MCRP 3-17.2A, MCWP 3-17, 3-17.2, 4-1)

M1	Number	Of operations performed per day.
M2	Percent	Of robot operations performed.
M3	TBD	

MCT 4.4.6 Perform Bridging

To perform bridging support for gap-crossing operations critical to the mobility of the MAGTF. Types of gap crossings include: river-crossing operations; dry-gap crossing; overbridging operations; and nonstandard bridging operations. (MCRP, 3-17A, MCWP 3-17, 3-17.1)

M1	Time	To span existing gap.
M2	Time	To bridge gap.
M3	Time	To bridge river.
M4	TBD	

MCT 4.4.7 Conduct Tactical Water and/or Hygiene Service

To receive, purify, store and distribute water as necessary to support operations in all environments. Water support may be provided to U.S. Forces, other nation armed forces or civilians as directed. Provide showers, laundry, trash removal, waste disposal and refrigeration as necessary. Manage field sanitation measures and equipment. (JP 3-0, 4-0, 4-04, MCRP 4-11.1D, MCWP 4-1, 4-11, NDP-4, NWP 4-04, 4-04.1, 4-09, NAVSUP P484, P485, P486, P487)

M1	Percent	Of generation system operational.
M2	Percent	Of required gallons provided.
M3	Percent	Of required purified water available.
M4	Percent	Of organizational equipment on hand.
M5	Percent	Of distribution system operational.

M6	Days	Supply on hand.
M7_	Gals/day	Of water provided.
M8	Gals/person	Of water provided.
M9	Percent	Of total production capacity utilized.
M10	Percent	Of personnel provided with required individual clothing and equipment.
M11	Days	Between access to laundry and bath facilities.
M12	Days	Between deviation from standard in distributing mail to unit level.
M13	Percent	Of personnel receive at least one hot meal per day.
M14	Percent	Of personal daily water requirement provided.
M15	Months	To establish R&R facilities for a protracted operation.

MCT 4.4.8 Conduct Tactical Bulk Fuel Storage

To conduct storage operations for tactical bulk fuel systems. The Marine Corps has developed a family of tactical fuel systems (TFS) designed and configured specifically to support a unique mission using similar components. These TFS have specific storage requirements and are: Amphibious Assault Fuel System; Tactical Airfield Fuel Dispensing System; Helicopter Expedient Refueling System; Expedient Refueling System; and, SIXCON. (MCWP 4-11.6)

M1	Percent	Of generation system operational.	
M2	Percent	Of required gallons provided.	
M3	Percent	Of required fuel available.	
M4	Percent	Of organizational equipment on hand.	
M5	Percent	Of distribution system operational.	
M6	Days	Supply on hand.	
M7	Gals/day	Of fuel provided.	7.00
M8	Percent	Of total production capacity utilized.	

MCT 4.4.9 Conduct Tactical Electrical Supply

To conduct tactical electrical supply operations and provide electric power generation and distribution to military units through a mobile generation and tactical distribution grid system. (JP 4-0, 4-04, MCWP 3-17, NDP 4, NWP 4-04, 4-04.1)

M1	Percent	Of generation system operational.	
M2_	Percent	Of required kW provided.	
M3	Hours	Of power in excess of maintenance standards.	
M4	Percent	Of 24 hour day power within standards.	
M5	Percent	Of organizational equipment allowance on hand.	
M6_	Percent	Of distribution grid system components available.	

MCT 4.5 Provide Health Services

To preserve, promote, improve, conserve, and restore the mental and physical well-being of the force and other designated populations. This task includes providing emergency and routine health care to all personnel; advising commanders on the state of health, sanitation and medical readiness of deploying forces on a continual basis; maintaining health and dental records; keeping a current mass casualty plan; training personnel in basic and advanced first aid; maintaining medical intelligence information files; implementing preventative medicine measures; and ensuring combat readiness of health care personnel assigned to various wartime

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platforms through continuous training. Health service support (HSS) is a process that delivers on demand to the warfighter a healthy, fit and medically ready force; counters the health threat to the deployed force; provides critical and essential care in the theater for combat casualties; rapid evacuation of casualties to enhanced medical treatment facilities; and provides routine, acute, and emergent dental services and care to individuals and provide advice and assistance to commanders as required. (JP 4-02, 4-02.1, MCWP 4-11.1, NTA 4.12, 4.12.4, 4.12.11)

M1	Percent	Accountability of personnel entering the health services treatment pipeline.
M2	Hours	From wound or injury until person is in surgery.
M3	Percent	Of casualties returned to duty.
M4	Percent	Of casualty death.
M5	Personnel per Day	Provided medical treatment (military personnel).
M6	Percent	Of total casualties treated each day that are noncombatants.
M7	Percent	Of medical personnel available for assignment.
M8	Hours	From person entering facilities until treatment begins.
M9	Personnel Perday	Provided dental treatment (military personnel).
M10	Percent	Of dental services "customers" that are active duty personnel.
M11	Percent	Of total dental casualties treated each day are noncombatants.
M12	Hours	Turnaround time for x-ray and lab testing results.

MCT 4.5.1 Conduct Health Maintenance

Health services support provides health maintenance, routine sick call, physical examination, preventive medicine, dental maintenance, record maintenance, and reports submission. HSS promotes wellness and ensures quality of life to strengthen the human component of military forces against disease and injury. Wellness requires continuous attention before, during, and after deployment to sustain maximum readiness and warfighting capability. To coordinate health service maintenance in the operational area to include, but is not limited to, medical plans and requirements, assistance to casualty estimates, identify medical requirements (Class VIII and medical treatment facilities (MTF)), medical regulation, echelon of care planning, medical readiness, the management of health services resources, such as personnel, money, and facilities; preventive and curative health measures; evacuation of the wounded, injured, or sick; selection of the medically fit and disposition of the medically unfit; blood management, medical supply, equipment, and maintenance thereof; combat stress control; and medical, dental, veterinary, laboratory, optometric, medical food, and medical intelligence services. This task includes actions of the Theater Patient Movement Requirements Center (TPMRC) and the Joint Blood Program Office (JBPO). (JP 4-0, 4-01, MCWP 4-1, 4-11.1, NDP 1, 4, NWP 4-01 Series, 4-08 Series, NAVSUP PUB Series)

M1	Percent	Accountability of personnel entering the health services treatment pipeline.
M2	Hours	From wound or injury until person is in surgery.
M3	Percent	Of casualties returned to duty.

M4	Percent	Of casualty death.
M5	Personnel Per day	Provided medical treatment.
M6	Percent	Of total casualties treated each day that are noncombatants.
M7	Days	Class VIII available.

MCT 4.5.2 Perform Casualty Collection

To conduct operations under combat conditions of casualty collection wherein incoming casualties necessitate the movement of stable casualties who can be evacuated. Close coordination between clinical and administrative services must be maintained to achieve effective management of individual casualties. Underlying all considerations is the basic objective of preserving life and limb. All Marine Corps units have evacuation capability by ground, air, or sea. (JP 4-02, 4-02.1, 4-02.2, MCWP 4-11.1)

M1	Percent	Of casualty death.
M2	Time	To coordinate evacuation.
M3	Percent	Treatment facility capacity available.
M4	TBD	

MCT 4.5.3 Conduct Casualty Treatment

To coordinate and manage JOA medical resources (supplies and materials - supply Class VIII) to provide effective and consistent treatment of wounded, injured, or sick personnel so as to return to full duty or evacuate from JOA. Determine overall MARFOR requirements and submit requirements not met by the Marine Corps to the combatant commander or JFC for sourcing. (JP 3-02, 3-02.1, 3-05.3, 3-07.3, 4-0, 4-02 Series, 5-00.2, MCWP 4-11.1, NDP 4, NWP 4-02 Series)

M1	Percent	Accountability of personnel entering the health services treatment pipeline.
M2	Hours	From wound or injury until person is in surgery.
M3	Percent	Of casualties returned to duty.
M4	Percent	Of casualty death.
M5	Personnel Per day	Provided medical treatment.
M6	Percent	Of total casualties treated each day that are noncombatants.

MCT 4.5.4 Conduct Temporary Casualty Holding

To provide facilities and services to hold sick, wounded, and injured personnel for a limited time, usually not to exceed 72 hours. The medical battalion, force service support group (FSSG), is the only health service support unit staffed and equipped to provide temporary casualty holding. The Surgical Company of the medical battalion, supports regimental-size operations and receives casualties from units or individuals providing first response medical treatment facilities for resuscitative surgery, medical treatment, and temporary holding of casualties from supported forces, and prepare and evacuate casualties whose medical requirements exceed the established theater evacuation policy. (JP 4-02, MCWP 4-11.1)

M1	Percent	Of patients awaiting evacuation.
M2	Percent	Of treatment facility capacity available.
_M3	Time	Patients waiting on evacuation.
M4	TBD	

MCT 4.5.5 Conduct Casualty Evacuation

Coordination of casualty movement and evacuation is especially critical during operations when casualties must be moved from shore to task force ships. When properly followed, the medical regulating process ensures that patients move only as far rearward in the continuum of care as their health needs dictate which, in turn, assures the efficient and effective use of the limited HSS assets available to the MAGTF. Evacuation operations are part of a casualty management system and designed to coordinate the movement of casualties from the battlespace or site of injury, or onset of disease to a facility that can provide the necessary treatment capability. Medical regulating is the process of selecting destination medical treatment facilities (MTFs) with the necessary HSS capabilities for patients being medically evacuated in, between, into, and out of different theaters of geographic combatant commands and CONUS. Includes planning, identifying requirements, requesting external assets and coordinating ground, sea and air evacuation. Obtain, disseminate and comply with the JFC's theater evacuation policy. Establish the Medical Regulating Control Center for the MEF. The MEF Surgeon will assist in the planning and coordination of this effort. (JP 4-0, 4-02 Series, 4-02.2, MCWP 4-11.1, NDP 4, NWP 4-02 Series, 4-02.2)

M1	Percent	Accountability of personnel entering the health services treatment pipeline.
M2	Hours	From wound or injury until person is in surgery or other appropriate care.
M3	Percent	Of casualties returned to duty.
M4	Percent	Of casualty death.
M5	Personnel Per day	Provided medical treatment (military personnel).
M6	Percent	Of health services "customers" that are active duty personnel.
M7	Percent	Of total casualties treated each day that are noncombatants.
M8	Hours	Turnaround time for medical lab serology and other technical lab testing results.
M9	Number	Of consultations from outside the command sources.
M10	Number	Total casualties per day evacuated from theater.

MCT 4.5.6 Conduct Mass Casualty Operations

To conduct an effective process of casualty sorting (triage), which is basic to the successful operation of a patient stabilization and movement system. Rapid and mass casualty evaluations must be made to identify which patients need immediate resuscitation and which patients can tolerate delay in treatment, as well as, which patients should be moved after initial treatment to other medical facilities. Mass casualty operations also include casualty collection, temporary casualty holding and casualty evacuation conducted by either air, surface (water or ground) transportation available (ground ambulance, five-ton truck, small boat, landing craft air cushion). (JP 4-02, 4-02.1, 4-02.2, MCWP 4-11.1, NTA 4.12.1)

M1	Percent	Accountability of personnel entering triage facility.
M2	Hours	Person is in triage until discharged or moved from triage facility.
M3	Percent	Of casualties returned to duty.
M4	Percent	Of casualty death.
M5	Personnel Per day	Provided medical treatment (military personnel).
M6	Percent	Of total casualties treated each day that are noncombatants.

MCT 4.6 Provide Services (Nonmateriel and Support Activities)

To provide services or those activities that are necessary for the effective administration, management, and employment of military organizations. The subfunctions of services are essentially administrative or nonmateriel in nature and are implemented with uniform systems and procedures. Services are either a function of command support or combat service support. Services that are command support include activities that are inherent in every command (e.g., personnel administration, billeting). Services that are combat service support include services not normally available in, or organic to, all elements of the Marine air-ground task force (MAGTF), and are provided by the combat service support element (CSSE) (e.g., mortuary affairs, exchange services). (MCWP 4-1, 4-11.8)

M1	Number	Dollars disbursed.
M2	Number	Personnel serviced.
M3	Number	Of enemy POWs incarcerated.
M4	TBD	

MCT 4.6.1 Provide Combat Service Support Services

The CSSE provides services not available in, or organic to, other MAGTF elements. These services include postal, legal, mortuary affairs, field exchange, security, disbursing, and CMO. (MCDP 1-0, MCWP 2-1, 3-1, 4-1, 4-11.7, 4-11.8)

M1	Number	Deliberate engineering projects completed.
M2	TBD	

MCT 4.6.1.1 Provide Messing

Providing food services support is a CSS function. The CSSE is responsible for supplying class I (subsistence) to all elements of the MAGTF and providing personnel and field food service system support to the combat element (CE) and the ground combat element (GCE), as required. Organizational food service responsibilities include: accounting for all subsistence received from the CSSE; storing properly all semi-perishable and perishable supplies; ensuring sanitation during the preparation of meals; preparing quality meals; accounting of personnel fed; and, filing reports. Field feeding operations consist of distributing one packaged operational ration (POR) and two hot meals (unitized rations) per day. Deployments initially begin exclusively with PORs progressing to meals with unitized rations. (MCWP 4-11, 4-11.8A, NTA 4.4.2.2)

M1	Number	Of personnel.
M2	Number	Hot meals served.
M3	Days	Between hot meals.

M4	Percent	Of personnel receiving at least one hot meal/day.
M5	Man/Days	Supply of MREs available.
M6	Number	Of hot meals required that are served.
M7	Percent	Of hot meals required that are served.
M8	Hours	Between meals.
M9	Percent	Of meals served to non-TPFDD personnel.
M10	Percent	Of meals served to non-DOD personnel.
M11	Percent	Of personnel receiving three meals per day.

MCT 4.6.1.2 Provide Disbursing

To provide personnel financial services involving disbursing. The FSSG provides financial and disbursing services within the MEF. A comptroller is responsible for matters pertaining to financial management, such as budgeting, accounting, disbursing, and internal review. Disbursing includes managing payrolls, travel and per diem allowances, public vouchers, and preparing disbursing reports and returns. In organizations not authorized a comptroller, fiscal matters may be assigned to one or more staff sections. (MCWP 4-1)

M1	Number	Dollars disbursed.
M2	Man-hours	Of disbursing activity per day.
M3	TBD	

MCT 4.6.1.3 Provide Postal Services

To provide a network to process mail and provide postal services. (JP 4-0, 5-00.2, MCWP 4-1, 4-11, 4-11.8, CJCSM 3122.03, NDP 4, NWP 4-09 Series, NAVPERS 15560)

MI	Days	To process mail.
M2	Tons	Of backlogged mail (by class).
M3	Percent	Of routes have alternative routing sites.
M4	Percent	Of routes have daily delivery.
M5	Days	Average for mail to transit from CONUS to overseas addressee, by class of mail.
M6	Percent	Of processed mail not deliverable.

MCT 4.6.1.4 Provide Exchange Services

To provide goods and services at a savings to military personnel and their families. Afloat ships' stores provide personal necessities, as well as, laundry, dry cleaning, and barber facilities. (JP 4-0, 5-00.2, CJCSM 3122.03, MCWP 4-11, 4-11.8, NDP 4, NWP 4-09, NAVSUP P487, NTA 4.4.2.3)

M1	Days	After deployment of forces before establishment of adequate armed forces exchange or ship's store ashore.
M2	Days	After deployment of forces before establishment of adequate laundry, dry cleaning and/or barber services facilities.
M3	Days	Between resupply for military exchange, ship's store ashore, or laundry, dry cleaning and/or barber services facilities.

MCT 4.6.1.5 Provide Security Support

To provide security support services. Security support is an operational concern reflecting potential rear area security missions that might be assigned to the FSSG's military police company by the rear area commander. (MCWP 4-1)

M1	Yes/No	Security support plan complete?
M2	Percent	Of security support force obtained through augmentation.
M3	TBE	

MCT 4.6.1.6 Provide Legal Services Support

Ensure operational legal services are provided to the MEF. Includes legal advice and assistance on all operational matters concerning military, domestic, foreign, and international law and rules of engagement. Provide advice and assistance in the functional areas of the law, including administrative, contract, international, and operational law, as well as claims, legal assistance, and military justice. (JP 1-0, 1-04, 3-0, 3-57, 4-0, 5-00.2, MCWP 4-1, 4-11, 4-11.8, CJCSM 3122.03, NDP 4, NWP 4-09, JAG MANUAL)

M1	Number	Of requests for legal advice on operational/international law matters from units without assigned staff judge advocate.
M2	Minutes	After emergent operational law/ROE question is posed before an accurate answer is provided.
M3	Hours	For non-emergent operational legal response.
M4	Requests	For advice or assistance in functional areas of the law.
M5	Percent	Of questions regarding functional areas of the law which cannot be answered within one hour.

MCT 4.6.1.7 Provide Civil Affairs Support

To conduct those activities that embrace the relationship between the military forces and civil authorities/people in a friendly country or area or in an occupied country or area when military forces are present. To assist Host Nation governments to retain control over their major population centers thus precluding complicating problems which may hinder accomplishment of the MEF commander's mission. This task includes external support for control of civil unrest and restoration of basic public services (police functions, water, electricity, garbage, basic medical care) the lack of which would precipitate civil unrest. This task relates to providing civil affairs, military police, and logistic support for the movement, collections, housing, feeding, and protection of displaced citizens. (JP 3-0, 3-05, 3-07, 3-53, 3-57, 4-0, 5-00.2, MCWP 4-1, 4-11, 4-11.8, NDP 1, NWP 3-07, 3-10 Rev A, NTA 4.8)

M1	Day	After identification of need, adequate shelter procured.
M2	Incidents/Day	Of Military actions against civilians.
M3	Days	Required to organize relief effort in country.
M4	Hours	After standing up of joint force, liaison is established with Country Team, Host Nation and other USG agencies, PVO/NGO/IO and coalition forces and appropriate foreign nation civilian government officials.
M5	Hours	After arrival in joint operations area the CMOC or JCMOTF is established.
M6	Days	To accept Host Nation agreements.
M7	Days	Required to deploy civil-military engineering units to begin their tasks.

M8	Hours	To assess the situation and define assistance needed.
M9	Number	Incidents/day of civilian unrest.
M10	Number	Of incidents/situations requiring coordination.
M11	Number	Incidents of failed/ineffective coordination.

MCT 4.6.1.8 Provide Mortuary Affairs Services

Plan and coordinate casualty operations (recovery, identification and evacuation of deceased and personal effects) and mortuary affairs operations. Coordinate and manage technical services and supplies incident to temporary burial of the dead in the area of conflict during major military operations that might preclude immediate evacuation. This activity is normally accomplished through the MLC (if established), MAGTF FSSG and the Sub-Area Graves Registration Office that recommends and executes internment options. (JP 4-0, 4-06, MCWP 4-1, 4-11, 4-11.8, NDP 4, NWP 4-09 Series, NAVPERS 15560)

M1	Percent	Of Tasks completed to establish a Joint Mortuary Affairs Office (JMAO).
M2	Percent	Of required mortuary collection points, field processing centers, personal effects depots, and US cemeteries in the theater established.
M3	Days	Delay in identification, care, and evacuation or disposition of deceased personnel due to lack of graves registration units.

MCT 4.6.1.9 Plan, Coordinate and Manage Refugee Operations

To collect, process, evaluate, safeguard, house, and release refugees. This task also includes the control of refugees and stragglers to preclude interference and facilitate tactical movement of forces and CSS in tactical operations within the AO, and may include determination of political asylum status. (JP 1, 3-0, 3-07 Series, 3-57, MCWP 3-34.1, NDP 1, NWP 1-14, 3-07)

M1	Time	To identify and marshal forces and construct refugee camp.
M2	Number	Of refugees processed and held.
M3	Number/Percent	Of refugees requesting political asylum.
M4	Number/Percent	Of refugees requiring medical attention.
M5	Number/Percent	Of refugees who died during internment.
M6	Number/Percent	Of refugees repatriated.
M7	Number	Of disciplinary incidents.
M8	Incidents	Of crime reported.
M9	Percent	Of crimes/incidents solved.

MCT 4.6.2 Provide Command Services

To provide command service relationships in the area of logistics support. Command relationships consist of combatant command (COCOM), operational control (OPCON), tactical control (TACON), support, administrative control (ADCON), coordinating authority, and direct liaison authority (DIRLAUTH). (JP 0-2, MCWP 4-1)

MI	Number	OPCON relationships monitored.
M2	Percent	Of assigned forces OPCON to another command.
M3	TBD	

MCT 4.6.2.1 Conduct Personnel Administration

To conduct personnel administration functions including: graves registration; EPWs handling procedures; civilian personnel matters (contractors, civilian employees, refugees); interior management; and, discipline, law and order. Personnel administration is a command service conducted at all major levels of the MAGTF. (JP 1-0, 4-0, 5-00.2, MCWP 4-11, CJCSM 3122.03, NDP 4, NWP 4-09)

M1	Percent	Of unit and non-unit personnel scheduled to move to mobilization station or
		POEs arrived IAW planned arrival dates and times.
M2	Percent	Of units actual manning meets or exceeds authorized manning.
M3	Percent	Of unit personnel requirements are provided at D-Day.
M4	Number	Constraints have been identified for personnel.
M5_	Number	Shortfalls have been identified for personnel.
M6	Percent	Of personnel support can be contracted.
M7	Days	To obtain replacement personnel and assign to unit.
M8	Percent	Of replacements adequately trained to perform functions assigned.
M9	Percent	Of TPFDD personnel requirements sourced prior to C-Day.
M10	Number	Of record transactions accomplished correctly.
M11	Percent	Of record transactions accomplished correctly.
M12	Number	Of personnel provided per command.
M13	Percent	Of personnel provided per command.
M14	Hours	Time for reception and check-in at duty location.
M15	Percent	Reporting personnel not ready for duty (security clearance, medical and ID readiness, incorrect NEC/designator, etc.).

MCT 4.6.2.2 Provide Religious Ministries Support

To provide religious ministry support among components of a MAGTF. Religious ministries perform ecclesiastic functions and provides both faith-based and nondenominational counseling and guidance for all personnel. This support serves to promote the spiritual, religious, ethical, moral, corporate, and personal well-being of Marines, Sailors, and their family members thereby enhancing personal, family, and unit readiness of the Marine Corps. Chaplains are assigned as principal staff officers to provide commanders with professional advice and counsel on religious, spiritual, moral and ethical issues, as well as, indigenous and cultural customs that may impact planning and execution of an operation or campaign. This task includes identifying professional assistance, program funding, and logistics requirements to support personnel within the MAGTF command element, establishing and coordinating a MAGTF Religious Ministry Plan that will provide the chaplain coverage to all elements. Additional activities include providing required religious ministry assets to support planned or ongoing operations, assisting PVO/NGOs with HA/DR programs, and providing enemy of prisoners of war the appropriate religious ministry.

(JP 1-05, JP 3-05.3, 3-07.3, 3-07.5, 4-06, MCRP 6-12A, 6-12B, 6-12C, MCWP 6-12, CJCSM 3122.03, 3500.05)

MI	Percent	Of deviation from criteria for assignment of RPs and/or Chaplain's Assistants.
M2	Percent	Of major military locations with services for all major denominations available on
L		weekly basis.
M3	Percent	Of authorized chaplains assigned and present for duty.
M4	Percent	Of chaplains' time spent with military personnel in work areas.

M5	Percent	Of civilian internees receive ministry and care.
M6	Percent	Of deceased in a mass casualty event that receive final ministry.
M7	Percent	Of deployed personnel with access to counseling by clergy.
M8	Percent	Of deployed personnel with access to religious services.
M9	Percent	Of EPWs receiving religious ministrations.
M10	Percent	Of hospital casualties seen weekly or more by chaplains.
M11	Instances	Of hospital death without chaplain presence.
M12	Percent	Of injured in a mass casualty event that receive ministry.
M13	Percent	Of MAGTF personnel unable to celebrate major religious holidays.
M14	Percent	Of MAGTF religious activities that are adequately supplied.
M15	Percent	Of memorial services conducted within AO vice home station.
M16	Percent	Of NGOs which MAGTF chaplain has established liaison.
M17	Percent	Of PVOs which MAGTF chaplain has established liaison.
M18	Percent	Of religious faith groups in MAGTF receiving balanced coverage throughout AO.
M19	Months	Since last command chaplain survey of morale within MAGTF in JOA.
M20	Hours	To receive counseling, support and comfort from time of request.

MCT 4.6.2.3 Provide Financial Management

To provide and perform financial services for military personnel, civilians, and foreign nationals. These services include commercial accounting, pay disbursement, accounting, travel pay, and financial technical advice and guidance. (JP 1-06, 4-0, 5-00.2, MCWP 4-1, 4-11, 4-11.8, CJCSM 3122.03, NDP 4, NWP 4-09, NAVPERS 15560, NAVSO P3050, P6048, NTA 4.4.4)

M1_	Number	Of actions performed.
M2	Days	Delay in processing action.
M3	Dollars	Process per day.
M4	Percent	Of personnel with access to adequate financial support services.
M5	Percent	Of audit sample have an account error.
M6_	Percent	Score on periodic audit.
M7	Number	Of disbursing corrective actions required per 1,000 customers.

MCT 4.6.2.4 Provide Communications/Information Technology

To provide communications and information technology utilizing the command and control of logistic processes for providing those resources. The Marine Corps' overall information objective must be in consonance with doctrine, and collect critical data from diverse organizations and cross-functional activities so it can be integrated to develop a common operational picture. Information technology requires planners to consider current and emerging capabilities that apply to the Marine Corps. (MCWP 4-1, 4-11)

M1	Percent	MAGTF computers operational.
M2	Man-hours	Of communications/IT activity conducted per day.
M3	TBD	

MCT 4.6.2.5 Provide Billeting

To provide short- and long-term housing for military and associated civilian support personnel. Includes Billeting/Berthing Management and Services (cleaning, etc.). (JP 3-0, 4-0, MCWP 4-1, 4-11, 4-11.8, NDP 4, NWP 4-09, NAVSUP P485, P486, NTA 4.4.2.1)

M1	Days	To provide finished housing.
M2	Percent	Of quarters provided meets standards.
M3	Percent	Of quarters provided is substandard.

MCT 4.6.2.6 Provide Band

Traditionally, band members are trained in combat arms and may be used in a variety of roles, such as augmenting the headquarters defense in a combat environment. Designated major commands employ a military band to—render honors, provide military pomp at ceremonies, and perform on other occasions to raise or sustain morale. (JP 4-0, MCWP 4-11, CJCSM 3122.03, NAVPERS 15560, NTA 4.4.3.4)

M1	Number	Events scheduled.
M2	Percent	Of requests for events were scheduled.
M3	Percent	Of events scheduled were provided.

MCT 4.6.2.7 Provide Marine Corps Community Services (MCCS) and Morale, Welfare and Recreation (MWR) Services

To provide personnel with recreational and fitness activities, goods and services. These goods and services are provided by the Marine Corps Community Services (MCCS), and the Moral, Welfare and Recreation Services (MWR). (JP 4-0, 5-00.2, MCWP 4-11, CJCSM 3122.03, NDP 4, NWP 4-09, NAVPERS 15560, NAVSUP PUB Series, NTA 4.4.3.3)

M1	Days	To establish adequate recreation/fitness facilities.
M2	Hours per Day	Allotted to personal leisure/recreational/fitness activities.
M3	Percent	Of personnel out of commission due to lack of or deficient physical conditioning.
M4	Percent	Of personnel with access to adequate recreation and fitness facilities.

MCT 4.6.3 Provide Airfield Operation Services

To provide airfield operation support functions and services necessary to establish and operate the flight line at a forward operating base (FOB). The five airfield support functions are: 1) weather services; 2) expeditionary airfield (EAF) services; 3) aircraft rescue and fire fighting (ARFF); 4) aviation and ground refueling; and, 5) explosive ordnance disposal (EOD). The MWSS airfield operations division provides the preponderance of airfield support functions and provides the technical expertise, equipment, and personnel necessary to operate the flight line (e.g., emergency response, aircraft arrestment, aviation refueling, EOD response, managing flight line hours, lighting and marking, establishing parking). MAGTF aviation basing considerations include versatility, capability, vulnerability, footprint, and sustainability. Whenever possible, shore-based ACE operations exploit existing facilities in the area of operations and Hostgovernment airfields are used when available and tactically acceptable. This includes planning and coordinating for intermediate support bases, flight ferry operations, forward operating bases, FARPs, expeditionary airfields, setting up and maintaining aviation ammunition storage Tasks include providing meteorological services of weather observation, collection, analysis, forecasting, determination of tidal and current conditions, predicted surf conditions, storm evasion tracks, and storm sanctuary sites. The Aircraft Rescue and Firefighting Team (ARFF) is responsible for critical crash and fire rescue (CFR), airfield firefighting, and search and rescue operations. ARFF directs its firefighting and rescue teams to put out fires on parked aircraft, hangars, and other airfield structures. (JP 1, 2-0, 2-03, 3-0, 3-02, 4-0, 4-01.5, MCWP 3-21.1, NDP 1, 2, 4, 6, NWP 3 Series, 4-01, 4-01.1, NTA 1.2.6)

M2	Days	Required to make facilities operational.
M3	Number	Of hanger facilities/parking available.
M4	Percent	Of airfield operations equipment available.
M5	Percent	Of conformance to AC turnaround schedule.
M6	Hours	Force delayed to incorrect climatological/meteorological projections.
M7	Hours	To complete climatological/meteorological analysis.
M8	Percent	Of climatological/meteorological projections were accurate.

MCT 4.7 Train Forces and Personnel

To prepare Marines, Sailors, civilians, and individual units to fight, operate, and win at the tactical level of war. This task includes advising and training forces of friendly nations and groups. (JP 1, 0-2, 3-0, 3-07.3, 3-09.1, 3-11, 4-05, MCWP 4-1, CJCSI 3500.01, NDP-1, 4, COMUSFLTRFORCOM OPORDER 2000, CFFCINST 3501.3, NTA 4.9)

M1	Percent	Of time devoted to training to METL.
M2	Percent	Of forces devoted to training to METL.
M3	Percent	Of METL the unit is proficient in.
M4	Percent	Of mandays of support needed to train host national personnel to METL.
M5	Percent	Of METL unable to train to.
M6	Percent	Of METL planned for training not achieved.
M7	Time	Required to develop METL.
M8	Percent	Of METL incorporated in training plan.
M9	Percent	Of periodic training requirements completed.

MCT 4.7.1 Conduct Individual and Unit Training

To conduct individual and unit training to attain combat proficiency. To use management principles in a manner that maximizes training results and focuses individual and unit training priorities on the wartime mission. The Marine Corps' training system is a standards-based system and is built around established individual and unit performance standards for specific tasks. A training standard measures collective or individual performance based on task accomplishment and does this for each of the tasks that a unit or an individual Marine is expected to perform. (MCRP 3-0A)

M1	Yes/No	METL developed?
M2	Yes/No	Training Plan published?
M3	Percent	Training Plan completed.
M4	Percent	Combat Readiness Percentage.
M5	TBD	

MCT 4.7.1.1 Train Individual Marines

To conduct the type of training an individual Marine needs to prepare for and perform specific duties and tasks related to an assigned military occupational specialty (MOS) and duty position, either in the institution/formal school, or in the unit/organization environment. (MCRP 3-0A)

MI	Percent	Recruit graduation from boot camp.
M2	Percent	Graduation from MOS school.
M3	Percent	Attrition.
M4	TBD	

MCT 4.7.1.2 Conduct Unit Training

To conduct unit training using collective mission performance standards (MPS) and individual training standards (ITS) to determine individual and/or team proficiencies and deficiencies; training methods; specification of training funding/resources; and evaluation of proficiencies as a result of training. (MCRP 3-0A)

M1	Yes/No	T&R Manual published?	
M2	Yes/No	METL developed?	
M3	Percent	Of unit combat ready.	
M4	Yes/No	Unit Training Plan published?	
M5	TBD		

MCT 4.7.1.3 Conduct Special Duty Training

To establish criteria and instructions relative to selecting, screening and preparing enlisted Marines for assignment to Special Duties and Independent Duties. Special Duty assignments involve demanding duties or duties demanding an unusual degree of responsibility. In this context, duties normally are considered demanding if they require an extraordinary effort for satisfactory performance. A special duty assignment is considered to have an unusual degree of responsibility when a heavy personal burden is placed on the member to ensure the successful accomplishment of assigned duties. Currently, Special Duty assignments include: Marine Security Guard, Marine Corps Security Force Guard, Marine Corps Security Force Cadre Trainer, Marine Corps Security Force Close Quarters Battle Team Member, Recruiter and Drill Instructor. Examples of Officer Special Duty assignments are: Foreign Area Officer, Regional Area Officer, Special Education Program, Marine Officer Instructor, Liaison, Security Forces, etc. (MCO P1326.6D)

M1	Percent	Graduation rate from MSG School.
M2	Percent	Graduation rate from DI School.
M3	Percent	Marine Officer Instructor billets filled.
M4	TBD	

MCT 4.7.1.4 Conduct Family Readiness Training

To conduct focused effort on prevention and education that enables the Marine Corps families to be armed with vital knowledge and essential leadership skills necessary to attack and prevent situations before they develop into serious problems which negatively impact the mission readiness of individual Marines, the commands, and the readiness of the families to succeed as partners in a challenging way of life. The Marine Corps Family Team Building (MCFTB) staff, Marine Corps Community Services (MCCS), offer five various family readiness training programs: Key Volunteer Network (KVN); Lifestyle, Insights, Networking, Knowledge, and Skills (LINKS); Spouses' Leadership Seminar; Prevention and Relationship Enhancement Program (PREP); and, the Chaplains' Religious Enrichment Development Operations (CREDO).

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KVN is an integral part of a Marine Corps unit family readiness program and is the primary communication link between the commanding officer and the unit families for the enhancement The KVN supports the spouses of the unit Marines by providing of mission readiness. communication from the command, serving as a source for information and referral services and by helping foster a sense of community within the unit. The KVN offers literature and courses designed to assist Marine Corps families. The KVN for the Reserve community faces unique challenges as many families of a reserve unit are often geographically dispersed with varying access to military resources. The task of providing adequate communication, information and referral may require more volunteers than a unit whose families reside in one geographic area such as a Marine Corps installation. Because of this challenge, Reserve unit commanding officers may appoint a parent of a unit Marine to serve as a Key Volunteer. These parents often have insight into local resources and assistance available to unit families. LINKS is a volunteer. team-mentoring program, designed by Marine spouses for spouses. The curriculum focuses on spouses new to the Marine Corps community, assisting them in adapting to the unique challenges that Marine Corps military life often presents, and provides valuable resources to enable them to help themselves during deployment circumstances. (MCO 1754.6, www.usmc-mccs.org)

M1	Yes/No	Unit Family Readiness Plan developed?
M2	Percent	Of spouses participating in various programs.
M3	TBD	

MCT 4.7.2 Provide Training Services

To provide units and resources to support training, Research Development, Test and Evaluation (RDT&E), and Tactical Development and Evaluation (TACD&E) tests and trials. (JP 1, 0-2, 3-0, CJCSI 3500.01, NDP 1, 4, COMUSFLTFORCOM OPORD 2000, CFFCINST 3501.3, NTA 4.9.6)

M1	Percent	Of personnel trained IAW training plan.
M2	Percent	Of requirements met.
M3	Days	Of underway training (tests, trials) services provided.
M4	Number	Of barrels of fuel consumed in providing services.

MCT 4.7.2.1 Provide Mobile Training Teams (MTT)

To provide instruction to U.S. and non-U.S. units using approved programs of instruction concerning weapons, equipment, basic skills, limited maintenance training, and other organic capabilities including appropriate operational training. (JP 1, 0-2, 3-0, CJCSI 3500.01, NDP 1, 4, COMUSFLTFORCOM OPORDER 2000, CFFCINST 3501.3, NTA 4.9.5)

M1	Percent	Of personnel trained IAW training plan.	
M2	Days	To train forces to METL.	
M3	Percent	Of METL unable to train to.	
M4	Percent	Of METL planned for training not achieved.	
M5	Percent	Of time teams train in the field.	
M6	Percent	Of nation's training requirements are completed.	

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MCT 4.7.2.2 Provide Foreign Military Training

To provide adequate preparation, effective presentation, practice and rehearsal, thorough evaluation, and certification of the execution of unit (collective) and individual tasks. The instruction of personnel to enhance their capacity to perform specific military functions and tasks; the exercise of one or more military units conducted to enhance their combat readiness. Support to counterinsurgency includes support provided to a government in the military, paramilitary, political, economic, psychological, and civic actions it undertakes to defeat insurgency. Support to counter-insurgency operations often include security assistance programs such as foreign military sales, foreign military financing program, and international military education and training program. Such support also may include FID. (JP 1, 0-2, 3-0, CJCSI 3500.01, NDP 1, 4, COMUSFLTFORCOM OPORDER 2000, CFFCINST 3501.3, NTA 4.9.4)

M1	Percent	Of time devoted to training to METL.
M2	Percent	Of forces devoted to training to METL.
M3	Percent	Of METL the unit is proficient in.
M4	Percent	Of mandays of support needed to train host nation personnel to METL.
M5	Percent	Of METL unable to train to.
M6	Percent	Of METL planned for training not achieved.
M7	Time	Required to develop METL.
M8	Percent	Of METL incorporated in training plan.
M9	Percent	Of periodic training requirements completed.

MCT 4.7.2.3 Develop Training Plans and Programs

To prepare unit and individual training plans and programs including developing unit Mission Essential Task List (METL), scheduling training, and providing for assessment of training performance and effectiveness. To analyze applicable tasks in plans and external directives and select for training those tasks which are essential to accomplish the unit's missions in wartime and military operations short of war. To select tasks and to establish supporting standards and conditions for each task in the METL for collective, individual, and leader training. (JP 1, 0-2, 3-0, 3-07, 3-07.3, 4-05, MCRP 3-0A, CJCSI 3500.01, NDP 1, 4, COMUSFLTFORCOM OPORDER 2000, CFFCINST 3501.3, NTA 4.9.3)

M1	Percent	Of time devoted to training to METL.
M2	Percent	Of forces devoted to training to METL.
M3	Percent	Of METL the unit is proficient in.
M4	Percent	Of mandays of support needed to train host nation personnel to METL.
M5	Percent	Of METL unable to train to.
M6	Percent	Of METL planned for training not achieved.
M7	Time	Required to develop METL.
M8	Percent	Of METL incorporated in training plan.
M9	Percent	Of periodic training requirements completed.
M10	Percent	CVW aircraft sorties flew to/used air-to-ground range.
M11	Total	CVW aircrew "Strike Fighter Tactics Level One-Four" at STARTEX/FINEX
M12	Percent	CVW aircrew "Strike Fighter Tactics Level One-Four" at STARTEX/FINEX

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M13	Total	CVW aircrew "Strike Fighter Tactics – Strike Leader" at STARTEX/FINEX
M14	Percent	CVW aircrew "Strike Fighter Tactics - Strike Leader" at STARTEX/FINEX

MCT 4.7.2.4 Assess Training

To conduct the evaluation of the performance of individual watch stations and personnel, watch teams, details, parties, and the effectiveness of training teams measured against specified tactical and training standards. This task, conducted by the combatant commanders, shipboard training teams, and afloat training organizations, includes after-action reviews, type commander directed readiness reviews, and organizational assessments. It provides feedback for altering policy and identifying training trends. (MPRP 3-0A, CFFCINST 3501.3, NTA 4.9.2)

M1	Percent	Of scheduled training conducted.
M2	Percent	Of mission areas meeting specified training readiness standard.
M3	Time	Devoted to mission area training.
M4	Percent	Of training time devoted to mission area training.

Command & Control

MCT 5 EXERCISE COMMAND AND CONTROL

To exercise authority and direction over assigned or attached forces in the accomplishment of a mission. C2 involves maintaining visibility over and arranging personnel, equipment, and facilities during the planning and conducting of military operations. (JP 0-2, 3-0, 3-01.1, 3-03, 3-05, 3-08, 3-09, 3-09.3, 3-10.1, 4-01.1, 4-01.3, 5-00.2, 6-0, 6-02, MCDP 6, MCWP 3-25.3, 3-25.4, 3-40.1, CJCSM 6120.05, NDP 1, NDP 6, NWP 5-01 Rev A, ATP 1D, NTA 5)

M1	Hours	Prior to execution OPLAN/OPORDER/OPGEN published and delivered to units.
M2	Percent	Of units receive their orders on schedule.
M3	Percent	Of units at desired position and appropriate degree of readiness at execution.
M4	Percent	Of communications nodes in place.

MCT 5.1 Acquire, Process, Communicate Information, and Maintain Status

To obtain information on the mission, enemy forces, neutral/non-combatants, friendly forces, terrain and weather. To translate that information into usable form and to retain and disseminate it. This task includes disseminating any type information. (JP 1, 2-0 Series, 3-0, 6 Series, MCDP 6, MCWP 3-40.3, NDP 6, NWP 5-01 Rev A, NTA 5.1)

M1	Percent	Of units are in communication with Commander throughout planning and execution.
M2	Hours	To process status information and disseminate to subordinate units.
M3	Percent	Of critical information acquired and disseminated to subordinate units.
M4	Hours	After arrival within operations area, unit establishes connectivity with the Commander and obtains common operating picture.
M5	Hours	Since latest information collected.
M6	Percent	Of available information examined and considered in latest status report.
M7	Percent	Of organizations or units receive latest information.
M8	Time	To restore communications from complete loss of facility control.
M9	Time	To restore vital prioritized circuits after DAMA loss.
M5	Time	To activate secondary circuits after loss of primary

MCT 5.1.1 Provide and Maintain Communications

To send and receive data (to include verbal, electronic and written). This activity includes providing, maintaining and distributing data and information by any means. Information can include plans and orders, intelligence, weather, friendly troop/unit status and location, and reports. Includes receiving and transmitting plans and orders, enemy information, terrain and weather information, and friendly troop information. (JP 1, 2-0 Series, 3-0, 3-56 Series, 6 Series, MCDP 6, MCWP 3-40.2, 3-40.3, NDP 6)

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M1	Percent	Of units are in communication with Commander throughout planning and
		execution.
M2	Hours	To process status information and disseminate to subordinate units.
M3	Percent	Of critical information acquired and disseminated to subordinate units.
M4	Hours	After arrival within operations area, unit establishes connectivity with the
		Commander and obtains common operating picture.
M5	Hours	Since latest information collected.
M6	Percent	Of available information examined and considered in latest status report.
M7	Percent	Of organizations or units receive latest information.
M8	Time	To restore communications from complete loss of facility control.
M9	Time	To restore vital prioritized circuits after DAMA loss.
M10	Time	To activate secondary circuits after loss of primary.
M11	Percent	Of addressees received messages.
M12	Hours	After activation force establishes means to send both data and voice traffic with all units and senior Commanders.
M13	Percent	Of messages go outside normal communications channels.
M14	Percent	Of messages sent outside secure channels for the level of security of the message.
M15	Minutes	Queuing for messages to be sent.
M16	Hours	After approval, all orders and plans are received by components and adjacent units.
M17	Percent	Of the time subordinate Commanders in communication with the OTC during
	<u> </u>	execution.
M18	Percent	Of time, desired communications path available.
M19	Minutes	Lag between Commander's common picture of battlespace and real world.
M20	Time	To disseminate ATO by multiple communication paths.
M21	Y/N	ATO received by all units.

MCT 5.1.1.1 Provide Single Channel Radio Communications

To provide radio communications support to the MAGTF. The Single Channel Radio (SCR) is the principal means of communications support for maneuver units. SCR provides secure voice communication and supports limited data information exchange. SCR in the VHF and UHF bands is normally limited to line of sight. In the HF band, SCR can support long-range communications, albeit at the expense of mobility. SCR SATCOM provides mobility, flexibility, and ease of operation with unlimited range. Attention to operator maintenance of the radio equipment, antennas, cable assemblies, and equipment grounding, as well as, site planning and selection, is essential to reliable communications. (MCRP 3-40.3A, 3-40.3B, 3-40.3C, MCWP 3-40.3)

M1	Percent	Of SCR equipment operational.
M2	Percent	SCR equipment in theater.
M3	Percent	Of force operating SCR.
M4	TBD	

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MCT 5.1.1.2 Provide Wide Area Networks (WAN)/Local Area Networks (LAN) Communications

MAGTF tactical wide area networks (WANs) and local area networks (LANs) are data communications networks designed to support information exchange, collaboration, and resource sharing in a particular agency, facility, center, cell, or geographic location. Specific WAN/LAN access methods, technologies, protocols, and equipment are employed in a topology (physical and logical layout or design) that connects the commands' information systems and services. MAGTF WAN/LAN implementations will change with time because of continuous change in the technology and resulting commercial products. (MCWP 3-40.3)

M1	Percent	Of WAN operational.
M2	Percent	Of LAN operational.
M3	Percent	WAN equipment in theater.
M4	Percent	LAN equipment in theater.
M5	Percent	Of force operating via WAN/LAN.

MCT 5.1.1.3 Provide Electronic Message Communications

To provide communications network support for the MAGTF including installation, operation and maintenance of the Defense Message System (DMS). The DMS consists of all hardware, software, procedures, standards, facilities, and personnel used to exchange messages electronically between organizations and individuals in the DOD. The DMS provides a secure, timely, reliable writer-to-reader messaging service across strategic and deployed environments. The DMS program helps to integrate the tactical and strategic environments and is a key component of the defense information infrastructure. (JP 2-01,2, 6-0, MCWP 3-40.3)

M1	Percent	Of DMS equipment operational.
M2	Percent	DMS equipment in theater.
M3	Percent	Of force operating via DMS.
M4	TBD	

MCT 5.1.1.4 Provide Telephone Communications

The mission of the communication battalion is to provide communications support to a MARFOR component HQ; a MEF CE or a MEB CE; a component HQ deployed simultaneously with a MEF CE and a MEB CE; or two MEB CEs, and three MEU CEs. The battalion provides command element communications connectivity between the supported command element and senior, adjacent, and subordinate HQs. The battalion provides the supported CE with a Naval Telecommunications System and Defense Communications System entry and provides overall support system planning and engineering for the operational control of MAGTF communications networks as required. The communication battalion HQ company installs, operates, and maintains network control facilities, system control facilities, field message centers, radio links, and tactical switchboard/telephone systems for the component HQ and MAGTF CEs of MEB size and larger and two MEU CEs. (JP 2-01.2, 6-0, MCWP 3-40.3)

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M1	Percent	Of switchboards operational.
M2	Percent	Of force with telephone service.
M3	TBD	

MCT 5.1.1.5 Provide Digital Switched Backbone Communications

The MAGTF digital switched backbone (SBB) comprises the switching, routing, and wideband transmission systems that provide the high-capacity communications backbone for the MAGTF tactical communications network, as well as, connectivity with the Defense Information System Network (DISN). It is the tactical equivalent of commercial local and long-distance networks and, in some situations, interfaces with and uses those commercial networks. The SBB has the flexibility to adapt to support the unfolding tactical situation and overall scheme of maneuver. The term, digital backbone, refers to the tri-service tactical (TRI-TAC)-based circuit switched communications network used synonymously with switched backbone, under a joint program of the Marine Corps, Air Force and Army. This equipment provides interoperable, secure and deployable voice and data digital switching and transmission systems for tactical forces operating in a joint environment. (MCWP 3-40.3)

M1	Percent	Of force with SSB service.
M2	Percent	SSB equipment in theater.
M3	TBD	

MCT 5.1.1.6 Relay Communications

To pass along information which cannot reach its target audience directly. This includes the use of messengers. (JP 3-0, 6-0, 6-02, MCRP 2-24B, NDP 6)

M1	Percent	Of addressees receiving messages.
M2	Minutes	Of queuing for messages to be sent.
M3	Percent	Of time, desired communications path available.
M4	Number	Of messages relayed.
M5	Minutes	To relay required messages.
M6	Percent	To correct messages received (PCMR).

MCT 5.1.2 Manage Means of Communicating Information

To direct, establish, or control the instruments used in sending or receiving information and to use various communication networks (visual, radio, wire and cable, and messenger) and modes (e.g., FM, multi-channel, RATT, CW, tactical satellite, data, facsimile) for obtaining or sending information. To operate these nets under various levels of emissions control (EMCON). (JP 6-0, 6-2, MCWP 3-40.1, 3-40.2, 3-40.3, NDP 6, NTA 5.1.2)

M1	Percent	Of messages transmitted successfully.
M2	Percent	Of required communications personnel in theater.
M3	TBD	

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MCT 5.1.2.1 Utilize the Global Command and Control System (GCCS) and the Defense Information System Network (DISN)

To utilize the Global Command and Control System (GCCS) designed to resolve joint C2 interoperability issues and evolve incompatible, Service-specific C2 programs into a single integrated C2 system. The GCCS provides a fused and shared picture of the battlespace together with the essential planning and assessment tools required by combatant commanders and their subordinate commanders. The Defense Information System Network (DISN) provides support for exchange of voice, data, imagery, and video from strategic to tactical levels, at all echelons, in garrison or when deployed. (JP 6-0, 6-02, MCWP 3-40.1, 3-40.3)

M1	Percent	Of personnel trained to operate GCCS.
M2	Percent	Of required GCCS technical personnel in theater.
M3	TBD	

MCT 5.1.2.1.1 Maintain and Operate Joint C4 Systems

To maintain and operate joint forces command, control, communications, computers and intelligence (C4) systems. Joint C4 systems include: AFATDS, GCCS, C2PC, TBMCS, TDN, DTC, TSM, ULCS (TTC-42 SB-3865), UOC, DCGS-MC which consists of IAS, TEG J-STARS CGS, and TCAC, Joint System IBR and TROJAN SPIRIT. (JP 6-0, 6-02, MCRP 3-40.2A, 3-40.3A, 3-40.3D, 3-40.3E, 3-40.3F, 3-40.3G, 3-40.5A, 3-40.5B, MCWP 3-40.2, 3-40.3)

M1	Percent	Of personnel trained to operate TDN.
M2	Percent	Of required Joint C4 equipment in theater.
M3	TBD	

MCT 5.1.2.2 Establish, Maintain, and Operate MAGTF C4 Systems

To establish, maintain and operate the MAGTF command, control, communications, computers and intelligence (C4) System, the concept for the integration of Marine Corps tactical information systems and the migration of selection systems to the defense information infrastructure common operating environment (COE). The MAGTF C4 systems provide commanders and their staffs at all MAGTF levels, with the capability to send, receive, process, filter, and display data to aid them in their decisionmaking process and provides a shared situational awareness through a common picture of the battlespace. MAGTF C4 systems include: MSCS, TCO, CTT, TDN, DTC, TSM, ULCS (TTC-42 SB-3865), UOC, CI/HEP, TRSS, TPC, MSIDS, TPCS, MEWSS, SURSS, CESAS. (JP 6-0, 6-02, MCWP 3-40.3)

M1	Percent	Of MAGTF C4 systems installed and operational.
M2	Percent	Of required MAGTF C4 equipment in theater.
M3	TBD	

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MCT 5.1.2.3 Prepare Communications and Information System (CIS) Plans, Orders, and SOPs

Effective C2 depends on the effective and efficient operation of a communications information system (CIS). These systems provide the means to develop COP; to prepare and rapidly disseminate OPLANs and OPORDs; and to monitor, direct, and coordinate maneuver, fires, and logistics. Once a CIS plan or annex is completed and approved, it must be implemented effectively. Close supervision and frequent examination of the status of information systems and communications networks by the communications information system officer (CISO) and staff are essential. Plans will inevitably be modified as the operational situation develops. The CISO and staff must keep abreast of developments and be prepared to adapt the CIS plan to the changing situation to support and maintain MAGTF operational tempo. Responsibility for installing, operating and maintaining CIS will be shared between CIS specialists and functional area users. (JP 6-0, 6-02, MCWP 3-40.3)

M1	Yes/No	CIS Plan complete.
M2	Percent	Personnel trained on CIS Plan.
M3	TBD	

MCT 5.1.2.4 Provide Communications Security (COMSEC, TRANSEC, TEMPEST, Cryptosecurity)

MAGTF C2 relies on the confidentiality, availability, and integrity of tactical communications networks and information systems. Protecting these systems from exploitation, disruption, or destruction is of highest priority. Communications security (COMSEC), computer security (COMPUSEC), transmission security (TRANSEC), emission security (TEMPEST) and cryptosecurity, are important considerations during the planning of any operation. COMSEC is the protection resulting from all measures designed to deny unauthorized persons information of value that might be derived from the possession and study of telecommunications or to mislead unauthorized persons in their interpretation of the results of such possession and study. To maintain surprise, it is necessary to protect communications from enemy exploitation while ensuring unimpeded use of the electromagnetic spectrum. Measures must also be instituted to control access to information and protect information systems and communications networks.

(JP 6-0, 6-02, MCWP 3-40.3, 3-40.4, 3-40.5)

M1	Yes/No	COMSEC Plan complete.
M2	Percent	Personnel trained on COMSEC Plan.
M3	TBD	

MCT 5.1.2.5 Control Communication Nets

To ensure controlled nets (voice and data) carry information appropriate to their function. (JP 6-0, 6-02, MCWP 3-40.1, 3-40.2, 3-40.3, NDP 6, NWP 5-01 Rev A,NTA 5.1.2.1)

M1	Percent	Of critical C4I architecture nodes are identified in the OPORDER/OPTASK.
M2	Percent	Of C41 resources (required to support force redeployment) identified.
M3	Percent	Of OPLANs address existing terminals and lines of communications and known or estimated throughput capacity.

M4	Percent	Of essential C4I systems accessible from all locations during a 24 hour period.
M5	Percent	Of information system interfaces require information scanning, retyping, reformatting,
<u> </u>		or other on-direct translation methods.
M6	Percent	Of total time, communications networks are fully operational.
M7	Hours	To establish an integrated communications system for current operation.
M8	Percent	Of C2 nodes have all required communications capabilities.
M9	Days	To integrate a new headquarters into existing Global Command and Control
L		System network.
M10	Percent	Of status of communications equipment, circuits, and connectivity displayed is
		accurate.
M11	Percent	Of LANs authorized to interoperate are capable of interoperating (e.g., CTAPS,
		GCCS, JDISS, JMCIS).
M12	Percent	Of time networks up and fully operational.
M13	Percent	Of communications outages have adequate redundant communications paths to
]_	ensure timely receipt of all record traffic.
M14	Percent	Of firewalls in place where required.

MCT 5.1.3 Maintain Information and Force Status

To screen, circulate, store, and display data and information in a form that supports decisionmaking and the tactical picture. To store, protect, display, publish, reproduce, and distribute information to include force organization. Casualty Reports (CASREPs) and readiness data, and maintain information in Tactical Decision Aids. (JP 2-0 Series, 6 Series, CJCSI 3150.01, MCWP 3-40.1, 3-40.2, 3-40.3, NDP 6, NWP 1-03.41, 5-01 Rev A, NTTP 1-03.3 Rev A, NTA 5.1.3)

M1	Percent	Of incoming pieces of information (which could affect outcome of operation) do not get to person needing it.
M2	Percent	Of friendly unit's/organization's personnel, status is known.
M3	Minutes	From receipt of reports until data is posted to appropriate data bases or passed to work centers.
M4	Minutes	To enter most current information on status of forces.
M5	Percent	Of reports processed and disseminated to all agencies within specified time limits.
M6	Minutes	To access and display shared local data bases.
M7	Minutes	To access and display shared remote data bases.
M8	Percent	Of operational readiness data displayed, is current.
M9	Percent	Of audited reports contain no errors.
M10	Percent	Of decisions delayed because data not presented to decisionmaker in suitable format.
M11	Number	Of unresolved ambiguities in tactical picture.

MCT 5.1.3.1 Maintain Common Operational Picture (COP)

Effective C2 depends on the efficient operation and maintenance of communications and information systems (CIS). These systems provides the means to develop a common operational picture (COP); to prepare and rapidly disseminate OPLANs and OPORDs; and, to monitor, direct and coordinate maneuver, fires and logistics. (JP 3-0, 3-13, 3-13.1, MCWP 3-40.1, 3-40.2, 3-40.3)

MI	Time	For dissemination of OPLAN, Mission (MSN) Orders, and commander's intent via CIS.
M2	Percent	Of force with interoperable CIS.
M3	TBD	

MCT 5.1.3.2 Provide Positive ID of Friendly Forces within AO

To discretely and positively determine by any means, the individuality of tactical units, their equipment and personnel, or of phenomena (such as communications-electronic patterns). To distinguish these forces from hostile or unknown forces and means, one from the other. (JP 1, 3-0, 3-09.3, 3-52, 3-56.1, 5-00.2, MCWP 6-22, NDP 1, 6, NWP 3 Series)

M1	Minutes	To confirm identity of unidentified target.
M2	Minutes	To pass identity to decision maker.
M3	Number/Percent	Of forces accurately identified.
M4	Number/Percent	Of forces accurately located.
M5	Casualties	Of friendly forces due to fratricide.
M6	Percent	Of friendly casualties due to friendly actions.
M7	Number	Of penetrations of unknown targets into Weapons Release Parameters (WRP).
M8	Percent	Mode IV IFF reliability.
M9	Percent	Mode IV IFF sweet.
M10	Miles	Range of target at identification.
M11	Units	Surface contacts (neutral or friendly) incorrectly identified inside the Identification and Escort Area.

MCT 5.1.3.2.1 Establish/Maintain Enhanced Position Location Reporting System (EPLRS)

To establish and maintain the enhanced position location reporting system (EPLRS), a ground-based radio-navigation (zone, corridor, and line boundary) system. EPLRS requires detailed planning so that it can support the operational scheme of maneuver. Continuous coordination between the operations officer and communication-electronics officer of operational HQ throughout the MAGTF is necessary for effective employment of EPLRS. (MCWP 3-40.3)

M1	Days	To establish EPLRS.
M2	Percent	Of required EPLRS equipment in theater.
M3	TBD	

MCT 5.1.3.2.2 Establish/Maintain Blue Force Tracker (BFT)

To establish and maintain the Blue Force Tracker (BFT) System, a satellite-based tracking and communication system. The BFT is a digital command and control system that provides on the move, near real time, situational awareness to the vehicle mounted platform level. The systems share PLI, text messages and other information with other BFT equipped units across the battlefield. The BFT network provides commanders the ability to digitally control and monitor their subordinate units' status and position. (MARCORSYSCOM Informational Paper)

M1	Days	To establish BFT.
M2	Percent	Of required BFT equipment in theater.
M3	TBD	

MCT 5.2 Prepare Plans and Orders

To communicate the commander's intent, guidance, and decisions in a clear, useful form that is easily understood by those who must execute the order. An order is a written or oral communication that directs actions and focuses a subordinate's activities toward accomplishing the mission. The order should only contain critical or new information not routine matters normally found in standing operating procedures. As appropriate, the chief of staff or deputy MARFOR commander directs orders development. (JP 2-0, 3-0, 5-0, 5-00.2, MCWP 5-1, NDP 5, NDP 6, NWP 5-01)

M1	Time	Available to complete planning.
M2	Time	To complete planning.
M3	Percent	Of forces available, actually employed in plan.
M4	Modifications	Made to plan in order to attain commander's approval.

MCT 5.2.1 Conduct Rapid Response Planning Process (R2P2)

Procedures for the rapid coordination, planning and execution process (R2P2) must be established and practiced in order to attack targets within the shortest possible time. A delay in the delivery of fires on a target may jeopardize the success of the entire force. A characteristic of artillery is speed in executing fire missions, regardless of weather, visibility, or situation. This rapid action allows close integration with maneuver. Responsiveness can be obtained through organization for combat, multiplicity in communications, and continuous combat service support. (MCDP 5, MCWP 5-1)

M1	Time	Receipt of mission to execution.
M2	Percent	Of force trained to execute R2P2.
M3	TBD	

MCT 5.2.1.1 Man/Conduct Crisis Action Team (CAT) Operations

To man and conduct crisis action team (CAT) operations. Crisis action planning is conducted in response to crises where national interests are threatened and a military response is being considered, and promotes the logical, rapid flow of information and the timely preparation of campaign plans or OPORDs. The CAT may initiate the planning process, develop situational awareness, and access previously prepared and emerging planning products from the Joint Operation Planning and Execution System (JOPES), and may assume the functions of a rear element, primarily maintaining situational awareness for follow-on and supporting units. The CAT consists of key planners from the CE and the major subordinate elements (MSEs). Using the Rapid Response Planning Process (RRPP), these planners ensure the Marine Expeditionary Unit (MEU) is prepared to launch operations within six hours of receiving orders. This six-hour standard is the trademark of the MEU. (JP 5-0, MCWP 5-1)

MI	Percent	Of CAT personnel trained.
M2	Time	Receipt of mission to execution.
M3	TBD	

MCT 5.2.1.2 Initiate MEU[SOC] Mission Execution within Six Hours of Receipt of Mission

The Marine Expeditionary Unit (Special Operations Capable) (MEU[SOC]) normally exercises command and control from a seabase. Ongoing communication and information systems (CIS) upgrades improve the capability to support MEU[SOC] operations and mission execution within six hours of receipt of mission. These upgrades are meant to provide the required communications connectivity and C2 capability needed for the MEU[SOC] to conduct both amphibious ready group (ARG) and split-ARG operations. A MEU[SOC] unit provides the President and the unified combatant commanders with forward-deployed units that can conduct a variety of quick reaction, sea-based, crisis-response options in either a conventional amphibious/expeditionary role or in the execution of maritime special operations. (MCWP 3-40.1, USMC Concepts and Programs)

M1	Time	Receipt of mission to execution.
M2	Percent	Of force capable of conducting execution within six hours.
M3	TBD	

MCT 5.2.2 Conduct Deliberate Planning (Marine Corps Planning Process (MCPP))

To make estimates and decisions based on assigned, projected, or implied tasks. To examine all aspects of potential operations, including options to alter planned or ongoing actions, and determine the acceptable degree of risk. It also includes formulating the commander's guidance and intent; developing, analyzing and approving a concept of operations and course of action. This task includes development of the operations order. (JP 2-0, 3-0, 5-0, 5-00.2, MCWP 5-1, NDP 5, NDP 6, NWP 5-01)

M1	Time	Available to complete planning.
M2	Time	To complete planning.
M3	Percent	Of forces available, actually employed in plan.
M4	Modifications	Made to plan in order to attain Commander's approval.

MCT 5.2.2.1 Conduct Mission Analysis

To examine all available information. This includes reviewing the mission, mission requirements, and evaluating updated status information. In this task, the commander presents his battlespace area evaluation (CBAE). Planners analyze higher-level guidance, identify enemy centers of gravity, review assessments of the situation, and prepare a proposed mission statement. Area of Interest (AI) is determined from terrain analysis and an analysis of friendly and threat capabilities and limitations, and should be examined in accordance with the guidance provided by the commander in his CBAE. Commander's Critical Information Requirements (CCIRs) are developed. The unit mission statement, Commander's intent, and initial planning guidance are developed and issued to facilitate development of the proposed course(s) of action.

(JP 0-2, 2-0, 3-0, 3-53, 3-56, 5-0, 5-00.2, MCWP 5-1, NDP 5, 6, NWP 5-01)

MI	Minutes	To complete assessment of latest information (cycle time).
M2	Percent	Of available reports reviewed.
M3	Time	After the request or occurrence, force reviews or develops flexible deterrent options.
M4	Hours	In advance of execution, decision is made to change plan.
M5	Percent	Of enemy actions or operations (which affected the course of the campaign) not forecast.
M6	Percent	Of time, a political event of interest occurs without options being available.
M7	Percent	Of time, Commander/senior staff member made aware by source outside the staff of an emerging political event which could impact the theater.
M8	Hours	Since last update of Force situation.
M9	Percent	Of incoming pieces of information (which could affect outcome of operation) do not get to person needing it.

MCT 5.2.2.1.1 Develop Commander's Battlespace Area Evaluation (CBAE)

The commander's CBAE is the commander's personal vision based on his understanding of the mission, the battlespace, and the enemy. The commander uses this evaluation to develop, assess, and communicate knowledge to the staff, which supports the planning and decisionmaking processes. The CBAE may be as simple as the commander's initial thoughts or it may be as complex as the product of his detailed analysis. CBAE identifies the battlespace, centers of gravity, commander's intent, and commander's critical information requirements. (JP 1, 2-0, 3-0, MCDP 1-0, MCWP 3-40.2, 5-1)

M1	Yes/No	CBAE developed and used throughout the planning phase.
M2	Yes/No	Enemy Centers of Gravity included in the CBAE.

MCT 5.2.2.1.2 Review, Request Changes to, Provide Rules of Engagement (ROE)

To review, request changes to and provide rules of engagement (ROE), or directives issued by competent military authority, that will delineate the circumstances and limitations under which U.S. Forces will initiate and/or continue combat engagement with other forces encountered. (JP 1, 2-0, 3-0, MCDP 1-0)

M1	Yes/No	ROE provided?
M2	Number	ROE changes requested.
M3	Hours	From request for changes to ROE until approval/denial.
M4	Incidents	Of misunderstood ROE.
M5	TBD	

MCT 5.2.2.1.3 Develop Commander's Planning Guidance

The commander's planning guidance focuses the staff during COA development. It should be specific enough to assist the planning effort, but not so specific as to inhibit COA development. This guidance may be expressed in terms of warfighting functions, types of operations, forms of maneuver, etc. The commander's guidance provides preliminary decisions required to focus planners on the commander's conceptual vision of the operation. The commander develops this guidance using the commander's battlespace area evaluation (CBAE), experience, and information on the mission from higher headquarters. The commander's initial planning

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guidance provides the staff and subordinate commanders additional insight on how he views the mission, the tasks to be accomplished, and the resources required to achieve the desired end state. From this guidance, the FSC begins to frame fire support's role in the plan. (JP 3-0, 5-0, 5-00.2, MCWP 3-16, 5-1, FMFM 3-1, NDP 5, 6, NWP 5-01)

M1	Hours	After being notified of his tasks, the joint force commander issued or approved Initial Planning Guidance.
M2	Hours	In advance of execution, guidance issued to subordinate units.
M3	Time	Development of Commander's Planning Guidance.
M4	TBD	

MCT 5.2.2.1.4 Issue Warning Order

To issue a warning order (WO) for deployment and employment of expeditionary forces to a foreign setting and to establish their visible, credible presence offshore to accomplish national objectives or deter further crisis. A warning order should include the approved mission statement (to include the commander's intent), the commander's guidance and any other information that will assist subordinate units with their planning (e.g., changes in task organization, earliest time of movement). When military presence has not achieved friendly intentions, the actual employment of forces may be required to achieve military objectives and political goals. Employment is the use of Marine Corps forces to conduct operations to achieve the objectives of the joint force commander. This employment is comprised of the operational use of Marine Corps forces by the Marine Corps component commander or functional component commander and the tactical use of the MAGTF within the AO to attain military objectives. Employment includes both combat operations as well as MOOTW. (JP 1, 2-0, 3-0, MCDP 1-0, MCWP 5-1)

M1	Yes/No	Warning Order issued?
M2_	Time	Receipt of mission to Warning Order issuance.
M3	TBD	

MCT 5.2.2.2 Develop Course of Action (COA)

Using the commander's planning guidance, as well as, updated IPB products, the relative combat power assessment, and COG analysis, planners begin developing possible ways the force can accomplish the mission. This requires creativity, imagination, and unbiased and open-minded participants. The number and detail of the COAs to be developed is dependent on the time available for planning. The planners do not judge or eliminate potential COAs: all possibilities are recorded for potential use. Using METT-T and an array of employment possibilities, planners design a broad plan of how they intend to accomplish the mission. "How" they intend to accomplish the mission becomes the COA. Development of COAs with sufficient variety to provide the commander a range of employment options is critical. (JP 3-0, 5-0, 5-00.2, MCWP 5-1, FMFM 3-1, NDP 5, 6, NWP 5-01)

M1	Percent	Of available planning time allotted for subordinate planning.
M2	Percent	Of non-selected COAs, considered for deception.
M3	Percent	Of COAs presented to Commander, not suitable, feasible, or acceptable.
M4	Days	In advance of execution, COAs developed.
M5	Number	Courses of action (COAs) developed.
M6	Number	Alternative COAs developed.

MCT 5.2.2.2.1 Conduct Relative Combat Power Analysis (RCPA)

To conduct relative combat power analysis (RCPA), which provides planners with an understanding of friendly and threat force strengths and weaknesses relative to each other. The goal of RCPA is to identify threat weaknesses that can be exploited through asymmetric application of friendly strengths and identify friendly weaknesses that require protection from threat actions. Combat power is the total means of destructive and/or disruptive force which a military unit/formation can apply against the opponent at a given time. Fire support in maneuver warfare produces combat power and is applied through combined arms. Combat power consists of tangible factors such as the destructive effect of available firepower, and intangible factors such as surprise, tempo, and morale. (JP 1, 2-0, 3-0, 5-0, MCWP 3-16, 5-1)

M1	Yes/No	Conduct RCPA.
M2	TBD	

MCT 5.2.2.2.2 Develop/Refine Staff Estimates

To develop and refine estimates of COA supportability conducted by the commander's staff and subordinate commands. Estimates are used for comparison and decision. The role of the staff is to assist the commander in accomplishing the mission in accordance with his intent. The staff accomplishes this through gathering and presenting information, preparing, updating and maintaining staff estimates to the commander to make decisions, and providing oversight of their respective functions to ensure execution of those decisions. Staff estimates used during the planning phase of an operation and are presented as an integral part of the MCPP. (JP 1-0, MCWP 3-40.1, 5-1)

M1	Yes/No	Development of staff estimates.
M2	TBD	

MCT 5.2.2.3 Develop Commander's Wargaming Guidance

To develop the commander's wargaming guidance which may include a list of friendly courses of action to be wargamed against specific threat courses of action: (e.g., COA against the enemy's most likely, most dangerous, or most advantageous COA); the timeline for the phase or state of the operation; a list of critical events (e.g., shifting the main effort); and level of detail (e.g., two levels down). Wargaming is a technique that aids COA analysis. It can be done formally, a disciplined, interactive mechanism that examines the execution of friendly COAs in relation to threat reaction, or informally, such as "what if" conversation between commander and selected staff officers. Wargaming relies heavily on tactical judgment and experience. It offers a common vision of operations to test plans against the array of possible enemy and friendly actions. (MCWP 3-16, 5-1)

M1	Yes/No	Conducted wargaming.
M2	Yes/No	Full participation from subordinate units.
M3	Yes/No	Full participation from adjacent/supporting units.
M4	TBD	

MCT 5.2.2.3 Wargame COAs

Course of action (COA) wargaming allows the staff and subordinate commanders to gain a common understanding of friendly -- and possible enemy -- COAs. This common understanding allows them to determine the advantages and disadvantages of each COA and forms the basis for the commander's COA comparison and decision. COA wargaming involves a detailed assessment of each COA as it pertains to the enemy and the battlespace. Each friendly COA is wargamed against selected threat COAs. COA wargaming assists the planners in identifying strengths and weaknesses, associated risks, and asset shortfalls for each friendly COA. COA wargaming may identify branches and potential sequels that require additional planning. Short of actually executing the COA, COA wargaming provides the most reliable basis for understanding and improving each COA. (JP 3-0, 5-0, 5-00.2, MCWP 5-1, FMFM 3-1, NDP 5, 6, NWP 5-01)

M1	Percent	Of branches and sequels that occurred, were not identified in COAs.				
M2	Percent	Of decision points had no developed branches or sequels.				
M3	Y/N	Staff "wargamed" COAs against potential enemy COAs.				
M4	Incidents	Of limitations, (ultimately identified during execution) were not identified during analysis.				
M5	Incidents	Of capabilities (ultimately required) not previously identified.				

MCT 5.2.2.3.1 Develop Synchronization Matrix

To develop a planning support tool designed to integrate the efforts of the force across the warfighting functions and to record the results of the COA wargame. It depicts, over time, the diverse actions of the entire force that are necessary to execute the COA. When completed, it provides the basis for a matrix or checklist. (MCWP 5-1)

M1	Yes/No	Develop synchronization matrix.
M2	TBD	

MCT 5.2.2.4 Conduct COA Comparison and Decision

To conduct COA comparison and decision, in which the commander evaluates all friendly courses of action against established criteria, evaluates them against each other, and selects the course of action that he believes will best accomplish the mission. The commander may also refine his mission statement (including his intent and essential tasks) and concept of operations, and identify any branches of the chosen course of action that needs further staff attention. (MCWP 5-1)

M1	Yes/No	Objective analysis applied to recommending selection of COAs.
M2	Yes/No	Selective COA reflects a Main Effort and economy of force.

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MCT 5.2.2.5 Develop the Order

The orders development step in the Marine Corps Planning Process (MCPP) communicates the commander's intent, guidance, and decisions in a clear, useful form that is easily understood by those who must execute the order. An order is a written or oral communication that directs actions and focuses a subordinate's activities toward accomplishing the mission. The order should only contain critical or new information not routine matters normally found in standing operating procedures. (JP 3-0, 5-0, 5-00.2, MCWP 5-1, FMFM 3-1, NDP 5, 6, NWP 5-01)

M1	Percent	Of standing plans complete.				
M2	Percent	Of responses were preplanned.				
M3	Hours	To prepare plans.				
M4	Hours	o approve orders.				
M5	Percent	Of time, from alert to initiation, used to prepare plans.				
M6	Percent	Of units receive complete orders on first transmission.				
M7_	Hours	To issue all plans and orders.				
M8	Time	Prior to execution, all units receive orders.				

MCT 5.2.2.5.1 Develop Base Plan

To develop the base plan to execute military operations. The MCPP consists of six steps which provide the commander and his staff, at all levels, a means to organize their planning activities, to transmit plans to subordinates and subordinate commands, and to share a common understanding of the mission and commander's intent. The six steps are: mission analysis, course of action development, course of action wargame, course of action comparison and decision, orders development and transition. (JP 5-0, MCWP 5-1)

M1	Yes/No	Base Plan developed.
M2	Time	Required to develop base plan.
M3	Percent	Of MSC/MSE able to provide input/edit.
M4	TBD	

MCT 5.2.2.5.2 Develop Annexes, Appendices, Tabs, Exhibits, etc.

To develop supporting annexes, appendices, tabs, exhibits, etc. to accompany or support the order or plan to conduct and execute military operations. (JP 5-0, MCWP 5-1)

M1	Number	Of annexes developed.
M2	Percent	Of annexes complete.
M3	Time	To complete annexes.

MCT 5.2.2.5.3 Conduct Orders Crosswalk

To conduct orders crosswalk, wherein the staff compares the order with the orders of higher and adjacent commanders to achieve unity of effort and ensure that the superior commander's intent is met. Orders crosswalk identifies discrepancies or gaps in planning. If discrepancies or gaps are found, the staff takes corrective action. (MCWP 5-1)

M1	Yes/No	Orders crosswalk complete.
M2	Time	Required to conduct orders crosswalk.
M3	Percent	Of subordinate, support and adjacent forces participating in the orders crosswalk.
M4	TBD	

MCT 5.2.2.6 Transition the OPORD/CONPLAN for Current Operations

To transition the operations order (OPORD), or the operations plan in concept format (CONPLAN), in a successful shift from planning stage to current mission operation execution. Transition enhances the situational awareness of those who will execute the order, maintains the intent of the concept of operations, promotes unity of effort, and generates tempo. Successful transition ensures that those charged with executing the order have a full understanding of the plan, commander's intent, the concept of operations, and Marine Corps Planning Process tools. (MCWP 5-1)

M1	Time	To transition the OPORD/CONPLAN for current operations.				
M2	Percent	Required to transition the OPORD/CONPLAN for current operations to subordinate, support and adjacent forces receiving the OPORD/CONPLAN.				
M3	TBD					

MCT 5.2.3 Perform Resource Management

To perform resource management of personnel, equipment, and funds. This includes services such as planning, programming, budgeting, and execution support; budget analysis; and force budget, financial, and management support for commanders. Additional activities include those such as contracting and monitoring contract performance, real property repair and maintenance, equipment systems acquisition, recruiting, providing and accounting for all classes of supply, total asset visibility and budgeting. (JP 1, 4-0, 4-04, MCDP 1-0, NDP 4, NWP 4-08 Series, NAVSUP P500, NAVCOMP MANUALS)

M1	Days	Between identification of need before completion of action.				
M2	Number	Of individual actions undertaken.				
M3	Percent	Of funds expended with respect to operational budget.				
M4	U.S. Dollar	Value of material lost or damaged due to delay on inefficiencies in system.				

MCT 5.3 Direct, Lead, Coordinate Forces/Operations

To direct subordinate units so that they understand and contribute effectively and efficiently to the attainment of the Commander's concept and intent and assigned tactical military objectives. This task includes preparing and completing plans and orders, intelligence collection plans, essential elements of information, logistic plans, and promulgating rules of engagement. (JP 1, 0-2, 3-0, 5-0, 5-00.2, MCDP 1-0, NDP 5, 6, NWP 5-01 Rev A, NTA 5.4)

M1	Percent	Of time, tactical maneuver units receive Commander's intentions for immediate			
		future operations to support unit planning.			
M2	Percent	Of time, joint force Commander is positioned to allow himself to best affect the accomplishment of the operational end state for each operation.			
M3 M4	Incidents	Of subordinate Commanders requesting clarification of orders.			
M4	Percent	Of planning time the joint force allocates to components.			

M5	Percent	Of time, orders pre-coordinated with subordinate units.						
M6		Of completed planning documents (e.g., mission analysis, COA decision,						
L	synchronization matrix) passed to components as completed to allow parallel planning.							

MCT 5.3.1 Direct Operations

To command and control operations of the task organization and the force. (JP 1, 3-0, 5-0, 5-00.2, MCDP 1-0, NDP 6, NTA 5.4.1)

M1	Percent	Of standard procedures were followed in determining exceptions to ROE.
M2	Hours	To issue orders.
M3	Percent	Of mission objectives attained.

MCT 5.3.1.1 Issue Orders

To guide and command the execution of the plans. The commander's direction is guided by the Operation Order derived during the planning of the operation, as well as, by the commander's intent, and may be varied as the battlespace situation changes. This task includes submitting orders and plans for transmission to subordinate, supporting, or attached units for execution, to adjacent and higher units for coordination and/or approval, and to promulgate ROE to subordinates. (JP 5-0, 5-00.2, MCDP 1-0, NDP 5, 6, NWP 5-01 Rev A, NTA 5.4.1.1)

M1	Percent	Of units receiving complete orders on first transmission.
M2	Hours	To issue all plans and orders.
M3	Time	Prior to execution, all units received orders.

MCT 5.3.1.2 Exercise Tactical Command and Control

Tactical command and control provides purpose and direction to the varied activities of a military unit. It is the means by which the commander recognizes what needs to be done and sees to it that appropriate actions are taken. Tasks include: to order warfare degrees of readiness; to direct asset assignment, movement, and employment; and, to control tactical assets, including allied and joint forces assigned. (JP 1-02, 3-0, 5-0, 5-00.2, MCDP 1-0, 6, NDP 6, NWP 3-21, 3-21.0 Rev A, 3-56.1 Rev A, NTA 5.4.1.2)

M1	Time	For units to respond to tasking.
M2	Time	Delay in response to orders.
M3	Percent	Of units responding appropriately to orders.
M4	Percent	Of mission objectives attained.

MCT 5.3.1.3 Lead Forces

Leadership is the influencing of people to work toward the accomplishment of a common objective and is essential to effective command. While the component, MAGTF, and major subordinate command commanders exercise leadership by visualizing and describing how the operation will be conducted, commanders at lower levels accomplish the goals of the operation by motivating and directing the actions of their units. (JP 3-0, 5-0, 5-00.2, MCDP 1-0, 6, NDP 5, 6, NWP 3-56 Rev A, 5-01 Rev A, NTA 5.4.2)

M1	Time	For units to respond to tasking.
M2	Time	Delay in response to orders.
M3	Percent	Of units responding appropriately to orders.
M4	Percent	Of units achieving objectives.
M5	Percent	Of time allotted, used to attain objectives.
M6	Percent	Of objectives attained at end of mission.

MCT 5.3.1.4 Maintain Command Presence

To allow the commander to act, either directly or through direct communication, so as to infuse among subordinates, the commander's will and intent. In addition to guiding, directing, and controlling operations, a commander must make his personal presence felt through personal positioning, communication, and involvement. (JP 1, 0-2, 3-0, 5-0, MCDP 1-0, 6, NDP 5, 6, NWP 5-01 Rev A, NTA 5.4.2.1)

M1	Percent	Of subordinate Commanders can explain concept and intent of superior.
M2	Time	Between visits to or communications with subordinate units.

MCT 5.3.1.5 Maintain Unit Discipline

To preserve ordered behavior and obedience within the Marine Corps forces even under the severest combat conditions in order to execute the commander's concept and intent. (JP 3-0, 4-0, 5-0, MCRP 6-11B, NDP 5, 6, NWP 5-01 Rev A, NTA 5.4.2.2)

M1	Percent	Of personnel receive NJP.
M2	Percent	Of NJP cases found guilty.
M3	Number	Of Courts Martial cases.
M4_	Percent	Of Courts Martial cases found guilty.
M5	Number	Administrative separation cases.

MCT 5.3.1.6 Synchronize Tactical Operations with Warfighting Functions

To arrange surface, subsurface, air, and ground forces and coordinate detection assets and tactical fires with the maneuver of forces in time, space, and purpose to support the commander's concept of operations and produce maximum relative combat power of combined arms at the decisive point. The goal is to maximize the effects of fires to accomplish the mission and minimize the effects on friendly/neutral forces and noncombatants. This task includes requests to higher authorities and requests to or support of non-assigned units operating within the area of operations, ships and units of foreign nations not under U.S. command, and coordinating with external agencies and elements. (JP 1, 3-0, 3-01.4, 3-02, 3-02.1, 3-03, 3-05, 3-09, MCDP 1-0, NDP 1, 5, NWP 3-21, 3-01.01, 3-56 Rev A, 5-01 Rev A, NTTP 3-02.2, FMFM 2-7.1, NTA 5.4.3)

M1	Hours	Delay in initiating a phase of an operation.
M2	Percent	Of friendly forces actively contributing to conduct of operation.
M3	Incidents	Of operational missions (e.g., SOF, PSYOP, Deception) which were executed without coordinating with operating forces in the target area.
M4	Percent	Of missions delayed, disrupted, canceled, or modified due to lack of integration of assets.
M5	Percent	Of subordinate missions executed without requested JF or component support.

M6	Percent	Of subordinate orders reviewed by staff for compliance with Commander's intent.
M7	Incidents	Of potential cross unit fratricide identified and eliminated.
M8	Hours	Prior to execution, all units have an execution matrix which shows the sequence and timing of each unit task throughout the operation.
M9	Percent	Of OPLANs contain a C2W Appendix.
M10	Percent	Of OPLANs contain an Annex for Special Technical Operations when required.
M11	Percent	Of actions not completed as per time line.
M12	Percent	Of area covered by fires.
M13	Percent	Of area occupied.
M14	Percent	Of significant areas contested by opposing forces.
M15	Percent	Of operations delayed due to enemy actions.
M16	Units	Of active CAP stations occupied.
M17	Percent	Of active CAP stations occupied.
M18	Units	Of sorties flown in direct support of mission.
M19	Units	Of sorties flown in indirect support of mission.

MCT 5.3.1.6.1 Develop Maneuver Control Measures

To prepare and promulgate maneuver control measures for deconfliction between adjacent friendly units. This task includes establishment of maneuver control and coordination measures such as Area of Responsibility, Area of Interest, Boundaries, and Phase Lines. (JP 1, 3-0, 3-09 Series, MCDP 1-0, MCRP 3-16C, 3-16.1F, 3-25D, MCWP 3-16, NDP 1, NWP 3-05, NTTP 3-02.2)

MI	Number	Operations delayed/canceled due to enemy attack during execution.
M2	Percent	Of friendly units located in Restricted Zone.
M3	Time	To promulgate changes to maneuver control and coordination measures.
M4	Number	Of missions aborted due to changes in maneuver control and coordination plan.

MCT 5.3.1.7 Establish Liaisons

To provide personnel to other units or external agencies to allow for better communication and coordination. This includes providing support and facilities for liaisons assigned to one's own unit. (JP 2-0, 3-0, 5-0, 5-00.2, MCRP 5-1B, 3-40.7, MCWP 3-1, 3-16, 3-36, 4-11, 5-1, NDP 5, 6, NWP 5-01 Rev A, NTA 5.4.4)

M1	Time	From Alert Order until force liaison structure is established.
M2	Percent	Of other units or agencies have required LNO.
M3	Incidents	Of friendly forces orders/taskings delayed because of insufficient liaison.
M4	Percent	Of plan changes are due to missing or late information from a unit or agency.
M5	Time	To communicate new orders or information to allies and friendly elements of force.

MCT 5.3.1.8 Conduct Operational Risk Management (ORM)

To conduct risk management (ORM), the process of identifying, assessing and controlling risks arising from operational factors and making decisions that balance risk costs with mission benefits. Risk is characterized by both the probability and severity of a potential loss that may result from hazards due to the presence of an enemy adversary, or some other hazardous condition. The basic principles that provide a framework for implementing the risk management process are integrating risk management into mission planning, preparation, and execution; and,

making risk decisions at the appropriate level in the chain of command. To make an initial assessment of risk to the force. Tasks include identifying hazards most likely to result in a loss of combat power and factors that could cause the mission to fail. (JP 3-0, 5-0, 5-00.2, MCWP 5-1, FMFM 3-1, ORM 1-0, NDP 5, NWP 5-01)

Ml	Yes/No	ORM policy published and distributed.
M2	Percent	Of force trained in ORM process.
M3	TBD	

MCT 5.3.2 Establish Means to Command and Control

To establish and provide controls and procedures for command and tactical movement of forces in a way that permits a commander to move his force quickly, securely, and efficiently. To take into account the size of units and related time and space factors. To pass on multiple routes at a designated speed, organized in serial march units; establish jamming teams and liaison parties; and move tactical command post before main body to synchronize and coordinate movement, etc. Control is established to ensure the commander flexibility to deploy his force as necessary for tactical purposes. (JP 1, 3-0, 3-01.4, 3-02, 3-02.1, 3-03, 3-05, 3-09, MCDP 1-0, MCRP 3-11.1A, MCWP 3-40.3, FMFM 2-7, NDP 1, 5, NWP 3-21, NWP 3-01.1, 3-56, 5-01, NTTP 3-02.2)

M1	Hours	Delay in initiating a phase of an operation.
M2	Percent	Of friendly forces actively contributing to conduct of operation.
M3	Incidents	Of supporting missions which were executed without coordinating with operating forces in the target area.
M4	Percent	Of missions delayed, disrupted, canceled, or modified due to lack of integration of assets.
M5	Percent	Of subordinate missions executed without requested JF or component support.
M6	Percent	Of subordinate orders reviewed by staff for compliance with Commander's intent.
M7	Incidents	Of potential cross unit fratricide identified and eliminated.
M8	Hours	Prior to execution, all units have an execution matrix which shows the sequence and timing of each unit task throughout the operation.
M9	Percent	Of OPLANs contain a C2W Appendix.
M10	Percent	Of actions not completed as per time line.
M11	Percent	Of area covered by fires.
M12	Percent	Of area occupied.
M13	Percent	Of significant areas contested by opposing forces.
M14	Percent	Of operations delayed due to enemy actions.
M15	Units	Of active CAP stations occupied.
M16	Percent	Of active CAP stations occupied.
M17	Units	Of sorties flown in direct support of mission.
M18	Units	Of sorties flown in indirect support of mission.

MCT 5.3.2.1 Establish/Conduct Combat Operations Center (COC) Operations

To establish and conduct operations in a combat operations center (COC) which support the headquarters of all units of battalion size or larger. Watch officers and cells from the various staff sections, plan, monitor, coordinate, control, and support the day-to-day activities of the unit. The COC is the command's "nerve center" where information is fused to provide situational

awareness for the commander and his staff. To provide controls and procedures for tactical movement of forces in a way that permits a commander to move his force quickly, securely, and efficiently. To take into account the size of units and related time and space factors. To pass on multiple routes at a designated speed, organized in serial march units; establish jamming teams and liaison parties; and move tactical command post before main body to synchronize and coordinate movement, etc. Control is established to ensure the commander flexibility to deploy his force as necessary for tactical purposes. (JP 1, 3-0, 3-01.4, 3-02, 3-02.1, 3-03, 3-05, 3-09, MCWP 3-40.1, FMFM 2-7, NDP 1, 5, NWP 3-21, NWP 3-01.1, 3-56, 5-01, NTTP 3-02.2)

M1	Hours	Delay in initiating a phase of an operation.
M2	Percent	Of friendly forces actively contributing to conduct of operation.
M3	Incidents	Of supporting missions which were executed without coordinating with operating forces in the target area.
M4	Percent	Of missions delayed, disrupted, canceled, or modified due to lack of integration of assets.
M5	Percent	Of subordinate missions executed without requested JF or component support.
M6	Percent	Of subordinate orders reviewed by staff for compliance with commander's intent.
M7	Incidents	Of potential cross unit fratricide identified and eliminated.
M8	Hours	Prior to execution, all units have an execution matrix which shows the sequence and timing of each unit task throughout the operation.
M9	Percent	Of OPLANs contain a C2W Appendix.
M10	Percent	Of actions not completed as per time line.
M11	Percent	Of area covered by fires.
M12	Percent	Of area occupied.
M13	Percent	Of significant areas contested by opposing forces.
M14	Percent	Of operations delayed due to enemy actions.
M15	Units	Of active CAP stations occupied.
M16	Percent	Of active CAP stations occupied.
M17	Units	Of sorties flown in direct support of mission.
M18	Units	Of sorties flown in indirect support of mission.

MCT 5.3.2.2 Establish/Conduct Combat Intelligence Center (CIC) Operations

The G-2/S-2 will establish combat intelligence center (CIC) operations at all echelons of the MAGTF down to the battalion level. Personnel assigned to the intelligence center will collect, process, integrate, analyze, evaluate, and interpret intelligence and continually update the enemy situation. This information will be rapidly provided to current and future operations. These centers will be collocated with the combat operations center (COC) whenever possible. (MCWP 2-1, 2-21, 2-22, 3-40.1)

M1	Time	To prioritize intelligence requirements.
M2	TBD	

MCT 5.3.2.3 Establish/Conduct Force Fires Coordination Center (FFCC) Operations

The Force Fires Coordination Center (FFCC) is established at the MEF level to assist the MEF commander in planning and coordinating deep fires. FFCC operations include: planning, acquiring, and maintaining target information; coordinating and integrating MAGTF-level fires

with future operations; and, coordinating and integrating MAGTF-level fires with current operations. The FFCC provides coordination between the MEF and JTF targeting boards and centers. (MCWP 3-16, 3-40.1, 3-40.7)

M1	Time	To establish operating FFCC.
M2	Percent	Of required FFCC personnel on station.
M3	TBD	

MCT 5.3.2.4 Establish/Conduct Surveillance and Reconnaissance Center (SARC) Operations

To establish and conduct surveillance and reconnaissance center (SARC) operations. The SARC is the primary intelligence command and control node used to direct, coordinate, monitor, and supervise MAGTF intelligence collection conducted by organic, attached, and direct support assets. The SARC is located in proximity of the MAGTF COC and assigns collection tasks to various MAGTF assets: the force reconnaissance company, the sensor control and management platoon (SCAMP), the unmanned aerial vehicle (UAV) squadron, the radio battalion, CI detachments, HUMINT exploitation teams, as well as, the imagery interpretation platoon and the topographic platoon of the intelligence battalion production and analysis company. (MCWP 2-1, 2-2, 3-40.1)

MI	Time	To prioritize collection requirements.
M2	Time	To match collection assets to collection requirements.
M3	TBD	

MCT 5.3.2.5 Establish/Conduct Rear Area Operations Center (RAOC) Operations

The ACE commander is responsible for coordinating local security on airfields. Typically, the security mission is assigned to the MWSSs, with the MWSS commanding officer being assigned as the TSO for that respective airbase. The airbase TSO is responsible to the airbase commander for the coordination of security. Each airbase TSO should task organize a RAOC to direct and control RAS, and will effect coordination with other RAOCs as appropriate. In cases where two or more MWSSs may be collocated, the ACE or airbase commander should designate one MWSS as being responsible for establishing the RAOC and coordinating RAS. (JP 3–0, 5-0, 5-00.2, MCRP 3-41.1A, MCWP 3-41.1, NDP 6)

M1	Days	To deploy forward and establish in theater a task force headquarters element.
M2	Hours	After arrival in operational area, to establish communication links up, down, across.
M3	Days	After arrival at deployed site, task force HQ established communications with host-nation, US DOS representatives and non-governmental agencies.
M4	Days	To establish a liaison structure.

MCT 5.3.2.6 Establish/Conduct Fire Support Coordination Center (FSCC) Operations

The division commander establishes and operates a Fire Support Coordination Center (FSCC). The FSCC is established to coordinate tactical level fires, advise the Commander and the G-3 on fire matters, develop and implement fire support coordinating measures, maintain current status of fire support assets, conduct fire planning, and facilitate the operation of the Targeting Board, if

established. The FSCC is established and operational at the COC incorporating all required liaison officers and special staff sections. The FSCC advises the commander and G-3 on fire support operations, capabilities and limitations, and systems availability. The FSCC may recommend changes to the fire support organization for combat. A FSCC is established to control fires, maintain current status on the tactical situation and fire support coordination measures in effect and maintain lists of fires to be coordinated, the locations of artillery ashore, and naval surface fire support ships available. Establish reliable and uninterrupted communications with both subordinate elements and fire support agencies. Assume responsibility for the overall coordination of air, NSFS, and artillery. Coordinate the attack of targets in the priority established in the operations order or according to the commander's changes based on the tactical situation. (JP-3-0, 3-09, MCWP 3-16, NDP 1, NWP 3-03 Series, 3-56.1, NTTP 3-02.2)

M1	Number	Of assets available.
M2	Time	Required to ready assets for fire support.
M3	Percent	Of available asset prepared.
M4	Number/Percent	Of asset shortfall.

MCT 5.3.2.6.1 Establish/Conduct Fire Direction Center (FDC) Operations

Fire direction centers (FDCs) exist at artillery regiments, battalions, and batteries and permit respective commanders to plan and control fires. Fire direction operations may be centralized or decentralized. At regiment and battalion levels, the FDC exercises tactical fire direction. The battery FDC provides technical fire direction by determining firing data and issuing the data to artillery sections through fire commands. Battery FDCs are also capable of tactical fire direction and would perform this function in cases, such as MEU[SOC] deployments, when the battery operates independently. (MCWP 3-16.1, 3-16.3, 3-40.1)

M1	Time	To establish operational FDC.
M2	Percent	Of required FDC personnel in theater.
M3	TBD	

MCT 5.3.2.6.2 Establish/Conduct Tactical Air Control Party (TACP) Operations

To establish and conduct tactical air control party (TACP) operations. Control and coordination of direct air support is achieved through tactical air control parties (TACPs) organic to GCE units, through the direct air support center (DASC), and through other MACCS agencies. TACPs provide coordination between GCE units and supporting aviation assets and exist at the infantry division, regiment, and battalion levels. (MCWP 3-16, 3-40.1)

M1	Time	To establish operational TACP.
M2	Number	TACPs established.
M3	TBD	

MCT 5.3.2.7 Establish/Conduct Tactical Air Command Center (TACC) Airborne Operations

The principal air command agency for the ACE is the Tactical Air Command Center (TACC). It provides the command post and capabilities necessary from which the ACE Commander and staff, plan, supervise, integrate, coordinate, direct and execute all current and future MAGTF airborne operations, including deep operations; the planning and execution of all air tasking orders (ATOs); and, the execution of the current Wing operation order (OPORD) or fragmentary order (FRAGO). The TACC is the senior Marine Air Command and Control System (MACCS) agency and integrates these functions with the MAGTF command element through linkage with the force fires coordination center (FFCC) and combat operations center (COC). The TACC provides functional interface for employment of MEF aviation in joint and multinational operations. It maintains the current status of air assets, conducts targeting, and facilitates the operation of the Air Tasking Cycle, which produces the ATO. (JP 3-0, 5-0, 5-00.2, MCWP 3-2, 3-25.4, NDP 6)

MI	Number	Incidents where proper coordination of movement was not adequate.
M2	Hours	In advance of operations Notices to Airmen (NOTAMS) published to ALCON agencies.
M3	Percent	Air assets (subject to airspace management plan) employed in accordance with the OPLAN.
M4	Number	Of airspace violations.
M5	Percent	Air assets (subject to airspace management plan) employed in accordance with the OPLAN.
M6	Units	Change in combat boarding rate when shifting from Case 1 to Case 2.
M7	Units	Change in combat boarding rate when shifting from Case 2 to Case 3.

MCT 5.3.2.7.1 Establish/Conduct Tactical Air Operations Center (TAOC) Operations

The TAOC is responsible for airspace control and management. It provides the ACE with real-time surveillance of assigned airspace; the capability to detect, identify, and control the interception of hostile aircraft and missiles; and direction, positive control, and navigational assistance for friendly aircraft. The TAOC collects and displays information from its own sensors, other Marine Corps sources, and external sources that can be used to enhance the ability of the TACC to prosecute the ACE's support of deep operations. The sector anti-air warfare coordinator (SAAWC) is the MAGTF's air defense battle manager. The SAAWC coordinates and manages all active defense weapons within an assigned sector. The SAAWC is an extension of the TAOC, not a separate agency in and of itself. The SAAWC plans air defense operations, manages air defense resources, supervises the employment of air defense assets, and coordinates with higher and adjacent air agencies and activities. The fundamental difference between TAOC and SAAWC responsibilities lies in their focus: execution versus planning and coordination. (JP 3–0, 5-0, 5-00.2, MCWP 3-2, 3-25.7, NDP 6)

M1	Number	Incidents where proper coordination of movement was not adequate.
M2	Hours	In advance of operations Notices to Airmen (NOTAMS) published to ALCON agencies.
M3	Percent	Air assets (subject to airspace management plan) employed in accordance with the OPLAN.
M4	Number	Of airspace violations.
M5	Percent	Air assets (subject to airspace management plan) employed in accordance with the OPLAN.
M6	Units	Change in combat boarding rate when shifting from Case 1 to Case 2.
M7	Units	Change in combat boarding rate when shifting from Case 2 to Case 3.

MCT 5.3.2.7.2 Establish/Conduct Direct Air Support Center (DASC) Airborne Operations

The Marine air control group (MACG) is responsible for providing, staffing, operating, and maintaining the direct air support center (airborne) (DASC[A]). The DASC is the principal MACCS air control agency ashore and is responsible for the direction of air operations directly supporting ground forces. It processes and coordinates requests for immediate air support and coordinates air missions requiring integration with ground forces and supporting arms. DASC receives the air tasking order (ATO) from the TACC (Marine or Navy), and coordinates preplanned direct air support. When delegated authority by the aviation combat element (ACE) Commander, and in coordination with the GCE's senior FSCC, the DASC adjusts preplanned schedules, diverts airborne assets, and launches aircraft as necessary. The DASC coordinates the execution of direct air support missions with other supporting arms through the appropriate FSCC and, as required, with the appropriate MACCS agencies, and receives and disseminates pertinent tactical information reported by aircraft performing direct air support missions. The DASC also: provides aircraft and air control agencies with advisory and threat information to assist in the safe conduct of flight; monitors, records, and displays information on direct air support missions; maintains friendly and enemy ground situation display necessary to coordinate direct air support operations; provides direct air support aircraft and other MACCS agencies with information concerning the friendly and enemy situation; and, refers unresolved conflicts in supporting arms to the senior FSCC's fire support coordinator (FSC). (JP 3-0, 5-0, 5-00.2, MCWP 3-2, 3-25.5, NDP 6)

MI	Number	Incidents where proper coordination of movement was not adequate.
M2	Hours	In advance of operations Notices to Airmen (NOTAMS) published to ALCON agencies.
M3	Percent	Air assets (subject to airspace management plan) employed in accordance with the OPLAN.
M4	Number	Of airspace violations.
M5	Percent	Air assets (subject to airspace management plan) employed in accordance with the OPLAN.
M6	Units	Change in combat boarding rate when shifting from Case 1 to Case 2.
M7	Units	Change in combat boarding rate when shifting from Case 2 to Case 3.