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MARINE CORPS ORDER 4000.57A

From: Commandant of the Marine Corps  
To: Distribution List

Subj: MARINE CORPS TOTAL LIFE CYCLE MANAGEMENT (TLCM) OF  
GROUND WEAPON SYSTEMS, EQUIPMENT AND MATERIEL

- Ref: (a) MROC DM 23-2009, "Total Life Cycle Management (TLCM) Governance"  
(b) SECNAVINST 5420.188F  
(c) SECNAVINST 4105.1B  
(d) DODI 4151.22, "Condition Based Maintenance Plus (CBM+) for Materiel Maintenance," December 2, 2007  
(e) MCO 4790.21  
(f) MCO 5220.12  
(g) MCO 5231.3  
(h) MCO 4081.2  
(i) MCO 3900.15B  
(j) MCO 5311.1D  
(k) MCO 4000.56  
(l) CJCSI 3170.01G, "Joint Capabilities Integration and Development System," March 1, 2009  
(m) SECNAVINST 5400.15C  
(n) DODD 5000.01, "The Defense Acquisition System," May 12, 2003  
(o) SECNAVINST 5000.2E  
(p) DODI 5160.68, "Single Manager for Conventional Ammunition (SMCA): Responsibilities of the SMCA, the Military Services, and United States Special Operations Command (USSOCOM)," December 29, 2008  
(q) DOD 4140.1-R, "DOD Supply Chain Materiel Management Regulation," May 23, 2003  
(r) DODD 4151.18, "Maintenance of Military Materiel," March 31, 2004  
(s) DODI 5000.02, "Operation of the Defense Acquisition System," December 8, 2008  
(t) MCO 5320.12F

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distribution is unlimited.

- Encl: (1) TLCM for Ground Weapon Systems, Equipment and Materiel  
(2) Organizational Mission Tasks that Enable TLCM Processes  
(3) List of Acronyms and Abbreviations

1. Situation. This Order outlines the Commandant of the Marine Corps (CMC) policy for implementing and managing the TLCM framework for ground weapon systems, equipment and materiel. TLCM integrates execution responsibilities for all processes encompassing the development, production, fielding, sustainment and disposal of ground weapon systems across their life cycles. These are distinct but interdependent processes, and uncoordinated changes in any of these processes can cause unintended negative consequences in others. A TLCM framework will bring together these interdependent processes to better integrate and coordinate actions by process owners throughout the life cycle aimed at providing and sustaining Marine Air Ground Task Force (MAGTF) capabilities and readiness. TLCM is the critical enabler for ensuring the highest equipment readiness levels by optimizing materiel solutions across the Marine Corps.

2. Cancellation. MCO 4000.57 and MCO 4000.58.

3. Mission. To integrate the distinct but interdependent processes that compose the total life cycle for ground weapon systems, equipment and materiel, including requirements development, acquisition, fielding, operations, sustainment and disposal, with the aim of maximizing asset visibility, availability, supportability, accountability and, ultimately, warfighting capability and readiness.

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent. Effective TLCM requires the integration and synchronization of multiple interrelated processes across the life cycle of ground weapon systems, equipment and materiel. TLCM will integrate the roles and responsibilities of all stakeholders involved throughout the life cycle encompassing requirements development, acquisition, fielding, operations, sustainment (operator, intermediate and depot levels) and disposal. Effective integration of roles and responsibilities, and the work activities they drive, is of paramount importance because it closes gaps across

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organizational boundaries and improves overall programmatic effectiveness and efficiency. In particular, successful integration will promote effective reconciliation and coordination among three front-end processes that greatly affect TLMC: requirements development, supported by the Expeditionary Force Development System (EFDS); resourcing, supported by the Planning, Programming, Budgeting and Execution (PPBE) System; and acquisition, supported by the Defense Acquisition System. TLMC will ultimately meet mission requirements through use of an integrated value stream with clear, aligned roles, responsibilities and relationships. It is CMC's intent that the integration of activities across the life cycle will:

- (a) field new and improved MAGTF capabilities;
- (b) maximize equipment readiness;
- (c) assure with the highest probability of success that ground weapon systems, equipment and materiel will be available for use when and where needed;
- (d) eliminate waste throughout the process;
- (e) allow better program planning for requirements development, acquisition, fielding, operation, sustainment and disposal;
- (f) provide accurate equipment accounting and visibility through enhanced Marine Corps-wide asset management capability;
- (g) provide enhanced Marine Corps-wide sustainment capability;
- (h) provide visibility of Total Ownership Cost (TOC) [i.e. costs of acquisition, fielding, operation (e.g. fuel), sustainment (e.g. parts, labor and overhead) and disposal] for planning, programming, budgeting and execution purposes;
- (i) provide capability for Marine Corps-wide supply chain management;
- (j) provide ability to assess and improve TLMC effectiveness by monitoring performance and identifying areas for improvement through the use of valid and reliable data; and

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(k) strengthen coordination with external agencies (e.g. Defense Logistics Agency and other support agencies).

(2) Concept of Operations

(a) The strategic TLCM framework spans eight phases that provide for the management of a ground weapon system's lifecycle, from initial concept development to final disposal. The eight phases are EFDS Planning and Analysis, Materiel Solution Determination, Technology Development, Engineering and Manufacturing Development, Production and Deployment, Fielding, Operations and Support, and Disposal. Enclosure (1) contains a diagram that illustrates the eight phases of TLCM for ground weapon systems, equipment and materiel in the Marine Corps.

(b) To integrate activities of all stakeholders across the TLCM framework and as directed by reference (a), this Order establishes a cross-functional governance structure to include an Executive Board, a Corporate Board, Integrated Project Teams (IPTs) and Cross Functional Teams (CFTs). The Executive Board will be at the general officer (GO) and/or Senior Executive Service (SES) level and will provide strategic direction and governance for TLCM to the Corporate Board. The Corporate Board will be at the colonel or civilian GS-15/pay band 3 level and will be responsible for the oversight and implementation of this Order.

(c) The Deputy Commandant for Installations and Logistics (DC I&L) shall be the TLCM Governance Leader and shall charter the TLCM Executive Board.

b. Subordinate Element Missions

(1) TLCM Executive Board. The TLCM Executive Board is responsible to provide TLCM strategic direction and governance. It shall be comprised of GO/SES-level members representing DC I&L (Chair); DC Combat Development and Integration (CD&I); DC Plans, Policies and Operations (PP&O); Commanding General, Marine Corps Logistics Command (CG, MARCORLOGCOM); Commander, Marine Corps Systems Command (COMMARCORSYSCOM); and Program Executive Officer, Land Systems (PEO LS). GO/SES representatives from other TLCM stakeholder organizations will be invited to participate in TLCM Executive Board meetings at which issues involving their roles, responsibilities and/or interests are being considered. Executive Board members are responsible to:

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(a) Provide senior level governance and strategic guidance, ensure collaboration and integration with other Marine Corps strategic processes (e.g. PPBE, TLCM Information Technology Portfolio Data Management and Information Technology Capital Planning and Investment Control Processes), resolve issues, approve process flow changes and guide execution of TLCM to optimize performance of ground weapon systems across the Marine Corps.

(b) Serve as the authoritative body for advocating TLCM initiatives, policies, improvements and resource requirements.

(c) Charter and provide guidance and direction to the TLCM Corporate Board. The TLCM Executive Board will designate a Chair for the Corporate Board who will participate as a member of the Executive Board. Other Corporate Board members may attend Executive Board meetings at the discretion of the Corporate Board Chair or Executive Board members.

(d) Assist the TLCM Governance Leader in developing, implementing and overseeing TLCM policy.

(e) Identify members and subject matter experts (SMEs) for the TLCM Corporate Board and CFTs/IPTs; program-level logistics IPTs; Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel and Facilities (DOTMLPF) working groups; and Acquisition Coordinating Teams (ACT) per reference (b).

(f) Establish and enforce TLCM architecture and data governance policies and actions.

(g) Support the establishment of TLCM strategic metrics and IT solutions supporting the TLCM framework.

(h) Support TLCM training, professional education and workforce development.

(i) Participate in TLCM planning and analysis functions throughout the EFDS process.

(j) Support a common framework for estimating, collecting and managing TOC.

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(k) Ensure TLCM strategic goals, objectives and initiatives are incorporated into the requirements generation process and program goals.

(l) Optimize the readiness of Marine Corps ground weapon systems, equipment and materiel by creating a framework for proactive and robust analysis, processes, synthesis strategic forecasting and sound TOC reduction strategies within the PPBE system.

(m) Support TLCM readiness analysis and the Independent Logistics Assessment (ILA) process per reference (c).

(n) Support TLCM modeling and simulation, per reference (d), to support requirement definition and cost analysis.

(o) Make recommendations to DC P&R on how best to resource TLCM capabilities in the Program Objective Memorandum (POM)/Program Review (PR) and PPBE system.

(2) TLCM Corporate Board. As the principal advisory body to the TLCM Executive Board, the TLCM Corporate Board is responsible for TLCM optimization through coordination of TLCM matters and oversight of TLCM performance. The TLCM Corporate Board shall:

(a) Be comprised of colonel or civilian pay band 3 level members representing: DC I&L (Chair); DC CD&I (MID); DC P&R; DC PP&O, DC M&RA; DC AVN; Commander, Marine Forces Command (COMMARFORCOM); Commander, Marine Forces Pacific (COMMARFORPAC); Commander, Marine Forces Reserve (COMMARFORRES); Commander, Marine Corps Special Operations Command (COMMARSOC); COMMARCORSYSCOM; CG, MARCORLOGCOM; PEO LS; Director, Command, Control, Computers, and Communications Department (Dir, C4); Director, Intelligence Department (Dir, Intel); and Marine Corps Operational Test and Evaluation Activity (MCOTEA). Billet titles of the members shall be reflected in the Corporate Board charter.

(b) Publish and comply with an annual meeting schedule at a frequency necessary to adequately perform the duties required in accordance with the Corporate Board Charter.

(c) Present issues, proposed solutions and policy recommendations to the Executive Board. Develop and implement a

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process to address Marine Corps-related issues that emanate from the Department of Defense (DOD) and Department of Navy (DON) to operating forces level.

(d) Ensure Marine Corps policies are compliant with statute, legislation and higher echelon policy and guidance, and are congruent with other Marine Corps policy and guidance.

(e) Charter and oversee CFTs and IPTs to optimize performance, resolve specific issues and improve TLMC processes. CFTs and IPTs will gather data, map processes, perform analysis and develop specific recommendations for TLMC process improvement.

(f) Review Depot Source of Repair (DSOR) recommendations per reference (e).

(g) Provide senior level guidance and oversight for TLMC, to include but not limited to:

1. Governance/Policy

a. Facilitate resolution of TLMC issues that cross organizational and process boundaries.

b. Align Marine Corps TLMC initiatives with DOD/DON policy and guidance.

c. Ensure integration of TLMC requirements/considerations into EFDS processes and products, as well as requirements transition from Phase 2.0 to Phase 3.0 contained in enclosure (1).

2. Strategic Planning

a. Conduct strategic planning to include developing strategic goals, objectives and metrics and executing strategic TLMC initiatives.

b. Coordinate and integrate TLMC program strategies and policies.

c. Develop and support implementation of an integrated TLMC architecture as part of the Marine Corps enterprise architecture.

d. Develop, integrate and ensure TLCM architecture compliance with Business Enterprise Architecture (BEA) and the overall Marine Corps Enterprise Architecture.

3. Continuous Process Improvement (CPI)/Process Improvement/Performance Measurement

a. Oversee TLCM performance and continuous improvement per reference (f).

b. Design and implement End-to-End TLCM feedback requirements: process, accountability, tools.

c. Provide analysis and recommend policy on TLCM processes and metrics.

4. Information Technology (IT)/Information Management (IM)

a. Identify, evaluate and recommend the development of, or integration with, technology solutions that support the execution of TLCM.

b. Provide TLCM data requirements definition, governance, authorities, cross organizational data capability and data integration to ensure efficient processes and high data quality and consistent data flows to stakeholders per reference (g).

5. Communications/Training

a. Communicate with and educate Marine Corps personnel and external organizations across organizational and process boundaries on TLCM concepts and initiatives.

b. Develop TLCM communication and education strategies and initiatives.

(3) Cross-Functional Teams (CFTs)/Integrated Process Teams (IPTs). CFTs/IPTs are responsible for development, implementation and sustainment of major life cycle performance improvement initiatives. CFTs/IPTs will be established by the TLCM Corporate Board for the purposes of optimizing TLCM and execution of major initiatives. CFTs/IPTs can be established to provide advisory services, develop improvement initiatives, provide metric analysis, recommend policy and procedures, develop communications, conduct oversight and internal reviews,

etc. CFTs are chartered as permanent entities; IPTs are chartered as needed to solve a particular problem, or carry out a specific process improvement. CFTs/IPTs shall:

(a) Represent the needs of their respective organizations to the TLMC Corporate Board.

(b) Provide advice and guidance on TLMC issues, to include training in their respective areas, as needed, to Program Managers (PMs) and other stakeholders.

(c) Be comprised of members from various stakeholders at the Action Officer level.

(d) Be responsible for tasks that may include but are not limited to:

1. drafting/proposing TLMC policy;
2. proposing TLMC metrics;
3. collecting and analyzing data;
4. generating and delivering reports;
5. advising on process improvement initiatives and managing CPI project portfolios;
6. identifying CFT and IPT members requiring CPI training;
7. leading strategic communication improvement initiatives;
8. advising on measurement and performance metrics;
9. participating in strategic planning process to include providing feedback;
10. advising on TLMC end-to-end technology improvement initiatives;
11. advising on the establishment of TLMC major metrics and accountability;

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12. advising on the design and implementation of end-to-end TLMC feedback;

13. serving as SMEs in the development of job aids and other competency-based training materials; and

14. serving on compliance/training teams to provide training and mentoring on data/information management.

(4) Deputy Commandant for Installations and Logistics (DC I&L). In addition to the duties listed for TLMC Executive and Corporate Board members and participants, and the mission related tasks in enclosure (2), the installations and logistics advocate for the Marine Corps and senior ground logistician of the Marine Corps, the DC I&L shall:

(a) Per references (a) through (t), lead the Marine Corps TLMC governance process, synchronize the TLMC framework and strengthen the accountability of TLMC stakeholders for producing results that optimize overall support to the warfighter.

(b) Serve as the advocate for life cycle management initiatives that will positively impact asset availability, reliability and economic performance (i.e. TOC) of Marine Corps ground weapon systems, equipment and materiel.

(c) Identify best practices and performance measures to eliminate fragmented and duplicative policies and support, including application of enabling methods and technologies.

(d) Serve as the principal advisor to the CMC on matters related to logistics and be responsible for publishing service logistics policy. As the Logistics Combat Element (LCE) Advocate and the Logistics Advocate for the supporting establishment, represent the LCE community and supporting establishment, including their equipment needs, in all matters related to the TLMC of ground weapon systems, equipment and materiel.

(e) Serve as the Functional Area Manager (FAM)/Functional Data Manager (FDM) for all logistics automated information technology and data, including National Security Systems.

(f) Chair, or appoint a GO/SES to chair, the TLMC Executive Board.

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(g) As the TLMC Governance Leader, ensure: the development and maintenance of life cycle management policy, guidance, metrics and oversight procedures; the consideration and inclusion of TLMC matters throughout EFDS and PPBE system; and the development, maintenance and compliance with TLMC architecture. Review and communicate the results of all TLMC strategic, operational and process performance metrics to the Executive Board, Corporate Board and CFT/IPT members.

(h) Participate in the planning, analysis and execution functions of the EFDS process of TLMC for all weapon systems and equipment for the integration of requirements, goals and objectives to include: EFDS, Business Case Life Cycle and Enterprise Risk Assessment Methodology; DOTMLPF process; Capabilities Development Integration Board; requirements transition (Phases 2.0 to 3.0); system acquisition; and the PPBE processes (e.g. participate in defining Corps-level goals and objectives for inclusion in EFDS products).

(i) Participate as a member in the ILA process per reference (c) to review and assess ILS planning, management, resources and execution, to include continuing reviews of sustainment strategies and materiel readiness to ensure consideration of Performance Based Logistics processes and principles, per reference (h).

(j) Coordinate with the other TLMC stakeholders to ensure complete integration of life cycle management activities. In particular, verify TLMC alignment and integration with the Enterprise Architecture Working Group, Net-Centric Data Working Group (NCDWG), Information Technology Steering Group, Logistics Operations Advisory Group (OAG) and other functional OAGs, plus related IPTs and feedback mechanisms.

(k) Host the Logistics OAG to ensure TLMC communication is disseminated throughout the logistics and acquisition communities as well as bringing feedback to the Corporate Board.

(l) Support MARCORLOGCOM, MARCORSYSCOM and Program Executive Officers (PEOs) by ensuring base commanders have planned and programmed for necessary facilities to support ground weapon systems, equipment and materiel and to allow synchronization of POM submissions with MARCORLOGCOM, MARCORSYSCOM and PEOs.

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(5) The Deputy Commandant for Combat Development and Integration (DC CD&I). In addition to the duties listed for TLCM Executive and Corporate Board members and participants, and the mission related tasks in enclosure (2), the Marine Corps' Command Element advocate, the DC CD&I shall:

(a) Serve as the Command Element (CE) advocate for TLCM matters per reference (i) in identifying, developing and integrating Marine Corps warfighting capabilities across the seven pillars of combat development (i.e. DOTMLPF); the four elements of the MAGTF [CE, Ground Combat Element (GCE), Aviation Combat Element (ACE) and Logistics Combat Element (LCE)]; and the six warfighting functions (fires, maneuver, command and control, intelligence, logistics and force protection) to enhance readiness and responsiveness in support of the warfighter. The end state is the establishment and continuous maintenance of an efficient and effective Marine Corps Capabilities-Based Planning process that accounts for TLCM requirements which supports the warfighting capabilities of the joint force.

(b) Ensure, per reference (j), that the force structure requirement initiates both the Human Resource Development and TLCM processes, which will provide the Marine Corps with the capabilities required for each unit to perform its wartime mission, provide for strategic pre-positioning of assets and ensure sustainability of the total force.

(c) Ensure that a sustainment concept is established for each solution delivered via the Marine Corps Urgent Needs Process (UNP) in response to Urgent Universal Need Statements (U-UNS). Plan and indentify resources to sustain continuing urgent needs.

(d) Ensure sustainment planning is incorporated into EFDS documents through the review of established support/sustainment strategies determined by the acquisition process in support of DOD and service-level guidance for such enablers as Marine Corps depot maintenance core capabilities, DSOR, Depot Level Maintenance Program (DLMP), Performance Based Logistics, Condition Based Maintenance and Reliability Centered Maintenance per references (d), (e), (h) and (k).

(e) Incorporate/transition Marine Corps life cycle management initiatives into capabilities development across each warfighting function per reference (i).

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(f) Determine reliability, availability and maintainability metrics, per reference (1) and related DOD-level guidance, while determining supportability Key Performance Parameters.

(g) Pursue examination, evaluation and implementation of TLMCM initiatives in accordance with this Order during the EFDS process for new capabilities and commercial off-the-shelf/government off-the-shelf material solutions in appropriate EFDS and Joint Capabilities Integration and Development System (JCIDS) products per references (i) and (1).

(h) Serve as the advisor and executive agent to DC I&L as the FAM/FDM for EFDS data.

(i) Support life cycle management issue resolution and decision making with all stakeholders through effective coordination, integration and collaboration.

(j) Conduct life cycle modeling & simulation, per reference (d), to support requirements development and cost estimates.

(k) Assess impacts of disposal upon MAGTF capabilities.

(l) Review life cycle management goals and objectives in the generation of appropriate MAGTF capabilities documentation.

(m) Incorporate life cycle management related requirements and costs in MAGTF capabilities programming and budgeting documentation in support of the Warfighting Investment Program Evaluation Board and supporting Program Evaluation Boards per enclosure (1).

(n) Provide TLMCM direction and guidance to subordinate elements within CD&I [e.g. the Marine Corps Warfighting Laboratory (MCWL); Training and Education Command (TECOM); Capabilities Development Directorate; MAGTF Integration Division (MID); and Total Force Structure Division (TFSD)] as outlined in enclosure (2).

(6) Deputy Commandant for Manpower and Reserve Affairs (DC M&RA). In addition to the duties listed for TLMCM Corporate Board members and participants, as the Marine Corps' manpower advocate, the DC M&RA shall advise and support the TLMCM

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Executive and Corporate boards and CFTs/IPTs on manpower and the Human Resource Development Process as it pertains to TLCM.

(7) Deputy Commandant for Programs and Resources (DC P&R). In addition to the duties listed for TLCM Corporate Board members and participants, as the Marine Corps' fiscal advocate, the DC, P&R shall:

(a) Ensure the POM/PR processes incorporate TLCM into the total Marine Corps resourcing strategy.

(b) Provide visibility of Marine Corps programmatic/enterprise costs within the scope of the PPBE system.

(c) Serve as the advisor to DC I&L for fiscal programmatic data within the PPBE system.

(8) Deputy Commandant for Aviation (DC AVN). In addition to the duties listed for TLCM Corporate Board members and participants, and the mission related tasks in enclosure (2), as the ACE advocate, the DC AVN shall:

(a) As appropriate, provide input as the advocate for OAGs chartered by DC AVN.

(b) Participate in the Planning and Analysis functions of the EFDS process of TLCM for aviation ground systems and equipment for the integration of requirements, goals and objectives.

(9) Deputy Commandant for Plans, Policies and Operations (DC PP&O). In addition to the duties listed for TLCM Executive and Corporate Board members and participants, and the mission related tasks in enclosure (2), as the GCE advocate, the DC PP&O shall:

(a) Support MARCORSSYSCOM and PEOs in developing fielding and disposal plans for ground systems, equipment, materiel and information technologies, in order to ensure no loss of capability while transitioning from legacy equipment to replacement equipment.

(b) Provide guidance and oversight to the TLCM stakeholders for equipment and munitions shortfalls to ensure available materiel resources are properly prioritized and appropriated according to the overall needs of the Marine Corps.

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(10) Director, Command, Control, Communications and Computers Department (Dir, C4). In addition to the duties listed for TLMC Corporate Board members and participants, and the mission related tasks in enclosure (2), as the Marine Corps IT advocate and Chief Information Officer (CIO), the Dir, C4 shall:

(a) Advise and support the TLMC Executive and Corporate Boards and CFTs/IPTs on the full spectrum of C4/CIO matters as they pertain to TLMC.

(b) Provide direction and support in the building, management, maintenance and use of TLMC architecture and its integration with the Marine Corps Enterprise Architecture per reference (g).

(c) With respect to IT enabling capabilities supporting TLMC: provide oversight; assess, evaluate and make IT systems compliance decisions as required; assess value and risk through the IT Capital Planning and Investment Control process; conduct evaluations for certification and accreditation for operation on the Marine Corps enterprise network; advise and provide technical assessment of TLMC bandwidth requirements; as they pertain to C4/CIO areas of responsibility; and optimize data access controls and procedures to use data repositories in a timely fashion while protecting the data resource.

(11) Commander, Marine Forces Command (COMMARFORCOM); Commander, Marine Forces Pacific (COMMARFORPAC); Commander, Marine Forces Reserve (COMMARFORRES); and Commander, Marine Special Operations Command (COMMARSOC). In addition to the duties listed for TLMC Corporate Board members and participants, COMMARFORCOM, COMMARFORPAC, COMMARFORRES and COMMARSOC shall:

(a) Develop and execute MARFORs' goals for TLMC.

(b) Execute TLMC strategic guidance in coordination with PP&O, MARCORLOGCOM, MARCORSYSCOM and PEOs.

(c) Execute operations and support activities associated with use and sustainment of ground weapon systems, equipment and materiel.

(d) Coordinate the following:

1. Identification of capability gaps and submission of UNS with CD&I per reference (1).

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2. Capabilities, requirements and resources with CD&I, MARCORLOGCOM and MARCORSYSCOM.

3. Fielding planning with PP&O, MARCORLOGCOM, MARCORSYSCOM and PEOs.

4. Sustainment programs with MARCORLOGCOM, MARCORSYSCOM and other sources [i.e. DLMP, Service Life Extension Program (SLEP), Secondary Repairable (SECREP) Re-computation, etc].

5. TLCM policy with DC I&L.

6. Operational commitments with other TLCM stakeholders.

7. Planning, programming and budgeting for funding to execute logistics/sustainment in conjunction with I&L, MARCORSYSCOM and MARCORLOGCOM per reference (n).

8. Executing Disposal Plan actions in conjunction with PP&O, MARCORLOGCOM, MARCORSYSCOM and PEOs.

(12) Commanding General, Marine Corps Logistics Command (CG, MARCORLOGCOM). CG, MARCORLOGCOM provides worldwide integrated logistics support to include: operational logistics, supply chain management, distribution management, depot-level and other sustainment maintenance management, and strategic prepositioning capability in order to support the operating forces, other supported units and the Marine Corps end-to-end TLCM framework to maximize readiness and sustainment. The key processes that define the MARCORLOGCOM contribution to TLCM include: Equipment Sourcing, Acquisition Support, Logistics Services and Prepositioning Support. In addition to the duties listed for TLCM Executive and Corporate Board members and participants, and the mission related tasks in enclosure (2), CG, MARCORLOGCOM, as the end-to-end logistics chain manager for the Marine Corps, shall:

(a) Provide logistics chain management for all ground weapon systems, secondary reparable items and selected consumable items as directed by the PMS' sustainment plans and per reference (q).

(b) Act as the operational logistics solutions provider for integrated support planning to the operating forces, establishing forward operational logistics support

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capabilities and integrating strategic logistics resources to support the MARFORs as directed by the PMs' sustainment plans.

(c) Coordinate and provide process, data and technology standards required to integrate commercial and other DOD logistics support providers via standardized interfaces into the approved Marine Corps logistics chain architecture, per reference (g).

(d) When designated by the PM, per reference (h), serve as a Horizontal Product Support Integrator for subsystem, component and/or commodity support common to multiple weapon system platforms to create TLCM economies of scale and risk mitigation for achieving effective and efficient sustainment and maintenance in concert with CD&I and MARCORSYSCOM/PEOs.

(e) Partner with MARCORSYSCOM to support TLCM readiness analysis and ILA process per reference (c), to include serving as a member of the ILA process team.

(f) Serve as the advisor and executive agent to DC I&L as the FAM/FDM for logistics sustainment data.

(g) Execute responsibilities for the performance of DOD materiel maintenance per reference (r).

(h) Maintain and manage depot-level maintenance capabilities for ground combat and ground combat support equipment as needed for optimal life-cycle support per applicable system sustainment plans and reference (k).

(i) Provide capability for robust sustainment maintenance on location as requested by operating forces.

(j) Execute in-service logistics program management in support of the Maritime Prepositioning Force and Geographic Prepositioning Force programs.

(k) When designated by the PM, per reference (h), serve as a Product Support Integrator and/or Product Support Provider in concert with MARCORSYSCOM/PEOs to seek effective and efficient sustainment of ground weapon systems as based on Business Case Analysis results.

(l) Conduct planning, programming and budgeting for funding to execute logistics/sustainment and maintenance in

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conjunction with I&L, MARFORs and MARCORSYSCOM/PEOs per reference (n).

(m) Conduct life cycle modeling & simulation, per reference (d), to support sustainment planning and execution decision support capabilities.

(n) Support development of logistics information technology solutions for new programs and legacy systems for sustainment planning and execution capabilities, per reference (g).

(o) Provide PEOs and PMs with analysis and advice to determine strategies and plans for weapons system integrated logistics, sustainment, supply, maintenance and distribution.

(p) Execute Disposal Plan actions in coordination with PP&O, MARFORs and MARCORSYSCOM/PEOs.

(q) Support MARCORSYSCOM in assessing and evaluating methods to minimize environmental impacts and costs attributable to hazardous material requirements and hazardous waste generation, in the development, test, production, use, maintenance and disposal of ground weapon systems, equipment and materiel.

(13) Commander, Marine Corps Systems Command (COMMARCORSYSCOM). COMMARCORSYSCOM acquires ground weapon systems, equipment and materiel, along with ground conventional munitions (hereafter referred to as munitions) and information technology, for the Marine Corps per references (m), (n), (o) and (p). MARCORSYSCOM PMs are vested with the authority, accountability and resources necessary for timely and effective acquisition and sustainment of ground systems, equipment, munitions and information technology throughout the life cycle. COMMARCORSYSCOM reports to the Assistant Secretary of the Navy, Research, Development and Acquisition [ASN (RDA)]; serves as the principal advisor to the CMC and the Marine Corps TLCM Governance Leader on acquisition of Marine Corps ground weapon systems, equipment and materiel; and coordinates with TLCM stakeholders to ensure alignment of fielding and support strategies within the overall TLCM framework. In addition to the duties listed for TLCM Executive and Corporate Board members and participants, and the mission related tasks in enclosure (2), COMMARCORSYSCOM, as the Marine Corps' systems acquisition and end-to-end life cycle management executive agent, shall:

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(a) Advise and support the TLCM Executive and Corporate Boards and CFTs/IPTs on acquisition and end-to-end life cycle management matters.

(b) Exercise authority, responsibility and accountability for all acquisition programs within his/her cognizance per reference (m), reporting directly to ASN (RDA) for matters pertaining to research, development and acquisition and to the CMC for execution of logistics sustainment and operational forces support responsibilities.

(c) Ensure fielding, sustainment, maintenance and distribution planning and execution are coordinated with all TLCM stakeholders.

(d) Ensure programming requirements are identified/initiated for all required Research, Development, Test and Evaluation (RDT&E): Procurement Ammunition, Navy and Marine Corps (PAN&MC); Procurement, Marine Corps (PMC) and initial Operation and Maintenance (O&M) (New Equipment) sustainment and disposal funding to execute TLCM, in conjunction with MARCORLOGCOM and the MARFORs per enclosure (1).

(e) Lead and/or support planning and execution of TLCM framework phases per enclosure (1).

(f) Ensure that reliable technical, contract and delivery information is entered into appropriate automated information systems to facilitate equipment accountability and improved delivery visibility by the entire Marine Corps for ground equipment life cycle management, per reference (g).

(g) Serve as the advisor and executive agent to DC I&L as the FAM/FDM for acquisition data.

(h) Conduct life cycle modeling & simulation, per reference (d), to support acquisition planning and cost estimates.

(i) Develop product support plans and strategies for material solutions and procured ground weapon systems, equipment and materiel.

(j) Serve as the technical authority for assigned systems per reference (m).

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(k) The Program Manager for Ammunition (PM Ammo) will provide ground conventional munitions worldwide integrated logistics support to include: operational logistics, supply chain management, distribution management, depot-level and other sustainment maintenance management, and strategic prepositioning capability in order to support the operating forces and other supported units to maximize readiness and sustainability, and to support the Marine Corps end-to-end TLMC processes. These responsibilities are performed by the CG, MARCORLOGCOM for all other commodities.

(14) Program Executive Officers (PEOs). For assigned programs, PEOs provide resources and definition to the PMs to acquire ground weapon systems, equipment and materiel for the Marine Corps per references (m), (n) and (o). PEOs report to ASN (RDA) on assigned program acquisition and coordinate with TLMC stakeholders to ensure alignment of program acquisitions with the Marine Corps TLMC framework. In addition to the duties listed for TLMC Executive and Corporate Board members and participants, and the mission related tasks in enclosure (2), PEOs shall:

(a) Ensure fielding, sustainment, maintenance and distribution planning and execution are coordinated by PMs with all TLMC stakeholders.

(b) Ensure PMs program for all required RDT&E, PAN&MC, PMC and initial O&M (new equipment) maintenance/sustainment funding to execute life cycle management, collaboratively with the MARFORs, MARCORLOGCOM and MARCORSYSCOM per enclosure (1).

(c) Ensure PMs lead and/or support planning and execution of TLMC framework phases per enclosure (1).

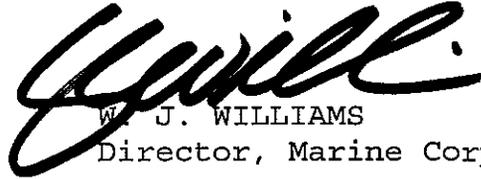
(d) Ensure that reliable technical, contract and delivery information is entered into appropriate automated information systems to facilitate equipment accountability and improved delivery visibility by the entire Marine Corps for ground equipment life cycle management, per reference (g).

5. Administration and Logistics. Forward comments and recommendations for TLMC changes to Headquarters Marine Corps, Installations and Logistics (LP) via the chain of command.

6. Command and Signal

a. Command. This Order is applicable to the Marine Corps Total Force.

b. Signal. This Order is effective on the date signed.



W. J. WILLIAMS  
Director, Marine Corps Staff

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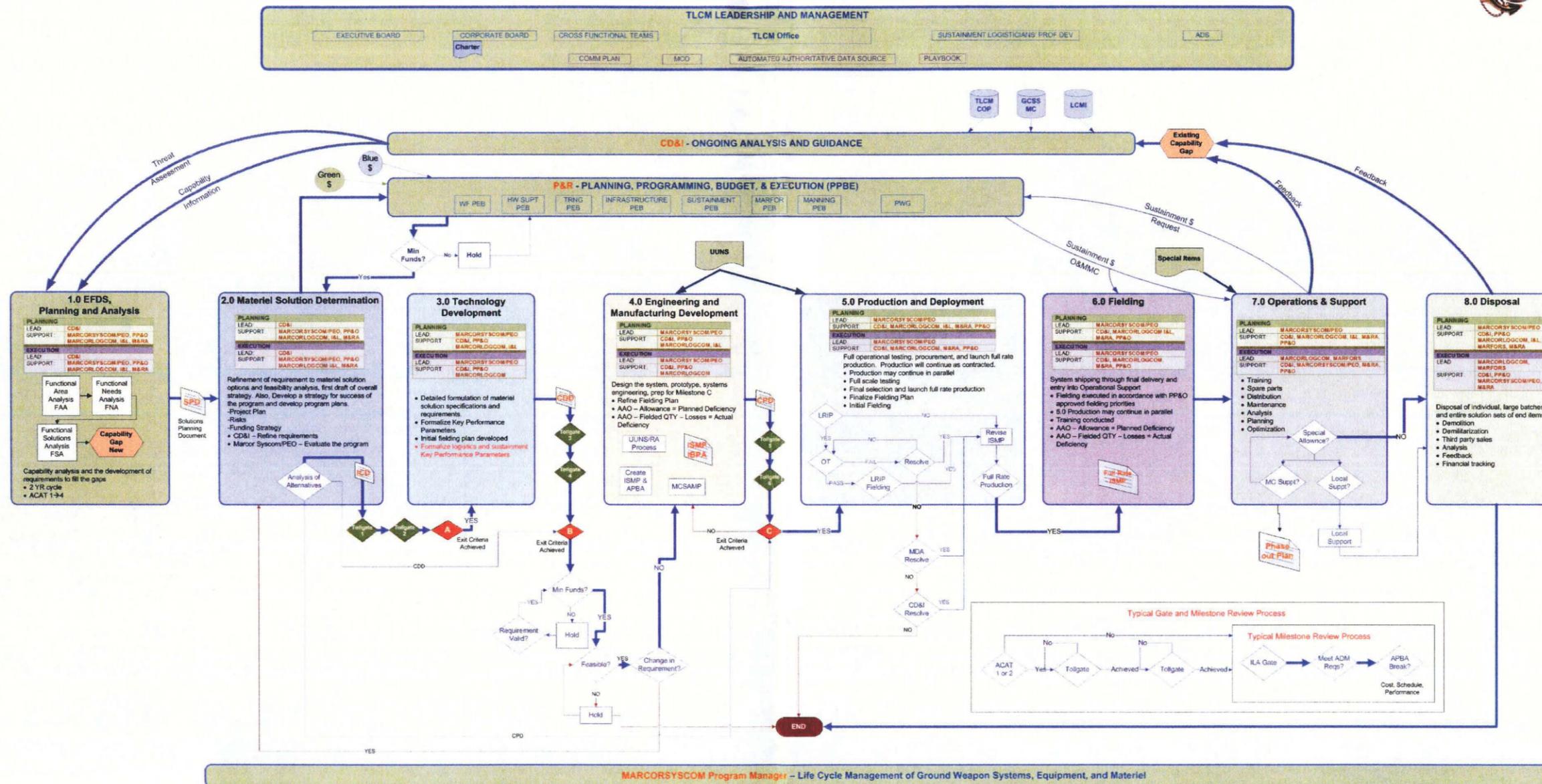
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TLCM for Ground Weapon Systems, Equipment and Materiel



UNITED STATES MARINE CORPS  
TOTAL LIFE CYCLE MANAGEMENT (TLCM) FRAMEWORK FOR GROUND WEAPON SYSTEMS, EQUIPMENT, AND MATERIEL

Ref: DoDI 5000.02, AT&L Framework



TOTAL LIFE CYCLE MANAGEMENT GROUND WEAPON SYSTEMS, EQUIPMENT, AND MATERIEL  
TLCM - LEVEL 0

TLCM PROCESS MAPS MASTER2.vsd  
Edited: 28 October, 2009

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Organizational Mission Tasks that Enable TLMC Processes1. Additional I&L Mission Tasks that Enable TLMC

a. Represent CMC for ground logistic matters. Support, per reference (m), ASN (RDA) on matters related to logistics policy and in-service support.

b. Serve as the principal Marine Corps representative to the Joint Logistics Board, Joint Logistics Group, Defense Logistics Board and subgroups as required.

c. Serve as the advocate and Occupational Field Sponsor for the LCE and collaborate with appropriate stakeholders in assessing the impact of new ground weapon systems, equipment and materiel on Military Occupational Specialty (MOS) requirements. Verify appropriateness of assigned tasks for the identified MOS and adequacy of structure.

d. Chair the Sustainment Program Evaluation Board.

e. Advocate for IT/IM solutions necessary to achieve the TLMC vision, mission and goals.

f. Participate in the development of the MAGTF Requirements List (MRL).

2. Additional CD&I/MCCDC Mission Tasks that Enable TLMC

a. Perform MAGTF Functional Area Analysis per reference (i) and maintain responsibility for researching developmental opportunities in support of the approved MAGTF Capabilities List (MCL).

b. Participate in determining core requirements per references (i) and (l) for inclusion in appropriate JCIDS documents and for execution by MARCORSSCOM.

c. Validate Approved Acquisition Objective (AAO) numbers for the Table of Authorized Materiel Control Numbers (TAMCN) in Total Force Structure Management System (TFSMS) per reference (j).

d. Develop and amend appropriate JCIDS documentation with refined KPPs, to include sustainment strategy if necessary, prior to execution of Full Rate Production (FRP).

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e. Assess MAGTF capability impacts resulting from Program of Record (POR) exit dates and update TFSMS via generated Table of Organization and Equipment Change Requests (TOECRs) as necessary. Consider any impacts on capabilities-based planning as required.

f. Develop fully integrated Marine Corps warfighting capabilities that include associated non-materiel solutions as part of the DOTMLPF process to enable the Marine Corps to field combat-ready forces per references (i) and (j).

g. Lead and coordinate Capability Development Working Groups with key stakeholders for development of MAGTF Capabilities documentation per reference (l).

h. Support the review, management and optimization of Marine Corps materiel capabilities to include delivery, support, performance and de-militarization/disposal as part of overall Capabilities Portfolio Management.

i. Review, assess and modify, as required, technology developments during the acquisition process as part of the requirements development process.

j. Coordinate with PP&O to develop and provide fielding priorities to stakeholders in support of flexible and responsive fielding planning and execution.

k. Develop and publish the MRL in coordination with all stakeholders per reference (i).

l. Provide the single, authoritative document source, TFSMS, for all force structure requirements and authorizations, to include: unit descriptive and geographic hierarchy data; billet descriptive and unit relationship data; Principal End Item (PEI) attributes, including AAOs and Unit T/E Requirements; Manning and Staffing Precedence Levels established by reference (t); unfunded requirements quantities; and planned procurement quantities. As such, TFSMS can be employed to support the review, management and optimization of ground equipment information.

m. Provide force structure support per reference (j).

n. Provide guidance to subordinate organizations in support of TFCM:

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(1) Commanding General, Marine Corps Warfighting Laboratory (CG, MCWL) shall:

(a) Maintain responsibility for researching developmental and non-developmental opportunities.

(b) Participate in the EFDS process to identify possible ongoing Science and Technology (S&T) initiatives that may resolve or mitigate existing capability gaps and/or shortfalls.

(2) Commanding General, Training and Education Command (CG, TECOM) shall:

(a) Develop, coordinate, resource, execute and evaluate training and education concepts, policies, plans and programs to ensure Marines are prepared to meet the challenges of present and future operational environments.

(b) Assist in the implementation of TLMC training initiatives and support requirements during the EFDS process.

(c) Participate as an ad hoc member on the TLMC Corporate Board.

(d) Participate as a member in the ILA process per reference (c).

3. Additional PP&O Mission Tasks that Pertain to TLMC

a. Serve as the Operations Deputy (OpsDep) for the CMC on all Joint Chiefs of Staff (JCS) matters.

b. Coordinate the development and execution of service plans and policies related to the structure, deployment and employment of Marine Corps forces in general.

c. Serve as the CMC's principal staff agency for the development and articulation of a wide spectrum of concepts, plans and policies, and to direct and supervise execution and/or implementation of those policies.

d. Ensure Occupational Field Sponsors collaborate with appropriate stakeholders in assessing the impact of new weapon systems and equipment on MOS requirements. Verify appropriateness of assigned tasks for the identified MOS and adequacy of structure per reference (j).

e. Provide priorities to CD&I for equipping of the force and equipment distribution.

f. Direct Marine Corps-wide readiness analysis and assessments.

g. Participate in the DSOR process per reference (e).

h. Participate in EFDS.

4. Additional C4/CIO Mission Tasks that Pertain to TLCM

a. Review advocate gap lists that contain IT enabling capabilities in support of TLCM as well as UNS and Joint Urgent Operational Needs Statements (JUONS).

b. Ensure TLCM-related IT enabling capabilities gaps are assessed through the Information Technology Support Group (ITSG) and results are injected into the EFDS process.

c. Participate in the Functional Solutions Analysis (FSA) as the functional advocate for the TLCM information environment.

d. Participate in EFDS.

e. Assess through the Information Technology Steering Group (ITSG), IT components of capability gaps associated with TLCM to determine value and risk to the Marine Corps of closing gaps. Determine whether existing material solutions can be used to close gaps and prioritize gaps along with other IT components of capability gaps identified across the Marine Corps.

f. Conduct compliance assessments of IT enabling capabilities that support TLCM.

g. Ensure technology alignment with Marine Corps Enterprise Architecture.

h. Provide technical assessment of network to support TLCM technical solutions to include bandwidth requirements and availability.

i. Provide IT/IM vision and strategy to be incorporated into requirements documentation.

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j. Coordinate the provision of any long haul connectivity and enterprise services required to support TLM vision, mission and goals.

k. Provide C4/CIO leadership and oversight as required in the development and demonstration of IT/IM enabling capabilities supporting TLM.

l. Provide C4/CIO leadership and oversight as required in the procurement and production of IT/IM enabling capabilities supporting TLM.

m. In support of the appropriate Program Evaluation Boards, assign SMEs to plan and program resources required to make ready the Marine Corps Enterprise Network, which will support TLM vision, mission and goals.

n. Support IT/IM solutions necessary to achieve the TLM vision, mission and goals.

o. Provide certification recommendations, as appropriate, for systems supporting TLM.

p. Oversee, as required, the fielding of IT/IM enabling capabilities supporting TLM.

q. Ensure IT/IM enabling capabilities are fielded to ensure compliance with established policies and standards.

r. Ensure IT/IM enabling capabilities are reported in Defense Information Technology Portfolio Repository (DITPR) and DON Application and Database Management System (DADMS).

s. Ensure Information Assurance and Security requirements, certifications and accreditations of IT/IM supporting TLM are maintained throughout IT/IM lifecycle.

t. Provide policy, guidance and direction in the operations, maintenance and sustainment of IT/IM capabilities in support of TLM.

u. Provide policy, guidance and direction in the disposal of IT/IM enabling capabilities that support TLM.

5. Additional MARCORLOGCOM Mission Tasks that Enable TLM.

Maintain an operating agreement with COMMARCORSYSCOM and PEO LS that specifies the level of support to be provided.

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6. Additional MARCORSYSCOM Mission Tasks that Enable TLMC

a. Optimize the readiness of all Marine Corps ground equipment by leading proactive analysis, synthesis, strategic forecasting and sound TOC reduction strategies within the PPBE process.

b. Maintain an operating agreement with CG, MARCORLOGCOM and PEO LS that specifies the level of support to be provided.

c. Serve as Occupational Field Sponsor for Acquisition MOS 8057/8/9/60 and as Defense Acquisition Workforce Improvement Act (DAWIA) certification authority.

d. Support the planning and execution of Materiel Solution Determination leading to an Initial Capability Document.

e. Serve as the Total Life Cycle Manager for all ground conventional ammunition [Class V(W)], to include those functions normally assigned to CG, MARCORLOGCOM for other commodities.

7. Additional PEO LS Mission Tasks that Enable TLMC. Maintain an operating agreement with CG, MARCORLOGCOM and COMMARCORSYSCOM that specifies the level of support to be provided.

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List of Acronyms and Abbreviations

|                  |  |
|------------------|--|
| AAO              | Approved Acquisition Objective   |
| ACE              | Aviation Combat Element  |
| ACAT             | Acquisition Category   |
| ACT              | Acquisition Coordinating Teams   |
| ASN              | Assistant Secretary of the Navy  |
| AVN              | Aviation   |
| BEA              | Business Enterprise Architecture   |
| BCA              | Business Case Analysis   |
| BCL              | Business Case Life Cycle   |
| C4               | Command, Control, Communications and Computers   |
| CBM              | Condition Based Maintenance  |
| CDD              | Capabilities Development Document  |
| CD&I             | Combat Development and Integration   |
| CDIB             | Capabilities Development Integration Board   |
| CE               | Command Element  |
| CFT              | Cross Functional Team  |
| CG               | Commanding General   |
| CIO              | Chief Information Officer  |
| CJCSI            | Chairman Joint Chiefs of Staff Instruction   |
| CMC              | Commandant of the Marine Corps   |
| COMMARCORSSYSCOM | Commander Marine Corps Systems Command   |
| COMMARFORCOM     | Commander Marine Corps Forces Command  |
| COMMARFORPAC     | Commander Marine Corps Forces Pacific  |
| COMMARFORRES     | Commander Marine Corps Forces Reserve  |
| COMMARFORSOC     | Commander Marine Corps Forces Special<br>Operations Command  |
| CORE             | Contingency Response   |
| CPD              | Capabilities Production Document   |
| CPI              | Continuous Process Improvement   |
| CTQ              | Critical To Quality  |
| DADMS            | DON Application and Database Management System   |
| DAWIA            | Defense Acquisition Workforce Improvement Act  |
| DC               | Deputy Commandant of the Marine Corps  |
| DITPR            | Defense Information Technology Portfolio<br>Repository   |
| DLMP             | Depot Level Maintenance Program  |
| DSOR             | Depot Source of Repair   |
| DOD              | Department of Defense  |
| DODD             | Department of Defense Directive  |
| DODI             | Department of Defense Instruction  |
| DON              | Department of Navy   |
| DOTMLPF          | Doctrine, Organization, Training, Materiel,<br>Leadership & Education, Personnel and<br>Facilities |

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|              |   |
|--------------|---|
| D-UNS        | Deliberate Universal Need Statement                   |
| EAWG         | Enterprise Architecture Working Group                 |
| EFDS         | Expeditionary Force Development System                |
| ERAM         | Enterprise Risk Assessment Methodology                |
| FAA          | Functional Area Analysis                              |
| FAM          | Functional Area Manager                               |
| FDM          | Functional Data Manager                               |
| FNA          | Functional Needs Analysis                             |
| FRP          | Full Rate Production                                  |
| FSA          | Functional Solution Analysis                          |
| GCE          | Ground Combat Element                                 |
| GO           | General Officer                                       |
| HICVS        | High Impact Core Value Stream                         |
| HR           | Human Resource  |
| HRDB         | Human Resource Development Process                    |
| ICD          | Initial Capability Document                           |
| I&L          | Installations and Logistics                           |
| ILA          | Independent Logistics Assessment                      |
| ILS          | Integrated Logistics Support                          |
| IM           | Information Management                                |
| IPT          | Integrated Project Team                               |
| ISR          | Intelligence, Surveillance and Reconnaissance         |
| IT           | Information Technology                                |
| ITSG         | Information Technology Steering Group                 |
| JCIDS        | Joint Capabilities Integration and Development System |
| JCS          | Joint Chiefs of Staff                                 |
| JUONS        | Joint Urgent Operational Needs Statement              |
| KM           | Knowledge Management                                  |
| KPP          | Key Performance Parameter                             |
| LCCE         | Life Cycle Cost Estimate                              |
| LCE          | Logistics Combat Element                              |
| LNO          | Liaison Officer                                       |
| LSS          | Lean Six Sigma  |
| MAGTF        | Marine Air Ground Task Force                          |
| MARCORLOGCOM | Marine Corps Logistics Command                        |
| MARCORSYSCOM | Marine Corps Systems Command                          |
| MARFOR       | Marine Force  |
| MCL          | MAGTF Capabilities List                               |
| MCO          | Marine Corps Order                                    |
| MCOTEA       | Marine Corps Operational Test and Evaluation Activity |
| MCWL         | Marine Corps Warfighting Laboratory                   |
| MEF          | Marine Expeditionary Force                            |
| MID          | MAGTF Integration Division                            |
| MOS          | Military Occupational Specialties                     |
| M&RA         | Manpower and Reserve Affairs                          |

|            |  |
|------------|--|
| MRL        | MAGTF Requirements List                            |
| NAE        | Naval Aviation Enterprise                          |
| NCDWG      | Net-Centric Data Working Group                     |
| OAG        | Operational Advisory Group                         |
| OCCFLD     | Occupational Field                                 |
| O&M        | Operation and Maintenance                          |
| ONR        | Office of Naval Research                           |
| OPSDEP     | Operations Deputy                                  |
| PAN&MC     | Procurement Ammunition, Navy and Marine Corps      |
| PBL        | Performance Based Logistics                        |
| PEI        | Principal End Item                                 |
| PEO        | Program Executive Officer                          |
| PEO LS     | Program Executive Officer, Land Systems            |
| PM         | Program Manager                                    |
| PMC        | Procurement, Marine Corps                          |
| POM        | Program Objective Memorandum                       |
| POR        | Program of Record                                  |
| PPBE       | Planning, Programming, Budgeting and Execution     |
| PP&O       | Plans, Policies and Operations                     |
| PR         | Program Review                                     |
| P&R        | Programs and Resources                             |
| PSI        | Product Support Integrator                         |
| PSP        | Product Support Provider                           |
| RCM        | Reliability Centered Maintenance                   |
| RDA        | Research, Development and Acquisition              |
| RDT&E      | Research Development Test & Evaluation             |
| RIE        | Rapid Improvement Event                            |
| SES        | Senior Executive Service                           |
| SECNAVINST | Secretary of the Navy Instruction                  |
| SECREP     | Secondary Repairable                               |
| SLEP       | Service Life Extension Program                     |
| SMCA       | Single Manager for Conventional Ammunition         |
| SME        | Subject Matter Expert                              |
| S&T        | Science and Technology                             |
| TAMCN      | Table of Authorized Materiel Control Numbers       |
| T/E        | Table of Equipment                                 |
| TECOM      | Training and Education Command                     |
| TFSD       | Total Force Structure Division                     |
| TFSMS      | Total Force Structure Management System            |
| TLCM       | Total Life Cycle Management                        |
| T/O        | Table of Organization                              |
| TOC        | Total Ownership Cost                               |
| TOECR      | Table of Organization and Equipment Change Request |
| USSOCOM    | United States Special Operations Command           |
| U-UNS      | Urgent Universal Need Statement                    |