



*United States Marine Corps*  
*Depot Maintenance Strategic Plan*

*February 2008*

## Foreword

The goal of the Marine Corps Depot Maintenance Strategic Plan (MC DMSP) is to provide an outline for implementing the strategic elements contained in the Department of Defense (DoD) Depot Maintenance Strategy and Implementation Plan of March 2007. The elements are:

- Alignment of Maintenance Operation Metrics with the Marine Forces Performance Outcomes
- Identification and Sustainment of Requisite Core Maintenance Capabilities
- Sustainment of a Highly Capable, Mission-Ready Maintenance Workforce
- Ensure Adequate Infrastructure to Execute Assigned Maintenance Workload

The MC DMSP is a living document and will be assessed at least annually to ensure the plan's strategic elements and performance objectives are attained. We intend to execute the DMSP until canceled or superseded by the signatory authority. Revisions to the plan, because of assessments, are permitted and will be documented. Primary stakeholders should develop internal guidance for the promotion of the strategy contained in this plan. Although this plan does not specifically address how the Marine Corps will reset the forces, many of the actions will aid in responding to anticipated surge in depot workload and maintaining core capabilities.



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## **Executive Summary**

The Marine Corps is engaged in a new type of warfare requiring continued traditional support as well as exploration and implementation of new ideas that provide integrated depot maintenance services to the warfighter. The face of depot maintenance is changing and we must ensure that we posture ourselves to keep up with the transformation. Ensuring readiness in peacetime, sustaining forces in wartime, and resetting the forces after conflict are critical to readiness and to meeting future challenges.

Our two organic depot maintenance facilities are primary enablers to support the Marine Forces (MARFOR). These strategically located facilities are critical to the mission of the Marine Corps applying innovative procedures and meeting the challenges of ground weapon systems support. The Marine Corps has postured itself to support the large breadth of ground weapon systems. Agility, flexibility, and responsiveness are relevant descriptions of our Maintenance Centers' approach to effectively executing the regeneration requirements. These descriptions, inherent to our Maintenance Centers, are enabled only by the continued adherence to a multi-commodity philosophy and the dedication of our workforce who are cross-trained and capable of meeting the diverse needs of our nation's warfighters. It is imperative that we continue to focus on workforce development to successfully meet new challenges.

Due to the changing operational environmental and mission requirements, we are implementing capabilities that extend beyond our traditional boundaries. Forward deployed maintenance teams enable the warfighter to focus on the fight. They provide timely, effective repair services without rotating equipment out of theater. This type of support minimizes the time equipment remains in a non-mission capable status.

The "tip of the spear" role of our MARFORs and the need to respond immediately to the changing tactics of our opponents often requires that our weapon systems be modified to meet new or emerging threats. The Marine Corps Maintenance Centers have implemented Continuous Process Improvement (CPI) methodologies to augment their ability to react rapidly to those threats. These CPI tools, coupled with key engineering projects, significantly enhance warfighter survivability. The ability to devise solutions and respond quickly to our customers' needs is important. The Marine Corps continues to proactively seek innovative ideas to reduce customer wait time and create 'best value' for the MARFORs.

The responsibility for providing effective and efficient sustainment level maintenance is a collective effort that extends across different Marine Corps Commands. The principal Marine Corps organizations implementing this plan include Headquarters Marine Corps Installations & Logistics Department (I&L), Headquarters Marine Corps Plans, Policies & Operations (PP&O) Department, Headquarters Marine Corps Programs & Resources Department (P&R), Headquarters Marine Corps Combat Development & Integration (CD&I), Marine Corps Logistics Command (MARCORLOGCOM) and Marine Corps System Command (MARCORSYSCOM). Continuous communication between the principles is the key to accomplishing this strategic plan's goals.

**Mission**

*Maintain optimum depot level capability required to ensure readiness in peacetime, sustainment in wartime, and reset after conflict or contingency.*

**Vision**

*Capitalize on the Marine Corps' tradition of superior, innovative depot maintenance to project a worldwide expeditionary maintenance capability in support of our Total Force Concept.*

**1. Logistics Transformation**

- a. Plan and implement greater direct operational level support resulting in the MARFORs to focus on tactical operations.
- b. Continuously assess depot maintenance capabilities beyond our traditional boundaries to create a more mobile and adaptable organization.
- c. Minimize operational reliance on shore infrastructure by pre-positioning of war fighting capabilities and materials for immediate deployment.
- d. Support and execute evolving war fighting doctrine such as Sea Basing, Realignment of Maintenance and Realignment of Supply to meet MARFORs logistical support requirements.
- e. Study the feasibility of constructing limited, forward deployed temporary repair facility from the Maritime Prepositioning Force.
- f. Conduct a baseline study on the feasibility of constructing a fully capable “mini” depot in Guam.
- g. Perform benchmarking studies with external DoD organizations and private organizations to adopt better business practices.
- h. Partner with leading academic organizations to pursue innovative methods that improve our operations.
- j. Utilize tools and processes to improve depot operations such as Manufacturing Resource Planning II (MRP II), Lean, Earned Value Management, Theory of Constraints, Lean Six Sigma and ISO certified quality systems.
- k. Apply Reliability Centered Maintenance processes during maintenance planning to analyze and determine the best approach to implement Condition Based Maintenance Plus principle.
- l. Integrate diagnostics and prognostics capabilities into weapon systems/equipment to transmit maintenance/usage data.

m. Develop and implement Serialized Item Management (SIM) tools to capture, maintain and retrieve maintenance and configuration data at the platform/component level.

n. Continuously perform self-analyses of the depot's mission and products/services to remove support service overlap, redundancy and maintenance gaps.

p. Establish forward deployed command elements to facilitate direct operational level logistics planning and execution.

q. Comply with Title 10 depot maintenance requirements.

r. Integrate depot maintenance concepts and planning into life cycle logistics.

s. Conduct a Performance Based Logistics Business Case Analysis to determine the feasibility of establishing Public-Private Partnerships (PPP).

t. Seek best value support through Public/Private Partnerships (PPPs), Third Party Logistics, performance-based contracts, and interservice support agreements.

u. Explore ways to use Host Nation support when deployed to Outside Continental United States locations.

## **2. Strategic Element One. Aligning Maintenance Operations Metrics with Warfighter Outcomes - Logistics Transformation**

a. Monitor and assess depot maintenance operations to ensure alignment with the desired material performance and cost objectives of the MARFORs.

b. Establish procedures for quarterly reporting of depot-related Life Cycle Sustainment Outcome metrics, Material Availability, Material Reliability, Mean Downtime and Ownership Cost, to HQMC, I&L.

c. Monitor material availability by assessing depot maintenance operations of planned Principle End Items (PEI) completions vs. actual unit completions. The objective is to increase PEI operational availability by reducing the amount of time from depot induction to depot release.

d. Monitor material reliability by measuring the quality of depot maintenance workmanship of PEIs repaired or overhauled at the Maintenance Centers by the use of validated Product Quality Deficiency Reports (PQDR). The objective is to maintain a low relationship between the quantities of PEI completions to the number of depot related PQDRs.

e. Monitor Mean Downtime by measuring planned PEI Repair Cycle Time (RCT) vs. actual PEI RCT. The objective is to minimize the Depot's portion of PEI unavailability to the MARFORs.

f. Monitor Ownership Costs by analyzing Depot direct and indirect costs. The objective is to show the relationship of costs to performance.

### **3. Strategic Element Two. Identifying and Sustaining Requisite Core Maintenance Capability - Core Logistics Capability Assurance**

a. Determine, plan and maintain core depot capability. A joint strategic responsibility shared by select HQMC Departments, MARCORSSYSCOM and MARCORLOGCOM.

b. Respond to the influences of change such as force structures, introduction of new core systems/equipment, modifications to legacy core systems/equipment, technology, and evolving changes in battlefield doctrine.

c. Remain technically competent and economical while seeking innovative ways to address core capabilities.

d. Enhance our core capability by utilizing PPPs, combined with government resources, enabling exceptional implementation of complementary business practices.

e. Infuse new technology and attract workload that contributes to the enhancement and sustainment of core depot capability.

f. Responsive to regulations and directives addressing Core Determination and the Depot Source of Repair Determination Processes.

g. Conduct Core Determination Analysis to identify core programs and platform quantities required to execute Joint Chiefs of Staff contingency scenarios prior to Milestone B.

h. Identify core programs to Program Executive Officers (PEO) and Program Managers (PM) during program transition from Requirements Phase to Acquisition Phase.

i. Record the core program and quantities within the Capabilities Development Document and within the PEO/PM's Supportability Plan or similar document.

j. Determine depot core capabilities using the approved core determination methodology.

k. Conduct a Core Requirement Analysis for new core programs to identify impact on existing infrastructure (facilities/equipment), competencies, (skill/training) and depot workforce.

l. Plan, program and budget sufficient funding to support projected core depot workload during the fiscal year.

m. Integrate core depot capabilities within the end-to-end logistics supply chain.

- n. Establish new core capabilities for new core systems/equipment within four years of achieving Initial Operating Capability.
- o. Maintain Core Depot Program List (CDPL) which lists core programs, quantities and core related depot direct labor hours (DLH) by fiscal years.
- p. Review and update CDPL annually and report depot core DLHs biennially per Title 10, USC 2464.
- q. Develop metrics to track and assess core performance objectives.
- r. Develop monitoring and reporting procedures to assist in assessing our core capability and identification of gaps.
- s. Conduct annual reviews of infrastructure, equipment, workforce and production/support processes to identify core capability gaps and develop corrective actions to maintain effective core depot operations.
- t. Plan for phase out of core depot programs identifying impact on depot workforce, core workload reduction, obsolete support equipment/facilities and PPPs.

#### **4. Strategic Element Three: Sustaining a Highly Capable, Mission-Ready Maintenance Workforce - Workforce Revitalization**

- a. Align the depot workforce with MARFORs current and emerging missions through operational and physical paradigm shifts.
- b. Respond to repair requirements and workload with global efforts through forward deployed maintenance teams thus reducing the distance between depots and theaters.
- c. Scrutinize and select well-qualified artisans who possess the essential skill sets to perform forward deployed maintenance tasks.
- d. Develop standard operating procedures to include a pre-deployment checklist for deployment requirements.
- e. Draw upon the practical knowledge and critical skills of the experienced workers prior to retirement eligibility to ensure continuity of depot operations.
- f. Ensure we have the right number of people in the right job at the right time. Analyzing retirement trends and projecting losses are important in workforce planning for developing succession plans.

- g. Plan for future training requirements including composite materials repair, materials engineering, operating robotic welding, laser machinery, friction stir welding, and non-destructive evaluation and inspection.
- h. Mitigate risks associated with developing new skill sets by intensifying efforts in workforce planning.
- i. Develop a Workforce Planning Guide and publish a Status Report annually to assemble data, identify critical skill gaps, and conduct analysis to prepare for the future workforce.
- j. Replenish and revitalize the workforce by recruiting, promoting, and retaining the critical skills.
- k. Employ a focused effort on training and educating our employees to ensure a smooth transition to meet tomorrow's requirements.
- l. Track and maintain training records to ensure annual certification/licensing requirements such as welding, handling hazardous material, soldering, hydrostatic testing are met.
- m. Partner with Original Equipment Manufacturers and receive on the job training to educate the workforce for new weapon systems support requirements.
- n. Establish a workforce production strategy to increase depot workload as efficient depot operations and processes reduce the repair cycle times for systems/equipment.
- o. Increase partnerships with technical schools, universities, and institutions to assist in providing technically proficient workers.
- p. Expand local, regional and national advertising to bolster recruiting.
- q. Establish mentoring programs, such as apprenticeship and co-operative work-study, assist in mitigating the impact of the projected retiring workforce.
- r. Develop an effective mentoring strategy to attract and retain employees in fields where skills are not readily available in the labor market or where there is a need to accelerate the development of internal resources.

**5. Strategic Element Four: Ensuring an Adequate Infrastructure to Execute Assigned Maintenance Workload - Capital Investment**

- a. Maintain and invest in a flexible, robust, modern organic facilities and equipment to support of existing and future depot maintenance technological requirements.
- b. Provide an organic infrastructure necessary to sustain current and future core weapon systems capabilities, as well as, unique workload requirements in support of the war fighter.



- c. Determine 'right size' maintenance infrastructure within and beyond the traditional boundaries.
- d. Establish strategic partnerships with academia and industry to afford the opportunities to research and employ innovative ideas for supporting our customers.
- e. Develop long-range modernization and associated capital investment strategies to meet the capabilities required to support the MARFORs.
- f. Forecast depot maintenance workload with sufficient lead-time to enable us to analyze the required depot maintenance capabilities.
- g. Identify emerging technologies and plan for the future capacity required to support that workload by developing unique solutions to complex infrastructure and production challenges.
- h. Identify the most significant constraints to production and target investments to reduce constraints and ensure that the infrastructure requirements are determined in a systematic method to ensure optimum depot maintenance.
- i. Prioritize according to the severity of the constraints identified and the product areas that are impacted. Constraints that affect the greatest number of major product areas will be identified as highest priorities and requirements will evolve to support the changing depot's workload.
- j. Comply with the intent of depot capital investment funding is obligated and there are no limitations due to requirements of Fiscal Year 2007 Defense Authorization Act, Section 361.
- k. Capture and report annual depot maintenance capital investment for infrastructure improvements by measuring planned capital investment costs vs. actual capital investment costs.

### **Summary**

Necessity drives innovation! In the case of the Marine Corps, the necessity is, and will continue to be, elite support to the operating forces. We acknowledge that the challenges of today and tomorrow are different from the past. We must ensure we continually enhance our flexibility yet remain responsive. Our enterprise stakeholders will maintain open, continuous lines of communication. We must make a sizeable investment in resetting the force to ensure global warfighter readiness now and in the future. It is our commitment to continue to explore innovative, integrated depot maintenance solutions in support of our warfighters.