



MARINE CORPS INSTALLATIONS AND LOGISTICS ROADMAP

2013



DC I&L MESSAGE



“OUR NUMBER ONE PRIORITY IS TO PREPARE THE MARINE CORPS FOR 21ST CENTURY EXPEDITIONARY OPERATIONS BY PROVIDING SUPERIOR LOGISTICS AND INSTALLATIONS SUPPORT.” - LTGEN MARK FAULKNER

The Marine Corps’ ability to rapidly generate combat power, deploy, and operate across the full Range of Military Operations (ROMO) is always influenced by logistics. Combat operations in Afghanistan and Iraq have showcased the innovative, resilient, and adaptive nature of Marine Corps logisticians and the capabilities of our installations. Today’s Marine and Civilian Marine logisticians bring a wealth of experience to our community, enabling us to better prepare for future threats in a resource constrained operating environment. As we look to the next twenty-five years, we will build upon the lessons of the past and develop logisticians and installations experts who can support and sustain Marines in every clime and place, against any foe, for any mission. We will accomplish this by focusing on our

most important resource, Marines and their families. **Our Logistics community includes all logisticians and installations experts, Marine and Civilian Marine, serving across the Marine Corps, Joint, and Interagency communities.** We will all work together to accomplish the following:

Further develop 21st century logistical capabilities. The Marine Corps is our nation’s premier expeditionary force-in-readiness. Marines have no equal in terms of crisis response planning, preparation, and execution. We are equally skilled at deploying by amphibious ship or High Speed Vessels; we can marry up with equipment and sustainment from Maritime Prepositioned Force (MPF) ships or we can rapidly deploy by strategic airlift. Logistics is the catalyst for these critical capabilities. Over the next

two years, we will widen our expeditionary aperture by forging even closer ties with our Navy and Joint partners. Future fights will require close relationships with US Transportation Command, the Defense Logistics Agency, and US Navy and Army logistics. In order to meet the logistics challenges of 21st century expeditionary operations, we must increase our tactical proficiency, operational interoperability, and strategic flexibility.

Revitalize and integrate logistics training, education, and doctrine. We will increase training and education opportunities for Marines, enlisted and officer, as well as our civilians. We will capitalize on the capabilities of Marine Corps Logistics Operations Group (MCLOG), while ensuring a holistic approach to developing logisticians who are prepared to succeed in the future operating environment.

Reinforce and strengthen the linkage between installations and Marine Corps readiness, training, and power projection capabilities. Marine Corps Installations Command (MCICOM) is the Marine Corps' ultimate MAGTF deployment platform provider. Our installations provide deployment support, warfighting experimentation, a full range of support and essential services, infrastructure, and trained personnel for unit training and exercises. We will keep faith with our Marines, Sailors, and Civilian Marines by providing premier billeting and quality of life services for our personnel and their families. We will reduce costs, while preserving and enhancing the readiness of the force.

Create an advocacy construct for MAGTF and installations logistics and logisticians. Our Advocacy Program is the V-8 engine that drives our installations and logistics community. We will aggressively

advocate for people, capabilities, and programs. We will mentor, teach, and advise Marines and Civilian Marines through both their command leadership and fully engaged occupational field sponsors. We will shape capability development through a formal, yet collaborative Operational Advisory Group (OAG) and Installation Advisory Group (IAG) construct. The advocacy process will be used to ensure we provide the best-trained and most capable logisticians, executable programs, and capabilities. In the end, it will result in ready people, the right capabilities, and responsive organizations integrated across the MAGTF and our bases and stations.

Lastly, this Marine Corps Installations and Logistics Roadmap (MCILR) is the result of your input. We solicited and incorporated your concerns, critiques, and recommendations. The MCILR is neither directive nor prescriptive, but challenges us to think and act together to prepare for the remainder of this rapidly changing century. This roadmap points to the cardinal directions of innovation, proficiency, and professional development. Marine Corps logistics is more than a focus on the Logistics Combat Element (LCE) of the MAGTF; it is a Total Force effort engaging across the operating forces and the supporting establishment (SE). Future Marine logisticians will be utility players who understand and can skillfully operate at the MAGTF, installation, Joint, and Interagency levels. The MCILR provides the path to guide our success.

Semper Fidelis,



William M. Faulkner

Lieutenant General, U.S. Marine Corps
Deputy Commandant, Installations and Logistics

MISSION VALUES VISION END STATE

MISSION:

MARINE CORPS LOGISTICIANS AND LOGISTICS CAPABILITY ENABLE THE CORPS TO GENERATE, TRAIN, AND SUSTAIN EXPEDITIONARY CRISIS RESPONSE FORCES, READY TO OPERATE ACROSS THE RANGE OF MILITARY OPERATIONS (ROMO), WHETHER FROM HOME STATION, FORWARD-BASED, OR FORWARD DEPLOYED.

VALUES:

MISSION-FOCUSED, ADAPTIVE, INNOVATIVE, AND RESILIENT.

VISION:

ACHIEVE EVER INCREASING LEVELS OF PROFICIENCY AND NEEDED CAPABILITIES THROUGH ADVOCACY – READY PEOPLE, THE RIGHT CAPABILITIES, AND RESPONSIVE ORGANIZATIONS.



END STATE

- » AN ENDURING ADVOCACY CONSTRUCT THAT LEVERAGES THE ENTIRE LOGISTICS COMMUNITY, FOR DEVELOPMENT OF LOGISTICIANS AND LOGISTICS PREPARED FOR 21ST CENTURY EXPEDITIONARY OPERATIONS, REGARDLESS OF MISSION OR LOCATION.
- » LOGISTICIANS AND INSTALLATIONS EXPERTS WHO CAN SUPPORT AND SUSTAIN MARINES IN ANY CLIME OR PLACE, AGAINST ANY FOE, FOR ANY MISSION.
- » IMPROVED OPERATING FORCE AND SUPPORTING ESTABLISHMENT READINESS.



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ENVIRONMENT

“ALTHOUGH THE WORLD HAS CHANGED, ONE THING HAS NOT: AMERICA NEEDS AN EXPEDITIONARY FORCE-IN-READINESS THAT IS PREPARED TO RESPOND TO ANY CRISIS.”

— General James F. Amos, Commandant of the Marine Corps

Today’s security environment is impacted by global instability, violent extremism, and competition for scarce resources. The Marine Corps is tailor made for this environment, in part because we are manned, trained, and equipped to deploy on a moment’s notice. As we examine the security environment through a logistics lens, it is important to understand the changes that have occurred since 9/11. As a Corps, we have grown in terms of overall warfighting capability. This development was accompanied by an increase in the number of end items, equipment weight, and energy requirements. This growth is neither sustainable nor affordable. Over the last decade, our bases and stations supporting these operations also grew in terms of people, equipment, and contracted support. This increased overall footprint is not consistent with our expeditionary

ethos. The future threat will dictate leaner logistics support solutions. Marine Corps logisticians will lead the way in developing these solutions.

The Navy-Marine team’s ability to conduct expeditionary operations rests largely with our logistics community. More than twelve years of land-based warfare has degraded our proficiency in maritime operations, both amphibious and MPF in nature. These skills must be regenerated through education and training. The shift to the Pacific presents an opportunity to revitalize our expeditionary logistics capabilities. Marine Corps amphibious and MPF capabilities will prevail in a theater dominated by time-distance challenges. In the Pacific, the Navy-Marine team can rapidly project power from the sea into contested areas, drawing sustainment and support from a sea base. Operational concepts, such as Ship-to-



Objective Maneuver (STOM), Enhanced MAGTF Operations (EMO), Future Maritime Operations (FMO), and Expeditionary Maneuver Warfare require skilled logisticians to turn promising concepts into actionable reality. Refinement of these concepts will ensure our Marine Corps expeditionary capability remains ready, responsive, and relevant.

During Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF), the Marine Corps' overall ground equipment set grew to an inventory valued at over \$25B by 2013, and generated over \$500M a year in depot maintenance costs. In light

of the "new normal" fiscal reality, the upkeep and maintenance of our current equipment inventory is cost prohibitive. Compounding this issue is the decline and eventual termination of Overseas Contingency Operations (OCO) funding. In addition to financing maintenance of our war-torn equipment, OCO funding has fueled investments in logistics information systems and other non-program of record capabilities. Fiscal pressures will drive the Marine Corps to an enterprise-wide review of our equipment set that will result in funding prioritization decisions, with "below-the-line" equipment unfunded for maintenance. The logistics community will

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FOR TIME AND THE WORLD DO NOT STAND STILL. CHANGE IS THE LAW OF LIFE. AND THOSE WHO LOOK ONLY TO THE PAST OR THE PRESENT ARE CERTAIN TO MISS THE FUTURE.

- John F. Kennedy

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work with other stakeholders to conduct a Marine Corps-wide review of our equipment in order to identify mission critical assets, while identifying items for divestiture.

A review of MAGTF logistics capabilities and command relationships reveals that during the last decade, internal MAGTF support relationships have stifled due to unnecessary redundant logistics capability across the MAGTF. Much of this excess capacity resides outside the LCE in the Aviation

Combat Element (ACE) and Ground Combat Element (GCE). Identifying and eliminating this redundancy is made more difficult by the fact that other advocates are responsible for this structure. Logistics capabilities outside of I&L's purview are not linked, integrated, or synchronized in a holistic manner. By embracing an all-inclusive enterprise approach to MAGTF logistics, we will optimize capacity and streamline capabilities.

EXPEDITIONARY LOGISTICS

MARINE CORPS FORCES AND INSTALLATIONS POSSESS THE MINDSET, TRAINING, AND TOOLS TO DEPLOY AND EMPLOY GLOBALLY; OUR ABILITY TO TASK ORGANIZE, GENERATE, AND DEPLOY FORCES IN A TIME-COMPRESSED MANNER HAS NO EQUAL.

The Marine Corps is an agile, lethal, and seabased expeditionary force. We are light enough to rapidly deploy, yet capable enough to operate independently in austere and remote locations. Marine Corps logisticians possess the mindset, training, and tools to deploy and employ globally; our ability to task organize, generate, and deploy forces in a time-compressed manner has no equal. However, our middleweight force has grown heavy with an increase in the size, weight, and number of items in our equipment inventory.

For example, an infantry battalion in 2001 consisted of 3,205 principal end items (PEI); today that same infantry battalion has more than 8,400 PEIs. Outfitting an individual combat Marine in 2001 cost \$5,583 and today it costs \$15,639. Since 2001, the Marine Corps experienced a 250 percent increase in radios and a 300 percent increase in computers. The corresponding increase in fuel requirements, maintenance, supply, and distribution is significant

and it has reduced MAGTF agility and self-sufficiency. DC I&L will work with other advocates and the operating forces to make informed decisions on how to “lighten the MAGTF”, while preserving force protection, fires, and maneuver gains of the last decade. This effort will save the Marine Corps money, make us more expeditionary, and reduce our overall logistics sustainment requirements.

Our expeditionary logistics design will focus on integrated capability development, and blend best practices with evolving technology. Precise inventory management and efficient use of transportation will be required to provide expeditionary logistics over extended distances. Through our advocacy construct, we will create an enduring process for training, education, and development. We will leverage other Services’ training and education forums to make our Marines more fluent in Joint logistics, skilled in the integration of other Service, Interagency, and functional combatant command logistical capabilities.



IN THE FUTURE, UNMANNED AIR AND GROUND LOGISTICS SYSTEMS, OPERATING FROM BOTH THE SEA AND LAND BASES, WILL BEAR GREATER MATERIAL DISTRIBUTION REQUIREMENTS ON THE BATTLEFIELD.

We will develop expeditionary logistics skills by optimizing Service, naval, and Joint capabilities. Marine Corps logistics needs to be tailored to support a MAGTF operating in an austere environment, yet possess the ability to access and leverage other Service capabilities when required.

The characteristics of expeditionary logistics include:

- » Lighter, modular, more energy efficient
- » Responsive, reliable, scalable, and timely
- » Supports MAGTF fires, maneuver, and force protection
- » Leverages bases, stations, and depots to deploy, sustain, and redeploy forces
- » Leverages technology to improve logistical capabilities, capacity, and interoperability
- » Provides MAGTF Command and Control (C2) capability for deployment and distribution operations
- » Creates an information network that transmits information and services via assured end-to-end connectivity
- » Provides visibility of Marine Corps assets (equipment and supplies) through item unique identification (IUID), radio frequency identification (RFID), automated information technologies (AIT), and the automated information systems (AIS) required to track and share logistics information

Within this expeditionary logistics framework, there are several initiatives that will increase our expeditionary logistics capability. The CH-53K heavy-lift helicopter with its increased lift capacity and extended reach will enable seabasing and movement to inland objectives. We will collaborate with the Deputy Commandant for Aviation to fully integrate this platform into future expeditionary logistics concepts. The Cargo Resupply Unmanned Aerial System (CRUAS) in Afghanistan is providing accurate and reliable delivery of sustainment to distributed forces. In the future, unmanned air and ground logistics systems, operating from both the sea and land bases, will bear greater materiel distribution requirements on the battlefield. Able to traverse non-linear lines of communication, they will provide the MAGTF complementary distribution capacity. The Joint High Speed Vessel (JHSV) will rapidly transport Marines and their equipment. We will improve material

distribution by leveraging both air and aerial resupply, especially from the sea base. The Naval Logistics Integration (NLI) initiative will optimize Navy-Marine logistics interoperability, while the MAGTF Logistics Integration (MLI) effort will reduce supply chain redundancies. By aligning NLI and MLI efforts into a complementary MAGTF logistics design, we will optimize MAGTF logistics performance in support of Special Purpose MAGTFs, disaggregated MEUs, and other task-organized expeditionary organizations, to include Marine Special Operations Forces.

A. LOGISTICS ORGANIZATION

Since 9/11, the buildup of logistical capacity in each element of the MAGTF has created independent silos of logistical capability. As we re-shape our Corps, we have an opportunity to better align logistics capability throughout the MAGTF. This alignment and balancing





of MAGTF logistics will provide the MAGTF commander one touchpoint for logistics, thereby maximizing the use of limited resources. This will also strengthen relationships across the MAGTF and increase interdependency.

B. PREPOSITIONING CAPABILITIES

The MPF program remains an indispensable strategic resource that provides global coverage, forward presence, and crisis response to geographic combatant commanders. Over the next decade, MPF modernization will provide the Marine Corps even greater expeditionary capability. Blount Island Command (BIC) will remain our lead

organization responsible for MPF maintenance cycle operations and oversight of Marine Corps Prepositioning Program-Norway (MCPN).

Significant enhancements to MPF include the Large Medium-Speed Roll-On/Roll-Off (LMSR) ship, T-AKE dry cargo/ammunition ship, and the Mobile Landing Platform (MLP). The LMSR provides added stowage in order to embark more equipment. The T-AKE enables increased access to unit supplies, allowing for access to tailored, afloat sustainment packages in support of forces ashore. Lastly, the MLP offers the ability to conduct at-sea, selective offload and vehicle/cargo transfer from an LMSR to ship-to-

“ BE PREPARED, OR BE PREPARED TO FAIL.
 - Benjamin Franklin ”



shore connector craft. Our prepositioning capability enables an expeditious response to contingencies with scalable packages, while minimizing strategic airlift requirements. MPF is just one component of the Marine Corps' rapid response capability triad. This triad also includes the Air Contingency MAGTF (ACM) and the forward deployed amphibious forces (AF). Each element of this triad can be used separately or integrated to provide the combatant commander force employment options. However, following over a decade of war, we are not as proficient in MPF or amphibious operations as we once were. In order to regenerate these skills, we will train and exercise this capability more frequently.

Our goal is to be prepared to “come as you are” with expeditionary logistics capabilities in each element of the expeditionary triad.

We will also assess the ship-to-shore throughput capacity required to sustain operations ashore to meet the time and space challenges of the 21st century. Future capabilities will increase our ability to operate from MPF as a sea base. However, we will not “fairy-dust” the logistical challenges, but will instead conduct a detailed analysis to understand and resolve potential limitations.

MAGTF READINESS

WE WILL DEVELOP AN INTEGRATED, ENTERPRISE APPROACH TO MAGTF READINESS THAT ENCOMPASSES THE ENTIRE LOGISTICS CHAIN. WE WILL MAKE IT POSSIBLE TO REPAIR EQUIPMENT AT THE LOWEST LEVEL.

To remain the Nation's expeditionary crisis response force, we will improve materiel readiness and accountability, and reward fiscal responsibility. Sustained combat operations and high operational tempo have eroded our equipment accountability and adherence to logistics policy and directives. Reversing these trends is a Marine Corps imperative.

A comprehensive Approved Acquisition Objective (AAO) review is necessary to adjust our inventory into an affordable overall Marine Corps equipment set. Additionally, a critical analysis of equipment life cycle strategies is needed to reduce maintenance costs. During OIF and OEF, there was a shift away from government-owned and operated logistics capabilities in favor of Performance Based Logistics (PBL) and Contracted Logistics Support (CLS). These approaches played a key role in the rapid acquisition and fielding of equipment to the warfighter. As budgets decline, these approaches must be reviewed to ensure they are sustainable

and meet the future needs of Marine Corps. As the Nation's expeditionary force-in-readiness, we need to maintain an organic capability while employing CLS and PBL under the right conditions. The goal is not to eliminate CLS or other PBL arrangements, rather, to determine how the Marine Corps can utilize these support strategies without compromising our ability to be self-sustaining.

We will develop an integrated, enterprise approach to MAGTF Readiness that encompasses the entire logistics chain. We will make it possible to repair equipment at the lowest level. We will develop better ways to diagnose, repair, replace, and restore equipment on the battlefield. We will re-emphasize a cradle-to-grave approach to equipment readiness to ensure that logistics support is integral to the requirements generation process and subsequent equipment acquisition and fielding actions. We will work with industry to look for ways to make our equipment lighter, easier to maintain, and more energy efficient. As a critical part of the



maintenance process, we will develop equipment able to sense and transmit pertinent systems information in anticipation of needed repairs.

A. RESOURCES

The Marine Corps has entered an extended period of fiscal austerity. Challenges associated with dwindling budgets will be compounded by the eventual discontinuation of OCO funding. We will leverage OCO funding for the optimal effect while it is available, but we must be prepared to sustain the force when funding levels return to or fall below pre-9/11 levels. We will assess the impact of decreased funding on Marine Corps material readiness and determine the right investment balance to support our operational requirements. We will provide risk-based resourcing guidance to influence investments and action. We will work closely with DC, Combat Development & Integration (CD&I), other advocates, and Marine Corps Systems Command to adjust the inventory by reviewing and, as appropriate, reducing equipment levels. Effective prioritization of requirements will be instrumental to making the best decisions. In the end, right-sizing our equipment inventory and implementing Capability Portfolio Management (CPM) will provide the lean, agile, and affordable force the Marine Corps needs in the 21st century.

B. MAINTENANCE PLANNING

Our ground maintenance community will find innovative methods to maintain readiness at reduced cost. The Marine Corps' forthcoming Ground Equipment Portfolio Management (GEPM) Program will establish a proactive and predictive approach through Condition Based Maintenance Plus (CBM+). CBM+ is the integration of proven processes, technologies, and knowledge to improve the reliability and maintenance effectiveness of systems and components.

With CBM+, maintenance is performed when enabling technologies and processes, such as sensors and Reliability Centered Maintenance (RCM) analysis, identify the need. CBM+ applies a systems engineering approach to maintenance; collecting and analyzing data to inform decision-making processes for system acquisition, sustainment, and operations.

C. TOTAL LIFE CYCLE MANAGEMENT (TLCM)

DC I&L has cognizance over the Marine Corps equipment Total Life Cycle Management process. The goal of TLCM is to optimize equipment readiness and lifespan through informed investment and maintenance actions. DC I&L supports this effort by issuing guidance and policy to inform life cycle business rules and maintenance planning factors.

“ INNOVATION DISTINGUISHES BETWEEN A LEADER AND A FOLLOWER. ”
 - Steve Jobs



TLCM is designed to maximize investment in ground equipment readiness, while informing acquisition and divesture strategies for the purchase and disposal of equipment. DC I&L will expand TLCM to become GEPM, a more holistic and inclusive process to address equipment inventory levels, revalidate life cycle planning factors, and quantify the relationship between depot maintenance and equipment readiness.

D. RESET

A decade of sustained combat operations in Iraq and Afghanistan has taken a significant toll on our ground equipment. We are investing in depot level maintenance now in order to offset the impact. Marine Corps Logistics Command (MCLC) is executing a comprehensive reset plan to restore our gear to a

level of readiness needed for post-OEF operations. To ensure the Marine Corps is postured for the future, reset actions are part of an integrated reconstitution strategy, which includes equipment modernization. This ensures the velocity of equipment return to the operating forces is balanced with the need for depot level overhauls.

E. MARINE CORPS LOGISTICS COMMAND (MCLC)

MCLC provides organic, operational-level enterprise supply, maintenance, distribution, and pre-positioning capabilities in support of MAGTF logistics. MCLC is the Marine Corps' Enterprise Ground Equipment Inventory Manager, supporting acquisition, life cycle maintenance planning and execution, and operational sustainment of weapons systems and

equipment. As the executive agent for both PEI inventory management and Reset, MCLC serves as the focal point for wholesale accountability; inventory posture and readiness forecasting; coordination and reporting of enterprise sustainment; and enterprise sourcing, fulfillment, distribution, and rotation plans. MCLC centrally manages inventory, distribution, and storage of individual and unit ground equipment to ensure Marines are properly equipped to train and fight. MCLC's Supplier Relationship Management (SRM) capability serves as the interface between major wholesale suppliers and end users to ensure customers receive the best supply support possible.

As the Marine Corps Distribution Process Owner, MCLC employs Joint and Service logistics automated information and asset visibility systems, processes, and procedures. It integrates and synchronizes efforts with United States Transportation Command (USTRANSCOM), MARFORs, MEFs, and other agencies to affect the transportation of Marine Corps assets in support of operations. In this capacity, MCLC also conducts Wholesale Storage Operations for PEIs, associated collateral materiel, and publications held at the wholesale level. Co-located with seven of nine Repairable Issue Points, MCLC provides Coordinated Secondary Repairable Management (CSM) to the Marine Corps, ensuring inventory accuracy and optimizing investment in equipment components. Within MCLC the Marine Depot Maintenance Command (MDMC) provides innovative worldwide depot level maintenance rebuild and repairs, engineering, manufacturing, and other technical services to maximize the readiness and sustainability of ground combat and support equipment within the Marine Corps.



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**CLEARLY, LOGISTICS IS THE
HARD PART OF FIGHTING A WAR.**

- LtGen E. T. Cook, USMC.

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MCLC also provides a forward deployed capability in direct support of the MAGTF that has been instrumental in OIF and OEF. Whether operating a Forward in Stores (FIS) to ensure equipment availability, leading an Equipment Reception Distribution Team (ERDT) to increase throughput of critical equipment, or coordinating the retrograde of equipment, MCLC will remain integral to our overall concept of expeditionary logistics.

As we look to Program Objective Memorandum (POM) - 16, a collaborative effort will be initiated to support planning, resourcing, and execution of depot maintenance. Our Enterprise Lifecycle Maintenance Program (ELMP) process will better align Marine Corps priorities and operational requirements. Strategic guidance will be more fully integrated in the validation and refinement of future actions. Furthermore, MCLC will identify opportunities to reduce maintenance costs that best support weapon

system availability and readiness within expected funding constraints. Finally, to justify future funding requests, a clear link to operational readiness and return on investment must be established.

The Marine Corps will retain and improve upon the logistics capabilities provided by MCLC, both in garrison and in a deployed environment. Maintaining our own organic capability to repair and maintain equipment is essential. MCLC will evolve its role as an integral member of the operational logistics chain by developing Service-wide forecasts and injecting itself as the supply chain expert to expedite required items in direct support of operational-level equipment readiness. MCLC will look to synchronize logistics chain activities between the MEF's to identify efficiencies and opportunities to enhance support. MCLC's extensive logistics capacity will be optimized at the operational level to realize tactical-level success in the operating forces.





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**AMATEURS TALK
 ABOUT TACTICS, BUT
 PROFESSIONALS
 STUDY LOGISTICS.**

Gen Robert H. Barrow,
 USMC

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**F. LOGISTICS INFORMATION
 TECHNOLOGY (IT)**

The most pressing issue within our logistics IT portfolio is the lack of funding to sustain the systems that provide and integrate information. We will prioritize our systems and initiate a deliberate effort to divest systems that are not required or whose function can be accomplished via another means. We will reduce our overall logistics IT portfolio and make sound investments to ensure interoperability and integration of future systems. Furthermore, we will develop a data integration strategy to facilitate logistical planning and execution.

A challenge facing the logistics community is the lack of interoperability between our IT systems. Legacy C2 architecture consists of multiple data systems that are independent and use different methods for storing, communicating, and displaying information. Since vital systems cannot communicate with each other, data is uncorrelated. The assembly of a common operational picture is cumbersome, time consuming, and often incomplete. Historically, point-to-point integration of individual applications was the preferred method of solving this problem, but this approach has proven largely ineffective.



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I DON'T KNOW WHAT THE HELL THIS "LOGISTICS" IS THAT MARSHALL IS ALWAYS TALKING ABOUT, BUT I WANT SOME OF IT.

- Admiral E.J. King

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Service Oriented Architecture (SOA) provides an alternative to point-to-point integration. SOA provides an underlying communications foundation that passes data in a well-defined, shared format known as Extensible Markup Language (XML). This allows a varied set of applications to communicate with each other over a network, creating a Shared Data Environment (SDE). A SOA eliminates duplication of effort and allows accurate data correlation from multiple sources.

Global Combat Support System – Marine Corps (GCSS-MC) is the Marine Corps' state-of-the-art, web-enabled logistics IT system. It is the backbone of future Logistics Chain Management; GCSS-MC is how Marines conduct retail supply and maintenance transactions. The fielding of GCSS-MC Release 1.1

is complete. The system is stable and functionality is improving. The program is on track to develop an interim deployable solution (Release 1.1+) in 2014, and deliver a full deployable capability (Release 1.2) in 2015. GCSS-MC has great potential as a Marine Corps accountability and material readiness instrument. Continued funding and system improvements will ensure we fully operationalize GCSS-MC.

Although GCSS-MC is its centerpiece, our logistics IT portfolio consists of many systems. The intent is to use the Tactical Services Oriented Architecture (TSOA) to integrate existing disparate MAGTF Logistics Support Systems (MLS2). As we develop and integrate systems, we will incorporate business intelligence and other analytic tools to prevent information overload for the

user. There is an upper limit to how much information a person can process and we will leverage technology to help, not compound this problem. Systems will effectively monitor, filter, and mine information so we support user requirements.

G. CONTRACTING

Marines across all elements of the MAGTF and SE depend on the Marine Corps contracting system to award and manage contracts for supplies and services. By delivering supplies and services at the best value, field-contracting offices are at the forefront of fiscal stewardship and responsibility efforts. In FY 2010, the field contracting system executed 24,000 contracting actions and obligated \$1.4B. DC I&L provides the authority, policy, tools, oversight, and advocacy for all field contracting offices.

The Marine Corps field contracting system will continue to provide best-value contracting solutions by fostering greater operational responsibility and accountability; expanding its strategic sourcing initiatives; improving data quality and analysis of spend data to inform acquisition strategies; partnering with local financial managers to develop annual spend plans and track execution; and strengthening the development of contracting officer representatives to focus on contract management issues. Contingency contracting is a MAGTF force-multiplier that supports operational and tactical logistics missions while enhancing and increasing combat capabilities across all expeditionary functions.



MCICOM

MARINE CORPS' ULTIMATE DEPLOYMENT PLATFORMS

OUR MARINE CORPS INSTALLATIONS ARE KEY ASSETS IN THE DEPLOYMENT OF THE OPERATING FORCES, AND IN THE MANAGEMENT OF OCEAN, COASTAL, RIVERINE, INLAND, AND AIRSPACE TRAINING AREAS.

The Commandant established MCICOM in 2011 to achieve unity of command across Marine Corps installations. Full operational capability of the organization was achieved in October 2012. Marine Corps Order 5400.54, Marine Corps Installations Roles and Responsibilities, codifies the single authority for all Marine Corps installations matters and clearly articulates the core installation competencies. With thirty-seven distinct functions, MCICOM leverages its robust infrastructure and operational focus to support total force readiness. Bases and stations are complex organizations; the thirty-seven functions span every aspect of their effective operation. Our twenty-four Marine Corps Installations include 9 airfields, 2.3 million acres of land, 12,000 structures, and 2,400 miles of roads requiring facilities management, safety, installations protection, training support, logistics, IT, and community services.

Marine Corps installations are key assets in the deployment of the operating forces, and in the management of ocean, coastal, riverine, inland, and airspace training areas. Our installations ensure the on-base safety and well-being of our Marines, Sailors, Civilian Marines, and their families, while exercising fiscal, environmental, and cultural resource stewardship and compliance. MCICOM bases and stations are fully integrated and manned with a talented, seasoned Civilian Marine workforce, known Department of Defense-wide for their expertise and mission focus. Installations have entered an era of rapid change as operational units are activated or realigned and new equipment is fielded. During a period of fiscal austerity, we will find more efficient and effective ways to provide high-quality base support, while meeting mandates to reduce energy and water consumption, mitigate environmental concerns, and improve support. Through holistic real estate management, we will work with friends and neighbors



in the civilian community to minimize developmental encroachment that would adversely impact readiness and training.

Commander of MCICOM has published the Installations Strategic Plan, offering a compelling and aggressive blueprint to ensure mission success and guide actions. The Installations Strategic Plan provides clear, measurable goals, and explains what can be expected of its subordinate organizations. The plan's success is predicated on building positive relationships and partnerships with Marine Expeditionary Forces, Training and Education Command, tenant units, and other stakeholders. Honest and direct dialogue sets the conditions to ensure we know and understand those whom we support. To that end, MCICOM will skillfully assess the availability of resources to meet combat readiness requirements and protect the personnel and families who live and work aboard our installations.

As budgets tighten, MCICOM will add additional value by further reducing costs while preserving and enhancing the readiness of the force. The establishment of Common Output Levels of Service

(COLS) provides visibility of base operations support and services, affording both installation teams and their customers a “rheostat” to control and evaluate levels of support.

MCICOM will play an integral supporting role as the Marine Corps rebalances its posture in the Pacific, with numerous installations across Okinawa, mainland Japan, Hawaii, and Guam. MCICOM will be a partner to the customers it supports as it participates in the deliberate, detailed master planning and execution of this complex and strategically vital initiative.

MCICOM's focus of effort is its full commitment to ensuring force readiness; it is the benchmark to measure the command's scope of responsibility, its enduring focus on Marine Corps bases and stations across the globe, and its obligation to be good stewards of our resources for the Corps.



ADVOCACY

EFFECTIVE ADVOCACY WILL RESULT IN BETTER EDUCATED, TRAINED, AND READY PERSONNEL, INFORMED CAPABILITY DEVELOPMENT, AND RESPONSIVE ORGANIZATIONS.

Today, 43,000 logisticians are providing support to the MAGTF and SE. Fifty-eight percent of our logistics capacity resides outside the LCE (LCE = 42%, GCE = 24%, ACE = 14%, Command Element (CE) = 8%, and SE = 12%). Historically, advocates have viewed their logistics capacity and capabilities through an organizational (MAW, DIV, MLG) vice Marine Corps-wide lens. As a result, there is an opportunity for increased cooperation and alignment throughout the force. We will partner with other advocates and take the lead role in integrating Marine Corps logistics thereby increasing alignment, balance, and development of needed logistical capabilities. By embracing an enterprise approach to MAGTF logistics, we will optimize capacity, reduce redundancies, and streamline capabilities.

A strengthened advocacy program will develop logisticians and logistics for the 21st century security environment. Effective advocacy will result in better educated, trained, and ready personnel, informed capability development, and responsive organizations. We will execute advocacy through a formal, yet

collaborative Operational Advisory Group (OAG) and Installation Advisory Group (IAG) construct, consisting of Subject Matter Experts (SME) from given occupational fields, specialties, and communities. Advocacy will generate operational requirements and identify capability gaps. The OAGs and IAGs will be synchronized to affect and influence the Capability Based Assessment (CBA) process within the Marine Corps Force Development System (MCFDS) and the Program Evaluation Boards (PEB) for the annual POM cycle. Furthermore, it will support the CPM process now being implemented by CD&I. In support of a reshaped advocacy effort we will maximize use of technology for meetings and information sharing and look to minimize costs associated with conferences and required travel.

Through advocacy, leaders will examine and enhance how we conduct logistics operations and provide installations support to ensure they sustain Marines. In the end, it will result in ready people, the right capabilities, and responsive organizations integrated across the MAGTF and installations.



**A STRENGTHENED
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CENTURY SECURITY
ENVIRONMENT.**

A. READY PEOPLE

The Marine Corps center of logistics gravity is our people. There is no resource more precious or more critical to the continued success of our Corps than our Marines. Today's battle-tested logisticians have a wealth of experience, but formal education and non-Predeployment Training Package (PTP) opportunities have been limited. As we transition from combat in Afghanistan to future operations, we have a unique opportunity to harvest and incorporate OIF and OEF lessons into our training and education curriculum. We will include future technologies and evolving operational concepts, tempered by these lessons learned. We will instill within our community a passion for learning and a continued commitment to excellence.

Today's generation of logisticians is at a personal, professional, and institutional cross-roads. We will develop career progression paths that challenge our Marines and incentivize education, innovation, and retention. Our goal is to develop MAGTF logisticians by emphasizing service across the MAGTF and SE. We will advise, educate, mentor, and train logisticians to foster their professional development. Furthermore, we will conduct recurring gap analyses of training, education, and doctrine to ensure conceptual design is fortified by in-the-field experience and insights. Our logistics training and education

continuum will ensure the logistics community can operate successfully in any environment.

We will capitalize on the capabilities of Marine Corps Logistics Operations Group (MCLOG) to ensure Marines are skilled in the art and science of planning and executing tactical logistics operations. We will educate our next generation of logisticians to operate in a complex Joint environment, teaching them to think beyond the MAGTF and understand how to utilize the entire logistics network. A focus on Joint planning will broaden analytical and mission analysis horizons, while exposing Marines to a multitude of sister Service, combatant command, and Interagency logistics. Logistics training and education will create MAGTF logisticians, ready to support 21st century expeditionary operations.

The commitment to “ready people” extends beyond the MAGTF to include our Civilian Marines. Our civilian workforce is comprised of some of the best and brightest professionals in federal service and we will ensure there are sufficient opportunities to hone leadership skills and develop the necessary talents for career development. The intent is to enhance the competencies of all civilian employees, from entry level to senior executive. We will do this by fully supporting the Communities of Interest (COI) described in the Civilian Workforce Strategic Plan.

B. CAPABILITY PORTFOLIO MANAGEMENT

We are entering a period of fiscal austerity. There will be pressure to reduce logistics costs, inventory, and overhead. Through CPM we will invest wisely in capabilities and programs that enable future success. We will review higher-level guidance and translate that guidance into needed logistical capabilities. We



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AN INVESTMENT IN
KNOWLEDGE PAYS THE
BEST INTEREST. ”

- Benjamin Franklin



YOU WILL NOT FIND IT DIFFICULT TO PROVE THAT BATTLES, CAMPAIGNS, AND EVEN WARS HAVE BEEN WON OR LOST PRIMARILY BECAUSE OF LOGISTICS.

– General Dwight D. Eisenhower



will link resource decisions to our vision and strategy. We will synchronize our requirements, acquisition, sustainment, and resourcing processes through active engagement in the MCFDS and CPM frameworks. CPM will ensure our resource decisions are informed and aligned with Marine Corps requirements. CPM will inform an acquisition and investment plan that manages operational and institutional risk.

CPM is the framework we will use to ensure the Marine Corps has the necessary expeditionary logistics capability for 21st century expeditionary operations. We will balance the health (near-term readiness) and wellness (long-term readiness) of our installations and logistics capabilities, while ensuring we provide the best-trained logisticians and most capable logistics possible. We will support

installations and logistics capabilities in the Joint Capability Area of Logistics (JCA 4) and logistics equities across the other eight JCAs. CPM success requires leadership involvement at every level so requirements and capabilities are developed in an integrated manner.

CPM and GEPM will be mutually supporting. GEPM will inform CPM by providing portfolio managers total lifecycle data for timely decisions on ground weapon systems, equipment, and materiel. This will address capability gaps, eliminate redundancies, and ensure investment in the right capabilities. In turn, CPM supports lifecycle managers by identifying procurement priorities, near-term improvements, and investment strategies for technology insertions and transitions to address future gaps.

These strategies are instrumental as we conduct a community-wide review of our equipment in order to identify mission critical assets, while identifying other items for divestiture. Our approach will ensure interdependency within the MAGTF that links capabilities in a holistic manner. We will embrace an all-inclusive approach to MAGTF logistics to optimize capacity and streamline capabilities.

C. RESPONSIVE ORGANIZATIONS

Ready and trained Marines with the right capabilities will lead to responsive logistics organizations. We will capitalize on the vast knowledge of our logistics SMEs, Occupational Field Sponsors, and Marine Occupational Specialty (MOS) specialists to develop an integrated MAGTF logistics team. From the micro-level of MOS grade-shaping to the macro-level of force structure reviews, we will ensure our people and capabilities are arrayed to remain the nation's premier expeditionary force-in-readiness.

Within our installations, we will clearly define COLS to prioritize resources, and provide installations with direction and oversight to refine performance measures, improve effectiveness, and reduce costs. COLS will provide every tenant at every installation an understanding of what to expect. As budgets begin to tighten and we need to change the service levels, we will do so in a way that is clearly defined and understood by all stakeholders.

We will validate and update logistics unit mission statements and tables of organization and equipment to lighten the MAGTF, while maintaining our self-sufficiency and ability to get to the fight. Our logistics structure will be viewed through a MAGTF lens and we will eliminate unnecessary redundancy. Most importantly, we will create an advocacy process that relies on Marine input, feedback, and ideas.



FUTURE LOGISTICS

WE WILL CONTINUE TO ASSESS EMERGING TECHNOLOGIES, SYSTEMS, AND PROCESSES TO ENSURE WE MAINTAIN A TECHNICAL AND TACTICAL EDGE OVER FUTURE FOES.

Marines are innovators and will aggressively pursue new capabilities. Accordingly, we will work to lighten the MAGTF load and reduce the weight and energy demands of our equipment systems. We will increase equipment maintainability, reliability, and affordability. Additionally, we will advocate for the development of unmanned delivery systems, robotics, condition-based maintenance, logistics information fusion, system interoperability, individual and small unit water purification, energy efficiency, In-Transit Visibility (ITV), and composite materials. In the not-too-distant future, the Marine Corps' logistics network will be fully sensitized. It will harness the power of information through a network of autonomic platform sensors, automated information systems, business intelligence systems, and other modern technologies that will improve support to the MAGTF.

Expanded use of unmanned systems for resupply of forward-based units is not only viable; it is a critical operational requirement. Demonstration systems are already in use on the battlefield shortening lines of communication and taking Marines off of hazardous roads. Innovations such as robotic transportation systems and exo-skeletal robotics are on the cutting edge of evolving logistics capabilities. Other technologies in use by industry, such as sensitized logistics chains, should be evaluated for use in the Marine Corps. We will continue to assess emerging technologies, systems, and processes to ensure we maintain a technical and tactical edge over future foes.

To that end, the annual Expeditionary Logistics (ExLog) Wargame serves as a means for logisticians across the operating forces and the SE to demonstrate emerging concepts and technologies, and new and improved logistics support processes and procedures.

This effort is aimed at increasing the effectiveness and efficiency of Marine Corps expeditionary logistics capabilities to support rapid maneuvering on an extended battlefield.

A. KNOWLEDGE-DRIVEN LOGISTICS (KDL)

KDL is a strategy to integrate the entire logistics chain, using technology, process improvements, and technical training to improve availability, timeliness, management, and application of logistics information. It consists of four approach areas: Command and Control for Logistics (C2 for Log), Logistics Chain Management (LCM), Decision Support Tools (DST), and Logistics Management Information. KDL will improve support to forward deployed Marines by taking a holistic approach to information management. It will leverage technology, but focus on improving logistics assessment, planning, and execution skills across the MAGTF.

Autonomic sensors will perform diagnostics and prognostics on combat platforms and transmit logistics data and demand signals, which will become more critical as we execute distributed operations. Automatic Identification Technology (AIT) will feed the decision cycle, providing leaders with Total Asset Visibility (TAV). LCM will provide the supply, maintenance, and distribution network and the

information systems that connect it. DSTs will inform organizational decision-making activities, projecting logistical requirements, assessing available resources and support capabilities, identifying shortfalls and associated implications, and measuring opportunity costs and risk.

C2 and functional logistics systems will provide real-time situational awareness for commanders and planners at every level throughout the enterprise. On the battlefield, commanders and planners will see how much fight is left in their combat platforms. KDL will connect and integrate the logistics network and will facilitate resourcing decisions at every level.

B. SCIENCE AND TECHNOLOGY (S&T)

Continued investment in S&T initiatives is not only prudent, it is critical to the modernization of Marine Corps logistics capabilities. There are six emergent themes to guide S&T investment in support of Expeditionary Logistics. These themes are Autonomy, Connecting the Connectors, C2 for Logistics, Decision Support Tools, Holistic Modularity, and Lighten the Load.

- » Autonomy. Using unmanned transportation systems and robotic materiel handling systems, smaller crews can manage resupply from the sea base to the individual warfighter. Loads will





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LEADERS WIN THROUGH LOGISTICS. VISION, SURE. STRATEGY, YES. BUT WHEN YOU GO TO WAR, YOU NEED TO HAVE BOTH TOILET PAPER AND BULLETS AT THE RIGHT PLACE AT THE RIGHT TIME. IN OTHER WORDS, YOU MUST WIN THROUGH SUPERIOR LOGISTICS.

— Tom Peters, Author

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be individually tailored to meet a precise need. Delivery to end-users will be done by minimizing if not eliminating risk to human life.

- » **Connecting the Connectors.** Analyses indicate that the “connections” between “connectors” in the logistics chain are as important as the connectors themselves. This applies to the movement and distribution of both materiel and data. Distributed operations require the ability to manipulate and transfer loads efficiently and safely (austere materiel handling). Technology that provides asset visibility increases certainty, control, and effectiveness of the logistics chain.
- » **C2 for Logistics.** The integration of logistics data will provide actionable information to leaders. This will facilitate responsive support to smaller units requiring logistics in a fluid, dynamic, and distributed battle space.
- » **Decision Support Tools (DST).** In support of C2 for logistics, DSTs will convert data into actionable knowledge to facilitate development of courses of action.
- » **Holistic Modularity.** This is a factory-to-fighting position concept that relies on common platforms, parts, and scalable mission modules throughout the logistics chain. The packing

and repacking capability will produce precisely tailored loads, eliminating excess throughput thereby reducing the footprint and improving support to the warfighter. Holistic modularity is an enabler for autonomy, robotics, and connecting the connectors.

- » **Lighten the Load.** The energy required to conduct operations will be reduced through innovative water and energy generation, efficient storage, and intelligent distribution and control. Throughput requirements will be reduced due to decreased use of fuel and the capability to harvest water from a local source.

Future MAGTF capabilities will benefit from a precisely tailored level of sustained logistic support from seabased platforms to rapidly maneuvering forces ashore. Logistics delivery systems of the future will be more responsive and flexible, enabling Marines to out-pace rapidly changing operational scenarios. Likewise, delivered logistics commodities will provide more operational value per unit weight, enhancing unit self-sufficiency and maneuverability. Additionally, our Corps will benefit from technologies that maximize equipment readiness by minimizing downtime and maintenance requirements.

FINAL THOUGHTS



The challenges and threats associated with the future global security environment generate a clear requirement for lighter and leaner forces, capable of being rapidly deployed, effectively employed, and sustained over greater distances. We will maximize the positive effects of existing technology while evaluating emerging solutions to improve support. We will continue to examine how we organize, train, educate, equip, and employ our Marines. We will maintain positive and productive relationships with the SE and our Civilian Marines while keeping faith with our families to ensure high quality of life standards.

Our collective efforts will result in 21st century logistical capabilities prepared to operate across the ROMO. We will revitalize and integrate logistics training, education, and doctrine to develop logisticians who are prepared for the future operating environment. MCICOM's role as the ultimate MAGTF deployment platform provider will be solidified as the strategic link between installations and Marine Corps readiness, training, and power projection capabilities. Finally, we will execute an advocacy construct for the MAGTF, installations, logistics, and logisticians that delivers ready and trained Marines, needed capabilities, and responsive organizations.

