Logistics in a Changing Environment

Supporting Marine Expeditionary Units

Deputy Commandant for Installations and Logistics, U.S. Marine Corps

Operation Iraqi Freedom involved more than 400 miles of terrain that equipment, supplies, and supporting personnel needed to cross. The number of bases throughout the world has decreased, and as a result, sea bases have gained in importance. Users are being trained in new technology that improves the tracking of equipment to its point of need. These are examples of how the environment in which the Marine Corps operates is changing all the time. Marine Maj. Gen. Edward G. Usher III, deputy commandant for installations and logistics, is responsible for ensuring the Marine Corps not only keeps pace with change, but anticipates new needs. Defense AT&L interviewed Maj. Gen. Usher on what the future holds regarding logistics, increasing the warfighter’s situational awareness, and meeting the challenge of a growing Marine Corps.

Q
Can you begin with an overview of your jobs and responsibilities as deputy commandant for installations and logistics?

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The role of deputy commandant, installations and logistics (I&L), makes me the occupant of the senior logistic billet in the Marine Corps and directly responsible to the commandant, as well as all Marines, for all logistics-related issues and support of the Corps’ bases and stations throughout the world. It is a big job, and fortunately, I get a lot of help.

The term “expeditionary” is an inherent part of our warfighting culture. We anticipate and train to operate in chaotic and austere immature environments.

The department is made up of over 350 Marines, civilian Marines, and contractors spread over six divisions spanning responsibilities for logistics policies, strategic mobility, facilities and services, contracting, small business advocacy, and business enterprise. The Marine Corps Logistics Command, headquartered
in Albany, Ga., is also a big part of I&L. The LOGCOM runs our depots as well as the execution piece of the Maritime Preposition Force program.

Although this may appear as a diverse set of roles and responsibilities, a common link exists in providing Marines the stuff and wherewithal to do their mission. That link represents the rudder for my tenure as deputy commandant for I&L and drives my priorities, which are:

- Expeditionary logistics: Enhance logistics support of the Marine Air Ground Task Force (MAGTF), the nation’s premier expeditionary force-in-readiness, across the spectrum of conflict.
- Total life cycle management: Increase equipment readiness through cradle-to-grave management of weapons systems.
- Continuous process improvement: Improve combat readiness through innovation.
- Quality of life: Deliver the highest quality support, services, and amenities to our Marines and families in garrison and deployed.

Q One of your primary focuses is on expeditionary logistics, which involves supporting warfighters across a wide spectrum of conflict. How does the idea of expeditionary logistics differ from the deployment of traditional logistical support?

A When you talk about expeditionary logistics and the deployment of traditional logistics, you really have to look at the core of how Marines operate.

First and foremost, the term “expeditionary” is an inherent part of our warfighting culture. We anticipate and train to operate in chaotic and austere immature environments.

Second, the Marine Corps is naval in character, so when we deploy, it is typically in conjunction with and aboard Navy amphibious ships with Maritime Prepositioned Force assets. Operating with the Navy typically affords us the ability to respond early to a crisis and provides us the capability to sustain ourselves from the sea base.

Our ability to operate and sustain ourselves from the sea base has taken on an increased level of importance because of a decreased number of and reduced access to bases throughout the world. The challenge lies in continuing to improve how we provide support to the MAGTF, combined with determining where we project to be operating in the future based on threat and on operating along the littorals.

Third, we are organized as a MAGTF, with air, ground, and logistics components, and this gives us the flexibility to respond to the entire spectrum of military operations. This means we have the scaleable organic capability to respond to anything from shaping the environment all the way through dominating the enemy and enabling civil authority. Although we are comfortable in providing logistics support in an expeditionary environment, we are not comfortable with the status quo; we are always seeking ways to improve our ability to provide responsive, flexible support to our Marines.

Q Can you highlight some of the recent success stories that your organization has had in providing support to the MAGTF?

A In 2004, as a result of lessons learned from OEF [Operation Enduring Freedom] and OIF [Operation Iraqi Freedom], the Marine Corps started the Logistics Combat Element reorganization. The goal was to increase MAGTF effectiveness through streamlined logistics processes that developed habitual relationships between infantry regiments and supporting combat logistics battalions that remain the same whether in garrison or deployed, resulting in a more responsive, adaptable, and capable unit.

The reorganization of the Force Service Support Groups into Marine Logistics Groups accomplishes the following:

- Provides a standing direct support command element and core transportation capability to rapidly task organizations for deployment operations
- Provides for experienced logistics command and control operations and planning support
- Develops strong habitual working relationships between supported and supporting units.

These attributes increase the effectiveness and cohesion of the MAGTF in accomplishing any assigned mission.

We were also heavily involved with coordinating equipment sourcing and equipment distribution for units to support regular OIF rotations, OIF surge, and OEF. This involved cross-leveling of unit equipment, distributing equipment returning from depot repair, and new procurements. We have also established equipment reception and distribution teams at the MEFs [Marine Expeditionary Forces] to support an increase in ground equipment flow and assist with accountability. Additionally, we are working with other Headquarters, Marine Corps (HQMC) staff and the operating forces to make recommendations to the Marine Logistics Group for ground equipment capability increases. This will support the reorganization and emerging units as the Marine Corps increases to 202,000 members.

The Marine Corps also manages approximately 3 million acres of land in support of the warfighter, retaining
stewardship responsibilities for the natural and cultural resources present at each location. Natural resources management includes providing for multiple use of the land and protection of endangered species. Management is performed under the auspices of our Integrated Natural Resources Management plans, which are developed in conjunction with the U.S. Fish and Wildlife Service.

Our Family Housing Public-Private Venture Program has also been a MAGTF success story. The public-private venture partners are not only providing outstanding quality homes and community support facilities, but they are also providing vastly improved maintenance services. These projects are having a positive impact on the quality of life for Marines and their families. Since our first project was awarded in November 2000, we have privatized 96 percent of our worldwide inventory and have been able to leverage $557 million in Marine Corps dollars to achieve more than $3 billion in housing improvements. The Family Housing Public-Private Venture Program has allowed us to put business agreements in place at the end of 2007 to fix all of our inadequate family housing by 2014.

From a process improvement perspective, our Business Enterprise Office has implemented process improvements that are paying huge dividends throughout the Marine Corps. Some of our efforts are:

- Establishing a partnership with the Government Services Administration to deliver reliable garrison supply throughout the Corps, which is expected to free up about 100 Marines and reduce costs anywhere from $6 million to $12 million annually.

- A Lean Six Sigma project designed to accelerate repair cycle time of the Assault Amphibious Vehicle, which also reduced cost and resulted in 40 percent fewer defects when received by the operating forces.

- A Lean Six Sigma project to accelerate the processing while increasing visibility of the Marine Corps Urgent Universal Needs Statement requests. The Urgent Universal Needs Statement process improvement reduced the total process time for these requests from 129 to 87 days. It is also expected to reduce procurement cycle time by 45 days while providing a level of visibility for tracking never before available to stakeholders.

You have said that one of the biggest challenges in providing current logistical support is maintaining the agility required to adapt to rapid changes on the battlefield in a ground fight of unprecedented speed. How are you doing things differently to enhance agility and flexibility? How is logistical support responding faster to the quickly changing needs of the warfighters?
We experienced considerable mobility challenges during the 400-plus mile engagement during OIF. The deployed logistics units simply did not have enough trucks and trailers to respond to the extraordinary demand for transportation of equipment, supplies, and personnel. Recognizing capability shortfalls in all elements of the MAGTF, the commandant of the Marine Corps directed a comprehensive Table of Equipment review in the fall of 2007. Increased mobility assets were the logisticians’ number one priority. Recommendations made during the Table of Equipment review for additional long-haul capability, medium-lift assets, and supporting maintenance vehicles were approved and will be added to the existing equipment sets of Marine logistics units.

In addition to enhancing responsiveness with equipment, these challenges are being addressed by new logistics technologies in use by deployed operating forces. Logistics decision support tools—such as MERIT (Marine Corps Equipment Readiness Information Tool), the Common Logistics Command and Control System, and the Transportation Capacity Planning Tool—automate tasks previously accomplished via laborious stubby pencil drills or locally designed spreadsheets.

Our capstone logistics technology enabler of the future is the Global Combat Support System–Marine Corps, which will give logisticians a world-class, Web-based management tool for use, while deployed, to request logistics support via both classified and unclassified connections. The GCSS-MC will allow units that are deployed to austere environments to operate in a disconnected mode to register their needs without having to tie into a Web-based information system located in the United States.

These initiatives are being supported with the communications assets required to operate on a digital information-enhanced battlefield with modular, scalable, and deployable equipment to provide the robust bandwidth for voice, data, and video teleconferencing both internal and external to the battlefield. These efforts respond to the capability gap within the Logistics Combat Element for line-of-sight, beyond-line-of-sight and on-the-move communications for logistics support of MAGTF operations.

We are not comfortable with the status quo; we are always seeking ways to improve our ability to provide responsive, flexible support to our Marines.
A key challenge to logistics decision makers is maintaining a comprehensive situational awareness of the strategic, operational, and tactical logistical environment. The Logistics Readiness Coordination Center has been tasked to support the deputy commandant for I&L by serving as a focal point for monitoring, identifying, filtering, coordinating, processing, and resolving logistics issues affecting Marine Corps forces in times of emergency, increased tension, open hostilities, or exercises. Can you comment on how the LRCC maintains and fosters effective communication?

A

The LRCC acts as a conduit of information between the operating forces, the supporting establishment, the joint planning and execution community, and HQMC logistics decision makers. The LRCC maintains a continuous presence with multiple 24/7 watch teams who continually monitor message traffic, situation reports, and Web sites; and attend secure VTCs [video teleconferences] with the operating forces and supporting establishment. By acting as the coordinating activity for logistics issues with 24/7 availability, the LRCC watch teams maintain a unique situational awareness that is critical for the efficient handling of logistics operations.

In support of OIF and OEF, the LRCC is the only Marine Corps capability at the strategic level to provide detailed, cogent, and timely logistics information to key HQMC decision makers, and to facilitate communication flows by actively seeking and clarifying information across the entire logistics continuum. The LRCC assists HQMC and the supporting establishment in conducting strategic logistics support while processing and coordinating information with the Marine Corps operating forces, Marine Corps Reserve, Joint Staff, and the supported or supporting combatant commander.

The LRCC is a reserve capability sustained in peacetime by individual mobilization augmentee detachment members and activated during periods of high-operations tempo and/or national emergency. The detachment is staffed by professional logisticians who maintain technical competence in using logistics resources such as MERIT, the Joint Operation Planning Execution System, the Single Mobility System, and the Global Transportation Network.

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You've noted a problem in logistical support has been a lack of in-transit visibility information to incorporate into the command and control effort. Without asset visibility on unit stocks and in-transit visibility on ordered items, then shortages, locating needed items within stocks for reallocation, and directing and tracking the movement of ordered items to requesting units can be greatly hampered. To respond to this issue, the Radio Frequency Identification (RFID) program has been introduced. Can you comment on the progress of this program? How will the MAGTF end-to-end distribution system contribute?

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For ground logistics, we have embraced and implemented active RFID technology within the Marine Corps. Our automated information systems for sustainment, transportation, and unit deployment of supplies and equipment are fully operational with the tools to apply an active tag. We are also tagging our preposition ships as they go through their maintenance cycle.

We have completed seven ships to date. We have installed 78 fixed interrogators throughout our bases and stations that are providing nodal visibility for active tagging shipments/equipment. We will continue to install more as the business process warrants. To provide a mobile active tag interrogator capability, our Marines also have portable deployable kits at their disposal. We have noticed a significant increase in in-transit visibility from OIF to the present.

From a technological standpoint, active RFID tag-provided in-transit visibility is only as good as the last known interrogator it has passed. That’s what RFID gives you. In addition, the data is only as good as what the user/system writes and reports. Garbage in is garbage out. Furthermore, training plays a major role in the success of incorporating this technology. Our Marines, on a daily basis, are writing tags for local deliveries to “train as we fight.” By introducing other modernization initiatives such as pure pallets, direct channel flights, and other aggressively applied supply chain management practices, we have reduced the number of touch points where shipments have to be reconfigured and re-tagged.

While RFID has increased our in-transit visibility, it is by no means the only solution to a much larger requirement. It is just one tool in the toolbox used to build asset visibility/in-transit visibility data.

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You’ve stated that contingency contracting teams act as force multipliers and have adopted the Battle Ready Contingency Contracting System to further amplify this support. Can you describe this effort? How will the features of BRCCS enhance the capabilities of contingency contracting teams?

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The BRCCS—renamed Standard Procurement System–Contingency in 2006—is a deployable version of SPS (the same contract-writing system used in garrison) that is installed on ruggedized laptops, thus precluding the learning curve for a new system when contingency contracting Marines deploy. The SPS-C is very versatile and can be used as a standalone system in austere environments or linked for synchronized networked
workflow capability if operating in a more robust contracting environment.

However, SPS-C is just one of the many initiatives the Marine Corps has instituted to increase the capability of our contingency contracting workforce. The Marine Corps has also realigned our military contracting assets to better support the operating forces. Prior to this realignment, just 25 percent of the contingency contracting workforce was in locations that directly supported our operating forces; that figure is now 75 percent.

Additionally, our training program has been shortened from an 18-month graduate education program to a four-month, intense contracting training program. This new program will give our contingency contracting workforce the hands-on training not available in the graduate program. As part of this contracting immersion, we have implemented a program that mandates that our contingency contracting Marines work in the local regional contracting offices while in garrison. This arrangement reinforces the contracting skills already learned and promotes the development of broader business acumen.

In the Marine Corps, the supply, logistics, and finance military occupational specialties are considered primary skill sets. The contracting military occupational specialty is a secondary skill set that has been developed to ensure our contingency contracting workers, both enlisted and officer, have the capability to be assigned to multiple contracting tours through the rank of colonel while remaining competitive in their primary supply, logistic, and finance military occupational specialty. In addition to better supporting the operating forces, this approach encourages entry into the contingency contracting workforce and results in DAWIA [Defense Acquisition Workforce Improvement Act] certification in the contracting career field for contingency contracting Marines.

The Marine Corps’ Maritime Prepositioning Force (Future) is a part of the planning for the Marine Expeditionary Brigade of 2015. The MPF(F) is expected to enable entirely sea-based operations, which will allow naval forces to exploit maneuver spaces that are provided by the United States’ control of the seas, to include unimpeaded mobility and persistent sustainment. This is an ambitious and, naturally, expensive program. Can you comment on the current status of MPF(F)?

The MPF(F) will bring a flexible, networked, and interoperable employment platform that will enhance our sea-based, littoral warfighting capability. Rapid force closure; arrival; and assembly at sea for sea-based operations, sea-based sustainment, and over-the-horizon employ-

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ments are just some of the gaps addressed by MPF(F). When coupled with our assault echelon amphibious ships, MPF(F) will reinforce and strengthen the overall lethality and agility of our naval expeditionary forces.

In addition to new ships, the Marine Corps plans to incorporate legacy amphibious and cargo ships into the squadron to round out the force. We expect to see delivery of the first new dry cargo/ammunition ships and mobile landing platforms in the 2012 to 2017 timeframe. The first ship is scheduled for delivery in 2012. The MPF(F) is planned to reach the full operational capability of 14 ships after 2020.

Q
In 2003, the Navy and Marine Corps implemented the Naval Logistics Integration terms of reference, which sought to integrate both Services’ logistics processes to support daily operations and future sea basing. Can you comment on the progress of this initiative? Have cultural shifts been necessary for each Service to accommodate the integration?

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The NLI has been a resounding success for both the Navy and Marine Corps. During these first several years of maturing the various NLI initiatives, the initial focus has been on improving logistics support for afloat units—and thus Marine Corps units have realized and benefited significantly from Navy support while aboard ship. As we progress in the development of NLI capabilities to include shore support of Navy Expeditionary Forces (the Navy Expeditionary Combat Command or “Green” Navy), we will begin to see a reciprocation of the superb support that Navy elements have provided to Marine units afloat. We will see Marine units ashore providing a full range of enhanced logistics support to Navy units operating in the same areas.

Key afloat enablers that have proven very successful to date are:

- Marine Corps use of the Navy Priority Material Office
- Marine Corps use of the Naval Supply Systems Command Cargo Routing Indicator File
- Expanded Marine Corps use of the Naval Inventory Control Point Advanced Traceability and Control Program
- Stock positioning of Marine Corps requirements aboard Navy combat logistics force ships
- Expanded Marine Corps and Navy supply chain data exchange
- Use of new information technology applications
- Focused departmental and Service documentation for the various NLI initiatives.

Use of these enablers has resulted in some very positive results:
Average customer wait time for afloat units has been reduced by up to five days.

Average customer wait time for critical material for units ashore has been reduced by up to 30 percent.

More than 100,000 ground repairable items, worth almost a billion dollars, have been moved via the Naval Inventory Control Point Advanced Traceability and Control Program with over 99 percent proof-of-delivery.

Although there may have been some initial culture shock and reservations at the outset of NLI, we now ask, “Why didn’t we do this years ago?” The NLI initiatives have been enthusiastically embraced by both Navy and Marine Corps personnel. We are exploring new areas for training our logisticians to take advantage of new technologies and concepts such as the new Marine Corps Tactical Decision Center and the Navy Expeditionary Logistics course. We are exchanging seats at such key courses as our tactical logistics officers and advanced logistics officers courses with Navy personnel. To validate our successes and institutionalize NLI within the Navy, the Department of the Navy recently issued OPNAVINST 4000.37 directing the use of NLI with a clear goal of “an integrated naval logistics capability that can operate seamlessly whether afloat or ashore, successfully supporting and sustaining naval expeditionary units in a joint warfighting environment.”

Significantly, even non-logisticians have taken notice of our efforts and accomplishments. One recent Marine expeditionary unit commander noted that we logisticians had finally “broken the code.” Use of NLI enablers helped keep his unit readiness consistently above 94 percent for the duration of a MEU deployment that included several operations ashore.

One of the primary goals for Installations and Logistics has been the Global Combat Support System—Marine Corps. This portfolio of systems, part of the overarching joint GCSS family of systems, will support logistics elements of command and control, joint logistics interoperability, and secure access to and visibility of logistics data. The GCSS-MC is meant to maximize Marine Corps combat effectiveness through logistics information technology by providing the “right logistics data at the right time, at the right place.” Can you talk about the current progress of this program and what it will offer to the MAGTF?

Our Global Combat Support System-Marine Corps, or GCSS-MC, has made tremendous progress over the past year and is on target to do the same in 2008. Let me give you a few highlights of activities that are driving this initiative closer to implementation.

We are making good progress at this point and expect to continue to do so throughout 2008. But we have said all along, that while we must have the Global Combat Support System-Marine, it is not as important to get it fast, as it is to get it right.
First, early this year we completed most of the detailed system design work and are now well under way with the build phase of this system. In addition, in early February, we started systems integration testing. We are no longer just working in silos and creating system parts. We are making sure the various components work together. This is a critical step forward toward the successful delivery of GCSS-MC.

Second, this summer we started training our logistics modernization teams—located at each MEF—as change agents so they can help facilitate GCSS implementation. This will kick off a comprehensive training program for users of the new system.

Third, our Transition Task Force held two wargames last year and this June. These week-long exercises are helping us write new policies for the realignment of maintenance and supply processes that support our logistics modernization efforts and will be enabled by GCSS-MC. They are well along in this process.

Fourth, our data assurance teams are now in their second year of verifying equipment inventory records and assisting the operating forces in cleaning data that will be used in GCSS-MC so we do not put ourselves in a garbage-in, garbage-out situation.

Lastly, I&L and the GCSS-MC/Oracle team have spent significant time over the past months conducting functional demonstrations of the GCSS-MC with each of our MEFs and at the Marine Corps Logistics Command. This is giving many Marines, who will be the initial users of GCSS, their first look at the system and its capabilities. Marines are asking questions about how it will impact their jobs. We are responding to input from them while at the same time creating a receptive environment for GCSS-MC implementation. It's a very collaborative and productive effort.

GCSS-MC will provide the MAGTF with more accurate, reliable logistics data more quickly so we can better plan and make decisions. Ultimately, GCSS-MC capabilities will increase the MAGTF's advantage on the battlefield.

It is important to note that this will not all happen at once. GCSS-MC capabilities will become available in different phases, implemented sequentially across the MEFs. Furthermore, there is much integration required with other logistics modernization initiatives to maximize its impact. But GCSS-MC development and implementation is a critical component in enhancing expeditionary logistics for the Corps' 21st century missions.

We are making good progress at this point and expect to continue to do so throughout 2008. But we have said all along, that while we must have GCSS-MC, it is not as important to get it fast as it is to get it right.

\textit{Q} \hspace{1cm} \textit{Many comments have been made about the recruiting challenges of expanding the Marine Corps to a new end strength of 202,000 Marines, an increase of about 22,000 Marines, by 2011. Can you comment on what you see as the chief logistics challenges to achieving the 202,000 end strength?}

\textit{A} \hspace{1cm} A primary logistics challenge to achieving the 202,000 end strength is ensuring that Marines not only have the equipment they need to fight and win, but that all Marines (and their families) have a place to train, work, and live. There are numerous logistics challenges that will be worked to reach a 202,000 force. The chief challenge revolves around the following aspects:

- Phasing of the units that need to be stood up with a facilities support plan
- Phasing of the Marines that comprise the units to be stood up with established tables of equipment so our Marines can train for their next mission
- Phasing of internal Marine equipment redistributions and equipment acquisitions
- Phasing of maintenance-oriented units to be stood up to sustain the equipment associated with the 202,000 growth.

We are currently working to provide the facility and infrastructure requirements for this growth. Doing so requires that we evaluate environmental impacts and work with local community planning organizations to consider impacts associated with increasing the population at our installations. The requirements run the gamut from facilities that specifically support a new unit; to improving training ranges, transportation, and utility infrastructure; to ensuring sufficient schools and other private sector infrastructure is in place.

The National Environmental Policy Act process will ensure that environmental impacts and community planning considerations are fully addressed for all facility requirements. There are many additional considerations attendant with this type of growth. We must ensure we plan for sufficient facilities such as mess halls, adequate services such as child care, and minimization of impacts to over-stressing the community infrastructure support. My staff is actively working with the bases and communities to ensure we have identified these challenges and are developing solutions to mitigate potential issues before they become problems.

\textit{Q} \hspace{1cm} \textit{Thank you for your time, Maj. Gen. Usher.}