

Logistics Modernization? Control of Ship-to-Shore Movement in
Amphibious Operations Needs the same Attention.

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Introduction

"Current wartime deployments dictate an almost singular focus on preparing units for their next rotation in irregular warfare operations. As a result, the skills Marines need for combined-arms maneuver, mountain warfare, amphibious, and jungle operations have deteriorated."¹

Efforts to modernize Marine Corps' logistics processes have focused on lessons learned in Afghanistan and Iraq, but a critical node is being neglected. Corporate knowledge of amphibious operations is currently retained only within Marine Expeditionary Units (MEU) and through the relationships the MEUs form during Naval Expeditionary Strike Group (ESG) partnerships. While logistics modernization efforts during Operation Iraqi Freedom / Operation Enduring Freedom (OIF/OEF) have focused on maintaining a common operational picture and supply distribution operations, the skills required to manage ship-to-shore movement in amphibious operations have atrophied. The Commandant of the Marine Corps articulated his vision for a post OIF/OEF Marine Corps embarked with its Naval partner when stating that, "...an amphibious combat force operating from a sea base - will be able to respond rapidly and win decisively."² In keeping with the Commandant's intent, the current configuration of the tactical-logistical (TACLOG) group must be updated with same state of the art command and control capabilities, audio visual equipment,

¹ James T. Conway, "34th Commandant of the Marine Corps' Commandants Planning Guidance," (2006): 4

² James T. Conway, "34th Commandant of the Marine Corps' Commandants Planning Guidance," (2006): 6

and information management techniques that are being used in the, ground-based, operating environment to facilitate C2 and information sharing during an amphibious landing and the build up of combat power ashore.

Background

The TACLOG group is a temporary landing force organization that is located on the same ship as the Navy's ship-to-shore movement control organization. The group is made up of representatives designated by Marine commanders to assist Navy control officers aboard amphibious ships in the ship-to-shore movement of Marines, equipment, and supplies. It advises the Navy and landing force (LF) commanders, and Navy control officers of changes in the LF portion of the landing plan and their effects on the tactical situation ashore. The TACLOG group also facilitates the movement of tactical units and logistical support requested by LF tactical commanders ashore, and provides the LF commander with the status of ship-to-shore movement and a mechanism to influence the operations ashore.³

The counterparts to the TACLOG group are also task organized and scalable in size. In addition to the TACLOG, the LF may establish a landing force support party (LFSP), generally containing a Marine Corps shore party group (SPG), a MAGTF helicopter support team (HST), and a naval beach group (NBG). These units facilitate the scheme of maneuver ashore, provide tactical and logistical support to the LF units ashore, and maintain the LF commander's situational awareness of the operation's progress. Add to this a unit movement control center (UMCC) that monitors the convoy's inland movement, team

³ Department of the Navy, United States Marine Corps, "MCWP 3-31.5 Ship-to-shore Movement," (2007): F-1

embarkation officers (TEOs), and team embarkation assistants (TEAs) spread among several ships and a huge challenge emerges to communicate with these Marine and Navy organizations, to develop a common operational picture, and to disseminate information to those that need it the most.

Command and Control

"Based on the mission, the TACLOG group is the primary and critical link between the MAGTF and the Navy control organization, LFSP, and HST. The TACLOG must know the status of all phases of the ship-to-shore movement and the status of the LFSP, shore party, HST, and the Navy control organization."⁴

Presently

The standard communication architecture for most TACLOG groups does not reflect the rapid changes that have occurred in support of operations ashore. Generally, doctrinal VHF/HF radio mounts or "red phones," ship's internal handheld radios (that can talk point-to-point within the skin of the ship), and telephones only provide basic voice communications. If the TACLOG watch officer misses something over the radio an immediate loss of situational awareness and possible degradation of ship-to-shore tempo occurs. This current command and control system is a necessity. However, voice communications should become the back up system by taking full advantage of the array of data communication options presently available to Marine logisticians in the current ground-based operating environment.

⁴ Department of the Navy, United States Marine Corps, "MCWP 4-11.3 Transportation Operations," (2001): 2-17

Proposed

For logisticians in the current era, data visibility and manipulation has surpassed voice for quality, accuracy, and reliability. Logistics, as a science, is driven by data. Consequently, several standard tools should be incorporated in all TACLOG groups aboard amphibious shipping.

Internet Relay Chat

Using an internet relay chat client for windows (i.e., mIRC, which has become the standard in OIF/OEF), data can be communicated real time to multi-user group conferences or in one-on-one discussions with others on the IRC network.⁵ Many potential issues can be solved before they become problems by bringing the TACLOG group, LFSP / UMCC ashore, Navy control organizations, and the TEO / TEAs from other ships together in a single data exchanging forum. Ensuring the LFSP has a medium to pass data from the beach to the ship is vital to the tempo of an offload.

Man-portable Data Transmission System

The critical element of the ship-to-shore data exchange between the LFSP and the TACLOG is a man-portable transmissions system. The need exists for an easy-to-use, man-portable communications medium that provides the LFSP with the organic

⁵ "mIRC: Internet Relay Chat client." <http://www.mirc.com/mirc.html>, (accessed Dec. 01 2007)

capability to send and receive secret data. Having this system man-portable eliminates reliance on a radio variant vehicle (i.e. a MRC-142) during the initial waves ashore and promotes flexibility when establishing the LFSP. This desired man-portable capability has been accomplished by using commercial mobile satellite services, such as Inmarsat's, coupled with secure modems or, more recently, BGAN with TALON. However, this capability needs to be organic to the combat logistics battalion's table of organization and equipment, as do the trained data operators.⁶ Besides using this capability to chat with the ships, the man-portable communications system could be used to send and receive scanned data loaded from equipment marked with Radio Frequency Identification (RFID) tags.

RFID

Currently all major end items that board amphibious shipping must have passive radio frequency identification tags attached to them. By equipping amphibious shipping with the capability to read, or interrogate these tags as they enter and exit the well, hanger, and flight decks, data can be shared with all logistic nodes in the ship-to-shore movement chain as tagged supplies and equipment pass from ship-to-shore and vice versa. No current system exists aboard amphibious ships to conduct this

⁶ Total Force Structure Management System's TO&E Report for a MEU coupled with the Unit Equipment Report lack the desired communications listed.

interrogation without adversely impacting existing communications or infringing on hazards of electromagnetic radiation to ordnance (HERO) guidance.⁷ In addition to utilizing digital tracking of equipment flowing from ship-to-shore, tracking personnel could also be made more efficient by using the digital information stored on the DoD common access card.

Common Access Card Manifesting System

Ship's need to be configured to support automated manifesting, and a DoD common access card system needs to be fielded to each MSE of the MAGTF. Manifesting Marines for embarkation/debarkation, while simple in concept, is a very difficult task. Multiple means and points of debarkation coupled with the noise of helicopters and landing craft during simultaneous operations on three or more ships cumulatively builds a personnel accountability nightmare. Digitally manifesting personnel could be the solution.

Currently each Marine fills out his name/rank/ssn/blood type for each movement. By utilizing the DoD standard common access card that all DoD employees are required to carry, a unit could manifest and digitally post exactly who is leaving by landing craft or helicopter.⁸ Putting this capability on the beach, in the welldeck, and in flight deck triage, ensures that

⁷ Department of the Navy, United States Marine Corps, USMC Radio Frequency Identification (RFID) Implementation Plan, (2006): 22

⁸ "CAC Card Info," <https://www.cac.mil/CardInfo.do>. (accessed Dec. 01, 2007).

Marines coming and going can be quickly and accurately manifested with the results being digitally disseminated near real time.

Audio Visual Equipment

Presently

Currently the LHA/LHD TACLOG is equipped with one or two 16-inch closed circuit TV's. During ship-to-shore movements the TV's are tuned to display video broadcasts of the approach to the stern-gate, the well deck, upper and lower vehicle decks, the hanger deck, and the various views of the flight deck. While better than no TV at all, a 16-inch display does little to provide the fidelity that a TACLOG watch officer needs. It should be noted that TV's of this size are seldom found in the command posts in the current ground-based operating environment.

Proposed

During its 2006 deployment, the USS Iwo Jima, LHD-7, allowed the 24th MEU to modify its existing TACLOG by replacing the archaic plexiglass grease boards with four 42-inch plasma TVs. The TV screens were split to display mIRC chat and the command web page, while also projecting larger images from the feeds of the smaller 16-inch televisions. This enabled the watch officer to recognize the details of the air and landing craft, view what was happening in the well/vehicle/hanger and flight decks, and couple that information with the verbal

communications piping in over the radio nets to further develop the common operational picture.⁹

Information Management

Presently

One of the objectives of the TACLOG group is to receive, orient, and display relevant information in such a way that it is of value to the landing force commander to make decisions. Presently, the common tools of the trade for recording all of this information, such as green log books and grease boards, are outdated. To illustrate, for the LF commander to monitor the status of ship-to-shore movement he currently has to call or enter the TACLOG physically to receive an accurate update.

Proposed

By capitalizing on the information management lessons learned from OIF / OEF ground-based operations, the TACLOG can facilitate operational decisions more efficiently by utilizing web-based applications. One such application is a command journal. The Command Journal is a web-based logbook that serves as a single point of reference and input for significant events in the landing force. Anyone with access to the secret internet provider network (SIPR net) can view the journal by accessing the landing force's web page. Typically mislabeled as solely an

⁹ "Major Clifton B. Carpenter USMC" Phone Interview concerning his the TACLOG group on his most recent deployment as the Logistics Officer for the 24th MEU

operations section tool, the command journal is mostly populated by the TACLOG group during ship-to-shore movement and the build up of combat power ashore. The command journal allows the commander to monitor the surface, air, and convoys' movement progress with a quick scan of his webpage. More detailed information, required by logisticians throughout the MAGTF, can also be attached to each journal entry. Documents such as the air-plan, surface-plan, serial assignment tables, surface craft load plans, and convoy staging plans can add the details necessary to maintain situational awareness of the onload/offload and build up of combat power ashore.

Counter Arguments

Some will argue that hand written logbooks and voice communications to conduct ship-to-shore movement "isn't broken, so why fix it." Moreover, when "going digital," hardcopies copies will still have to be maintained in the event of the inevitable loss of power and proficiency in voice communications will need to be maintained to mitigate the damage of a loss in data connectivity. However, these are not legitimate reasons for the TACLOG groups to ignore the technology that is available to them which can sharpen the situational awareness of the commander and ultimately drive a faster-decision making process.

Conclusion

The age old adage of "That's the way we've always done it" has lost its value in the current land-based operating environment as innovation and advancements in communications, audio visual equipment, and information management have improved command and control. Applying these lessons learned and incorporating the logistics modernization effort to amphibious logistics will serve the Marine Corps well as it prepares for the long war. Throughout the current war, the USMC has been forced to modernize its ground based command and control ashore at great cost to the engaged forces. Waiting for the next real world amphibious operation that requires forcible entry will be too late to update USMC ship-to-shore control mechanisms. In order to meet the Commandant's intent, logistics modernization advocates must integrate technologies into the process of controlling ship-to-shore movement.

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