Global Combat Support System – Marine Corps (GCSS-MC)
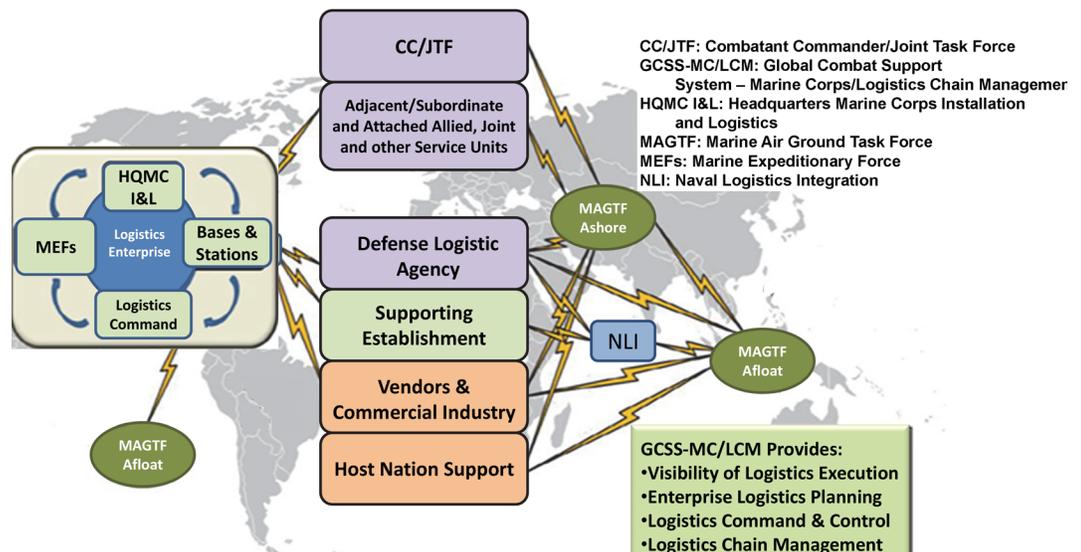
Executive Summary
- The Marine Corps Operational Test and Evaluation Activity (MCOTEA) conducted the FOT&E of the Global Combat Support System – Marine Corps (GCSS-MC) Release 1.1.1 from August through November 2014, in support of a Full Deployment Decision in early 2015. The test was conducted in Camp Lejeune, North Carolina and Okinawa, Japan, with actual users in a live environment.
- Of the three enhancements included in Release 1.1.1, two were operationally effective and one was not. One enhancement was operationally suitable, but two were not.
- The GCSS-MC Program Manager has taken action to address the issues found during FOT&E.
- In March 2015, USD(AT&L) granted a Full Deployment Decision.

CC/JTF: Combatant Commander/Joint Task Force
GCSS-MC/LCM: Global Combat Support System – Marine Corps/Logistics Chain Management
HQMC I&L: Headquarters Marine Corps Installation and Logistics
MAGTF: Marine Air Ground Task Force
MEFs: Marine Expeditionary Force
NLI: Naval Logistics Integration

GCSS-MC/LCM Provides:
- Visibility of Logistics Execution
- Enterprise Logistics Planning
- Logistics Command & Control
- Logistics Chain Management

- GCSS-MC Release 1.1.1 provides three capability enhancements to the currently fielded logistics system: Enterprise Automated Task Organization (EATO), Mobile Field Service (MFS), and Tactical-Wide Area Network (T-WAN) optimization

System
- GCSS-MC is the Marine Corps component of the joint GCSS Family of Systems. It is intended to provide a seamless end-to-end logistics chain requiring less reliance on forward-positioned materiel, and capitalizing on the availability of near real-time logistics information critical to supported and supporting units. GCSS-MC includes all transactional Combat Service Support systems related to supply chain management and enterprise asset management functionality, enabled with service management functions.
- GCSS-MC is a commercial off-the-shelf Enterprise Resource Planning system that uses the Oracle E-Business Suite to provide logistics chain management.
- GCSS-MC provides the Marine Corps with authoritative supply, maintenance, and transportation data in DOD data dictionary-compliant format.

Mission
- Combatant Commanders/Joint Task Force Commanders will use GCSS-MC to provide an end-to-end logistics chain that decreases reliance on forward-positioned materiel and capitalizes on the availability of near real-time logistics information critical to supported and supporting units.
- Marines operating in garrison and deployed Marine Air-Ground Task Force units will use GCSS-MC to conduct logistics missions that support Marine Corps operations.

Major Contractor
Oracle Corporation – Reston, Virginia

Activity
- MCOTEA developed and DOT&E approved an operational test plan for GCSS-MC FOT&E in August 2014.
- MCOTEA conducted the FOT&E from August through November 2014 in Okinawa, Japan, and Camp Lejeune, North Carolina, in accordance with a DOT&E-approved test plan. Testing supported an early 2015 Full Deployment Decision and was tied to the Philippines

Bilateral Exercise and the Bold Alligator Exercise. Marines from II Marine Expeditionary Force (MEF) and III MEF participated in the test.
- GCSS-MC Release 1.1.1 provides three capability enhancements to the currently fielded logistics system: Enterprise Automated Task Organization (EATO), Mobile Field Service (MFS), and Tactical-Wide Area Network (T-WAN) optimization. MCOTEA conducted separate events during the FOT&E to evaluate each of the enhancement solutions.
- DOT&E submitted an FOT&E report in February 2015 detailing the results of testing.
- In April 2015, the GCSS-MC Program Manager conducted MFS afloat demonstration testing aboard the USS *Essex* and USS *Rushmore* to provide additional data that were not collected during FOT&E.
- In March 2015, USD(AT&L) granted a Full Deployment Decision.

Assessment
- Based on FOT&E results DOT&E assessed the system as follows:
  - EATO is operationally effective. EATO performed as expected when properly operated, but lack of training and documentation led to user errors. EATO is not operationally suitable and required improved training and documentation.
  - T-WAN optimization is operationally effective and operationally suitable. T-WAN optimization reduced the data size for different transactions. Users were able to complete all tasks and System Usability Scale (survey scores were favorable).
  - MFS is not operationally effective and not operationally suitable. Implementation problems and lack of adequate

training and documentation prevented some users from using the system as designed. At the time of test, Public Key Infrastructure-enabled MFS was unavailable and the users required strong, complex passwords. This led to frustration by the users because the passwords were difficult to enter and the system did not provide sufficient feedback when generating and inputting passwords. Additionally, this led to accidental account lockout and inability to complete tasks. The help desk had no knowledge of the system and was unable to provide any assistance. Users did not rate the system favorably using the System Usability Scale, and their favorability ratings decreased as testing progressed.
- The GCSS-MC Program Manager has taken action to address the issues found during FOT&E.

Recommendations
- Status of Previous Recommendations.   The Marine Corps addressed all previous recommendations.
- FY15 Recommendations. The Marine Corps should:
  1. Implement, document, and monitor the process to train and educate the operating forces in a manner that will allow for users to properly operate the GCSS-MC R1.1.1. Confirm that such training and documentation are in place before full fielding of GCSS-MC R1.1.1.
  2. Address issues identified in the FOT&E Test Incident Reports and field a Public Key Infrastructure-enabled MFS to eliminate the need for complex passwords.
  3. Conduct a cybersecurity Adversarial Assessment of GCSS-MC. Ensure cybersecurity testing includes the 2015 Oracle E-Business System R12 upgrade.