

Future Logistics Challenges (COA Dev)

LCE employment solutions that support the MOC

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“Attention in the COC! TIGER 7, D Co, 1st Tank Battalion has transmitted a priority 03, RDD 999, SECREP (secondary reparable) request to the Watch Chief over JBC-P (Joint Battle Command–Platform). Tank platoon commander is experiencing failures in multiple radio systems. Requesting immediate SECREP replacement for (1) MCS Comm Box to keep VRC-110’s operational. GCE crosses the line of departure in two hours. Link up grid is 11SU 6703 0877.”

The watch officer handed a yellow canary to the Intermediate Supply and Maintenance Integration Cell within the 1st Maintenance Battalion (Minus) (Rein) combat operations center. Unable to use Global Combat Support System-Marine Corps (GCSS-MC) because of data bandwidth restrictions and latency on the battalion’s temporarily loaned very small aperture terminal medium (VSAT-M) satellite the Intermediate Supply and Maintenance Integration Cell staff (subject matter experts sourced from the Maintenance Battalion Repairable Issue Point, Maintenance Operations Section, and the Supply Battalion Supply Management Unit) manually searched forward positioned Class IX and secondary repairables block locator files, identified an on-hand asset, pulled the part, and sent a runner to deliver the part to the Motor Transport Platoon convoy while it conducted its convoy brief at the combat outpost entry control point. Within 50 minutes of receiving the request, the part was distributed and issued to the supported unit—enabling the tank

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platoon to resume their offensive maneuver.

The aforementioned narrative is an actual event that transpired during Exercise STEEL KNIGHT 19 aboard MCAGCC, Twentynine Palms, CA. Although restricted by a canalized scheme of maneuver, the exercise illustrates the challenges associated with providing critical intermediate logistics support in a dynamic operating environment compounded by severe data degradation.

For over a year now, 1st Maintenance Battalion has leaned into operationalizing intermediate supply and maintenance support for the MAGTF throughout the execution of numerous field exercises. With a focus on tactical sustainment velocity, the trickle-down effects of Future Force 2025 (FF2025) force structure challenged our logisticians to think critically about the future operational employment strategies of intermediate logistics capabilities and their associated logistics support relationships. In the “Future Logistics Challenges” article published in the December 2018 edition of the *Gazette*, BGen Kevin Stewart succinctly outlines critical imperatives for the LCE to support the *Marine Corps Operating Concept’s* (MOC) MAGTF of the future.¹ He specifically describes challenges related to unit of employment, logistics information technology, training

and education, data analytics, lift and distribution, equipment lifecycle management, and depot maintenance.² The main effort of our logistics advocacy should focus on the development of a concept of employment for the LCE. In fact, the employment of logistics capabilities to meet the conceptual imperatives of the MOC will drive capability development such as the doctrine, organization, training, materiel, leadership and education, personnel, and facilities process.

In response to BGen Stewart’s closing question, “What do you think?” we submit our analysis on potential avenues for exploration (using a course of action development model) that furthers the discussion of how to best organize and employ the 21st century LCE to establish layered, complementary, and diverse logistics sustainment solutions for the MAGTF.

Situation: Disparate General Support Relationships

As BGen Stewart offered, FF2025 presents a degraded LCE force structure. We assert that the resulting hybrid Force Service Support Group (FSSG)/ Marine Logistics Group (MLG) model will significantly affect the LCE’s ability to provide general support (GS) logistics for the provision of intermediate sustainment and critical distribution

operations. The primary reason for this is attributed to the dissolution of the GS Combat Logistics Regiments (CLR-X5) which has realigned MAGTF GS integration responsibilities directly under the MLG headquarters staff—this presents a complicated unit of employment methodology for the LCE. For example, during major combat operations, the MLG structure suggests that six independent functional battalion commanders will composite specialized functional logistics capabilities under control of a direct support focused CLR-X command structure. Expectations for success are unrealistic as this task organized integration model is not currently employed in garrison; yet, we presume this design will produce sustainment on the battlefield. Ultimately, we are lying to ourselves if we expect the FF2025 LCE structure to adequately address the four lines of effort detailed below in the draft “Sustaining the Force in the 21st Century” operating concept:³

- Enabling global logistics awareness.
- Diversifying distribution.
- Improving sustainment.
- Optimizing installations (to support sustained operations).

The primary concept of employment question that must be asked is, “How will we integrate all of these functions while connecting operational-level logistics requirements in a distributed Pacific theater?” It is our view that direct support logistics organizations carry an unconscious bias for GCE supported unit commander priorities. These priorities rightfully focus on maintaining kinetic operations through tactical distribution of the proverbial supply classes of I (subsistence), III (petroleum, oil, lubricants), and V (ammunition). Unwittingly overlooked during operational planning are the critical classes of III P (packaged petroleum, oil, lubricants), VIII (medical), and IX (repair parts); key opportunities to operationalize sustainment execution are often snubbed in planning. Nonetheless, neglecting to monitor and manage the operational supply chain, warehousing and inventory management, and maintenance activities will just as quickly lead to culmination of the force. MAGTF support activities responsible for higher

echelons of maintenance and the requisition, stockage, and distribution of all classes of supply to, include VIII and IX, serve to extend the culmination point and sustain tempo.

It is essential that the logistics community remembers the driving factors that catalyzed the transition from the FSSG to the MLG post-Operation IRAQI FREEDOM I. The FSSG model suffered from a lack of habitual support relationships with supported elements of the MAGTF, slow speed of task organization, and juvenile staffs plagued by lack of cohesive training before operational execution.⁴ The inefficiencies in logistics sustainment support led to limitations in operational tempo and a GCE that outran supply and sustainment lines. This was a black eye for the logistics community which triggered a drastic change in organizational structure to prevent future occurrences.

With a glacier-like effect, we drifted back to this functional alignment requiring MLG commanders to absorb the burden of managing the apportionment, allocation, and task organization of LCE resources to support logistics requirements across the MAGTF without the addition of personnel to manage the task. Is this because we have forgotten the lessons of the past, or because we have failed to adequately develop a doctrinal LCE concept of employment to establish a foundation for sustaining the force in the 21st century? Have we developed an LCE that can demonstrate the ability to deploy, employ, and redeploy with rapid flexibility, operational agility, while synergizing advanced technologies? We argue that the answer is no. Instead, we will increase C2, span of control, and integration requirements for MLG commanding generals with a flat, functional structure.

Chairman of the Joint Chiefs of Staff, Gen Joseph F. Dunford, Jr., recognized this in the joint fight and consequently implemented a global integrator initiative to synergize the unity of effort and resourcing of functional and regional combatant commanders to meet the evolving nature of trans-regional threats.⁵ Similar to this strategy, the logistics community needs a focused integrator of functional

capabilities to deliver precision logistics demanded by the MOC. As we return to the STEEL KNIGHT narrative, our LCE should have the comprehensive ability to leverage the entire supply chain, to project and distribute supply and maintenance, balance MAGTF sustainment requirements to support tempo of the ground scheme of maneuver, and concurrently integrate emerging technological innovation to enhance effectiveness and efficiency of combat service support?

Problem Statement

With these considerations, how should the logistics community proceed with organizing an LCE that leverages existing and emerging capabilities to sustain operations afloat and ashore while accounting for key drivers of change in the future operating environment (complex terrain, technology proliferation, information warfare, battles of signatures, and contested maritime domain)?

Considering this problem using the Marine Corps Planning Process framework, we outlined a few key assumptions and considerations to continue planning:

- Sustainment of the force (with an intermediate capability), whether in general or direct support, requires focused, single process ownership where maintenance, supply, and distribution are integrated at adjacent and higher organizations.
- Intermediate support elements contend with a requirement for forward posturing, apportionment, and allocation of functional capabilities during distributed operations to maintain responsive, flexible, and timely logistics support that extend the operational reach of the MAGTF.
- The FF2025 LCE will support a non-linear, distributed sea-based MAGTF where the distribution network includes air, land, sea, and under-sea methods that maximize deception and even “hiding in plain sight” concepts.
- The FF2025 LCE must integrate emerging capabilities such as artificial intelligence and data analytics, autonomous distribution assets, and additive manufacturing to operationalize the

execution of logistics requirements for the MAGTF across all classes of supply and echelons of maintenance.

- The displaced colonel billet (from X5 regiments) should be realigned within the LCE to facilitate integration and functioning of combat service support to the MAGTF in support of major combat operations.

There are several lenses that could be used to shape the future LCE unit of employment. We elected to use two distinct paradigms to develop courses of action (COAs). The first recognizes that FF2025 is inadequate and requires a drastic 180-degree shift to re-instate a modified CLR-X5 with added distribution capability to better optimize MAGTF sustainment. The second approach assumes the approved force structure changes are irreversible and the LCE must consolidate losses, reorganize, and develop an integrated GS C2 entity to synergize MAGTF sustainment requirements. With this in mind, the following COAs are presented.

COA #1: CLR-X5 (Reinforced)

Under this COA, we must revisit the FF2025 decision and acknowledge that losing a GS integrator at CLR-X5 created a critical capability gap in bridging the supply sustainment chain from the strategic- to tactical-level logistics. Our logistics doctrine outlines two primary types of logistics support relationships:

direct support and GS. The critical distinction resides in the prioritization of resources and support based on the commander’s assessment of the requirements. The direct support commander provides combat service support based on the supported unit commander’s priorities. The GS commander provides combat service support to the supported unit as a whole, no subdivision thereof, based on the totality of MAGTF requirements.

Recommendation Preferred. Reinstate CLR-X5’s reinforced with transportation battalion (TB) and the newly formed landing support battalion to truly integrate distribution and sustainment for the whole of MAGTF requirements—depicted in Figure 1:

PROs:

- Sustains critical link between operational logistics sustainment chain Defense Logistics Agency, Naval Logistics Integration, Marine Corps Logistics Command/Marine Corps Systems Command, and theater logistics to austere combat service support area operations (advanced naval base, expeditionary advanced base operations).
- Synergizes requisition, stockage, and distribution of all classes of supply.
- Prioritization of GS requirements managed by single colonel-level commander to leverage all resources in support of MAGTF scheme of maneuver and tempo.

- Trains/integrates task organized subordinate units in garrison to act as GS combat logistics battalions for distributed employment in future operating environments.
- Integrates emerging technologies while in garrison and deployed (artificial intelligence and predictive requisition for demands and maintenance, unmanned logistics system–aviation for prioritized distribution of critical supplies, additive manufacturing for bridging supply chain gaps).
- Provides the MLG commander with a single distribution process owner for all GS requirements with command authority for MAGTF/combined/joint integration.
- Maintains habitual support relationships with GCE and ACE in garrison in preparation for tomorrow’s conflict.
- Consolidates Maritime Prepositioning Force operational organizations under a single authority (offload preparation party, survey liaison reconnaissance party, landing force support party).
- Correctly aligns GS mission for TB for optimized MAGTF support versus isolated GCE requirements.
- Keeping the CLR-X5 commander engenders a focused energy and concept development for intermediate/GS logistics in this non-linear fight. If removed, this will significantly inhibit innovative solutions and effectiveness/efficiency of GS/intermediate support overall.

CONs:

- Requires FF2025 structure override and Blount Island Command recapitalization.
- Requires CLR-X5 staff planners to overcome initial integration of motor transportation and landing support employment planning.
- LCE must overcome initial hesitation of GCE loss of line haul direct support prioritization.

COA #2: Institute an MLG Deputy Commanding General position (focused on integration of operational sustainment)

If the logistics community has no other option but to press forward and

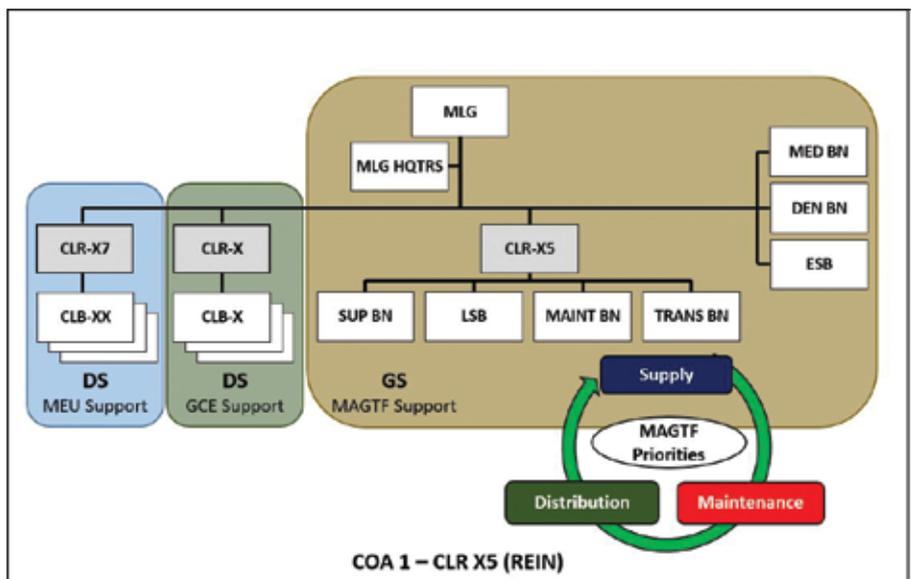


Figure 1.

accept the degraded LCE construct defined by FF2025, then the LCE must consolidate losses and redefine how GS requirements are integrated within the MLG. The challenges of habitual support relationships, task organization, and degraded staff cohesion faced by the old FSSG must be mitigated regardless of force structure.

Recommendation. Realign the displaced colonel billet from CLR-X5's within the MLG headquarters and establish a Deputy Commanding General (similar to the command element, GCE, and ACE) who acts as a functional logistics planner, integrator, and employment manager with authority delegated from the MLG Commanding General. This colonel should have a GS functional background as a lieutenant colonel-level commander and slated accordingly—depicted in Figure 2.

PROs:

- Integrates actions and flow of information between the strategic and tactical levels of logistics.
- Serves as the coordination authority for all MAGTF GS logistics support requirements and coordinates resourcing and apportionment of functional logistics capabilities.
- Maintains established FF2025 force structure manning levels by realigning the colonel billet and support staff to MLG headquarters instead of supply battalion; in FF2025, supply battalion remains a lieutenant colonel command.
- Deputy Commanding General plans, coordinates, and executes integrated training for task organized GS CLB's for all operations and exercises in garrison. Establishes a functional deployment model that supports operational plans with associated manning documents and equipment density lists.
- Deploys with the MLG (forward) serving as GS integrator focused on operational-level logistics (Naval Logistics Integration, Defense Logistics Agency, Logistics Command) for all MAGTF GS requirements.
- Consolidated manager for integration of emerging technologies with tactical employment and employs while in garrison.

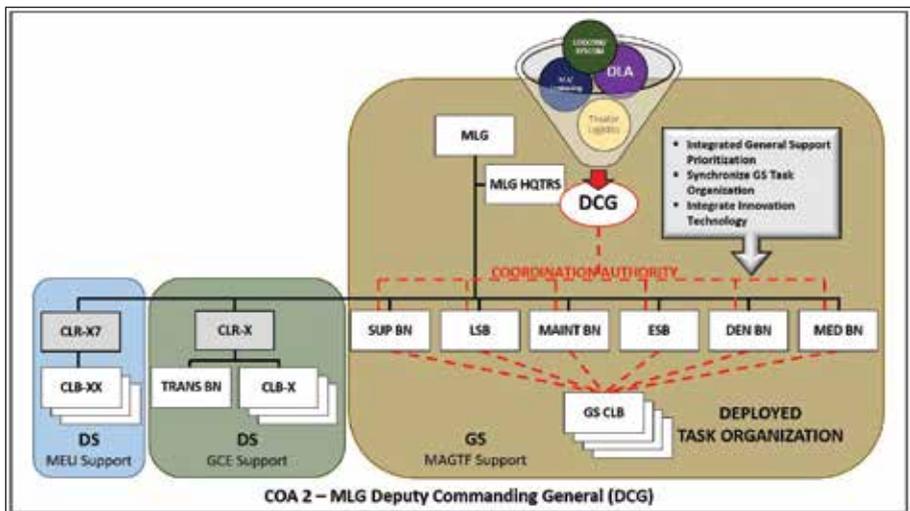


Figure 2.

- Provides MLG Commanding General with a consolidated point for GS with coordination authority.
- Maintains habitual support relationships with MAGTF major subordinate elements in garrison.

CONs:

- Lack of command authority creates friction that must be overcome by delegated commanding general authority (commanders working for staff).
- Realignment of lieutenant colonel and colonel commanders required additional force structure decisions to ensure equal command opportunities for all communities (0402 (logistics), 3002 (supply), 1302 (engineer) background).
- Does not correct misaligned GS relationship mission of TB.

Critical Requirements

During the inter-war period of the 1930s, all courses at Marine Corps Schools were suspended to focus on the development of the *Tentative Manual for Landing Operations*.⁶ As history repeats in 2019, our Corps finds itself posturing for an evolving threat environment and needs to divert the entirety of our academic attention to the advancement of our doctrine, method of employment, and integration of new technology. Institutions like Marine Corps University and Marine Corps Logistics Operations Group should host dedicated planning sessions to form a methodology for LCE

employment to meet the demands of the MOC.

The formulation of future LCE units of employment is critical to MAGTF operations and should drive thrust areas for innovation, acquisitions, and doctrine. Concurrently, certain critical capabilities required for all LCE operations in a contested environment can be aggressively advanced.

And lastly, as we offer a final recommendation to BGen Stewart's article, a deployable suite for GCSS-MC is essential to logistics C2 and the provision of sustainment for MAGTF operations. The Marine Corps must rapidly develop a mobile field suite for GCSS-MC that can operate both on and off limited bandwidth and high latency tactical networks. In its present state, GCSS-MC will not effectively operate on tactical networks. This crucial thread to management of supply and maintenance requirements must both leverage artificial intelligence for predictive requisitioning and data analytics with the ability to withstand adversary cyber and sensing capabilities.

Summary

We must acknowledge that the LCE has taken a crucial blow as a result of FF2025. "Doing less with less" will not answer logistics sustainment requirements associated with a distributed and contested environment. The MAGTF requires flexible, agile, and integrated precision logistics solutions that inte-

grate comprehensive reach back from industry, host nation, and the joint force. The scope of supply and maintenance requirements is too vast to overlook GS sustainment management. The LCE requires an entity to integrate all logistics sustainment across the MAGTF and prioritize limited resources to enhance operational tempo, reach, and lethality. All too often, we fix our planning on the proverbial and famed Class I, III, V discussion until vehicles stop rolling, weapons stop firing, and radios stop communicating. At Exercise STEEL KNIGHT 19, 1st Tank Battalion reaped the benefits of operationalized supply and maintenance support because of integrated capability and reach back that had not been previously exercised.

Future MAGTFs of the MOC deserve the same.

Notes

1. Headquarters Marine Corps, *Marine Corps Operating Concept: How an Expeditionary Force Operates in the 21st Century*, (Washington DC: September 2016).
2. BGen Kevin Stewart, "Future Logistics Challenges," *Marine Corps Gazette*, (Quantico, VA: December 2018).
3. Headquarters Marine Corps, *DRAFT: Sustaining the Force in the 21st Century: An operational concept for Future Logistics Development Version.008*, (Washington DC: 20 November 2018).

4. K. Collins, *Rethinking Logistics Organization of the Marine Expeditionary Force: A MAGTF Solution*, (Fort Leavenworth, KS: May 2007), available at www.dtic.mil.

5. Department of Defense, *Summary of the National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge*, (Washington DC: December 2018).

6. D. Emmel, *The Development of Amphibious Doctrine*, (Fort Leavenworth, KS: 2010), available at www.dtic.mil.

