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NAVAL WAR COLLEGE

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Role Conflict: The Impediment to Joint Theater Logistics Management

By

Bruce L. Morales

Major, USMC

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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ABSTRACT

Operational logistics (OpLog) remains an evolving aspect of the operational level of war and operational art. Over the years, attempts to define applicable concepts to this crucial link between tactical requirements and strategic resources have produced an ever-expanding number of functions, without a solid theoretical and practical analytical framework of logistics at the operational level of war. The absence of distinct roles and core competencies to execute OpLog impede the identification of critical capability gaps and detracts from the performance of value-added tasks required to manage joint operational logistics efficiently and effectively. For the same reason, service components apply concepts based on their expectations of what OpLog is, and what it should deliver, resulting in service-centric capabilities and processes, which hinder the full integration of logistics capabilities from all the military services and limit the ability of the combatant commander to establish Joint Theater Logistics Management (JTLM). Conflicting authorities to execute functions of OpLog further inhibit JLTM. Establishing JLTM is essential to harness the benefits in efficiency and synergy gained from distribution-based logistics (DBL) to increase the flexibility and effectiveness of the joint force. Analysis of logistics support during Operation IRAQI FREEDOM demonstrates that the lack of JLTM created inefficiencies in OpLog that resulted in less-than optimal support to the joint force. To avoid repeating the same mistake in future operations, enable service component integration, facilitate JLTM, and capitalize on the advantages provided by DBL, it is imperative to define and codify, in joint doctrine, the distinct role and core competencies of logistics at the operational level of war.

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Introduction

Operational logistics (OpLog) remains an evolving aspect of the operational level of war and operational art. Over the years, attempts to define applicable concepts to this crucial link between tactical requirements and strategic resources have produced an ever-expanding number of functions without a solid theoretical and practical analytical framework of logistics at the operational level of war. The absence of distinct roles and core competencies to execute OpLog (i.e., what it is, and what it is required to deliver), impedes the identification of critical capability gaps, and detracts operational level staffs from focusing on value-added tasks required to manage OpLog efficiently and effectively.

Furthermore, the overlaps, and redundancies evident during the execution of OpLog are largely due to the absence of clearly defined roles and core competencies. Service components apply concepts based on their expectations of what OpLog is, and what it should deliver to their particular service, resulting in service-centric capabilities and processes, which hinder the full integration of logistics capabilities from all the military services and limit the ability of the combatant commander (CCDR) to establish Joint Theater Logistics Management (JTLM). Conflicting service component and CCDR authorities to execute OpLog functions further compounds the difficulties to establish effective JTLM.

Establishing JLTM is essential to harness the benefits in efficiency and synergy gained from distribution-based logistics (DBL) to increase the flexibility and effectiveness of the joint force. Analysis of logistics support during Operation IRAQI FREEDOM (OIF) demonstrates that the lack of JTLM created inefficiencies in OpLog that resulted in less-than optimal support to the joint force. The implementation of a JTLM solution is paramount to

capitalize on the advantages obtained by the use of DBL to provide the most efficient and effective logistics support. To avoid repeating the same mistake in future operations, enable service component integration, facilitate JLTM, and capitalize on the advantages provided by DBL, it is imperative to define and codify, in joint doctrine, the distinct role and core competencies of logistics at the operational level of war.

The Root Cause of Difficulties to Establish JTLM

"In order to prepare for war, we must define the practical tasks of the armed forces and we must assign these tasks to specific organizations and individuals."¹

Henry E. Eccles

The treatment of OpLog as a separate echelon of military logistics is a relatively new concept. The renowned military theorist and historian Henry E. Eccles first described OpLog around 1956 in his book Command Logistics. Eccles applied the term 'operational logistics' to the logistics activities performed to sustain fleets, armies, and air forces in the theater of operations.² Eccles limited his brief examination of OpLog to the specific tasks performed at this level, which include developing broad estimates and policies based upon established strategic plans to support the theater commander.³

Contemporary doctrinal definitions of OpLog are also limited. Service and joint doctrine agree on one aspect: that OpLog links tactical requirements to strategic resources and supports campaigns and major operations. Academic literature on the subject is also limited. Dr. Moshe Kress, an expert in Operations Research at the Naval Postgraduate School, provides a thorough theoretical and practical, analysis of military OpLog. His conclusions could serve as a foundation for a clear definition of the roles and core competencies of OpLog. In his book Operational Logistics – The Art and Science of Sustaining Military Operations, Kress defines OpLog as:

"a collection of means, resources, organizations, and processes that share the common good of sustaining campaigns and large-scale military operations. This collection, which is derived from the strategic logistics level, is utilized by the campaign leaders as input for the tactical logistics. OpLog is designated to sustain battles that are distributed in time and space."⁴

Using Kress' definition, one derives that the role of OpLog, is to organize strategic resources and establish the necessary processes to transfer the means –the military forces– and resources to sustain them, to the theater of operations during the prosecution of military campaigns. This definition focuses on the distinct role of OpLog as the capability that allows the CCDRs to focus the national resources at a specific time and place. One important aspect that distinguishes this definition from doctrinal definitions is the specific task of organizing strategic resources. It further implies that the CCDR's ability to manage time, space, and force factors in support of the campaign originates from the flexibility –or inflexibility–OpLog provides.

Devising the essential functions to execute OpLog effectively is, therefore, imperative to attain the maximum amount of flexibility in planning and execution of military campaigns. Kress defines the functions of OpLog using the widely accepted logistics network model. The operational logistics network, he explains, is comprised of source nodes, intermediate nodes, and destination nodes represented in military terms by the strategic, operational, and tactical levels correspondingly.⁵ Activities specific to the intermediate nodes of the logistics network –and thus the operational level of logistics– include logistics deployment, and management of theater facilities, logistics resources, transportation, and logistics supply chain.⁶ Because the military services do not possess the capabilities required to perform all these functions individually in support of a campaign, especially during the initial stages, they represent both distinct roles and core competencies of OpLog.

These clearly distinct core competencies of OpLog are in stark contrast with the everevolving and growing list of OpLog functions published in joint doctrine. Figure 1 provides a list of these functions published in joint logistics doctrine over the last 20 years. One can discern that the OpLog functions published in 1992, for example, reflect tactical logistics functions, i.e., supply, maintenance, transportation, engineering, and health services.⁷ Further, the continuation of the same basic functions indicates that changes over the years occurred generally in response to immediate operational or budgetary requirements, not because of in-depth analysis of logistics at the operational level of war.

The lack of distinct roles and core competencies for the execution of OpLog generates second- and third-order effects that are the largest obstacle to establishing an efficient and effective logistics network. The absence of distinct roles and core competencies to execute OpLog impede the identification of critical gaps in capabilities and detracts from the performance of value-added tasks required to manage a complex logistics network.

A 'role conflict' ensues, in which service components are free to apply concepts based on their expectations of what OpLog is, and what it should deliver to their particular service. The service-centric capabilities and concepts they produce, consequently lead to the overlaps, redundancies, and inefficiencies evident in the execution of joint operational logistics. The most damaging consequence is that the disparate organizational architecture amongst the military services to execute OpLog creates significant barriers that hinder the full integration of their organizations and logistics capabilities, thus limiting the CCDR's ability to establish JLTM. Conflicting service component and CCDR authorities to execute OpLog functions further compounds the difficulties to establish effective JTLM.

The Conflicting Authorities to Execute OpLog

The disjointed nature of the service component structure demands the integration and synchronization of service logistics capabilities to establish effective JTLM and seamless logistics network design. As defined in doctrine, JTLM includes the "organization, authorities and processes over assigned and attached forces to achieve desired joint and combined effects and operational objectives," and entails "the management of a collective and synchronized set of activities, operations, organizations, and tools which enable the application of joint logistics capabilities from strategic resource partners to tactical commanders."⁸ Conflicting service component and CCDR authorities to execute OpLog, however, present a significant obstacle to establish JTLM. Title 10, USC, Section 164, provides combatant command (command authority) (COCOM) directive authority for logistics (DAFL), which includes "the authority to organize logistics resources within theater according to the operational needs."⁹ Conversely, service components retain Title 10 responsibilities to organize, train, equip, and supply their forces.

CCDRs thus face salient questions regarding the organization to execute OpLog. At the theater-operational level, there are several options to organize and manage logistics capabilities organic to the CCDR's assigned forces.¹⁰ One is to adhere exclusively to the organic service command structure, relying on organic logistics capabilities and maintaining the established chain of command of the service components. The second is to appoint executive agents to provide specified logistics support to all the services. The third –and the most prevalent today– is to augment the CCDR's logistics staff with additional capability to coordinate OpLog. The fourth is to appoint a lead-service to manage common-user logistics (CUL). The last option is to form a joint command to manage CUL at the theater-level.

Joint logistics doctrine categorizes the first three options listed as Staff Control and the latter two as Organizational Control.¹¹

The execution of Staff Control for logistics simplifies the lines of authority for exercising CCDR's DAFL. The J-4 directorate manages CCDR's logistics responsibilities and exercises DAFL to ensure the "effective execution of approved OPLANs; effectiveness and economy of operation; and prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service component commands."¹² The J-4 directorate employs an organizational architecture that makes use of several centers, boards, and executive agents who in turn coordinate and synchronize logistics across the joint force.

Establishing organizational control for logistics, though more efficient and effective, is much more challenging and complex. First, to execute organizational control for logistics, CCDR's must coordinate with service components before exercising DAFL or delegating DAFL to a subordinate component to manage CUL.¹³ As can be expected, service components are typically reluctant to relinquish control over logistics. Further, for the reasons previously mentioned, each service organizes, deploys, and employs logistics capabilities differently, which impedes the integration of logistics capabilities and synchronization of activities in a joint environment.

The aforementioned problems are counterproductive for maximizing the advantages DBL provides. DBL allows the CCDR to take advantage of the geostrategic location of the United States, with coastal access to the two largest oceans in the world, advanced transportation infrastructure, and relative unfettered access to many of the world's major airand seaports, to rapidly deploy, employ, and sustain military power across the globe. The

integration, and command and control of the vast and complex logistics network that supports the execution of DBL is essential to harness the benefits in efficiency and synergy gained from DBL, to increase the flexibility and effectiveness of the joint force. Conversely, the lack of integration, and command and control results in redundancies and other inefficiencies that limit the military's force potential, significantly reducing force effectiveness and flexibility.

JTLM during OIF

Logistics support problems during the initial stages of Operation IRAQI FREEDOM (OIF) provide the most compelling reason to make JTLM, an operational imperative to execute OpLog. Different application of DBL capabilities and concepts across the services, competition for limited transportation assets and resources, and the lack of centralized management required to execute an effective theater-level DBL strategy, resulted in a lessthan optimal logistics network architecture. Lack of effective JTLM and the challenges of supporting the movement of large combat forces more than 600 miles inland stretched supply lines almost to the breaking point.

From the start, doctrinal OpLog organizations designed to fulfill a JTLM role failed to exert effective command and control of logistics. The most obvious failure was the Joint Movement Center (JMC). The JMC had the requisite authority and was responsible, as the doctrinal organization to assume the JTLM roles and missions, for prioritizing movement to theater as well as controlling air, surface, and ground movement in theater. The JMC established to support OIF, however, did not have the processes, resources, or equipment to perform its doctrinal function.¹⁴ Unable to exercise its comprehensive directive authority, the

JMC delegated control of theater ground transportation to the 377th Theater Support Command (TSC) and focused instead on controlling intra-theater air assets –mainly C-130 and occasional C-17 movement– and limited sealift movement.¹⁵ The ability to establish effective JTLM and control of distribution operations in theater diminished even further after the 377th Theater Support Command (TSC) delegated control of theater ground transportation an Army Movement Control Battalion.¹⁶

Initial efforts by the 377th TSC, designated to execute lead-service authority for management of common user land transportation (CULT) and common item support (CIS), to coordinate distribution of materiel during the initial stages of OIF also proved insufficient. Lack of theater-wide visibility of transportation movement, and the late arrival of line-haul assets, sustainment inventory, and personnel, made the TSC, an alternate source, vice primary, source for transportation and sustainment.¹⁷ A Joint Theater Distribution Center (TDC) established only two weeks prior to the commencement of combat operations was a step forward in establishing control and coordination of distribution, but lacked sufficient resources, technology, and organization to conduct theater distribution.

The deficiency in assets within the designated lead-agency for CUL and CULT, coupled with the lack of JTLM, led to the formation of parallel, yet incongruent logistics organizations across all the services. The Marine Corps, for example, formed a Marine Logistics Command (MLC) and its own TDC "which became the flexible link between strategic and tactical logistics" for Marine forces in theater.¹⁸ The Air Force and Navy faced similar problems. Materiel arrived in theater from strategic nodes rather quickly, but inland distribution flow was insufficient. Only after all the transportation assets from the MLC were committed, did the joint TDC have enough capacity to fulfill its CULT requirements.¹⁹

The lack of transportation coordination in particular had significant negative effects on logistics support and theater throughput. The frustration created by an unresponsive supply and distribution system led many units to submit duplicate requisitions or inflate the amount of materiel required. This practice exacerbated backlog problems at ports of debarkation, slowing in-theater distribution further, and increased strategic and operational lift requirements unnecessarily. The most obvious consequence was that a considerable amount of materiel ordered during major combat operations never reached the intended units. The unavailability of repair parts, for example, forced some units to cannibalize equipment, further reducing equipment availability, and combat effectiveness. A report by the Government Accounting Office (GAO) published after the end of major combat operations found a "discrepancy of \$1.2 billion between the amount of materiel shipped to Army activities in the theater of operations and the amount of materiel that those activities acknowledged they received."²⁰ The amount of materiel stuck in the theater logistics chain occupied more than 40 acres of an area adjacent to the joint TDC at Camp Doha, Kuwait.²¹

The success of major combat operations during OIF, however, demonstrates that the logistics problems encountered were not significant enough to result in defeat. The operation itself carried with it significant logistics risks as operational commanders traded time for space and speed, to attain operational surprise.²² Combat success, in this case, does limits the consequence the significant logistics problems imposed on the combat forces. Conversely, there is ample room for improvement, especially in logistics processes that suffered from considerable flaws, most notably, JTLM. A Department of Defense and Joint Staff J-4 sponsored assessment published shortly after the invasion summarized the logistics command and control problems encountered:

"The problems with airlift allocations and line haul capacity are symptomatic of the fundamental problem: There was no comprehensive and central point of logistics control for the theater. The Navy coordinated their logistics support for the 5th Fleet in Bahrain, and the 6th Fleet in Italy. The Air Force first coordinated from Prince Sultan Air Base in Saudi Arabia, and after the evacuation of that facility at CENTAF in Al Udeid Air Base, Qatar. The Marine Corps brought two Force Service Support Groups (FSSG) with logistics automated information systems that could not talk to one another. The CFLCC operated from Camp Arifjan with the TDC at Camp Doha."²³

Improvements in JTLM after OIF

The appointment of U.S. Transportation Command (USTRANSCOM) as Distribution Process Owner (DPO) in September 2003 represents the most significant attempt to attain command and control of distribution and sustainment. Centralizing control of strategic transportation and distribution opened a new realm of opportunities to fill critical gaps in the strategic-operational logistics network.

The development of the Deployment and Distribution Operations Center (DDOC) model is a prime example. The DDOC is a multi-agency organization that integrates USTRANSCOM DPO authority and COCOM over strategic transportation assets, Defense Logistics Agency (DLA), and CCDR DAFL [exercised through the J-4 directorate, who also has operational control (OPCON) of the DDOC], with service component organizations to support deployment, distribution, and sustainment operations.²⁴ During stability operations in OIF, the largest impact of the DDOC model was in the prioritization and routing of materiel. For example, the routing of low priority materiel via surface mode –sealift– to free airlift for passenger transport and shipment of high priority material. From January to June 2004, sealift moved approximately 84 percent of the material shipped in support of OIF, freeing airlift assets to support the deployment and redeployment of more than 240,000 troops.²⁵ Above all, the creation of the DDOC demonstrates that there remains significant untapped potential for improvement in joint operational logistics and JTLM.

The Search for a JTLM Solution

Fortunately, the search for a more efficient, robust, and effective JTLM organization to cover the gaps and eliminate redundancies in command and control of joint operational logistics is the subject of continued analysis. In September 2006, the Deputy Secretary of Defense directed the realignment of the 'Focused Logistics' joint functional concepts into a "joint logistics portfolio management test case" to examine the core functions of joint logistics and deliver "an integrated decision-making capability and/or force development that supports joint force requirements."²⁶ The test case, directed an analysis of the potential integration of joint operational capabilities and governance structure to integrate decisionmaking.²⁷ The results of this comprehensive multi-year analysis across all combatant commands yielded a revolutionary organizational construct for the management of joint operational logistics. Called the Joint (experimental) Deployment and Support (JxDS), it provides enhanced integration and management of joint, interagency, multinational, and coalition OpLog.

The Future of JTLM

The JxDS organizational construct embodies the evolution in understanding of the roles, functions, and authorities required to execute OpLog using a DBL strategy. Developed in 2006 by Joint Forces Command (JFCOM) as part of several experimental structures for logistics command and control, the JxDS model is a family of organizational options that provide a scalable organization for integrating and synchronizing OpLog.²⁸ The JxDS model

builds on the structure, and functions of the DDOC, to form a Joint Deployment and Distribution Enterprise (JDDE). The JDDE forms the basis for a modular organization capable of aggregating and disaggregating capabilities – mainly personnel structure – from operational, strategic, interagency, national, and multinational sources in response to the nature and scale of operations. Figure 2 provides a visual depiction of the building blocks that comprise the JxDS model.

One important aspect of the JxDS model, specifically of the Joint Force Support Component Command (JFSCC), is that it expands the roles of joint operational logistics to cover all the essential functions of operational logistics previously discussed, including integrated planning and management of logistics resources, theater facilities, transportation, distribution, logistics deployment, and logistics supply chain. This is an important distinction from the DDOC model because it leads to better integration and coordination for execution of logistics authorities that affect OpLog, namely transportation and distribution, CCDR DAFL, and service component responsibilities. This functional integration creates synergy and economy in the logistics network, while increasing logistics flow. Additionally, the JxDS model brings relevancy to OpLog by integrating organizational structures and processes from national, coalition, strategic, and operational assets enabling unity of effort and end-to-end management of the logistics network across the range of military operations.

The strengths of the JxDS organizational construct make it the most capable and flexible organization for the management of OpLog. Practical application of the JxDS model in several initiatives across all combatant commands produced marked improvements in command and control, and integration of logistics capabilities across all the services. For instance, the JxDS model formed the basis for the establishment, and successful

demonstration in exercise Ulchi-Focus Lens 2007, of a JFSCC in U.S. Forces Korea (USFK).²⁹ Figure 3 outlines the command and control structure for the JxDS model of the USFK JFSCC. This robust logistics organization proved successful by engaging "the service components and coalition partners, who have their own clearly defined staff roles, functions, and processes to maximize logistics planning and execution through collaboration."³⁰ The Enhanced Logistics Staff established in U.S. Pacific Command and U.S. Southern Command for integration, and synchronization of interagency and national partners, as well as the TSC in CENTCOM, provides further proof of the applications and adaptability of the JxDS organizational structure.³¹

Counter-Argument

Critics of the JxDS model point that the current organization for joint operational logistics composed of the J-4 directorate augmented with the DDOC provides the necessary integration and synergy to manage OpLog efficiently and effectively. The focus of the DDOC model, however, is limited to efficiency of the logistics system, not control. The DDOC model is most effective at integrating and synchronizing national-strategic and strategic-operational logistics functions, enforcing logistics priorities, decreasing friction within strategic-operational logistics nodes, and increasing end-to-end visibility of assets and materiel. This relegates the function of the DDOC to a reactive vice a proactive role in exercising positive control and direction of logistics across the joint force.

Additionally, the DDOC model lacks the authority to harness and integrate all the functions of OpLog, especially at the operational-tactical and tactical level. DoD Directive 5158.4 provides COCOM to USTRANSCOM over strategic transportation assets, except for

service-unique or theater-assigned transportation assets, which are managed by the CCDRs.³² This disruption in organizational authority for logistics creates a critical gap that prevent end-to-end management of the logistics network. The ability of the DDOC to extend command and control to the operational-tactical and tactical level is thus extremely limited.

A case that illustrates the problem of limited control exercised by the DDOC model is the retrograde of equipment and redeployment of personnel from OIF. Although the retrograde and redeployment of forces is inherently a logistics task –specifically transportation– several strategic and operational entities outside CENTCOM and the CENTCOM DDOC influenced planning and execution of the retrograde of equipment from Iraq. The GAO conducted a review of the retrograde from Iraq in 2008 and reported, "Although efforts have begun to synchronize planning for reposturing, DOD, CENTCOM, and the military services have not clearly established roles and responsibilities for managing and executing the retrograde of materiel and equipment from Iraq."³³ In 2009, Multi-National Forces – Iraq created yet another ad hoc organization, the 'Drawdown Fusion Center' to coordinate and provide unity of effort in theater for the retrograde.³⁴

Another indication that the J4/DDOC model is not the solution for JTLM, is that despite the improvements on integration and synchronization obtained by the establishment of DDOCs across all combatant commands, command and control of OpLog remains a problem. An analysis on 'Defense Supply and Distribution' conducted by the GAO in 2007 found that, DoD as a whole, "has not developed a coordinated and comprehensive management approach for guiding and overseeing the implementation of joint theater logistics across the department."³⁵ The same report also notes that, albeit the DDOC concept

is a marked improvement in distribution, the "operations centers alone will not resolve distribution and supply support problems."³⁶

Title 10 authority for logistics is another salient argument raised against the implementation of the JxDS model. The JFSCC model is the most encumbered due to its dependence on delegation of CCDR DAFL for the execution of command and control over joint operational logistics roles and functions. Specifically, the GAO points to statutory requirements as an important challenge to the implementation of the JxDS initiative and warns that:

"Unless DOD successfully addresses these challenges [of conflicting authorities], the initiatives are not likely to significantly improve the ability of a joint force commander to harness the diffuse logistics resources and systems that exist within the department and effectively and efficiently direct logistics functions, including distribution and supply support activities, across the theater of operations to accomplish an assigned mission. Moreover, without addressing such challenges, DOD is likely to continue to experience some of the same types of distribution and asset visibility problems that have occurred during Operation Iraqi Freedom."³⁷

Conflicting authorities for the execution of OpLog, although difficult to overcome, are not impossible to solve. Service component Title 10 responsibilities, and coordination requirements before exercising DAFL, limit CCDR control of service-specific logistics capabilities. CCDRs, therefore, are generally limited to exercise DAFL for CUL. Resolution of conflicting statutory authorities between service components, combatant commands, and functional commands is possible without changes to current law. Conflicting authorities can be resolved using Command to Command Agreements, Command Arrangements Agreements, Inter-Service or Intra-Governmental Support Agreements, among other methods. Additionally, the JxDS model provides ample flexibility for resolution of statutory authorities, by aggregating or disaggregating functions and capabilities based on the conditions, consensus, and mission support requirements.

Beyond the resolution of issues regarding authority, however, remains the inability to gain consensus amongst the military services on how to manage joint operational logistics. Although beyond the scope of this analysis, it is important to note that military services continually raise concerns about how their own roles and responsibilities for providing logistics support might be affected and generally opposed expansion of a more robust logistics command and control option to execute OpLog.³⁸ The best way to abate the disagreements amongst component services is by establishing a clear distinction of the critical role OpLog plays in the CCDR's ability to attain the operational objectives and the core competencies it performs. This will serve to reinforce the fact that no one service alone can perform all OpLog functions individually, and the best outcome occurs when there is unity of command. Until then, service components will continue to develop service-centric capabilities and organizations to execute OpLog. The same type of problems that affected logistics support during OIF will continue to occur, and CCDRs and their staffs will continue to create ad hoc organizations to remedy the long-standing problem of providing effective logistics support to the joint force.

Conclusion

Efforts to continue improvement of logistics support to joint operations is not only a combat imperative, but also a necessity for the future employment of the joint force. Future employment of the joint force will require a seamless integration and synchronization of inter-service, inter-agency, and multinational logistics capabilities to function across the full

range of military operations and project combat power globally. Success will depend on a reliable, flexible, and efficient logistics network, capable of projecting, sustaining, and resetting a globally distributed joint force effectively.

Centralized management of logistics is essential to reap the benefits gained in flexibility, attainability, and reach provided by a DBL system. The logistics problems encountered during OIF demonstrate the need for a robust command and control organization to integrate logistics capabilities from all the military services at the operational level in order to provide the most effective logistics support to the joint force. The JxDS organizational construct provides the most capable organization to fulfill this requirement. Adopting the JxDS model across all combatant command will result in a more lethal and capable joint force with the capacity to manage operational-level logistics in a joint, interagency, multinational, and coalition operational environment.

Above all, considering the challenges that lay ahead requires a clear definition of the roles and functions of OpLog. The role and core competencies of OpLog outlined in this paper, could serve as a foundation for further consideration, study, and analysis. In addition, these core competencies provide a baseline for the development of distinct logistics tasks, performed at the operational level of war that will better enable service component integration, and the resolution of conflicting authorities, and responsibilities that have a negative effect on the efficient management of operational-level logistics.

Figures

Doctrine for Logistics Support of Joint Operations JP 4-0, 1992/1995	Doctrine for Logistics Support of Joint Operations JP 4-0, 2000	Joint Logistics JP 4-0, 2008	Joint Concept for Logistics 2010
 Supply systems Maintenance Transportation General engineering Health services 	 Supply Maintenance Transportation Civil engineering Health services Other services 	 Supply Maintenance Operations Deployment and Distribution Health Service Support Engineering Logistic Services Operational Contract Support 	 Supply Maintenance Deployment and Distribution Medical Logistics Engineering Logistic Services Operational Contract Support Installation Support

Figure 1. Operational logistics functions published in joint logistics doctrine and concepts.



Figure 2. Joint (experimental) Deployment and Support Building Blocks.¹

¹ Mark W. Akin and George L. Topic, "Transforming Joint Operational-Level Logistics," *Joint Force Quarterly: JFQ*, no. 47 (2007): 90.



Figure 3. JxDS model. Joint Force Support Component Command Organization.²

Endnotes

⁵ Ibid., 29

⁶ Ibid.

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