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OPERATIONAL LOGISTICS 2010

BY

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OPERATIONAL LOGISTICS 2010

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ABSTRACT

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This paper examines DoD's post Cold War search for a new direction, particularly in the area of logistics. It addresses the need for change and uses Joint Vision 2010 and Focused Logistics as the start point to describe how military logistics might look in 2010. Although changes are occurring at all levels of logistics (strategic, operational, and tactical), some of the most crucial changes are occurring at the operational level. For this reason, a detailed examination is made of the who, what, where, and how of operational logistics with a focus on where DoD and the services are headed. Although many initiatives are currently underway which will transform military logistics, this paper attempts to tie the many emerging concepts and doctrine together under an overarching concept which clearly defines the role of each level of logistics and explains their interrelationship.

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OPERATIONAL LOGISTICS 2010

The end of the Cold War brought with it an end to the relative predictability of the worldwide strategic landscape. After almost a century of military strategy based on an identifiable and quantifiable threat to our national security, the Department of Defense finds itself with a Cold War force structure it can no longer afford and no clear direction to adjust the force structure to meet national security needs in the future. DoD and Congress recognize the need for change. The direction of change is the real issue. Unlike the measurable threat of the Cold War, future challenges to our national security are based more on speculation than on prediction. Recent events like Bosnia, Somalia, and Haiti may point the way. They may also be anomalies. Will capabilities like strategic bombing and mechanized warfare be irrelevant in future conflicts or are they proven capabilities that must be retained because there remains the threat of large scale conventional war in places like the Korean peninsula and Southwest Asia? The future is uncertain.

In the entire debate about preparing for future challenges to our national security, there are important changes which have already occurred that demand new doctrine, reorganization, and reallocation of resources. These changes are power projection strategy, the information age, and diminishing resources. Although these changes have significant implications for all battlespace operating functions, the most pressing effect has been in the logistics operating system. Fortunately, the need for change is recognized and initiatives are underway today which make it possible to anticipate the direction of logistics doctrine and organization. Although changes are occurring at all three levels of logistics, some of the most crucial changes are occurring at the operational level. Let's

examine the who, what, where, and how of operational logistics with a focus on how it might look in 2010.

A PROPER OPERATIONAL CONSTRUCT

DoD's most recent effort to find its post Cold War direction is described in the Report of the Quadrennial Defense Review (QDR) dated May 1997 which contains a vision for the future; *Joint Vision 2010 (JV2010)*¹. While not describing changes to force structure, *JV2010* does describe four new operational concepts which promise to capitalize on Information Age technologies so that U.S. Forces will dominate in the full spectrum of future warfare². These concepts are Dominant Maneuver, Precision Engagement, Full-Dimension Protection, and Focused Logistics³. *JV2010* has major implications for all the Services and has influenced development of Service visions to allow them to identify, develop, and test concepts and capabilities to make these joint operational concepts a reality⁴. Furthermore, since *JV2010* is a broad statement of operational concepts, it allows the Services a wide range of latitude in translating these concepts into Service capabilities. The underlying message of *JV2010*, however, is that these Service capabilities must complement each other and be fully interoperable to ensure that U.S. Forces can fight as a joint team⁵.

JV2010, and Focused Logistics in particular, address two major problems at the operational level of war. First is the need for information systems to provide joint force commanders with the ability to see 'the big picture' rather than the current functional or service stovepipe view⁶. Presently, when joint forces are deployed to a theater, a joint combatant commander (CINC), or his designated Joint Task Force (JTF) Commander, employs them (CINC and JTF Commander are henceforth referred to as Joint Force

Commander). Each Service brings information systems to the battlespace to facilitate command and control, maneuver, intelligence, force protection, logistics, and mobility among other battlespace functions. There is little integration of these systems at the operational level of war. This suggests that the Joint Force Commander (JFC) cannot leverage information age technology because each Service has information systems which do not communicate across Service lines to show him the 'big picture'. One of the goals of *JV2010* is to remedy this with the development of information systems which provide the JFC with universal access to information and interoperability of that information across the spectrum of command, control, communication, computing, and intelligence⁷. The logistics component of this system is the Global Combat Support System (GCSS) which will have six essential attributes; any box, any user, one net, one picture, common services, and robust communication infrastructure⁸. GCCS will merge information subsystems such as Automatic Identification Technology, the Global Transportation Network, Joint Total Asset Visibility, and Joint Decision Support Tools. These information systems in turn have information subsystems that they integrate. The integration of these systems provides the JFC's senior logistics operator with not only the 'big picture', but the ability to direct resources in support of the concept of operation.

Who is the JFC's senior logistics operator? Presently, there is no clear doctrinal answer to that question. Theater logistics command and control is the second major unresolved problem at the operational level of war. This problem is addressed by Focused Logistics which endorses a Joint Logistics C2 organization "...in order to prioritize and allocate scarce resources, capitalize on those assets/capabilities that one Service may have in theater that can support the other Services, and to the extent

possible, eliminate both unnecessary redundancies and excess capabilities.⁹” This is a step in the right direction towards providing the JFC with both a plans and policy staff (J4) and a single logistics operator (Joint Logistics C2 Headquarters) in much the same way that Army and Marine warfighting commanders have both G4s and Support Commands/Groups to plan and execute their support requirements. A single logistics headquarters¹⁰ which sees the entire logistics posture of the theater and directs resources in support of the JFC’s concept of operation is a proper operational construct.

DOCTRINE AND ORGANIZATION

Within this operational framework, let’s examine the what, how, who, and where of operational logistics, beginning with ‘what’. The Army recognizes logistics as a major operating system at each level of war: strategic, operational, and tactical¹¹. Operational logistics is a functional component of the operational level of war. Although this may seem to belabor the obvious, operational logistics is not defined in Joint Publication 4-0, Doctrine for Logistics Support of Joint Operations (JP4-0).¹² Joint Publication 3-0, Doctrine for Joint Operations (JP3-0), defines the operational level of war as the level which “...links the tactical employment of forces to strategic objectives.”¹³ Intuitively, then, operational logistics is the level of logistics that connects tactical logistics (point of need) to strategic logistics (provider). To understand what operational logistics is, we should first take a brief look at what it links; strategic and tactical logistics.

Perhaps in the not too distant future, strategic logistics will be executed by a Defense Logistics Command, which develops, acquires, stores, and distributes all DoD required materiel and equipment. It would also be responsible for strategic lift and installation (power projection platform) management. The DLC’s mission is strategic deployment

and sustainment of forces. USTRANSCOM currently performs the strategic deployment mission. Who does strategic sustainment? Perhaps one of the best visions of how to execute the strategic sustainment mission is described in the Army Strategic Logistics Plan.¹⁴ It describes an *Army*¹⁵ National Provider; a national level organization that brings... "the full power of the National Logistics Base to satisfy the logistics needs of the supported (Joint Force Commander) over a seamless pipeline of support that extends directly to the (tactical customer)"¹⁶ ". Functions of the National Provider include managing industrial operations, supervising the industrial base, and controlling strategic stockpiles. The National Logistics Base will be predominately privatized relying on direct vendor to customer distribution. This is necessary to free uniformed personnel to perform those logistics functions where contractors are inappropriate. If the National Provider must acquire sustainment resources, it must then deliver them to the customer anywhere in the world. For this reason, TRANSCOM must be a major subordinate command of the DLC because a distribution system requires integration of both supply (National Provider) and transportation (TRANSCOM) functions. Although use of contractor resources should be maximized, there are requirements that only a C-5 or Fast Sealift Ship can satisfy. In this respect, the DLC optimizes the mix of contractor and military support to accomplish the strategic logistics mission. Key to orchestrating this are the essential information services, which track personnel, supplies, and equipment throughout the pipeline thus making it seamless. Centralization of strategic logistics functions under a single DoD commander allows streamlined planning, forecasting, and acquisition processes to ensure the logistics feasibility of the National Military Strategy. This also allows the Secretary of Defense to know precisely the logistics price tag of the

National Military Strategy.

Tactical logistics remains a direct responsibility of the four services to ensure the sustainment of their tactical forces. The trend in tactical logistics is to reduce the logistics footprint and sever the umbilical cord of support that constrains the mobility of tactical units. To accomplish this, tactical forces must be logistically self sufficient for a specific period of time (two to fourteen days) and are then replenished within this window of self-sufficiency. Replenishment becomes an operational logistics function for which the Joint Force Commander is responsible. Tactical logistics still requires manning and arming, fixing (primarily replacing) and fueling equipment, moving personnel, equipment, and supplies, and sustaining personnel and their systems¹⁷. This means tactical units still require organic logistics units to perform these functions to provide this period of tactical self-sufficiency. The goal, however, is to simplify and minimize these requirements at the tactical level and transfer the more complex, resource intensive functions to the operational level. Emerging technologies such as velocity management, prognostic maintenance, automated replenishment forecasting, fuel efficient engines, improved combat rations, and medical advances permit the design of smaller, but substantially more efficient tactical logistics units. For example, the resource intensive maintenance and medical functions become predominantly operational logistics missions. Tactical maintenance could be performed by equipment operators trained to swap line replaceable units (LRU) which gave advanced warning of their impending failure. Heavy maintenance activities occur during precombat operations during which operational logisticians replace major assemblies which signaled their impending failure. Battle damaged equipment would be replaced in kind during scheduled replenishment 'pulses'

by the operational logistics provider rather than repaired on the battlefield. Besides heavy maintenance, medical support is also resource intensive. A reduced tactical medical footprint is possible because of advances in medical technology. Trained combat lifesavers can stabilize casualties in life support pods to be evacuated to an operational level medical activity for treatment or further evacuation to CONUS.

As military operations progress, the unit will consume food, fuel, ammunition, and other supplies. As these supplies are consumed, its supply status is electronically reported such that replenishment is electronically forecasted. A resupply requirement is generated for a replenishment 'pulse' from the operational logistics support unit. The frequency of this replenishment pulse depends on the period of self-sufficiency for which the unit was designed. The longer the unit must sustain itself, the larger its organic logistics unit must be. This is the essential trade off which force designers must consider to optimize the balance between what the unit can do for itself and how much it must rely on external support. Part of achieving this balance is simplifying tactical logistics tasks to the extent that tactical crews can perform many of the functions currently performed by mechanics, medics, warehousemen, and so on. From this perspective, tactical logistics would involve nothing more complex than replenishment and replacement.

Within this framework of strategic and tactical logistics, we can now examine the increasingly important role of operational logistics. The importance of operational logistics changed dramatically when the U.S. adopted a force projection military strategy. For projected forces to conduct sustained military operations, they must be connected to their source of sustainment, which can vary from CONUS depots to host nation sources to contractor provided support. The role of operational logistics is to establish this

connection for the duration of the military operation. JP4.0 details the functions of operational logistics as supply, distribution, maintenance and salvage, facilities engineering and base development, transportation, procurement, health services, and field services¹⁸. This differs somewhat from the Army definition of operational logistics functions which is described as force reception, infrastructure development, distribution, and the management of materiel, movements, personnel, and health services.¹⁹ The Army description is more concise but further distinction from tactical and strategic logistics is required. A more precise description of operational logistic functions is simply the reception, movement, sustainment, and reconstitution of theater forces. The reception function pertains to both forces and their *sustainment*, as does the movement function. Sustainment is also listed separately because it is the crucial operational logistics function. It involves not only the management of materiel, personnel, and health services but it also requires an active role in production (e.g. potable water); maintenance; and acquisition of supplies and services from third party sources (host nation, contractors, and alliance/coalition nations). And, sustainment includes a regeneration function. Maintenance and health service support are examples of regeneration because they are functions which return resources to mission capable status. Thus, with a goal of minimizing tactical logistic force structure (and its incumbent restraint on maneuver), highly technical, labor-intensive functions such as test, diagnosis, and repair and health services are best performed at the operational level. This provides a theater capability to regenerate forces.

There are emerging operational level doctrine, technology, and force structure initiatives that will provide coherent doctrinal solutions for the unique operational

logistics functions mentioned above. Significant among these are Joint Logistics Over the Shore (JLOTS), Joint Reception, Staging, Onward Movement, and Integration (JRSOI), Joint Movement Control (JMC), Common-user Logistics (CUL), health service support (HSS), host nation support (HNS), Mortuary Affairs (MA), and, most importantly, Theater Distribution (TD).

Whereas JLOTS, JRSOI, CUL, HSS, HNS, MA, and JMC initiatives provide urgently needed doctrine and resources to enable force projection and sustainment, the core concept that allows these functions to operate efficiently and in harmony is theater distribution (TD). TD is the central architecture that will transform military logistics from the industrial age to the information age. Distribution is not as much a 'what' as it is a 'how'. Distribution, or at the operational level, theater distribution, is an ingenious concept currently under development by the Army Combined Arms Support Command. This concept represents a significant change in logistics doctrine and procedures. It has the potential to revolutionize how deployed forces are sustained. A theater distribution system provides the JFC with "the ability to command and control the reception, distribution, and retrograde of all commodities while maintaining total asset visibility through communications and properly integrated information systems"²⁰. It is designed to work under a single support command in theater.²¹ The theater distribution concept represents a shift from volume or mass based logistics (stockpiling) to "velocity" based logistics that relies on improved distribution and asset visibility²². Broadly described, distribution is a function of three critical components: visibility, control, and capacity--all requiring accurate, reliable, and up-to-date information. Modern and emerging information based systems such as the Global Transportation Network, Joint Total Asset

Visibility, and the Global Combat Service Support System provide the framework for tracking personnel and materiel from the source to the point of need. To the extent that the logistics operator can track incoming personnel and materiel; control their arrival and delivery; and have sufficient handling and movement resources to prevent bottlenecks, the need for stockpiling is significantly reduced or eliminated. In this respect, stockpiling represents inefficiency and lack of control of the logistics pipeline. Modern technology provides the tools to replace stockpiling with reliable distribution.

The Theater Distribution process occurs over a network described as hub and spokes. Operational logistics activities occur at the hub which 'pulses' support along the spokes to the tactical customers (point of need). A hub can be either centrally located or geographically dispersed. Activities at the hub are those discussed above (reception, movement, sustainment and reconstitution of forces). Ordinarily, the hub includes air and sea ports since forces and materiel arrive by sea and air and are then 'pulsed' along spokes, which are usually highways, railroads, inland waterways, pipelines, and intratheater air corridors. The term 'pulse' is used because customers along each spoke are competing for limited logistics resources that must be shared rather than dedicated. To the extent that tactical units are logistically self sufficient for a known period of time and their replenishment requirements are precisely forecasted, the hub operators can orchestrate distribution resources among the spokes to optimize their use.

Management of these resources along the spokes is coordinated by a movements control center (MCC) which is co-located with a material management center (MMC) forming a distribution management center (DMC). The MMC focuses on where to get supplies and equipment. There are three major sources of supply for the theater; the

CONUS strategic base, the host nation, and internal production and regeneration operations ranging from potable water production to sophisticated diagnosis and repair of line replaceable units. The MCC focuses on how to get personnel, supplies and equipment to their destination and relies on both military and commercial transportation to accomplish this. It is this merger of the supply and transportation systems, enabled by information age technology, that will transform logistics from stockpiling to distributing. GCCS, which received inputs from JTAV and GTN systems, gives the DMC the ability to successfully orchestrate the reception and integration of deploying forces while concurrently sustaining forces already in the theater.

Theater Distribution is the structural 'how' of future DoD logistics doctrine and force structure, but what about the procedural 'how' for support of a specific military operation. Where is the doctrine to guide the operational logistics planner to develop the concept of support for either deliberate or crisis action planning? The answer is not found in joint logistics doctrine²³. Once again we must turn to the Army for a doctrinal solution. The answer begins with Logistics Preparation of the Theater (LPT). LPT is to the concept of support as intelligence preparation of the battlespace (IPB) is to the concept of operations. Simply put, LPT are actions taken to optimize the means of logistically supporting the commander's plan²⁴. A proper LPT will consider all aspects of logistics support to the operation. This includes an extensive analysis of the theater to determine port capacity, transportation infrastructure, and host nation ability to provide supply and service support. The goal is to maximize the level of support provided in the theater to reduce the competition for strategic lift to deploy logistics resources to the theater. LPT provides a detailed methodology and comprehensive framework for

logistics planning. It also allows the joint warfighter's J4 to determine the logistics feasibility of various courses of action. Whereas all future operational logistics operations will employ a theater distribution system, LPT is the tool to develop the specific concept of support for the JFC's plan.

Now that we have discussed the 'what' and 'how' of operational logistics, who does it? Since by definition operational logistics is an operational level requirement, it is the responsibility of the Joint Force Commander to conduct the operational logistics mission in support of all U.S. forces engaged in the operation. He may do this through the exercise of directive authority for logistics which is "... the authority to issue to subordinate commanders directives, including peacetime measures, necessary to ensure the effective execution of approved operation plans, the effectiveness and economy of operation, and the prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service component commands"²⁵. Just as the JFC will have divisions, carrier battlegroups, and fighter squadrons to conduct combat operations, he must have a logistics operator to execute the operational logistics mission²⁶. This logistics operator establishes and operates the theater distribution system. Realistically, only two services have the force structure to execute this mission; the Army through its Theater Support Command (TSC)(formerly Theater Army Area Commands) and potentially the Navy through its Seabased Logistics Force (SBLF) (formerly Combat Logistics Force). By jointly staffing the headquarters of these organizations, and tailoring assigned units to meet theater requirements, these organizations can support all U.S. forces in any region. They are also mutually supporting since both use Theater Distribution methodology to sustain forces. The TSC and SBLF commanders, then, are

the JFC's logistics operators. Since the TSC and SBLF are new concepts compatible with Focused Logistics, they warrant closer examination.

The Army adopted the TSC organization primarily to eliminate logistics stovepipes and place most of the support functions under a single command. It eliminates the need for logistics stovepipe commands such as Engineer Command, Medical Command, Transportation Command, Personnel Command, And Finance Command²⁷. This centralizes command and control of these functions under a single operational logistics headquarters. This concept also eliminates the requirement for Theater Army Area Commands since the operational logistics functions of personnel service support, health service support, transportation support, finance support, supply, maintenance, field services support and engineer support are now under a single logistics command and control headquarters²⁸.

The Theater Support Command is modular in design. Modularity means the TSC is designed to deploy as a whole or in part. The modular nature of its structure minimizes strategic lift requirements by allowing the commander to ensure deployment of only essential support elements. It places logistics operational level units under one support point of contact (the TSC) which simplifies logistics planning and execution. The significance of this design is that it divorces operational logistics from the former linear hierarchy paradigm. Under a linear hierarchy, the TSC is organic to a numbered Army just as a Corps Support Command is organic to a Corps. Modular design severs this connection because it is not necessary to deploy an Army headquarters to deploy TSC modules. The TSC modules provide the C2 headquarters for operational logistics units in the theater regardless of the type of conflict. It can provide support in a wide range of

contingencies rather than only those in which a numbered Army is involved.

It is important to note that the TSC is organized to leverage the benefits of the theater distribution concept. Unlike most Army units which have a single S3/G3 staff section responsible for plans and operations, the TSC has a G3 focused on internal support and a Deputy Commander for Support Operations focusing on external support. This staff relationship frees the Support Operations to plan, supervise, and coordinate the operational logistics support provided by the TSC. The G3 focuses on other essential operations functions such as intelligence, force protection, terrain management, civil engineering, area security, etc. The Support Operations section supervises the support missions of assigned and attached operational logistics units which includes GS and DS supply, maintenance, health services, personnel, and transportation. Support Operations supervises support missions by a section in Support Operations called the Distribution Management Center (DMC)²⁹. The DMC executes the distribution management (also called theater distribution) function. This is an important organizational design change that will allow the JFC to operate a distribution network in the theater. Major functions of the DMC are RSOI (monitoring, managing, and balancing the flow of forces into the theater), maintaining customer locations, maintaining information regarding support relationships, lateral distribution or reconsignment in response to changing priorities, managing intratheater distribution, managing transition node capability, synchronizing and deconflicting use of road networks, monitoring the movement of personnel and the associated support requirements for NEO, medical evacuation, and prisoner of war (POW) retrograde operations³⁰. The DMC is thus the nerve center for logistics operations in the theater. The DMC is the logistics symphony conductor who brings together the

many divergent instruments of support to create a harmonious flow of personnel, supplies, and equipment throughout the theater. Information technology, new doctrine, and restructured organizations are the formula for making theater distribution a reality and the locus of these changes is the Distribution Management Center.

The TSC requires a land base from which to operate. What if the scenario requires a forced entry to secure a land base? How will U.S. forces be supported until the land base is secured and the TSC is established? The Navy's Seabased Logistics concept might be the answer. The Seabased Logistics concept potentially yields similar benefits for the Navy as TSC does for the Army. It is part of a significant change in direction for the Navy. When describing the Navy's changing direction, the most recent QDR specifically states "...naval forces will be increasingly called upon to provide Seabased logistics for joint operations in the littorals³¹." The prospect of providing sustainment to *joint* forces, which include sea, ground, and air forces, from a seabase is a significant departure from traditional Navy roles. The Navy has always had Title 10 responsibility to replenish the Fleet at sea and provide operational logistics support to naval ground and air forces, primarily Marines. With respect to support of ground forces, however, the Navy's capability is finite. The Marines, for example, deploy with a logistics support package that limits their operational capability to the Days of Supply (DOS) of materiel they bring with them or access from the Maritime Prepositioned Force (MPF)³². This finite approach to support is tactical logistics (what the unit brings with it) and is not a theater logistics operational capability, which only the Army presently provides. The Navy cannot sustain long term operational commitments for its ground forces once basic load stocks are exhausted. If Seabased logistics were an extension of this enhanced basic load

methodology, it would limit support to joint forces.

For Seabased logistics to live up to the expectations established by its description in the QDR, it must have two fundamental capabilities; it must be an *operational* logistics provider and it must support *joint* forces. An operational capability of this type is a major undertaking for the Navy. Conceptually, Seabased logistics is a major revision of what has been an effective logistics system that has supported the Navy well for decades. The impetus for change to naval logistics is threefold. First, since large numbers of Army and Air Force units were redeployed to CONUS, the Navy becomes the Service most likely to be the first U.S. force 'on the scene'. For this reason, the Navy is moving away from its traditional blue water priority to be an active player in the littorals. The Navy is developing new capabilities to fulfill that role. Examples include Aegis Cruisers and Operational Maneuver from the Sea (OMFTS). In order for the Navy to project power 'from the sea', it has to logistically enable that power from the sea. Secondly, our force projection strategy relies on access to air and seaports. A potential adversary, recognizing this vulnerability, can deny access to or use of ports. Seabased logistics allows sustainment of forces from the sea, diminishing our reliance on shorebased facilities. Finally, the Navy, like the other services, can no longer afford the expensive, inefficient, and cumbersome logistics systems of the past.

"Seabased logistics is the sustainment of forces operating on and from the sea. It is a Naval Concept to support forces that are primarily Naval in character that can quickly transition to an integral part of a larger Joint Theater Logistics effort...The focus of Seabased logistics is the operational level of war³³." Seabased logistics is a reorganization of current Naval operational logistics forces, a merging of information

technology and an incorporation of emerging joint logistics doctrine to create an in-stride sustainment system to provide the Naval force the logistics means to conduct a wide range of missions. Current Naval operational logistics forces include the Combat Logistics Forces which support Naval forces afloat, the Naval Expeditionary Logistic Support Force which supports Naval forces ashore, the Maritime Prepositioned Force which supports Marines, and related units and organization which contribute to support of Naval forces. These existing operational logistics forces will be reorganized to focus the logistics effort.

For the Navy to realize the enormous potential of Seabased logistics, it must address three shortcomings in the current concept. First, the concept does not mention the establishment of a Seabased Distribution Management Center (SDMC). A SDMC is essential to coordinating theater distribution. Both the TSC and SBLF will implement a common theater distribution system and both require a DMC as the nerve center for distribution operations. The functions the SDMC performs would be identical to those performed by the land based DMC to include the management of RSOI operations. This is analogous to the relationship between a Seabased Joint Force Air Component Command and a ground based Joint Force Air Component Command. One can transition to the other or they can augment each other, but both coordinate support of the air component for the JFC. The second shortcoming is the lack of force structure to operate the spokes which link the seabase to the combat force. Logically, the SBLF should subsume existing JLOTS force structure (which is being improved) to operate the surface spokes. It must also have *dedicated* airlift assets for the air spokes which will be crucial to support of ground forces which have no ground based support. Finally, although the

concept discusses surface replenishment of the seabase, it must also address an Air Line of Communication (ALOC) to the source of supply or support. Most likely this would be a link from the seabase to the nearest secure Air Port of Debarkation (APOD).

Notwithstanding the need to address shortcomings, both SBLF and the TSC are designed to leverage information age technology as part of transforming how the U.S. military sustains its deployed forces. This indicates that both the Army and Navy realize that it is not practical to try to fit new technology and capabilities into old organizational designs.

The final question to be addressed is 'where'. Once again, at the risk of belaboring the obvious, the answer to 'where' is 'anywhere'. The implication of 'anywhere' for operational logistics is twofold. First, every scenario will require unique solutions with the understanding that operational logistics must be performed in support of any military operation regardless of size or complexity. For *every* military operation, it is necessary to adequately consider and resource the operational logistics function. Secondly, military logistics forces might be required to support the military force in places where host nation or contractor support is non-existent or not feasible. To ensure the military can do this, DoD and the services must define their essential core logistics competencies for which force structure (units, depots, equipment, skills, etc.) must be retained. With this safeguard for logistics readiness in place, it then becomes apparent where DoD and the Services can privatize or contract support. We do not want 'where' constrained by the lack of logistics force structure.

CONCLUSION

What should we conclude about operational logistics doctrine? Superb concepts are

under development. New technologies, particularly information systems, are being designed and fielded. New organizations are being designed to leverage information age advances. The doctrinal descriptions of the essential parts are there, especially in Army doctrine and the best ideas are migrating towards joint capabilities under the umbrella of Focused Logistics. What's missing? The Joint Warfighting Center needs to tie the superb existing and emerging doctrine and concepts under a single capstone publication that comprehensively describes the 'who, what, where, and how' of the operational logistics process.

WORD COUNT: 5202

ENDNOTES

¹ William S. Cohen, Secretary of Defense, Report of the Quadrennial Defense Review, (Washington, D.C.: U.S. Department of Defense, May 1997), vi.

² *ibid.*

³ *ibid.*

⁴ *ibid.*, 40.

⁵ Although this message is not stated explicitly, the inclusion of *JV2010* in the QDR and the listing of Service visions subordinate to it signals the intent of DoD to guide development of Services initiatives towards a common (joint) operational capability.

⁶ John J. Cusick and John M. Shalikashvili, Focused Logistics: A Joint Logistics Roadmap (Washington, D.C., The Joint Staff), i.

⁷ *ibid.*, 16.

⁸ *ibid.*, 16-17.

⁹ *ibid.*, 23.

¹⁰ Focused Logistics falls short of recommending a joint logistics headquarters and instead recommends a joint logistics organization.

¹¹ Department of the Army, Operations, Field Manual 100-5 (Washington, D.C.: U.S. Department of the Army, Jun 93), 12-2.

¹² Joint Chiefs of Staff, Doctrine for Logistics Support of Joint Operation, Joint Publication 4-0 (Washington, D.C.: U.S. Joint Chiefs of Staff, 27 Jan 95).

¹³ Joint Chiefs of Staff, Doctrine for Joint Operation, Joint Publication 3-0 (Washington, D.C.: U.S. Joint Chiefs of Staff, 1 Feb. 95), II-2.

¹⁴ Logistics Integration Agency, The Army Strategic Logistics Plan, (Alexandria, VA.: U.S. Department of the Army), 8,9.

¹⁵ Army designers of this plan describe these joint strategic and operational organizations as Army rather than joint. Further discussion assumes a joint vice service role for strategic and operational organizations regardless of service sponsor.

¹⁶ *op cit.*, 9.

¹⁷ Department of the Army, Operations, Field Manual 100-5 (Washington, D.C.: U.S. Department of the Army, Jun 93), 12-4.

¹⁸ Joint Chiefs of Staff, Doctrine for Logistics Support of Joint Operation, Joint Publication 4-0 (Washington, D.C.: U.S. Joint Chiefs of Staff, 27 Jan 95), I-8 to I-12.

¹⁹ Department of the Army, Operations, Field Manual 100-5 (Washington, D.C.: U.S. Department of the Army, Jun 93), 12-2.

²⁰ Department of the Army, Army Operational Support, Field Manual 100-16, (Washington D.C.: U.S. Department of the Army, May 1995), C-0.

²¹ *Ibid.*

²² United States Army Combined Arms Support Command, Extract of Executive Summary of the Roles of the TSC G3 and Support Operations, (Fort Lee, VA.: U.S. Department of the Army, APR 1996).

²³ Kevin R. Wheelock, "Review Criteria for the Logistic Plan", Joint Forces Quarterly, (Spring 97): 129.

²⁴ Department of the Army, Army Operational Support, Field Manual 100-16, (Washington D.C.: U.S. Department of the Army, May 1995), G-11.

²⁵ Joint Chiefs of Staff, Doctrine for Logistics Support of Joint Operation, Joint Publication 4-0 (Washington, D.C.: U.S. Joint Chiefs of Staff, 27 Jan 95), vi.

²⁶ The Combatant Commander's directive authority conflicts with the Services' Title 10 responsibilities to provide logistics support to their forces. Presently service component commanders execute the operational logistics mission with CINC efforts at integration varying from Combatant Command to Combatant Command. Emerging joint logistics concepts will require resolution of this conflict.

²⁷ Many of these commands are presently retained, primarily in the Reserve Component.

²⁸ U.S. Army Combined Arms Command, Draft Concept For: Support Command And Control At Echelons Above Corps, (Fort Lee, VA.: U.S. Department of the Army, January 1996)

²⁹ United States Army Combined Arms Support Command, Extract of Executive Summary of the Roles of the TSC G3 and Support Operations, (Fort Lee, VA.: U.S. Department of the Army, APR 1996).

³⁰U.S. Army Combined Arms Support Command, Guide to Distribution Management Center Operations (Fort Lee, VA.: U.S. Department of the Army, May 1997), 23-29.

³¹William S. Cohen, Secretary of Defense, Report of the Quadrennial Defense Review, (Washington, D.C.: U.S. Department of Defense, May 1997), 43.

³²Naval Doctrine Command, Seabased logistics, A Naval Concept (draft) (Norfolk, VA.: U.S. Department of the Navy, July 1997), 16.

³³*ibid.*, 2

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- ¹¹ U.S. Joint Chiefs of Staff, Doctrine for Joint Operation, Joint Publication 3-0. Washington, D.C.: U.S. Joint Chiefs of Staff, 1 February 1995.
- ¹² Wheelock, Kevin R. "Review Criteria for the Logistic Plan", Joint Forces Quarterly, (Spring 97): 128-133.