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<b>14. ABSTRACT</b>  <p style="text-align: center;"><b>INTRODUCTION</b></p> <p><i>Strategy, like politics, is said to be the art of the possible; but surely what is possible is determined not merely by numerical strengths, doctrine, intelligence, arms and tactics, but, in the first place by the hardest facts of all: those concerning requirements, supplies available and expected, organization and administration, transportation and arteries of communication.<sup>1</sup></i></p> <p style="text-align: center;"><i>Martin van Creveld</i></p>					
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Improving Operational Logistics:  
A Joint Functional Logistics Command--The Next Step

by

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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.

Signature:

*[[SIGNED 23 October 2006]]*

23 October 2006

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<sup>1</sup>Martin van Creveld, Supplying War: Logistics from Wallentstein to Patton, 2 edition, (Cambridge, UK: Cambridge University Press, 1977) 1.

## INTRODUCTION

*Strategy, like politics, is said to be the art of the possible; but surely what is possible is determined not merely by numerical strengths, doctrine, intelligence, arms and tactics, but, in the first place by the hardest facts of all: those concerning requirements, supplies available and expected, organization and administration, transportation and arteries of communication.*<sup>2</sup>

*Martin van Creveld*

Logistics is the lifeblood of war.<sup>3</sup> It is one of the most important operational functions, more constraining on the planning and conduct of major operations and campaigns than purely operational requirements.<sup>4</sup> Future warfare will place even greater strain on our logistics infrastructure as U.S. forces become more mobile, network centric and capable of fighting in a more distributed manner. According to the Department of Defense (DOD) Joint Chiefs of Staff's Focused Logistics Campaign Plan, future joint warfighting will place an extraordinary premium on our abilities to make superior logistics support decisions. Yet our current methods for meeting the warfighter's logistics needs are far too inefficient in terms of logistics force structure, money, materiel, strategic lift, response time, and logistics footprint.<sup>5</sup> Much of this inefficiency is due to the service-centric stovepiped nature of our logistic organizational

structures and distribution systems that simply do not work for today's joint warfighter.

The warfighter is demanding more streamlined logistics organizations to support joint operations. A December 2005 memo from the Chairman of the Joint Chiefs of Staff, General Peter Pace, to the Joint Staff's Director of Logistics (J-4), emphasized this point.

*"Joint Theater Logistics...work closely with [U.S.] Joint Forces Command (USJFCOM) to get us away from executing theater logistics in Service stovepipes and give the joint logistician the tools needed to effectively support joint operations."*<sup>6</sup>

Combatant Commanders have also sought organizational changes to improve logistical support to the joint warfighter for several years. Retired General Anthony Zinni, the former U.S. Central Command (USCENTCOM) Commander, even sought to create a single joint logistics command for the USCENTCOM Theater to control and coordinate the logistics efforts undertaken in a major crisis.<sup>7</sup>

This paper asserts that establishing an operational-level joint functional logistics component command will provide the Combatant Commander an improved ability to prioritize, synchronize, and integrate joint force logistics capabilities across the theater. To support this thesis, this paper will highlight historical logistics problems and lessons learned

from Operation Desert Storm and Operation Iraqi Freedom; examine the current legal and doctrinal authority to provide joint theater logistics for common support capabilities and to establish a joint theater logistics command (JTLC); examine and discuss two alternative organizational concepts currently being used and tested to facilitate improved joint theater logistics; and provide a recommendation for the future.

## **BACKGROUND**

*As an infantryman, I used to be no more interested in logistics than what you could stuff in a rucksack. Now I know that, although the tactics aren't easy, they're relatively simple when compared to the logistics.*<sup>8</sup>

*Major General David H. Patreus*

Logistical service stovepipes are nothing new to DOD; nor are the attempts to remove them. The Goldwater-Nichols Act of 1986 was a sweeping effort to move the Army, Navy, Air Force and Marines toward improved joint operations. This act facilitated the creation of the United States Transportation Command (USTRANSCOM) to integrate the strategic transportation modes for DOD.<sup>9</sup> Still, seams remained as the Army, Navy, and Air Force retained single-manager charters for their respective modes of transportation, and USTRANSCOM authorities were limited to wartime.<sup>10</sup> This attempt to streamline joint logistics operations specifically improved the strategic level

of logistics distribution, but problems still remain at the operational level. Operations Desert Storm and Operation Iraqi Freedom provide poignant examples.

### **Operation Desert Storm**

Operation Desert Storm was the first major operation in U.S. history to be supported by a single command coordinating strategic deployment.<sup>11</sup> USTRANSCOM validated their original charter by orchestrating the movement of, "The rough equivalent of Atlanta, Georgia – all its people and their clothing, food, cars, and other belongings – half way around the world in under seven months."<sup>12</sup> However, Operation Desert Storm clearly demonstrated the need to revise the theater-level logistics doctrine and infrastructure.<sup>13</sup> The inherent service seams at the strategic level and the lack of a single integrated operational-level theater distribution support system to receive, stage, and onward integrate the huge volume of material delivered to the theater created massive backlogs and exacerbated the theater inefficiencies.

For example, over 41,000 shipping containers were transported to the Persian Gulf region and roughly 28,000 of them had to be opened to ascertain their contents in order to facilitate distribution throughout the theater.<sup>14</sup> This lack of asset visibility in the theater compounded the delays. Units



anxious for their supplies submitted multiple orders increasing the burden on the already strained logistical infrastructure.<sup>15</sup>

In another example, each of the Service components ordered enough munitions through their individual logistical channels to destroy the Iraqi tank forces with their assigned forces. Assessments after the war concluded that excess munitions were delivered to the theater. This oversupply of munitions was unnecessary and wasted already constrained transportation resources.<sup>16</sup> A decade later, some of the same lessons would be relearned during Operation Iraqi Freedom.

### **Operation Iraqi Freedom**

Failure to apply the logistics lessons learned from Operation Desert Storm contributed to similar problems during Operation Iraqi Freedom. The Government Accounting Office reported in 2003 that while the major combat operations of Operation Iraqi Freedom proved remarkably successful, there were significant theater logistical problems primarily as a result of inadequate asset visibility and ineffective theater distribution capability and procedures.<sup>17</sup> These problems included:

- Backlog of hundreds of pallets/containers at various supply points and the theater distribution center in Kuwait;

- \$1.2 billion discrepancy between materiel shipped and received;
- Cannibalization of parts reducing readiness
- Duplication of requisitions and circumvention of the supply system<sup>18</sup>

Additionally, two recent Rand studies examined sustainment of Army forces and Airlift execution in the CENTCOM theater during Operation Iraqi Freedom and concluded some of the problems were due to:

- Lack of joint, DOD-wide vision of how the supply chain should operate
- Lack of theater distribution planning and decision-support tools
- Organizational policies not aligned with a common vision
- Organizational structures not well designed to support expeditionary deployment operations
- Inefficient use of airlift resources
- Information connectivity issues between service components
- Incomplete visibility of cargo within the theater distribution system<sup>19</sup>

The logistics problems experienced during Operation Iraqi Freedom highlighted the inability of the current theater-level logistics structure to adequately support a major contingency. The CENTCOM Commander, unable to synchronize the logistics distribution process to support the mission was looking for a single point of contact to solve the theater's logistical issues.<sup>20</sup> Current federal law and joint doctrine provide the Combatant Commander sufficient authority to establish a

functional joint logistics command to improve theater-level logistics.

### **Logistics Authority**

DOD's joint doctrine articulates command responsibilities for individual services, joint commanders, and forces assigned to joint operations. The joint commander is responsible for synchronizing logistics across the theater. However, doctrine also specifies that each Service is responsible for the logistics support of its own forces, even when assigned to joint operations.<sup>21</sup> This service-centric approach to supporting forces can create significant logistical redundancies and inefficiencies in joint operations. The joint commander must take proactive measures to ensure unity of command and unity of effort for logistics.

By law, theater logistics is the responsibility of the Combatant Commander. United States Code, Title 10, Section 164 establishes Combatant Command (COCOM) authority and directs the Combatant Commander to:

*"Perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command."*<sup>22</sup>

Inherent in COCOM is the authority to establish functional component commands that significantly improve combat efficiency, and to exercise directive authority for logistics.<sup>23</sup>

Joint Publication (JP) 0-2 further explains that directive authority for logistics is meant to ensure:

*"Effective execution of approved operation plans; effectiveness and economy of operations; and prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service component commands."*<sup>24</sup>

JP 0-2 also states that the Combatant Commander may exercise the directive authority for logistics for common support capabilities by delegation to a subordinate Joint Force Commander (JFC).<sup>25</sup> Delegating directive authority for logistics to a JFC for common capabilities makes sense to streamline logistics infrastructure, reduce logistics force footprint, and ensure unity of command and effort in joint operations.

### **Logistics Capabilities**

Logistics capabilities can be grouped into three general categories: service independent, service interdependent, and service interoperable. Service independent capabilities are unique to a single service, such as naval replenishment at sea. These capabilities are best left to the individual Services to accomplish. Service interdependent, are

capabilities for which services depend on one another in order to accomplish a mission, such as airdrop or air and sea port throughput operations. Service interoperable capabilities are conducted by multiple services, such as contracting, mortuary affairs, or medical.<sup>26</sup> Service interdependent and interoperable capabilities are consistent with JP 4-0's reference to, "common support capabilities," and lend themselves to effective joint management and control to improve efficiency and reduce redundancy.<sup>27</sup> These are the capabilities that must be consolidated and jointly managed by a single organization or JFC given directive authority for logistics in the theater.

## **LOGISTICS ORGANIZATION**

***Without theater-wide logistical infrastructure, it is extremely difficult to conduct a campaign or major operation.***<sup>28</sup>

***Milan Vego***

While U.S. combat forces have made great strides toward more joint operations, a joint organizational structure that provides effective and efficient logistics support for these forces has not been achieved.<sup>29</sup> Understanding the basic issues that underlie most of these problems is the first step to developing the appropriate organizational structure to support joint operations in the future.

Randy Kendrick in Army Logistician observed that, numerous service-sponsored and joint studies attribute many of DOD's logistical shortcomings to the fact that there is no single joint theater logistics commander. He summarized the findings of several studies into five fundamental issues underlying joint logistical problems:

- The lack of a joint logistics organization to ensure that joint logistics functions are executed in support of the theater
- Lack of a theater-level logistics commander
- Inability to execute direct authority for logistics
- Lack of logistics command and control
- Inability to see theater-level requirement and respond with the appropriate capabilities<sup>30</sup>

These findings highlight the need for an organization that can provide joint theater logistics management as outlined in the Joint Chiefs of Staff's Focused Logistics Campaign Plan. This organization must possess the ability to, "Synchronize, prioritize, direct, redirect, integrate and coordinate common-user cross-Service commodities and functions."<sup>31</sup> Since 2004, the Commanders of USCENTCOM and United States Forces Korea (USFK) have formed theater-level logistics organizations to help ameliorate some of these problems and improve their theater-level logistics.

## **Deployment and Distribution Operations Center**

In January 2004 USTRANSCOM in partnership with USCENTCOM fielded the first Deployment and Distribution Operations Center (DDOC).<sup>32</sup> This team of 67 strategic and operational joint logistics experts representing USTRANSCOM, USJFCOM, Defense Logistics Agency (DLA), and all of the Service's material commands, armed with the latest information technologies was forward deployed to the CENTCOM Theater under the tactical command and control of CENTCOM's Director of logistics (see Figure 1). The CENTCOM DDOC's (CDDOC) mission was to focus on synchronizing the elements of the logistics system to eliminate the seams that existed between the strategic and operational levels of logistics.<sup>33</sup> It was also envisioned that the CDDOC would serve as the theater's logistical experts, not only advising the USCENTCOM Commander on all logistics issues, but requesting and tracking logistics assets required as well as coordinating and conducting joint logistics operations.<sup>34</sup> Within days of arriving in theater the CDDOC realized success, capitalizing on their ability to provide factory to foxhole asset visibility and synchronization of the logistics distribution process.<sup>35</sup>

Though not a large organization and despite its ad hoc nature, the CDDOC's expertise quickly paid huge dividends. The CDDOC directly impacted theater operations in a number of

ways as they helped synchronize the movement of troops and material in the largest force rotation since World War II.<sup>36</sup> The CDDOC determined that there was an excess of class IV material (lumber, barrier and construction material) in the theater yet shipments were continuing to arrive at the ports creating backlogs. Through the CDDOC's efforts, over 1,000 containers of additional class IV material were cancelled from arriving into the theater, saving \$12 million in material and transportation costs.<sup>37</sup> The CDDOC also teamed with the United States Air Forces' Air Mobility Command to improve the inventory tracking of 463L pallets (aluminum pallets used to transport air cargo) freeing an additional 18,000 pallets for use at a savings of \$27.9 million.<sup>38</sup> The Director of Operations for USTRANSCOM, Major General Robert Dail, also credited the CDDOC's management of theater transportation with avoiding almost \$400 million in transportation costs for the U.S. Army alone.<sup>39</sup> Such monetary savings and improvements in efficiency did not go unnoticed by the senior leadership within the DOD.

The synergy gained by teaming strategic and operational subject experts armed with the latest information technology and forward deploying them into theater caught the attention of the Combatant Commanders. The lessons learned from the CDDOC were applied to the other geographic combatant commands.



Currently, each Combatant Commander has established a permanent Joint DDOC (JDDOC) appropriate for their region and mission.<sup>40</sup> Although the JDDOC is a step in the right direction to streamline joint theater logistics, critics say it may not be comprehensive enough.

The JDDOC is essentially an extension of the Combatant Commander's J-4 staff directorate, thus the director of the JDDOC does not have command authority. This creates two potential problems. First it places an additional operational burden on the J-4 staff. Multiple, large-scale, or protracted contingencies would certainly diminish the J-4 staff's ability to concentrate on long-range planning.<sup>41</sup> Second, directive authority for logistics is an element of command authority; as such it should be restricted to commanders rather than delegated to the staff. These two potential problems were taken seriously halfway around the world from the CENTCOM Theater, where the first functional logistics component command has been established.

#### **Joint Theater Logistics Command**

USFK in cooperation with USJFCOM is currently experimenting with the organizational concept of a JTLC called the Joint Force Support Component Command (JFSCC). The JFSCC was created in 2005 to unify theater logistics under a single logistics commander responsible to coordinate, integrate, and

synchronize joint-centric theater logistics functions. Major General Tim McHale, the commander of this new functional command is tasked with moving USFK away from current stovepipe service-centric logistics processes to a single collaborative joint logistics process that will improve warfighting capability.<sup>42</sup> Specifically, the JFSCC is trying to fix some of the recurring problems that joint theater commanders were continually facing:

- Logistics by committee, no single person in charge
- Lack of total asset visibility
- Poor communications
- Redundant, wasteful, unconnected distribution system
- Excessively complex, inefficient procedures
- Lack of standing capability
- Poor linkage between logisticians and operators<sup>43</sup>

The JFSCC does not discount the lessons learned from the CDDOC experience, rather it builds on those successes.

The JFSCC incorporates the U.S. Pacific Command (USPACOM) JDDOC for Korea (PDDOC-K) into its organizational structure.<sup>44</sup> Incorporating the PDDOC-K into the JFSCC capitalizes on the subject matter expertise provided by a JDDOC to integrate strategic distribution with theater capabilities, closing the strategic to operational seam. However, rather than reporting to the J-4 staff directorate like the CDDOC, the PDDOC-K reports directly to the functional logistics component commander, who is the equivalent of the air, land, maritime,

and special forces component commanders. The JFSCC will also incorporate some elements of the USFK J-4 staff and have operational control of DLA assets in theater (see Figure 2). The fundamental structure of the JFSCC is provided by the U.S. Army 19<sup>th</sup> Expeditionary Support Command (ESC). Major General McHale will be dual-hatted as the commander of both the JFSCC and the 19<sup>th</sup> ESC.<sup>45</sup> Separating the JFSCC from the J-4 provides significant benefits to the Combatant Commander.

Unencumbered by the operational responsibilities of overseeing the JFSCC, the J-4 remains primarily focused on the command's strategic and deliberate planning, interfacing with the Joint Staff J-4, and coordinating with the supporting and supported Combatant Commanders. The JFSCC meanwhile retains sole responsibility for day-to-day theater-level logistics requirements and operations.<sup>46</sup> Specifically, the USFK JFSCC's key tasks are to:

- See the theater's requirements and capabilities
- Identify and prioritize current and projected theater shortfalls
- Adjudicate conflicting priorities
- Direct theater logistics resources
- Conduct theater logistics planning
- Drive theater logistics execution<sup>47</sup>

There are also critics of establishing a functional logistics component command. One senior DOD logistician recently reflected that only medium-based (air, land,

maritime, and potentially space) functional commands should be established. Functional commands based task (logistics, intelligence) should not be established as this would separate critical support functions from the operational combat forces. The additional functional commands would potentially introduce additional stovepipes further confusing rather than streamlining unity of command.<sup>48</sup> There will also undoubtedly be Service resistance to permanent JTLCs as the Service responsibilities for logistics is impinged, particularly in an environment of constrained resources and force reductions.<sup>49</sup> It remains to be seen whether USFK's experiment with a JTLC will succeed and improve the ability of the Combatant Commander to exercise more effective control over theater logistics.

## **RECOMMENDATIONS AND CONCLUSIONS**

***I have no reason to believe that Logistics will ever have much military sex-appeal, except to serious soldiers...***<sup>50</sup>

***Major General Julian Thompson***

JP 0-2 states, "Command is central to all military action, and unity of command is central to unity of effort."<sup>51</sup> Logistics is no exception. In order to achieve unity of effort for logistics the Combatant Commanders should establish joint theater-level functional logistics component commands.

A JTLC is the best organizational construct to execute the myriad of Service interdependent and interoperable logistics functions that are required for joint operations.

The problems encountered during ODS and OIF overwhelmingly support a single entity responsible for coordinating and executing theater-level logistics.<sup>52</sup> Forming ad hoc logistics organizations to support the joint warfighter in times of crisis is not the right answer. We must train like we fight, that means establishing logistics organizations that are permanently assigned to the theater commanders to support joint warfighting. The successes achieved by the CDDOC are testimony to what can be achieved by an empowered and streamlined joint theater-level logistics organization. Establishing the JDDOCs at each of the Combatant Commanders is an excellent step toward achieving unity of command and unity of effort for logistics.

JP 4-0 notes that the Combatant Commander may delegate directive authority for common support capability, and that directive authority for logistics includes the authority to issue directives to subordinate commanders.<sup>53</sup> However, JP 0-2 is more constraining in that it limits delegating this authority to subordinate JFCs.<sup>54</sup> Thus, meeting both the spirit and intent of joint doctrine requires moving beyond the JDDOC and establishing a JTLC.

Within the halls of the U.S. Naval War College, Professor Milan Vego has been heard to say, "Logistics is a critical element of combat power that assumes even greater importance at the operational level."<sup>55</sup> It is equally critical to ensure there is an effective operational-level joint organization to effectively and efficiently provide those logistics to our combat forces on the future battlefield.

Figure 1: CENTCOM DDOC Organization<sup>56</sup>

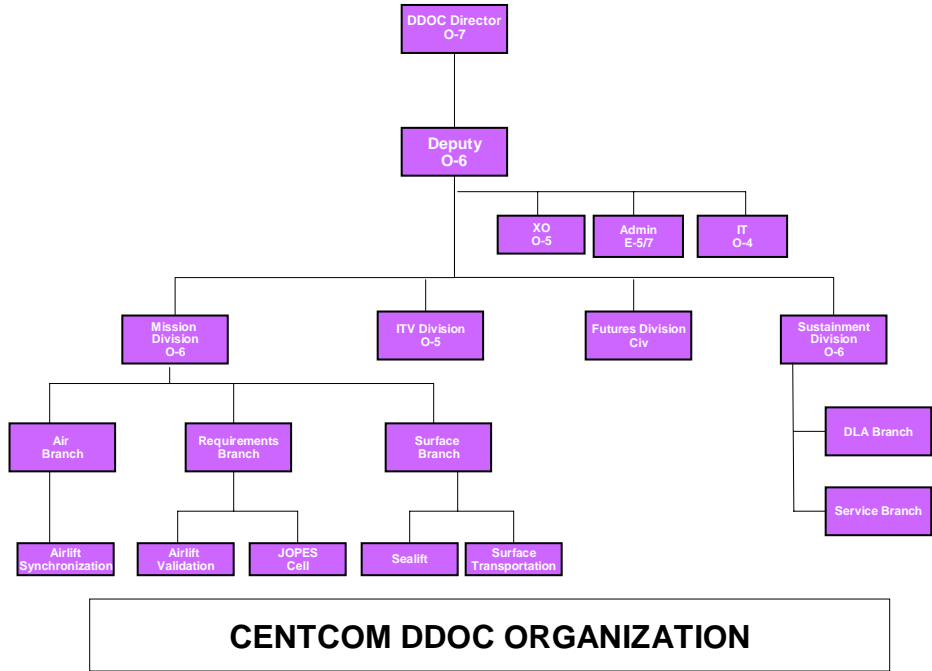
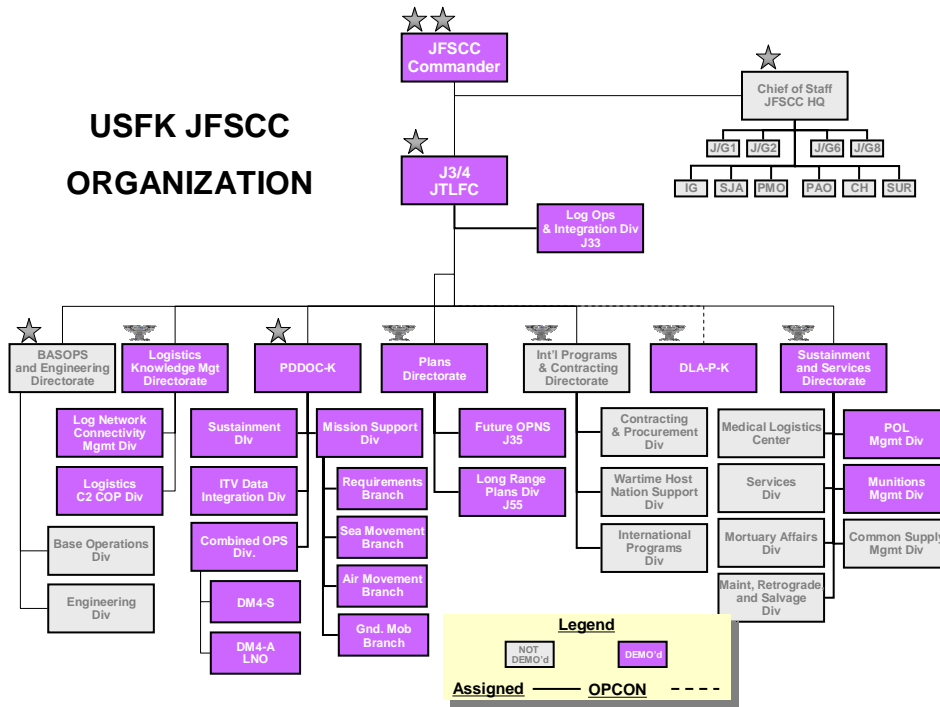


Figure 2: USFK JFSCC Organization<sup>57</sup>





## NOTES

- <sup>2</sup>Martin van Creveld, Supplying War: Logistics from Wallentstein to Patton, 2 edition, (Cambridge, UK: Cambridge University Press, 1977) 1.
- <sup>3</sup>Thompson, title.
- <sup>4</sup>Milan Vego, Operational Warfare, NWC 1004, (Newport, RI: U.S. Naval War College, 2000) 259.
- <sup>5</sup>United States Department of Defense, Focused Logistics Campaign Plan 2004 Edition, 2004, iii, 36.
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- <sup>7</sup>McHale, 5.
- <sup>8</sup>Rick Atkinson, In the Company of Soldiers, (New York: Henry Holt and Company, 2004): 71.
- <sup>9</sup>James K. Matthews and Cora J. Holt, So Many, So Much, So Far, So Fast: United States Transportation Command and Strategic Deployment for Operations Desert Shield/Desert Storm, (Washington, Government Printing Office, 1995) 11.
- <sup>10</sup>Matthews, 3.
- <sup>11</sup>Danita L. Hunter, United States Transportation Command: 10 Years of Excellence 1987-1997, available from <http://www.transcom.mil> (accessed 18 October 2006): 13.
- <sup>12</sup>Matthews, 12.
- <sup>13</sup>Gary R. Engel, "Joint and Combined Logistics Theater Logistics - The Future Reality," *Army Logistician* 31, Issue 3 (May-June 1999), 35.
- <sup>14</sup>Engel, 35.
- <sup>15</sup>Jeffrey G. Mintzlaff, "Focused Logistics: Time For Functional Command," (research paper, Newport, RI: U.S. Naval

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<sup>16</sup>Engel, 36.

<sup>17</sup>U.S. General Accounting Office, "Defense Logistics: Preliminary Observations on the Effectiveness of Logistics Activities during Operation Iraqi Freedom," GAO-04-305R, 18 December 2003, 2-4.

<sup>18</sup>U.S. General Accounting Office, GAO-04-305R, 2; Mintzloff, 5-6.

<sup>19</sup>Peltz, Eric, Marc L. Robbins, Kenneth J. Girardini, Rick Eden, John M. Halliday, Jeffrey Angers, "Sustainment of Army Forces in Operation Iraqi Freedom: Major Findings and Recommendations," Santa Monica, CA, RAND Corporation, 2005; and Robert S. Tripp, Kristin F. Lynch, Charles Robert Roll, Jr., John G. Drew, Patrick Mills, "A Framework for Enhancing Airlift Planning and Execution Capabilities Within the Joint Expeditionary Movement System," Santa Monica, CA, RAND Corporation, 2006

<sup>20</sup>U.S. General Accounting Office, "Defense Logistics: Actions Needed to Improve the Availability of Critical Items during Current and Future Operations," GAO-05-275, April 2005, 39; and Mintzloff, 6.

<sup>21</sup>United States Department of Defense, Joint Publication 4-0, Doctrine for Logistic Support of Joint Operations, 6 April 2000, CD-ROM, Joint Electronic Library, August 2004, I-7.

<sup>22</sup>United States Government, United States Code: 2000 Edition, Washington D.C., Government Printing Office, 2000, available from <http://www.gpoaccess.gov> (accessed 16 October 2006); and U.S. DOD, JP 0-2, xi.

<sup>23</sup>U.S. DOD, JP 0-2, V-18, III-6.

<sup>24</sup>U.S. DOD, JP 0-2, III-6.

<sup>25</sup>U.S. DOD, JP 0-2, III-6.

<sup>26</sup>Randy S. Kendrick, "Joint Logistics for the EUCOM AOR," Army Logistician 37, Issue 6 (November-December 2005), 49.

<sup>27</sup>U.S. DOD, JP 4-0, vi, I-6, I-8.

<sup>28</sup>Vego, 259.

<sup>29</sup>Kendrick, 48; Engel, 34.

<sup>30</sup>Kendrick, 47-48. The summary includes observations from the Office of Secretary of Defense, Joint Staff, USJFCOM, USCENTCOM DDOC, Defense Science Board and Army Science Board.

<sup>31</sup>United States Department of Defense, Focused Logistics Campaign Plan 2004 Edition, 2004, available from <https://acc.dau.mil> (accessed 18 October 2006), 19.

<sup>32</sup>Eddie Montero, "CENTCOM DDOC Leads Revolution in Deployment and Distribution," USTRANSCOM News Service, 17 August 2006, available from <http://www.transcom.mil> (accessed 18 October 2006); and Jose R. Enriquez, "Joint Logistics Command: A Strategic Challenge for the 21<sup>st</sup> Century," (research project, Carlisle, PA: U.S. Army War College, 18 March 2005), 16.

<sup>33</sup>United States Central Command, "Transforming the deployment and distribution seams between strategic and operational logistics," News Release, Number 04-02-17, 10 February 2004, available from <http://www.globalsecurity.org> (accessed 20 October 2006); and Norton A. Schwartz, Statement before the Senate Armed Services Committee, 4 April 2006, available from <http://www.globalsecurity.org> (accessed 17 October 2006) 4; and Joy Kress, "CDDOC Pilot Improves Distribution Pipeline," USTRANSCOM News Service, release number 041030-1, 30 October 2004, available from <http://www.transcom.mil> (accessed 22 October 2006){Kress states the number of assigned DDOC personnel was 63};and Montero.

<sup>34</sup>Enriquez, 16.

<sup>35</sup>Mintzlaff, 9-10.

<sup>36</sup>United States Transportation Command, "DPO Initiative is the Beginning of Joint Theater Logistics," USTRNSCOM News Service, release number 040608-01, 8 June 2004, available from <http://www.transcom.mil> (accessed 22 October 2006).

<sup>37</sup>Kress.

<sup>38</sup>Schwartz, 12.

<sup>39</sup> USTRANSCOM, release number 040608-1.

<sup>40</sup> Schwartz, 13.

<sup>41</sup> Kendrick, 51.

<sup>42</sup> McHale, 1,10,15.

<sup>43</sup> McHale, 7.

<sup>44</sup> McHale, 17.

<sup>45</sup> McHale, 19.

<sup>46</sup> Randy S. Kendrick, "Joint Logistics for the EUCOM AOR-Part II," *Army Logistician* 38, Issue 1 (January-February 2006), 22.

<sup>47</sup> McHale, 16.

<sup>48</sup> Source anonymous due to U.S. Naval War College's academic non-attribution policy. Source did not address the existence of U.S. Special Operations Command despite it being a non-medium based functional command.

<sup>49</sup> Engel, 37.

<sup>50</sup> Julian Thompson, The Lifeblood of War: Logistics in Armed Conflict, (Exeter, UK: B.P.C.C. Wheatons Ltd., 1991) xvi.

<sup>51</sup> JP 0-2, III-1.

<sup>52</sup> Kendrick, 51.

<sup>53</sup> U.S. DOD, JP 4-0, I-6.

<sup>54</sup> U.S. DOD, JP 0-2, III-6.

<sup>55</sup> Engel, 37.

<sup>56</sup> Enriquez, 17. Taken from Nicholas J. Anderson, "Theater Distribution," briefing slides, Carlisle Barracks, U.S. Army War College, 11 February 2005.

<sup>57</sup> McHale, 18.

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