



Airman uploading armored Humvee onto C-130E for delivery to Iraq

375th Communications Squadron (Alfred A. Genoff)

# Development of the Joint Logistician

By RANDALL M. MAULDIN

Since the war on terror began on September 11, 2001, the Armed Forces have deployed around the world, conducting operations in Afghanistan, Africa, the Balkans, Iraq, the Philippines, and South Korea. Operation *Iraqi Freedom*, in particular, has tested the concept of *maneuver warfare*, which focuses on

the weaknesses of the enemy and uses speed as a primary weapon. Throughout this operation, units moved faster than planners could anticipate, so critical preparation lagged behind the troops; thus, an operational pause was required to allow supplies to catch up. In addition to rapid tempo, combat information systems failed to integrate logistic

planners into the real-time information used by operators, leading to uncoordinated and ineffective logistic planning. Although logistic systems have evolved over the years, logisticians must be educated and professionally developed to manipulate the various logistic systems the Armed Forces use and to take advantage of corporate business practices.

## Problems in Iraq

Considering the movement of material to Iraq before major combat operations began, logistic systems used during Operation *Iraqi Freedom* have been effective. Logisticians moved 1.2 million tons of equipment over 8,000 miles and drove over 2,000 trucks a day to transport supplies from Kuwait to northern Iraq. Additionally, these systems provided over 2.1 million gallons of water to 307,000 troops and

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“delivered enough meals-ready-to-eat to feed the population of Spokane, Washington, for over a year.”<sup>1</sup> But these successes have been overshadowed by the realities of supporting a large organization that stretched the logistic system to the limit and exposed many deficiencies:

- a large backlog of supplies throughout the supply chain
- wasted funds paid to owners of the containers holding the nonmoving supplies
- a \$1.2 billion discrepancy between material received and material shipped
- cannibalization of vehicles because parts were not available
- amassing excess supplies without documentation
- circumventing the supply system
- duplicated requests for material
- poor physical security for material.

Lieutenant General Claude V. Christianson, USA, Deputy Chief of Staff, G-4, identified reasons for these deficiencies before Congress in 2004:

- communication between the supply depots and troops on the ground were insufficient to ensure seamless operation
- the distribution system within the theater was redundant and unconnected
- logistic units were not organized to run distribution centers on the ground
- moving material from the U.S. to overseas theaters required containers
- management system suited conflict operations instead of peacetime operations
- operational units did not adhere to supply policy and procedures, which disrupts any system and demonstrates poor discipline.

The deficiencies and the reasons for them indicate a lack of communication, a difference in logistic concepts according to service, and the inability of the services to merge logistics efforts to streamline the supply chain. These issues could be addressed through education and development of joint logisticians, with a focus on working in a joint logistic theater instead of in individual stovepipes for each service. Before developing an approach to educating and developing joint logisticians, it is important to review how services train logisticians and to consider the shortcomings of this system.

### Current Training

The Focused Logistics Campaign Plan, developed by the Department of Defense (DOD), calls for cooperation between logisticians and operators on an equal basis in joint warfighting. The plan recognizes that this cooperation is critical to meet present and future commitments, which require efficiency and effectiveness as well as a timely response. The results of focused logistics are faster deployments, properly sized combat service support units, reduced cost, more responsive support, more accurate and timely logistic information, and a more reliable and user-friendly system. Although focused logistics increases confidence in the support element and reduces sustainment requirements, current training and education of logisticians in the Armed Forces remain service-specific and specialized in functional areas.

The Joint Logistics Warfighting Initiative (JLWI) was enacted in fiscal year 1998 to:

*conduct a review of the organizations and functions associated with . . . acquisition activities and of the personnel required to carry out those functions. In his report back to Congress in response to [JLWI], the Secretary of Defense committed to changing the logistics focus of DOD from managing supplies (i.e., buying and managing inventory) to managing suppliers and fundamentally reengineering DOD product support practices.<sup>2</sup>*

As a result, several efforts to improve joint logistics have been undertaken by removing legacy systems, developing cross-service information systems, and implementing new business processes. Despite many advances in technology and implementation of better practices, the Armed Forces still require better education and training of logisticians to manipulate and exploit the systems and processes to provide a coordinated effort.

In addition to specific plans and policies, training occurs within the services, though it is inadequate for cur-

rent joint and interagency needs. For example, the Army sponsors a 2-week course called Logistics Support of Joint Operations at Fort Lee, Virginia, in addition to the Combined Logistics Captain's Career course, which provides cross-functional training. The Marine Corps University sponsors cross-functional courses to company and field grade logisticians with courses in tactical logistics operations and advanced logistics operations. Both services have sought education from civilian universities as well, with the Marine Corps Logistics Education Program at Pennsylvania State and the Army's LogTech program at the University of North Carolina. These examples, however, illustrate a continuation of stovepiped, service-specific training and education that fails to integrate the services in logistic efforts.

### Integration

*Today's capabilities for maneuver, strike, logistics, and protection will become dominant maneuver, precision engagement, focused logistics, and full dimensional protection. The joint force, because of its flexibility and responsiveness, will remain the key to operational success in the future.*

— Joint Vision 2020

Recent operations capitalized on the different attributes provided by the joint force and commanded by a regional combatant commander. The joint task force (JTF) may include an air component from the Air Force, ground component from the Marine Corps, and special operations component from the Army. Mission requirements and available forces would determine the components used. Once part of a JTF, the components rely on the JTF commander to provide logistic support, which typically includes service-specific support systems, a sister service system, or logistic capabilities of joint, interagency, and multinational activities. An information system does not exist to support joint logistic operations to provide accurate, real-time

information for planning or procurement. For example, the Marine Corps must submit a supply request to a chain that extends back to the United States even though an Army unit in the same area of operation or an alternate source of supply could supply the same material without having to reach back to the states.

### Joint Logistics

The development of integrated training will enable all logisticians throughout the Armed Forces to operate from the same base of knowledge. For example, J. Reggie Hall compares the training of Air Force logisticians to the other services to determine how best to train future logisticians to operate

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in fully integrated environments. The basis of training within the services is doctrine, which contains “fundamental principles by which the military forces or elements guide their actions.”<sup>3</sup> Doctrine develops warfighting tactics, techniques, and procedures applied with cognizance from lessons learned and “provides the framework for organiz-

ing, training, and equipping forces to defend the Nation and support national objectives.”<sup>4</sup> Each service has a separate logistic doctrine, but cross-functional, interservice, and perhaps interagency training needs further emphasis.

Logisticians often believe they were not adequately trained and had to learn cross-functional logistics in a deployed environment. Training should move along a pyramid-like continuum that provides skills at the beginning of a career, then provides more education as personnel become senior. The continuum must include officers, enlisted, and civilians from all services to provide a foundation from which to conduct operations. For example, company grade officers and junior government service workers focus on learning techniques, tactics, and procedures required to manage material at the tactical level, and field grade officers and senior government service workers develop a foundation grounded in theory, operations, and strategy. Additionally, logistic training needs to remain flexible to capitalize on the best and latest practices.

To integrate the education of the different services, combined training of logisticians is needed at all levels. Hall identifies the need to create interservice training for Air Force logisticians,

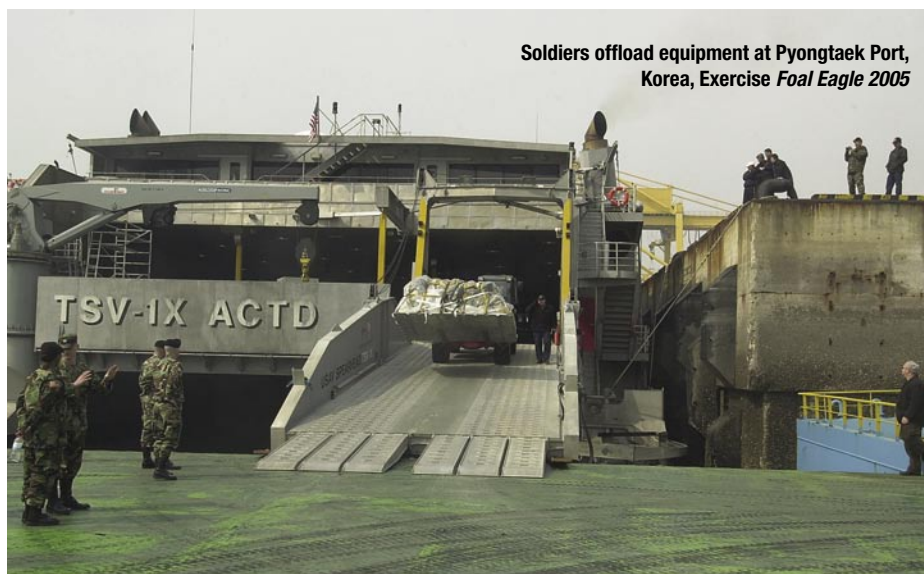
but such training would benefit each service. Army and Marine Corps career-level schools allow students from other services to attend in an attempt to broaden experiences, but a bolder approach is needed. Integrated training throughout DOD will establish a foundation for streamlined logistic processes, because supply-chain managers will have a common foundation.

In addition to education in modern business practices, logisticians require a leadership style that is influential, assertive, and credible so they can be effective in a joint environment with different cultures. Transformational leadership will be the most effective for the modern supply chain, where leaders manage processes from the center and balance the needs of the supply chain to accomplish organizational objectives through inspiration. The foundation of such leadership is an understanding of organizations, cultures, and individuals, which allows those in charge to motivate people to perform to high standards. Transformational leaders will enable joint logistics to work throughout DOD because they can influence others to accomplish the mission regardless of service culture bias.

In addition to education, training, and leadership, a cultural shift must emerge that encourages officers to expand their knowledge into unfamiliar areas that will make them more effective as logisticians and more competitive for promotion. The archaic practices of trial by fire and on-the-job training are no longer acceptable for professional development of combat arms officers in the areas of aviation, infantry, artillery, and armor, nor should they be acceptable for officers who provide the supplies and material the combat occupations use to accomplish national objectives. Therefore, logistic training needs to be formalized to include cross-functional training, service-specific requirements, and joint-service needs.

### The Transformed Logistician

The future challenges of joint logistics require a new type of officer to



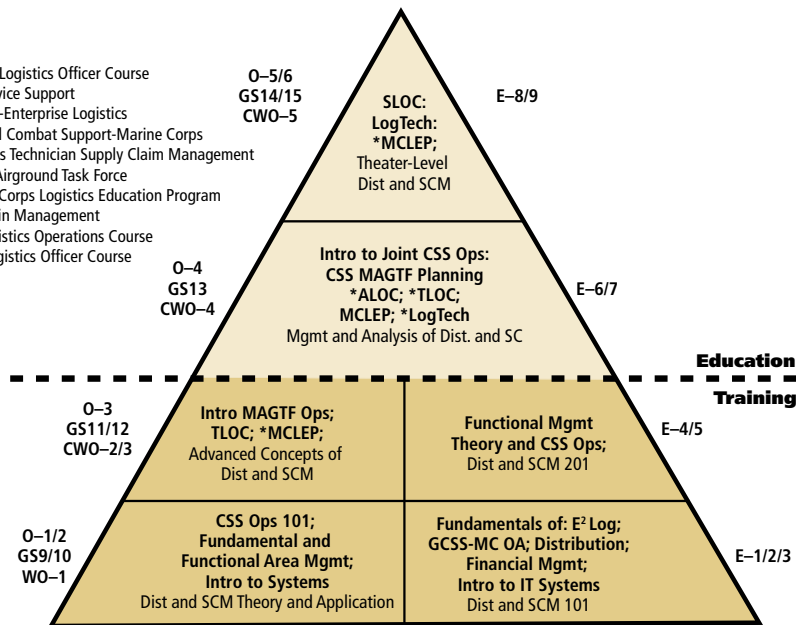
Soldiers offload equipment at Pyongtaek Port, Korea, Exercise Foal Eagle 2005

Fleet Combat Camera Group, Pacific (John J. Platone)

## Proposed Training and Education for Logisticians

### Key:

ALOC - Advanced Logistics Officer Course  
 CSS - Combat Service Support  
 E<sup>2</sup>E - Enterprise-to-Enterprise Logistics  
 GCSS-MC - Global Combat Support-Marine Corps  
 LogTech - Logistics Technician Supply Claim Management  
 MAGTF - Marine Airground Task Force  
 MCLEP - Marines Corps Logistics Education Program  
 SCM - Supply Chain Management  
 SLOC - Senior Logistics Operations Course  
 TLOC - Tactical Logistics Officer Course



lead, manage, and control people and processes. *Supply-chain management* is defined as “those activities associated with moving goods from the raw-material stage to the end user; this includes sourcing and procurement, production scheduling, order processing, inventory management, transportation, warehousing, and customer service,” according to James W. Hopp, who analyzed the requirements for future supply officers by comparing Air Force needs to those of private industry.<sup>5</sup> He found that military logisticians are similar to civilian supply-chain managers, because many servicemembers’ duties include supply, maintenance, and distribution, with the added responsibility of combat duties. Civilian supply-chain managers must understand business functions, purchasing, sourcing, production, marketing, sales, promotions, and customers. The Armed Forces have no position that incorporates all these functions, but they do have separated positions that manage one or two. To develop joint logisticians, the military must take note of Hopp’s suggestion to create supply-chain managers instead of specialists in each functional area.

Jointness, interagency coopera-

tion, and increasing reliance on e-commerce require logisticians to be enablers who accomplish the mission through facilitation and integration of processes to obtain and distribute material. For example, supply officers must acquire material by manipulating various processes within DOD, which include procedures from their own services, other services, DOD, and civilian vendors.

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Leadership will be essential to negotiate these processes to meet service needs while maintaining rapport with suppliers and transporters. Transformation of the Armed Forces focuses on using technology and advancing current service doctrines. New concepts include joint sea-based capabilities, high-speed support vessels, floating forward staging bases, and maritime prepositioned force-future ships. These initiatives will enable joint forces to meet their equipment in the area of operations at a safe distance over the horizon. The force

can then move to a position that is vulnerable to the enemy in coastal areas and eliminate the need to establish a logistic footprint ashore before commencing offensive operations. Since operations already consist of joint forces, logisticians need to establish a common understanding of logistics and common language to cross cultural boundaries and exploit the most advantageous logistic solution, regardless of the owning service.

Other initiatives to improve logistics include electronic commerce, performance-based contracting, distribution process ownership, and proven solutions from the corporate world. For example, the Defense Logistics Agency (DLA) developed E-Mall to provide one-stop shopping for over 17 million line items via the Internet. The benefits of E-Mall include faster delivery with a transaction cost of \$11, compared to \$146 for hand-processed orders and \$25 for government purchasing card orders. E-Mall permits logisticians to procure material from any vendor in the system, no matter what their service.

Performance-based contracts were used to support the Navy’s more than 9,000 flying missions over Afghanistan during the first phase of the war on terror in March 2002. A critical part for the jets was tires, which were manufactured by Michelin but delivered by a private logistic company, Lockheed Martin Naval Electronics and Surveillance Systems. The contract required that Lockheed deliver tires on time for 95 percent of all requisitions. Failure to meet this metric affected profits, which provided the Navy leverage to enforce contract standards.

A joint initiative assigned U.S. Transportation Command as the DOD distribution process owner. Accordingly, the command has the authority and accountability for Defense distribution and integrates structure and people to form a Deployment and Distribution Operations Center (DDOC), which was sent to U.S. Central Command to serve under a single

commander to support operations in the Middle East and Asia. The group consists of personnel from the Defense Logistics Agency, Army Surface Deployment and Distribution Command, Air

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Force Air Mobility Command, Navy Military Sealift Command, Army Joint Munitions Command, and the services' respective logistic commands. This group has streamlined the DOD logistic process with fiscal improvements, electronic-to-electronic distribution architecture, direct vendor delivery processes, and time-definite delivery.

Corporate solutions contribute to military logistics because they allow the services to benefit without going through debugging. For example, the Air Force adopted a corporate concept, Advance Planning and Scheduling Pathfinder, to:

*provide an automated, alerts-based capability to identify, examine, and resolve logistics system constraints by exception (parts availability, physical capacity, and financial restrictions) before they impact production and establish a mechanism for sharing information and supporting collaborative planning capabilities across the extended supply chain (for example, DLA and original equipment manufacturers).<sup>6</sup>*

This program identified vulnerabilities in the Air Force supply chain and proved a valid replacement for military software. The modules in the program allow flexibility in planning, collaboration, and execution of logistics.

The joint initiative also discussed consolidated logistic efforts across cultural boundaries and allowed for efficient logistic processes. Logisticians from all services will have to exploit these initiatives and break down cul-

tural barriers between the services. The DDOC demonstrates how a single organization can combine infrastructure and personnel from different services to be an effective unit for worldwide support. Analyzing business practices helps identify systems and processes used by the business world, which consistently tries to improve efficiency while decreasing costs. Although the military services are not focused on profits, they are

focused on efficiency to accomplish the mission within the financial constraints established by Congress.

The challenges of joint logistics will increasingly require officers who can lead, manage, and control people and processes. Operations throughout the globe during the war on terror have strained resources and tested the capabilities of logisticians. In addition, reduced budgets and an emphasis on fiscal responsibility have forced the services to operate as a joint force. Transforming logisticians must complement the overall transformation of the Armed Forces. Logistic personnel must undergo reengineering of training and

education to focus on logistic concepts across functional areas and services, analyzing and adapting business practices, and developing transformational leadership. Initiatives must focus on consolidating logistic efforts across cultural boundaries and promote an efficient process. Logisticians from the four branches need education and training to capitalize on these initiatives and break down cultural barriers to improve support throughout the Department of Defense. **JFQ**

#### NOTES

<sup>1</sup> Claude V. Christianson, congressional testimony to the House Armed Services Committee, "Future of Military Logistics," 2004.

<sup>2</sup> Paul Balash III, "Joint Logistics Warfighting Initiative: A Catalyst for Change," *Marine Corps Gazette* (December 2001), 49.

<sup>3</sup> J. Reggie Hall, "Expeditionary Airpower: The Need for an Integrated Logistics School," *Air Force Journal of Logistics* (Spring 2001), 18.

<sup>4</sup> *Ibid.*

<sup>5</sup> James W. Hopp, "The Supply Officer of the Future," *Air Force Journal of Logistics* (Fall 2000), 21.

<sup>6</sup> Maryann Kaczmarek et al., "Advanced Planning and Scheduling," *Air Force Journal of Logistics* (Fall 2002), 21.



**Airman moving relief supplies to Navy helicopters at Sultan Iskandar Muda Air Force Base, Indonesia, Operation Unified Assistance**

U.S. Navy (Travis M. Burns)