STRATEGY RESEARCH PROJECT

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

THE ROAD TO FOCUSED LOGISTICS

BY

LIEUTENANT COLONEL AARON C. HARVEY III
United States Army

DISTRIBUTION STATEMENT A:
Approved for Public Release.
Distribution is Unlimited.

USAWC CLASS OF 2001

U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

20010605 097

USAWC STRATEGY RESEARCH PROJECT

The Road to Focused Logistics

BY

LTC (P) Aaron C. Harvey III
U.S. Army

Professor Thomas W. Sweeney
Project Advisor

The views expressed in this academic research paper are those of the author and do not necessarily reflect the official policy or position of the U.S. Government, the Department of Defense, or any of its agencies.

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

DISTRIBUTION STATEMENT A:
Approved for public release.
Distribution is unlimited.

ABSTRACT

AUTHOR: LTC (P) Aaron C. Harvey III

TITLE: The Road to Focused Logistics

FORMAT: Strategy Research Project

DATE: 10 April 2001 PAGES: 23 CLASSIFICATION: Unclassified

The Revolution in Military Logistics (RML) and Focused Logistics requires us to view sustainment needs and requirements in a new perspective. Gone are the days when brute force and the sheer mass of materiel and numbers of soldiers can be counted on to overcome any mobilization, deployment, sustainment, or maintenance situation. Army logistics has changed and is changing through a series of established and emerging operational concepts that, for the most part, have been on divergent paths. This has been the prevailing theme until the recent introduction of Focused Logistics. Focused logistics has taken the tenets of Force XXI, Battlefield Distribution, Velocity Management, Army After Next, and the Revolution In Military Logistics and fused them to an overall organizational process. These capabilities coupled with redesigned organizational structures and doctrine should improve the overall management of systems and reduce the current stovepipe logistics system.

The bottom line is that Focused Logistics provides the desired ideal endstate for sustaining the force as envisioned by the Chief of Staff of the Army (CSA). The author looks at this evolutionary process and discusses the major muscle movements that have guided the Army's path to the point where we are today.

TABLE OF CONTENTS

ABSTRACT iii

THE ROAD TO FOCUSED LOGISTICS 1

DEFINING JOINT VISION 2010 AND 2020 2

REVOLUTION IN MILITARY LOGISTICS 3

BATTLEFIELD DISTIBUTION 4

VELOCITY MANAGEMENT 5

TOTAL ASSET VISIBILITY 9

CONCLUSION 12

ENDNOTES 15

BIBLIOGRAPHY 17

THE ROAD TO FOCUSED LOGISTICS

The Revolution in Military Logistics (RML) and Focused Logistics requires us to view sustainment needs and requirements in a new perspective. Gone are the days when brute force and the sheer mass of materiel and numbers of soldiers can be counted on to overcome any mobilization, deployment, sustainment, or maintenance situation. The United States Army has experienced a 36 percent reduction in uniformed personnel and can expect a 42 percent reduction by FY03 in civilian personnel, but other services have also undergone similar downsizing. These reductions have had a correspondingly direct impact on the numbers and types of combat equipment that can be used to mobilize, deploy, sustain, and maintain the Army. These events have occurred at a time when the number and types of global missions that the Army is being tasked to support has grown by 300 percent and the basing of the Army's assets within the continental United States has grown from 58 percent to 75 percent. If we are to obtain an Army After Next (AAN) that is a viable fighting force on the battlefield of the future, we must pursue and reach a commensurate logistics capability. With the realities of reduced personnel and other assets we must accomplish the objectives of Focused Logistics.

In terms of logistics support, this dynamic new environment demands Focused Logistics that is, according to JV 2010, responsive, flexible, and precise. Focused Logistics will be the fusion of information, logistics, and transportation technologies to provide rapid crisis response, to track and shift assets even while en route, and to deliver tailored logistics packages and sustainment directly at the strategic, operational, and tactical levels of operations. However, the Army did not just design, develop, and implement Focused Logistics overnight. It has been a decade of studying, testing and validating of new logistical ideas and concepts.

The road to Focused Logistics has not been as smooth as one might be inclined to believe. There have been numerous false starts, delays and course corrections along the chosen path. The halls of the Department of Defense (DOD), professional journals, PowerPoint briefings and the like echo with the overused statement of the "Revolution In Military Logistics!" It has been anything but, a revolution; it has been an evolutionary process that started after Desert Shield and Desert Storm with the development of Battlefield Distribution and subsequent logistic initiatives.

Focused logistics has taken the tenets of Force XXI, Battlefield Distribution, Velocity Management, Army After Next (AAN) and the Revolution In Military Logistics and fused them to an overall organizational process. The author looks at this evolutionary process and discusses the major muscle movements that have guided the Army's path to the point where we are today.

DEFINING JOINT VISION 2010 AND 2020

Joint Vision 2020 (JV 2020) builds upon and extends the conceptual template established by Joint Vision 2010 (JV2010) to guide the continuing transformation of America's Armed Forces.[1] As first explained in JV 2010, capabilities once known as maneuver, strike, logistics, and protection would change and be identified as dominant maneuver, precision engagement, focused logistics, and full dimensional protection. Focused Logistics is one of the four primary tenets of Joint Vision 2010 and as a full partner in JV2010, it takes the elementary issue of providing combat support to the warfighter and pursues a search for the best possible way to achieve that objective. Specifically, JV 2020 defines Focused Logistics as:

> The ability to provide the joint force the right personnel, equipment, and supplies in the right place, at the right time, and in the right quantity, across the full range of military operations. This will be made possible through a real-time, web-based information system providing total asset visibility as part of a common relevant operational picture, effectively linking the operator and logistician across Services and support agencies. Through transformational innovations to organizations and processes, focused logistics will provide the joint warfighter with support for all functions.[2]

Army logistics has changed and is changing through a series of established and emerging operational concepts that, for the most part, have been on divergent paths. This has been the prevailing theme until the recent introduction of focused logistics.

Focused logistics has taken the tenets of Force XXI, Battlefield Distribution, Velocity Management, Army After Next (AAN) and the Revolution In Military Logistics and linked them to an overall organizational process. The establishment of focused logistics has been trumpeted as a revolutionary means in which significant improvements in efficiencies and effectiveness are introduced into information systems, organizational structures, transportation technologies and reengineered processes. The Army Vision 2010 (AV2010) track record has demonstrated and displayed that the process has been more of an evolution than revolution.

Seizing upon the new buzzword "transformation" the Army established projected transformation milestones facilitating the success of focused logistics:

- **FY 01**, implement systems to assess customer confidence from end to end of the logistics chain using customer wait time metric.
- **FY 02**, implement time definite delivery capabilities using a simplified priority system driven by the customer's required delivery date.
- **FY 04**, implement fixed and deployable automated identification technologies and information systems that provide accurate, actionable total asset visibility.

- **FY 04** for early deploying forces and **FY 06** for the remaining forces, implement a web based, shared data environment to ensure the joint warfighters' ability to make timely and confident logistics decisions. [3]

Focused logistics will effectively link all logistics functions and units through advanced information systems that integrate real-time total asset visibility with a common relevant operational picture. New systems will embed tools that will improve planning, analysis, and the ability to anticipate the logistics need for supported units. These capabilities coupled with redesigned organizational structures and doctrine should improve the overall management of systems and reduce the current stovepipe logistics system. The increased speed, capacity, and efficiency of advanced transportation systems will further improve deployment, distribution, and sustainment.[4] Improved operational effectiveness and efficiency, combined with increasing warfighter confidence in these new capabilities, will reduce sustainment requirements and the possible impact on logistics lines of communication. The bottom line is that focused logistics provides the desired ideal endstate for sustaining the force as envisioned by the Chief of Staff of the Army (CSA).

REVOLUTION IN MILITARY LOGISTICS

The CSA tasked the Deputy Chief of Staff for Logistics (DCSLOG) with the development and implementation of a plan that would combine and support the Revolution in Military Affairs (RMA) with Focused Logistics. The intent of Revolution in Military Logistics (RML) is to "transform Army Logistics into a distribution-based system that substitutes logistics velocity for logistics mass to provide the right stuff at the right place, at the right time and at the best value."[5] RML does not define an end-state but postulates a course or azimuth that, without a doubt, will require adjustments and redirection to ensure that the objectives stated within the campaign plan for the Army After Next is met. We can and must expect RML tenets will change over time.

Currently, the thrust of RML (through 2020) can be characterized as evolutionary. Efforts are focused on improving business practices and Command, Control, Communications, Computers, and Intelligence (C4I) systems. These improvements will allow for greater throughput and follow-on sustainment.

To achieve the degree of strategic reach and overmatch projected by the Army RML The DCSLOG has identified six tenets that are key to RML: a seamless logistics system, distribution-based logistics, agile infrastructure, total asset visibility, rapid force projection, and an adequate logistics footprint.[6] A short description of each of the tenets is described below. A greater

detailed discussion on Battlefield Distribution, Velocity Management and Total Asset Visibility provided in a later section:

- Seamless Logistics System: This domain encompasses the major thrust of RML. It focuses on the readiness of the total force during peacetime, the capability to support the force across the full spectrum of operations, and ensuring that the Army obtains the maximum effectiveness from its limited resources.
- Distribution Based Logistics: The goal is to replace mass with velocity. Inventories will be maintained, but stockage will be based on missions, not the current system of historical demand data. As the mission changes, the level and type of stockage will be adjusted.
- Agile Infrastructure: Agility has been a principle of logistics for sometime, but it includes new elements in the RML. Structural agility, the integration of Army components, joint, coalition, and industry.
- Total Asset Visibility (TAV): TAV is the capability to provide timely and accurate information on the location, movement and status, of equipment and supplies in the logistics pipeline. TAV will be essential in providing precision focused distribution based logistics to the AAN.
- Rapid Force Projection: The AAN will require modern transportation equipment and infrastructure to ensure rapid and efficient deployment and sustainment.
- Adequate Logistics Footprint: The "logistics tail" can be reduced if the elements of RML are adopted. However, there comes a point where further reductions will adversely impact the warfighter's flexibility.[7] Logisticians must be aware of this and ensure that adequate structure remains to facilitate expected support to other units.

BATTLEFIELD DISTIBUTION

The first step on the road to focused logistics started when the Department of the Army, Deputy Chief of Staff for Logistics (DA DCSLOG) initiated the Total Distribution Program (TDP) in response to a tasking from the Vice Chief of Staff, Army (VCSA). The TDP was to identify and correct the deficiencies identified in the distribution process, responsiveness and efficiency during Operation Desert Shield and Desert Storm. The VCSA approved the Total Distribution Action Plan (TDAP) for implementation in 1992. In response to the directive, Major General Thomas W. Robison, former commander of the Army Combined Arms Support Command and director of the Combat Service Support (CSS) Battle Lab, both at Fort Lee, Virginia, launched a

fundamental concept change in the Army's modernization of tactical materiel distribution system. [8]

One of the six primary tenets of the RML, Battlefield Distribution Logistics (BDL) was clearly one of the Army's most important logistics initiatives. This operational concept relies on distribution velocity and precision rather than redundant supply mass to provide responsive support to Army units. [9] It reduces the mass required to adjust for the fluid events in conflicts. BDL is a "total" concept that involves organizational restructuring to improve the capability of units performing distribution missions, improved doctrine for distribution management, major technology enhancements, and reengineered battlefield operating procedures.

In 1997, the TDP General Officer Steering Committee (GOSC) directed a new focus for the TDAP. The committee's guidance was to build on the program's success and merge the operation concept into a Joint Theater Distribution plan. The outcome was TDAP II which addressed areas of improvement identified during numerous studies conducted by the Army Science Board, TRADOC's Army After Next study group and TRADOC. TDAP II looked forward to acquire and install the distribution capabilities necessary to support Army XXI and incorporate pertinent course changes identified in the original TDAP. As a result, TDAP II became the "action plan" to create the Distribution Battlefield Logistics System (DBLS). The plan synchronized and executed support functions that would support the Army's transformation path and milestones for the future Army.

Military logistics is the art and science of allocating both resources and shortages to support battlefield priorities. DBLS will ensure that supported units get their share of required resources—just enough, just in time. Speed and responsiveness are the cornerstones of the BDL. Logisticians understand distribution management requires a fundamental integration of materiel and movement management functions. BDL encompasses the creation of a distribution manager at each level of command, efficient use of throughput operations, employment of a hub and spoke distribution system, integrated management information systems, and reduction in the layering effect of current supply operations and improved CSS communication.[10]

VELOCITY MANAGEMENT

Velocity management (VM) started in early 1995 when the RAND Corporation submitted a report to the Army's Deputy Chief of Staff for Logistics (DCSLOG) that called for improvements to current logistics processes-thereby endorsing a need already recognized by leaders in the field. In 1996, General Ronald H. Griffith, former Vice Chief of Staff of the Army, directed the implementation of velocity management in the Army. General Griffith wrote, The goal is full

spectrum support, from deployment to redeployment, reconstitution, or forward deployment, while at the same time enhancing both our combat effectiveness and the quality of life of our forces.[11] He wanted to increase and improve support to the war-fighter by increasing visibility, responsiveness, and availability of logistics resources.

Velocity Management, as defined by the RAND Corporation, "aims to substitute velocity and accuracy for mass in the logistics system." RAND recommended velocity management as one approach to reengineering and four measurements to gauge its success: availability and readiness of materiel, repair cycle time, costs, and order and shipping time (OST).[12] The program initially focused only on improving management of class IX repair parts, since those items consumed the most dollars and had the greatest direct impact on readiness. The objective was to achieve significant improvement in the ordering and receipt processing time because this directly influences the operations of the entire logistics system. In the past the order and ship process have been plagued by a catalog of performance problems, OST's for orders varied widely. Some orders were delivered in a few days, but others took much longer, even when the ordered items were in stock. Moreover, a lack of confidence in the reliability in the system resulted in "shadow" PLLs and ASLs as well as duplicate orders.

Efforts under VM to improve the speed and reliability of the order and ship process initially focused on CONUS OST, but were implemented in units outside of CONUS (OCONUS) with similar success. For example, the OST for U.S. Army, Europe, units receiving parts by air shipment from CONUS depots declined from 23 days during the baseline period to 16.5 days in September 1998, a 29-percent improvement. Similarly, mean OST to Korea over the same timeframe decreased from 26.3 days to 13.1 days, a 50-percent improvement.[13] Success with other units has been about the same. That these reductions are far less, proportionately, than those achieved by CONUS units reflects both the additional complexities of the OCONUS distribution system and the fact that VM generally was implemented later by overseas installations.

As was the case with the Army's slow and variable OST before VM, much of the performance shortfalls experienced in the logistics processes have been problematic. Frequently and based on past performance, the Army has recognized these chronic problems, but repeated efforts to identify and eliminate their sources proved ineffective.[14] It is worth considering how, under the VM initiative, the Army has made great strides in improving the efficiency and effectiveness in the system. The operational concept has been designed to encompass five components:

A process perspective. Under VM, the logistics system is considered to be a set of processes that deliver products and services to customers. Typically these processes impact other organizations. Key activities are performed by non-Army and contractors or vendors. Additionally, the order and ship process, key logistics processes targeted for improvement by the VM initiative are repair, stockage determination, and financial management.

An improvement focus. Management of logistics processes is focused primarily on improving their performance. Improvement is sought in three dimensions: time, quality, and cost. In other words, VM seeks to make logistics processes "faster, better, and cheaper."

A process improvement methodology. The performance of processes is improved by applying a three-step method called D-M-I: Define the process, Measure the process, Improve the process.

An emphasis on performance measurement. Measurement is the central activity to foster improvement because it helps to identify performance deficits, monitor the effects of actions to improve performance, and provide motivation and feedback to implementers.

Use of cross-functional teams to increase the capability to improve. Because processes cut across organizational boundaries, and because each segment may be technically complex, no single organization or individual has sufficient knowledge or power to make dramatic changes. Coalitions of leaders are needed to guide and sustain an effective large-scale effort. In the case of VM, the Triad forms the nucleus of a board of directors (VM BOD), sometimes referred to as the Velocity Group. Teams of experts are needed to identify and implement needed improvements through application of the D-M-I method. Cross-functional teams of two types implement VM: Process Improvement Teams (PIT's) and Site Improvement Teams (SIT's). Each PIT is an Army-wide team composed of functional experts representing all segments of a particular process as well as Army and RAND Arroyo Center analysts. Every Army installation has been directed to form a SIT composed of local technical experts. [15]

The effort to improve the order and ship process provides a good illustration of the VM concept in action. In particular, it demonstrates how the cross-functional improvement teams employ the D-M-I method to build the collective expertise and coordination necessary to achieve and sustain dramatic improvement.

Define - The first step aims at producing a clear picture of the entire process that the team is attempting to improve. Improving the order and ship process required the participation of experts from various groups, both within and outside the Army.[16] These Subject Matter Experts (SME) followed the process from the time a repair part was identified and ordered until the mechanic who was responsible for installing the part on the equipment received the part. Such a

detailed definition phase was important, though many personnel are expert in their own area of the process, few have a detailed understanding of every stage in the process. Numerous functions are involved in the order and ship process—transportation, maintenance, supply—and improving the process requires the involvement of all functional players.[17]

Measure - Once the process was defined, it became important to determine the best way to measure it to facilitate improvements. Although VM seeks improvements in time, quality, and cost, it focuses first on reducing the cycle time of critical processes. Often as this time is reduced, quality improves and costs decline.[18] OST is defined as the time between placing an order and receiving the item. Under the Standard Army Retail Supply System-Objective (SARSS-O), it is the time from the supply support activity and back. Because both the speed and the reliability of OST needed dramatic improvement, metrics were developed and approved by the VM BOD that indicated median performance as well as performance at the 75th and 95th percentiles. The percentiles provided data on the average OST performance and zeroed in on programs to reduce the difference in delivery time associated with the orders that take the longest time to be filled and received. By contrast, the traditional Army metric, average or mean OST, provided a false picture on the reliability of the process and did not accurately represent its "normal" performance.

The order and ship PIT used information linked with metrics to help diagnose systemic problems. Statistical analysis and data mining were used to identify sources of delay. Another tool used successfully by the SIT's was a report that listed each requisition with an OST beyond the 95th percentile.[19] Each deviation was researched by the SMEs and shortfalls in the delivery procedures and processes were identified. Then the experts submitted corrective actions for review and implementation. The definition and measurement protocols demonstrated that many parts of the process were being managed with metrics that did not result in satisfactory customer service. For example, in some segments of the process, organizations measured themselves by the efficient use of trucks; so partial truckloads were delayed until it could be filled to capacity. While this goal and the metric may have constituted a more efficient use of trucks, it delayed getting the needed part to the supported unit and extended the OST for many orders.[20] There have been other examples of conflicting goals that resulted in the apparent efficient use of some resources at the overall expense of the entire process.

Improve - The final stage of D-M-I, improve involves combining the end-to-end understanding of the process developed in the "define" stage with the diagnoses of the sources of performance deficits that were isolated in the "measure" stage.[21] Once likely process improvements were identified, the Army implemented the changes that it could do on its own. At

the local level, these changes ranged from minor fixes; such as improving the work flow at a specific supply support activity, to a complete revamping of an established way of doing business.

Army installations strengthened oversight, simplified rules, increased the use of new requisitioning and receiving technologies, reduced review processes, streamlined on-post delivery, and made use of the information available from the new metrics.[22] Other changes required establishing partnerships with the organizations that controlled other segments of the order and ship process, such as the Defense Logistics Agency (DLA), which operates the depots, and commercial trucking and small package delivery firms. DLA improved work flows through its distribution depots, sped up the processing of materiel release orders, packaged and directed shipments to reduce intermediate handling on post, and worked with commercial shippers to provide scheduled deliveries.

The bottom line is that Velocity Management is focused on improving the speed and accuracy with which material and information move through the logistics pipeline. Realizing that in order to be ready, relevant and responsive in the future to the nations needs, the United States Army has to reorganize and restructure to arrive faster to trouble spots with a greater sustained capability.[23] The goal is to reengineer and improve support functions by establishing baselines, identifying sources of inefficiencies, setting goals for corrective actions taken, and measuring performance. Velocity management should help reduce the time needed to arrive and prepare the logisticians and their supported units for success.

TOTAL ASSET VISIBILITY

Arguable the single most important element—the "glue"—that will bind together the components of the transformation is total Army asset visibility and control.[24] Army Total Asset Visibility (ATAV) is a program designed to achieve of the six tenets of RML and Focused Logistics.

> Total Asset Visibility (TAV) will provide support personnel at all levels with a near real-time picture of asset availability throughout the supply system. TAV consists of two subordinate elements: asset visibility and in-transit visibility. Asset visibility will focus on resources in the inventory, or static in the CSS system. In-transit visibility will focus on resources in motion through the CSS pipeline. Ultimately, distribution mangers must have visibility of Army assets as well as all common-user items for which the Army has executive Agency responsibilities to provide in order to match theater requirements to capabilities.[25]

As a fully automated, near-real-time, open-architecture capability, ATAV provides complete, integrated visibility over Army assets and other logistics information. It is designed as

a distributed system of multiple databases, to which users can access, from current or future, information systems at all levels within the Army structure. By using automatic identification technology, the Army provides users with more accurate and up-to-date information on material in the logistics pipeline.

Army Total Asset Visibility (ATAV) is a program designed to achieve one of the six tenets of the Revolution in Military Logistics--total asset visibility. It also is an Army Force XXI initiative. Put very simply, ATAV is an automated capability that will improve dramatically the ability of soldiers, logisticians, and managers to obtain information on the location, quantity, condition, and movement of assets through the logistics pipeline.

The ATAV program as one of the 1995 winners of the Federal Technology Leadership Awards. This award is intended to recognize Federal agencies that have demonstrated extraordinary leadership in using information technology to improve service to the public, lower costs to the Government, and improve their ability to meet their mission requirements.

In every recent major military deployment, the forces were plagued by a lack of visibility of materiel and equipment entering their theater of operations. The sheer volume of materiel moving through the logistics pipeline taxed the ability of soldiers, logisticians, and managers to track the materiel manually, maintain accurate records, and provide timely information to commanders. During Operations Desert Shield and Desert Storm, thousands of containers had to be opened, manually inventoried, resealed, and reinserted into the pipeline because of a lack of visibility of their contents.[26] A dedicated effort has been underway since 1990 to ensure that such problems do not reoccur.

Reduced resources also contribute to the need for ATAV. The Army needs to maximize the use of all its resources before making procurements. Visibility of its existing assets is critical so that the Army will spend its dollars for the things it needs most.

The ATAV capability obtains wholesale and retail data on all classes of supply from various Standard Army Management Information Systems (STAMIS) and other source systems. ATAV information is received from the source systems through communications and by uploading data resident on logistics systems at the Army Materiel Command Logistics Support Activity (LOGSA).

ATAV does not create any new databases. ATAV-provided information is only as current as the information that is contained in the STAMIS. Some examples of these STAMIS include the Standard Army Retail Supply System (SARSS), Worldwide Ammunition Reporting System, Army War Reserve Deployment System, Standard Property Book System-Redesign, Commodity Command Standard System, AMC Installation Supply System, Standard Army

Maintenance System-Installation/Table of Distribution and Allowance, Materiel Returns Data Base, and Logistics Intelligence File.

During fiscal year (FY) 1996, the Army began an aggressive ATAV data integrity effort. An ATAV Data Integrity Action Plan was developed. Logistics Integration Agency (LIA) chairs quarterly ATAV Data Integrity Work Group meetings with representatives from Headquarters, Department of the Army (DA), major Army commands (MACOM's), system design centers, and LOGSA. [27] Through the efforts of this work group, ATAV data integrity has improved significantly over the past year.

The ATAV capability should be used by Army commands because it provides timely information from the strategic level through the tactical level in a way that is totally transparent to the user and in a format that soldiers, logisticians, and managers can readily use to support their routine operations. [28] Managers can use ATAV information to make materiel management decisions, such as redistributing excess items or diverting materiel in transit. Additionally, to asset information, ATAV data sources provide unit authorization data, basis-of-issue plans, procurement information, distribution priorities, and catalog data. Users can query the ATAV capability by various means to find information on requisitions, shipments, or voyage or flight numbers.

The ATAV capability has been implemented successfully in much of the Army. ATAV provides visibility on Army-owned and Defense Logistics Agency (DLA) wholesale assets. ATAV shares that information with logisticians throughout the Army and the Department of Defense (DOD).

The ATAV capability is supported by automatic identification technologies (AIT's), such as optical memory cards, bar coding, and radio frequency (RF) tags and readers, that provide rapid and accurate data capture, retrieval, and transmission. An RF tag can identify the contents of trucks, sea vans, and air pallets and their locations. These RF tags are read automatically when queried by RF interrogators at air and seaports of embarkation and debarkation, at other transportation nodes and choke points, and at receiving activities. This information is transmitted via satellite or land line to a regional server, thereby providing in-transit visibility. Optical memory cards, applied to multipacks at the source of supply, provide total content visibility and assist in error-free receipt processing and forward movement of required supplies.

CONCLUSION

> Would you tell me, please, which way I ought to go from here?' "That depends a gooddeal on where you want to get to,' said the Cat." I don't much care where — ' said Alice." Then it doesn't matter which way you go,' said the Cat." — so long as I get SOMEWHERE,' Alice added as an explanation. "Oh, you're sure to do that,' said the Cat, "if you only walk long enough.'
>
> —Alice's Adventures in Wonderland

The Cat said it best. You have to know where you want to go before you can get there. Unfortunately, over the last decade the Army senior logisticians have attempted to treat the symptoms of our logistical shortfalls rather than facing the real issue of implementing a significant as well as concerted effort toward a unified approach to strategic changes in the way logisticians conduct business. Like a doctor who is unable to provide a clear diagnosis for an illness the tendency is to treat the symptoms until the true problem can be discovered.

The United States Army has and is in the process of reorganizing its logistics operations with the establishment of Focused Logistics and it is not attempting this reorganization with a coordinated strategy. Implementing short-term solutions such as the Revolution In Military Logistics, Battlefield Distribution, Velocity Management and Total Asset Visibility without a clear and well coordinated objective or long-term vision set the conditions for failure. The Army may win a few battles, but in these days of limited and dwindling resources it will lose the war to other programs well thought out, organized and forward thinking.

The six tenets of the Revolution in Military Logistics frame how logistics will be structured and offer a guide to lead the logisticians through the conversion from mass to velocity logistics. It has been a decade of studying, testing and validating of new logistical ideas and concepts and the valuable resource of time is not on our side. Focused logistics has combined the tenets of Force XXI, Battlefield Distribution, Velocity Management, Total Asset Visibility, Army After Next (AAN) and the Revolution In Military Logistics and fused them to an overall organizational process.

Focused Logistics will provide military capability by ensuring delivery of the right equipment, supplies, and personnel in the right quantities, to the right place, at the right time.[29] The course is set and the mission is now clear. Combining current and future capabilities with a single focus will lead to a more efficient and effective logistic operations and support structure. Though the road has been somewhat slow and meandering--more evolutionary than revolutionary as some would espouse, the fact that the Army has reached this important

threshold requires every effort be made to maintain the azimuth heading and aggressively pursue its success.

Word Count: 5,024

ENDNOTES

[1] John M. Shalikashvili, Joint Vision 2020, (Washington D.C.: Joint Chiefs of Staff), 24.

[2] Dennis J. Reimer, Army Vision 2010, (Washington D.C.: U.S. Department of the Army), 10.

[3] Ibid. , 15.

[4] Logistics Integration Agency, "Preparing for the Revolution in Military Logistics: The Way Ahead." 20 January 1999: available from <http:\\www.lia.mil\rml>. Internet. Accessed 20 January 2001.

[5] O'Konski, Mark J. "Revolution in Military Logistics: An Overview." Army Logistician (January-February 1999)

[6] Ibid. , 33.

[7] Robert M. Walker and John G. Coburn, Preparing for the Revolution in Military Logistics: The Way Ahead. (Washington, D.C.: Office of the Deputy Chief of Staff Logistics, July 1997), 1.

[8] Michael D. Krause, "The Revolution in Military Logistics," Personal article, Alexandria, VA: Logistics Integratin Agency, 10 September 1996, 25.

[9] Department of the Army, "The Army After Next Project," Briefing by the Office of the Deputy Chief of Staff for Training and Doctrine Command, 1996.

[10] Steven F. Garrett, "Synchronizing Battlefield Logistics," Military Review (March-April 1997): 19.

[11] Joseph G. Nesbitt, "Divisional Combat Service Support Units in the Army XXI Environment," Strategy Research Project report, U.S. Army War College: Carlisle, PA, April 1997, iii.

[12] Department of the Army, Operational Concept Combat Service Support, TRADOC Pamphlet 525-53 (Fort Monroe, VA: Headquarters, United States Army Training and Doctrine Command, 1 April 1997), 9.

[13] Department of the Army, TC-AIMS II White Paper – An Operational Guide Describing How the U.S. Army Will Use the Joint System, (Fort Lee, Virginia, USA Combined Arms Support Command, 30 October 1999, 8.

[14] Department of the Army, Theater Distribution, Field Manual 100-10-1 (Washington, D.C.: U.S. Department of the Army, 1 October 1999, Figure 6-5, Internet. Available from http://www.adtdl.army.mil/cgi-bin/atdl.dll/fm/100-10-1/ch6.htm#s1-2; Internet; Accessed 20 January 2001.

[15] General Accounting Office, Defense Inventory – DOD Could Improve Total Asset Visibility Initiative With Results Act Framework: Report to Congressional Requesters (Washington, D.C.: U.S. General Accounting Office, April 1999), 4.

[16] Department of the Army, Battlefield Distribution, TRADOC Pamphlet 525-77 (Fort Monroe, VA: U.S. Army Training and Doctrine Command, 2 February 1998), 3-2-a.

[17] Ibid. , 3-3-a

[18] Ibid. , 1-3-b.

[19] Department of the Army, Battlefield Distribution, TRADOC Pamphlet 525-77 (Fort Monroe, VA: U.S. Army Training and Doctrine Command, 2 February 1998), 3-2-a.

[20] Ibid. , 16.

[21] Ibid. , 15.

[22] Michael D. Krause, "The Revolution in Military Logistics," Personal article, Alexandria, VA: Logistics Integratin Agency, 10 September 1996, 23.

[23] Ibid. , 26.

[24] Ibid. , 24.

[25] Steven F. Garrett, "Synchronizing Battlefield Logistics," Military Review (March-April 1997): 19.

[26] Ibid. , 20.

[27] Johnnie E., Coburn, John G., and Brown, Daniel G. "Our Revolution in Military Logistics – Supporting the 21st Century Soldier." Army Logistician (January-February 1999): 3-5.

[28] Ibid. , 3-5

[29] Department of the Army, Theater Distribution, Field Manual 100-10-1 (Washington, D.C.: U.S. Department of the Army, 1 October 1999, Figure 6-5, Internet. Available from http://www.adtdl.army.mil/cgi-bin/atdl.dll/fm/100-10-1/ch6.htm#s1-2; Internet; Accessed 20 January 2001.

BIBLIOGRAPHY

U.S. Department of the Army. Battlefield Distribution. TRADOC Pamphlet 525-77. Fort Monroe, VA: U.S. Army Training and Doctrine command, 2 February 1998.

Total Asset Visibility, Available from, http://204.255.70.40/TAVFA/tav.html. Internet. Accessed 21 December 2000.

U.S. Department of the Army, Operational Concept Combat Service Support. TRADOC Pamphlet 525-53 (Fort Monroe, VA: Headquarters, United States Army Training and Doctrine

Command, 1 April 1997).

U.S. General Accounting Office, Defense Inventory – DOD Could Improve Total Asset Visibility Initiative With Results Act Framework: Report to Congressional Requesters. Washington,D.C.:

U.S. General Accounting Office, April 1999.

John M. Shalikashvilli and John J. Cusick, "The Joint Chiefs of Staff." Joint Vision 2010 Focused Logistics. A Joint Logistics Roadmap. Available from http://www.dtic.mil/jv2010/focuslog.pdf, Internet. Accessed 12 February, 2001.

Inventory Control Point (ICP) Automated Information System (AUTOMATED SYSTEMS), Available from http://204.255.70.40/tav/tavfa/icp.html. Internet. Accessed 15 January 2001.

Binnendijk, Nans, ed. Strategic Assessment 1998: Engaging Power for Peace. Washington, D.C.: U.S. Government Printing Office, 1998.

Joint Staff. Joint Vision 2010 Focused Logistics: A Joint Logistics Roadmap. Washington, D.C.: The Joint Staff.

Bergeron, Scott M. Revolution in Military Logistics: No more Mountains to Move? Personal Experience Monograph. Carlisle Barracks: U.S. Army War College, March 1995.

Coburn, John G. "Focused Logistics – Projecting and Sustaining Force XXI." Army 46 (October 1996) : 127-132.

Geehan, Brian I. U.S. Army Logistics in the 21st Century and the Challenge of Change. Carlisle Barracks: U.S. Army War College, May 1995.

Glisson, Henry T. "Revolution in Military Logistics – Improving Support to the Warfighter." Army Logistician (January-February 1999) : 8-9.

Houck, Roger and Cousins, William R. "Communications Technologies for the Revolution in Military Logistics." Army Logistician (January-February 1999) : 24-25.

Logistics Integration Agency. The Army Strategic Logistics Plan: Battlespace Logistics, the Vision. Alexandria, VA: 1996.

McDuffie, John M. "Joint Vision 2010 and Focused Logistics." Army Logistician (January-February 1999) : 7.

Naylor, Sean D. "Revolutionizing Battlefield Logistics: Force XXI's Success Riding on Savings from Strategic Restructuring." Army Times 57 (11 November 1996): 30.

O'Konski, Mark J. "Revolution in Military Logistics: An Overview." Army Logistician (January-February 1999): 10-14.

U.S. Army Training and Doctrine Command. Army After Next, 1998 Annual Report (Fort Monroe, VA. 1998)

Wallace, Roy and Hardy, Christopher, R. "Seamless Logistics System." Army Logistician (January-February 1999): 18-19

U.S. Army Logistics Integration Agency, "Preparing for the Revolution in Military Logistics: The Way Ahead," 20 January 1999: available from http://lia.army.mil/docs/rml.html. Internet: accessed 2 January 2001

Williams, Norman E. "The Revolution in Military Logistics." Military Technology 21 (November 1997) : 50-57.

Wilson, Johnnie E., and Roberto Capote. "Leveraging Logistics Technology toward Force XXI." Army Logistician (July-August 1997) : 14-18.

Wilson, Johnnie E., Coburn, John G., and Brown, Daniel G. "Our revolution in Military Logistics – Supporting the 21st Century Soldier." Army Logistician (January-February 1999) : 3-6.