

fit for combat

As conventional warfare gives way to the era of the swarming, flexible, agile fighting force, big changes are in store for the battalions responsible for clothing, feeding and equipping the troops. Here's how the Pentagon is transforming a sluggish supply chain into a streamlined hypernetworked model for the digital age.

IT'S FOCUSED ON SPEED, FLEXIBILITY AND RELIABILITY. It's digital, global and collaborative. The corporate supply chain? No, it's America's defense logistics community.

Or at least that's how it's shaping up. At a time when warfare is less focused on combat with foreign governments and more on fighting shadowy multinational terrorist networks, the military is re-examining its operations from end to end. "To win the global war on terror," said Secretary of Defense Donald Rumsfeld in March 2003, "the armed forces simply have to be more flexible, more agile, so that our forces can respond more quickly." And so, the push is on to complete the military's program to create a fighting force that is a lean, agile force for the digital age—an adversary that's light, fast and flexible.

That's had boundless repercussions for operations behind the scenes, particularly among the legions of logisticians charged with deploying the combat force and with keeping soldiers fed, clothed and equipped for battle. A flexible, agile fighting force, of course, requires a flexible, agile logistics capability. And building in flexibility is no small task. The U.S. Department of Defense (DOD) operates the most complex and demanding logistics chain in the world—one called upon to deliver war-fighting capability anytime, anywhere, including the most austere environments on the planet. It wouldn't be overstating the case to say that the DOD supply chain makes a typical multinational corporation's network look like a paper route (see sidebar). And there's not much room for error: For the DOD, logistics success or failure is truly a matter of life and death.

Going agile

To enhance its supply chain's agility, the U.S. military has gone high tech, adopting strategies that will sound familiar to supply chain managers everywhere. It's requiring suppliers to affix active RFID tags to every container heading to Iraq, on items as mundane as MREs (meals, ready to eat). It's begun requiring suppliers to apply passive RFID tags to shipments shipped to depots in the United States. It's overhauling its information technology (IT) networks. It's focusing on performance metrics.



PHOTOS COURTESY OF THE U.S. DEPARTMENT OF DEFENSE

Critical to this transformation is the leadership of General John W. Handy. A four-star general who is one of nine "Combatant Commanders" in the U.S. military, Handy is commander of both the U.S. Transportation Command (USTRANSCOM) and the Air Mobility Command, headquartered at Scott Air Force Base in Illinois. As its name suggests, USTRANSCOM provides air, land and sea transportation for the Department of Defense, both in times of war and peace. The Air Mobility Command is a division of USTRANSCOM that specializes in airlift and air refueling capability.

Back in September 2003, Secretary of Defense Donald Rumsfeld designated the commander, U.S. Transportation Command as the Distribution Process Owner (DPO) with responsibility for directing and supervising execution of the strategic distribution system. Specifically, the DPO was charged with improving the overall efficiency and interoperability of distribution-related activities. General Handy responded immediately and with gusto. "We have implemented dramatic organizational changes at the headquarters and component levels," he stated in the

USTRANSCOM 2003 Annual Report. "USTRANSCOM will continue to provide the most effective mobility capability the world has ever seen and will carry into the future a transformed distribution network with an extensive information technology backbone."

That reference to an IT backbone is significant. One of General Handy's main objectives is to ensure that in the distribution arena, the DOD has appropriate IT capabilities to support the war-fighter. To that end, General Handy is pushing to ensure that all distribution IT activities and initiatives support the following objectives:

- Reliably deliver the required item to the right location in the correct quantity at the time required (but not necessarily "just in time"), from the most appropriate source.

- Promote the ability of the supported Combatant Commander to exercise directive authority over logistics.

- Make available tools and information for decision makers to exercise effects-based management of the distribution system.

- Coordinate end-to-end capacities and available resources across the distribution system to best support the war-fighter requirements.

That's no easy job. Because of the complexity and scope of the DOD enterprise, there are hundreds of different distribution information systems in use, a considerable challenge to logistics transformation. As part of an initiative launched in September 2004, these systems are being brought together in a portfolio; reconciled with end-to-end process requirements; aligned with best-in-class operational practices; and pruned, improved or replaced in order to make today's rapidly deployable distribution capability as joint and interoperable as the combat force.

And make no mistake about it: IT is central to the success of the transformation under way today. "The distribution management piece, the supply [chain] management challenge we face, is linking the IT and all the players," says General Handy. An organization that's networked from end to end will give soldiers the ability to reallocate ☞ p. 41

→□ supplies in real time, explains Brad Berkson, the acting deputy under secretary of defense for logistics and materiel readiness and a key supporter of the DPO. "What we need to do," he adds, "is leverage the technology to ... create a logistics infrastructure and logistics culture as flexible and integrated and responsive as our combatant force."

Tough choices

For the military's logistics operations, speed, flexibility and reliability are the overarching supply chain objectives. But much like civilian companies, the military must achieve those objectives while operating under fiscal constraints, which means it must choose how best to allocate its resources. Basically, it must define its requirements, quantify the requirements, and then relate process, the underlying architecture and the supporting portfolio of IT to the anchoring objectives.

That's no easy task. As tough as it is for a commercial enterprise to define its requirements in the face of changing markets and shifting customer demands, it's that much harder for the military, which must grapple with such questions as: What is the threat? Who will we fight? Where will we fight? When will we fight? How will the enemy fight? What war-fighting capabilities need to be delivered to the war-fighter at the pointy end of the spear? What sort of combat force will have to be sustained? In a fast-changing world, where security threats from shadowy terrorist networks are as real as those posed by nation-states, legacy answers are no longer enough.

Like their civilian counterparts, military leaders have no choice but to take what they know, add to it what they think, and get to work. And they must measure performance against their stated goals of speed, flexibility and reliability. They must monitor performance, understand performance and improve performance and then get out front and lead change.

And so, defense logisticians today are hard at work refining their performance metrics. Obviously, those metrics must evolve over time as missions and objectives change, or as the context changes—leaders will naturally make different trade-offs between, say, cost and speed during combat operations than they would during times of peace. Still, some consistency is required to allow relative comparisons and ensure that trends are identifiable. At the same time, performance metrics are not an end unto themselves; they are a tool to manage the enterprise. The DPO is leading the institutional change, across the breadth of the supply chain, to be less focused on hitting precise number targets than on using metrics to gauge the health of the distribution process



TAKING CHARGE: GENERAL JOHN W. HANDY HEADS UP THE DOD'S INITIATIVE TO BUILD AN AGILE, RESPONSIVE SUPPLY CHAIN FOR THE DIGITAL AGE.

(good, bad, better, worse), and measuring and managing the supply chain's success in meeting the war-fighter's requirements.

Getting better all the time

In another move aimed at improving logistics support, the DPO established the first Deployed Distribution Operations Center (DDOC) for CENTCOM in Kuwait in January 2004. Just as any global business would do when entering a new market, that center, the CDDOC, assembled a team of logistics experts—each specializing

in a different area, and each with knowledge of information technology, materiel and transportation management systems—and gave them power and authority to direct air and seaport operations and cross-country moves in the theater (in this case, the Central Command's Area of Responsibility, which includes Kuwait, Iraq and Afghanistan).

The CDDOC deployed with four significant objectives:

- To provide total asset visibility and in-transit visibility, sustainment, and retrograde;
- To refine theater distribution architecture in coordination with Joint Staff and the services;
- To synchronize strategic and operational distribution;
- To develop strategic and operational distribution performance measures.

One of the biggest challenges that CDDOC faced was container management. When CDDOC arrived in theater, it identified 23 sources for container data, discovered that thousands of containers were missing from the in-transit visibility system, and found that detention charges were accruing every month. CDDOC developed a partnership with Department of the Army, the Coalition Forces Land Component Command, Coalition Joint Task Force 7 and the Surface Deployment and Distribution Command to collectively determine how to return carrier-owned containers and reduce the detention charges. CDDOC helped develop and execute a plan for container management in the CENTCOM Area of Responsibility.

CDDOC provided theater logisticians with immediate access to subject matter logistics experts and their specialized reach back, and authorized the experts to make decisions on behalf of their respective commands. That way, any problems that occurred during the transitioning of forces could be quickly remedied. That structure had another plus: Locating the team members in proximity to the theater staffs allowed them to anticipate potential problems and react before the issues escalated to the level where they'd require formal response and flag-level actions.

By all accounts, establishment of the CDDOC has been a

resounding success. So far, for example, it has achieved the following:

- Shorter lead times: Order fulfillment lead times for stocked items, shipped by air from the United States, have dropped by more than 45 percent since the peaks recorded in 2003.

- Lower costs: Improved synchronization of transportation allowed the Army to cut costs by \$268 million in FY04.

- Better on-time performance: On-time delivery rates now hover around 92 percent.

- Improved flexibility: Better information has enabled better allocation of resources, even while they're in transit. For example, 120 ocean containers have been redirected en route in response to modifications in customer requirements, and orders equal to approximately 1,700 ocean containers have been satisfied through cross-leveling of inventories belonging to various organizations in the theater.

It's safe to say, the DPO has demonstrated both focus and results in speed, flexibility and reliability.

A look ahead

The USTRANSCOM experts who participated in the first wave of CDDOC assignments have now returned, but the hard work continues. Drawing on what those experts learned by working with the customer, the combat force, the DPO is now addressing the improvement opportunities uncovered in the underlying processes and technology and mapping the future. At Scott AFB, the various experts are teaming with representatives from each of the armed forces and are now mapping the "to-be" process for the future.

Consider what these experts learned in munitions, for example. Their analysis revealed that munitions procurement procedures lacked consistency across the components and even across sub-classes within munitions. In total, there are 22 different IT systems employed for the management of this class of supply. The DPO's team is addressing this problem—mapping processes, technology and architecture, and deciding what needs to be done to fundamentally transform the way the military does business.

Munitions are just the tip of the iceberg. By the end of 2005, the DPO is committed to delivering a transition plan for distribution in all classes of supply, not just munitions. According to Gary Jones, the acting deputy under secretary of defense, logistics systems management, "The DPO is out in front on this issue, and we are all learning from his leadership. Already, we are applying lessons learned by the people out at Scott to portfolio management across the complete supply chain ... End-to-end distribution is a critical and visible challenge, and we have to extend the lessons across the supply chain."

2005 is shaping up to be a critical time for distribution transformation at the DOD. But as they move forward, leaders must remain mindful of the risks. It is all too easy to configure logistics to support the last war, not the next one. War-fighting capabilities evolve, and logistics must evolve

Defense logistics by the numbers

Keeping America's war-fighters fed, clothed and equipped for combat requires mountains of supplies and a transport network that circles the planet. Here's a quick look at the scale of the Defense Department's logistics operations:

Scope of Supply Chain Operations:

- 40,000+ vendors
- 45,000+ requisitions generated per day
- \$71 billion inventory
- \$700 billion in assets:
 - 300 ships
 - 15,000 aircraft
 - 30,000 combat vehicles
 - 900 strategic missiles
 - 330,000 ground vehicles
- Active on all continents, including Antarctica

Annual Budget:

- \$11 billion in transportation
- \$59 billion in maintenance
- \$129 billion total logistics costs

with them. To illustrate how much things can change, consider that during the combat phase of Operation Iraqi Freedom, the combat force advanced a distance equivalent to the distance from Normandy to Berlin in three short weeks. In World War II, it took a year.

We do not yet know what new challenges future conflicts may bring, but we do know that transformation is an imperative. The DPO effort and the underlying IT objectives will help create the new logistics capability. It will also require a lot of people to work together. Says Lt. Gen. Robert Dail, the USTRANSCOM's deputy commander, "This is about partnership, across all of DOD. There isn't any 'Logistics Command,' so we all need to work together to give those brave sailors, airmen, soldiers and marines what they need. We owe it to them." □

Editor's note: This article was prepared with the full knowledge, cooperation and approval of the Department of Defense.

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