

FORETHOUGHT AFTER ACTION REVIEW

Speed Kills

Supply Chain Lessons from the War in Iraq

by Diane K. Morales and Steve Geary

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Every seasoned leader knows that even the most brilliant strategy is only as good as its execution. Battle plans that seem full of promise on the whiteboard can be undone in the field by clumsy operations or a missing link in the supply chain. This was the fear in some quarters last March when U.S. general Tommy R. Franks outlined the attack plans for Operation Iraqi Freedom.

Under conventional military doctrine, Franks would have sent more than a quarter million soldiers marching through the Euphrates Valley, supported by a mountain of matériel—clothing, medicines, food, fuel, and so on—and secure lines of supply all the way to the foxholes. Instead, Franks envisioned a swarming, rapid, responsive force capable of identifying and removing threats immediately. It's a strategic shift analogous to one made by many businesses in recent years—competing on speed more than on mass—and it had profound implications for the way we handled the logistics of the operation. Commercial supply chains may be able to draw a few lessons from our efforts to accommodate soldiers in the field.

Make collaboration a reality. The supply chain ideal for most businesses is close collaboration and management of logistics that extends all the way to customers' doors—and even inside their operations. For us, the challenge was to achieve “jointness”—the integration of the four branches of the armed services. As recently as the Persian Gulf War in 1991, our forces were still operating on separate tracks, like the different divisions of a large corporation. To make them more reliant on one another, and to facilitate communication among them, we created a single logistics back room. That meant all our ground forces in Operation Iraqi Freedom—the Marines, the Army, coalition partners, and others—used a single distribution network.

In large part, we relied on private-sector manufacturers, distributors, and suppliers to provide the combined forces with fast, flexible, and decisive support—we estimate that more than 85% of all sustainment matériel moved to

the theater on civilian transport.

We also teamed with vendors to ensure that vital weapons systems were supported efficiently. For example, we struck performance-based logistics agreements for the F18 aircraft and the Joint Surveillance Target Attack Radar System (JSTARS). The goal was to move away from paying the commercial contractors that supported these systems on a per-repair basis. Instead, we made their pay contingent on overall system availability—or as we call it, “power by the hour.” The planes and systems that operated under these collaborative contracts aimed at minimizing downtime generally achieved operational availability superior to those under conventional support. The Super Hornet fighter aircraft used in Iraq, for example, achieved better than a 97.5% sortie completion rate, with 92% operational availability. By contrast, the operational availability of conventionally supported aircraft is about 80%, on average.

Manage the flow, not the inventory. Military leaders learned a painful lesson during the Gulf War. Planners called for 60 days of supplies to be accumulated in the theater, prior to ground attack. We found that we could push that massive amount of matériel, but we literally could not see the contents of the containers once they were in transit or in theater. The result was many broken links in the supply chain. Ultimately, matériel in 40,000 shipping containers—fully half of the supplies sent to the region—was never used.

That experience underscores a truth that commercial logisticians know well: Well-stocked inventory that doesn't get where it's needed does not deliver value. Supply chain excellence consists of knowing exactly what you have—the condition and location of the items, whether they are on order, in transit, or in theater—and managing the flow of that matériel in light of shifting patterns of demand and customer requirements.

It's a daunting challenge but one we were able to overcome. Even the most fluid battlefields have at least some degree of predictability, as Major General Dennis Jackson, the logis-

tics chief for Central Command during Operation Iraqi Freedom, told *USA Today*. The key is to combine this predictability with the right amount of reserve supplies in a consolidated pipeline (our single logistics back room) that can deliver a steady flow to combat units. Support was delivered where it was required, when it was required, and the waste associated with Desert Storm's "iron mountain" of unused supplies was avoided.

Go with off-the-shelf technology, pushed to the limit. The biggest challenge during Operation Iraqi Freedom was keeping up with the rapidly moving forces, Brigadier General Jack C. Stultz, Jr. observed shortly after the combat phase ended. "It was not so much being able to supply them but to locate where they were moving to," he noted.

We met that challenge with a combination of information technologies. Each combat unit was equipped with transponders, allowing both combat leaders and logisticians at Central Command to track the troops' movement in real time. Similarly, radio frequency identification (RFID) tags were attached to all inbound matériel containers at the point of shipment. These tags were tracked across the globe and along the troops' line of advance. These data, plus information from other systems, were integrated into a common operating picture, which allowed the coalition to achieve real-time information dominance—in both combat and logistics management.

The military is often an early user of technologies that the commercial sector is still exploring in terms of their potential costs and benefits. RFID is a good example of that, but much of our successful deployment of this

technology was based on commercially available applications and capabilities. During Operation Iraqi Freedom, authorized users, operating from secure computer systems in remote locations, could monitor matériel flowing past critical checkpoints in Iraq. This and other similar experiences confirmed for us that leading-edge commercial technologies, prudently selected and properly implemented, could provide rapid, reliable decision support. And we are now collaborating with Wal-Mart, as the retailer experiments with RFID technology.

The Defense Department's most recent transformation efforts have been designed to achieve savings, improve effectiveness, and deliver agility. Under the banner of the Future Logistics Enterprise, we have been pursuing three goals: end-to-end warfighter support, enterprise integration, and total life-cycle systems management. In Operation Iraqi Freedom, for the first time, we saw our proof of concept. Our ability to manage logistics more effectively was crucial to the coalition's success in the field. As General Franks put it, "Speed kills...the enemy." 

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