

Lengthening the Tether of Fuel in Afghanistan

During its deployment to Afghanistan, the 633rd Quartermaster Group implemented measures to increase efficiencies in fuel tracking.

By Chief Warrant Officer 2 Kenneth Hudak



A key vulnerability of modern warfare is its reliance on petroleum, as evidenced when Gen. George Patton's Third Army ran out of fuel just outside of Metz, France, on Aug. 31, 1944. Nearly 70 years later, our petroleum dependence remains a vulnerability. After his experiences in Operation Iraqi Freedom, Marine Corps Lt. Gen. James N. Mattis noted the need to "unleash us from the tether of fuel."

This tether restrains our mobility. The war in Afghanistan demonstrates the complications stemming from a reliance on fossil fuels. The poor conditions of Afghanistan's highways make the movement of fuel slow, tedious, and dangerous. Insurgent attack is a constant risk for supply convoys. The country's regions are separated by deserts in the west and south and the rugged Hindu Kush mountains that cut through the center of the country.

Each year the North Atlantic Treaty Organization (NATO) forces consume about 600 million gallons of JP8 fuel, according to the current daily consumption rates of the International Security Assistance Force Joint Command. This presents a

challenge in Afghanistan. The capacities of this land-locked nation's six border crossing points are often stretched to handle the staggering quantities of fuel imports and other classes of supply required by the U.S.-led NATO mission.

Fuel Consumption Issues

The U.S. military's three major consumers of fuel are ground vehicles, prime power generators, and aircraft. Almost half of the fuel at major forward operating bases is consumed by individual power generation units, according to reports generated by the Tactical Fuels Manager Defense system.

To reduce fuel consumed by prime power, centralized power plants, such as those found at Camp Marmal at Mazar-e-Sharif and Kandahar Airfield have been constructed to replace individual generators. Based on historical data and lessons learned from Operation Iraqi Freedom, leaders expect this measure to reduce the fuel demand. This is significant because gains made by centralizing power will offset some of the additional fuel demand produced by the heavily armored mine-resistant ambush-protected vehicles present in theater,



A M978 heavy expanded-mobility tactical truck tanker waits to cold-fuel a CH-47F Chinook helicopter.

which require almost 200 percent more fuel than their unarmored counterparts.

Other Complications

A mission command tether also arises with distribution and tracking of fuel in Afghanistan because of outsourcing to contractors for fuel delivery within the Combined Joint Area of Operations–Afghanistan. Without the support of military escorts or movement control specialists, visibility of a subcontracted fuel truck is sometimes lost once the truck leaves the refinery and only returns once the truck arrives at its destination. This loss of visibility complicates delivery forecasting and reduces accuracy.

Another complication is the provision of fuel by two major organizations: Defense Logistics Agency–Energy (DLA–E) Middle East and NATO, as authorized by the basic ordering agreement. This two-tiered system requires precise coordination among coalition logisticians to ensure all fuel needs are met. Furthermore, both organizations compete for the same fuel, face the same border crossing constraints, and rely on the

fixed number of available tanker trucks in Afghanistan and neighboring countries.

Improving Situational Awareness

In order to address the “fuel tethers,” the 633rd Quartermaster Group developed two new methods of managing information in order to integrate reporting and improve situational awareness for senior logisticians. First, the group developed a web-based subarea petroleum office (SAPO) portal, accessible on the 1st Theater Sustainment Command’s Secret Internet Protocol Router Network. This portal provides the status of requests made by subordinate commands, copies of approved requests, copies of requests for information, and pictures and other information regarding individual forward operating bases. The SAPO portal will preserve valuable institutional knowledge that is ordinarily lost every 12 months when units redeploy.

The second method is a monthly fuels/border-crossing report. This report, created by 633rd Quartermaster Group, NATO, and DLA–E representatives, lists the amount of fuel

crossing the border each month. The report proved invaluable when devising mitigation strategies in anticipation of a specific gate closure.

For example, the quantity of each fuel type was instantly known when the fuel had to be rerouted through the Northern Distribution Network in northern Afghanistan because of the closure of the Pakistan border crossing points: the Torkham and Chaman gates. Knowing these fuel quantities allowed planners to alert contractors of how much fuel to anticipate arriving through the Northern Distribution Network.

Fuels NCO Liaison

The 633rd Quartermaster Group's SAPO in Afghanistan decided to embed a U.S. Forces-Afghanistan fuels noncommissioned officer (NCO) with the 801st Quartermaster Detachment as a liaison officer. This NCO moved to Bagram Airfield and participated in U.S. Forces-Afghanistan site assistance visits across Afghanistan.

The embedded NCO benefited both organizations and helped to further integrate the 801st Quartermaster Detachment into the fuels community within Afghanistan. Sharing site assistance visit findings with forward operating bases across the Combined Joint Area of Operations-Afghanistan

helped the bases improve efficiency in storage, download of product, and reporting procedures.

Working closely with the Joint Petroleum Office, DLA-E, and NATO, the 633rd Quartermaster Group made recommendations and decisions regarding supply chain management and distribution directives in order to integrate the multiple parties in the combined joint fuels community. By evaluating force structure and providing liaison services among multiple commands, the SAPO facilitated increased efficiencies and essentially lengthened that tether of fuel, allowing ground commanders to worry less about their fuel stock and focus more on battlefield operations.

Chief Warrant Officer 2 Kenneth Hudak, USAR, is a petroleum systems technician for the 633rd Quartermaster Group. He holds a bachelor's degree in environmental policy from Bowling Green State University and a master's degree in public administration from Central Michigan University. He is a graduate of the Petroleum Warrant Officer Basic Course, the Multinational Logistics Course, and the J-20 Petroleum Quality Assurance Course.

Spc. Lishan Watson rotates her arm to signal Sgt. Rodney Frazier to begin pumping fuel as they cold-fuel a CH-47F Chinook helicopter. (Photo by Sgt. Richard Wrigley)

