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WARFIGHTER SUPPORT

Preliminary Observations on DOD's Progress and Challenges in Distributing Supplies and Equipment to Afghanistan

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Highlights

Highlights of GAO-10-842T, a testimony before the Subcommittee on Defense, Committee on Appropriations, House of Representatives

Why GAO Did This Study

In fiscal year 2009, the Department of Defense (DOD) reported that it spent $4 billion to move troops and materiel into Afghanistan, a mountainous, arid, land-locked country with few roads, no railway, and only four airports with paved runways over 3,000 meters. The terrain and weather in Afghanistan and surrounding countries pose further challenges to transporting supplies and equipment. In December 2009, the President announced that an additional 30,000 U.S. troops will be sent to Afghanistan by August 2010.

Today's testimony discusses GAO's preliminary observations drawn from ongoing work reviewing DOD's logistics efforts supporting operations in Afghanistan, including (1) the organizations involved and routes and methods used to transport supplies and equipment into and around Afghanistan; (2) steps DOD has taken to improve its distribution process, based on lessons learned from prior operations; and (3) challenges affecting DOD's ability to distribute supplies and equipment within Afghanistan, and its efforts to mitigate them. In conducting its audit work, GAO examined DOD guidance and other documentation relating to the processes of transporting supplies and equipment to Afghanistan and met with various cognizant officials and commanders in the United States, Afghanistan, Kuwait, and Qatar.

View GAO-10-842T or key components.
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What GAO Found

Movement of supplies and equipment into and around Afghanistan is a complex process involving many DOD organizations and using air, sea, and ground modes of transportation. DOD's ability to provide timely logistics support to units deploying to Afghanistan or already in theater depends on its ability to synchronize all of these activities into one seamless process. For example, U.S. Transportation Command manages air and surface transportation from the United States to and around the U.S. Central Command area of operations; U.S. Central Command's Deployment and Distribution Operations Center validates and directs air movements and monitors and directs surface movements within theater; the Air Force's Air Mobility Division assigns and directs aircraft to carry materiel within the theater; and the Army's 1st Theater Sustainment Command monitors strategic movements of materiel and directly influences movements into theater. Most cargo in theater is transported commercially by ship to Pakistan and then by contractor-operated trucks to Afghanistan, but high-priority and sensitive items are transported by U.S. military and commercial aircraft directly from the United States and other countries to logistics hubs in Afghanistan.

DOD has taken some steps to improve its processes for distributing materiel to deployed forces based on lessons learned from prior operations. For example, in response to lessons learned from problems with keeping commanders informed about incoming materiel in Operation Iraqi Freedom, U.S. Transportation Command established the Central Command Deployment and Distribution Operations Center, which now helps coordinate the movement of materiel and forces into the theater of operations. Also, since GAO reported in 2003 that radio frequency identification tags were not being effectively used to track materiel in transit to, within, and from Iraq, DOD developed policies and procedures to increase tag use on cargo traveling through the U.S. Central Command theater of operations, including Afghanistan.

Challenges hindering DOD's ability to distribute needed supplies and equipment to U.S. forces operating in Afghanistan include difficulties with transporting cargo through neighboring countries and around Afghanistan, limited airfield infrastructure, lack of full visibility over cargo movements, limited storage capacity at logistics hubs, difficulties in synchronizing the arrival of units and equipment, lack of coordination between U.S. and other coalition forces for delivery of supplies and equipment, and uncertain requirements and low transportation priority for contractors. DOD recognizes these challenges and has ongoing or planned efforts to mitigate some of them; however, some efforts involve long-term plans that will not be complete in time to support the ongoing troop increase. DOD is also working to address these challenges through planning conferences to synchronize the flow of forces into Afghanistan. At these conferences, DOD officials stressed the need to balance and coordinate multiple requirements in order to sustain current operations in Afghanistan and Iraq, draw down forces and equipment in Iraq, and increase forces and equipment in Afghanistan.

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to provide a statement discussing Department of Defense (DOD) transportation and logistics issues in Afghanistan. As of February 2010, approximately 79,000 U.S. troops were deployed in Afghanistan. In fiscal year 2009, DOD reported that it spent $4 billion to move troops and materiel into Afghanistan in support of these operations: $2 billion for air transport, $120 million for sealift, and the balance for port handling and ground transport. From February through August 2009, 16,000 troops and 5,300 tons of gear were flown into Afghanistan, while 750,000 square feet of materiel—trucks and containers—were transported by sealift and then trucks.

Afghanistan has been described as the "harshest logistics environment on earth." It is a mountainous, arid, land-locked country with poorly developed infrastructure, including few roads, no railway, and only four airports with paved runways over 3,000 meters. The terrain and weather in Afghanistan and surrounding countries pose further challenges to transporting supplies and equipment. Roads are narrow and often unpaved; some have one-way traffic alternating daily, and some are treacherous mountain passes. Winter weather, avalanches, and flooding often create obstacles and can cause delivery delays. Additionally, DOD does not have access to suitable areas nearby for staging and receiving equipment going into Afghanistan, such as those it has in Kuwait for operations in Iraq. While DOD relies on a combination of air and surface transportation modes to move supplies and equipment into and around Afghanistan, these austere conditions make airlift a vital part of this process.

On December 1, 2009, the President announced that an additional 30,000 U.S. troops would be sent to Afghanistan by August 31, 2010, with drawdown efforts in Afghanistan to begin in July 2011. Simultaneously, DOD plans to draw down forces and equipment from Iraq. From December 2009 through August 2010, approximately 48,000 troops, 20,000 pieces of rolling stock, and 29,000 containers are planned to be pulled out of Iraq. Consequently, DOD's logistics support system will have to accommodate both operations, requiring extensive planning and coordination. In February 2009, we testified that DOD's ability to move equipment and materiel from Iraq may be constrained, affecting its ability to quickly

deploy these resources in Afghanistan or elsewhere.[1] Specifically, we reported that the limited availability of facilities in Kuwait and other neighboring countries may diminish the speed at which equipment and materiel can be moved out of Iraq. Further, we reported that the ability to transport personnel and equipment into Afghanistan will likely be constrained by the infrastructure issues and topography of Afghanistan.

My statement today reflects our preliminary observations drawn from ongoing work reviewing DOD's logistics efforts supporting operations in Afghanistan. Specifically, I will (1) describe the organizations involved and the routes and methods used to transport supplies and equipment into and around Afghanistan; (2) highlight some of the steps DOD has taken to improve the distribution process based on lessons learned from prior operations; and (3) address challenges that affect DOD's ability to distribute supplies and equipment to forces within Afghanistan, as well as DOD's efforts to mitigate these challenges.

These preliminary observations are based on the work we have performed to date. In conducting our audit work, we examined agency guidance, including DOD Joint Publication 4-0, Joint Logistics (July 18, 2008), which provides the doctrinal framework for how logistics are to be delivered to support joint operations across the range of military operations, and U.S. Central Command guidance on the use of supply routes to Afghanistan. In addition, we reviewed other documentation and briefings relating to, among other things, the processes of transporting supplies and equipment to Afghanistan from various DOD entities, plans for the ongoing troop increase, and assessments of airfield capabilities. We also analyzed commanders' comments from readiness reports prepared by 134 units deployed to Afghanistan as of January 2010, and selected certain examples to highlight challenges DOD faces with distributing supplies and equipment to forces within Afghanistan. However, we were unable to conduct an independent reliability assessment of the commanders' comment data from the readiness reports. We met with officials from several DOD organizations in the United States as well as the U.S. Central Command theater of operations, including Kuwait, Qatar, and Afghanistan. In the United States, we met with officials from U.S. Central Command, U.S. Transportation Command, the Defense Logistics Agency, Surface

[1] GAO, *Iraq and Afghanistan: Availability of Forces, Equipment, and Infrastructure Should Be Considered in Developing U.S. Strategy and Plans*, GAO-09-380T (Washington, D.C.: Feb. 12, 2009).

Deployment and Distribution Command, Air Mobility Command, and Air Force Central Command. During our trip to the theater of operations in December 2009, we met with officials from Army Central Command-Forward, the Central Command Deployment and Distribution Operations Center, Defense Logistics Agency-Forward, U.S. Forces-Afghanistan, the Combined Joint Task Force-82, the Air Mobility Division, the 1st Theater Sustainment Command, and the 143rd Expeditionary Sustainment Command. We also attended U.S. Central Command-sponsored planning conferences in support of the troop increase in Afghanistan and drawdown of forces from Iraq. My statement is based on our reviews and analysis of DOD guidance, processes, and plans, and on interviews GAO staff members conducted with DOD officials in the United States, Kuwait, Qatar, and Afghanistan. We conducted our work from August 2009 through March 2010 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Summary

Movement of materiel, such as supplies and equipment, into and around Afghanistan is a complex process involving many DOD organizations and utilizing air, sea, and ground modes of transportation over various routes. DOD's ability to provide timely logistics support to units deploying to Afghanistan or already in theater depends on its ability to synchronize all of these activities into one seamless process. Numerous organizations play a role in distributing materiel. For example, U.S. Transportation Command manages air and surface transportation from the United States to and around the U.S. Central Command area of operations; the Central Command Deployment and Distribution Operations Center validates and directs air movements, and monitors and directs surface movements within theater; the Air Force's Air Mobility Division assigns and directs aircraft to carry materiel within theater; and the Army's 1st Theater Sustainment Command monitors strategic movements of materiel and directly influences movements into theater. There are also several means by which supplies and equipment are delivered to units operating in Afghanistan. While the majority of cargo in theater is transported commercially by ship to Pakistan and then by contractor-operated trucks to Afghanistan, many high-priority and sensitive items are transported by U.S. military and commercial aircraft directly from the United States and other countries to logistics hubs in Afghanistan.

DOD has taken some steps to improve its processes for distributing materiel to deployed forces based on lessons learned from prior operations. For example, during Operation Iraqi Freedom, senior commanders were unable to prioritize their needs and make decisions in the early stages of the distribution process because they did not know what materiel was being shipped to them, resulting in an overburdened transportation and distribution system. In response, in January 2004, U.S. Transportation Command established the Central Command Deployment and Distribution Operations Center, in part to help coordinate the movement of materiel and forces into the theater of operations. This operations center enabled DOD to confirm the combatant commander's deployment and distribution priorities and to synchronize the forces, equipment, and supplies arriving in theater with critical theater lift and theater infrastructure limitations. Additionally, since we reported in 2003 that radio frequency identification (RFID) tags were not being effectively used to track materiel in transit to, within, and from Iraq, DOD has put additional policies and procedures in place to increase the use of tags on cargo traveling through the U.S. Central Command theater of operations, including Afghanistan.

Several challenges hinder DOD's ability to distribute needed supplies and equipment to U.S. forces operating in Afghanistan. These challenges include

- difficulties with transporting cargo through neighboring countries and around Afghanistan;
- limited airfield infrastructure within Afghanistan;
- lack of full visibility over supply and equipment movements into and around Afghanistan;
- limited storage capacity at logistics hubs in Afghanistan;
- difficulties in synchronizing the arrival of units and equipment in Afghanistan;
- lack of coordination, as well as competing logistics priorities, in a coalition environment; and
- uncertain requirements and low transportation priority for contractors.

DOD recognizes these distribution challenges and is working to address them through various planning conferences to synchronize the flow of forces into Afghanistan. Additionally, through these conferences, DOD is working to balance and closely coordinate multiple requirements to sustain current operations in Afghanistan and Iraq, draw down forces and equipment from Iraq, and increase forces and equipment in Afghanistan. DOD has plans in place to deliver the troops, supplies, and equipment to

Afghanistan when required, but it acknowledges that there is a high level of risk involved in executing these plans.

Many DOD Organizations Are Involved in Distributing Supplies and Equipment by Various Routes and Methods into and around Afghanistan

Distribution of materiel, such as supplies and equipment, into and around Afghanistan is a complex process involving many DOD organizations and utilizing both surface and air modes of transportation over various routes. DOD's ability to provide timely logistics support to units deploying to Afghanistan or already in theater depends on its ability to synchronize these activities into one seamless process. According to joint doctrine, distribution is the operational process of synchronizing all elements of the logistic system to deliver the "right things" to the "right place" at the "right time" to support the joint force.[2] As the list below indicates, numerous organizations play an integral role in ensuring the delivery of materiel to support operations in Afghanistan:

- U.S. Transportation Command is designated as the distribution process owner for DOD. As such, it coordinates transportation programs for all organizations involved in moving supplies and equipment into Afghanistan for DOD. It relies on its military service components—Air Mobility Command (Air Force), Military Sealift Command (Navy), and Surface Deployment and Distribution Command (Army)—to provide mobility assets, such as aircraft, ships, and trucks, and to execute the movement of materiel. In addition, U.S. Transportation Command collaborates with the combatant commanders, military services, defense agencies, Office of the Secretary of Defense, and Joint Staff to develop and implement distribution process improvements.
- U.S. Forces-Afghanistan establishes priorities for movement of materiel for the Afghanistan theater.
- Joint Sustainment Command-Afghanistan provides command and control of logistics efforts within Afghanistan to execute U.S. Forces-Afghanistan priorities, including assisting with materiel reception and movement and with asset visibility.
- Army Central Command's 1st Theater Sustainment Command provides command and control of logistics efforts within the U.S. Central Command area of operations by monitoring strategic movements of materiel and directly influencing movements into theater.
- Air Force Central Command's Air Mobility Division plans, coordinates, tasks, and executes the movement of materiel using air assets within theater.

[2] Joint Chiefs of Staff, Joint Publication 4-0, *Joint Logistics* (July 18, 2008).

- The Central Command Deployment and Distribution Operations Center bridges the gap between strategic and theater distribution by validating and directing air movements and monitoring and directing surface movements within theater.

A combination of surface and air transportation modes are used to move supplies and equipment into and around Afghanistan. According to U.S. Transportation Command officials, most supplies and equipment bound for Afghanistan are transported along surface modes, with the remaining supplies and equipment transported using airlift. The main surface route uses commercial ships to transport cargo to the seaport of Karachi, Pakistan, from which it is trucked by contractors into Afghanistan. Typically, materiel that crosses the northern border at Torkham is destined for the logistics hub at Bagram, while materiel that crosses the southern border at Chaman is destined for the Kandahar logistics hub. The distances from the port of Karachi to Bagram and Kandahar are approximately 1,210 miles and 690 miles, respectively. Unit equipment—such as specific vehicles and materiel owned by the unit and brought from home stations—and sustainment materiel—such as food, water, construction materials, parts, and fuel that are requisitioned by units already deployed—are transported through Pakistan.

In May 2009, DOD began using an alternative surface route, known as the Northern Distribution Network, which relies on contracted ships, railways, and trucks to transport nonlethal sustainment items like construction materiel through western European and central Asian countries into Afghanistan. The cargo, originating in the United States and northern Europe, falls in with the normal flow of commerce that travels along several routes within the Northern Distribution Network. There are two main routes within this network: one starts at the Latvian port of Riga or the Estonian port of Tallinn and connects with Afghanistan via Russia, Kazakhstan, and Uzbekistan; the second route starts at the Georgian port of Poti, bypasses Russia, and reaches Afghanistan through the terrains of Azerbaijan, Kazakhstan, and Uzbekistan. U.S. Transportation Command is currently considering the development of additional Northern Distribution Network routes to transport materiel into Afghanistan.

Currently, the surface routes through Pakistan are used to a greater extent than those of the Northern Distribution Network because the latter is a less mature surface route and the Pakistani ground routes entail fewer limitations on the types of cargo that can be transported. For example, U.S. Transportation Command reported that from May through November 2009, more than 4,700 20-foot–equivalent units were transported into

Afghanistan by way of the Northern Distribution Network, but more than 21,500 20-foot–equivalent units were transported using the Pakistani surface routes.[3] The Northern Distribution Network could, however, support the movement of significantly more cargo, with a maximum capacity estimated at around 4,000 20-foot–equivalent units per month.

Military and commercial airlift are used to transport high-priority supplies and equipment, as well as sensitive items, such as weapon systems and ammunition, into and around Afghanistan. According to U.S. Forces-Afghanistan, as of December 2009, there were 24 airfields in Afghanistan, 4 of which could support C-5 aircraft and 6 of which could support C-17 aircraft. These aircraft are used to move large quantities of supplies and equipment. Cargo flown into Afghanistan is typically flown to a logistics hub, such as Bagram or Kandahar, that is capable of supporting most types of aircraft. According to Air Mobility Command data, during fiscal years 2008 and 2009, approximately 81,600 and 170,000 short tons of cargo, respectively, were flown into Afghanistan.[4]

Supplies and equipment shipped to the logistics hubs may subsequently be transported to units operating at other forward operating bases or combat outposts using a combination of surface and air transportation modes. Within Afghanistan, cargo is moved to forward operating bases primarily by means of contractor-operated trucks, though military trucking assets are used in some instances. High-priority and sensitive materiel, such as ammunition, that needs to be transported by air is loaded onto smaller aircraft and flown to a forward operating base or air-dropped to units throughout the country.

[3] Twenty-foot–equivalent units are a standard unit of measurement for cargo capacity. One 20-foot—equivalent unit equals a standard container measuring approximately 20 feet long and 8 feet wide.

[4] A short ton is equivalent to 2,000 pounds.

DOD Has Taken Some Steps to Improve the Distribution Process Based on Lessons Learned

DOD has taken some steps to improve its processes for distributing materiel to deployed forces based on lessons learned from prior operations, such as Operation Iraqi Freedom. We reported in August 2005 that two DOD initiatives for improving supply distribution operations—the establishment of the Central Command Deployment and Distribution Operations Center and the use of pure packing (that is, consolidation of cargo for shipment to a single user) for air shipments—were successful enough to warrant application to future operations.[5] In conducting our ongoing work reviewing DOD's logistics efforts supporting operations in Afghanistan, we found that these initiatives continue to benefit supply distribution efforts in support of operations in Afghanistan. According to officials, both these initiatives have helped improve the flow of supplies into and around the Afghanistan theater of operations.

During Operation Iraqi Freedom, senior commanders were unable to prioritize their needs and make decisions in the early stages of the distribution process because they did not know what materiel was being shipped to them, resulting in an overburdened transportation and distribution system. To address these issues, in January 2004, U.S. Transportation Command established the Central Command Deployment and Distribution Operations Center, in part to help coordinate the movement of materiel and forces into the theater of operations, including both Iraq and Afghanistan, by confirming the combatant commander's deployment and distribution priorities and by synchronizing the forces, equipment, and supplies arriving in theater with critical theater lift and theater infrastructure limitations. Based on the success of the Central Command Deployment and Distribution Operations Center, DOD created similar deployment and distribution operations centers within each of the geographic combatant commands.[6]

Pure packing has similarly improved DOD's efficiency. During the early stages of Operation Iraqi Freedom, the use of mixed pallets of cargo created inefficiencies because they had to be unpacked, sorted, and repacked in the theater of operations before they were shipped forward,

[5] GAO, *Defense Logistics: DOD Has Begun to Improve Supply Distribution Operations, but Further Actions Are Needed to Sustain These Efforts*, GAO-05-775 (Washington, D.C.: Aug. 11, 2005).

[6] For additional information on the joint deployment distribution operations centers within other geographic combatant commands, see GAO, *Defense Logistics: Efforts to Improve Distribution and Supply Support for Joint Military Operations Could Benefit from a Coordinated Management Approach*, GAO-07-807 (Washington, D.C.: June 29, 2007).

thus lengthening the time it took to deliver supplies to troops. To avoid these extra processes, in January 2004, U.S. Central Command requested that all air shipments entering its area of responsibility be pure packed, meaning that all cargo in a pallet is addressed to the same customer location. To maximize pallet and aircraft utilization, cargo awaiting shipment can be held for up to 5 days for the Army and up to 3 days for the Marine Corps. Cargo is palletized either when it reaches 120 hours of port hold time or when enough cargo is available to fill a pallet, based on size or weight limits. As we reported in April 2005, the use of pure packing potentially leads to longer processing times at the originating aerial ports, but it reduces customer wait time in theater, thus providing a significant advantage.[7]

DOD has also established policies and procedures to increase the use of RFID tags to improve in-transit visibility over cargo.[8] In December 2003, we reported that DOD did not have adequate visibility over all supplies and equipment transported to, within, and from the theater of operations for Operation Iraqi Freedom, in part because RFID tags were not being used in a uniform and consistent manner.[9] In July 2004, DOD issued policy directing all DOD components to use RFID tags on all cargo shipments moving to, from, or between overseas locations. Additionally, U.S. Central Command policy states that RFID tags must be attached to all unit and sustainment cargo transported to, within, and from U.S. Central Command's theater of operations. U.S. Central Command issued further guidance requiring RFID tags with intrusion-detection capabilities to be affixed to containers carrying unit equipment along the Pakistani ground routes. Some interrogators have been installed within Pakistan to obtain electronic information from RFID tags as privately contracted trucks transporting DOD cargo pass by. Officials told us that as a result of these policies and procedures, the use of RFID tags and DOD's visibility over cargo have increased significantly since early operations began in Iraq.

[7] GAO, *Defense Logistics: Actions Needed to Improve the Availability of Critical Items during Current and Future Operations*, GAO-05-275 (Washington, D.C.: Apr. 8, 2005).

[8] RFID technology is used on containers and major pieces of equipment for tracking shipments and their contents while they are in transit over long distances. Active RFID tags have transmitters that transmit information through radio signals that are read electronically. In addition, the tags hold relatively large amounts of data, so they are capable of storing detailed manifest and transportation data.

[9] GAO, *Defense Logistics: Preliminary Observations on the Effectiveness of Logistics Activities during Operation Iraqi Freedom*, GAO-04-305R (Washington, D.C.: Dec. 18, 2003).

However, we have found that DOD's visibility over surface movements of supplies and equipment into and around Afghanistan remains limited, as is discussed below.

Several Challenges Hinder DOD's Ability to Distribute Supplies and Equipment to U.S. Forces in Afghanistan

Based on our preliminary observations, we note several challenges that hinder DOD's ability to distribute needed supplies and equipment to U.S. forces operating in Afghanistan. These challenges include

- difficulties with transporting cargo through neighboring countries and around Afghanistan;
- limited airfield infrastructure within Afghanistan;
- lack of full visibility over supply and equipment movements into and around Afghanistan;
- limited storage capacity at logistics hubs in Afghanistan;
- difficulties in synchronizing the arrival of units and equipment in Afghanistan;
- lack of coordination, as well as competing logistics priorities, in a coalition environment; and
- uncertain requirements and low transportation priority for contractors.

DOD has ongoing or planned efforts to help mitigate some of these challenges. In addition, DOD is working to address these challenges through planning conferences to synchronize the flow of forces into Afghanistan. While some of DOD's efforts will promptly improve its ability to efficiently distribute supplies and equipment to U.S. forces in Afghanistan, other efforts involve long-term plans that will not be completed in time to support the ongoing troop increase that is scheduled to occur by August 2010.

Transporting Cargo through Neighboring Countries and within Afghanistan Poses Special Difficulties

The supply routes through Pakistan, along the Northern Distribution Network, and around Afghanistan each present unique difficulties in transporting supplies and equipment. DOD's ability to support both current operations and the ongoing troop increase in Afghanistan is challenged by restrictions on the number of trucks allowed to cross into Afghanistan daily. Because no U.S. military transportation units operate in Pakistan, DOD must rely solely on private contractors to transport supplies and equipment along ground routes through the country and to provide security of the cargo while in transit. Privately contracted trucks can transport cargo through Pakistan via two routes: the northern, which crosses into Afghanistan at the border town of Torkham, and the southern, which crosses at the border town of Chaman. While Pakistan does not limit the number of trucks that cross the border at Torkham, it does limit

the number allowed to cross at Chaman to 100 total per day. U.S. Forces-Afghanistan and Surface Deployment and Distribution Command officials told us that they requested greater security at the Chaman border crossing after insurgent attacks occurred near the border crossing in 2009. In response, restrictions were placed on the number of trucks allowed to cross per day at Chaman, which include trucks transporting cargo in support of U.S. forces operating in Afghanistan. Officials added that there is often a backlog of trucks waiting to cross at the Chaman border because of the restrictions. As a result, these backlogged trucks may sometimes be unable to deliver their cargo and subsequently return to the port of Karachi to pick up additional supplies and equipment in a timely manner. The U.S. government is currently negotiating with the Pakistani government to increase the flow of trucks through the Chaman border crossing.

The restrictions at the Chaman border crossing and the resulting impact on the number of available trucks in Pakistan help contribute to a regular backlog of cargo at the port of Karachi. According to Army Central Command, nearly half of the cargo waiting to be picked up at Karachi resides there for several weeks. Officials stated that unit equipment arriving at Karachi often receives the highest transportation priority. While unit equipment is essential for U.S. forces to conduct their mission, sustainment items are also necessary, as they enable forces to maintain and prolong their operations. If sustainment and other types of cargo become backlogged at Karachi, U.S. forces may not receive the supplies and equipment they need in a timely manner to complete or sustain their mission. According to U.S. Transportation Command, two methods for mitigating the effects of backlogs at the port of Karachi are prioritizing cargo flow and increasing the amount of supplies kept on hand in Afghanistan.

Limitations on what items can be transported through Pakistan and the amount of damage sustained by cargo transiting through Pakistan also can delay the delivery of necessary supplies and equipment to U.S. forces in Afghanistan. Private trucking contractors do not transport sensitive equipment on the Pakistani ground routes. Instead, such equipment must be flown into Afghanistan and then be installed onto the vehicles in Regional Command–East. Additionally, according to Army Central Command, approximately 80 percent of cargo transiting through Pakistan arrives in Afghanistan with some level of damage, which, officials noted, can occur because of a number of factors, including poor roads, rough terrain, extreme weather, or insurgent and other individual attacks. For example, U.S. military vehicles may arrive with missing or damaged

engines, slashed fuel lines and empty fuel tanks, broken mirrors or windows, and deflated tires, according to Army officials. The additional time needed to repair equipment arriving in Afghanistan further delays delivery to U.S. forces.

A small percentage of cargo transported along the Pakistani ground routes is pilfered by insurgents and other individuals, but the exact amount of pilferage is difficult to determine because of limitations in the way it is reported.[10] According to DOD officials, approximately 1 percent of cargo transported on the Pakistani ground routes is pilfered. While the percentage may be relatively small, officials stated that it represents a significant loss of money to DOD and a potential risk to the warfighter until replacements for the pilfered items can be requisitioned and delivered. Because of the lack of U.S. military transportation units operating in Pakistan, DOD cannot immediately address pilferage when and where it occurs in Pakistan. In cases where active RFID tags are damaged or removed when the cargo is pilfered, officials stated that DOD can attempt to determine the approximate area where the pilferage took place based on the last RFID tag signal obtained by an interrogator inside Pakistan. Additionally, some RFID tags have intrusion-detection capabilities that provide information on when and where the cargo has been broken into. With this information, DOD can negotiate with the private trucking contractors to avoid transporting cargo through locations inside Pakistan where equipment may be more susceptible to pilfering.

The Northern Distribution Network is an important alternative to the surface routes through Pakistan, but several logistical and cargo clearance challenges exist that could limit the amount of cargo transported on its routes. For example, Northern Distribution Network route transit times, on average, exceed the Pakistani surface route transit times. Cargo transiting along the northern route takes approximately 86 days to travel from the source of supply in the United States or northern Europe to its destination in Afghanistan, and the southern route takes approximately 92 days. Comparatively, it takes only about 72 days to transport cargo along

[10] There is a process whereby units can report pilfered cargo using a form; however, officials told us that units do not always file a formal report because of the level of effort involved. Sometimes units will informally report pilferage to Surface Deployment and Distribution Command by phone or e-mail, and sometimes pilferage may go unreported. As a result, officials told us that they calculate the percentage of cargo pilfered using both formal and informal reports, which may not account for all pilferage because not all incidents are reported.

the Pakistani surface routes. Additionally, DOD and its contractors must request and obtain clearance before cargo can transit through Uzbekistan, a process that should take 20 days to complete. This has been shortened from 30 days to 20 days, and according to U.S. Transportation Command officials, they are working to make this delay shorter. Given the long lead times to deliver cargo and the 20-day notice needed to ship cargo through Uzbekistan, DOD must plan well in advance to ensure that the necessary supplies and equipment arrive in Afghanistan when they are needed to support the warfighter. Furthermore, there are restrictions on the types of cargo that can be transported through the countries along the Northern Distribution Network. Specifically, only nonlethal supplies and equipment can be shipped on the Northern Distribution Network, and DOD primarily transports nonlethal sustainment supplies on the route. These restrictions constrain DOD's ability to transport certain classes of supply or types of equipment on the Northern Distribution Network as an alternative to the more expensive airlift or the limited capacity of the Pakistani surface routes.

Private trucking contractors operating under the Afghan Host Nation Trucking Contract carry the majority of U.S. supplies and equipment within Afghanistan, but officials told us that limitations on the available number of contractors and reliable trucks may impede DOD's ability to support the ongoing troop increase. Officials stated that approximately 90 percent of cargo is transported within Afghanistan by private contractors, and the remaining 10 percent by U.S. military trucks. In addition to affecting the time it takes to transport cargo to the warfighter, officials believe that limited contractor availability affects the quality of service. Contractors in Afghanistan may have little incentive to offer superior performance when they can expect to continue receiving contracts because of the high demand and limited supply of host nation trucking contractors. Additionally, officials told us that some privately contracted trucks may be unable to safely transport cargo because they are either in too poor a condition to operate or do not have the capability to transport the type or size of cargo. In cases where the contracted trucks are unable to provide adequate transportation, DOD must find an alternative method to deliver the cargo to its destination—for example, by using a different private contractor or by transporting the cargo on a U.S. military truck. Identifying an alternate mode of transportation could delay the delivery of needed supplies and equipment to U.S. forces. According to Army logistics officials in Afghanistan, DOD is in the process of increasing the number of contractors performing under the Afghan Host Nation Trucking Contract operating in southern and western Afghanistan.

Attacks on cargo being transported through Pakistan and Afghanistan can also hinder DOD's ability to provide supplies and equipment to U.S. forces in Afghanistan. As noted above, DOD relies on private contractors to transport all cargo through Pakistan and most of the cargo transported through Afghanistan. There is no U.S. military-provided security for the transport of the cargo; shipping contractors provide their own security. Trucks moving along the ground routes through Pakistan and Afghanistan, as well as those stopped at terminals and border crossings, can be targets for attack. For example, for 2 consecutive days in March 2009, militants attacked two truck terminals in Peshawar, Pakistan, damaging or destroying 31 vehicles and trailers. Our previous work found that DOD reported that in June 2008 alone, 44 trucks and 220,000 gallons of fuel were lost because of attacks or other events.[11]

Limited Airfield Infrastructure within Afghanistan Constrains the Movement of Supplies and Equipment

Limited airfield infrastructure and capability within Afghanistan constitutes one of the most difficult challenges DOD faces as it deploys and sustains the increasing number of U.S. forces in the country, according to numerous DOD officials we interviewed. DOD airlifts into Afghanistan a significant amount of cargo, including high-priority items as well as sensitive equipment that cannot be transported through Pakistan or on the Northern Distribution Network. However, the small number of airfields in Afghanistan and the limited types of aircraft that can land at these airfields may constrain DOD's ability to deliver certain supplies and equipment within expected time frames. Bagram Airfield, Kandahar Airfield, and Bastion Airfield are the three primary airfield hubs in Afghanistan capable of handling large volumes of cargo and a variety of different types of aircraft. Bagram and Kandahar have the capability to land large C-5 and C-17 aircraft as well as the smaller C-130 aircraft, while Bastion can land C-17s and C-130s. DOD often relies on large aircraft, such as the C-17, to fly supplies and equipment directly from the United States, Kuwait, Qatar, and other major distribution points into Afghanistan, but it is limited to the small number of airfields where these aircraft can land. Instead of flying directly to a smaller airfield, a large aircraft must first land at an airfield hub, where its cargo is unloaded, reloaded onto a smaller aircraft, such as the C-130, and then flown to the smaller airfield. This process takes considerably more time than flying directly to the final

[11] GAO, *Defense Management: DOD Needs to Increase Attention on Fuel Demand Management at Forward-Deployed Locations*, GAO-09-300 (Washington, D.C.: Feb.20, 2009).

destination and, as a result, may delay the delivery of supplies and equipment to the warfighter. Officials stated that the situation will likely grow more challenging as the demand for cargo increases along with the additional U.S. forces arriving in Afghanistan. According to U.S. Transportation Command, there are projects under way or that have been completed to expand airfield capacity in Afghanistan. For example, officials at Kandahar Airfield are planning to build ramp space that can park an additional two C-5 and eight C-130 aircraft. However, other planned or ongoing projects to expand airfield capacity will not be completed in time to support the ongoing troop increase, according to Air Force officials.

Airfields also have only limited space available for aircraft to park after landing, and sometimes reach capacity. For example, Bagram has the capacity to park up to one C-5 equivalent and four C-17 equivalents at the same time. Additionally, officials stated that the current number of aerial port workers and quantity of materiel-handling equipment at the airfields in Afghanistan may be insufficient to keep pace with the increased amounts of cargo being flown into the country to support the ongoing troop increase. The number of aerial port workers and quantity of materiel-handling equipment at the airfield determine how quickly parked aircraft can be unloaded, have their cargo processed, and be serviced and refueled in order to depart the airfield and allow additional incoming aircraft to land. Ideally, airfields would have the capability to unload, process, and service and refuel all of the aircraft parked at the airfield at the same time, but this is not always the case. For example, Bagram has the capability to work on up to one C-5 equivalent and three C-17 equivalents at a time, even though it has capacity to park one additional C-17. Consequently, aircraft that land and park at an airfield with limited aerial port worker and materiel-handling equipment availability may not have their cargo unloaded immediately upon arrival, resulting in delayed delivery of the airlifted supplies and equipment. Furthermore, aircraft waiting to be unloaded are unable to depart the airfield and pick up cargo elsewhere, thus potentially delaying the delivery of that cargo as well. According to DOD, it has sent additional aerial port workers and materiel-handling equipment to Bastion and Mazar-e-Sharif, and additional port workers have been requested for Bagram, Farah, Shindand, and Kabul. However, we have not been able to evaluate the impact on cargo processing and aircraft servicing times at these locations.

Restrictions at airfields outside Afghanistan and competing demands for available landing times in Afghanistan may also affect the delivery of supplies and equipment to U.S. forces. Because of their limited capability

to park and unload aircraft, airfields must closely manage the number of aircraft that land each day in order to avoid exceeding capacity on the ground, and aircraft bound for Afghanistan must ensure that they have available time and space to land at the airfield prior to departing from their originating locations. In some cases, aircraft may not be able to land in Afghanistan during an available time because they are restricted from departing their original locations. For example, officials stated that aircraft departing from Ramstein Air Base in Germany cannot fly during certain hours of the day because of host nation policy—even though, in order to arrive at Bagram during certain available landing-time windows, it would be necessary for aircraft to depart Ramstein during prohibited flying hours. As a result, aircraft must postpone their departure from Ramstein and coordinate another available landing time at Bagram that can be reached by departing Ramstein during normal flying hours. Consequently, delivery of an aircraft's cargo to the warfighter may be delayed, and the aircraft is not being fully utilized while it forfeits an available landing window and waits on the ground for a new departure time. An additional difficulty is the competition for available landing times in Afghanistan among U.S. and coalition airlift, passenger and cargo airlift, and inter- and intra-theater airlift. These numerous competing priorities cannot all be met simultaneously, which may result in delaying the delivery of U.S. or coalition cargo or personnel to Afghanistan. According to U.S. Central Command, to mitigate the effects of competing priorities, DOD is coordinating with coalition forces to establish a regional airspace control management organization that will manage landing slot times at airfields in Afghanistan.

Limited Visibility over Surface Movements of Materiel May Hinder DOD's Ability to Efficiently Manage the Flow of Materiel

DOD's visibility over surface movements of supplies and equipment into and around Afghanistan is limited, and this limitation may hinder its ability to effectively manage the flow of supplies and equipment into the logistics hubs and forward operating bases. Although requirements are in place and methods are being used to maintain some visibility over the contractors and shipments while in transit, DOD lacks full visibility over surface movements of cargo because of a lack of timely and accurate information on the location and status of materiel and transportation assets in transit. According to DOD policies, components must ensure that all shipments moving to, from, or between overseas locations, which would include shipping transit points and theater, are tagged to provide global in-transit visibility. In-transit visibility is provided using various methods, including active RFID tags attached to cargo containers or pallets, satellite tracking devices on trucks, and contractor reports.

While visibility has been more consistently maintained on cargo transported via airlift, challenges remain with meeting requirements for visibility of surface-moved cargo. Because there are no U.S. military transportation units operating in the countries along the surface routes to Afghanistan, DOD must rely solely on in-transit visibility tools like RFID tags. However, these tools are not always effective in providing adequate visibility. For example, visibility over cargo being transported to Afghanistan along the Northern Distribution Network is limited because agreements with some countries, such as Russia and Uzbekistan, prevent the use of in-transit visibility systems like RFID technology along the routes, according to officials. Therefore, DOD must rely on reports provided by the contracted carriers to track and obtain information about cargo location. According to Central Command Deployment and Distribution Operations Center officials, there are challenges with getting carriers to submit accurate shipment reports in a timely manner. If carriers do not submit their shipment data to DOD, or if there is a delay in report receipt, DOD's visibility of cargo as it moves along the Northern Distribution Network may be limited.

With regard to cargo transported through Pakistan, visibility exists at the seaport of Karachi, where cargo is unloaded from ships and loaded onto contractors' trucks for surface movement through Pakistan and into Afghanistan. While satellite technology is used to track unit equipment, RFID technology is used to maintain visibility over both unit and sustainment cargo. However, visibility provided by RFID tags becomes more sporadic once cargo moves out of the port and along the ground routes. RFID interrogators throughout Pakistan can provide DOD with the cargo's RFID data and location if a truck passes within range of the interrogator. However, only a small number of these interrogators are along the ground routes between the port of Karachi and the borders with Afghanistan.[12] Furthermore, since no requirements exist regarding the routes that drivers must take to the border crossings, a truck's route may not fall within range of an RFID interrogator until it arrives at one of the border crossings into Afghanistan. In addition, occasional errors in data downloaded onto the tags may cause erroneous information about the cargo to be reported to DOD. For example, data on a pallet's interim transit location may be incorrectly recorded as its final destination on the RFID tag. To mitigate these issues with electronic data tracking, DOD uses

[12] Most interrogators in Pakistan are located either at the port of Karachi or along the border with Afghanistan.

contract personnel to provide reports about shipments in transit through Pakistan. Contractors stationed at various points on the Pakistani routes provide real-time locality information on trucks transporting U.S. cargo that pass them. Officials reported that this has helped DOD collect more accurate information about asset locations and incidents along the routes. However, depending on the route taken, drivers may not always pass contractors' stations, and information about a truck and its cargo may not be available until the truck arrives at the Afghan border crossing.

Visibility over shipments of supplies and equipment is also limited within Afghanistan. Although policies are in place to maintain visibility of materiel being transported, they have not been fully implemented. DOD's ability to track cargo locations using RFID technology is limited in Afghanistan because of a limited number of interrogators. Officials stated that to increase visibility over cargo transported within Afghanistan, all trucks that provide services under the Afghan Host Nation Trucking Contract are required to use satellite-based, location-tracking technology to track their movements over ground routes. However, officials told us that most host nation truck drivers in Afghanistan are deterred from using the required tracking system by concerns that insurgents may be able to track their locations and target their trucks. As a result, they disable the technology while transporting cargo. Officials noted that the percentage of truck drivers who comply with the requirement to use the tracking technology has increased over time, and they expect it will continue to rise as the drivers become more educated about the contract requirement and the system's benefits.

The lack of visibility over supplies and equipment transiting into and around Afghanistan causes inefficient management of the flow of incoming trucks to logistics hubs and forward operating bases. This may result in backlogs of trucks trying to access the bases and delays in customer receipt of cargo. Without adequate visibility, the arrival of trucks delivering cargo to bases cannot be effectively metered by DOD or contractors, resulting in long wait times at base entry control points. Because of space constraints, only a certain number of trucks can be allowed on a base at a time. If the available space is filled with incoming trucks, trucks awaiting entry onto the base must wait outside the base until space is available for them to enter. Officials stated that backlogs at Kandahar have resulted in drivers waiting up to 20 days to access the base. Even when a truck accesses the base, the lack of visibility over materiel being transported may continue to cause delays in the delivery of supplies and equipment. Because of minimal visibility over cargo location, customers awaiting delivery of a shipment may not be aware that their

cargo has arrived at a base, which may cause delays in pickup of the cargo. At the logistics hub in Kandahar, if the customer is unable to retrieve the cargo in a timely manner—usually within hours—the driver must exit the base and repeat the entry process until there is room to unload cargo and the customer is available to receive it.

Storage Capacity at Logistics Hubs in Afghanistan Is Limited and Sometimes Not Sufficient to Manage the Movement of Supplies and Equipment

Storage capacity at the primary logistics hubs is limited, and at times it is insufficient to manage the volume of inbound and outbound supplies and equipment moving into and around Afghanistan. While some mitigation plans are being implemented or are already in place to alleviate challenges with storage capacity and improve the flow of cargo, officials anticipate that there may be an ongoing lack of storage capacity as the number of troops deployed to Afghanistan and operations tempo continue to increase. For example, the confined operating space within the storage area at Bagram Airfield slows down the speed at which cargo can be processed. According to officials, outbound cargo storage yards at the base were temporarily shut down approximately 20 times for about 24 hours each time during periods of high operations tempo in the past year, because they could not receive outbound cargo until existing cargo was shipped out. Additionally, officials noted that cargo storage space at the Bagram logistics hub has decreased because of competing needs of expanding operations—for example, there is a need for more mail storage, and more airlift operations have required additional parking for aircraft. The limited storage space must further be shared among multiple coalition forces at some logistics hubs, creating competition for storage capacity and materiel-handling equipment. For example, at Kandahar, officials estimated that multiple coalition nations, such as the United States, Germany, and Great Britain, are sharing approximately 2 acres of storage space for cargo transitioning into and out of the base via air, causing some strain at times. Much of the unused surface area at Kandahar is uncleared terrain, making it unfeasible for storing cargo. Additionally, officials said that many units lack the appropriate materiel-handling equipment needed to move and store pallets and containers in and around the unfinished surfaces of Kandahar. These officials reported that as a result, they must share equipment, such as all-terrain forklifts, with other units and contractors, thereby further diminishing timely materiel-handling capability. Consequently, the limited availability of storage space, infrastructure, and materiel-handling equipment at the logistics hubs may hinder DOD's ability to manage the flow of supplies and equipment associated with the ongoing troop increase.

DOD is developing plans to expand storage capacity at logistics hubs in order to better manage the flow of incoming supplies and equipment and to efficiently distribute cargo to support the warfighter. However, these plans will not be completed in time to support the ongoing troop increase because of the logistical challenges of base expansion. Officials told us that there are many time-consuming steps in the expansion process: they must determine the owners of the land around the base, acquire the neighboring real estate, clear away mines in the surrounding areas, and obtain the supplies needed to complete the expansion. While DOD has begun to implement plans to mitigate challenges, officials stated that there are no "perfect solutions" to recurrent storage problems at the supply hubs. They anticipate that storage issues will continue, and significant improvement may not be realized as troops continue to deploy to Afghanistan and military operations continue to expand. For example, at Bagram, aerial port personnel have built structures that enable them to double-stack pallets of incoming cargo, and they have stored their flatbed trucks on the flight line in order to make more room for storing supplies and equipment in the cargo receiving and shipping yards. However, officials told us that storage capacity for both inbound and outbound cargo in Bagram's storage yards remains limited. At Kandahar, officials said there are plans to establish a logistics base adjacent to the main base. In the first phase of the base's two-phase development, U.S. forces will use interim storage yards for incoming cargo containers and vehicles, and a transshipment yard for U.S. cargo flowing through Kandahar on its way to another forward operating base. At the transshipment yard, truck drivers will unload cargo so it can be readied for movement to its final destination, thus eliminating the in-gating and customer pickup process at Kandahar, which can take many days. According to officials, phase one of the logistics base development is scheduled to be operational in April 2010, and the construction of the entire forward operating base is scheduled for completion in summer 2010. Officials stated that this expansion will help alleviate storage issues at Kandahar, allowing the United States to better prioritize cargo shipments and improve DOD's ability to quickly issue supplies and equipment to the warfighter. These officials noted, however, that the logistics base will not yet be fully operational during the height of the troop increase.

DOD Has Experienced Difficulties in Synchronizing the Arrival of Units and Equipment in Afghanistan

DOD experienced difficulties in synchronizing the arrival of units and their equipment in Afghanistan during the previous troop increase in 2009, and the synchronization of units and equipment will likely continue to be a challenge during the ongoing troop increase. Units arriving in Afghanistan typically receive the equipment they need to perform their mission from three primary sources: unit-owned equipment, such as individual weaponry that is either brought with them or shipped separately from their home stations; theater-provided equipment, such as retrograde equipment from Iraq; and new production equipment, such as the Mine Resistant Ambush Protected All-Terrain Vehicle. DOD's complex task is to synchronize the arrival of units with the availability of their equipment, regardless of the source, to enable them to perform their mission as quickly as possible. However, according to Joint Sustainment Command-Afghanistan, the 2009 troop increase resulted in significant backlogs of equipment transported on the Pakistani surface routes and by airlift, leaving some units in southern Afghanistan waiting for as long as several months to receive the theater-provided equipment necessary to conduct their mission. As of December 2009, no unit deployed to southern Afghanistan during the troop increase in the spring and summer of 2009 had yet received all of the theater-provided equipment it was suppose to be issued. Additionally, officials stated that DOD underestimated the amount of time required to install vehicles with sensitive items and ensure that they received necessary maintenance prior to their being delivered to the warfighter. As a result, some U.S. forces arrived at their forward operating base or combat outpost without the vehicles necessary to perform their mission.

Given the numerous challenges we have identified in delivering supplies and equipment to U.S. forces in Afghanistan, we believe that DOD will likely face the same difficulties in synchronizing the arrival of units and equipment during the ongoing troop increase. For example, one unit deployed in Afghanistan reported in a January 2010 readiness report that it did not receive all of its equipment from its home station and had to perform an upcoming mission despite not having all military equipment available. Another reported that it lacked mission-essential equipment, such as bomb-disabling robots that were vital to protect soldiers from improvised explosive devices they encountered while conducting their mission. Another unit reported that it had arrived in theater in December 2009 and was still awaiting provision of theater-provided equipment as of January 2010. While DOD has taken steps to improve the synchronization of units and their equipment during the ongoing troop increase, at the time of our review, these steps were just being implemented and we were therefore unable to evaluate their effectiveness.

Lack of Coordination and Competing Logistics Priorities in a Coalition Environment May Delay the Delivery of Supplies and Equipment to U.S. Forces in Afghanistan

At bases throughout Afghanistan, a lack of centralized coordination coupled with different and competing demands and priorities between U.S. and coalition forces may delay the delivery of supplies and equipment to U.S. forces. Additionally, limited processing and cargo-receiving capabilities may delay the delivery of supplies and equipment to U.S. forces. As aircraft carrying supplies and equipment land at coalition airfields, or host nation trucks arrive at entry control points with shipments for multiple coalition forces, logistics personnel at those locations have a limited ability to manage and prioritize the flow of all troops' cargo. Specifically, officials at Kandahar told us that they had waited for days to receive shipments of priority materiel that were waiting outside the base to be processed for entry onto the base, along with other coalition forces' cargo, because the coalition commander of Kandahar would not allow the U.S. forces' cargo to be prioritized to enter first at the control point. However, the officials noted that the planned construction of a U.S. logistics base adjacent to the existing coalition-run base will improve DOD's ability to manage and prioritize the flow of supplies and equipment and store cargo at Kandahar.

In addition, coalition forces compete for limited amounts of materiel-handing equipment and storage facilities. Officials stated that when materiel-handling equipment, such as forklifts, is unavailable or unserviceable, coalition forces have to share what limited equipment is available to conduct supply operations. Because units sometimes have to wait to use the available materiel-handling equipment, supply delivery to U.S. troops may be delayed. Officials did note that efforts to share space have improved over the past year, indicating that coalition forces are better coordinating their operations to fulfill the mission in Afghanistan. However, there is the potential for a future increase in the number of coalition forces in Afghanistan, which could exacerbate the challenges we have identified.

Uncertain Requirements and Low Transportation Priority for Contractors Create Additional Challenges

DOD's reliance on contractors to support its operations in Afghanistan creates additional challenges with regard to the distribution of supplies and equipment, as well as movement of contractor personnel. Contractors have become an indispensable part of the force, performing a variety of functions in Afghanistan, such as communication services, provision of interpreters who accompany military patrols, base operations support (e.g., food and housing), weapons systems maintenance, and intelligence analysis. DOD estimated that about 104,000 contractor personnel were supporting operations in Afghanistan as of September 2009. Further, DOD anticipates that this number will grow as it increases troop presence in

Afghanistan. As we have previously reported, troop increases typically include increases in contractor personnel to provide support.[13]

These contractors in Afghanistan rely on the same distribution routes and methods as do the military forces to deliver the supplies and equipment they need to perform their mission and sustain their operations. However, DOD's ability to manage the flow of materiel for contractors and military personnel into logistics hubs and forward operating bases, and balance the use of limited transportation assets and storage capacity between contractors and military personnel, may be hampered by its lack of good information on the number of current contractors and lack of good planning for the coming increase in both contractors and their requirements. These requirements include contractor access to materiel-handling equipment and storage space for the supplies and equipment contractors need to perform their mission as well as for life support, such as housing and food. Since 2003, we have reported that DOD lacked reliable data on the number of contractor personnel providing services in environments such as Afghanistan, and our work has found that DOD's current system for collecting data on contractor personnel in Afghanistan does not provide accurate data.[14] Further, during our December 2009 trip to Afghanistan, we found that there was only limited planning being done with regard to contracts or contractors. Specifically, we found that with the exception of planning for the increased use of the Logistics Civil Augmentation Program, U.S. Forces-Afghanistan had not begun to consider the full range of contractor services that might be needed to support the planned increase of U.S. forces.[15] More importantly, the command appeared to be unaware of its responsibility to determine contracted support requirements or develop the contract management and

[13] GAO, *Defense Management: DOD Needs to Reexamine Its Extensive Reliance on Contractors and Continue to Improve Management and Oversight*, GAO-08-572T (Washington, D.C.: Mar. 11, 2008).

[14] GAO, *Military Operations: Contractors Provide Vital Services to Deployed Forces but Are Not Adequately Addressed in DOD Plans*, GAO-03-695 (Washington, D.C.: June 24, 2003) and *Defense Acquisitions: Further Actions Needed to Address Weaknesses in DOD's Management of Professional and Management Support Contracts*, GAO-10-39 (Washington, D.C.: Nov. 20, 2009).

[15] The Logistics Civil Augmentation Program, commonly referred to as LOGCAP, provides worldwide logistics and base and life support services in contingency environments such as Afghanistan.

support plans required by guidance.[16] However, we did find some planning being done by U.S. military officials at Regional Command–East. According to planners from Regional Command–East, the command had identified the types of units that were deploying to its operational area in Afghanistan and was coordinating with similar units already in Afghanistan to determine what types of contract support the units relied on. Nonetheless, without a complete picture of the number of contractors in Afghanistan and their materiel requirements, DOD may not be in a position to effectively manage the flow of military and contractor cargo to ensure that all materiel is delivered to the right locations at the right time to enable both military units and contractors to perform their missions.

Another challenge with regard to contractors is the timely movement of their people and supplies around Afghanistan. When traveling around Afghanistan, contractor personnel and their equipment are given a low priority for air transportation as compared with military personnel and materiel, and that prioritization can affect the contractors' ability to perform their contracts. Contractor personnel have difficulty obtaining military airlift within Afghanistan, and they spend lengthy amounts of time in passenger terminals hoping to catch the first available flight. For example, according to contractor personnel we spoke with, they fly military airlift at the lowest priority for seats on flights. A letter from a military commander is needed in order to fly with a higher priority—and obtaining one takes considerable time and effort. According to these contractor personnel, the time they spend waiting in passenger terminals can cost the U.S. government both in money paid and lost productivity. Officials from several contractors told us that they factor additional personnel into their workforce structures because of the difficulties in getting people to and from their work sites. The difficulty in moving contractor personnel and equipment may be compounded when the troop increase begins. While some efforts are under way to improve key infrastructure, such as passenger terminals, it may still take time to complete these projects. Currently, the passenger terminals in key airlift hubs such as Kandahar and Bagram are very small, and passengers may experience long wait times between their arrival in the terminal and boarding their flights. Without a rapid expansion of these facilities, it is likely that this overcrowding will be compounded by the troop increase. During our visit we spoke with multiple people, including military and

[16] Joint Chiefs of Staff, Joint Publication 4-10, *Operational Contract Support* (Oct. 17, 2008).

contractor personnel, who had waited anywhere from a few days to a week to board a flight.

DOD Planning Efforts Include Consideration of These Distribution Challenges

In addition to the efforts described above to mitigate each of the challenges we have identified, DOD is also working to address them through planning conferences intended to synchronize the flow of forces into Afghanistan. For example, in December 2009 and January 2010, U.S. Central Command sponsored two conferences to (1) identify units and equipment available to deploy in support of the troop increase; (2) address ways in which distribution challenges could be overcome in order to deploy the troops and their required supplies and equipment by August 31, 2010; and (3) plan for the simultaneous drawdown of forces and equipment from Iraq. Officials from key organizations across DOD, including U.S. Transportation Command, U.S. Forces-Afghanistan, U.S. Forces-Iraq, and Army Central Command, attended both conferences. Throughout both conferences, DOD officials stressed the need to balance and closely coordinate multiple requirements in order to sustain current operations in Afghanistan and Iraq, draw down forces and equipment from Iraq, and increase forces and equipment in Afghanistan.

Despite the challenges we have identified in this testimony, DOD has plans in place to deliver the troops, supplies, and equipment to Afghanistan when required. However, at the January 2010 planning conference, DOD officials acknowledged that there is a high level of risk involved in executing the plans for supporting the ongoing troop increase, but they assume that improvements to the distribution process will be made that address the challenges we have identified. DOD's transportation feasibility analysis indicated that it will be possible to execute both the ongoing troop increase in Afghanistan and the drawdown from Iraq within the planned time frames, but this analysis assumes that several distribution efficiencies will be achieved.

Concluding Observations

Because of the unique challenges of Afghanistan, the movement of supplies and equipment in support of operations there is likely to be one of the most complex logistics operations the U.S. military has undergone in recent history. The challenges are daunting, and the transportation system is heavily strained in maintaining current operations. Now, with the addition of 30,000 more U.S. troops on the horizon, coupled with an increase in contractors and a potential increase in coalition forces, these challenges will only be magnified, and a system that is struggling to keep pace with current operations could be further strained. It will, therefore,

be critical for DOD to develop adequate contingency plans to mitigate the effects of these and other unforeseen challenges, and to react quickly to overcome significant problems as they occur. Failure to effectively manage the flow of materiel could delay combat units' receipt of the critical items they need to perform their mission, and costly backlogs of cargo could accumulate throughout the supply system, risking loss of accountability and control over billions of dollars in assets. We expect to report more fully on these and other issues at a later date.

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