

USAWC STRATEGY RESEARCH PROJECT

**LOGISTICS OPERATIONS IN COMBAT OPERATIONS AGAINST AN INSURGENT
FORCE**

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ABSTRACT

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Conducting logistics operations in dispersed combat operations against a predominately insurgent force is an issue that military leaders struggle with today. Supplying the force requires leaders to deploy hundreds of combat logistics patrols each day. The road networks are generally not secure and put soldiers at risk. How do we distribute supplies and reduce the risk or avoid the enemy's threat to our combat logistics patrols in an insurgent environment? The options and issues we will explore are the new threats and alternative methods to distribute supplies to the force.

LOGISTICS OPERATIONS IN COMBAT OPERATIONS AGAINST AN INSURGENT FORCE

Problem

Conducting logistics operations in dispersed combat operations against a predominately insurgent force is an issue that military leaders struggle with today. Supplying joint and coalition forces requires leaders to deploy hundreds of combat logistics patrols each day. The road networks in an insurgent war are not secure and put soldiers at risk. This paper explores how to distribute supplies and reduce the risk or avoid the enemy's threat to our combat logistics patrols in an insurgent environment.

Strategic and future combat system development and acquisition planners consider many ways to reduce the threat to our soldiers in the direct fire fight, However, not much emphasize is put into the methods that reduce the threat to our joint and coalition combat service support operations. Therefore, I will examine the current threat to logistics operations, explore opportunities for improved, and what we should have done in the past to reduce the threat to our soldiers in a non-secure insurgent environment, and recommend methods to develop a strategy for the development of proto-type equipment and re-supply operations that will reduce or eliminate the threat to our soldiers conducting re-supply missions. Re-supply by air is the best method to move supplies without putting soldiers at risk. Therefore, I will present a recommendation that will offer the military other options to conduct re-supply operations that reduces the threat to our soldiers on the insurgent battlefield. This recommendation will focus on the capabilities to conduct air re-supply.

Secure Lines of Communication (LOC) for Re-supply

The insurgent wars in Iraq and Afghanistan have enemies that are not thinking in terms of linear battle fields of World War II (WWII) and Korea. The enemy is everywhere and we do not have a vote of where and when the enemy will attack the US soldiers and our assets. The United States forces lines of communication (LOC) in Iraq and Afghanistan are in danger of having their line of supply cut by guerrillas. Napoleon once said that an army travels on its stomach. He meant that the problem of keeping an army supplied is the prerequisite for the very existence of the force. A 21st-century military force consumes a tremendous volume of expendable supplies and continuously needs repairs to equipment as well as medical treatment.¹ Today in the Central Command's area of operations, they deliver over 1000 re-supply trucks to the combat forces daily. The cost is a staggering 6.4 Billion per month.² Without a plentiful and dependable source of fuel, food, and ammunition, a military force falters.

First it stops moving, then it begins to starve, and eventually it becomes unable to resist the enemy.³

In 1915, this happened to British forces that had invaded Mesopotamia. A British-Indian force traveled up the line of the Tigris River, advancing to Kut, southeast of Baghdad. They became besieged there after their line of supply was cut along the river to the south. Some 11,000 troops ultimately surrendered, after the allies suffered another 23,000 casualties trying to rescue them.⁴ Today in Iraq and Afghanistan, potential adversaries along the LOCs and the cities include many combat experienced members and well schooled officers and former officers. We can be sure that they are acutely aware of this weakness in our situation. The precarious nature of our supply LOCs lack of security is well-known to our military leadership. Unfortunately, this is one of the many problems in Iraq and Afghanistan that has not been adequately addressed because of a shortage of troops. We should start building ourselves another line of supply as a backup, and we should do it soon.⁵ We must determine alternate ways to move the supplies required by the military around the battlefield with a greatly reduced or virtually no threat to our soldiers. Understanding the threat in an insurgent environment is the first step.

LOC Threat (Improvised Explosive Devices)

The threat is evolving in the insurgent environments. The most predominant threat to distribution of supplies and our soldiers are the improvised explosive devices (IED). IEDs are not the new threat that many perceive them to be and actually have been used all over the world for decades. One of the first coordinated, large-scale uses of the devices was during World War II, when Belarusian guerillas used them against the Nazis to derail thousands of Nazi trains.⁶ Beginning in July 2003, the Iraqi insurgency used IEDs (more often referred to as roadside bombs by the press) to target American and Coalition vehicles. Common locations for placing these bombs include animal carcasses, soft drink cans, and boxes. Typically they explode underneath or to the side of the vehicle to cause the maximum amount of damage. However, as vehicle armor was improved on military vehicles, insurgents began placing IEDs in elevated positions such as on road signs or trees, in order to hit less protected areas. IEDs in Iraq may be made with artillery or mortar shells or with varying amounts of bulk or homemade explosives. IEDs have accounted for (as of October 2005) about one-third of all American deaths in Iraq. Despite the increased armor, IEDs have been killing soldiers with greater frequency in a ten month period in 2005, 302 U.S. soldiers were killed by IEDs. According to the Pentagon, 250,000 tons (of 650,000 tons total) of Iraqi ordnance were looted, providing a

nigh-endless source of ammunition for the insurgents⁷. More recently, in December 2006, USA Today reports: the associated press reported that the number of Americans killed since the war in Iraq began reached 3000. At least 35% of them died in IED explosions. In December alone, the deadliest month of 2006, at least 48 of 69 Army combat deaths were caused by roadside bombs⁸.

Deputy Defense Secretary Gordon England called on some of the best minds in the country today to help come up with new solutions to the threat improvised explosive devices pose to U.S. troops. Speaking to some 600 leaders from industry, academia, the national laboratories and all branches of the military at a two-day industry conference focused on the IED threat, England challenged participants to find better ways to counter what has become the terrorists' weapon of choice in Iraq and, more recently, Afghanistan. "We owe it to the troops," he told the group. IEDs are the leading cause of U.S. combat deaths and injuries in Iraq, the deputy said. Every IED attack represents an attack, not just against the troops, but also against the will of the American people, he said. The Joint Improvised Explosive Device Defeat Organization and the National Defense Industrial Association are cosponsoring the two-day IED conference at the Ronald Reagan Building and International Trade Center to exchange information and explore solutions. In addition to briefing industry leaders about current and evolving challenges, defense and military leaders at the forum are encouraging participants to help come up with new ways to confront IEDs.⁹ One wonders why we are just now working on solutions to a problem that has been around since WWII and again in Vietnam. We are just now working this issue as a major threat. Additionally, the direct fire threat to combat, combat support, and combat service support soldiers on the battlefield have always been at risk to direct fire attacks from small arms and rocket type fires.

LOC Threat (Direct Fire Protection)

The threat changes everyday as the technology increases the enemy's asymmetric type weapons capability and asymmetric threat to our combat logistics patrols (CLP). The CLP is the Armies Theater Support Commands' (TSC), Sustainment Brigades and Brigade Combat Teams (BCT) primary method to re-supply combat and counterinsurgency (COIN) operations. Primarily the combat logistic patrols moves the supplies via wheeled vehicles from distribution centers to the forward operating bases (FOB) and forward logistical elements (FLE) that are placed throughout an area of responsibility (AOR). During COIN operations, every logistical package or re-supply operation becomes a mounted combat operation or combat logistic patrol. From the insurgent perspective, attacks on re-supply operations are not only a potential source of

dramatic propaganda but can also be a source of supplies and material.¹⁰ Advanced armor protection is clearly required in a conventional or a COIN operating environment.

History shows that vehicles required to distribute supplies have been attacked since their invention and use by the military in combat. In the sixty five years since WWII, the protection that is currently on our wheeled vehicle fleets has not changed. The Family of Medium Tactical Vehicles (FMTV) are still being purchased without additional armor protection against direct fire attacks.

During World War II (WWII); the "Red Ball Express" was the Army code name for a truck convoy system that stretched from St. Lo Normandy to Paris and eventually to the front along France's northeastern borderland. The route was marked with red balls. On an average day, 900 fully loaded vehicles were on the Red Ball route round-the-clock with drivers officially ordered to observe 60-yard intervals and a top speed of 25 miles per hour. At the Red Ball's peak, 140 truck companies were strung out with a round trip taking 54 hours as the route stretched nearly 400 miles to the First Army and 350 to Patton's Third Army. Rookard recalled convoys rolling all day every day regardless of the weather. Night driving was hard because of blackout rules.¹¹ During WWII soldiers clearly were put into a combat environment that put them at risk to artillery attacks, mines, and trip wired explosives. The soldiers found ways to add protection to their vehicles for protection. For example, drivers sand bagged the floor to stop mine blasts. Many Red Ball Jeeps were equipped with hooks to catch any piano wire that had been strung across the highway. Most of the jeeps and trucks drove with their windshields down, because a glint off a windshield would bring down a hail of German artillery fire.¹²

The strategic planners and acquisition agencies have been well aware of the requirement to better protect soldiers conducting combat logistics patrols in past. In Vietnam in 1969, a convoy from the 48th Transportation Group assigned to re-supply the 25th Infantry Division was attacked in the Cu Chi province.¹³ A supply convoy from the group was caught in a North Vietnamese Army (NVA) ambush. The combat brigade responsible for clearing that section of the main supply route had recently been assigned other missions and resources were spread thin. The ambushers chose their site very well: monsoon conditions, outside range of indirect fire, and the supplies were destined for the unit assigned to secure the Main Supply Route (MSR). Two UH-1C "Huey Gun Ships" were the first assets to arrive to assist the beleaguered convoy. From the air, the aviators witnessed NVA soldiers unloading supplies from the U.S. vehicles and onto NVA trucks hidden in the tree line off the road. Almost three hours later a minimal force, barely enough capable of defending the areas remaining convoy assets and surviving personnel arrived. Finally, seven hours later a U.S. armored cavalry force arrived and

forced the NVA attackers to withdraw. Thirty U.S. soldiers were killed, forty five wounded and two were taken prisoner in this ambush. As a result, the units' began to conduct detailed convoy planning meetings, placed security personnel on every vehicle with a mounted M60, and hardened the supply trucks with steel plates. With these new practices in place, NVA convoy ambushes soon had very different endings. A change in thinking about logistical problems converted the perception of convoy operations from an unglamorous defensive activity into a valuable method to offensively engage exclusive insurgents¹⁴

Reducing Threat (Armor Protection)

Lessons were learned in 1969 were not implemented and yet when we deployed to Operation Iraqi Freedom (OIF) in 2003, the U.S. logistical trucks deployed with no small arms or armor protection. Strategic thinkers and force and equipment development agencies did not incorporate small arms and anti-armor protection as we purchased our current vehicles and delivery systems. The threat is most certainly an asymmetric type enemy that does not following the traditional rules that most logisticians have thought for much of the past 60 years. Rafel Advanced Armor Research Corporation told the Army in 1999; the logistics line of communication and rear area is not present and most certainly not secure. The battle edge in modern ground warfare calls for transformation of an army into a dominant force across the entire spectrum of operations. The new technologies must provide for operations in the extended and deepened battlefield, increase efficiency by operating forces in decentralized operations and improve command and control environments. The battlefield advantage will sway to those forces that excel in intelligence, communications, and command and control abilities.¹⁵ Even though we had advance warning from several force development agencies and research organizations, the force equipment providers ignored lessons learned from the past (like the 48th Transportation Group in Vietnam) and advanced research agencies that projected the likelihood of a non-secure rear areas and non-secure lines of communications will most certainly be present. However, we entered OIF in 2003, with equipment that did not protect our soldiers from small arms and anti-armor threat. We were unprepared and we were without excuse.

CBS Sixty Minutes reported in October 2004, "two weeks ago, a group of Army reservists in Iraq refused a direct order to go on a dangerous operation to re-supply another unit with jet fuel. Without helicopter gun ships to escort them over a treacherous stretch of highway, and lacking armored vehicles, soldiers from the 343rd Quartermaster Company called it a suicide mission. The Army called it an isolated incident; a temporary breakdown in discipline, and an

investigation was initiated. But the 343rd was not the first outfit to be put in harm's way without proper equipment, and commanders in Iraq acknowledged that the unit's concerns were legitimate, even if their mutiny was not".¹⁶ However, the U.S. did accelerate the purchase up-armor High-Mobility Multipurpose Wheeled Vehicles and add-on armor kits for the wheeled vehicle fleets based on the new threat and an outcry from the public and congress to protect our troops. Still the fact of the matter is the lessons learned in pervious wars were not applied by the acquisition corps development teams while purchasing the new wheeled fleets of vehicles.

Alternative Methods to Reduce Threat to the Force

This research demonstrates the insurgent threat to supply distribution has been part of many wars. Air lifting supplies with Air Force fixed wing assets and aerial delivery systems, military helicopters, or guided and precise air drops are methods to minimize the threat to soldiers. Currently, due to the lack of air lift assets, the army uses organic air re-supply to distribute supplies capability on limited bases.¹⁷ The Vietnam Conflict and WWII show us that aerial re-supply is an effective method of distributing supplies and reducing the CLPs threat during combat operations. Unfortunately the Army's culture is based on ground re-supply operations that have not progressed over the years. The thought of conducting operations almost completely requires a huge culture change if the Army is going to have confidence in the Air Force and for the technology to work.

Historically, fixed wing re-supply has been an effective option for the military to reduce the number of CLPs on the battle field. The United States Marine Corps (USMC) was under siege and had no ground LOCs at the battle of Khe Sanh Vietnam. The battle of Khe Sanh began at 0530, 21 January 1968.¹⁸ Enemy pressure on the Khe Sanh Combat Base continued for the initial two weeks but not in the form of any major ground attacks. Probes, minor clashes, and sniping incidents occurred daily although the main enemy interest appeared to be the consolidation of his position and preparation for an all-out effort. In attempts to deter these preparations by artillery and air strikes, the marines were themselves hindered by the weather. On 10 February, a Marine C-130, loaded with fuel containers, was laced with bullets just before touching down on the runway. The aircraft was lost along with the passengers and crew. This incident caused major revisions in the offloading procedure. As a result of this loss and the damage inflicted on other aircraft while on the ground, landings of the large C- 130 type aircraft were suspended at Khe Sanh on 23 February.¹⁹ During this period Khe Sanh and its surrounding outposts continued to be supplied almost entirely by air. Marine and Air Force cargo aircraft made numerous daily runs to keep the base provisioned, to bring in replacement

troops, and to take out wounded. The pilots braved both poor weather and intense enemy anti-aircraft fire to accomplish these tasks. Air operations on the logistical side also progressed. Following the termination of C-130 aircraft landings, the Air Force introduced a new procedure to continue supplying the main Khe Sanh base with a new method known as the Low Altitude Parachute Extraction System or (LAPES).

This self-contained method of delivery was employed while the air strip was repaired in late 1967. The name of the system accurately described the technique. As the aircraft came in low over the airstrip, the pilot opened the tail gate and released a reefed cargo parachute which was connected to the pallet mounted cargo in the aircraft. When the load master electrically cut the reefing line, it caused the parachute to fully deploy and inflate. The parachute then jerked the pallets out of the aircraft over the roller system mounted on the aircraft floor. After a five to ten foot drop, the cargo skidded to a halt on the runway. Experienced pilots could consistently leave their loads in a 25-meter square.²⁰

A second technique was also used to deliver cargo by aircraft without actually landing. This method was known as the Ground Proximity Extraction System (GPES). GPES was employed less frequently than the low altitude system. In the GPES delivery, the C-130 aircraft came in low over the airstrip, the pilot would attempt to snag an arresting line on the ground similar to the line a navy pilot uses in landing on an aircraft carrier. The ground line then jerked the cargo from the opened rear of the aircraft.²¹

Both methods were available options to reduce exposure to the threat on un-secure LOCs. Clearly it is imperative for the military force to have air superiority and the enemy air defense capability must be eliminated prior to this method of re-supply. Additionally, this re-supply method requires an air strip and generally a secure location. In the end, re-supply with cargo deliveries or air drops with LAPES or GPES type distribution systems, will reduce the threat to re-supply operations under attack by IED and direct fire capabilities.

Another example of a successful re-supply operation that was accomplished entirely by air is the Berlin Airlift operations. The re-supply efforts had LOCs to distribute the supplies. The Berlin Blockade (June 24, 1948 to May 11, 1949) became one of the first major crises of the new Cold War, when the Soviet Union blocked railroad and street access to West Berlin. The crisis abated after the Soviet Union did not act to stop American, British and French humanitarian airlifts of food and other provisions to the Western-held sectors of Berlin; this was referred to as Operation Vittles by the Americans and Operation Plainfare by the British. When World War II ended in Europe on May 9, 1945, Soviet and Western (U.S., British, and French) troops were located in arbitrary places, essentially, along a line in the center of Europe. From

July 17 to August 2, 1945, the victorious Allied Powers reached the Potsdam Agreement on the fate of post-war Europe, calling for the division of a defeated Germany into four occupation zones (thus reaffirming principles laid out earlier by the Yalta Conference), and the similar division of Berlin into four zones, later called East Berlin and West Berlin. The French, U.S., and British sectors of Berlin were deep within the Soviet occupation zone, and thus a focal point of tensions corresponding to the breakdown of the Western-Soviet wartime alliance.²² On June 24, 1948, the Soviet Union blocked access to the three Western-held sectors of Berlin, which lay deep within the Soviet-controlled zone of Germany, by cutting off all rail and road routes going through Soviet-controlled territory in Germany. The Western powers had never negotiated a pact with the Soviets guaranteeing these rights. Amid the fallout of the London Conference, the Soviets now rejected arguments that occupation rights in Berlin and the use of the routes during the previous three years had given the West legal claim to unimpeded use of the highways and railroads. As a further means of applying pressure, the Western sectors of Berlin were isolated from the city power grid, depriving the inhabitants of domestic and industrial electricity supplies. The commander of the American occupation zone in Germany, General Lucius D. Clay, proposed sending a large armoured column driving peacefully, as a moral right, down the Autobahn from West Germany to West Berlin, but prepared to defend itself if it were stopped or attacked. President Harry S. Truman, however, following the consensus in Washington, believed this entailed an unacceptable risk of war. Truman stated, "It is too risky to engage in this due to the consequence of war". Clay was told to take advice from General Curtis LeMay, commander of United States Air Forces in Europe, to see if an airlift was possible. By chance, General Albert Wedemeyer, the U.S. Army Chief of Plans and Operations, was in Europe on an inspection tour when the crisis occurred. He had been commander of the U.S. China Theater in 1944–1945 and had an intimate knowledge of the World War II Allied airlift from India over the Hump of the Himalayas. He was in favour of the airlift option and knew the best person to run the operation: Lt. General William H. Tunner was charged with organizing and commanding the Berlin airlift because of his experience in commanding and organizing the airlift over the Hump. Berlin Airlift Monument in Berlin-Tempelhof, displaying the names of the 39 British and 31 U.S.-American pilots who lost their lives during the operation. Similar monuments can be found at the military airfield Wietzenbruch near Celle and at Rhein-Main Air Base. Berlin Airlift Monument in Berlin-Tempelhof with inscription "They lost their lives for the freedom of Berlin in service for the Berlin Airlift 1948/49". On June 25 Clay gave the order to launch a massive airlift using both civil and military aircraft (ultimately lasting 462 days) that flew supplies into the Western-held sectors of Berlin over the blockade during 1948–1949. The first plane flew on the following day,

and the first British aeroplane flew on the 28th. This aerial supplying of West Berlin became known as the Berlin Airlift. Military confrontation loomed while Truman embarked on a highly visible move which would publicly humiliate the Soviets. Hundreds of aircraft, nicknamed Rosinenbomber ("raisin bombers") by the local population, were used to provide a wide variety of cargo, ranging from large containers to small packets of candy with tiny individual parachutes intended for the children of Berlin (an idea of a pilot named Gail Halvorsen that soon gained considerable US civilian support). Sick children were evacuated on return flights. The aircraft were supplied and flown by the United States, United Kingdom and France, but pilots and crew also came from Australia, Canada, South Africa and New Zealand in order to assist the supply of Berlin. Ultimately 278,228 flights were made and 2,326,406 tons of food and supplies, including more than 1.5 million tons of coal, were delivered to Berlin.²³ On April 4, 1949, the Western powers signed the North Atlantic Treaty founding NATO, declaring that an attack on any one would be considered an attack against them all. At the height of the operation, on April 16, 1949, an allied aircraft landed in Berlin every minute, with 1,398 flights in 24 hours carrying 12,940 tons (13,160 t) of goods, coal and machinery, beating the record of 8,246 (8,385 t) set only days earlier. The USSR lifted its blockade at 00:01, on May 12, 1949. However, the airlift did not end until September 30, as the Western nations wanted to build up sufficient amounts of supplies in West Berlin in case the Soviets blockaded it again.²⁴ The Berlin air lift operation is an excellent example of how combat forces can be re-supplied by air.

The air craft had a secure air field to land drop supplies. However, the secure air field is not always available. This operation demonstrates if a city could be re-supplied by air, so could a combat force. Many combat operations are in terrain that requires a capability to deliver without a fixed wing assets. The helicopter has been in use for this distribution of people, supplies and casualties since the Korean war.

Helicopters have been an excellent method to distribute supply troops that were not accessible to convoy operations. Many of the re-supply operations in Vietnam used helicopters because of the lack of road networks into remote regions. Other re-supply operations had a road network to distribute supplies but the road networks were not secure and the leaders chose to re-supply by air to reduce risk to soldiers (like Khe Sanh). For example in Vietnam; during 1969 -71, practically all operations of the 1st Battalion 6th Infantry were dependent upon the mobility of helicopters. Aircraft from the 176th AHC (Minutemen) flew re-supply missions to the troops in the field every third or fourth day to avoid compromising their tactical locations with daily re-supply flights. The aircraft brought new soldiers to the field and took others in for R&R or other personal needs. Re-supply by helicopter was still challenging because the unit's

location was now pinpointed by the Viet Cong who could easily follow the flight of the re-supply helicopter. Under those circumstances, units would load up quickly, bury or burn those items that could not be carried (i.e. bulky packages from home), and move from the site to a more secure location.²⁵ Clearly these troops from the 6th Infantry relied solely on the aerial re-supply operations. Unfortunately, air re-supply is never the first option in logistics planning, even in today's combat operations. Our first option is to use the CLPs due to the volume of supplies required by our troops and spare parts to maintain our equipment and because of our culture. However, the option to re-supply our troops by air (fixed wing, helicopter, or air drops) reduces the risk to soldiers and logistics distribution on the insurgent battlefield.

An important implication of this option would require a substantial increase in air lift assets. However, other options could prove to be a very effective method of distributing supplies on the battle field in greater volumes than it is today. Global positioning system guide pallets are now being tested in combat to distribute supplies to remote areas that are hard to access in Iraq and Afghanistan.

The Marines have always been the lead in air delivery capability. Just as they did in Vietnam at Khe Sahn; the Marines are leading in air distribution in Iraq. In 2004 the Marines purchased a air delivery capability that distributes supplies without putting any CLPs on the ground. The system as described clearly eliminates the threat to troops distributing supplies: steering themselves from nearly two miles high to within less than 200 meters of their target, the Marine Corps' two newest skydivers made their first combat zone landing Aug. 9, 2004, near here. The jumpers, however, are machines programmed with the drop zone's coordinates, guided by the Global Positioning System, and maneuvered by motor-tugged lines, the Sherpa units each sat atop a pallet of rations for Marines here, riding them to Earth and ushering in the future of cargo delivery by air. The owner of the new Sherpa is the 1st Air Delivery Platoon, part of Combat Service Support Battalion 7, 1st Force Service Support Group, which delivers supplies to Marine units throughout the vast western portion of Iraq's Al Anbar Province. GPS-guided parachutes like the Sherpa eliminate numerous disadvantages of air dropping supplies to far-flung troops, said Army Capt. Art Pack, 37, combat developer with the Army's Combined Arms Support Command in Fort Lee, Va. The Sherpa uses a rectangular, 900-square-foot parachute, which can be steered, vice a classic round chute. It incorporates a small drogue parachute to help stabilize the cargo pallet, keeping it facing upward so the main chute opens properly after freefalling. "It's basically your standard freefall rig, just super-sized," said Pack. While in flight, the Sherpa constantly checks its position using a GPS receiver, and makes flight adjustments as necessary, pulling on two steering lines to turn the parachute. Before the

mission, the aircraft's altitude and speed, the cargo's weight, the drop zone location and wind speeds for various heights must be programmed into the Sherpa's control unit so it can calculate a flight plan, said Gunnery Sgt. Lorrin K. Bush, head of the air delivery platoon. It can even be programmed to maneuver around obstacles or locations where enemy forces are located. In response, the Sherpa calculates the precise point in the sky where the cargo must be dropped. As a result, the riggers are taking on more responsibility since they can now plan part of the flight's path.²⁶

While air delivery has seen limited use by the Marines thus far in Iraq, it helps reduce the number of Marines and vehicles taking to the dangerous Iraqi highways, veins of insurgent activity but lifelines to sustain troops. Air re-supply reduce vehicle convoys to remote bases like Korean Village in Iraq and the Marines plan on equipping the second rotation of air delivery Marines with larger parachutes and pallets capable of delivering much larger loads of rations and water. Sherpas will be incorporated into standard drops as well as used to re-supply units operating remotely.²⁷ The GPS guided air drops are certainly proof that this system will provide a proven alternative.

The fact of the matter is, after multiple historical examples of excellent methods to re-supply the military by air, which is much safer than re-supply operations by ground, the culture still puts soldiers at risk during CLPs. The asymmetric threat in an insurgent environment is still a high threat to the military. IEDs and direct fire can and do kill and wound many troops in re-supply operations. Leaders must look at other options and employ them into the theaters of operation to change the equation of future combat. The enemy can not harm soldiers if the soldiers are not conducting CLPs. The enemy can not harm soldiers if the re-supply operations do not offer the insurgent enemy an opportunity to kill the military conducting re-supply.

Airlifting supplies with Air Force fixed wing assets and aerial delivery systems, military helicopters, or guided and precise air drops are methods to minimize the threat to soldiers. Unfortunately these are not the first methods that the ground force commanders use to distribute supplies. Clearly the air delivery systems remove the CLP as a target option. However, most ground force commanders do not trust the air capability to get enough and of the required supplies to the place and time it is required. The ground forces generally do not trust the Army or Air force air re-supply to get what they need to conduct combat operations. The joint force must develop a strategy to trust the air capability and then develop more rotary and fixed wing intra-theater capability to deliver supplies by air which takes the insurgent enemies option to attack our CLPs away.

Conclusion

The distribution of supplies in the Conducting logistics operations in dispersed combat operations against a predominately insurgent force is an issue that military leaders struggle with today. Supplying the joint and coalition forces requires leaders to deploy thousands of combat logistics patrols each day. The road networks in insurgent wars are generally not secure and put soldiers at risk. Each day we see the number of troops that are killed in Iraq and Afghanistan on CNN. To date there are over 3100 troops killed in Iraq alone.

To reduce the threat and number of US troops killed we could clearly use the technology that is readily available to reduce the number of CLPs that the military deploys daily to supply the forces. The threat can be reduced if we provide the added protection that add-on-armor gives our troops. This clearly reduces the direct fire threat to our troops. Even better options are to re-supply by air which eliminates the threat to our troops conducting CLPs to distribute supplies. It is noted that the air superiority must be maintained or the threat will simply move from troops on the ground to the troops operating the rotary and fixed wing air frames.

History shows us there is capability available to distribute supplies that will reduce the threat to our troops in an insurgent environment. Insurgent environments with non-secure LOCs are going to continue in today's wars and wars in the future. We have many means available today that can support our troops and reduce threats that kill troops on the ground. The acquisition increased air frames and air delivery capability deserves immediate attention. The means to move to safer and reduced threats are available today. The military must look hard at the new threats in the insurgent environment and then move into a direction that will move from 10 percent of re-supply operations by air and distribute the predominant amount of supplies by air delivery capabilities.

The military and Department of Defense should consider this joint problem and implement an acquisition strategy that develops a rotary and fixed wing capability that can support intra-theater air re-supply and reduce the total number of CLPs. Clearly this requires a culture change in all services. More importantly it requires the services to thrust each other and to demonstrate that missions are conducted on time to support combat operations in the theaters of operations. This change in operations and culture requires a joint approach to persuade congress that the new acquisition cost would make the battlefield safer and would reduce the threat and risk to our troops.

Endnotes

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