



HANDBOOK

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OPERATION ENDURING FREEDOM III



Tactics, Techniques, and Procedures

Center for Army Lessons Learned (CALL)
Fort Leavenworth, KS 66027-1350

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Foreword

The purpose of this handbook is to provide units with current information from Operation Enduring Freedom (OEF). Two weeks after the highly successful election of President Karzai, the Center for Army Lessons Learned (CALL) deployed a collection and analysis team (CAAT) to Afghanistan. This handbook is a result of combining information from several sources, including members of the Combined Joint Task Force -76 (CJTF-76). The intent of this handbook is to provide follow-on units with a current view of operations in support of the recently elected government in Afghanistan.

The Army faces a variety of possible adversaries in both OEF and Operation Iraqi Freedom (OIF). These potential adversaries use differing levels of technology and ever changing tactics and strategies. Friendly forces are challenged with enemies that plan on the move and stretch our combat power. Planning demands adapting instantaneously to these asymmetric methods to remain ahead of the enemy decision cycle.

Understanding the nature of the operational environment (OE) encountered in OEF is essential to sharpening the critical planning skills of brigade and battalion staffs. Soldiers and leaders must be able to protect themselves from various and sometimes unpredictable threats, while continuing to exploit the enemies' weaknesses.

A handwritten signature in black ink that reads 'Lawrence H. Saul'.

LAWRENCE H. SAUL
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Director, Center for Army Lessons Learned

OPERATION ENDURING FREEDOM (OEF) HANDBOOK III

TABLE OF CONTENTS

Foreword	
Chapter 1: Anti-Coalition Members (ACM) Tactics, Techniques, and Procedures	1
Section I: Maneuver	1
Section II: Fire Support	8
Section III: Air Defense	10
Section IV: Command and Control	12
Section V: Mobility and Countermobility	14
Section VI: Logistics	16
Section VII: Denial and Deception	18
Chapter 2: Universal Lessons to Support Tactical Operations in OEF	21
Section I: Tips for Conducting Operations in Afghanistan	21
Section II: Soldier Load in a Desert Environment	29
Section III: Aviation Operations in Afghanistan	31
Section IV: Special Operations Forces (SOF) in Afghanistan	35
Section V: Base Camp Operations	38
Section VI: Tactical Convoy Operations	40
Section VII: Vehicle Battle Drills	50
Section VIII: Convoy Battle Drills	58
Section IX: Unmanned Aerial Vehicle (UAV) Support Operations	86
Section X: Operations Against Cave Complexes	88
Section XI: Operations in a High-Altitude Environment	90
Section XII: Operations in Cold Weather	92

Section XIII: Food and Water	103
Section XIV: Field Sanitation and Personal Hygiene	107
Chapter 3: An Introduction to Afghanistan	111
Section I: Historical Review: U.S. in Operation Enduring Freedom	111
Section II: Location and Description	113
Section III: Topography	113
Section IV: Drainage	113
Section V: Vegetation	114
Section VI: Climate	114
Section VII: Ethnicity and Language	115
Section VIII: Key Cities	115
Section IX: Way of Life	116
Appendix A: Convoy Leader Checklist	119
Appendix B: Individual Checklist	121
Appendix C: Convoy Vehicle Checklist	123
Appendix D: Sample Convoy Brief	125
Appendix E: Coalition Forces Land Component Command Reference Card (Sep 04), Arming Stance	131
Appendix F: Coalition Forces Land Component Command, Medical Evacuation (MEDEVAC)/Casualty Evacuation (CASEVAC) Request Procedures and Medical Treatment Protocol	133
Annex I: Conventional Forces in Low-Intensity Conflict: The 82nd Airborne in Firebase Shkin, by <i>David L. Buffalo</i>	135
Annex II: Accidental or Negligent Discharge, by <i>Sergeant First Class Raymond Hamilton</i>	157

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CHAPTER 1

Anti-Coalition Members (ACM) Tactics, Techniques, and Procedures

SECTION I: MANEUVER

United States and coalition forces conduct operations against anti-coalition forces in Afghanistan. Anti-coalition members (ACMs) are drawn from al-Qaida, Taliban, and other factions opposed to the government of Afghanistan.

Ambush Tactics, Techniques, and Procedures

During the Soviet-Afghan war, Mujahedin ambushes were the most effective counter to Soviet/Democratic Republic of Afghanistan Army military activity. U.S. forces have encountered similar ambushes by ACM organizations or factions.

- Ambushes are conducted for either harassment or resupply:
 - Harassment ambushes are generally small scale (as few as two to four personnel) and brief, followed by a rapid withdrawal of troops.
 - Ambushes for spoils require more personnel, and destroyed or abandoned vehicles are looted for weapons, munitions, food, and anything else of value.
- A small ambush element consists of 2 to 15 personnel, whereas a large ambush element can include from 100 to 150 personnel.
- Ambush teams include the following elements:
 - Observers (three to four men): Possibly unarmed, pretending to be shepherds, farmers, etc. Children are sometimes used as observers
 - Firing element: The ambush's firepower
 - Alert element: Positioned along the likely direction of the ambushed element's direction of retreat or maneuver to hinder his withdrawal.
 - Reserve element: Reinforces the firing element or covers the ambushing element's withdrawal
- These ambushes have an established chain of command and radio communications. If no radios are available, communication will be accomplished by visual signaling, such as smoke grenades, mirrors, flares, and waving.
- The ambush deployment consists of three lines:
 - First line: The firing element of the ambush
 - Second line: Communications element, located 20 to 25 meters behind the first line in order to relay communications between the command element and the firing element
 - Third line: Command element, located 30 meters behind the second line

- Ambush sites are carefully selected. They are usually set up along the entrance and exit routes through canyons and other narrow passageways. In built-up areas, the ambushes are set up behind earthen walls or in houses or other structures.
- Ambushes usually occur in the early morning or in the evening. Additionally, most convoy ambushes have been reported to occur on return trips, typically because routes of travel are restricted. Once a force leaves on a mission, enemy forces know that they will be returning soon and usually on the same route.
- ACM forces have also become adept at setting ambushes to intercept reaction forces responding to shelling attacks on bases, compounds, or other fixed installations.

Lessons:

Lesson 1. Advance reconnaissance patrols are necessary, but simply driving through the suspected area does not clear it of enemy forces or prevent an ambush on a trailing convoy. Reconnaissance and security elements have to secure the entry and exit locations of suspected ambush sites, in addition to clearing surrounding high ground.

Lesson 2. Helicopter support is crucial in preventing ambushes. A narrow time gap between a reconnaissance flight and the point element of a convoy will prevent or hinder the deployment of the ambushing force from concealed positions. Recent experience has shown that ACM forces will “go to ground” and hide in order to avoid detection and possible engagement by unmanned aerial vehicles (UAVs) and armed aircraft.

Lesson 3. It is important to avoid predictable and set patterns of movement.

Lesson 4. The Mujahedin continued to use similar tactics and the same ambush sites months later when the Soviets failed to inform replacement units of the mistakes that compromised route security and likely ambush sites.

Sniper Operations

U.S. and coalition forces experience with ACM snipers has been minimal. There is little evidence of well-trained and qualified snipers. Most engagements seem to feature high volume fires (shoot and spray) as opposed to disciplined, well-aimed fires. Where snipers have been detected, they have been quickly neutralized. Some Afghan fighters have demonstrated an ability to fire accurately. The Zadran tribe is well known for producing excellent marksmen. Al-Qaida sharpshooters have also demonstrated excellent skills, but average ACM fighters appear to lack fire discipline in combat situations.

Raids

Raids, usually conducted at night, are a common Afghan tactic. Raiding groups attempt to gather forces covertly, attack the objective, seize needed supplies, and retreat before the defensive forces can effectively react. ACM forces routinely use cover of darkness to conceal their approach to and departure from the target area. Taliban or al-Qaida fighters will resort to raids or ambushes to resupply themselves with food, ammunition, and equipment. Non-government facilities are frequent targets since they have a minimal guard force and provide sources of vehicles, food, and other items of importance such as batteries and radios. ACM forces will frequently bring their own cargo transportation but will also attempt to steal vehicles at target sites.

Individual and Small-Team Tactics

Individuals or small teams that contain as few as three or four fighters can infiltrate the area near an installation and use rocket propelled grenades (RPGs) or sniper weapons to engage personnel or equipment. Harassment attacks are conducted by teams that fire at the installation from a distance and rapidly leave the area once they have fired their munitions. It is most likely that while firing teams depart the area, another team or individuals are in place to assess damage to the target (if any) and to assess the response to the attack from any reaction force. After patterns are established, that is, strength, timing, and procedures, follow-on attacks with remote improvised explosive devices (IEDs) or ambushes may be attempted.

Shelling Attacks

A number of attacks on cities have taken place in recent times with 107-mm rockets, impacting seemingly at random, causing civilian casualties. As ACM combatants establish an organized resistance, it is likely these tactics will be featured more prominently. The primary objective of a shelling attack is to show the government's inability to ensure the safety of its citizens and demonstrate the power of ACM forces and, secondarily, harass the enemy and destroy war materiel.

ACM Tactics

- Mujahedin gunners construct multiple firing sites, then fire and quickly displace before enemy artillery, aviation, or ground response forces can effectively respond.
- When possible, Mujahedin will keep water near their firing sites to dampen the ground behind rockets or recoilless rifles. This will limit dust raised by the back blast, reducing the firing signature and making detection of firing positions more difficult.
- Current experience has been with individual rockets crudely aimed, but as experience is gained and aiming devices are improved, firing accuracy will improve.
- Rockets set up to fire with delays ranging from minutes to hours is also commonplace, as it allows a firing party to depart its firing location before the rockets fire. Timed firing devices range from crude mechanical devices to more sophisticated timers such as electronic watches or circuit boards that can initiate a firing sequence of several individual rockets.

- Mortars and multiple rocket launchers were the favored weapons to bombard airfields during the Soviet occupation. Attackers can establish concealed mortar positions, rapidly fire several rounds into the airfield, and then rapidly leave the area.
- Rockets can be fired using improvised launchers and time-delay firing devices. This is especially true for 107-mm rockets. Regular military rocket launching systems may also be employed, providing greater range and accuracy.
- The raid is likely to be a hit-and-run affair; therefore, withdrawal and survivability are important factors.
- To deter ground pursuit, the attackers may mine routes ahead of time, evade through the safe lanes in existing minefields, or scatter mines as they leave. If favorable terrain and weather exist, the attackers may establish an ambush site from which to attack pursuers.
- Fleeing attackers will also attempt to blend into local populations, dropping or hiding their weapons along the way and attempting to fit into a local village or group.

Cave and Mountain Defense and Ambush Techniques and Procedures

Afghanistan's caves and irrigation tunnels have served as protection and defense from foreign invaders since the time of Genghis Khan. Coalition forces should recruit reliable anti-Taliban Afghan scouts to assist in locating caves, defensive positions, and likely ambush sites.

Prepared defenses. Caves, trenches, and spider holes are incorporated into prepared mountain defensive positions, and the Taliban will attempt to draw U.S. and coalition forces into an attack on them. These defensive positions may be networked and interconnected particularly in large cave complexes, allowing the Taliban forces to move unseen or withdraw from the immediate area.

Ambushes. Mountainous terrain is particularly suited to ambushes. Narrow passes and valleys are often the only means to travel between locations without using long, circuitous routes. ACM forces are well aware of this fact and have ambushed coalition forces when they returned on the same routes. This is not new; the vast majority of ambushes against Soviet forces in Afghanistan were executed as they returned using the same route. (**Note:** See also the earlier section on general ambush tactics, techniques, and procedures [TTP].) Superior air surveillance and reconnaissance available to coalition forces will reduce the enemy's capability to successfully conduct large ambushes, but the threat of smaller ambushes and snipers will be constant, especially when support aircraft are not seen or heard by ACM forces.

Lessons:

Lesson 1. At night, noise and light discipline of ACM forces is generally very good, both in defensive positions and for movements. Reconnaissance (recon) by fire is often used to determine location of key weapons systems of coalition forces.

Lesson 2. ACM forces use a “cave shuttle” system to move fighters and supplies to battle positions, moving in or out of caves or from cave to cave to pick up ammunition and weapons in order to sustain the fight. Caves also provide cover from aerial observation and attack and shelter for wounded fighters.

Urban Ambush and Bomb Training

Urban areas, from small villages to large cities, provide Taliban/al-Qaida and insurgent forces excellent opportunities to conduct both combat and non-combat activities. They will use the multitude of people and buildings to conceal their activities in order to create fear and distrust of U.S. and coalition forces. Individual homes, businesses, religious centers, and even some government facilities may be used as cover for these operations.

One technique used in car-bombings involves the detonation of two IEDs several minutes apart. A small bomb is exploded with the intention of drawing security forces and an increased crowd of on-lookers to the site. At this point a second, larger IED is detonated (either by time delay or remote control) in order to inflict a greater number of casualties. Coalition forces must expect a second follow-on explosion to any IED attack.

Hostile House-Clearing and Hostage-Taking

When taking a group of hostages, the Taliban/al-Qaida team will consist of 6 to 10 terrorists armed with AK-47s and AKMs; at least one terrorist will carry a hand grenade. The terrorists will move from room to room, shooting guards and gathering hostages, finally consolidating the hostages in a single location.

An abduction is carried out using a traditional kidnaping technique. A vehicle will pull in front of the targeted individual and stop. A second or third vehicle will box in the victim’s vehicle. The kidnappers will exit the vehicle, kill guards/driver, subdue the victim, place him in the escape vehicle, and exit the scene.

Recoilless Rifles

ACM tactics for recoilless rifles/guns will be similar to those employed by Taliban/al-Qaida RPG gunners.

Ammunition for various calibers of recoilless rifles has been found in caches throughout the country, specifically large amounts of B10 rocket ammunition. The following systems have been encountered in Afghanistan.

- **90-mm recoilless rifle.** (**Note:** Not much information is available regarding ACM tactics for use of the 90-mm recoilless. Information contained here is based on the M67 recoilless rifle.) The 90-mm recoilless rifle weighs approximately 36 lbs, has a maximum effective range of approximately 450 meters and a maximum range of approximately 2,100 meters.
- **B-10 82-mm recoilless rifle.** The B-10 has a maximum (self-destruction of the round) range of 400 meters for high-explosive antitank rounds and 4,500 meters for high-explosive rounds. It weighs approximately 109 lbs. The B-10 has been called the Taliban’s “favorite infantry heavy weapon,”

and although large amounts of ammunition have been recovered, it has not been seen in engagements with U.S. and coalition forces.

- **SPG-9 73-mm recoilless rifle.** The SPG-9 has a maximum effective range of 800 meters and a maximum (self-destruction of the round) range of 4,500 meters. The firing tube weighs 99 lbs (often fired on the shoulder), the trailer weighs 35 lbs, and the tripod weighs 27 lbs. Ammunition for the SPG-9 is nearly identical to the ammunition used by the BMP-1. The SPG-9 has a maximum effective range of 1,300 meters when mounted on the BMP-1; and an improved round with a maximum range of 6,500 meters is available.

Rocket-Propelled Grenade (RPG)

Even though RPGs are classified as an antiarmor weapon, ACM forces will use RPGs against slow-moving aircraft, especially helicopters. RPGs are not very accurate against aircraft, so the enemy will use a high volume of fire. Single RPG attempts against aircraft are rare, but possible. RPGs have achieved some success in downing coalition aircraft.

RPGs display a back blast and flash signature at launch. Most RPGs have a rocket motor that ignites approximately 20 meters after the round has been fired. This rocket motor ignition leaves a visible gray “puff” of smoke. A person looking in the general direction of the launch should notice these indicators. Night-vision devices, including thermal imagers, may help see the RPG launch and rocket while in flight. Unlike man portable, shoulder-launched surface-to-air missiles, RPGs do not corkscrew in flight but have a relatively straight flight path with very little smoke.

Tactics:

- RPG gunners have been observed wetting down the ground behind firing positions to reduce back blast signature.
- ACM RPG gunners will sometimes track flight patterns and use the information as a basis for planning their attacks.
- ACM RPG gunners will position themselves to take advantage of higher elevations in mountainous terrain. This enables gunners to engage their target from above, the side, or the rear to take advantage of blind spots. This technique is also applicable in urban terrain, where RPG gunners can fire from rooftops or high-level windows.
- Some RPG gunners have taken advantage of the rocket’s self-destruct feature. To do this, gunners “lob” rounds to the maximum range (approximately 900 meters) to achieve an air burst to engage aircraft in flight or to engage unprotected troops on the ground.
- RPG teams normally consist of two personnel. The gunner carries the RPG and two to four additional rounds. The assistant helps reload after firing, provides limited security with an AK type rifle, and also carries two to four additional rounds. Larger groups may contain two or more RPG teams, with additional rounds carried by other fighters within the group.

Countermeasures. Understanding tactics employed by RPG gunners and capabilities of the weapon will enhance the value of countermeasures used. Countermeasures can be grouped into two categories: physical and tactical:

- Physical countermeasures include actions taken to reduce or negate the damage of an RPG (or other antitank-type round) once it has been fired. These measures include chain link fences, berms, sandbags, reinforced bunkers, and other facilities that can be used in fire bases, around vehicles and aircraft parked on the ground, and in prepared firing positions. Trees and other natural shrubbery can also provide some degree of physical protection, but may also reduce fields of observation and fire.
- Tactical countermeasures are actions taken to reduce the ability of RPG gunners to fire or to lessen the value of a target. Suppressive fires on known or suspected firing positions are perhaps the most effective technique. Direct or indirect fires and/or small or large caliber systems can provide these fires; aerial fire support is particularly effective. Speed of movement is also helpful, as is varying speed of movement in order to avoid setting identifiable patterns of movement.

Threat to Coalition Patrols

Common threats to combat patrols include IED, sniper, area and close ambush , civil disturbances, mines, breakdowns, human intelligence (HUMINT) against U.S. forces, and rocket or indirect fire. In the OEF environment identification of enemy forces is difficult. Some enemy TTP include:

- Attempts to cause a casualty to force a medical evacuation (MEDEVAC) mission. All likely helicopter landing zones (HLZ) are then mined, rigged with IEDs, or overwatched by direct fire weapons that will down the aircraft and cause a symbolic victory as well as a mass casualty situation.
- The enemy uses the mountainous desert terrain to establish an area ambush kill zone that is similar to a baited box engagement. The enemy engages a unit from one direction with a small (two to five man) element at long range. Once coalition forces deploy against the contact, the enemy will engage friendly forces from a second or third direction to cause disruption and greater casualties.
- Enemy uses observed/command detonated IEDs and solar cells to defeat U.S. counter measures like the ACORN. The solar cell is covered with dust that becomes exposed by vehicles passing by, completing the circuit after the U.S. countermeasure has passed.

Lessons:

Lesson 1. Use direct fire and mortars to quickly fix the enemy. Use close air support (CAS), artillery, and/or attack aviation to finish the enemy.

Lesson 2. Once contact has been initiated, likely HLZ identified during planning should be cleared or disregarded in favor of another (farther away) HLZ.

Section II: Fire Support

Mortars

When U.S. and coalition forces make initial contact with ACM prepared defensive positions, the enemy typically responds with immediate mortar fire, their primary fire support weapon.

When U.S. CAS approaches, ACM fighters seek nearby cover, frequently leaving mortars set up, and remain under cover until the air support leaves. Then the fighters will return to their fighting positions, if possible.

Control of high elevations is key to ACM defensive operations. Higher elevation provides greater fields of observation, although poor weather conditions may reduce visibility.

The 82-mm mortar is the primary indirect-fire weapon used by ACM fighters. The 120-mm mortar has been used, but it is not the preferred system. Likewise, 60-mm mortars have been found in cache sites but have not yet been employed against U.S. and coalition forces. Ammunition for both 120- and 60-mm mortars is readily available in country. ACM forces use 82-mm mortars in two different methods of firing:

- Indirect fire: ACM fighters will fire from the reverse slope of the terrain when possible. This requires a forward observer.
- Direct observation: ACM forces refer to this method as “disturbance firing.” This method will be used when the mortar is within the line of sight of the target. It does not require a forward observer since the mortar crew can adjust fire visually.

ACM forces have been observed displacing, carrying only the tube and bipod and leaving the base plate in position for future use. Base plates have been found cemented in place, allowing the mortar crew to quickly occupy and set up new firing positions, achieving high accuracy with first shots. Mortars have been observed set up in the open as crews went to nearby caves to resupply ammunition; the same practice has been noted when coalition aircraft were in the area. Ammunition for the 82-mm mortar is readily available in Afghanistan. There are numerous caches in the country, many of which contain 82-mm mortar ammunition. Mortar ammunition can remain serviceable long after the expiration of its expected shelf life.

Rockets

ACM forces do not have organized rocket units, but they do use 107- and 122-mm rockets.

- Rocket firing locations may be placed on high ground overlooking the target.
- Rockets are being rigged with timers and propped up on dirt piles and sand bags and aimed at coalition FOBs and compounds without the aid of directional or elevation aids.

- ACM forces consider harassment of enemy forces as valuable as accurate fire. The use of single-launch tubes and time-delayed firing devices targeted against installations is intended to disrupt operations with incidental damage to buildings; enemy casualties are a fortunate coincidence.
- Cities and military bases (especially airfields) are prime targets for rocket-fire and rocket-harassment missions.

107-mm rocket:

- The 107-mm rocket is available in truck-mounted, towed, and portable variations. It is easy to transport by vehicle, man-pack, or pack animal and has a maximum effective range of approximately 8,400 meters. The weapon needs only a small area of level ground for firing.
- The 107-mm rocket ammunition is readily available from a number of countries. High-explosive fragmentation rounds are the only ammunition used.
- The launcher uses simple mortar sights for target acquisition. Direct observation does not require the use of sights and eliminates the need for a fire-direction center. However, this method exposes the crew to detection and counter battery fire since it may require multiple rocket firings to adjust onto the target. Time delay may be used to reduce risk to crews from counter battery fires.
- ACM crews will fire from the reverse slope of a hill or mountain when possible, as this gives the weapon crew additional protection from counterfire.
- A vehicle-mounted 107-mm rocket does not have to be dismounted from the vehicle in order to fire and can be set up and fired from the vehicle in approximately 1 minute. If towed, the set up and fire time increases to approximately 1.5 minutes.
- Standard towed launchers fire 12 rockets; however, small, man-portable, single-tube launchers are also used.
- ACM fighters have become adept at rigging launchers to fire using nothing more than piled rocks or crossed sticks to provide elevation. Although not always accurate, this launch method can be used to conduct effective harassing fires against targets such as airfields, fuel and ammunition depots, and garrisons or fortified areas. Rockets fired in this method can be armed with simple time-delay firing mechanisms, allowing the crew to set up the rocket for a delayed launch after they leave the area.

122-mm rocket. The 122-mm rocket comes in two versions: a long rocket with a range of approximately 20,380 meters, fired by the BM-21 truck-mounted launcher with four rows of 10 launch tubes; and a short rocket, fired by smaller, portable systems. The man-portable version of the 122-mm rocket launcher fires a short-range rocket with a range of approximately 14,000 meters. Variations of the man-portable launchers include: the single, double, and the 12 tube. Man-portable launchers for the 122-mm rocket are ideal for use in unconventional warfare where fire direction is simple. Each of these launchers needs three to four men for

transport and can be used in more restrictive firing positions than the truck-mounted version. Expedient aiming methods and platforms may be used to fire rockets from the tubes. When fired at higher altitudes, the range of the weapon increases although its accuracy decreases.

Artillery

The ACM forces will employ their artillery, if available, in an unconventional manner. Target acquisition will be mostly visual, with manual fire direction and without the use of computers. Since the fall of the Taliban, artillery resources have come under the control of local warlords and have not been employed against coalition forces.

122-mm D-30 howitzer (M-1963). Of the numerous weapon systems the Taliban had available prior to the initial air strikes in 2001, the D-30 howitzer was the most plentiful and considered the most dangerous artillery system in their inventory. There have been no recent indications that ACM forces are using the D-30 or any other artillery pieces in Afghanistan. The D-30 is a towed, close-support howitzer. It has a conventional range of 15,300 meters and a range of 1000 meters when used in the direct-fire mode. Emplacement time is approximately 1.5 minutes, and displacement takes approximately 3 minutes. ACM forces will place the weapon under trees, in heavy brush, or in cave entrances to avoid detection. Ammunition for the D-30 is available in numerous caches spread throughout Afghanistan.

SECTION III: AIR DEFENSE

The three primary portions to the air defense threat in Afghanistan are the Man-Portable Air Defense Systems (MANPADS) (shoulder-fired surface-to-air missiles), small-arms and RPGs, and light anti-aircraft weapons (generally 12.7-mm through 23 mm). ACM forces may possess old military or available commercial night vision equipment and may employ it with air defense weapons.

Man-Portable Air Defense Systems (MANPADS)

A limited number of MANPADS still exist in theater. The threat of MANPADS can come from anywhere in the theater, including border areas and neighboring countries. A common strategy is to have the MANPADS gunners work in pairs or small groups. The first MANPADS operator engages the aircraft. If the first missile fails to destroy the target, the additional MANPADS operator(s) opens fire. ACM MANPADS gunners will try to position themselves on high ground overlooking potential aircraft (especially helicopter) flight paths. This allows MANPADS operators more time to locate and fire on the aircraft. This tactic is more likely to be used in the warmer months since winter weather conditions limit the gunner's ability to survive at high elevations. A common tactic used by ACM soldiers is to attack aircraft at their most vulnerable moment (taking off or landing). When near airports, the MANPADS operators will choose a place along the takeoff or landing flight path and wait for an appropriate moment to engage the aircraft. After firing, gunners move to the nearest shelter or cache and conceal the launcher.

Antiaircraft Artillery/Machine Guns

Most large-caliber Taliban antiaircraft artillery (AAA) was destroyed during initial air strikes against the Taliban in 2001. Prior to that time the Taliban had AAA ranging from 12.7-mm to 100-mm. Currently, the threat to coalition aircraft is from small-caliber (23-mm and smaller) AAA. Serviceability of ACM 37-mm AA guns is currently questionable. Guns larger than 12.7-mm are normally mounted on or towed by trucks. When possible, ACM forces will position themselves at higher elevations, allowing them greater visibility and fields of fire. The ACM forces will use machine guns in both antiaircraft and antipersonnel roles.

DShK 12.7-mm machine gun. One of the primary ACM AAA weapons is the DShK 12.7-mm machine gun. This weapon is deployed throughout Afghanistan and difficult to detect or track. The complete weapon system has been found cached in various places throughout the region, as have spare parts and ammunition.

- DShK requires a crew of two to four people when ground mounted (on a tripod) but only one gunner when vehicle mounted. The DShK has a tactical antiaircraft (AA) range of 1,000 meters with a maximum vertical range of 4,200 meters. In the ground-support role, it has a maximum distance range of approximately 7,800 meters.
- The DShK can be vehicle mounted or transported by man-pack or pack animal. It is used in both AA and antipersonnel roles (as are other small- and medium-caliber AAA weapon systems). The DShK has been one of the primary support weapons used by ACM forces against coalition forces in Afghanistan.

ZGU 14.5-mm machine gun. The ZGU is a vehicle-mounted or towed AAA machine gun. It is possible to dismantle and transport the ZGU via pack animal or man-pack. Ammunition is readily available and has been found cached throughout Afghanistan. The ZGU requires a crew of 10 people to man-pack it but only a two-man crew for firing. The weapon has a tactical AA range of approximately 1,400 meters against fast moving aircraft with a maximum vertical range of 3,700 meters. In the ground-support role, it has a maximum distance range of approximately 5,900 meters.

ZU 23-2 23-mm machine gun. The ZU 23-2 is a towed or vehicle-mounted AAA machine gun. The ZU 23-2 normally has a five-man crew: the gun commander or crew chief, gunner, assistant gunner, and two ammunition bearers. The ZU 23-2 has a tactical antiaircraft range of 2,500 meters against fast moving aircraft, with a maximum vertical range of 5,100 meters. In the ground support role, it has a maximum distance range of approximately 7,000 meters. Unexploded 23-mm rounds present a particularly dangerous hazard. These rounds have been found throughout Afghanistan in and around cities, battle areas, and caches. Caution in handling or disposing of these rounds must be exercised.

Snipers

Snipers situated on mountainsides will target helicopters flying through mountain passes. Snipers will target the cockpits, attempting to kill the crew. Snipers will

also target aircraft during landing and take off. The most effective weapons for this are high-powered rifles and machine guns fitted with optical sights. Even the venerable .303 Enfield can be effective against low, slow-flying aircraft.

SECTION IV: COMMAND AND CONTROL (C2)

Amateur or commercial brand very high frequency (VHF) radios could be used by transnational elements, including al-Qaida and former Taliban forces, for tactical C2. Because these radios are line of sight, the signal is degraded by high ground between the transmitting and receiving stations. Normally, tactical leaders (squad level) operate VHF radios. At higher levels (above the equivalent of a company), a radio operator may be used. All ACM forces within Afghanistan use amateur or commercial brand high frequency (HF) radios. HF radios with the proper antennas are used for communications over longer distances, including over mountains.

The Afghanistan Wireless Communications Company (AWCC) is installing a global system for mobile communication (GSM) infrastructure. There is now a GSM system in five of Afghanistan's major cities: Kabul, Kandahar, Mazar-e Sharif, Herat, and Jalalabad. Konduz will be the sixth city to receive all of the necessary equipment for service. AWCC's goal is to have a GSM network installed in each provincial capital within the next four to five years. Each GSM base station is paired with very-small-aperture-terminal (VSAT) communications systems. This combination has brought limited national communications, international, and Internet connectivity to those cities. ACM forces are communications parasites on host nations. Public switched telephone networks (PSTN), cellular telephone, satellite telephone, and Internet communications are used in Afghanistan. As Afghanistan slowly restores its communications backbone, ACM forces will increase their use of these systems. The primary satellite telephone systems that cover Afghanistan are Thuraya, INMARSAT, and AsiaSat. Al-Qaida leadership is probably using communications officers for many of their communications including satellite telephones.

Couriers are the most secure means of communication available to ACM forces. While secure, couriers are not time sensitive. The courier may not know the contents of a message if it is on paper or some electronic media. If the courier has memorized the message, it may be in brevity code. When operational information is passed between ACM forces, this is probably the method used. Couriers are taught ways of hiding information, including ways to take advantage of cultural biases. ACM forces will use a challenge-and-password system. The challenge and password system may be in Arabic if the force is all al-Qaida or a mixed ACM force. If the force is made up of only local soldiers, the challenge and password could be in Dari or Pushtu depending on the tribal affiliations of the forces. Challenges and passwords may be local sayings or proverbs.

Intelligence and Reconnaissance

ACM forces have a very effective HUMINT collection and dissemination capability. Most ACM forces operate in their home areas and know the terrain and people there well. This knowledge allows them to move in and out of areas with ease, often using covered routes. ACM forces use this capability to their advantage, often moving close enough to coalition forces to note friendly positions and security operations.

Since ACM forces have family and friends in the area, they can easily use these people to collect information on the surrounding area to provide them with early warning of coalition activities. Moreover, it is very possible that Afghan persons employed by coalition forces are either ACM themselves or at least sympathizers. Take caution in providing mission-essential information to Afghan government forces until just prior to their need to know.

ACM forces use many commercially bought, off-the shelf radios that use HF, ultra high frequency (UHF), and VHF radio bands. Because radios can be used to listen, as well as transmit, any radio can be used to intercept radio signals that are not encrypted. Therefore, if a coalition radio is sending in the clear, it is highly likely that ACM forces will be listening. Although most ACM members do not understand English, enough do to make this a viable threat. ACM forces are not known to possess the capability to monitor encrypted communications.

Commercial radio scanners are available on the world market, and ACM forces are known to use them. When commercial scanners are used, they can quickly pick up non-secure communications and identify the information as useful or not. ICOM scanners are small enough to be hand held, highly portable, and used anywhere.

ACM forces, particularly those operating in areas where they have lived most, if not all, their lives, are well suited for tactical reconnaissance. These personnel are known to be very patient, and because they are familiar with the area, the people, and local events, they are particularly adept at conducting reconnaissance missions. ACM forces will patiently watch coalition force installations in order to determine strength, layout, key locations, daily routines, and particularly reaction force capabilities. ACM forces may conduct an attack or even an ambush only to have observers assess responses of the attacked force. It is not unreasonable to expect at least one observer on the inside of a facility that can report not only on defenders reactions, but also on the attack from the defenders' perspective.

ACM forces will use any means necessary to obtain information from the local population. They may pay rewards, exploit religious or tribal affiliations, or threaten locals with various forms of punishment or death. The same techniques may also be used to feed false information to coalition forces. The local Afghanistan population can be a potent source of information. Tribal chiefs and village elders are typically the ones receiving the most information and can pass it to ACM forces as easily as they can pass it to coalition forces. Consider the source of information and motivation of the source when acting on information obtained from the local population.

Checkpoints

The traditional fund-raising function of the checkpoints declined under the Taliban rule, although it continued to use them for the same purpose. The Taliban checkpoints were more accepted, since they were more systematic in nature than the ones operated by the warlords.

While tribal leaders or warlords may attempt to keep the imposition of unofficial tolls to a minimum, undisciplined and poorly paid Afghan Militia Force (AMF) members may demand payment from travelers. Unofficial checkpoints usually do not hamper coalition operations.

SECTION V: MOBILITY AND COUNTERMOBILITY

Mine Threat

Afghanistan remains one of the most heavily mined nations in the world, with nearly five million mines still uncleared. Mines are found in all areas of the country: in urban and rural areas, near water wells and irrigation canals, on roads, around mountain strong points, and in agricultural regions. All these areas have seen front-line fighting. Additionally, major military installations and strategic locations, such as airfields and major cities, were protected by extensive minefields. Border areas have been heavily mined in the past. The Afghanistan-Pakistan border was heavily mined with antipersonnel mines, especially from the border north to Kandahar. The Iranian border region was less heavily mined, but has extensive surface laid antitank minefields to prevent supplies being trucked in across the open desert region south of Herat. Rubble in many destroyed cities and villages has been mined, sometimes in multiple layers.

ACM forces and supporters can be expected to employ mines and other explosive devices in novel and ingenious ways against coalition forces. Well-experienced ACM forces have developed many successful and unconventional TTP for using explosive devices against personnel and vehicle targets, particularly on trails, city streets, and roadways, especially if coalition forces set patterns of movement.

Markings. Mines (and in many cases, unexploded ordnance [UXO]) are marked when locations are known. In Afghanistan, improvised signs have been developed using readily available materials that will not burn (wood is often stolen or cut for fires) or are not worth stealing such as stones and rocks. Mines and UXO will be marked with piles of stones or rocks. If paint is available, stones will be painted. The following should be seen as very reliable signs that mines are present:

- Rows of light-colored/painted white stones are used by the UN to mark safe lanes and cleared areas. Stones are usually in regular patterns and close together.
- Individual piles of light-colored rocks, unevenly spaced are used by the various fighting factions and locals to mark the minefield perimeters.
- Piles/individual rocks painted red are UN and faction danger area markers.
- Red lettering and marks painted on rock faces or building walls, that is, start point (SP) are UN de-mining reference markers. Minefields will be close to these points. (Note: Lettering is normally on the safe side.)
- The UN uses white paint marks on walls to mark “cleared” buildings or areas. Approach with caution since it indicates that mines were in the area; there may be more.

- Locals use circles of stones surrounding objects to mark individual mines and items of UXO. Where there is one mine, there are usually more.
- Crossed sticks, pieces of debris on routes, and footpaths are signs of mines.
- Pieces of material (red) attached to poles, sticks, and walls are signs of mines.

Indicators. ACM forces will take great pains to emplace mines carefully and to camouflage them. Initial efforts to camouflage a mine will be successful, but after a short time of natural weathering, this effect will diminish or will be exposed by nature. Coalition forces must be trained to spot unusual ground/vegetation conditions that might indicate unnatural activity such as mine laying:

- Depressions in the ground (regular/odd spacings).
- Raised patches of earth (regular/odd spacings).
- Wilting/dead patches of vegetation.
- Potholes in tracks.
- Circles of lush grass among thin grass.
- Trees, bushes, and scrap lumber not collected for firewood.
- Overgrown fields, footpaths, and buildings.

Coalition forces should also be observant of the local population. If there is an area where they do not go or an abandoned building that has not been salvaged, it probably indicates an unsafe area with mines, booby-traps, or other IEDs. Dead animals with missing/damaged limbs may also indicate mines are in the area. (**Note:** The animal may have walked some distance before dying.)

Reference has been made above to UXO, which is generally categorized as follows: dropped, projected, thrown, and placed ordnance. UXO may be found throughout Afghanistan and should neither be disturbed nor approached. ACM forces may, however, attempt to reuse some of this ordnance; in which case, it should properly be considered as a booby-trap or IED.

Improvised Explosive Devices (IEDs) and Booby-traps (BT)

Over the last 20 years, Afghan fighters have become adept at producing BTs and IEDs. Much of this experience was gained during the Soviet occupation, but experience gained in Bosnia and Chechnya have also contributed to this knowledge. BTs and IEDs will be sited to avoid detection to improve their effectiveness when activated. Although historically victim activated, recent ACM forces' trends indicate an increasing use of remote or command detonation, especially along roadways. The use of IEDs, such as BTs, is limited only by the imagination of the enemy. BTs and IEDs have the following characteristics:

- Usually explosive in nature
- Usually actuated when an unsuspecting person disturbs an apparently harmless object

- Designed to kill or incapacitate
- Designed to cause random, unexpected casualties and damage
- Designed to create an atmosphere of uncertainty and suspicion
- May be initiated either physically (trip wire, pressure plate, time fuze, etc.) or remotely (electronic device such as a cell phone or other electronic timer or delay)

The abundance of UXO and land mines has provided ACM forces with a ready supply of material for the construction of IEDs and BTs. There are many different techniques for employing IEDs:

- Coupling is linking two IEDs or mines together, usually with detonating cord.
- Daisy chaining is linking mines, commonly antipersonnel (AP) type, with a detonating cord. Detonation of one mine causes the other mines to detonate. “Daisy chains” of mines and detonation cord over 200 meters long, involving several vacated buildings, have been discovered in Afghanistan.
- Boosting is stacking buried mines on top of each other to increase the force of the blast.
- Sensitizing antitank mines involves cracking the pressure plate on some nonmetallic mines in order to reduce the pressure needed to initiate the mine.
- A common practice has been to emplace two explosive devices with either a timed delay between explosions or remotely detonating each device to achieve maximum destruction or casualties. One example would be a car rigged with a small initial explosive device and a larger device, which is detonated (either by time delay or remotely) to kill or injure onlookers, emergency ordnance disposal (EOD), police, or military personnel investigating the first explosion.
- Car/truck bombs, sometimes called vehicle-borne improvised explosive devices (VBIEDs) can serve multiple purposes. Small bombs may be used to attack personnel, convoys, or small structures. Large amounts of explosives, such as in a van or truck, are suitable in attacks against infrastructure such as larger buildings. ACM forces are capable of using such devices, particularly as they try to destabilize or degrade the security provided by government forces.

SECTION VI: LOGISTICS

Caravan and Convoy Movement

ACM forces will use the cover of convoys and caravans (hereafter referred to as convoys) in order to transport military supplies.

- Convoys are used to bring weapons, ammunition, and other supplies into Afghanistan from neighboring countries.
- Convoys use vehicles, livestock (camels, donkeys, or horses), or a combination of both for transportation.

- Convoys move almost exclusively at night to avoid detection by aircraft. Convoys traveling during daylight hours are usually decoys and rarely carry military-related materials. During the day, convoys stop in well-concealed places such as canyons, caves, dry river beds, “green zones” (vegetated areas near oases and rivers), destroyed villages, or any other available form of cover.
- Convoys usually have their own air defense, including MANPAD surface-to-air missiles (SAMs) and vehicle-mounted machine guns. Both vehicle and animal convoys depend on advance observation teams or patrols to determine the safety of the route.

Vehicle convoy. Typical convoy deployment consists of three elements:

- **Advance observation team.** Personnel on horseback or motorcycle compose the advance team and precede the convoy by several miles. They often fire their weapons in order to provoke return fire from a suspected enemy or threat.
- **Decoy team.** A small portion of the convoy follows 15 to 45 minutes behind the observation team. This group is loaded with foodstuffs, clothing, or other nonmilitary material and serves as a decoy to draw out enemy troops.
- **Main element.** The significant part of the convoy, accompanied by armed Mujahedin fighters, follows as much as an hour or more behind the decoy team. If either the observation team or the decoy team are interdicted, the main element disperses and hides in available covered areas.

Animal convoy:

- **Advance observation team.** A teenager, an old man, or a couple of men with a donkey will lead the convoy by two to three km. As a rule, they do not carry weapons or a radio and use a small signal mirror to inform the next element about route security.
- **Decoy team.** The decoy team follows the observation team at a distance of 500 to 800 meters; the distance is adjusted to maintain line of sight to observe the mirror signals from the advance team. This element usually consists of 10 to 20 armed men equipped with a radio to communicate with the main element. They will often have two or three animals loaded with less valuable supplies to allay suspicion if stopped. If they come under attack, their mission is to offer sufficient resistance to allow the main element to turn back or take an alternate route.
- **Main element.** The main element follows one to two km behind the decoy team and disperses if either forward unit encounters threat forces. The most valuable items are usually carried in the middle of the convoy and are heavily guarded. When fighting the Soviets, false (deceptive) convoys were often used. In this case, a real convoy does not follow forward patrols. Instead, the main element consists of 5 to 15 animals with 20 to 40 handlers, transporting nonmilitary items, such as food or clothing. This tactic prevented the Soviets from blanket targeting similar convoys for ambush.

Caches

Caches are used to supply ACM forces throughout Afghanistan. ACM forces typically travel with very light loads, sometimes without weapons and ammunition. As these forces arrive in their operational area, they are supplied from nearby caches with arms, ammunition, and, sometimes, additional supplies such as food, clothing, and communication equipment needed to conduct specific operations or missions. Cache points also provide convenient hiding places for weapons, unused ammunition, and other supplies upon mission completion, allowing ACM forces to move about without incriminating materials in their possession. Cache points are typically well concealed and range in size from small (containing a few rifles, machine guns, or RPG launchers and ammunition) to large (containing several hundred weapons of varying sizes, ammunition, communications equipment, food, clothing, and in some cases, shelter).

Cache points include caves, houses, and possibly commercial or government facilities. Guards may be posted to protect cache points; the number of guards is determined by the size and importance of the cache. Most individuals/households in rural areas have their own small cache of small arms and ammunition. They are used for self-defense purposes and are often embellished with personal decorations. These caches should not be confused or mistaken for caches maintained by warlords or ACM forces, which include larger numbers of weapons and heavy or crew-served weapons.

SECTION VII: DENIAL AND DECEPTION (D&D)

Technical Understanding and Knowledge of Signatures

There are numerous potential scenarios where knowledge of target deception and signature management may be employed against coalition forces. ACM forces have demonstrated a basic (and sometimes effective) knowledge of D&D measures to counter coalition force capabilities. Some ACM forces, especially al-Qaida trained fighters, understand the principles of thermal and radar imagers and night-vision equipment and have disseminated plans for countering these sensors. The author of a document found in Afghanistan makes this distinction quite clear by saying night-vision devices see in the dark whereas a thermal imager is a heat detector.

Countermeasures

While few ACM fighters have a comprehensive knowledge of modern sensors, most fighters have learned the importance of countermeasures to degrade or defeat these sensors. Some of the following countermeasures are quite simple, but none-the-less effective:

Spider holes. ACM fighters use various signature-control techniques to avoid being targeted by thermal sights and sensors. These techniques involve the use of “spider hole” fighting positions and vehicle coverings. The “spider hole” consists of digging a man-sized hole or finding a crack in rocks, which can be covered for concealment. Once the hole is prepared, it is covered by brush, blankets, and/or tarps. The coverings may also have a layer of snow, soil, or ice on top, or they may be wet. Vehicles may be concealed by covering them with a tarp that supports snow or soil in a manner similar to the spider hole.

Sensor savvy. ACM soldiers used covering tarps to attempt to defeat infrared sensors and other means of detection. They put tarps over vehicles and blankets over themselves when they note an unarmed aerial vehicle overhead. Employed in combination with spider holes and placed beneath trees or bushes, tarps and blankets proved quite effective. They may be used because of a lack of purpose-made camouflage nets or coverings. They are also readily available, since many Afghans use them as tents or sleeping bags. Reliable information indicates that ACM forces understand the technical concept of reducing their signatures to blend with the ambient temperature of the terrain around them.

Thermal decoys. Among the documents recovered from al-Qaida associated sites in Afghanistan was a document in Arabic titled “Information to My Afghani Mujahideen Brothers,” that outlined the basics of night-vision equipment and thermal imagers. It described a technique to counter thermal imagers that consists of creating thermal decoys with smoldering wood fires built in shallow pits “to make the pilot launch his missiles at the pit.” It discussed how to build and place these decoys with the intention of creating false heat-emitting targets.

- Subtle differences will differentiate between this form of heat-emitting false target and the heat signatures of real targets.
 - The decoy targets will appear somewhat brighter than a clothed fighter.
 - The decoy signature will also differ from that of a vehicle exhaust in that other parts of the vehicle that are normally present in the thermal image would be absent in the case of the deception. However, an observer unaware of a possible deception may not recognize these clues.
- Among the documents recovered from al-Qaida-associated sites in Afghanistan was a document that provided insight into how one might deceive radar with a decoy built from available materials.
 - The method described using pieces of metal, including tin cans interspersed with a pile of rocks, approximating the size of the vehicle or other asset (such as a crew-served weapon) that the decoy depicts.
 - This decoy, in combination with thermal decoys and signature management, could prove effective in target denial and deception.
 - Operationally, these methods could be used to simulate the presence of ACM troops in an area where they are not (deception) to conceal or to deceive coalition forces as to the disposition and composition of an actual ACM presence.

Tactical Responses

ACM forces may use a variety of tactical methods to counter coalition forces' capabilities to include:

- Spider holes, caves, or rocks to hide in or behind
- Decoys for equipment and positions

CENTER FOR ARMY LESSONS LEARNED

- Camouflage: individual, equipment, and positions
- Cloth coverings (blankets, tarps) to cover weapons, vehicles, and fighting positions.
- Blending with civilian population
- Dispersing into small units/teams for movement
- Traveling over hard or rocky surfaces to avoid leaving tracks
- Moving under cover of darkness
- Using commercial vehicles (delivery trucks, ambulances, etc.) to move fighters and or supplies
- Dampening ground in firing positions to reduce dust signatures
- Starting fires to create false targets for thermal sensors

ACM forces will use any available means to conceal their movements, positions, and intentions. Many of these methods are simple responses employing low technology that have proved effective.

CHAPTER 2

Universal Lessons To Support Tactical Operations In Operation Enduring Freedom

SECTION I: TIPS FOR CONDUCTING OPERATIONS IN AFGHANISTAN

Pre-Deployment Tips

Tip 1. Units should include battalion executive officers on the Pre-Deployment Site Survey (PDSS) to mitigate some of the challenges that units confront immediately upon arrival in country.

Tip 2. The PDSS should arrive at home station at least 90 days before the advance party deploys.

Tip 3. As soon as the task organization becomes effective, commanders and leaders should work to establish cohesion and teamwork

Tip 4. Leaders at all levels need to be familiar with the capabilities and limitations of the different types of units that will be present in the brigade's area of operations (AO) in order to facilitate integration and maximize the use of each unit during operations.

Tip 5. The combined joint task force (CJTF) has a reserve component (RC) advisor. Leaders should consult with the RC advisor early and often when they have RC units under their operational control.

Tip 6. The Global Decision Support System (GDSS) is available for direct access to all services. Prior to deployment, the unit should request and receive a password to access the Air Mobility Command GDSS using the Secure Internet Protocol Network (SIPRNET). This Web site allows the unit to enter the unit line number (ULN), mission identification (MID), or call sign to track real-time mission status.

Leadership Considerations

Leaders at nearly every echelon are executing tasks that are arguably two levels above their experience and doing so with great results. "Adaptive, flexible leaders," as outlined in the Future Force, are in fact present in these U.S. formations today. Company commanders are entrusted with an AO that is 90 minutes by helicopter from their parent headquarters. They are working for and with special forces operational detachments, other government agencies, and even the newly formed Afghan National Army. Units supporting U.S. and coalition forces are operating in the Joint Inter-Agency Multi-National (JIM) environment at the lowest levels. The majority of JIM success can be attributed to outstanding small unit leaders.

Leaders must pay special attention to enemy counter-actions based on friendly actions. Evaluate the effectiveness of tactics, techniques, and procedures (TTP) and determine if the shortcomings are due to the TTP, the circumstances, or the proficiency of execution. Share observations and lessons learned through after action reports (AARs) or daily intelligence summaries (INTSUMs).

Junior leaders are expected to understand the capabilities, limitations, and employment of weapons systems, platforms, and resources historically used by senior commanders (sniper teams, mortars, artillery, forward observers [FOs], attack aviation, close air support, unmanned aerial vehicles [UAVs], other government agency [OGA] integration, tactical relationships with Operational Detachment Team-Alphas [ODAs], civil affairs [CA], military police [MPs], explosive ordnance disposal [EOD] teams, engineers, and interpreters.)

Junior leaders must understand how to detain a person under control (PUC), as well as limited initial interrogation techniques.

Troop Leading Procedures (TLP)

- Progress from broad higher concept and intent to refinement at platoon/section-level; this also decreases likelihood of establishing routines.
- TLPs must become instinctive; situation changes almost hourly and rapid decision making is the norm.
- Intelligence preparation of the battlefield (IPB) is difficult day to day; map reconnaissance and threat tactics, techniques, and procedures (TTP) are good guides to template enemy actions or positions.
- Treat crowds as a danger area. Learn to move, communicate (both with the patrol and with the civilians), and exfiltrate or break contact.
- Maintain currency on anti-coalition attack trends (improvised explosive device [IED], multiple forms of contact from multiple directions, surveillance, and ambushes).

Adjacent Unit Coordination

- Plan for pursuit across boundaries; know your limits.
- Establish battle drills for operations across boundaries.
- Small units must be capable of reinforcement; the closest unit may be from a different command.

Personal Data Assistants

- Use for storing administrative information (manifests, battle rosters, next-of-kin (NOK), contact information, etc.).
- Use to store pictures of key personalities or persons from the wanted list; provides easy access and portability for Soldiers manning checkpoints.
- Use voice recorder to record simple phrases in Dari, Pashtun, or any other of the local languages.

Command and Control

- Rapidly changing positions and several concurrent operations dictate that a troop/ company/battery tactical operations center (TOC) track friendly movements, contacts, and other activity.
- All personnel must be proficient in use of the radio to report the following: contact report, spot report, situation report, and medical evacuation (MEDEVAC) request. Reports should be brief, timely, accurate, and thorough.
- Staff elements need to understand that they will be conducting operations outside the norm. For example, fire supporters are the non-lethal effects coordinators for information operations (IO), civil military operations (CMO), and clearance of fires.

Task Organization

- Anticipate rapid and frequent changes to the task organization; be ready for a non-standard mix of forces (for example, company team consisting of two rifle platoons, antitank section, explosive ordnance disposal [EOD] section, military police (MP) squad, civil affairs (CA) team, tactical human intelligence team [THT], and interpreters)
- Every change in task organization requires leaders to review/rehearse standing operating procedures (SOPs) and battle drills with the new personnel.

CMO

- Use of local labor shows good faith, provides jobs to the local economy, and provides essential services to the base camp while allowing Soldiers to focus on combat operations.
- Cordon and search operations should be followed by CMO-related activities to reduce the “stress” placed on locals, as well as to pursue information operation (IO) opportunities.

Coalition Forces

- Employment and integration of coalition forces requires continuous coordination. A liaison officer is indispensable for facilitating information flow.
- The unit receiving coalition forces as part of the task organization needs to review the memorandums of agreement (MOA) as soon as possible in order to begin planning for anticipated support. The CJTF headquarters must be proactive in providing MOAs to the gaining unit.

Individual Soldier Skills**What Soldiers must understand about Afghanistan:**

- Many individuals have weapons
- Afghans survived a very oppressive regime

- Local/regional/tribal customs
 - Protocol for dealing with tribal/religious leaders
 - Protocol for eating/drinking/ceremonies
 - Differences between Sai'id, Sheikh, Imam, and other designations.
 - Call to prayer (five times daily)

Physical readiness training:

- Muscular strength to climb, fight, and haul. Resistance or weight training is essential; integrate pull-ups and dips; Soldiers must be able to lift own body weight.
- Agility to move through rubble, houses, over obstacles. Use trail runs, climbing fences, leaping over or going under picnic tables, stairs, and/or mud to enhance agility.
- Endurance to maintain pursuit and conduct long dismounted patrols. Use long sprints, hill runs, and other training to build endurance.
- Mental and physical toughness. Must be physically and mentally capable of dominating any situation.
- Physical toughness and discipline to wear ALL equipment for extended periods. During training do not unblouse pants or roll up sleeves; get accustomed to sitting and walking with interceptor body armor (IBA) and modular lightweight load carrying equipment (MOLLE) combination, and other accessories (CamelBak, full magazine pouches, extra crew-served ammunition).
- Train in extreme conditions including sleep deprivation, food/water deprivation, heat, cold, and crowds.
- Soldiers must conduct all weapons training in interceptor body armor (IBA) with small arms protective inserts (SAPI).

Weapons proficiency:

- Must conduct weapon maintenance.
- Qualification must be the “gateway” to start training, not the culmination. The confidence to hit a target from any position starts with qualification.
- Must be capable of killing point targets at extremely close and/or long range within seconds. Fire must be aimed.
- Must integrate reflexive shooting. Vary unknown ranges and use single and multiple targets, different target types, and different firing positions.
- Cross-train on all weapons systems, to include low-density (AT4, M203, and grenade).
Understand capabilities; know maximum engagement line.
- Train to accurately shoot past 300 meters with rifle.
- Soldiers must qualify with their weapon with their full combat equipment.

Combatants:

- Must be capable of dominating any fight (unarmed, pursuit and capture, knife, and club).
- Skill set should include restraining, martial arts, knife fighting.
- Capability to escalate “unarmed combat” force.

Casualty evacuation (CASEVAC)/medical treatment:

- Primary means is non-standard, usually to a hasty casualty collection point/landing zone (CCP/LZ).
- Be prepared to extract casualty while in contact.
- Combat lifesaver (CLS) requirement is a minimum of one per fire team; best case to ensure success is one CLS for every three Soldiers.
- Must be proficient at self and buddy aid.
- Recommended goal is one combat lifesaver with bag per vehicle for mounted patrols/convoy operations.

Small Unit Tactics**Dismounted maneuver:**

- Well-trained small unit maneuver is key to success.
- Fire team/squad battle drills must be instinctive.
- Teams must anticipate individual actions; repetition will solidify and synchronize the team.
- Must vary times and routines; terrorists and criminals identify routines very rapidly and adjust.
- Best traffic checkpoints are hasty, of short duration, and deny the ability to bypass (includes random traffic stops).
- The current Ground Laser Designator System (GLDS) for conventional forces is too heavy and cumbersome for mountainous terrain. Precision-guided munitions are essential for this type of combat. Special operations forces have the system conventional forces need.

Close quarters combat (CQC):

- Small units (platoon occasionally, more often section) must know how to clear dwellings and identify hiding spots.
- Target identification must be very discriminatory; most dwellings have several women and children and usually minimal combatant threat.
- Use caution not to damage premises.

Urban land navigation:

- Precision lightweight Global Positioning System (GPS) Receiver (PLGR) proficiency is key.

- Must have updated 1:25,000 or smaller military grid reference system (MGRS) maps or quality street/road maps.
- Force XXI battle command brigade and below (FBCB2) is only good for vehicles with systems and if monitored by a headquarters element (that is, message traffic).
- All personnel must know and understand the principles of urban land navigation (includes identifying characteristics of different types of man-made structures).

Mounted maneuver:

- Light infantry units in Afghanistan often receive vehicles to add mobility. This requires training in tasks not normally part of a light infantry unit mission essential task list (METL).
- Units need to train on mounted maneuver (battle drills, mounting, dismounting under fire).
- The most common maintenance requirement for movement operations in OEF is tire repair/change. Soldiers need to know how to change tires.
- Soldiers with previous experience driving off road 4X4 vehicles or tractors excel as drivers in the operating environment.

Urban mounted maneuver:

- Always plan for heavy civilian traffic.
- Must conduct a map reconnaissance and identify likely choke points, ambush sites (intersections), and overpasses.
- Must plan primary and alternate routes to avoid potential hazards.
- Offensive driving is a must, and halting because of obstacles may create a kill zone. Avoid becoming predictable, but continue to drive safely.
- Learn the capabilities of the vehicle including: the height a vehicle can jump (curbs and other obstacles), the turning radius, high speed maneuver ability, and the estimated width of the vehicle in order to navigate narrow passageways.

Actions on contact:

- Most engagements last less than one minute.
- Rapid maneuver against threat ensures either destruction or capture; enemy will usually break contact after initial engagement, fire three or four magazines indiscriminately and run.
- Fire and maneuver is not always an option; maximize small element in overwatch while a maneuver element closes on enemy (preferably from an assailable flank).
- Weapons fire may or may not be a threat (may also be in celebration, “green-on-green,” etc.); be aware of the different occasions where weapons fire may be prevalent.

- Not all personnel under control (PUC) are Soldiers and they may not follow instructions well; follow procedures for handling enemy prisoners of war (search, segregate, silence, speed [to the rear], safeguard) when handling PUCs.

Intelligence:

- A brigade combat team intelligence section, augmented with personnel from the division military intelligence battalion, can perform all intelligence functions in a JIM environment on a continuous basis for short periods.
- The ability to provide imagery products and signal intelligence (SIGINT) products on a moment's notice without submitting a request for information (RFI) is a significant force multiplier; however, it is not feasible in this environment (no ground lines of communication [LOC] and great distances between headquarters) to depend on products provided by the next higher echelon.
- When using interpreters, a BCT needs a linguist or interpreter manager to maximize resources and ensure unity of effort. The linguist manager does not need to locate with the brigade combat team, but must be accessible.
- Magnetic sensors are ineffective in this terrain. Plan on infrared and seismic acoustic for primary sensors.
- Signal intelligence (SIGINT) and human intelligence (HUMINT) provide the majority of the actionable intelligence and result in "bottom up planning."
- The presence of a female linguist and/or Soldier may be critical if local females are searched, interrogated, or present during a cordon and search.

Information operations (IO):

IO is the main effort in Afghanistan. Brigade-level regional commands comprise a noncontiguous environment with actions that range from direct action missions to nation building. Operations will often consist of an interaction between general purpose forces and special operations forces (SOF), consisting of lethal and non-lethal fires (effects based operations [EBO])

- Commanders must acknowledge ownership of the IO challenge.
- Incorporate relevant cultural awareness specific to each regional command into training programs.
- Integrate use of psychological operations (PSYOP), electronic warfare (EW), operations security (OPSEC), military deception (MILDEP), CMO, public affairs operations (PAO), and combat camera into training scenarios.
- Develop programs for perception management, interagency operations, and cultural awareness for junior leaders (squad leader to company commander).

Fire Support

Long-range observation in the mountains allowed for effective use of 60-mm mortars in the direct-fire mode. The open high mountain desert terrain provides excellent long-range observation to leaders and mortar crews. Company 60-mm mortars in the direct fire mode successfully engaged enemy targets.

Cave Clearing

Cave clearing TTP need to focus on basic battle drills and training similar to room clearing. Tasks for cave clearing include identifying the cave, setting a support by fire (SBF) position, employing bunker buster munitions, maneuvering the assault element into position, employing fragmentary grenades, and clearing. Clearing caves is basically a battle drill. (**Note:** See "Section II: Operations Against Cave Complexes" for additional information.)

Explosive Ordnance Disposal (EOD)/Combat Engineers

- Units best employ EOD teams in an area support role, providing EOD support to several units in a geographic area. If the EOD unit is under the operational control of a battalion task force, the task force commander can allocate the EOD unit to the company team that can best utilize its unique capabilities.
- EOD teams identify UXO and destroy it.
- Use combat engineers to dispose of UXO only if they are the only means available.
- During route clearance missions, use engineers to destroy mines and create clear lanes for the maneuver elements. Leaders should not use EOD personnel for route clearance.

Entry Control Point (ECPs) Operations

Units responsible for entry control points (ECP) prefer to have the following equipment available: infrared capability in lieu of night-vision goggles, sensors (at a minimum, the Tactical Automatic Sensor System [TASS] and the wide-angled surveillance thermal imager [WSTI]), hand-held thermals, ion scanners, explosive detection scanner, vehicle-mounted thermal imager, flex cuffs or other means of restraining personnel placed in custody, metal detector (Garrett hand held wand in silent/vibrate mode), and mirrors. Having this equipment would alleviate requisitioning and initial manpower and resource drain on the unit upon entering the theater of operation.

FM Communications

FM communications can be ineffective in Afghanistan due to the high altitude and operating distances. Units are operating in dispersed locations over vast distances with a limited number of tactical satellite (TACSAT) radio. The TACSAT system is slow and requires deliberate conversation. Army bandwidth is too narrow for effective communications.

SECTION II: SOLDIER LOAD IN A DESERT ENVIRONMENT

"The machine has made warfare ponderous but has also given it greater velocity . . . it is conspicuous that what the machine has failed to do right up to the present moment is decrease by a single pound the weight an individual has to carry in war."

— S.L.A. Marshall, *The Soldiers' Load and the Mobility of a Nation*

The fighting capability of an infantry Soldier is directly related to his load. There is a maximum individual load limit that cannot safely be exceeded if an infantry Soldier is expected to accomplish his combat mission. The following observations demonstrate how important it is for commanders to understand their responsibilities for load planning and discipline.

Observation 1. The weight a Soldier can carry is based on his weight, the climate, the terrain, and the stress he has faced or is currently facing.

Observation 2. Prior to initiating the mission with definitive items that compose the Soldier's load, the unit must consider the environment, weather, mission, and Soldier requirements. Each mission will require an analysis of the essential items that are necessary for survival and combat operations.

Observation 3. No amount of training can change the body's reaction to carrying excessive loads. The commander's involvement in analyzing the situation and the level of risk involved is the key to determining what is mission essential.

Observation 4. Vehicles will not always be available for the light fighter to carry his essential loads of ammunition, food, and equipment, but should be used whenever practical.

Observation 5. The fighting load for a properly conditioned Soldier should not exceed 48 pounds, and the approach march load should not exceed 72 pounds including all clothing and equipment, either worn or carried.

Observation 6. Overloading the Soldier can get him killed. Develop a unit SOP that strictly limits what is carried on combat operations and exercises and enforce those limits.

Observation 7. Fatigue is the infantryman's life in the field. Even in the most benevolent terrain, without rest or support, fatigue can reduce an effective unit to a leaderless gaggle. With rough terrain and bad weather, the effects of fatigue multiply exponentially.

Observation 8. Soldiers carry extremely heavy loads even in warm weather. That weight slows movement and increases fatigue.

Sample Packing List

Soldiers need a packing list that makes sense. Carry what is required for mission accomplishment, but allow a minimum of comfort items. Train your combat service support (CSS) operators to make up the difference. Leaders, beginning at the team

level, should conduct good precombat inspections (PCI) to ensure Soldiers adhere to the packing list. A sample of a packing list is provided below, including the weight of everything a Soldier might wear or carry.

Individual rifleman conducting a one-day operation:

- Advanced combat helmet: 3 lbs
- Interceptor body armor with small arms protective inserts (SAPI): 18 lbs
- M-4 carbine with AN/PAQ-4 and M68 close combat optic (CCO): 15 lbs
- Assault pack containing the following items (20 lbs):
 - 100 ounces water (in CamelBak
 - 1 magazine of 5.56-mm ammunition
 - Night vision device (AN/PVS 7D)
 - 500 ml intravenous (IV) bag
 - 1 VS-17
- Combat lifesaver bag (5 lbs):
 - Notebook
- Pistol belt with the following items (8 lbs):
 - Fighting knife
 - M9 pistol
 - 3 magazines of 9-mm ammunition
- Modular lightweight load carrying equipment with the following items (18 lbs):
 - 7 magazines of 5.56-mm ammunition
 - 1 Garmin/ETRX (Global Positioning System [GPS] device)
 - 1 pair black gloves
 - 1 lensatic compass
 - 1 camouflage stick
 - 1 leatherman tool
 - 1 strobe light
 - 1 flashlight
 - 1 snap link

This is a typical fighting load (including assault pack) and weighs 87 pounds. Not included are cold weather gear, mission-specific equipment (demolition, breaching tools, litters), ammunition for crew-served weapons (extra machine gun ammunition or mortar rounds), radios, and extra batteries.

Sustainment load would also include sleeping gear, extra cold weather clothing, additional food and water, and extra batteries. Most units depart

the fire bases with fighting light load and have the sustainment loads brought forward by air or ground transportation (high mobility multipurpose wheeled vehicles [HMMWVs] or GATORS [aircraft-delivered]).

SECTION III: AVIATION OPERATIONS IN AFGHANISTAN

General Aviation (Combat, Air Movement, and Resupply)

Because of operational distances and the mountainous terrain, Army aviation provides the center of gravity for operations in OEF. Ground maneuver units rely on aviation for resupply, transportation, MEDEVAC, close combat attack (CCA) support, and quick reaction force (QRF) support. Forward area refuel and rearm points (FARPs) are often required to support operations. Rearm and refuel capabilities exist at Bagram, Kandahar, and the primary forward operating bases.

Forward operating bases (FOBs) and safe houses are resupplied using the combined joint task force (CJTF) aerial resupply plan. Overlapping resupply missions are conducted weekly from both Bagram and Kandahar. The CH-47 is the primary asset used for aerial resupply; however, UH-60 augmentation is often required to meet mission requirements.

AH-64 aircraft are suited for OEF operations. The 30-mm cannon and the 2.75-inch rocket systems are extremely effective. Hellfire missiles are occasionally used in a non-standard role; however, they need a more explosive Hellfire warhead to properly defeat anti-coalition member (ACM) networks. These networks consist of start points and release points in caves, wells, and other man-made structures such as buildings.

Attack aviation units regularly conduct day and night CCA training with ground maneuver forces. AH-64 crews are required to transition from aircraft onboard vision systems to helmet mounted night-vision systems during many night engagements. Helicopter sustainment gunnery programs are tailored to the threat and consist primarily of running and diving fire techniques. AH-64 units have selected seven running or diving fire engagements greater than 500 meters and less than 2,000 meters to complete Table VIII requirements. Hence, Table VIII is effectively tailored to the current operations.

Positive identification (PID) during CCA is an issue that must be addressed. There are two primary concerns with PID:

- AH-64 aircrews have difficulty identifying targets marked by ground maneuver unit infrared (IR) sources. These systems are not compatible with the AH-64 on-board Pilots Night Vision System (PNVS) and the gunners Target Acquisition Designation System (TADS). The gunner (front-seater) is required to transition from the TADS to the Helmet Mounted Night-Vision Goggle System to acquire the IR marked target. The result is increased target acquisition to target destruction times.
- The AH-64 laser cannot be detected with existing night-vision goggle systems; therefore, the ground maneuver unit has difficulty confirming that the AH-64 has acquired the correct target. Again the result is increased target acquisition to target destruction times.

UH-60s and CH-47s provide the air movement/air assault capability to U.S. and coalition forces. Air movements range from team insertions to brigade level air assaults. Aviation operations occur between 4,500 and 10,200 feet above mean sea level (MSL). Aircraft power margins and pilot skills are tested. Units developed and implemented various successful high-altitude training programs to mitigate inherent risk, as well as build aviator proficiency and confidence.

Lessons:

Lesson 1. Army aviation is a tremendous combat multiplier in support of ground forces in a mountainous environment.

Lesson 2. Blue Force Tracker is a combat multiplier; provides asset visibility, as well as an alternate means of long distance, over-the-horizon communications.

Lesson 3. Aircrews must increase night-vision goggle proficiency; night CCAs take extensive coordination.

Lesson 4. AH-64 aircraft are ideally suited for operations in OEF; running and diving fire is the norm. The 30-mm cannon is the weapon of choice due to its accuracy and lethality.

Lesson 5. The combination of intensive boresighting techniques, coupled with gunnery sustainment programs, continue to enhance pilot competencies.

Lesson 6. Aircraft, including QRF and MEDEVAC, are pre-positioned “closer to the fight,” thus reducing alert, employment, and arrival times.

Lesson 7. Aviation high altitude training and sustainment training is a priority.

MEDEVAC TTP

OEF MEDEVAC units require armed escort aircraft and often a trail aircraft. MEDEVAC units adjusted traditional MEDEVAC procedures to adapt to the OEF environment. Units developed TTP that include AH-64 armed aerial escort and point of injury (POI) security, as well as trail aircraft (UH-60) TTP for transporting civilians.

MEDEVAC units evacuate casualties from points of injury (POI) located in high to moderate threat areas. Points of injury (POI) to treatment facility distances routinely exceed 60 minutes. In situations involving critically urgent casualties, extensive en route care, coupled with timely Blue Force Tracker updates sent to receiving care facilities, are saving numerous lives.

MEDEVAC units are routinely required to transport civilians and personnel under control (PUC). Parents accompany the child to the hospital, and villagers learn through the parents that Americans are not to be feared. Eventually village fear is substantially reduced, and a baseline working relationship is developed in that village.

Standard crew task organization consists of two pilots, two crew chiefs (one or both are medically trained), and one additional medic or MP (dependent on security requirement for PUC). An additional seat is installed on the aft left bulkhead to accommodate the additional crew member. The cabin heat duct was removed to install the seat.

Lessons:

Lesson 1. Often it takes two personnel to provide en route care; one to take vital signs or perform a procedure and the other to deliver medicines or tend to other areas.

Lesson 2. When transporting a PUC, it takes one person to restrain the casualty (PUCs are routinely belligerent), while the other administers medical care. The PUC SOP requires the PUC to be guarded during transportation; MEDEVAC units have included restraining devices such as flex cuffs to their basic load.

Lesson 3. The additional crew member performs important tasks such as aircraft clearance, PUC restraint or security, point of injury (POI) security, and/or sending vital patient statistics and status via Blue Force Tracker text messaging to the Level II or III care facilities in preparation of arrival.

MEDEVAC aircraft reconfiguration

MEDEVAC aircraft reconfiguration is dramatic. A locally purchased toolbox is installed in the rear of the cargo compartment. The suction, propak (vital sign monitor), life pack 10 (cardiac defibrillation, cardiac pacer), two D cylinder oxygen tanks, and other small medical supplies are stored in the toolbox. The rescue hoist is installed on all aircraft. Other medical equipment, such as the SKED (collapsible litter), portable oxygen bags, advanced airway bag, head immobilization bag, hair traction, and mast pants, are secured to the rear aft bulkhead. Survival bags are secured over the left rear fuel cell. The Blue Force Tracker and SATCOM radio equipment rack is mounted between the two crew member seats. One extra case of bottled water is carried on all aircraft just aft of the SAS/FPS (stabilization augmentation system/flight path system) computer access door. All crew flight gear is stored behind the pilot seats. Two backboards are secured to the cabin ceiling between the seat bar and the two rappel rings. One litter is secured to the left two upper 3,500 pound tie down rings. The other litter is stored and secured to the cabin floors using the 5,000-pound tie down rings and 2,500-pound cargo straps and/or D rings.

MEDEVAC aircraft in OEF conduct operations without carousels installed. According to commanders, the carousels add little value, reduce valuable cargo compartment space, and add unnecessary weight to the aircraft. The TTPs listed above are extremely effective and could not be implemented with the carousel installed. Carousel removal increases the patient care area.

Aircraft basic loads include rapid sequence intubations (RSI), suction, cardiopulmonary resuscitation (CPR) and defibrillation equipment, as well as numerous IV bags. Each of these systems is used in flight. This equipment is vitally important to patient care considering the long POI to treatment facility flight times.

Current MEDEVAC units in OEF are National Guard units. These units have emergency medical technician (EMT) qualified medics and crew chiefs. Future active duty Army relieving units may not possess these qualifications.

OEF MEDEVAC units do not use existing aircraft ballistic blankets. MEDEVAC units in OEF are fielded with UH-60A aircraft. The current issued aircraft ballistic blanket weighs approximately 600 pounds. This is a significant limitation when operating at altitudes between 4,500 to 10,200 feet above mean sea level (MSL). When installed, the existing ballistic blanket provides protection to the cargo compartment only. No crew protection is provided. The existing ballistic blanket is not waterproof. Blood from casualties literally soaks into the blanket creating aircraft sanitization difficulties.

MEDEVAC units researched and discovered the Ballistic Protection System (BPS). This system can be installed in both UH-60 and CH-47 aircraft. The system is modular in design, can be tailored to conform to many requirements, can provide protection to crew stations and cargo compartments, and is waterproof. Depending on threat and environmental conditions, units can tailor the system to protect the crew compartment, the cargo compartment, or both. The BPS waterproof feature allows crews to rapidly sanitize the cargo compartment between missions.

Lessons:

Lesson 1. Emerging MEDEVAC TTP are being updated; however, deploying units must receive them prior to deployment.

Lesson 2. Extended distances from POI to treatment facilities make en route patient care more important than ever.

Lesson 3. Deploying OEF medics and MEDEVAC crew chiefs should be EMT qualified.

Lesson 4. Unit aircrews, crew chiefs, and maintainers should conduct on-site reconnaissance to learn the TTP for aircraft configuration.

Lesson 5. MEDEVAC crews should attend high altitude training and develop high altitude training programs.

Lesson 6. MEDEVAC crews must be “ambassador Soldiers.” They routinely interact with the civilian populace and must thoroughly know country history and IO themes.

Lesson 7. If MEDEVAC units determine that the BPS would prove useful to mission accomplishment, units should work with logistics to acquire the BPS.

Maintenance

Aviation units in OEF are flying three to four times their respective home-station flying hour programs while maintaining comparable home-station operational readiness rates. Increased operational tempo (OPTEMPO), combined with the desert environment are stressing many aircraft components and resulting in

increased parts requirements. Units are exercising the supply system. Aircraft parts tracking from continental United States (CONUS) to theater is reliable because of Aviation Intermediate Maintenance (AVIM) Supply Support Activities (SSAs) tracking systems. Two primary constraints initially plagued inter-theater parts distribution: (1) Transportation control number (TCN) was lost when the item was combined into a "multi-pack". TCNs are now tracked on a multi-pack TCN to maintain visibility. (2) There was no United Parcel Service (UPS)/Federal Express (FEDEX) contract to expedite aircraft-on-the-ground (AOG) or critical repair parts; therefore, a DHL Worldwide Express contract was established and managed by AVIM.

Units are maintaining manageable aircraft phase bank percentages and are often performing scheduled phase maintenance faster than at home station. Bagram and Kandahar have established maintenance facilities for both unit- and intermediate-level maintenance. Logistic assistance representatives (LAR) are also on-site to provide immediate technical advice and repair capabilities. Both Bagram and Kandahar have logistical and maintenance contractor support to support SSA and aircraft phase operations respectively.

The aircraft are operated in a demanding desert environment. The main issue is dust/dirt. The aviation community reduced this environmental factor by conditioning improved landing areas with a soil stabilizer (almost a glue) covered with aggregate rock. This reduced the dust cloud created by landing/departing aircraft. Aircraft were pressure-washed after missions to reduce component wear.

Maintenance trends include:

- The dusty environment caused increased wear on the CH-47 swash plate's lower seals. Daily inspections and additional purging/cleaning is being conducted.
- AH-64 stabilator bushings require replacement because of dirt.
- T700-701C engine receives a cleaning with ultrasonic tank during phases.
- ALQ-144/156 systems are having continual problems due to the heat and dust.
- AH-64 auxiliary power units (APUs) need replacement due to high altitude and dusty conditions.

SECTION IV: SPECIAL OPERATIONS FORCES (SOF) IN AFGHANISTAN

The OEF combined joint special operations task force (CJSOTF) has operational control (OPCON) of many of the special operations forces (SOF) in Afghanistan. The CJSOTF commands and controls, de-conflicts, synchronizes, and resources the SOF operations in theater.

Under the CJSOTF, special forces (SF) battalion commanders command forward operating bases (FOBs). The FOB staff is comprised primarily of the battalion staff. The FOB commands and controls (C2s) several advanced operating bases (AOBs), built around the structure of Special Forces (SF) Operational Detachments-Bravo (SFODBs). The AOBs are an extension of the FOB for C2, communications, and logistics. The AOBs are strategically located to C2 the efforts of their subordinate

CENTER FOR ARMY LESSONS LEARNED

SF Operational Detachments-Alpha (SFODAs), who are located among the population in selected locations.

The SOF units are conducting a wide array of operations including unconventional warfare (UW), counter-insurgency, and advanced special operations (ASO). The SFODAs are conducting integrated operations with the conventional units in theater and coalition SOF units, as well as other government agencies (OGA). SFODAs are also conducting UW operations with the newly formed Afghan National Army (ANA), the Afghan Militia Force (AMF), and the Afghan Security Force (ASF).

The unique capabilities of the SFODAs are ideally suited to combat the asymmetrical threat that exists in theater. SFODAs are trained, organized, and equipped to conduct UW operations for extended periods. The ASO capabilities of SF have proven very effective for combined joint task force (CJTF) operations.

The SF units work primarily with the Afghan National Army (ANA), the Afghan Militia Force (AMF), and the Afghan Security Force (ASF). In a typical scenario for cordon and search operations, the SF units receive combat information from Afghan civilians, develop a target intelligence packet (TIP), and conduct rapid mission planning and preparation. The SFODA will submit their concept of operations (CONOP) through the AOB or FOB to the CJSOTF for approval. The SFODA that developed the TIP and submitted the CONOP will conduct the search portion and the ANA or AMF will conduct the cordon operation, providing security and force protection for the SFODA. This technique has been extremely successful during OEF.

SFODAs established and operate a medical clinic treating over 2,000 host nation civilians a month. Clinics are a major success story for civil military operations in this region. The service provided by the SFODAs is making significant progress in the stability operations and support operations in theater. The establishment of a clinic significantly enhanced SOF force protection and combat operations. On numerous occasions the patients in the clinic and host nation personnel volunteered combat information to the SFODAs on IEDs and weapons caches, as well as enemy activity in the region. The SFODAs use this information to plan and execute combat operations.

The special forces units and general purpose units (GPF) frequently conduct integrated operations in OEF. The UW capabilities of special forces, combined with the firepower and manpower of the GPF has been a successful, integrated approach to combat operations in theater. SFODAs often lack the manpower and firepower for force protection and security during operations. Integrating the infantry with SF has proven to be useful to bridge this gap. This integration has worked well at the operator level. Infantry companies and platoons integrate and work well with SFODAs on the ground. At battalion level and above, C2 relationships have been a challenge.

There is no template for C2 relationships during these operations. Flexible C2 relationships must be used in time-sensitive missions. Intelligence in theater is regional and very perishable. Units often must respond to intelligence leads rapidly. Flexible C2 and a rapid response must be achieved in this environment.

Lessons:

Lesson 1. UW operations are the most effective way to combat non-compliant forces in this asymmetrical threat environment.

Lesson 2. Conventional force have conducted integrated operations with SF and have adopted some of the UW TTP of SF to conduct counter-noncompliant force operations.

Lesson 3. Continuing and expanding these CMO denies the enemy the ability to exploit and co-opt the local population and enhances unit force protection and combat operations.

Lesson 4. SF and GPF units must train together before being forced to operate together during operations. **Habitual training will develop unit leadership that knows and understands the capabilities of both conventional and unconventional forces.**

SOF Capabilities

- Direct action: Short-duration, small-scale offensive actions such as raids, ambushes, hostage rescues, and “surgical strikes.”
- Strategic (special) reconnaissance: Clandestine operations in hostile territory to gain significant information.
- Unconventional warfare: Advising and supporting indigenous insurgent and resistance groups operating in the territory of a common enemy.
- Foreign internal defense: Assisting host nation military capabilities to forestall or defeat insurgent activities.
- Civil affairs: Promoting civil-military cooperation between U.S. military forces and the foreign governments and populations.
- Psychological operations: Influencing the attitudes and behavior of relevant populations to assist in accomplishing security missions.
- Humanitarian assistance: Providing various rudimentary services to foreign populations in adverse circumstances.
- Theater search and rescue: Finding and recovering downed pilots and air crews, sometimes in combat or clandestine situations.
- Counter terrorism (CT): Operations conducted to preempt terrorist incidents abroad and activities to assist or work with other CT-designated agencies in the United States.

Such other activities as the President or Secretary of Defense specify.

U.S. SOF. Army SOF (ARSOF) includes special mission units, special forces, Rangers, special operations aviation, civil affairs, psychological operations, and special operations support units. The most frequently deployed SOF assets in support of OEF are civil affair (CA) units, which provide experts in every area of civil government to help administer civilian affairs in theater.

Air Force SOF Command (AFSOF) includes special operations wings, special tactics groups, and training groups. Air Force SOF provided unmanned aerial vehicle (UAV) and AC-130 gun ship support in Afghanistan. The AC-130H Spectre gun ships' primary missions are close air support (CAS), air interdiction, and armed reconnaissance. Other missions include perimeter and point defense, escort, landing, drop and extraction zone support, forward air control, limited command and control, and combat search and rescue.

Naval SOF includes sea, air, and land teams (SEAL), special boat units (SBUs), and SEAL delivery vehicle (SDV) teams. Although Afghanistan is a landlocked country hundreds of miles from shore, SEALs formed a significant portion of the U.S. SOF presence in Afghanistan.

Coalition SOF support. Coalition partners provided an array of conventional forces; however, many countries, including Australia, Canada, Denmark, Germany, Norway, and New Zealand contributed to special operations.

SECTION V: BASE CAMP OPERATIONS

Base Defense Techniques

The common tasks associated with successful base defense operations include:

- Establishing the base defense coordination net.
- Passing indications and warning (I&W) to unit TOCs and all personnel on the base.
- Raising force protection levels for all Soldiers on base.
- Activating and manning all perimeter supplemental positions.
- Reacting to/stopping perimeter breach by armed personnel.
- Reacting to IED incident.
- Reacting to attack from indirect fire or air attack; activating the bunker occupation plan.
- Reacting to/evacuating a casualty.

Actions for base defense should be clearly outlined in the base defense SOP. The base defense SOP should be disseminated down to the Soldier level, ensuring that every Soldier understands his part in the base defense plan. Base defense exercises should be conducted regularly to ensure compliance with the SOP. It is too late to discover a flaw in the base defense plan when an actual attack occurs. Units should consider the following when creating or updating base defense SOPs:

Force protection levels:

- A systematic approach needs to be established to alert all units on a base about the increase in the force protection level. Often, isolated units and civilian/government organizations are overlooked.

- Soldiers need to ensure that protective equipment, such as IBA and protective mask, is readily available. Units, especially staff section noncommissioned officers-in-charge (NCOICs), must establish an SOP based on the current threat for ensuring protective equipment is on hand.

Bunkers:

- Engineers should routinely inspect bunkers to ensure that they are safe to occupy.
- Units that maintain bunkers should ensure that a plan exists to provide light, heat, food, and water for the bunker. In the event that bunkers are occupied for extended periods, these life support items are essential.
- When a bunker occupation plan is activated, each bunker must have a type of communication means to ensure that Soldiers remain informed of the situation. Either a land line or an FM radio will work.
- There must be a plan to ensure accountability of personnel when a bunker occupation plan is activated. There will be different personnel in different bunkers depending on time of occupation.

Alarms:

- Alarms, such as sirens, need to be tested routinely. Alarms should be heard throughout all areas of the base. Supplemental alarms, such as vehicle horns, may need to be used to reach isolated areas of a base.
- Different alarms can be used to distinguish between different types of attacks. One type of alarm can signify an air/mortar/artillery attack and a different type of alarm can signify a ground attack. Different actions may be required of Soldiers for these two types of attacks.
- New/transient Soldiers and visitors:
 - Units should ensure that new Soldiers are briefed on force protection levels on the first day they arrive in theater. Units should also provide guidance to newly arrived Soldiers on actions to take in the event of an attack on the base.
 - Soldiers in transit and visitors may be at a base when it is attacked. These Soldiers will not be aware of the actions that are required of them in the event of an attack. It is the responsibility of all Soldiers to assist and provide guidance to these visitors who are not familiar with the base SOPs.

Civilians/local nationals on base. There may be many local nationals on base doing various jobs. These local nationals need to be accounted for, ensuring their safety from attack. The safety of Soldiers should be considered in the event that some of these local nationals decide to participate in the attack.

Perimeter security:

- Varying the patterns or activities of base camp security helps avoid routines and reduces the possibility of being targeted.

- Effective base camp security measures are the best precaution to deter prospective intruders from attempting a base camp penetration.
- Constant assessment and re-evaluation of incidents and reporting from units and convoys assist the S2/G2 in identifying trends and analyzing the tactics and techniques of perpetrators.
- Proactive Army Criminal Investigation Command (CID) programs are the cornerstones to a thorough investigation of incidents, and civil affairs campaigns assist in identifying community needs and the dissemination of information.

Alert procedures:

- Alert procedures vary slightly for each base, but are generally initiated by an alarm followed by instructions issued over a public address system. The alert is also passed by word of mouth by inhabitants of the base.
- Once initiated, personnel occupy their battle stations or bunkers (depending on the battle drill). Units ensure accountability of personnel and report the status to the base defense operations center (BDOC).
- Stand down from the alert is issued on the public address system.

Civilians inside the base camp:

- There are many civilians inside the wire at any given time. These civilians include local nationals, contractors, civil servants (Department of Defense [DOD] and Department of the Army [DA]), as well as personnel from other government agencies.
- Civilians need to be accounted for and secured at a protected location. If the situation permits, local civilians should be escorted outside the wire.

C2 of the perimeter defense:

- The BDOC is responsible for C2 of the base during an attack.
- Each living area has a commander responsible for accountability and security of all personnel. These commanders take direction from the base operations or airfield support task force commanders during base defense operations.
- Regardless of rank or duty position, individuals should take direction from designated base defense leadership during an attack. Designated key and essential personnel who will not assist in the base defense plan should move as soon as possible to their assigned positions in the TOC or joint operation center (JOC).

SECTION VI: TACTICAL CONVOY OPERATIONS

Convoy Planning and Preparation Procedures and Tips

This section contains useful information that augments doctrinal guidelines to support convoy operational planning and execution. It provides a quick reference on methods and TTP for the proper conduct of convoys. It focuses on planning and preparing convoy operations. There are important planning considerations that

should be included in unit SOPs. The following subject areas assist convoy commanders and non-commissioned officers (NCOs) in the planning process:

Unit SOP. A complete SOP facilitates planning. At company level, SOPs should conform to the next higher headquarters. At a minimum, the SOP should cover the following subjects:

- Duties of the convoy commander and other convoy control personnel
- Convoy organization
- Weapons and ammunition to be carried
- Hardening of vehicles
- Protective equipment to be worn
- Preparation of convoy vehicles; for example, information on tarpaulins, tailgates, and windshields
- Counter ambush actions
- Operations security measures
- Immediate action drills
- Actions during scheduled halts
- Maintenance and recovery of disabled vehicles
- Refueling and rest halts
- Communications
- Actions at the release point
- Reporting

Command responsibilities. The commander of the moving unit is responsible for the mechanical condition of his vehicles. Leaders must inspect all vehicles according to appropriate TMs before departing for the mission. Convoy commanders should also ensure that:

- Additional fuel, water, and lubricants are provided for en-route requirements.
- Loads are inspected.
- Tarpaulin, troop safety straps, and end curtains are provided when required.
- Vehicles are hardened when required.
- Columns are identified with appropriate markings.
- Weapons are inspected.

Marshaling or assembly area inspection teams. A technique for large unit movements is to establish marshaling area or assembly area inspection points. As convoys are ready to depart, they proceed to the inspection point for final checks and driver briefings. Unit-level maintenance personnel may be available to assist unit leadership in correcting last-minute minor

deficiencies. Trucks with major problems will be returned to the parent unit and replaced with serviceable vehicles.

Hardening vehicles. Cover the cargo bed of troop-carrying vehicles with at least a double interlocking layer of sandbags. Cover the cab floor of all vehicles with a double layer of sandbags under the driver's seat. Take care not to hamper pedal movement or the driver's access to the pedals. As an additional precaution, place a heavy rubber or fiber mat over the sandbags to reduce danger from fragments such as sharpened stones, sand, and metal parts of the vehicle. This also prolongs the life of sandbags. Sandbags may also be placed on the fuel tank, fenders, and hood. When contemplating hardening vehicles for escort and/or gun truck duty, use one escort/gun truck for every eight task vehicles. Prior approval from higher headquarters must be received before task vehicles are converted into escort/gun trucks.

Convoy identification. Identify each column with a blue flag on the lead vehicle and a green flag on the rear vehicle. Mount flags on the left of the vehicles, either front or rear. Position flags so they do not interfere with driver vision or functional components of the vehicle. When movement is at night, the lead vehicle shows a blue light and the rear vehicle a green light. The vehicle of the convoy commander and the march unit commanders must display a white and black diagonal flag on the left front bumper. This flag is divided diagonally from the lower left corner to the upper right corner with the upper left triangle white and the lower right triangle black. Trail party vehicles carry an international orange safety flag. State and local police or MP escort vehicles do not display convoy identification flags. The convoy movement order includes a convoy clearance number (CCN) that identifies the convoy during its entire movement. The CCN is placed on both sides of each vehicle in the convoy and, if possible, on the front and back of each vehicle. It is also placed on the top of the hood of the lead and rear vehicles of each march unit.

Final preparation. Final convoy preparation includes organizing the convoy, briefing personnel, and inspecting individual equipment and vehicles. Convoy personnel are usually briefed after the vehicles are lined up. After the convoy commander's briefing, personnel are returned to the control of the march unit commanders who give final instructions. Leaders make final inspections of loads to ensure that they are properly secured and that vehicles are ready to move.

Night Convoys

Night convoys are extremely vulnerable to ambush and sniper fire. If night convoys are required, units must be trained in techniques for night convoys, night loading and off-loading, and night refueling. Heed the following guidelines for night convoys:

- Keep night convoys small.
- Use roads that drivers know.
- Make maximum use of night-vision devices.

- Rehearse movements.
- Conduct leader reconnaissance.

Plan night moves in the same manner as daylight moves. However, night moves take longer and there is greater chance for mistakes, injury, and fratricide. When planning a night move, determine if the convoy will operate in an area that requires blackout drive. The area commander will make this decision. A harbor area is a space set aside for normal halts, traffic control, and emergency congestion relief.

Harbor areas are used to:

- Hold vehicles at both ends of a crossing or defile.
- Make changes in density, especially at first or last light.
- Contain spillovers in serious delays (likely to be caused by enemy air attack or its results).
- Allow columns to rest and carry out maintenance and decontamination.
- Allow elements to change position in column if there is a change in priorities.

Vehicle Hardening

As the nature of conflict changes, so does the threat to logistics units. War and certain other operations—especially peacekeeping or peacemaking—place renewed emphasis on convoy security and reinforce lessons learned in Vietnam. Current threats include the use of command-detonated and pressure-sensitive mines placed on, above, or along the shoulders of roads traveled by military vehicles and the ambushing of convoys and harassment with sniper fire. These methods of disrupting military operations are highly effective and cheap. Additionally these methods require limited time and labor, are easy to coordinate, and can be accomplished by an unsophisticated enemy. To counter these threats, motor transport units may be provided with security forces and supporting arms firepower. Special vehicle-hardening techniques using sandbags and other improvised material have proved successful in protecting convoy personnel, equipment, and cargo. Although effective, vehicle-hardening techniques must be tailored to fit the specific environment in which the motor transport units are operating.

Hardened vehicles. A hardened vehicle is made less vulnerable to the effects of explosives and small arms fire by adding sandbags, armor plating, ballistic glass, and other protective devices. Hardening may make certain vehicle components and cargo less vulnerable. Its primary purpose, however, is to protect the truck's occupants. The protection afforded is significant and often means the difference between injury and death.

Sandbags. Sandbags are effective in reducing the effects of blasts, preventing fire from reaching the driver, and providing protection from small arms fire and fragmentation. Sandbags are usually readily available and do not permanently impair the flexibility of vehicles. Sandbags can easily be added or removed from the vehicle as the situation dictates. One drawback to using sandbags is that their weight limits the vehicle's capability to haul cargo.

Experience shows that using sandbags to harden vehicle cabs for protection against mine blasts saves lives. Normally, the cabs of all vehicles subject to detonating mines are hardened. Certain cautions, however, must always be observed. Sandbags should be placed so that they:

- Do not restrict the movement of foot pedals, levers, or controls.
- Do not interfere with the normal functions performed by the driver.
- Do not restrict driver vision.

To reduce the sandblast effect when a mine is detonated near the vehicle, various materials may be placed on top of the floorboard sandbags (rubber mats, light metal plates, plywood, or scraps of runway membrane material). Wetting down the sandbags is also effective, but contributes to deterioration of the metal.

To properly prepare the vehicle cab, double-stack sandbags under the passenger seat and on the cab floor. Stack the sandbags two high under the driver's seat; in some vehicles this may not be possible. Remove the tools from the basic issue item (BII) storage compartment and place them inside the bed. Place sandbags in the storage compartment to give the driver required protection. As an added precaution, place a heavy rubber or fiber mat over the sandbags. This reduces danger from fragments (stones, sand, and metal parts from the vehicle).

If the tools remain in the BII storage compartment and the vehicle detonates a mine, the tools may become secondary projectiles that can injure the driver. If sandbags cannot be placed under the passenger seat because batteries are located there, stack the sandbags on the seat. Never place sandbags directly on the batteries.

The cab of a 5-ton M923 cargo truck needs about 14 to 20 sandbags, while a 2 1/2-ton truck requires about 12 to 18 sandbags.

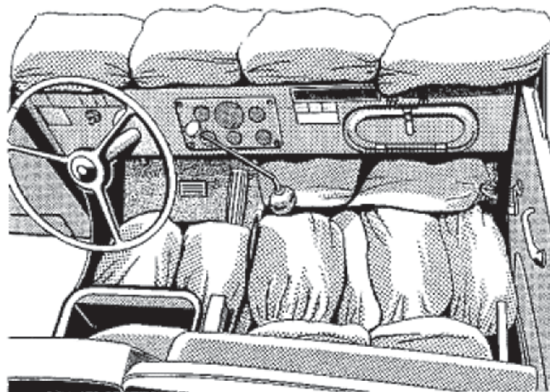


Figure 2-1: Proper placement of sandbags in the cab

Cover side windows and the front windshield with wire mesh to protect personnel from rocks and grenades. The convoy commander will decide whether to have windshields removed, lowered, or left in place. If the windshield interferes with the use of weapons and blackout operations and must be lowered, place a single layer of sandbags under the windshield, lower the windshield onto the bags, place a second layer of sandbags over the windshield, and then cover both with canvas. Placing sandbags under the windshield ensures that:

- Constant vibrations of the vehicle do not damage the windshield
- Sand is not blown into the driver's face
- Glass will not shatter and injure the driver and passenger

Leaving the windshield in place protects against heavy and driving rain, incoming grenades, and decapitation of personnel from wire stretched across the road.

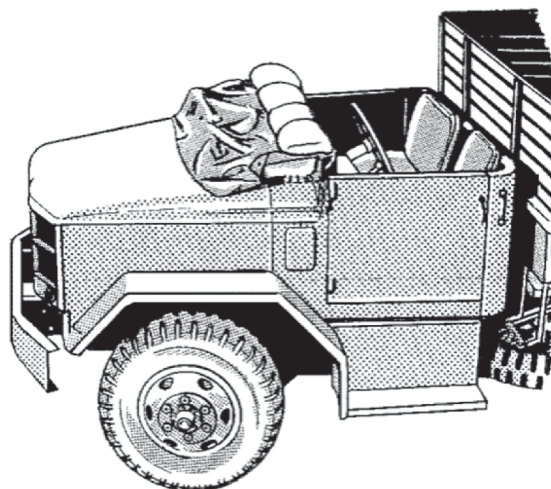


Figure 2-2: Proper placement of sandbags under the windshield.

Depending on the type of load, the cargo bed may or may not be hardened. For example, if troops are being transported, the bed needs to be hardened with a double layer of sandbags. The bags also need to be properly fitted to the contours of the vehicle. Stack the bags five high around the sides of the vehicle to add protection. To hold the sandbags in place, construct a support structure and place it inside the bed of the vehicle. This structure can be made by using four-by-fours on the corners and two-by-sixes in between.

Caution must be taken to ensure that the sandbags do not exceed the allowable weight of the vehicle bed. Double-stacking the sandbags increases the possibility of exceeding the vehicle's payload capacity. The mission, coupled with the enemy threat, must determine the extent of hardening (single- or double-layer sandbags). The bottom line is to ensure Soldier safety.

It takes about 226 sandbags (dry, weighing about 40 lbs each) to prepare the bed of a 5-ton, M923 cargo truck. Distribution is as follows: 86 on the floor bed (single layer), five high on each side (50 per side = 100 bags), 20 in the front, and 20 in the rear of the bed.

Protective plating around the fuel tank will lessen the damage to the fuel tank. It will also help to ensure that the fuel tank is not pierced, thus immobilizing the vehicle. This protective measure is especially critical when a vehicle is caught in the kill zone of an ambush. An alternative solution to this problem is to hook up a 5-gallon can of fuel in a safe location for use as an auxiliary fuel tank. This will allow the vehicle to travel a safe distance outside the kill zone if all the fuel is drained from a damaged fuel tank.

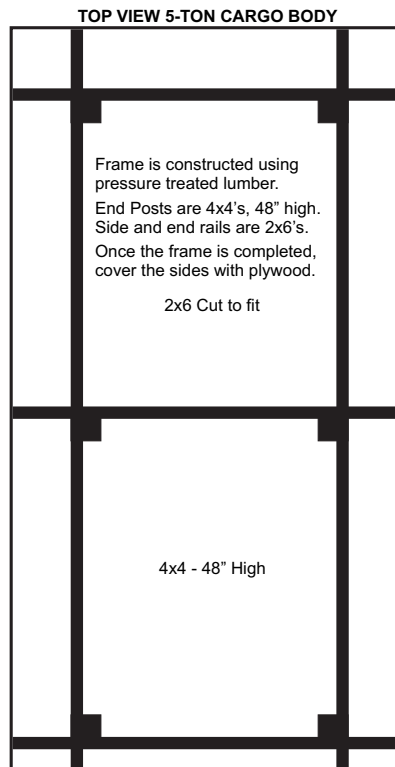


Figure 2-3: Support structure for the bed of the truck

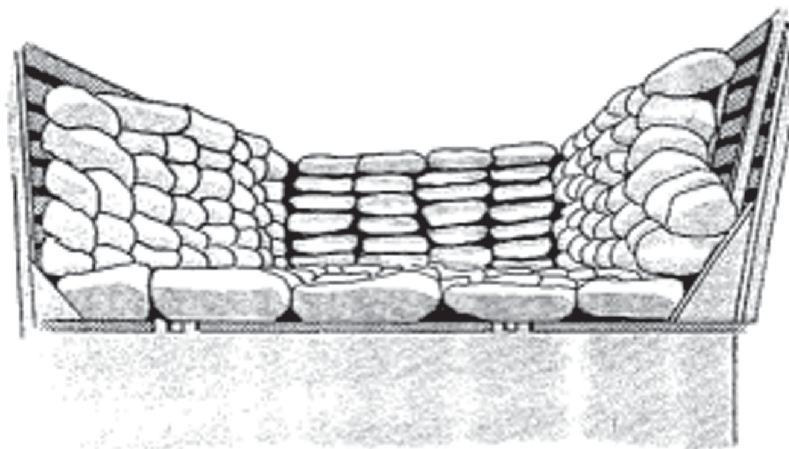


Figure 2-4: Sandbagged 5-ton M923 cargo truck

A 5-ton M923 cargo truck requires about five sandbags to provide top protection. Consider placing protective plating around the sides and bottom of the fuel tank to increase protection.

Older vehicles in the Army inventory may still be operating on motor gasoline (MOGAS). If a tank filled with MOGAS is ruptured, the fuel may ignite and seriously burn operating personnel.

When putting sandbags or protective plating on or around the fuel tank, ensure that the hanger straps of the fuel tank do not crack or break.

Gun trucks. Logistical convoys cannot always depend on military police support or added firepower. To provide more firepower for a convoy, units developed the gun truck. The purposes of a hardened gun truck are to:

- Provide a base of fire.
- Help counter enemy attacks.
- Increase survivability of the convoy.

The gun truck is equipped with a crew-served weapons system, preferably in a protective position. In Vietnam, this principle worked well and provided convoys a means of self-defense.

Deploy the gun truck in the convoy where it can best provide the needed firepower. If adequate communications assets are available, they should be located with the gun truck and the convoy commander. This enables the convoy commander to call the gun truck forward when needed. (A predesignated signal is required to bring the gun truck forward and inform the crew-served weapon system personnel of the enemy location.) If communications assets are not adequate, pyrotechnics may be used to signal the gun truck to move forward.

The gun truck should not be maneuvered right on top of the enemy location. The crew-served weapons on the gun truck can cover a significant distance. Therefore, the vehicle should be situated where it has a clear field of fire to engage the enemy with the maximum effective range of the weapon. If necessary, and if available, multiple gun trucks can be used. When using multiple gun trucks in a convoy, overlapping fields of fire greatly increases the convoy's chance of survival.

Based on availability, types of weapon systems, and size of the convoy, the placement and number of gun trucks may vary. With company-size and larger convoys, a minimum of two gun trucks should be used to provide overlapping fire. One gun truck for every eight vehicles in the convoy is recommended.

Consider using the MK19 or M203 to penetrate prepared defensive positions since small arms fire may not be capable of destroying enemy positions.

Ballistic test results. It is critical that the most protective material available be used to harden a vehicle. Ballistic tests show that sand is about twice as effective as clay in hardening vehicles. At a maximum velocity of 3,250 feet per second at a range of zero feet, it takes about .6 feet of sand and 1.2 feet of clay to stop a 5.56-mm round. At a maximum velocity of 2,750 feet per second, it takes about .9 feet of sand or 1.7 feet of clay to stop a 7.62-mm round. Finally, at the maximum velocity, it takes about 1.4 feet of sand or 2.6 feet of clay to stop a 50-caliber round. Using the most protective substance could mean the difference between life and death for our most precious resource—our Soldiers.

Camouflage and Concealment

Camouflage and concealment techniques can be used to make it more difficult for the enemy to spot the convoy. The type of cargo being transported can be disguised or concealed by a tarpaulin. Other effective measures include the following:

- Camouflaging or covering shiny surfaces before convoy departure.
- Painting vehicles in a pattern to blend in with the terrain and break the outline.
- Training operators to look for other means of concealment to break the outline of the vehicle.
- Covering vehicle bumper markings. The vehicle bumper markings can provide a great deal of intelligence information to the enemy.

Mines and Booby Traps

Forces engaging in ambushes frequently use mines and booby traps. Command-detonated mines are often used to initiate an ambush. Mines may also be planted along the shoulder of the road to harass and interdict. A booby trap system may be used against personnel and equipment. Convoys have employed the following guidelines to effectively limit damage from mines:

- Track the vehicle in front.
- Avoid driving on the shoulder of the road.
- Whenever possible, do not run over foreign objects on the road.
- Avoid potholes and fresh earth on the road.
- Watch local national traffic and the reactions of people on foot (they will often give away the location of any mines or booby traps).
- When possible, arrange for the engineers to sweep the road ahead before the convoy moves over it.
- Use a 2 1/2-ton or larger truck as the lead vehicle instead of a HMMWV. Hard vehicles, such as tanks, are useful in exploding small mines in front of the convoy.
- Harden vehicles.
- Use water in vehicle tires when there is a threat of mines exploding under the tires.
- Increase ground clearance distance between the point of explosion and the vehicle, if possible.
- Use the following personal safety measures:
 - Wear protective equipment.
 - Use safety belts.
 - Ensure seat belts are tight; otherwise, whiplash may occur during an explosion.
Also, fasten the seat belt as low as possible on the stomach.
 - Use correct posture. Keep the backbone straight and supported by a backrest (to better absorb shock) and place feet flat on the floor.
 - Adjust vehicle speed based on the situation.
 - Disperse vehicles and maintain intervals.

In Somalia the Army experienced command-detonated mines of 30, 50, and 60 pounds. These devices were placed in one of the many potholes in the road. To avoid such obstacles and/or minimize damage, implement the above techniques. Currently, the ACMs employ similar methods using IEDs with a greater potential for destruction.

Some indicators that have proven effective in identifying the location of potential mines are:

- Damaged vehicles
- Signs of digging, holes in the road, potholes, concrete removal, or puddles
- Boxes along the roadside
- Wires on the road surface
- Evidence of vegetation disturbance
- Disturbances in previous tire tracks

- Differences in plant growth, such as wilting or dead foliage
- Irregularities in color or texture of the ground
- Signs warning local populace

The enemy is likely to place mines on:

- Frequently used roadways leading to and from construction sites
- Brush and other traffic obstructions placed on roadways
- Bridge bypasses
- Obvious turnarounds and shoulders.

Convoy Planning Tools

All too often, convoys are treated as administrative moves instead of the combat operations they are. **THERE IS NO SUCH THING AS AN ADMINISTRATIVE MOVE IN A COMBAT ZONE!** Tactical convoys are combat operations and must be treated as such. They require additional planning and coordination beyond normal line-haul operation. The probability for running into enemy contact is greater and, therefore, more detailed preparation is necessary. What follows is a framework to assist with the planning and execution of a tactical convoy. It is not an all-inclusive list, but it will give the convoy commander a checklist to successfully complete the mission. Appendices A, B, C, and D contain convoy checklists.

SECTION VII: Vehicle Battle Drills

Driver Side Contact Drill. A driver must continuously scan and remain alert for threats within his sector of scan (9 to 1 o'clock position) by observing driver side, passenger side, and rearview mirrors. Early threat identification will allow the driver to more quickly place direct fire on the threat within his/her sector of fire (9 to 1 o'clock position) using the following weapon engagement techniques and procedures.

The driver's method of engagement will be reflexive fire trained during close quarters marksmanship (CQM). However, the weapon is pointed, not aimed, because the driver's primary task is controlling the vehicle. The weapon is best handled like a pistol. The right hand is controlling weapon movement and elevation by allowing the upper receiver to pivot on the driver's left arm. The weapon's rate of fire will be on semi-automatic with rapid trigger squeezes. This rate of fire is recommended, as firing on burst will cause the weapon's muzzle to rise up and become uncontrollable.

Drill 1:

This drill begins with the driver's weapon stored in its proper location in the cab (unit standing operating procedures [SOP] based on type of vehicle). The type of vehicle and physical size of the driver and truck commander (TC) will have a significant impact on this battle drill, as the weapon is passed between both. Bottom line is to ensure that weapons are on safe, that positive control is maintained for each weapon, and that vocal commands are understood.

Note: M249s/M203s are not recommended for use by drivers due to possible loss of control of weapon system and vehicle.

1. Upon making threat contact, the driver will activate the left turn signal and announce, "**Contact.**"
2. The TC will place the driver's weapon into the crook of the driver's left arm by grasping the weapon by the pistol grip with the left hand and the hand-guard with the right. During placement of the weapon, the barrel should extend over the driver's left arm with the magazine located against the crook of the elbow. The TC will then announce, "**Secure Weapon.**"
3. The driver will grasp the pistol grip with his right hand and announce, "**Weapon Secure.**"
4. Hearing this, the TC will release the weapon and turn to scan his sector.
5. During the engagement, the driver will observe the threat area for two seconds, firing rapidly on semi-automatic. He should then direct attention back to the operation of the vehicle for two seconds. This should continue until there is no longer a threat.
6. In the event the driver runs out of ammo or experiences a weapon malfunction, the following actions will take place:
 - a. The driver will announce "**Out of ammo**" or "**Malfunction**" and place his weapon on safe.
 - b. The TC, ensuring his own weapon is on safe, will place his weapon between the driver's body and the driver's weapon using the same weapon handling procedures and announce, "**Weapon.**"
 - c. The TC will then grasp the butt stock of the driver's weapon with his right hand and announce, "**Secure Weapon.**"
 - d. The driver will then remove his hand from his weapon and grasp the pistol grip of the TC's weapon and announce, "**Weapon Secure.**"
 - e. The TC will then remove the driver's weapon, using two-hand control and return to his seat.
 - f. TC is responsible for clearing misfires/reloading the driver's weapon.
7. Following the reduction or elimination of the threat, the following actions will occur:
 - a. The driver will place his weapon on safe and announce "**Secure Weapon.**"
 - b. The TC will grasp the weapon with both hands and announce "**Weapon Secure.**"

- c. The driver will then place his firing hand back onto the steering wheel, resume scanning, and turn off the turn signal.
8. Drivers should not fire when:
- a. Vehicle is moving at speeds of 40 miles per hour (mph) or greater
 - b. During times of limited visibility (night, fog, heavy rain, dust storm)
 - c. During severe, hazardous, or limited road conditions (bridges, narrow paths, damaged roads, road construction)
 - d. In situations where there is a passenger who could cover his/her sector of fire (for example, in a four seat high mobility multipurpose wheeled vehicle [HMMWV])
 - e. In areas crowded with non-combatants

Truck Commander (TC) Contact Drill. The TC must continuously scan and remain alert for threats within his sector of scan (11 to 3 o'clock position). Early identification will allow the TC to more quickly achieve proper body position and place effective suppressive fire on the threat within his/her sector of fire (1 to 3 o'clock position) using the following drill.

Drill 2:

1. Once a threat is identified, the TC will announce the threat to the driver (activate right turn signal) while attempting to engage the threat with suppressive fire within his sector of fire (1 to 3 o'clock position) using proper weapon engagement techniques:
 - a. Body positioning. TC should attempt to achieve a position that allows maximum stabilization inside the cab. Maximum stabilization depends on the type of vehicle and equipment in the area of the TC and must be practiced until the individual is comfortable:
 - Firing shoulder should be the same side the individual normally uses.
 - In order to achieve rapid effective aim, the weapon is brought up to the head (the head should not drop down).
 - The firer should ensure his elbow is down against his body in order to assist in locking the weapon into the crook of the shoulder.
 - Individual firers should use the back of the seat for support to maximize the individual's sector of fire and assist with stabilization.
 - Firing to the rear (beyond 3 o'clock) should be limited, as it causes the individual to shift too far forward on the seat and prevents observation of his sector of scan.

b. Point of aim (POA). If the threat is stationary and the shooter is moving, POA will be to the right of the threat in order to allow the momentum of the shooter's rounds to drift left into the threat. A shooter's POA in reference to elevation will always be low (or short). First, this allows the shooter to see the impact of his rounds and quickly adjust his fire. Short rounds cause ricochets and flying debris that can force the threat to seek cover. Last, it provides an effective control measure to limit the risk of civilian casualties and/or property damage.

c. Rate of fire. All personnel other than drivers should engage threats with 3-round bursts. Bursts should be triggered rapidly because of dispersion caused by speed of vehicle and limited time to engage.

Exit/Enter a Vehicle Crew Drill. It is essential to establish and practice a drill to sustain suppressive fire and provide maximum protection for personnel from threat contact in halted vehicles. This drill is written for vehicles with two personnel. If there are other occupants, the drill should be modified as needed and rehearsed. The non-contact side occupant and contact side occupant could be personnel on either side of the vehicle.

Drill 3:

1. Exit the vehicle. Once determined by the convoy leadership or the crew that it is now time to exit the vehicle, the following actions will occur:

a. The occupant on the contact/threat side of the vehicle identifies the threat and establishes or maintains a base of fire using the burst method.

b. The non-contact side occupant, ensuring his/her weapon is on safe, exits the vehicle first maintaining as low a profile as possible and moves to the portion of the vehicle that offers the best degree of protection and immediately returns fire. Engagements while dismounted should be on semi-automatic to conserve ammunition. At this time, this individual should announce "***In Position.***"

c. At this time, the contact-side occupant ceases engaging and, ensuring his/her weapon is on safe, exits vehicle through the non-contact/threat side door. Once on the ground, this individual will then move to the portion of the vehicle that offers the best degree of protection and immediately return fire. At this time, this individual should announce "***In Position.***" He/she will now engage on semi-automatic.

d. Both driver and TC will occasionally scan the area to their rear to ensure there is no threat from that direction.

2. Enter the vehicle. Once determined by the convoy leadership or the crew that it is now time to enter the vehicle, the following actions will occur:

a. The non-contact/non-threat side occupant will continue to engage or observe the threat location.

b. The contact-side occupant ensuring his weapon is on safe moves to the non-contact side door and while maintaining a low profile and enters the vehicle. Once positioned in the contact/threat side seat, this individual will then provide cover by fire; maintain observation of the possible threat; or, if he is the driver, prepare the vehicle for movement. The contact/threat side occupant will announce “*In Position.*”

c. At this time, the non-contact/threat side occupant, ensuring his/her weapon is on safe, moves to the non-contact side door and maintaining a low profile enters the vehicle. Once positioned in the non contact/threat side seat, this individual will then provide cover by fire, maintain observation of the possible threat, or prepare the vehicle for movement.

Techniques and procedures:

- Consider the three-dimensional environment (width, depth, and elevation)
- Maintain a predatory presence, “Go ahead...make my day!” attitude
- Watch people, their behavior, and their hands
- Class V individual load should be 420 rounds per M16 or M4, 600 rounds per M249, and a full vest of 24 rounds per M203 on the individual with the same amount of rounds stored in the vehicle. One thousand rounds per M2 or M240B and 256 rounds per MK19 should also be carried per mission. All additional ammunition should be located within arm’s reach while in vehicles.
- Magazine and ammunition maintenance should occur each time the weapon system is cleaned. Proper method to unload magazines is to push rounds from the magazine as the bolt would. Improper unloading spreads the lips of the magazine causing double feeds. Majority of all M16/M4 malfunctions are magazine faults.
- Uniform and equipment should be closely examined as unnecessary items will interfere with body positioning and weapon engagement procedures and possibly make it difficult for Soldiers to exit the vehicle. Minimum equipment should be body armor, Kevlar, first-aid pouch with two field dressings (entry and exit wounds), two ammo pouches, two canteens, and specialty-tasked equipment. Ammunition should be in ammunition pouches attached to the fragmentation vest. Ammunition stored any other place will disrupt a shooter’s body position and view of sector when changing magazines. Magazine changes should be practiced until this task can be rapidly accomplished without looking.
- Driver's weapon must be stored in a location that ensures the TC can get to it with minimal effort.
- Equipment in the interior of the vehicle must be stored in a manner to leave a clear lane for all personnel to dismount to either side.
- Additional items that must be dismounted include combat lifesaver (CLS) bag, dismount radio systems, and additional ammunition, all of which should be located within arm’s reach while in vehicles.

- Driver's awareness of the hazards with operating a vehicle and employing a weapon simultaneously should be discussed and practiced while moving in order to understand the hazards. This drill can be practiced without firing in stationary and mounted rehearsals.
- Driver's conducting engagements will have hot expended casings being thrown against the windshield and into the seat area. Sleeves should be down at all times.
- If threats appear on both sides, the TC will direct fires on both threats.
- Individuals should not use the door window frames for support, as this will transfer all road vibrations and affect aiming. Individuals should also not attempt to tie weapons to the top of door frames (door gunner), as this may prevent the weapon from being removed or adjusted.
- There should never be more than two personnel firing from the front or the rear of a vehicle at any one time (one in the prone position and one kneeling at his/her side)
- All occupants of a vehicle should be seat belted until contact occurs. The TC may have to release his seat belt to fire effectively or support the driver.
- Priority of effort should be given to suppressing the threat when casualties occur. Once halted, all efforts should be made by other occupants of the vehicle to extract casualties to the ground prior to the arrival of the aid and litter (A&L) team.
- When dismounted, firers should assume a good supported firing position that provides maximum cover and engage on semi-automatic (slow aimed fire).
- Some permanently mounted equipment may prevent occupants from exiting the safe side of the vehicle. In this case, the occupants may exit on the threat side and quickly move around the front of the vehicle to the safe/non-contact side in a low ready position. Rehearsing this crew drill will make it easier to execute. Extreme care should be used while running around the vehicle to prevent fratricide.
- 360-degree security must be maintained at all times around halted vehicles. Restricting terrain or obstacles may dictate that some individuals or gun trucks are repositioned to cover any concealed avenue of approach.

Exit/Enter Cargo Area of a Vehicle Crew Drill. It is essential to establish and practice a drill to sustain suppressive fire and provide maximum protection for personnel in the cargo area of a halted vehicle. If there are other occupants, the drill should be modified as needed and rehearsed. The non-contact side occupant and contact side occupant could be personnel on either side of the vehicle.

Recommend Cargo Area Load Capacities:

Cargo high mobility multipurpose wheeled vehicles (HMMWVs)	4 personnel total	2 personnel per side firing.
2 1/2 or 5-ton	8 personnel total	4 personnel per side firing.
Light medium tactical vehicles (LMTVs)	8 personnel total	4 personnel per side firing.

Drill 4:

1. Hardened cargo area:

- a. If the vehicle has a hardened cargo area (provides protection up to a .50 cal), the personnel may remain mounted.
- b. The occupant(s) on the contact/threat side of the vehicle identifies the threat and establishes or maintains a base of fire, using the side of the cargo area for support and firing on semi-automatic.
- c. The non-contact side occupant(s) will continue to scan his/her sectors in order to provide 360-degree security.

2. Exit the cargo area (not hardened):

- a. The occupant(s) on the contact/threat side of the vehicle identifies the threat and establishes or maintains a base of fire, using the side of the cargo area for support and firing on semi-automatic.
- b. After the driver or TC has taken up a security position at the rear of the vehicle, the non-contact side occupant(s) ensures his/her weapon is on safe and notifies the firing person at the rear of his/her intention. The non contact side occupant(s) then (one at a time, if there are more than one) exits the cargo area of the vehicle, maintaining as low a profile as possible. He/she remains in a location that provides cover and by looking left, right, and rear allows for effective fire and/or situational awareness both up and down the convoy on the non-contact side. At this time, the last individual to exit should announce, "***In Position.***"
- c. At this time, one at a time, the contact side occupant(s) ceases engaging and ensures his/her weapon is on safe and exits vehicle on the non-contact side. Once on the ground, the individual(s) will remain in a location that provides cover and allows effective fires and/or situational awareness to the non-contact side, both up and down the convoy.
- d. Individuals may take up a firing position if there is only one person at the front or rear of the vehicle. There should never be more than two personnel firing from the front or the rear of a vehicle at

any one time (one in the prone position and one kneeling at his/her side).

e. Once cargo area personnel are dismounted, they may replace TC or driver at firing positions, ensuring that the most lethal weapon system is placed on the ground to obtain fire superiority and maintain suppression.

3. Enter the vehicle. Once the convoy leadership or the crew determine that it is time to enter the vehicle, the following actions will occur:

a. The cargo area personnel will allow for the crew to remount first in order to prepare the vehicle for movement.

b. The non-contact/non-threat side occupant(s) will continue to engage or observe the threat location, while the contact side occupants remount one at a time, in reverse order of how they dismounted and will announce, “*In Position.*”

c. Once in position, the contact personnel will signal for the non-contact side personnel to remount.

d. The contact side occupant(s) will continue to engage or observe the threat location, while the non-contact side occupants remount one at a time, in reverse order of how they dismounted.

e. Based on unit SOP, the cargo area personnel signal the crew (for example: two slaps on the roof of the driver’s compartment) when everyone has remounted and are ready to proceed.

Techniques and procedures:

- Do not roll with tailgate open. To do so risks Soldiers, particularly those who may be wounded while moving or who may fall out of the open tailgate.
- If exiting the cargo area over the side of the vehicle, the first Soldier will hand his/her weapon to his battle buddy prior to exiting. Once on the ground, he will secure his/her weapon and that of the battle buddy allowing freedom to maintain a three point contact exit.
- If exiting from the tailgate, each Soldier may maintain his/her weapon and place it on the bed while exiting.
- Three possible positions for personnel from the cargo area are as follows:
 - 1) Positioned on the non-contact side of the vehicle between the two wheel firing positions where they can engage the enemy
 - 2) Positioned to cover a 360-degree threat
 - 3) Positioned to assist with providing command and control by using radios and/or hand and arm signals.

SECTION VIII: Convoy Battle Drills

Convoy Battle Drills

(**Note:** Dismounting vehicles may NOT be an option - beware of mines)

*1. March commander supervises reaction to sniper fire:

- Locates approximate location of sniper incident on map from march element reports.
- Identifies whether area is a free fire zone or restricted fire zone.
- Authorizes return fire only if sniper(s) are located.
- Directs march elements to increase march speed and interval between vehicles until they have cleared the area.
- Provides instructions to follow-on march elements.
- Forwards incident report to higher HQ staff element.

2. Unit takes action against sniper fire:

- Reports sniper fire to march commander immediately upon contact.
- Returns fire immediately that kills snipers or suppresses their fire (designated personnel only).
- Increases column rate of march and vehicle interval.

*3. March commander supervises defense against ambush, road blocked, or road not blocked:

- Identifies location of ambush site on map with map overlay.
- Directs march elements under attack to employ correct protective actions as prescribed in higher HQ movement order and tactical standing operating procedures (TSOPs).
- Provides instructions on halt points and security requirements to all march elements.
- Forwards initial incident report to higher HQ staff element.
- Directs hardened vehicles with automatic fire capability into position to lay down concentrated fire on threat position(s).
- Directs the march elements ahead and march element following to organize security teams to attack flanks of threat ambush party.
- Maintains constant communications with all march elements engaging threat to immediately make adjustments to tactical situation.
- Forwards subsequent situation report (SITREP) reports to higher HQ staff element as situation changes.
- Requests immediate CAS and/or indirect fire support from higher HQ staff element.
- Directs use of pyrotechnics for signaling or marking areas.

- Develops contingency plans to displace elements not under attack and withdraw elements under attack.

4. Unit defends against ground ambush (road not blocked):

- Reports ambush to march commander immediately upon contact.
- Identifies threat location(s).
- Returns fire immediately that kills threat and suppresses their fire (non-driving personnel).
- Stops vehicles (not in kill zone).
- Increases rate of march until out of kill zone (vehicles in kill zone).
- Keeps roadway clear by pushing disabled vehicles aside.
- Organizes security element(s) of Soldiers not in kill zone (senior member present).
- Directs fire and maneuver of security elements to allow remaining vehicles to pass through kill zone (senior member present).
- Forwards SITREP to march commander.

5. Unit defends against ground attack (road blocked):

- Reports ambush to march commander immediately upon contact.
- Dismounts vehicles on opposite side of direction of ambush.
- Returns fire immediately which kills threat or suppresses their fire (Soldiers in kill zone).
- Takes up firing positions while awaiting orders (Soldiers not in kill zone).
- Organizes security element(s) of Soldiers not in kill zone (senior member present).
- Directs fire and maneuver of security elements to allow removal of roadblock (senior member present).
- Forwards SITREP to march commander.

*6. March commander requests indirect fire support:

- Requests fire support in accordance with (IAW) instructions in the higher HQ movement order or TSOP.
- Identifies grid direction to threat location.
- Identifies threat target location using grid coordinates or shift from a known point.
- Transmits call for fire in proper sequence.
- Transmits fire adjustments information in proper sequence to the fire support element, if an “Adjust” fire mission.
- Transmits “end of mission” and surveillance report, if fire was sufficient.

*7. March commander requests CAS:

- Verifies threat position(s).
- Requests CAS by means prescribed in higher HQ movement order.
- Supervises preparation of unit personnel for friendly strike.
- Directs marking of friendly unit location(s) with prescribed colored smoke.
- Communicates strike effectiveness to higher HQ staff element.

8. Unit employs passive defense measures against air attack:

- Provides the prescribed signal to alert column.
- Staggers vehicles to avoid linear patterns.
- Drives vehicle in shadows or wood line.
- Assumes firing positions.
- Fires only upon command.
- Reports all aircraft actions to higher HQ staff element.

9. Unit employs active defense measures against air attack:

- Employs the prescribed signal to alert march elements.
- Identifies threat aircraft visually.
- Disperses vehicles to concealed locations.
- Assumes firing positions.
- Prepares crew-served weapons for firing.
- Fires weapons at attacking aircraft only if fired upon or on command.

*10. March commander supervises reorganization after attack:

- Identifies status of all personnel, equipment, and cargo through march element reports.
- Coordinates requirements within march elements for load transfer, vehicle repairs, mortuary affairs, and medical transportation.
- Requests emergency destruction authorization from higher HQ staff element for unrepairable items.
- Forwards SITREP to higher HQ staff element.

11. Unit reorganizes after the attack:

- Maintains 360-degree surveillance.
- Treats casualties.
- Reports casualties.
- Requests air ambulance support through march commander.

- Re-establishes chain of command, if necessary.
- Secures landing zone, if air ambulance is required.
- Transports casualties.
- Performs mortuary affairs functions.
- Assesses damage to vehicles and cargo to determine operability and .
- Performs battle damage assessment report (BDAR) for recoverable vehicles.
- Removes critical items from unrecoverable vehicles.
- Requests emergency destruction of vehicles and non-medical equipment from march commander.
- Forwards SITREP to march commander.
- Reorganizes march elements.
- Resumes march.

NOTE * Indicates a leader task

React to Contact/Threat (Maintaining Movement) Drill. This drill is designed to establish procedures for actions to be taken by a convoy when confronted with enemy contact. This threat can range from direct weapons fire, rocket propelled grenade (RPG) fire, improvised explosive devices (IEDs) and/or indirect fires. The intent is to maintain movement and increasing speed in order to reduce exposure and deny the threat the ability to effectively engage the convoy.

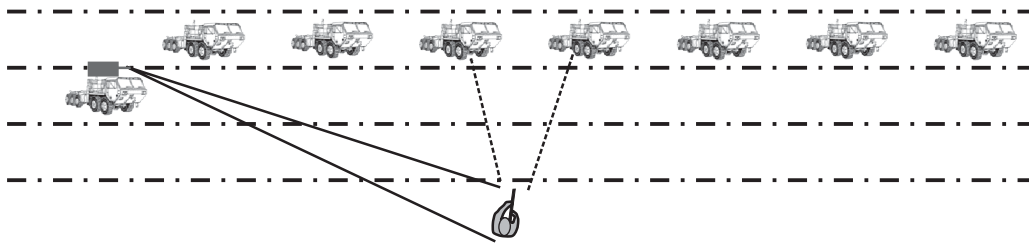


Figure 2-5

Drill 1:

1. Continuously observe sectors of scan.
2. Place suppressive fire on the threat using individual weapon engagement techniques provided in "Vehicle Battle Drills." Proceed through the contact

zone increasing speed and interval and do not bunch up.

3. Activate vehicle turn signal to indicate direction of contact or most dangerous contact when engaged from both sides.
4. Report contact on internal communication(s), identifying truck number, type of contact, and clock direction.
5. Gun trucks maintain front and rear security of the convoy as the convoy continues movement through the contact zone. Engagement of the threat should occur without affecting the momentum of the gun truck or the convoy. If gun truck(s) are required to reposition or stop in order to engage, they will assume their original position(s) when the convoy passes out of the contact area.
6. Convoy leadership submits size, activity, location, unit, time, and equipment (SALUTE) report to higher.
7. Convoy will proceed to rally point “forward.”
8. Any vehicle with a casualty will maintain momentum and activate four-way flashers. If possible, the uninjured occupant will notify convoy leadership using communication systems.

Techniques and procedures:

- Drivers must remain focused on the vehicle to their front and rear as those vehicles may be unaware that contact has occurred. Maintain interval and be ready to execute sudden maneuvers if vehicles to the front are forced to stop.
- Activate turn signal only while the contact/threat is in each vehicle’s sector; this action will assist personnel to quickly focus on the exact location.
- Reporting should be second in priority to engaging the threat. When reporting within a convoy, call signs should be designated vehicle position (first vehicle is Truck 1, second is Truck 2, etc.). This allows personnel to quickly identify the location of concern.
- Reports should be accurate and concise (who, what, where, and when).
- Convoy leadership should identify and direct target engagements of gun truck(s) (for example: Gun Truck 1 engage RPG team, 3 o’clock, 200 meters).
- Convoy commanders should submit a request for medical evacuation (MEDEVAC) as soon as there is an indication of a serious casualty. Do not wait until you reach the rally point. A specific grid can be transmitted later.

Convoy Forced to Stop Drill. This drill is designed to establish procedures for actions to be taken by a convoy when forced to stop because of severely damaged vehicles and/or serious injury to a driver. This contact/threat can range from threat direct weapons fire, RPG fire, IEDs, and/or indirect fires. The intent of the drill is to prevent further injuries/damage and allow the convoy to quickly exit the contact

zone. While this drill identifies basic procedures, the location of the contact within the convoy, the specific threat, and friendly casualties will require convoy leaders to make timely decisions and issue rapid fragmentary orders (FRAGOs) to adjust this drill.

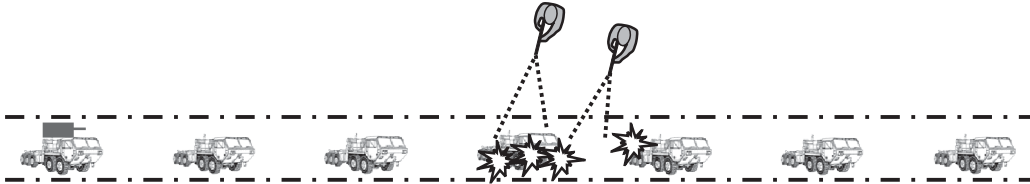


Figure 2-6

Drill 2:

1. Personnel in vehicle(s) forced to stop will return fire and exit the vehicle.
2. All other vehicles in the convoy will stop and where possible return fire/exit the vehicle. Once dismounted, the convoy will rapidly gain fire superiority using well-aimed semi-automatic fire from both flanks of the threat.
3. Vehicle(s) not in direct contact will report on internal communication if possible, identifying truck number, type of contact, and clock direction.
4. Convoy leadership will reposition to better assess the situation and reposition gun truck(s), using available cover and concealment and standoff range to increase the volume of fire in the contact zone from multiple directions.

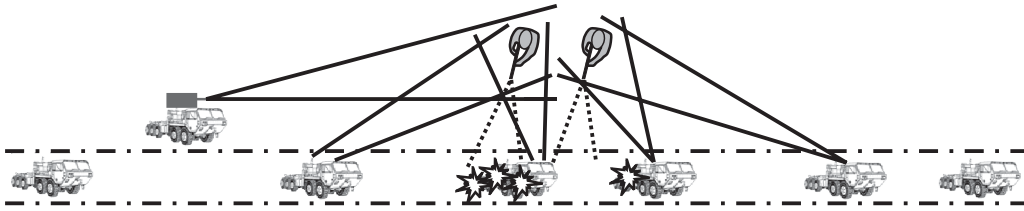


Figure 2-7

5. Once convoy leadership determines the convoy has either gained fire superiority or defeated the enemy threat, the senior convoy leader will decide to execute casualty evacuation (CASEVAC)/recovery. Pre-determined destruction criteria should be established during planning to expedite operations when recovery is not possible.

6. If the convoy leadership determines the convoy cannot gain fire superiority or eliminate the threat, the leadership will break contact from the kill zone.

Techniques and procedures:

- Leaders outside the contact zone must establish 360-degree security and be aware of a second potential threat from a different direction.
- Convoy leadership should identify and direct gun truck(s) target engagement (for example: "Gun Truck 1 engage RPG team, 3 o'clock, 200 meters").
- Conservation of ammunition is important. Once dismounted, all personnel should be engaging with weapons in the semi-automatic mode and engage only visible threat targets.
- Prior to breaking contact, an attempt should be made to recover all weapons and sensitive items from vehicles that are non-recoverable and/or being abandoned

Casualty Evacuation (CASEVAC) and Recovery Drill. CASEVAC is defined as the removal of casualties from a high-risk situation or area. Personnel will not be able to provide immediate aid until fire superiority has been established. Once fire superiority is achieved, extraction and movement of casualties will often require field expedient procedures. Recovering vehicle(s) from the contact zone should be conducted with hasty recovery procedures.

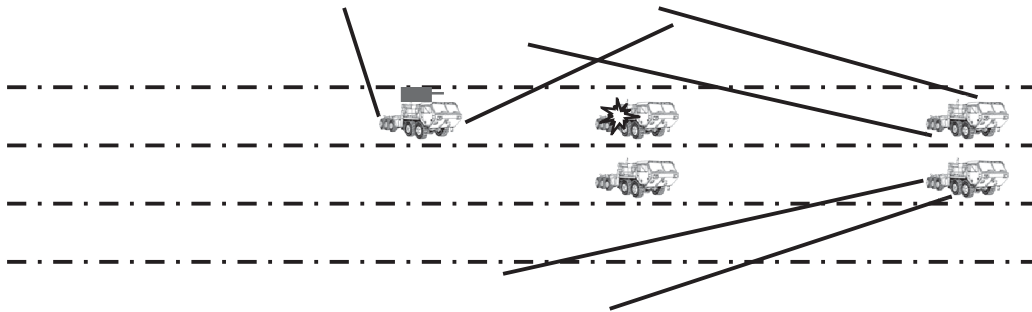


Figure 2-8

Drill 3:

1. Once the convoy leadership determines that the area in the vicinity of the casualty(s) and/or disabled vehicle(s) is secure or the enemy is suppressed, CASEVAC and recovery operations may begin.

2. CASEVAC:

- a. The A&L team will move forward blowing their horn continuously to warn dismounts of the vehicle's approach and position their vehicle on the non-contact side of the vehicle with the casualty(s). The A&L team will then extract casualties and load them immediately into the aid and litter vehicle as safely and quickly as possible.
- b. Treatment of the casualty(s) will not occur inside the threat area except for emergency treatment to prevent loss of life and then only as the A&L vehicle is departing the area.
- c. The convoy commander must decide what other vehicles in the convoy will accompany the A&L vehicle (with casualties on board) to a floating rally point. As a minimum, there will be one additional vehicle to provide security, with a leader and Single-Channel Ground and Airborne Radio System (SINCGARS) capability.

3. Vehicle recovery procedures:

- a. Recovery team will position on the safe side of the disabled vehicle in the same manner as the A&L team.
- b. TC will dismount and assess the disabled vehicle, looking for any safety reason why hasty recovery (chains, tow-straps, or cables, not tow bars) cannot be accomplished.

c. If it is determined the vehicle can be safely recovered, TC will guide the recovery vehicle into a position that best allows a hasty hook-up. The driver of the disabled vehicle will then mount and operate the disabled vehicle until free of the contact area. If the driver is a casualty, the TC of the recovery vehicle will operate the vehicle being towed.

d. Upon exiting the contact area or at the rally point, hook-up procedures will occur using a tow bar.

Techniques and procedures:

- A CLS or medic should not be assigned to an A&L team unless the unit has sufficient CLSs to provide first line treatment at the rally point. Personnel assigned this task should have basic CLS knowledge/training in order to provide basic treatment at the casualty collection point (CCP).
- Personnel dismounted inside the contact zone will initially engage the enemy threat. Due to the risk of more casualties, treatment or CASEVAC is second in priority
- To permit rapid pick-up and safe transportation of casualties, A&L team vehicles should be free of extraneous equipment
- To ensure a quick exit from the contact area, A&L and recovery vehicle drivers will not exit their vehicles in the contact zone
- Hasty hook-up procedures should be established by unit leaders. Hasty recovery devices can be chains or cables already rigged on the recovery vehicle. All other vehicles must have a capability to quickly hook-up this chain or cable.
- A&L and recovery personnel will not separate themselves from their weapons during CASEVAC or recovery operations.
- Once the casualties are loaded or the vehicle recovered, A&L and recovery teams should contact convoy leadership when ready to move.

Break Contact Drill. This drill is designed to establish basic procedures for withdrawing personnel and equipment from a situation where the convoy is either unable to gain fire superiority or the mission dictates immediate withdrawal. Leaders must adapt to the situation, as different actions may be required based on disposition of convoy assets on either side of the contact zone. This drill begins with the decision to withdraw.

Drill 4:

1. Convoy leadership will identify either rally point “rear” or “forward” or, if necessary, both rally points. Communication systems and/or appropriate pyrotechnic signals will be used to communicate/signal the decision to break contact and the designated rally point(s).
2. Personnel on vehicles to be abandoned will remove weapons and other sensitive items and initiate destruction based on guidance established in the convoy brief.

3. Personnel in the contact zone will assist with evacuation of all casualties as required. Personnel not required will continue to engage the threat location in order to provide fire support for the convoy's withdrawal. Once dismounted individuals have bounded back to safe locations, leaders must ensure that all personnel are accounted for.

4. Leaders within the contact zone will direct personnel remaining to bound individually in the direction of egress, maintaining covering fire to the extent possible.

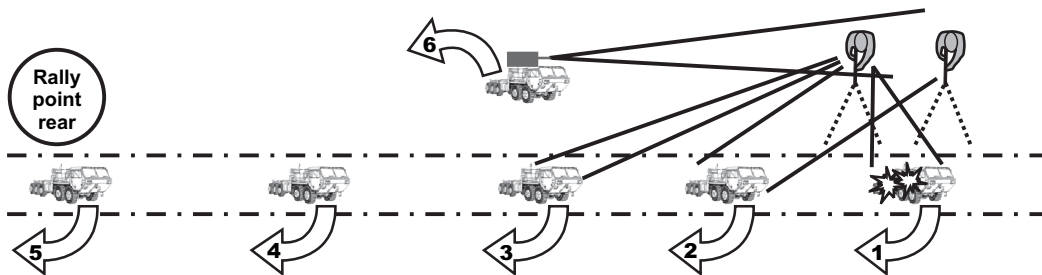


Figure 2-9

5. Vehicles that are functional can displace either backwards or forwards. Vehicles closest to the threat move first as demonstrated in Figures 2-9 or 2-10. Vehicles will continue to displace in this fashion until all personnel and vehicles have cleared the contact zone. As personnel and vehicles displace, it is important to reposition leaders and gun truck(s) as necessary to maintain command and control and suppressive fires in support of the breakout.

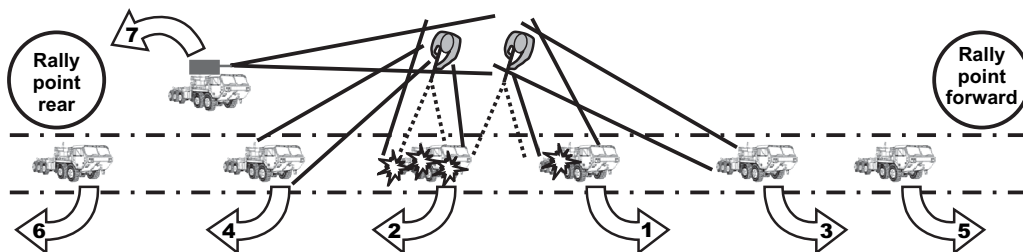


Figure 2-10

6. Upon exiting the threat/contact zone, personnel and/or vehicles will move to and occupy the designated rally point(s) and begin consolidation and reorganization.

Techniques and procedures:

- Conservation of ammunition is important. All personnel once dismounted should be engaging with weapons in the semi-automatic mode.
- When executing casualty evacuation (CASEVAC), it may be necessary to maneuver additional personnel from A&L teams into the contact area to assist.
- Personnel in the contact zone are best positioned to determine the direction they break contact.
- Movement from the contact zone in vehicle(s) may not be possible if it requires turning the vehicle around while in contact. Personnel in these situations may be required to abandon their vehicle. It is essential for dismounted individuals breaking contact to move in the shortest direction to achieve a safe covered position. This may cause a round about route back to the remainder of the convoy.
- When moving in or from the contract zone, it is important to use all available cover and concealment.
- Pre-determined destruction criteria and procedures should be established and provided if the vehicle/cargo is sensitive.

Occupy a Floating Rally Point(s) Drill. Floating rally points are established using a determined distance either forward or rear of a contact depending on the nature of the contact and disposition of vehicles. A floating rally point rather than fixed or predetermined rally points is used because contact locations are unpredictable. Once at a floating rally point, a unit will need to establish a formation that facilitates security, command and control, consolidation, and reorganization activities.

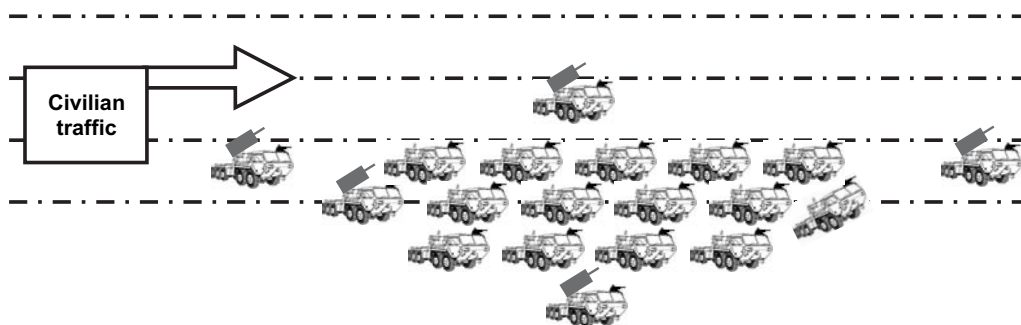


Figure 2-11

Drill 5:

1. Unless otherwise directed, floating rally point “forward” will be located approximately two to six miles in the direction of movement and/or outside the range of enemy weapon systems being employed against you. The floating rally point “rear” will be located approximately two to six miles and/or outside the range of enemy weapon systems being employed against you. Whenever possible, the actual rally point site selected should be in an open area with maximum observation in all directions and should not be located near built up areas.
2. Occupation of the rally point will occur using the “box formation.” If possible, the shoulder of the road will be used if conditions are appropriate and safe for all vehicles. If unable to pull off the roadway, vehicles will establish the formation to the right side of the roadway to allow civilian vehicles to move around the convoy’s left side. Occupation will begin with the first vehicle positioning his/her vehicle in a manner that blocks direct entry into the front center of the formation. All additional vehicles will alternate right and left in order to establish the rest of the box as pictured in Figure 2-11. The convoy commander and/or command and control vehicle(s) will be positioned inside the center/safe area. The rear of the box will be blocked in the same manner as the front.
3. Gun truck(s), while primarily responsible for maintaining support by fire positions, are also part of the consolidation and reorganization. Gun truck(s) will normally occupy the 12 and 6 o’clock position in the convoy box formation. If the rally point is in restricted terrain, gun trucks may be positioned to cover dead space or even patrol around the convoy box.
4. Drivers and passengers dismount towards the inside of the box and establish perimeter security. Leaders must ensure that 360-degree security is established and maintained.
5. Casualty treatment/evacuation:
 - a. Casualty treatment will begin upon occupying the rally point. Vehicles with casualties on board will have four-way flashers turned on. The A&L team will remove the casualty from the vehicle and immediately begin buddy-aid until relieved by a CLS.
 - b. CLSs will scan vehicles in search of casualties (four-way flashers). Upon encountering a casualty, the CLS will evaluate buddy-aid and, if adequate, continue his search.
 - c. A&L teams secure and transport casualties to the CCP designated by convoy leadership using litters, fully assembled cots, body bags, or other improvised conveyance. The CCP is typically located in the center of the formation behind the convoy commander’s vehicle. After movement of casualties, A&L teams will assist the CLS with treatment and preparation for movement/evacuation. A&L teams are also responsible for securing weapons and other sensitive items belonging to seriously wounded casualties.

d. Convoy commander will direct initiation of the MEDEVAC request based on situation and casualty status. The convoy commander's driver will submit the actual MEDEVAC request using the approved 9-line report (see example in Section Four: Reports and Signaling).

6. Landing zone (LZ) procedures:

a. The LZ should be at least 75 to 100 meters downwind from the rally point. It can be marked with VS-17 panel, smoke, reflective hazard triangles, chem lites, or vehicle lights.

b. Helicopters land and take off into the wind. The LZ selected should not require the helicopter to land or take off over the convoy.

c. The LZ is secured with a gun truck or similar vehicle equipped with an automatic weapon. The gun truck moves to a location away from the flight path of the landing helicopter, but in a good fire support position to provide early warning of approaching enemy elements. The LZ area is cleared of anything that may be sucked into the aircraft engine or is hazardous in any way.

d. When the aircraft notifies the convoy that it is in-bound, a member of the LZ team deploys a smoke grenade (if available) to indicate wind direction. The grenade should be dropped on the down-wind side of the LZ so as not to obscure it.

e. The casualty is positioned within the box formation, at a point which allows rapid movement to the LZ and is sheltered from the rotor wash. Once the aircraft has set-down, the helicopter crew chief will signal the A&L team when to approach the aircraft. The A&L team approaches the aircraft from the flank, staying well clear of the tail rotor. Once loaded, the A&L team should retrace their steps away from the aircraft and return to their normal duties.

7. Consolidation and reorganization begin when the rally point/location has been secured. These procedures can be accomplished concurrently with treating and evacuating casualties.

8. Personnel will report their ammunition status to first line leaders. Ammunition report will be based on how many full magazines are available. Subordinate leaders will immediately redistribute ammunition at their level and report to the next leader.

9. Drivers will inspect vehicles and cargo for damage. Concurrently, recovery teams will conduct proper hook-up procedures and prepare damaged vehicles for safe operation. Subordinate leaders will conduct weapon, communication, and sensitive item inspections and ready personnel for onward movement.

10. Any personnel from the cargo areas of large vehicles may be used to fill in on perimeter security or special tasks (for example: LZ set-up/security, A&L support). No more than two personnel should occupy any firing position.

11. Convoy commander will submit a SALUTE and ammunition, casualty, and equipment (ACE) report to higher.

Techniques and procedures:

- To protect yourself from VBIEDs, it is recommended that you pull off the road at least 100 m to create stand-off from other vehicles.
- Distance to floating rally points should be varied constantly to prevent setting a pattern that can be exploited by the enemy.
- Gun truck crews will not dismount at a rally point unless required for casualties. These vehicles must be manned and ready to reposition at all times.
- In high VBIED threat areas, gun trucks may need to be positioned away from the box along both directions of travel. If either the lead or trail gun truck repositions, other vehicles must move to close the end of the box.
- Interval between vehicles should be enough that vehicle(s) can pull out of the formation; however, the interval should be tight enough to prevent threat vehicles from having a high-speed avenue into the safe area.
- The box formation allows leadership and individuals to speed consolidation and reorganization activities, as well as provide a safe and secure area. Herringbone and column formations fail to provide these basic requirements.
- Dismounted personnel positioning should be inside the safe area using vehicle(s) as cover. Locations between the rear and front of vehicles provide no protection/cover and are also considered an unsafe area if vehicle(s) are still in gear or should happen to roll forward.
- Personnel providing security will normally be positioned inside the box. Personnel should stay inside the box unless directed otherwise and must take care to avoid being run over by other vehicles entering the box. All security personnel will exit the box only if required by special tasks (for example: cover restricted terrain or set up an LZ).
- All measures should be taken to prevent civilian vehicles from becoming blocked by a convoy's rally point formation, as this will cause additional problems with crowd control issues. Personnel in the rear of the box should be prepared to direct people around the convoy.
- Drivers of command and control vehicles should remain mounted to monitor the radios.
- It is possible that the initial vehicles entry into the floating rally point will be a leader vehicle accompanied by the A&L vehicle. As the remainder of the convoy approaches, they will establish the box around these vehicles.
- Rally point procedures should be completed as rapidly as possible because of the proximity of the enemy threat.

Vehicle borne Improvised Explosive Devices (VBIEDs)/Improvised Explosive Devices (IEDs)

VBIEDs and IEDs are currently the greatest threats to coalition forces in theater. Threat forces have turned to the employment of IEDs as the preferred method of

attack, as this provides the threat a standoff capability to initiate an attack and then quickly escape the area. Some of these attacks include the use of direct fire weapons immediately following or prior to the detonation of an IED. Training should be scheduled frequently to update all personnel on the current IED threat. The intent of this drill is to safeguard the unit or element while securing the IED site. Unexploded ordnance (UXO) should be treated in the same manner as an IED. All personnel in a convoy must be alert for camouflaged IEDs in their sector of scan.

VBIEd trends. VBIEDs with suicide drivers are targeting coalition convoys. Initially these vehicles attempted to enter convoy formations on the move. This proved ineffective due to convoy speed and intervals. The emerging technique is to target stationary convoys or groups of Soldiers. TTP to mitigate the threat include the following:

- Hang signs in Arabic “Remain 100 meters from vehicle – Do Not Pass” visible at 50 meters
- Use flash/bang grenades (non-lethal) as a warning devices for vehicles getting too close
- Employ any electronic countermeasures available
- Use cones and/or barriers with signs to keep vehicles 100 m away while halted
- If suspicious vehicles ignore these warnings and close within 50 m you may engage them.

What VBIEDs look like:

- Mostly cars, some light trucks
- Vehicle appears heavy laden (rear axle weighted down)
- Single male drivers (normally in their mid-20s, but this is not always the case) dressed in normal Iraqi attire or dressed inappropriately for vehicle type. May be clean shaven with short haircut as this is part of the purifying ritual that many follow prior to an attack.
- Aggressive or erratic driving (this factor alone is insufficient to engage)
- Some vehicles are stationary on the side of the road and are detonated from a stand-off position

What VBIEDs do not look like:

- Large trucks and buses
- Vehicles carrying multiple people, family or children in vehicle
- Aggressive or erratic driving (this is also common driving behavior here)
- Vehicle stationary on the side of the road with people around it or working on it

Reaction to VBIEDs. Vehicles rapidly approaching convoys who have the characteristics of VBIEDs and fail to slow down or maintain a safe distance represent a credible hostile intent. There is a designated 100 m exclusion zone and suspicious vehicles may be engaged within the 50 m. The point of aim should be the driver. The engagement should be short bursts into the drivers side of the windshield. Hitting the vehicles tires or engine may slow it down, but is not likely to stop it completely. Stationary vehicles along the road identified as a potential VBIED should be handled in accordance with (IAW) procedures described below for IEDs/UXOs.

Recent vignette. On a recent convoy a noncommissioned officer (NCO) saw this abandoned vehicle sitting in the roadway (see Figure 2-12 below):

1. Notice how far out it is sitting from the edge of the road. Normally, broken vehicles are a common sight in Iraq, but they are usually more off the shoulder.
2. There are no people around.
3. The jugs/containers are also a common sight in Iraq. A lot of fuel is sold on the roadside in this fashion, containers sitting on the side of the road (again not this far out).



Figure 2-12

The convoy immediately stopped and backed off, blocked the road, and called in explosive ordnance disposal (EOD).

Another unit had a patrol of three HMMWVs roll up. They were advised of the situation and told to find an alternate route or drive past by crossing over the median (6 lane highway) and driving past the suspicious vehicle. Instead of driving in the opposing lanes they elected not to cross the median and just drive on the far side of their current lane. As the patrol rolled by the VBIED detonated, obviously under observation for command detonation. See Figure 2-13 below.



Figure 2-13: VBIED detonation

No one was seriously injured, one high mobility multipurpose wheeled vehicle (HMMWV) was damaged (up-armored with window closed and gunner inside as they passed). These potential casualties and damage would not have occurred if the second convoy had adhered to the 300 m minimum safe distance established in Multi-National Coalition-Iraq (MNC-I) directives.



Figure 2-14: VBIED remains



Figure 2-15: VBIED remains

IED trends:

- IEDs are most often designed to be command detonated by either a hardwired system (speaker wire, red detonation cord, yellow wire with blasting caps) or a remote controlled system (car alarms, cell phone, garage door opener, cordless phones, Motorola radios.)
- IEDs are normally designed using mortar rounds, artillery projectiles, plastics, TNT, and other explosive-filled ordnance. These typically already have a method to produce fragmentation.
- Locations for the enemy to command detonate are often within line of sight (usually 150 to 200 m away.)
- IED camouflaging typically has been with items that resemble the garbage along roadways, broken down vehicles (VBIED), roadside containers, dirt mounds, and tires. IEDs are elevated behind road signs and hidden in trees or other items that appear to be normal.
- IED emplacement has been located under the paving stones either on walkways or road systems. These devices can also be buried in potholes or in the unimproved road surfaces.
- The enemy has been known to use obvious decoy devices (bait device) out in the open to slow or stop convoys in the targeted zone where the actual device is hidden or ambush is planned. Often, multiple IEDs are emplaced in one general location.

- IEDs and other devices have been deployed from overpasses. Typically these devices are either thrown by personnel or swung down or hung from measured ropes to ensure target strike is at windshield/operator level. Trip wires has also been used and piano wire has been used to decapitate gunners.
- Individuals of all ages, both male and female have employed IEDs.
- The majority of IEDs are placed during darkness to limit the chance of the individual being seen or confronted while emplacing the device.
- IEDs are often employed during early morning hours against the first convoy passing by.
- Maintain a standoff distance of at least 300 meters from suspected IEDs/UXO as communication devices may cause detonation or enemy personnel may have the ability to remotely command detonate.
- The enemy has begun to burn vehicle tires on asphalt roads, this is to loosen the asphalt for emplacement of IEDs underneath the road surface. The IED then looks like a patch in the road.
- IEDs are now being executed followed by small arms ambush or RPG attack; this is a complex ambush and may come from both sides of the convoy
- The enemy have begun to put ball bearings into IEDs to achieve more fragmentation. They are also putting soap chips in IEDs with fuel so when it explodes it sticks and burns the skin.

Reaction to IEDs/UXO Drill. The following steps “The five Cs” describe the MNC-I standard for reacting to an IED/UXO that is discovered prior to detonation. The intent of this drill is to safeguard the unit or element while securing the IED site. UXO should be treated the same as an IED. All personnel in a convoy must be alert for camouflaged IEDs in their sector of scan.

Drill 6:

1. Confirm and report:

- a. The first vehicle to identify an IED should turn on the appropriate turn signal indicating contact and use a unit designated IED marking system.
- b. The nearest vehicle (outside of 100 m from the IED) with a radio must transmit the location of the IED using vehicle interval call sign and distance/direction of the threat (for example: "This is vehicle #4, possible IED, 3 o'clock, 50 meters").
- c. Convoy leadership confirms the presence of a possible IED and immediately contacts their higher command and supporting EOD unit to respond using the IED/UXO report. Leadership should also take all necessary actions to report on the sheriff/military police (MP) frequency in order to provide other convoys in the area with the information.

2. Clear:

a. All leaders must take immediate action to halt or reposition vehicles a minimum of 300 m away from the IED site. Detonation may be imminent if located prior to being activated. Be alert for the possibility that all IEDs have not been located.

b. Once the convoy clears the minimum 300 m safe distance from the suspected IED, either the lead or trail gun truck will conduct a 25 to 50 m sweep on each side of the road to locate IED materials/equipment (detonation cord, receivers, or transmitters) that may lead to other IEDs flanking the convoy. The driver and TC of the sweep gun truck will be responsible for conducting the scan of the area for IED material.

c. The gunner of the sweep gun truck will be responsible for scanning the area for personnel detonating the IED.

d. The second gun truck will provide overwatch of the convoy, as well as overwatch for the first gun truck conducting the IED sweep. If subsequent IEDs are located, units will execute the procedures for clearing the area as listed above.

e. If terrain or obstacles prevent the gun trucks from making the area sweep, selected personnel from within the convoy will make a dismounted sweep 25 to 50 m out to locate any IED materials. The dismounted sweep is to be covered/overwatched by stationary direct fire shooters.

3. Cordon. Secure the area to prevent unauthorized personnel entrance (300 m from a small device/1000 m for a van-size device/2000 m for a truck-size device).

4. Control. Maintain visual (binoculars/scopes) observation on the IED to ensure no tampering occurs. Immediately report any people observed approaching the IED to your chain of command.

5. Check. Check for secondary devices that may be around any area where you would set up a perimeter.

Techniques and procedures:

- Recommend the use of a water bottle, partially filled with colored water, with a streamer attached as an IED marking system. These materials are readily available and would allow for each vehicle to carry a minimum of two markers.
- While approaching and moving through an overpass, the gun trucks may shift lanes and should orientate their weapon systems toward the overpass, scanning for signs of insurgents and IEDs.
- Do not use road shoulders or cut corners when making turns, IEDs are often placed at intersections where large vehicles will run off the road to easily make a turn.

- Gunners should stay in vehicles unexposed until contact is initiated, either by small arms contact or IED. Seventy-five percent of all IED casualties come from gunners exposing themselves. Once contact is initiated gunners should move up and begin to return fire.
- Vehicles should travel in the middle of the lane as much as possible in order to minimize the effects of an IED blast.
- Most convoys are traveling at a convoy interval of 75 to 100 m, this makes the ability of the enemy to attack more than one vehicle impossible with a single IED.

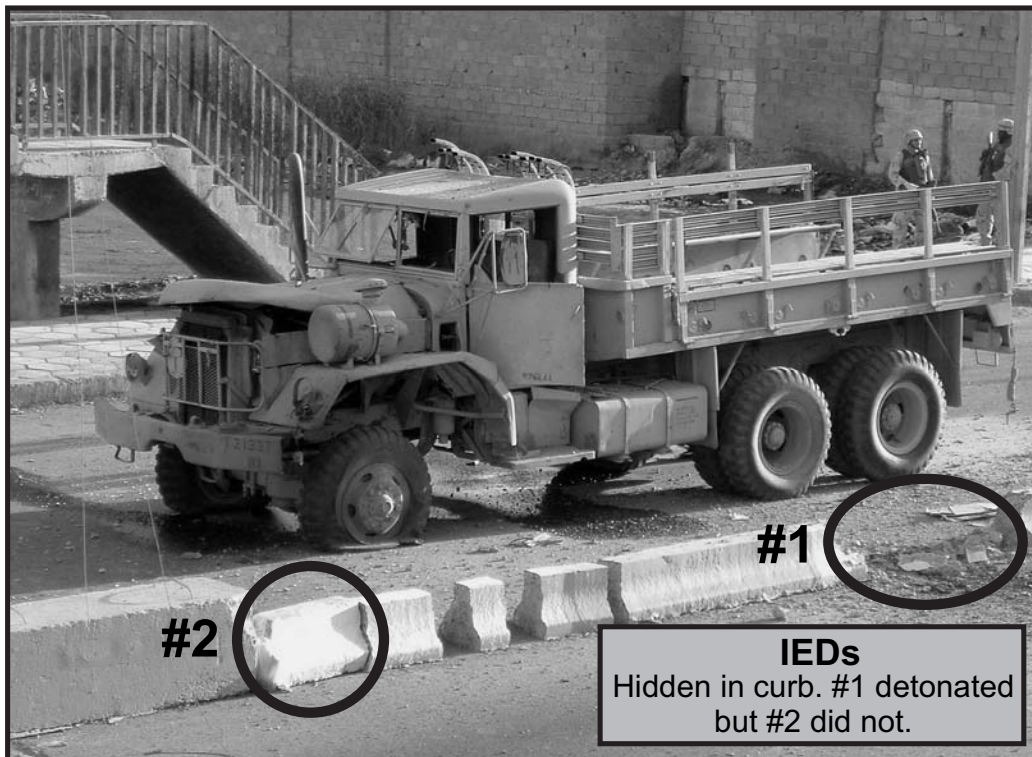


Figure 2-16

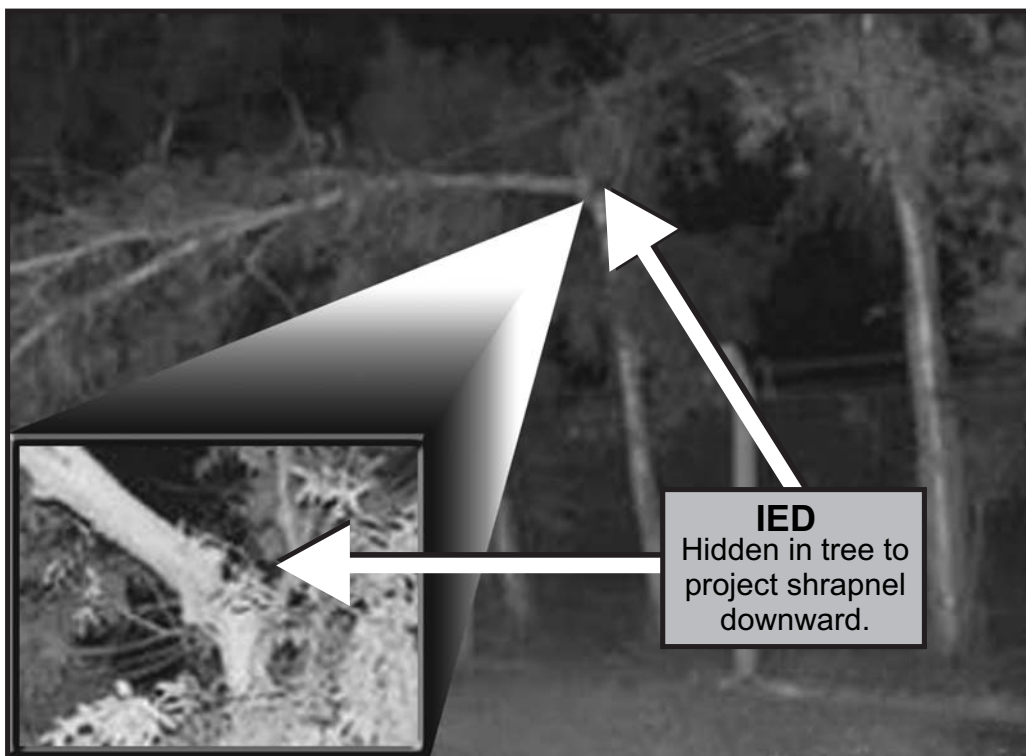


Figure 2-17

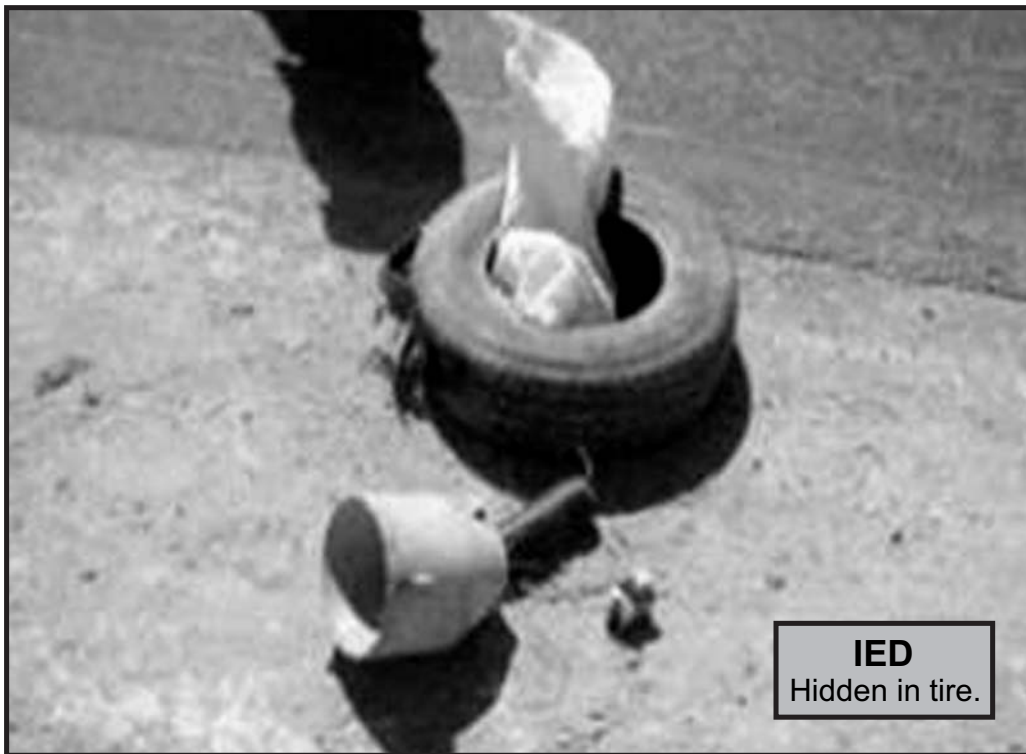


Figure 2-18

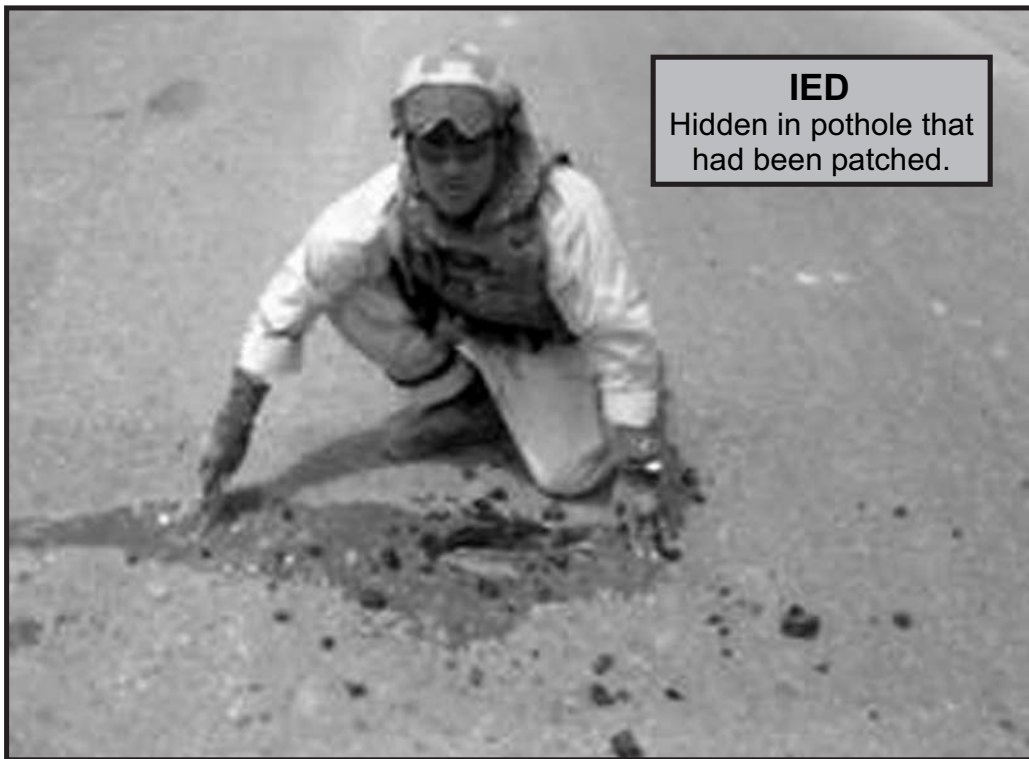


Figure 2-19



Figure 2-20

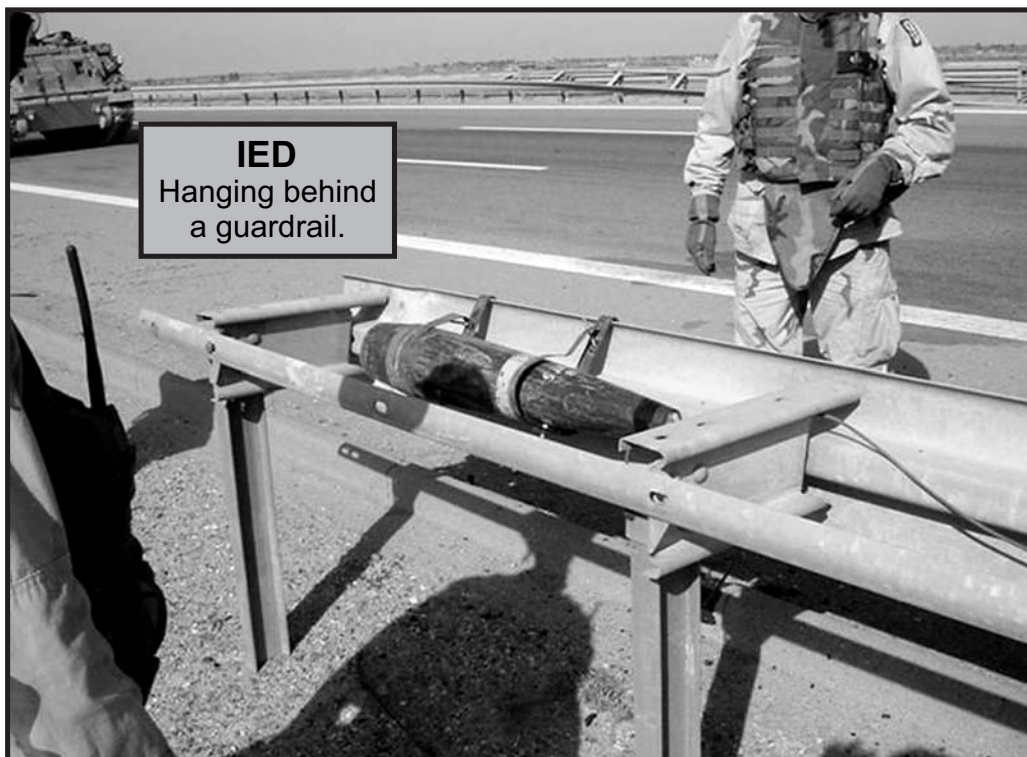


Figure 2-21



Figure 2-22

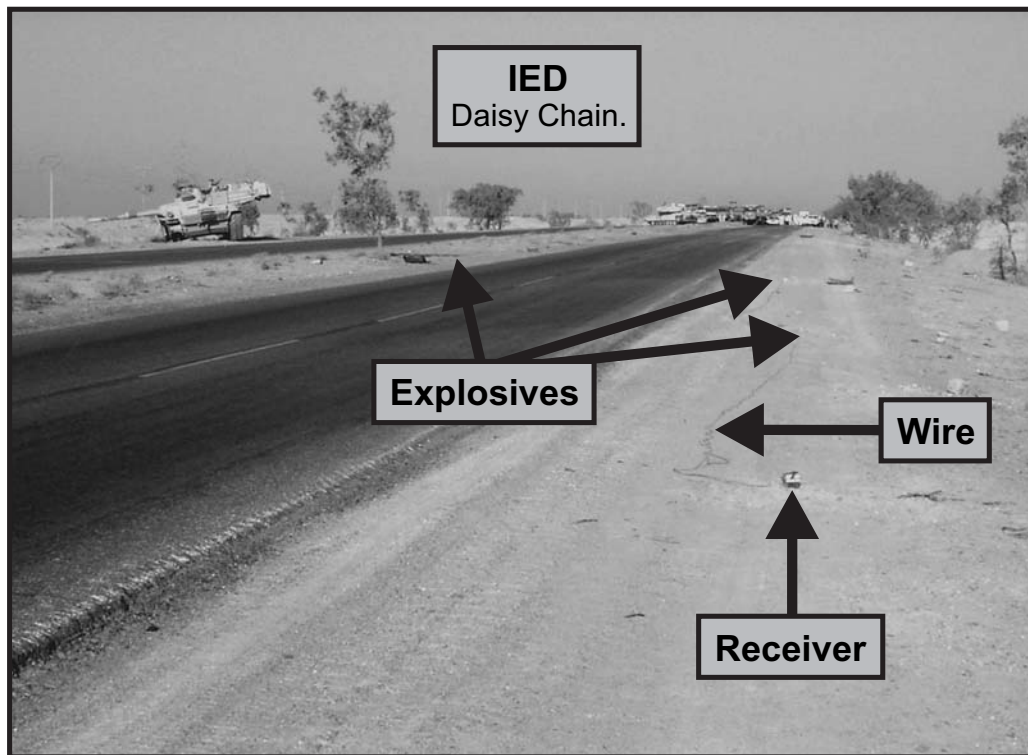


Figure 2-23

SECTION IX: UNMANNED AERIAL VEHICLE (UAV) SUPPORT OPERATIONS

A UAV is controlled from remote locations via radio frequency (RF). It provides near-real time video of the battlefield transmitted to a controlling shelter and remote video terminals (RVT). The UAV provides the commander a platform to collect near-real time video. Lesson learned from units returning from OEF indicate that UAV video is more effective when used to confirm intelligence collected by a different collection platform.

With the advent of newer technology and with the demonstrated performance of the UAVs, the current classes or combination of these type vehicles are called the tactical UAV, followed by the endurance category.

The unmanned aerial vehicle (UAV) contributes significantly to battlefield awareness. UAV-provided information has improved the quality and timeliness of battlefield intelligence, keeping decision-makers better informed. While the primary mission of the UAV remains reconnaissance, surveillance, and target acquisition (RSTA), the UAV can be employed in support of intelligence preparation of the battlefield (IPB), situation development, battle management, battle damage assessment (BDA), rear area security, and command and control (C2). UAVs have also been successfully used as munitions delivery platforms. UAVs can perform many missions, which would normally be considered

unacceptable or unsafe for manned aircraft. That is not to say that the UAV is an asset to be expended needlessly. METT-TC will dictate when such attrition should be considered. Even then, every effort should be made to preserve the UAV because of its value as “eyes” over the battlefield.

Several autonomous UAVs have been fielded which can be given GPS-based or inertial navigation system (INS)-based parameters and then are left to loiter and collect signal intelligence (SIGINT), communications intelligence (COMINT), photography, or real-time television images, and flash the data or images back to troop commanders.

The UAV can support the commander in day or night operations but is limited by adverse weather. According to the tactical concept of operations, the UAV will fly 12 hours per day, with a surge capability of up to 72 continuous hours, if authorized by the commander. Manning will also affect the surge capability. However, surge operations come at a cost; the UAV is down for maintenance for 72 hours following a surge operation.

The UAV is capable of conducting day and night operations including:

- Route, area, and zone reconnaissance
- Surveillance of named areas of interest (NAI)
- Support combat search and rescue (CSAR)
- Target acquisition
- Support BDA
- Rear area security
- Situation development
- Support IPB
- Communications relay
- Command and control.

Weather Limitations

The weather must be considered in developing the collection plan. If any of the following conditions are present, the mission will not launch:

- Ceilings of 6,000 feet or less will prevent collection during mission.
- Headwind of 35 knots, tailwind of 3 knots, and crosswind of 20 knots
- Winds aloft of greater than 50 knots
- Lightning within 10 nautical miles
- Ice

C2

C2 of the UAV company is strictly based on its location in the area of operations. In the general support role, the G2 determines how the UAV will be used based on

the commander's priority intelligence requirements (PIR). When the shelter is located at the brigade TOC, the controlling element is the brigade.

Lags in UAV targeting are common occurrences. Whether the delay is a lack of communication, lack of situational awareness, or a lag in the dissemination of the intelligence, the fact remains that good intelligence is not being used to its fullest potential. The brigade requires imagery analysts to allow instant analysis of UAV imagery. Better imagery training for other imagery military occupational specialties (MOSSs) and adding the identification to their job descriptions would increase the possibility that someone would be available to exploit imagery at the brigade level. Better communications between brigade, fire support, the UAV, and whoever is exploiting the imagery will further decrease the lag time.

SECTION X: OPERATIONS AGAINST CAVE COMPLEXES

The use of caves as hiding places; caches for food, munitions, and weapons; headquarters complexes; and protection against air strikes and artillery fire has been characteristic of the nature of the war in Afghanistan and other desert environments. Extensive cave systems containing conference, storage, and hiding rooms, as well as interconnected fighting points, have frequently been encountered.

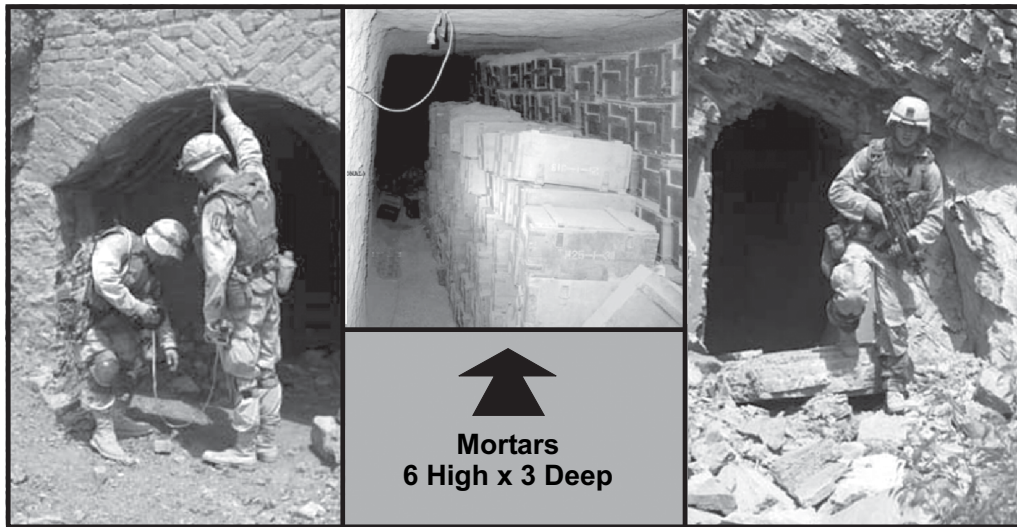


Figure 2-24

These complexes present a formidable and dangerous obstacle to current operations that must be dealt with in a systematic, careful, and professional manner. Once the cave complex is cleared, it is usually destroyed (or at least the entrance is destroyed) to deny future use by the ACM. Coalition members often receive aerial support from American B-1 bombers (2,000-pound bombs) and F-16 fighters (500-pound bombs). AC-130 gun ships and Apache AH-64 helicopters strafe enemy positions with rocket and cannon fire in support of cave clearing operations.

Cave Techniques

- A trained cave exploitation and denial team is essential to the expeditious and thorough exploitation and denial of enemy caves. Untrained personnel may miss hidden cave entrances and caches, take unnecessary casualties from concealed mines and booby traps, and may not adequately deny the cave to future enemy use.
- Each unit should designate cave teams. Cave teams should be trained, equipped, and maintained in a ready status to provide immediate expert assistance when caves are discovered.
- Careful mapping of a cave complex may reveal other hidden entrances as well as the location of adjacent cave complexes and underground defensive systems.
- Two- and three-man teams should enter caves for mutual support.
- Claustrophobia and panic could well cause the failure of the team's mission or the death of its members.
- Constant communication between the cave and the surface is essential to facilitate cave mapping and exploitation.

Cave Exploitation and Destruction

- The area in the immediate vicinity of the cave is secured and defended by a 360-degree perimeter to protect the cave team.
- The entrance to the cave is carefully examined for mines and booby traps.
- Two members of the team enter the cave with wire communications to the surface.
- The team works its way through the cave, probing with bayonets for booby traps and mines and looking for hidden entrances, food, arms caches, and air vents. As the team moves through the cave, compass headings and distances traversed are called to the surface. A team member at the surface maps the cave as exploitation progresses.
- Captured arms and intelligence documents are secured and retrieved for destruction or analysis.
- Upon completion of exploitation, cratering charges or other available explosives are placed at all known cave entrances to seal each and prevent reuse by the enemy. Caves are frequently outstanding sources of intelligence and should, therefore, be exploited to the maximum extent practicable.
- Since cave complexes are carefully concealed and camouflaged, search and destroy operations must provide adequate time for a thorough search of the area to locate all caves. Complete exploitation and destruction of cave complexes is very time consuming, and operational plans must be made accordingly to ensure success.
- The presence of a cave complex within or near an area of operations poses a continuing threat to all personnel in the area. No area containing cave complexes should ever be considered completely cleared.

- In some areas the combat situation will permit a hasty search for hidden tunnel entrances, but either lack of time or enemy occupation of the tunnel will not permit searches by a tunnel team.

Dangers

Dangers inherent in cave operations fall generally into the following categories and should be taken into account by all personnel connected with these operations:

- Presence of mines and booby traps in the entrance/exit area.
- Presence of small but dangerous concentrations of carbon monoxide produced by burning-type smoke grenades after caves are smoked. (**Note:** Protective masks will prevent inhalation of smoke particles, but will not protect against carbon monoxide.)
- Possible shortage of oxygen as in any confined or poorly ventilated space.
- Enemy still in the cave who pose a danger to friendly personnel both above and below ground. (**Note:** In some instances, dogs can successfully detect enemy hiding in caves).

SECTION XI: OPERATIONS IN A HIGH-ALTITUDE ENVIRONMENT

Soldiers deploying to Afghanistan must understand the simple rules of soldiering at high altitudes including some significant health problems that they otherwise may never encounter. High-altitude operations increase energy requirements by as much as 50 percent and, coupled with cold temperatures and increased physical activity, have the potential of making the mission secondary to just surviving. The increase in physical activity is only offset by thorough acclimatization, conditioning, special skills and training, and using equipment designed for the conditions.

High-Altitude Sickness

Acute mountain sickness (AMS) may begin at 8,000 feet above sea level. Many factors influence who becomes ill and who does not; however, the following symptoms are typically linked to a high rate of ascent:

- Headache and possible dizziness
- Sleep disturbance
- Fatigue

A more serious high altitude sickness, hypoxia, has life-threatening implications and the potential for disrupting military operations. Hypoxia occurs when the tissues of the body are starved for oxygen. The body reacts to this loss of oxygen by increased breathing to get more air. The physical activity of the body increases the heart rate and can cloud judgment. Symptoms of hypoxia include dizziness, giddiness, a tingling sensation, euphoria, blurred and/or tunnel vision, lack of muscle coordination, and slow reaction time. The condition affects every Soldier differently depending on the Soldier's age, general health, physical conditioning, and training.

The results of hypoxia can have minimal effect on an individual at 10,000 feet, but effects increase as the individual increases altitude. Loss of consciousness and possible death can occur above 35,000 feet. Operations above this level require an oxygen supply.

High-Altitude Weight Loss

Weight loss is a characteristic of operations at high altitude. The average weight loss for a special forces team living on Pakistani rations and working with the high-altitude mountain school in 1994 was 20 to 25 pounds. Working at high altitudes requires more energy and Soldiers will lose weight, but weight loss must be controlled so it does not become incapacitating. Weight loss leads to fatigue, loss of strength, and psychological changes, such as decreased mental capacity, alertness, and low morale. All of these conditions can contribute to accidents and a failure to accomplish the mission.

Soldiers should eat and drink the following while operating at high-altitudes:

- High-complex carbohydrates
- Portions of the complete ration verses one item or the other
- At least one hot meal a day, using whatever heat source is available (that is, chemical heat packs in meals, ready to eat [MREs])
- A variety of foods and nutritious snacks
- Four to six (4-6) quarts of non-caffeinated beverages a day

Soldiers should NOT do the following while operating at high-altitudes:

- Skip meals, although you will not feel like eating; consume a little of everything in your ration.
- Eat high fat snacks or fatty foods or consume alcohol of any type.
- Force yourself to eat. This will result in vomiting and make the situation much more hazardous.
- Drink unpurified water or melted snow that is not properly treated.
- Restrict water intake to save it for later or attempt to avoid urinating.

Altitude sickness in most forms is preventable. Leaders must take precautions to protect their Soldiers at moderate altitudes to avoid illness. Successful strategies to prevent altitude sickness are simple and inexpensive: spend a night at an intermediate altitude before moving higher, take it easy one day at each succeeding altitude level, drink plenty of fluids, eat a full diet, and avoid all alcohol.

Tactical Considerations During High-Altitude Operations

Initial observations received from Afghanistan provide some interesting interpretations as to how Soldiers are performing in the theater. In most cases, these observations include Soldiers that have been in training already for mountainous operations, either as conventional infantry or SOF. The real test of long-term operations may depend on follow-on light infantry forces that have to this point rarely trained for this type of operation. There is still time to prepare Soldiers for

the rigor of high-altitude operations, but the training and equipping of these Soldiers must begin now. Doctrine, organizations, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) provide the basis for examining these initial observations and how the Army can begin reacting to the needs of Soldiers in theater. These operations are unique. They were made in a specified region of the world where many of these conditions may never be duplicated. The observations are relatively concise; many offer simple and easy solutions to a problem. A few others will take some considerable effort, time, and resources to resolve.

SECTION XII: OPERATIONS IN COLD WEATHER

To win in cold weather, Soldiers must also overcome an additional enemy: the extreme and unforgiving cold weather environment. This means preventing and defeating cold injuries, such as hypothermia and frostbite. If allowed to develop, cold injuries become debilitating (or possibly fatal, in the case of hypothermia) to the Soldier and threaten the unit's ability to defeat an enemy force in cold weather operations.

The four essential requirements for survival in cold environments are:

- Warmth
- Food
- Water
- Shelter

Keeping the Soldier warm and nourished are essential factors in preventing cold injuries and sustaining the combat power of the fighting force. Shelter is particularly important because without it, it is difficult to provide warmth and nutrition to Soldiers in a cold environment.

Heat Production

The body's three main physiological means for producing heat are metabolism, exercise, and shivering.

Metabolism. Biochemical reactions which keep us alive produce heat as a by-product. Our basal metabolic rate is a constant internal furnace. However, when we are exposed to cold, wintry conditions for long periods, metabolism by itself does not produce enough heat to satisfy our body's entire heat requirements.

Exercise. Exercise is an important method of heat production. Muscles, which make up 50 percent of our body weight, produce most of our heat during work. Short bursts of hard, physical effort generate tremendous amounts of heat. Moderate levels of exercise can be sustained for relatively longer periods. There are limitations, however. Physical conditioning, strength, stamina, and fuel in the form of food and water are necessary to sustain activity.

Shivering. Shivering is a random, inefficient quivering of our muscles. It produces heat at a rate five times greater than our basal metabolic rate. It is

our first defense against cold. Shivering occurs when temperature receptors in the skin and brain sense a decrease in body temperature and trigger the shivering response. As with work and exercise, the price of shivering is fuel. How long and how effectively we shiver is limited by the amount of carbohydrates stored in muscles and by the amount of water and oxygen available.

Heat Loss

The primary means of heat loss is through the skin. There are five mechanisms by which our bodies lose heat:

- **Conduction** is the transfer of heat through direct contact between a relatively hot and a relatively cold object. Heat moves from the warmer to the colder object. We lose heat when we lie on snow, ice, and cold or wet frozen ground (foxholes) or sit or lean against floors and bulkheads in unheated interiors of armored, mechanized, or wheeled vehicles.
- **Convection** is the transfer of heat by the circulation or movement of relatively colder ambient environment (air or water) around the body.
- **Evaporation** is heat loss in the form of vapor. Heat is necessary to the evaporation of perspiration from the skin's surface. Evaporative heat loss accounts for 20 percent of the body's normal total heat loss. When we become overheated through physical exertion, evaporation becomes our major mechanism for heat loss. Sweating accounts for roughly two thirds of our evaporative heat loss; the remaining one third is lost through breathing.
- **Respiration** also cools the body. As a Soldier breathes in cold dry air, it is warmed and humidified in the lungs. As it is exhaled, as much as 25 percent of the body's heat can be lost. Placing a wool scarf or mask over the mouth and nose warms inhaled air and assists in keeping the body warm.
- **Radiation** is the emission of heat energy in the form of particles or waves. Energy is emitted by one body, transmitted through an intervening medium, and absorbed by another body. Infrared, or heat radiation, is transferred from a relatively hot to a relatively cold object. In winter, we lose heat to the environment through radiation. We can receive radiative heat input from fires, from the sun, or from reflection off snow, water, or light-colored rocks.

When exposed to the environment, the skin serves as a radiator. Unlike the rest of the body, the blood vessels in the head do not constrict and reduce the blood supply flowing to the scalp. The head is, therefore, an excellent radiator of heat, eliminating from 35 to 50 percent of our total heat production. In cold weather operations, dry insulation, especially on the head, is essential in minimizing heat loss.

The right approach to winning in the winter keeps Soldiers healthy and focused on the mission. There are four basic rules to remember:

- **Keep Soldiers in shape.** Cold weather clothing is heavy and presents an additional burden to a Soldier's normal equipment. The additional

equipment, coupled with the difficulty of trudging through the snow, causes Soldiers to expend extra energy. The importance of maintaining a high level of physical conditioning cannot be overemphasized.

- **Eat to keep fit.** Regular, satisfying hot food is essential for sustained performance. Even if Soldiers are not hungry, they must eat or they will lose physical conditioning. They will also lower their threshold of resistance to cold stress because their bodies will not have the fuel it needs to sustain heat production and protect against lowering of the core body temperature.
- **Drink plenty of water.** Normally, in cold climates, Soldiers drink only when they are thirsty. This will not give them the water needed to avoid dehydration. Drinking plenty of water avoids dehydration and the fatigue that comes with it. Irritability is often an early sign of dehydration. Soldiers should not eat snow as a water substitute; the moisture content of snow is relatively low, and eating it will lower the body's core temperature. Also, there is a danger of illness from bacteria. However, melted snow can be consumed after treatment with water purification tablets.
- **Maintain a positive attitude.** In cold weather operations, Soldiers will face many new challenges, but none that they cannot overcome. Leadership will be reflected in Soldier's attitudes and performance. Leaders must watch for early signs of cold stress in their Soldiers, such as fatigue, lethargy, apathy, irritability, withdrawal, loss of dexterity or decision-making ability, decreased group cooperation, disorientation, or slurred speech.

Common Cold Weather Injuries

Hypothermia:

Moderate hypothermia. When hypothermia is detected in its early stage, a Soldier may respond well to the removal of the cold stress. In the absence of a serious underlying medical condition, the chances for successful re-warming are good. While we cannot change the air temperature, we can replace wet clothing with dry, protect the Soldier from the wind, add layers of insulation, and apply heat. Keep in mind that a re-warmed Soldier should not return to the cold until his energy and fluid reserves have been replenished. After re-warming from the early stage of hypothermia, the Soldier should be given a good hot meal, several quarts of liquids, and adequate rest before returning to duty. A fatigued or dehydrated Soldier is a strong candidate for another episode of hypothermia.

Advanced hypothermia:

Symptoms. If a chilled or cold Soldier does not respond immediately to basic re-warming efforts, or if he continues to exhibit symptoms of hypothermia, the Soldier may be in a more advanced stage of hypothermia than initially thought, and the leader should immediately initiate action to evacuate the Soldier to a medical facility.

Treatment. Move the casualty out of the wind to a sheltered environment. Replace wet clothing with dry clothing or sleeping bags. Cover the casualty with blankets or other insulating material. Apply heating pads (if available) wrapped in towels to the casualty's armpits, groin, and abdomen. Give the casualty warm, nutritious fluids to drink. Do not give alcoholic beverages or tobacco products to the casualty. Wrap the casualty from head to toe and evacuate to a medical treatment facility in a recumbent (lying down) position.

During evacuation, the Soldier should be insulated from the cold surfaces of a vehicle or sled. A wind proof outer layer will reduce the patient's convective and evaporative heat loss. Wet clothing must be replaced with dry. If the patient is conscious and alert, he can be given warm liquids to drink (being careful not to burn him) and simple, sweetened foods to eat, including candy bars. Carbohydrates are the fuel most quickly transformed into heat and energy. However, hot liquids should not be given by mouth to a severely hypothermic Soldier. If the patient is semiconscious, try to keep him awake.

Severe hypothermia:

Symptoms. In severe cases of hypothermia, the patient produces little or no heat and, in the absence of external heat sources, may cool further. Immediate evacuation is the preferred action for casualties suffering severe hypothermia; treatment should not be undertaken in the field. Do not delay evacuation to attempt re-warming. Rapid re-warming may lead to "re-warming shock."

Treatment. Cut away wet clothing and replace with dry clothing. Ensure that the casualty's airway remains open, but do not use an oropharyngeal airway (J-tube). Perform mouth-to-mouth resuscitation if the casualty's breathing rate drops below five respirations per minute. Apply an additional heat source. The casualty's body is not able to generate sufficient body heat and must receive warmth from another source. One method is to place the casualty in a sleeping bag with his outer clothing removed and have another Soldier also remove his outer clothing and get into the sleeping bag with him. Cover both Soldiers with additional clothing. The casualty's body will absorb the heat given off by the second Soldier's body. Evacuate the casualty to a medical treatment facility as soon as possible. Evacuate the casualty even if you cannot detect respiration or a heartbeat. Handle the casualty gently.

Frostbite. Frostbite is the freezing or crystallization of living tissues. Exposure time can be minutes or instantaneous if skin is directly exposed to extreme cold or high winds. Heat loss occurs faster than it can be replaced

by blood circulation and is compounded by intense cold and inactivity. The extremities (fingers, toes, and ears) and face are affected first. Damp hands and feet may freeze quickly since moisture conducts heat away from the body and destroys the insulating value of clothing. The extent of frostbite depends on temperature and duration of exposure. Frostbite is one of the major nonfatal cold-weather injuries encountered in military operations.

The categories of frostbite are:

Superficial frostbite (mild):

- Involves only the skin
- Skin usually appears white or gray
- Surface will feel very stiff or hard, but underlying tissue will be soft.

Deep frostbite (severe):

- Extends beyond the first layer of skin and may include the bone.
- Joint movement may be absent or restricted depending on the extent of the injury.
- Discoloration is the same as for superficial frostbite, but the underlying tissue is hard.
- Large areas, such as foot or hand, may appear purple as the result of sludging of blood within the vessels. (A blackened appearance will be noticed after the injury has thawed.) This category of frostbite requires immediate evacuation to a medical facility.

Factors contributing to frostbite:

- Dehydration
- Below-freezing temperatures and wind chill
- Skin contact with super-cooled metals or liquids
- Use of caffeine, tobacco, or alcohol
- Constriction of an extremity caused by tight boots, gloves, gaiters, watchbands, or confinement in a cramped position that reduces blood flow.
- Neglect

If tissues freeze, evacuate the victim immediately before the frozen area begins to thaw. Thawing of a frostbitten victim is a medical procedure. Field thawing should not be attempted by non medical personnel. If the victim has frozen extremities, apply first aid, protect the frozen areas, and evacuate as a litter casualty. Give the casualty liquids and keep him comfortable during evacuation:

- DO NOT expose the frostbitten area to extreme heat that could result in burns.

- DO NOT apply ointments or medications to the frostbitten area.
- DO NOT rub, massage, or soak the frostbitten area.
- DO NOT give alcoholic beverages or tobacco products to the casualty.
- Give the casualty something warm to drink.
- Protect the frostbitten area from cold and additional injury.
- Evacuate the casualty to a medical treatment facility as soon as possible.

The buddy system is one of the prime preventive measures of frostbite. Buddies must watch each other for signs of frostbite and provide mutual aid if frostbite occurs. Frostbite should be identified early and prompt first-aid care should be applied to prevent further damage. With proper clothing and equipment properly maintained and used, frostbite can be prevented.

Chilblain:

Symptoms. Chilblain is caused by prolonged exposure of bare skin to cool or cold temperatures (50 F [10 C] or lower). Signs and symptoms of chilblain include acutely red, swollen, hot, tender, and/or itching skin. Open sores or bleeding lesions may result from continued exposure.

Treatment. Apply local warming (put bare hands over the affected area on the face; put affected hands inside the uniform under the armpits; put bare feet against the abdomen of another Soldier). Do not rub or massage the affected area. Rubbing or massaging the area may cause tissue damage. Signs and symptoms of tissue damage may be slow to appear. Apply a field dressing to lesions. Have medical personnel evaluate the casualty when practical.

Immersion syndrome. Immersion syndrome results from prolonged exposure (hours to days) to wet conditions at temperatures from 50°F to 32°F. Immersion syndrome occurs when cold, wet conditions constrict blood vessels. Immersion foot, trench foot, and trench hand are types of immersion syndrome injuries. Reduced blood flow to the extremity deprives cells of needed oxygen and nutrients. Permanent muscle and nerve damage may result if this cold injury is allowed to develop. For the Soldier, regular attention to his feet (drying them and changing to clean dry socks once a day, or more often if his feet get wet) is all that is needed to prevent immersion foot or trench foot.

Symptoms. The extremity appears cold, swollen, and mottled. Cyanosis, a blueness of the skin resulting from imperfectly oxygenated blood, is usually present. Tactile sensitivity is reduced, as is capillary refill time. The extremity may look shiny. The patient may describe the affected area as feeling wooden.

Immersion syndrome usually occurs in three stages. In the first phase, the affected part is cold and without pain. There is a weak pulse at the site. In the second phase, the affected limb feels hot, as

though burning, and has shooting pains. In the third phase, the casualty has pale skin, cyanosis around the nail beds and lips, and decreased pulse strength.

When the extremity re-warms, the skin becomes warm, dry, and red. The pulse bounds and the injury is painful. The injured area may itch, tingle, and exhibit increased sensitivity to cold, possibly permanently. Recovery can last weeks. Nerve damage may be permanent. The development of blisters, ulcers, and gangrene is possible. Amputation may also be necessary.

Treatment. Dry the affected part immediately. Re-warm the affected area gradually in warm air. Do not massage the extremity. The affected area will probably become swollen, red, and hot to the touch after it has been re-warmed. Blisters may form. Remove wet clothing and replace with dry, warm clothing. Protect the casualty from injury and infection. Elevate the affected part to reduce edema (swelling). Evacuate to a medical treatment facility as soon as practical.

Snow blindness:

Symptoms. Snow blindness is a temporary but often painful condition caused by inadequate eye protection when operating in brilliant sunshine reflecting off snow or light-colored rock. The eyes become bloodshot and feel irritated and “full of sand.”

Treatment. The proper field management technique is to apply clean, cool, wet compresses to the eyes. The patient should then wear dark, UV-protective glasses. Aspirin can be used to control the pain. Occasionally, it may be necessary to cover the patient’s eyes and lead him by the hand to an area where treatment can be administered. Recovery may take two or three days.

Sunburn. Sunburn, often associated with a summer day at the beach, can also become a debilitating cold weather injury. Both first- and second-degree burns are possible in cold weather operations.

Symptoms. First-degree burns involve reddening of the skin; second-degree burns are characterized by the formation of blisters. Mountain climbers are especially vulnerable to sunburn because they often operate at high-altitude environments covered with highly reflective snow fields. The relatively thinner air allows more of the burning rays of the sun to penetrate the atmosphere and reflect off the snow. Because the air temperature seems relatively cold, Soldiers may miscalculate the intensity of the sun or simply be too weary to take preventive action.

Treatment. Sunburn usually is treated on first notice by further applications of sunburn preventive. Sun screens/blocks should be used rather than the more common cosmetic suntan preparations. In mild cases, sunburned Soldiers can continue their duties even though they may suffer significant discomfort for a few days. In more severe

cases, such as second-degree sunburn (with blister formation), Soldiers should be treated by medical personnel. If there is much swelling, cold compresses should be applied. Aspirin may be taken for pain and warm liquids should be administered to replenish body fluids. (Salty liquids can be administered if prescribed by medical personnel. If sunburned Soldiers drink salt solutions without medical monitoring, they may become nauseated and vomit, thus compounding their dehydrated state.)

Dehydration:

Symptoms. In addition to irritability, other signs of dehydration include darkening urine, decreased amounts of urine being produced, dry mouth, tiredness, mental sluggishness, lack of appetite, increased or rapid heartbeat, dizziness, and even unconsciousness.

Treatment. The most important consideration is prevention. Leaders should ensure that Soldiers consume four to six quarts of fluid per day. Coffee and liquids containing caffeine (tea, cocoa, soft drinks) should not be considered adequate sources for replenishing body fluids because they act as a diuretic, removing fluids from the body. Drinks containing caffeine should only be consumed in moderation, not as the primary means of hydration. If the Soldier is conscious, administer fluids by mouth. If improvement is not obvious in an hour, evacuate the patient to a medical facility. In advanced stages of dehydration, as in the case of an unconscious Soldier, immediately evacuate the patient to a medical treatment facility.

Constipation:

Symptoms. Constipation is the difficulty in passing feces caused by a deficiency in body fluids (dehydration), improper nutrition, infrequent or irregular defecation, or ignoring nature's call altogether for extended periods. Contributing factors include the unavailability of water, lack of sites protected from the elements to facilitate normal body functions, and not eating the food provided. Symptoms of constipation include loss of appetite, headache, cramping, and painful defecation.

Treatment. Treatment involves the consumption of adequate amounts and variety of foods and water (four to six quarts per day), and responding to nature's call to rid the body of waste. High-fiber foods, especially fruits, vegetables, and whole grain breads, are effective in combating constipation if accompanied by regular and adequate amounts of water. If constipation is allowed to progress beyond the self-care stage, medical treatment is necessary.

Carbon monoxide (CO) poisoning. Carbon monoxide poisoning occurs when oxygen in the body is replaced by carbon monoxide. For Soldiers, the main contributing factor is inhalation of fumes produced by fires in areas that lack proper ventilation. Stoves and/or heaters in tents and engines left running in vehicles that allow CO to leak into occupied areas are primary sources of carbon monoxide poisoning.

Symptoms. Signs and symptoms of carbon monoxide poisoning progress slowly. At the onset, they may go unnoticed because carbon monoxide is colorless, tasteless, and odorless. Many of the signs and symptoms are similar to other common illnesses: headache, tiredness, excessive yawning, confusion, followed by unconsciousness and, eventually, death. A cherry-red coloring to the tissues of the lips, mouth, and inside the eyelids occurs very late in carbon monoxide poisoning – when the patient is very near death. If this condition occurs, it may be too late to save the Soldier. Action must be taken when earlier signs and symptoms appear.

Treatment. Immediately remove the victim from the source of contamination. If the Soldier is not breathing on his own, administer rescue breathing. If available, give the Soldier oxygen, then immediately evacuate the Soldier to a medical facility. Severe complications can develop, even in casualties who appear to have recovered perfectly. Prevention is the key. Carbon monoxide poisoning can be prevented if unit leaders enforce a few simple rules:

- Do not permit Soldiers to sleep in vehicles while engines are operating.
- Ensure tent stoves and heaters are regularly serviced and inspected to confirm safe operation.
- Ensure that sleeping tents have proper ventilation.

Tent eye. Tent eye is caused by fumes emanating from stoves and lanterns operated in a poorly ventilated shelter. It can be prevented by using properly functioning stoves and lanterns and adequately ventilating the shelter. First aid for tent eye is fresh air.

Leadership in Cold Weather Operations

The process of developing Soldiers into cold weather fighters requires positive leadership. Leaders must understand the environmental threat and include plans for countering this threat in their operational plans or TSOPs. Initially, the cold environment may be alarming, even frightening, to Soldiers unaccustomed to operating in wintry conditions, especially when deployed to unfamiliar, remote areas. Some Soldiers will find themselves confronted with challenges they have not encountered before. The cold becomes a constant reminder to the Soldier of his vulnerability in the extreme environment and the likelihood that he may become a casualty should he make a mistake. As Soldiers gain experience, they develop confidence in themselves, their clothing, and their equipment and learn they can fight and win in the winter, defeating both the cold and the enemy before them.

Aggressive, cheerful leadership is essential in helping Soldiers overcome the challenges of the cold environment. To defeat the enemy, Soldiers must first overcome the cold by learning how to live and survive the elements so they can focus on the enemy. Leaders must maintain a positive attitude toward the mission, their Soldiers, and the equipment they have to carry out the tasks at hand.

Intense cold affects the mind as well as the body. Essential tasks take longer to perform and require more effort than in temperate climates. This should be considered when planning operations and giving orders, even for such routine tasks as vehicle maintenance and making or striking camp. The time it takes to accomplish tasks varies with differing conditions, state of training, and degree of acclimatization of the troops. However, the extra time required to accomplish tasks should not be used as an excuse for getting troops ready too early or leaving them standing in the open unnecessarily after striking camp. Not only will they suffer physically, but their morale will ebb, possibly at times when it should be at a high pitch.

Tips for leaders in cold weather operations:

Leaders need to be aware of the symptoms that characterize a unit having difficulty coping with the cold environment. The following tips will help combat the effects of the cold when it begins to affect the minds of Soldiers.

Tip 1. If Soldiers find it hard to remember things they have been taught, show patience; review orders and drills. Get them to think through the challenges of the environment and the mission; encourage them to ask questions. Keep their minds busy.

Tip 2. Be alert for Soldiers who tend to withdraw from the group's focus; keep them involved. Soldiers who withdraw into themselves should be paired in a buddy system with Soldiers who are well acclimatized to the cold environment. Remind them that everyone is in the same situation, including the enemy.

Tip 3. If Soldiers get depressed, moody, or blue, and do not want to talk, encourage them to chat with each other. Circulate among the troops in their duty areas. Keep them talking and interacting.

Tip 4. If Soldiers become irritable and get on each other's nerves, keep in mind that this is likely to happen. Maintain your sense of humor and show patience. Vary their duties.

Tip 5. Be aware that Soldiers may tend to shirk from some tasks to keep themselves warm. Remind them that their job is to fight and that weapons and equipment must be kept in fighting order. During winter training, do not let the training become a camping trip; this is a common trap.

Tip 6. Do not accept the cold as an excuse for not carrying out orders or routine tasks. Cold may be the reason for taking longer, but it is not a reason for letting things slide. Remember that, although the cold may make tasks more difficult to accomplish, it does not make them impossible. With knowledge, equipment, and proper training, leaders and Soldiers can defeat the cold and be successful in combat.

Tip 7. Plan the frequent rotation of Soldiers into warming tents/areas to provide relief from the cold.

Tip 8. Provide warm liquids (non caffeine) at frequent intervals, especially when rotating Soldiers into warming tents/areas.

Tip 9. Plan and provide extra insulating material for individuals, when available.

The Cold Weather Clothing System

Leaders should understand the design principles of the military cold weather clothing system. These principles are:

- Insulate
- Layer
- Ventilate

Insulation allows the creation of a microclimate around the body through which the amount of body heat lost to the environment can be regulated. By varying the amount of insulation, a Soldier can regulate the amount of heat lost or retained.

Several layers of clothing provide more insulation and flexibility than one heavy garment, even if the heavy garment is as thick as the combined layers. By adding or removing layers of clothing (insulation), the Soldier can regulate the amount of heat lost or retained.

Ventilation helps maintain a comfortable microclimate around the body, thereby helping control body temperature. By ventilating, the Soldier can release excess heat and minimize sweating, which can lower body temperature later as it evaporates.

There are four ways to apply the principles in the military cold weather clothing system:

- **Keep clothing clean.** Dirt and grease clog the air spaces in clothing and reduce the insulating effect. Dirty clothes are cold clothes.
- **Avoid overheating.** Select the clothing needed to stay comfortable, or even a little cool. Leaders should ensure that their Soldiers are not overdressed for the job they are performing.
- **Wear it loose.** All items of the cold weather uniform are sized to allow wearing of the appropriate number of layers. This means, for example, that the field jacket may appear too large when worn without all of the layers designed to fit under it. If the uniform items do not fit loosely, the insulation will be substantially reduced.
- **Keep it dry.** It is vital that all layers of clothing be kept dry because wet clothing conducts heat away from the body, compromising the microclimate around the body and making it difficult to regulate body temperature. Moisture soaks into clothing from two directions: from melting snow and frost that has collected on the outside of the clothing and from perspiration. Leaders should ensure that Soldiers brush snow and frost from clothing before entering heated shelters or vehicles.

SECTION XIII: FOOD AND WATER**Food and Waterborne Diseases**

Sanitation is extremely poor throughout the country, including major urban areas. Local food and water sources, including ice, are heavily contaminated with pathogenic bacteria, parasites, and viruses to which most U.S. service members have little or no natural immunity. If local food, water, or ice from unapproved sources is consumed, diarrhea diseases can be expected to temporarily incapacitate a very high percentage of personnel within days. Hepatitis A, typhoid fever, and hepatitis E are common among the local population; these diseases can cause prolonged illness in a smaller percentage of U.S. personnel exposed to contaminated food or water sources. In addition, large cholera outbreaks occur among the local population annually and could pose a risk to U.S. personnel. U.S. personnel are not allowed to eat any local food. Eat only food prepared by authorized food service organizations.

Food considerations

Food can dehydrate and kill if there isn't sufficient water in the body for sweat and digestion. The body will give priority to food digestion by robbing the rest of the system of needed moisture. A Soldier should eat only if he can find enough water to replenish his supply regularly. If there is a choice of food, eat carbohydrates; they use the least amount of water to digest. Fats and proteins use the most. Military emergency rations are mostly carbohydrates for this reason.

Water

Lakes, rivers, streams, or other surface water in rural areas may be contaminated with leptospirosis. Regionally, large leptospirosis outbreaks have been reported, associated with contact with contaminated water sources. Operations or activities that involve extensive water contact may result in personnel being temporarily debilitated with leptospirosis. If unapproved water must be used in an emergency, the water may be disinfected by:

- Adding calcium hypochlorite at 5.0 ppm for 30 minutes
- Adding Chlor-Floc or iodine tablets according to label instructions
- Heating water to a rolling boil for 5 to 10 minutes
- Adding 2 to 4 drops of ordinary chlorine bleach per quart of water and waiting 30 minutes before using it

Either U.S. military preventive medicine or veterinary personnel should inspect bottled water supplies. Bottled water does not guarantee purity; direct sunlight on bottled water supplies may promote bacterial growth. Water in canals, lakes, rivers, and streams is likely to be contaminated; unnecessary bathing, swimming, and wading should be avoided. If the tactical situation requires entering bodies of water, all exposed skin should be covered to protect from parasites. Following exposure, it is important to dry vigorously and change clothing.

Water will determine how long a Soldier can survive in the desert, and its usage must be a consideration in every decision made. All life/activity in the desert is linked to the amount of water available, and needs vary according to temperature

and the amount of exertion. Soldiers should procure and consume as much water as possible, at every opportunity.

Conserve body moisture by:

- Doing any heavy labor slowly or in the cooler hours, before 1000 and after 1800. AVOID OVERHEATING.
- Staying still in the shade and out of the wind when it is hot.
- Keeping clothing on and closed to trap the sweat next to the skin and prevent sunburn.
- Wearing clothing loose and in layers. If necessary, improvise additional layers of clothing using whatever is available.
- Keeping the mouth closed. Breathe through the nose. You lose one pint of water per day through normal breathing. A cloth across the mouth and nose will reduce respiration water loss.
- Soaking clothes with undrinkable water (if it won't cause a chemical burn).
- Reducing eating if water is not available.
- Refraining from smoking - tobacco dries out the mouth.

Locating surface water. Locating water in desert areas requires keen observation. Surface water is usually found after rare rainstorms in the form of intermittent streams and pools of water or water-filled cracks in rocks. Water may take a few weeks to a couple of months to dry up. By looking for logical water collection area indicators, Soldiers might be able to locate a surface source:

- Lush green or flowering plants indicate recent rainfall in the area.
- Look in low spots between hills or dunes and at the base of cliffs.
- Rocky places may hold large pools for a long time, especially under overhangs or in cracks in the rock. Pools of water may be standing in dry stream beds.
- Fog in the morning could be another indicator of recent rain.
- Signs of animals indicate the presence of water.
- The "v" formed by the intersection of two animal trails usually points toward water.
- Flight direction of birds at dusk and dawn can indicate water.
- Large quantities of bird dung at the surface of a crack in a rock may mean water in the crack.
- The sound of frogs at night can guide a Soldier to water.
- The presence of bees and/or other insects may indicate water is nearby.
- Brush piles in low spots are sometimes used by local people to slow evaporation and keep animals out of pools of water.

- Another surface source of water can be dew. If dew is heavy, tie cotton rags, clothing, or bandages to the ankles and walk through the low brush and grass. When the rags become soaked, wring them out into a container.

Shallow lakes have not been mentioned due to the great possibility that such bodies of water will be contaminated with salt, alkali, magnesium, or sulfur. If swallowed, these could act as dehydrating agent, laxative, or poison. To use water from this source, filter it with the Survival-06-Manual Reverse Osmosis Water Pump (FSN 4610-01-313-6085). This device is capable of filtering salts, alkali, sulfur, metals, bacteria, and viruses suspended in water sources. The pump can provide up to six gallons of fresh drinking water per day from otherwise unusable sources. (If equipped with this pump, the unit's evasion plan of action development, survival on the ground, and recovery should take this capability into consideration.)

The sun may be used along with plastic to obtain water:

- **Vegetation bag.** This is a large plastic bag in which cut vegetation is placed. The bag is then tied shut and left in the sun. During the hottest part of the day, the plant emits water, which is trapped and condensed in the bag. This is the preferred method for Soldiers because a vegetation bag can be left on the ground or in a sunny hole in the ground, where the risks of it being noticed are reduced.
- **Transpiration bag.** This is a plastic bag placed over the leafy portion of a branch and then tied. This is not a preferred method to be used in an evasion situation, since there is a risk the bags will be noticed.
- **Solar still.** This is the least preferable choice, and should be used only in a survival situation, and only if expected to be in the area for more than one day. The effort to construct this device will expend more water than it produces on the first day.

Ground (subsurface) water. Springs and underground rivers sometimes come to the surface and then disappear into the desert. These areas are usually inhabited oases. The depth of subsurface water can vary widely; it may be just under the surface or over 100 feet deep. Water near the surface might be obtainable by digging in likely spots such as:

- Areas with mud or moist sand (mud can be wrapped in cloth and wrung out)
- The lowest spot between hills or dunes
- Low spots at the base of cliffs or in narrow rock valleys
- Low spots at the outside curve of a dry stream bed
- Low spots with rich, green vegetation (places where animals have scratched at the surface or flies hover over the ground)

Man-made structures, such as wells, cisterns, and Karez (irrigation tunnels) are another potential source of water.

- Wells are the major source of water to desert people. They may be 10 to over 100 feet deep. Well users bring their own rope and bucket. These wells are usually located in low places, such as dry rivers, valleys, or at the base of dunes or cliffs.
- Cisterns catch and hold water from intermittent streams or run-off from storms. Soldiers encountering ruins can look for old irrigation ditches and follow them uphill from flat places that might have been planted fields at one time. Cisterns are likely to be at the bottom of a dry river bed or canyon and are usually nothing more than brick or rock-lined storage tanks.

All of these manmade subsurface water sources require a long line and some form of bucket to get to the water. Wells in the desert are usually found along trails and can be from 20-30 miles apart. Permanent camps may be 2-3 miles from wells, although nomads sometimes camp very close to a well. Watch for worn paths leading away from camp areas; they may lead to a well. Look for old wells uphill from abandoned homes, farms, or other dwellings. If animal dung and remains of old campfires are noticed, there may be a well nearby. Some people stack animal dung near the wells to dry for use as fuel at a later date.

Well openings may be covered to prevent sand and debris from filling them in. Look for doughnut-shaped mounds, brush, or sand-filled depressions. They may have to be dug out. Be careful not to allow sand or debris to fall down the hole; the water may be very shallow in the bottom of the well.

Finding water is not the only problem facing Soldiers. Once found, it must be obtained without being detected. Scout the area and observe the well from a distance. If the enemy knows a Soldier is in the area, they may try setting up an ambush at the well. They know the Soldier needs water! Look carefully for vehicle tracks; carefully scan any high ground for enemy observers or dust. A water source should be approached during darkness when escape chances are increased if the enemy has set a trap.

When a Soldier uses a well, he should get as much water as he can carry and move away from the area as soon as possible. The volume of water carried governs the Soldier's range of travel and ability to hide for a length of time if the enemy is near. Further, the next water source may be dried up or inaccessible. Fill all water bags, canteens, and any improvised containers to hold water, such as a poncho, plastic bag lining a rucksack or survival kit container, a condom in a helmet, or pneumatic life preserver bladders. Both the approach and departure from the well should be evasive from one point of concealment to the next. If in a group, post a lookout. Tracks should be brushed out when leaving.

All water should be considered biologically contaminated. If water purification tablets are available, use them. Dysentery and other waterborne diseases can cause severe dehydration. Filtering and aeration might improve the taste and appearance of water. If no purification tablets are available, a Soldier still needs the water to live. If boiling is not an option (the smoke, flame, and odor from a fire are very risky in open terrain), clean the water as much as possible by other methods. Allow sediments to settle, then filter the

water through cloth, sand, and/or charcoal. Fully aerate (pour the water from one container to another or shake up with top open). Allow contact with direct sunlight.

Water containers need care. Protect them from thorns, grit, abrasions, or sharp rocks, and try to keep them in the shade. Place them where they will not be damaged or destroyed. Protect water and containers from freezing on winter nights, when expanding ice may burst the containers. Keep them close to the body. Be sure rodents cannot gnaw on them.

SECTION XIV: FIELD SANITATION AND PERSONAL HYGIENE

Throughout history, disease and non-battle injuries have been the largest cause of military casualties. Personal hygiene is difficult, at best, in cold weather operations. The role of field sanitation is to aid the unit in protecting the health of troops. Field sanitation concerns itself with the basic responsibilities of:

Field Sanitation

Establish garbage pits:

- Whenever possible, dispose of all garbage in pits; burn or bury it prior to departure.
- There should be a pit for each platoon.
- Garbage must be buried at least 100 feet from any water source.
- Patrols should never leave behind any evidence of their presence in an area. All waste should be carried until it can be disposed of properly to avoid giving away potential intelligence to the enemy about patrol or campsite locations or activities.
- During training, bag all trash and garbage and haul it to the rear for disposal.

Establish latrines:

- Normally, a central latrine should be established if dispersion within the camp is not too great. One latrine will usually serve the needs of three to four shelters or a unit of platoon size.
- Chemical toilets are the preferred latrine devices.
- Use cat-hole latrine for marches, straddle trench for one to three day bivouac sites, deep pit latrine for temporary camps, burn-out latrines and soakage pits for urinals.
- The latrine must be placed downwind of the campsite, but not so far from the shelters that the placement encourages individuals to break sanitary discipline.
- It should be wind-proofed by branches, snow blocks, ponchos, or other available materials, and should be camouflaged.
- For training, an empty MRE box, lined with a trash bag, can suffice. Full bags can be sealed, left in the box, and then hauled to the rear.

- Plan to take lime with you.
- Locate latrines at least 100 meters from the unit mess and at least 100 meters from any water source.

Waste management. All types of waste are generated each day in the field. Always bury your waste immediately to prevent flies from spreading germs from waste to your food. Also, burying your waste helps keep unwanted animals out of your bivouac area. If waste is not disposed of properly, the camp will quickly become an ideal breeding area for flies, rats, and other vermin. Diseases such as dysentery, typhoid, cholera, dengue, and plague could compromise the integrity of the unit. To combat this problem, unit medical personnel should provide technical assistance in the fabrication, location, and maintenance of field waste-disposal facilities. They also inspect these facilities before their initial use to ensure their proper construction and location, and then reinspect on a daily basis.

Personal Hygiene

The following techniques and procedures can be used to maintain minimal personal hygiene in the field, especially if laundry and bath support is not readily available:

Cleanliness:

- Shave, if necessary, at night in the shelter so that facial oils stripped during shaving will be replenished overnight before the face is again exposed to the elements.
- Brush teeth daily. If a toothbrush is not available, chew the end of a twig into a make-shift brush. If a twig is not available, salt on a fingertip can suffice if applied gently.
- Change underwear as frequently as practical, at least twice weekly. Change socks as often as needed to keep the feet dry. Use foot powder as a dry rub to clean the feet.

Foot care:

- Trim toenails straight across at approximately a 90-degree angle with the edges of the nails. This relieves pressure at the edges of the nails, permitting the nail to arch in the middle, so that the corners won't cut/dig into the skin below.
- Use foot powder to dry feet. Apply powder on feet and between toes. Remove excess. Do not put foot powder in socks; extra powder may cake and hasten the onset of blisters.
- Blisters can become a problem unless they are treated at the first sign of irritation, before a blister actually forms. Tape over a developing hot spot; the bandage should be sufficiently large enough so that the tape touches only non-irritated skin. Once a blister has formed, apply a doughnut-type bandage to relieve pressure on the blister. Again, the doughnut and bandage should be large enough to encircle the blister and avoid further irritation of the blistered area. Use tincture of benzoin to help the tape adhere to the skin; it also helps toughen the skin. Never lance or drain blisters unless they are surrounded by redness or they are oozing purulent

material, indicating infection. If this is the case, drain the blister, clean it with soap and water, and cover with a clean, dry dressing until it can be assessed by medical personnel.

Skin care. Bathe frequently; take a full bath at least once every week. If showers or baths are not available, use a washcloth daily to wash:

- Genital area
- Armpits
- Feet
- Other areas where you sweat or that become wet, such as between thighs or (for females) under the breasts.

Potable Water

Safe potable water is essential to the Army. Water that is not properly treated can transmit such diseases as typhoid and paratyphoid fevers, bacillary dysentery, cholera, poliomyelitis, and common diarrhea. In some areas, water may also be the means of transmitting infectious hepatitis, schistosomiasis, and amoebic dysentery. Lessons from Operation Desert Shield and Operation Desert Storm showed that units should use a planning factor of at least seven gallons of water per Soldier per 24-hour period.

Treat the individual water supply with one iodine tablet per a quart-size canteen if the water is clear, two tablets if the water is cloudy. Let stand for five minutes with the cap loosened, and shake to permit leakage to rinse the thread around the neck. Tighten cap and let stand for 20 minutes. Calcium hypochlorite maybe used: Add one ampule in one-half canteen cup of water, dissolve, then pour one canteen cap of the solution in the canteen, shake and let stand for 30 minutes.

The best containers for small quantities of water (five gallons) are plastic water cans. Water in plastic cans will be good up to 72 hours, compared to metal that will only be good for 24 hours. However, you should change the water in your canteen at least every 24 hours. Water in trailers, if kept in the shade, will last up to five days. If the temperature outside exceeds 100°F, the temperature of your water must be monitored, and when it exceeds 92°F, it should be changed, as bacteria will multiply. If not changed, you will end up with a case of diarrhea. Ice in containers will keep water cool. If ice is put in the water trailers, the ice in it must be removed before the trailer is moved, as the floating ice may destroy the inner protection of the trailer.

Ice that is not provided by a KBR dining facility is non-potable and should not be consumed. When using non-potable ice to chill canned and bottled beverages, the drinking surface should be wiped dry prior to consumption.

CHAPTER 3

An Introduction to Afghanistan



Figure 1

SECTION I: HISTORICAL REVIEW: U.S. IN OPERATION ENDURING FREEDOM

Osama bin Muhammad bin Awad bin Laden was born in 1955, the youngest of twenty surviving sons of one of Saudi Arabia's wealthiest and most prominent families. He is part feudal Saudi, an aristocrat who, from time to time, would retreat with his father to the desert and live in a tent. He came of age during the rise of Organization of Petroleum Exporting Countries (OPEC) and the extraordinary wealth that accompanied it. He is of a Saudi generation whose religious fervor or political zeal led thousands to fight a war in the distant Muslim land of Afghanistan.

Osama bin Laden has been involved in establishing two very important organizations: MAK (Maktabu l-khidamat) in 1979 and al-Qaida in 1988. The purpose of MAK was to drive the Soviet troops out of Afghanistan and al-Qaida grew out of MAK. Bin Laden was able to recruit troops from all over the Arab world, but especially from Saudi Arabia, Algeria, and Egypt. More than 10,000 are believed to have been trained by MAK to participate in the war against the Soviet

Union. Large numbers of MAK troops lost their lives in the war, but the survivors became exceptionally skilled Soldiers.

The ideology of al-Qaida is to cleanse Muslim countries of corrupt and secular leadership and fight against the powers that threaten Muslim states and the holy places of Islam. The powers they believe to be threatening Muslim states are principally the U.S. and Israel; the U.S. for interfering in numerous areas in the Muslim world politically and military and Israel for occupying Palestine. The ideology has three goals: (1) Radicalize existing Islamic groups and create Islamic groups where none exist, (2) Advocate destruction of the U.S, which is seen as the chief obstacle to reform in Muslim societies, and (3) Support Muslim fighters in Afghanistan, Algeria, Bosnia, Chechnya, Eritera, Kosovo, Pakistan, Somalia, Tajikistan, the Philippines, and Yemen.

When bin Laden arrived in Afghanistan, the government that had assumed power after the departure of the Soviets was being besieged by a fundamentalist student faction known as the Taliban. Its leader was Mullah Muhammad Omar, who, like bin Laden, had fought in the jihad. The two men had a similar ideology and complementary needs: bin Laden needed refuge, and the fledgling Taliban needed cash. Bin Laden gave the mullah an initial payment of three million dollars for the cause, and the Taliban was able to capture the key center of Jalalabad in September of 1996. Ten days later, the capital, Kabul, fell. Sometime after that, according to U.S. officials, bin Laden, through the marriage of one of his daughters, became Mullah Omar's father-in-law.

The Taliban first drew the world's attention in 1994 when Pakistan recruited them to protect their trade convoys. They grew in popularity because they fought corruption and lawlessness and because they, like most of the Afghan people, are ethnic Pashtuns, while the leaders at the time were Tajiks and Uzbeks. By 1998, the Taliban had virtually eliminated the opposing northern alliance.

The Taliban's popularity with many Afghans initially surprised the country's warring mujahedin factions. But it was not purely a question of ethnicity. Ordinary Afghans, weary of the prevailing lawlessness in many parts of the country, were often delighted by Taliban successes in stamping out corruption, restoring peace, and allowing commerce to flourish again. Their refusal to deal with the existing warlords, whose rivalries had caused so much killing and destruction, also earned them respect.

The Taliban said their aim was to set up the world's most pure Islamic state, banning frivolities like television, music, and cinema. Their attempts to eradicate crime were reinforced by the introduction of Islamic law including public executions and amputations. A flurry of regulations forbidding girls from going to school and women from working quickly brought them into conflict with the international community. Such issues, along with restrictions on women's access to health care, also caused some resentment among ordinary Afghans.

From the mid-1990s the Taliban provided sanctuary to Osama bin Laden and provided a base for his and other terrorist organizations. Bin Laden provided both financial and political support to the Taliban. Bin Laden and his al-Qaida group were charged with the bombing of the U.S. embassies in Nairobi and Dar Es Salaam in 1998. In August 1998 the United States launched a cruise missile attack against bin Laden's terrorist camp in Afghanistan. Bin Laden and al-Qaida are

believed to be responsible for the September 11, 2001 terrorist attacks in the United States, among other crimes.

Following the Taliban's repeated refusal to expel bin Laden and his group and end its support for international terrorism, the U.S. and its anti-terrorist coalition began a campaign to target terrorist facilities and various Taliban military and political assets within Afghanistan.

SECTION II: LOCATION AND DESCRIPTION

Lying more than 482 kilometers (300 miles) from the sea, Afghanistan is a barren, mostly mountainous country of about 647,500 square kilometers (250,000 square miles). It is bordered by Turkmenistan, Uzbekistan, and Tajikistan to the north, Pakistan to the east and south, and Iran to the west. Including a long, narrow panhandle (the Wakhan Corridor) in the northeast, Afghanistan has a northeast-southwest extent of about 11,450 kilometers (900 miles), and a northwest-southeast extent of about 804 kilometers (500 miles). With peaks up to about 7315 meters (24,000 feet), the Hindu Kush forms the spine of the country, trending southwestward from the Pamir Knot to the central Afghan province of Bamian. Subsidiary ranges continue to the south and the west with decreasing elevations, gradually merging into the plains that continue into Iran and Pakistan. A broad plateau stretches from north of the Hindu Kush to the Amu Darya River and eventually to the Russian steppes. In the east, the mountains are indistinguishable from those of Pakistan. Afghanistan is approximately the size of Texas.

SECTION III: TOPOGRAPHY

About one-third of Afghanistan, in the southwest and north, is arid plain. The southwestern plain is the larger of the two and is a barren desert with large areas of drifting sand, scattered hill belts, and a few low mountains. Small villages along a few intermittent streams, small settlements, and a narrow band of cultivation along the Helmand River are the only features that break desolation. The Helmand is one of the few perennial streams in the region. The northern plains are actually steppes with seasonal grasslands supporting a small nomadic population. Permanent settlements are located along the margin of the steppes and on the flood plain of the Amu Darya River.

The mountains that comprise the other two-thirds of the country are the perennially snow-capped Hindu Kush in the northeast and progressively lower mountains in the west. The Hindu Kush have sharp-crested ridges and towering peaks, while the lower, western mountains are generally rounded or flat-topped. Afghanistan can be broken down into three military operational zones: the northern steppe, the Afghan highlands, and the southwestern desert basins.

SECTION IV: DRAINAGE

Afghanistan has four major river systems that originate in the Hindu Kush: the Kabul, the Helmand, the Amu Darya, and the Harirud. Of the four, only the eastward flowing Kabul ever reaches the ocean; the other three eventually disappear into salt marshes or desert wastes. Only the Amu Darya (also known as the Oxus) has significant navigable reaches. The rest are fordable for the greater part of the year throughout their courses. The Amu Darya also serves as the northern border of Afghanistan. The Helmand is the largest in flow and volume and

runs southward across the southern desert into the salt marsh wastes found along the Afghan-Iranian border. The Harirud runs westward past Herat then turns northward, forming the border between Afghanistan and Iran.

All the Afghan rivers and their tributaries are used for irrigation. Supplementing the stream irrigation is the karez, a system of underground channels (with vertical access and maintenance shafts) carrying water from the base of the mountain slopes to oases on valley floors. The signature of karez (qanat in Iran), particularly noticeable from the air, is the row of evenly spaced openings (shafts) surrounded by mounds of earth that define the course of the underground channels.

SECTION V: VEGETATION

What little natural vegetation there is in Afghanistan consists mainly of bunch grasses; trees are scarce and mostly limited to planted poplars and willows around settlements. Because of infertile soils and centuries of seeking fuel and forage, even scrub and brush are difficult to find. Timber is mostly absent. Any timber laying around the ground or attached to buildings in deserted villages should be suspect for booby traps. Timber is very scarce and villagers will booby trap their homes to prevent theft and pilferage.

Irrigated areas produce wheat, barley, corn, and rice, as well as sugar beets, melons, grapes, cotton, almonds, and deciduous fruits. The two primary Afghan cash crops are opium poppy and cannabis. Afghanistan is the major opium supplier for the European heroin market.

SECTION VI: CLIMATE

Marked seasonal extremes of temperature and scarcity of precipitation characterize Afghanistan's climate. Topographic features strongly influence all elements of the climate. Winters (December through February) are dominated by constantly changing air masses associated with passing migratory lows and frontal systems. Winters are cold, with nighttime temperatures below freezing common in low elevations and frequent winter snows at higher elevations. To the south and southeast the low-level temperatures are less severe. Winter snows are frequent at the higher elevations, and there are permanent snow fields in the Hindu Kush. Summers (June through August) are continuously sunny, dry, and severely hot; however, intrusions of moist, southerly monsoon air occasionally bring rain, increased humidity, and cloudiness to the extreme eastern portions. At elevations below 1,220 meters (about 4,000 feet) temperatures rise to over 38°C (100°F) on a daily basis. Very low humidity is normal during the summer. In the other seasons, relative humidity is high in the early morning and moderate in the afternoon over most sections. In most of Afghanistan, winter and spring are the cloudiest periods, and clear skies are common in summer.

Precipitation is scarce, with desert conditions prevailing in the southwestern and northern plains. What annual precipitation there is falls mostly in the winter and spring; summers are almost uniformly rainless. Thunderstorms are most frequent during the spring, but also occur during summer in extreme eastern portions of the country. Flash floods sometimes result from severe thundershowers. Long droughts are not uncommon.

SECTION VII: ETHNICITY AND LANGUAGE

The population of Afghanistan includes many different ethnic groups. The Pashtuns (Pushtuns), who make up more than half the population, have traditionally been the dominant ethnic group. Their homeland lies south of the Hindu Kush, but Pashtun groups live in all parts of the country. Many Pashtuns also live in northwestern Pakistan, where they are called Pathans. Pashtuns are usually farmers, though a large number of them are nomads, living in tents made of black goat hair. Male Pashtuns live by ancient tribal code called Pashtunwali, which stresses courage, personal honor, resolution, self-reliance, and hospitality. The Pashtuns speak Pashto, which is an Indo-European language and one of the two official languages of Afghanistan.

The Tajiks (Tadzhiks), are the second largest ethnic group in Afghanistan. They live in the valleys north of Kabul and in Badakhshan. They are farmers, artisans, and merchants. The Tajiks speak Dari (Afghan Persian), also an Indo-European language and the other official language of Afghanistan. Dari is more widely spoken than Pashto in most of the cities. The Tajiks are closely related to the people of Tajikistan.

In the central ranges live the Hazaras. Although their ancestors came from the Xinjiang region of northwestern China, the Hazaras speak an archaic Persian. Most are farmers and shepherders. The Hazaras have been discriminated against for a long time, in part because they are minority Shiites (followers of Shia Islam) within a dominant Sunni Muslim population. In the east, north of the Kabul River, is an isolated wooded mountainous region known as Noristan. The Noristani people who live there speak a wide variety of Indo-European dialects. In the far south live the Baluchi, whose Indo-European language (called Baluchi) is also spoken in southwestern Pakistan and southeastern Iran.

To the north of the Hindu Kush, on the steppes near the Amu Darya, live several groups who speak Turkic languages. The Uzbeks are the largest of these groups, which also include Turkmen and, in the extreme northeast Vakhn Corridor, the Kyrgyz people. The Kyrgyz were mostly driven out by the Soviet invasion and largely emigrated to Turkey. All of these groups are settled farmers, merchants, and semi-nomadic sheep herders. The nomads live in yurts, or round, felt-covered tents of the Mongolian or Central Asian type.

Prior to the war important political positions were distributed almost equally among ethnic groups. This kept ethnic tensions and violence to a minimum, though the Pashtuns in Kabul were always the politically dominant group. In the mid-1990s attempts have been made to reestablish shared rule; however, many of the ethnic groups have sought a greater share of power than they had before the war, and violence is a common result of the disputes.

SECTION VIII: KEY CITIES

Kandahar is located in southern Afghanistan, approximately 500 kilometers (310 miles) southwest of Kabul and 90 kilometers (56 miles) northwest of the Pakistan border. The city lies at the northeast corner of the vast, nearly uninhabited Dasht-i Margow. Kandahar is in an area of subtropical steppe. Sand ridges and dunes alternate with expansive desert plains. There are also areas of barren gravel and clay where sparse vegetation and low growth prevail. Kandahar's population is estimated at 329,300 (U.S. Census Bureau, 2001).

Kabul is located in northeastern Afghanistan on the banks of the Kabul River. The city spreads out on the north and south banks of the river and is further separated into northern and southern sections by a series of low hills. The Kabul River flows from southwest to northeast and through the water gap known as “Lion’s Gate,” which divides the hills. Elevations range from 1,789 meters above sea level at Kabul International Airfield to 2,219 meters at Kohe Sher Peak near the city center. Several small streams flow in from the west, joining to form the Cheltan River, which, in turn, joins the Kabul River just south of the Lion’s Gate. The Logar River flows north to join the Kabul River in eastern Kabul; Khargz Lake, about 20 kilometers west of central Kabul, is the only lake in the region. There are, however, several small marshes scattered across the northeastern half of the city and environs. Soils on the mostly flat plains around Kabul are deep silty sand, clayey sand, and gravels that are fair to good in over-all suitability for construction purposes. On hill slopes, bedrock outcrops comprise half or more of the surfaces.

Jalalabad is the largest urban center in eastern Afghanistan between Kabul (125 kilometers [78 miles] to the west) and the Pakistan border at the Khyber Pass (75 kilometers [47 miles] to the east). The city has been an important commercial, telecommunications, and cultural center, and has a population of 154,200 (U.S. Census Bureau, 2001). The city dominates the entrances to the Laghman and Kunar valleys and is a leading trading center with India and Pakistan. Oranges, rice, and sugarcane grow in the fertile surrounding area, and the city has cane processing and sugar refining as well as papermaking industries.

Mazar-e Sharif, the provincial capital of the Balkh Province, is situated on the main route between Kabul and the Termiz, Uzbekistan. Historically, its importance was twofold: it was 70 kilometers (43 miles) south of the Soviet Union, and it was a center for Afghanistan’s fledgling oil industry. Its population is estimated at 232,800 (U.S. Census Bureau, 2001).

Herat is centered in western Afghanistan on the flat river plains a few kilometers north of the Harirud River. The Iran border is approximately 120 kilometers (75 miles) to the west, Turkmenistan 110 kilometers (68 miles) to the north, and Kabul is approximately 650 kilometers (400 miles) to the east. Elevations within the city range from roughly 920 meters (3,018 feet) above sea level (ASL) in the south to 960 meters (3,150 feet) ASL in the north. Mountains ranging in height from 1,800 meters to 3,300 meters (about 6,000 to 11,000 feet) surround the city. Earthquakes and tremors are common occurrences. Herat experiences a hot, north-northwesterly wind from May to September. This wind blows constantly, but is particularly strong in the afternoon; wind velocity is typically around 50 miles per hour (43.5 knots), with gusts up to 80 miles per hour (69.5 knots).

SECTION IX: WAY OF LIFE

Although the Afghan population is composed of many distinct ethnic groups, certain elements of their way of life are much the same. Characteristically, the family is the mainstay of Afghan society. Extremely close bonds exist within the family, which consists of the members of several generations. The family is headed by the oldest man, or patriarch, whose word is law for the whole family. Family honor, pride, and respect toward other members are highly prized qualities. Among both villagers and nomads the family lives together and forms a self-sufficient group. In the villages each family generally occupies either one mud-brick house or a walled compound containing mud-brick or stonewalled houses. The same pattern prevails among the nomads, except that tents replace the houses.

Settlements in Afghanistan with less than 100 houses number over 10,000, and those with 100 to 250 houses number about 1,000. There are 53 urban centers that range in size from 2,500 to 25,000 people. In the smaller villages there are no schools, no stores, nor any representative of the government. Each village has three sources of authority: the malik (village headman), the mirab (master of the water distribution), and the mullah (teacher of Islamic laws). Commonly, a khan (large landowner) will control the whole village by assuming the role of both malik and mirab.

Baggy cotton trousers are a standard part of the Afghan villager's costume. The men wear long cotton shirts, which hang over their trousers, and wide sashes around their waists. They also wear a skullcap, and over that, a turban, which they take off when working in the fields. The women wear a long loose shirt or a high-bodice dress with a swirling skirt over their trousers; they drape a wide shawl about their heads. Many women wear jewelry, which is collected as a form of family wealth. When urban women leave their houses they usually wear a burka or shadier, a long tentlike veil that covers them from head to foot. Women in villages seldom wear the burka, and educated urban women discarded the custom, especially under Soviet domination where it was regarded as backward.

The diet of most Afghan villagers consists mainly of unleavened flat bread called nan, soups, a kind of yogurt called mast, vegetables, fruit, and occasionally rice and meat. Tea is the favorite drink.

Village men work in the fields, joined by the women during the harvest. Older children tend the flocks and look after the smaller children. The village mosque is the center of religious life and is often used as the village guest house.

Twice a year groups of nomads may pass through villages on their routes from summer highland grazing grounds to the lowlands where they camp during the winter. The villagers traditionally permit the nomads to graze their animals over the harvested fields, which the flocks fertilize by depositing manure. The nomads buy supplies such as tea, wheat, and kerosene from the villagers; the villagers buy wool and milk products from the nomads. For food and clothing, the nomads depend on the milk products, meat, wool, and skins of their flocks; for transportation they depend on their camels. Nomadic women are freer and less secluded than the village women.

A favorite sport in northern Afghanistan is a game called buzkashi, in which teams of horsemen compete to deposit the carcass of a large headless calf in a goal circle. Afghans also play polo and ghosai, a team sport similar to wrestling. The most important holiday in Afghanistan is Eid and Nowruz, or New Year's Day, which is celebrated on the first day of spring.

APPENDIX A

Convoy Leader Checklist

- Binoculars
- Radio check (internal, command, administrative, and logistics)
- Mobile tracking station (MTS) operational
- Convoy order and execution matrix
- Standard operating instructions (SOI)
- Map with current graphics
- Strip map with extra copies
- Sensitive items/personnel list
- Combat lifesaver w/aid bag (date?)
- Current situation brief (intelligence)
- Risk assessment signed by commander
- Global Positioning System (GPS) (programmed with appropriate mission information/extra batteries)
- Vehicle and personnel manifest

APPENDIX B

Individual Checklist

Individual Checklist: (per standing operating procedures (SOP), as designated by unit commander)

- Weapon (cleaned, function tested, and appropriately lubed)
- Ammunition and magazines (magazines serviceable and ammunition loaded correctly)
- Kevlar (chin strap serviceable)
- Flak vest/Body armor (plates properly installed and worn)
- Notebook and writing device
- Issued eye protection goggles (clear lenses installed?)
- Load bearing equipment (LBE) w/2 canteens (topped off)
- 2 First-aid pouches w/dressing
- Flashlight w/extra batteries and bulb
- Military identification (ID) card
- I.D. Tags
- Civilian/Military drivers licenses
- Combat lifesaver kit
- Intravenous (IV) bags x type (expiration dates checked)
- Night vision goggles (NVGs) with batteries
- Organizational vehicle maintenance (OVM) keys
- Attended convoy brief
- Attended rehearsals

APPENDIX C**Convoy Vehicle Checklist**

- Completed 5988E (before preventive maintenance checks and services [PMCS]) (Are there any issues yet to be resolved?)
- Current vehicle dispatch (Date expiration?)
- Fuel/fluid levels topped off
- Additional package products
- VS-17 panel
- Extra fuel can topped off and secured
- Class I basic load (Meals, ready to eat (MREs) / Water)
- Communication check of all available systems (What are ranges, frequencies?)
- Inventory of all required signal devices
- BII complete
- Execution matrix
- Tow bar (if specified)
- Cargo secured in accordance with (IAW) guidance/technical manual (TM) (Number of cargo, required devices serviceable/on-hand?)
- Road guard belt
- Flashlight w/extra batteries and bulb
- Map/Strip maps
- Warning triangles
- Fire extinguisher
- Windows and mirrors cleaned
- Emergency call signs and frequencies posted near each radio
- Medical evacuation (MEDEVAC) 9- line format posted near each radio
- Turn signals and lights serviceable/functioning
- Issued pyrotechnics
- Litter(s) (if designated)

CENTER FOR ARMY LESSONS LEARNED

(**Note:** Units should add and delete items based on mission, enemy, terrain and weather, troops and support available, time available, and civil considerations [METT-TC].)

APPENDIX D

Sample Convoy Brief

Convoy brief format (modified from FM 55-30, *Army Motor Transport Units and Operations*):

Movement Order No. _____

References: A. _____ (Maps, tables and relevant documents)

B. _____

TASK ORGANIZATION: (Internal organization for convoy, manifest)

1. SITUATION:

a. Enemy Forces:

(1) Weather. General forecast.

(2) Light Data (end(ing) evening nautical twilight [EENT], % illumination, moon rise (MR), moon set (MS), begin morning nautical twilight [BMNT]).

(3) Discuss enemy.

(a) Identification of enemy (if known).

(b) Composition/capabilities/strength/equipment.

(c) Location (hot spots highlighted on map).

b. Friendly Forces:

(1) Operational support provided by higher headquarters.

(a) Helicopter/gun ships.

(b) Quick reaction forces (QRFs).

(c) Military police [MP] escorts/rat patrols.

(d) Fire support elements.

CENTER FOR ARMY LESSONS LEARNED

Element	Location	Frequency/Call Sign

c. Attachments: (From outside the organization)

2. MISSION: (WHO, WHAT, WHEN, WHERE, WHY)

3. EXECUTION:

a. Concept of Movement: (Describes, in general terms, the big picture from start to finish)

b. Tasks to subordinate units (manifest): (Includes attached or operational control [OPCON] elements)

c. Coordinating instructions: (Instructions for ALL units)

(1) Order of march (spacing of serials/location of support elements)

(2) Routes (Strip map displayed separately; includes SP, load points, checkpoints, rally points, refuel points, mandatory halts, remain overnights (RONs), traffic control points. Mileage to each should be indicated.)

(3) Additional movement issues (speed, intervals, lane, parking, accidents, etc.)

(4) Uniform

(5) Actions at danger/hazard areas (SOPs or battle drills to be rehearsed)

(6) Rules of engagement

4. SERVICE SUPPORT: (Provides the critical logistical information required to sustain the convoy during the operation. Also includes combat service support instructions and arrangements that support the operation.):

a. Ration/Water Plan:

b. Ammunition: (individual/combat loads/tracer mix)

CENTER FOR ARMY LESSONS LEARNED

c. Medical: (internal treatment/evacuation procedures other than SOP and external procedures/support)

d. Petrol, Oil, and Lubricants: (internal and external)

e. Maintenance/Recovery: (internal and external)

f. Remain Over Night (RON) Facilities:

5. COMMAND AND SIGNAL: (states where command and control nodes and key leaders will be located during the operation):

a. Commander(s)/Positioning (manifest):

b. Communications (manifest):

c. Signals: (primary/alternate other than SOP)

d. Reports (individual to higher):

6. SAFETY/RISK MANAGEMENT (Emphasize key risks/control measures).

7. REVIEW TIME LINE (Displayed separately).

8. GIVE TIME HACK.

9. ASK FOR QUESTIONS.

APPENDIX E

Coalition Forces Land Component Command

Reference Card (Sep 04)

Arming Stance

Arming Stance	Individual Weapons
Green	Magazine in ammo pouch. Weapon on safe.
Amber	Magazine in weapon, no round in chamber. Weapon on safe.
Red	Magazine in weapon, round in chamber. Weapon on safe.
Arming Stance	Crew-served Weapons
Green	Ammo belt in ammo pouch/can. Weapon on safe.
Amber	Ammo belt loaded into weapon, weapon has not been charged. Bolt is locked forward.
Red	Ammo belt loaded such that ammunition is in ready to fire position, weapon charged (bolt locked to the rear). Weapon on safe.

APPENDIX F

**Coalition Forces Land Component Command
Medical Evacuation (MEDEVAC)/Casualty Evacuation
(CASEVAC)
Request Procedures and Medical Treatment Protocol**

14 Sep 04

NATO 9-Line MEDEVAC/CASEVAC

LINE 1. Location of pickup site (grid or latitude/longitude)

LINE 2. Frequency and call sign at pickup site

LINE 3. Number of patients by precedence

- a. Urgent (non-surgical): Evacuate within 2 hours
- b. Urgent (surgical, all trauma): Need immediate surgical care
- c. Priority: Evacuate within 4 hours
- d. Convenience: Evacuate when possible

LINE 4. Special equipment: Requisition (hoist, ventilator, extraction device)

LINE 5. Number of patients by type:

L + # of litter patients

A + # of ambulatory patients

LINE 6. Wartime: Security of pickup site

N: No enemy troops

P: Possible enemy troops in the area

E: Confirmed enemy troops in area (use caution)

X: Engaged with enemy troops (armed escort recommended)

LINE 7: Marking of pickup site (panel/smoke/lights: What color?)

LINE 8: Patient status and nationality (if known)

A= U.S./coalition military, nationality =

B = U.S./coalition force civilian, nationality =

CENTER FOR ARMY LESSONS LEARNED

C= Non coalition force soldier, nationality =

D= Non U.S./coalition civilian, nationality =

E. Enemy prisoner of war

F. High value target (armed escort required)

LINE 9. Wartime: NBC contamination

ANNEX I**Conventional Forces in Low-Intensity Conflict:
The 82d Airborne in Firebase Shkin****by David L. Buffaloe***Reprinted with permission from AUSA's Institute of Land Warfare, No.04-2,
October 2004***Introduction**

In May 2003 I was given a remarkable opportunity. I had always wanted to take command of an airborne infantry company and subsequently to lead them in combat, but what ensued over the next three months went beyond my expectations. I took command of a unique company team composed of assets that I never thought I would command. I conducted numerous Civil Military Operations (CMOs) along with intense combat operations. Over the next six weeks, soldiers under my command engaged in six firefights with al Qaeda forces, and none of my soldiers sustained injury. When we left Firebase Shkin, I knew I had just partaken in the experience of a lifetime. I was given an opportunity that no other captain in the Army was given: to fight his own combined-arms, coalition, joint, multi-agency fight in his own Area of Operations (AO). But in addition to my own thankfulness for being given this opportunity, I realized that what we accomplished could and should be accomplished by young company commanders throughout the world in support of the Global War on Terrorism (GWOT). After the high-intensity warfare is complete and we begin fighting an insurgency operation, the best way to find, fix and finish an enemy waging a guerilla war is to give leaders at the small-unit level enough leeway, enough specialized assets and enough firepower to engage their population, develop their own intelligence and be able to crush the enemy.

The enemy we routinely face in the GWOT blends into the population. He might or might not have the support of the locals, but the same can be said for the coalition forces' relationships with the locals. We need to earn local support on a personal level; only then will they assist us in fighting insurgency.

In writing this I have three goals. The first is to get our Army and National Security leaders to recognize that we have, within our existing forces, a remarkable asset for fighting and winning the war on terrorism: our company-sized elements. The way ahead is simple: focus some of our doctrine and training to prepare young company commanders to lead combined-arms warfare, to conduct CMO operations, and to develop and exploit their own intelligence. This leads into my second goal: to provide a short "lessons learned" to my fellow company commanders who are currently or will soon be in a position like mine where they can conduct these types of operations. Finally, I want to share our story; the 200+ American and coalition soldiers and the 180+ Afghan Militia who served with me in the Bermel Valley risked their lives every day and came out with a tremendous sense of accomplishment. We took the Bermel Valley from the enemy, and we won our own battles in this Global War on Terrorism. In no way do I claim to be an expert in either conventional or unconventional warfare. I simply wish to share the experiences of a unit that was successful.

The Bermel Valley

In the Bermel Valley -- dubbed "the vilest place" by the XVIII Airborne Corps commander -- B Company, 3d Battalion, 504th Parachute Infantry Regiment, 82d Airborne Division did what had not been done before and did it very successfully. We fought a joint, combined-arms, coalition, interagency fight at the company level. Soldiers under my command fought in six small-arms firefights with al Qaeda. In addition to fighting, however, we conducted numerous CMOs. We met with elders from every village in the Bermel Valley, drank *chai* (tea), and discussed village problems and how to arrive at joint solutions. We provided humanitarian assistance and di-minimus health care (defined as small-scale medical assistance operations using available excess medical supplies) to the population. We laid the groundwork to build wells, hospitals and schools -- including the first ever girls. school in the region. We met routinely with the regional governor to discuss security issues. We met monthly with the Pakistani Border Guard commander across the border to discuss cross-border issues and cooperation. We trained, equipped and employed 180 Afghan Militia fighters and conducted joint operations with the Afghan National Army (ANA). Best of all, we did it well. Not one soldier under my command got a scratch from enemy fire. Intelligence reports claimed that we killed about two dozen seasoned, foreign al Qaeda fighters. And the unified effort of engaging the population in CMOs led directly to most of the intelligence we collected -- intelligence that saved my life and my soldiers' lives. We applied special operations tactics but with the conventional-force firepower and survivability that Special Forces Operational Detachment Alpha Teams (A-Teams) do not possess.

Throughout this low-intensity war with the al Qaeda and the remaining hostile Taliban forces, conventional forces routinely had difficulty finding and fixing enemy forces. A conventional force usually went into an area with so much strength and firepower that the enemy forces would simply blend into the populace and wait for the battalion to leave the region, hoping we would not stumble upon their weapons cache. A-Teams had much more success finding the enemy while driving around the countryside in convoys of four government motor vehicles, but they did not have the firepower, armor or backup to fight their way through an ambush and come out victorious. We did have that firepower. We were able to provide just enough of a signature to lure out the enemy forces, but with enough firepower and support to destroy them.

As an infantry company commander, my role, my autonomy, my distance from my higher headquarters, my engagement with the local populace was something that up until then was only done by Special Forces A-Team commanders. My task organization and the assets under my command mimicked a small battalion task force. Never had I envisioned that I would be thrown into such a situation; none of my formal military training focused on such scenarios. However, with our nation engaged in a long-term, low-intensity war while trying to conduct stability operations in both Afghanistan and Iraq, and with our Special Forces spread so thin, Bravo Company proved not only that conventional forces can be ultimately successful in this fight, but that we are actually very well adapted to accomplish this mission.

Our operations and our way of doing things should be adapted for the future of low-intensity conflict. Our approach was to give a company commander a combined-arms team, make them mobile -- two antitank (AT) platoons and enough

cargo high-mobility multipurpose wheeled vehicles (HMMWVs) to move -- and give them:

- enough infantrymen -- we had six squads;
- local, reactive, accurate fire support -- we had two 60mm mortar tubes, 2 x 105mm howitzers and a Q-36 Fire Finder Radar system;
- plenty of intelligence assets -- we had a human intelligence (HUMINT) team; a signal intelligence (SIGINT) team; a Remote Battlefield Sensor System (REMBASS); a long-range reconnaissance detachment (LRSD); and scouts with some access to national-level intelligence assets to develop their own intelligence while feeding intelligence to the higher headquarters;
- engineers and/or explosive ordnance disposal (EOD) personnel to blow up stuff and to disarm improvised explosive devices (IEDs) when they find them;
- Civil Affairs (CA) assets so they can engage the population;
- tactical air control parties (TACPs);
- medical assets enough to treat a mass-casualty scenario and also to use for CMO operations;
- Psychological Operations (PSYOP) assets to help convey the coalition message;
- their own cooks and mechanics (as well as augmenting them with local hires);
- a miniature battalion staff -- I had a full-time battle captain (lieutenant, junior captain or E-7), an E-5 intelligence analyst as my S2 (intelligence), and S4 (logistics -- I had a lieutenant who was serving as the battalion's assistant S4), and S5 (Civil Affairs -- I had a CA E-5);
- plenty of interpreters; and
- a local militia force to train and utilize.

Field grade officers were used as well; in one rifle battalion, they could easily split among three locations -- the battalion commander at one location, the executive officer at a second location, and the S3 (operations) at a third. This would allow every firebase to be commanded by a field grade officer, while each would have a company commander as the .commander on the ground. for any action that took place.

When we had all that, we were allowed to engage the population and to plan our own missions. We controlled our own AO, and our field grade officer could clear fires. We had enough assets to protect the firebase, provide a quick-reaction force (QRF) and still conduct a good-sized operation (either CMO or offensive).

Tactics in Low-Intensity Conflict

The essence and focus of low-intensity conflict is no different from that of high-intensity conflict. The commander's goal is to find, fix and finish the enemy. The difference lies in the specific tasks. The enemy does not wear a uniform. He blends into the population. Often he invokes fear in the local populace; sometimes

he can rally them to his cause. In this instance, he had a pseudo-haven across the border in Pakistan where we could not pursue him unless we maintained positive identification. Finding him was the most difficult task. We used a mixture of scouts; snipers; LRSD; unmanned aerial vehicles (UAVs); REMBASS motion sensors; Q-36 Fire Finder Radar; a .big brother. Joint Land Attack Cruise Missile Defense Elevated Netted Sensor (J-LENS) forwardlooking infrared system; infantry squads in ambush positions and observation posts (OPs); a tactical HUMINT team and HUMINT sources such as village elders, Pakistanis, the Bermel police, and the regional governor; and the least preferred method -- making accidental direct contact with the enemy (sometimes on his terms, but sometimes on our own).

Fixing the enemy usually involved indirect fires. These are most effective when shot beyond the enemy to seal off their suspected escape route. Fixing the enemy could also involve maintaining direct contact with him by the force (such as a mounted antitank patrol) that made initial contact.

Finishing the enemy always involved crushing him with an overwhelming QRF, defeating him with direct-fire weapon systems, and claiming the ground he once held or engaging him in pursuit.

These principles of find-fix-and-finish are what helped us defeat the al Qaeda and anticoalition militants (ACMs) in the Bermel Valley, but what won on the larger and long-term level was getting out and engaging the local population. This was done through various CMOs and local projects completed by members of the Coalition Joint Civil Military Task Force (CJCMOTF) and other government agencies (OGAs), as well as with the support of some nongovernment organizations (NGOs). You only truly know your AO when you get out and engage the population; they only come to trust you when you do so.

Finally, we relied mostly on our own intelligence. We had numerous intelligence-gathering assets. The gathering and analysis of intelligence in our AO was the single piece that helped ensure our success. Only very rarely did we receive national-level intelligence leads; the intelligence we developed was much more reliable.

Command and Control Structure/Unity of Command

The different regions of Afghanistan were divided up into Areas of Operations, each belonging to a different task force. Each task force had different functions, e.g., the Coalition Joint Special Operations Task Force (CJSOTF) conducted special operations missions and the Coalition Joint Civil Military Task Force (CJCMOTF) focused on Civil Military Operations (CMO). My own task force, Task Force Devil, focused mainly on offensive combat operations. A task force might or might not have personnel stationed within another task force's AO. For instance, Task Force Devil personnel were often stationed at CJSOTF and CJCMOTF firebases to provide force protection and QRF in support of the CJSOTF and CJCMOTF missions. To streamline operations and make battle tracking easier, one group has to own any given AO. Unity of command is essential when clearing fires. Ultimately, however, it is essential in creating a unified effort to pacify an area.

Prior to my assumption of command, CJSOTF controlled Firebase Shkin and the AO encompassing the Bermel Valley, while Task Force Devil personnel

were simply there providing force protection and limited patrolling. When CJSOTF pulled out of the AO, Task Force Devil assumed control of the firebase and the AO.

The battalion executive officer (XO) served as the overall firebase and AO commander. I was the only company commander. Even though the lines between what fell under his command and what fell under my command were very blurry, this command structure actually worked out perfectly. The battalion XO could always be the overall firebase commander while I could always be the "commander on the ground". He would clear fires in the tactical operations center (TOC) as I requested them. He would send reports higher, request assets such as Army aviation and close air support (CAS); he could coordinate QRFs to reinforce me in a pinch. Our lines of command blurred but never clashed; we had a great working relationship. I highly recommend this as a model for future firebases.

Combat Operations

Firebase Defense. Defending the firebase is paramount, but in a low-intensity conflict it is somewhat different because the enemy is very unlikely to conduct a full frontal attack or penetration. Firebase Shkin had three main defensive perimeters: the outer perimeter, the inner perimeter and the wall.

At any given time, one squad rotated on firebase defense. This squad would man the inner perimeter gate and the two eastern towers, which had the largest fields of fire and most activity since they overlooked the Bermel Valley and could see all the way to Pakistan. The squad leader would serve as the firebase Sergeant of the Guard responsible to the TOC for overall firebase defense and conduct of the guards. One of the other two towers was manned by AT platoons (since we had only six up-armored HMMWVs, this provided one AT section that at any given time was not either patrolling or standing by on QRF), and the other was manned as a shared responsibility by the other soldiers in the firebase such as the mortars, air defense artillery and field artillery. We also always maintained a QRF.

The fire support officer (FSO) produced an awesome plan for overall firebase defense, integrating direct and indirect fire support and considering the dead space. We executed "Blackjack" drills (exercises of our battle drill) in the event of a direct attack on the firebase. These drills helped in a number of ways. First, they ironed out problems that we could face if we did receive a direct attack. Second, they showed the enemy what our capabilities were should they ever think to launch a direct attack. And most important, they showed the soldiers that they were safe, that nothing could penetrate our firebase, and that they were a part of the defensive plan. In each Blackjack drill, we would exercise all assets, whether it was a live-fire drill or not. Everyone would don helmets and body armor and seek cover within the protective walls and structures of the two-foot-thick, mud-built firebase. The squad and section leaders would come to the firebase TOC for their briefing, and we would reinforce one or two of the walls with soldiers ready to engage with direct fire. At times, we would even emplace targets in the fields for the soldiers to engage. We usually would include mass casualty exercise drills to get the advanced trauma life support (ATLS) team involved and prepared along with preparing the squads to exercise buddy aid, evacuation and reinforcement of a weak section of the wall. And we would exercise resupplying all soldiers with ammunition that was prepositioned on the walls and at the base of the towers.

The firebase was surrounded by wadis that provided avenues of approach about 100 -- 200 meters outside the firebase and in some places right up to the outer

AMF perimeter. Prior to my arrival, the infantry squads conducted routine dismounted patrols of these wadi systems and other dead space such as that on the other side of the hills to our west. These patrols could be conducted entirely dismounted, entering and leaving the firebase on foot. Even though they fit in with the standard thought of planning for a defense, I put a stop to these types of patrols for two reasons.

The first was the drain on resources vs. the payoff. These patrols usually took one squad per day. I had only six rifle squads at the firebase; I used my weapons squad as a rifle squad and usually left their M204B machine guns mounted on the towers for firebase defense. Among these six, three squads rotated on "defense," which consisted of QRF, guard and compensation time or training time. The other three rotated on "offense," which consisted of all operations outside of the firebase. Giving up one of these three precious rifle squads for low-payoff dismounted patrols to clear firebase dead space was not an option. Instead, I used other assets at my disposal -- Avengers and other soldiers. The Avenger missile trucks were very handy for clearing dead space. Since there was no aerial threat from the enemy, we refocused the Avengers to provide mobile eyes that could see extremely well any movement in the dead space. Although much louder than a dismounted patrol, they were also much quicker and could identify movement at night anywhere in the wadi system.

The second and more important reason for ending the strictly dismounted patrols around the firebase was recognition of the way the enemy fights in a low-intensity conflict. The enemy, whether al Qaeda, hostile Taliban, AMF or some similar group, will not be so bold as to attempt a deliberate attack on an established, defended structure. They fight by conducting indirect fire attacks using mortars and rockets and by ambushing patrols when they are out and exposed. During the GWOT, there have been remarkably few direct, small-arms attacks on firebases, forward operating bases (FOBs) and larger established structures. (Even in the attacks that are on record, many can be attributed to a small attack on one remote guard post, probably with the intent of killing only those guards rather than penetrating the firebase.) By looking at the points of origin of the rockets and missiles fired and the locations of the ambushes, I determined that the enemy was fighting from between six and 15 kilometers outside the firebase, and mostly near the Pakistani border, rather than close in to the firebase. Since they were fighting us from there, that is where our operations needed to be, rather than close in to the firebase. I was able to focus my efforts there because we did have a strong defense, as demonstrated during live-fire Blackjack drills, and could rely on our close-in safety.

One last topic of great importance to firebase defense is operational security (OPSEC). OPSEC must be maintained. We knew that the enemy collected intelligence on us. We always operated on the assumption that whenever a patrol left the firebase, it was seen and reported in some fashion, even if only by means as primitive as a signal fire, mirror or flashlight. Also, we had to be careful what was said around the local workers and AMF; we had to prevent talk about any operations, even routine patrols, among the locals. Noncommissioned officers (NCOs) monitored weekly calls home to ensure that no information was passed on the satellite phone that might be picked up by the enemy.

Major Operations. We identified a major operation as anything greater than a routine patrol. These operations could range in size from platoon to company plus.

In every event, we used every available asset to plan for every conceivable contingency. Whether the mission was a raid, a sensitive-site exploitation (SSE), a cordon-and-search or a CMO, the task organization looked pretty much the same. We always planned for an outer cordon, an inner cordon, a search team, Team Village with security, intelligence-gathering assets, a demolition team, a medical team and responsive fire support. If the operation fell within the standard range of our 105mm howitzers, we left it at that with preplanned targets. If it fell only within rocket-assisted propellant (RAP) range, I displaced the 60mm mortars because I did not trust the variance that RAP produced. If the operation fell outside RAP range, we displaced a howitzer. We also always requested deliberate CAS on any planned operation. Even on CMOs, CAS was very helpful.

Our outer cordon usually consisted of Afghan Militia Forces. The inner cordon usually consisted of elements of my antitank platoon. Both were used for the cordon because they were very quick to establish blocking positions. Occasionally, I would also use infantry squads to help establish the inner cordon in locations where using an AT vehicle was unnecessary. The cordon or "Team Secure" would always fall under the command and control of the AT platoon leader. This ensured that one leader was focused solely on securing the objective. They would initially lock down the objective and then, at my command, would allow both personnel and vehicular traffic to flow in a controlled fashion after a thorough search.

Inside, I would task one platoon with "Search." Most of our missions -- raid, SSE or otherwise. involved a major search of the premises. In any event, we had to be prepared to search anything if we found an intelligence lead. One of the infantry platoon leaders was always assigned as the search platoon leader. He usually had an engineer or EOD team at his disposal to search anything that looked suspicious or to destroy any caches.

We always took along a "Team Village." This encompassed all of our "squishy" elements, a security force, and usually myself "Squishy," a term coined by the battalion commander, roughly meant forces whose primary mission did not involve killing the enemy. It usually applied to Civil Affairs and PSYOP forces who went in to meet with the village elders. I usually used my weapons squad (without their machine guns or Javelins) as Team Village personal security detachment. Team Village was always led by the head CMO person, either my own S5 or the Civil Affairs team (CAT-A) commander. Falling under the Team Village for command and control (C2) but usually operating independently were the tactical HUMINT team (THT). They were best at working the outskirts. During a meeting with village elders, the Team Village leader and I could debrief the S2 on any intelligence that came out of the meeting, but the THT had good success working intelligence from the crowd and the younger members of the village who were not invited into the meeting.

Many operations also included a "Team Overwatch." This was usually simply my fire support officer or NCO along with the Air Force forward air controllers or TACPs and sometimes a sniper. They would take a two-man infantry security element also if need be. Along with the cordon, they would establish an OP on the highest ground available, where they could provide overwatch and coordinate all indirect fire support.

Finally, we always took a medical team, usually a full ATLS team. This would consist of a medical provider (either a doctor or physician assistant) and two

medics. On call on most major operations for any casualties sustained, they were also a great CMO asset -- the main effort in diminimus health care -- for trying to gain the favor of local elders with children who could use medical attention.

Mounted Presence Patrols. These patrols were some of our most effective. Every day we conducted two mounted daytime presence patrols and one mounted nighttime presence patrol. These could coincide with other patrols or operations, but many of them were simply patrols in and of themselves. During daylight, we ran two AT vehicles: up-armored HMMWVs with one MK-19 automatic grenade launcher and one M2 .50-caliber machine gun. These patrols showed the population that we were present and had control of their valley, while also providing me plenty of eyes on my AO. It also allowed the young AT leaders, section leaders, platoon leaders and platoon sergeants a chance to plan and lead their own patrols. They planned fires and shifted priority targets, stopped and searched suspicious vehicles, and provided intelligence in their debriefings that helped us plan future operations.

We learned at night to roll an entire platoon because two vehicles simply did not provide enough firepower. If two vehicles get split in an ambush, they become completely ineffective -- we learned this lesson the hard way on 1 June 2003. One two-truck section of AT-2 was conducting a night presence toward the Bermel Bazaar when their two vehicles drove into a near ambush. The enemy initiated with rocket-propelled grenades (RPGs) and PK machine guns. The AT section returned fire as each vehicle drove out of the kill zone on the fastest route possible. Unfortunately the fastest route for the lead vehicle was to drive forward and the fastest route for the trailing vehicle was to back up. Once out of the kill zone, neither vehicle could effectively fire upon the enemy location because they feared stray .50-caliber and MK-19 rounds might hit the other AT truck. Worse yet, one of the trucks had two tires damaged and no assistance from anyone else. We wound up bringing the damaged truck back to the firebase and marrying up the lead truck with a QRF force. The strongest lesson we learned that night was to roll a minimum of four gun trucks during the hours of darkness so they can provide mutual support.

This lesson paid huge dividends eight days later, on the night of 9 June 2003. The four gun-truck patrol by AT-2, moving out to exfiltrate a dismantled ambush, identified movement in an area near recent enemy activity. One of the gunners identified weapons. The platoon formed themselves into an L-shape by sending the lead section along the wadi that started Route Saturn while the trail section remained on Route Chevy. The platoon made simultaneous contact with the al Qaeda -- one .50-caliber gunner initiated fire at the same time an al Qaeda operative fired his RPG. After the firefight, what remained on the battlefield were four dead al Qaeda who had been camping in a listening post/observation post (LP/OP) with eyes on the firebase and equipment, such as antitank mines and detonation cord, to set up an IED-initiated ambush. This night we were entirely successful because AT-2 had enough assets to surround and overwhelm the enemy.

Ambush. The ambush is a simple standard infantry operation that proved very effective. We usually executed these with one rifle squad -- often augmented with one M240B machine gun and a forward observer (FO) -- with a platoon leader in charge. When conducting these patrols, we cut no corners, executing them exactly the way we were taught in Ranger School and the Infantry Officer Basic Course. These patrols would usually take up a full night for clandestine infiltration, establishment, break-down and exfiltration. There are two keys to conducting

ambush patrols during low-intensity conflict. The first is the trickiness of the rules of engagement (ROE), and the second is effectively infiltrating without being seen.

The ROE in Afghanistan, and especially in the Bermel Valley, allowed us to shoot first if we could clearly identify hostile intent; therefore, ambush patrols were effective. The platoon leader would be required to make the call based on his knowledge of the people, terrain, past enemy activity and traffic patterns. A platoon leader was used on every squad-sized mission such as this because there might be a difficult call to be made about whether or not to engage. Obviously not every vehicle or person moving at night was hostile; this was proven by searching numerous vehicles stopped by nighttime AT patrols. Therefore, positively identifying vehicles transporting enemy personnel was nearly impossible. The only hypothetical situation where permission could be granted to open fire would be if armed al Qaeda operatives were seen brandishing weapons from the backs of trucks, or if a highly suspicious, high-end, blacked-out sport-utility vehicle (SUV) convoy was moving through the area. This reinforces the need for unified C2 in the AO so other government agencies, special operations forces, AMF and ANA personnel would not move through the valley without a squad on an ambush line knowing of their movement to avoid fratricide. Most al Qaeda we faced, however, infiltrated and operated on foot, making positive identification at night much easier. However, depending on terrain, enemy activity and ability to positively identify hostile intent, an ambush patrol might become nothing more than a large-sized overnight OP.

Clandestine infiltration is extremely difficult for a squad-plus element in this environment. The Bermel Valley offers limited cover and concealment. Also, given the unconventional warfare waged by the enemy, we had to contend with enemy sympathizers identifying our movement and communicating it. We always assumed that when a patrol rolled out of the firebase gate, someone would count the number of vehicles, estimate the number of personnel and send the message out to our enemies. Working under this assumption, we planned our infiltrations very meticulously. This included rolling with two squads at night along with the AT platoon. The squad that would actually be conducting the ambush would be spread out among the two cargo HMMWVs and the empty seats of the AT vehicles. This way, enemy sympathizers would only be able to communicate and confirm that four gun trucks and two cargo trucks full of soldiers exited the firebase on patrol and were still patrolling around the valley. This also allowed for a much more reactive rolling QRF that could act as the finishing force once the ambush squad fixed the enemy. Rolling insertions, false insertions and insertions in concealed terrain were also key to a clandestine infiltration.

Specific intelligence from higher that an enemy convoy was moving on a specific route at a specific time never came. These patrols were better for simply keeping eyes and firepower out to deny the enemy freedom of maneuver in the AO. Even when an ambush was seen by a watchful enemy eye, it let them know we meant business and probably made them think twice about infiltrating on key routes.

Clearing Missions. There are two types of clearing: systematically clearing a group of compounds and simply clearing empty terrain. Although we cleared a number of compounds, these were always major operations and usually intelligence-driven. Clearing empty terrain is very simple to plan but tiresome to execute. Such operations do, however, often yield very good intelligence. These were dismounted

missions to walk a patch of ground looking for clues of enemy activity. As for any mission, we had to plan for fire support, casualty evacuation and QRF. The chance of actually finding any enemy on these missions was slim, as we could be easily seen as we entered the area and as we approached. However, in an attempt to get away quickly, the enemy could leave behind equipment or evidence of their presence. In addition, when we cleared areas that were frequently used by the enemy, it familiarized the soldiers and leaders with ground that they might have to fight on one day, and like any other show of force, it denies the enemy that piece of terrain. We quickly learned why nobody lived or trafficked the mountains leading into Pakistan -- one trip up them in body armor was plenty!

Static Observation Posts/Snipers. These were among the most effective operations we conducted. The best way to "find" the enemy is to physically see them moving when they believe they are not being watched. By the end of our tenure at Shkin, we had a large-sized scout and LRSD element that we rotated every 72 hours to maintain continuous coverage on our two most used areas: around Losano Ridge and in the vicinity of Route Saturn. We also used infantry squads in 48-hour operations. On one occasion, I even had the privilege of employing an Italian target acquisition detachment (TAD). Each had its strengths and weaknesses.

Using a rifle squad was effective, especially when scout or LRS assets are not available, but that approach had its weaknesses. Sustainability was usually no more than 48 hours. Also, the squad was cumbersome and had a tendency to receive a "soft compromise" (discovery by a neutral force such as a child, villager or farmer). They were also difficult to infiltrate clandestinely. Due to the size of the rifle squad, however, it could usually cover more ground by splitting up into three separate elements. Each fire team would occupy its own OP, and the squad leader, FO, radio-telephone operator and platoon leader would occupy a separate C2 OP. The individual fire teams would maintain short-range communications with the squad and platoon leaders, while the C2 OP would maintain communications with the firebase. One of the most effective uses of the squad LP/OP was the "stay-behind" LP/OP. Whenever we conducted a major operation in a village -- either a CMO mission or a clearing operation -- we would try to leave a stay-behind. It is much easier to infiltrate a small force when rolling in with such a large fighting force. Besides, many villages say they don't want to accept your help because the al Qaeda would come after them. Stay-behind OPs could find out who, if anybody, did. The al Qaeda are curious about why we come to the village, and they want to gather intelligence about us. Even if the squad receives a soft compromise and everyone knows a covert LP/OP was in place, all is not lost because it makes the enemy feel we are always watching and it makes the villagers feel either safe or reluctant to assist the enemy.

Battalion scouts and snipers were a smaller, more adept element. They were able to effectively stay out for 72 hours at a time and could infiltrate much better locations. Additionally, in our battalion, the sniper teams are intermixed with the battalion scouts, so often I could send out a team to conduct reconnaissance, and they would also have the additional capability to take a precision shot using an M24 or a Barrett .50-caliber sniper rifle. Of course, precision shots are crucial during a low-intensity conflict due to the requirement to minimize collateral damage. Scouts and snipers are usually better at planning for the missions and better at back-briefing than the rifle squads. The drawback is that they are not an effective fighting force by themselves, so we made up for that with responsive indirect fire (priority targets) and with a dedicated QRF.

LRSDs, effectively able to sustain themselves for 96 -- 120 hours, were even better suited than the battalion scouts. Continuous coverage became necessary in one particularly volatile area, so I used my LRSD team much more like a scout team. They split their six-man team (the sixth man was their medic) into two three-man teams, one led by the team leader and the other by the assistant team leader. Their planning methods and back-briefs were even better than those of the scouts. They were able to send photos back to us using Tactical Satellite Data messages while the team was in the hide-site, and they made extensive use of a digital camera for back-briefs. Similar to the scouts, however, they are not an effective fighting force by themselves. The only compromise to either the scout or LRSD teams came on 29 June 2003, when the LRS team received a "hard compromise" -- they were engaged by the enemy using an automatic weapon from about 600 meters out. Of course, we had a priority 105mm artillery target laid on for protection, and although it was not accurate, the enemy stopped shooting and evacuated back to Pakistan once the artillery began landing in their vicinity. We were easily able to extract the LRSD team with the QRF and sustained no U.S. injuries.

For a short period of time I also had the opportunity to employ an Italian target acquisition team. Very similar to LRSD, they were able to sustain themselves for a much longer period of time than the assets at our battalion level. They also had amazing optics and camera capability. Their thermal sites were much clearer than ours and with much greater magnification. They had digital cameras that could take what looked like a close-up photo from over a kilometer away. We were glad to use to the fullest any advanced reconnaissance asset we were given.

Sensitive-Site Exploitations. Many sensitive-site exploitation missions are required. Some are intelligence-driven; others result from contact that requires a later search of the surrounding area; still others come from a need to deny sanctuary, or discovery of a compound that looks suspicious. The SSE, or "cordon and knock," as I heard the 4th Infantry Division call them in Operation Iraqi Freedom, has its own art form. It must be planned as though it is the last stronghold of the al Qaeda, Osama bin Ladin is inside, and they will fight to the death. The compound must be entirely surrounded so no one can escape. We always used the major-operation template discussed earlier: outer cordon of AMF, inner cordon using AT vehicles and some infantry, FO/TACP team on the highest observation point, engineers working for team search, and the CA, the THT and I ready to do the talking. We expected to do a "soft" breach, meaning we knock on the door and they let us in, but we planned a "hard" or "deliberate" breach, meaning we either break or blow the door off its hinges if necessary.

We found that the best method was to knock on the door and ask for the man of the house, bring him outside and explain to him that we were going to search his quarters. We would tell him to bring all of the men outside and move all women and children into one room, thus showing respect for the women. We made sure he understood that our soldiers would assume the rooms were empty, and if a child was left in the room, he or she risked getting shot. We gave him just enough time to accomplish this task, and then the search team searched the men first to ensure they were not a threat. (When documenting the men's names, we didn't ask an individual just for his own name; we took him aside and asked him for the other men's names as well. In a country like Afghanistan where identification is easily forged, this is crucial for finding "black-list" personnel who are blending into the population.) Then we searched the first empty room and marked it. We moved all of

the women and children from the room where they first gathered into this newly searched room. (ACM sympathizers or anyone with something to hide might attempt to put it into the women and children's room, thinking that room will not be searched.) When all the women and children were in their new location, the search team went back into the room where they gathered first, and the female searcher began searching the women and children. We always ensured that she had two large men as sentries standing outside the room to give her backup, mainly to let everyone know that if they interfered with the female searcher, the other two would come in butt-stroking or shooting if necessary. Also, if a man was attempting to hide in a *burka* (women's clothing covering the whole body, including the face), we dealt harshly with him. Everything was searched very thoroughly. We used the engineers' or EOD's metal detector to search for false walls and floors. We searched on the roofs and down wells; EOD robots are great for this.

Now, here is the key piece: dealing with this family based on what was found. If we found nothing, and it was a routine search, we brought in "Team Village." We told the man we wanted to talk to him about things going on in the region and apologized for the search of his compound -- but reassure him that it is standard U.S. Army procedure before sitting down to talk to the head of a household. If we had a CA package (such as blankets, school supplies, PSYOP radios or halal meals -- food prepared following Muslim religious guidelines) to offer, now this was a great time to distribute them -- the locals would not mind getting searched and might invite us to search them again if they receive something for it. It is best to leave on very good terms, making the head of the compound feel he was selected not because we wanted to search his compound but because I, who was in effect the local warlord, wanted to talk to him and seek his opinion. This would place him in a position of honor amongst his village, rather than one of dishonor for having his compound searched.

Of course, if we did find something, the situation was different. We had to judge based on their cooperation. We definitely confiscated any contraband. We always allowed one AK-47 or Enfield rifle and one magazine per man in the compound. Excess weapons, weapons larger than an AK-47 and excess ammunition were usually confiscated with nothing further, sometimes with a promise to return the AK if they brought proper documentation or, better yet, information about the al Qaeda to the firebase. This is why it was so important to tag all confiscated equipment, to ensure that it would get back to its proper owner if that promise was made. Items such as armor-piercing ammunition (routinely used and distributed by the al Qaeda), RPGs and any IED-making material immediately aroused suspicion and usually meant placing under custody the head of the house and bringing him back for further questioning. If they were uncooperative and had contraband, Team Village did not get involved and the village would receive nothing.

Vehicle Checkpoints. Vehicle checkpoints (VCPs) are an excellent way to prevent the ACMs and al Qaeda freedom of movement throughout the AO. They can be very elaborate with Pashtun signs, cones and concertina wire, but we relied on a very simple VCP that could be established and broken down easily -- locals and ACMs alike knew what we were doing and respected the rules we established. The key to remember is that within 30 minutes of establishing a VCP, the ACMs knew it was there and any high-value targets (HVTs) moving through the AO would find a bypass. Within 90 minutes of our being there, everyone would know we were there and would have found a bypass. We were better off establishing for short periods of time, and then moving to an alternate location. When we had the assets,

we established our primary VCP and then established a secondary VCP on an alternate route. When we had recon assets such as scouts, LRS or a Predator UAV, we used them to see what was happening on the route prior to vehicles approaching. We found that vehicles in the outgoing lane would often warn those approaching of our existence. As when conducting an SSE, we searched every person and every compartment of every vehicle. If a large commercial truck had a big cargo, we sometimes went so far as to have them down-load if we could not determine that nothing was being smuggled. Here, it was crucial that our lowest private knew our .black/grey. list and could identify HVTs on site or upon hearing their names. Here also we used the technique of not only asking the males their names but also asking them to identify the others by name to see if someone is trying to hide his identity. When we had female searchers, we used them; ACMs are more likely to hide in Burkas when traveling then when stationary. We always planned for a pursuit force in case a suspicious vehicle saw our VCP and attempted to escape. I will elaborate more under the section "Use of AMF" why we usually relied on AMF for our pursuit force, but the bottom line is that if someone is obviously trying to get your attention, he might be trying to lure you away so the true HVT (whether a person or munitions stock) can use the route you are blocking, or to lure you into an ambush.

Use of a Quick-Reaction Force. QRF is absolutely essential. We found that our own QRF force, along with aerial QRF and X-CAS (airborne nondedicated CAS providing protection in the theater), rather than simply being a reactionary force in the event of an emergency, became our finishing force. In the standard scenario, a finding force locates the enemy. They fix them with artillery or direct fires so they can be finished by the QRF force that arrives. At any given moment we had one infantry squad, one lieutenant, one FO and one AT section available to launch from the firebase in five minutes. We also usually had a second QRF force ready to launch within 20 to 30 minutes. If lucky enough to have the C2 relationship I enjoyed, the company commander should always launch with QRF, because the situation could develop so that "commander on the ground" is needed to make decisions.

On every mission, we calculated the length of time for reaction if contact was made and then prepositioned the QRF or other force. In the Bermel Valley, we often prepositioned the QRF force at the AMF border checkpoint next to Angor Adda. This not only helped to shorten the amount of time it would take for the QRF to reinforce forward-positioned troops, but it also helped show force forward and support for our AMF. The position was hard and reinforced, with good observation where our soldiers could use their night observation equipment to identify movement.

Use of Afghan Militia Forces. I have the utmost respect for the Afghan people as a fighting force. I look forward to a future where we can fight alongside the Afghan National Army as a coalition force. Having grown up knowing nothing but conflict, these men have become some of the bravest and most hardened fighters imaginable, with a stunning sense of pride. They took great pride in leading all joint patrols. Although they wore no helmets or body armor and drove soft-skin vehicles -- Toyota Hi-Lux 4x4s -- they would take no other position than the lead, earning the joking title from many of my soldiers of "Afghan Mine Finders." The Afghan Militia knew the risks they were taking and they took them willingly. I once saw my border guard commander stomp his foot on suspected mines and then get in his Toyota 4x4 and drive very fast across the suspected mined patch of road,

presumably in the hopes that he would outrun the blast. Like all other forces, we used them for their strengths but knew their limitations.

AMF led every joint mounted patrol and most major operations. They did this, of course, to fulfill their role as mine finders. They also knew the ground better and could more easily spot something that was out of place or suspicious. Having them lead became very tricky at times, because to maintain OPSEC we would give them only brief versions of our operations orders at the last possible moment, and the lead driver usually did not know our destination. We developed a standard operating procedure in which the lead American vehicle maintained communications with the AMF lead vehicle through a radio and an interpreter. Also, the AMF did not have night vision equipment, so an AMF-led night patrol was a nightmare as they kept turning on their headlights, giving away our position and blinding our night observation devices.

The AMF were raised in a society where conquering forces are expected to take loot, so when we could help it, we did not use AMF to search. If we had no choice, we ensured that the search took place under the direct supervision of our own soldiers. Had we used AMF alone, the locals would have complained that they stole property, disrespected the women and elders, etc. A member of a rival tribe could have made claims against our AMF of thieving or disrespect and we would have had no way to disprove it. And even if the AMF were to do everything right, the locals would rather submit to Americans than to what they identify as a rival tribe.

When we rolled into town, we used the AMF for our outer cordon. They would quickly surround the village and stop anyone from escaping. Our AMF were great at climbing mountains quickly. We would roll onto a group of compounds surrounded by hills, and after one word to my AMF commander I could look up and see one AMF soldier standing on each hilltop. I would never dream of sending my own troops up there without communications, by themselves, with heavy body armor to climb up those hills, but the AMF were great for it. Also, if we had a runner, i.e., if we went into a village and saw someone leaving quickly in the other direction, I would send AMF out to chase them. They would chase them down and bring them back from wherever. I would not do that with Americans without communications, supporting fires, etc., and by the time I put the complex American patrol together for the chase, the guy would be long gone and blended into the crowd. This alone provided an amazing capability to the battlefield that could not be had with strictly coalition forces.

Training the AMF was a key task, difficult at times but very rewarding. My small-unit leaders and young soldiers really enjoyed training these hardened foreign fighters on the rifle range or on small-unit operations. The mutual respect and trust, forged in training and proven side-by-side in battle, was awesome.

Similar to the AMF but much better, however, was the Afghan National Army. In my opinion, this is one of the greatest programs going on in Afghanistan. One issue with the AMF (or any indigenous "militia" force) that a commander needs to recognize is that they have local and tribal loyalties. Afghanistan in general is a conglomeration of tribes and warlords who constantly fight one another. In their history, they have banded together only to oppose outside invading forces like the Russians. Almost every Afghan has a much stronger allegiance to family, tribe, region or warlord than to the country of Afghanistan. My AMF were all Tajic or Orgune. This helped me because they were not from my AO and had a

great distrust for almost all tribes in the Bermel Valley, especially the Wasiris, Harote and Karote. Prior to my arrival, all of the Wasiri AMF quit at the command of their tribal elder. Using Tajic AFM, however, resulted in many complaints from the locals. The ANA, however, were enlisted from all over Afghanistan and trained and employed in various regions. They had no group loyalty to anything but Afghanistan and President Karzai. When they came into town, clean-shaven and well-equipped, the locals thought they were foreign fighters. They could be trusted to search locals, and there would not be the complaints we heard about the Tajic AMF. The only difficulty we met was a degree of jealousy between the AMF and ANA when we had a chance to employ both forces.

Civil Military Operations

Team Village Concept and Operations. "Team Village" was an expression we learned from our predecessors, the Red Devils of 1-504 Parachute Infantry Regiment. It usually referred to a group of personnel tasked with conducting a CMO function within a larger operation. Many times Team Village was the main effort, as many missions were executed solely for CMO purposes. Often Team Village was a mix of Civil Affairs and Psychological Operations at a minimum. Usually the senior infantry commander would also participate in the CMO function of the operation, but always focused on the security and the overall operation. Other assets within Team Village could be, but were not limited to, medics with a health care provider to administer di-minimus health care, military intelligence professionals and security personnel.

Classifying forces by function made it easy for everyone to understand their task and purpose and where they fit into the operation. We usually had Team Secure under the leadership of the AT platoon leader, Team Clear or Team Search under the leadership of the rifle platoon leader, Team Overwatch under the FSO or FSNCO, and Team Village under the C2 of the head Civil Affairs or PSYOP personnel (also Team Fires when we displaced a mortar). Although both CA and PSYOP vehemently claimed to be highly specialized, each can do the other's jobs, and they work well together.

We really never knew exactly which way a mission would take us. There were missions where we planned to search a suspected ACM compound, ready to conduct a deliberate breach, blow the door off, and come in shooting; but then we found the occupants to be hospitable and friendly and the compound to be clean. Here shifting the focus from an aggressive mission to a CMO opportunity. acting as though the purpose of our mission was to seek the counsel of the head of the compound, and also to provide a humanitarian assistance package -- helped win us allies in the Bermel Valley. Being able to shift focus and win friends ultimately helped us pacify the region. Also, once while we were conducting a di-minimus health care operation, the villagers, probably pleased with the health care that they had just received, gave us information about an ACM we were looking for. We searched his compound, took him prisoner and sent him up to Bagram and on to Guantanamo. In every case, having the flexibility to go either way --to have a friendly mission go hostile or to make friends out of a hostile mission -- was crucial.

Even in strictly friendly CMO operations, the combat arms guys always had to set the conditions first. The Team Village commander (who often outranked me when we had a CAT-A at the firebase) had to understand that he was waiting in the

wings for the go-ahead from the infantry platoon leader that "all is secure" and he was "cleared to proceed" with Team Village operations. Also, depending on the mission, an infantry squad might be tasked to provide security for Team Village. If we planned to distribute a large humanitarian assistance package or provide di-minimus health care, we made sure the locals lined up in an orderly fashion and did not become unruly. Simply throwing a box of blankets into a crowd could have gotten someone injured or killed, and then we would have lost the favor of that person's family. By the way, it is amazing the respect Afghans have for white engineer tape. By simply laying out "do not cross" lines of white engineer tape on the ground, we could achieve an orderly line in no time.

Meetings with the Elders. Working with a foreign culture requires working within that culture's norms. In Afghanistan, the tribal elders are in charge. Each village, and each compound, has at least one patriarch who is the recognized head of the household. These people have a lot of influence within their tribe. If they tell the village to aid the al Qaeda, the village will; likewise, if they tell the village to aid the coalition, they will all do that as well. When going to the village, we always asked to speak to the elders. They would usually ask us to sit down to a *shura* or meeting. They might offer a little food, or at least a drink of *chai*, but seldom a full meal. Here, we had to simply grin and bear the camel's milk in our tea. (Afghan *chai*, by the way, has so much sugar in it that it is almost like syrup) On one occasion the elders even brought out a blanket for us to sit on, picnic style; our snack was provided by a boy who climbed up the apricot tree we were sitting under and shook it until apricots landed all around us.

As with major operations, we began by showing force. For all we knew, a village might be hiding Osama bin Ladin, so we were prepared to fight. We sealed off the village quickly. If our sole purpose is to meet with the elders (as a new commander/warlord in the region, it is important to take time to go to each village within the AO to get a feel for each of the elders there), once we had the village secured we simply started asking around for the elders, telling them we wished to have a meeting, and before we knew it, they would have a meeting room cleared (there are no chairs in Afghanistan outside the firebase, so we usually sat on blankets). They respected the force we brought to their village and were usually be very happy to learn that we came only to talk to them rather than to search through everybody's home. Showing that we wished to meet with them reinforced their status as the heads of the village. (We could further reinforce the elders' status by distributing HA packages through them to the needy members of their village.)

Once everything was set, we started the introductions, letting them know that I was the one in charge of all of the security of the valley, while the Civil Affairs guy was there to find out what projects they needed help with. We usually engaged in a good dialogue, starting off with talk of future CMO projects such as building wells, schools and hospitals. We found out their concerns and then, at the end, asked if they have seen any al Qaeda or if they knew of any al Qaeda movement through the AO. We made them understand that NGOs and other humanitarian assistance would not arrive if they deemed the area to be unsafe. If we had asked those questions first, they would have initially denied everything. We first had to earn their trust. We seldom gathered much intelligence from the elders at a first meeting, but when we followed through, they were likely to come at a later date to the firebase to give us information one-on-one. We were always careful to extend them that invitation.

During the meetings, it did help to show our muscle. We had security personnel waiting either behind us or just outside the room, where they can be seen or at least make their presence felt. They do not let anyone in unless they had searched them and then looked to me for a nod of approval. Other acts of both strength and kindness were helpful. Once during a meeting, my AT platoon leader called in on the radio that they had stopped a vehicle that had two men with two AK-47s attempting to enter the village while we were there. I asked the village elders whether the men should be allowed in or seized. This showed the elders that I had a strong hand, but that I would trust their judgment, help their friends, and hurt their enemies. Also, I usually used preplanned CAS for major operations. Having the CAS conduct a "low pass" usually scared the hell out of everyone in the village. The elders would beg me not to let them continue. I would then call my TACP on the radio and tell him not to let the CAS conduct any more low passes. Once again, this showed that I had the power to command the airplanes, but also that I would heed the elders' request and call them off.

While the meeting was going on, one squad with some engineers would roam around looking simply for anything suspicious, or anything that looked like it was recently dug in when the village received early warning of our arrival. The infantry platoon leader would conduct some minor "winning hearts and minds" outside the big meeting by passing out candy and other small things to the kids. (The best presents we could ever give Afghan children were Polaroid photo of themselves. They had probably never seen their own pictures, let alone owned one.) While he was working the crowd outside, the HUMINT guys were working right alongside him. All the intelligence that came out of the elders' meeting would be provided later to the firebase officer-in-charge in the back-brief the Team Village commander and I would attend; the professional HUMINT guys were much better used outside talking to the younger men who were not important enough to go to the village elders' meeting but wanted to make themselves feel important by talking to the Americans while the elders were not watching. Often the picture painted by them was much different from the story we got from the elders.

Meetings with the Regional Governors. We usually had a sit-down meeting once a month with the regional governor. This reinforced his status as the legitimate head of the region working under President Karzai. These were often tricky, because to meet with him we had to go into the Bermel Bazaar, where we would be surrounded not only by my men but also by his Bermel police. The regional governor managed and controlled his own police force. All of them appeared to be about 17 years old, and all were very thin. Although we didn't feel very safe with them around carrying AK-47s, we knew they would never challenge our forces in the valley, and they looked to us to be their ally. So we showed we had the power. We would seal off the place and have our security personnel stop anyone who entered the room and look for a nod of approval from me. We could then show good faith by letting the young Bermel policeman serve us *chai* and peanuts with his AK-47 strapped to him, showing that we trusted the governor and his men but could disarm his police force with only a word.

Often the focus of these meetings was a request from the governor for arms, ammunition and other assistance. I was very limited in my ability to provide anything to him. The governor saw me as his direct link to the U.S. Military Command in Afghanistan, but most of his concerns were with matters that involved the support he received from the Afghan central government.

One issue with this regional governor is that although his region included the entire Bermel Valley, his only secure stronghold was at the Bermel Bazaar. This was not to say he could not exert influence throughout the valley as much of the commerce of the region centered around the Bermel Bazaar, and many tribal and village elders often went to the Bermel Bazaar to meet and discuss issues.

Hosting a *Shura*. Our overall CMO operation within the valley depended on coordination among all villages and tribes, since many of the benefits of U.S. or NGO assistance would go to aid the entire population of the valley. This could become very difficult when the KAROTE don't trust the Wasiris and vice versa. Our repeated theme was that NGOs were afraid to work in the Bermel Valley because there was too much al Qaeda activity. One of the best methods of pacifying the entire valley was to host a shura -- a meeting of all the tribal elders. We conducted these both at the governor's headquarters and at our own firebase.

Conducting a *shura* at the governor's quarters helped to establish the hierarchy from the regional governor to the tribal elders. The biggest problem was that we would get more participation from the governor's tribe than from the other tribes. We were more successful hosting the event at our own firebase because it represented neutral ground for all elders involved. Another technique was to host the shura with all the elders and not invite the governor. That way we were likely to get much more candid talk from the various elders. It was also a good technique for finding out if the governor's actions matched his talk or if there were problems with corruption among the governor's police force.

Shuras were always dicey as the rival tribes would want to begin by sending accusations back and forth against one another. Sometimes it was hard to remember that my Team Village commander and I were in charge of the meeting and that working together for the mutual benefit of all was the goal. *Shuras* were always a necessary step because the last thing we wanted in our CMO campaign was to make one tribe or village feel that we favored their rivals. We had to use such rivalry to our advantage, making each tribe or village feel that they would receive the most humanitarian assistance by working the most with us and by providing us with the best information leading to captured or more likely killed al Qaeda.

Meetings with the Pakistanis. In the Bermel Valley, the greatest threat came from al Qaeda, who seemed to have both sanctuary in Pakistan and freedom of movement along the borders. There were actually three different borders identified: the Nima Line, the Durrand Line and the line the Pakistanis claimed. All of them were within one or two hundred meters of one another. In general, the border was not clearly marked with anything man-made but was distinguished by a large mountainous region. The Pakistanis, of course, claimed the high ground of the border and manned outposts along key overwatch positions. Many of the locals actually had little concept of either Afghanistan or Pakistan or of borders; they believed they all lived in "Wasiristan" since Wasiris lived on both sides of the border and, if they were willing to hike the mountains, could move back and forth freely. Within the entire valley, the only major crossing not blocked by a natural mountain barrier was at the main Pakistani Bazaar in Angor Adda. Angor Adda was so well known for its al Qaeda activity that *TIME* magazine published a story about it entitled "Al Qaeda Town."

Prior to my arrival the Pakis left security of the entire region to their "frontier troops," the local South-Wasiri Scouts (SWS). Like many of the AMF and

other regional militia forces, these troops had more loyalty to the local leaders than to Pakistan as a country. We always assumed that many members of the SWS were openly supporting the al Qaeda. When I was in Afghanistan in December 2002 learning the ropes under our sister brigade, the 505 PIR Panther Brigade lost their first paratrooper to al Qaeda right there in the Bermel Valley. Shortly after that incident, another American soldier was shot in the head by a South Wasiri Scout after a meeting with them. The SWS had excellent observation throughout the Bermel Valley, advanced optics including night vision, and communications gear. It seemed that whenever one of our night patrols left the firebase, fires would spring up along the border at the SWS outposts.

My first formal meeting with the Pakistani Border Guard commanders occurred within minutes of my arrival to assume command. The battalion XO rushed up to me and began cutting off my name tapes. "You will be known as 'Captain Dave.' I won't let you make the same mistake your predecessor and I made and let them know your full name." Apparently, after the first few of these meetings, national-level intelligence assets reported that the al Qaeda knew the names of the XO and the previous Bravo Company commander, and the XO didn't want me to live in fear of retaliation against my family back home.

Arriving at the Angor Adda border checkpoint was always very "Checkpoint Charley"-ish as we pulled up with plenty of U.S. military and AMF to assume security overwatching the Pakistani positions as our small delegation walked the "demilitarized zone" up to the gates of Pakistan and only we walked in.

Apparently before my arrival, these meetings had been very tense, as was the relationship with the SWS. Luckily things started to change from within Pakistan starting near the time of my arrival. The SWS commander was removed (we were told at first he was unable to attend the meeting, and later that he was transferred). Pakistani Regular Army commanders arrived to take over operations, and many Paki Regular troops began to assist the SWS with manning the border checkpoints.

Meetings were always cordial. It was obvious that the Pakistanis were more advanced and westernized, as we sat on chairs and ate excellent food (especially the curry). The key is to work together, but not to share too much information. We always talked about our "mortars" as we didn't want them to know that we had replaced them with artillery (our mortars came up frequently as many outposts claimed that we shot harassing fires into Pakistan). We exchanged maps so they could identify what we recognized as the Nima Line for the border, and they would share the locations of their new border outposts so we would not bump into them with a patrol. We also had specific Thurya cell phones that we would use to contact each other to give a cordial alert when we were in a firefight or if we were shooting artillery near the border.

As much as I did not trust the SWS, I did trust the Pakistani Regulars. Their arrival was much needed. Very recently, they have proven their resolve against the al Qaeda by conducting numerous raids in the area against al Qaeda strongholds and capturing HVTs such as Nik Mohammed. Unfortunately, as in other cases of unconventional warfare and low-intensity conflict, we never knew if we were being watched by an outpost manned by Pakistani Regulars who were loyal to General Musharrif or by the SWS who might have other loyalties. But Pakistan is definitely moving in the right direction in the Bermel Valley.

Conducting Di-minimus Health Care Operations. These operations were awesome for winning the "hearts and minds" of the locals. The doctors, medics and physician assistants enjoyed the contribution they made to the locals. Like other CMO operations, these were always accomplished first by securing the village and then telling the village elders of our intent. We always had a line of patients for everything from mild bumps, bruises and stuffy noses to more serious injuries and illnesses. These could be treated from the backs of the HMMWVs, but they were better done in a secure compound arranged by the elders. Also, it was key to have a female medic available to treat the women and children, otherwise they would be either reluctant or forbidden to seek medical help. and they were usually the ones who needed it most. As always, we respected the local pecking order, i.e., an elder with a minor injury would expect to be seen before a child with malaria. If we did set up a station for females and children, we ensured that it was behind closed doors for their privacy. Also, we always made sure our security squad was present and that all patients were kept orderly and were searched prior to entering -- although I believe the villagers would be able to spot a terrorist act long before we could and would either tell us about it or act very scared and suspicious and then leave.

These operations were great for generating intelligence for later use. Many people were so happy to receive health care from us that they became very willing to assist in our fight against the al Qaeda. Also, we had one-on-one, private opportunities to communicate with people who were very grateful for our helping them or literally saving their lives.

Running a Firebase Clinic. This proved very effective as well and was not nearly as difficult or as dangerous as going out to conduct di-minimus health care operations. We ran a clinic twice a week in the mornings, inside the AMF perimeter but not within the firebase. This also proved to demonstrate our help and support for the local population and helped bring us intelligence, as people could come under the guise of seeking health care. Also, they felt that having come to us for help, information was their only means to pay us back.

Using Civil Military Operations to Help Gather Intelligence. Anyone who is strictly a combat arms soldier and doesn't see or feel the need for CMO or how CMO can help is unbelievably mistaken. Even those not convinced of the mantra of "winning the hearts and minds" must appreciate the most effective use of CMO: intelligence gathering. Many a CA, PSYOP and intelligence soldier will contend that CMO personnel are not intelligence gatherers -- that intelligence gathering is not their mission -- and they are 100 percent correct. But a tactical commander can greatly benefit by gathering intelligence while helping CMO soldiers accomplish their mission. While a tactical HUMINT team or an intelligence analyst must not be confused with CMO personnel, CMO operations do greatly assist in a commander's intelligence-gathering campaign by providing allies. CA and PSYOP personnel do their respective jobs, and HUMINT folks and analysts do theirs. If the combat-arms commander secures the CMO operations, works with the Team Village commander toward the overall CMO campaign, and works with analysts to help develop the intelligence preparation of the battlefield, he can arrive at the same success we achieved at Firebase Shkin and the Bermel Valley.

CMO helps develop intelligence in various ways. First and foremost, CMO operations are ripe with opportunity for intelligence gathering. Whether the intelligence comes in the form of HUMINT, SIGINT or clandestine observation, whenever we conducted a major operation into a village the enemy and the local

population were interested. During our movement and operation, SIGINT could spike. While in the village, once we had secured it and established the friendly operation, many villagers were willing to provide HUMINT. The Team Village commander and I would simply take notes and provide a debrief to the analyst afterwards on the content of the village elders. meeting.

Our tactical HUMINT team (THT) would work the crowd outside to gather intelligence from the young men who were not invited to the elders. meeting. During di-minimus health care operations, locals would be willing to provide intelligence in private during or after receiving care. Also, during our early operations, we received the line that the village would not want any humanitarian assistance because the al Qaeda would retaliate if they accepted help from the Americans. Here, a hidden stay-behind observation post would prove effective for seeing exactly who went into the village after our departure.

The second and more long-term impact of CMO on intelligence gathering is that of developing friendly relations with all the inhabitants of the region so they would come to the firebase and provide unsolicited information. Setting up a venue for them to come -- or an excuse, as was sometimes needed if someone wanted to provide intelligence without letting his acquaintances know -- provided an excellent source of HUMINT collection. This is why elders and others were always welcome to come to the firebase to discuss current and potential future "CMO" operations and also why we ran a firebase clinic.

The dividends of our combined combat arms and CMO campaign in the Bermel Valley were obvious on 22 June 2003, when a local who had come to the firebase for a *shura* told us about al Qaeda-emplaced mines in the road. We followed him to the location, dismounting before we reached the suspected mine site. We found the al Qaeda ambush unprepared and initiated an attack, killing or wounding the entire patrol, gathering more intelligence about the al Qaeda's techniques, and walking away with no friendly casualties -- instead of driving into a coordinated IED/RPG ambush as al Qaeda had intended.

Conclusion

The conclusion of this paper is simple: we broke the mold and proved effective. I hope others can learn from our success.

Our Special Forces have done an amazing job in the Global War on Terrorism. I don't know if anyone truly appreciates exactly what the 5th Special Forces Group (SFG) actually accomplished during the liberation of Afghanistan. The Afghans are a fierce, violent, warring people who fight amongst themselves and their tribes and band together only to oppose an outside invader like the Russians. In 10 years, the Russians were unable to defeat Afghanistan. The 5th Special Forces Group was able to take Afghanistan in a matter of weeks because they gave the victory to the people. Rather than being seen as an outside invader, they were seen as a big brother, a liberating force helping the Northern Alliance, building on past assistance given to the Mujahadden during the Russian resistance, and showing our support for them. Had we gone in with a lot of strength, rather than with the finesse shown by the 5th SFG, we would have taken many more casualties.

CENTER FOR ARMY LESSONS LEARNED

However, our Special Forces are a small element and they are spread thin. Their traditional role of foreign internal defense has been assumed by conventional forces throughout Iraq training the Iraqi Civil Defense Corps. Now it is time to move low-intensity conflict and unconventional warfare over to the conventional side -- not only because there are not enough Special Forces to go around but also because conventional forces have more assets to find, fix and finish the enemy.

Fighting low-intensity conflict at the small-unit/company-sized level has proved to be very effective. A company commander, much like an A-Team commander, can really get to know personalities, terrain and enemy in an area. He can engage the population and have a much better lasting effect than that of a battalion that air assaults in, clears compounds for a few days, and then leaves. What I have provided is only a brief and very rough "lessons learned" for future company operations such as these. By refocusing our efforts at the company level with these types of assets and these types of operations, we can make a tremendous impact in the Global War on Terror.

As an epilogue note, my company was later tasked with securing the enormous, 15,000-man Logistical Supply Area Anaconda in Iraq. Here, on numerous occasions, soldiers under my command, while guarding the entry control points (ECPs), watched and recorded on our Forward Looking Infra Red (or "big brother" system) enemy forces conducting operations, launching rockets or mortars, or setting up IEDs. It burned us that we did not have the assets or availability to engage these forces. Our mission was to guard the ECPs; the tank unit collocated with us owned the ground outside. If that area were the Bermel Valley, we could have fixed them with our artillery and finished them with our QRF, CAS and aerial QRF. We could have engaged the elders of the villages and the compounds surrounding the enemy activity to help us stop the militants. We could have done so much, but there was not one company commander with that kind of responsibility and those kinds of assets to deal with that kind of situation there on the ground in Iraq. The overall mission was so cumbersome that it was ineffective. Usually the outcome was a report higher, a passing off of the DVD recording of the enemy activity, and a report of compound clearing with nothing found later. The tactics that we, B/3-504 PIR, employed at Firebase Shkin should be the model for winning this war in Afghanistan, Iraq and wherever else we may go, once the conflict reaches the low-intensity phase.

ANNEX II

Introduction

Tragically and, all too often, Soldiers die or are critically injured as a result of the negligent discharge of weapons. Compounding this tragedy is the fact that many of these deaths and injuries are preventable. Invariably, the unintentional or negligent discharge is a result of a failure to exercise the degree of care considered reasonable under the circumstances.

Soldiers who know and are trained to standard, fail to follow the standard because of attitude, overconfidence, and/or haste. Leaders who know the standard, do not enforce it. Deficiencies in direct, unit command and higher command supervision techniques all contribute to the problem. Leaders must be ready, willing, and able to enforce Army standards.

Training shortcomings also add to the problem. Soldiers are often not trained to standard because of insufficient, incorrect, or nonexistent training on a given task. Unclear, impractical, or nonexistent standards and procedures can be blamed for many negligent discharge incidents.

As the following article points out, there is no simple solution to this problem, except through direct involvement of the chain of command, starting at the first line supervisor. Leaders must ensure strict adherence to the proper unloading and clearing procedures.

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Accidental or Negligent Discharge?

**by Sergeant First Class Raymond Hamilton, Ground Accident Investigator,
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Thousands of our Soldiers have been and continue to be deployed to Iraq, Afghanistan, Bosnia, and Kosovo, not to mention Korea and other locations throughout the world. This being said, I wonder how we, as a fighting force, have missed out on combat soldiering?

Combat soldiering is defined as using or developing skills peculiar to combat, including receiving instructions or training in such skills. (This excludes classroom training.) I am taking a great leap of faith and placing weapons handling procedures, to include loading, unloading, weapons firing, muzzle awareness, and weapons maintenance all under combat soldiering.

In 17 years of combat arms training and deployments, I have been bombarded with training on weapons handling. From the moment you sign your weapon out of the unit arms room until you sign it back in, YOU—the individual Soldier—are responsible for your weapon and its proper use. The first thing I was taught, and

which I now pass on to others, is that when you receive a weapon, you ensure the weapon is unloaded (i.e., cleared). You pay attention to where the muzzle is pointed (situational awareness), and make sure the selector is always set on “SAFE.” What sets the standard for a cleared weapon? You guessed it—the technical manual (-10) for that particular type of weapon. Clearing procedures are nothing more than the weapon’s unloading procedures.

Why, then, do Soldiers inadvertently discharge weapons, damaging equipment and injuring or killing others? I have heard the following comments concerning this issue since my return from Operation Iraqi Freedom:

- Soldiers don’t handle loaded weapons enough in training to be comfortable with ammunition on deployments.
- The experience level and maturity of individual Soldiers and leaders is at its lowest at the section and squadron levels—sometimes even the platoon level—because of rapid promotions.
- We do not train as we fight.
- A lack of leadership in both the commissioned and non-commissioned officer corps.
- Soldiers are put into a “qualification/range” mentality as far as weapons safety.

These are a few of the comments that stand out in my mind. Not excuses, mind you, but concerns expressed by deployed Soldiers and their leaders—leaders who are responsible for bringing them home safely.

As an Army, how do we address these issues? Remember that today’s Army is based on the “Total Force” concept, which hinges on combining active-duty Soldiers and Army reservists and guardsmen to provide a complete combat package. While Soldier mentality might be the key, leadership experience is the cornerstone, and self-discipline is a must.

The moment you are issued ammunition, you instantly assume a higher level of personal responsibility. I have noticed the change in my own mentality and the mentality of others. You suddenly realize the outcome of any mistake could mean death to yourself or those around you. Or, perhaps you are concerned only with being able to account for all of your ammunition come turn-in time. Either way, there is usually some change in your thinking. Ammunition, then, can be equated to an emotional stress inducer. Training is a factor in this because you have more confidence in your ability if you actually have learned and used the proper procedures for your weapon.

Different units have different levels of training and weapons unique to their mission. NCOs must be trained thoroughly on all weapons under their control or those their unit has in its inventory. NCOs are taught to educate themselves through research and self-motivation. Lack of leader supervision often shows a lack of knowledge on the subject. Leaders who are knowledgeable are always ready and willing to correct a Soldier or peer who is improperly performing a certain task. Reviewing the appropriate technical and field manuals will provide the knowledge to train Soldiers and rigidly enforce standards. As a leader, can you properly function check, load, and unload all of your Soldiers’ weapons? Officers,

NCOs, and Soldiers must be familiar with weapons handling to spot check and ensure compliance with orders and guidance.

Maturity and experience are not always one and the same. We have young leaders in positions of responsibility who are technically and tactically proficient, yet still lack maturity. It is hard for Soldiers to take these NCOs seriously when they do not take their own positions seriously. The Army also is running into leaders who, through no fault of their own, are promoted in their career fields while performing additional duty requirements such as a recruiter or drill sergeant. These individuals are then placed in leadership positions without having the needed practical experience. When they go back to working in their primary MOS, they are often task-saturated with the current OPTEMPO and have to learn some hard lessons.

Our training centers do not provide realistic training for current base camp operations. We dress the part in MILES gear, put a magazine of blanks in our weapons, and roll into the box. We do not address weapons clearing procedures when entering base camps or unit tactical operations centers (TOCs), to include clearing areas and procedures for crew-served weapons mounted on vehicles. Our units are left to come up with a standard solution based on their leadership's experience level.

The "qualification/range" mentality says that most personnel handle ammunition and weapons only well enough to meet military qualification requirements—and even then, only under strict supervision. Because of that, they have more mishaps in real-world scenarios.

Is a weapons discharge an act of negligence or an accident? I guess the answer depends on whether you're on the muzzle end or the trigger end when the weapon fires. I have looked at all of these hypotheses and can see two sides to each story. Yet, as an NCO, I cannot ride the fence and point fingers. I have to give advice and direction when and if required. I request your input and suggestions to help solve one of the leading safety issues in our Army today.

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