Afghanistan: Anti-Coalition Militia (ACM) Tactics, Techniques, and Procedures

Information Cutoff Date: 31 January 2003

This document is published electronically by the Center for Army Lessons Learned (CALL) for the National Ground Intelligence Center (NGIC).

Prepared by: Afghanistan Crisis Team, Russia/Central Asia Division, Ground Forces Directorate, National Ground Intelligence Center, and U.S. Army Intelligence and Security Command

POC: Mr. Michael J. Dueweke, mjduewe@ngic.ic.gov or frduewe@ngic.smil.mil

This responds to request for information from Coalition Joint Task Force 180.

Introduction

This handbook provides information regarding tactics, techniques, and procedures (TTPs) of anti-coalition militia (ACM) forces operating against Afghan military and coalition forces in Afghanistan. The term ACM is used in a generic sense, except in cases where it is important to denote capabilities or procedures of specific elements such as Taliban, al-Qaida, or other forces operating in Afghanistan.

Topics include maneuver, fire support, air defense, command and control, mobility and countermobility, logistics, and denial and deception. Each of these topics has subcategories dealing with specific information regarding ACM tactics.

This is the first update of this handbook. Future editions will reflect information gained from further research and debriefings from units deployed in country.

Afghanistan: Anti-Coalition Militia (ACM) Tactics, Techniques, and Procedures

MANEUVER

BASIC MANEUVER ELEMENT

AMBUSH TACTICS, TECHNIQUES, AND PROCEDURES LESSONS LEARNED

    Lessons Learned

SNIPER OPERATIONS

RAIDS

INDIVIDUAL AND SMALL-TEAM TACTICS

AIRFIELD RAIDS

SHELLING ATTACKS

    ACM Tactics

CAVE AND MOUNTAIN DEFENSE AND AMBUSH TECHNIQUES AND PROCEDURES

    Prepared Defenses

    Ambushes

    Lessons Learned

URBAN AMBUSH AND BOMB TRAINING

HOSTILE HOUSE-CLEARING AND HOSTAGE-TAKING

ARMOR

INFANTRY ANTITANK WEAPONS

RECOILLESS RIFLES

ROCKET PROPELLED GRENADES

    Tactics

    Countermeasures

FIRE SUPPORT

MORTARS

    The 82-mm Mortar

ROCKETS

107-mm Rocket

122-mm Rocket

ARTILLERY

122-mm D-30 Howitzer

AIR DEFENSE

AIR DEFENSE

Man-Portable Air Defense Systems (MANPADS)

Antiaircraft Artillery/Machine Guns

Snipers

COMMAND AND CONTROL

COMMAND AND CONTROL

INTELLIGENCE AND RECONNAISSANCE

CHECKPOINTS

MOBILITY AND COUNTERMOBILITY

MINE THREAT

Markings

Indicators

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

LOGISTICS

CARAVAN AND CONVOY MOVEMENT

Vehicle Convoy

Animal Convoy

Caches

DENIAL AND DECEPTION (D&D)

TECHNICAL UNDERSTANDING AND KNOWLEDGE OF SIGNATURES

Countermeasures

TACTICAL RESPONSES

MANEUVER

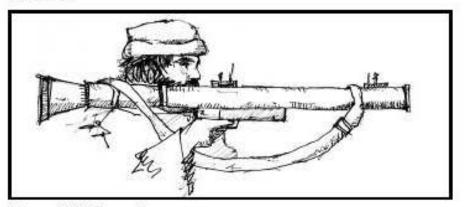**BASIC MANEUVER ELEMENT**

UNCLASSIFIED

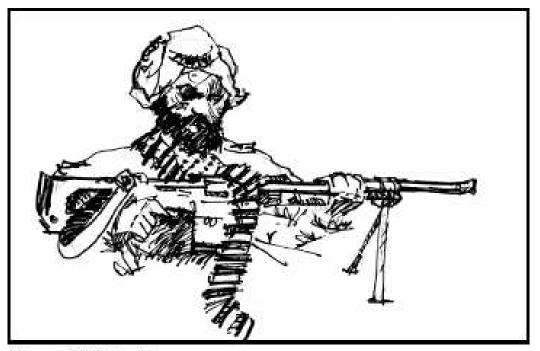Figure 1. (U) Grenadier

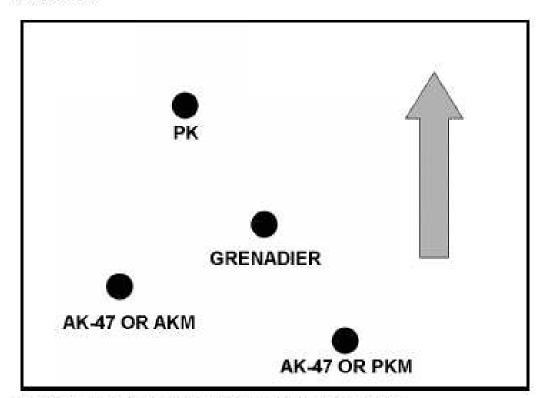UNCLASSIFIED

Figure 2. (U) Machinegunner

UNCLASSIFIED

Figure 3. (U) Basic Maneuver Element, Heavy Right

Night time is used primarily to move into or out of attack positions. While attacks may be initiated in the dark, little maneuver is actually conducted against opposing forces while in contact during darkness.

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 will encounter similar ambushes by ACM organizations or factions.

- Ambushes are conducted for either harassment or resupply:

  º Harassment ambushes are generally small scale (as few as two to four personnel) and brief, followed by a rapid withdrawal of troops.

  º 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:

    º Observers (three to four men): Possibly unarmed, pretending to be shepherds, farmers, etc. Children are sometimes used as observers.

    º Firing element: The ambush's firepower.

    º Alert element: Positioned along the likely direction of the ambushed element's direction of retreat or maneuver to hinder his withdrawal.

    º 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.

    º First line: The firing element of the ambush.

    º 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.

    º 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 Learned

- 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.

- 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 possibly engagement by unmanned aerial vehicles (UAVs) and armed aircraft.

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

- 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 force 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.

- ACM snipers use boulders and shadows for concealment in addition to blankets, cloaks, and other innovative means to avoid coalition detection systems.

- Snipers increase their maneuverability by using underground water canals to move from one firing position to another.

- Snipers are integrated into ambushes by taking a position on the side opposite the initial fire assault. When the ambushed soldiers take cover from automatic weapons fire, snipers will fire at them from behind.

- Snipers are mostly used in coordination with other attackers. They will be positioned to support an ambush, raid, defense, or attack.

- Individual or small-team operations will take place at night as well as daytime. The primary goal for night operations is psychological impact; any casualties will be an added bonus.

- Snipers with high-powered rifles, machine guns fitted with telescopic sights, or even air defense artillery will target helicopter crew members.

- During the Soviet-Afghan War, the killing of Soviet soldiers earned bounties, a greater amount for officers than enlisted personnel. Similar rewards have been offered for the killing or capture of coalition personnel.

- Soviet soldiers seldom encountered well -trained snipers with specialized sniper weapons.

- Current ACM tactics allow for very loose command and control; therefore; sniper incidents will likely consist of marksmen with varying degrees of competency sporadically sniping at coalition forces.

- A wide range of sniper rifles are available in Afghanistan. The SVD is probably the most common sniper weapon available; however, the AK-47/74 is used, as well as hunting and sporting rifles.

RAIDS

Raids against fixed installations, 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.

Several raids were documented during the Afghan-Soviet war. Those that involved looting were usually against small, isolated outposts. The Afghans would reconnoiter the area until they discovered the habits of the occupants. Once they found a weakness to exploit, such as mealtime routines or shift changes, they would plan their attack to raid and loot the facility.

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 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.

A raid combines the actions of several large teams. A large team (20 to 50 men) may consist of the following personnel.

- Commander with a bodyguard of three to four men.

- Three to four scouts (observers).

- Two to three combat groups of six to eight men each.

- One to two mortars and crews.

- Two to three rocket-propelled grenade (RPG) teams.

- One to two DShK (or similar) machine gun team.

- A mine-laying group (four to five men).

- MANPAD surface-to-air missile and ZU-23 air defense to provide security for the attack.

The teams will attempt to coordinate their actions and attack the target along multiple axes. The main attack may be preceded by a day or two of probing attacks to determine disposition of the defense and reactions, so that they can be accounted for in the primary attack. The raid might be supported by a shelling attack either on the installation or on a target that draws reaction forces away from the focus of the raid.

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 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 from any reaction force to the attack. After patterns are established, i.e., strength, timing, and procedures, follow-on attacks with remote improvised explosive devices or ambushes may be attempted.

AIRFIELD RAIDS

Taliban/al-Qaida attack tactics on an airfield are heavily influenced by Afghan combatant experience against the Soviets. The attack will be either an individual or small-team effort, such as a sniper operation using small arms, RPGs, or even light mortars. Alternatively, it may be a shelling attack or a raid, which would combine the actions of several large teams. Airfield attacks against U.S. and coalition forces appear to be harassing in nature, causing limited damage, and used to determine reactions and defensive capabilities of defending forces. Attacks in the future could include attacks against facilities or aircraft using guided munitions such as antitank-guided munitions (ATGMs) and man-portable surface-to-air missiles (SAMs). Such attacks, if successful, could provide a tremendous propaganda opportunity or morale boost.

SHELLING ATTACKS

During the Soviet occupation, the Mujahedin used mortars, rockets, and recoilless rifles in shelling attacks on garrisons, outposts, airfields, and cities. A number of rocket 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 to harass the enemy and to 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 in the passes and trails.

Prepared Defenses

Caves, trenches, and spider holes are incorporated into prepared mountain defensive positions, and the Taliban will attempt to draw U.S./coalition forces into an attack on them. They 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. See also the earlier section on general ambush TTPs.

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 Learned

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

- 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 abductee, place him in the escape vehicle, and exit the scene.

ARMOR

The Taliban had control of a small number of armor assets. Taliban/al-Qaida armored vehicles are used primarily as defensive weapons. The primary tanks in the Taliban inventory were T-54s, T-55s, and T-62s. These vehicles have not been used against coalition forces, although they may still posses limited quantities of these vehicles.

Taliban/al-Qaida tanks and other armored vehicles will most likely be encountered in fortified, stationary positions, being used as direct (and sometimes indirect) fire-support weapons, but rarely in mobile missions.

Vehicles dug into defensive positions are difficult to spot because of their low silhouette, the visual disruption caused by local terrain, and the shape and thermal disruption caused by the dirt-filled sandbags. This makes their use a natural tactic in ambushes, in defense of valley entrances, or in areas that have only limited ground access. The greatly altered signature makes dug-in vehicles difficult to engage with sensor-fused weapons or attack platforms that rely on thermal sights, forward-looking infrared devices, or radar for targeting.

INFANTRY ANTITANK WEAPONS

ACM forces have used infantry antitank weapons as multipurpose direct-fire weapons. Besides their normal role of being employed against armored fighting vehicles, these infantry antitank weapons have been fired at aircraft, used as a crude mortar, and used in an infantry assault role to destroy buildings and bunkers. These weapons may also be set up as improvised off-route mines or to breach minefields (by firing consecutive shots through a minefield, detonating the mines with the weapon).

Infantry antitank weapons will be used in ambushes to engage light armored and soft-skinned vehicles once the vehicles enter a kill zone.

RECOILLESS RIFLES

ACM tactics for recoilless rifles/guns will be similar to those employed by Taliban/al-Qaida rocket-propelled grenade (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**.

    - ° Not much information is available regarding ACM tactics for use of the 90-mm recoilless. (Information contained here is based on the —67 recoilless rifle.)

    - ° The 90-mm recoilless rifle weighs approximately 36 lbs, has a maximum effective range of approximately 450 meters, and has a maximum range of approximately 2100 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 4500 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 4500 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 BMP-1 which has a maximum effective range of 1300 meters when mounted on the BMP-1, and an improved round with a maximum range of 6500 meters is available.

ROCKET-PROPELLED GRENADES

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 backblast 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. Measures such as chain link fences, berms, sandbagging, and building reinforced bunkers and other facilities can be used in fire base, around vehicles and aircraft parked on the ground, as well as 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, small or large caliber systems, can provide these fires and particularly effective is aerial fire support. Speed of movement is also helpful, as is varying speed of movement in order to avoid setting identifiable patterns of movement.

FIRE SUPPORT

MORTARS

When U.S./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. close air support 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.

The 82-mm Mortar

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.

The 82-mm mortar is used for the following purposes:

- **Covering for withdrawal:** Used to disrupt advancing forces and to allow for ACM withdrawal.

- **Defending fortified positions:** Used to cover main avenues of approach to ACM fortified defensive positions and key facilities (such as cave complexes).

- **Supporting the attack:** Used to support the advancing ACM forces in the attack in order to disrupt and create confusion in the defensive positions.

- **Harassing fires:** Frequently used against fire base and fixed installations. Primary purpose is psychological effect in creating a sense of insecurity; physical damage is a secondary effect.

- **Illumination rounds:** Although typically used in a defense to improve the visibility of the battlefield, ACM forces are trained not to use illumination rounds in a defensive posture because the defensive positions will be compromised

- **Pre-plotted targets:** Used when ACM forces are aware of the location of opposing forces. Pre-plotted mortar targets include suspected and known opposing force helicopter landing zones (HLZs). The mortar is also used to interdict likely convoy routes.

- **Raids:** Mortars will be used during raids to shell installations, airfields, and outposts/checkpoints. Mortars are used both to shell the targeted facility (to cause confusion and destruction) and to shell nearby facilities (to draw attention away from the actual target), and to block or slow reaction and pursuit forces.

- **Ambushes:** Mortars will sometimes be used in the ambush to destroy vehicles and personnel within the kill zone. They will be used more frequently to cover the withdrawal of the ambushing force from the attack site.

ROCKETS

ACM forces do not have organized rocket units, but they do use 107- and 122-mm rockets. Key points are as follows:

- Rocket firing locations may be placed on high ground overlooking the target.

- Rockets are typically fired using crude, expedient launching methods.

- 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 8400 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, fired by the BM-21 truck-mounted launcher with four rows of 10 launch tubes with a range of approximately 20,380 meters; 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.
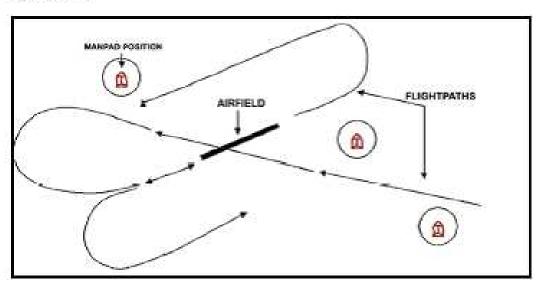
AIR DEFENSE

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 rocket-propelled grenades (RPGs), and light antiaircraft weapons (generally 12.7 through 23 mm). Old military or available commercial night vision equipment may be possessed by ACM forces and may be employed 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 anyplace in the theater, including border areas and neighboring countries. Figure 4 shows MANPADS firing positions against an airfield.

UNCLASSIFIED

MANPAD POSITION

AIRFIELD

FLIGHTPATHS

Figure 4: MANPADS Firing Positions Against Airfield

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, waiting 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. The Taliban had AAA ranging from 12.7 to 100 mm prior to that time. 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 DShK12.7-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 1000 meters with a maximum vertical range of 4200 meters. In the ground-support role, it has a maximum distance range of approximately 7800 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 1400 meters against fast moving aircraft with a maximum vertical range of 3700 meters. In the ground-support role, it has a maximum distance range of approximately 5900 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 2500 meters against fast moving aircraft, with a maximum vertical range of 5100 meters. In the ground support role, it has a maximum distance range of approximately 7000 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. For additional information on sniper operations see Maneuver section.

COMMAND AND CONTROL (C2)

COMMAND AND CONTROL

Amateur or commercial brand 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 use.

Amateur or commercial brand HF radios are used by all ACM forces within Afghanistan. HF radios are used for communications over longer distances including over mountains with the proper antennas. Amateur or commercial brand radios have certain advantages:

- Amateur or commercial radios are used and designed to be interoperable with other commercial radios, including (but not limited to) Yaesu, Icom, Kenwood, Standard, Sony, etc. brands. Improvised and field-expedient antennae are used to significantly improve performance.

- Many improvisations are available over the Internet at amateur radio websites, including unclassified official U.S. Army field manuals.

- Easy to use and maintain in harsh environments such as Afghanistan.

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 4 to 5 years. Each GSM base station is paired with very-small-aperture-terminal (VSAT) communications system. 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.

Historically, during operations against the Russians in the 1980s, Mujahedin forces used non-voice communications. These included pigeons to carry messages, flags, mirrors, and flashlights to flash pre-arranged brevity codes. ACM forces in Afghanistan are aware of these means, in fact, mirrors are commonly carried by many people for signaling.

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.

Portable generators are found throughout the country, and besides providing electricity to homes, they can also be used to power communications equipment.

INTELLIGENCE AND RECONNAISSANCE

ACM forces have a very effective human-intelligence collection and dissemination capability. Most ACM forces operate in their home areas and know the terrain and people there well. This knowledge aids their moving in and out of areas with ease, often using covered routes. ACM forces use this to their advantage, such as 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. This provides 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, 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. While 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 these. When they do, 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, and 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.
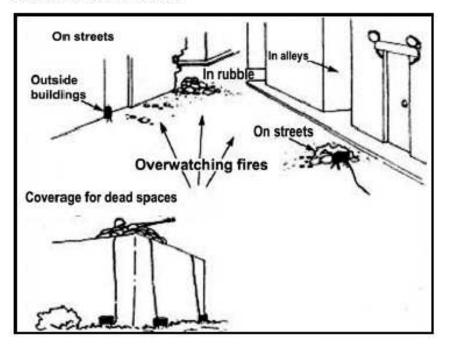
While leaders may attempt to keep the imposition of unofficial tolls to a minimum, undisciplined and poorly paid soldiers may demand payment from travelers.

MOBILITY AND COUNTERMOBILITY

MINE THREAT

Afghanistan remains one of the most heavily mined nations in the world, with nearly 5 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 TTPs for using explosive devices against personnel and vehicle targets, particularly on trails, city streets, and roadways, especially if coalition forces set patterns of movement. Figure 5 shows some other likely locations for mines.

UNCLASSIFIED/FOR OFFICIAL USE ONLY

Figure 5: Likely Mine/Booby-Trap Locations Outside Buildings

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, i.e., Start Point (SP) are UN demining reference markers. Minefields will be close to these points. **Note**: lettering is normally on the safe side.

- White paint marks on walls are used by the UN 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, 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 don't 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.
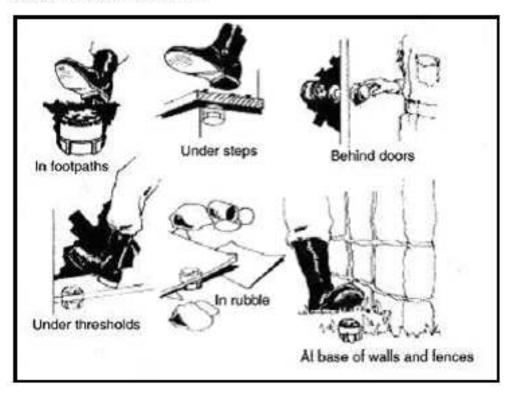
Booby-traps (BT) and Improvised Explosive Devices (IEDs)

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. See Figure 6 for some possible booby-trap and mine locations.

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).

UNCLASSIFIED//FOR OFFICIAL USE ONLY

In footpaths

Under steps

Behind doors

Under thresholds

In rubble

At base of walls and fences

Figure 6: Possible Booby-Trap and Mine Locations

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:** Linking two IEDs or mines to another, usually with detonating cord.

- **Daisy chaining:** Linking mines, commonly 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:** Stacking buried mines on top of each other to increase the force of the blast.

- **Sensitizing antitank mines:** 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, 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.

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. Figure 7 shows a Toyota truck used in this role.
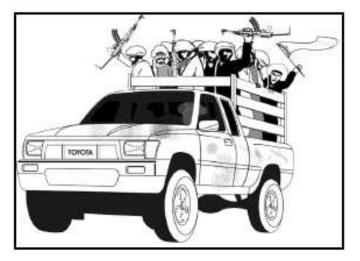
UNCLASSIFIED

Figure 7: Toyota Truck

Tactics are similar to those used by the Mujahedin during the Soviet-Afghan War.

• 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 riverbeds, "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, decoy team, and main element.

- 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 were 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 2 to 3 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 1 to 2 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 consisted 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 as well.)

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

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 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 noted 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 due to 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.

    - º Subtle differences will differentiate between this form of heat-emitting false target and the heat signatures of real targets.

        - ∗ The decoy targets would appear somewhat brighter than a clothed fighter.

    ∗ The decoy signature would 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.

  º 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, rocks etc. to hide in or behind.

- Decoys for equipment and positions.

- Camouflage: individual, equipment, and positions.

- Cloth coverings (blankets, tarps etc.) 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.