

A FLANKING DETACHMENT IN THE MOUNTAINS

LESTER W. GRAU

Introduction

Defending mountain terrain has its own challenges. Mountains offer good observation, but the terrain also blocks observation, particularly close up. Mountains offer good long-range fields of fire, but mountains are also full of dead space and concealment. Mountain defenses are not continuous, but are normally separate outposts and fighting positions which may be mutually supporting, but usually are not. They are often not even in the same plane. Mountain fighting positions are difficult to construct and maintain. Mountain fighting positions can be stockpiled with ammunition, but food and water quickly run out at these positions and are normally supplied in the villages and hamlets down in the mountain valleys and canyons. Consequently, in Afghanistan, the Mujahideen usually congregated in the valley except when they felt threatened. Some security was maintained at the fighting positions, but this was usually slack without indications or intelligence of enemy actions.

Attacking in the mountains has its own set of problems. First, the enemy holds the high ground and, if he has occupied the area for any time, he has had time to establish fighting positions and emplace long-range crew-served weapons such as mortars, heavy machine guns, recoilless rifles and even direct-lay artillery. He has had time to reinforce the defenses with mines and other obstacles. Entries into the mountain valley or canyon are limited and liable to interdiction by a skilled defender. Still, the irregular mountain terrain offers distinct advantages to the attacker. The enemy is seldom able to mass fires, and the terrain offers numerous concealed attack approaches to defending positions. Enemy withdrawal will be by small groups and will often be forced to abandon heavy weapons, ammunition stockpiles and wounded.

Too often, during the Soviet-Afghan War, Soviet attacks in the mountains were frontal attacks. The Mujahideen response was to kick out a rear guard and exfiltrate. After a lot of effort and the expenditure of much artillery fire and aerial ordnance, the Soviets found themselves somewhat in control of a mountain that they had no intention of garrisoning. The Mujahideen had lived to fight another day. The following article describes the Soviet use of a flanking detachment to seize high ground within the depths of a Mujahideen defense located in the mountains. The attacking troops were

paratroopers. Soviet paratroopers were trained and equipped to fight as both mechanized infantry and light, airborne or air-assault infantry. Each regiment had its complement of armored personnel carriers, assault guns or tanks, artillery and sappers.

“A Frontal Attack ... Is Not Recommended” by Major V. A. Selivanov, *Armeyskiy Sbornik (Army Digest)*, October 2009

In April 1985, according to intelligence reports, there was a significant grouping of the armed opposition concentrated in the Mazlirud and Kakh Canyons. Their number was estimated at 1,200. Besides assault rifles, this group had 35-40 DShK heavy machine guns and up to 15 ZU anti-aircraft machine guns as well as mortars, recoilless rifles, and rockets. The main body of the enemy (400-600 men) was located in the village of Malakhairu. The general situation was complicated by the fact that earlier large-scale operations in the area showed that surprise was not possible and that, other than the casualties inflicted, the results were insignificant. The main body of the enemy, as a rule, managed to withdraw from the canyon before our troops arrived. The enemy had managed to establish a significant, well-constructed system of observation and early warning. Further, this region was particularly unsuited for air assaults and military vehicles could enter the canyon only on one road which ran through Mazilishakhr, Zagan and Malakhairu.

Considering the peculiarities of the region, during planning, our battalion commander determined to carry out the mission in the following fashion. We were briefed at an officers call that at 1330 hours on the 9th of April, the bronegruppa of the main



Department of Defense photo

An Afghan Mujahideen demonstrates a handheld surface-to-air missile.

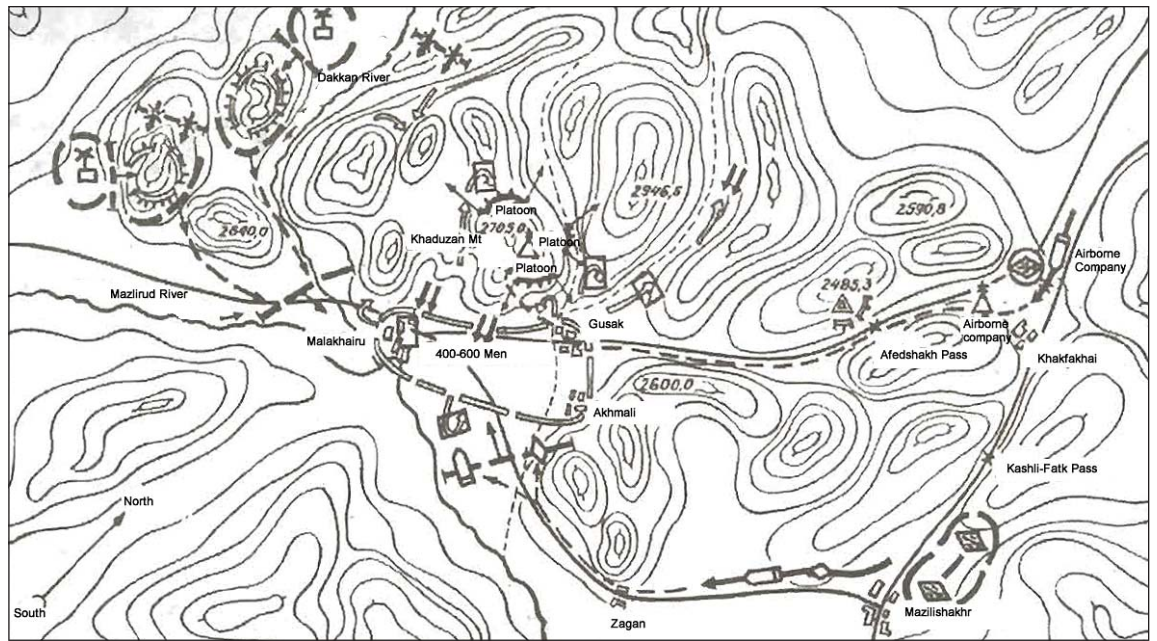
body would move from its base camp along the road from the south with the mission of closing in to the village of Mazlishakhr by 1800 hours. My parachute company was ordered to support the departure and movement of the march column. Then, after the column had passed, my company was to return to garrison to carry out guard duty. The combat action to destroy the enemy

grouping was planned for the 10th and 11th of April by moving the bronnegruppa to link up with its paratroopers who would move from the west into the valley.

However, at noon on the 7th of April, my regimental commander, without any witnesses, gave me an order for a totally different plan. The new mission was as follows: At 1600 hours on 8 April, my parachute company would serve as a flanking detachment, and without attracting any attention, would secretly move to the region of Khakfakhai village in order to conduct a route reconnaissance for movement through the Afedshakh Pass. With the advent of darkness, I would leave my combat vehicles on the road, go on foot through the pass, enter into the Mazirrud valley and, by dawn, occupy positions on Khaduzan Mountain. At dawn on 9 April, I would be in position to adjust artillery fire and direct close air support with the goal of creating panic among the assembled Mujahideen and not allowing them to exit the canyon before the main body struck them. While carrying out this mission, very strict attention had to be paid to the secret movement and independent actions since it would be impossible to support my detachment in case we were discovered.

At 1800 hours on the 8th of April, my company was assembled in the designated area near Khakfakhai village. Soon, our observation disclosed that groups of armed men periodically moved on the path through the Afedshakh Pass. There was also a group of eight Mujahideen located in a guard post on that very same pass. Everything appeared calm in the target area. Everyone discussed it and agreed that the “ghosts” [Mujahideen] were not expecting our force. With the onset of darkness, we conducted a radio check with our armored vehicles and our higher headquarters and then I gave the order to begin movement.

We crossed through the pass by 2200 hours, bypassing the guard post to the south without drawing the attention of the Mujahideen. During night time, this post was a main [security] link. They were tied in with other posts using a complex system of varying signals. Even though these “stinkers” were one of the [security] links, we bypassed them literally in 15 minutes.



Map 1

Just as we began to descend into the canyon, we lost radio contact with our company bronnegruppa and with our higher headquarters. By all rules of military science, I must immediately either restore communications or return. But then our company’s combat mission would not be accomplished. Therefore, I made a decision to continue to move and to restore communications once we reached high ground. I had to make this decision because I knew that if the Mujahideen discovered our company at night, we could only count on ourselves for help.

From the depths of the canyon, we heard the noise of night firing. We were convinced that the Mujahideen were not expecting an appearance of our force and had occupied their fighting positions to sort things out [conducted an alert]. At midnight, we entered the hamlet of Gusak. This is where I, the company commander, made a mistake that might have compromised all our measures for secrecy. Despite the ample number of night-vision devices that we had, we discovered too late that there were two Mujahideen patrols that we barely avoided running into. Taking necessary precautions, we lost about two hours before we exited the village. At 0300 hours, the company assembled at the foot of Khaduzan Mountain.

The heavens were clear and things were now visible thanks to the appearance of the moon. This additional lighting “worked” to the enemy’s advantage and forced us to hurry up. The first platoon, commanded by Senior Lieutenant A. Mikenin, climbed the mountain. After an hour, he reported that his platoon had occupied positions on the heights. I placed two platoons, under the command of Senior Lieutenant V. Plotnikov, in an ambush directed against the hamlet of Gusak, and I followed the path of the first platoon to the top. We established our primary observation post on height 2705.0. I placed Lieutenant Mikenin’s platoon on the northern slope and I placed the other two platoons on the southern slope. From these positions, they could also

interdict paths on the eastern side and partially on the western side, while blocking enemy bands located in the hamlet of Gusak.

At 0500 hours, we were prepared to carry out our mission. At that time we were able to reestablish radio contact. An understrength paratrooper company had secretly crossed 12 kilometers of enemy-controlled territory, assembled in the rear of a strong enemy force and taken the commanding heights. It should be noted that the secret movement of the company was key to the success of the action and the complete lack of company casualties.

On the morning of 9 April, the bronnegrupa of the main body of the battalion inconspicuously passed through the village of Mazilishakhr and began to enter the canyon. Instantly, the signal (three individual shots) repeatedly rang from the mountain slopes from the north to the south and even the west. It announced the arrival of our force. Some 15 to 20 minutes after the signal, a band of 120-200 men emerged from the hamlet of Gusak and began to advance on my company. When the Mujahideen were close to our second and third platoon positions, my paratroopers opened up on them with deadly fire. It caught the enemy completely by surprise and inflicted such heavy casualties on them, that they were unable to offer resistance. The "ghosts" panicked and ran back into the hamlet.

At this point, I should note that the sun was in our eyes and it was hard to find the enemy. After five minutes, the Mujahideen suddenly launched an attempt to break out of the canyon to the northeast. I called artillery fire on them. Again, after a half hour, they attempted to bypass the company to the north and up the southern slope of height 2946.6, but they came under the fire of Senior Lieutenant A. Mikenin's platoon.

From 1400-1500, we conducted two tactical air assaults [with the remaining two companies of paratroopers] on the western side of the canyon. The [bronnegrupa of the] main force, by this time, had already pushed through the hamlet of Gusak. The company's mission was over.

Thinking over our combat action as a flanking detachment in the mountains of Afghanistan, I have arrived at several conclusions. First, in order to conduct combat in similar circumstances, it is necessary to plan to assign an element of the combat formation to be a flanking detachment. It will be able to secretly enter the flank or rear of the enemy without engaging in combat with small subunits and guard posts. It will be able to prevent the enemy withdrawal, hit him with a surprise attack to destroy him and his capabilities in order to facilitate the successful mission accomplishment of the main force.

The experience of conducting such operations shows that most successful flanking detachments are company-sized. Use well-trained subunits and personnel in forming the detachment.

Second, the nature of mountainous terrain prevents small subunits from carrying heavy weapons and ammunition. At the same time, it is necessary to have sufficient fire power to conduct effective fires at various ranges. Besides our assault rifles and sniper rifles, my company carried one AGS-17 and a heavy machine gun. In every squad, we had one AKM assault rifle with the under-barrel grenade launcher. Our ammunition

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load was 600-700 rounds per assault rifle and 1200 rounds for the machine gun. Our special gear included some night-vision devices.

The successful actions of a flanking detachment in the mountains is dependent on close, well-planned coordination with the forces and resources of the senior commander. Of primary importance is the support of artillery and aviation as well as agreement on the action with the main force before it departs to carry out its mission. Thus, in the course of combat it is impossible to fulfill the mission without reliable uninterrupted communications. Experience shows that in order to guarantee communications, it is better to establish retransmission stations or simply to use aircraft that are equipped for retransmission.

In conclusion, selection of company-grade officers for assignment to a flanking detachment requires care. You know that they will be required to make independent mission decisions while separated from the main body on unfamiliar territory that is controlled by the enemy. This requires detailed planning and thorough preparation as well as a high degree of individual training. In part, it is absolutely necessary that the commander has concrete experience working with maps, can quickly detect objectives in the mountains, determine the necessary data for their destruction, precisely direct the fires of his subordinate units, and skillfully use all possibilities for secret and sudden actions.

Discussion

In this article, the Soviets conducted the apparent main attack with their armored vehicles moving into the canyon on the only road. This attack included the personnel carriers of two paratroop companies, attached tanks, and an attached battalion of self-propelled artillery. There was little infantry in this attack. The two airborne companies that the armored vehicles belonged to conducted an air assault approximately six hours after the beginning of the supposed main attack to eliminate Mujahideen positions in the west and then to move into the canyon to link up with their vehicles. Helicopter gun-ships provided close air support to the air assault. The flanking detachment, which had inserted itself into the depths of the enemy position was particularly useful in calling in artillery strikes and defeating an enemy advance and an enemy withdrawal attempt. Although the article provides no casualty figures, the flanking detachment suffered none while the Mujahideen did.

There are some interesting aspects to this attack. The flanking detachment left its armored personnel carriers (bronnegrupa) at the dismount point. It was responsible for its own security and served as a mobile reserve in the event that the flanking detachment got into trouble, but once the flanking detachment was deep into enemy territory, the reserve role was problematic. A self-propelled artillery battery joined the bronnegrupa for the attack the following morning. The Soviets had entered this war

with a limited ability to conduct split-Fire Direction Center operations. By 1986, this capability was well developed. Soviet artillery usually accompanied the ground attack since it was more accurate than jet-aircraft in support in the mountains. Further, the artillery was often used in direct-lay against a stubborn enemy.

The flanking detachment was not part of the original battalion planning and was controlled by regiment. In the interests of operational security, the company's role and presence were not disclosed to the rest of the battalion. The company was basically on its own for at least 15 hours except on-call artillery and close air support. Both require communications and were iffy at night. Communications were a problem and remain such in the mountains despite modern technology. Mountains absorb radio waves and distort GPS signals. Satellite communications are spotty and a savvy opponent could jam the GPS and satellite telephone receivers in the mountains. Ground retransmission units are hard to move, emplace and defend and retransmission aircraft are few and seem to go down for maintenance at critical points.

The Infantryman's load remains a problem and in Afghanistan, where the bulk of engagements are beyond 500 meters, small-caliber supersonic bullets fired from short-barreled carbines are ineffective. The fight devolves to the machine gunners while the rest of the platoon tries to get involved. The Soviets issued the AK-74 with the thought that the Infantryman could now carry more ammunition. Where possible, units such as this airborne unit, went back to the longer-range, medium weight 7.62 cartridge. Still, the weapons that the airborne carried did not give it an advantage over its opponent. The airborne's position on commanding terrain did.

Going into the mountains is critical to gaining the initiative and bringing the fight to the enemy's sanctuary. Still, bulling into the mountain valleys and canyons without securing high ground or establishing a blocking force is futile. The lightly-equipped enemy will withdraw over familiar territory leaving his burdened attacker behind. Flanking detachments are an excellent way to shape the battlefield and hold the enemy in place for punishment.

SMALL SECRETS OF GREAT MOUNTAINS

LESTER W. GRAU

Introduction

Usual military mountain training focuses on individual climbing skills such as placing pitons, rappelling down slopes, tying knots, ascending and descending steep rock faces or crossing loose fields of scree or shelves of snow. Armies, however, do not fight as individuals. They fight as units and so mountain training should concentrate on unit movement and unit fighting in the mountains. Units should learn to climb, to fire and to maneuver by teams, squads and platoons. The people who support the infantry — the gunners, the sappers, the logisticians and the transporters also need training in mountain movement and mountain combat skills. It is particularly beneficial when they accompany the Infantry for this training. Ikram Nazarov is a mountaineer instructor/trainer with over 40 years experience in military mountaineering. He was involved in training Soviet units for mountain combat during the Soviet-Afghan War and has trained Russian units for the mountains of Chechnya. Now he is working with the Army of Uzbekistan imparting mountaineering skills. He published the following article in the May 2008 issue of the Russian *Armeyskiy sbornik* [Army Digest]. The article demanded translation so that it can reach a wider audience. Although the Russian Army and the U.S. Army train and fight differently, there is much in it that is of use to the American mountain soldier.

"Small Secrets of Great Mountains" by Ikram Nazarov, *Armeyskiy sbornik* (Army Digest), May 2008.

In the mountains, the time set to depart on a mission and to return to camp is law. If a group of mountain soldiers has not returned by the deadline, it is an emergency, and dozens, if not hundreds, of people will have to work under extreme conditions to find the "lost expedition." In general, there are strict laws in the mountains: discipline above all; never leave a comrade who has fallen off a rock face; and, if you have to, sacrifice your own life to save him.

Another rule is that the shortest soldier always leads the column and everyone else keeps in step with him. In the mountains, the pace of movement depends on stride length. If a column is led by a soldier who is six foot six, his stride length will be a lot for even for a person of average height to keep up with. A trailing short soldier will have to run, not walk. The soldier at the end of the line will soon begin to lag behind, which, by the way, is absolutely forbidden. Remember, the pace of movement must always be the same throughout the column.

Your right and left legs have different stride lengths, so in the dark or in a thick fog you will always move a little off the track. Therefore you have to adjust the direction of your movement frequently.

Mountain sickness can be a problem. There is only one way to deal with it — soldiers must train regularly at altitude over several years. Only a person who is physically fit, acclimated, and trained to fight in the mountains need not fear this sickness.

Remember, do not leave any trash whatsoever behind. It is fairly easy for an experienced enemy to determine that your unit is there and how large it is from discarded items, chocolate wrappers, and empty cans. It goes without saying that the enemy should not even guess that your group is in the mountains on a combat mission until the very last moment.

Get your soldiers accustomed to mountain wind, foul weather, sun and frost. Only then will your soldiers look on foul weather as an everyday occurrence.

This is a factor for victory in battle. Foul weather is always an obstacle to your enemy as well.

You must train your soldiers so that they automatically select the best sites and firing positions. Small-arms firing is difficult in the mountains. It is difficult to fire accurately from one rock face at another, since you have to factor in meteorological conditions and your distance perception is distorted in the mountains.

Remember that the best position for firing in the mountains is the prone position. You should always press as hard as possible against the rock face so that you are almost invisible. If, however, you decide to shoot while sitting or standing, a good shooter is sure to spot you and you can be sure he won't miss. The mountain units of foreign armies have spent years developing a well-worked-out technique for training Jägers.

What gear should you take to the mountains? The law here is to take only the absolute necessities. Anything extra is going to be a drag on you both on the march and during the fight. I know from experience that when you first come into contact with the enemy, you will not be able to assume a firing position rapidly, much less change it. So all these jumar ascenders, descent and arresting devices, pretty backpacks with hundreds of pockets, artificial warmers, and Chinese flashlights are simply going to end up discarded in the mountains.

Remember that your gear should depend on the mountain terrain and how you're your target is located. In a combat situation, you should take a climbing rope, a 20-25 foot reepschnur, two-three carabiners, a pair of climbing irons, glasses, and a pick. The carabiners are used for descent and for a lot more. The reepschnur can be used in lieu of jumar ascenders and descenders, and the pick can do everything: cut out steps in the ice, chip a stone off a rock face, arrest a fall from a rock face, or kill the enemy in hand-to-hand combat.

Be cautious about using imported gear. I know from experience that foreign carabiners such as the French- and German-manufactured Irbit have failed when someone falls

from a rock face, if the gate has to bear the load. Remember that there is nothing better or more reliable than our Abalakovsky carabiner.

Footwear is important. In 1959, I hiked to the 22,906-foot Revolyutsiya peak in ordinary felt boots and was comfortable, but when I went up the face a second time in shoes, my feet were cold. You need to choose climbing footwear very carefully, especially when going 16-20,000 feet or higher. Above all, remember to put Tricouni nails on your hiking footwear. For example, some soldiers in Afghanistan's mountains did not put on Tricounis because they are fairly heavy and seem awkward at first. Many of these soldiers paid for this with their lives. And you will not, by the way, find better footwear than Tricouni.

With regards to cosmetics, remember that veteran mountain soldiers do not need creams, ointments or lip balm for protection against sunburn or the wind. It is only over time that wind and sun "harden" the skin and lips stop chapping. That is why I recommend that it is better to take a first-aid kit with a good variety of medications instead of cosmetics.

Under no circumstances should you take alcohol with you on a mission to the mountains. The popular belief is that it warms you up in extreme cold. Take my word for it, this is an illusion. A person who has been drinking, and is tired after a long march to boot, will sleep like the dead in the cold and will not realize that he is freezing to death.

Remember to always have a sentry in the mountains. This is critical for ensuring that you accomplish your mission and return alive. Vigilance must be at the highest level. Anyone who fought in Afghanistan knows a lot of examples of weary soldiers assigned to sentry duty who fell asleep while on watch. The result was that the sentry, along with the unit, never did wake up: the Mujahideen slaughtered the sleeping soldiers like sheep, without firing a single shot.



And the main thing, in the mountains the commander should always be the most experienced and respected person. At least that is how it should be. Disaster is inevitable otherwise. The commander's professionalism as both a soldier and a mountaineer should therefore be head-and-shoulders above any rank-and-file soldier. This is the guarantee that all his orders will be carried out without fail.

The professionalism of the rank-and-file soldier is something that he gains only through years of hard combat training and systematic drills, as well as in marches and tactical exercises. In the final analysis, this is how all soldiers learn teamwork.

Remember that there is yet another rule in the mountains. Each soldier does what he is better at doing than anyone else. The soldier who knows about radio equipment is in charge of the radio and communications. Another soldier can always manage to light a fire in the mountains. He is in charge of campfires and oil stoves. The soldier who is best at stanching blood and bandaging a wounded comrade takes care of the wounded. The best shot has the sniper rifle and so on.

Discussion

Nazarov's tips seem like common sense, but they are common sense developed over 40 years of mountaineering experience. The ancient Roman legionaires used to call themselves "Marius' mules" [mulii mariiani]. The Emperor Gaius Marius (157-86 BC) initiated sweeping organizational reforms and greatly reduced the size of the logistics train by requiring each legionnaire to carry his armor, weapons, 15 days of rations (grain) and other gear. This onerous load weighed somewhere between 50 and 60 pounds. The normal day's march was about 20 miles. The Roman Legion spent little time in the mountains. Today, the American Infantryman goes into the mountains of Afghanistan carrying 85 pounds or more of lightweight gear. Afghans jokingly call the U.S. Infantry the "heavy mules." After all these centuries, the soldier's load is still important — particularly in the mountains.

MOUNTAIN RECON — RUSSIAN STYLE

LESTER W. GRAU

Introduction

Sensors are wonderful; unmanned reconnaissance planes are great. But sensors cannot detect all activity — particularly in the mountains. Heat sensors can be defeated with a piece of carpet or a space blanket. Motion sensors can be defeated by freezing in place, since many sensor platforms are noisy and readily detected. Sensors should not be the sole basis of tactical intelligence. Human intelligence, derived from the local populace, is an integral part of tactical intelligence. But the best tactical intelligence still comes from boots on the ground. Sensors can identify areas that require a closer look, but the eyes of the skilled scout are still the best way to know what is going on in the folds and recesses of the mountains.

Movement in the mountains is difficult. It is not just the climbing and the effects of thinner air at altitude. The mountains can be a very harsh and unforgiving environment. Observation is not always enhanced by altitude and the distances are difficult to gauge by the novice. Communications and supply are difficult. The following Russian article discusses mountain conditions and movement considerations while scouting in them.

You're Not On The Plains Here: Combat Experience of Reconnaissance Units in Mountainous Terrain by Colonel Michael Panov

How reconnaissance groups move around in mountainous terrain is very different from how they move on level ground. In the mountains, they will encounter rapid rivers, cliffs, impassable ravines, ranges, mountain passes, and icy and snowy slopes. The scouts will face rockfalls and ice or snow avalanches. Severe climatic conditions (hurricane-force winds, thunderstorms, gales) in mountainous areas can negatively impact a reconnaissance group's operational capability since changes in weather fatigue them and the hot sun of the mountains make it hard to rest normally during the daytime.

However, in spite of the scouts' enormous difficulties in the mountains, it is precisely the mountain conditions that provide maximum stealth for setting up camp and moving to combat locations. This material will deal with how to move about correctly in mountain terrain and put its advantages to maximum use.

To operate successfully in the mountains, scouts need to be specially trained in conditions that most closely approximate the conditions of the locality in which they will have to operate behind enemy lines. From the standpoint of ease of movement, mountain terrain can tentatively be divided into: foothills (600-1,800 meters above sea level), mountain (1,800-3,000 m), and high mountain areas (3,000 and above). Although tentative, this division is important when evaluating mountain terrain for reconnaissance actions.

Frequent and drastic temperature change in the mountains produces phenomena that are very dangerous for scouts, which is why they have to be able to use different external signs to identify these phenomena and take timely safety measures. Above all, the scouts must be able to determine in a timely fashion that inclement weather — thunderstorms, gales, snowstorms, etc. — is approaching. Each scout should be familiar with the mountain climate and be able to take timely protective measures.

Solar radiation is much stronger in mountains than on plains and it increases with elevation. Ultraviolet rays greatly affect the human body. Sunburn is possible. The sun's rays harm the retina, causing acute pain and at times even temporary blindness. Sun glasses should be used to protect the eyes. The face should be protected with wide-brimmed headgear or gauze covering mask; breaks and rests should be taken in the shade.

Thunderstorms create the risk of being struck by lightning, especially when scouts are on the crest of a slope, hilltop, or ledge. When a thunderstorm is approaching, you should seek cover in a cave or snow pit. Do not get under single overhanging rocks. Large metallic articles should be set apart and covered during a thunderstorm.

If the situation does not allow the scouts to wait out the storm because they have to “shake off” an enemy tail, they should continue along icy or snowy slopes, where there is less danger of being struck by a bolt of lightning, although a new danger arises – that of ice or snow avalanches.

Thunderstorms are usually accompanied by heavy rain or snowstorms, which makes it difficult and very dangerous to move in the mountains because the grassy slopes (rocks) become slippery. Rain can trigger rock falls and snow (ice) avalanches. You need to move carefully in these conditions and keep a close watch on all sides. It is known that atmospheric discharges more commonly strike tall, solitary trees. To seek cover under them from a thunderstorm is to subject oneself to danger.

Snowfall in the mountains makes it difficult to take one’s bearings and visually monitor the terrain, which could mean falling completely unexpectedly into a deep snow-covered fracture. Snowfall raises the risk of snow slides. Snow can penetrate clothes and cause cold weather injury. It makes sense to seek cover and wait out heavy snowfall.

Special care, belay and self-belay should be practiced if it is necessary to continue to move during a snowstorm. Snow slides are most likely on moderately steep slopes because snow does not usually stick on very steep slopes. There could be slides from smooth rocky slopes as well as from smooth slopes covered by tall grass. With thaw, rain, or a warm wind, the mass of snow that has accumulated in the mountains begins to melt and breaks away, forming wet snow slides. Slide-prone regions can be identified by dug-out channels, broken trees and shrubs, and large piles of snow at the base of a slope. These areas should be circumvented. If it is not possible to circumvent, the snow should be tested for firmness. The recommended method is to move along one route, following in each other’s footsteps, in single file, with more distance (five-six meters) between the men.

If a scout does find himself in a slide, he should do everything to remain on the surface of the moving snow and

immediately close his nose and mouth so as not to be suffocated by snow powder. If, despite his efforts, a scout is engulfed by snow, he should assume a vertical position and work vigorously to make a space for air around his mouth and chest, and then try to burrow to the snow surface by expanding the space.

Thin air is one of the numerous difficulties that are encountered in mountain conditions. Scouts who have not been properly trained or acclimated to the elevation experience oxygen deprivation, which causes “altitude sickness,” accompanied by breathlessness, headache, nausea, vomiting, and so on. Thin air weakens the joints of the arms and legs, which could easily result in dislocation of the leg or arm even from a minor fall.

Rock falls are most dangerous after sunset and in the first few hours after sunrise. Rock fall-prone areas can be identified by rock piles at the foot of slopes, visible furrows from tumbling rocks, and scree and dust on ledges. Dangerous areas should be negotiated quickly, one by one, moving from cover to cover and keeping an eye on the slopes above.

The chief causes of ice avalanches are drastic temperature changes in the mountains and the weight of masses of ice. To be safe, areas of possible avalanches should be traversed early in the morning when packed ice stays in place. These areas should be negotiated quickly and one at a time.

After protracted rain and abundant snow thaw in the mountains, the upper soil layer becomes waterlogged. In some areas there is a build-up of semi-liquid masses of water, sand, pebbles, dirt, rock fragments, and so on. These masses of dirt and stones (mud-rock flow) sometimes slide down the slopes and along the valleys. A mudslide usually moves slowly, but on occasion it can fall without warning, sweeping away everything in its path. It is easy to identify mudslide-prone areas because of the accumulation of dirt, stones, and scree in the mountain valleys and at the foot of slopes.

There are other difficulties in addition to the ones mentioned above, first and foremost orientation difficulties. It is difficult to take one’s bearings in the mountains, even with a map and compass. When choosing a direction on a map, it should be borne in mind that distances measured on a map are roughly 8-10 percent less than in actuality because a map shows a projection rather than the actual distance; neither does it take into account possible deviations from the planned route.

It is difficult and dangerous to march at night in mountainous areas, especially where there are no roads or trails. Moving



along an unexplored path at night could cause casualties.

Prior to a march, the group commander should reconnoiter the route to determine where there could be rock falls or snow or ice avalanches, and where there is cover; how to get over or bypass the hardest sections; where and how to ford mountain rivers (gorges); and where to set up day rests or temporary cover in a storm (thunderstorm).

In addition, the group commander needs to map landmarks that can easily be used at night and figure out the distances to them, as well as adjust route times and map reference points.

Prior to leaving the base area, the group commander should task his deputy or the most experienced scout with carefully monitoring the surroundings (at least two hours), paying particular attention to the direction of the planned march. The group usually sets up an observation post for this purpose on a commanding height to which the scout goes in secret and carries out surveillance with an optical device.

The unique characteristics of marching in the mountains require correct regulation of meals and water intake. The meals of scouts operating in the mountains should be substantial. With the major physical stress, they should receive a hot meal once or twice per day. A strict water intake schedule will keep the scouts combat ready and prevent "altitude sickness."

While on the move, water intake should be limited to small amounts drunk from a canteen. A little bit of salt should be added to the drinking water because water in the mountains lacks salt. It is categorically forbidden to consume ice or snow instead of water.

A successful mountain trek depends largely on preliminary preparation and the group commander's level of experience. When preparing for a mountain trek you should thoroughly examine your footgear, wash your feet and carefully smooth your socks or foot wraps so that they do not chafe your feet; you should lighten your load as much as possible, taking only vital necessities. You should place something soft between the load and your back, and pad the straps of the backpack (rucksack), using grass or moss.

You should breathe evenly while on the move, inhaling only through the nose and exhaling fully. You should not speak when climbing up the mountain and under no circumstances should you smoke. Brief three-five minute stops are usually taken to restore normal breathing rhythm.

Move at an even pace, bending slightly and not straining. When going uphill, tilt the body slightly forward and step on the entire sole without bobbing. When going downhill, tilt the body back and step on the heel so as not to slide or fall (Figure 1).

On steep slopes, your feet should be wrapped in rope or wire, or you should wear specially-adapted footgear to prevent sliding. You should loosen your belt slightly and undo your collar. Your step length should match the steepness of the slope. The steeper the climb, the shorter the step you should take. When going downhill, your step should be increased somewhat.

If the route is not along roads or tracks, you should walk uphill in a zigzag pattern rather than straight upward to make it easier, and "sidestep" or "herringbone." When going over unstable stones, talus, or narrow passes on a precipice, place your sole where there is a toehold and do not remove it until you have placed the other foot forward in a firm position.

Move carefully on steep rocky slopes so as not to kick



Figure 1 — Descent with stick, spade or rope belay

downward rocks that could injure the scouts below. Use a stick on steep slopes. It is a good idea to carve out steps roughly 50 centimeters apart to make it easier to climb on steep, slippery, clayey or icy slopes. Steps can be made by stamping in soft ground or in snow.

When going uphill on a grassy slope, your legs should be moved forward slightly, and the heavier the load and the steeper the slope, the further forward you should lean. When the climb is straight, your feet should be placed at an angle to each other in a "herringbone" pattern. The steeper the slope, the wider your foot angle should be, and the shorter the steps you take. Set your foot down on the entire sole. You should zigzag on long steep grassy slopes, and if the slope is sparsely covered with talus or rocks, you should move more tightly and not kick the talus downward.

All scouts should practice mountain techniques, including those whose units are deployed on level ground. They can use training gorges for this purpose.

Discussion

Colonel Panov's article emphasizes features of mountain movement and climate. Slow is fast in the mountains, and steady, methodical movement, light packs and acclimated physically-fit troops are necessary for mountain patrols. Effective patrols may last for days or weeks. Russian scouts are considered elite forces that perform missions that might be assigned to long-range reconnaissance patrols or special operations forces. Like U.S. forces, scouts are assigned down to infantry battalion level.

Injured or wounded scouts are a problem in the mountains. Scouts frequently move at altitudes that are above helicopter ceilings. During the Soviet-Afghan War, the Soviets usually committed 12 troops to carry a single casualty down to the point a helicopter could reach the patient. Four men would carry, four would provide security, and four would be ready to take over the carrying mission. A small number of casualties could quickly decimate a patrol.

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