Historically, the Red Army based their mountain warfare doctrine and training mainly on the studies of their own combat experiences battling the Axis powers in the mountains of eastern Europe during WW II.

When called upon for duty in Afghanistan, the Soviet Army, which was geared for an armoured campaign in the European plains, was ill prepared for a mountain war against a determined enemy who knew the terrain well. Soviet land forces quickly discovered that they had neglected most of the lessons of their WW II experiences and moreover, small changes in battlefield technology were having a dramatic impact on the war in high altitudes.

In a nutshell, the Soviet Lessons in the Afghan War may be presented as follows:

1) **Terrain**: Relative importance of knowledge about the terrain increases with altitude to become one of the primary factors in deciding battle plans. It is to be accorded much more consideration than what would be done in a plains environment.

2) **Reconnaissance**: Real time reconnaissance capabilities on enemy maneuvers are at a premium in the mountains since rapid movement of troops becomes virtually impossible. Frequently, the Afghan fighters blunted the attacks of much superior Soviet forces with little more than timely knowledge of Soviet troop movements. Soviet handling of the recon assets left much to be desired. In most cases, these were deployed as forward attack units instead of scouts, meaning that the commanders remained ignorant of crucial advance information before an operation started.

3) **Smaller Independent Units**: Mountain obstacles and inaccessible natural features often mean that units get physically separated from each other. This fragmentation necessitates that smaller units, of the size of companies or even platoons, train to operate in a self-sufficient manner for an extended period of time. In any case, few mountainous terrains offer a chance for armies to field units larger than battalions in a unified manner. The consequent requirement to carry additional supplies by the soldiers themselves can’t be avoided.

Two additional factors emerge from this constraint, viz.

a) **Junior Leaders**: The above factor automatically means that the Junior leader has to often make independent decisions without first consulting with his commander. Junior leader training at the level of company commanders, thus, becomes very important for this type of warfare. The Russians, sometimes, compensated the lack of able officers at this level by putting more senior officers in charge. This may however run opposite of
b) **Additional Firepower**: The fragmentation of larger units (battalions and higher) which are usually of combined arms type means that mutual support may be absent among smaller units. To compensate for this, smaller units have to be bolstered by enough supporting subunits, some with additional firepower. A fraction of these, like the recon and engineer units, artillery support and some armoured vehicles would have to be organic. However, a judicious combination of heavier infantry units with enhanced firepower and light infantry is necessary in order to retain mobility of the unit as a whole. Frunze commentators recommend (for airborne/air assault units) that a company should be supported by a mortar platoon, an AGS-17 platoon and a sapper squad (minimum) while a battalion is recommended to be reinforced with a mortar battery, two or three AGS-17 platoons and a sapper platoon (minimum).

4) **Armour**: Most of the terrains where the Soviets fought, were not ideal tankable country, and even in places like valleys and ravines, where tracked vehicles could be deployed, they were easily ambushed from mountain sides and at choke points. There was the added disadvantage of tank guns not being able to elevate to a high enough angle in order to be able to return fire. The rough terrain also extracted a heavy toll on the tanks and their continued deployment became linked to extensive maintenance efforts.

**NOTE**: What deserves attention in this context are the innovations applied by the Soviets to get around some of the problems faced by armour. Broadly speaking, there were two main innovations and numerous minor ones, viz.

i) In a departure from their normal practice, *Soviet Motorized Rifle Units* (Mechanized Infantry) started dismounted operations on a regular basis. This enabled the dismounted infantrymen to conduct operations in terrains inaccessible to the vehicles and also to provide *overwatch* for their mounts by covering the flanks. It may be mentioned that Soviet forces lacked regular light infantry and this innovation can be seen as a compensating move.

ii) The Soviets put their APCs and ICVs (both tracked and wheeled) *sans* infantry to good use by deploying them as an independent reserve providing direct fire support. Called *bronegruppa* or armoured group, a typical such formation consisted of about half a dozen vehicles of any combination of tanks and both tracked and wheeled armoured personnel carriers.

iii) Some minor innovations included using the armoured groups as battle taxis for speedy insertion and exfiltration of soldiers, carriage of excess amounts of fuel and rations by the armoured groups since they were likely to operate outside the range of a friendly logistical trail for extended periods of time and employing whole armoured groups (*bronegruppa*) as *leapfrog* flank security for larger convoys of forces. The need for stronger forces for flank security was felt because these were expected to engage enemy on first contact on their own without
waiting for reinforcements, in accordance with the Soviet policy of ‘attack from direct contact’.

5) **Artillery** : Afghanistan was a theater in which the standard Soviet practice of centralized artillery holdings and massive pre-planned firing schemes came under considerable duress. The rarified air in the high altitudes played havoc with the accuracy of the howitzers at long ranges and rectification became difficult without Forward Observers (FO) looking over the target. Target identification and battle damage assessment posed further challenges to the Soviet artillery. To get around these problems, the Soviets started deputing FO’s to even small infantry units of company size, since these formations frequently fought independently in Afghanistan. The Soviets finally resorted to handing over control of artillery (some of it, at any rate) to the officers commanding company and battalion size formations. High angle artillery like mortars and field guns proved very effective, especially when spread out under the control of smaller infantry units. MBRL systems, like the BM-21 Grad, were a mixed success in that they had a telling effect on enemy morale but were notoriously inaccurate. Surprise good performers were the AA guns, like the ZSU-23/2 used in direct fire modes. These guns were very successful in putting down a large volume of fire on enemy position at a short notice in support of infantry actions.

6) **Combined Arms Units** : Most of the above points, if not all, imply that a combined arms unit operating independently has the best chances of success in a high altitude environment. The Soviets, too, understood this point and subsequent Russian thinking indicates that they are moving in this direction. In addition to the infantry, a combined arms unit should typically have control over some artillery along with FO’s, an armoured group (bronegruppa), a specialized reconnaissance detachment, helicopter transports, and the authority to call in air strikes from both fixed wing and rotary aircraft, preferably with the assistance of a *Forward Air Controller* (FAC) detachment.

7) **Air Borne And Special Units** : These units played a stellar role in almost all successful Soviet operations. The high level of training and competence of these troops coupled with the fact that they were mostly deployed by air meant that they provided the Soviets with much needed mobility and allowed them to use the element of surprise more often than not. However, the lack of a pathfinder type force on the Soviet side hampered the functioning of these units as they were often discovered by the enemy prematurely.

8) **Communications** : The fact that mountain warfare frequently demands multi-pronged attacks for offensive operations, coupled with the requirements mentioned above, make reliable communication and coordination among the various units/subunits and their commanders absolutely crucial. Unfortunately, the terrain renders most military radio communication equipments useless. The Soviets resorted to a host of *ad-hoc* solutions like using relay stations on mountain tops, laying telephone wires, deploying airborne command posts and even employing runners. None of these methods could solve the problem in its entirety and the Soviets certainly missed a reliable communication network in Afghanistan.
9) **Air Power** : In response to the challenges of a military conflict in a mountainous terrain, the Russians evolved the deployment of their air power to suit a variety of roles

i. **CAS (Close Air Support)** : The increased used of CAS aircraft attempted to compensate the reduced effectiveness of conventional artillery. The biggest problems facing both fixed wing aircrafts and attack helicopters were target identification, control of the aircraft and accurate munitions delivery. Ground attack in the mountains required suitably modified equipment and special skills on the part of the airmen which could only be developed by intensive training. The aircrafts used were

a) **Su-25 Frogfoot** : Heavily armoured, these ground attack aircrafts were notionally well suited to the task. But lack of modern precision guided munitions meant they were less than effective. Their places were increasingly taken over by the attack helicopters as the war progressed. However, with their high speed, they were more survivable than helicopters in the MANPADS heavy environment of the later part of the war, and

b) **Mi-24 Hind family of attack helicopters** : With their slower speed and ability to loiter (ability to hover is lost at these altitudes), the Mi-24s were extremely effective as CAS platforms. Being heavily armoured, they were also less susceptible to anti-aircraft fire than thinner skinned transport helicopters. This did not mean that the Mi-24s were without their share of performance problems. The altitude ate into a significant portion of their payload capability and the uneven terrain imposed serious handicaps on their maneuverability. Accuracy was hit seriously due to the inability to hover, but the accuracy of firing runs improved with practice. Another concern was the fact that target identification suffered at long ranges and the choppers frequently had to come close to the target before positive identification. Unfortunately, this also meant the helicopter was now in the firing range of the target. *Grau*, however, believes that Russia deployed much lesser number of Mi-24s than it should have, ostensibly due to maintenance problems and lack of suitable airfields; whatever be the cause, this decision prevented the *Hinds* from having a bigger impact on the conflict than they actually did. The tide turned against the *Hinds* with the introduction of modern MANPADS in the late 80s and they were all but withdrawn from action subsequently.

ii. **Troop Transport and Supply** : The helicopter transports proved absolutely crucial in these roles in the absence of regular mobility of the ground transports. The transports regularly performed SF/Air Borne drops and resupply missions in the thick of action and were very successful when the flight profiles were thoroughly planned with the aid of advance intelligence. Survivability was, however, an issue when the Soviets didn’t plan the flight profiles well and the transports became easy targets to AA guns, small arms and MANPADS in the later part of the campaign. Again, the altitude effects decreased the payload capacity by as much as 25%. The platforms used were the Mi-8T and some Mi-6.
iii) **Airborne Armour**: In terrain inaccessible to armour, attack choppers were regularly deployed as airborne tanks to provide flank security and also to sanitize forward areas in preparation of the arrival of the ground troops. In addition, these also acted as advanced guards for armoured and non-armoured vehicle convoys.

10) **Engineering and Logistics Support**: The increased stress on both these requirements in a high altitude environment are obvious and smooth running of a campaign in the mountains depend on effective functioning of both. The harsh environment has a degrading effect on all mechanical systems and an inflated maintenance effort is necessary to keep a force in working order. For uninterrupted logistics operations, meticulous planning is necessary to cover all eventualities.

13) **Boots On The Ground**: Another much neglected aspect of the Afghanistan campaign is the fact that the Soviet Army had never committed sufficient troops to dominate the ground situation. Also, they discovered that due to higher physical stress levels on the soldiers, units operating in high altitudes had to have excess manpower in order to ensure 100% manpower strength availability at all times. Along with the reluctance to engage in close quarter battle and the tendency to replace manpower with firepower, this was an important factor in the Soviet Army’s inability to control Afghanistan.

12) **Specialized Manpower Training and High Altitude Equipment for Individual Soldiers**: This point is presented last of all not because of its lack of importance but because of its primacy. Mountain warfare imposes an enhanced physiological and psychological toll on the soldiers. Provision of special equipment and suitable modification of training and operating procedures are needed to address this issues. Without fulfilling this condition, mountain warfare should not even be contemplated. The Soviets suffered huge losses in manpower numbers to diseases and climate, most of them avoidable with better hygiene practices and planning. According to released Russian figures, around 65% of all Soviet soldiers fell victim to diseases at one time or the other during the campaign forcing Soviet units to operate under strength most of the time.

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NOTE: The Air Power analysis may see an addition in the future with the assistance of another esteemed BRFite. The page will be modified as and when required.

References:


DESCRIPTION: This is a review of Russian Military articles on the topic.


DESCRIPTION: A collection of 47 case studies of Soviet operations in Afghanistan, followed by observations of Frunze academy experts and the translator.

Glossary

AA – Anti Aircraft gun

AGS-17 – Soviet automatic grenade launcher capable of firing 30mm grenades

APC – Armoured Personnel Carrier

BM-21 Grad – Soviet multiple launch rocket system

ICV – Infantry Combat Vehicle

MANPADS – Man-portable air-defence systems

MBRL – Multi-Barrel Rocket Launcher

Pathfinder - Specially trained recon units used by the US armed forces who are para-dropped into place before a major operation in order to place and operate navigational devices to assist the primary drop of paratroops.
SF – Special Forces

ZSU-23/2 – Soviet air defence gun