

The Limits of Soviet Airpower: The Failure of Military Coercion in Afghanistan, 1979-89

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I hold it a principle in Asia that the duration of peace is in direct proportion to the slaughter you inflict upon the enemy.

General M.O. Skobelev

Conqueror of Turkestan, 1881

INTRODUCTION

It is ironic that the words of a nineteenth-century Russian general should form an appropriate epitaph for Soviet military operations in Afghanistan from December 1979 until February 1989. The nine-year occupation of Afghanistan included the employment of the full spectrum of Soviet conventional weapons and a diverse range of their chemical weapons inventory in an attempt to defeat the *mujahideen* (Afghan freedom fighters). In pursuit of this objective, Soviet military strategy underwent a process of increasing radicalization that eventually resulted in a sanctioned policy of punitive coercion by Soviet air and land forces. Airpower played a critical role in the Soviet occupation by providing the platforms for bombardment, chemical attack, aerial mining, troop insertion, fire support and resupply. The failure of the Russian-trained and supplied Afghan Army to eliminate the growing Muslim insurgency led Soviet operational planners to embrace airpower as a punitive instrument with which to bludgeon the insurgents as well as the Afghan populace. In fact, during the course of the conflict, airpower constituted the single most important means for separating the *mujahideen* from the population while attempting to coerce the insurgents into abandoning their fight.

The Soviet experience in Afghanistan provides an instructive case study for examining the impact and effect of airpower in an insurgency environment. The ability of a relatively ill-equipped and technologically inferior opponent to force the eventual withdrawal of one of the world's most vaunted military powers has broader implications for contemporary political and military leaders. The Israeli historian Martin van Creveld argues that the end of the Cold War and the American victory against Iraq may signal the end of the conventional war paradigm.¹ Whether the nature of war will change from largely conventional to irregular warfare is still unclear. The success of American airpower in the Gulf War, however, led some to embrace it as the panacea for contemporary conflict resolution.² The apparent effective use of airpower in Bosnia, and the 78-day air campaign over Kosovo, may strengthen this perception in the minds of policy makers and military professionals. The Soviet experience in Afghanistan, however, provides a caution to this view, and clearly indicates some of the limits of airpower as a successful coercive instrument in the insurgency environment.

The Soviet Air Force (VVS) entered the war in Afghanistan as a capable, well-equipped force focused on providing aerial assistance for combined arms operations to Soviet tank and mechanized forces. The three main components of the VVS in 1979 included: Frontal

Aviation, largely concerned with the support of theater warfare in Europe; Long Range Aviation, the Soviet strategic bombardment force, equivalent to the former US Strategic Air Command bomber force; and Military Transport Aviation, the Soviet airlift force. In 1977, Long Range Aviation consisted of 794 aircraft, Military Transport Aviation operated 1,500 fixed-wing aircraft and 320 helicopters, and Frontal Aviation included 4,600 fixed-wing aircraft and 3,000 helicopters.³ In Afghanistan, Long Range Aviation played a limited role, while Military Transport Aviation proved at times invaluable. However, Frontal Aviation fixed-wing aircraft and helicopters ultimately constituted the key assets for the conduct of the war against the *mujahideen*. According to Soviet doctrine, Frontal Aviation constituted a critical force adjunct for the support of ground operations. However, in a relatively short period the VVS, and especially the forces of Frontal Aviation, experienced a fundamental transformation in character from "force adjunct" to "force substitute." As the war in Afghanistan became a prolonged conflict, the VVS became increasingly important as a force substitute employed to minimize Soviet casualties and to compensate for the comparatively small Soviet ground force. In addition, VVS operations in Afghanistan rapidly expanded from a primarily combined arms emphasis to encompass the routine employment of Soviet aviation assets as instruments for punishment and terror. During the nine-year occupation, the Soviets embarked upon a strategy centering on the use of airpower as a, if not the, primary instrument with which to eradicate the growing Muslim insurgency and cow the indigenous population through a lethal campaign of aerial bombardment.

The Road to Intervention and Escalation

The initial conduct of military operations in Afghanistan was reminiscent of the earlier Soviet success in the 1968 invasion of Czechoslovakia. British historian Mark Galeotti speculates that the Czechoslovakian experience framed the military and political expectations of the Soviet leadership for the occupation of Afghanistan in 1979.⁴ The similarities between the two operations are striking. The Soviet-led invasion of Czechoslovakia included an initial nighttime assault on the Prague airport.⁵ Meanwhile, a largely mechanized force of 175,000 men from various Warsaw Pact countries crossed the border and began to occupy the major urban centers throughout the country.⁶ The Russian plan in Afghanistan was essentially the same as that used in Czechoslovakia in 1968, including the seizure of key airfields, government buildings, and command and control centers.⁷ There was, however, a significant difference in the size of the forces employed, with the Afghan operation initially employing slightly less than 50,000 Soviet troops.⁸ The belief among the Soviet leadership that its forces could quickly stabilize the government and then withdraw from Afghanistan, as they had done in Czechoslovakia, proved overly optimistic.⁹

In the first phase of the occupation, Soviet forces concentrated on securing the lines of communication (LOCs) within Afghanistan. The unimpeded use of the Afghan highway system was absolutely essential for supplying Soviet forces in the country. The Soviets, however, experienced a number of problems due to the weather, the poor road conditions, lack of rail lines, and the limited number and carrying capacity of the available routes. One Soviet account provided the following description of the Kabul-Termez highway, the

main highway between the USSR and the Afghan capital: "The road winds there in steep and narrow hairpin turns, with a perpendicular cliff on one side and an abyss on the other. The ice-covered route is terrible, and the thousands of trucks which cross the pass every day polish it to a mirror-like shine."¹⁰ The importance of the road routes for resupply efforts forced the Soviets to devote significant manpower and resources to their security and protection.¹¹ In addition, the poor roads and the vulnerability of truck convoys to ambush forced the Soviets to move large quantities of supplies by helicopters to isolated garrisons and remote outposts -- a time consuming and often inefficient use of limited aerial resources.¹²

While maintaining their own LOCs, the Soviet forces in Afghanistan also attempted to interdict the flow of supplies and manpower from Pakistan to the *mujahideen*. However, these efforts proved to be one of the most signal failures of Soviet and Democratic Republic of Afghanistan (hereafter DRA) forces during the war. The initial Soviet attempts at closing the border focused on the employment of massive firepower from aircraft (both fixed-wing and helicopter) and artillery to support advances by mechanized and armored forces. French journalist G rard Chaliand visited several Afghan provinces along the Pakistani border in 1980. He stated that "During the first six months of 1980, the Russians were concerned above all to control the Pakistani border region, particularly Kunar and Paktia, and, to a lesser degree, Ghazni provinces."¹³ In the push toward the Pakistani border, fixed-wing aircraft extensively supported these initial operations by providing massive firepower in the form of pre-attack bombardment and punitive bombing strikes with napalm and gas, while helicopters provided close air support including the strafing of civilians.¹⁴ In July 1980 alone, Soviet and DRA forces destroyed no fewer than 60 villages south of Kabul during a two-week operation.¹⁵

Soviet attempts to intimidate the civil population involved a joint air-land effort. The intensive bombardment of villages by aircraft and artillery served as the prelude for the entry of mechanized and armored forces into the area. These forces then proceeded to conduct a "scorched earth" campaign by destroying the local dwellings, food supplies, crops in the field, irrigation systems, livestock and wells. One Swedish official, after visiting several villages destroyed by the Soviets noted, "Russian soldiers shot at anything alive in six villages -- people, hens, donkeys - and then they plundered what remained of value."¹⁶ These Soviet operations aimed at driving the villagers out of these areas in an effort to create a *cordon sanitaire* in which the insurgents would find no support.

Soviet efforts to create a barrier aimed at cutting-off the insurgents' logistic lifeline also extended to the employment of chemical agents. Already in 1980, there was considerable circumstantial evidence to support *mujahideen* claims of Soviet chemical weapons employment. US satellite imagery identified Soviet TMS-65 decontamination vehicles and AGV-3 detox chambers in the vicinity of combat areas. The eyewitness account of a Dutch journalist, who filmed Mi-24 Hind helicopters in two attacks dropping canisters that released a yellow cloud that killed at least one person, offered additional evidence of chemical use. In a public report of 22 March 1982, the US State Department accused the

Soviets of using phosgene, nerve agents and other incapacitants in Afghanistan.¹⁷ The report stated:

For the period from the summer of 1979 to the summer of 1981, the US Government received claims of 47 separate chemical attacks with a claimed death toll of more than 3,000. . . . The reports indicated that fixed-wing aircraft and helicopters usually were employed to disseminate chemical warfare agents by rockets, bombs, and sprays. Chemical-filled land mines were also reportedly used by the Soviets. The chemical clouds were usually gray or blue-black, yellow, or a combination of the colors.¹⁸ In fairness to the Soviets, several investigators questioned the conclusions of the State Department report with respect to the use of chemical agents in Southeast Asia; however, the use of chemical agents in Afghanistan received independent verification as in the case cited above.

The Soviet use of chemical agents in Afghanistan should not have been a surprise. The Soviets had invested heavily in chemical munitions.¹⁹ In fact, Soviet doctrine called for the use of chemical agents in both offensive and defensive roles. In short, chemical operations were part and parcel of standard Soviet doctrine for conventional operations. Chemical weapons employment in the battle against the *mujahideen* not only followed from Soviet doctrine, but also provided the military with an opportunity to test these agents in actual combined arms operations on a scale not previously possible. In addition, figure 1 shows the distribution of Soviet chemical attacks in Afghanistan. The map indicates the concentration of these areas along the eastern border with Pakistan as well as near the insurgent hotbed of Herat. The majority of attacks occurred in the spring and summer of 1980 and 1981 at the high seasons of *mujahideen* manpower and supply infiltration into the country.²⁰ The pattern of chemical weapons employment clearly indicates an effort to interdict these movements.

Village "pacification" and the creation of chemically contaminated "dead zones" were but two tools in the campaign aimed at the destruction of the insurgents' supply infrastructure. The Soviets also extensively employed air delivered mines in a further attempt to interdict the major caravan routes along the border. The use of mines became routine among Soviet forces in Afghanistan, both as a method for interdicting *mujahideen* supply routes and for protecting their bases and large urban areas such as Kabul.²¹ Soviet Major General Oleg Sarin and Colonel Lev Dvoretzky estimate that between 1980 and 1985, Soviet engineers laid 91,000 anti-personnel mines. Helicopters alone dropped over a million mines, and, in 1983 and 1984, aircraft using the *Vilyui* system laid an additional 1.7 million mines.²² Mines served two purposes. On the one hand, the Soviets used them to maim or disable *mujahideen* who would then require the help of their comrades to reach an aid station thus decreasing the size of the operational insurgent force in the field at any given time. On the other hand, mines laid along the resupply routes crippled mules and camels thereby decreasing the volume of provisions flowing to the resistance.²³

By the end of 1980, the Soviet and DRA forces only could lay claim to controlling an estimated 25 percent of Afghanistan, despite the extensive employment of almost all the weapons in the Soviet conventional arsenal.²⁴ The emphasis on the use of conventional

mechanized and armored forces in conjunction with massive artillery and airpower support allowed Soviet forces to physically occupy terrain, but not to maintain control of it after their withdrawal. The *mujahideen* refused to fight the Russians in fixed battles, and instead followed Mao's dictum: "The enemy advances, we retreat; the enemy camps, we harass; the enemy tires, we attack; the enemy retreats, we pursue."²⁵ Despite an overwhelming preponderance of firepower and complete air supremacy, the Soviets could not eliminate the threat posed by a small, fractionalized and poorly armed insurgency. The limited number of ground combat forces and the nature of the problems they experienced made airpower all the more essential as an instrument for achieving Soviet military objectives. These objectives focused on the defeat of the *mujahideen* and the "pacification" of the Afghan population.

The Soviets' reluctance to change their emphasis on the use of massed conventional mechanized and armored sweeps continued throughout 1981 despite the limited effectiveness of these operations. The unwillingness of Soviet troops to dismount from their vehicles increased their vulnerability to ambush and practically eliminated their ability to conduct pursuit operations. The Soviet aversion to dismounted operations reflected a desire by these forces to avoid close combat in favor of a reliance on air and artillery strikes.²⁶ Anthony Arnold, an American intelligence analyst, argued that Soviet forces were slow to adapt to the nature of unconventional operations in Afghanistan. He noted, "The original armored sweep evolved into a hammer-and-anvil type of operation, intended to crush resistance forces between the advancing armor and a blocking force deployed ahead of it; so slow, cumbersome, and unimaginative were these attacks that the resistance could either avoid contact or exploit the situation operationally."²⁷ In addition to doctrinal inflexibility, the severity of the Afghan winters further complicated major military operations and limited the campaigning season for ground forces.²⁸

By the end of 1981, it was becoming apparent that the use of large mechanized and armor forces did not constitute a strategy for victory. As a result of the poor results in combating the *mujahideen*, General Ivan Pavlovski was relieved of his command of the 40th Army in December 1981 and returned to the Soviet Union.²⁹ During this period, airpower began to play an increasing role as a "force substitute" in Soviet efforts to eliminate the *mujahideen* insurgency while minimizing their own casualties. At the beginning of 1981, the VVS air order of battle included approximately 130 jet fighters, predominantly MiG-21 *Fishbeds*, MiG-23 *Floggers*, and Su-17 *Fitters* among a total of 300 fighter aircraft and transports.³⁰ In addition, the Soviets maintained a force of about 600 helicopters in Afghanistan. Helicopters, including Mi-6 *Hook* and Mi-8 *Hip* transports and, especially, Mi-24 *Hind* gunships proved invaluable to the Soviet strategy, and became the single most significant weapon in the Russian arsenal. The diverse range of helicopter missions in Afghanistan included close air support, forward air control spotting for fixed-wing aircraft and artillery, troop transport and resupply, medevac, chemical weapons delivery and reconnaissance.³¹ The importance of attack and transport helicopters in combating the insurgency cannot be overstated. Former Afghan General Mohammed Y. Nawroz and American intelligence analyst Lester W. Grau argued that "Without the helicopter gunship, the Soviets may have withdrawn years earlier. Its

firepower and mobility and initial invulnerability put the guerrillas on the defensive. The Soviets used helicopters extensively and ruthlessly against the unprotected guerrillas."³²

In the rugged mountains of Afghanistan and along the border caravan routes, the Mi-24 *Hind* essentially became a "flying tank," capable of providing massive firepower in support of ground operations or acting as a lethal instrument for aerial interdiction. During the first three years of the occupation, helicopters conducted regular patrols along the caravan routes in the hope of spotting *mujahideen* supply movements.³³ The 1,400-mile border between Pakistan and Afghanistan and the mountainous nature of the terrain made caravan detection from the air an extremely difficult task. In addition, the *mujahideen*, upon hearing the approach of a helicopter, would fall to the ground and cover themselves with their *patou* (earth-colored cloaks). This tactic was both low tech and astoundingly effective in making the insurgents invisible from the air. Kurt Lohbeck, a journalist who traveled extensively with the *mujahideen*, described his own experience as Soviet helicopters twice flew over his group's position at an altitude of only one hundred feet without detecting them. Lohbeck states that "a man standing still or squatting just ten yards away was nearly invisible."³⁴ Indeed, invisibility was a necessary virtue as evidenced by Soviet General Boris Gromov's, commander of the 40th Army, remark that upon locating a caravan if people ran they were shot.³⁵ Mike Martin, a British journalist who traveled with the *mujahideen*, noted that the insurgents, lacking the weapons with which to combat the heavily armed Mi-24 *Hind* effectively, "feared them more than anything else."³⁶ The armored Mi-24 was indeed a formidable weapons system with its 12.7-mm machine gun, guided missiles and 128 57-mm rockets. Despite this lethal array of armaments, however, the pilot still had to find his target in the mountains or high plains of Afghanistan in order to be effective.

Despite the extensive employment of helicopter assets, Soviet operations in 1981 proved disappointing. In July, Soviet forces launched an inconclusive attack into the Sarobi valley employing air strikes and air-landed troops.³⁷ In September, *mujahideen* attacks forced Soviet and DRA forces to withdraw from positions in the Panjshir valley and north of Kabul. In the provincial capital of Kandahar, Soviet aircraft conducted strikes against a section of the city in a successful attempt to dislodge *mujahideen* forces.³⁸ The bombing of urban centers provided a short, albeit brutal, respite against *mujahideen* operations within the major Afghan cities. In one example, the Soviets achieved a limited tactical victory by killing a reported 600 *mujahideen* in a battle to retake the city of Herat in October.³⁹ During renewed fighting in the cities of Herat and Kandahar in January and February 1982, the Soviets again displayed an apparent willingness to employ both airpower and artillery in urban centers despite the risk of high collateral casualties. US Deputy Secretary of State Walter Stoessel testified that, "Soviet troops surrounded Afghanistan's second largest city, Kandahar, and subjected it to a savage artillery and air bombardment in which hundreds of innocent civilians lost their lives." In addition, he remarked that a rebellion in Herat, Afghanistan's fourth largest city, was crushed "with similar ruthlessness, causing great suffering among its population."⁴⁰ In the end, Soviet operations in Herat and Kandahar were qualified successes. The use of indiscriminate terror within Afghanistan's urban centers illustrated the intrinsic bankruptcy of Soviet strategy, as the identity and affiliation of those killed became less important than the total

"body count." However, striking at major urban centers in the hope of killing some *mujahideen* with the certainty of killing many noncombatants presents an unambiguous example of punitive coercion in its purest form. The policy of targeting urban centers was also politically counterproductive, as the majority of support for the DRA came from various ethnic groups within the urban minorities.[41](#)

The VVS operations against Afghan urban centers offer a clear lesson as to the limited utility of airpower when faced with large groups of insurgents operating in close proximity to, or among, the civilian population. In densely populated city centers, operational planners face a formidable challenge. Separating the insurgents from the noncombatants requires first-rate intelligence, precision-guided munitions and discrete payloads. In fact, all three of these elements must come together within a limited time horizon. Real time intelligence offers a targeting window while PGMs and discrete payloads can help lessen, but not completely eliminate, collateral damage among the civilian population. Although the Soviet use of an airpower sledgehammer more closely reflected the iron bomb attacks of 1945 versus the microchip technology of 1999, the recent campaign in the Balkans once again demonstrated that the difficulties and dangers inherent in striking urban targets remain very real.

By 1982, the Afghan civilian population whether in the insurgent controlled countryside or within the Soviet and DRA occupied cities, now constituted an open target for massed firepower. Airpower also played a substantial role in striking at the insurgents directly. A combined arms operation into the Panjshir valley in the spring included the commitment of 12,000 Soviet and DRA troops and more than 200 sorties by fixed-wing aircraft and helicopters.[42](#) The objective of the joint Soviet and DRA thrust centered on destroying the 3,000-man force of Ahmad Shah Massud, thereby securing the northern approach to the Kabul-Termez highway. The initial stages of the offensive into the Panjshir valley relied heavily on airpower. The Soviets also demonstrated increasing ingenuity in the use of their aviation assets. The offensive began on 10 May with converted An-12 *Cub* transports serving as aerial reconnaissance and target designation platforms. In addition, the Su-25 *Frogfoot* ground attack aircraft made its debut in the theater, and proved effective in the close air support role. Prior to the commitment of ground forces, Soviet jets conducted a week-long bombing of suspected insurgent positions using conventional high explosive loads. On 17 May, a large-scale heliborne insertion of the 103rd Air Assault Division began. In support of the 103rd, the 108th Motor Rifle Division began pushing up the valley in a classic hammer-and-anvil maneuver. Soviet and DRA forces soon ran into trouble as land mines and insurgent ambushes from tributary valleys inflicted heavy losses and destroyed at least six BTR-60 armored personnel carriers (APCs) and at least six T-62 tanks.[43](#)

The mechanized forces, unable to maneuver or elevate their guns to fire at the surrounding heights, requested close air support. Groups of six Mi-24s arrived at the requested points and loitered overhead in the so-called "circle of death." Forward air controllers with the ground units vectored the helicopters onto suspected *mujahideen* positions that were then attacked with cannon fire and rockets. Despite their success against the mechanized forces, the exposed *mujahideen* forces had little chance against

Soviet airpower, and they were forced to withdraw back into the tributary valleys. The offensive did eventually succeed in reestablishing DRA control over the floor of the Panjshir valley, for the first time since 1978, at the cost of between 300 and 400 Soviet casualties. However, the campaign was only a partial success, as the besieged *mujahideen* simply disappeared into the surrounding hills to await the inevitable Soviet withdrawal. After a few weeks the Soviet forces did leave, making the victory decidedly pyrrhic for the Russians and their DRA allies. However, still hoping for a set-piece battle, the Soviets repeated the offensive into Panjshir in late August with the same result. In this offensive, the Soviets lost approximately 300 men in occupying the valley floor, and again withdrew after several weeks, leaving the valley once more in the hands of the *mujahideen*.[44](#)

The Panjshir valley campaigns of the spring and summer of 1982 illustrated the essential nature of Soviet strategy, writ small. The Panjshir offensives highlighted the Soviet emphasis on using airpower in a number of roles including aerial fire direction, observation, troop transport, and close air support (CAS) in support of the combined arms offensive. The weeklong aerial bombardment prior to the start of the ground offensive demonstrated a "Somme-like" reliance on intensive bombardment in preparation for the attack. The campaigns also illustrated the importance of helicopters in combined arms operations. On the one hand, rotary-wing aircraft provided the key platform for rapidly delivering air assault troops to their blocking positions. The use of *blokirovkas* (blocking maneuvers) usually involved a coordinated thrust between mechanized forces pushing toward the objective with a helicopter insertion of VDV (airborne) or DShB (air assault) troops behind the objective in order to prevent the escape of encircled enemy forces.[45](#) On the other hand, the reliance on the Mi-24 *Hind* for CAS also indicated its effectiveness in this role. The low threat environment experienced by the helicopters was evident in the Soviet tactic of establishing a high orbit over the target area. Indeed, the lack of effective anti-aircraft defenses was a glaring weakness among the insurgents in 1982. In contrast, the *mujahideen* success against personnel carriers and tanks highlighted the vulnerability of mechanized forces in mountainous terrain. Finally, operations in Afghanistan illustrated the importance of having forward air controllers to direct CAS.[46](#)

In the final analysis, the offensives into Panjshir failed despite the Soviets' ability to organize their forces into a powerful combined arms team. Soviet commanders were learning a bitter and frustrating lesson, much as their American counterparts had 15 years earlier in Vietnam. This lesson was that insurgents, based on their tactics and their use of terrain, might prove relatively invulnerable to conventional operations even when these operations were supported by massive firepower. In an unconventional warfare environment "owning the air" offers a number of very real advantages; however, the American experience in Vietnam and the Soviet experience in Afghanistan showed that control of the air might be a necessary, but certainly not a sufficient, condition for victory.

By August 1982, the Soviet and DRA forces still controlled only the country's main cities and major roads.[47](#) By the end of the year, Soviet frustration with the situation in Afghanistan was apparent as well. The death of Leonid Brezhnev in November and his

replacement by Yuri Andropov did little to change the tactical or strategic situation for members of the 40th Army. Soviet Politburo minutes indicate that Andropov's "model for the war against the Afghan mujaheddin [sic] was the brutal campaign to establish Soviet rule in Central Asia following the 1917 Bolshevik Revolution." Andropov's guidance provided a renewed impetus for a strategy of terror and reprisal against the Afghan population. The Soviets revealed the nature of this strategy in an attack on the city of Pagman in September. According to Western diplomats, Soviet jets and helicopters bombed and strafed the main marketplace for over two hours, killing and wounding several dozen people.⁴⁸ Soviet forces, unable to corner the insurgents, increasingly resorted to reprisals in order to punish the civilian population for *mujahideen* actions. In April 1983, the Soviets responded to a general uprising in the ever-volatile hot bed of Herat by conducting an indiscriminate "carpet bombing" campaign against the city of 150,000. The campaign, described by US officials as "extremely heavy, brutal, and prolonged," resulted in the destruction of half the city and the deaths of an estimated 3,000 noncombatants.⁴⁹ In addition, Soviet and DRA forces began a reprisal policy of targeting villages in the vicinity of *mujahideen* attacks against convoys or outposts.

Mike Martin discussed the Russian policy of targeting nearby villages in retaliation for insurgent attacks by stating that the Soviets were "reduced to deliberately killing civilians in the vain hope they would abandon their fighting men."⁵⁰ Soviet and DRA aircraft or artillery bombarded the selected villages, and in some cases destroyed cultivated fields. The destruction of crops constituted a continuing element in an ongoing Soviet "starvation policy."⁵¹ Martin argued that "By the middle of 1983 the Russians seemed bankrupt of military ideas and had resorted to the widespread use of terror." Martin witnessed the use of jets for reprisal attacks on at least four occasions during his stay in Afghanistan. In one case, the Russians bombed a village for two weeks in retaliation for an attack on the outpost at Tagob. He described the Soviet attack as follows: "For days the jets flew low over the valley bombing the houses to dust. The worst destruction left you with a feeling that there had been no life there anyway: just mounds of rubble"⁵²

In almost every respect, Soviet air and ground operations underwent an increasing radicalization in the years between 1981 and 1983, with the significant exception, however, of evidence of chemical weapons employment in 1983.⁵³ Soviet military planners increasingly employed airpower as both a "force substitute" and an instrument of terror and reprisal against Afghanistan's civilian population. The inability to fix the *mujahideen*, the desire to avoid casualties and the resulting Soviet frustration with the *status quo* combined in the adoption of a seemingly simple and effective method for lowering personnel losses. It soon became apparent, however, that a new strategy was needed.

Air Assault Comes to Afghanistan

In 1984, the Soviets began to modify their air and ground strategy in an effort to more effectively employ their assets against the insurgents. Stephen Blank described this shift in strategy and tactics as "moving in the direction of greater reliance upon mobility, long-range ordnance from air power, vertical rather than tank-led encirclement, [and the] use

of specially assigned forces."⁵⁴ The Soviet lessons drawn from the first three years of the war involving the necessity for rapid mobility and massive, responsive fire support in essence constituted a restatement of traditional Soviet doctrinal precepts. The focus on "vertical envelopment," however, established a new emphasis for Soviet operations involving the massed use of heliborne operations by specially trained airborne and air assault forces.

Soviet airborne operations involving actual parachute drops were relatively rare in Afghanistan. Still, airborne forces (VDV) had proved vital in conducting operations to secure key installations throughout the country during the initial invasion. As the war progressed, VDV forces pioneered many of the Soviet irregular warfare tactics, and, in turn, these forces became a primary element for conducting counterinsurgency operations either as dismounted infantry or by helicopter insertion.⁵⁵ The following eyewitness account by a former mujahid aptly described the special capabilities of VDV forces in unconventional warfare:

We had taken positions close to the top of a mountain overlooking a valley and were shooting at the Soviets with BM-12s [rockets] and mortars. . . . Then all of a sudden a VDV company of about 90 men appeared and attacked us from behind. They had climbed straight up the mountain during the night. . . . We fought for two days there, and many people were killed. Before that I had thought that the Soviet soldiers are not worth anything . . . These were really tough guys.⁵⁶

This story not only illustrates the capabilities of the VDV, but it also points to a shift in Soviet strategy toward night operations during this period. As late as November 1982, one senior Soviet military leader, Guards Major General F. Kuz'min, had criticized the performance of Soviet forces in night operations.⁵⁷ Soviet planners responded to the need for a more effective night fighting capability, and by 1984 VDV (airborne), DShB (air assault), and specially trained reconnaissance troops constituted the primary forces for conducting night attacks and ambushes.⁵⁸ Still, the lack of an effective night-capable aircraft restricted support to these ambushes and limited other aerial operations during the hours of darkness.

By 1984, helicopters, and the mobility they provided, began to play a much-expanded role in the war against the insurgents. Both VDV and DShB forces counted on helicopters to provide them with increased mobility and firepower support in contrast to the vulnerable and slow-moving mechanized convoys. One veteran of the *desant* forces, Vladislav Tamarov, stated "It was a lot easier on us when the helicopters took us into the mountains: you went to the airfield, boarded the copter, and in an hour you were there." *Desant* forces conducted four major types of military actions in Afghanistan, including: large-scale operations using artillery and aviation support to destroy concentrated pockets of *mujahideen*; small-scale operations by regiments with artillery and aviation support aimed at destroying a specific group of *mujahideen*; the "combing" of villages to identify weapons stores and field hospitals; and company-sized ambushes near roads, major trails or villages. Tamarov remarked that the Soviet counterinsurgency forces relied heavily on dismounted operations in contrast to their motorized rifle counterparts. His description of Soviet operations also illustrated the *desant* forces' reliance on air support as well as the

routine use of these forces in counterinsurgency roles. In fact, DShB forces began to conduct surprise heliborne attacks against both villages and suspected *mujahideen* way stations (*chaikhana*, literally "tea house"). In one example, two helicopters landed approximately two dozen troops at a *chaikhana*. They surprised and, in about ten minutes, killed 30 insurgents before departing by helicopter.⁵⁹

An operation in October 1984 in the area of the Pizgoran ravine demonstrated the increasing Soviet reliance on large-scale air landings involving motorized rifle and counterinsurgency forces. On 25 October, 24 Mi-8 *Hip* helicopters airlifted 1,280 men into the area. During the operation, Mi-24 *Hinds*, MiG-23 *Floggers*, and Su-25s provided fire support for the landing force. Sarin and Dvoretzky stated that this type of operation allowed Soviet forces to inflict losses on insurgents holding defensive positions while projecting "concentrated fire at distant operational locations beyond the front line."⁶⁰ Main force units subsequently accomplished a link-up with the airhead forces in this operation prior to a further advance against the insurgent positions. In this instance, the air assault landing had essentially acted as the force with which first to outflank, and then to crack the *mujahideen* defensive line.

The relative success of this new combined arms strategy employing air assault techniques led to a growing optimism among the Soviet leadership concerning their ability to eventually defeat the insurgency. Soviet Deputy Foreign Minister Mikhail S. Kapitsa stated in 1986 that the war would be over in five years.⁶¹ Kapitsa's assertion proved prophetic, but not in the intended sense of a Soviet victory. Prior to 1984, Soviet control of the skies was largely uncontested. The *mujahideen* lacked the armaments with which to construct an effective air defense system, and achieved their greatest successes against Soviet air units in mortar and rocket attacks against their airfields. However, this situation began to change as the insurgents acquired a greater number of heavy machine guns and manportable surface-to-air missiles (SAMs).

Prior to 1986, the *mujahideen*'s most effective anti-aircraft weapon proved to be the "Dashka" 12.7 mm and the "Zigriat" 14.5 mm heavy machine-guns. A Soviet defector, Alexander Zuyev, noted that the *mujahideen* air defense tactics were "relatively primitive" in 1984, "[but] their 12.7 mm and 14.5 mm antiaircraft guns could be dangerous below an altitude of about 4,500 feet."⁶² These heavy machine-guns began arriving in greater numbers as a result of increasing Chinese deliveries. For example, there were only 13 *mujahideen* heavy machine-guns in the Panjshir Valley in 1982, but, by the end of 1984, there were almost 250.⁶³ The *mujahideen* became quite proficient in the use of these weapons to conduct "lateral ambushes." They situated gun sites at positions along opposing ridgelines in order to provide enfilade fire of Soviet aircraft operating in the area below the ridge or along the valley floor.⁶⁴ A chagrined Soviet veteran described his unit's capture of several "Dashka" heavy machine-guns which had found their way from the Soviet Union to China, and on to Afghanistan, where they were now being used to kill Russian soldiers.⁶⁵

Mujahideen air defense initiatives were not only confined to the battlefield. In fact, the insurgents achieved some dramatic results by infiltrating areas in the vicinity of Soviet

airfields in order to attack Russian aircraft. Military Transport Aviation (VTA) continued to play a key role in resupplying Russian forces in Afghanistan.⁶⁶ According to one analyst, from the early stages of the war the Soviets relied "heavily on the VTA for the routine introduction of military materiel ordinarily transported by road. . . . [and] helicopters were being used extensively to move supplies within the country."⁶⁷ However, the VTA was not able to escape the effects associated with the *mujahideen's* increased number of SA-7s. On 28 October 1984, the insurgents shot down a Soviet An-22 *Cock* heavy transport using a SA-7 as it took off from the Kabul airport. In another example, an Afghan Airline DC-10 with 300 passengers aboard was hit by a SA-7, but managed to land safely.⁶⁸ Surrounded by a series of low hills, the airport at Kabul remained particularly vulnerable to the SAM threat throughout the remainder of the war. Kabul was not the only airfield put at risk by the *mujahideen's* manportable SAMs. In September 1984, the insurgents shot down a Bakhtar Airlines aircraft with a SA-7 just after it took off from the Kandahar airfield.⁶⁹ The Soviets countered the growing SAM threat with on-board decoy flare systems as well as helicopter flare ships orbiting the airport prior to take-offs and landings.⁷⁰ The increasing SAM threat throughout the theater resulted in the redeployment of Soviet electronic intelligence (ELINT) aircraft and long-range bombers based at Shindand back to the Soviet Union.⁷¹ Bases inside the Soviet Union, such as Termez, provided greater security for these assets, and still allowed for their effective employment within Afghanistan.

The acquisition of SA-7s allowed the *mujahideen* to achieve limited success in blunting the Soviet aerial advantage. The impact of the weapon should not be measured in the numbers of aircraft shot down alone. The missiles forced Soviet and DRA aircraft and helicopters to adjust their mission profiles and tactical procedures. The introduction of the SA-7 not only increased the threat experienced by the aircrews, but it also demonstrated the disproportionate impact that can occur when insurgencies obtain modest technological upgrades to their weapons arsenals. In the unconventional warfare environment, insurgents do not need to control the air, but only to dictate the way in which airpower can be employed by a technologically advanced adversary.

By the end of 1984, Soviet airpower, in all its various forms, carried the lion's share of the burden in prosecuting the war against the *mujahideen*. Operations ranged from the use of 36 Tu-16 *Badger* bombers in a mini "ARC LIGHT"⁷² campaign against the Panjshir Valley in April 1984 to the employment of VTA An-12 *Cubs* and An-26 *Curls* as master bombers.⁷³ Transport aircraft acting as flare ships for battlefield illumination also played an important role in discouraging or combating *mujahideen* night attacks.⁷⁴ In addition, the use of helicopters in support of air assault, CAS and interdiction operations formed a crucial element in the Soviet air strategy to defeat the insurgents. Stephen Blank correctly argued that "Between 1980 and 1986 Soviet strategy in Afghanistan gradually came to rely almost exclusively on airpower, staking everything on airpower's capabilities to deliver ordnance, interdict supplies and reserves, isolate the battlefield from the rear, destroy the agricultural basis . . . and rapidly move troops from point to point."⁷⁵

By 1985, barring a massive influx of Soviet forces, it was clear that Soviet airpower would have to play an even greater role in order to win the battle against the *mujahideen*.

The relatively small size of the Soviet contingent, estimated at 115,000 troops by early 1985, precluded a ground solution to the campaign.⁷⁶ By the end of the year, Soviet strategy mirrored the proverb "live by the sword, die by the sword." A survey in 1985 by Swedish relief workers illustrated the continued willingness of the Russians to employ the sword of airpower as a punitive weapon. The survey indicated that the fields of over half the farmers who remained in Afghanistan were bombed, and over a quarter of these same farmers had their irrigation systems destroyed and livestock shot by Soviet and DRA forces.⁷⁷ The Soviets were in fact living to a great degree by the airpower sword, but the *mujahideen* were becoming increasingly adept at blunting the blows of the Soviet aerial cutlass.

By the beginning of 1986, the *mujahideen* had clearly demonstrated an increased ability to combat Soviet airpower, and had forced Russian jets to operate at higher altitudes thereby decreasing their accuracy. The greater number of heavy machine-guns among the insurgents also led to an increasing capability to threaten the mainstay of Soviet aviation in Afghanistan, their helicopters. The Mi-24 *Hind*, almost impervious to small arms fire, was vulnerable to concentrated fire from both heavy machine-guns and the SA-7. In the end, the numbers tell the story. One Afghan defector estimated DRA aircraft losses between December 1979 and early 1984 at 164 aircraft (both fixed-wing and helicopter).⁷⁸ Joseph J. Collins, a former US army officer, estimated that by the end of 1984 Soviet losses totaled 600 aircraft.⁷⁹ The balance of power began to shift in favor of the insurgents as the *mujahideen* achieved their first successes in contesting Soviet dominance of the skies over Afghanistan in 1984 and 1985.

Mujahideen Ascendant

The offensives of 1984 and 1985 had proved costly to Soviet forces in Afghanistan. Western intelligence reports estimated that 2,343 Soviet personnel were killed in action (KIA) in 1984 and another 1,868 KIA in 1985.⁸⁰ The ascension of Mikhail Gorbachev to the position of General Secretary of the Communist Party of the Soviet Union (CPSU) in the spring of 1985 coincided with what would become the third costliest year of the war for the Soviets.⁸¹ Soviet frustration with the war was becoming increasingly apparent. From the platform of the 27th Party Congress in February 1986, Gorbachev described Afghanistan as a "bloody stump."⁸² In addition to the cost in lives, the Soviet Union was spending an estimated 5 billion dollars a year in prosecuting the war.⁸³ In fact, 1986 was destined to be the year of decision for Soviet policy makers concerning their continued involvement in the Afghan quagmire.

British defense correspondent Mark Urban stated that "From early 1986 the Soviet Army switched to a more defensive strategy. Rural operations were reduced and defences around towns increased . . ." Urban estimated that there were six offensives involving more than 5,000 Soviet troops each in 1984-85 while there was only one such operation during the last three years of the war.⁸⁴ Urban's argument is correct with respect to the involvement of Soviet ground forces, as the burden of large-scale ground fighting began to shift to DRA forces. In fact, Soviet casualties in 1986 dropped to their lowest levels since 1981. The Soviets did not, however, completely abandon offensive operations. In

February 1986, Soviet forces conducted a large-scale operation into the Charikar valley, approximately 40 miles north of Kabul, which demonstrated the increasing proficiency of Soviet forces in the conduct of *desant*-type combined arms operations. For example, on the first day alone, helicopters conducted a tactical insertion of three airborne battalions and three motor rifle companies. Later, an additional 17 battalions were landed in support of the operation.⁸⁵ The Charikar valley operation illustrated the increased proficiency achieved by Soviet forces in massed air assault operations by 1986.

In early April, Soviet and DRA forces launched a joint operation aimed at capturing the major *mujahideen* stronghold at Zhawar, a mere three kilometers from the Pakistani border. The attacking force consisted of 12,000 troops of which only 2,200 were Soviet. Soviet airpower played a critical role in assembling forces for the attack by airlifting 4,200 DRA and Russian troops into the airport at Khost just prior to the start of the operation. During the initial stages of the operation, DRA mechanized and ground forces pushing south from Khost encountered heavy resistance that slowed their advance to between two and three kilometers per day. In attempting to break the *mujahideen* resistance, the offensive on the road to Zhawar relied heavily on large-scale heliborne operations in order to provide the anvil for the hammer of the advancing mechanized forces. Brigadier Abdol Gafur, the DRA commander for the operation, employed elite Soviet and DRA battalions in air assault landings behind the *mujahideen* lines. Soviet aircraft also supported the DRA forces by conducting strikes on *mujahideen* positions. For example, Soviet Su-25 *Frogfoot* ground attack aircraft with laser-guided bombs successfully struck the insurgents' cave/storage complex at Zhawar.⁸⁶ After almost three weeks of fighting, Zhawar fell to the DRA and Soviet forces. Although modest in terms of Soviet ground participation, the campaign clearly indicated the continuing importance of Soviet airpower in all its forms. The Zhawar campaign provided an example of Soviet airpower's effectiveness when the *mujahideen* chose to stand and fight a fixed battle.

During this period, the Soviets also adapted their tactics to better suit the nature of unconventional warfare by employing small groups of specially trained commando forces (*spetsnaz*) to conduct hit-and-run raids against the *mujahideen*. Edward Girardet, a journalist with extensive experience traveling with the *mujahideen*, stated "The special troops are swift, silent and deadly. Swooping down in a single December [1985] raid, they slaughtered 82 guerrillas and wounded 60 more."⁸⁷ A *mujahideen* commander, Amin Wardak described the ambush: "They attacked at night in a narrow gorge. At first, we didn't know we were being shot at because of the silencers. Then our people began falling."⁸⁸ These ambushes were effective, but relied on small numbers of specially trained forces. In addition, these forces relied largely on the mobility provided by helicopters for insertion and exfiltration.⁸⁹ Still, these isolated successes could not break the *mujahideen*'s hold on the countryside.

If Soviet ground operations were reduced in 1986, the nature of Soviet air operations remained essentially the same. One estimate of Soviet aircraft in Afghanistan in 1986 included 80 MiG-21 *Fishbeds*, 40 MiG-23 *Floggers*, 80 Su-17 *Fitters*, 30 Su-25s, and 27 reconnaissance aircraft.⁹⁰ However, the number of helicopters in the country dramatically declined between 1985 and 1988. Compared to a high of approximately 600

aircraft in 1982, the number of helicopters fell from 350 in 1985 to 325 in 1986, and, finally to 275 by February 1988.⁹¹ The greatly reduced number of helicopters was in part tied to the restricted size and nature of Soviet ground operations. More importantly, the growing vulnerability of rotary-wing assets to the increasing missile threat undoubtedly played a role in the decision to reduce these forces.

After a period of prolonged deliberation, the US government decided to supply the *mujahideen* with heat-seeking Stinger surface-to-air missiles (SAMs) in 1986. In hindsight, it is clear that both the psychological and physical impact of the Stinger proved enormous. The very presence of the missile, whether used to full effect or not, forced a fundamental alteration in the nature of Soviet air tactics throughout Afghanistan. The Stinger, however, constituted the second phase in attempts by the West to improve the organic air defense capabilities of the insurgents. Already in the beginning of 1986, the *mujahideen* received the first shipments of the British-manufactured Blowpipe manportable SAM.⁹² The optically guided Blowpipe proved large and unwieldy in the eyes of the insurgents. The Blowpipe required the operator to guide the missile with a thumb-controlled joystick while tracking the target with a monocular sight.⁹³ Paul Overby, an American who traveled with the *mujahideen* in 1988, described the reaction of one insurgent when comparing the fire-and-forget Stinger with the Blowpipe: "Gulaly asked me if the Stinger was American. I told him it was. 'Stinger . . . *klak!* Blowpipe . . . *kherab!*' Stinger tough, Blowpipe bad, he repeated over and over, like an incantation."⁹⁴ It is important to note that *klak*, or toughness, was a trait valued by the *mujahideen* and indicated admiration for the weapon, and not the fact that it was difficult to use. In fact, the Stinger was not a user-friendly missile. The most difficult step in firing the missile involved its complicated IFF (Identification Friend or Foe) process.⁹⁵ However, the Afghan insurgents had no need for this step. The elimination of IFF did not make Stinger a "point and shoot weapon," but it did greatly facilitate its use by the *mujahideen*. In any event, the Stinger was by all indications a great improvement over the Blowpipe. Daoud Rams, a former MiG-21 pilot with the Afghan air force, stated that "The Blowpipe missile didn't present as serious a problem to fighter aircraft as Stinger. Both Stinger and Blowpipe were real problems for helicopters, but we were more concerned with Stinger."⁹⁶ The Blowpipe did not prove the answer to the insurgents' prayers, but the introduction of the Stinger in mid-1986 fundamentally weakened a major Soviet advantage -- the ability to exert coercive force through aerial attacks.

By October 1986, the *mujahideen* had received approximately 200 Stinger missiles.⁹⁷ The Stinger, with its maximum speed of 2.2 Mach and maximum effective range of 5.5 kilometers, provided a quantum leap in performance over the SA-7 with a maximum speed of 1.4 Mach and maximum effective range of 3 kilometers.⁹⁸ More importantly, the Stinger was an all-aspect missile while the infrared passive homing SA-7 could only be launched from the rear quadrant of aircraft moving away from the missile operator. The physical impact of Stinger found expression in a variety of ways. For example, a Soviet doctor discussed the missile's impact, stating "Until 1987 all of the wounded were evacuated by helicopter . . . But the arrival of Stinger missiles put an end to the massive use of choppers."⁹⁹ Not only were medevac missions affected, but also the essential nature of air tactics changed with the arrival of the Stinger. Daoud Rams remarked that

"Before Stinger, we were free to do almost anything we wanted. After Stinger was introduced, we changed all our tactics, altitudes and speed -- everything. We did not like to fly down low, and when we had to, we flew very fast, and even at high altitudes, we flew as fast as we could . . . We were no longer able to operate at will whenever and wherever we wanted." [100](#) Sarin and Dvoretzky supported this view with their statement that the Stingers "inflicted heavy losses on Soviet pilots." They also observed that "the combat effectiveness of Soviet air operations was lessened greatly when the Stinger was introduced into Afghanistan." [101](#)

Without a doubt, the Stinger forced a change in flight profiles for both fixed-wing and helicopter aircraft. Driving helicopters and attack aircraft down to the deck now exposed them to increased danger from small arms fire even in areas where the Stinger was not deployed. The psychological impact of the Stinger was almost as profound as the physical results achieved by the missile. By the end of 1986, both Soviet and DRA pilots had to assume that the missile was operational throughout the entire country. One member of the *mujahideen* succinctly described the behavior change among attacking pilots in the following words: "They don't like suffering casualties, so they drop their bombs and fly home as quickly as they can." John Gunston, a former British army officer and journalist for *Aviation Week & Space Technology*, after observing a six-ship Soviet jet strike in the beginning of 1988, remarked on the poor results of the bombing. "It appeared," he said "that the pilots involved were putting survival before accuracy." [102](#)

The interdiction of supplies and manpower along the border had formed one of the cornerstones of Soviet strategy from the outset of the war. By 1986, the Soviets came increasingly to rely on airpower rather than ground forces to enforce a literal no man's land in the Afghan provinces bordering Pakistan. By the end of 1984, the majority of supply caravans moved at night in order to avoid the threat of Soviet air attack. In the period from November 1983 to March 1984, the Soviets used specially trained reconnaissance troops to monitor 13 points along the major infiltration routes from Pakistan. These forces detected 579 movements out of Pakistan of which 463, or, 80 percent, were conducted at night. By the beginning of 1988, Gunston observed that "The fear of air attack that had prevailed among the *mujahideen* in 1985 and 1986 has disappeared and supply caravans now travel with ease during the day, something they were loathe to do two years ago." [103](#) The introduction of the Stinger not only allowed supply caravans to travel during the day, but it also allowed *mujahideen* forces to mass in preparation for offensive operations.

Anthony Tucker argued that "The introduction of Stinger ended the Soviets' ability to conduct heliborne operations and airborne operations with impunity. This over-reliance on helicopters meant they had no other options when it came to interdicting the insurgents' operations, making the war once and for all unwinnable [sic], contributing to their decision to withdraw." [104](#) An analysis of the chronology of Russian decision-making only partially supports Tucker's argument. Gorbachev had already ordered a partial troop withdrawal in the summer of 1986. The decision to "get out" of Afghanistan, however, did not occur until a Politburo meeting of 13 November 1986. During this seminal meeting Gorbachev argued "We have been fighting in Afghanistan for six years

now. If we don't change approaches we will be fighting for another 20 or 30 years . . . We must finish this process in the swiftest time possible."[105](#) In a tone distinctly reminiscent of American military leaders after Vietnam, Marshal Sergei Akhromeyev stated:

There is not a single piece of land [in Afghanistan] that the Soviet soldier has not conquered. Despite this, a large chunk of territory is in the hands of the rebels. We control Kabul and the provincial centers, but we have been unable to establish authority over the seized territory. We have lost the struggle for the Afghan people.[106](#) The appearance of the Stinger, in addition to the increased number of SA-7s and Blowpipes, may have played some role in the Politburo's decision based on the missile's early success. It appears, however, that Gorbachev was reacting to a prolonged and costly struggle that offered the Soviets no real advantage besides the opportunity to increase the roll call of fraternal socialist states -- domestic political and economic considerations apparently outweighed protocol victories.

By the end of 1986, a little over two years of fighting still remained. It was clear, however, that the center of gravity of Soviet operations in Afghanistan revolved around the ability of the VVS to quickly and accurately deliver both fire support and forces throughout the country.[107](#) The introduction of the Stinger missile effectively reduced the Soviets' greatest advantage. The Soviets no longer "owned" the air, and, in turn, the loss of air supremacy essentially precluded any chance for a Russian victory in the near future.

CONCLUSIONS

At the outset of the Soviet invasion of Afghanistan in December 1979, military and political pundits were nearly unanimous in their predictions of a rapid Soviet victory. Few believed that a fractionalized and ill-equipped insurgency could long stand against the armed might of one of the greatest military powers in the world. However, the pundits were proven wrong, and the *mujahideen* did triumph. Afghanistan should serve as a caution to both US military strategists and to an American public inebriated by the overwhelming success of coalition arms in the Gulf War and the apparent NATO success in the Balkans. Today, the armed forces of the United States enjoy a position of preeminence among the world's militaries. Paradoxically, the current US position of military preeminence may be threatened less by budget cuts than by a changing paradigm in warfare. The Soviet experience in Afghanistan demonstrates the dangers inherent in equating conventional military strength with the capability to achieve victory in the environment of unconventional war.

Former US ambassador Edwin Corr and American political scientist Stephen Sloan, in *Low-Intensity Conflict: Old Threats in a New World*, present a convincing argument concerning the changing paradigm from conventional to irregular warfare.[108](#) The post-Cold War era has, indeed, initiated a period in which US political and military efforts must focus on the exigencies of low-intensity conflict. The Soviet experience in Afghanistan between 1979 and 1989 provides numerous insights and cautions for today's

military planners, who contemplate the employment of force in "non-trinitarian" conflict.¹⁰⁹ The Soviet failure clearly demonstrates the potential danger in relying on airpower as a primary instrument for coercion. The war in Afghanistan showed that air supremacy alone does not constitute a panacea for guaranteeing success in contemporary military operations. The Soviets' inability to achieve their political objectives in Afghanistan also illustrated the limits of conventional military power in the low-intensity environment. Despite an overwhelming advantage in firepower and complete mastery of the air, Soviet and DRA forces failed to coerce the *mujahideen* into ceasing their attacks against the Russian occupation forces and the DRA regime.

Airpower as Force Substitute

The conflict in Afghanistan witnessed a definitive shift in the standard Soviet employment of airpower in the conduct of military operations. Soviet doctrine in 1979 emphasized the use of airpower as a force adjunct for the direct support of ground forces. This doctrinal disposition relied heavily on the historical legacy of the Soviet experience against the Germans in World War II. In the initial period of the Afghan war, Soviet airpower conformed to this existing paradigm of ground support operations. However, the unwillingness of DRA forces to fight, Moscow's reluctance to increase Soviet troop levels, and the desire to minimize casualties led to the employment of airpower as both a "force multiplier" and a "force substitute" in the battle against the *mujahideen*. The Soviet use of airpower as a force substitute extended to both attacks on the insurgents and their military infrastructure as well as strikes aimed at punishing the civilian population. Indeed, the employment of airpower as a punitive instrument found its most brutal expression in a deliberate VVS campaign of aerial terror. In the end, barring a massive additional commitment of Soviet ground forces, airpower constituted the single remaining viable option with which to combat the Muslim insurgency. Airpower clearly became the Soviet "force of choice" in Afghanistan.

Assessing the Soviet Failure

Soviet operations aimed at achieving coercion through punishment failed because of the following factors:

- (1) Punishment operations could not overcome the *mujahideen* determination to resist the Soviet occupation based on the insurgents' religious and nationalistic beliefs.
- (2) Punishment operations proved counterproductive. Instead of pacifying the population these actions incited even greater resistance.
- (3) Punishment operations could not generate subservience to a regime viewed as illegitimate by the majority of the Afghan population.

These factors, acting in combination, frustrated Soviet attempts at achieving coercion through punitive bombardment.

The determination of the *mujahideen* to resist the Soviet occupation rested in large part on their belief in Islam. The call for a *jihad* against the regime of Nur Taraki was a powerful force in initially mobilizing the resistance. The Soviet invasion galvanized the Muslim insurgency in terms of an apocalyptic battle between the defenders of the true faith and the *kafir* (infidel). The Russian occupation also stimulated Afghan nationalism, and revived the Afghans' historical antipathy to foreign domination. One *mujahideen* commander clearly expressed these sentiments by stating, "We are fighting for Islam but we should be fighting for Afghanistan as well."¹¹⁰ The twin ideologies of Islam and nationalism provided the metaphysical sustenance to the insurgency, and both proved nearly impervious to Soviet bullets and bombs.

In terms of casualties inflicted, the Soviet campaign to punish the Afghan population was a decided success. Lester Grau and former Afghan General Mohammed Nawroz estimate the number of Afghan civilian casualties at 1.3 million.¹¹¹ Vincent Cannistraro, Assistant to the Assistant Secretary of Defense for International Security Affairs, testified before a Congressional committee that Soviet operations resulted in "one million casualties to innocent civilians bombed by Soviet air power, dismembered by indiscriminate use of landmines, and shelled by Soviet artillery."¹¹² In total, civilian deaths represented between 6 and 8 percent of the pre-war Afghan population.¹¹³ In addition, the number of Afghans affected by the Soviet use of "scorched earth" tactics and the prosecution of a policy of "migratory genocide" is equally staggering. Cannistraro estimated that the war produced over five million refugees with over three million sheltered in Pakistan alone.¹¹⁴ Despite the severity of these efforts, Soviet attempts to break the will of the Afghan people through punishment still failed to produce the desired strategic results. Muhammed Sadeqi, a *mujahideen* commander, stated, "We cannot be defeated . . . Although we are short of arms, ammunition and food, and they are well equipped, we have determination on our side. They [the Russians] have no heart for the struggle."¹¹⁵ The rugged and fiercely independent Afghan character combined with religious faith to make the insurgents and the populace largely immune to Soviet terror and intimidation.

The final factor involved in the failure of Soviet punishment operations centered on the perceived illegitimacy of the Soviet sponsored DRA regime, whether under the leadership of Babrak Karmal or Najibullah Ahmadzai. Trevor Fishlock, a journalist for *The Times* of London, aptly described the acceptance of the Karmal regime among the populace in the following words:

The Karmal regime, weak and detested, is held up only by a framework of Russian arms and administration. Mr. Karmal, once known as a champion of people's causes, is a pariah in his own land. He keeps to his palace, presiding over a crumbling economy, a ramshackle and untrustworthy army, a dispirited civil service, a fleeing middle class and a truculent population.¹¹⁶

The mass desertions within the DRA armed forces provided one indication of the illegitimacy of the DRA regime. The DRA desertion rate averaged at least 10,000 men per year, leading one *mujahideen* commander to remark that "the [DRA] army is becoming like a room with two doors. You go in through one and leave through the

other."¹¹⁷ The government's inability to prevent members of the armed forces from deserting led to the introduction of "press gangs" to provide sufficient manpower for the DRA military. These press gangs, much like their eighteenth-century predecessors, kidnapped and impressed young men into military service during sweeps of urban centers and rural villages.¹¹⁸ The periodic mutinies of Afghan army garrisons provided yet another indicator of the inherent illegitimacy of the Soviet-sponsored DRA regime.¹¹⁹ One of the most dramatic examples involved a revolt on 12 June 1985, by Afghan pilots at Shindand airbase during which they destroyed 20 jets.¹²⁰

Soviet efforts aimed at the military infrastructure of the *mujahideen* proved as disappointing as their efforts to punish the Afghan population. The major factors contributing to the failure of these efforts included:

- (1) The availability of insurgent sanctuaries.
- (2) The failure of Soviet interdiction efforts.
- (3) The logistical parsimony of the *mujahideen*.
- (4) The small size of Soviet forces, especially counterinsurgency forces.
- (5) The lack of appropriate counterinsurgency doctrine.
- (6) The introduction of effective manportable SAM technology, thus negating Soviet air supremacy.

First, the Soviets never succeeded in preventing the *mujahideen* from using Pakistan as a sanctuary, or in halting the flow of supplies from Pakistan into Afghanistan. Despite numerous Soviet diplomatic warnings and repeated air and artillery attacks, the Pakistani leadership refused to comply with Russian demands to close the border to the insurgents. The nature of the *mujahideen* logistics system and the insurgents' minimal requirements constituted two additional difficulties for Soviet military planners. The inability to successfully sever the *mujahideen* supply lines within Afghanistan constituted a major failure of the Soviet strategy. At the same time, the third element of Soviet failure, their underestimation of their adversary and a corresponding overestimation of the fragility of his logistics infrastructure, also played a key role in contributing to the failure of the Soviet interdiction campaign. Arthur Bonner, an American journalist who traveled with the *mujahideen* in 1985, described the insurgents' use of small groups of men and animals for resupply. In one example, prior to crossing an exposed plain, a caravan consisting of 700 men and hundreds of animals was divided "into groups of ten and sent forward at ten-minute intervals as a precaution in case of an air attack."¹²¹ Edward Cody, a journalist with *The Washington Post*, accompanied the *mujahideen* during an 11-day trek along one caravan route. During this trek, his party fluctuated between as few as two and as many as fifty members.¹²² The ability of the *mujahideen* to parcel-out their resupply columns complicated Soviet detection efforts, and prevented the Russians from finding lucrative or decisive interdiction targets.

Furthermore, the Soviets seriously overestimated the insurgents' supply requirements. During the Korean War, the ability of a Communist Chinese division to operate on 50 tons of supplies per day astounded American commanders and greatly complicated United Nations interdiction efforts.¹²³ Later, during the war in Vietnam, the ability of over 200,000 Communist forces to operate on 380 tons per day practically doomed the American Rolling Thunder interdiction campaign to failure from its inception.¹²⁴ In Afghanistan, the frugality of the *mujahideen* logistical requirements appears even greater than those of the Chinese and Vietnamese communists. The evidence concerning the parsimony of the *mujahideen* with respect to logistical requirements is anecdotal, as no written record of shipments and exact tonnage exists. The experience of numerous foreign observers with the insurgents is, however, instructive and convincing. Paul Overby discussed a typical dinner as consisting of flatbread, boiled beef, and potatoes cooked in a communal bowl with water being shared from a communal pitcher. In another example, Overby describes a breakfast of "stale" pieces of flatbread and oranges.¹²⁵ In one case, a group of *mujahideen* existed on turnips and flatbread alone for six days.¹²⁶ Numerous other accounts by Western observers indicate the ability of the *mujahideen* to operate on a diet centered on flatbread, lard and heavily sweetened tea.¹²⁷ These same observers also indicate the routine ability of the *mujahideen* to march for 12 or 13 hours without a break through the rugged mountainous terrain.¹²⁸ In the end, it was clear that the Soviets had greatly overestimated the logistical needs of their adversary.

The fourth factor involved in the failure of Soviet military strategy centered on the small size of available regular and counterinsurgency forces. The small size of Soviet ground forces and the unwillingness of the Afghan army to fight greatly handicapped Soviet pacification efforts. Soviet forces, totaling between 118,000 and 120,000 men at the high point of the occupation, were clearly insufficient for gaining control over a largely mountainous country the size of Texas.¹²⁹ The fact that only 20 percent of these forces were specially trained for counterinsurgency operations further limited the usefulness of the available manpower for this mission. Former US *chargé d'affaires* to Afghanistan, Charles Dunbar, stated that "the Soviets would have to bring in something in the order of a half-million men if they were to hope to do a great deal more than they are now [1983] in the way of suppressing the resistance."¹³⁰ According to Dunbar, the Soviet leadership's failure to increase the size of the occupation force was based on their unwillingness to incur casualties, and a desire not to provoke renewed diplomatic protests. In practical terms, however, it is also doubtful that the Soviet logistical system could have sustained such a dramatic increase in personnel in Afghanistan.¹³¹

Fifth, the absence of an appropriate counterinsurgency doctrine severely handicapped Soviet operations during the first three years of the war.¹³² Improvements in Soviet tactics for dealing with the insurgency included the increased use of helicopters and air assault techniques, the expanded employment of *spetsnaz* forces, and improved training and equipment for all forces. The Soviet army validated the usefulness of air assault techniques employing heliborne VDV and DShB forces. In fact, Soviet Major General Grekov, Chief of Staff of the 40th Army, identified the perfection of heliborne *desant* operations as the major lesson of the war.¹³³ *Spetsnaz* forces successfully conducted a

number of raids and ambushes in the course of the occupation. In addition, the war witnessed the introduction of new Soviet weapons systems including infantry fighting vehicles (BMP-2), mortars (*Vasilek* 82 mm), grenade launchers (AGS-17), aircraft (Su-25 *Frogfoot*) and automatic weapons (ASU-74 assault rifle).¹³⁴ In the end, however, improved Soviet counterinsurgency forces, techniques and equipment proved too little and too late.

Finally, it was the *mujahideen's* acquisition of reliable and effective manportable surface-to-air missiles that administered the *coup de grace* to Soviet military strategy in Afghanistan. The introduction of the Stinger missile clearly raised the ante beyond the Soviet ability to pay, although it did not significantly impact the Soviet decision to leave. Stinger's ability to neutralize the major source of Soviet military strength crippled the Russian interdiction efforts and allowed the *mujahideen* to mass their forces for the conduct of large-scale operations. Stinger clearly eroded the efficacy and accuracy of fixed-wing operations, and, in turn, it sounded the deathknell for heliborne attack, either in the form of air assault landings or attack aviation.¹³⁵ The Stinger was equally decisive in its psychological impact among Soviet and DRA pilots. Stinger clearly achieved a high level of respect among Afghan and Soviet pilots, who became increasingly unwilling to expose themselves or their aircraft to its lethal envelope. The accuracy and effectiveness of subsequent air operations suffered even more from the exaggerated belief in both the availability and capabilities of this missile among Soviet and DRA pilots. The *mujahideen* played on Soviet fears by discussing their possession of Stinger missiles in radio communications, even if their group did not have the missile. The Soviets intercepted these communications and received an exaggerated picture of the availability of Stinger among the insurgent groups.¹³⁶

Implications for Contemporary Military Planners

The failure of Soviet air and ground forces in the battle against the *mujahideen* provides a caution for contemporary military planners with respect to the employment of airpower in unconventional war. The Prussian military theorist, Carl von Clausewitz, in his *magnum opus On War*, wrote:

The first, the supreme, the most far-reaching act of judgement that the statesman and commander have to make is to establish by that test the kind of war on which they are embarking; neither mistaking it for, nor trying to turn it into, something that is alien to its nature.¹³⁷

Clausewitz's advice is as relevant today as it was in the nineteenth century. Political and military strategists must understand that unconventional warfare presents a multitude of unique difficulties and challenges concerning the employment of airpower. These difficulties are compounded by a decided penchant among modern armed forces for conventional military operations. The Soviet experience in Afghanistan clearly demonstrates that airpower can play a major role in unconventional operations. However, it alone does not constitute the instrument for achieving victory. Air and space assets can facilitate the attainment of superior firepower, adequate logistical sustainment, and improved intelligence and communication services, but the nature of the conflict and the

determination of one's adversary form the crucial elements determining the success or failure of military operations.

The *mujahideen* willingness to endure an enormous degree of punishment illustrates not only the limits of airpower, but the limits of military power as well. The *mujahideen* example demonstrates that there are situations when nothing short of the annihilation of one's adversary can lead to victory. However, genocide, whether conducted from the air or the ground, is morally indefensible and does not constitute a viable alternative for the contemporary Western military strategist. Not only the problem of direct, but also, indirect targeting is problematic in unconventional warfare. Soviet airpower could not strike "vital centers" that did not exist, nor could it create a vulnerability in a supply system *designed* to be invulnerable. American military planners experienced this same problem in their repeated efforts to interdict the Ho Chi Minh Trail during the war in Vietnam.¹³⁸ If air and ground forces cannot effectively isolate the insurgents from their sources of supply, then only limited success in interdiction efforts may constitute a misallocation of resources. It may be possible to eliminate 80 percent of the insurgents' supply, but this is a pyrrhic victory if they require less than 20 percent to operate effectively.

The advanced technology involved with contemporary intelligence, surveillance and reconnaissance (ISR) systems offers an improved ability to view the modern battlespace. The increased "transparency" of the battlefield does not, however, necessarily translate into greater success in unconventional warfare. Unconventional warfare is in large part a political struggle aimed at winning the hearts and minds of the target state's population. Technology cannot determine which person or persons, in a household of five or fifteen, are sympathetic to the insurgents' cause. Nor can technology accurately predict the impact of a given military operation, or bombing strike, in either catalyzing increased opposition or breaking the enemy's will to fight. In the unconventional arena, technology remains a tool, and not a guarantee for success.

Airpower, like technology, is but one of a number of tools for conducting unconventional operations. The mobility, intelligence and firepower provided by modern air assets can be decisive in attaining success at the tactical or operational level. These successes must, however, ultimately be translated into strategic victory. Soviet military planners in Afghanistan, like their American counterparts in Vietnam, learned that triumph on the battlefield does not necessarily result in political victory. In an insurgency environment, airpower is not a panacea, and it cannot compensate for a deficient political or military strategy. Experiences in Afghanistan and Vietnam demonstrate that neither unconventional warfare nor airpower are exempt from the Clausewitzian paradigm. The successful employment of military force in unconventional war requires both a clear understanding of the nature of the conflict as well as the limitations of airpower as an instrument for achieving limited political objectives--it is a lesson well worth noting.

[Figure 1 Afghanistan: Chemical Warfare Operational Areas](#)

[Figure 2](#)

Endnotes

The author would like to thank Lester W. Grau, Karl Mueller, and Mark Conversino for their comments and suggestions in the preparation of an earlier version of this manuscript.

1. Martin van Creveld, Kenneth S. Brower and Steven L. Canby, *Air Power and Maneuver Warfare* (Maxwell AFB, AL: Air University Press, 1994), p. xiii.
2. Thomas A. Keaney and Eliot A. Cohen, *Revolution in Warfare? Air Power in the Persian Gulf* (Annapolis, MD: Naval Institute Press, 1995), p. 213.
3. Robert P. Berman, *Soviet Air Power in Transition* (Washington, DC: The Brookings Institution, 1978), pp. 13-14.
4. Mark Galeotti, *Afghanistan. The Soviet Union's Last War* (London: Frank Cass, 1995), pp. 12-13.
5. Mikhail Heller and Aleksandr M. Nekrich, *Utopia in Power: The History of the Soviet Union from 1917 to the Present* (New York: Summit Books, 1982), p. 625
6. "Tanks are not Enough," *Newsweek*, 2 September 1968, p. 10.
7. Jiri Valenta, "From Prague to Kabul," *International Security* 5, no. 2 (Fall 1980), p. 134. Valenta provides a detailed and insightful comparison between the two invasions.
8. Galeotti, *Last War*, p. 15. The difference in the sizes of the two forces most probably reflected the Soviet fear of open combat with well-equipped Czechoslovakian forces as had occurred in Hungary in 1956. The threat posed by DRA forces was substantially lower as was the expected level of opposition.
9. Vladimir Kuzichkin, "Coups and Killings in Kabul," *Time*, 22 November 1982, p. 34.
10. Graham H. Turbiville, Jr., *Ambush! The Road War in Afghanistan* (Fort Leavenworth, KS: Soviet Army Studies Office, 1988), p. 2.
11. Oleg Sarin and Lev Dvoretzky, *The Afghan Syndrome: The Soviet Union's Vietnam* (Novato, CA: Presidio Press, 1993), p. 92. Sarin, and Dvoretzky estimate that fully 35 percent of all troops in Afghanistan were dedicated to protecting LOCs and manning outposts. In recognition of the dangerous nature of motor convoy duties, Soviet drivers received pennants inscribed with "For Valor and Courage" for every 20, 40, 60, or 80 trips. See also Lester W. Grau, *Road Warriors of the Hindu Kush: The Battle for the Lines of Communication in the Soviet Afghan War* (Fort Leavenworth, KS: Foreign Military Studies Office, 1991), p. iii. Grau states that the Soviets employed 26 battalions in patrolling the eastern routes, escorting convoys and garrisoning 199 outposts along the road network.

12. Ali Ahmad Jalali and Lester W. Grau, *The Other Side of the Mountain: mujahideen Tactics in the Soviet-Afghan War* (Fort Leavenworth, KS: Foreign Military Studies Office, 1999), p. 400.
13. Gérard Chaliand, *Report from Afghanistan*, trans. Tamar Jacoby (New York: Viking Press, 1982), p. 63. Large-scale Soviet ground operations into Paktia, Laghman and Nangrahar provinces in February, and the six-week occupation of the Kunar valley in March provide examples of the initial Soviet interdiction campaign. See Richard Wigg, "Kabul Clashes Between Troops and Crowds Leave 20 Reported Dead," *The Times* (London), 2 May 1980, p. 10; and Nancy P. Newell and Richard S. Newell, *The Struggle for Afghanistan* (Ithaca, NY: Cornell University Press, 1981), pp. 135-36.
14. Newell and Newell, *Struggle*, p. 136.
15. Edward Girardet, *Afghanistan: The Soviet War* (New York: St. Martin's, 1985), p. 39.
16. J. Bruce Amstutz, *Afghanistan: The First Five Years of Soviet Occupation* (Washington, DC: National Defense University, 1986), p. 145.
17. *Ibid.*, pp. 173-74.
18. US Department of State, *Chemical Warfare in Southeast Asia and Afghanistan*, Special Report No. 98 (Washington, DC: 22 March 1982), pp. 14-15. Only seven of these 47 documented chemical attacks occurred prior to the 1979 invasion; however, the attacks before the invasion accounted for over 2,300 of the verified 3,000 casualties.
19. Joachim Krause and Charles K. Mallory, *Chemical Weapons in Soviet Military Doctrine. Military and Historical Experience, 1915-1991* (Boulder, CO: Westview, 1992), p. 155. In July 1988, Foreign Minister Edward Shevardnadze criticized the enormous amounts spent on these armaments.
20. US Department of State, *Chemical Warfare in Southeast Asia and Afghanistan*, Special Report No. 98 (Washington, DC: 22 March 1982), p. 14.
21. Jan Goodwin, *Caught in the Crossfire* (New York: E.P. Dutton, 1987), p. 123. Goodwin interviewed Dr. Shahrukh Gran, a resistance leader in Kabul, who stated, ". . . they [the Soviets] built a ten-kilometer belt. They've destroyed all the villages around the city [Kabul], and they've put anti-personnel mines everywhere."
22. Sarin and Dvoretzky, *Afghan Syndrome*, p. 120. See also Robert D. Kaplan, *Soldiers of God. With the Mujahidin in Afghanistan* (Boston, MA: Houghton Mifflin, 1990), p. 3. A US State Department official estimated that Soviet and DRA forces laid between 10 and 30 million mines by the summer of 1988.
23. Jalali and Grau, *Other Side*, pp. 403-04.

24. Amstutz, First Five, p. 132.
25. Mao Tse-Tung, Six Essays on Military Affairs (Peking: Foreign Language Press, 1972), p. 61.
26. Mohammed Y. Nawroz and Lester W. Grau, The Soviet War in Afghanistan: History and Harbinger of Future War (Fort Leavenworth, KS: Foreign Military Studies Office, 1991), p. 9. Grau attributes this "mobile bunker" mentality primarily to the regular, and not, the counterinsurgency forces.
27. Anthony Arnold, The Fateful Pebble: Afghanistan's Role in the Fall of the Soviet Empire (Novato, CA: Presidio Press, 1993), p. 128. Arnold served at one time as an intelligence officer in Afghanistan.
28. The Times (London), 21 April 1982, p. 7; and Mark Urban, War in Afghanistan (New York: St. Martin's, 1988), p. 75. Urban discusses the impact of the weather on delaying operations in 1981. See also Kurt Lohbeck, Holy War, Unholy Victory. Eyewitness to the CIA's Secret War in Afghanistan (Washington, DC: Regnery Gateway, 1993), p. 177.
29. Galeotti, Last War, p. 16.
30. Urban, War in Afghanistan, p. 68.
31. Amstutz, First Five, p. 170.
32. Nawroz and Grau, Harbinger, p. 10.
33. Girardet, Soviet War, pp. 36-38.
34. Lohbeck, Holy War, p. 210. Lohbeck is regarded as one of the journalists who spent the most time among the *mujahideen* during the period of the Soviet occupation. See also Goodwin, Crossfire, p. 3.
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39. Michael Binyon, "600 Rebel Afghans Killed," The Times (London), 17 October 1981, p. 5.

40. Congress, Senate, Committee on Foreign Relations, Situation in Afghanistan, 97th Cong., 2d sess., 8 March 1982, p. 3.
41. M. Hassan Kakar, Afghanistan: The Soviet Invasion and the Afghan Response, 1979-1982 (Berkeley, CA: University of California Press, 1995), p. 126.
42. Girardet, Soviet War, p. 35.
43. Urban, War in Afghanistan, pp. 102-04.
44. Urban, War in Afghanistan, pp. 104, 107-09.
45. Alexander Alexiev, Inside the Soviet Army in Afghanistan (Santa Monica, CA: Rand, 1988), pp. 23-24.
46. Sarin and Dvoretzky, Afghan Syndrome, p. 119. See also Scott R. McMichael, Stumbling Bear: Soviet Military Performance in Afghanistan (London: Brassey's, 1991), pp. 87-88. See also Benjamin S. Lambeth, Russia's Air Power at the Crossroads (Santa Monica, CA: RAND, 1996), p. 206. It is worth noting, however, that these forward air controllers were predominantly army members without flying experience, while the best FACs in the war proved to be former pilots and navigators disqualified from flying duties.
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50. Martin, Inside, p. 137. See also Kakar, Afghan Response, pp. 215-16.
51. Edgar O'Ballance, Afghan Wars 1839-1992: What Britain Gave Up and the Soviet Union Lost (London: Brassey's, 1993), p. 121. See also Jean-Francois Revel, "The Awful Logic of Genocide," National Review, XXXVII, no. 19, p. 27. Revel states that according to Doctors without Borders, the starvation policy resulted in infant mortality rates to 85 percent during the winter of 1984-85.
52. Martin, Inside, pp. 72, 85-86, 141, 144-45, 212, 220, 234. See also Anthony A. Cardoza, "Soviet Aviation in Afghanistan," Proceedings 113, no. 2 (February 1987), p. 87.
53. "Battle Study: The Soviet War in Afghanistan," Marine Corps Gazette 70, no. 7 (July 1986), p. 61.

54. Stephen Blank, "Imagining Afghanistan: Lessons of a 'Small' War," *The Journal of Soviet Military Studies* 3, no. 3 (September 1990), p. 474.
55. Alexiev, *Soviet Army*, pp. 26-27. Alexiev verified only three parachute drops in his interviews with the *mujahideen*. See also Vladislav Tamarov, *Afghanistan: Soviet Vietnam*, trans. Naomi Marcus, Marianne Clarke Trangen and Vladislav Tamarov (San Francisco, CA: Mercury House, 1992), p. 28.
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58. McMichael, *Stumbling Bear*, p. 139. See footnote 5. Also Galeotti, *Last War*, p. 38. In this period, night actions received increased attention and included operations from in Herat, Kabul, Kapisa, Farah and Parwan between December 1983 and November 1984.
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60. Sarin and Dvoretzky, *Afghan Syndrome*, pp. 102-03.
61. Blank, "Imagining Afghanistan," p. 474.
62. Alexander Zuyev and Malcolm McConnell, *Fulcrum: A Top Gun Pilot's Escape from the Soviet Empire* (New York: Warner Books, 1992), pp. 127-28.
63. "Battle Study," p. 60.
64. Jalali and Grau, *Other Side*, p. 405.
65. Tamarov, *Soviet Vietnam*, p. 102.
66. Anthony Arnold, *Afghanistan: The Soviet Invasion in Perspective* (Stanford, CA: Hoover Institution Press, 1985), p. 100. *mujahideen* attacks on the Kabul-Termez highway just prior to the 1984 Soviet offensive in Panjshir disrupted overland fuel supplies and forced the VTA to airlift the necessary fuel for the planned operation into Kabul.
67. Turbiville, *Ambush*, p. 2.
68. Urban, *War in Afghanistan*, p. 156.
69. O'Ballance, *Afghan Wars*, p. 145.
70. Goodwin, *Crossfire*, pp. 111, 123, 153.

71. O'Ballance, *Afghan Wars*, p. 145. See also Peter Arnett, *Live from the Battlefield. From Vietnam to Baghdad, 35 Years in the World's War Zones* (New York: Simon & Schuster, 1994), p. 426.
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77. Kaplan, *Soldiers of God*, 11.
78. John Gunston, "Stingers Used by Afghan Rebels Stymie Soviet Air Force Tactics," *Aviation Week & Space Technology* 128, (4 April 1988), p. 43.
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81. Sarin and Dvoretzky, *Afghan Syndrome*, p. 187.
82. Urban, *War in Afghanistan*, p. 189.
83. Michael Dobbs, "Dramatic Politburo Meeting Led to the End of War," *The Washington Post*, 16 November 1992, p. A16. See also Arnold, *Fateful Pebble*, pp. 185-87. Arnold provides an extensive discussion of the various cost estimates for the Soviet occupation. These estimates range from 3 to 8.2 billion dollars a year, depending on the source and the method of calculation.
84. Urban, "Some Conclusions," pp. 366-67.
85. Sarin and Dvoretzky, *Afghan Syndrome*, p. 187.

86. Urban, War in Afghanistan, pp. 191, 193.
87. Edward Girardet, "Behind New Soviet Tactics in Afghanistan," US News & World Report, 20 January 1986, p. 30. See also Lohbeck, Holy War, p. 200.
88. Girardet, "Tactics," p. 30.
89. Alexiev, Soviet Army, p. 33.
90. Dov S. Zakheim, "New Technologies & Third World Conflicts," Defense 86 (July/August 1986), p. 16.
91. Tucker, "War Over Afghanistan," p. 270. See also Zakheim, "Technologies," p. 16. Zakheim states that in 1986, the Soviet helicopter inventory in Afghanistan included 140 Mi-24 Hinds, 105 Mi-8 Hips, 40 Mi-6 Hooks and 40 Mi-2 Hoplites.
92. Urban, "Soviet Operations," p. 367.
93. Tony Cullen and Christopher F. Foss, eds., Jane's Battlefield Air Defence (Surrey, UK: Jane's Information Group, 1988), p. 19.
94. Paul Overby, Holy Blood: An Inside View of the Afghan War (Westport, CT.: Praeger, 1993), p. 108.
95. Larry Grossman, "Stinger Success," Military Forum 4, (April 1988), p. 54. Tests conducted with trained US Army operators indicated that only 45 percent achieved a kill.
96. George A. Neranchi and Floyd C. Painter, "An Exclusive Defense Electronics Interview with Daoud Rams," Defense Electronics 20, no. 11 (October 1988), p. 148. Daoud Rams received his pilot training in the Soviet Union, but later defected to Pakistan in a MiG-21 during a combat mission near the border.
97. Tucker, "War Over Afghanistan," p. 271.
98. Cullen and Foss, Jane's, pp. 13, 23. The Blowpipe had a maximum speed of Mach 1 and a maximum effective range of 3.5 kilometers.
99. Artyom Borovik, The Hidden War: A Russian Journalist's Account of the Soviet War in Afghanistan (New York: Atlantic Monthly Press, 1990), p. 135.
100. Neranchi and Painter, "Exclusive," p. 148.
101. Sarin and Dvoretzky, Afghan Syndrome, p. 101. See also Alexiev, Soviet Army, p. 33. Alexiev offers a "conservative estimate" that credits the Stinger with a kill rate between 30 and 40 percent for a total of 270 aircraft destroyed between October 1986 and September 1987.

102. Gunston, "Stingers," p. 47.
103. Ibid., p. 46.
104. Tucker, "War Over Afghanistan," p. 271.
105. Douglas A. Borer, "The Afghan War: Communism's First Domino," *War & Society* 12, no. 2 (October 1994), p. 133.
106. Dobbs, "Politburo," p. A16.
107. William McManaway, "Stinger in Afghanistan," *Air Defense Artillery* (January/February 1990), p. 7.
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110. Arthur Bonner, *Among the Afghans* (Durham, NC: Duke University Press, 1987), p. 160.
111. Nawroz and Grau, *Harbinger*, p. 4.
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115. Trevor Fishlock, "Tribesmen Exult at Killing of Russians," *The Times* (London), 17 November 1980, p. 9.
116. Trevor Fishlock, "Discredited Afghan Leader Reports to his Kremlin Masters," *The Times* (London), 13 October 1980, p. 6.
117. Amstutz, *First Five*, p. 162.

118. Jeff Trimble, "Update: Russia's 'Hidden War' in Afghanistan," US News & World Report, 1 August 1983, p. 23. See also Trevor Fishlock, "Press Gangs Are Out on the Streets of Kabul," The Times (London), 4 August 1982, p. 5.
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122. Edward Cody, "An Arduous Trek along the 'Jihad Trail,'" The Washington Post, 17 October 1983, p. A20.
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124. Robert Pape, Bombing to Win: Air Power and Coercion in War (Ithaca, NY: Cornell University Press, 1996), p. 192.
125. Overby, Holy Blood, pp. 67, 70.
126. Lohbeck, Holy War, p. 108.
127. See Jere Van Dyk, In Afghanistan: An American Odyssey (New York: Coward-McCann Inc., 1983), passim. Martin, Inside, passim. See also Overby, Holy Blood; and Bonner, Among the Afghans, passim. The description by Western observers on the nature of the *mujahideen* diet is overwhelmingly consistent on this point.
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129. Hanfi, Dictionary, p. 2. For maximum troop strengths, see Arnold, Fateful Pebble, p. 137; and Joseph J. Collins, A Case Study in the Use of Force in Soviet Foreign Policy (Ann Arbor, MI: University Microfilms, 1984), p. 268.
130. Jeff Trimble, "Update: Russia's 'Hidden War' in Afghanistan," US News & World Report, 1 August 1983, p. 24. Interview with Charles Dunbar.
131. Nawroz and Grau, Harbinger, p. 10. Nawroz and Grau state that "logistically, they [the Soviets] were hard-pressed to maintain a larger force."
132. McMichael, Stumbling Bear, p. 38.
133. Blank, "Imagining Afghanistan," p. 475.
134. Nawroz and Grau, Harbinger, p. 13.

135. Michael Mecham, "US Credits Afghan Resistance with Thwarting Soviet Air Power," *Aviation Week & Space Technology*, 13 July 1987, p. 26. Mecham states that the *mujahideen* SAM threat led to a decreased use of helicopter transport, and forced the Soviets to employ between 300 and 500 armored personnel carriers during a 1987 offensive into Paktia province.

136. Kaplan, *Soldiers of God*, p. 126.

137. Carl von Clausewitz, *On War*, trans. and eds. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), p. 88.

138. Mark Clodfelter, *The Limits of Air Power: The American Bombing of Vietnam* (New York: The Free Press, 1989), pp. 132-34.