Kargil Revisited: Air Operations in a High Altitude Conflict

A Subramanian

Editor's Note: In the interest of the free exchange of views and in order to encourage individual writing on important national security issues, the following article by Air Cmde A Subramanian has been published in full. However, it must be pointed out that there are divergent views on the Army-Air Force issues taken up by the author. In this light General V P Malik, former Chief of the Army Staff's book titled *Kargil: From Surprise to Victory* presents a completely different perspective.

The Kargil conflict treads a very thin line between limited and sub-conventional conflict because of the manner in which the infiltration was conducted by 'regulars' of the Pakistan Northern Light Infantry (NLI) supported by a sprinkling of *jehadis*, Mujahideen and foreign terrorists (FTs), and the diverse manner in which the Indian Army and Indian Air Force (IAF) reacted to the intrusion. The Indian Army responded to the intrusion in a purely conventional response to a limited conflict scenario at high altitude in terms of forces employed and tactics followed. However, the IAF fought in an 'unconventional' manner in terms of the political constraints imposed on it in the form of stringent Rules of Engagement and terrain imperatives that had never been encountered before, and their associated impact on targeting. Innovative and never-used-before tactics had to be employed and that is why the utilisation of air power merits attention as part of a study of air power employment in 'unconventional warfare' , because the Kargil War was truly unconventional in many ways from an air power perspective, both strategically and tactically. In recent times, India has realised that it needs to shift focus to unconventional, sub-conventional, 4th Generation and irregular warfare, with conventional conflict restricted to limited high altitude border clashes in limited sectors, owing to the

Air Commodore **A Subramanian** is presently the Air Officer Commanding, Hindon Air Force Base.

peculiar nature of our relations with our two neighbours, Pakistan and China. It is in the light of these accepted perceptions that there is a need to revisit Operation Vijay and Operation Safed Sagar, as the Indian Army and Indian Air Force called their operations in the Kargil sector during the spring and summer of 1999.

What made Pakistan take the calculated risk of occupying Indian territory in Kargil? Eight years down the road from Kargil, one needs to acknowledge that the operation was initially conceived quite brilliantly as it exploited the strategic 'slowness' of a large democracy like India. The initial methodology was also perfect, with a clear end state that would have very few minuses for the Pakistani military establishment, which remains the fulcrum of Pakistani society. Had the infiltration succeeded and had Pakistan been able to hold on to even a few heights, Gen Musharaf would have been a hero. On the flip side, the manner in which the infiltrators were initially supported, equipped and stocked, with very little subsequent support, revealed that there was no intention on the part of the Pakistani military of supporting a long campaign. A look at the ethnic composition of the NLI reveals a well known but understated divide within the Pakistan Army that is dominated by the Punjabis, Pathans and, to some extent, even the Mohajirs. Soldiers from the Northern Territories were never considered 'mainstream'. However, their fighting expertise at high altitudes was exploited by the Pakistani military establishment. In the final analysis, soldiers from the NLI were considered expendable, which is why they probably undertook a mission that had little chance of success, once the Indian armed forces responded.

Dissecting the Air War

It is widely accepted that the infiltration across the Line of Control (LoC) in Kargil, Dras and Batalik sectors commenced in the early spring of 1999 (February-March-April) and was completed by end April-beginning May. Notwithstanding the multiple claims by various intelligence agencies like Research and Analysis Wing (RAW) and Aviation Research Centre (ARC) that they had indeed warned the government of some kind of intrusion, there was no clear integrated picture of what was happening. The bottom line was that there was no 'stereoscopic mosaic' of what was happening for any swift and surgical operation to evict the well entrenched intruders from the imposing heights. The sheer audacity of the operation saw the Indian armed forces scrambling to preserve India's territorial integrity without really being clear about the best way to go about it. How the Indian Army went about Operation Vijay is not within the purview of this article, but what would be examined is

whether the IAF could have contributed more, and better. In the process, a peripheral reference to land operations is unavoidable, considering that the endeavour today is to talk about completely integrated operations. Was it also a case in the early days of "my war"! "can you help," rather, than "our war, let's do it together." The military objectives of the Indian Army reflected a rather typical mindset because it looked to fight a classical high altitude battle on its own.[1] Had the objective been single, viz to evict the intruders with synergistic application of integrated combat power that would have included air power, dovetailed into the army plan, things may have turned out quite differently. That the intruders were evicted from the icy heights of Tololing and Dras is now history, but for discerning students of history, we need to ask: could we have done it earlier, with reduced casualties?

Eight years down the road from Kargil, one needs to acknowledge that the operation was initially conceived quite brilliantly as it exploited the strategic 'slowness' of a large democracy like India.

Preparing for the Battle

From an air war perspective, the first issue that comes to mind is about the synergistic use of aerospace and intelligence, surveillance, reconnaissance (ISR) assets for effective intelligence preparation of the battlefield.We need to honestly ask ourselves whether there was a coherent and cohesive attempt to integrate all available sensors and capabilities that comprised reconnaissance aircraft, unmanned aerial vehicles(UAVs), indigenous space sensors, commercially sourced satellite information from friendly sources and human intelligence to provide military commanders with a 'bird's eye view' of the situation. On the flip side, as far as ground combat operations are concerned, could the Indian Army have insisted on a 'full intelligence' picture before moving boots on the ground into the area rather than hoping that the sheer size of the force would evict the entrenched and acclimatised NLI troops? Not long ago, one intrepid Gen (later Field Marshal) Sam Manekshaw, when asked to move into Bangladesh, categorically told the government that he needed more time to initiate operations. Did we forget history so soon? One school of thought would say that time was of critical essence, and that the Kargil–Dras– Leh highway, the life-line to Ladakh was under threat, and that it was critical to secure it quickly. On the other hand, measured induction of troops, thorough

IPB, extensive use of artillery and air power over a period of at least a fortnight to cause both physical and psychological degradation before committing ground forces, may have allowed us to reoccupy the heights in, probably, the same time-frame, but with significantly lower casualties.

Conduct of Operations

After the IAF was first requested on May 11, 1999, to carry out counter- surface force operations with armed helicopters against armed intruders, the air force went into immediate preparations for hostilities, waiting for government sanction to employ air power offensively. Simultaneously, the IAF also commenced a large scale airlift of troops, ammunition and stores into the sector as the presence on the ground had traditionally been thinned out during winters. It also commenced aerial reconnaissance-and-strike familiarisation. The rapid mobilisation ensured that the IAF was ready for undertaking wide ranging full scale military operations by the morning of May 15. However, the nation needed some time to fully assess the magnitude of threat. The air chief as well as the Chiefs of Staff Committee (COSC), having fully assessed the situation, formally asked the government on May 25 to permit the IAF to go into operations as it was now evident that the situation was serious enough to warrant intervention by the air force. The permission was promptly given with the caveat that the air force was not to cross the Line of Control (LoC). From May 11 to May 25, ground troops, supported by the air force, tried to contain the threat, assessed the enemy dispositions and carried out various preparatory actions. Entry of the air force into combat action on May 26 represented a paradigm shift in the nature and prognosis of the conflict. There were no longer any doubts about whether the intruders would be evicted in an acceptable time-frame or about the eventual outcome of the operation. It was only a matter of time, spanning over a few weeks, that the rout of the intruders would be truly complete. Diaries of Pakistani soldiers recovered after the operation bore ample testimony to the severe damage and demoralistation caused by India's air attacks over the Pakistani intruders. In Operation Safed Sagar, the air force carried out nearly 5,000 sorties of all types over 50-odd days of operations. Operations in this terrain required special training and tactics. It was soon realised that greater skills and training were needed to attack the very small/miniature targets extant, often not visible to the naked eye. The shoulder-fired missile threat was omnipresent and there were no doubts about this. An IAF Canberra reconnaissance aircraft was damaged by a Pakistani Stinger, fired possibly from across the LoC. On the second and third day of the operations, still in the learning curve, the IAF lost one MiG-21 fighter and one Mi-17 helicopter to

shoulder-fired missiles by the enemy. In addition, one MiG-27 was lost on the second day due to engine failure just after the pilot had carried out successful attacks on one of the enemy's main supply dumps. These events only went to reinforce the tactics of the IAF in carrying out attacks from outside the Stinger surface-to-air missile (SAM) envelope, and avoiding the use of helicopters for attack purposes. Attack helicopters have a certain utility in operations under relatively benign conditions but are extremely vulnerable in an intense battlefield. The fact that the enemy fired more than 100 shoulder-fired SAMs against IAF aircraft indicates not only the great intensity of the enemy air defences in the area but also the success of IAF tactics, especially after the first three days of the war during which not a single aircraft was shot down or suffered battle damage.

The military objectives of the Indian Army reflected a rather typical mindset because it looked to fight a classical high altitude battle on its own.

As time went by, reconnaissance data accumulated and the tempo of ground operations picked up. The air force was able to adopt large scale attacks by day and night resulting in much of the enemy force not getting any sleep. With food, fuel and ammunition stocks destroyed or degraded and a sleepless and fatigued force, little wonder that the armed intruders chose discretion as the better part of valour and retreated.

Application of Air Power and Joint Operations

Despite being privy to what happened in Afghanistan in the 1980s where a number of Russian Hind (Mi-24) helicopters were shot down by Mujaheedin Stinger missiles, though at significantly lower altitudes, the Indian Army initially requested for only attack helicopter effort against some known enemy positions with a premise that it would be less escalatory and did not warrant government sanction for employment. A sounder understanding of air power capabilities would have dictated that the most vulnerable platforms be inducted last. Had the Indian Army taken the IAF into confidence from day one and developed a joint plan to evict the intruders instead of trying to use it as an afterthought, armed helicopters could have joined the fight after sufficient degradation had been inflicted by fixed wing aircraft and artillery. An integrated plan for the operation, apart from being launched as a single operation rather than two different operations (Operation Vijay and Operation Safed Sagar) would have clearly exploited all the strengths of the

two Services and covered up certain existing weaknesses. The initial strategy should have been to apprise the government clearly of the intrusion as soon as it was detected, and ask for complete authority to employ the full range of combat power against the intruders after an initial phase of preparation. A chronological operational sequence to tackle the problem could have been as given below:

- Quickly assess the danger to the Kargil-Leh highway, step up air maintenance to Leh if required, draw up contingency plans for the sustenance of Kargil-Dras should they be cut off, and commence high altitude indoctrination of ground formations and squadrons to be committed to the operations.
- Move additional fighter squadrons into the area and commence training for a week or so to assess weapon performance at those altitudes. This is not to say that squadrons from the IAF's Western Air Command (WAC) did not deploy immediately. A clear intelligence picture may have convinced the IAF of the need to induct ground attack squadrons from other commands too to beef up the necessity for increased weight of attack in that terrain.
- Commence induction of the 155 mm guns that played such a pivotal role in the operation.
- Step up intelligence, surveillance, reconnaissance (ISR) operations using all available resources to localise enemy positions and commence interdiction of the same with a psychological preponderance of firepower (artillery and fixed wing fighter aircraft). This would have signalled a firm but calibrated intent of operations to follow.
- Use small and specialised reconnaissance teams supported by artillery and air to localise and assess enemy deployment.
- Launch a simultaneous diplomatic offensive with hard intelligence to put pressure on Pakistan to withdraw, retaining at the same time, the option of continuing with the full range of military force to evict the enemy.
- Interdict the logistic chain to the entrenched enemy troops, thus, choking them off and reducing their fighting potential. This could have been done within the restrictions placed by the goverment of not violating the LoC.

This entire phase of operations could have continued for at least a month during which sufficient degradation of the enemy would have been ensured. Phase II could have been a period to consolidate all the gains made during the initial phase of operations and make a final push to evict the intruders with minimal casualties to own troops. This would have involved:

- Continued high tonnage attacks with 'iron bombs', followed by precision

attacks using laser guided bombs (LGBs) on multiple positions once the enemy was localised. Absence of own troops within a few kilometres of the target area would have allowed some flexibility to the IAF. Effectiveness of these attacks could have been determined by the level of interference from those areas and follow-up recce missions.

A sounder understanding of air power capabilities would have dictated that the most vulnerable platforms be inducted last.

- Assuming that at least 30–40 per cent degradation of the enemy's fighting potential would have been inflicted by the integrated application of fire-power alone, simultaneous assaults on the heights by acclimatised troops may have resulted in significantly lower casualties and lower force levels that would have needed to be employed.
- In this sequence of operations, there may even have been a faint possibility of employing attack helicopters despite their obvious limitations, and fixed wing aircraft during the assault phase with adequate self-protection measures. A phased operation may even have allowed the IAF to deploy forward air controllers (FACs) to support the assaults from the rear echelons.

  The time line for this phase would have been June–mid July at the latest.

Critical Issues

While the IAF's commitment to the operation cannot be questioned by any yardstick, most of the debate on the application of air power since then has concentrated on how altitude and terrain hampered the effectiveness of air power. What has seldom been debated is whether sufficient faith was imposed in the IAF, and time given for it to induct more squadrons into the fight that could deliver more ordnance in the target areas prior to assault by ground troops. Were we really looking at 'effects' in those days? So what if the tonnage required did not conform to the existing templates of over target requirements (OTR) and seemed to reflect 'too much effort with too little payoff'. Did this sow the seeds of scepticism in the minds of the IAF about the 'effect' that they were going to make on the battle? Was there too much baggage being carried from the past? Were our ground commanders thinking too much about the 1962 debacle? Did it lead to scepticism on the part of ground commanders about the ability of air power to deliver in a 'high altitude scenario'? Looking back, though air power contributed significantly in conflict termination, a

golden opportunity was lost in putting 'old ghosts to rest' and paving the way for truly integrated operations in mountainous terrain. While a lot has been said about the IAF's inability to provide close support by day during the actual assaults, very little has been written about the sequencing of the ground operation which gave very little time for the IAF to shape the battlefield along with artillery. On the other hand, the IAF also took time to adjust to the doctrinal demands of the unconventional and restricted 'air battle' at unusually high altitudes with limited and localised objectives. It wanted, instead, to take the war to the enemy and exploit the typical characteristics of air power like reach and flexibility by hitting targets in enemy territory without being fettered by the constraints of fighting in one's own territory. In hindsight, the Indian government's refusal to violate the LoC, allowed India to occupy the moral high ground, but restricted the IAF from operating to its full conventional potential. Had the IAF been fully prepared for the entire spectrum of conflict, it could have swung into action earlier and with immediate effect.

Artillery played a predominant role in fire support during Operation Vijay, but vital time was lost in massing fire units for the decisive push due to the inherent limitations of artillery in such terrain. Air power could have filled that gap! While it is acknowledged that trained and well equipped light infantry is the only force capable of decisive manoeuvre at high altitude, only air power is capable of precision firepower and accelerating psychological degradation.[2] With advances in technology and greater integration, it would have been selectively possible for the IAF to provide battlefield air support by day to assaulting troops using laser designators and well-trained FACs. If not in 1999, it is now imperative that this option be explored in contemporary training. From an airman's perspective, it is extremely difficult to understand that even though mountainous terrain places heavy restrictions on ground manoeuvre and creates extremely adverse ratios for the attacking force, there still seems to be a reluctance on the part of the Indian Army to exploit the potential of air power to degrade the enemy, especially in conditions of asymmetry like the one that existed in Kargil. If enemy air power had been active, imagine the casualties the Indian Army would have suffered! That alone should serve as a wake-up call to explore new integrated tactics and concepts of preparing and shaping the high altitude battlefield with two primary objectives viz, reducing the attacker to defender ratio to lower levels as compared to what prevails today, and, most importantly,reducing attrition/casualties.

US and Coalition AirLand Operations in Afghanistan-2002: A Comparison

A brief comparison with US military operations in the mountains of Afghanistan against hard-core Al Qaeda and Taliban fighters in the summer of 2002 would allow us to draw some lessons, notwithstanding the overwhelming superiority of US forces.[3] The comparison is primarily relevant because of the altitude, terrain and concepts of integrated operations that allowed a light force, backed by air power and technology, to overcome dug-in fighters in near impregnable defences with minimum casualties to ground troops. History has proved that possession of high ground does not always translate into operational advantage, especially when the attacker has a preponderance of integral firepower at his disposal. When this firepower is supplemented by air power, the advantage becomes overwhelming as was seen in Greece in 1941 where the German 5th Geibrigs Division overran the seemingly impregnable Metaxis line at altitudes of between 6,000-8,000 feet, with Stuka dive bombers playing a stellar role in the operation. [4]

While the IAF's commitment to the operation cannot be questioned by any yardstick, most of the debate on the application of air power since then has concentrated on how altitude and terrain hampered the effectiveness of air power.

After the fall of the Taliban regime in December 2001, large pockets of Al Qaeda resistance remained in eastern Afghanistan in areas around Shahi-kot Valley, southeast of the town of Gardez in the Paktia province(Fig1). In March 2002, US-led coalition forces initiated an air and ground assault called Operation Anaconda against highly dug-in Al Qaeda positions in the Tora Bora caves. The aim of the operation was to flush out and destroy a large group of Al Qaeda and Taliban fighters,numbering about 700-800, located in widely dispersed but interconnected caves spread in an area of approximately 20-25 sq km. Eastern Afghanistan and the Kargil region have similar characteristics of terrain and rarified atmosphere that affect air operations. The only notable difference being that the mountains around Shahi-Kot Valley rise up to a maximum height of 12,500 feet, significantly lower than the areas of Tiger Hill and most other heights at which the Kargil War was fought. Nevertheless, it can be said that any kind of air operation above 12,000 feet poses immense challenges for both man and machine. [5]

Several similarities merit attention and lay the foundation for linking the two operations.

- The Al Qaeda fighters and Northern Light Infantry soldiers complemented by a few foreign terrorists were both irregular or unconventional enemies in widely dispersed positions.
- Both sets of fighters were well stocked initially but with almost non-existent logistics back-up, something unthinkable in a conventional scenario.
- They possessed integral mortar and light artillery support and adopted well rehearsed defensive tactics.
- Attack and armed helicopters in both situations proved relatively ineffective and vulnerable to ground fire. Due to altitude limitations, the IAF could not employ the Mi-25 attack helicopters and had to press in armed Mi-17 helicopters into the fight, only to withdraw them a few days later after suffering some attrition to portable SAMs. Despite being vastly superior, the coalition forces had to withdraw the AH-64A Apaches due to battle damage and replace them with US Marine Corps AH-1 Super Cobras.[7] The Cobras flew over 200 sorties but could not respond to all requests for close support.

Fig. 1: Map Depicting Area of Operations During Operation Anaconda[6]

- Fixed wing fighter aircraft with precision and global positioning system (GPS) aided munitions proved extremely effective in degrading the combat potential of well dug-in Al Qaeda fighters and NLI troops. In two particular operations, fixed wing fighter aircraft proved critical in battle termination. The first one was the battle for Tiger Hill in the Kargil conflict where a combination of free fall and LGBs delivered by Mirage-2000s caused significant degradation prior to the final assault by infantry. In a similar fight on Taku Ghar mountain, a surge of air strikes enabled special operations forces to overrun Al Qaeda positions despite the absence of artillery support. It was air power that made up for lack of heavy artillery in the battle for Tora Bora.

History has proved that possession of high ground does not always translate into operational advantage, especially when the attacker has a preponderance of integral firepower at his disposal.

- Battlefield air strikes (BAS), as the IAF terms it, or close air support, as the Americans call it, proved to be relatively ineffective in Afghanistan despite the availability of special forces with laser designation capability. Similarly, the IAF could not provide real-time BAS during the assault phase. Both conflicts, however, saw the overreaching impact of interdiction and degradation of combat potential by relentless bombardment from the air.

In terms of a comparison of tonnage dropped and number of sorties flown, coalition air forces flew a significantly larger number of sorties, dropped exponentially more tonnage and employed the latest aircraft and weapon systems as compared to the IAF. Had the IAF too dropped the same amount of tonnage, precision-guided weapons and GPS assisted bombs like the JDAMs (joint direct attack munitions), the Kargil conflict may have ended much earlier. However, it must also be highlighted that the effectiveness of this genre of weapons with a mean CEP (circular error of probability) of between 10-13 metres was less than it would have been in flat terrain due to the steep inclines that converted low horizontal miss distances into higher vertical distances, allowing the defender to continue operating from existing locations. What emerges clearly from Operation Anaconda is that overwhelming and continuous firepower from a variety of platforms and weapons is the key to victory in the mountains.[8] Relying solely on integral artillery, as the Indian Army did in the initial days of the Kargil conflict, or only on air power, as the

coalition forces did during the assault on Tora Bora, is not the best way of fighting in the mountains. Entry of air power in Kargil and 105 mm artillery pieces in Afghanistan after Operation Anaconda, proved that all-weather and integrated fire is essential for the success of manoeuvre warfare in the mountains. [9]

Unconventional Nature of the Kargil Conflict and Some Myths

Purely from an air power perspective, Kargil 1999 was a highly 'unconventional' conflict from whichever perspective one looks at it. Because the operating environment was so different from any other in the history of military aviation, existing and established doctrine and tactics had to be replaced with new and untried ones. Innovation, flexibility and ingenuity saw air power being used like never before.[10]Notwithstanding what the official stand is, a greater amount of synergy and faith in air power would have certainly paid richer dividends. The very fact that the Chief of Army Staff visited the Kargil sector on May 23 and surmised that the intruders could not be evicted before the winter without the use of air power is testimony to the fact that it could have been an operational error to have kept air power out of the fight for so long. Another fallacy about air power that still needs to be debated extensively is related to the so-called myth that air power is essentially escalatory, and more so, in unconventional/sub-conventional scenarios. In a conflict like the Kargil War, air power, if anything, was the prime catalyst for 'de-escalation' as it demonstrated intent, and intent is one of the most credible instruments of deterrence.

Doctrinal and Operational Lessons

Almost a decade after Kargil, it is important to carry out a reality check about whether doctrinally and operationally, the Indian Army and Indian Air Force are now ready for a repeat of a Kargil-like situation. It is widely accepted amongst our strategic community that a full-fledged conflict along conventional lines is only a remote possibility in the immediate future. However, neglecting conventional military capability reduces deterrence and paves the way for increased sub-conventional/unconventional interference. This is something that policy-makers need to take note of. A peculiar situation that India continues to face is that it has to remain prepared for what essentially is a 'defensive posture' in limited border conflicts along most of our northern borders because of terrain imperatives; essentially, another Kargil, where our adversaries would wait and see where we are vulnerable and where the largest

pay-offs exist for a stealthy operation. Despite being involved in tackling numerous insurgencies and fighting a prolonged proxy war in Jammu and Kashmir (J&K), the role of the IAF in these sub-conventional conflicts has been rather limited, especially in the offensive employment of air power. This, to some extent, has led the IAF to believe that it is best employed in an unfettered and unrestrained scenario. This belief was rudely tested in Kargil and forced the IAF leadership to innovate and exploit the flexibility of air power, which it did in quick time, and most importantly, contributed most effectively to the overall strategic objectives that the political leadership laid down for ejecting the intruders. Operationally, the IAF still has a fair way to go in leveraging all its competencies and exploiting its wide range of capabilities in order to address the lower end of the conflict spectrum and warfare at high altitude.

Notes

1. Brig Vinod Anand, "India's Military Response to The Kargil Agression," *Strategic Analysis*, Vol 23, No. 7, October 1999.
2. Marcus P. Acosta, "High Altitude Warfare: The Kargil Conflict and the Future," Naval Postgraduate Scool, Monterey, California, June 2003.
3. Ibid., pp. 66-75.
4. Ibid.
5. Ibid.
6. < http:// www.csmonitor.com/2002/0314p06so1-wosc.html-accessed 22 Dec 07
7. Acosta "High Altitude Warfare,"p. 70.
8. Ibid.
9. Ibid., p.74.
10. Ved Shenag, "The IAF in the Kargil Operations-1999," www.BharatRakshak.com.