JOINT HELICOPTER OPERATIONS: A PRAGMATIC APPROACH

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PROLOGUE

In an article in the *Air Power Journal (APJ)* titled "Attack Helicopters: Where do We Use Them? Who Should Use Them and for What?"[1], an Indian Air Force (IAF) veteran batted for the "repository" of Attack Helicopters (AHs) to be under IAF control rather than the army. The response from the army was almost immediate in the form of an issue brief by a senior serving army officer in an article titled "The Attack Helicopter: Cause Célèbre",[2] which highlighted a counter perspective of the army. Meanwhile, the media houses reporting on the defence related issues have been gleefully reporting on the 'fight' between the army and IAF for ownership[3] of the AHs since the Kargil operations of 1999.

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1. Group Capt. A.G. Bewoor (Retd), "Attack Helicopters: Where do we Use Them? Who Should use Them and for What?", *Air Power Journal* , vol. 9, no.4, Winter 2014 (October-December), p.51
2. Lt. Gen. Ghanshyam Katoch, "The Attack Helicopter-Cause Célèbre", Centre for Land Warfare Studies, Issue Brief, no. 60, August 2015, www.claws.in/images/publication_pdf/660307159_IB-60-Katoch-08-09-15.pdf. Accessed on July 15, 2016.
3. "Solution soon on Army, IAF Spat over Choppers: Antony", *The Indian Express*, October 9, 2012", http://archive.indianexpress.com/news/solution-soon-on-army-iaf-spat-over-choppers-antony/1014177/ . Accessed on August 11, 2016.

Joint operations became the "buzzword" after the Kargil War and the discussions thereafter have centred on this concept, with the solution being expected to be found in the creation of the post of the Chief of Defence Staff (CDS).

These controversies and canards continue to be spread despite clear clarifications having been issued by the government,[4] as also an acknowledgement of the need to meet all the aviation requirements as projected by the army. In the Technology Perspective and Capability Roadmap (TPCR) issued in April 2013 by the Headquarters Integrated Defence Staff (HQ IDS), based upon the Long-Term Integrated Perspective Plan (LTIPP) 2012-27, which, in turn, is an approved document issued by the Defence Acquisition Council (DAC) in April 2012, the "aviation" requirements of the three Services are clubbed under one sub-head, indicating a conscious effort to exploit the aviation assets in a joint manner.[5]

Joint operations became the "buzzword" after the Kargil War and the discussions thereafter have centred on this concept, with the solution being expected to be found in the creation of the post of the Chief of Defence Staff (CDS). However, only time will tell whether this panacea aimed at ensuring jointness among the three Services, if and when implemented, would bring about the desired results. A remark by a senior army officer about the current status of jointness among the three Services highlights the current situation. He states:

> Today, if any jointness exists, it is only at the individual level, based on personal equations. At the institutional level, jointness is, no doubt, talked about and emphasised, but when it comes to implementation, virtually nothing happens[6]

4. Rajat Pandit, "IAF not Army will get Apache Attack Helicopters", *The Times of India*, April 2, 2013, http://timesofindia.indiatimes.com/india/IAF-not-Army-will-get-Apache-attack-helicopters-Govt/articleshow/19331628.cms. Accessed on August 13, 2016.
5. Ministry of Defence, "Technology Perspective and Capability Roadmap (TPCR)-April 2013", http://mod.gov.in/writeraddata/TPCR13.pdf. Accessed on August 11, 2016.
6. Lt. Gen. Vijay Oberoi, "Doctrinal Challenges," in Air Cmde Jasjit Singh ed., *Air Power and Joint Operations,* second edition (New Delhi: KW Publishers, 2007), p. 218.

These remarks highlight the impediments faced while translating a thought into practical tangible action. So a basic question arises as to whether another approach, a more pragmatic one, is required for achieving the desired results, especially in the case of future helicopter operations of the army and IAF, or would the future operations and inter-Service relations continue to be governed by the burden of historical baggage carried by the two forces?

THE HISTORICAL BAGGAGE

The ever increasing literature on the related concepts of "jointmanship" and "joint operations", which interestingly have been around for centuries, is indicative of their importance and, at the same time, of their virtual unattainability. This desired versus actual gap would always remain intractable, as it is a function of advancement in the application of military thought and advances in war-waging techniques/technologies, which have been changing throughout the centuries and would continue to do so.

The periodic revolutions in war-waging technologies throughout the history of warfare were brought about by technological advancements ranging from the invention of gunpowder, artillery, tanks, aircraft, helicopters to the most recent Unmanned Aerial Vehicles (UAVs).

Skilful and balanced build-up and application of these capabilities thereafter came about, to be known as "operational art" which, in turn, influenced the manner in which wars were and are being fought. More often than not, the winning side was the one that could successfully adopt these techniques/technologies while overcoming the turf wars, which invariably occurred, and achieve a degree of synergy among the various components of its fighting forces.

With the advent of the machines capable of flying through the medium of the air, their utilisation in war-waging efforts was almost immediate. And as is inevitable, the introduction of the third dimension into the battle space brought about a revolution of sorts and also with it, friction between the old and the new. It was a major revolution in warfare, as, for the first time, enemy concentrations could be attacked without defeating its ground forces.

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One of the earliest uses of air power, a major technological advancement at the time, was in the form of tethered manned balloons filled with lighter than air coal gas, which were mainly used for observation duties. The turf wars and friction among the players involved were also not far behind.

In one of the earliest such examples of internal friction and turf wars, the French in 1802 had to disband their balloon corps due to disagreements within its command structure about its proper application. The American civil war of the 1860s also followed a similar path, when the union military planners disbanded their balloon operations within two years of successfully operating them. They did so despite significant advances and technological innovations and advantages accorded by the invention of mobile hydrogen gas generators. The disbandment of the balloon corps, as it was called then, within two years of its deployment, was primarily due to the animosity generated within the military command structure and the specialists who were operating the balloons. As one author comments about the disbandment of the Union Balloon Corps:

> Despite his and his corps' valuable service, Lowe and the Balloon Corps were always viewed with disdain and mistrust by many in the Army. This was partly because they were a separate, civilian operation, partly because their pay was much higher than military pay, and partly because the entire operation was extremely expensive to maintain. All of this led to political problems for Lowe and the entire corps. Eventually, on April 8, 1863, Lowe resigned his position as Chief Aeronaut in disgust and returned to the private sector. Without his leadership, the Union Army Balloon Corps passed from existence within three or four months.[7]

7. A Civil War Story, "Civil War Balloon Air Forces," file:///Volumes/HP%20210/chapter%205/Civil%20War%20Balloon%20Airforce.html. Accessed on July 16, 2016.

However, despite these setbacks some of the early military thinkers had no doubts about the prospects of employing military might from the medium of the air. One of the prominent ones was the Italian Army artillery officer Giulio Douhet who is credited with the formulation of some of the earliest theories on employment of air power. But he too, faced the consequences of turf wars when he was court martialled and imprisoned for a year for forcefully advancing his theories.[8] Subsequently, he was exonerated and promoted to a general officer in 1921. A fierce proponent of an independent air force, in the same year, he went on to pen the classic *The Command of Air*. Till his death in 1929, he continued to take on his detractors in the army by penning his thoughts on the economic aspects of war and continued to contradict his counterparts in the army.[9]

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The writings by Douhet highlight the need felt by the air power proponents to free themselves from the classic applications of military might. At that time, there was an ongoing debate between the British Royal Army and the Air Ministry about the creation of auxiliary forces for the army. The same is highlighted by the following comment by Col Aimone Cat of the Royal Army wherein he argues a case for the auxiliary aviation arm of the Royal Army. He states:

> The solution is not to say, "Let us sit down and see what we can do." Rather it should be as follows:
>
> Royal Army: "My Aeronautical needs, strategic, tactical, and logistic, are as follows."
>
> Air Ministry: " My resources for filling your needs are as follows."
>
> Royal Army: " The organisation of my Auxiliary Aviation, based on my

8. Giulio Douhet, *The Command of Air*, trans. Dino Ferrari, ed. Joseph Patric Harahan and Richard H. Kohn (New York: Coward-McCann, 1942).
9. Ibid., pp. 235-243.

The aviators of the time did succeed in carving out a niche for themselves within the conventional land forces. Their importance was reinforced, when the end of World War II was brought about by the twin aerial bombings of Hiroshima and Nagasaki, using long-range bombers.

needs and adjusted to your resources, is as follows.[10]

However, Douhet's response to this proposal stemmed from a basic understanding of human nature, when he said:

> It is only human nature that if you can get something for free, you try to get as much as you can; and if you have to give away something for free, you try to give as little as you can. In practice, the system proposed by Colonel Cat would lead to this situation: In order to get as much as possible, the army would exaggerate its needs. In order to concede as little as possible, the Air Ministry would be tempted to minimise its resources. In the end, therefore, the organisation of auxiliary aviation would be again arrived at by compromise, bargaining, that is, agreement.[11]

Thus, the debate continued about the creation of separate aviation assets for the army and advancing the cause of a specialist air force.

However, the aviators of the time did succeed in carving out a niche for themselves within the conventional land forces. Their importance was reinforced, when the end of World War II was brought about by the twin aerial bombings of Hiroshima and Nagasaki, using long-range bombers.

This subsequently led to the emergence of independent air forces, with separate command and control structures, all over the world. But, at the same time, this development only added to the debate on the relative importance of one over the other (army/air force), leading to further acrimony and friction. However, one fact remained undisputed and that was the requirement of the domination of air space as a prerequisite for the success of any future

10. Ibid., p. 231.
11. Ibid.

military operation, along with an equally important element and a corollary, that no amount of air dominance can replace the requirement of boots on the ground for winning a war. This was the military thought prevalent at the time when the Indian Air Force was born.

The British were forced to stand up to their commitment and allowed the fledgling IAF to be born on October 8, 1932. A measure of reluctance is indicated by an announcement by the then Air Officer Commanding-in-Chief (AOC-in-C) of the Royal Indian Air Force (RIAF) Air Mshl Sir John Steel, in 1934, when he announced to a captive audience of Indian airmen (hawai sepoys, as they were called then) and officers, that he was going to disband the IAF.[12]

Fortunately, this did not happen and the measure of progressive thinking of the small group of pioneers is indicated by the distinct nature of the IAF, as mentioned by an author when he writes about the IAF of the early Thirties:

> Unlike the Indian Army, where the ethnic regiments and separate kitchens was the rule, the Indian Air Force was totally secular. Why? Because the leaders and pioneers who hailed from different parts of the country, came together for undertaking the gigantic task of building an Air Force for free India. The cardinal principle was: they fight /work together, they eat together.[13]

At that time, the Indian Air Force functioned under the authority of an army general, the Commander-in-Chief (C-in-C) of India. Thus, the command was a joint one and a joint structure was in place for achieving the desired military objectives.

Post independence in 1947, British officers were appointed as Commanders-in-Chief of Indian Army and the Chief-of-Staff of IAF respectively. The IAF Chief-of-Staff's pre-condition of total independence from the existing command and control structure was also accepted at the highest possible level of the Indian polity of the time.[14]

12. Somnath Sapru, *Combat Lore: Indian Air Force 1930-45* (New Delhi: KW Publishers,2014), p. xiv.
13. Ibid.
14. George K Tanham and Marcy Agmon, *The Indian Air Force: Trends and Prospects* (Santa Monica: RAND Publications,1995), p. 15

A degree of joint structure, however, did exist in terms of the Joint Chiefs of Staff Committee which met regularly. It was during one such meeting that the requirement for helicopters for the defence forces had come up for discussion. Notably, the requirement was put forth for all the three Services in a joint manner.

Thus, the hitherto joint structure prevailing at that time was changed and a separate vertical command structure was put in place, raised for the command and control of six fighter squadrons and one transport squadron of the IAF along with other air force assets, and which also presided over its subsequent expansion.

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EXPANSION OF HELICOPTER FLEET ALONG WITH TURF WARS

The Chiefs of Staff Committee (COSC) meeting held on April 9,1949, had recommended the establishment of a helicopter flight. However, in July 1949, the Joint Planning Sub-Committee (JPC) had postponed the induction of helicopters indefinitely. The JPC, which was composed of officers from all the three Services, did enumerate the possible roles for the helicopter. The roles envisaged at that time were:[15]

- Transport support role for transport of personnel, equipment and casualties from and to areas which may be inaccessible by any other form of transport. Dropping of supplies and ammunition for isolated detachments and rescue of personnel from the jungle area.
- Air/sea rescue, with particular reference to air force and naval aviation requirements.
- Transporting intelligence personnel to and from enemy held territories.

15. History Division, GoI, *Requirement of a Helicopter Flight for the Defence Services*, Joint Planning Sub-committee Paper No.10(49), July 7,1949, File No. 601/14513/H.

- Reconnaissance by senior military commanders and artillery reconnaissance (as an interim measure, these tasks were being carried out by Auster aircraft).
- Observation of fire.

As may be seen from the above, most of the roles envisaged, and agreed upon, by the three Services, indicated the roles to be in direct support of the army except the air/sea rescue role envisaged by the air force and navy.

Hence, it was the army which viewed itself as the Service for inducting the helicopter. However, the available skill set was either available with the Indian Navy that was eyeing acquisition of a aircraft carrier with onboard helicopter support or with the IAF.

In November 1949, the JPC rejected this request and asked the RIAF to continue providing the army with aircraft on an "as required" basis. This effectively marked the end of the army's attempts at having its own fixed wing assets for communication duties as well as for replacing the Austers.

At almost the same time, the army on its own, initiated a case for an independent "Intercommunication Flight" equipped with light aircraft for the carriage of VIPs, air ambulance work and signal use. This paper was submitted to the Chiefs of Staff Committee on November 18,1949. This requirement, as claimed in the paper, was based on the fact that the United States Army maintained these flights and also formally specified the difficulties faced in obtaining air effort from the IAF due to having to "**apply**" to it for aircraft through long and complicated staff channels.[16]

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Thus, the IAF which had initially been raised as an army cooperation squadron, had rapidly transformed itself into an independent force seen to be competing with the army for the allocation of available budgetary resources

16. Ibid. Intercommunication Flight for the Army, JPC Paper No. 28(49)

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in order to undertake essentially army tasks, as viewed by the army.

The situation was further complicated when the same yardstick was applied to the subsequent acquisitions of helicopters in late Fifties and early Sixties ,thus, heralding the serious turf wars over the control over the helicopters. Post-1962 War, the army's bid for light helicopters as a replacement for the small fixed-wing Auster aircraft was successful and it fructified in 1986 when the Army Aviation Corps (AAC), was formally created, with its own helicopter assets, which gave it the light helicopters and control of the attack helicopters during operations.

The IAF had continued to view its transport and helicopter assets through the same prism despite the extremely versatile multi-role capability exhibited by helicopters in the offensive as well as combat support roles. This is evidenced by the IAF placing the transport and helicopter assets under one directorate (Ops Transport and Helicopters), indicating a thought process that these assets were primarily for inter-theatre and intra-theatre transport of equipment and troops. However, despite these frictions and acrimony, the IAF contributed significantly to the cause of army aviation by undertaking basic conversion training of all the army aviation pilots—a tasking which continues as on date.

But here the question arises, what impact did these turf wars, if any, have on the conduct of actual helicopter operations which, by the very nature of their capabilities and application, have to be undertaken in a joint manner?

What are the specific impediments to the concept of jointness in helicopter operations, which appear to be stemming from the myriad inter-personal relationships and individual interests, along with an innate urge to protect own turf and, in a purely military sense, by each arm wanting to establish and expand its ability in the entire spectrum of warfare?

These are best analysed by studying specific examples of application of heli-power in a joint manner during the conduct of various operations. But before that, the concept of jointmanship and joint operations needs to be understood clearly and reduced to certain mandatory tangibles against which its application in a specific operation can be measured and analysed.

JOINT OPERATIONS: TANGIBLE PARAMETERS

As already covered, the concept of joint operations is not new. The dream of any battlefield commander in modern-day technology-centric warfare is to possess multi-role fighting machines for the modern-day battlefield which are capable of undertaking all weather day and night operations in the air and/or land, and those which are capable of carrying precision munitions including air-to-air, air-to-ground and beyond visual range weapons, with enhanced battlefield survivability features, along with an inherent capability of transporting troops to an altitude of operations extending from sea level to 4 km, to name only a few.

However, till such type of fighting machine is invented, wars would continue to be fought in a synergistic manner by utilising the capabilities of individual forces, which complement each other's capabilities, thereby maximising the advantages of each and, thus, filling in the capability gap of each. This method of waging a war can be termed as joint operations (jointops). For measuring the degree and extent to which jointness has been achieved, there is a need to define certain tangibles or characteristics, which indicate the extent of jointness achieved. These are:

- **Type of War:** What was the type of conflict in which the platform was used? Was the conflict limited, total or a low intensity type.
- **Objective:** What was the stated objective of the planned joint operation.
- **Planning:** To what extent were the respective elements involved during the planning phase? Was the plan shared with all those involved and were their concerns addressed?
- **Authority/Command and Control Structure:** Were the type and capability of the command and control structure structure/interface put in place with

It is to be remembered that for a joint plan to be successful, there is a requirement of both a good leader and a good follower. To a large extent, the success of the operation is also governed by the authority vested in the leader as well his leadership qualities which are a complex conundrum of personality, attitude, experience, maturity and professionalism.

well defined responsibilities to ensure successful execution of the plan? It is to be remembered that for a joint plan to be successful, there is a requirement of both a good leader and a good follower. To a large extent, the success of the operation is also governed by the authority vested in the leader as well as his leadership qualities which are a complex conundrum of personality, attitude, experience, maturity and professionalism.

- **Availability of Intelligence/Planning/ Briefing:** How exhaustive was the joint plan and the briefing?
- **Coordination /Training:** To what extent was the training undertaken prior to commencement of the operation or the degree of familiarisation of the participating elements with the plan?
- **Team Performance:** How were the factors, which affect the team performance, like stress and conflict, handled in the execution phase? How was the plan actually executed by the individual elements and what was their overall contribution to the success/ failure of the plan?
- **Decision-Making**: Very few wars proceed as per plan. How was the situation handled as the operation progressed?
- **Success or Failure:** Was the operation successful in achieving its aims?
- **Implementing Lessons Learnt:** What affect did the operation have on future joint operations?

Having decided on some tangibles, let us use these to test some of the joint operations undertaken by IAF helicopters along with the army. For this purpose, the following operations will be examined from the aspect of jointmanship.

- Special Heliborne Operations (SHBOs) at Sylhet on December 6 and 7 during the 1971 Bangladesh liberation war.

- The Jaffna University heli-drop on the intervening night of October 11/12, 1987 during Operation Pawan as a part of the Indian Peace-Keeping Force (IPKF).
- The rocketry operations undertaken by helicopters as a part of Operation Safed Sagar in 1999.
- Operation Khukri undertaken by the Indian forces in Sierra Leone as a part of the UN peace-keeping force.

SHBOs AT SYLHET

The 1971 Bangladesh War was a well planned effort, with clear political objectives which defined the military aims. Under the direction of the then Air Chief Mshl PC Lal, one of the objectives specified was the use of helicopters to aid in the vertical envelopment of enemy concentrations through SHBOs.[17]

It was the air chief who handpicked Gp Capt Chandan Singh, a decorated transport pilot of the 1962 operations, who was to act as a single point contact with Lt. Gen. Sagat Singh, General Officer Commanding (GOC) of the army's IV Corps.[18] Between them, they planned the utilisation of the entire helicopter resources in the eastern theatre which consisted mainly of Mi-4s at their disposal and, in addition, liaised also for additional fighter/transport air support, as and when required. It was also at the instance of the air chief that a number of IAF officers were seconded to various army formations for Forward Area Control (FAC) of duties, indicating the thoroughness of the planning involved.

Sylhet was the first one of many such SHBOs. Planning for the heli-drop was carried out at Kalaura helipad with an understanding obtained from intelligence inputs that the enemy troops had withdrawn from Sylhet.[19] Thereafter, at 1000 hrs, Gp Capt Chandan Singh, along with Brig CA Quinn, commander, 59 Mountain Brigade, selected a landing site in Sylhet near

17. Arjun Subramanim, *India's Wars* (Noida: HarperCollins,2016), p. 362.
18. Ibid., p. 388.
19. Brig Rattan Kaul, *Battle of Sylhet(East Pakistan)-07-16 December 1971 First Ever Heliborne Operation of Indian Army by 4/5 Gorkha Rifles (Frontier Force) December 18,2015*, bharat-rakshak.com, http://www.bharat-rakshak.com/ARMY/history/1971war/431-battle-of-sylhet.html?tmpl=component&print=1&layout=default&page= Accessed on August 15, 2016.

On the insistence of the Army and as the forces inducted had encountered heavy opposition, the initial plan of inducting troops by daylight only was changed by the onsite IAF commander (Gp Capt Chandan Singh). He decided to continue with the troop insertion by night in coordination with the FAC controller and undertook a test sortie by night to the landing zone.

Mirpara on the northern bank of the Surma river, east of the railway bridge. To ensure induction of the battalion before nightfall, take-off by the first wave of about four waves was planned between 1400-1430 hrs. On board the first helicopter was Flt Lt SC Sharma, a navigator commissioned on December 20, 1969, who, after receiving some training at Tezpur, about fighter operations, was seconded as FAC, along with the communication equipment, a LUP-734 portable radio set.[20]

The first wave of Mi-4s of 105 Helicopter Unit which was led by Sqn Ldr CS Sandhu, was fired upon on landing but was countered by effective suppressive fire directed by the FAC controller who took charge of the situation and directed the suppressive fire from an armed helicopter.

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20. Subramaniam, n.17, pp.376-378.
21. Air Cmde. Rajesh Isser, *The Purple Legacy: Indian Air Force Helicopters in Service of the Nation* (New Delhi: Pentagon Press,2012), pp.66-71

helicopter operations continued, as Brig Rattan Kaul recalls:[22]

> The Pakistanis pounded the landing area with artillery, but the helicopters, with the skill of pilots, landed, haphazardly though, to avoid areas that were being pounded and offloaded their load.

By twilight of December 8, 1971, two mountain guns (75mm/24mm) and B company of 9 Guards were heli-landed as reinforcements. However, as the situation unfolded, the demand for air support increased as the envisaged ground link-up was taking time and the operation had not really progressed according to plan. The Pakistanis had consolidated their positions and were undertaking repeated counter-attacks.

As the ammunition and other supplies were depleting by December 10 and with no sign of a link-up by the ground forces, IAF transport support was called upon to undertake supply drop sorties. The FAC controller, meanwhile, ensured that the Close Air Support (CAS) sorties flown by the IAF fighters, also pounded and strafed Pakistani positions accurately.

Thus, as the ammunition and other supplies were depleting by December 10, and with no sign of a link-up by the ground forces, IAF transport support was called upon to undertake supply drop sorties. The FAC controller, meanwhile, ensured that the Close Air Support (CAS) sorties flown by IAF fighters also pounded and strafed the Pakistani positions accurately. Using the call sign Hellcat control, he continued to coordinate aerial resupply and Casualty Evacuation (Casevac) missions till the cessation of hostilities on December 15, 1971. The operation meets all the hallmarks of a successful joint operation. Many such operations were undertaken during the 1971 Bangladesh Liberation War.

THE JAFFNA UNIVERSITY HELI-DROP

The Indian armed forces were called upon for undertaking operations in Sri Lanka following a complex series of events involving personalities

22. Kaul,n.19.

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and organisations from India and Sri Lanka to settle the simmering Liberation Tigers of Tamil Ealam (LTTE) issue. The Indian Peace-Keeping Forces (IPKF) comprising 54 Infantry Division was inducted into Sri Lanka in July 1987, by IAF aircraft.

A Joint Operations and Intelligence Room (JOIR) was set up at Madras by June 30, 1987, along with an air force cell responsible for controlling all the air operations of the IPKF. But the effectiveness of this cell was extremely limited by lack of communications and inadequate staffing in the initial stages. Also, the units deployed had no written instructions about the channels for their administrative and operational control. After the establishment of Jaffna air base, the functioning of the station commander was severely hampered due to the lack of secure communication links.

The helicopters were inducted into Jaffna on August 2,1987. By October 8, 1987, the situation had worsened, and the army was tasked to initiate active operations against the increasingly violent LTTE. By October 10, Mi-8s were deployed to undertake the tactical tasks of positioning troops, along with ammunition, at various helipads. The Jaffna University heli-drop was planned for the intervening night of October 11/12, by a senior army officer of the rank of major general, with the higher IAF authorities being completely left out of the decision-making process.

The aim was to capture the top leadership of the LTTE who were expected to be present at the university. A briefing for the plan was carried out on October 10 itself, which entailed induction of 480 troops, including 120 commandos of 10 Para and 360 jawans of 13 Sikh Light Infantry (LI). The 13 Sikh LI troops were still under induction to Jaffna and were yet to arrive in Sri Lanka. The plan was to induct 400 troops by four helicopters in five waves at 0100 hrs on October 12, with the commandos securing the Landing Zone (LZ) and lighting up the ground for subsequent landings.

The LZ was just four minutes from Palaly airfield. The LZ was to be recceed by the four captains in a Chetak helicopter. However, only two of the four could carry out the reccee. It was only after the reccee by the IAF pilots that the small size of the LZ was highlighted and it was discovered that the LZ could accommodate only two helicopters.

It was, therefore, decided that even though the possibility of ground fire was remote, as briefed by the army, the second pair of helicopters would get airborne only after the first pair had commenced the return journey after disembarking the load. There was no rehearsal for the task nor was a joint briefing conducted between the air and ground force commanders, and to compound the situation, 13 Sikh LI was yet to arrive.[23] In addition, no contingency plans or alternate scenarios were discussed.

The LTTE was ready and waiting. The first two aircraft were airborne on time and reached the LZ as planned, however as the slithering of troops commenced, the LTTE opened fire from the second floor of the university and the pilots decided to land for offloading the troops instead of undertaking slithering. The Mi-8s took off and asked the second set of Mi-8s to be sent. The commandos meanwhile came under heavy sustained fire and could not light up the helipad. The second pair of Mi-8s had to abort the mission and landed back at Palaly. After landing at Palaly, the first pair of helicopters inspected the aircraft for signs of damage and took off again for the LZ for the second wave. The second attempt by the first two helicopters thereafter succeeded in inducting additional troops despite taking multiple bullet hits.

Unaware that the second pair had aborted the mission, the team leader was under the impression that 120 troops had been inducted when the actual count was 80. The situation was even more complicated as the Sikh LI troops were still being traced for induction and even when traced, they seemed unaware of the heliborne task. This led to a time delay, however, they managed to get airborne, with 15 jawans in each helicopter, as the Sikh LI was carrying huge ammunition boxes.

23. Air Mshl Bharat Kumar, *Operation Pawan: Role of Airpower with IPKF* (New Delhi: Manohar Publishers, 2015), pp. 112-137.

The blame game for the botched up operation ensued, with the army incorrectly blaming the IAF for inducting troops into the wrong LZ. Later, one of the glaring mistakes was found to be in the selection of the LZ. The LZ had only a one-way approach and was selected unilaterally by the army instead of a joint selection.

When these helicopters approached the LZ, the fire from the LTTE pickets was even more intense and accurate. In the hurry to disembark, the troops had forgotten to unload an ammo box which was offloaded by the flight engineer with the help of the co-pilot. Having come under sustained fire, the helicopters managed to recover safely at Palaly. Post landing damage assessment rendered all four helicopters not fly worthy. Effectively, only 150 of the planned 400 troops could be inducted. Subsequent fighting resulted in the loss of 6 para commandos and of the 30 troops of Sikh LI, only one survived as they had been tasked to secure the helipad, an open area devoid of any cover.

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None of the higher agencies, the Joint Operations and Intelligence Room (JOIR), Southern Air Command or Air HQ knew about the mission. Having examined various aspects of the failed operation, Air HQ ruled that no such operations could be undertaken in the future without its express approval and ensured the presence of a senior officer at the JOIR, with better communication facilities.

OPERATION SAFED SAGAR: KARGIL 1999

The Pakistan Army had achieved complete tactical surprise in occupying the dominating heights over National Highway 1A in the Kargil sector. Analysis of the situation and thereafter formulation of a response resulted in the army undertaking Operation Vijay in order to evict the intruding Pakistani forces. The initiation of operations by the army resulted in a significant number of casualties and, thus, air support in terms of interdicting enemy supply routes and logistic bases was requested by the army.

Permission was granted by the Cabinet Committee on Security for restricted use of air power on May 25,1999. As the first air strikes were launched on May 26,1999, one army officer (Maj RS Adhikari) was also tasked to direct fire on enemy positions from an armed Mi-17 helicopter on May 26 and 27. According to him and the army, this firing of rockets from the Mi-17s had little effect.

These operations by the Mi-17s were discontinued when a Mi-17 crashed into the Tololing Nala on May 28,1999, at 1130 hrs after being brought down by the Manportable Air Defence System (MANPADS).[24]Former Army chief Gen VP Singh writes:[25]

> In the second and third weeks of May 1999, the request from the Army for sending in Mi-35 helicopters or Mi-17 armed helicopters against the intruders could not be complied with. The Mi-35 attack helicopters were not employed due to terrain elevation. The request for Mi-17 armed helicopters was not accepted by the air force due to 'want of political clearance.' The need for political clearance for the employment of Mi-17 armed helicopters against terrorists and Pakistani Army personnel within Indian territory is a debatable point. Personally, I feel that in view of the operational urgencies and the need to take early decisions, such a requirement can be discussed and cleared at the highest levels in the command or service headquarters. There is no need for political clearance.

24. Gen VP Malik, *Kargil: From Surprise to Victory* (New Delhi: Harper Collins Publishers India, 2006) p. 158.
25. Ibid., p. 244.

The IAF was aware of the escalatory effects of using air power and wanted the polity to be involved in the decision and the "Rules of Engagements" to be clearly specified. After the operations were over, the focus again shifted to the "handing over" of IAF helicopter assets to the army and, thus, the turf wars continued.

He further adds that there is "need for improved tactical and strategic intelligence gathering mechanism and wherewithal; better dissemination of intelligence; and the necessity for closer, real-time liaison between the Army and the Air Force at all levels. The conflict also highlighted the operational urgency of handing over armed and attack helicopter assets to the Army."

The suggestion is not for the army to have own assets but for a "handing over" of assets held by the IAF. This was done even when the operational limitations of operational deployment of helicopters had been accepted and the IAF was thanked for all the support.

Indicative of the thought process prevalent at the time, it highlighted the army's way of waging a war in a decentralised manner, with selective interpretation of the "political clearance" aspects put forth by the IAF. The IAF was aware of the escalatory effects of using air power and wanted the polity to be involved in the decision and the "Rules of Engagements" to be clearly specified. After the operations were over, the focus again shifted to the "handing over" of IAF helicopter assets to the army and, thus, the turf wars continued.

These acrimonious exchanges at the highest level, however, did not have any discernible effect at the operational level where the joint operations continued to be undertaken in a professional manner, as was evident in the next major joint operation.

OPERATION KHUKRI

The United Nations Mission for Sierra Leone (UNAMSIL) comprised troops from eight member countries, along with Military Observers (MILOBS) belonging to various other countries and was established in 1999 to enforce rule of law and included the disarmament, demobilisation and reintegration

of the rebels.[26] The IAF element operated as part of the mission from December 1999 to February 2001.

As a part of the mission, Operation Khukri was conducted between July 14, 2000, and July 17, 2000. The objective of the mission was to break the two-month-long siege of two companies of the 5/8 Gorkha Rifles (GR) Battalion comprising 212 troops and some British MILOBS, by affecting a breakout and redeploying them with their main battalion. Since British MILOBS were involved, British Royal Air Force assets comprising C-130s and two Chinook CH-47s were made available for the operation. Extensive planning was carried out which involved precise instructions for the IAF Mi-35s, Mi-8s and Chetaks(Ctks). The planning process included components of the Indian Army—artillery, special forces, mechanised forces as well as troops from 18 Grenadiers and 5/8 GR. A thorough briefing involving component commanders of all individual forces was carried out and the plan was suitably changed to address the concerns expressed by each. The limitations and capabilities of each component were understood by the rest. The aspects of air-space management and the artillery firing plan was also covered.

Hence, an "All Arms Team" concept, with integration of Mi-8s, Mi-35s and Ctks, with artillery, special forces, mechanised forces and other elements of ground forces was put to test once again, in an unfamiliar environment. The coordinated operation commenced on June 15, 2001, with a build-up phase on June 13-14, 2001. The operation involved Special Heliborne Operations (SHBOs) which included insertion of troops for area domination, assault and holding of key bridges and road heads, under artillery support and simultaneous operations by the mechanised forces.

The attack helicopters were used for air strikes, interdiction of rebel troops, suppressive fire and Continuous Over Watch (COW) duties. The Mi-8s were also also used to extricate stores from the location where the troops were confined (Kailahun) and insert quick reaction troops and 18 Grenadier troops as per progression of operations. The Chetaks were used for keeping the continuous airborne communication relay post besides being used in the reccee and Casevac roles. This led to the successful extraction of troops and

26. Isser, n.21, p. 235.

Post the unsuccessful Jaffna University drop, an exhaustive review resulted in the induction of attack helicopters, and all such operations thereafter were conducted under cover of attack helicopters. The initial decision of not inducting attack helicopters for the operations was also an army decision.

was followed up by many such operations during the conduct of the mission.

Hence, at the operational and functional levels, there was complete jointmanship exhibited in an international operation, with, forces from multiple nations involved. There was no indication of a 'turf war'.

SUMMARY OF THE CASE STUDIES

A close study of the selected cases indicates that, except in the case of the Jaffna University heli-drop, in all the cases, the objectives were achieved. Lack of authentic intelligence was also identified as a major cause of concern (with Operation Khukri as an exception). This lack of intelligence was made up by successfully adapting the plan as per the course of the conduct of operations. Post the unsuccessful Jaffna University heli-drop, an exhaustive review resulted in the induction of attack helicopters and all such operations thereafter were conducted under the cover of attack helicopters. The initial decision of not inducting attack helicopters for the operations was also an army decision.[27]

The IAF, on its part ensured close monitoring of these operations through the Joint Operations and Intelligence Room (JOIR), Madras. Such operations of tactical airlift by Mi-8s/Mi-17s, supported by attack helicopters thereafter became a norm and played a pivotal role in the overall success of Operation Pawan. This was the first operation wherein the combined functioning of attack helicopters i.e. IAF assets maintained by it and used in operations catering to the Army requirements were undertaken. It is interesting to note that subsequently, some army aviation pilots were also trained by the IAF to fly attack helicopters.[28]

27. Ibid; Kumar, n.23, p.135.
28 Dinesh Kumar, "Indian Air Force Training Army Pilots to Fly Attack Helicopters,", Newspaper Clipping of The Times of India News service, dated October 3,1994-1996 obtained from CAFHR.

However, with the passage of time, as more such joint operations continued, so did the "turf wars", with, at one time, the army chief claiming: "*We have received a letter from the ministry and have been given the attack helicopters by the government*",[29] for which an immediate rebuttal was issued by the IAF chief.[30]

The success of the joint operations, despite the acrimonious turf wars, indicated the problem to be essentially one of command and control. The answer to this problem lay somewhere else. Thus, the essential questions for which answers were to be found were:

This is significant, as the build-up of the helicopter fleet through the initial years was keeping pace with the expected requirements, however, post acquisition of the MI-17s in 1985, and despite the Kargil conflict, the expansion had slowed down and the IAF had countered it by increasing the TTL of the Mi-17s from 15 years to 35 years and had also reduced the tasking.

Was/is the battle or turf war and acrimony only about gaining permanent control?

and

What has been the actual impact of these turf battles on both the fleets?

THE CAG REPORTS

The Comptroller and Auditor General (CAG), Government of India (GoI), conducted an audit on the operation and maintenance aspects of the "Mi-series" helicopters of the IAF, which constitute around 60 percent of its total helicopter fleet, and submitted its report[31] in Financial Year (FY) 2010-11. The auditor pointed out a deficit of 26 percent in the total availability of helicopters compared to the numbers required for achieving the current operational projections. For attack helicopters, the

29 Ajai Shukla, "In a First,Army to Fly Attack Helicopters: October 13,2012," http://www.business-standard.com/article/economy-policy/in-a-first-army-to-fly-attack-helicopters-112101302002_1.html. Accessed on August 20,2016.

30 Ibid.

31. CAG Audit Reports , "Operation and Maintenance of MI Series Helicopters of the IAF", http://www.cag.gov.in/sites/default/files/audit_report_files/Union_Performance_Defence_Union_Government_Air_Force_and_Navy_7_2010.pdf. Accessed on April 11,2016

holdings were projected to be 46 percent below the actual requirement. The report further added that the existing fleet is ageing and nearly 78 percent of the helicopters have completed their prescribed lives and Total Technical Life (TTL) extension has been carried out on them to elongate their lives. Serviceability levels were also projected to be consistently short of 75 percent.

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Similar sentiments were echoed by the then Chief of the Air Staff (CAS), who in an interview to a magazine in 2008, agreed that the acquisition process in the case of helicopters had suffered after the 1990s. However, he envisaged that the helicopter fleet would undergo a major transformation, with upgradation to the existing Mi-17s and Mi-35s. He also added that a global Request for Proposal (RFP) for 24 state-of-the-art attack helicopters and for 12 heavy lift helicopters was being carried out.[32]

Further, in a report of the CAG audit of army aviation assets as a part of union government (defence Services), army, ordnance factories and Defence Public Sector Undertakings (DPSUs), the CAG observed:

> Army Aviation Corps was created with the main objective of contributing to battlefield success by providing guidance to the field Commanders in applying decisive combat powers. The Corps is, however, plagued with 32 per cent deficiency against its authorised fleet strength. The helicopters held are old and ageing, with 52 per cent of the fleet more than 30 years old. Low level of serviceability of helicopters further

32. " IAF to Acquire 24 Attack and 12 Heavy Lift Helicopters-Gulshan Luthra", *India Strategic*, vol.2, issue 2, February 2008.

reduces the effective availability for operations, to 40 per cent of the authorisation.[33]

Giving additional details, the report indicated the actual availability of helicopters for operations to be as low as 40 percent. This was significant as there was already a considerable gap between the authorised strength of 364 versus the actual strength of 246, as evidenced from Table 1 below, as mentioned in the report:

Table 1: Fleet of Army Aviation Helicopters (Source CAG Report 44 of 2015)

Helicopter	Type of Unit	Authorised	Held	Deficient Percentage
Cheetah	R&O	184	126	32
Chetak	R&O	62	55	11
ALH	UH	105	65	38
ALH(WSI)	AH	13	Nil	100
Total		364	246	

The year-on-year serviceability percentage state also showed a worrying trend.

Table 2: Year-on-Year Serviceability Percentage (Source: CAG Report 44 of 2015)

Year	Serviceability percentage of	
	Cheetah/Chetak	ALH
2010-11	65.88	39.75
2011-12	65.36	39.65
2012-13	68.75	47.96
2013-14	68.00	55.00
2014-15	58.00	38.59

The CAG further observed:

Despite these shortcomings, Army Aviation could not replace its fleet of Cheetah/ Chetak helicopters being used for reconnaissance and observation, which are due

33. CAG Audit Report, "Union Compliance Defence Army Ordnance Report 44 of 2015,", http://www.cag.gov.in/sites/default/files/audit_report_files/Union_Compliance_Defence_Army_Ordnance_Report_44_2015_1.pdf, paragraph 3.1. Accessed on August 20, 2016.

> *for de-induction since the 10th Plan period (2002- 2007) onwards. We observed that against 18 schemes approved in the 11th and 12th Service Capital Acquisition Plan, contract in respect of only four schemes could be concluded in a nine years period, so far. This failure in meeting the targets and objectives of the acquisitions plans and tardiness in procurement action were the main reasons denying the Corps ... ...suitable replacement for the old and ageing fleet.*[34]

Severely critical of the procurement process, the CAG sought an explanation from the army. The army blamed the delay on the pending ownership issues with the IAF for the procurement of the Tactical Battle Support Helicopter (TBSH). Non-procurement of attack helicopters was blamed on the wait for a similar type of procurement to be processed by the IAF.[35] This reason is cited to having been given as recently as in August 2015 and is also mentioned in the report.

Thus, over the years, especially since the 1990s and after the creation of the Army Aviation Corps (AAC), acquisitions by both forces have suffered significantly. This has also resulted in reduced availability of overall helicopter assets for use in joint operations. However, there has been some respite, with the inductions of over 139 Mi-17 V5s.

Also, over the years, there is no evidence of the IAF not meeting tasks for which it had the capability. The IAF has also continued to upgrade its Maintenance, Repair and Overhaul (MRO) support infrastructure and has continuously built up its domain expertise while contributing to the skill set of Hindustan Aeronautics Limited (HAL) for indigenous production of helicopters.

Hence, the only effect that the acrimony has had, has been on the helicopter acquisition programmes of both Services. But the overall question and the core issues of discovering the root cause of the acrimony remain.

One way is to view the turf wars and the acrimony as essentially a high level management issue. The Army Aviation Corps is headed by its Director General (DG) who holds a rank of a major general. He is at the helm of a huge

34. Ibid.
35. Ibid., para 3.1.3.2, Table 18.

organisation, with a significant mandate, but with very few assets. The easiest way out seen by him is to take over IAF helicopter assets. But the question which needs to be answered is:

> Is the only way out of this tricky situation to hand over/take over of assets, as advised by a former army chief or is there a possibility of an alternate solution being found by applying simple management concepts?

A MANAGEMENT PARADIGM

At this point of time, the bad news for the two forces seems to be that poor joint performance on the part of the affected players (army and IAF) has had an adverse impact on the serviceability states, as also on the availability of helicopters, with a serious impact on their respective acquisition plans (which the army was looking to partly source from the IAF).

The past errors which appear to be a result of "egos" having their way, need to be corrected by focussing on "What is right?" rather than "Who is right?". This can be achieved by interconnecting the rigid vertical organisational structure of both forces by forming better working relationships at the management level and sharing resources for the desired results.

The good news, however, is that, despite these shortcomings, both forces have been able to meet all the allotted operational tasks and have the means and wherewithal of successfully negotiating the acquisition programmes in a synergistic manner. This would, in turn, also meet the shared operational objectives.

However, the past errors, which appear to be a result of "egos" having their way, need to be corrected by focussing on "What is right?" rather than "Who is right?". This can be achieved by interconnecting the rigid vertical organisational structure of both the forces by forming better working relationships at the management level and sharing resources for the desired results. For this to happen, the authority gradient when connecting the verticals has to be optimum. The nominated leader would have his task cut out to restore the necessary synergy by ensuring that the team has the correct

Presently, the situation is getting further complicated with the IAF also wanting to expand the role of its own special forces in the form of "Garuds" and the army wanting to own the entire range of aerial assets, from fixed wing to attack helicopters, reviving a request first initiated way back in 1949.

task allocation and a shared objective, and the different components are meshed smoothly.

However, this is easier said than done, as the focus presently remains shifted from "What is right?" to "Who is right?". This has also brought the interpersonal conflicts to the fore. These were compounded, as after its formation, the AAC also started facing operational constraints, including limitations in its expertise in the maintenance of rotary wing helicopter platforms in an operationally ready state.

This, along with other interpersonal conflict issues, has resulted in the primarily personality oriented and rank dominated discourse, which has been detrimental to the interests of both forces. A mention here must be made of the way the navy has developed its helicopter assets in consonance with the IAF by utilising its domain expertise and, at the same time, building an independent and formidable force. But what is the way out of this predicament, under the media and public glare, in which the two sister Services find themselves in?

A PRAGMATIC APPROACH

One approach, as suggested by Air Mshl Vinod Patney (Retd) proposed the term "joint planning for operations" instead of "planning for joint operations".[36] This approach to fighting and winning a war, endeavours to bridge the divide created by inter-Service and, to an extent, intra-Service conflicts, by entrusting the planning aspects of any operation to a central body of experts from which the responsibilities and resource allocations would flow out. A variation of such an approach was central to the successful joint helicopter operations covered earlier as case studies and the absence thereof in the failed one.

36. Air Mshl Vinod Patney (Retd), in Air Cmde Jasjit Singh, ed., *Air Power and Joint Operations* (New Delhi: KW Publishers, 2003), p. 261.

Presently, the situation is getting further complicated with the IAF also wanting to expand the role of its own special forces in the form of "Garuds" and the army wanting to own the entire range of aerial assets, from fixed wing aircraft to attack helicopters, reviving a request first initiated way back in 1949. The resulting conflict situation is understandable, with each Service justifying the merits of the same as a part of its "force restructuring" strategy to fight future battles. Each Service quotes selectively from the lessons learnt during the wars waged in order to advance its own respective areas of interest.

Recognising the need and importance of the synergy which can be derived from various arms operating in coordination and harmony with each other, the Ministry of Defence raised the Centre of Joint Warfare Studies (CENJOWS) on August 24,2007. One of the primary aims of the society is to rise above sectoral and departmental legacies, and examine joint warfare and synergy issues in their entirety, and initiate debates and discussions in an independent and unbiased milieu for the emergence of the best possible alternative.[37] But even after nine years, this remains, at best, a dream.

Historically, the easiest way out of these turf battles often has been a rather drastic one as was the case with the winding up of the Balloon Corps during the American Civil War, however, at this juncture, that simply is not an option to be exercised in the present IAF-army context.

Therefore, taking a holistic and pragmatic view, besides creation of a centralised joint planning cell, the following is proposed which caters to the strict hierarchical functioning of the army as well as the IAF-recommended centralised and flexible use of all heli-power. This is imperative in order to utilise the entire range of capabilities of the versatile platform in a synergistic and joint manner, and is also unavoidable as the new systems which are being inducted are redefining the hitherto strict jurisdiction limits of the individual domains of the army and IAF:

- The IAF to support the army in developing its aviation corps, and continue to share its domain expertise and knowledge. At the same time, cater to the joint warfare needs as demanded by the envisaged battle scenarios. The basic

37. CENJOWS, "About Us", http://www.cenjows.in/about-us.php. Accessed March 10, 2016.

Technical Type Training (TETTRA) courses and basic conversion training on helicopters to continue to be undertaken by the IAF.

- The army, on its part, to develop its aviation in consonance with, and not at the expense of, the IAF, even though historical evidence indicates that at the time of induction and planning, the number of roles indicated the employability of helicopters primarily for army tasks. The domain expertise of the IAF and the support infrastructure developed by it over the decades necessitates avoidance of a parallel infrastructure catering to the MRO needs of each Service. Hence, joint MRO hubs, with the IAF as a leading partner, are recommended. This needs acknowledgement and acceptance by the army which has already created a large separate organisation under the leadership of a major general ranked officer.
- The IAF's engagement with the army must cater for an ideal authority gradient respecting the strict regimental structure of the army, with an understanding that the army fights its wars in a decentralised manner and leaves major operational decisions to its field commanders. The desired convergence can be achieved by ensuring a joint planning structure which is expertise oriented and composed of specialists and, at the same time, has an optimum authority gradient. A steep authority gradient as in the case of the Jaffna University helidrop needs to be avoided.
- The possibility of having a joint helicopter command structure with pooling of assets needs extensive debate and would be in the long-term interests of both Services as the preparations for future wars would continue to be almost prohibitively expensive and helinomics or the economics of operating helicopters will certainly play its part.