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The Attack Helicopter- Cause Célèbre

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Introduction

The 'fight' between the army and Air Force for ownership of Attack Helicopters (AHs) is well known.[1] Any article supporting the Army's aspirations gets immediate return fire. An article supporting the case for the army getting ownership of the envisaged purchase of AH-64 Longbow helicopters appears to have been the *raison d'etre* for an article in the Centre for Air Power Studies (CAPS) Air Power Journal Oct-Dec 2014 titled 'Attack Helicopters: Where do we Use Them ? Who should use them and for What? by AG Bewoor.[2] Both sides have their arguments against ownership of the AH by the other. It is in the fitness of things that such arguments should be constructive as the cause is common. Discussion and debate should throw out solutions. The best solutions will come out if the Army and Air Force understand each other's concept of operations and don't presume that one can teach the other, the concept of *his* operations. The article referred to above makes out such an impassioned plea against the utility of an Attack Helicopter that an uninformed reader may wonder that let alone the Army, why does even the IAF want

Key Points

1. The Army and Air Force arguments for ownership of Attack Helicopters (AHs) should be constructive as National Defence is a common cause. Contrary to perception AHs have proved their worth in various operations in support of ground forces.
2. Of the eight tasks for AHs in the Air Force Doctrine 2012, four tasks are intimately connected to ground forces. The balance four are those tasks which may not arise in all circumstances or are generic IAF tasking and could be carried out by fixed wing aircraft.
3. The AH can outmanoeuvre a tank because of its comparative speed, and ability to rapidly change direction, elevation and stance in any plane. The modern AH with its weaponry as well as the ability to operate at night should not be looked at as an aircraft but as a fighting vehicle.
4. Maximum AH capabilities can be exploited when it is flown by a crew which is conversant of ground force operations and has intimate knowledge of the ground.

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them. This article attempts to analyse the issue from the perspective of the Army.

Case Histories

At 0056h on January 17, 1991 nine US Army Apache AH-64 attack helicopters flying below radar coverage, crossed the Saudi-Iraq border and punched a hole in the Iraqi radar network through which fixed wing strike aircraft could fly with impunity. They were accompanied by three USAF helicopters tasked to mark a fly-in path for aircraft.[3] This heralded the start of ground operations in Operation Desert Storm, the invasion of Iraq, or the First Gulf War. The AHs suffered almost no damages. This successful mission is the genesis of one of the task for AHs in the IAF Doctrine as "neutralise radar sites located close to the border".[4]

For the rest of the war the AH-64s worked in the primary role that they were intended to, i.e. as tank hunters. They destroyed 500 tanks and armoured vehicles with minimal losses. This success reinforced the conviction world over that the AH was a potent weapon. When applied to our environment, AHs would be especially suitable in a battle where tanks have to cross a river/canal/ DCB[5] obstacle as obtaining in most of the Punjab/ Rajasthan Front. Their utility lies in an Anti Tank role when our own tanks have not crossed the obstacle and our infantry across the obstacle have come under attack from the defender, especially his armour.

On 24 Mar 2003 night, during the Second Gulf War, 32 Apache AH-64D Longbow[6] helicopters of the 11th Aviation Regiment of the US Army were tasked with carrying out a long range penetration mission against armoured forces of the Iraqi Republican Guard's Division positioned outside Najaf. The helicopters were going to be used in a manner similar to strike aircraft. As the helicopters approached Najaf, heavy antiaircraft and small arms fire targeted the helicopters. Every single helicopter on the mission was hit and one even survived a direct hit from a rocket-propelled grenade. The mission was aborted with some of the helicopters on fire and others running on one engine or shot full of holes. One Apache was brought down and crash-landed in a marsh. The mission was termed a great failure. This mission is cited to justify why the Army should not have AHs as their utility in a full blown conventional war is suspect. In fact one IAF officer states "Even the IAF needs to rethink on AHs and their utility to support forces on the ground".[7]

However, an analysis of the Najaf operation can give other conclusions also. Firstly, the helicopters were wrongly tasked. AHs are ideal for missions in the TBA in a conventional war environment and not for deep strike missions as they were tasked at Najaf which are best carried out by strike aircraft. Secondly, it was concluded that the failure was also the result of compromised intelligence and stringent rules of engagement.[8] Lastly inspite of the the punishment that the AHs took, they had minimal casualties and returned to full serviceability in 96 hours which vindicates their robustness.[9]

IAF Doctrine

The Indian Air Force Doctrine 2012[10] lists out the utility of the AH and gives out the tasks to them as under:

- To provide suppressive fire to the ground troops. Where artillery or the ground attack effort is either not available or is likely to be less effective. On account of the helicopters' variable speed and hover capabilities, engagement of surface targets in various situations would be highly effective.
- To provide flank protection to mechanised formations.
- To interdict targets in the close vicinity of the TBA.
- To neutralise bridges used by the enemy for breaking out.
- To provide route cover and suppressive fire to heliborne assaults to create a favourable ground situation.

- To provide air defence cover against enemy armed or attack helicopters.
- To engage enemy helicopters involved in troop carriage, reconnaissance and communication duties.
- To neutralise radar sites located close to the border.

It is evident that the first four tasks are those where the ground force commander and the ground forces would have much more intimate situational awareness. The next four are more IAF specific. However they are also those tasks which may not arise in all circumstances or are generic IAF tasking and could be carried out by fixed wing aircraft.

Evolution in the Use of AHs.

Military Strategy and the organizations and weapon platforms that support it develop through adaptation of technology, farsighted application of minds and war experience. The Vietnam War saw the US using helicopters extensively. The need for AHs/gunships in the ground war led to the evolution of the dedicated Attack Helicopter (AH). The employment of Huey Cobras fully integrated with Army Aviation units and fighting alongside and above the infantry gave a new meaning to close air support[11].

Anti tank Guided Missile (ATGM) armed AHs have not been tested in combat between two major belligerents. It is because of this lack of physical validation that AHs get denigrated in some quarters. In the absence of war experience 'war games' and exercises with troops' are 'played' to reach conclusions and refine concepts. This has been the case of a number of other successful platforms of war. If Heinz Guderian and others like him had not built upon the ideas propounded by Liddel Hart and JFC Fuller the tank may have never have held sway over the battlefield for nearly 75 years to date. Von Thoma next to Guderian was the most famous of the original German tank leaders. When discussing armour warfare with Liddel Hart after the war he stated "It may surprise you to hear that the development of armoured forces met with much resistance from the higher generals of the German Army, as it did in yours. The older ones were afraid of developing such forces fast - because they themselves did not understand the technique of armoured warfare, and were uncomfortable with such new instruments. At the best they were interested but dubious and cautious. We could have gone across much faster but for their attitude".[12]

The same is the case with the AH. It is a radical departure from convention to think of a 'flying tank'. The AH cannot be as robust as a tank, however that is more than compensated by its greater manoeuvrability. The AH is a platform which offers a superior line of sight. Undulations in the terrain and vegetation may blind a tank but the AH can hide behind them, pop up and engage a tank from a longer standoff distance and out range it. The AH can also outmanoeuvre an AFV[13] because of its comparative speed, and ability to rapidly change direction, elevation and stance in any plane.

Leveraging Vulnerabilities with the Concept of Employment

There is a greater advantage of employing AHs in the Tactical Battle Area (TBA) close fight versus the deep fight. Employment in the close fight permits helicopters and friendly AFVs to minimize each other's vulnerabilities. Even a pair of AHs can generate enormous synergised combat power when meshed with the ground commander's mission and resources.

There is no doubt that AHs are highly vulnerable in a lethal air defence environment.[14] In the IAF way of planning AHs need fixed wing support to carry out their mission. That is correct tasking as far as air force missions are concerned. The same may not be imperative when operating in close proximity of the border or FLOT[15] or in conjunction with friendly ground forces. Because of their comparatively slow speed AHs are vulnerable to being detected and

interdicted by ground or air means when launched on deep missions. But that same slow speed enables them to be more aware of the FLOT as also be more situationally aware vis a vis pilots in jet aircraft.

The modern AH with its ATGM, rocket and machinegun capability as well as the ability to operate at night should not be looked at as an aircraft but as a fighting vehicle. Fighting an opponent is about the OODA loop[16], it is about reacting to manoeuvre. When your target is an enemy who is reacting to your presence, can throw punches at you, where you need to duck when required and throw return punches, then a reactive agile capability is required. A jet aircraft does not have this degree of manoeuvre capability against ground based opponents, an ACAV[17] cannot do it. Only an aircraft which can fly up /down/left/right/forward/backward and hover when required can do this.

An Analysis

Some of the summarised objections to the operation of AHs by the army in the Air Power Journal Oct-Dec 2014 and arguments to counter these objections are in the succeeding paragraphs:

- The army proposes to have an AH component per Corps. This militates against a cardinal Principle of War, that of Flexibility, because the AH will be restricted within a small space of just 100 km by 120 km.[18] The Army is well aware of the manner in which expensive weapons of war are used. They are kept centralised and used wherever most required/will produce maximum effect. The same is the case with current weapon systems such as the Brahmos. An AH component which may range from a pair of helicopters to a squadron will be placed 'under Command' of a Corps for a particular phase of operations only. There is a difference between what is desirable and what is feasible. The army understands the importance of the Principle of economy of resources.
- When an AH is embroiled in a battle in the TBA it may get shot down. A flying machine being shot down will be visible to all of our troops. This will lower their morale. A soldier is strong enough to maintain his fighting spirit even when a comrade who is by his side and like his brother gets killed. AHs would be used in major planned operations where layers of ground based air defence and air defence by the IAF will be coordinated.
- By the time Desert Storm ended, it was abundantly evident that the AH was of little value. The evidence on ground does not support this argument. There are at least 10 countries which have purchased the AH-64 alone. At least five major military powers besides USA have developed/ are actively developing their own AHs.[19]
- Operations in Afghanistan, Gaza, and Mogadishu show that Attack helicopters are not useful. India does not believe in using airpower in combating insurgencies because of the likelihood of collateral damage. The operations referred to are all in the 'low intensity conflict' category. The two helicopters lost in Mogadishu in 1993 were Black Hawk transport helicopters hit by RPGs while in slow hover over an urban insurgency ridden area.[20] The primary task of the AH that the army envisages are not of the type that the Americans carried out in Afghanistan or the Israelis against Hamas in Gaza.
- AHs have severe performance degradation in High Altitude, our long border in the mountains precludes the use of the AH. The limitations in high altitude are well known to the Army. The primary role for AHs is for operations in the plains in the anti tank role. In case the LCH which is planned to operate upto 16,000 ft proves itself then that dimension could also be covered. The constant harping about the inability of the AH in high altitude appears subterfuge, as the army sees a very limited armour threat in the mountains because of deployment/manoeuvre constraints.
- Maintenance of AHs is a huge expenditure, the Army will be wastefully duplicating resources which the Air Force is best suited to maintain.

The army even at this moment is flying and maintaining a large fleet of helicopters. So is the Navy. Major Maintenance is carried out by HAL. Whether the IAF tasks the HAL for maintenance or the Army, the cost of major maintenance will be the same.

- Defence of AHs is critical, but we cannot overstretch ourselves for an offensive concept that has lost its relevance. The author has made an observation without the benefit of an intimate knowledge of ground operations. The offensive concept he talks about has not lost its relevance. We need to concede that the Air Force knows the environment it operates in, the army also knows it's critical requirements in war and the best means to achieve its aims.
- UAVs/RPVs are Better and Cheaper than AHs, hence we don't need AHs. This argument may be correct for AHs for the Air Force, and that is the reason that the Army wants AHs to be integral to the Service that needs them. The army sees a role for AHs in the TBA in a manoeuvre battle where physical presence of the pilot over the TBA is a *sine qua non* to be able to look through the fog of war and outmanoeuvre the enemy. The archetypal Predator drone 'taking out' a terrorists car or a safe house is not part of the Army vision. That is an Air Force task.
- Piloting an AH is best done by those whose sole persuasion is flying helicopters and not as a stop-gap deviation from their original career path. There is a lack of awareness that the Army Aviation has its own separate cadre of officers which will increase as the size of the arm increases. The support cadre alluded to will keep on decreasing. In the Army Aviation as in the Air Force, after a certain rank flying as a primary task ceases as officers move to Command and Staff billets. Pilots of AHs even if from the support 'All Arms cadre' will give continuity in the combat flying phase of their service.
- The AH is best used for Special Operations where stealth, surprise, limited opposition and cover of darkness reduces its vulnerability. Our ability to intercept and attack Pakistani infiltrators from the air who escape from hamlets/villages after being attacked on the ground, is lacking, and the AHs can do this swiftly and efficiently. The army would use AHs at night to attack value targets in the TBA. However with practical experience of how ground operations are conducted, the army does not envisage using AHs in the manner as outlined above because of obvious shortcomings in this method of employment.

Conclusion

AHs may not significantly impact Air or Naval operations, but they will definitely form the cutting edge of ground forces. AHs by virtue of their versatility will be an aerial extension of the manoeuvre arm in offensive or defensive operations. In the TBA, AH operations will have to be directly supported by the land component. The overall command and control must therefore lie with the ground force commander who will ensure 'preparation' of the target for annihilation by the AHs. The AH in concept is part of the combined arms team. Maximum AH capabilities can be exploited when it is flown by a crew which is conversant of ground force operations and has intimate knowledge of the ground.

Should the AHs be tasked away from the land component they would require fixed wing over watch. All the coordination necessary in joint operations would need to be done in such a situation. If there is any corrective measure that is required to enhance Joint Service coordination *that* should be the point for discussion and debate. There should be no denigration of the operational concepts of the other service. The Army is obviously not competent to state that Rafales are not required because they are very expensive or that the Air Force should not carry out Deep Penetration strikes. We need to understand each others peculiar requirements and operational environments. Whether we can do that with our present organisation or whether a CDS is essential to achieve that is a different issue.

... Cause Célèbre

Notes

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13. Armoured Fighting Vehicle.
14. Air Commodore KB Menon.
15. Forward Line of Own Troops.
16. The Observe, Orient, Decide and Act cycle. If your OODA cycle is faster than the enemies then with each cycle an advantage is gained in achieving a favourable position to destroy the enemy.
17. Unmanned Combat Aerial Vehicle
18. AG Bewoor. Air Power Journal.
19 Russia, China, Germany/France/Spain, Italy/Turkey, South Africa
20. Mark Bowden, *Black Hawk Down: A Story of Modern War* (New York: Grove Press, 1999)

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