

Air Power in Joint Operations: A Game Changer in a Limited Conflict with China

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ABSTRACT Any future limited conflict between India and the People’s Republic of China (PRC) will primarily be fought in a high-altitude environment along parts of the 4,000-km-long Line of Actual Control (LAC). With the Indian Army likely to be constrained by the terrain and numerical parity to fight a largely positional battle with limited mobility and offensive options, air power offers several asymmetric opportunities to create operational advantages on the ground. To leverage the IAF’s current qualitative advantage, India must keep an eye on the future and ensure that the rapid modernisation of China’s air force does not erode the IAF’s competitive advantage. This is possible only if India steps up on the induction cycle of cutting-edge platforms, sensors and weapon systems, and improves the jointness and integration of its air and land operations.

Attribution: Arjun Subramaniam, “Air Power in Joint Operations: A Game Changer in a Limited Conflict with China,” *ORF Issue Brief No. 374*, June 2020, Observer Research Foundation.

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INTRODUCTION

Following a border face-off with China in June 2020, one of the most revealing aspects of the internal debate in India has been the muted discussion amongst military and strategic analysts on the contours of a possible limited conflict between the two countries. Indeed, these would likely be discussed within the secretive realms of the national-security establishment. Such face-offs are always complicated and usually follow a predictable pattern of escalation, posturing, rhetoric and, finally, de-escalation.

However, the recent face-offs across multiple points of stress in Eastern Ladakh have been increasingly complex and volatile, following the bloody encounter between the Indian Army and the People's Liberation Army (PLA) in the Galwan Valley on 15 June 2020. Since the bloody skirmishes at Nathu La in September–October 1967, this is the first time the two countries have come this close to a limited conflict. Feeding into the complexity is a recent report on the India–China military balance, “The Strategic Postures of China and India,” written by Frank O’Donnell and Alexander K. Bollfrass, researchers at the Harvard Kennedy School.¹ The report is based on open-source information and is evidence that little remains ‘secret’ except the thoughts of the commanders and their ability to deal with complex situations.

“India has key under-appreciated conventional advantages that reduce its vulnerabilities to Chinese threat and attacks,” argue O’Donnell and Bollfrass, noting that

Indian strategists have not focused on this opportunity, in part because “they draw pessimistic conclusions regarding China.”² A retired Indian Army general has cautioned against reading too much into the report, stating that the Indian military must build a position of “relative strength” in some areas to be able to sustain a multisectoral conflict.

This brief argues that some of the ‘pessimistic conclusions’ attributed to Indian strategists in the report by O’Donnell and Bollfrass, could be the result of a land-force centric mindset among Indian military planners. It is considered necessary to have a positional and defensive operational strategy in conditions of near-parity to fight a likely limited conflict across the Line of Actual Control (LAC). Consequently, the employment of airpower across missions and roles has remained of peripheral interest to security planners until now. The fast-tracking of the purchase of 12 additional SU-30 MKI jets from HAL and 22 upgraded MiG-29s from Russia, which were already in the pipeline, signals a realisation that airpower could emerge as a key element in future India–China conflicts.³

LESSONS FROM OPERATION FALCON

In 1987, Army Chief General Sundarji, Lt. General Narahari (4 Corps Commander) and Major General J.M. Singh (5 Div. Commander), with support from Air Chief Marshal Denis Lafontaine, ushered in a refreshingly new joint operational strategy. Before the disengagement process was initiated in mid-1987 following the Sumdorong Chu crisis, the extensive employment of airpower

to support both defensive and offensive operations on the Tibetan Plateau was discussed during Exercise Chequer Board, a table-top exercise initiated in the Indian Army's Eastern Command and spread across to war colleges and other formations that were lined up across the LAC. Amongst the key takeaways was an emphasis on exploiting air power to secure tactical gains, which could be leveraged during subsequent diplomatic/political negotiations.

In sustained correspondence with the author during interviews for a forthcoming book, Lt. Gen. J.M. Singh stressed that air power was and remains the key to tackling the Chinese in Tibet. "We must have the capability to gain and maintain a favourable air situation for limited periods of time, and carry out interdiction to back shallow multi-pronged thrusts across road-less terrain to outflank the Chinese build-up that will take place on the existing road and rail networks."⁴

Indeed, this was a risky strategy, and Singh emphasised on the need to shape such an environment using helicopters for inserting special forces; moving infantry and guns; and maintaining capabilities of airpower offence to interdict rail and road links in Tibet. This was a simple air-land battle concept, with no fancy pronouncements of attacking targets in depth or in the Chinese hinterland.

Defence Minister George Fernandes had unambiguously stated in 1998 that China was India's principal adversary. However, India has only sub-optimally leveraged

the growing capability of air power in mountainous terrain and inadequately explored its escalatory limits in the India-Pakistan and India-China context. Though the offensive application of air power in the Kargil Conflict contributed significantly to conflict termination, there was much scope for improvement.⁵ Since then, however, there has been rapid capability accretion and movement in joint capability, all of which will play an important role in any future India-China conflict.

The Balakot strikes of February 2019 demonstrated the Modi government's willingness to explore the impact of preventive offensive air power against a significantly weaker adversary in a less-than-war situation. While it would be foolish to superimpose a similar template across the LAC, a greater debate is required on the optimal ways of leveraging Indian air power on/across the LAC, should situations escalate beyond face-offs.

THE PLAAF FORGES AHEAD

Much has changed in the last few decades. The People's Liberation Army Air Force (PLAAF) has moved quickly to counter the growing qualitative advantage of the IAF by putting in place a dense, multilayered, and lethal air-defence network of radars and the latest Surface-to-Air Missiles (SAM), which include the S-300, S-400 and the HQ-9.⁶ The Harvard report does not refer to this at all. While the PLAAF has increased the frequency of the visits by fighter squadrons equipped with fourth-generation aircraft to airfields in the Tibetan Autonomous Region

(TAR),⁷ it has rightly concentrated on building on its proven strength of ground-based air-defence networks and network-centric operations, instead of attempting to match the IAF with airborne fighter platforms.

The Harvard paper engages in a bit of ‘India overreach’ by suggesting that the IAF’s current inventory of fourth-generation fighters (Mirage-2000s, MiG-29 UPG and SU-30 MKI) are more than a match for the PLAAF SU-30s, J-10s and J-11s.⁸ This might be qualitatively true, but quantitatively, the Harvard paper’s estimation is not corroborated by those of other studies. O’Donnell and Bollfrass suggest that the PLAAF can bring to bear only 101 such platforms in the theatre against the estimated Indian strength of 122. In another detailed paper in the *Small Wars Journal*, titled “Assessment of the Growth of PLAAF Capabilities,” Daniel Urchik highlights that as of 2017, the PLAAF had 736 “strong 4th Generation platforms” and was increasing numbers at an average rate of 70 aircraft per year, with constant upgrades in technology, electronic warfare and weapons systems.⁹ Based on this estimate, the PLAAF’s current inventory of fourth-generation platforms could have crossed 850, or about 40 squadrons. One can project that this figure will go up to approximately 50 squadrons of fourth-generation fighters by 2025. Taking into account the possibility of the operational induction of the early fifth-generation J-20 over the next decade (200, or 10 squadrons as a conservative figure), despite its challenges of engine design, the IAF will lose its qualitative advantage of the SU-30 MKI

and the limited number of Rafales. The LCA MK-1 and IA, which are likely to equip six to seven squadrons over the next 8–10 years, can be considered at best a “modest and not strong fourth-generation platform.”

In 2030, a comparison between the PLAAF and the IAF is likely to be as follows. As part of its offensive inventory, the PLAAF could have up to 50 squadrons of ‘strong fourth-generation fighters,’ 10 squadrons of modest fifth-generation J-20-class aircraft, and five to six squadrons of the H-6 long-range bombers with significant stand-off capability (cruise missiles with ranges of more than 500 km. The IAF’s air-launched Brahmos cruise missile has a maximum range of 300 km). In a ‘hot war’ scenario, the anticipated airfield-receiving capacity on the TAR could double from the existing six airfields, given the speed at which Chinese infrastructure is being built on the Tibetan plateau. The Harvard report’s suggestion that the PLAAF would allocate and train barely 15 percent of its fourth- and fifth-generation fighters for operations in an India scenario could be contested. Based on multiple studies, it is reasonable to assume that there is currently an even balance, which could gradually shift in favour of the PLAAF should the IAF falter on its various acquisition plans.

WHERE DOES THE IAF STAND?

Even in the best-case situation of the timely induction of all LCA MK-IA aircraft, emergency purchase of the SU-30s and MiG-29s, the two Rafale squadrons, and up to six Multirole Fighter Aircraft (MRFA) squadrons (should the pending 114 aircraft contract

go through), the IAF will at best have 32–34 fighter squadrons by 2030. Pessimistic assessments predict even lower numbers.¹⁰ However, to IAF's advantage, the rapidly growing asymmetry in total numbers will not translate into a proportional ability of the PLAAF to induct fighter squadrons into TAR to create a significant force advantage. With 10–12 forward tier IAF airfields already capable of sustaining intense fighter operations, the IAF could still retain a numerical advantage in an aerial battle over TAR. However, a combination of the dense air defence cover, superior EW and space-based intelligence, and the availability of large numbers of the J-20 fifth-generation aircraft will pare the current qualitative advantage of the IAF, unless there is the speedy induction of the 114 MRFA aircraft. Thus, a combination of SU-30MKIs, Upgraded Mirage-2000s and MiG-29s; limited numbers of Rafales and MRFA with advanced EW systems; and good stand-off weapons capability will ensure that the IAF will continue to have a marginal qualitative advantage over the PLAAF despite the substantial disparity in overall numbers.¹¹ It is too early to assess whether the LCA MK-1A will be able to penetrate the air-defence network on the Tibetan Plateau. For now, it must be assumed that they will primarily be used in favourable conditions—to hold the line on the western sector, and provide local air defence and limited offensive support around the LAC.

Currently, the IAF stands at a critical crossroad vis-à-vis the PLAAF. It has certain advantages such as a qualitative one in aerial platforms across categories and the viability

of operational bases with protective shelters that could, according to the Harvard study, withstand the much-feared barrage of SSMS from the PLA Rocket Forces. Indian airpower offers the only instrument that allows the application of asymmetric combat power. According to most western assessments, the IAF is more battle-proficient and flexible than its adversary.¹² However, that advantage is fast disappearing, with the PLAAF inducting the latest technologies and aerial platforms.¹³ Moreover, the PLAAF seems to have a strong ground-based and near-impregnable air-defence system that the IAF will have to contend with during its offensive operations across the LAC.

For India, the terrain in Eastern Ladakh could support the setting up of a PLAAF-like AD network with systems such as the S-400, but it will be difficult to extend this across the LAC due to terrain considerations. Therefore, a purely defensive aerial posture comes with severe constraints. Irrespective of the surface posture, the IAF must build offensive capability in both air-air and air-ground capability, supported by the latest generation of surveillance platforms—even if only to support a defensive strategy to prevent the PLA from gradually shifting the LAC towards India.

Several operational assessments in India suggest that a limited high-altitude conflict will not spill-over onto the crowded shipping lanes of the Indian Ocean Region (IOR), considering the Malacca dilemma for the Chinese.¹⁴ However, there is still the apprehension that for a limited maritime confrontation in the Southern Indian Ocean

areas to be supported by airpower, the meagre integral aviation assets of a two-carrier fleet must be complemented by the IAF's long-range maritime strike capability, offered by platforms such as the SU-30 MKI, Rafale and the MFRA. Increasing the number of air bases in southern India and enhancing aviation-related infrastructure on the Andaman and Nicobar Islands can be key to exploiting the reach of Indian airpower to blunt any attempts by the Chinese Navy at making offensive forays in the northwest of the Malacca, Sunda and Lombok Straits. The Indian Navy's versatile P-8 Maritime Reconnaissance aircraft with anti-submarine torpedoes and anti-shipping missiles, would make an effective pairing with the IAF's long range maritime strike aircraft like the Su-30 MKI.¹⁵

THE WAY AHEAD FOR INDIA

India has few strategic choices with regards to using air power as an instrument of statecraft in the ongoing search for strategic equilibrium with China. Should a defensive aerial posture be decided upon after reviewing the IAF's ability to prosecute an offensive campaign on the Tibetan Plateau, the current trajectory of IAF acquisitions and training along the LAC must be reviewed. It must train and equip for shallow operations around the LAC—concentrating only on improved surveillance, rapid mobility and robust air defence—and restrict offensive options to the western front. Such a strategy, however, will reveal the deep contradictions within India's strategic-politico-military structures, since the overall posture on the western front has changed in recent years

from reactive to proactive deterrence. A different strategy on the northern and eastern fronts will reveal that the “1962 mindset” has not been erased from India's military psyche.

India's current strategic dispensation prefers assertive stances vis-à-vis both Pakistan and China, as evident in the recent pronouncements by BJP ideologues such as Ram Madhav. Madhav stressed on the need to stand up to the current brand of Chinese bullying and coercion that he calls “Wolf Warrior Diplomacy.”¹⁶

An assessment by India's former NSA Shiv Shankar Menon suggests that the recent India–China face-off represents “massive Chinese escalation to fundamentally alter status quo.”¹⁷ This insight calls for a review of India's military strategy and posturing along the LAC. While experienced practitioners such as Lt. Gen Hooda are confident that India will “hold its own and may even enjoy an edge in the aerial and maritime domains,” the aerial advantage is fast waning. The bottom-line is that in today's technological and high-tempo warfighting environment, the coercive coefficient of India's military responses following face-offs can never be robust enough without demonstrated cutting-edge aerial capability.

To be fair to Indian policymakers, there has been an exponential increase in the pace of infrastructure development around the LAC since 2014. This includes the operationalisation of several Advance Landing Grounds (ALGs) and connectivity corridors, such as the Darbuk–Shyok–DBO

road that emerged as a bone of contention during the recent face-off. However, these initiatives largely support defensive operations, with no marked opportunities to facilitate offensive operations.

To date, the 1987 model remains the best option for the Indian Army to leverage the significantly improved capabilities of the IAF. Even if the former only has limited offensive options across the LAC, it must realise that to thwart PLA operational designs during a limited conflict across multiple high-altitude pressure points, the IAF must be able to degrade and delay PLA's troops–armour–logistics induction cycle. This can only happen if the IAF can carry out interdiction of communication lines ranging from 150 km to the LAC/Tactical Battle Area (TBA). To this end, the IAF would first need to fight to create and maintain a favourable air situation over a limited area at the time of its choosing. Put simply, the IAF must revisit all the classical roles of offensive airpower within a limited war framework.¹⁸

A senior retired IAF leader posits that a nuanced preparatory airpower strategy to counter an increasingly belligerent China must include a tightened surveillance grid, comprising army and air force UAVs, Recce and Observation (R&O) helicopters, IAF SU-30 MKIs, and Jaguars with their recce pods and aircraft belonging to India's civilian intelligence agencies as well as space-based surveillance assets. In mid-June 1999 during the Kargil conflict, it was only when IAF MiG-25s and the civilian Gulfstream recce aircraft were pressed into action that the

IAF received meaningful intelligence, which allowed them to hit some major targets such as the logistics hub at Muntho Dalo and the hangar-like-structure at Point 4388.¹⁹

Air mobility operations across the LAC are supported by the IAF's heavy-lift platforms, e.g. the C-17 and IL-76, while the C-130J could assist rapid deployment at ALGs, e.g. Daulat Beg Oldi, Nyoma, Fukche and Mechuka. The recently inducted Chinooks and Mi-17 V5's and 1Vs would offer significant intervalley and special forces capability. Further, the IAFs existing fourth-generation fighter platforms comprising a minuscule number of Rafales, a large fleet of SU-30 MKIs, and a modest number of Mirage-2000s and MiG-29s may be sufficient for a localised conflict, but should the conflict expand across the LAC, all critical offensive roles will become difficult to execute. These would include the securing of a localised favourable air situation, shaping the battlefield through effective interdiction, and undertaking Battlefield Air Strike Missions to relieve pressure on the Indian Army forces engaged in a contact battle. The appearance of the recently inducted Apache attack helicopters of the IAF in Ladakh, significantly adds to the IAF's offensive punch against armour, vehicle and troop concentrations.

The IAF does not currently have the offensive assets to widely prosecute such a campaign while concurrently maintaining a vigil on the western front. Moreover, if India's western adversary opens a second front as a prospective vassal state of the PRC, the situation could become even

more challenging. The acquisition of the 114 MRFA aircraft with high-end fourth-generation capability could be critical for the IAF to maintain its combat edge over the PLAAF, since neither the LCA MK-1A nor the proposed MK-2 are likely to supplement the SU-30 MKIs and the Rafale as its vanguard. Since this will be an expensive investment, the IAF can leverage the deal with an eye on the AMCA as an effective counter to the PLAAF's fifth-generation fighter and its successor—the J-20 and J-31, respectively. The IAF must maintain focus on this if it intends to stay in the race over the next decade.²⁰ Shedding excesses in areas of revenue expenditure and improving the teeth-to-tail ratio will be essential to managing budgetary constraints.

CONCLUSION

The most desirable outcome following the fierce skirmish between Indian troops of 16 BIHAR and PLA regulars on 15 June 2020 is rapid de-escalation and the prevention of further firefights. However, the situation remains volatile, and after a week of uncertainty when the face-off seemed to be heading towards a localised conflict and expanding across the LAC, reason seems to have prevailed. Following a meeting between Indian Army and PLA commanders on 22 June 2020, contours of a disengagement and de-escalation process seem to have emerged. However, it is likely that both India and China will retain their operational vigil until the

winter season sets in. The earlier proposition was that the PRC would continue salami-slicing^a the disputed territory along the LAC, even as diplomacy and negotiations offered repeated face-saving opportunities to both sides. However, this idea seems to have been dismantled by the aggressive actions and continued build-up in the Galwan Valley and along the Pangang Tso.

There will come a time when India will have to respond proactively to protect its interests, following continued coercion by the PLA along the LAC. According to some analysts, “China will blink if India is ready to go to war. Not because China does not want to fight a war, but because it doesn't want to lose face.”²¹ This, too, is a dangerous proposition, since Chinese strategic behaviour in recent times suggests that the Xi Jinping-led regime is very different from earlier dispensations, which were prepared to “bide their time.”

Current events suggest that the PRC is straining to validate decades of a focused build-up of military capability against recalcitrant peripheral adversaries. China has displayed an increasing propensity to use diplomacy as a smokescreen, not as a problem-solving tool as India does. India need not mirror this strategy, but it must shed old shibboleths on the utility of force as an instrument of statecraft. India's ability to militarily deter the Chinese dragon will be an acid test of its journey on the road

a A divide-and-conquer process of threats and alliances used to overcome opposition.

to becoming a leading power in the coming decade. Cutting-edge air power is amongst the panoply of several desired capabilities

that must be sharpened, even if it causes budgetary pain and necessitates revisiting existing joint warfighting strategies. [ORF](#)

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