

## AIRPOWER

### A Game Changer in an India-China Limited Conflict

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A unique feature of the six-decades-long India-China adversarial relationship is the absence of the use of offensive airpower in both conflict and short-of-war scenarios that have unfolded across the Line of Actual Control. The exponential growth of the People's Liberation Army Air Force in recent years and India's increasingly robust military posture vis-à-vis Beijing calls for an appraisal of how airpower could be a game changer in any future conflict, if the Indian Air Force's offensive potential is correctly leveraged. Yet, systemic aircraft shortages in the Indian Air Force and the slow pace of modernization within, India's armed forces threaten an effective employment of offensive airpower and an overall robust military posture.

India-China stand-offs have always been complicated. For decades they have followed a predictable pattern of limited escalation, posturing, rhetoric, and finally, de-escalation. Lately, encounters across multiple points of stress in Eastern Ladakh have been more complex and volatile, beginning with the bloody face-off between the Indian Army and the People's Liberation Army (PLA) in the Galwan Valley on June 15, 2020.

The complexity is highlighted in a 2020 Harvard Kennedy School report on the India-China military balance written a few months before the clashes.<sup>1</sup> The report argues, "India has key under-appreciated conventional advantages that reduce its vulnerabilities to Chinese threat and attacks." It also contends that "Indian strategists have not focused on this opportunity, in part because they draw pessimistic conclusions regarding China."<sup>2</sup>

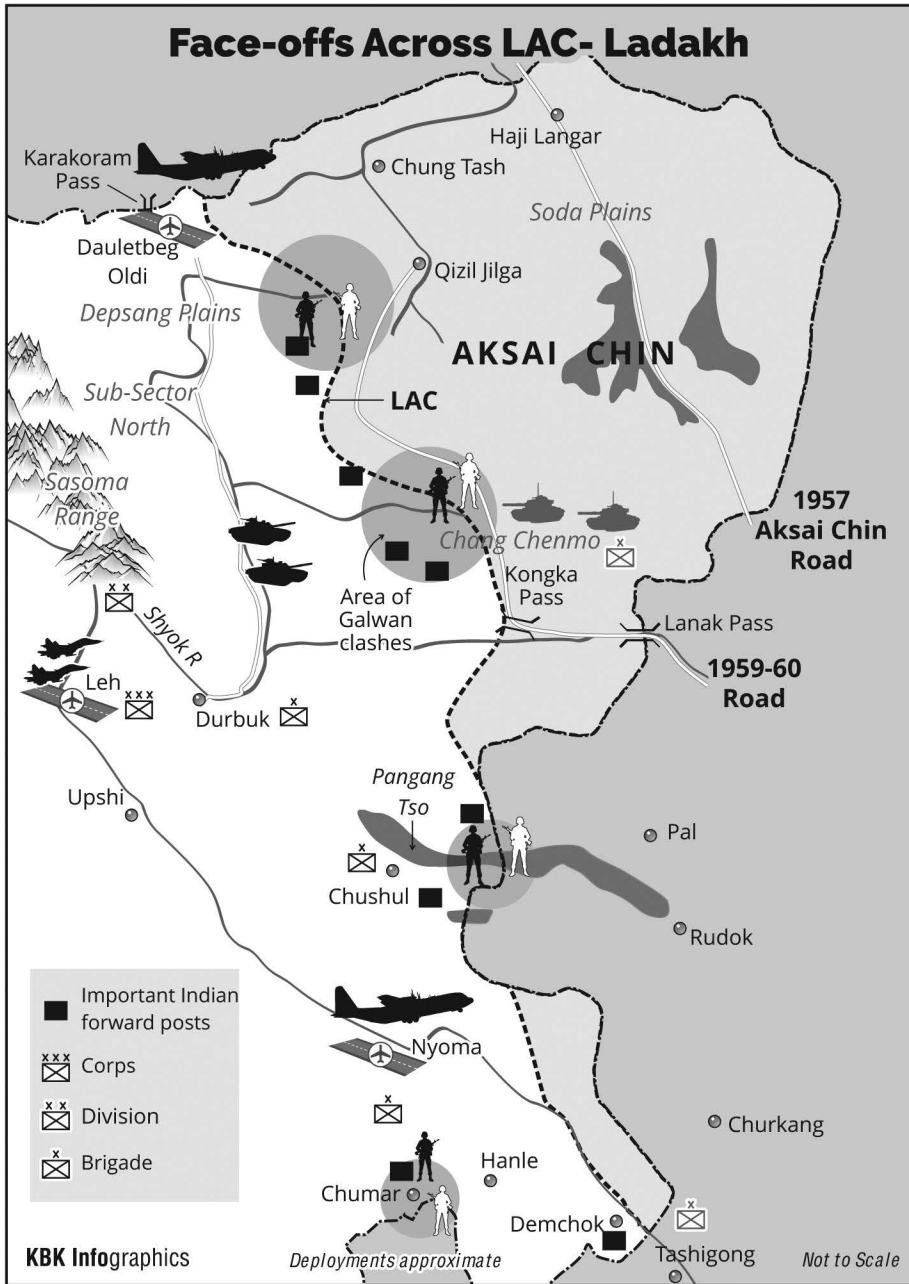
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1. Frank O'Donnell and Alexander K. Bollfrass, *The Strategic Postures of China and India: A Visual Guide* (Cambridge, MA: Belfer Center for Science and International Affairs, Harvard Kennedy School, 2020), <https://www.belfercenter.org/>.

2. O'Donnell and Bollfrass, 2.



**Figure 1. Map showing key areas of the contest between India and China along the Line of Actual Control in Eastern Ladakh**

Such diffidence with regard to China has been a key feature of India's strategic DNA since its independence from colonial rule in 1947. Yet there is a growing realization within assertive strategic circles in India that the military must build a position of relative strength in some areas to be able to sustain a multisectoral and multidomain conflict with the country's more powerful northern neighbor. Skeptical conclusions of the growing military asymmetry between China and India, while not ill-founded, could be attributed to a land-force-centric mindset. This perspective seemingly reflects the belief that a positional and defensive attrition-based operational strategy in conditions of near parity will be at the heart of any likely limited conflict across the 3,500-kilometer Line of Actual Control (LAC) separating sovereign Indian territory from Chinese-controlled territory (fig. 1).

Though the Indo-Pacific has emerged in recent years as a region of great power rivalry and the most likely battlespace in any future US-China conflict, there is a perception in both India and China that while the Indian Ocean Region (IOR) would remain a maritime region of intense geopolitical and geoeconomic contest between the two nations, such a contest may not morph into a military flare-up in the foreseeable future. Consequently, the employment of airpower across missions and roles has remained of peripheral interest to security planners—that is, until recently.

The Galwan Crisis has partly changed this narrative with kinetic and nonkinetic airpower options emerging as potential game changers in any future limited conflict along the LAC. The growing debate in India within naval and air force circles over the trajectory of maritime air operations in the IOR and ownership of assets, roles, and missions may have come at the right time as India assesses its military options—other than the traditional land-centric ones—against China.<sup>3</sup>

The fast-tracking of the indigenously built Tejas light combat aircraft (LCA) Mk1 single-engine fighters and the purchase of 36 French Rafale multirole fighter jets and 12 additional Sukhoi Su-30MKI jets from Hindustan Aeronautics signal a possible realization that airpower could emerge as a key element of warfighting in any future India-China conflict. Yet the stalling of the additional purchase of 22 MiG-29s from Russia and procrastination over the finalization of the 114 multirole fighter aircraft (MRFA) could be a dampener in the short and medium term.<sup>4</sup> This article assesses India's airpower options in a multidomain and limited military conflict with China in the future.

## Lessons from Operation Falcon

Between 1986 and 1987, Indian Army Chief General Krishnaswamy Sundarji, 4 Corps Commander Lieutenant General N. S. Narahari, and 5 Division Commander

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3. Arjun Subramaniam, "Pushing Boundaries: Can the Indian Military Transform?," in *Grasping Greatness: Making India a Leading Power*, ed. Ashley J. Tellis, Bibek Debroy, and C. Raja Mohan (New Delhi, India: Penguin, 2022), 558–61.

4. Manu Pubby, "IAF to Urgently Procure 21 Mig 29s and 12 Su 30s," *Economic Times*, last updated June 19, 2020, <https://economictimes.indiatimes.com/>.

Major General (later Lieutenant General) J. M. Singh, with support from Air Chief Marshal Denis Lafontaine, ushered in a refreshingly new joint operational strategy during Operation Falcon, the year-long stand-off with China's forces in the Sumdorong Chu Valley, north of Tawang in India's northeastern state, Arunachal Pradesh.

Before the disengagement process began in mid-1987, the extensive employment of airpower in all its dimensions to support both defensive and offensive operations on the Tibetan Plateau was discussed during a table-top exercise—Exercise Chequer Board. The exercise was initiated in the Indian Army's Eastern Command and expanded to encompass war colleges and other formations lined up across the LAC. The key takeaways included an emphasis on exploiting airpower to secure tactical gains that could be leveraged during subsequent diplomatic/political negotiations. During this time, Singh was emphatic that the key to tackling the Chinese in Tibet even in those days was airpower; this remains so now.

With a clear perspective of airpower's potential, Singh stated,

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.<sup>5</sup>

This is a risky strategy no doubt; he emphasized the need to shape such an environment using helicopters for inserting special forces and moving infantry, guns, and logistics supported by offensive airpower to interdict rail and road links in Tibet. There were no fancy pronouncements of attacking targets in depth or in the Chinese hinterland. It was a plain vanilla limited air-land battle concept tailored for the flat terrain of the Tibetan Autonomous Region (TAR).

Oddly, the plan was not embraced and further developed in the following decades even after Defence Minister George Fernandes unambiguously stated China was India's principal adversary.<sup>6</sup> An unwillingness to leverage the growing capability of airpower in mountainous terrain and explore its escalatory limits in the India-Pakistan and India-China context led to its suboptimal use during the Kargil Conflict of 1999.<sup>7</sup> Despite the significant capability accretion in the Indian Air Force (IAF) and the progressive improvement in joint operations in the opening decade of the current century, there continued to be diffidence in India over the use of airpower in limited conflict scenarios across the LAC.

The Balakot strikes of February 2019 against a Jaish-e-Mohamed camp in Pakistan demonstrated a willingness of the Modi Government to explore the impact of preventive

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5. Personal interviews and email correspondence with retired Lieutenant General J. M. Singh, through July 2019. See Arjun Subramaniam, *A Military History of India since 1972: Full Spectrum Operations and the Changing Contours of Modern Conflict* (Lawrence: University Press of Kansas, 2021), 130–45.

6. John Burns, "India's New Defense Chief Sees Chinese Military Threat," *New York Times*, May 5, 1988, <https://www.nytimes.com/>.

7. See Benjamin S. Lambeth, *Airpower at 18,000': The Indian Air Force in the Kargil War* (Washington, DC: Carnegie Endowment for International Peace, 2012), <https://carnegieendowment.org/>.

and coercive offensive airpower against a significantly weaker adversary in a less-than-war situation.<sup>8</sup> While it would be unfair to superimpose a similar template across the Line of Actual Control in contemporary times, the Galwan Crisis and the subsequent performance and presence of the IAF over Eastern Ladakh have spurred greater debate on optimal ways of leveraging Indian airpower on/across the LAC should situations escalate to beyond mere face-offs.<sup>9</sup>

The ambitiously assertive air-land plans curated by Sundarji are unlikely to see the light of day. In its place, India may be compelled to present a robust and proactive defensive posture with offensive airpower as the principal element for causing attrition to the PLA's combat potential and limiting conflict escalation. The debatable point, however, remains whether India's strategic establishment has the will to generate the capabilities needed to do so.

### PLAAF Forges Ahead

Over the past decade, the People's Liberation Army Air Force (PLAAF) has moved quickly to counter the growing qualitative advantage of the IAF's fighter force. China has established a dense, multilayered, and lethal air defense network of radars and the latest surface-to-air missiles (SAMs) that include the S-300, S-400, and the HQ-9.<sup>10</sup> Though the PLAAF increased the frequency of the visits by fighter squadrons equipped with fourth-generation aircraft to airfields in the Tibetan Autonomous Region after 2010, it rightly concentrated on building on its proven strength of ground-based air defense networks and network-centric operations, rather than attempting yet to match the IAF with airborne fighter platforms.<sup>11</sup>

The Harvard study mentioned above engages in a bit of "India overreach" by suggesting the IAF's current inventory of fourth-generation fighters (Mirage 2000s, MiG-29UPG, and Su-30MKI) is more than a match for the PLAAF Su-30s, J-10s, and J-11s.<sup>12</sup> Qualitatively, maybe, but in terms of numbers, there is a possible mismatch between what the researchers suggest about the availability of fourth-generation fighters with the PLAAF, and what other studies have revealed. The analysis proposes the PLAAF can bring to bear only 101 such platforms in the theater against the estimated Indian strength of 122.

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8. Arjun Subramaniam, "The Indian Air Force, Sub-Conventional Operations and Balakot: A Practitioner's Perspective," *ORF [Observer Research Foundation] Issue Brief*, no. 294 (May 2019), <https://www.orfonline.org/>.

9. Krishan Kaushik, "Was Prepared for Strike after Galwan, China Can't Get the Better of Us: IAF Chief," *Indian Express*, October 6, 2020, <https://indianexpress.com/>.

10. Daniel Urchik, "A 2016 Assessment of the Growth of PLAAF Capabilities," *Small Wars Journal*, July 26, 2016, <https://smallwarsjournal.com/>; and see Arjun Subramaniam, "Closing the Gap: A Doctrinal & Capability Appraisal of the IAF and PLAAF," in *Defence Primer 2018: An Indian Military in Transformation*, eds. Pushan Das and Harsh V. Pant (New Delhi: ORF, 2018), <https://www.orfonline.org/>.

11. Rajeswari Pillai Rajagopalan and Pulkit Mohan, "PLA Joint Exercises in Tibet: Implications for India," *ORF Occasional Paper*, no. 238 (February 2020), <https://www.orfonline.org/>.

12. O'Donnell and Bollfrass, *Strategic Postures*.

Yet, the operational induction of the PLAAF's J-20 and nuclear-capable H-6 bombers on the Tibetan Plateau soon after the Galwan Crisis reveals a growing confidence within the PLAAF of matching the IAF in the skies.<sup>13</sup> In April 2014, then-PLAAF Chief and Central Military Commission member Ma Xiaotian argued, "As missions evolve and change, the Air Force's ability to fight and win wars will be continuously improved to ensure the effective fulfillment of its missions."<sup>14</sup>

One defense analyst highlights that as of 2017, the PLAAF had 736 such "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.<sup>15</sup> By those numbers, the PLAAF's current inventory of fourth-generation platforms could have crossed 850 or about 40 squadrons. One can guesstimate that this figure will settle down to approximately 50 squadrons worth of fourth-generation fighters by 2025.<sup>16</sup>

If one factors in the possibility of the operational induction of the early fifth-generation J-20 in large numbers over the next decade—200 or 10 squadrons as a conservative figure—despite the problems it is facing with engine design, it is quite clear the qualitative advantage enjoyed by the IAF thanks to the Su-30MKI and the small numbers of Rafales will quickly erode. The LCA Mk1 and 1A, which are likely to equip 6 to 7 squadrons over the next 8 to 10 years, can be considered at best a modest fourth-generation platform.

So here is a rough matchup come 2030.<sup>17</sup> As part of its offensive inventory, the PLAAF could have up to 50 squadrons of strong fourth-generation fighters; around 10 squadrons of modest fifth-generation J-20-class aircraft, early variants of the J-31 maritime version of the J-20 equipped with PL-15 beyond visual range missiles (140- to 150-kilometer range); and 5 to 6 squadrons of the H-6 long-range bombers with significant stand-off capability (weapons with ranges of more than 250 to 300 kilometers).

In a hot-war scenario, the anticipated airfield receiving capacity on the TAR will double from the existing six dual-use airfields, given the speed at which Chinese infrastructure is being built on the Tibetan Plateau. An overview of the current status of dual-use and satellite airfields in TAR suggests that of the 17 airfields ringing the Plateau, 7 are in Xinjiang, Qinghai, and Yushu provinces, some distance away from the LAC. That leaves 10 airfields that stretch across the Karakoram and Himalayan ranges that could come into play during a conflict. Of these, only two are situated below

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13. Smriti Chaudhary, "After Spotting J-20 Jets, Nuclear-Capable H-6 Bombers, India Deeply Monitoring Chinese Air Bases," *Eurasian Times*, August 21, 2020, <https://www.eurasiantimes.com/>.

14. Ma Xiaotian, "Efforts to Improve the Air Force's Ability to Fight and Win Wars," *People's Liberation Army Daily*, April 2, 2014, <http://www.81.cn/>.

15. Urchik, "2016 Assessment."

16. See "China - Air Force," Scramble: Dutch Aviation Society (website), n.d., accessed November 14, 2023, <https://scramble.nl/>.

17. See "India - Air Force," Scramble, n.d., accessed November 14, 2023, <https://scramble.nl/>.

10,000 feet, which seriously impacts the operational viability of fighter operations with adequate weapon loads.<sup>18</sup>

The rapid construction of heliports close to the LAC suggests the PLA is scaling up its helicopter operations, though it still does not match up to the Indian Air Force's experience and capability to conduct a wide range of helicopter operations at high altitudes.<sup>19</sup> To intimate the PLAAF would allocate and train barely 15 percent of its fourth- and fifth-generation fighters for operations in an India scenario as per the Harvard report is a bit far-fetched. Based on multiple studies, one must assume that currently there is an even balance, which is likely to gradually shift in favor of the PLAAF should the IAF falter in its various acquisition and infrastructure developmental plans.

In the past, India hardly figured overtly in the PLA's military calculus. Yet according to a November 2023 report, "China perceives significant security threats along its expansive disputed border with India."<sup>20</sup> There has also been an increase in traction on Chinese military blogging sites that track the capability development in the IAF.

One such thread repeatedly refers to the reasons for the growing India-US military relationship and argues "in a head-to-head confrontation with the Western Theater Command, the Indian Armed Forces know, they are in danger and have little chance of success, and therefore, want to learn from the US military, a different way of fighting."<sup>21</sup> Referring to the IAF's recent deployments in Eastern Ladakh, the blog highlights that the "Indian Air Force has recently transferred EMB-145 early warning aircraft near the plateau to operate closer to the China and India boundary. This is the first time that India has deployed this type of aircraft in the direction of plateaus."

## Indian Air Force Capabilities

Even with the best-case situation in the acquisition and fielding of pending platforms, the IAF will stagger to 32 to 34 fighter squadrons at best by 2030. Pessimistic assessments point at even lower numbers.<sup>22</sup> Yet the reasonably good news for the Indian Air Force is that the rapidly growing asymmetry in total numbers may not translate into a proportional qualitative ability of the PLAAF to create a significant force advantage in the Tibetan Autonomous Region. With several forward-tier IAF airfields already capable of sustaining intense fighter operations, the IAF could well hold its own in an aerial battle over the region.

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18. Venu Gopal Narayanan, "Chinese Airfields in and around Tibet: A Geographical Overview," *Swarajya*, July 23, 2021, <https://swarajyamag.com/>.

19. China Power Team, "How is China Expanding Its Infrastructure to Project Power along Its Western Borders?," China Power, Center for Strategic International Studies, updated November 9, 2023, <https://chinapower.csis.org/>.

20. China Power Team.

21. 开错了季节解说 Kāi cuò le jì jié jiě shuō, Guangdong-based military blogger, 2022.

22. Snehes Alex Phillip, "Even after Rafale and Other Inductions, IAF Will Only Have Half of 42 Squadrons by 2042," *ThePrint*, January 28, 2019, <https://theprint.in/>.

Still, the combination of the dense PLAAF air defense cover, superior but untested electronic warfare and space-based intelligence, and the availability of large numbers of the J-20 fifth-generation aircraft and H-6 bombers will pare the current qualitative advantage of the IAF. This could be mitigated, however, if the 114 MRFA aircraft along with their electronic warfare and weapons suite are fielded quickly. Thus, a combination of Su-30MKIs, upgraded Mirage 2000s, and MiG-29s, a limited number of Rafales, the MRFA with advanced electronic warfare systems, and good stand-off weapons capability will ensure the IAF's qualitative advantage over the PLAAF remains despite the disparity in overall numbers.<sup>23</sup>

It is too early to assess whether the LCA Mk1A, likely fitted with advanced active electronically scanned array radars and the Astra beyond-visual-range air-to-air missile—both of which are in an advanced stage of development—will be able to penetrate the air defense network on the Tibetan Plateau for deep-ingress missions. Yet, the platform will certainly add punch to local air defense over Ladakh and limited countersurface force operations and battlefield air interdiction around the LAC in favorable conditions.

## **PLAAF Capabilities**

The IAF stands at a critical crossroads today vis-à-vis the PLAAF. It has current advantages that include a qualitative advantage in aerial platforms across categories and viability of operational bases with hardened aircraft shelters that could, according to the Harvard study, withstand the much-feared PLA rocket force barrage of surface-to-surface missiles with suspect circular errors of probability. Yet the pace at which such shelters are being constructed needs to be hastened to allow the IAF to spring back and launch offensive platforms after a PLA first strike. Reaffirming the threat posed to forward IAF airbases, one observer suggests the challenges ahead for India:

The People's Liberation Army Rocket Force's (PLARF) PHL-191 long-range rocket launchers have a range of up to 180 kilometers. This, coupled with the geographical advantage of the Sino-Indian border area, [suggest that] both northern India and Kashmir will therefore face substantial threats from the PLA. Therefore . . . India continues to learn from the US military experience but, to mitigate PLAs missile threats, [it] won't be easy.<sup>24</sup>

Strategic planners in India must recognize that offensive airpower offers the only instrument that allows the application of asymmetric combat power, one that can inflict costly attrition on both deployed and follow-on fielded forces.

By most Western assessments, the Indian Air Force is more battle-proficient and flexible than its adversary, given its combat experience and frequent engagement with

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23. See Jayantchakravarti, "Here's How the Indian Air Force May Look Like in 2030," My Voice - OpIndia, September 5, 2019, <https://myvoice.opindia.com/>.

24. 开错了季节解说 Kāi cuò le jì jié jiěshuō.



Western partner air forces since the 1990s including the United States Air Force, French Air Force, and Royal Air Force.<sup>25</sup> But that advantage, too, is fast eroding. The PLAAF is adopting the latest technologies, offensive platforms, and combat enablers, such as airborne warning and control systems (AWACS) and refuelers, and is looking outward for air combat expertise. Frequent engagements with the Pakistan and Turkish air forces which operate aircraft such as the F-16, and the hiring of mercenary combat instructors from the UK and Germany should significantly enhance the PLAAF's air combat capability.<sup>26</sup>

To improve its capability, the PLAAF has embarked on "cultivating air force commanders for the intelligentized air battle, upgrading its combat equipment, flight training concept and talent cultivation mode at a faster pace amid the trend of science and technology innovation."<sup>27</sup> Highlighting this aspect at an international military training conference in September 2021, Hao Jingwen, head of the training bureau under the PLAAF staff headquarters, put forward new requirements for improving pilot efficiency by upgrading simulated training.

Reaffirming the strong collaborative relationship between the Pakistan Air Force (PAF) and the PLAAF at the same conference, PAF Air Chief Marshal Zaheer Ahmad Babar Sidhu said, "In the face of current global and security situation, the ever-changing dynamic warfare and new technologies, China and Pakistan, together with their air forces, have maintained close cooperation and supported each other in every operation." The PLAAF-IAF gap has closed considerably, and with training in the PLAAF being ramped up with collaborative initiatives with allies such as Pakistan, it will be formidable to reckon with in three to five years. And as a further indication of the seriousness with which the PLAAF is working to close the capability gap with Western air forces, India included, the PLAAF recently conducted an exercise with the United Arab Emirates air force in Xinjiang, with the latter fielding both the F-16 and the Mirage 2000.<sup>28</sup>

The PLAAF has a strong and dense ground-based air defense system that the IAF will have to contend with during its offensive operations across the Line of Actual Control. Except for the terrain in Eastern Ladakh that could support a PLAAF-like air defense network on the Indian side with systems like the S-400, India will have a difficult time extending air defense across the LAC due to adverse terrain considerations.

Therefore, a purely defensive aerial posture and an attempt to clone China's air defense capability will come with severe constraints. Irrespective of the surface posture, the IAF must build offensive capability in both air-air and air-ground capability supported

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25. O'Donnell and Bollfrass, *Strategic Postures*.

26. Mark Landler, "China Recruiting Former R.A.F. Pilots to Train Its Army Pilots, U.K. Says," *New York Times*, October 17, 2022, <https://www.nytimes.com/>; and see Franz-Stefan Gady, "Did German Pilots Just Pass NATO's Tactics to China?," *Foreign Policy*, June 7, 2023, <https://foreignpolicy.com/>.

27. Liu Jimei and Gao Yujiao, "PLAAF Cultivates Pilots for Intelligentized Air Battle," China Military Online, September 28, 2021, <http://eng.chinamil.com.cn/>.

28. Ashish Dangwal, "1st Time! PLAAF Jets, F-16s & Mirage-2000s Could Roar Together as China, UAE to Hold Aerial Drills in Xinjiang," *Eurasian Times*, August 1, 2023, <https://www.eurasiantimes.com/>.

by the latest generation of surveillance platforms even if it is to support a defensive strategy that seeks merely to deny the PLA the ability to gradually shift the LAC toward India.

## **Maritime Considerations**

As alluded to earlier, several operational assessments in India suggest that a limited high-altitude conflict may not spill over onto the crowded shipping lanes of the Indian Ocean Region: China's Malacca dilemma suggests the PLA Navy does not currently have the capability to militarily dominate the region.<sup>29</sup> From an IAF perspective, the entry of China's airpower in the IOR represented by the PLA securing airbases in Pakistan, the East Coast of Africa, or anywhere in Southeast Asia would permanently change India's threat perception regarding Beijing.

Until then, sea-denial operations are likely to be the maximum military effort that both navies will be willing to commit to in the IOR. Yet to create balance, the Indian Navy can and must build capability to prosecute sea-control operations in the IOR with a focus on deploying surface action groups and carrier battle groups.

Still, some in India are concerned that to sustain a limited maritime confrontation in the Southern Indian Ocean areas, the Indian Navy's maritime air operations would need to be supported by land-based offensive airpower and other force multipliers. To make good this operational requirement, the meager integral aviation assets of even a two-carrier fleet of the Indian Navy would need to be complemented by the IAF's long-range maritime strike and other enabling capability offered by platforms such as the Rafale, Su-30MKI, the MRFA, AWACS, and aerial refuelers.

Recent developments suggest the IAF is rapidly honing its extended maritime strike capability. On May 31, 2023, four Rafales airborne from their home base in Eastern India conducted simulated attacks on targets in the Andaman and Nicobar Islands nearly 2,000 kilometers away after a simulated aerial engagement enroute and returned to base after a six-hour sortie.<sup>30</sup> This capability suggests that additional air bases in Southern India and enhanced aviation-related infrastructure on the Andaman and Nicobar Islands are key to exploiting the reach of Indian airpower to blunt attempts by the Chinese navy to make offensive forays northwest of the Malacca, Sunda, and Lombok Straits.

The silver lining in this playbook is the availability of the versatile P-8 maritime reconnaissance and submarine hunters of the Indian Navy that could effectively pair with the IAF's long-range, maritime-capable strike aircraft, AWACS, and aerial refuelers.<sup>31</sup> Greater engagement and better interoperability between the Indian Navy and

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29. Vidya Sagar Reddy, "China's Malacca Dilemma," Australian Naval Institute, September 17, 2016, <https://navalinstitute.com.au/>.

30. "Fillip to India's Firepower: Rafale Jets Conduct Strategic Aerial Exercise over Indian Ocean," Organiser, June 1, 2023, <https://organiser.org/>.

31. Chris Dougherty, "Force Development Options for India by 2030," Center for New American Security, October 23, 2019, <https://www.cnas.org/>.

the Indian Air Force and frequent joint exercises with the US Air Force, US Navy, and other members of the Quadrilateral Security Dialogue will add value to the ability of the joint airpower resources of the IAF and the Indian Navy to offer effective and asymmetric options over the Indian Ocean Region.

## India's Choices and Challenges

India's strategic choices with regard to airpower as an instrument of statecraft in the ongoing search for strategic equilibrium with China are clear. While examining these choices, India must weigh the costs and risks of adopting a more offensive air posture for limited war versus its traditional and restrained land-centric approach.

If it is satisfied with a purely defensive posture and is circumspect about China's escalation and the IAF's ability to take the battle onto the Tibetan Plateau, the current trajectory of IAF acquisitions and training along the LAC must be reviewed. The IAF must limit its operational philosophy only for shallow operations around the LAC with a sole concentration on improved surveillance, rapid mobility, and robust air defense and must restrict its offensive options only for the western sector.

Such a strategy, however, will reveal deep contradictions within India's strategic-political-military structures, considering that the overall posture on the western front has changed in recent years from reactive to proactive deterrence. Anything different on the northern and eastern fronts will reveal that the reactive and diffident mindset that existed prior to and during the 1962 war with China has not been erased from the Indian strategic psyche.

The current strategic dispensation, however, prefers assertive stances with regard to both Pakistan and China. Supporting this are recent pronouncements by political ideologues that call for India to stand up to China's Wolf Warrior diplomacy.<sup>32</sup> Should India choose a moderately coercive aerial strategy that seeks to do battle with the PLAAF over the Tibetan Autonomous Region, any deep-strike campaigns must be thought through carefully, keeping China's red lines and escalatory dynamics in mind.

A recent assessment by India's former national security adviser Shivshankar Menon reveals the recent standoff represents "massive Chinese escalation to fundamentally alter the status quo."<sup>33</sup> The assessment is instructive and reason enough to relook at India's military strategy and posturing along the LAC. The bottom line is that in today's technologically intensive warfighting environment, the coercive impact of India's responses following any future encounters or skirmishes can never be robust enough without demonstrated cutting-edge aerial capability, both kinetic and nonkinetic.

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32. Ram Madhav, "China's Wolf Warrior Diplomacy," *Indian Express*, June 4, 2020; and see "India-China Standoff: Confident Present Conflict Will Be Resolved through Diplomacy, Says Ram Madhav," *India Today*, May 25, 2020.

33. Shivshankar Menon, "Fmr NSA Menon—If Reports True, This Is Massive Escalation by China to Fundamentally Alter Status Quo," interview with The Wire's Karan Thapar, June 13, 2020, YouTube video, 37:16, <https://www.youtube.com/>.

To be fair to India's policymakers, there has been an exponential increase in the pace of infrastructure development around the LAC, including the operationalization of several advance landing grounds and connectivity corridors like the strategic Darbuk-Shyok-Daluat Beg Oldie Road that emerged as a bone of contention during the recent face-off.<sup>34</sup> Still, this infrastructure largely supports defensive operations and does not yet offer any marked opportunities to facilitate offensive operations.

Even if the Indian Army has limited offensive options across the LAC, it must realize the only way it can thwart PLA operational designs during a limited conflict across multiple high-altitude pressure points is if the IAF is able to degrade and delay the PLA troops-armor-logistics induction cycle. It can only do this if the IAF is able to carry out interdiction of communication lines ranging from 150 kilometers to the LAC/tactical battle area. For this to fructify, the IAF would first need to create and maintain a favorable air situation over a limited area at the time of its choosing to support Indian Army operations.

Put simply, the IAF will have to revisit all the classical roles of offensive airpower within a limited war framework.<sup>35</sup> A nuanced preparatory airpower strategy to counter an increasingly belligerent China must include a tightened surveillance grid comprising army and air force unmanned aerial vehicles (UAVs), recce and observation helicopters, IAF Su-30MKIs and Jaguars with their recce pods, and aircraft belonging to India's civilian intelligence agencies as well as space-based surveillance assets.

It is instructive to remember that during the Kargil conflict, it was only in mid-June 1999, when IAF MiG-25s and the civilian Gulfstream recce aircraft were pressed into action, that the IAF received meaningful intelligence for targeting. This allowed them to hit some major targets like the logistics hub at Muntho Dalo and the hangar-like-structure at Point 4388.<sup>36</sup>

Strategies to mitigate the adverse impact of the steady decline in the number of fighter squadrons include the ramping up of the IAF's fleet of armed UAVs and the deployment of swarm drones along the LAC. Yet considering these as a replacement for sophisticated multirole and flexirole manned platforms is dangerous. Notwithstanding the widespread use of UAVs and drones in Russia's war with Ukraine in semi-urban terrain, the losses incurred by both sides vis-à-vis their operational impact reflect the challenges of UAV and drone operations in a fiercely contested air defense environment.<sup>37</sup>

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34. Shaurya Karanbir Gurung, "In Making for Two Decades, DSDBO Road Now Upsets China," *Economic Times*, June 8, 2020, <https://economictimes.indiatimes.com/>.

35. Directorate of Operations (Space), Indian Air Force (IAF), *Basic Doctrine of the Indian Air Force-2012* (New Delhi: IAF, 2012), <https://www.scribd.com/>; and see Christina J. M. Goulter and Harsh V. Pant, "Realignment and Indian Airpower Doctrine: Challenges in an Evolving Strategic Context," *Journal of Indo-Pacific Affairs* 1, no. 1 (Fall 2018), <https://www.airuniversity.af.edu/>.

36. Lambeth, *Airpower*.

37. Dominika Kunertova, "The War in Ukraine Shows the Game-Changing Effect of Drones Depends on the Game," *Bulletin of the Atomic Scientists* 79, no. 2 (2023), <https://doi.org/>.

The aerial environment in both an India-China and India-Pakistan context will be one of near parity and will be fiercely contested. Consequently, the survivability of UAVs will be a serious question; they must not be replacements for manned offensive platforms.

The speedy and highly impactful performance of the IAF's air mobility fleet of C-17s, C-130s, Il-76s, An-32s, Chinooks, and the latest versions of the versatile Mi-17 helicopters during the Galwan Crisis, contributed significantly to the Indian Army's rapid mobilization of troops, armor, and artillery in response to China's aggressions in Eastern Ladakh during the height of the coronavirus pandemic. Rapid reserves and special forces deployment in narrow valleys and at high-altitude advanced landing grounds like Daulat Beg Oldi, Nyoma, and Fukche is no longer a bridge too far for the Indian Army, thanks to the proven capabilities offered by IAF C-130s, Chinooks, and Mi-17V-5s and 1Vs with their experienced aircrews.

For the time being, the IAFs existing fourth-generation fighter platforms comprising a miniscule number of Rafales, a large fleet of Su-30MKIs, and a modest number of upgraded and legacy Mirage 2000s and MiG-29s and a growing fleet of LCA Mk1s may be sufficient for a localized conflict. But should the conflict expand across the Line of Actual Control, the IAF would find it tough to execute all its critical offensive roles. These would include the securing of a localized favorable air situation, shaping the battlefield through effective interdiction, and undertaking battlefield airstrike missions to relieve pressure on Indian Army forces engaged in a contact battle.

In truth, the IAF does not have enough offensive assets to widely prosecute such a campaign while concurrently maintaining a vigil on the western front, even in the absence of a second front opened by India's western adversary, Pakistan. If that country were to open a second front in its role as a prospective vassal state of China, the situation could be challenging. The acquisition of the 114 MRFA aircraft with high-end fourth-generation capability and combat enablers such as AWACS, aerial refuelers, and intelligence, surveillance, and targeting capabilities, could be critical for the IAF to maintain its combat edge over the PLAAF in a two-front scenario.

A positive by-product of this prospectively expensive buy would be if the IAF leverages the deal with an eye on the proposed advanced medium combat aircraft as an effective counter to the PLAAF's fifth-generation fighter, the J-20 and its derivative, the J-31.<sup>38</sup> These capabilities are essential to stay in the race over the next decade as the IAF has few offensive choices.<sup>39</sup> Shedding excess in areas of revenue expenditure and improving the tooth-to-tail ratio will be essential to manage budgetary constraints.

With integration and transformation of India's armed forces high on the agenda of the government, the incremental creation of integrated theater commands is likely to develop in the next few years, despite the rather acrimonious debate between the three

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38. "Government Plans on AMCA," press release, Press Information Bureau, Government of India, Ministry of Defence, March 14, 2022, <https://pib.gov.in/>.

39. Snehes Alex Philip, "IAF Chief Contradicts CDS Rawat, Says Plan Is to Buy 114 Foreign Fighters besides LCA Tejas," *ThePrint*, May 18, 2018, <https://theprint.in/>.

services over asset allocation and command and control. A recent analysis by the respected think tank Delhi Policy Group on integrated theater commands suggests that “three services have reached a consensus on the broad contours of the theatre commands being given shape by India’s Chief of Defence Staff (CDS).”<sup>40</sup>

Yet the analysis steers clear of addressing a major stumbling block that persists: the dilution in command and control over and the paltry distribution of scarce land-based IAF airpower assets, both kinetic and nonkinetic. There are no clear answers on the horizon beyond an understanding that diluting preciously scarce offensive assets can prove costly in an intense, limited conflict across sectors and domains and destabilize the fragile balance that exists between the IAF and PLAAF.<sup>41</sup>

A way forward in this logjam is to think through an interim model that looks at distributed control of IAF assets within the existing command structure. The current chiefs of staff committee and chief of defence staff would be adequate to balance competing theater requirements based on the overall military strategy, both in war and peace.

Assuming theater commands will be established in the foreseeable future, there needs to be a conscious relearning among theater commanders on leveraging offensive airpower as the lead element, rather than using it as an adjunct of land or sea power. The Galwan Crisis has ensured that a significant chunk of IAF fighter, transport, and helicopter aircrew is now familiar with the flying environment along the LAC, something that was absent during the preceding decades. This was not because of the IAF’s reluctance to fly extensively along the LAC but because of strategic guidance that was preoccupied with confidence-building measures and maintaining “peace and tranquillity” along the LAC, and that intimated fighter operations close to the LAC could lead to escalation.

If there is cause for concern for the IAF, it is in the realm of space-based command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) for targeting, early warning, electronic warfare, and persistent stare capabilities to improve situational awareness. Through a robust military space program that began in the mid-1980s, China has stolen an unmatched lead over India in the number of dedicated military satellites in orbit.<sup>42</sup> Until that asymmetry is reduced, India and the IAF specifically will have to bank on reliable support from strategic partners to fill this gap.

In a recent development, the release of the *Space Vision for 2047* emphasizes the Indian Air Force’s commitment to accelerate development in areas such as positioning, navigation and timing, advanced ISR, space weather prediction, and space situational

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40. Deependra Singh Hooda, “Integrated Theatre Commands: Stage Set for Political Stewardship,” Delhi Policy Group, August 30, 2023, <https://www.delhipolicygroup.org/>.

41. Arjun Subramaniam, “Get IAF Back to Full Strength before Thinking of Integrating the Services,” ThePrint, February 20, 2018, <https://theprint.in/>; and Arjun Subramaniam, “The Debate over Integrating the Services: Understanding the Air Force Perspective,” ThePrint, February 17, 2018, <https://theprint.in/>.

42. Namrata Goswami, “Asia’s Space Race: China Leads India on Strategy,” Interpreter – Lowy Institute, March 9, 2022, <https://www.lowyinstitute.org/>.

awareness. The doctrinal document has an aspirational target of “100 big and small military satellites” with the help of the private sector. These initiatives will have an exponentially positive impact on the ability to prosecute offensive air operations, provided this aspirational articulation is matched with intent, budgetary support, and synergy between multiple stakeholders such as the Indian Space Research Organisation, the Defence Research and Development Organisation, the private sector, and the IAF.<sup>43</sup>

## The Big Picture

There can be no doubt that the most desirable outcome following the ongoing pattern of complex standoffs across the Line of Actual Control is rapid de-escalation and prevention of conflict. Yet the current volatile situation and the lack of any breakthrough in over 20 rounds of talks between Indian and PLA military commanders suggest the probability of the situation snowballing into a localized limited conflict that could expand across the LAC remains moderately high.<sup>44</sup>

The earlier proposition that China will continue to “salami slice” and nibble away at disputed territory along the LAC even as diplomacy and negotiations offer repeated face-saving opportunities to both sides seems to have been dismantled by India’s sustained consolidation of troop deployments along the LAC. This military posture has been accompanied with India’s firm diplomatic push to return to the status quo as per the pre-2019 positions for any meaningful and composite security and border-resolution talks to recommence.<sup>45</sup>

Unlike the IAF, which has gained recognition as being among the leading independent air forces in the world, the PLAAF continues to search for an identity within the existing theater command construct of the PLA. A 2022 report argues this point:

Despite its lengthy history, the PLAAF has struggled to carve out a role and mission distinct from that of China’s ground forces and navy that is closely tied to political priorities of the Chinese Communist Party. Additionally, the establishment of the Strategic Support Force (SSF) in 2016 further restricted the PLAAF’s mission set.<sup>46</sup>

There will come a time when India will have to respond proactively to protect its interests following continued coercion by the PLA along the Line of Actual Control. Some analysts also believe “China will blink if India is ready to go to war,” and “not

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43. Rajat Pandit, “IAF Goes Full Throttle to Turn into an ‘Aerospace Power,’” *Times of India*, December 11, 2023, <https://timesofindia.indiatimes.com/>.

44. Rajat Pandit, “India, China Hold 20th Round of Talks, but Still No Breakthrough,” *Times of India*, October 12, 2023, <https://timesofindia.indiatimes.com/>.

45. Poonam I Kaushish, “Salami Slicing Tactics Fail,” *Arunachal Times*, June 23, 2020, <https://arunachal.times.in/>.

46. China Aerospace Studies Institute (CASI), *PLA Aerospace Power: A Primer on Trends in China’s Military Air, Space, and Missile Forces*, 3rd ed. (Maxwell AFB, AL: CASI, August 15, 2022), 10, <https://www.airuniversity.af.edu/>.

because China does not want to fight a war, but because it doesn't want to lose face."<sup>47</sup> This, too, is a dangerous proposition because China's strategic behavior in recent times suggests the Xi Jinping-led regime is very different from earlier dispensations, which were prepared to bide their time.

Today, the People's Republic of China seems to be straining to validate decades of a focused buildup of military capability against recalcitrant peripheral adversaries. There seems to be an emerging propensity to use diplomacy merely as a smoke screen and not as a problem-solving tool as India does. India does not need to mirror that strategy but 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 on its road to becoming a leading power in the next decade. In an environment that involves limited conflict below the nuclear threshold, the IAF will be the only credible coercive deterrent in both conflict prevention and conflict cessation before hostilities spread to multiple domains. Cutting-edge airpower is among the panoply of several desired capabilities that need to be sharpened, even if it means feeling some budgetary pain and revisiting existing joint warfighting strategies. **Æ**

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47. Vijainder K. Thakur (@vkthakur), retired IAF fighter pilot, "China will blink if India is ready to go to war . . . and not because China does not want to fight a war, but because it doesn't want to lose face," Twitter, June 11, 2020, 6:02 p.m., <https://twitter.com/>.

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