



A New Air Power Doctrine for the New Era



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India's security environment has undergone a radical change in the past decade. The shift in the balance of power in the Far East, the increasing centrality of the Indo-Pacific region, growing tensions and competition on various fronts with China, socio-economic and political turmoil in South Asia, and intensifying competition and contestation between the US and China are key factors that have prompted a change in India's strategic thinking. They have pushed India to strengthen its military power and adopt a broader regional outlook, beyond its traditional focus on Pakistan, to safeguard its sovereignty in the face of China's mounting belligerence.

Today, India is recognized as an economically and militarily strong state with a capacity for leadership and global influence beyond its borders and territorial waters – as visible by its membership in forums like the Quadrilateral Security Dialogue (Quad) and the I2U2. This transformation in the security environment and India's place in the region has necessitated the adoption of a new, changed defence posture – and hence had a clear impact on India's armed forces and their tactics, operations, and strategy. At the same time, India has been careful to refrain from becoming part of any military alliance, including within frameworks like the Quad, and has sought to sustain its strategic autonomy through a balanced and multi-directional foreign policy.

The Indian Air Force (IAF) is no exception, and it too has had to keep pace with the changing, complex, and contested environment. The IAF has transformed itself into a broad-spectrum air force. This change in how air power should be situated in the country's security apparatus – and its comprehensive national power – is best outlined in the IAF's seminal *Basic Doctrine* document, released in 2012.¹ This doctrine, the latest such document from the IAF, presents a radical, transformational, and distinctive concept of air power as a tool of both strategic reach and conventional deterrence.

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India has employed air power as a war-winning factor in all its conflicts apart from the 1962 Sino-Indian war, which only amplified the critical role that air power plays. However, it was the 1999 Kargil conflict, that amplified the IAF's unique employment of air power and demonstrated how India should be thinking about the application of air power. After suffering numerous losses to India, including a major defeat in the 1971 war, Pakistan resorted to below-threshold warfare. This included means such as terrorism in the Jammu and Kashmir region, as well as territorial intrusions like Kargil, wherein Pakistani troops in the guise of Mujahideen and Kashmiri insurgents occupied heights to the surprise of Indian armed forces. Therefore, regaining territory from a lower vantage point was a major challenge for the Indian Army. In the initial days of combat, the Indian Army suffered heavy losses. The IAF was tasked to carry out aerial attacks on Pakistani troops that would soften up the target and allow the Indian Army to move in quickly. Although the IAF too had limited practical warfighting experience in such mountainous areas, it quickly rose to the occasion. Air power offered India the speed advantage of the third dimension and allowed it to beat the geographical challenges to emerge as the decisive linchpin that hastened India's victory. During a grim situation of a constrained environment of 14000-18000 feet, with difficult visual target acquisition, and restricting operations within India's own territory so as to avoid further escalation, the unique and precise employment of airpower enabled the IAF to prove its mettle.

In essence, the Kargil war showed that although India suffered gross intelligence failures that made a land-based counter exceedingly difficult, air power enabled it to turn the tides and deliver a crushing defeat to its adversary. Air Commodore Jasjit Singh referred to Kargil as "a template for limited war and future options if war becomes inevitable".² Following this, the '2012 IAF Doctrine' frames 'expanding air power' as a "strategic" tool³ and not merely an offensive one. It encompassed core missions like control of the air (which is inherently entwined with deterrence),⁴ and Intelligence, Surveillance and Reconnaissance (ISR).

Importantly, the 2012 doctrine was also revolutionary in the sense that, it recognized the importance of nation-building, aerial diplomacy and perception management, the strategic significance of space (and space-enabled capabilities), and the IAF's role in realizing India's soft power through Humanitarian Air and Disaster Relief (HADR) operations in the region. It also accords significant space to maritime air operations and how air power could (and should) be used in the maritime domain for many of its roles and functions. Furthermore, it highlights the importance of modernization of the Air Force's combat, transport and training aircraft, helicopters, the induction of force enhancers, modern armaments and weapon systems, space-based systems, bolstering of air

defence systems, information/electronic warfare abilities, secure communication set-ups, and upgradation of training facilities. Most notably, perhaps the IAF was the first force to put in place a secure communication network (referred to as AFNet). This has been expanded to network all radars across the country in an efficient and Integrated Air Command and Control System (IACCS). It has also upgraded its various radars and platforms and inducted new 4th and 4.5th generation fighters, with efforts toward developing 5th generation stealth fighter jets.⁵ The IAF has implemented such a modernization program, not only in terms of equipment, training, and facilities but also in terms of the evolution of its doctrine. Its acquisitions are poised to give it force multiplier potential and expand India's air defence radius, and expeditionary role.⁶

In his seminal work *On War*, Clausewitz contended that "War is thus more than a mere chameleon, because it changes its nature to some extent in each concrete case."⁷ He argued that while the nature of war remained more or less constant, its character was ever-changing. The fundamentally changing character of war has never been more evident than it is today. The introduction of new and critical technologies over the past decade, combined with strained geopolitics and great power competition, has quickly expanded the tools and domains of warfare. Technologies like big data analytics, Artificial Intelligence, robotics, hypersonic, Internet of Things, autonomous weapons, precision targeting, hyper-connectivity and advanced sensors (among others), have allowed the expansion of warfare to new domains like cyber and outer space. In other words, modern times have given way to irregular types of warfare that can no longer be framed in binaries and constants. This has necessitated a change in the IAF's tactics and strategic objectives. India's air power doctrine must accordingly adapt and evolve. Therefore, although the IAF's doctrine is certainly a transformative document in its own right, it is critical that it be updated with a new vision and mission statement, and in view of the new considerations pertaining to leaps in technological advancements and radically different security calculus.

The 2012 doctrine is forward-looking and makes a strong case for why air power should feature prominently in India's strategic thinking. The doctrine asserts that air power can "pass over the enemy navies and armies, penetrate the air defences and attack direct the centres of production, transportation and communication from which the enemy war effort is maintained."⁸ However, in several other areas, the doctrine has visible shortcomings that must be reviewed.

Most prominently, the document does little to address India's varied types of aircraft, which it has accrued over decades of multinational procurement programs and deals. As of now, the IAF

operates 39 different types of aircraft acquired from six different countries.⁹ With the induction of French-made Rafale jets and indigenous Light Combat Aircraft (LCA) Tejas to its fleet, India now has eight types of fighter jets alone.¹⁰ This not only makes inventory management a major challenge, but also imposes undue burdens of training and maintenance on the Air Force.

Like other forces in India, the IAF too has been significantly dependent on Russia. India's immediate defence needs (and economic considerations) make transitioning away from Russian-built equipment in the short to mid-term, particularly expensive aircraft and air defence systems, nigh on impossible. This is likely to remain a sticking point as India cultivates deeper relations with the United States, France, and Israel. Even with the recently passed India-specific waiver for punitive actions under the Countering America's Adversaries Through Sanctions Act (CAATSA), so long as India relies heavily on Russian-made systems, New Delhi will need to persist with, and refine, its tactful balancing act between Washington and Moscow. This balancing act must also extend to the IAF and its relationships with its American and Russian counterparts. Additionally, as technology transforms rapidly, the IAF will also need to adapt to the modern tech offered by both the US and Russia at a quicker pace to stay ahead of the curve.

In 2022, the IAF was ranked third on the World Air Power Index – ahead of China's People's Liberation Army Air Force (PLAAF) – based on overall strength, modernization, logistical support, and offensive and defensive capabilities.¹¹ While this speaks to the IAF's evolution to a full-spectrum force with immense regional (if not global) power projection and reach, one area that remains woefully under-considered is that of intelligence. Although the doctrine speaks of ISR and air power's rapid mobility, reach, and flexibility as an asset in joint operations, it must devote greater attention to the IAF's need for Command, Control, Communications, Computers, Intelligence, Information, Surveillance and Reconnaissance (C4I2SR) system that has become essential for waging irregular wars. The new doctrine must also give greater emphasis to intelligence. During the Kargil conflict, the IAF's offensive air operations were based primarily on its own air reconnaissance (imagery analysis, electronic surveillance, and signals intelligence). Intelligence is not treated as a major mandate of air power in the 2012 doctrine; this is in stark contrast to how intelligence is treated by Western air power doctrines.¹² The new doctrine should expand on the critical importance of precise and timely intelligence to support air operations the importance of intelligence sharing between India's military and intelligence agencies and air power as a source of intelligence.¹³ Further, another key area that the doctrine will need to address is the integration of ISR in the air, space, and cyber domains to enable smoother joint operations in multi-domain battlespaces.

Military doctrines are ultimately an expression of how the concerned armed force can (or should) contribute to the country's operations, conflicts, and engagements, and the achieving of set goals and agendas. Therefore, they are a reflection of the force's ideology or philosophy and shape its military diplomacy with partner nations. The 2012 document has done much to encourage the IAF's stronger partnerships with friendly states, and this must be afforded greater focus moving forward. Air diplomacy not only serves to bolster a state's deterrence capability but also acts as a non-coercive influencing force for soft power projection. In fact, it has emerged as the first option for power projection through HADR, peace-keeping operations, and friendly joint exercises. Now, the IAF must look at how aerial diplomacy can play an even greater role in India's extended neighbourhood, considering the new security setting and China's attempts to establish itself as the primary security provider in the region.

In his 2020 report on air power doctrine, Air Vice Marshal Rajesh Isser postulated that "over-investment in current doctrines, concepts and platforms today may close the windows to adapt to future revolutionary changes in the coming decades".¹⁴ While over-investment in a rigid doctrine would certainly hinder the agility needed to keep up with rapidly changing technologies and geopolitics, a well-crafted (and periodically updated) doctrine is equally important to underpin the IAF's future trajectory and ensure it continues to effectively and efficiently pursue national security objectives. The 2012 document was transformational in this regard; it must now be the service's focus to adequately review, re-evaluate, and revise it to reflect the immense changes that have occurred over the past decade and reinforce the IAF's adaptability.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies [CAPS])

Keywords: IAF, Air Power, Doctrine, Technology, Modernisation, Kargil, C4I2SR, Aerial Diplomacy

Notes:

¹ *Basic Doctrine of the Indian Air Force 2012* (New Delhi: Indian Air Force, 2012), <https://fddocuments.in/document/basic-doctrine-of-indian-air-force-2012pdf.html?page=2>.

² Jasjit Singh, "Kashmir, Covert Wars, and Air Power," *Air Power Journal* (Summer 2005), 83.

³ *Basic Doctrine of the Indian Air Force 2012*, 69.

⁴ Here, control of the air is defined in three degrees: air supremacy, air superiority and favorable air situation. *Basic Doctrine of the Indian Air Force 2012*, 40-42.

⁵ Pradip Sagar, "How finalised the design for its indigenous stealth fighter jet," *The Week*, May 1, 2022, <https://www.theweek.in/theweek/cover/2022/04/22/how-india-finalised-the-design-for-its-indigenous-stealth-fighter-jet.html>; Akseev Thakur, "5th generation Advanced Medium Combat Aircraft: Talks with international engine manufacturers at nascent stage," *Indian Express*, July 20, 2022, <https://indianexpress.com/article/india/5th-generation-advanced-medium-combat-aircraft-international-engine-manufacturers-nascent-stage-8041379/>.

⁶ Christina Goulter and Harsh V Pant, "Realignment and Indian Airpower Doctrine," *Journal of Indo-Pacific Affairs*, 1, no. 1 (2018), 21-44, https://www.airuniversity.af.edu/Portals/10/JIPA/journals/Volume-01_Issue-1/04-F-Goulter-Pant.pdf.

⁷ Book 1, Chapter 1 of: Carl von Clausewitz, *On War*, translated by Michael Howard and Peter Peret (Princeton, NJ: Princeton University Press, 1976), 89.

⁸ *Basic Doctrine of the Indian Air Force 2012*, 69.

⁹ Ajai Shukla, "Indian Air Force chief laments too many different aircraft," *Business Standard*, April 13, 2022, https://www.business-standard.com/article/economy-policy/indian-air-force-chief-laments-too-many-different-aircraft-122041201307_1.html.

¹⁰ In addition to the Dassault Rafale and HAL Tejas LCA, other aircraft types include Sukhoi Su-30MKI, Mirage 2000, MiG-21, MiG-27, MiG-29, and the SEPECAT Jaguar.

¹¹ "Global Air Powers Ranking (2022)," WDMMA, <https://www.wdmma.org/ranking.php>.

¹² Goulter and Pant, n. 6.

¹³ Ibid.

¹⁴ Rajesh Isser, *Exploring Indian Airpower Doctrine & Debacles in The Himalayas* (New Delhi: Vivekananda International Foundation, 2020), <https://www.vifindia.org/sites/default/files/Exploring-Indian-Airpower-Doctrine-and-Debacles-In-The-Himalayas.pdf>, 56.