



Mission 2032: Transforming the Indian Air Force into the Indian and Air Space Force



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Social media reports that the Indian Air Force (IAF) has moved a case to the government of India for renaming it as the Indian Air and Space Force (IASF).¹ This is a much-awaited and progressive step in realising its vision for a futuristic capability. The thought process behind renaming reflects an obvious and natural choice. Technically, the armies, air forces, and navies are known by the medium in which they operate. The air domain remains the prerogative of the air forces the world over. Due to the rapid and continuous progress in technology in the air and space domains, the demarcation between air and space is seen to be diminishing. Recognising the same is an inescapable necessity in the warfare domain. The integration of space capabilities has become integral to military strategies worldwide. Recognising this shift, many nations have already rebranded their air forces to incorporate space operations seamlessly, the last being the French Air and Space Force on September 11, 2020.²

Mission 2032

In its 92 years of existence, the IAF has consistently grown in stature and professional punch. Today, the IAF is widely acknowledged as one of the most potent and professional air forces in the world. The military's technological growth poses new challenges and provides unique opportunities to leverage new and current military capabilities in pursuit of national interests. In pursuance of this strategy, IAF, in its centennial decade, must adopt a transformation that has been on the cards but has not been able to fructify till now. In an era of rapid technological advancements and an increasing focus on space exploration and its military application, the proposal to rename is a timely decision. This move reflects the evolving nature of modern warfare and acknowledges the critical

1 | <https://capsindia.org/>

and expanding role space plays in enhancing national security. It further indicates India's commitment to staying at the forefront of technological innovation and application. IAF must become a credible and capable aerospace power by its centenary year, 2032. Eight years from now is considered a good time to make Mission 2032 a reality.

Space Capabilities

Space capabilities are not confined to satellite communication and surveillance; they extend to space-based navigation, reconnaissance, battle management, electronic warfare, and even potential offensive capabilities. By incorporating space operations into the IASF, India gains a holistic approach to defending its territorial integrity. India has a vast and varied terrain- from high mountains to deep seas and deserts to thickly vegetated areas- to defend. This integration will facilitate improved communication, surveillance, and reconnaissance, offering a strategic advantage in traditional and emerging defensive and offensive scenarios.

Deterrence

The renaming proposal underscores India's commitment to maintaining a technological advantage by building up both the capability and capacity of IAF and sends a resolute message to potential adversaries. This demonstrates that India is proactively preparing for potential future threats in addition to adapting to present challenges. This symbolic shift enhances deterrence by showcasing a military force that is not only well-prepared for contemporary conflicts but is also agile enough to face evolving challenges and opportunities in an era where air and space are inseparable components of modern defence.

Challenges

The aspiration of renaming, however, would not be devoid of challenges within the organisation. The expected transition will see myriad challenges, ranging from technological intricacies to organisational adaptations capable of operating in both the Earth's atmosphere and outer space. Following are five immediate challenges that IAF will be required to look into.

- (i) *Technological Integration.* A seamless integration of space capabilities into the existing framework of air operations will be one of the biggest challenges, as IAF currently operates with a mix of assets ranging from legacy to modern-generation vintage. Most of the

assets and systems would require to be on the integrated datalink, common battle management system, etc. Space operations involve a distinct set of technologies, from satellite systems to space-based weaponry. Ensuring compatibility between traditional air operations and space endeavours demands a thorough technological overhaul, posing a formidable task for the IAF.

(ii) *Infrastructure Upgradation.* Space operations demand a sophisticated infrastructure, including ground control stations, spaceports, and advanced satellite facilities. Upgrading existing air bases and establishing new space-centric facilities require significant financial investments and meticulous planning. Though the ISRO infrastructure is readily available for the national cause, within a decade of its transformation into the aerospace force, the IAF must address the infrastructure gap to ensure the smooth integration of space capabilities into its operational framework.

(iii) *Skill set Development.* The transformation necessitates a paradigm shift in the skillset of the force's personnel. Space operations require expertise in satellite communication, orbital mechanics, and celestial navigation, skills that may not be adequately prevalent within the current Air Force structure. Retraining and upskilling the existing workforce and incorporating new talents with specialised knowledge pose challenges in terms of time and resource investments in a competitive global space industry. The creation of a Space Warfare School would be another suitable idea for imparting such skills and training to space operators.

(iv) *Doctrine Development.* The integration of space capabilities necessitates the development of a dedicated and specific doctrine. This includes formulating comprehensive guidelines for space warfare, defining the role of the IASF in national security, and establishing protocols for joint operations with other services. Developing a coherent and adaptive strategy is critical for the IAF to fulfil its multifaceted role effectively. Though the latest doctrine of the IAF, released in early 2023, has given impetus to the transformation to an aerospace power, a detailed and specific space doctrine is the need of the hour. The IAF must articulate how it intends to leverage space assets for defence purposes while addressing concerns related to the militarisation of space and cross-domain operations. Crafting a well-defined doctrine is essential for both national security, and alleviating international concerns about Indian space ambitions

(v) *Policy and Legal Framework Formulation.* Space activities are subject to a complex web of international laws and treaties. As the IAF expands its operational scope to include space, there is a need for a robust legal and policy framework to govern these activities. Addressing issues related to space debris, space situational awareness, orbital slots, partnering with private and other government agencies, and international collaboration requires careful consideration and diplomatic efforts to ensure compliance with global norms. Establishing clear protocols for space operations and ensuring compliance with international agreements are critical aspects that require meticulous attention.

Conclusion

While the transformation of the Indian Air Force into the Indian Air and Space Force represents a visionary leap into the future, the journey is fraught with challenges. Overcoming these hurdles requires a concerted effort involving technological innovation, strategic planning, and policy development in the proposed integrated scenario. The IAF's successful evolution into the IASF will fortify India's defence capabilities and position it as a major player in the ever-expanding realm of space security. As the IAF charts its course towards the space, addressing these challenges will be crucial in ensuring a seamless and effective transition to a fully operational and Integrated Air and Space Force by 2032.

(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])

Notes:

¹ Man Aman Singh Chhina, "IAF's redesignation as air and space force will be a step in right direction: Air Chief Marshal Bhadauria" *The Indian Express*, November 24, 2023, <https://indianexpress.com/article/india/iafs-redesignation-air-space-force-will-air-chief-marshal-bhadauria-9041011/>. Accessed on November 24, 2023.

² Christina Mackenzie, "French Air Force changes name as it looks to the stars" *Defence News*, September 15, 2020, <https://www.defensenews.com/global/europe/2020/09/15/french-air-force-changes-name-as-it-looks-to-the-stars/>. Accessed on November 25, 2023.