

Air Power Over the High Seas

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Whoever controls the Indian Ocean, dominates Asia. This ocean is the key to the seven seas. In the twenty-first century, the destiny of the world will be decided on its waters.

– Admiral Alfred Thayer Mahan, US Navy

THE KEY TO THE SEVEN SEAS

Admiral Alfred Mahan postulated the importance of the Indian Ocean in the 19th century. In the 21st century, his visionary insight has been proven correct, with more than 46 per cent of global trade passing through its sea lanes.¹ The ocean straddles some of the busiest and most crucial maritime trade routes and chokepoints, such as the Malacca Strait and the Bab-el Mandeb Strait. Almost 85 per cent of India's crude oil and 55 per cent of its natural gas

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1. Lauren Dagan Amoss, "India, Blue Economic Growth, and Shared Maritime Security in the Indo-Pacific", Observer Research Foundation, November 17, 2024, <https://www.orfonline.org/expert-speak/india-blue-economic-growth-and-shared-maritime-security-in-the-indo-pacific>. Accessed on February 27, 2025.

are imported via these maritime trade routes.² The Indian Ocean's importance is further exacerbated by the fact that India shares most of its land borders with hostile neighbours. Thus, the Indian Ocean is the primary means of connection for India with the rest of the world.

The maritime significance of the Indian Ocean Region (IOR) has always been acknowledged and accepted. However, the IOR also acts as an essential conduit for aerial traffic. Though the IOR isn't tracked as a single, distinct entity in most public aviation reports, it is a geographic crossroads overlapping parts of the Asia-Pacific, Middle East, and African air traffic. It includes key routes between India and Southeast Asia, the Middle East and Australia, and overflights across oceanic airspace managed by countries like India, Australia, and the Maldives.

CIVIL AVIATION IN THE IOR

India is the major player in the IOR. Therefore, the growth in our aviation sector offers an insight into the level of aerial traffic in the region. In 2024, India's domestic air traffic grew by 6.12 per cent to 161.3 million passengers, while international traffic for Indian carriers in the first half of the fiscal year, April-September, hit 16.26 million, up 16 per cent year-on-year. Total passenger traffic in India for the financial year April 2023–March 2024 was over 220 million, with about 69.6 million international passengers.³ Adjusting for the calendar year 2024, let's estimate India's total passenger travel to be at roughly 230 million passengers, with

2. Umer John, "Securing India's Maritime Energy Routes: Challenges and Strategic Responses", *Modern Diplomacy*, January 17, 2025, <https://modern diplomacy.eu/2025/01/17/securing-indias-maritime-energy-routes-challenges-and-strategic-responses>. Accessed on February 27, 2025.
3. FE Online, "Aviation Boom: India's Domestic Air Traffic sees 6.12% Growth, Reaching 161.3 Million in 2024", *Financial Express*, January 24, 2025, <https://www.financialexpress.com/business/airlines-aviation-aviation-boom-indias-domestic-air-traffic-sees-6-12-growth-reaching-1613-million-in-2024-3724754/>. Accessed on February 27, 2025.

international passengers comprising around 70-75 million. With 9.5 billion passengers globally, the Indian Ocean’s share would fall between 5.3 per cent (500 million) and 6.3 per cent (600 million). This would further increase if we include the number of passengers using the IOR for overflights while transiting from East Asia and Australia to West Asia, Africa and Europe. The International Air Transport Association (IATA) outlook report for 2024 estimates the Asia-Pacific to be the largest sector by 2043, with 2,750 million passengers travelling annually, surpassing all other regions.

Fig 1: Flight Radar 24 Data of Civil Air Traffic in the IOR as on February 26, 2025

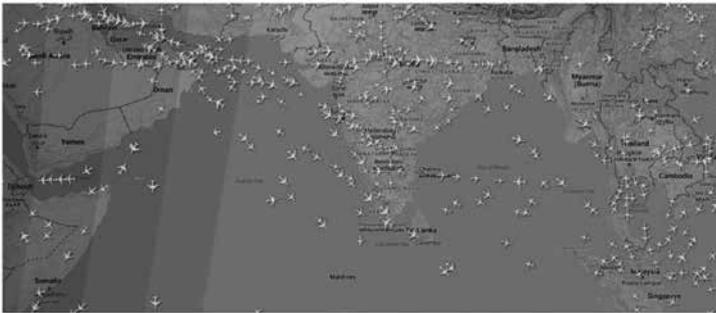
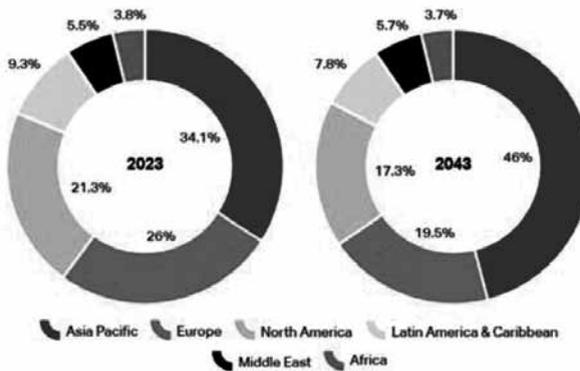


Fig 2: IATA Estimates for Passenger Shares by 2043



Source: Air Passenger Forecasts, February 2024 update

MILITARY AND SECURITY DIMENSIONS

Due to its strategic importance, the IOR is becoming increasingly contested, with multiple global and regional players vying for dominance. For India, the significant security challenges include:

- **String of Pearls:** China's 'String of Pearls' strategy of building military and commercial bases in Djibouti, Gwadar, Hambantota and potentially the Maldives, as well as the submarine base at Cox's Bazar in Bangladesh aims to encircle India, threatening its maritime influence and access to vital sea lanes such as the Malacca Strait and Gulf of Aden. China's bases enhance its power projection, facilitating surveillance, naval deployments, and potential blockades against India's trade routes. Gwadar, located 400 km from India's western coast, and Hambantota, near its southern tip, could accommodate the People's Liberation Army Navy (PLAN) assets—submarines, destroyers, or surveillance ships—directly threatening India's maritime security. Djibouti extends China's reach into the western IOR, while the Maldives' proximity (700 km from Lakshadweep) exacerbates the encirclement risk. Furthermore, a PLAN presence at BNS Pekua in Cox's Bazar would provide access to the Bay of Bengal, enabling a threat to materialise in our proverbial backyard.
- **Piracy and Non-State Threats:** The IOR has witnessed persistent threats from piracy (off the Somali coast), arms smuggling, and illegal fishing, necessitating constant aerial surveillance. The recent attacks and hostage-taking by the Houthis have added the new factor of non-state actors into the fray. Houthi drone and missile strikes on Red Sea shipping, targeting vessels linked to some of India's trade and security partners, have disrupted trade routes through the Suez Canal, through which 15 per cent of India's commerce flows. Somali piracy, though reduced

since its 2008-12 peak (200+ incidents annually, \$ 18 billion in losses⁴), remains a latent threat due to weak governance. Illegal fishing and smuggling erode India's 2.4 million sq km Exclusive Economic Zone (EEZ), costing billions annually.

- **International Players:** Due to its importance, the IOR has seen multiple international actors, primarily the United States, the United Kingdom, France and China. Presence in this region is maintained mainly via anti-piracy patrols or to counter the Houthi threat. This presence is sustained by multiple bases in the IOR, ranging from Djibouti to Diego Garcia. It is important to note that the presence of international forces comprises naval and air platforms, including fighters, bombers and Intelligence, Surveillance, and Reconnaissance (ISR) assets. Most of the military presence is from friendly foreign nations, however, it is crucial for India to assert and maintain its role as the 'net security provider' in the region.

INDIAN AIR FORCE IN THE IOR

The Indian Air Force (IAF) possesses a formidable array of assets that can be leveraged for power projection, deterrence, and influence in the IOR. While traditionally seen as a continental force, the IAF has steadily enhanced its reach over the maritime domain through strategic air bases, long-range strike capabilities, force multipliers, and joint operations with the Indian Navy.

The IAF's capability to operate effectively over the vast expanse of the IOR stems from its network of air bases and forward operating locations in the region. The key installations include:

4. Teo Kermeliotis, "Somali Pirates Cost Global Economy '\$18 Billion a Year'", CNN, April 12, 2013, <https://edition.cnn.com/2013/04/12/business/piracy-economy-world-bank/index.html>. Accessed on February 27, 2025.

- (a) The bases at Campbell Bay, Car Nicobar and Port Blair provide reach to the easternmost regions of the IOR and allow the IAF to monitor the Malacca Strait.
- (b) The Southern Peninsular bases of Thanjavur, Sular, Arrakonam, and Tambaram enable the deployment of fighters, transports, Airborne Warning and Control System (AWACS), maritime patrol aircraft, and ISR platforms across the region.
- (c) The new airfield under construction at Mincoy⁵ in the Lakshadweep Islands and bases at friendly foreign nations like the Seychelles and Mauritius shall further extend the IAF's reach to the western parts of the IOR and up to the coast of Africa.

The Su-30 MKI, Rafales, and Jaguar fighter aircraft equipped with anti-ship missiles like the BrahMos and Harpoon, enabled by force multipliers like the Il-78 in the Flight Refuelling Aircraft (FRA) and AWACS, provide a credible force for safeguarding our interests, providing security to our partner nations, and, thus, the fulfilment of our obligation as a 'net security provider' in the region.

STRATEGIC ENGAGEMENT AND SOFT POWER

Presently, the Indian Navy conducts the bulk of strategic engagement in the IOR. With the Theatre Commands on the cusp of fruition, this provides a unique opportunity to leverage the IAF in the IOR. This shall enhance the achievement of our national objectives in the region and create new synergies for integrated operations with our sister Services. Therefore, a nuanced approach

5. "New Defence Airfield at Mincoy Gets Nod as Govt Expands Lakshadweep Military Presence", *The Times of India*, July 19, 2024, <https://timesofindia.indiatimes.com/india/new-defence-airfield-at-minicoy-gets-nod-as-govt-expands-lakshadweep-military-presence/articleshow/111845497.cms>, Accessed on February 27, 2025.

to expanding India's influence in the IOR should also involve leveraging the IAF for strategic engagement, military diplomacy, and soft power projection. This method enhances India's regional leadership while minimising direct confrontations and geopolitical tensions.

The IAF can strengthen India's relationships with its regional partners through bilateral and multilateral air exercises like the recently concluded Ex Tarang Shakti. Training programmes and interoperability drills can also expand cooperation by providing IOR nations with tailor-made programmes specifically suited to their needs at institutions like the Tactics and Air Combat Development Establishment (TACDE) and Aircraft and Systems Testing Establishment (ASTE). There is also a need to increase seats in the ongoing training programmes to enable more personnel from our neighbours to be trained in India.

Regular deployments of fighters and other air force assets at our forward air bases in the Andaman and Nicobar Islands, Lakshadweep, Seychelles, and Mauritius to train with our neighbours also need to be conducted. These deployments would increase our neighbours' confidence in our presence in the region and enhance our interoperability with our partners.

DOMINANCE AND POWER PROJECTION

India believes in a rule-based system of international relations and conflict resolution. However, with the prevalent utilisation of grey zone warfare by some extra-national powers in the region and the recent manifestation of non-state actors in the IOR, a direct and assertive use of the IAF in the IOR may be necessary. This application of the IAF may range from a No War No Peace (NWNP) scenario to direct kinetic action and engagement of enemy combatants and interests. Thus, the IAF requires a doctrine centred around power projection, deterrence, and air control in the IOR.

To establish an unquestioned aerial presence, advanced IAF assets must be permanently and rotationally deployed in the IOR. We must regularly conduct Combat Air Patrols (CAPs) over key maritime chokepoints such as the Strait of Malacca, Sunda Strait, Bab-el Mandeb, and Mozambique Channel to monitor and potentially disrupt hostile military movements if required. CAPs should also be conducted along the international shipping lanes passing through the IOR, in our Exclusive Economic Zone (EEZ), and in other Flight Information Regions (FIRs) in the IOR. This is essential to send a strong deterrent signal to our adversaries and to reassure our allies with our presence.

We should aim to permanently base maritime squadrons and fighters in the Air Defence (AD) roles at our bases in the IOR (Andaman and Nicobar Islands and Lakshadweep). It is also essential to induct AD systems like the Long Range Surface-to-Air Missiles (LRSAMs) at these bases, along with the necessary sensors for a robust and redundant Command and Control (C2) set-up. The sensors of the Indian Navy would also need to be incorporated into this C2 set-up to ensure seamless integrated operations.

India can also establish or extend its Air Defence Identification Zones (ADIZs) over key parts of the IOR, if required to enhance its situational awareness and deter our adversaries. Some regions where these options may be exercised are the Andaman and Nicobar Islands, the Lakshadweep archipelago, or even off the Makran coast, and other areas close to vital trade routes. To enforce these ADIZs, the IAF and Indian Navy should be able to establish joint surveillance of the said zones and utilise ships, shore-based fighters, and deck-launched fighters from our aircraft carriers to enforce these zones. Regular interceptions of adversaries or extra-regional military aircraft operating close to Indian interests will aid in establishing our dominance and power projection.

Deploying dedicated electronic warfare aircraft or utilising fighter-mounted jamming pods to disrupt adversaries, radars,

communications, and ISR operations shall hinder the build-up of maritime domain awareness in the IOR.

To maintain long-term power projection in the IOR, India must establish forward air bases and secure aerial logistics hubs in friendly nations. India has already begun infrastructure projects in Agalega⁶ (Mauritius) These must be developed into fully operational air bases supporting fighters and force enablers like AWACS, FRA, and ISR platforms. Additionally, India should negotiate with Oman, Madagascar, and Seychelles for access to their airfields to enable long-range air operations.

MITIGATING THE RISKS

While the challenges and risks of an assertive air power strategy in the IOR are significant, they can be effectively managed through a combination of strategic restraint, diplomatic engagement, force modernisation, and enhancing our asymmetric capabilities. The goal is ensuring that India maximises its influence while minimising unnecessary military confrontations, financial burdens, and diplomatic fallout.

An assertive air power strategy in the IOR would require carefully managing tensions with our adversaries to prevent unnecessary escalation into full-scale conflict. The IAF and Indian Navy assets operating in the IOR would, therefore, require carefully deliberated and calibrated Rules of Engagement (RoEs) to prevent any inadvertent escalation.

While military power projection is essential, civil and military diplomacy remains a key tool for ensuring regional stability and preventing isolation. India should, therefore, sign defence

6. "PM and Mauritian PM Jointly Inaugurate New Airstrip and a Jetty at Agalega Island in Mauritius", PM India, February 29, 2024, https://www.pmindia.gov.in/en/news_updates/pm-and-mauritian-pm-jointly-inaugurate-new-airstrip-and-a-jetty-at-agalega-island-in-mauritius/. Accessed on February 27, 2025.

cooperation agreements with Sri Lanka, Maldives, Seychelles, and Mauritius. This would enable Indian military aircraft to operate jointly with their defence forces. These defence and security arrangements would also allow us to provide military assistance in terms of military hardware and, thus, leverage, and offer the products of our indigenous defence industry.

The presence and interest of extra-national forces such as the US, UK, and France is a reality in the IOR. Therefore, any increased footprint in the IOR would also require improved engagement with these nations. Fortunately, all the previously mentioned countries maintain good relations with India and share a significant degree of convergence with regarding maintaining a 'free and open' Indo-Pacific region. Enhancing military cooperation with France, which maintains strategic bases in Réunion Island and Djibouti, may enable Indian access to these key air bases.

THE PATH AHEAD

Maintaining aerial dominance in the IOR would require long-range power projection capabilities, aerial refuelling, advanced ISR assets, and hardened forward bases. Therefore, the Andaman and Nicobar Command and Lakshadweep need to be strengthened with longer runways, hardened aircraft shelters, and weapon storage areas. More dual-use civilian-military airstrips in Mauritius, Seychelles, and Madagascar are also needed for rapid force deployment and sustainment of long-range aerial operations.

The IAF and Indian Navy must also acquire more force enablers such as the FRA and AWACS, to sustain operations over large swaths of the IOR. India must also plan to develop its fleet of bomber aircraft capable of projecting force and patrolling over large distances over our oceanic interests. In the interim, the IAF and Indian Navy can use the 'lease' option in the Defence Acquisition Procedure (DAP) 2020 to lease FRA or use the services

of companies like Omega Tanker which provide aerial refuelling services.

The likely Maritime Theatre Command shall be vital for the effective domination of the IOR, with all the available and capable assets of all three Services. Therefore, it is important to formulate an integrated doctrine for the IOR that should aim to establish India as the net security provider in the IOR.

CONCLUSION

The domination of large sea or ocean territories has always required elements of all three Services: the ships of the navy to sail the seas, aircraft to rapidly extend the reach, and troops to land on the territories. Thus, it is essential for the IAF to also not be limited to a continental role alone, but also have a robust and persistent power projection capability in the IOR, along with the navy. Only then would we be able to ensure a 'free and open Indian Ocean' for the common shared prosperity of all nations in the IOR.