

Australia's Position in the Space Race: How Can India Help Enhance Australia's Space Capabilities

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Published: 24 July 2025

According to Daniel Duchaine's [Space Power Index](#), a state qualifies as a great space power once it surpasses 5% of the total share of global space power. By this standard, Australia has yet to attain great power status in space, as it demonstrates limited capabilities across key indicators such as cumulative orbital launches, deep space missions, scientific advancements, and military applications—all of which fall below the 5% threshold. These limitations constrain Australia's strategic influence in shaping the emerging global order, which is increasingly characterised by a bifurcated system dominated by the United States and China. However, recent developments in India–Australia space relations indicate that India presents a strategic avenue for Australia to mitigate these constraints, opening a way to benefit India and other countries in the Indo-Pacific region.

India's space programs, coordinated by the [Indian Space Research Organisation](#) (ISRO), have positioned the country as an increasingly capable space power through cost-effective yet innovative missions. Under ISRO's leadership, India has achieved several global firsts that underscore its growing prowess in space: the Mangalyaan mission made India the first country to reach Mars on its maiden attempt successfully; Chandrayaan-1 marked a breakthrough in lunar exploration; and Chandrayaan-3 achieved the historic feat of landing near the Moon's south pole. India has developed much of its space infrastructure indigenously, including the Satellite Launch Vehicle, the INSAT series for telecommunications, the Indian Remote Sensing satellites, and the regional navigation system NavIC (Navigation with Indian Constellation). These milestones reflect India's steady progress towards self-reliance and technical autonomy in space.

India's growing space capability is not limited to civil applications. ISRO has launched multiple defence and security satellites for [reconnaissance, surveillance, and communication purposes](#). The successful testing of an anti-satellite weapon in 2019 further highlighted India's expanding military capabilities in space. Ongoing missions such as Aditya-L1, India's first dedicated solar observatory, and the upcoming Gaganyaan human spaceflight project reflect ISRO's continued emphasis on innovation and ambition. India's space program thus reflects a dual strategy—integrating military aspirations with broader developmental and geopolitical objectives.

Recognising the potential of India's space sector and its resolve to lead in the space domain, Australia has leveraged space as a [strategic area of cooperation](#) with India to advance its own capabilities and interests in alignment with India's space priorities. This growing collaboration is exemplified through the Comprehensive Strategic Partnership and a series of key agreements, including the [Memorandum of Understanding](#) (MoU) signed in 2021 between ISRO and the Australian Space Agency (ASA), the four MoUs signed during the 17th Australian Space Forum, and an agreement to support the safe recovery of the Gaganyaan crew module, including related search and rescue operations. Their space partnership has

deepened further through the Australian government's International Space Investment (ISI) India Projects program, under which funding has been allocated to three joint projects involving LatConnect60, Space Machines Company, and Skykraft. Further, several emerging companies in both India and Australia are mobilising private capital to foster B2B partnerships, build capacity, enhance skill development, and support research and development in the space sector.

A notable example of such collaboration is the [MoU between the Satcom Industry Association-India \(SIA-India\) and the Space Industry Association of Australia \(SIAA\)](#), which aims to strengthen industry-level cooperation in the satellite communication and broader space sector. In line with efforts to boost Australia's satellite manufacturing capabilities, Australian space firm HEX20 has partnered with Indian companies such as Skyroot Aerospace and AgniKul Cosmos to co-develop satellite subsystems and small satellite platforms. Another significant milestone is the mission Space MAITRI, (Mission for Australia-India's Technology, Research and Innovation, also means friendship in Sanskrit) reflecting the deepening commercial space ties between the two countries. As part of this initiative, Australia has signed an [MoU with NewSpace India Limited](#), ISRO's commercial arm, under which it will launch its largest satellite from Indian soil aboard the Small Satellite Launch Vehicle by 2026.

Complementing these bilateral initiatives, the [Quad Space Working Group](#) has provided India and Australia with a platform to expand their collaboration into a multilateral framework. Through this mechanism, both countries are working to build a more resilient Indo-Pacific by enabling regional countries to access Earth observation satellite data and enhance preparedness for unprecedented climate challenges.

These mutual collaborations reflect what [ASA Chief Enrico Palermo](#) described as being driven by "... common interests, large investments, and novel innovations." For Australia, this partnership opens access to technical expertise and infrastructure it lacks, particularly in launch capabilities, deep space exploration, and space-based defence applications. The cooperation also facilitates technology transfer, joint research and development, and industry-to-industry engagement, which are critical to strengthening Australia's nascent space manufacturing and services sector. India, moreover, serves as an [ideal proving ground](#) for Australian space technologies and services, enabling companies to test, validate, and scale innovations in an operationally mature and cost-effective environment. Also, by engaging jointly within multilateral space platforms such as the Quad Space Working Group, Australia is positioned not merely as a beneficiary of international space cooperation but as an active contributor to regional space resilience, particularly in key areas such as Earth observation, climate monitoring, and space situational awareness.

Notably, the relationship is mutually reinforcing. Though Australia's space sector is smaller and less advanced than India's, it possesses a dynamic and growing ecosystem and is on the cusp of achieving sovereign launch capabilities. Australia also enjoys several inherent advantages—such as favourable geography, a stable political environment, a supportive economic framework, and low-population launch zones—that can significantly complement India's space ambitions. However, India's longstanding and evolving defence ties with countries such as [Russia](#) may pose strategic dilemmas for Australian policymakers,

particularly regarding the extent to which space cooperation with India can be expanded without conflicting with Western strategic agendas largely shaped by the United States.

In essence, 'mateship' with India holds real strategic value for Australia, complementing its expanding space ties with the United States, Japan, and South Korea. It provides a viable pathway for Australia and India to enhance their space capabilities, build international credibility, and secure a more influential position within the evolving global space domain.

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