



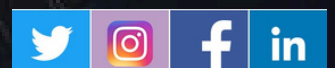
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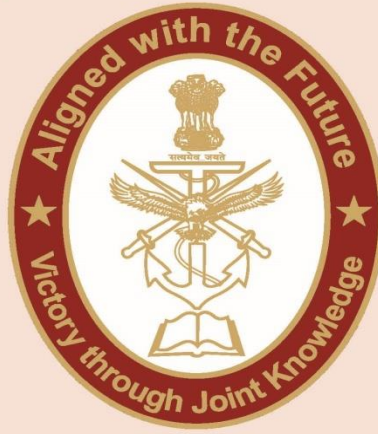
NAVIGATING US-CHINA COMPETITION AND INDIA'S SPACE DIPLOMACY IN THE LATIN AMERICA AND THE CARIBBEAN

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Introduction

The 21st century is witnessing outer space as a theatre of competition as more nations and private players, unlike the Cold War bloc rivalry, have established their stakes in exploring outer space. This is due to the enormous potential of space applications to revolutionise different sectors of society and everyday life and its critical role in national security. Latin America and the Caribbean (LAC) is evolving as a key theatre of strategic competition between the United States and China, extending beyond the traditional domains to the realm of space exploration and technology. Even though a late entrant to the power politics in outer space, the Latin American region is characterised by a growing interest in space exploration and satellite technology. A handful of countries, including Brazil, Argentina, Mexico, Chile, etc, are leveraging international partnerships to boost their space capabilities. One of the major factors that attract space powers towards LAC is the abundance of resources, untapped market potential and geopolitical significance. This study underscores the increasing Chinese activities in the LAC space sector and the US concerns over it. It also delves into India's role amidst the competitive landscape.

US-China Competition in LAC

The Realist Theory of International Relations posits that interstate behaviour is characterised by the pursuit of power and safeguarding national interests.¹ Through this lens, space technology is a critical and strategic technology that is central to national security. The US-China rivalry in the Latin American space sector can be understood through this lens. In recent decades, US influence has been increasingly challenged by burgeoning Chinese investments in the Latin American space sector. While the recent focus of the US is more tilted towards countering Chinese influence in the Indo-Pacific region, it has failed to secure its interests in the Latin American Region, despite it being traditionally considered as the “backyard” of the US², a region of direct US influence.

The relations between China and LAC grew against the backdrop of the quest by the global South countries to gain recognition amid the emerging power politics. China recognised the significance of Latin American countries in the space sector decades ago with a clear strategy, while the US is just beginning to look at them without clarity in approach.³ It has been the primary partner of the major Latin American space powers since the beginning of their space programmes and has deepened its collaboration through satellite launches and the construction of ground stations (e.g. in Argentina), technology transfer initiatives, etc. China had collaborated with Brazil in the co-development of remote sensing satellites through the China-Brazil Earth Resources Satellite (CBERS) project.⁴ This collaboration depicts an effort by the two developing countries to challenge the developed country’s dominance in the domain of advanced technology transfer.

China aims to strengthen its diplomatic posture in the LAC region by setting up space-enabling infrastructures. The Australian Strategic Policy Institute in 2017 observed that China, through its Space Information Corridor, a component of its Belt and Road Initiative, is positioning itself as a provider of critical space-based technologies to member countries.⁵ China has provided training to space personnel of countries like Venezuela, Bolivia, Chile, etc. China has built ground control facilities, the El Sombrero tracking station and the Luepa backup facility in Venezuela⁶, Amachuma and La Guardia in Bolivia. Bolivia rents the facility to China for its space control purposes, ensuring a regular Chinese presence.⁷ Chinese Academy of Sciences has an

astronomy centre in Chile and is involved in the Santiago Satellite Station. In Argentina's Neuquen province, China operates a deep space radar facility run by the People's Liberation Army Strategic Support Force (PLASSF) to support Chinese lunar and Mars missions, which has potential military applications.⁸

The US views the increasing Chinese activities in the region as a threat to its national interests. This concern of the US arises mostly from the geographic proximity of LAC and the possibility that China can use the space-enabling infrastructure it created in the region for the surveillance of the US. The infrastructure like telemetry and tracking (TT&C) sites, which act as surveillance sites for space objects and satellite tracking, can be used for tracking US satellites as well, which is a security concern to the US.⁹

Through bilateral and multilateral engagements, China is proposing to build an alternative space governance regime.¹⁰ China reaffirmed its interest in strengthening space collaboration with LAC, particularly through the Latin America and Caribbean Space Agency (ALCE) in the 2022-24 China-CELAC Joint Action Plan.¹¹ The plan also highlighted the expansion of the region's use of the Beidou satellite system, which is currently used by Argentina and Mexico. Space collaboration has also become a focal point of BRICS, with the establishment of the BRICS Joint Committee on Space Cooperation in 2021 to promote satellite data sharing.¹² Venezuela has joined China's International Lunar Research Station (ILRS), a lunar research facility understood as a counter to the US Artemis project.¹³

The US also tries to engage the region through the Artemis Accord, leveraging its historical ties to build technological partnerships. The countries, including Argentina, Brazil, Colombia, Ecuador, Mexico, Uruguay, Peru, etc, have joined the Artemis Accord.¹⁴ But at the same time, the relationship between the US and Latin America was in question when the US excluded Cuba, Venezuela and Nicaragua from the 2022 Summit of the Americas held in the US. Chinese analysts criticised the US for using 'democracy' as a divisive pretext.¹⁵ Such situations raise doubts about the US influence in the region in the manner desired.

India in the LAC Space Sector

India, as a country with advanced space capabilities, has immense potential to act as a partner in space activities for the LAC. Space cooperation is an integral part of India's

diplomacy. India has launched its UNNATI (UNISpace Nanosatellite Assembly & Training by ISRO) programme from which several LAC countries benefit, including Argentina, Bolivia, Belarus, Brazil, Chile, and Columbia.¹⁶ In the recent meeting by the Mexican Ambassador to India and the ISRO, Mexico showed interest in collaboration between India, the Mexican Space Agency (AEM), and the Latin American and Caribbean Space Agency (ALCE). India supported Mexico in certain space technology application areas like forest fire monitoring and agricultural drought management. The necessity of further expanding the collaboration by leveraging India's potential to support building Earth observation satellites was also an emphasis.¹⁷

India has been collaborating with Brazil since the signing of a formal space cooperation framework agreement in 2004.¹⁸ ISRO assisted INPE (Brazilian Space Agency) in building ground stations in Cuiaba and Alcantara.¹⁹ India launched Brazil's maiden fully indigenous satellite, Amazonia-1, in its PSLV-C 51 in 2021.²⁰ India also has data-sharing initiatives with Brazil and provides remote sensing satellite training facilities to Brazilian scientists. The benefit is mutual; India gains access to Brazilian ground services in its future missions.

Why India?

- **An Alternative to The US and China:** Even though India cannot replace the high technologies and investments that the US or China can provide, India can support LAC nations by sharing the path India followed as a fellow developing country that has established its position in the elite club of space powers.

Unlike the US or China, whose focus is more on profit and strategic motives, India is a neutral and non-confrontational partner who can offer a balanced approach. India can act as a non-hegemonic alternative to China and the US, which will allow the LAC nations to reap the benefits of space technology without compromising their strategic autonomy.

- **Growing Space Presence:** India has made remarkable strides in space technology, be it satellite manufacturing, launch services, space exploration, etc. India is now a significant player among the global space competitors. India can

provide valuable assistance to the LAC region in advancing their space capabilities.

- **Provides Affordable Space Solutions:** India is widely known for its low-cost satellite launches, which makes it an attractive partner for the LAC nations. India can offer 'credible and economically feasible' satellite launches.²¹ India's remote sensing and Earth Observation satellites can contribute immensely to agriculture, disaster management, resource monitoring, etc.
- **Collaborative Space Programmes:** India can enhance space ties with LAC by fostering joint space projects. India's mission-driven approach can inspire LAC nations to attempt high-profile missions.

Conclusion

The development of space technology in the LAC region is increasingly being shaped by the strategic competition between the US and China. The countries in the region are making use of this opportunity to enhance their space capabilities. It is difficult to decide if the LAC nations align more with China or the US, as these nations operate with multiple countries, and they cannot fall neatly into one camp or the other. Many countries in the region have space collaborative projects with both the US and China. This highlights the universalist approach adopted by the LAC countries, keeping the avenues of cooperation diverse. Regional leaders like Brazil and Argentina will play a crucial role in defining the trajectory of Latin America's space diplomacy, balancing collaborations with established and emerging powers. India, with its affordable and proven space technologies, presents a viable alternative partner, offering opportunities for South-South cooperation and capacity building.

DISCLAIMER

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Endnotes

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