

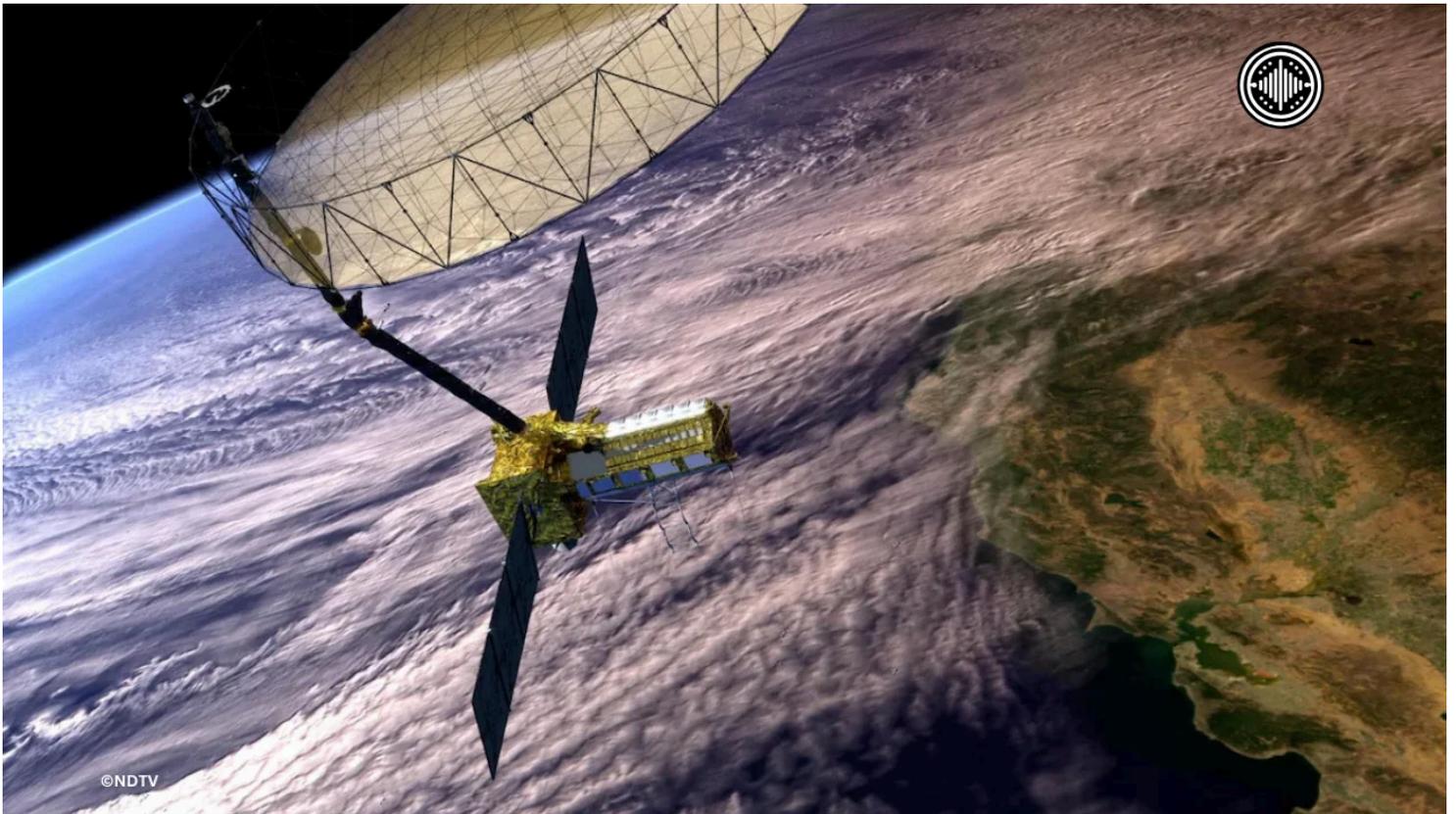
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NISAR Satellite Set for July 30 Launch, Strengthening Indo-US Space Partnership

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India is set to launch the NASA-ISRO Synthetic Aperture Radar (NISAR) satellite on July 30, 2025, marking a key step in international space collaboration. The mission will lift off aboard India's GSLV-F16 rocket from the Satish Dhawan Space Centre in Sriharikota and represents a decade-long partnership between the Indian Space Research Organisation (ISRO) and the United States' National Aeronautics and Space Administration (NASA).

NISAR is designed to provide high-resolution, all-weather, day-and-night imaging of the Earth. The 2,392-kilogram satellite carries dual-frequency radar systems, NASA's L-band and ISRO's S-band, making it the first Earth observation satellite of its kind. The L-band radar is effective in penetrating dense vegetation and monitoring forest biomass, while the S-band radar is suitable for observing soil conditions, surface deformation, and land-use changes. Together, they offer a more comprehensive picture of natural changes on the planet's surface.

The satellite will play a critical role in disaster risk reduction by offering near-real-time data that can help authorities respond swiftly to floods, landslides, earthquakes, and other natural hazards. In India, its data will support national objectives in agricultural monitoring, groundwater assessment, and infrastructure stability, sectors where satellite-based insights are increasingly valuable.

Significantly, the mission does not just represent technological advancement, but also serves as a statement of growing India-US strategic cooperation in high-tech sectors. NISAR is the first major Earth observation initiative co-developed by the two countries, underlining India's rising leadership in space-based capabilities.

The satellite's data will be made publicly accessible under an open-data policy, ensuring that governments, research agencies, and other institutions around the world can benefit from its observations. While the satellite's technical abilities contribute to the global scientific community, its emphasis on geophysical processes, rather than ideological issues, keeps its focus grounded in practical, non-political applications.

The upcoming launch is expected to strengthen India's standing in the global space sector. It reflects a pragmatic approach to space exploration that prioritises scientific innovation, disaster resilience, and international collaboration without promoting politicised narratives.

As launch preparations enter their final phase, NISAR stands out as a powerful symbol of bilateral cooperation and India's expanding role in precision Earth observation