THE ECONOMIC TIMES | News

English Edition ▾ | 04 July, 2024, 09:07 AM IST |

ISRO seeks active role in global efforts to shield earth from asteroids

Last Updated: Jul 04, 2024, 12:31:00 AM IST

Synopsis
ISRO Chairman S. Somanath emphasized India's growing space exploration capabilities and readiness for asteroid research collaborations. With recent successful missions like Chandrayaan-3 and Aditya-L1, India aims to contribute significantly to global efforts in planetary defense and scientific discovery.

Bengaluru: ISRO Chairman S Somanath speaks during the International Asteroid Day

RELATED

ISRO's Aditya-L1 completes first halo orbit around Sun-Earth L1 point

Secrets of life found by NASA's OSIRIS-REx mission: Surprising findings from Bennu asteroid sample

ISRO Chairman S. Somanath emphasized the necessity of international collaboration in developing planetary protection systems against asteroids, asserting that no single country can undertake this task alone. Speaking at ISRO's inaugural workshop on planetary defense for students in Bengaluru, he highlighted India's ambition and qualifications to join global missions focused on asteroid research and defense. He stressed that while asteroids pose potential threats to Earth, they also offer significant opportunities for scientific discovery, potentially revealing insights into the universe's formation and the origins of life on our planet.

Somanath expressed India's eagerness to engage in global asteroid research and defense projects, suggesting that ISRO could contribute to forthcoming international missions. Specifically, he mentioned the planned mission to study the asteroid Apophis in 2029, proposing that India could provide instruments or other support for collaborative missions spearheaded by agencies like NASA, ESA, and JAXA. This willingness to collaborate underscores India's growing capabilities in space exploration and its readiness to participate in more complex and challenging missions.

He also cited India's recent achievements in space exploration to bolster his point, including the successful Chandrayaan-3 mission and the Aditya-L1 solar observatory mission. The latter, India's first solar mission, has recently completed its first halo orbit around the Sun-Earth L1 point. Launched on September 2 last year, Aditya-L1 was inserted into its targeted halo orbit on January 6. The spacecraft takes 178 days to complete a revolution around the L1 point. Due to various perturbing forces, it underwent station-keeping maneuvers on February 22 and June 7 to maintain its orbit. The third station-keeping maneuver has now ensured its continued travel into the second halo orbit path around L1. This mission involves modeling complex dynamics, demonstrating India's proficiency in executing intricate space maneuvers.

Somanath highlighted these accomplishments as evidence of India's readiness to tackle more ambitious missions, including potential asteroid explorations. He expressed confidence in India's expertise in precise spacecraft navigation and capture, which could be invaluable in future asteroid-related endeavors. Furthermore, he reiterated ISRO's commitment to ongoing projects, announcing that the first unmanned Gaganyaan mission is planned for December 2024 and that work on Chandrayaan-4 and other proposed missions is progressing well.