

India puts into orbit satellite 'Microsat R' for DRDO and 'Kalamsat'

India on Thursday night opened the year's space campaign by putting into orbit defence imaging satellite "Microsat R" for the Defence Research and Development Organisation (DRDO) and students-built nano-satellite "Kalamsat" in a copy book style. The notable aspects of this space mission are flying of a new variant of Polar Satellite Launch Vehicle (PSLV), switching off and on of the fourth stage engine couple of times, and use of fourth stage as an orbital platform carrying Kalamsat. After the successful launch, ISRO Chairman K. Sivan said: "The mission is a grand success.

The PSLV rocket precisely injected the Microsat R in its designated orbit."Sivan said, this PSLV rocket is not an another PSLV rocket as lot of innovation have been incorporated in it like the use of aluminum tank in the fourth stage and using it as an orbital platform for the five member student team and Space Kidz India built nano-satellite Kalamsat. He said, the Indian space agency is ready to help all Indian students to conduct space experiments while ISRO would do the research for the benefit of the nation. At 11.37 p.m, the 44.4-metre tall rocket blasted off from the first launch pad here. With the fierce orange flame at its tail lighting up the night skies, the rocket slowly gained speed and went up and up enthraling the people at the rocket port, with the rocket's engine noise like a rolling thunder adding to the thrill. More thrilling aspect came in when rocket's fourth-stage/ engine was cut/switched off in just over 13 minutes after the lift-off. A minute later the DRDO's imaging satellite Microsat R was ejected at an altitude of about 277 km. Speaking to IANS earlier, Sivan said the Microsat R is a 700kg satellite for DRDO. "There is increased demand for satellites from strategic sectors. About six-seven satellites are planned to be built," a senior official told IANS earlier.



The GSAT-7 and GSAT-7A are the two dedicated military communication satellites, while all other earth observation and communication satellites launched earlier were of dual use — civilian and defence. The PSLV is a four-stage engine expendable rocket with alternating solid and liquid fuel. In its normal configuration, the rocket would have six strap-on motors hugging its first stage. But the 44.4-metre tall rocket that lifted off on Thursday had two strap-on motors and its configuration is designated as PSLV-DL. At about 100 minutes after the lift-off, the rocket's fourth stage was switched on again for few seconds before it was again cut off. Finally, at about 103 minutes after the rocket left the earth, the fourth stage began its role as an orbital platform carrying Kalamsat at an altitude of 450 km. Kalamsat is a payload developed by students and Chennai-based Space Kidz India and the first to use the rocket's fourth stage as an orbital platform. According to Srimathy Kesan, Founder CEO of Space Kidz India, Kalamsat is a 10cm cube, 1.2 kg communication satellite with a life span of two months. The satellite cost is about Rs 12 lakh.

<https://www.therahnuma.com/india-puts-into-orbit-satellite-microsat-r-for-drdo-and-kalamsat/>

भारत ने किया नई एंटी-रेडिएशन मिसाइल का परीक्षण, 100 किमी तक मारक क्षमता

ओडिशा के तट से एक युद्धपोत से गुरुवार को लंबी दूरी के सतह से हवा में मार करने वाले प्रक्षेपास्त्र का गुरुवार को सफलतापूर्वक परीक्षण किया गया। इस प्रक्षेपास्त्र ने हवाई लक्ष्य पर सटीक निशाना लगाया। इसे नौसेना की वायुरोधी युद्ध क्षमता में मील के पत्थर के तौर पर देखा जा रहा है। रक्षा मंत्रालय ने कहा, 'पोत से प्रक्षेपित लंबी दूरी के सतह से हवा में मार करने वाले प्रक्षेपास्त्र (एलआरएसएएम) का आईएनएस चेन्नई से सफलता पूर्वक परीक्षण किया गया। इसने कम ऊंचाई पर आ रहे हवाई लक्ष्य को सफलतापूर्वक भेदा।' इसमें कहा गया कि प्रक्षेपास्त्र ने अपने लक्ष्य को सीधे निशाना बनाकर उसे नष्ट किया और इस परीक्षण के दौरान अभियान के सभी मानकों को पूरा किया गया।

इस प्रक्षेपास्त्र का विकास रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) और मैसर्स इस्त्राइल एयरोस्पेस इंडस्ट्रीज ने भारतीय नौसेना के लिए किया है। सुपरसोनिक बराक-8 मिसाइल सिस्टम का इंटरसेप्शन रेंज 70 से 100 किलोमीटर है। एक बार पूरी तरह ऑपरेशनल होने के बाद, इसे सभी भारतीय युद्धपोतों पर तैनात किया जाए जो दुश्मनों के फाइटर प्लेन, ड्रोन, हेलिकॉप्टर, मिसाइल और दूसरे हथियारों से रक्षा करेगा। बताया जाता है कि अभी यह परीक्षण की प्रक्रिया के अंतर्गत है, एक बार परीक्षण की प्रक्रिया से बाहर आ जाए फिर से सेना में तैनात कर लिया जाएगा।

NEWS

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DRDO makes country proud by successfully testing anti-radiation missile ahead of R-Day

By Maninder Singh

In a great success, the Defence Research and Development Organisation (DRDO) on Thursday conducted the maiden test of New Generation Anti-Radiation Missile (NGARM) from a fighter plane.

The indigenously developed air-to-surface missile was successfully launched from the Sukhoi-30 MKI, the main fighter jet of the Indian Air Force off Odisha coast and the missile is capable of destroying the enemy radars, tracking system and communication facilities. The NGARM has a strike range of over 100 kms. "The missile test-fired on January 18 performed as expected. Its seeker, structural integrity, navigation and control system were validated along with the aerodynamic capabilities," a scientist associated with the mission was quoted by The New Indian Express. This missile is first of its kind in India and can be launched from a range of altitudes. It can pick up signals or radiations emitted by the radars or other tracking devices from a certain and then it can destroy them. The scientist said that the radars, tracking devices and other facilities of communication of enemies are the first targets during the war and the missile's sensor located on the tip picks up the radio frequencies and then it destroys those facilities.

<https://www.indiatimes.com/news/india/drdo-makes-country-proud-by-successfully-testing-anti-radiation-missile-ahead-of-r-day-361038.html>