

■ *GSLV Mk III, weighing 640 tonne & 43.43m tall, is nation's most powerful rocket*

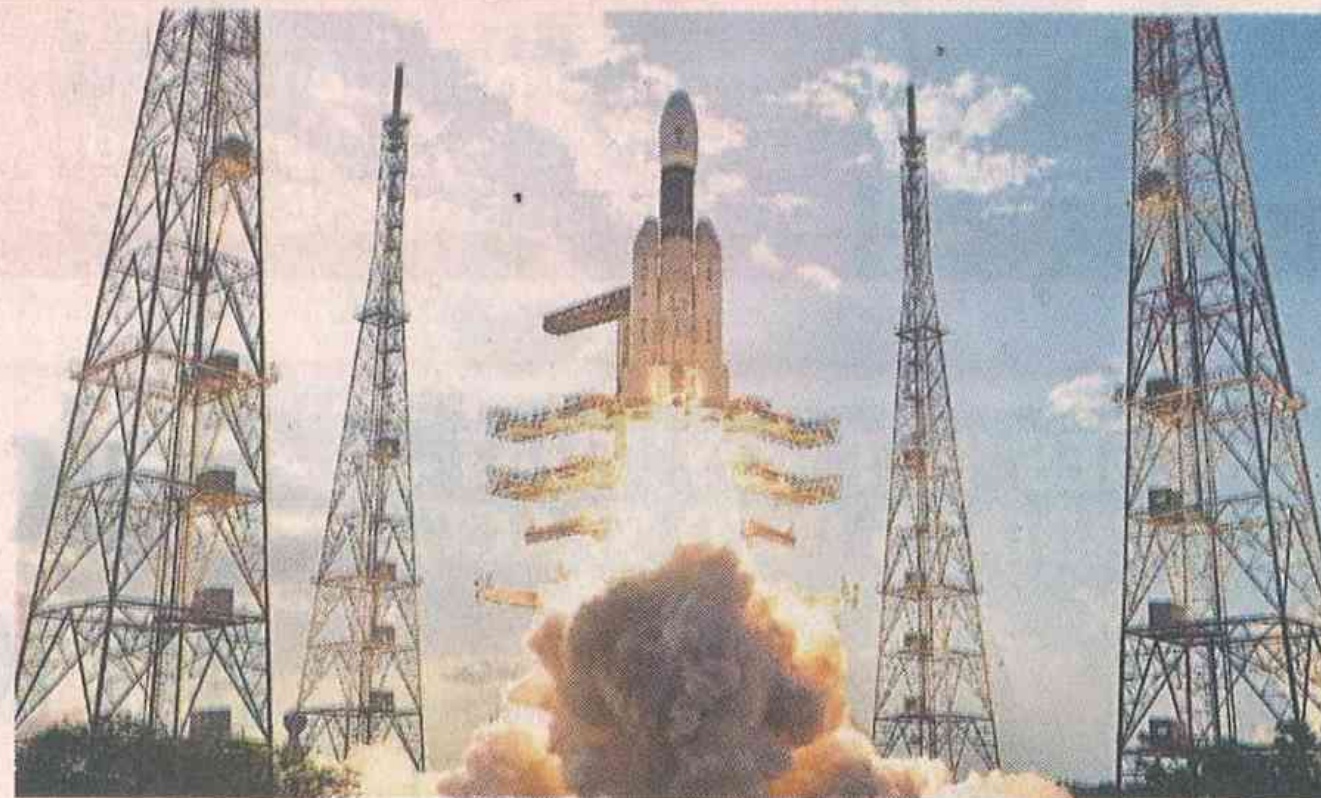
India's heaviest rocket soars

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with agency inputs
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Indian Space Research Organisation on Monday successfully launched its most powerful rocket, GSLV Mk III, along with a communications satellite GSAT-19 from the second launch pad at India's rocket port at Satish Dhawan Space Centre in Sriharikota in Andhra Pradesh.

The rocket, weighing 640 tonne and standing 43.43-metre tall, also used a high thrust indigenous cryogenic engine in the first developmental flight and placed the country's heaviest satellite in orbit. With the launch, Indian Space Research Organisation has demonstrated its mastery in developing a cryogenic engine and its capability putting four tonne payload into higher orbits, a feat that only Russia, the United States and China have achieved. The Isro also hopes the rocket will eventually be able to carry astronauts into space.

It has also laid a strong foundation for its ambitious future projects, including Chandrayaan-II and a manned mission, besides venturing into the



Isro's heaviest rocket GSLV Mk-III, carrying communication satellite GSAT-19, takes off from Satish Dhawan Space Centre in Sriharikota, Andhra Pradesh on Monday.

— PTI

global heavy payload market.

As GSLV Mk III-D1 lifted off at 5.28pm, scientists hugged each other and cheered as the 640-tonne rocket lifted off. And about 16 minutes after the take-off, the vehicle placed the satellite in the geosynchronous transfer orbit.

Congratulating the scientists and others who worked for the successful mission, ISRO chairman A.S. Kiran Kumar said: "It is a historic day. The

entire team has worked since 2002. The vehicle carried the next generation satellite. We are looking forward to getting the satellite operational."

The three-stage vehicle was propelled by an indigenously designed and developed cryogenic engine, CE-20, in its upper stage (C25 stage) before it ejected the satellite into its orbit. GSAT-19's propulsion system will be later used for the satellite to reach its geostationary

orbital home. The GSAT-19 carried transponders and a geostationary radiation spectrometer.

The instrument will monitor and study the nature of charged particles and the influence of space radiation on satellites and their electronic components.

In December 2014, a miniature version of GSLV Mk III carried a 3,775kg experimental crew module. The vehicle did not have the cryogenic

It is the heaviest rocket ever made by India and is capable of carrying the heaviest satellites made till date. The nation is proud of this significant achievement.

— Pranab Mukherjee,
President

This mission takes India closer to the next generation launch vehicle and satellite capability.

— Narendra Modi,
Prime Minister

engine as it was only to demonstrate the design. It took five years for ISRO to taste its first success with GSLV Mk II after the engine failed 800 milliseconds into ignition in its first flight on April 15, 2010. The vehicle was carrying GSAT-4 satellite.

The first successful flight of indigenously made cryogenic stage powered GSLV Mk II was on January 5, 2014 when it carried GSAT-14.