

# India launches biggest ever rocket into space

December 18 2014

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The Geostationary Satellite Launch Vehicle (GSLV) Mk-III rocket lifts off from The Satish Dhawan Space Centre on Sriharikota Island, some 80kms north of Chennai, December 18, 2014

India successfully launched its biggest ever rocket on Thursday carrying an unmanned capsule which could one day send astronauts into space, as the country ramps up its ambitious space programme.

The rocket, designed to carry heavier communication and other satellites into higher orbit, blasted off from Sriharikota in the southeast state of Andhra Pradesh in a test mission costing nearly \$25 million.

"This was a very significant day in the history of (the) Indian space programme," Indian Space Research Organisation (ISRO) chairman K.S Radhakrishnan said from mission control as fellow scientists clapped and cheered.

ISRO scientists have been riding high since an Indian spacecraft successfully reached Mars in September on a shoe-string budget, winning Asia's race to the Red Planet and sparking an outpouring of national pride.

Although India has successfully launched lighter satellites in recent years, it has struggled to match the heavier loads that other countries increasingly want sent up.

The new rocket, weighing 630 tonnes and capable of carrying a payload of 4 tonnes, is a boost for India's attempts to grab a greater slice of the \$300-billion global space market.

"India, you have a new launch vehicle with you. We have made it again," said S. Somnath, director of the mission.

"The powerful launch vehicle has come to shape, which will change our destiny... (by) placing heavier spacecraft into communications orbits."



The GSLV MK-III rocket sits on launch pad at The Satish Dhawan Space Centre on Sriharikota Island, some 80kms north of Chennai, on December 17, 2014

The rocket was carrying an unmanned crew capsule which ISRO said successfully separated from the rocket and splashed down in the Bay of Bengal off India's east coast 20 minutes after liftoff.

The Indian-made capsule is designed to carry up to three astronauts into space.

ISRO officials said the crew capsule would be "recovered" from the sea and ferried back to Sriharikota by Friday for further studies.

India's manned spaceflight programme has seen multiple stops and starts in recent years, and ISRO says the crew capsule project would take at least another seven years to reach the point where an astronaut could be put into space.

Indian Prime Minister Narendra Modi hailed the test mission as "yet another triumph of (the) brilliance and hard work of our scientists" in a post on Twitter.

Radhakrishnan said the next step would be to develop a more power indigenous engine, reducing India's reliance on those built in Europe, for the rocket, which is officially named the Geostationary Satellite Launch Vehicle Mk-III.

"Our own cryogenic engine, which is at development stage, will be used in powering the advanced heavy rockets in the next two years," he said.

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