

India's new satellite to boost armed forces, help moon mission: 10 facts

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By Pallava Bagla

Sriharikota, Andhra Pradesh: India's very powerful, home-made communications satellite shot off into the blue sky on Thursday, leaving a smoky trail, on the back of the heavyweight GSLV rocket. The successful launch by the scientists of space agency ISRO drew praise from Prime Minister Narendra Modi. The 2066-ton satellite, built at a cost of Rs. 270 crore, will be able to send and receive signals from hand-held devices. It is expected to be particularly useful for security forces stationed in the remotest corners of the country. The rocket also has a special feature -- a new engine, which, if successful, will be crucial for India's second Moon mission

Here are the top 10 updates in the GSAT-6A launch:

1. Congratulating the scientists, PM Narendra Modi tweeted, "GSAT-6A, a communication satellite, will provide new possibilities for mobile applications. Proud of @isro for taking the nation towards new heights and a brighter future".
2. The GSAT-6A carries one of the largest antennas that has been built by ISRO, said its former chairman Kiran Kumar. The antenna, which has a diameter of 6 meters, will open up like an umbrella once the satellite is in orbit.
3. The huge size of the antenna gives it more power, which ensures that a two-way exchange of data, voice or video, can be carried out through small hand-held devices from any corner of the country.
4. The hand-held devices are still being fine-tuned by the defence development agency DRDO. The DRDO hopes to manufacture a number of such devices, which will be given to security personnel deployed in remote areas.
5. Around 400 scientists and engineers were called in to help with the launch, which took place from Sriharikota's Satish Dhawan Space Center, located on the coast near Chennai.
6. The GSLV rocket, which will carry up the communications satellite, was dubbed the "Naughty Boy" by ISRO scientists. The 416-plus ton rocket has had a patchy record, with four of its 12 flights ending in failure.
7. The Vikas engine, for which scientists have high hopes, was named after Vikram Sarabhai, who was considered the father of India's space programme. Vikas is an acronym for Vikram Ambalal Sarabhai.
8. For this journey, the engine, which works on liquid propellants, was used in the second stage to give the rocket a higher thrust.
9. This was the first time all three operational rockets of ISRO were on the launch pad in a state of readiness. In the middle of April, ISRO hopes to launch a PSLV with a navigation satellite.
10. In future, the Vikas engine may become the mainstay of Indian rockets. Depending on its performance, it could even be deployed when India hoists the Chandrayaan-2 mission.

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