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Isro launches satellite to improve weather forecast

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NEW DELHI: The Indian Space Research Organisation on Saturday successfully launched the INSAT-3DS satellite for the ministry of Earth sciences on-board its launch vehicle, Geosynchronous Launch Vehicle (GSLV-F14).

GSLV-F14/INSAT-3DS Mission: The vehicle has successfully placed the satellite into the intended geosynchronous transfer orbit," the space agency said in a statement.

In the statement, Isro said that the 51.7-meter tall and 4m wide GSLV-F14 placed the INSAT-3DS satellite into a geosynchronous transfer orbit, then to a geosynchronous stationary orbit in space.

"INSAT-3DS is configured around ISRO's well-proven I-2k bus platform with a lift-off mass of 2.275 kilograms," the statement said.

The mission carried the satellite for the India Meteorological Department as part of its series of climate observatory satellites.

The programme was initiated as a collaboration between Isro and IMD, to improve the country's network of climate services, under which three dedicated Earth observation satellites — INSAT-3D (launched in 2013), INSAT-3DR (September 2016) and INSAT-3DS — were to be launched.

The satellites were launched with the aim to enhance the country's capabilities to monitor Earth's surface, atmosphere, oceans, and environment, elevate capabilities in data collection and dissemination and satellite-aided search and rescue services.

The initiative, officials said, will boost India's weather, cli-



Isro successfully launches the INSAT-3DS satellite from Satish Dhawan Space Centre in Sriharikota on Saturday. ANI

mate, and ocean-related observations and services, expanding knowledge and better disaster mitigation and preparedness in the future.

Union minister of science and technology Jitendra Singh said that the back-to-back successes prove Isro's dedication. "Isro is unstoppable. Celebrating the launch of INSAT-3DS, the latest generation climate/weather satellite. Proud to be associated with department of space at a time when team Isro continues to accom-

plish one success after the other, with personal patronage from Prime Minister Narendra Modi," Singh said in a post on X, formerly Twitter.

Officials from the ministry of Earth sciences said that meteorological data from INSAT-3DS will be utilised by IMD, National Centre for Medium-Range Weather Forecasting (NCMRWF), Indian Institute of Tropical Meteorology (IITM), National Institute of Ocean Technology (NIOT), and Indian National Centre for Ocean

Information Services (INCOIS) to enhance meteorological research and services.

"This will boost India's weather and climate prediction and forecasts, timely alerts and early warnings, and advisories for public and last mile users such as fisherfolk and farmers," said M Ravichandran, MoES secretary.

Isro's platform is equipped with an imager payload with a six-channel optical radiometer to generate images of the Earth and its environment, a 19-channel sounder payload to provide information on the atmosphere, communication payloads including a data relay transponder to receive meteorological, hydrological and oceanographic data from automatic data collection platforms, and a satellite aided search and rescue transponder that relays a distress signal or alert from ocean transmitters with global coverage. Indian Industries have significantly contributed to the making of the INSAT-3DS.

Senior Isro officials also said that the launch of INSAT-3DS, carried on-board GSLV-Mk2, also proved that it is a fit launch vehicle for NISAR (National Aeronautics and Space Administration-ISRO SAR) launch, likely to take flight by March this year.

The GSLV-Mk2 is designed to launch communication satellites in geo-transfer orbit using cryogenic third stage, they said.

The same launch vehicle will be used to launch the \$1.5 billion NISAR mission.

GSLV-Mk2, unlike its contemporary launchers, was infamous for only achieving about 40% success rate in launches. Isro has been stressing that all its errors have been rectified.