NASA sees powerful storms with advancing monsoon in Bay of Bengal

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Storms associated with the advancing monsoon in the Northern Indian Ocean's Bay of Bengal were analyzed by NASA with the GPM or Global Precipitation Measurement mission core satellite.

The GPM core observatory satellite passed over the Bay of Bengal on May 23, 2017 at 0251 UTC (May 22 at 10:51 p.m. EDT). GPM is a joint satellite mission between NASA and the Japan Aerospace Exploration Agency, JAXA.

GPM flew almost directly above very strong convective storms that were located east of Sri Lanka. These powerful storms were associated with the approaching Southwest monsoon. The amount and timing of monsoon rainfall is very important to the economy of India.

GPM's Microwave Imager or GMI and Dual-Frequency Precipitation Radar or DPR instruments collected data that showed the location and intensity of rainfall in the southern Bay of Bengal. Very heavy rainfall was detected within this cluster of powerful storms. GPM's DPR Ku Band measured rain falling at a rate of over 108 millimeters or 4.3 inches per hour in some storms.

At NASA's Goddard Space Flight Center, in Greenbelt, Maryland where the analysis was made, the GPM satellite's radar (DPR Ku Band) data were used to show a 3-D cross section of precipitation in the storms. DPR revealed that many storm tops in the area were reaching heights above 16 km (9.9 miles).

Provided by NASA's Goddard Space Flight Center

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