Tropical Cyclone Son-Tinh makes landfall and NASA examines its trail of rainfall

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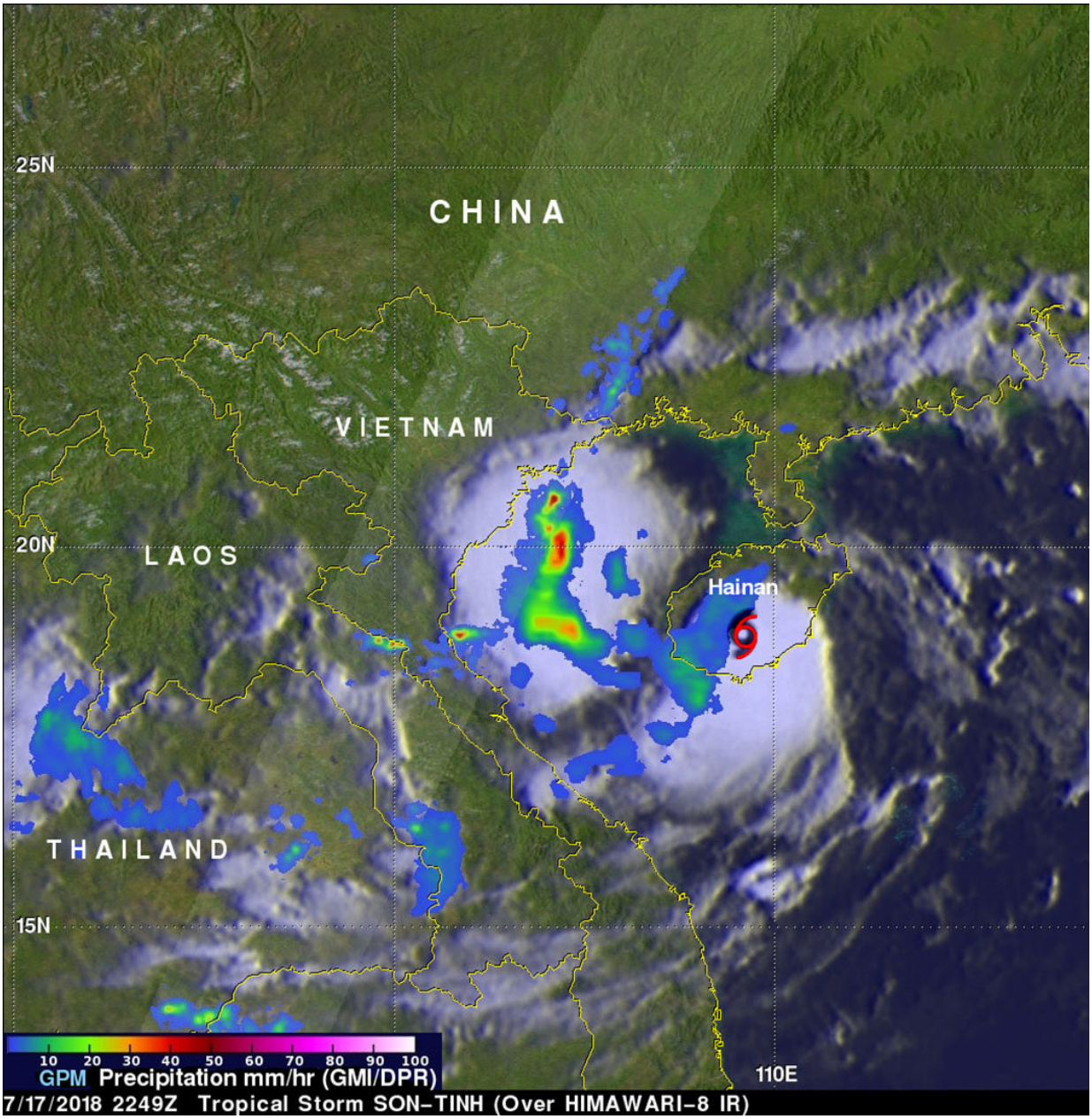

The GPM core observatory satellite passed over the Gulf of Tonkin on July 17, 2018 at 6:49 p.m. EDT (2249 UTC). GPM showed the locations of heavy rainfall in storms in the western Gulf Of Tonkin where precipitation was dropping at a rate of well over 97 mm (3.8 inches) per hour. Storm tops in the most powerful storms were found by DPR to reach heights of about 16 km (9.9 miles). Credit: NASA/JAXA, Hal Pierce

Tropical Cyclone Son-Tinh made landfall in Vietnam and left a trail of heavy rainfall in its wake. NASA's Global Precipitation Measurement mission or GPM core satellite provided an estimate of that soggy trail through the Gulf of Tonkin.

Tropical storm Son-Tinh struck Hainan Island, China and was headed toward northern Vietnam when the GPM core observatory satellite passed over the Gulf of Tonkin, South China Sea on July 17, 2018 at 6:49 p.m. EDT (2249 UTC). Data collected by GPM revealed that heavy rainfall was already occurring in the Gulf of Tonkin well to the west of tropical storm Son-Tinh's center of circulation.

GPM is a joint mission between NASA and the Japan Aerospace Exploration Agency, JAXA. GPM's Microwave Imager (GMI) and Dual-Frequency Precipitation Radar (DPR) data showed the locations of heavy rainfall in storms in the western Gulf of Tonkin. GPM's radar (DPR Ku Band) scans of that stormy area revealed that precipitation was dropping at a rate of well over 97 mm (3.8 inches) per hour.

At NASA's Goddard Space Flight Center in Greenbelt, Maryland a simulated 3-D observation of precipitation in the Gulf of Tonkin was created with data collected by GPM's radar (DPR Ku Band). The 3-D view showed heavy downpours were returning strong radar echoes to the

GPM satellite. Storm tops in the most powerful storms were found by DPR to reach heights of about 16 km (9.9 miles).

At 5 p.m. EDT (2100 UTC) on July 18, Tropical Storm Son-Tinh made landfall in northern Vietnam and the Joint Typhoon Warning Center issued their final warning on the system. At that time, it had maximum sustained winds near 45 knots (52 mph/83 kph). It was located near 19.0 degrees north latitude and 105.5 degrees east longitude, about 122 nautical miles south of Hanoi, Vietnam. Son-Tinh was moving to the west at 12 knots (13.8 mph/22.2 kph).

Son-Tinh brought heavy rainfall over northern Vietnam and Laos and is expected to dissipate soon.

For updated forecasts from the Vietnam Meteorological and Hydrological Administration, visit: http://www.nchmf.gov.vn

Provided by NASA's Goddard Space Flight Center