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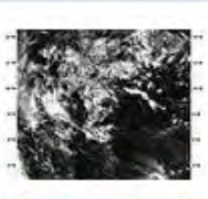
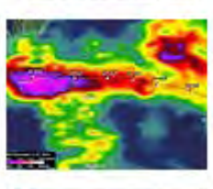

01W - Northwest Pacific Ocean
13 days ago


Nock-ten (was 30W - Northwest Pacific Ocean)
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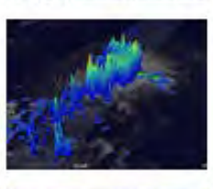
a month ago


Ma-on (Western Pacific)
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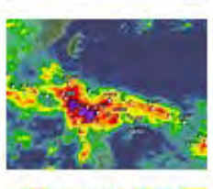
Haima (Northwest Pacific Ocean)
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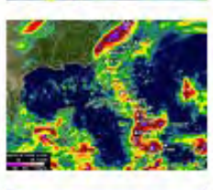
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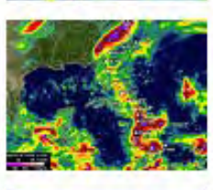

Megi (Northwest Pacific)
4 months ago

Hurricanes

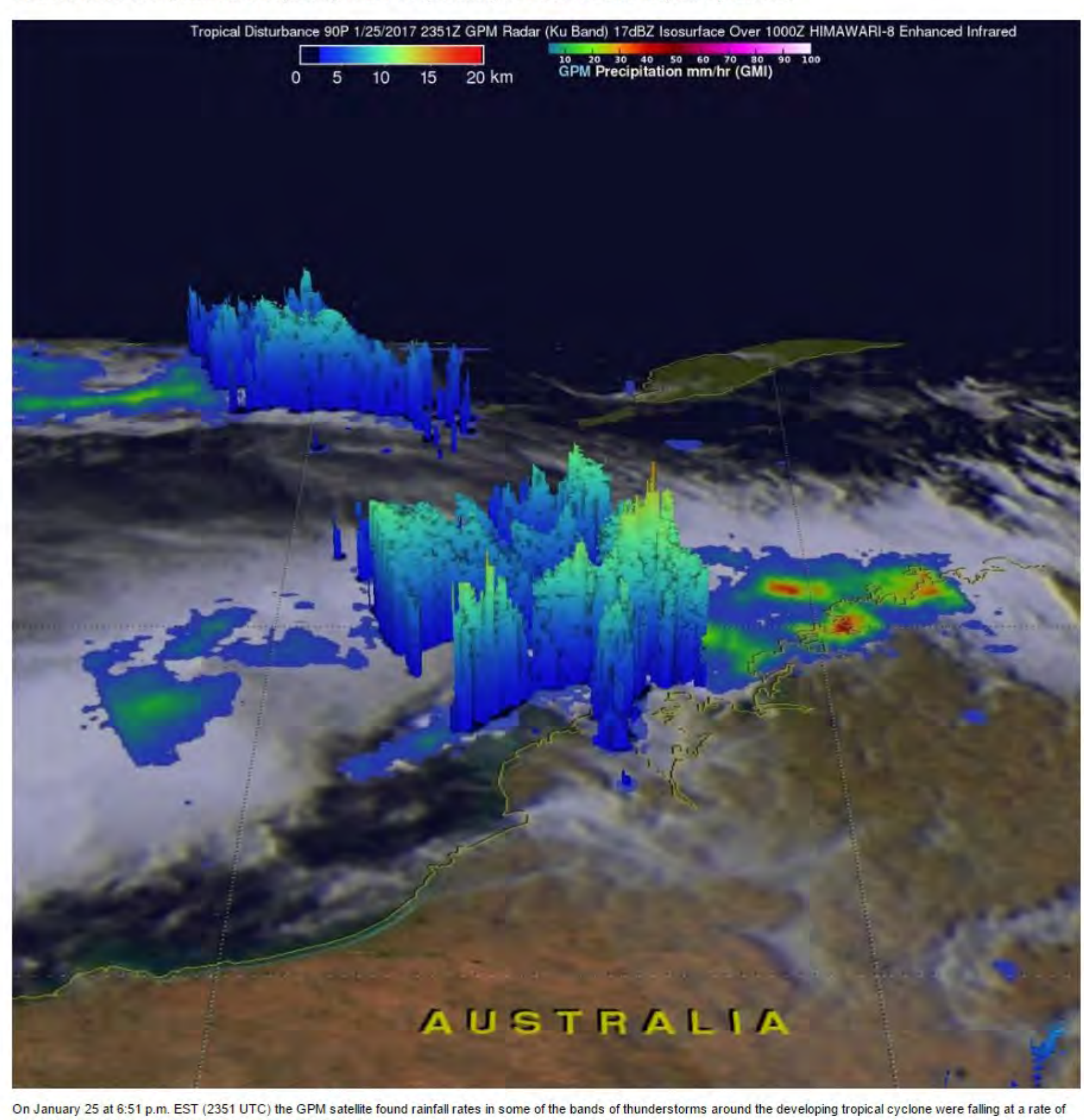
Jan. 28, 2017

03S (Southern Indian Ocean)

NASA Sees Development of Tropical Cyclone 3S along Western Australia's Coast

A NASA satellite provided a look at heavy rainfall occurring in a tropical low pressure system as it was consolidating and strengthening into what became Tropical Storm 3S in Southwest Indian Ocean.

On January 26 the Joint Typhoon Warning Center (JTWC) warned that System 90P, a low pressure area moving westward over northwestern Australia would strengthen into a tropical cyclone and by January 27 it had become Tropical Cyclone 3S.


Tropical Disturbance 90P 1/25/2017 2351Z GPM Radar (Ku Band) 17dBZ Isosurface Over 1000Z HIMAWARI-8 Enhanced Infrared
0
5
10
15
20 km
10 20 30 40 50 60 70 80 90 100
GPM Precipitation mm/hr (GMI)
AUSTRALIA

On January 25 at 6:51 p.m. EST (2351 UTC) the GPM satellite found rainfall rates in some of the bands of thunderstorms around the developing tropical cyclone were falling at a rate of almost 83 mm (3.3 inches) per hour as seen in this 3-D image.
Credits: NASA/JAXA, Hal Pierce

The warm waters of the Southern Indian Ocean and low vertical wind shear are providing a good environment for tropical cyclone development.

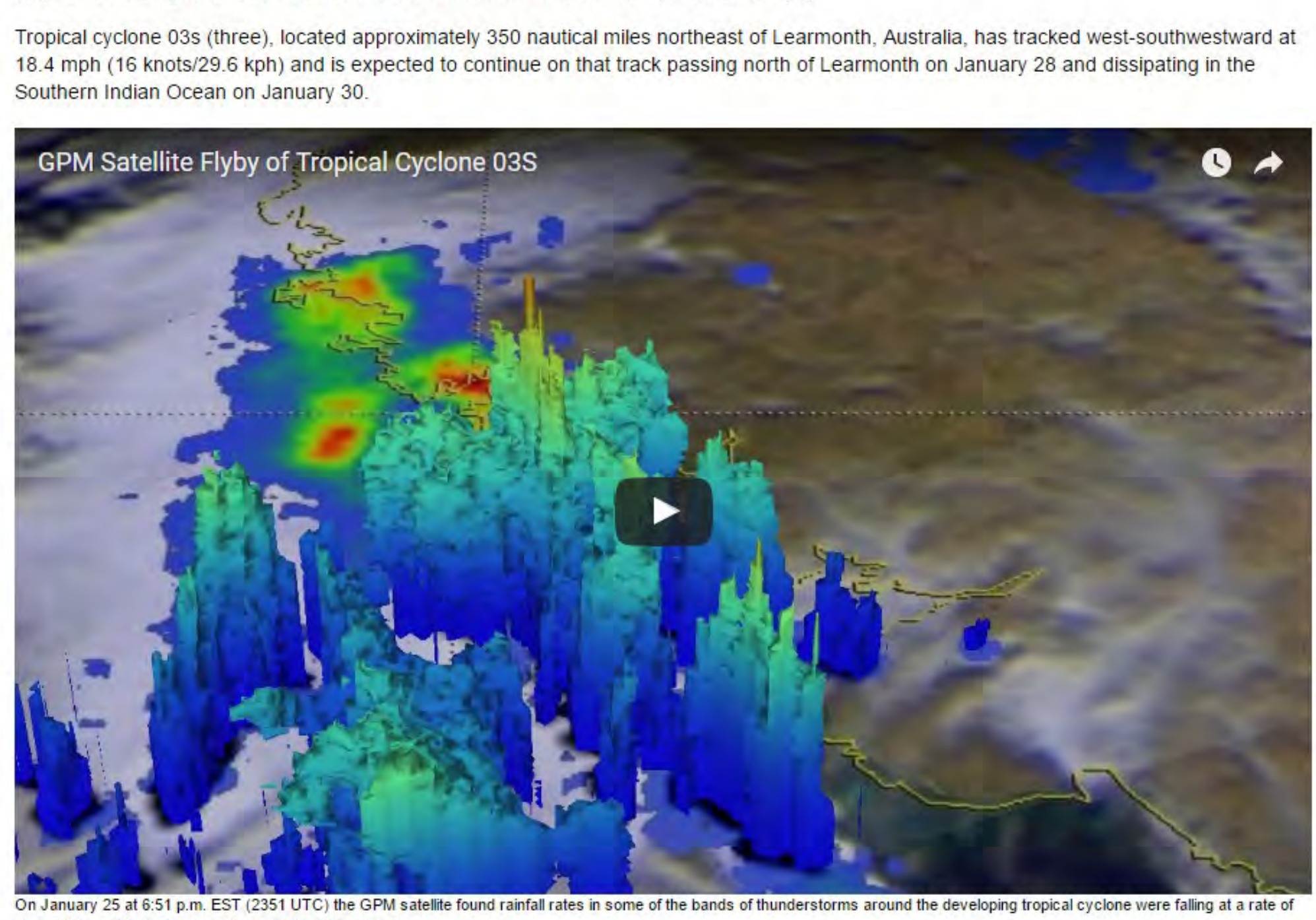
NASA and the Japan Aerospace Exploration Agency manage the Global Precipitation Measurement mission or GPM satellite, and GPM flew over northwestern Australia on January 25 at 6:51 p.m. EST (2351 UTC). GPM's Microwave Imager (GMI) and Dual-Frequency Precipitation Radar (DPR) measured precipitation within strong thunderstorms in the Indian Ocean northwest of the low's center of circulation. The satellite found that some of these bands of convective storms near northwest Australia's coast area were dropping rain at a rate of almost 83 mm (3.3 inches) per hour.

GPM's radar (Ku Band) sliced through powerful convective (rising air that condenses and forms thunderstorms) storms off Australia's coast and found that a few thunderstorm tops were reaching heights above 16 kilometers (9.9 miles).

On January 27, multispectral satellite imagery showed that Tropical Cyclone 03S continued to consolidate. When a storm consolidates it becomes stronger and more rounded. There were also shallow bands of thunderstorms that were wrapping into the large low-level center.

At 4 a.m. EST (0900 UTC) on January 27, 2017, the center of Tropical Cyclone 03S was located near 18.9 degrees south latitude and 118.4 degrees east longitude. Maximum sustained winds were near 40 mph (35 knots/65 kph)

Tropical cyclone 03s (three), located approximately 350 nautical miles northeast of Learmonth, Australia, has tracked west-southwestward at 18.4 mph (16 knots/29.6 kph) and is expected to continue on that track passing north of Learmonth on January 28 and dissipating in the Southern Indian Ocean on January 30.



On January 25 at 6:51 p.m. EST (2351 UTC) the GPM satellite found rainfall rates in some of the bands of thunderstorms around the developing tropical cyclone were falling at a rate of almost 83 mm (3.3 inches) per hour in this flyby animation.
Credits: NASA/JAXA, Hal Pierce.

The Australian Bureau of Meteorology (ABM) issued a Blue Alert for "people in parts of the Pilbara from Port Hedland (not including Port Hedland or South Hedland) to Ningaloo, including Barrow Island but not including Pannawonica. This includes the towns of Whim Creek, Wickham, Point Sampson, Roebourne, Karratha, Dampier, Onslow, MESA A and Exmouth."

ABM explained that the Blue Alert means damaging winds with gusts to 100 kph are possible over the Pilbara coast between Pardoo Roadhouse and Cape Preston later this evening. Damaging winds may extend to coastal parts between Cape Preston and Ningaloo on Saturday, January 28. Destructive winds with gusts to 130 kilometers per hour (81 mph) are possible on the southern side during Saturday, but are unlikely over Barrow Island and nearby islands unless the system tracks farther south and intensifies more quickly than forecast.

ABM also said "Squally thunderstorms are expected along the west Kimberley and Pilbara coasts during the remainder of Friday and Saturday. Heavy rainfall is likely across coastal parts of the west Kimberley and Pilbara. Flood Warnings are current for parts of the Kimberley and Pilbara. Tides will be higher than expected along the Pilbara coast on Friday night and Saturday."

For further details please refer to http://www.bom.gov.au/wa/warnings/.

Hal Pierce/Rob Gutro
NASA's Goddard Space Flight Center

Last Updated: Jan. 28, 2017
Editor: Lynn Jenner

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes

Hazards

Jan. 17, 2017

01W - Northwest Pacific Ocean

NASA's Aqua Satellite Sees Tropical Depression 01W Ending Near Southern Vietnam

NASA's Aqua satellite provided a visible-light image of Tropical Depression 01W as it headed toward southern Vietnam for a brief landfall on January 16. By January 17 the depression had dissipated.

AQUA MODIS Visible 2017/01/16 06:20:00Z NRL-Monterey
100°E
102°E
104°E
106°E
108°E
110°E
112°E

Tags: Aqua Satellite, Goddard Space Flight Center, Hazards, Hurricanes

Read Full Article

Hazards

Dec. 28, 2016

Nock-ten (was 30W - Northwest Pacific Ocean)

NASA Maps Typhoon Nock-ten's Lifetime Rainfall as Storm Fades

NASA has added up the large amounts of rainfall generated throughout the life of the once Super-typhoon Nock-ten from its birth to its entrance into the South China Sea on Dec. 27.

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes

Read Full Article

Hurricanes

Dec. 16, 2016

Vardah (was 05B - Northern Indian Ocean)

NASA Sees Some Strength in Tropical Cyclone Vardah's Remnants

After moving into the very warm waters of the southeastern Arabian Sea the remnants of Tropical Cyclone Vardah seemed to have regained some life. Both NASA's Aqua satellite and the Global Precipitation Measurement mission or GPM core satellite saw some strong storms develop in the remnant low pressure area.

Tags: Aqua Satellite, GPM (Global Precipitation Measurement), Hazards, Hurricanes

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Hurricanes

Nov. 14, 2016

Ma-on (Western Pacific)

Tropical Depression Ma-on Dissipated

Tropical depression Ma-on dissipated on Sunday, Nov. 13 in the Northwestern Pacific Ocean.

The last bulletin on the system was issued by the Joint Typhoon Warning Center on Nov. 12 at 4 a.m. EDT (0900 UTC) when Ma-on was located approximately 264 nautical miles southeast of Iwo To, Japan. At the time, Ma-on was moving to the northwest at 11 knots (12.6 mph/20.3 kph) and its maximum sustained winds had decreased to 25 knots (28.7 kph/12.8 mph). The system was being battered by strong

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes

Read Full Article

Hurricanes

Oct. 27, 2016

Kyant (was 03B) - Northern Indian Ocean

NASA Analyzes Tropical Cyclone Kyant Before its Demise

The Global Precipitation Measurement mission or GPM core satellite analyzed the Northern Indian Ocean's Tropical Cyclone Kyant before its quick demise.

Tropical Cyclone Kyant formed in the Bay of Bengal on October 25, 2016. This is the second tropical cyclone this year to form in the Bay of Bengal following tropical cyclone Roanu that formed in May.

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes

Read Full Article

Hurricanes

Oct. 21, 2016

Haima (Northwest Pacific Ocean)

NASA Measures Extreme Rainfall With Typhoons Sarika and Haima

Two powerful typhoons have hit the Philippines in less than a week. Sarika was followed by Typhoon Haima. Using satellite data, NASA estimated the intense rainfall generated by these two typhoons.

Extreme Rainfall in Typhoons Sarika, Haima

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes, Suomi NPP (National Polar-orbiting Partnership)

Read Full Article

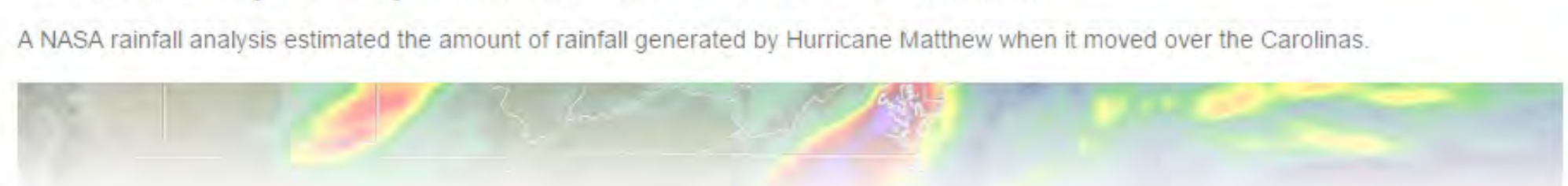
Hurricanes

Oct. 12, 2016

Matthew (Atlantic Ocean)

NASA Adds Up Deadly Hurricane Matthew's Total Rainfall

A NASA rainfall analysis estimated the amount of rainfall generated by Hurricane Matthew when it moved over the Carolinas.



Tags: Earth, Goddard Space Flight Center, GPM (Global Precipitation Measurement), Hazards, Hurricanes, Wallops Flight Facility

Read Full Article

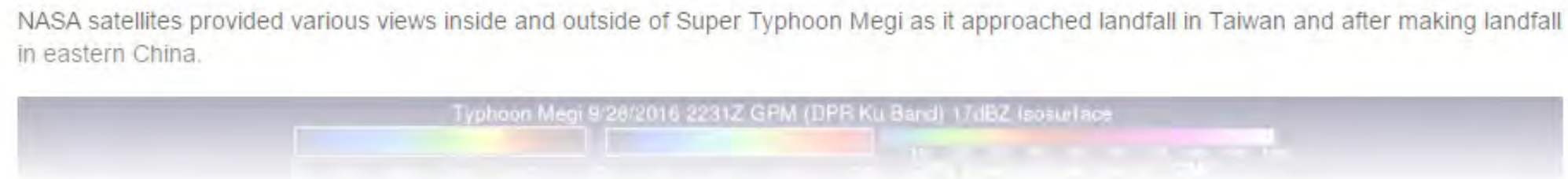
Hurricanes

Sept. 28, 2016

Megi (Northwest Pacific)

NASA Provides Look Inside Super Typhoon Megi

NASA satellites provided various views inside and outside of Super Typhoon Megi as it approached landfall in Taiwan and after making landfall in eastern China.



Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes, Terra Satellite

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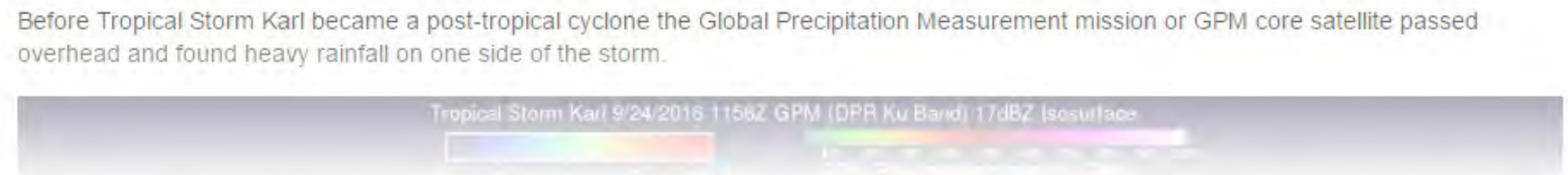
Hurricanes

Sept. 26, 2016

Karl (was TD12- Atlantic Ocean)

NASA's GPM Finds Very Heavy Rain in Part of Transitioning Tropical Cyclone Karl

Before Tropical Storm Karl became a post-tropical cyclone the Global Precipitation Measurement mission or GPM core satellite passed overhead and found heavy rainfall on one side of the storm.



Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes

Read Full Article

Hurricanes

Sept. 20, 2016

Malakas (was 18W - Northwest Pacific Ocean)

NASA Sees Typhoon Malakas Battering Southern Japan

After causing high winds and heavy rainfall over northern Taiwan, Typhoon Malakas on Sept. 19 started to batter the islands of southern Japan. The GPM core observatory satellite passed above Typhoon Malakas twice that day and gathered important rainfall and storm data.

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes, Terra Satellite

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Hurricanes

Sept. 16, 2016

Orlene (Eastern Pacific)

NASA Gives Post-Tropical Cyclone a 3-D CAT Scan

Tropical Cyclone Orlene faded into hurricane history on Saturday, Sept. 17 in the Eastern Pacific Ocean. However, two days before its demise the Global Precipitation Measurement mission or GPM core satellite gave it a digital CAT scan that showed the structure of the precipitation within the storm.

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes

Read Full Article

Hurricanes

Sept. 8, 2016

Hermine - (Formerly Tropical Depression 09 - Atlantic Ocean)

NASA Takes Parting Look at Hermine

Satellite imagery showed that Post-Tropical Cyclone Hermine was just a swirl of clouds with no rainfall off the coast of southeastern Massachusetts on Thursday, Sept. 8. Just two days earlier, the GPM satellite saw that Hermine was still generating some rainfall.

A 3-D Look at Post-Tropical Cyclone Hermine

Tags: Earth, Goddard Space Flight Center, GOES (Geostationary Environmental Operational Satellites), GPM (Global Precipitation Measurement), Hazards, Hurricanes

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Hurricanes

Aug. 24, 2016

Tropical Storm Kay (Eastern Pacific)

The GPM Satellite Sees Tropical Depression Kay Fading into History

The remaining traces of rainfall in weakening Tropical Depression Kay was in a small area when the Global Precipitation Measurement mission or GPM core satellite passed overhead early on Aug. 23.

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes

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Hurricanes

Aug. 10, 2016

Javier (Eastern Pacific Ocean)

Satellite Sees Remnants of Tropical Depression Javier

Tropical Depression Javier weakened to a remnant low-pressure area on Aug. 9 at 5 p.m. EDT (2100 UTC). NOAA's GOES-West satellite showed the remnants over Baja California, Mexico, and the Gulf of California.

The National Hurricane Center (NHC) noted in the Eastern Pacific discussion on Aug. 10 that "Satellite-derived winds and surface observations indicate winds in the vicinity of Javier have decreased to 15 knots or less. The same satellite-derived wind imagery indicates

Tags: GOES (Geostationary Environmental Operational Satellites), GPM (Global Precipitation Measurement), Hazards, Hurricanes, Suomi NPP (National Polar-orbiting Partnership)

Read Full Article

Hurricanes

July 27, 2016

Darby (Eastern Pacific)

NASA's IMERG Shows Darby's Rainfall Over The Hawaiian Islands

Most of the Hawaiian Islands were spared serious damage from Tropical Storm Darby. NASA estimated the rainfall left behind from the storm and found more than a foot and half fell north of Oahu.

The location of Darby's track through the Hawaiian Islands resulted in the islands of Hawaii and Oahu being the most affected. Flash flooding was common on Oahu due to a reported 177.8 mm (7 inches) of rain drenching the island. Interstate H-1 was flooded in some locations.

Tags: Earth, Goddard Space Flight Center, GPM (Global Precipitation Measurement), Hazards, Hurricanes

Read Full Article

Hurricanes

July 20, 2016

Abela (Southern Indian Ocean)

NASA Looks at Tropical Cyclone Abela in 3-D

Satellite data enables scientists to look at tropical cyclones in three dimensions and that provides information about rainfall rates and cloud heights.

Tropical cyclone 01S (ABELA) 7/18/2016 2206Z GPM (DPR Ku Band) 15dBZ Isosurface

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes

Read Full Article

Hurricanes

July 12, 2016

Nepartak (NW Pacific Ocean)

NASA IMERG Finds Typhoon Nepartak Dropped Almost 20 Inches of Rain

Nepartak was a powerful category four tropical typhoon when it hit Taiwan last week but weakened to a tropical storm as it moved into the Taiwan Strait. NASA calculated the heavy rainfall the typhoon brought to Taiwan and China before it dissipated over southeastern China.

Tags: GPM (Global Precipitation Measurement), Hazards, Hurricanes

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Hurricanes

June 22, 2016

Danielle (N. Atlantic Ocean)

NASA Sees Tropical Storm Danielle Ending Over Mexico

Tropical Storm Danielle started weakening after making landfall north of Tuxpan, Mexico on Monday evening at 7 p.m. CDT. As Danielle weakened the low level circulation quickly became disorganized. The Global Precipitation Measurement or GPM mission core satellite looked at the quickly weakening storm's rainfall.

Tropical Storm Danielle 6/21/2016 1646Z GPM (DPR Ku Band) 15dBZ Isosurface

Tags: Goddard Space Flight Center, GPM (Global Precipitation Measurement), Hazards, Hurricanes

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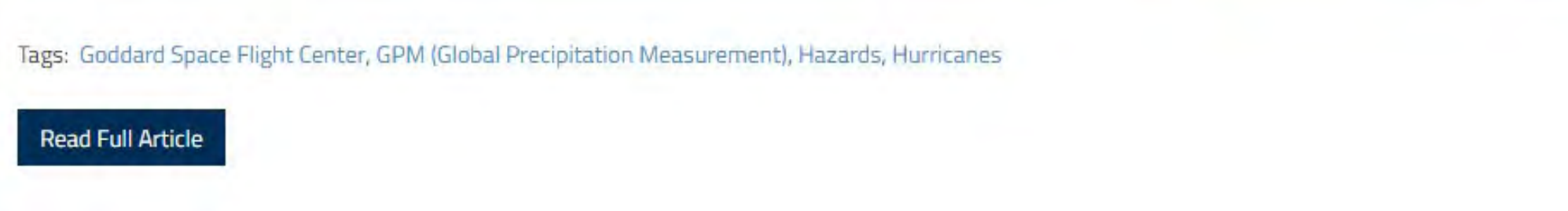
Hurricanes

June 9, 2016

Colin (was TD3) - North Atlantic Ocean/Gulf of Mexico

NASA Examined Tropical Storm Colin's Heavy Rainfall from Space

Data from NASA's Integrated Multi-satellitE Retrievals for GPM (IMERG) were used to estimate rainfall from Tropical Storm Colin over a two day period before it dissipated.



Tags: Goddard Space Flight Center, GPM (Global Precipitation Measurement), Hazards, Hurricanes

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