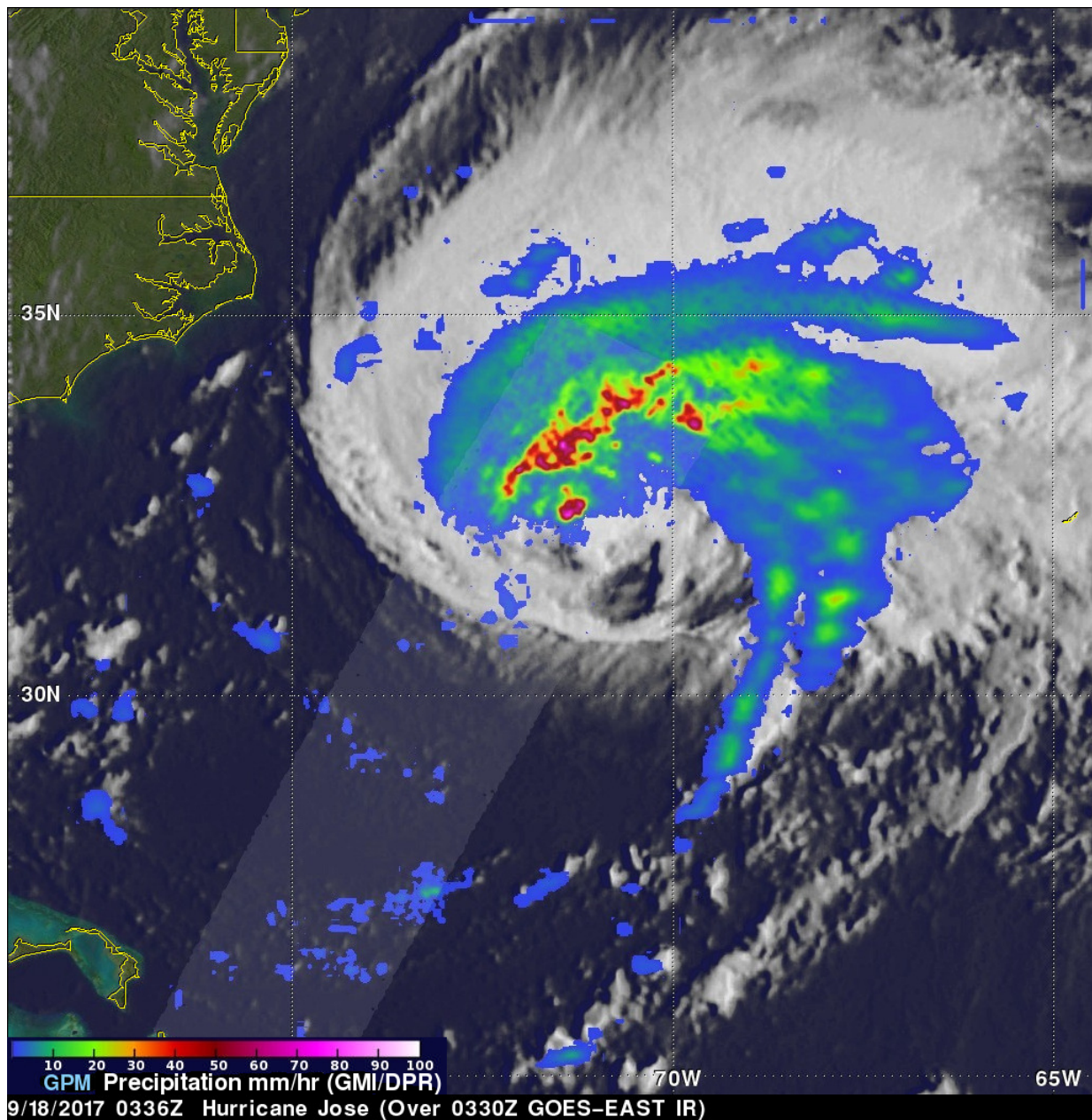


NASA tracking Jose meandering off US East Coast

September 19 2017



GPM captured this image of Jose overnight on Sept. 18 at 3:36 UTC (Sept. 17 at 11:36 p.m. EDT) well off shore from the coast of North Carolina. Rain rates derived from the GPM's GMI (outer swath) and DPR (inner swath) overlaid were on enhanced infrared data from NOAA's GOES-East satellite. Jose is asymmetric, and most rain is located north of the center. Heaviest rain at 75 mm/hr (~3 inches per hour) appear in magenta. Credit: NASA/JAXA, Hal Pierce

Jose has been a named storm for nearly two weeks now as it continues to slowly move northward off the U.S. East Coast east of the Outer Banks of North Carolina. NASA's GPM satellite and NOAA's GOES East satellites have provided a look at the rainfall and movement of this long-lived storm.

The National Hurricane Center noted on Sept. 19 that Jose is expected to produce dangerous surf and rip currents along the East coast of the United States for several more days. A Tropical Storm Warning is in effect for Watch Hill, North Carolina to Hull, Block Island, Martha's Vineyard and Nantucket.

A Tropical Storm Watch is in effect for the coast of Long Island from Fire Island Inlet to Port Jefferson and from New Haven, Conn. to Watch Hill, Rhode Island.

Jose's Hurricane History

At one time, Jose was a powerful category 4 border line category 5 storm with maximum sustained winds at 155 mph as reported by the National Hurricane Center on September 9 as it was approaching the northern Leeward Islands. Jose passed northeast of the Leeward Islands as a category 4 storm on a northwest track and then began to weaken due to

the effects of northerly [wind shear](#). Jose then made a counterclockwise loop about midway between the southern Bahamas and Bermuda. During this time, Jose continued to weaken down to tropical storm intensity. Remaining over warm water allowed Jose to strengthen back into a [hurricane](#) on Sept. 15 as [wind](#) shear across the storm diminished. At this time, Jose was still only midway between the central Bahamas and Bermuda, having just completed its loop, and moving to the northwest. On Sept. 16, Jose turned northward as it moved around the western edge of a ridge of high pressure near Bermuda and began to parallel the U.S. East Coast well away from shore.

A Look at Jose's Rainfall

The Global Precipitation Measurement mission or GPM core satellite captured an image of Jose overnight at 3:36 UTC on Sept. 18 (11:36 p.m. EDT, Sept. 17) as the storm was moving due north at 9 mph well off shore from the coast of North Carolina. To create a total picture of Jose and its rainfall locations, GPM's GMI and DPR instruments provided rainfall data that was overlaid on enhanced infrared imagery from the GOES-East satellite that showed the clouds of the storm.

Although Jose was still a hurricane with [maximum sustained winds](#) reported near 90 mph by Hurricane Hunters, GPM reveals that Jose is rather asymmetric with most of the rain located north of the center as a result of strong southwesterly wind shear. Within this convective band there are still areas of very heavy rain on the order of 75 mm/hr (~3 inches per hour). GPM is a joint mission between NASA and the Japanese space agency JAXA.

Animating Jose's Meandering Track

At NASA's Goddard Space Flight Center in Greenbelt, Maryland, the NASA/NOAA GOES Project created an animation of NOAA's GOES

East satellite imagery from Sept. 17 at 7:30 a.m. EDT (1130 UTC) to Sept. 19 ending at 7:30 a.m. EDT (1130 UTC). The animation shows Hurricane Jose slowly moving north over two days while remaining over 200 miles off shore from the Carolinas.

The GOES East satellite imagery shows that Jose is a large tropical cyclone. The National Hurricane Center (NHC) noted that hurricane-force winds extend outward up to 45 miles (75 km) from the center and tropical-storm-force winds extend outward up to 310 miles (500 km).



This image of Hurricane Jose off the US East Coast on Sept. 19 at 10 a.m. EDT was taken from NOAA's GOES East satellite. Credit: NASA/NOAA GOES

Project

A ship located more than 200 miles southwest of the center of Jose recently reported a sustained wind of 40 mph (65 kph), and NOAA Buoy 44014, located east of the Virginia-North Carolina border or about 160 miles west of the center, also reported a sustained wind of 40 mph (65 kph).

Jose's Location on Sept. 19

At 8 a.m. EDT (1200 UTC), the center of Hurricane Jose was located by an Air Force Reserve hurricane hunter aircraft near 36.3 degrees north latitude and 71.6 degrees west longitude. That's about 235 miles (380 km) east-northeast of Cape Hatteras, North Carolina and 350 miles (560 km) south-southwest of Nantucket, Mass.

Jose is moving toward the north near 9 mph (15 kph). NHC said this general motion is expected to continue through today with a turn to the northeast anticipated tonight. On the forecast track, the center of Jose is forecast to pass well offshore of the Delmarva peninsula later today, pass well to the east of the New Jersey coast on Wednesday, and pass offshore of southeastern Massachusetts by Thursday, Sept. 21.

Maximum sustained winds remain near 75 mph (120 kph) with higher gusts. Little change in strength is expected today, but Jose should begin to gradually weaken on Wednesday.

Although the center of Jose is not forecast to make landfall, the storm is bringing dangerous surf and rip currents to the U.S. East Coast, and tropical [storm](#) watches and warnings have been issued by the National Hurricane Center from the Jersey shore up the coast, including Long

Island, and through Cape Cod where winds are expected to reach [tropical storm](#) strength.

As Jose continues northward, it should continue to lose strength as it moves over cooler waters north of the Gulf Stream and should begin to lose some of its tropical characteristics. However, by the end of the week, what's left of Jose could once again be left meandering somewhere southeast of the New England Coast as steering currents are forecast to weaken.

Provided by NASA's Goddard Space Flight Center

Citation: NASA tracking Jose meandering off US East Coast (2017, September 19) retrieved 9 April 2024 from <https://phys.org/news/2017-09-nasa-tracking-jose-meandering-east.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--