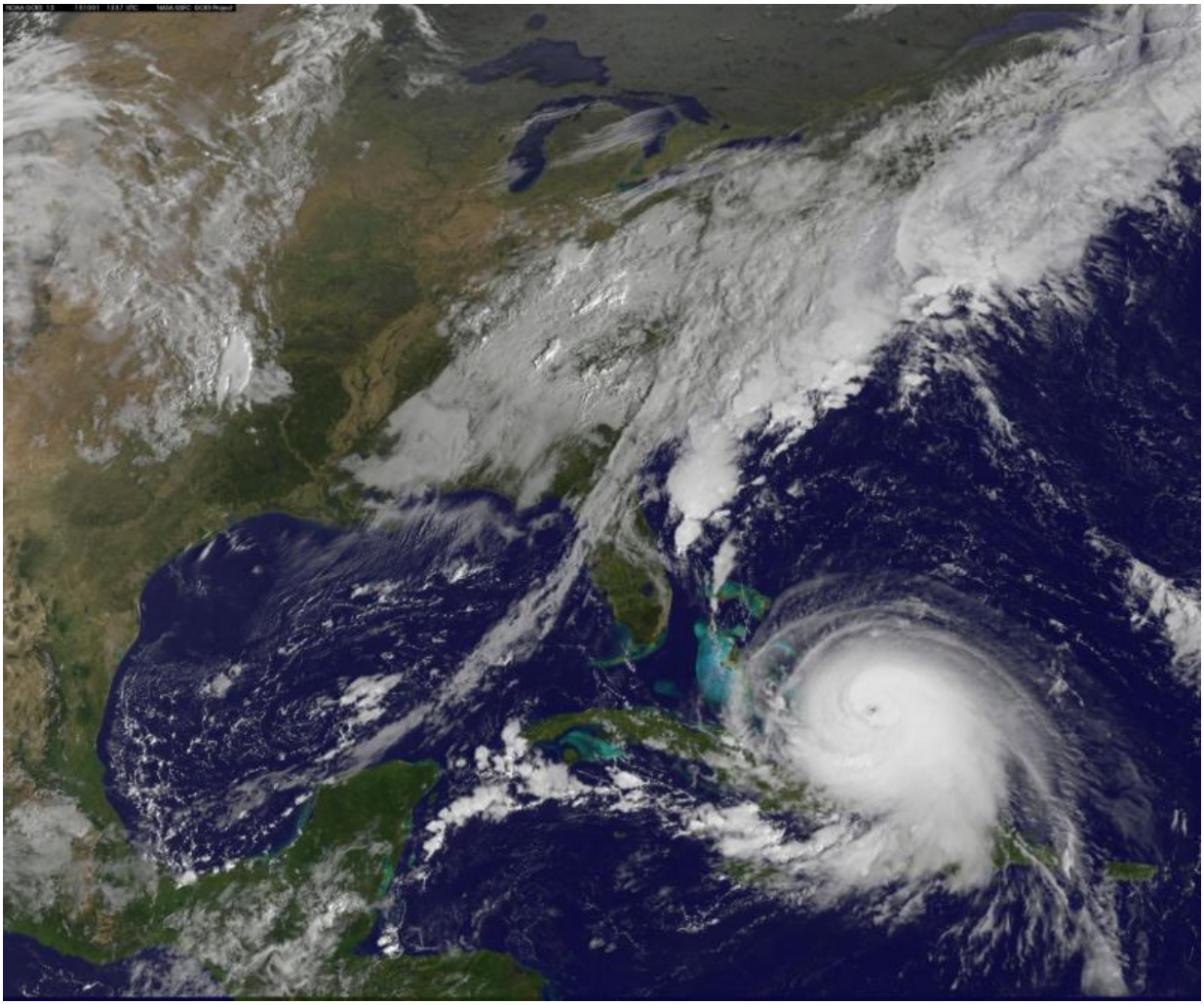
NASA provides various views of Hurricane Joaquin

October 1 2015, by Rob Gutro



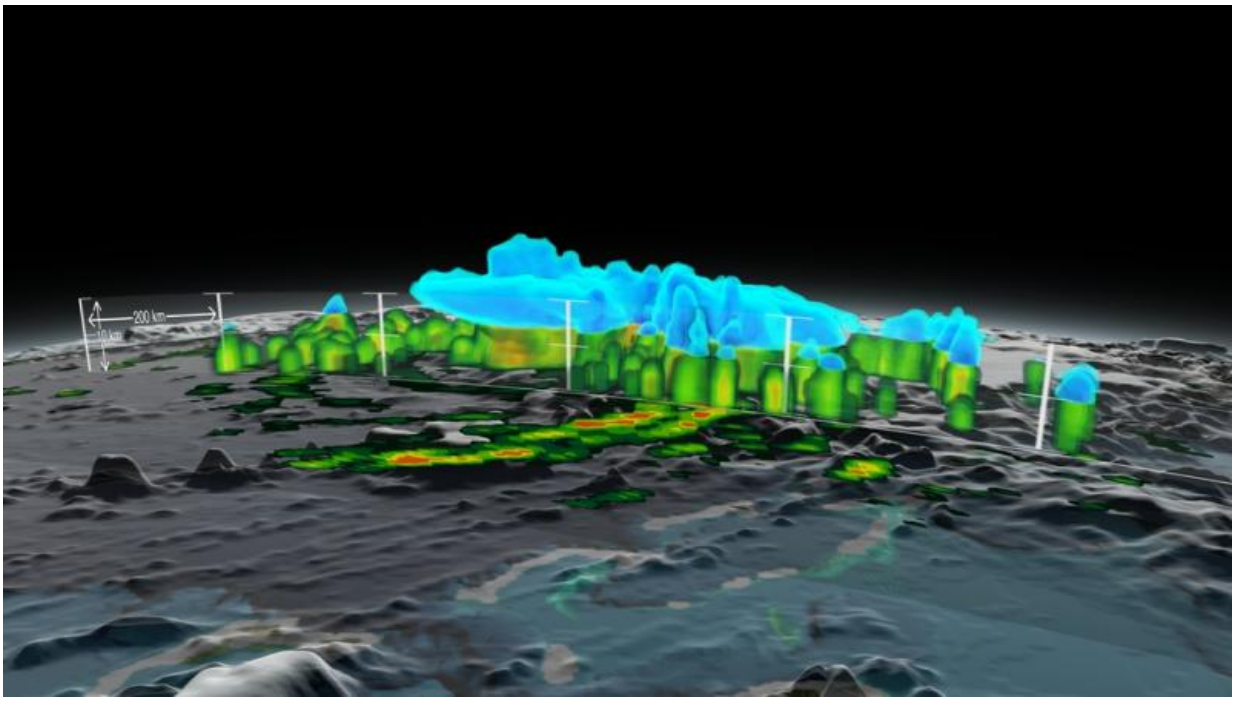
NOAA's GOES-East satellite captured this visible image of Hurricane Joaquin affecting the Bahamas on Oct. 1 at 1255 UTC. Credit: NASA/NOAA GOES Project

Hurricane Joaquin continued to intensify in the Bahamas on October 1 and NASA and NOAA satellites have been providing valuable data on the storm. NASA's GPM and Terra satellites and NOAA's GOES-East satellite provided rainfall, cloud extent, cloud height and other data to forecasters. Joaquin became a major hurricane today, October 1, reaching Category 3 status on the Saffir-Simpson Wind Scale.

NASA/JAXA's GPM satellite provided a 3-D side view of Tropical Storm Joaquin on Sept. 29 showing the internal precipitation structure. The image showed very high thunderstorms with frozen precipitation in the cloud tops. Those storms were dropping heavy rainfall. GPM data identified the areas of heaviest precipitation in Joaquin.

On Sept. 30 at 15:45 UTC (11:45 a.m. EDT) the Moderate Resolution Imaging Spectroradiometer or MODIS instrument aboard NASA's Terra satellite saw Hurricane Joaquin off the Bahamas. The visible image showed that an eye was beginning to form and that bands of thunderstorms were wrapping into the low-level center from the south.

On October 1 at 1330 UTC (9:30 a.m. EDT) NOAA's GOES-East satellite captured this visible image of Hurricane Joaquin covering the southern Bahamas and extending over southeastern Cuba, and the island of Hispaniola (which includes Haiti and the Dominican Republic). Joaquin's eye had become completely visible now that the storm had reached Category 3 status.



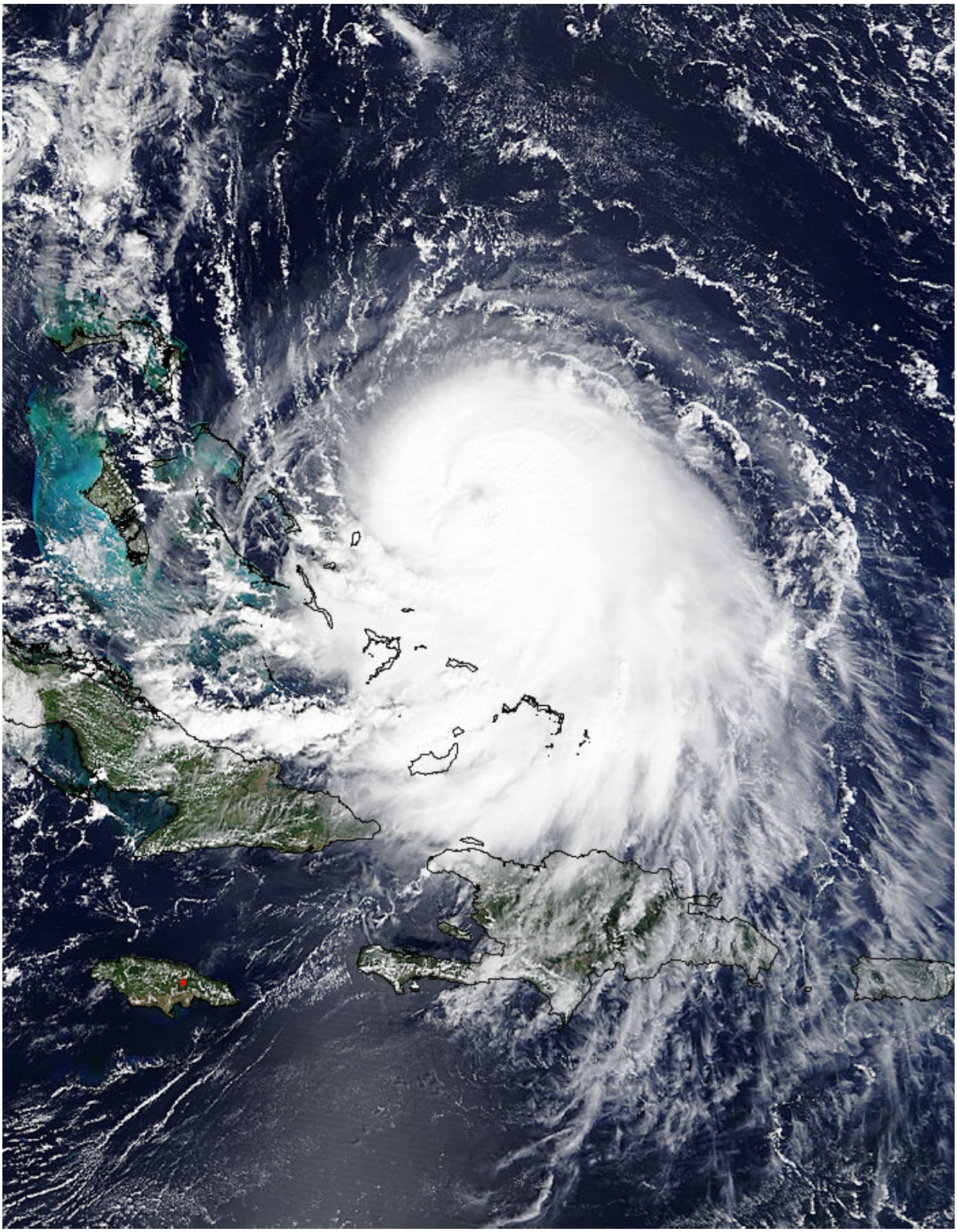
NASA/JAXA's GPM satellite provided a 3-D side view of Tropical Storm Joaquin on Sept. 29 showing the internal precipitation structure. The areas in blue are frozen precipitation. Areas in green and red are liquid precipitation. Credit: Scientific Visualization Studio, NASA's Goddard Space Flight Center

On October 1, a Hurricane Warning was in effect for the Central Bahamas, Northwestern Bahamas including the Abacos, Berry Islands, Eleuthera, Grand Bahama Island, and New Providence, The Acklins, Crooked Island, and Mayaguana in the southeastern Bahamas. A Hurricane Watch was in effect for Bimini and Andros Island, and a Tropical Storm Warning was in effect for the remainder of the southeastern Bahamas excluding the Turks and Caicos Islands and Andros Island.

According to NHC, at 8 a.m. EDT (1200 UTC), the center of Hurricane Joaquin was located near latitude 23.2 North, longitude 73.7 West.

That's just 10 miles (15 km) north of Samana Cays, Bahamas and about 75 miles (120 km) southeast of San Salvador, Bahamas.

Joaquin was moving toward the west-southwest near 5 mph (7 kph), and this motion is expected to continue today. NHC noted that a turn toward the west- northwest is forecast tonight (Oct. 1), followed by a turn toward the north and an increase in forward speed on Friday, Oct. 2. On the forecast track, the center of Joaquin will move near or over portions of the central Bahamas today and tonight and pass near or over portions of the northwestern Bahamas on Friday.



On Sept. 30 at 15:45 UTC (11:45 a.m. EDT) the MODIS instrument aboard

NASA's Terra satellite saw Hurricane Joaquin (11L) off the Bahamas. Credit: NASA Goddard MODIS Rapid Response Team

Maximum sustained winds are near 120 mph (195 km/h) with higher gusts. Joaquin is a category 3 hurricane on the Saffir-Simpson Hurricane Wind Scale. Some strengthening is forecast in the next day or so, with some fluctuations in intensity possible on Friday. Hurricane force winds extend outward up to 35 miles (55 km) from the center and tropical storm force winds extend outward up to 140 miles (220 km).

The minimum central pressure just extrapolated by an Air Force Reserve Hurricane Hunter aircraft is 942 millibars.

Provided by NASA's Goddard Space Flight Center

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