

# Hurricane and rainstorm are locked in a dangerous dance

October 1 2015, by Seth Borenstein

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This satellite image taken Thursday, Oct. 1, 2015 at 9:37 a.m. EDT, and released by the National Oceanic and Atmospheric Administration (NOAA), shows Hurricane Joaquin. The powerful Category 4 hurricane pounded lightly

populated islands of the eastern Bahamas on Thursday, and forecasters said it could grow more intense while following a path that would near the U.S. East Coast by the weekend. (NOAA via AP)

Hurricane Joaquin is locked in a dance with an extraordinarily heavy rainstorm that is already drenching the Carolinas. As the two draw closer together over the next few days, the effects could be disastrous for the East Coast.

The rainstorm is the dance partner that is leading this tango, and what it does will determine where Joaquin goes and how much of the coast floods. Storm No. 1 could push Joaquin out to sea or pull it into the heavily crowded Northeast.

At the same time, Joaquin is feeding the storm with moisture, contributing to its torrential rain.

Meteorologists are deeply uncertain about where Joaquin will go. But they warn that the record-breaking downpours from storm No. 1 are a sure and scary thing, at least for an area stretching from South Carolina to Washington.

Joaquin strengthened over the Bahamas into a powerful Category 4 storm with 130 mph winds Thursday, and computer models over the past two days have switched back and forth, sometimes showing it blowing ashore along the East Coast, sometimes showing it peeling out to sea.

The latest National Hurricane Center forecast on Thursday evening had Joaquin continuing to veer away from the Southeast coast and heading toward the Cape Cod area of Massachusetts, though probably more eastward.

The out-to-sea scenario was looking more and more likely, which could spare the Northeast from drenchings as bad as those seen in the South, where flooding has submerged cars, shut down roads and led to at least one death in South Carolina.

It's a messy picture, no matter what happens.



This satellite image taken Thursday, Oct. 1, 2015 at 8 a.m. EDT, and released by the National Oceanic and Atmospheric Administration (NOAA), shows Hurricane Joaquin. The powerful Category 4 hurricane pounded lightly populated islands of the eastern Bahamas on Thursday, and forecasters said it could grow more intense while following a path that would near the U.S. East Coast by the weekend. (NOAA via AP)

"The worst-case scenarios are very worrisome, and the best-case scenario is pretty bad even without a landfall because of the rain threat," said Marshall Shepherd, a University of Georgia meteorology professor and host of the TV show "Weather Geeks."

Meteorologists are warning people not to focus solely on the hurricane's position. Streets and homes can still get walloped with rain and flooding associated with the hurricane even if it is 1,000 miles away. And because Joaquin can keep funneling tropical moisture into storm No. 1 from afar, even an out-to-sea Joaquin can worsen flooding.

"I know we like to focus on the hurricane," said David Novak, director of the National Oceanic and Atmospheric Administration's Weather Prediction Center in College Park, Maryland. But whatever track Joaquin takes, "we're becoming increasingly confident and concerned about the heavy rainfall."

The system that is drenching the coast is a strange combination of conditions that Novak said he hasn't seen before. It's a low-pressure system 10,000 to 12,000 feet high that is unusual and deep for this time of year. And it's not moving anywhere, so it can keep on dumping rain.

Storm No. 1 stretches from Florida to Canada on the weather map, resembling a giant hockey stick. That makes Joaquin the puck.

Ryan Maue, a meteorologist at the private Weather Bell Analytics, is predicting the entire state of South Carolina will average 10 inches of rain, while North Carolina and Maryland will average 7 inches. Novak is a little less rain-heavy, saying parts but not all of South Carolina will get 10 inches.

Some forecasts see spots with nearly a foot and a half of rain, enough to cause extremely dangerous flooding, the kind that can push cars around, Maue said.

"This is as bad as it gets. This is going to be historical flooding," he said.

One of the problems in forecasting Joaquin is that for a powerful storm,

it isn't moving much at the moment. It's sort of adrift, and that's kind of unusual, said Brian McNoldy, a researcher at the University of Miami.

The hurricane center said it expects the storm to gain a bit more strength, thanks to record warm water, before weakening in the Atlantic's colder reaches.

The computer models have had a hard time with this storm. On Wednesday, only the European [computer model](#) predicted Joaquin pushing out to sea, while the others said it would aim toward the U.S. coast. The European model has been the best [storm](#) predictor of recent years.

Then overnight and on Thursday, more computer simulations joined the European model in forecasting a push away from the coast. By Thursday afternoon, only a few stragglers of the computer models predicted the hurricane would blow ashore, Maue said.

Craig Fugate, chief of the Federal Emergency Management Agency, said FEMA is deploying staff from the Carolinas to New England just in case.

"If you don't have a plan, you wait to the last minute, and you run out of options," he said. "That's a very scary event for you and your family. Don't put yourself in that situation. Respect the power and danger of these storms."

**More information:** National Hurricane Center: [www.nhc.noaa.gov](http://www.nhc.noaa.gov)

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