

Sandy: Losing tropical nature, but gaining girth

October 30 2012, by Seth Borenstein



This NOAA satellite image taken Monday, Oct. 29, 2012 shows Hurricane Sandy off the Mid Atlantic coastline moving toward the north with maximum sustained winds of 90 mph. Hurricane Sandy wheeled toward land as forecasters feared Monday, raking cities along the Northeast corridor with rain and wind gusts, flooding shore towns, washing away a section of the Atlantic City Boardwalk, and threatening to cripple Wall Street and New York's subway system with a huge surge of corrosive seawater. (AP Photo/NOAA)

(AP)—The storm called Sandy messily morphed from hurricane into hybrid storm, losing the hurricane part of its name, but not the weather mayhem surrounding it.

The National [Hurricane](#) Center officially pronounced the [storm](#) "post-tropical" Monday evening, as the center of Sandy perched 20 miles (32 kilometers) south of Atlantic City, knocking at the coast's door. The change is part of a transition into a more diffuse storm that is bigger and sloppier, even as its force weakened.

Sandy continues to merge with what was once two cold [weather systems](#) already dumping snow in West Virginia, forming what the hurricane center calls post-tropical and others call Frankenstorm or Perfect Storm 2. Whatever name it visits as, it isn't leaving the Eastern U.S. anytime soon.

The storm lost its status as hurricane because it no longer has a warm core center nor the convection—the upwards air movement in the eye—that traditional hurricanes have, but it is still as dangerous as it was when it was considered a hurricane, according to National Hurricane Center spokesman Dennis Feltgen. It tipped into the post-tropical category because it has become "devoid of thunderstorms near the center," said Ed Rappaport, deputy director of the NHC.

That should mean a storm that is larger in physical dimensions affecting more people, but with weaker peak winds, meteorologists say.

Sandy already had been among the largest-sized hurricanes with tropical force winds that once extended across 1,000 miles (1,600 kilometers) over open ocean. Meteorologist Jeff Masters of Weather Underground said that as a hybrid, Sandy's wind damage will be even wider. High wind warnings extend from the Canadian border to central Florida and from Chicago to Maine, he said. But those winds will be less intense than

those around the eye of a hurricane.

That the storm grew so large Friday, Saturday and Sunday was a sign it was already in the process of merging with the western cold front, experts said.

Its massive girth will extend as far as Chicago, where the National Weather Service already has issued high wind warnings and a lakeshore flood warning for Tuesday and Wednesday. Water may pile up on the south shore of Lake Michigan, Louis Uccellini, director of environmental prediction for the National Oceanic and Atmospheric Administration, said Monday.

That's because of the difference in barometric pressure between the hybrid storm and the nicer weather to the west, Uccellini said.

The transition from tropical to wintery won't affect the massive and life-threatening storm surge expected along the eastern coast, Masters said.

But Sandy hasn't been easy to label, said Chris Landsea, the hurricane center's science officer. Meteorologists had expected Sandy to lose its tropical characteristics before Monday afternoon, but it approached the shoreline with the name hurricane attached even if some parts of didn't act that way.

"It has tropical characteristics right now. It also has extra-tropical characteristics right now," Uccellini said late Monday. "This is not going to be a clean transition, and I can't say there's a textbook explanation for why."

"It's a slow process, it morphs," he said.

Sandy's wind and rain fields aren't showing classic hurricane symmetry

and instead are lopsided. As an example of how this storm has stymied even the experts, the National Hurricane Center for the first time ever included a whole section about snow in its advisory Monday, Landsea said. But at the same time the energy level in the eye was that of a category 1 hurricane.

"Nature doesn't really give a darn what we call it," Landsea said. "The name isn't crucial, but knowing what the winds may be, what the storm surge may be, what the rainfall may be is."

One reason Sandy may have stayed tropical so long was the unusually warm waters of the Gulf Stream, a river of warm water that flows from the Caribbean up into the North Atlantic. It was 5 to 9 degrees warmer than normal for this time of year. And as a tropical system, Sandy fed on those warm waters and kept traveling north, Masters said. That could account for the last-minute boost in speed, too, that Sandy had as it neared shore, accelerating to 28 mph.

But once Sandy speeded up and reached land, it ran into a blocking ridge of air centered over Greenland. That won't let the hybrid storm go too far too fast. It's sort of like accelerating on a road to get stuck in a traffic jam. The weakened storm may still be over Maine on Saturday, Masters said.

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