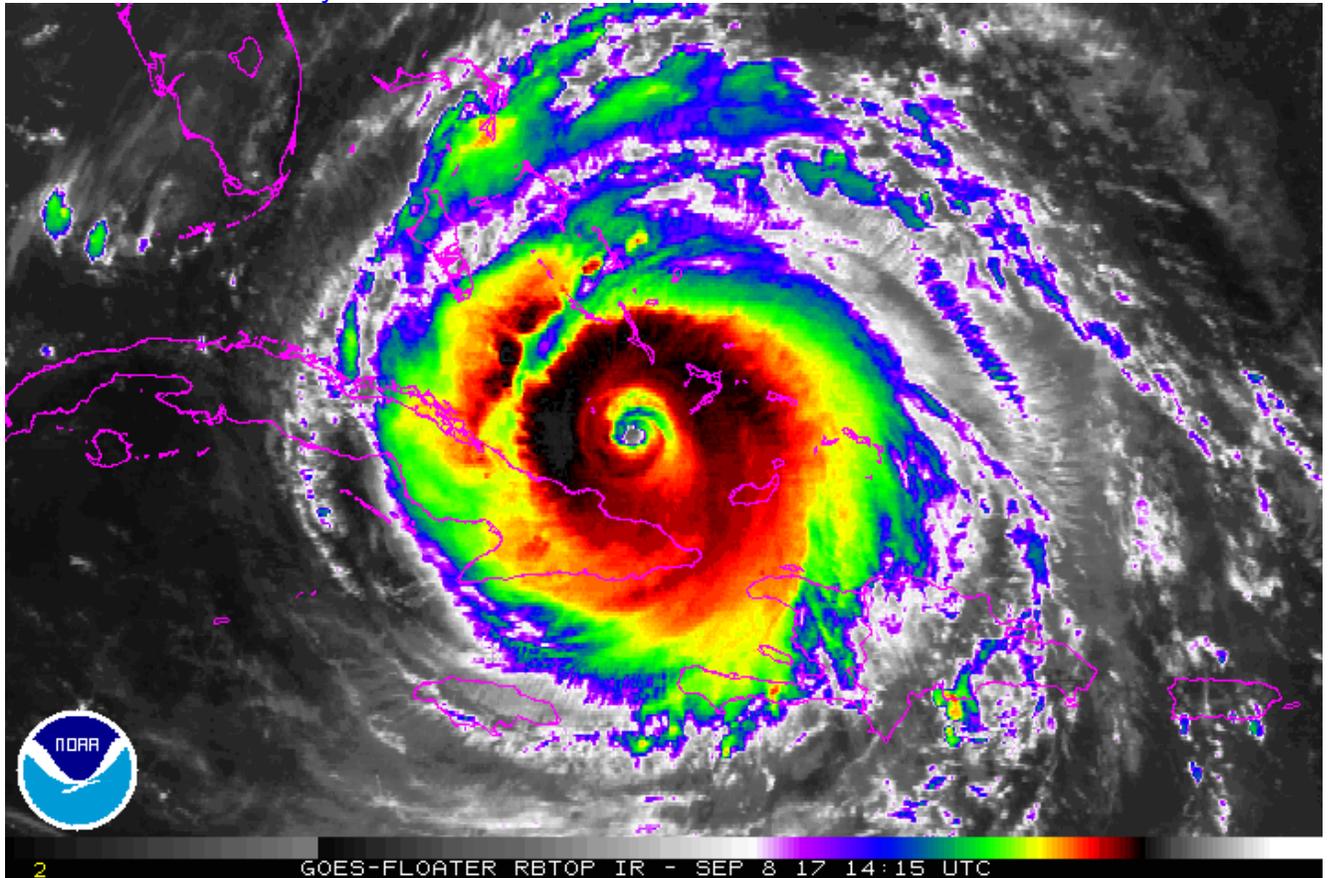


# Extreme Hurricane Irma closing in on Florida a dire threat

By Jason Samenow September 8 at 11:36 AM



(National Hurricane Center)

*(This story will be updated throughout Friday.)*

The extraordinarily large and intense Hurricane Irma is drawing ever closer to South Florida. A hurricane catastrophe has become nearly unavoidable; it's only a matter of what areas are hardest hit and how severely.

The storm is comparable in strength to Hurricane Andrew, which devastated parts of South Florida in 1992, but much larger in size.

Based on the latest computer model projections, it's almost impossible the storm will miss, but it's still uncertain whether the southwest or southeast coast will catch the storm's most destructive brunt, or somewhere in between.

Irrespective of the storm's exact track, hurricane-force winds could blast most if not all of the Florida peninsula.

"Irma is likely to make landfall in Florida as a dangerous major hurricane, and will bring life-threatening wind impacts to much of the state regardless of the exact track of the center," the National Hurricane Center said late Friday morning.

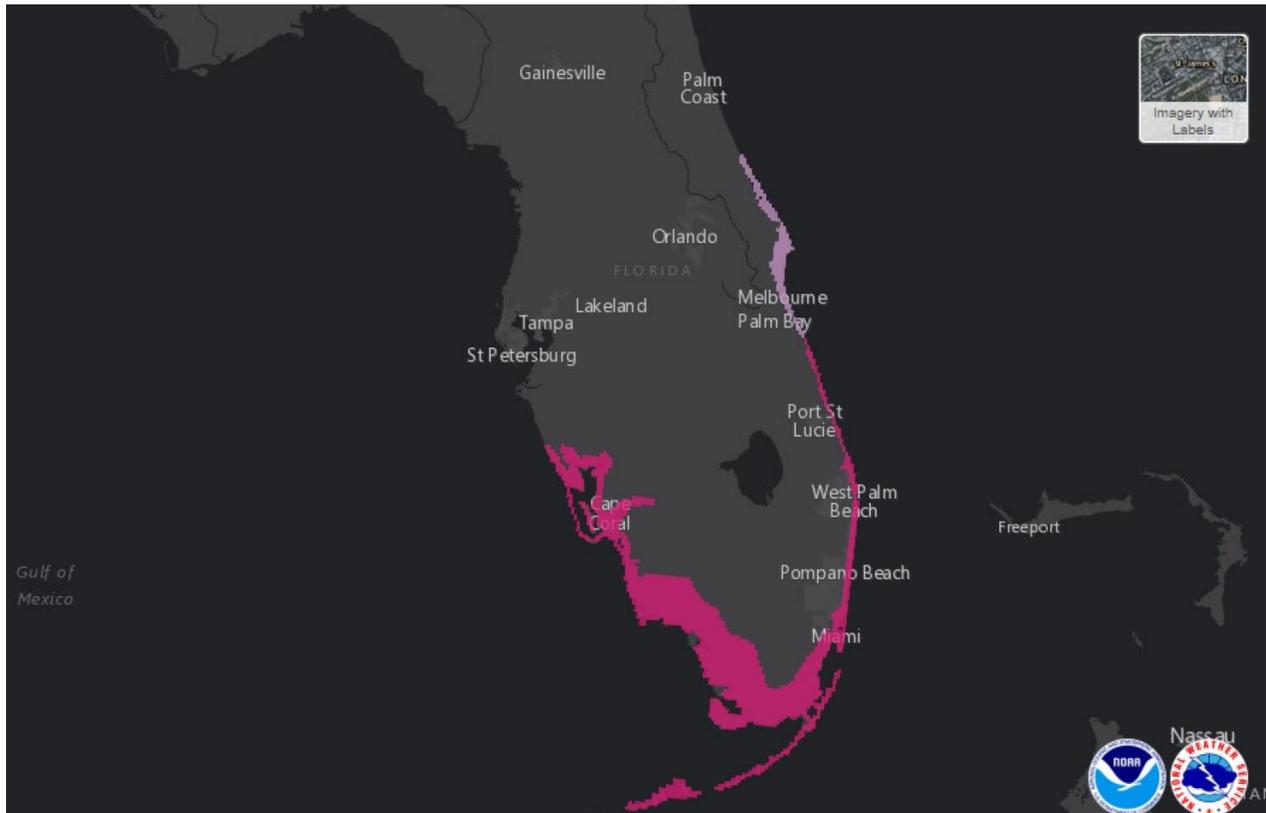
**Florida Gov. on Irma: 'This storm is wider than our entire state'**  
Gov. Rick Scott (R-Fla.) urged residents ordered to evacuate to leave their homes ahead of Hurricane Irma's landfall this weekend.

The Hurricane Center had hoisted hurricane warnings for much of South Florida on both coasts.



Landfall from the storm is most likely to occur sometime Sunday morning, when Irma's destructive winds will move ashore.

A storm-surge warning was also issued for much of the South Florida coastline because of the potential for water to rise up to 6 to 12 feet above normally dry land at the coast. The Hurricane Center said this would bring the risk of “dangerous” and “life-threatening” inundation.



(National Hurricane Center)

“Few people alive have experienced a storm like this,” wrote Bryan Norcross, a hurricane specialist at Weather Channel. “It is reminiscent of the great hurricanes that unleashed their fury on Florida in the first seven decades of the 20th Century.”

**Hurricane Irma's destructive path aimed at Florida and Trump properties**  
Hurricane Irma, the most potent Atlantic Ocean hurricane ever recorded, is expected to make landfall in South Florida over the weekend. Mar-a-Lago, President Trump's waterfront golf club, evacuated ahead of the storm. (Reuters)

By early next week, Georgia and the Carolinas could also be in the storm's crosshairs.

On Friday morning, Irma was passing between the Central Bahamas and the north coast of Cuba as an extremely dangerous Category 4 storm with peak winds of 150 mph. Through Thursday night it had produced Category 5 winds (157 mph+) for two and a half days. The storm was chugging along at 14 mph toward the west-northwest, 405 miles southeast of Miami.

The storm could yet regain Category 5 intensity as it has still to pass over some of the warmest water in the world (nearly 90 degrees). In the unlikely event the center passes over northern Cuba, its circulation would be disrupted by the land mass, which would lead to modest weakening.

The Hurricane Center said to expect fluctuations in the storm's intensity through Sunday but that, in most scenarios, "Irma is expected to remain at least a Category 4 hurricane until landfall in Florida."

It urged residents of Florida to rush preparations to completion.

"This hurricane is as serious as any I have seen," tweeted Eric Blake, a forecaster at the Hurricane Center. "No hype, just the hard facts. Take every life saving precaution you can."

[Three hurricanes are swirling in the Atlantic basin. Here's what to expect.](#)

The Post's Jason Samenow has the latest forecast for Hurricane Irma and tells you what to expect from two other hurricanes, Katia and Jose. (Monica Akhtar/The Washington Post)

Meanwhile, two other hurricanes were intensifying in the eastern Atlantic and southwestern Gulf of Mexico — Jose and Katia. On Saturday, Jose could hit some of the same small islands in the northern Lesser Antilles ravaged by Irma, including Antigua and Barbuda.

### **Tropical triple threat: Hurricanes Jose and Katia could join Irma striking land this weekend**

The Caribbean pummeled by Hurricane Irma as Florida prepares for storm



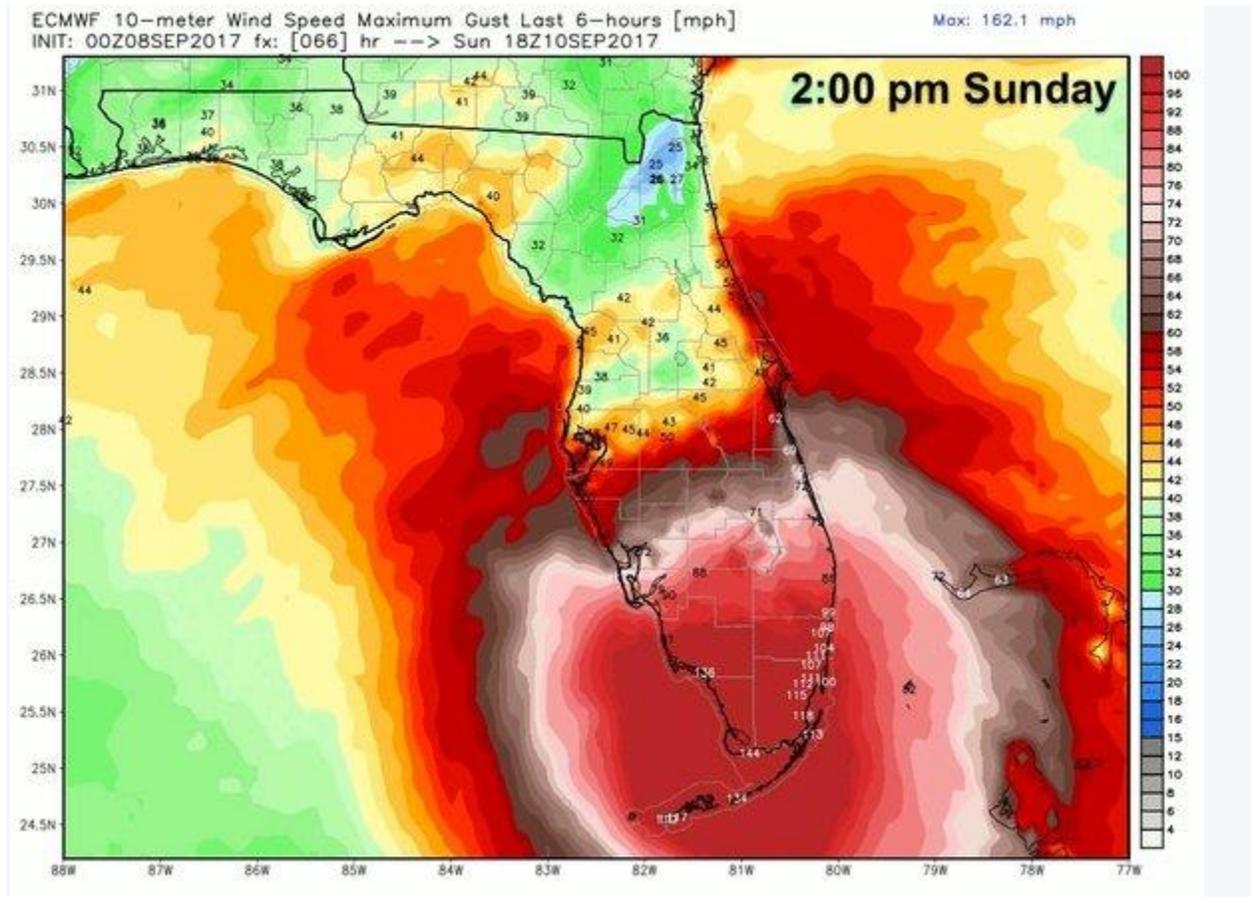
[View Photos](#)

Irma is wielding the most powerful winds ever recorded for a storm in the Atlantic Ocean.

### **Potential effects on Florida**

Several storm scenarios are possible in Florida, depending on the exact track Irma takes, but they are all disastrous due to Irma's size and strength.

Hurricane-force winds expand 70 miles from the center, and tropical-storm-force winds expand 185 miles from the center. This implies that the entire peninsula, which is about 150 miles across, will be exposed to tropical-storm-force winds and most or all of it to hurricane-force winds.



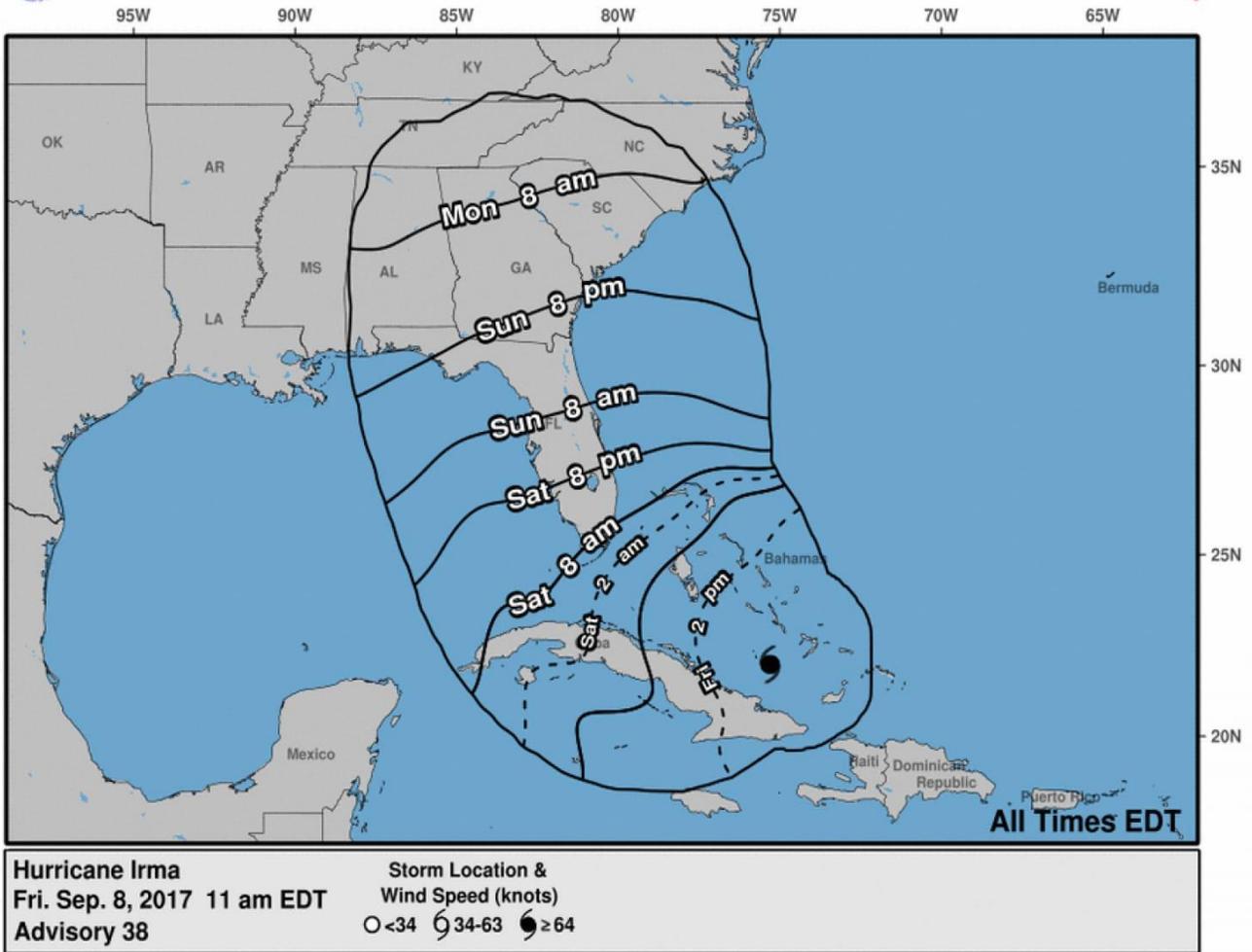
To say Irma's damaging wind field will be expansive is an understatement. Risk for gusts near/over 100 mph almost covers all of Florida. [7:50 AM - Sep 8, 2017](#)

Norcross, the meteorologist who became a hero in South Florida for guiding the region through Hurricane Andrew, called the threat "EXTREME."

Tropical-storm-force winds are expected to reach South Florida by Saturday morning as Irma approaches from the southeast.



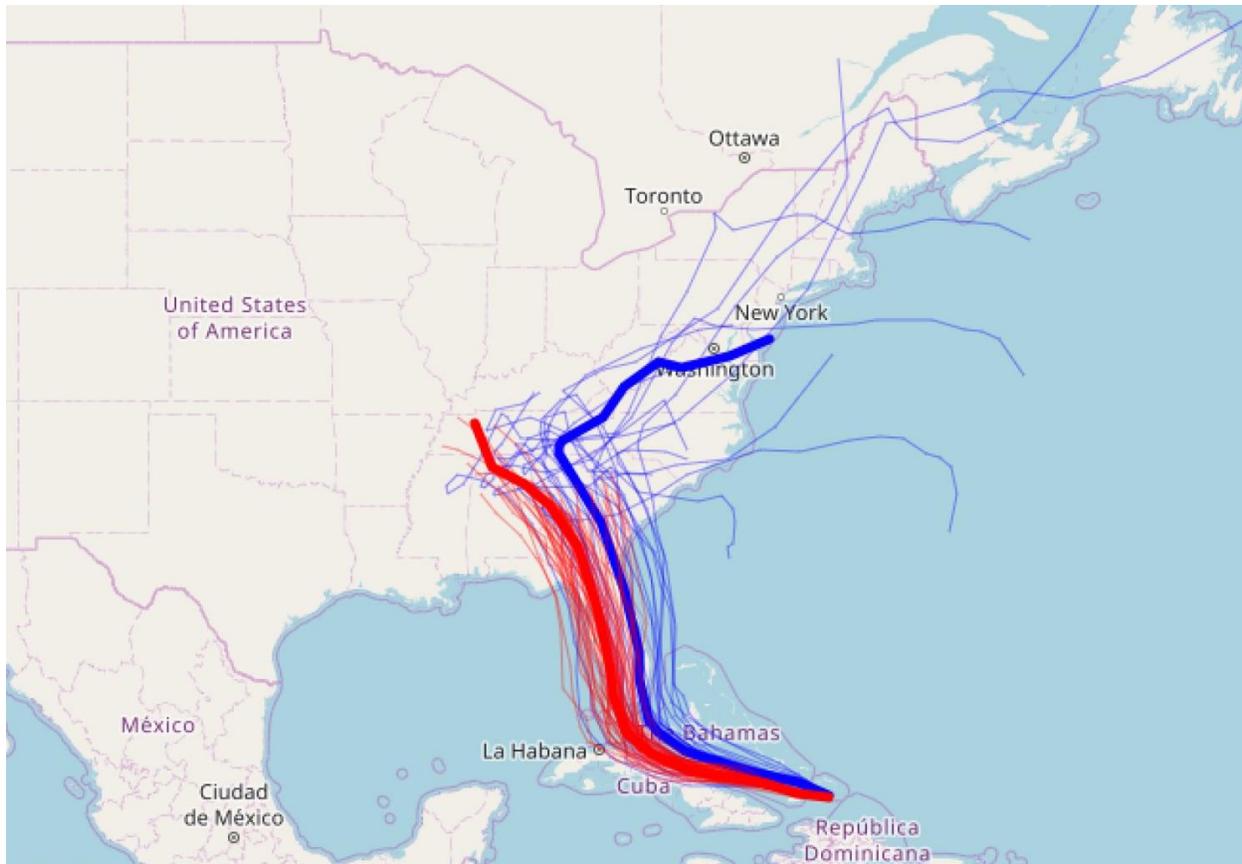
# Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



(National Hurricane Center)

Then, the all-important northward turn is still expected to take place early Sunday, when the storm would make landfall and unleash its worst effects. The most destructive winds and largest storm surge usually focus immediately to the northeast of where the center comes ashore. So exactly where the northward turn occurs is a critical question for Florida.

As of Friday morning, the most likely scenario based on computer-model guidance was that the storm will track right up the spine of Florida.



Group of simulations from American (blue) and European (red) computer models from Thursday night. Each color strand represents a different model simulation with slight tweaks to initial conditions. Note that the strands are clustered together where the forecast track is most confident but they diverge where the course of the storm is less certain. The bold red line is the average of all of the European model simulations, while the blue is the average of all the American model simulations. (StormVistaWxModels.com)

Models, however, can shift. The difference between a track just off the east coast and just off the west coast is only 150 miles, and the average error in hurricane forecasts two days before landfall is about 60 to 75 miles (or half the width of the peninsula). Irma could still reasonably track up either the west or east coast.

If the storm tracks up Florida's east coast, then Miami, Fort Lauderdale, West Palm Beach, Melbourne, Daytona Beach and Jacksonville will take devastating hits. If it runs up the spine of the peninsula, the storm will be quicker to decay, but hurricane-force winds would reach both coasts. If it buzz-saws up the west coast, then Key West, Naples, Fort Myers, Tampa and Tallahassee would face severe effects.

*[Hurricane Irma scenarios for Florida and factors making the forecast a tough call]*

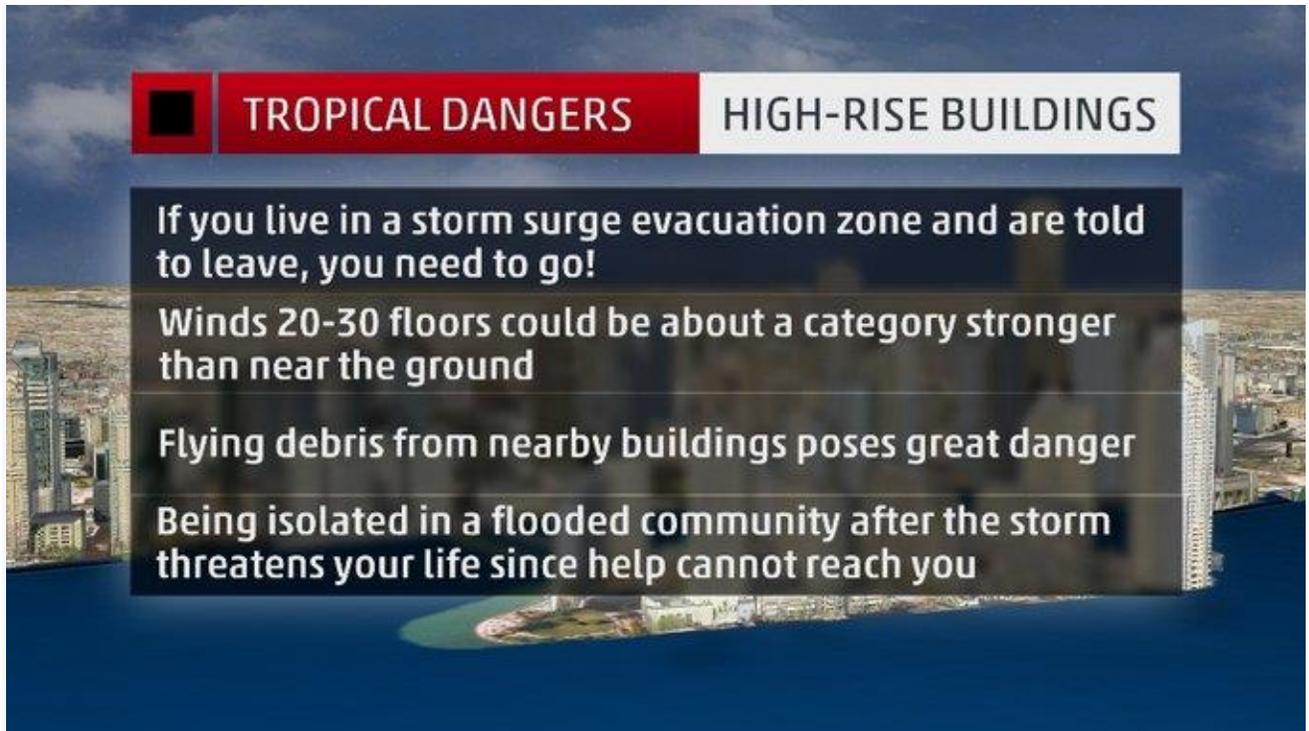
When Irma makes its closest approach to Florida — most likely early Sunday — the Hurricane Center predicts that it will produce Category 4 winds. Here is its description of the kind of damage Category 4 winds would inflict:

Catastrophic damage will occur: Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

Note that such extreme winds are typically confined to the eye wall, which is only about 10 to 15 miles wide. That is why the exact track is important in terms of where the most severe wind damage concentrates.

It's important to note that wind speeds will increase with altitude, so high-rise buildings will be exposed to even stronger winds, up to a hurricane category stronger on the upper floors.

[View image on Twitter](#)



It's not just traditional homes in these evacuation zones! What if you live in a high rise?! It's not as safe as you might think.... #Irma [10:25 PM - Sep 7, 2017](#)  
 Twitter: [AustinRoanPriddy](#)

Due to the likelihood of widespread damaging winds, one model run by researchers at several universities projects that more than 2.5 million customers in Florida and the Southeastern United States will lose power.

**Hurricane Irma Power Outage Prediction**

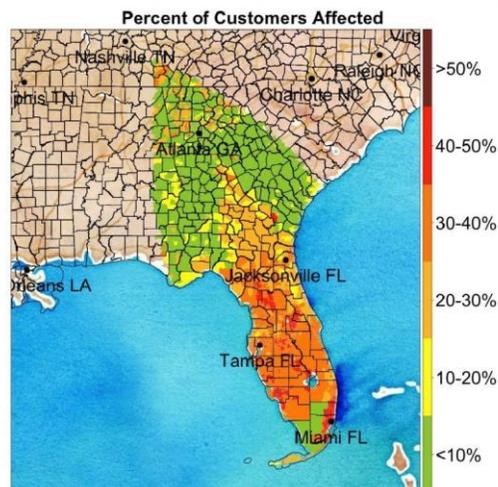
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**2,577,000 Customers Affected**

**THE OHIO STATE UNIVERSITY**

**ATM TEXAS A&M UNIVERSITY**

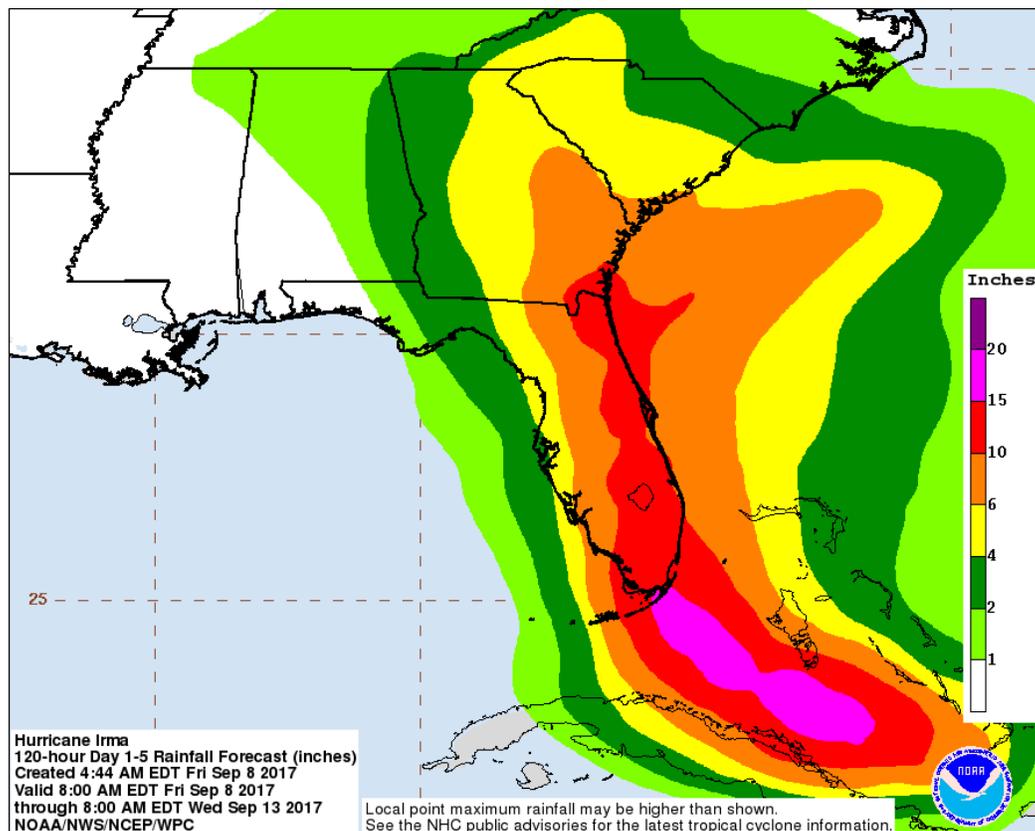
**M UNIVERSITY OF MICHIGAN**



Regardless of exactly where Irma tracks, many coastal population centers in Florida will experience a devastating storm surge of 5 to 10 feet above normally dry land,

inundating roads, homes and businesses. The most severe storm surge will focus immediately northeast of where the storm center crosses land.

Over the Florida peninsula, 8 to 20 inches of rain is forecast, with the heaviest amounts most likely in the southeast.



Rainfall forecast from Irma. (National Hurricane Center)

### Potential effects on Georgia and the Carolina

Beyond Florida, there is a risk for destructive winds and a serious storm surge up to Georgia and the Carolinas, but the details greatly depend on the track over Florida.

“There is a chance of direct impacts in portions of Georgia, South Carolina, and North Carolina, but it is too early to specify the magnitude and location of these impacts,” the Hurricane Center said early Friday.

If Irma rides up the spine of Florida, even though it will lose some strength, its circulation is enormous so it would still likely push a significant storm surge toward the Georgia and South Carolina coasts. Tropical-storm and even hurricane-force winds would also likely affect much of Georgia and perhaps sections of South Carolina (especially the south and southwest).

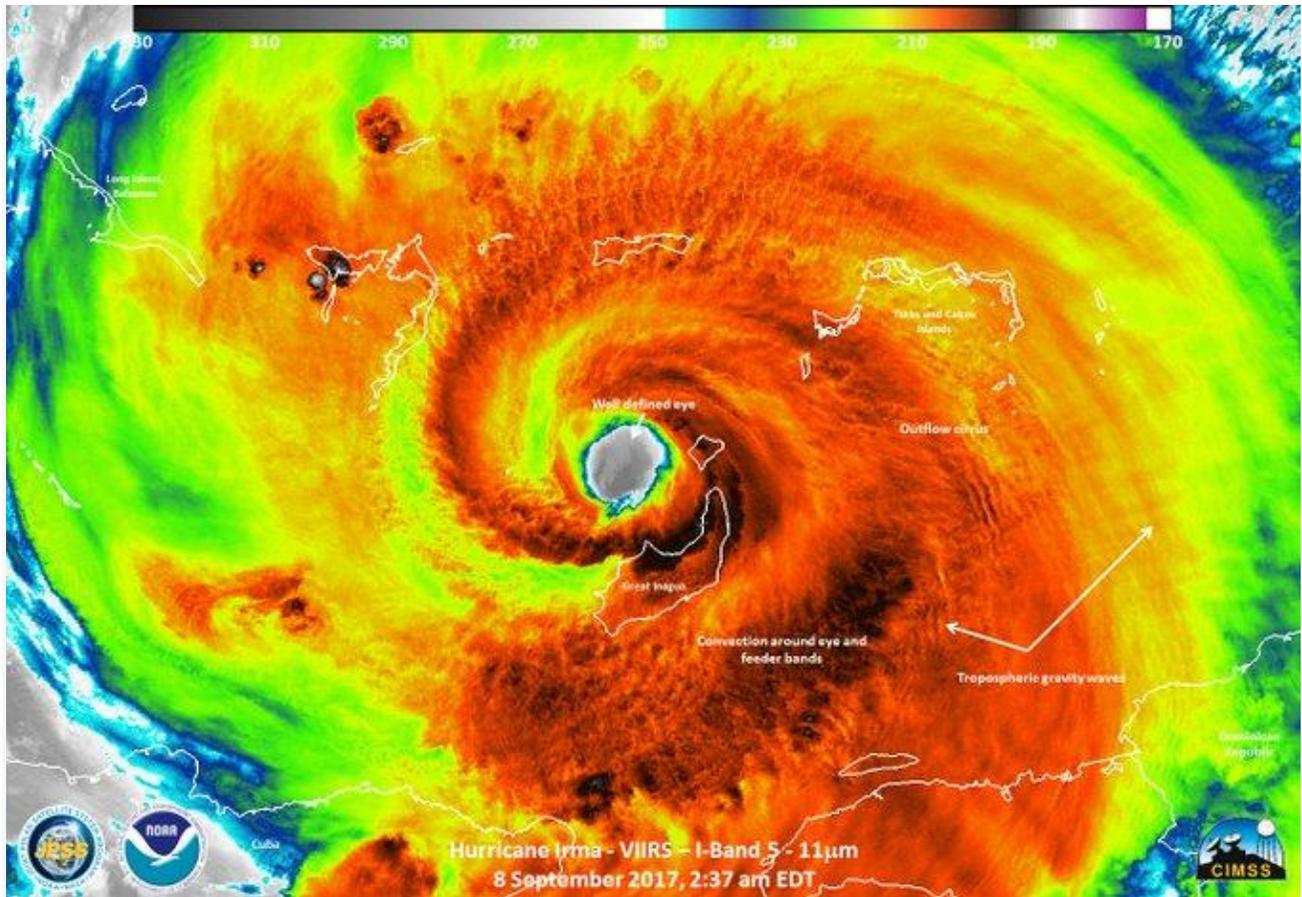
Even a track up the west coast of Florida would likely bring strong winds and surge to the Georgia and Carolina coasts.

The worst case for these states would be if Irma narrowly misses the east coast of Florida, stays over warm water and then hits them while maintaining its strength. A potential landfall along the Southeast coast would be Monday — and would bring a devastating storm surge and destructive winds to coastal locations.

In any of the scenarios, there is the likelihood of very heavy rain over much of Georgia and into the Carolinas, and areas of flash flooding.

### **Irma's path so far**

Thursday evening, the center of the storm passed very close to the Turks and Caicos, producing potentially catastrophic Category 5 winds. The storm surge was of particular concern, as the water had the potential to rise 16 to 20 feet above normally dry land in coastal sections north of the storm center, causing extreme inundation.



The NOAA-NASA Suomi NPP satellite captured this infrared image of Irma at 2:37am ET, Sept. 8, 2017, near Great Inagua Island [9:19 AM - Sep 8, 2017](#)

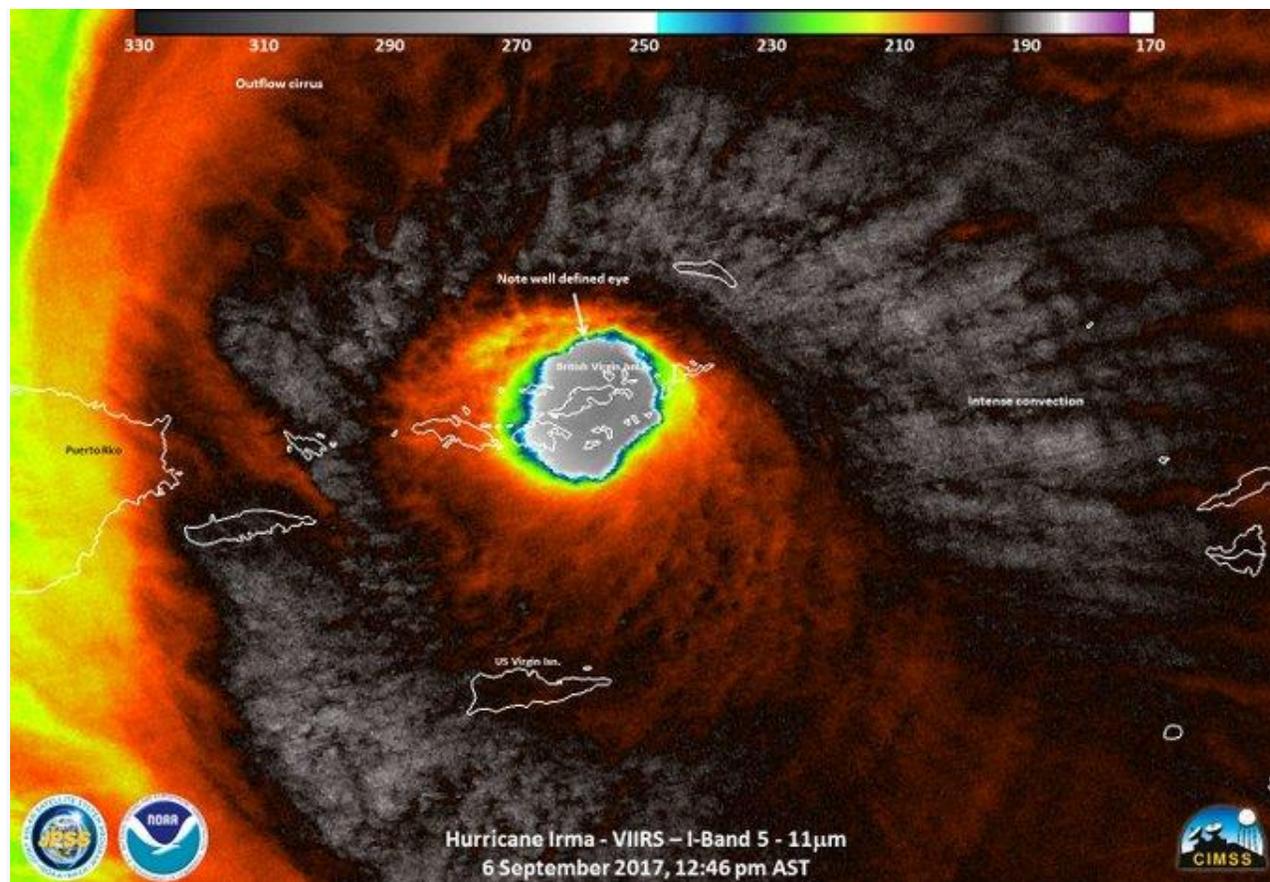
Through early Thursday, the storm had battered islands from Puerto Rico to the northern Lesser Antilles.

While the center of Irma passed just north of Puerto Rico late Wednesday, a wind gust of 63 mph was clocked in San Juan early Wednesday evening, and more than 900,000 people were reported to be without power. In Culebra, Puerto Rico, a small island 17 miles east of the mainland, a wind gust registered 111 mph in the afternoon.

Wednesday afternoon, the storm's eye had moved over Virgin Gorda in the British Virgin Islands, and its southern eye wall (the region of most powerful winds) raked St.

Thomas in the U.S. Virgin Islands.

[View image on Twitter](#)



As Cat. 5 #HurricaneIrma hit the #VirginIslands earlier today, the Suomi NPP satellite captured this stunning infrared image, Sept. 6, 2017. [5:50 PM - Sep 6, 2017](#)  
[Twitter Ads info and privacy](#)

Early Wednesday afternoon, a wind gust to 131 mph was clocked on Buck Island and 87 mph on St. Thomas in the U.S. Virgin Islands.

Tuesday night and Wednesday morning, the hurricane passed directly over Barbuda and St. Martin in the northern Leeward Islands, the strongest hurricane ever recorded in that region and tied with the 1935 Florida Keys hurricane as the strongest Atlantic storm to strike land.

#### Island of Barbuda 'barely habitable' after Irma

Gaston Browne, the prime minister of Antigua and Barbuda, toured the extensive damage caused by Hurricane Irma on Sept. 6.

As Barbuda took a direct hit, the weather station there clocked a wind gust to 155 mph before it went offline.

The storm also passed directly over Anguilla and St. Martin early Wednesday, causing severe damage.

### **Irma's place in history**

Irma's peak intensity (185 mph) ranks among the strongest in recorded history, exceeding the likes of Katrina, Andrew and Camille — whose winds peaked at 175 mph. Among the most intense storms on record, it trails only Hurricane Allen in 1980, which had winds of 190 mph. It is tied for second-most intense with Hurricane Wilma in 2005, Hurricane Gilbert in 1988 and the 1935 Florida Keys hurricane.

#### **An inside look at Hurricane Irma's eyewall**

The storm intensified to a Category 5.

The storm maintained maximum wind speeds of at least 180 mph for 37 hours, longer than any storm on Earth on record, passing Super Typhoon Haiyan, the previous record-holder (24 hours).

Late Tuesday, its pressure dropped to 914 millibars (the lower the pressure, the stronger the storm), ranking as the lowest of any storm on record outside the Caribbean and Gulf of Mexico in the Atlantic basin.

The storm has generated the most “accumulated cyclone energy,” a measure of a storm's duration and intensity, of any hurricane on record.

Without a doubt, the World Meteorological Organization will retire the names Harvey and Irma after this season. While there have been several instances of consecutive storm names getting retired (Rita and Stan 2005, Ivan and Jeanne 2004, Isabel and Juan 2003, Luis and Marilyn 1995), the United States has been hit by more than one Category 4+ hurricane in a season only one time: 1915. Two Category 4 hurricanes hit in Texas and Louisiana six weeks apart that year.

*Capital Weather Gang hurricane expert Brian McNoldy contributed to this report. Credit to tropical-weather expert and occasional Capital Weather Gang contributor Phil Klotzbach for some of the statistics in this section.*