

The Saffir-Simpson Hurricane Scale is a 1-5 rating based on the hurricane's present intensity. This is used to give an estimate of the potential property damage and flooding expected along the coast from a hurricane landfall. Wind speed is the determining factor in the scale, as storm surge values are highly dependent on the slope of the continental shelf in the landfall region. Note that all winds are using the U.S. 1-minute average.

Category One Hurricane:

Winds 74-95 mph (64-82 kt or 119-153 km/hr). Barometric Pressure Above 980 mb (Above 28.94 in) Storm surge generally 4-5 ft above normal. No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Some damage to poorly constructed signs. Also, some coastal road flooding and minor pier damage.







Category Two Hurricane:

Winds 96-110 mph (83-95 kt or 154-177 km/hr). Barometric Pressure 965-980 mb (28.50-28.94 in) Storm surge generally 6-8 feet above normal. Some roofing material, door, and window damage of buildings. Considerable damage to shrubbery and trees with some trees blown down. Considerable damage to mobile homes, poorly constructed signs, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of the hurricane center. Small craft in unprotected anchorages break moorings.





Saffir – Simpson Hurricane Scale Cat 3

Category Three Hurricane:

Winds 111-130 mph (96-113 kt or 178-209 km/hr). Barometric Pressure 945-965 mb (27.91-28.50 in) Storm surge generally 9-12 ft above normal. Some structural damage to small residences and utility buildings with a minor amount of curtainwall failures. Damage to shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane. Flooding near the coast destroys smaller structures with larger structures damaged by battering from floating debris. Terrain continuously lower than 5 ft above mean sea level may be flooded inland 8 miles (13 km) or more. Evacuation of low-lying residences with several blocks of the shoreline may be required.





Category Four Hurricane:

Winds 131-155 mph (114-135 kt or 210-249 km/hr). Barometric Pressure 920-945 mb (27.17-27.91 in) Storm surge generally 13-18 ft above normal. More extensive curtainwall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down. Complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut by rising water 3-5 hours before arrival of the center of the hurricane. Major damage to lower floors of structures near the shore. Terrain lower than 10 ft above sea level may be flooded requiring massive evacuation of residential areas as far inland as 6 miles (10 km).







Category Five Hurricane:

Winds greater than 155 mph (greater than 135 kt or 249 km/hr). Barometric Pressure Below 920 mb (Below 27.17 in) Storm surge generally greater than 18 ft above normal. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. All shrubs, trees, and signs blown down. Complete destruction of mobile homes. Severe and extensive window and door damage. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane. Major damage to lower floors of all structures located less than 15 ft above sea level and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within 5-10 miles (8-16 km) of the shoreline may be required.





Too Many Storms This Year!



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network @ 0° of separation





- The 2005 Hurricane season went to 27 named storms representing the first time in history that the naming scheme went into the greek alphabet.
- However intense the 2005 season was the continental United States was not hit by <u>any</u> storm at Cat5 level wind speeds (155MPH+).
- Katrina was Cat4 when it hit Louisana and Mississippi. Wilma was Cat3 when it passed over Florida.
- That being said...Wilma had the lowest barometric pressure ever recorded and totally devastated Cancun and the Yucatan peninsula.





Pre Wilma 3 Happy Balls







11 Meter Ball Popped During Wilma









- Many companies did not plan properly for power failures and staff recovery and access to systems after the storms have passed.
- A large portion of the companies in South Florida did not have proper data backup or network redundancies from their primary offices.
- Staff who loose their homes, need food, need water will not be coming to work.
- Those who do want to work cannot go to devastated offices so they must try to work from home.
- Getting employees access to systems is the singular issue that IT directors face post Katrina and Wilma.
- I strongly suggest getting an old cheap phone that can be powered from the low voltage phone line should they be lucky enough to still have phone service. DIAL UP ROCKS AFTER A HURRICANE!
- The NAP has full DR plans that kick in for storms that brings in a staff of 20 with cots, food and skillsets needed to keep the NAP operational during and after a storm or any scale.







NANOG 36 - Thank You!

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