

Hurricanes ... Unleashing Nature's Fury

A PREPAREDNESS GUIDE

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What is a Hurricane?

A hurricane is a type of tropical cyclone, the general term for all circulating weather systems over tropical waters (counterclockwise in the Northern Hemisphere). Tropical cyclones are classified as follows:

- Tropical Depression: An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 mph (33 knots).
- Tropical Storm: An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39 to 73 mph (34–63 knots).
- Hurricane: An intense tropical weather system with a well-defined circulation and sustained winds of 74 mph (64 knots) or higher. In the western Pacific, hurricanes are called typhoons, and similar storms in the Indian Ocean are called cyclones.

Hurricanes are products of a tropical ocean and atmosphere. Powered by heat from the sea, they are steered by the easterly trade winds and the temperate westerly trade winds as well as by their own ferocious energy. Around the core of a hurricane, winds grow with great velocity, generating violent seas. Moving ashore, they sweep the ocean inward while spawning tornadoes and producing torrential rains and floods. Each year, on average, 10 tropical storms, of which six become hurricanes, develop over the Atlantic Ocean, Caribbean Sea, or Gulf of Mexico. Many of these remain over the ocean; however, about five hurricanes strike the United States coastline every three years. Of these five, two will be major hurricanes, category 3 or greater on the Saffir-Simpson Hurricane Scale.

Timely warnings have greatly diminished hurricane fatalities in the United States. In spite of this, property damage continues to mount. There is little we can do about the hurricanes themselves. However, the National Oceanic and Atmospheric Administration's (NOAA) National Hurricane Center and National Weather Service field offices team up with other federal, state, and local agencies, rescue and relief organizations, the private sector, and the news media in a huge warning and preparedness effort.

Please go to the NOAA National Hurricane websites, www.nws.noaa.gov/om/hurrbro and www.hurricanes.noaa.gov/prepare/winds, for detailed information on how hurricanes form, their potential for damage from both high winds and flooding rains, and what can be done to prepare for them and reduce the destruction they can cause.