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### Hurricanes

A hurricane is described as a powerful coastal storm with sustained winds above 74 mph and is defined by its immense size, duration, and destruction. Hurricane season is from June through November. When there is an impending hurricane, the National Weather Service (NWS) will monitor the potential storm and keep local emergency managers updated. When necessary, the NWS may issue either a hurricane watch or a hurricane warning:

<i>Hurricane Watch</i>	Issued for areas when hurricane conditions are possible to hit within 48 hours
<i>Hurricane Warning</i>	Issued for areas when hurricane conditions are threatened to hit within 36 hours or less

### Hurricane Hazards

#### **Storm Surge & Storm Tide**

Storm surge and large waves produced by hurricanes pose the greatest threat to life and property along the coast. Storm surge is an abnormal rise of water generated by a storm's winds. Storm surge can reach heights well over 20 feet and can span hundreds of miles of coastline. Storm Tide is the water level rise during a storm due to the combination of storm surge and the astronomical tide. The destructive power of storm surge and large battering waves can result in loss of life, buildings destroyed, beach and dune erosion and road and bridge damage along the coast. Storm surge can travel several miles inland. In estuaries and bayous, salt water intrusion endangers public health and the environment.

#### **Heavy Rainfall & Inland Flooding**

Flooding is the major threat from tropical cyclones for people living inland. Flash flooding, defined as a rapid rise in water levels, can occur quickly due to intense rainfall. Longer term flooding on rivers and streams can persist for several days after the storm. When approaching water on a roadway, always remember *Turn Around Don't Drown*. Rainfall amounts are not directly related to the strength of tropical cyclones but rather to the speed and size of the storm, as well as the geography of the area. Slower moving and larger storms produce more rainfall. In addition, mountainous terrain enhances rainfall from a tropical cyclone.

## **High Winds**

Tropical storm-force winds are strong enough to be dangerous to those caught in them. For this reason, emergency managers plan on having their evacuations complete and their personnel sheltered *before* the onset of tropical storm-force winds, not hurricane-force winds.

Hurricane-force winds, 74 mph or more, can destroy buildings and mobile homes. Debris, such as signs, roofing material, siding and small items left outside become flying missiles during hurricanes. Winds can stay above hurricane strength well inland.

## **Rip Currents**

The strong winds of a tropical cyclone can cause dangerous waves that pose a significant hazard to mariners and coastal residents and visitors. When the waves break along the coast, they can produce deadly rip currents - even at large distances from the storm. Rip currents are channeled currents of water flowing away from shore, usually extending past the line of breaking waves, that can pull even the strongest swimmers away from shore.

## **Tornadoes**

Hurricanes and tropical storms can also produce tornadoes. These tornadoes most often occur in thunderstorms embedded in rain bands well away from the center of the hurricane; however, they can also occur near the eyewall. Usually, tornadoes produced by tropical cyclones are relatively weak and short-lived, but they still pose a significant threat.

## **Destruction of Hurricanes**

Hurricanes have many after-effects involving severe destruction that can cause additional hazards including:

- *Wreckage from buildings and downed trees, which may cause obstructions.*
- *Severe flooding causing possible injury or death and property damage. Some homes may become destroyed or unlivable.*
- *Damaged transportation infrastructures causing roads and railroads to be impassable. Road signs and traffic lights may be down or not working making travel difficult.*
- *Businesses may take several days to reopen and utilities, including electricity, gas, water, and telephone service, may be inoperable for a while.*
- *You may have difficulty reaching police, fire, and emergency departments, doctors, pharmacies, veterinarians, homecare providers, and other health agencies.*

## **Hurricane Categories**

The level and intensity of Hurricanes are categorized by the Saffir-Simpson Scale:

Category 1	Winds of 74-95 mph - Well constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Includes local evacuations.
Category 2	Winds of 96-110 mph - Will do all of the damage above and near total power loss is expected with outages that could last from several days to weeks.
Category 3	Winds of 111-129 mph - Devastating damage will occur. Electricity and water will be unavailable for several days to weeks after the storm passes.

Category 4

Winds of 130-156 mph - Catastrophic damage will occur. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

Category 5

Winds greater than 157 mph - Catastrophic damage will occur same as the above but with increased severity.