HURRICANES AND COASTAL STORMS

A hurricane is a violent area of low pressure forming in the tropical Atlantic Ocean from June to November. August and September are peak months. (Similar Western Pacific Ocean storms are called typhoons.) Hurricanes have winds of 75 miles per hour or more and are accompanied by torrential rains and—along coastal areas—a storm surge.

Although coastal storms may have hurricane-force winds and may cause similar kinds and amounts of damage, they are not classified as hurricanes because they do not originate in the tropics. Coastal storms typically form along the east coast from December through March.

Hurricanes and coastal storms pose a risk because powerful and intense winds and rain can:

- Damage or destroy structures.
- Lift and move unstable structures and objects.
- Damage utility lines.
- Be accompanied by tornadoes.
- Cause coastal erosion.
- Cause floods.
- Threaten lives.

The accompanying heavy rains can inundate coastal areas and inland communities, presenting another risk to life and property.

Hurricane Classifications

Category	Barometric Pressure (Inches)	Windspeed (Miles Per Hour)	Storm Surge (Feet)
I - Minimal	Above 28.94	74-95	4-5
II - Moderate	28.50-28.91	96-110	6-8
III - Extensive	27.91-28.47	111-130	9-12
IV - Extreme	27.17-27.88	131-155	13-18
V - Catastrophic	Less Than 27.17	More Than 155	More than 18

HURRICANES AND COASTAL STORMS (CONTINUED)

The greatest likelihood of a hurricane striking land is along the Gulf Coast and the southeastern seaboard. However, hurricanes have also hit central Pennsylvania and the coasts of New Jersey, New York, and New England.

Each year approximately 10 "storm-strength" weather disturbances are detected in the North Atlantic. Of these, half may grow to hurricane proportion. Two hurricanes are likely to strike the U.S. coast each year.

Nearly 100 million Americans are at risk from hurricanes. Specifically:

- Almost 14 million live in the area where winds greater than 125 mph have been recorded (i.e., the tip of Florida to the North Carolina coast).
- More than 6 million live in storm surge areas.

Although deaths from hurricanes are decreasing as hurricane warning systems improve, property damage is on the rise.

Many people do not realize the threat that hurricanes can present—even if they live in hurricane-prone areas—because they have not experienced a "major" hurricane.

There are certain preparations that people who live in high-risk areas should take to prepare for a hurricane or coastal storm before one occurs.

The following are preparations:

- Know the risk and evacuation routes. Being aware of the risk and how to get out of the area as quickly as possible should an evacuation order be issued is one of the key preparedness steps to take. Driving the evacuation routes to ensure familiarity before a storm and identifying shelter locations will make an evacuation smoother.
- Develop an action plan. When will you begin preparing your home for possible high winds and storm surge? How much time will it take you to evacuate, if necessary? Does your evacuation route change based on the direction of the storm? Will you go to a shelter or a hotel? These are all questions that anyone who lives in a high-risk area should answer as part of hurricane or coastal storm planning.
- Secure needed supplies. If you assemble your disaster supply kits as suggested in this unit, you will have everything that you need for hurricane and coastal storm preparedness.

HURRICANES AND COASTAL STORMS (CONTINUED)

- Floodproof property. Floodproofing can range from using a water sealer in areas that have basements to sandbagging to elevating utilities to moving furniture to the second floor.

- Secure mobile homes and any outdoor items that could be picked up by the wind or washed away.

These are the steps that everyone who is at risk should take before a hurricane strikes:

- Board up all windows and glass doors. Studies have shown that if the wind can be kept out of a structure, the structure will withstand high winds relatively well. If wind is allowed inside, however, additional structural and nonstructural damage will occur very quickly. The best way to prevent wind from getting into a structure is to cover all windows and glass doors with plywood or to close hurricane shutters.

- Check batteries. Often electricity is disrupted by hurricanes (and coastal storms) and, depending on the extent of damage, may not be restored immediately. Check batteries for flashlights and portable radios to ensure that they are fresh. Replace old batteries, and have extra on hand.

- Stock up on nonperishable food. A 3-day supply of food and water for each family member is a must.

- Listen to EAS for local emergency information. Local officials will have the most current emergency information about the storm (including watch and warning information from the National Weather Service) and will provide information and instructions via EAS.

During a hurricane:

- Stay indoors. If advised to evacuate, do so. However, do not assume that because an evacuation order is not issued that the situation is safe. Even Category 1 hurricanes are dangerous. Stay indoors and listen to EAS for up-to-date information.

  If advised to shelter in place:

  - Take the family disaster supply kit.
  - Go to an interior “safe” room, if possible.
  - Stay in the safe room and listen to EAS for additional instructions.

- Stay away from flood waters. If the home begins to flood, go to a higher level, if possible.

- Be aware of the “eye.” The “eye” of a hurricane is typically 20 to 30 miles wide in relation to the storm, which may have a diameter of 400 miles. During the “eye,” there are very few clouds, but it is important to remember that the storm is not over.

- Be alert for tornadoes. Tornadoes are frequently associated with hurricanes, and are most common in the right-front quadrant of the storm.

HURRICANES AND COASTAL STORMS (CONTINUED)

After a hurricane or coastal storm:

- Do not reenter the area until it is declared safe. Reentry to the area too soon may cause unnecessary risk—and may keep first responders and utility workers from doing their jobs.

- Use a flashlight to inspect for damage. Do not assume that utilities are undamaged following a hurricane or coastal storm. Checking for damage with a flashlight reduces the risk of injury, especially from a damaged electric supply.

- Stay away from downed power lines. The only sure way to limit risk from downed power lines is to avoid them completely.

- Turn off utilities, if necessary. If there is a gas smell or a fire, turn off the gas valve. If there is damage to electric lines or supply, shut off the electricity by turning off small circuit breakers (or unscrewing fuses) first, then turning off the main breaker (or fuse).

Note: If you turn off the gas valve, only the gas company can restore the service.

- Reserve the telephone for emergency use. Telephone lines are invariably overloaded following a disaster or emergency. Reserving telephone use (both landline and cellular) for emergency use helps to ensure that those calls that must go through do so.

- Listen to EAS for updated information. Local officials will use EAS extensively to provide emergency information and instructions. Be sure to tune in often for updates.

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