HURRICANE SURVIVAL KIT

DEFINITION-A hurricane is a very vast and powerful storm that originates in the tropics of the Atlantic Ocean. They become hurricanes when the sustained winds associated with it reach at least 74 mph. These storms are named hurricanes from the Spanish and Caribbean terminology for the god of wind. These particular storms usually form during the summer and fall months between June 1st and November 30 each year. They are warm core systems that thrive in waters whose sea surface temperatures are 80 degrees or higher.

STAGES OF DEVELOPMENT-A tropical system such as a hurricane goes through several stages of development in its life cycle. First they form as one of the hundred or so tropical waves that form in the Atlantic each year. Then, when they gain sustained winds of 25 mph, they are declared a Tropical Depression. As they continue to intensify, and reach winds of 39 mph, these systems become a Tropical Storm. At this point, they are better organized and attain better definition and structure. When these storms reach sustained winds of 74 mph, or greater they become hurricanes.

CHARACTERISTICS-As previously mentioned, hurricanes are warm core systems. What that means is that hurricanes have a warm central column ofair from the surface upward. Compared to low-pressure systems that normally affect our weather, are cold core systems that intensify with increasing height and have an upper level low west of the surface low. Hurricanes have an area of high pressure aloft the surface low, and also move east to west while the mid-latitude systems move west to east.

CLASSIFICATION-Once a tropical system becomes a hurricane, it doesn't stop intensifying. As a matter of fact, hurricanes can reach winds in upwards of 200 mph. Depending upon how high their winds get, they are classified according to the Saffir-Simpson Scale, a categorization of hurricanes based upon their sustained wind speeds and central barometric pressure. The classifications range from Category One, minimal damage, to Category Five, catastrophic damage. Two engineers who were measuring the devastation of a hurricane on structures created this particular scale.

TABLE 1—SAFFIR SIMPSON SCALE

Category	Winds	Pressure	Storm Surge	Damage
One	74-95 mph	>=980 mb	4-5 feet	Minimal
Two	96-110 mph	965-979 mb	6-8 feet	Moderate
Three	111-130 mph	945-964 mb	9-12 feet	Extensive
Four	131-155 mph	920-944 mb	13-18 feet	Extreme
Five	>155 mph	<920 mb	>18 feet	Catastrophic

EFFECTS-Hurricane and other tropical systems can bring a variety of effects. Among them are copious amounts of rain. In some cases rainfall amounts can be in excess of 20 inches. For example, areas of Eastern North Carolina received approximately 30 inches of rain from Hurricane Floyd in September, 1999. Other effects include very high straight-line winds, tornadoes, high seas, coastal flooding, flash flooding, beach erosion, and the most deadly effect of all, the phenomenon known as storm surge.

STORM SURGE-This is the most deadliest effect from a tropical storm or hurricane. As a matter of fact approximately 90% of all the total fatalities are attributed to the storm surge. Storm surge is a phenomenon attributed to the rising dome of water created by the high winds driving the waves in the ocean toward the shore, coupled with the intense low pressure at the surface. The ultimate height of a storm tide comes from the combination of the astronomical high tide and the storm surge. Storm surge most troubling effect is that it can bring wind whipped ocean waves several miles inland.

WATCHES AND WARNINGS-It is very important that you understand and distinguish the differences between a Hurricane Watch and a Hurricane Warning. A Hurricane Watch means possible danger as a hurricane could make landfall in 48 hours. A Hurricane Warning means that danger is developing as the storm in 24 hours away. It is very important that you pay attention to your local weather station, NOAA radio, The Weather Channel, and your friends here at Hurricaneville when a watch or warning is issued that you are able to evacuate promptly and safely.

TABLE 2—WATCHES AND WARNINGS

Watch/Warning	Description
Tropical Storm Watch	A Tropical Storm Watch means possible danger as a Tropical storm could make landfall in 48 hours.
Tropical Storm Warning	A Tropical Storm Warning means that danger is devel storm in 24 hours away.
Hurricane Watch	A Hurricane Watch means possible danger as a hurric landfall in 48 hours.
Hurricane Warning	A Hurricane Warning means that danger is developing 24 hours away.

HURRICANE NAMES-The practice of naming hurricanes have been around since the 1800s, but was never really formalized until the 1950s when the National Weather Service began issuing names of women to hurricanes. That continued until 1979 when male and female names were given to storms on an alternating basis. The use of hurricane names came about in an effort to develop better communication when discussing a tropical storm or hurricane. It also reduces confusion when there is more than one storm out in the Atlantic at the same time. Below is a list of the 2000 Hurricane Season Names.

TABLE 3—2000 HURRICANE SEASON NAMES LIST

Storm Name
Alberto
Beryl
Chris
Debby
Ernesto
Florence
Gordon
Helene
Isaac
Joyce
Keith
Leslie
Michael
Nadine
Oscar
Patty
Rafael
Sandy
Tony
Valerie
William

HURRICANE SAFETY TIPS-Technology, forecasting, and overall knowledge of hurricanes are improving year after year. However, there are still people building along the coasts, and not heeding warnings to evacuate because of their curiosity about the unknown. Nevertheless, people can still be prepared and survive through a hurricane if they evacuate from low lying areas, stay indoors, and have sufficient supplies and essentials. The following page has a breakdown of safety tips to follow in case a hurricane or tropical storm to come your way.

HURRICANE SAFETY TIPS

PRE-SEASON PREPARATION

- Enter season prepared.
- Have plenty of plywood.
- Have proper tools.
- Have plenty of batteries.
- Non-perishable foods in home.

WHEN A WARNING IS ISSUED

- Leave low-lying areas.
- Protect windows with plywood boards.
- Secure outside objects.
- Make sure you have plenty of fuel and water.
- Several days supply of water for each family member.
- If called to evacuate, do so immediately

BEFORE THE STORM

- Enter season prepared.
- Watch Weather Reports.
- Listen to Radio.
- Have house boarded up.
- Have plenty of water and food.
- Have plenty of flashlights and tools.
- Make sure you have secure room.

DURING THE STORM

- Stay in secure room.
- Stay away from windows.
- Do not use the phone, or candles.
- Monitor Weather and Civil Service Bulletins on the radio.
- Have supplies on hand.
- Remain indoors during the eye. Storm will pick up again later.

AFTER THE STORM

- Make sure that all is definitely clear on the outside and that the storm has passed completely.
- Report downed power lines, and stay away from them.
- Use stored water and food.
- Be patient. Things will take a while before they return to normal.

CONCLUSION-Hurricanes are among the most powerful and largest storms that exist in the Earth's weather. It is important to take these storms very seriously. The folks here at Hurricaneville hope that this flyer will help you heed the advice. Be prepared for these storms, and do not play around with mother nature. The fury of these particular storms should not be taken for granted. The people of Hurricaneville hope you have a safe and hurricane free season wherever you are.

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