



**Communicating With Your Customers:
Answering Questions About Hurricanes and
Other Natural Occurrences**

**May 16th and 17th, 2006
Best Western Hotel**

**Presented by the Chamber of Commerce for
Amelia Island, Fernandina Beach, Yulee**



The Amelia Island, Fernandina Beach, Yulee Chamber of Commerce is pleased to present you with this manual of information that will serve businesses in and related to the tourism industry as a resource. It will help those who work closely with the visiting public to quickly and confidently answer questions related to natural occurrences.

The information contained within this manual can be used to answer questions from the general public, as well as meetings and convention planners.

It creates a uniform message platform from which hospitality personnel can comfortably answer difficult questions.

The benefit to employing a uniform messaging program across all attractions, lodging and dining establishments is that everyone involved speaks with one voice that is confident, informed and reassuring.

You will find a number of subjects covered including hurricanes, rip currents, shark encounters, red tides and wild fires. We have included for each subject a section that covers key messages and questions and answers.

The key messages are those statements that address the essence of a person's concern, are reassuring and easy to remember. The question and answer section delves into an issue more deeply and provides more information.

Remember, our visitors and customers want reassurance that their visit will be legendary. They also want to know that it will be safe.

KEY MESSAGES

Hurricanes

The First Coast of Florida has the lowest occurrence of hurricanes in all of Florida.

According to the National Oceanic and Atmospheric Administration (NOAA), the First Coast of Florida has seen only one hurricane make landfall; 1964's Category 2 Hurricane Dora.

Should a hurricane occur, visitors to Amelia Island will find routes where they can evacuate into the interior of northeastern Florida or to southeastern Georgia.

Shark Encounters

Amelia Island remains a safe and secure destination year round. We excel in the business of caring for our tourists.

Deaths from unprovoked shark attacks are rare, according to statistics compiled by the International Shark Attack File. There were 12 shark attacks on Florida beaches in 2004, down sharply from 30 in 2003. None of them were fatal.

With a U.S. population of about 300 million, the odds of being attacked by a shark in the United States are roughly 1 in 10 million. Humans are 30 times more likely to be struck by lightning in Florida than to be bitten by a shark.

Rip Currents

Rip currents can occur at any surf beach with breaking waves, including the Great Lakes.

Rip currents do not pull people under the water—they pull people away from shore.

Rip currents are often not easily identifiable to the average beachgoer, so those that go swimming should never swim alone and should always be aware of the constantly changing ocean environment.

Red Tides

Florida's red tide is found almost exclusively in the Gulf of Mexico, but occasional blooms have been found off the east coast of the state.

Red tides have been documented along Florida's gulf coast since the 1840s and probably occurred much earlier.

For most people, swimming during a red tide is ok. However, in some people, red tide can cause skin irritation and burning eyes. If you are particularly susceptible to irritation from plant products, avoid red tide water.

Wildfires

Amelia Island is a natural island with two state parks and many more forested areas and discourages irresponsible fire usage on the island.

Amelia Island is fortunate to have not suffered a wild fire on the island. However, the island does constantly monitor conditions and issues fire advisories as conditions warrant.



HURRICANE QUESTION AND ANSWER

Q. Why should I bring my conference to Amelia Island when all of Florida is subject to hurricanes?

A. The risk of experiencing a hurricane in Florida is not equal across the state. According to the Kinetic Analysis Corporation of the University of Central Florida, the First Coast of Florida has the state's lowest "strike probability" – its long term average is 2.42 percent and its 2005 average was 1.38 percent. Strike probability is defined as the probability of experiencing hurricane force winds.

Q. How can we be sure that a hurricane won't hit Amelia Island?

A. The First Coast of Florida has the lowest occurrence of hurricanes in the state. As a matter of fact, the First Coast has experienced only one hurricane, the 1964 Category 2 Hurricane Dora. Because a hurricane is an act of nature, one cannot say with certainty that it will not strike a certain area, but our geographic location does provide us a degree of protection.

Q. When was the last time Amelia Island was affected by a hurricane?

A. According to the National Oceanic and Atmospheric Administration (NOAA), the First Coast of Florida has seen only one hurricane make landfall; 1964's Category 2 Hurricane Dora.

Q. When is the hurricane season?

A. The Atlantic hurricane season is officially June 1 to November 30. ***The peak of the season is from mid-August to mid-October.***

Q. Why hasn't Amelia Island been affected by hurricanes when we hear about them all over Florida?

A. We are fortunate because of our location on the East Coast. We are tucked away in a large curve, making us the farthest western point on the country's eastern coastline. If you lined our island up with an inland city, we would be as far west as Pittsburgh, PA.

Q. Does Amelia Island have emergency evacuation plans?

A. Yes, the island, in conjunction with the Nassau County Emergency Operations Management, has measures in place to evacuate residents and visitors from Amelia Island to the interior of northern Florida.

If pressed - Nassau County Emergency Operations Management works very closely with the Governor's office and leads the management and coordination of evacuation activities, giving information and direction to Amelia Island's police and fire departments.

Q. Where would a person go if a hurricane approached Amelia Island?

A. One can quickly evacuate into the interior of northern Florida or into nearby southeastern Georgia.

If pressed - Nassau County Emergency Operations Management works very closely with the Governor's office and leads the management and coordination of evacuation activities, giving information and direction to Amelia Island's police and fire departments.

Q. How quickly can one get inland if a hurricane approaches?

A. Amelia Island is only 17 miles from I-95, the main highway leading north into nearby Georgia and west into the interior of northern Florida.

Q. Where can I get real-time advisories for hurricanes/tropical storms?

A. There are three services available:

- National Hurricane Center - www.nhc.noaa.gov
- National Weather Service - www.nws.noaa.gov
- National Climatic Data Center – www.ncdc.noaa.gov

METEOROLOGICAL QUESTIONS

Q. What is a hurricane?

A. A hurricane is a tropical cyclone with a defined circulation and sustained winds of 74 miles per hour (65 knots) or greater in the North Atlantic Ocean, Caribbean Sea, Gulf of Mexico, and in the eastern North Pacific Ocean. This same tropical cyclone is known as a typhoon in the western Pacific and a cyclone in the Indian Ocean.

Q. What is a tropical disturbance?

A. An organized system of clouds and thunderstorms without a defined circulation.

Q. What is a tropical depression?

A. An organized system of clouds and thunderstorms with a circular wind circulation and maximum winds less than 39 mph.

Q. What is a tropical storm?

A. An organized system of strong thunderstorms with defined circulation and maximum sustained winds of 39 to 73 mph.

Q. What is the difference between a hurricane warning and a hurricane watch?

A. A **warning** is issued when hurricane conditions are expected in 24-36 hours, and a **watch** when hurricane conditions are possible within 36-48 hours. If a warning or watch is issued, one should begin preliminary preparations for potential landfall and stay tuned to radio and TV for weather updates. The National Hurricane Center in Miami, Florida has the responsibility for monitoring and issuing watches and warnings in the Atlantic and Northeast basins.

Q. How are hurricane categories determined and what do they mean?

A. The strength of hurricanes is rated using the Saffir/Simpson scale in the United States. This scale assigns a storm to one of five categories **based on its wind speed**. Category one is a minimal hurricane and category five is the strongest. Using this scale helps estimate the potential property damage and expected coastal flooding from a hurricane.

Category Maximum Sustained Winds

1	74-95 mph
2	96-110 mph
3	111-130 mph
4	131-155 mph
5	156+ mph

Q. What is the Eye of the storm? Rainbands?

A. The hurricane's core is called the **Eye**. The winds closest to the eye, typically averaging about 60 miles from the center of the storm, are the strongest and bring the most potential for damage. **Rainbands** (outer spiral bands) are the bands of clouds and thunderstorms that trail away from the eye wall in a spiral fashion and are capable of producing heavy bursts of rain and wind. The spiral bands also make hurricanes appear to cover a much larger area with damaging winds than they really do. This is the reason why devastation during strong storms does not cover the entire area the storm passes over.

Q. Why are hurricanes named? Who names them?

A. The National Hurricane Center is also responsible for naming tropical cyclones in the Atlantic basin. Hurricanes are named to provide ease of communication and reduce confusion between forecasters and the general public regarding forecasts, watches and warnings.

Q. How do these hurricanes/storms affect Florida's environment?*

A. There are a number of benefits to nature:

- They help to scrub harmful algae from coral reefs.
- Prune dead limbs from trees allowing sunlight to penetrate the forest floor.
- Deposit sand atop and on the backside of barrier islands, which elevates them, keeping islands from becoming a sand bar. "The big changes that occur in barrier islands often occur during hurricanes," according to Orrin H. Pilkey, James B. Duke Professor Emeritus of Geology at the Nicholas School of the Environment and Earth Sciences at Duke. "Barrier islands need hurricanes for their survival...It's during hurricanes that islands get higher and wider."
- Moderate global temperature.
- Rain helps to refill the aquifer. It's seeping in now and wells are rising.
- The water flow in natural springs increases. Previously, it was declining.
- Wildlife benefits from the increased water. Dried out wetlands are rehydrating and coming back to life.
- Downed trees are good for the scrub jays, increasing the endangered species' habitat.

*Florida Department of Environmental Protection & Florida State Parks - www.FloridaStateParks.org.

SHARK ENCOUNTER QUESTION AND ANSWER

Q. What are the chances of being attacked by a shark?

A. The chances of being attacked by a shark are very small compared to other animal attacks, natural disasters, and ocean-side dangers. Many more people drown in the ocean every year than are bitten by sharks.

The few attacks that occur every year are an excellent indication that sharks do not feed on humans and that most attacks are simply due to mistaken identity. Worldwide there is an average of 50-70 shark attacks every year. With a U.S. population of about 300 million, the odds of being attacked by a shark in the United States are roughly 1 in 10 million. Humans are 30 times more likely to be struck by lightning in Florida than to be bitten by a shark.

Q. Has a shark attack happened in Amelia Island's waters?

A. According to the International Shark Attack File, since 1882, there have only been two recorded encounters, neither of which was fatal.

Q. Where do shark attacks usually occur?

A. Most attacks occur in or near shore waters, typically inshore of a sandbar or between sandbars where sharks feed and can become trapped at low tide. Areas with steep drop-offs are also likely attack sites. Sharks congregate there because their natural food items also congregate in these areas.

Q. How can I avoid being attacked by a shark?

A. Although the relative risk of a shark attack is very small, risks should always be minimized whenever possible in any activity. The chances of having an interaction with a shark can be reduced if one heeds the following advice:

- Always stay in groups since sharks are more likely to attack a solitary individual
- Do not wander too far from shore --- this isolates an individual and additionally places one far away from assistance
- Avoid being in the water during darkness or twilight hours when sharks are most active and have a competitive sensory advantage
- Do not enter the water if bleeding from an open wound or if menstruating --- a shark has a very strong sense of smell
- Wearing shiny jewelry is discouraged because the reflected light resembles the sheen of fish scales
- Avoid waters with known effluents or sewage and those being used by sport or commercial fisherman, especially if there are signs of bait fishes or feeding activity. Diving seabirds are good indicators of such action
- Sightings of porpoises do not indicate the absence of sharks --- both often eat the same food items
- Refrain from excess splashing and do not allow pets in the water because of their erratic movements
- Exercise caution when occupying the area between sandbars or near steep drop-offs --- these are favorite hangouts for sharks
- Do not enter the water if sharks are known to be present and evacuate the water if sharks are seen while there. And, of course, do not harass a shark if you see one

RIP CURRENT QUESTION AND ANSWER

Q. What is a rip current?

A. Rip currents are formed by breaking waves. They are powerful channels of water that flow away from shore and can occur at any beach, including the Great Lakes. They typically extend from the shoreline, through the surf zone, and past the line of breaking waves. Rip currents do not pull people under the water—they pull people away from shore.

Q. How do rip currents form?

A. When waves break strongly in some locations and weakly in others, this can cause circulation cells which are seen as rip currents: narrow, fast-moving belts of water traveling out to sea.

Q. Why are rip currents are dangerous?

A. Rip currents can occur at any surf beach with breaking waves, including the Great Lakes and are a leading surf hazard for all beachgoers. They are particularly dangerous for weak or non-swimmers because they typically move 1-2 feet per second, but can also be strong enough to sweep even the strongest swimmer out to sea.

Q. Where do rip currents form?

A. Rip currents most typically form at low spots or breaks in sandbars, and also near structures such as jetties and piers. They can be very narrow or hundreds of yards wide. The seaward pull of rip currents varies, ending just beyond the line of breaking waves, or hundreds of yards offshore.

Q. How do you identify rip currents?

A. Rip currents are often not easily identifiable to the average beachgoer. Beachgoers should be aware of the following clues that may indicate the presence of rip currents:

- a channel of churning, choppy water
- an area having a notable difference in water color
- a line of foam, seaweed, or debris moving steadily seaward
- a break in the incoming wave pattern

Q. How to avoid and survive rip currents?

A. The United States Lifesaving Association recommends the following tips:

- Never swim alone, be cautious at all times. If in doubt, don't go out
- Remain calm to conserve energy and think clearly, never fight the current
- Swim out of the current in a direction following the shoreline. When out of the current, swim at an angle--away from the current--towards shore
- If you are unable to swim out of the rip current, float or calmly tread water. When out of the current, swim towards shore
- If you are still unable to reach shore, draw attention to yourself by waving your arm and yelling for help

Q. Where can I get more information about rip currents?

A. For additional information on rip currents, visit the United States Lifesaving Association web site: <http://www.usla.org/ripcurrents/>

RED TIDE QUESTION AND ANSWER

Q. What is a Florida red tide?

A. A red tide is a higher-than-normal concentration of a microscopic alga (plant-like organisms). In Florida, the species that causes most red tides is *Karenia brevis* (*K. brevis*). This organism produces a toxin that can affect the central nervous system of fish. At high concentrations (called a bloom), the organisms may discolor the water. However, red tides are not always red. They can appear greenish, brownish, and even purple in color. The water can even remain its normal color during a bloom.

Q. Is red tide a new phenomenon?

A. No, it is not a new phenomenon. Red tides have been documented along Florida's gulf coast since the 1840s and probably occurred much earlier.

Q. Can red tides be predicted?

A. Currently, red tides can't be predicted, but researchers are investigating the possibility. The effects of a red tide (e.g., dead fish and respiratory irritation in people) depend on the location and concentration of the red tide microorganism at a given time. The effects also depend on wind speed and direction. It is important to realize that many people still enjoy the beaches during red tides. Respiratory irritation and dead fish are not always present.

Q. Do red tides occur anywhere else?

A. Yes, red tide organisms occur elsewhere. Although the organism that causes Florida's red tide is found almost exclusively in the Gulf of Mexico, blooms have been found off the east coast of Florida, and a bloom was detected off the coast of North Carolina in 1987. Scientists believe the Florida Current and Gulf Stream Current carried *K. brevis* out of the Gulf of Mexico, around South Florida, and up to the Carolina coast. Other types of microorganisms cause different kinds of red tides (now called harmful algae blooms) in other parts of the world as well.

Q. How is red tide related to respiratory irritation?

A. Some people may experience respiratory irritation (coughing, sneezing, and tearing) when the red tide organism (*K. brevis*) is present along a coast and winds blow its toxic aerosol onshore. People with severe or chronic respiratory conditions (such as emphysema or asthma) are advised to avoid red tide areas. Generally, symptoms are temporary and disappear within hours.

Q. Is swimming ok?

A. Yes, for most people. However, in some people, red tide can cause skin irritation and burning eyes. Use common sense – if you are particularly susceptible to irritation from plant products, avoid red tide water. If you experience irritation, get out thoroughly wash off. Do not swim among dead fish because they can be associated with harmful bacteria.

Q. Does cooking destroy the red tide toxin?

A. No, cooking does not destroy the red tide toxin.

Q. Is it okay to eat shellfish during a red tide?

A. No, shellfish should not be eaten during a red tide. If a shellfish-harvesting ban is in effect, it is not safe to eat mollusks (e.g. clams and oysters). However, edible parts of other animals commonly called shellfish (e.g. crabs, shrimp, and lobsters) are not affected by the red tide organism and can be eaten.

Q. Which shellfish are included in a shellfish-harvesting ban?

A. Harvesting of bivalve mollusks such as clams, oysters, and coquinas is banned during red tides.

Q. Is it okay to eat fish, crabs, or shrimp during a red tide?

A. Yes, fish, crabs, and shrimp can be eaten during a red tide because the toxin is not absorbed in the edible tissues of these animals. However, if a red tide is in the area, eating distressed or dead animals is discouraged because the reason for the animal's strange behavior or death cannot be absolutely known. It could be something unrelated to red tide.

Q. Is it okay to eat scallops during a red tide?

A. Yes, as long as you only eat the muscle of the scallop. Do not eat whole animals.

Where can I find more information about red tides?

For additional information on red tide, visit the Fish and Wildlife Research Institute web site: research.myfwc.com or contact Jess Brown at (727) 896-8626 ext. 2076.

WILDFIRE QUESTION AND ANSWER

Q. What is a wildfire?

A. A wildfire is an undesirable fire occurring in the natural environment. Each year more than 100,000 wild land fires occur in the United States.

Q. How does a wildfire start?

A. About 90 percent of wildfires are started by humans; the other 10 percent are started by lightning.

Q. What should I do when there is wildfire danger?

A. If you are warned that a wildfire is threatening the area you are visiting, stay tuned to your radio or television for evacuation information and updates. It is very important to follow the instructions of local officials. If advised to evacuate, do so immediately.

Q. What should I do if I receive a wildfire warning?

A. Keep your radio and television tuned to a local station for fire reports and evacuation information. Make sure your escape route takes you away from dangerous areas and that you have proper transportation. Contact the management where you are staying for more details.

Q. What should I do if I have been advised to evacuate?

A. Make sure infants, children and other family members are present before you drive off. - Load pets into car. Leave immediately.

Q. What are the top 3 causes of wildfires in Florida?

- Arson/Incendiary
- Escaped Debris Burning
- Lightning

Q. How does weather influence wildfires?

A. Weather is one of the most significant factors in determining the severity of wild land fires. The intensity of fires and the rate with which they spread is directly related to the wind speed, temperature and relative humidity. Climatic conditions such as long term drought also play a major role in the number and intensity of wildfires. Accurate and timely weather information is vital to the planning and execution of strategies for suppressing wildfires. An accurate weather forecast can mean life or death to a fire fighter and is also critical in protecting forest and range lands as well as the increasing number of homes in the wild land urban interface.

Q. Where can I get more information about Florida wildfires?

A. For additional information about Florida wildfire preparedness, visit the Florida Division of Emergency Management web site: www.floridadisaster.org.

ALLIGATOR ENCOUNTER QUESTION AND ANSWER

Q. Are there alligators on Amelia Island?

A. Yes. Alligators live in all of Florida's 67 counties. Thousands of visitors to Amelia Island have safely enjoyed viewing alligators from a safe distance in the presence of qualified naturalists and guides.

Q. How many alligators are in Florida?

A. Alligators live in all of Florida's 67 counties; their precise population is unknown, but wildlife biologists say the state has 6.7 million acres of prime alligator habitat. Based on habitat carrying capacity, Florida Fish and Wildlife Conservation Commission believes the state's adult wild alligator population is 1 to 2 million animals.

Q. Are alligator attacks a common occurrence?

A. No. Alligators seldom attack and fatalities from such attacks are extremely rare. In 1995 there were nine alligator attacks in the state of Florida. In the past 58 years of record keeping, the Florida Fish and Wildlife Conservation Commission has documented 356 alligator attacks on humans; 25 of these attacks have been fatal, none of which were in Nassau County.

Q. What should I do to keep myself safe from an alligator encounter?

A. According to the Florida Fish and Wildlife Conservation Commission, one should:

- Since alligators tend to feed mostly at dusk or early evening, it is wise to avoid swimming in waters known to be inhabited by alligators during that time of the day, particularly during summer months when alligators are most active.
- Dogs and cats are the size animals alligators tend to favor as prey. People should not allow their pets in or around the water if alligators are known to be present
- Keep hands and feet away from bodies of water that may be inhabited by alligators

Q. Where can I get more information about Florida and alligators?

A. For additional information about Florida wildlife and alligators, visit the Florida Fish and Wildlife Conservation Commission web site: <http://myfwc.com/gators/faq/lwa.htm>.