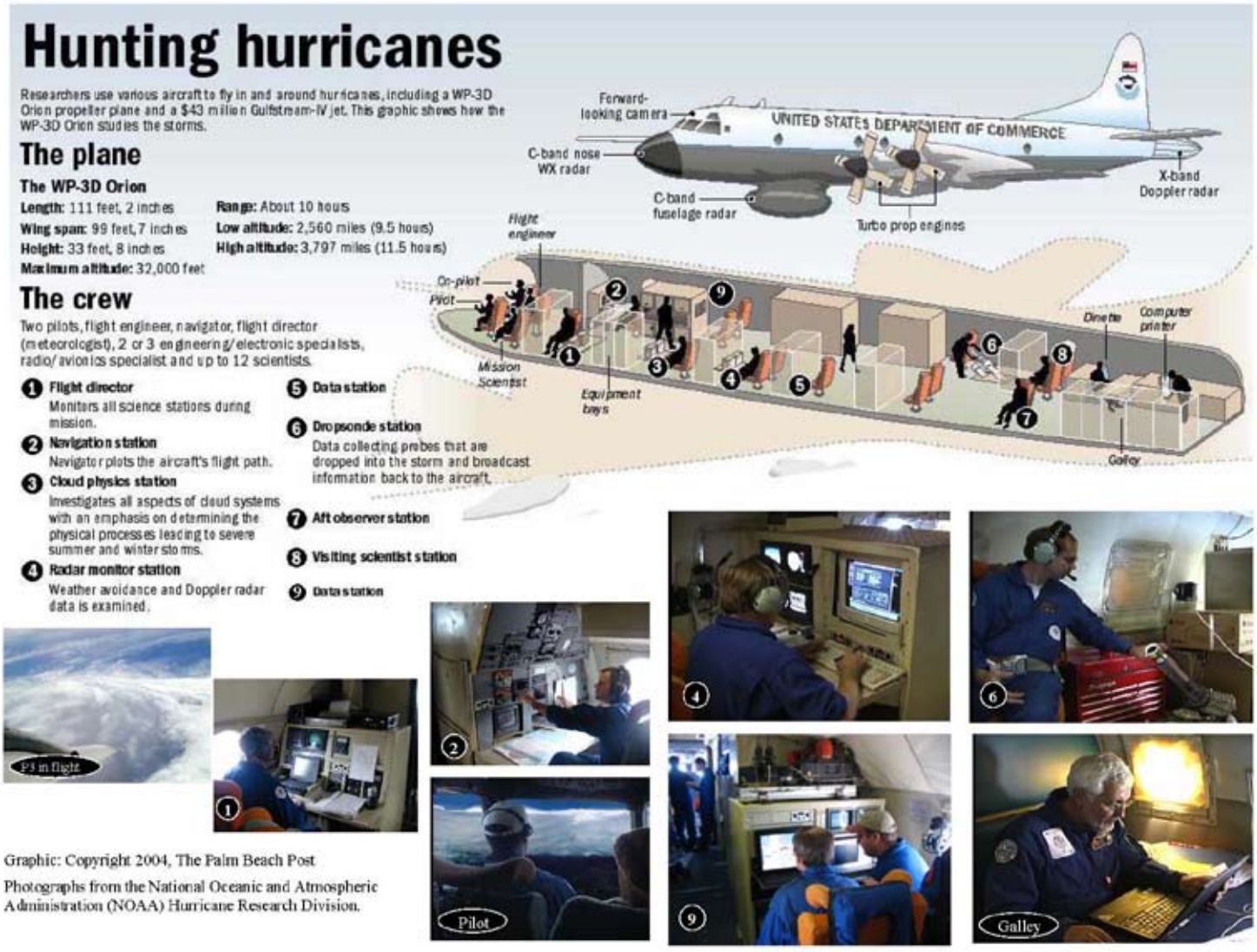
Hurricanes

In Florida, most of the time between June 1st and November 30th is spent dealing with sunny weather, with thunderstorms in the summer and then cool fronts coming through in October and November. However, this time period is also the season in which tropical low pressure systems, called hurricanes, become intense with maximum winds over 73 mph and can threaten Floridians.

One common misconception is that there are parts of our state that do not get hurricanes. In the last 150 years, all of Florida's coastlines have been impacted by at least one hurricane. The south coast, including the Florida Keys, is the most vulnerable, with a hurricane striking the every 3 to 5 years on average. The western Panhandle is next most vulnerable, with a strike every 7 to 8 years. Other parts of Florida, including the Tampa Bay and Jacksonville areas, do not have as high of a risk, but folks in these areas should always be ready for a hurricane strike. This fact is especially true now since the Atlantic Basin as a whole has been in a very active period since 1995. Even though a hurricane has not made landfall in the state since Hurricane Wilma in 2005, many hurricanes have threatened to impact the state over the past few years. Despite the inactivity in the state, people need only to look back at the 1992 hurricane season. Only six named storms developed that year, but the only major hurricane to form produced widespread devastation across South Florida. This is why residents and visitors need to always be prepared for hurricanes, even if below normal hurricane activity is forecast.



Sheet flooding over Lee County after Tropical Storm Fay in 2008, after the area received over a foot of rain (photo taken by Lee County emergency management).

Hurricane Impacts

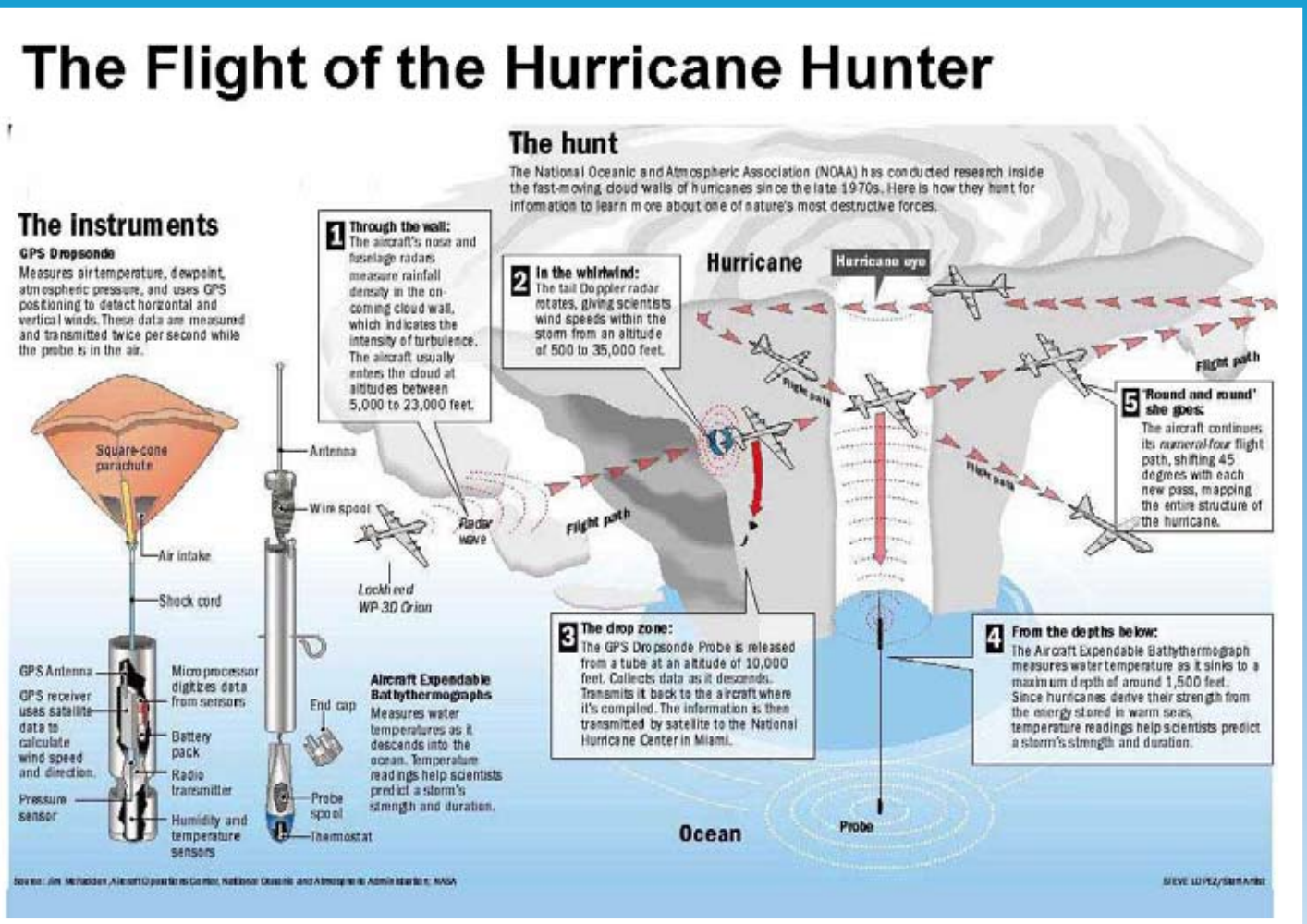
When most of us think of a hurricane, we think of strong winds. However, a hurricane brings other major hazards to life and property, including storm surge and associated coastal flooding, inland flooding, and tornadoes.

The storm surge is the term used to describe the wall of water that is pushed toward the shoreline as a hurricane moves onshore. A major hurricane can produce a surge of 15 feet or more.

Those living in coastal and near-coastal communities should know the evacuation zone that they live in. When local officials declare an evacuation for your zone, move to the nearest possible evacuation destination outside of the danger zone. Your family can choose to stay with friends or relatives, or you may choose a hotel or motel.

The next deadly hazard associated with hurricanes is inland flooding. Slow moving hurricanes and tropical storms often produce large amounts of rain. A typical rule of thumb used for estimating the maximum rainfall totals (in inches) possible from a storm is to take 100 and divide it by the storm's forward motion. For example, Tropical Storm Fay drifted across the Peninsula a couple of times at forward motions of around 5 mph. Using the rule of thumb gives an estimate of 20 inches for the maximum rainfall totals, not too far off from the highest observation near Melbourne with a total of 27.65 inches!

For those outside of coastal communities, winds associated with the eyewall of a hurricane are a major concern. Hurricane force winds can easily damage or destroy mobile homes and other items such as lanai's, roofing materials, trees and power lines. Though a hurricane's winds typically weaken rapidly following landfall, Florida's flat terrain allows the stronger winds to survive longer inland than in other parts of the country. With Hurricane Wilma in 2005, winds gusted to over 100 mph in these areas, causing damage to several structures, including downtown high rises.



The final hazard associated with tropical cyclones is tornadoes. These tornadoes typically form in the right-front quadrant of a hurricane, when looking in the direction the hurricane is moving. These tornadoes are typically smaller than those produced by severe thunderstorms. However, ALL tornadoes have the potential to be deadly and produce extensive damage. Tornadoes developing from a hurricane can form in the outer rain bands of the storm, well away from the center, and usually move quickly.

Again, increasing your awareness of hurricane hazards and developing a safety plan before hurricane season will provide you and your family with added benefits throughout the year. The National Hurricane Center along with your local National Weather Service forecast offices will issue Tropical Storm and Hurricane Watches and Warnings in plenty of time to prepare for a storm. The trained professionals coordinate with local emergency managers as well as county, state, and federal officials so that evacuation decisions and other considerations are made with plenty of time for action and response. The job you and your family have to do is critical--be prepared before the season starts with a Family Disaster Plan as well as an emergency supply kit.

By Ryan Sharp, National Weather Service, Tampa Bay Area-Ruskin, FL

Saffir-Simpson Hurricane Scale		
Category	Wind Speed	
	mph	knots
5	≥156	≥135
4	131-155	114-134
3	111-130	96-113
2	96-110	84-95
1	74-95	65-83
Non-Hurricane Classifications		
Tropical Storm	39-73	34-64
Tropical Depression	0-38	0-33

National Hurricane Preparedness Week
May 23-29, 2010