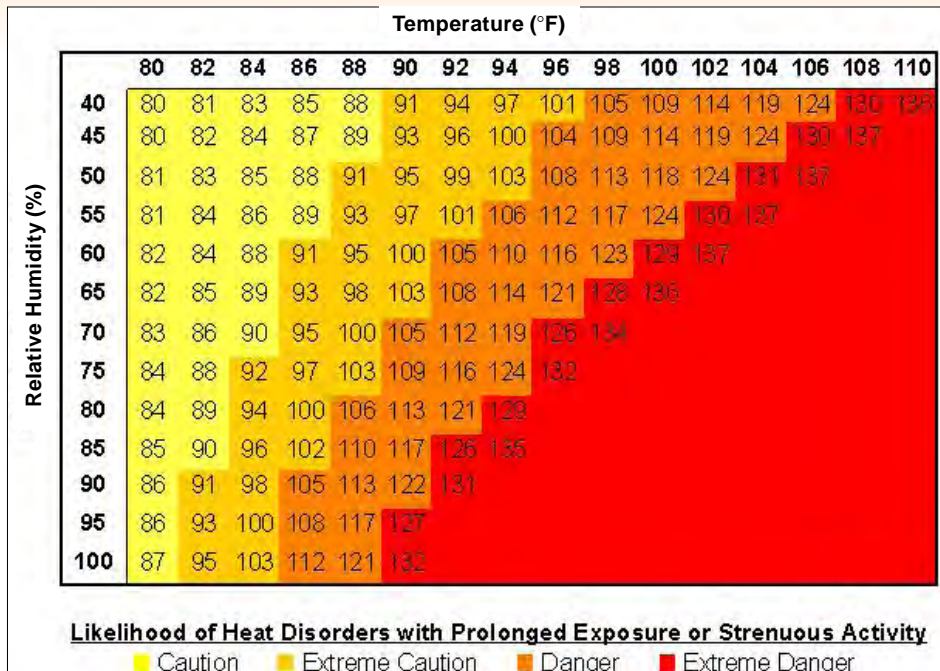


Temperatures

It's Not the Heat, It's the Humidity.

Although the desert Southwest is technically the sunniest place in the continental United States, Florida's deserving of its recognition as the "Sunshine State."

are combined with high temperatures, it makes our bodies think it's hotter than it actually is the reality. This is called the heat index. The increased moisture in the air limits our body's ability to cool off



*Provided by the National Weather Service

There are good reasons why Florida is known as the "Sunshine State". Each summer, tourists come travel from all over the world to enjoy Florida's warm weather and sunny beaches, however, most are unaware of just how hot it can get here. Surrounded by the Atlantic Ocean and the Gulf of Mexico, Florida is continually influenced by tropical moisture, especially in the summer. The humidity is a measures of how much the level of water vapor is present in the air, and these percentages can be very high during the summer months

In order for our bodies to keep cool, we sweat to get rid of excess body heat. As the sweat evaporates/runs off our bodies, it pulls the heat from our bodies and cools us. However, when high humidity values

by not allowing the sweat to evaporate. When the heat index reaches over more than 105°F, conditions become dangerous for the general population. A person can experience sunstroke, heat cramps, heat exhaustion and even heatstroke if they are exposed to these conditions for a period of time.

The National Weather Service (NWS) will issue heat advisories and warnings when the combination of heat and humidity causes the heat index to reach the extreme caution level.

In addition to the heat, people forget the dangers of ultraviolet (UV) radiation and often get sunburn. Sunburn can occur within 15 minutes of exposure, depending on the level of UV radiation and skin

WITH PROLONGED EXPOSURE AND/OR PHYSICAL ACTIVITY

EXTREME DANGER

Heat stroke or sunstroke highly likely

DANGER

Sunstroke, muscle cramps, and/or heat exhaustion likely

EXTREME CAUTION

Sunstroke, muscle cramps, and/or heat exhaustion possible

CAUTION

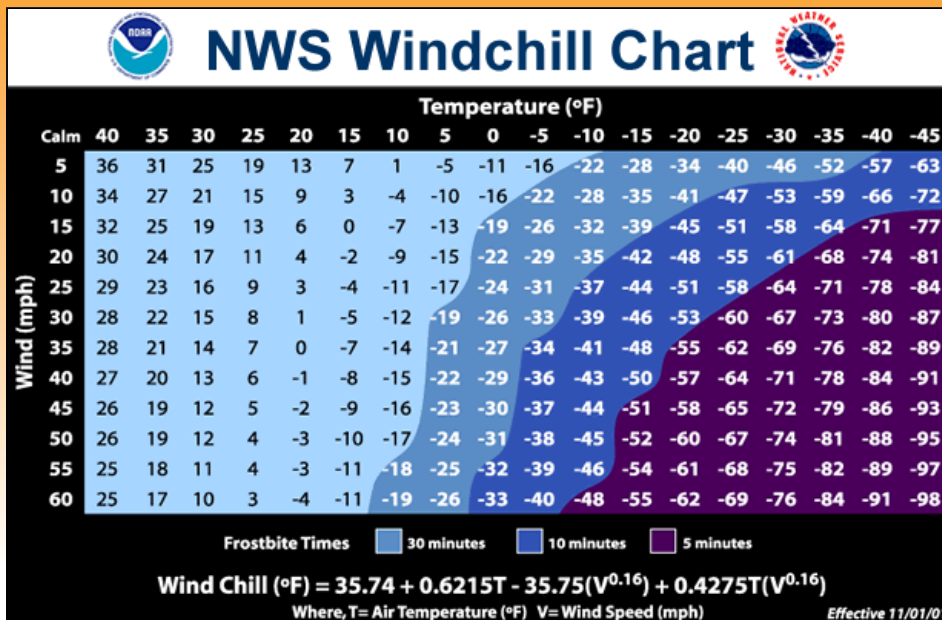
Fatigue

type. Even on cloudy days, the sun's UV radiation can do damage to skin. Over time, with prolonged exposure, this UV radiation can cause cancer and blindness.

Play it safe: Hot Temperatures

- ◆ Make sure to wear lightweight and light-colored clothing. Lighter colors help reflect heat and sunlight, while the loose light-weight clothing will help your body maintain its normal temperature.
- ◆ Slow down and limit your outdoor activities. Try to avoid participating in or scheduling outdoor events during the hottest part of the day (usually 10am until 4pm). Remain in air-conditioned places to reduce your exposure to the heat.
- ◆ Drink plenty of water or other non-alcoholic beverages. Your body needs





*Provided by the National Weather Service

water to keep cool. And drink water even if you don't feel thirsty, since people can become dehydrated without realizing it.

- ◆ Check on the elderly, young children and animals during periods of prolonged heat.
- ◆ Apply sunscreen before exposure to the sun. Reapply sunscreen if you are taking part in activities that could 'wash off' the product. Make sure to use a sunscreen with a Sun Protection Factor of at least 15. Also, wear sunglasses, a hat or carry an umbrella to further protect yourself.

Interesting Heat Facts

- ◆ The hottest temperature ever recorded in Florida was 109°F on June 29, 1931, in Monticello, FL.
- ◆ Heat waves in Florida are unusual, and typically occur only during periods of drought, low humidity and mostly clear skies. In early June 1985, a particularly severe heat wave hit the state, with temperatures of 106°F in Ocala and 105°F reported in Lakeland.
- ◆ The hottest temperature recorded in the continental U.S. was 134°F on

July 10, 1913, in Greenland Ranch, CA (located in Death Valley).

- ◆ The hottest temperature recorded on Earth was 136°F at Al' Aziziyah, Libya on September 13, 1922.

"Baby, It's Cold Outside"

Although many people head south to escape the cold temperatures in the winter, it isn't always warmer in Florida. Over the past 150 years, there have been numerous severe cold outbreaks that have affected the state. These cold weather outbreaks can produce below freezing temperatures and are usually accompanied by strong winds that produce bitterly cold wind chills. Increased wind speeds at cold temperatures accelerate the heat loss from exposed skin and the wind chill is a measure of this effect. Basically, these conditions make a person or animal feel colder than the actual temperature. The NWS will issue wind chill advisories/watches/warnings, freeze watches/warnings, hard freeze watches/warnings, and frost advisories if cold weather will threaten an area.

Interesting Cold Facts

- ◆ The coldest temperature recorded in Florida was -2°F in Tallahassee



Ice clings to an orange tree on a farm near Plant City. January 22, 2009

on February 13, 1899. At the same time, snow up to three inches deep was reported by several cities in the Panhandle.

- ◆ Snow has been reported numerous times throughout the state. On January 19, 1977, snow fell on Miami, FL and was seen in Homestead, FL (which is 22 miles south of Miami). Unfortunately, it melted when it hit the ground.
- ◆ The deepest snowfall ever measured in Florida (four inches), occurred in Milton on March 6, 1954.
- ◆ The coldest temperature recorded in the lower 48 states was -70°F at Roger's Pass, MT, on January 20, 1954.
- ◆ The coldest temperature recorded on Earth was -129°F at Vostock II, Antarctica, on July 21, 1983.

Play It Safe: Cold Temperatures

- ◆ Stay indoors and use a safe heating source. Do not use fuel-burning devices indoors. They release carbon monoxide, which is a deadly gas. Also, make sure to use space heaters according to their instructions and be attentive to open flames.
- ◆ Don't overexert yourself when outdoors. Your heart is already working overtime to keep you warm.
- ◆ If you must go outside, dress in layers and wear a hat and gloves. Try to stay dry and out of the wind.

By *Melissa Griffin*,
Florida Climate Center

**In Florida, it can be hot,
hot, hot, but also chilly.**

Wildfires

From January through October of 2009, more than 2,800 wildfires across Florida burned over 136,000 acres of state and federal lands. Though this may seem like a lot of fires, 2009 was a fairly inactive wildfire season compared to recent years.

turned during the winter months of early 2009, Lake Okeechobee levels were falling, and it looked like Florida was in for a rough year. From January through March of 2009, over 1,000 wildfires burned nearly 25,000 acres. That's more than double the 508 fires that burned over

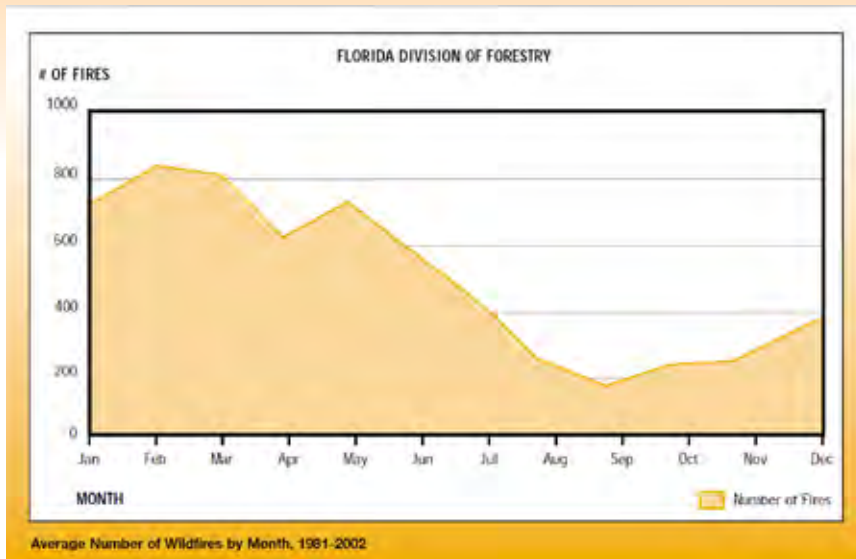
What do El Niño and La Niña mean for Wildfires?

Part of the reason for the inactive wildfire season this past year was the development of El Niño in the Pacific Ocean during the early summer months. El Niño conditions occur when abnormally warm water forms across the central and eastern Pacific Ocean. These warm waters create a change in the atmospheric weather patterns that result in wetter and cooler than normal conditions across the Southeastern United States.

In 2003, only 27,000 acres burned in 2,071 fires due to El Niño weather patterns keeping plenty of moisture in the soils and waterways. With these same conditions in the forecast, there is the potential for an inactive fire season in the early part of 2010.

When the waters in the central Pacific Ocean are cooler than normal, it is referred to as La Niña. La Niña conditions usually bring drier than normal winters and increase wildfire activity through the spring. Because of the influence of El Niño and La Niña, it is possible to anticipate upcoming fire activity of the next three to six months based on forecasts of weather and climate. As more research is done, more accurate forecasts and better planning and preparation can be made for upcoming wildfire seasons across Florida.

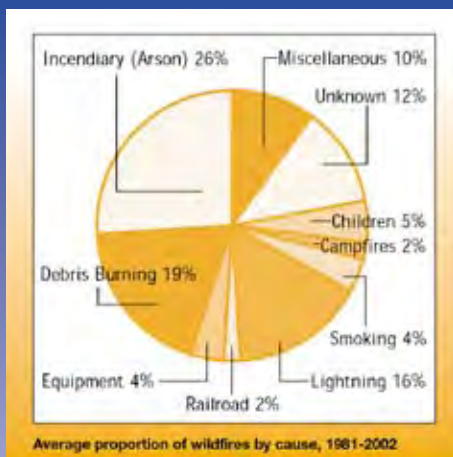
By Amy Godsey, Florida Division of Emergency Management



Though high pressure near the state kept most of the tropical systems away, Tropical Storm Fay in August of 2008 was able to affect just about every part of the state by slowly weaving its way northward across the Peninsula and then westward along the Florida Panhandle. However, drought conditions quickly re-

turned during the winter months of early 2009, Lake Okeechobee levels were falling, and it looked like Florida was in for a rough year. From January through March of 2009, over 1,000 wildfires burned nearly 25,000 acres. That's more than double the 508 fires that burned over 11,000 acres during the same time period in 2008. The busiest fire day was May 17th, 2009 when 193 separate wildfires were actively burning over 17,000 acres. This is co-incident with extreme drought that was occurring over much of the peninsula before the onset of the summer rainy season brought relief to the area.

WILDFIRE SAFETY ACTIONS



- ♦ Create a defensible or safe space of at least 30 feet around your home that is lean, clean and green.
- ♦ To help emergency vehicles gain access, make sure driveway are at least 12 feet wide with at least 15 feet of overhead clearance and are easily identifiable.
- ♦ Keep gutters, eaves and yards clear of debris, sticks, pine needles and leaves.
- ♦ Trim all the branches that hang over the house or are lower than 6 to 10 feet from the ground.
- ♦ Plant fire-resistant plants such as dogwood, sycamore, magnolia, oaks, red maple, wild azalea, sweet gum, black cherry and ferns instead of pines and palmettos.
- ♦ Use fire-resistant construction materials where possible and fire-resistant barriers when attaching flammable materials, such as wood decks or fences, to the house.
- ♦ Follow local regulations for the burning or disposal of yard waste and other materials.
- ♦ Develop a personal disaster plan, including a plan for evacuating your home. Be sure to identify at least two routes out of your neighborhood or subdivision.

2009 – Florida Weather Year in Review



Daytona Speedway on May 22, 2009

The Numbers

Warnings Issued for Florida Counties
by the National Weather Service;
January 1st to December 1st

Tornado Warnings 121
Severe Thunderstorms Warnings 740
Flash Flood Warnings 50



Port Orange, July 24, 2009

OTHER SIGNIFICANT WEATHER

The National Weather Service does not issue special warnings or statements for lightning because all thunderstorms contain dangerous lightning. In 2009, 5 people were killed and over 50 people were injured from lightning strikes in Florida. Four of these fatalities occurred within 1 month of each other. In June, a Broward County man was killed while cutting the grass in his yard. Three days later, a Highlands County man was killed while standing underneath a tree on a golf course. In Polk County, a man was killed and 27 others were injured when lightning struck an open soccer field where a group was having a 4th of July picnic. A man was killed by lightning while at the beach in Brevard County and a man fishing near Soldier Key in Miami-Dade County was struck on his boat.

An unusually strong winter freeze appeared twice within one month across Florida. The first widespread freeze occurred on the morning of January 22nd, where freezing temperatures extended down into the Everglades and hard freezes were experienced across many areas north of the I-4 corridor. Two weeks later, another strong cold front produced a second round of widespread freezes across the state. In total, these freezes caused millions of dollars in crop damage and resulted in 2 deaths.

Lack of winter rains created moderate drought conditions across much of the state by March. Abundant rainfall finally came to the Florida Panhandle in late March and early April, creating widespread river flooding across North Florida, but left the central and southern Florida peninsula in extreme drought conditions until the end of May. Above normal rainfall was seen through the end of the year in Jacksonville, Orlando and Tampa. Tallahassee and Miami ended the year with a 8-12 inch deficit.

