

# FLORIDA COCORAHS JUNE 2009 NEWSLETTER

# **Are You Prepared?**

June 1<sup>st</sup> was the start of the 2009 Hurricane Season. While Florida escaped fairly unscathed last year, despite flooding issues from Tropical Storm Fay, the threat is real every year between June and November, and <u>now</u> is the time to prepare. The Florida Division of Emergency Management has created a website that will create a checklist and provide information based on your needs:

#### **Create a Hurricane Plan for:**

Your Family: <a href="http://www.floridadisaster.org/family/">http://www.floridadisaster.org/family/</a></a>
Your Business: <a href="http://www.floridadisaster.org/business/">http://www.floridadisaster.org/business/</a>

You can find the contact information for your County Emergency Management Office here: <a href="http://www.floridadisaster.org/County\_EM/county\_list.htm">http://www.floridadisaster.org/County\_EM/county\_list.htm</a>.

We've received a few questions about how the rain gauges hold up in hurricane conditions – and honestly, I don't have an answer. You are welcome to bring your rain gauge in, if you fear it could be lost or damaged. If a hurricane threatens your area, we are more concerned about your safety than a rainfall total.

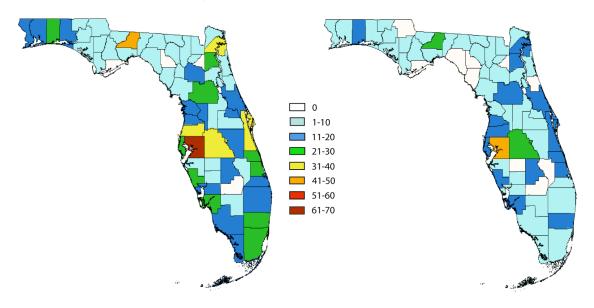
#### **Hurricane Rainfall Facts:**

- More than 10% of Florida's rainfall from June to November comes from tropical systems affecting the state.
- The record 24-hr rainfall total for the state of Florida is 38.70", and occurred on September 5, 1950, in Yankeetown from Hurricane Easy.

# A Quick Status Update

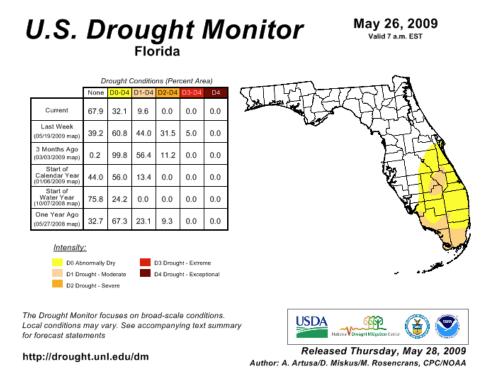
On June 1<sup>st</sup>, Hawaii officially became the 44<sup>th</sup> state to join CoCoRaHS. Connecticut and New Hampshire start in July. And sometime later this year, Delaware and Maine will be joining the ranks of CoCoRaHS. During the first few days of June, we are making it our goal to have 8,000 observations across the nation. Regardless of whether you've observed 0.00", a trace, or measureable precipitation, we want your report!

We now have about 850 observers signed up for CoCoRaHS in Florida. The total number of daily observations has dropped off during the last few weeks, mainly due to the lack of rain. Please remember that 0.00" is a valid and important value. Here's a little graphic that shows where all of our observers are, and how many have been active in 2009.



# **Current State Of The Drought**

At the beginning of May, portions of central and southern Florida were under extreme drought conditions. An unusual May storm brought relief and flooding to most parts of the state that were affected by the drought. Drought conditions have eased over parts of peninsular Florida, but there are still some lingering effects from the dry winter. Abnormally dry conditions are found south of a line from Fort Myers to Kissimmee to Titusville. There are a few areas of moderate drought, but hopefully, with the start of the summer rains, conditions will continue to improve.



The NOAA forecast does call for some improvement in the hardest hit areas over the next few months. You can take a look at the latest NOAA Seasonal Drought Outlook at this link: <a href="http://www.cpc.noaa.gov/products/expert">http://www.cpc.noaa.gov/products/expert</a> assessment/seasonal drought.html.

# Rare May Storm Impacts Florida

While the second half of May usually brings the beginning of Florida's summer rainy season, characterized by frequent afternoon thundershowers, it is also the month that brings the most stable weather patterns to the state. By late spring the jet stream over North America migrates northward, taking with it the support for strong cold fronts or mid-latitude low pressure systems that impact Florida in the winter and spring seasons. May is also too early in the season to support tropical development, so Floridians can usually count on fairly stable weather outside the threat of routine afternoon thundershowers.

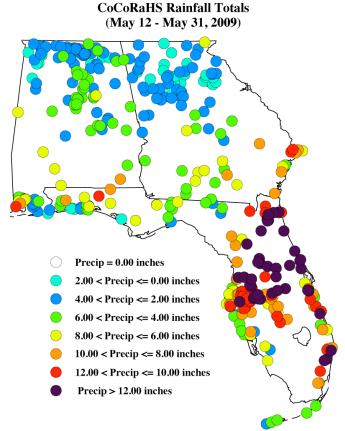
On May 17<sup>th</sup> and 18<sup>th</sup> a late season cold front moved across north Florida before stalling across central Florida with its soaking rains. A powerful upper-level and surface low-pressure system then formed on this boundary over the southeast Gulf of Mexico. This powerful system was able to tap abundant tropical moisture and brought high winds and soaking rains to northeast Florida over the next several days. This storm system detached from the primary jet stream shortly after formation, leaving no mechanism to move the system quickly from the area. The storm was nearly stationary as it pounded the area for several days with high winds and heavy rainfall.

The storm brought unusually powerful winds and surf to northeast Florida and the northern Gulf Coast. Persistent easterly winds prompted gale and high surf warnings for the Atlantic Coast and the northern Gulf of Mexico. Wind-driven waves resulted in tides 2-3 feet above normal and water backing up in the St. Johns River and Inter-Coastal Waterway, where elevated water levels were exacerbated by heavy storm water runoff. Gusts of 51 mph were measured in Daytona Beach and 60 mph were measured at Ponce Inlet. Over 10,000 homes lost power at some point on May 19<sup>th</sup> or 20<sup>th</sup> across central Florida.

In addition to the high winds, the storm system also brought widespread heavy rain to nearly all areas of the state with the coastal areas of northeast Florida once again the epicenter. Virtually all locations, with the exception of the western Panhandle, received at least 2 inches of rain from this system, and most locations saw significantly more.

CoCoRaHS Rainfall Totals (May 12 - May 31, 2009)

Station Number	Station Name	Rainfall Total
FL-VL-1	New Smyrna Beach 1.5 E	30.59"
FL-VL-5	Ormond Beach 3.5 SE	30.11"
FL-VL-6	Edgewater 2.4 N	23.15"
FL-OR-6	Ocoee 0.5 SSW	19.92"
FL-SJ-4	St. Augustine South 2.1 SSW	18.01"



This unusual May storm system is not without benefits, however. Prior to the storm, south Florida had experienced one of its driest "dry seasons" on record (Nov. 1 – April 30). The South Florida Water Management district reported the driest 6-month period since they began keeping records in 1932. The recent rains have eased short-term drought conditions there and Lake Okeechobee is on the rise again at a level of 10.77 ft. West-central Florida was also gripped by drought and has enacted some of the tightest water restrictions in recent memory. Flows on the Hillsborough and Alafia rivers, which help supply Tampa and St. Petersburg's drinking water, are now on the rise after experiencing record low flows for this time of year. Fire danger, which had been extremely high across central and south Florida with Keetch-Byram Drought Index values from 600 to over 700 (corresponding to extreme dryness), is now greatly diminished. Current KBDI values have dropped to 300 or less across south Florida and soils are completely saturated across north and central Florida. The widespread rainfall has sufficiently moistened soils and greened up vegetation, and combined with the onset of Florida's summer rainy season, has effectively ended the active wildfire season.

# **Intense Precipitation Reports**

Hopefully, as we move through May and into June, we'll see a return of the afternoon sea breeze thunderstorms and the possibility of rain from a tropical system. Most of us are aware that some of these storms can be intense and produce large amounts of rain in a short period of time.

If you experience heavy rain of at least 2.00" per hour, please submit an "Intense Precipitation Report" as soon as it is safe for you to go read your rain gauge. All intense rain reports are automatically transmitted to the National Weather Service Office for your area. The information you provide may be used to help issue a severe thunderstorm or flash flood warning.

If you've never submitted an "Intense Precipitation Report," you can access it by going to the CoCoRaHS website, logging in, and clicking "My Data." A link for the form will appear in the left hand toolbar. Please take a look at the form and familiarize yourself with the information it requests so that when the time comes you'll be ready to use the form.

Remember that you'll still need to submit your regular "Daily Precipitation Report" so we can see your total rainfall. You can also submit more than one report if necessary.

If you have any questions, please feel free to contact one of the regional/local coordinators or myself.

### **Have Questions?**

If at any time you have questions about CoCoRaHS, reading your rain gauge, or finding a location to set-up your rain gauge, please feel to contact a CoCoRaHS Coordinator. We are lucky enough to have regional support from the National Weather Service offices across the state, as well as a few members who have offered to help out at the county/local level. You can find all of the contact information for the CoCoRaHS Coordinators at:

http://www.cocorahs.org/Content.aspx?page=coord FL

Take care, Melissa

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Melissa Griffin

CoCoRaHS Florida State Co-Coordinator

Email: <a href="mailto:griffin@coaps.fsu.edu">griffin@coaps.fsu.edu</a>
"Because Every Drop Counts!"