Newsletter April 2010

# Florida CoCoRaHS

The Community Collaborative Rain, Hail & Snow Network

*Volunteers working together to measure precipitation.*

## Brrrrr!

Has everyone thawed out yet? With the extremely cold temperatures and the long cold spells we had earlier this year, it was a very cold winter. I've had numerous observers tell me this was the coldest winter they could remember in two decades. There's no doubt about it: from Pensacola to Key West and all points in between, January to March was cold.

In these cities, it was the coldest Jan-Mar period on record:

| | | |
|---|---|---|
| Brooksville | St. Leo | Sarasota |
| Avon Park | Archibold | Punta Gorda |
| St. Petersburg | Plant City | West Palm Beach |
| Naples | Miami Beach | Key West* |

*Key West has data record that goes back to the mid 1800's.

It was the second coldest Jan-Mar on record at:

- Tampa
- Lakeland
- Fort Myers
- Moore Haven

Spring is upon us now, with warmer temperatures and, unfortunately, drier conditions.

## Quick Stats

| | |
|---|---|
| 980 | # of registered FL observers |
| 488 | # of active FL observers |
| 12,313 | # of reports submitted by FL observers during 03/10 |
| 03/12/10 | Date with the greatest # of FL reports submitted during 03/10 (441 reports) |
| 6.47" | Highest reported daily rainfall from FL CoCoRaHS observers during 03/10 (FL-CT-7 on 03/12/10) |

*Because every drop counts!*

# March Rains

Rainfall totals for March were well above normal across central Florida, below normal across much of northern Florida and generally near normal in southern Florida (Table 1.) Pensacola (0.82") and Key West (1.52") were locally above and below normal, respectively. Numerous daily rainfall records were set on March 11th and 12th (Table 2).

*Table 1: March precipitation totals and departures from normal (inches) for selected cities.*

| Station | Total Rainfall | Departure from Normal |
|---|---|---|
| Pensacola | 7.22 | 0.82 |
| Tallahassee | 5.11 | -1.36 |
| Jacksonville | 1.87 | -2.06 |
| Orlando | 8.87 | 5.33 |
| Tampa | 5.88 | 3.04 |
| Miami | 2.81 | 0.25 |
| Key West | 0.34 | -1.52 |

*Table 2: Daily rainfall records (inches) set during March (complied from NWS).*

| Date | Station | Amount | Previous Record |
|---|---|---|---|
| 11 | Tallahassee | 2.25 | 0.98 in 1956 |
| 11 | Orlando | 2.60 | 2.11 in 1996 |
| 11 | Vero Beach | 3.22 | 2.97 in 1996 |
| 12 | Orlando | 1.20 | 0.78 in 1959 |
| 12 | Melbourne | 1.23 | 0.65 in 1953 |
| 12 | Vero Beach | 2.69 | 1.03 in 1958 |
| 12 | Fort Myers | 3.56 | 3.44 in 1970 |
| 12 | Miami | 1.20 | 1.04 in 1995 |
| 12 | W. Palm Beach | 4.99 | 2.44 in 1958 |
| 28 | Vero Beach | 2.26 | 1.03 in 1965 |
| 29 | Melbourne | 1.89 | 1.61 in 2001 |

# Current State of the Drought

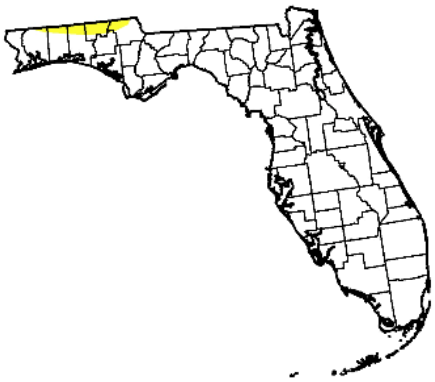
With the decreased rainfall across parts of northern Florida, the latest release of the Drought Monitor highlights the abnormally dry conditions in parts of Okaloosa, Walton, Holmes, Washington, and Jackson counties. In the last two weeks, some locations along the coastal areas of South Florida and parts of the Big Bend have had some beneficial rain, but most of the state has received less than 1".

**U.S. Drought Monitor**
**Florida**

**April 13, 2010**
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|---|---|---|---|---|---|
| Current | 98.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Last Week (04/06/2010 map) | 98.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 Months Ago (01/19/2010 map) | 97.3 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Start of Calendar Year (01/05/2010 map) | 97.3 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Start of Water Year (10/06/2009 map) | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| One Year Ago (04/14/2009 map) | 35.2 | 64.8 | 62.9 | 44.9 | 3.8 | 0.0 |



*Intensity:*
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements*

**http://drought.unl.edu/dm**

USDA National Drought Mitigation Center

***Released Thursday, April 15, 2010***
***Author: D. Miskus, CPC/NOAA***

Spring is usually a dry period for us here in Florida. Combined with the current La Niña, which brings drier than normal conditions to the Southeast, this spring could be harder than last year's, and we likely won't see any relief until the summer rains start.

As part of our continuing effort to count every drop *and* find out where the drops aren't falling, the CoCoRaHS network is now helping report drought conditions across the United States. For more information on how you can help, click on the "Impacted by Drought?" banner on http://www.cocorahs.org or the following link:

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

This website includes valuable information on how drought can impact a variety of sectors, such as agricultural, energy and public health, along with links to agencies that are on the constant watch for drought.

Remember: 0.00" is a valid value and it's just as important to know where/when it hasn't rained as where/when it has. The National Drought Monitor, as well as some of the state's water management districts, use your observations to help track dry conditions across Florida.

# Weather Term: Hail

While the word 'hail' is part of the CoCoRaHS name, we don't officially observe it here in Florida. The fact of the matter is, hail forms in every thunderstorm, but only reaches the ground if atmospheric conditions are favorable. A hailstone is formed in cumulonimbus clouds when super-cooled water droplets freeze on contact with condensation nuclei, which are small particles such as dust and soot about which cloud droplets come together. The hailstone is then subjected to the updrafts and downdrafts in the thunderstorm, which move it back and forth between sub-freezing and warmer temperatures. As the hailstone bounces around inside the thunderstorm, it collides with water and continues to grow. Once the hailstone can no longer be supported by an updraft, it falls to the Earth.

While Florida has the most thunderstorm days per year in the continental United States, Nebraska, Colorado, and Wyoming have the most hail storms. This is because the freezing level in Florida thunderstorms is so high that hail often melts before reaching the ground. According to the National Climatic Data Center's Storm Event Database, there have been 101 reports of hail larger that 2.0" in diameter in Florida since 1950. Three of those reports were of hail the size of softballs (4.50" diameter) in Lake Wales (3/30/1996), Hampton (3/30/2003) and Kendrick (5/13/2007).

The largest hailstone on record was from Aurora, NE, on June 22, 2003. The hailstone was 7.0" in diameter and had a circumference of 18.75"!

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## Have Questions?

If at any time you have questions about CoCoRaHS, reading your rain gauge, or finding a location to setup your rain gauge, please feel to contact a CoCoRaHS Coordinator. We are lucky enough to have regional support from National Weather Service offices across the state, as well as county/local help from several CoCoRaHS volunteers. 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