

NOAA, NATIONAL WEATHER SERVICE, WEATHER FORECAST OFFICE

Miami, Florida 33165

Beginning of the South Florida Dry Season

2009 Rainy Season Summary

October 21, 2009: The strong cold front which moved through south Florida on Saturday, October 17th ushered in the first significantly cool and dry air of the fall season. This cooler and drier air persisted through the early part of this week and essentially put an end to the 5-month rainy season which began on May 11th. The official start date of the 2009-2010 dry season is Sunday, October 18th. This is very close to the median date of October 17th.

The onset of the dry season means that the near-daily rainfall patterns which are characteristic of the summer months have come to an end, with most of the rainfall during these drier months typically coming by way of frontal systems which affect the area on a fairly regular basis between now and April. It is normal to have a transition period of one or two weeks at the beginning of the dry season when weather patterns can fluctuate between cooler and drier conditions and more humid and summerlike conditions. Nevertheless, this variability in temperature and moisture is a sign that the near-daily pattern of summer thunderstorms has stopped. The average rainfall during the dry season ranges from 12 to 15 inches over interior and western sections of south Florida to 15 to 21 inches over southeast Florida.

The 2009 rainy season lasted a total of 160 days, slightly more than the long-term average of 153 days. Rainfall amounts averaged around 42 inches area-wide, which is slightly above the rainy season average of around 35-40 inches. A persistent low pressure trough in the middle and upper levels of the atmosphere during much of the first half of the wet season contributed to produce significantly above normal rainfall between May and July, particularly over the eastern half of south Florida. High pressure became more dominant from August through the middle of October which led to a shift of the heaviest rainfall to the western sections of south Florida.

The above normal wet season rainfall occurred despite the absence of tropical systems affecting south Florida. This lack of organized tropical systems is largely responsible for the wide variation in rainfall amounts over relatively short distances. For instance, Fort Lauderdale/Hollywood International Airport

recorded only 29.30 inches of rain this wet season, while the Hollywood Waste Water Plant located just a few miles to the south recorded almost 40 inches (39.83). Naples Regional Airport measured 27.47 inches of rain, while 4 miles east in Golden Gate, a total of 46.29 inches fell. Palm Beach International Airport recorded 43.30 inches compared to Juno Beach about 13 miles north which recorded only 33.77 inches of rain. The lowest observed wet season rainfall occurred at Naples Regional Airport (27.47 inches) and the highest rainfall amount was measured in Clewiston (51.07 inches).

As a result of these wetter than normal conditions, the level of Lake Okeechobee rose steadily throughout the summer, reaching a peak of around 14.5 feet in September (Figure 1).

| Location | Wet Season 2009 Rainfall | Departure From Normal |
|--------------------------|--------------------------|-----------------------|
| Miami Int'l | 41.79 | 2.95 |
| Fort Lauderdale Int'l | 29.30 | -10.65 |
| Palm Beach Int'l | 43.30 | 8.19 |
| Naples Regional | 27.47 | -10.15 |
| Miami Beach | 43.95 | 15.50 |
| Moore Haven | 45.65 | 14.65 |
| The Redland (South Dade) | 44.04 | 2.00 |
| Oasis Ranger Station | 40.29 | -0.90 |

Here are rainfall amounts and departures from normal (in inches) for a few south Florida locations:

Here are other wet season rainfall amounts from several NWS cooperative sites:

| Miami-Dade County | Wet Season 2009 Rainfall |
|---------------------------|--------------------------|
| Hialeah | 49.50 |
| NWS Miami – Sweetwater | 47.68 |
| Homestead General Airport | 41.97 |
| Broward County | |
| Cooper City | 44.95 |
| Hollywood | 39.83 |
| Palm Beach County | |
| Loxahatchee | 35.95 |
| Juno Beach | 33.77 |
| Hendry County | |
| Clewiston | 51.07 |
| Devils Garden | 46.80 |
| Glades County | |
| Ortona | 43.37 |
| Brighton Reservation | 38.83 |
| Collier County | |
| Golden Gate | 46.29 |
| Marco Island | 44.06 |

The outlook for the dry season, including potential impacts from El Niño, will be released in a press conference on October 29th. For more information on the dry season outlook, as well as the latest weather conditions, forecasts, warnings, advisories and statements, please visit the National Weather Service Miami-South Florida Forecast Office's web site at <u>weather.gov/southflorida</u>.



Figure 1: Lake Okeechobee Level Jan 2008 - Oct 2009