MIAMI-SOUTH FLORIDA
National Weather Service
Forecast Office
http://www.weather.gov/miami

2018 Rainy Season Summary

Very Wet First Two Weeks to Rainy Season, Otherwise Near to Below Normal Wet Season Rainfall

October 19th, 2018: the rainy season got off to a quick and very wet start across South Florida in 2018, as a moist southwest wind flow from a persistent low pressure area in the middle and upper levels of the troposphere over the Gulf of Mexico led to periods of heavy rainfall during the second half of May. Rainfall totals for the last two weeks of May exceeded 10 inches over most of Southeast Florida, and at least 6 inches over interior and Southwest Florida. Estimates of over 20 inches were noted in interior Palm Beach County for the month of May (Figure 1). The weather pattern changed in June as subtropical Atlantic high pressure began to take control, leading to an increase in east winds and drier, more stable conditions. After a brief period of more unstable and wetter conditions due to low pressure in the Gulf of Mexico in July, the Atlantic subtropical high returned and became predominant for the remainder of the wet season.

The prevailing high pressure and resulting east wind flow for most of the rainy season resulted in a precipitation pattern that favored more rainfall over areas away from both the Atlantic and Gulf coasts, and less rainfall along and near the coasts. Aside from the heavy rainfall to begin the rainy season, there were few significant large-scale rainfall events. Tropical Storm Gordon on Labor Day (September 3rd) produced an average of 4 to 6 inches of rain over most of Miami-Dade County and western/southern Collier County, and about 2-4 inches over Broward County and southern Palm Beach County (Figure 2). All other high daily rainfall amounts were very localized and caused primarily by sea breeze interactions typical of the wet season. The lack of large-scale rainfall events contributed to a larger than usual variation in rainfall amounts over parts of South Florida, mainly between the coast and areas just a few miles inland. For example, Miami Beach recorded only 27.54 inches, while Miami International Airport 11 miles

west recorded 47.71 inches of rain. Similarly, Pompano Beach Airpark near the coast recorded 27.56 inches, while Fort Lauderdale Executive Airport 5 miles SW measured 38.13 inches. Along the Gulf coast, Marco Island only measured 25.58 inches, while East Naples 16 miles north and a few miles farther inland recorded 53.46 inches.

Here are rainfall totals for the 2018 Rainy Season (May 15th – October 15th) and departure from normal for select South Florida sites:

Location (Beginning of Period of Record)	May 15-Oct 15 Rainfall (inches)	May 15-Oct 31 Departure from Normal
Brighton Reservation – Glades County	**28.56 ***	**-4.13**
Canal Point (1941)	**35.34**	**+1.37**
Cape Florida	**37.68**	**+0.09**
Fort Lauderdale/Hollywood Int'l Airport (1913)	**35.90**	**-3.07**
Fort Lauderdale Beach	**39.15 ***	**-1.03**
Fort Lauderdale Dixie Water Plant	**41.85 ***	**+0.68**
Fort Lauderdale Executive Airport	**38.13**	**+3.23**
Hialeah (1940)	**50.56 ***	**+4.5**
Hollywood Waste Water Plant	**35.99**	**-3.89**
Homestead General Airport (1990)	**43.48 ***	**+1.18**
Immokalee (1970)	**38.23**	**+3.91**
Juno Beach (2002)	**45.09**	**+8.07**
LaBelle (1929)	**35.17 ***	**-1.21**
Marco Island (2002)	**25.58**	**-12.03**
Miami Beach (1927)	**27.54 ***	**-4.22**
Miami International Airport (1911)	**47.71**	**+5.43**
Moore Haven (1918)	**27.95 ***	**-3.11**
Muse	**35.07 ***	
Naples East/Golden Gate	**53.46 ***	**+14.06**
Naples Municipal Airport (1942)	**42.48**	**+6.37**
North Miami Beach (2000)	**46.66 ***	**+4.85**
NWS Miami – FIU/University Park	**55.22**	**+10.36**

Oasis Ranger Station (1978)	**38.03**	**-2.88**
Opa-Locka Airport	**44.51**	**+5.70**
Palm Beach Gardens (2003)	**45.21 ***	**+8.98**
Palm Beach Int'l Airport (1888)	**33.44**	**-2.78**
Pembroke Pines – North Perry Airport	**39.27**	**-0.98**
Pompano Beach Airpark	**27.56**	**-8.53**
The Redland - Miami-Dade County (1942)	**42.08**	**+0.35**
West Kendall – Miami Executive Airport	**38.74**	**-2.06**

** At least one day of missing data*

SEVERE/TROPICAL WEATHER

Fewer than normal severe thunderstorms were noted across South Florida this past wet season due to the stabilizing influence of the prevailing subtropical high pressure. A total of 9 damaging wind events were observed across the area, 4 large hail (1 inch or greater in diameter) events, and 5 small, short-lived tornadoes of EF-0 intensity which causing little to no notable impacts. Lightning strikes caused 2 deaths and 4 injuries, and rip currents caused 1 death and 6 injuries.

Subtropical Storm Alberto during Memorial Day weekend caused periods of heavy rain and gusty winds, but overall impacts were very minor. Tropical Storm Gordon on Labor Day did cause tropical storm wind gusts over Miami-Dade, Broward and coastal sections of Collier County.

TEMPERATURES

Location (beginning of period of historical record)	**May 15 – Oct 15 Average Temp (F)**	**Departure From Normal (F)**
Miami (1911)	82.7	-0.3
Fort Lauderdale (1912)	82.9	-0.5
West Palm Beach (1888)	81.9	+0.2
Naples (1942)	83.1	+1.1

Mainly near normal temperatures were noted at the main climate sites across South Florida, with the above normal temperatures at Naples primarily related to the predominant east wind flow which delayed the daily onset of the Gulf sea breeze and led to higher maximum temperatures.

- **Miami International Airport**: The highest temperature recorded was 94 degrees set on 6 individual days, last on October 10th, and the lowest temperature recorded was 69 degrees on May 15th. The maximum temperature reached or exceeded 90 degrees on 86 days, and the low temperature did not drop below 80 degrees on 12 days.

- **Palm Beach International Airport**: The highest temperature recorded was 94 degrees on July 20th, 21st and 22nd, and the lowest temperature recorded was 68 degrees on June 11th. The maximum temperature reached or exceeded 90 degrees on 59 days, and the low temperature did not drop below 80 degrees on 14 days.

- **Fort Lauderdale/Hollywood International Airport**: The highest temperature recorded was 95 degrees on July 21st, and the lowest temperature recorded was 70 degrees on May 15th. The maximum temperature reached or exceeded 90 degrees on 54 days, and the low temperature did not drop below 80 degrees on 32 days.

- **Naples Municipal Airport**: The highest temperature recorded was 95 degrees on July 21st, and the lowest temperature recorded was 70 degrees on May 15th. The maximum temperature reached or exceeded 90 degrees on 118 days, and the low temperature did not drop below 80 degrees on 16 days.

Winter Outlook 2018-2019

The 2018-2019 winter outlook by the NOAA Climate Prediction Center for South Florida calls for an increased likelihood of above normal precipitation and equal chances of above, below or near normal temperatures. Additional information and details for South Florida will be provided with the release of the local dry season outlook on October 25th.

For the latest south Florida weather information, including the latest watches, advisories and warnings, please visit the National Weather Service Miami Forecast Office's web site at weather.gov/southflorida.

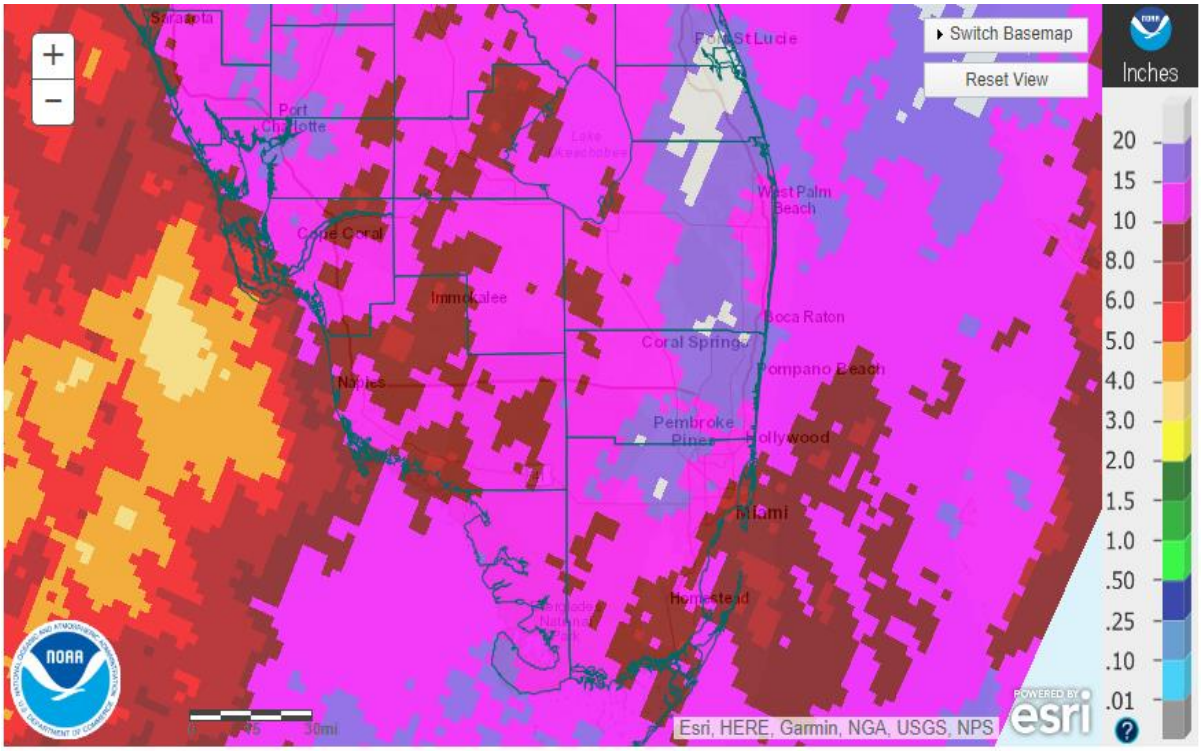

Figure 1: May 2018 Rainfall

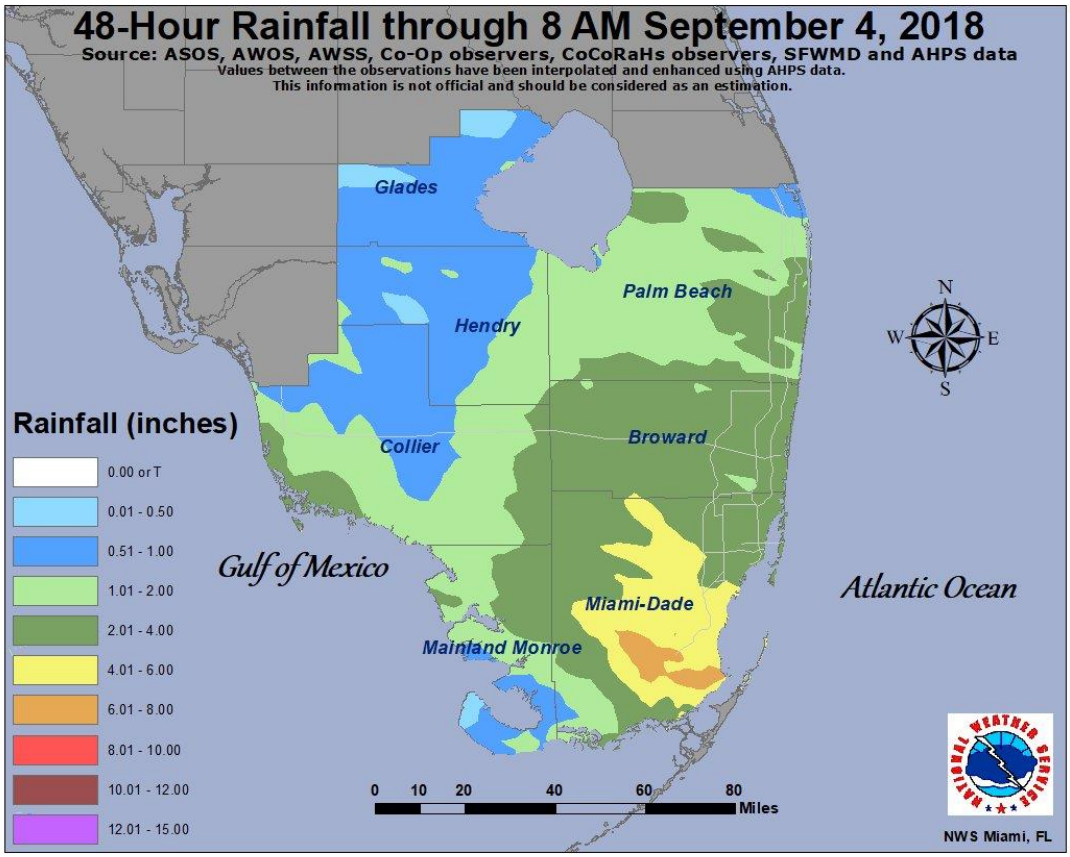

Figure 2: Storm Total Rainfall from Tropical Storm Gordon