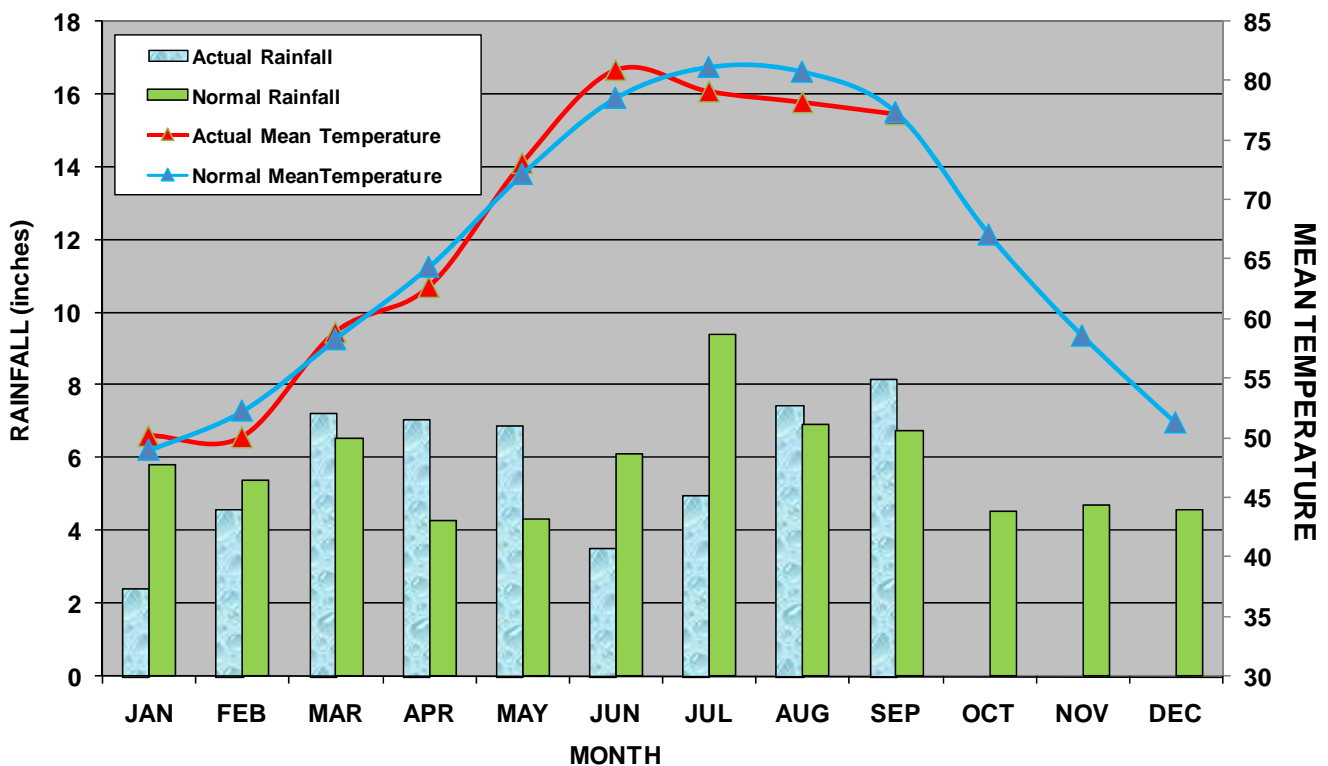


Introduction

September 2009 produced near normal temperatures and precipitation for Niceville, FL. The month was dominated by a humid, tropical air mass for the nearly the entire month. A low pressure system located over the lower Mississippi Valley persisted from the 13th through 22nd September plagued the southeast U.S. with localized heavy rain. This system (cut off from the jet stream) funneled a southwest flow of deep Gulf moisture aided by several upper level disturbances. Particularly hard hit was the western metropolitan area of Atlanta, GA where 20.37 inches of rainfall fell 5.6 miles SW of Kennesaw (Cobb County, GA). Locally heavy rainfall fell on the 17th September at Pensacola (Escambia County, FL) when 5.92 inches fell, breaking the previous record of 2.80 inches for this date. Finally, two cold fronts cleared the FL panhandle on the 27th & 29th September and brought a cooler and much drier, continental airmass at month's end. Temperatures evened out as widespread cloudiness and thundershowers kept daytime temperatures suppressed, but prevented overnight lows from cooling due to the muggy airmass coming off the Gulf. The tropical Atlantic basin was quiet with only two named storms (Tropical Storm Erika and Major Hurricane Fred), much below the long term average of four named storms. In terms of combined strength and duration, September 2009's accumulated cyclone energy was only 22% of the long-term mean and was the lowest value since 1944, ranking as the sixth lowest since 1944.

**2009 Jackson Guard Rainfall/NVOC Temperature
1971-2000 Climatic Normal (Niceville, FL)**



September 2009 Climate Summary

Jackson Guard rainfall for September totaled **8.21** inches and the Niceville (NVOC) Regional Sewer Board, Inc. recorded **7.11** inches. Eglin AFB recorded **6.60** inches for the month, 0.07 inches below the normal of 6.67 inches. Pensacola, FL recorded **10.19** inches, which is 4.44 inches above the normal of 5.75 inches. On 15th September, a record 24-hour rainfall of 2.42 inches broke the previous record 1.75 inches set back in 1930. There were 10 days with measurable precipitation in Niceville, which is 2 days above the September average. There were 11 thunderstorm days which is 3 days above normal. Year to date rainfall at NVOC is 54.37 inches, which is 1.03 inches below normal of 55.40 inches. Year to date rainfall at Eglin AFB is 47.25 inches, which is 2.76 inches below the normal of 50.01 inches. Year to date rainfall at Pensacola, FL is 58.42 inches, which is 6.70 inches above normal of 51.72 inches.

The [Keetch-Byram Drought Index](#) (KBDI) at the beginning of October 2009 was *normal*; except for Gulf County where the index was *low*. The Florida Division of Forestry’s [fire weather outlook](#) for the fall 2009 season will be updated in October. When the index exceeds 540 during the fall months of September-October-November for north Florida, the wildfire threat becomes high. The values below are an indicator of soil moisture conditions in the counties containing Eglin AFB natural resources.

Florida County	Average KBDI (4 October 2009)	Florida County	Average September 2009 Rainfall (inches)
Santa Rosa	277	Santa Rosa	8.92
Okaloosa	288	Okaloosa	6.36
Walton	291	Walton	7.70
Gulf	222	Gulf	9.65

For more information on daily KBDI values, visit the Florida Division of Forestry: [KBDI index](#).

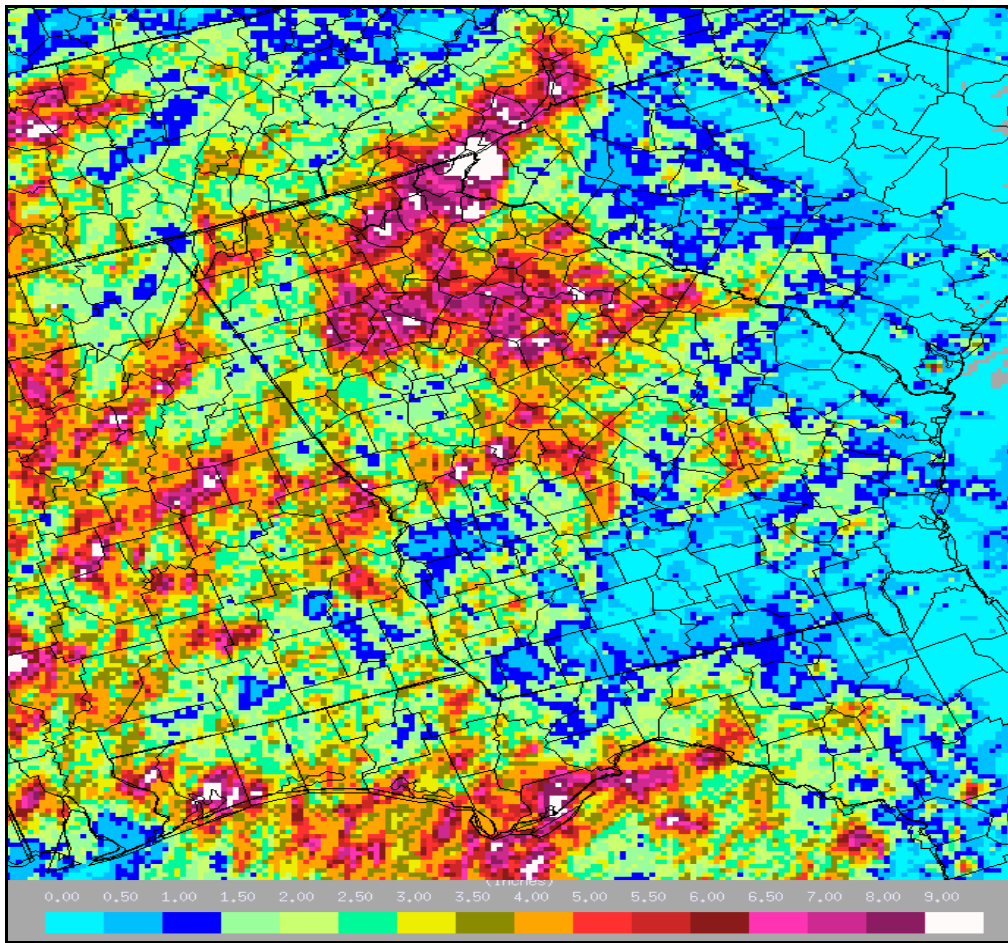


Figure 1. Seven day total rainfall from 14-21 September 2009.

The monthly mean temperature was **77.2°F** which was 0.2°F below normal. The average high temperature at Niceville NVOC was **84.7°F** (3.7°F below normal). *The average maximum temperature ranked as the 3rd coolest since record keeping began in 1938. The highest temperature of the month was 92°F observed on the 29th September.* There was 1 day when the maximum temperature reached 90°F or above, which was 10 days below normal. A record low maximum temperature **76°F** was recorded on 13th September which broke the previous record of 77°F set back in 2006. The average low temperature was **69.7°F** (3.3°F above normal). *The average minimum temperature ranked as the 7th warmest since record keeping began in 1938. The lowest temperature of the month was 50°F observed on the 30th September.* There were 21 mornings when the minimum temperature did not fall below 70°F.

October Outlook

The Climate Prediction Center <http://www.cpc.ncep.noaa.gov/products/predictions/30day/> outlook for October 2009 predicts near normal temperatures and above normal rainfall for the northwest FL.

October Climatology

October is the driest month of the fall season. High pressure predominates as cooler and drier continental air masses lower average temperatures 8°F over September's mean temperature. Thunderstorm frequency averages 3 days with 5 days of measurable rain. Rainfall averages **3.85** inches at Eglin AFB (climatic normal 1940-2008), which is their second driest month (after May) of the year and Niceville averages **4.53** inches (climatic normal 1971-2000). The maximum 24-hour Eglin AFB rainfall is 6.87 inches recorded on October 4, 1995 during Hurricane Opal and Niceville recorded 9.94 inches on October 19, 2007. Jackson Guard's greatest 24 hour rainfall was 11.21 inches on October 19, 2007. The greatest October rainfall is 14.97 inches (1959) and trace rainfall in 1952, 1961 & 1963 recorded at Eglin AFB.

Average monthly temperatures range from **59°F** to **79°F**. Temperatures rarely exceed 90°F and have never fallen below 32°F at Eglin AFB. The Eglin AFB record high is 95°F (October 8, 1941) and the record low is 33°F (October 30, 1952). The Niceville record high is 99°F (October 4, 1954) and the record low is 27°F (October 30, 1952).

Relative humidity (RH) averages 70%. RH > 70% occurs 53 percent of the time. The highest hourly humidity (average RH = 81%) occurs between the hours of 3 and 5 a.m.

Surface winds tend to remain calm, or light and variable, or northerly during the nighttime. Easterly winds tend to prevail in the morning with wind speeds averaging up to 9 mph. During the afternoon, winds are evenly distributed between northerly and southerly averaging 9 m.p.h. Highest October wind gust estimated at Eglin AFB is 100 m.p.h. in 1995 from Hurricane Opal while Hurlburt Field recorded a peak wind gust of 125 m.p.h.

This information was compiled from Jackson Guard rainfall observations. Other reports were obtained from Eglin AFB 46th Weather Squadron, Mobile National Weather Service, NOAA Climate Prediction Center, National Hurricane Center-Tropical Prediction Center, High Plains Regional Climate Center, Southeast Regional Climate Center, Community Collaborative Rain, Hail, & Snow Network (CoCoRaHS.org) and Florida Division of Forestry websites. NVOC Regional Water Sewer Board, Inc. in Niceville, FL provided the temperature and rainfall data.