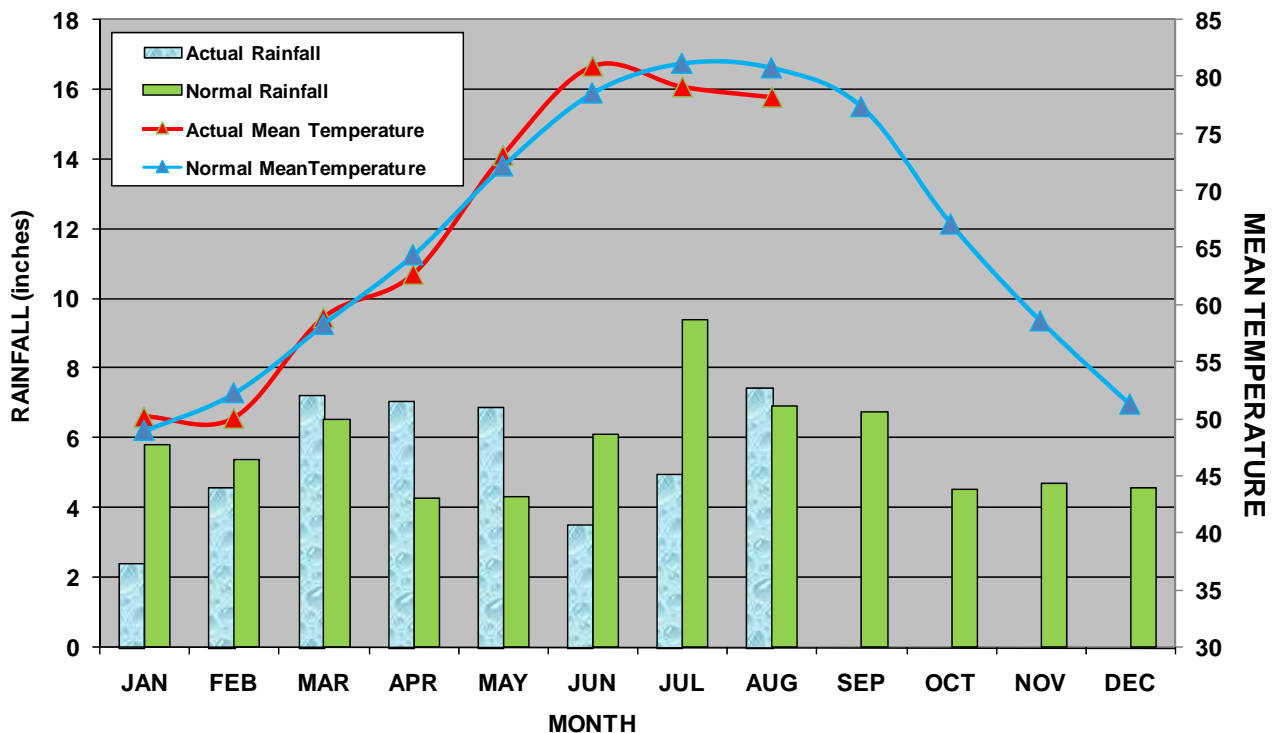


Introduction

August 2009 produced below normal temperatures and near normal precipitation for Niceville, FL. An active weather pattern highlighted the month with a series of upper-air disturbances and frontal passages as the persistent long wave trough remained in place over the eastern U.S. As was the trend during July 2009, two rare frontal passages cleared the FL panhandle on the 22nd & 31st August and a stationary front stalled on the coast on 13th August. Temperatures were remarkable cooler in Niceville, FL resulting in the **fourth** coolest August mean on record since 1938. Daytime highs averaged as the **second** coolest August maximum with only five days having a daytime high of 90°F or above (highest temperature of the month was 92°F on the 6th August). Morning lows were also below normal, but the humid air mass prevented the minimum temperatures from falling to comfortable levels. Severe thunderstorms were observed in local area on 5th August with a waterspout causing minor damage to historical buildings at Fort Pickens (SW of Pensacola, FL) and 1 inch diameter hail fell at De Funiak Springs (Walton County, FL) with urban street flooding reported across Okaloosa and Walton Counties, FL). Another severe thunderstorm produced nickel size hail near Freeport (Walton County, FL) on 12th August and a home was heavily damaged by a lightning strike in Niceville (Okaloosa County, FL). Tropical Storm Claudette became the first tropical system to make landfall in the U.S. impacting Santa Rosa Island at Destin around 2200 hours on 16th August with sustained winds of 27 m.p.h. The storm quickly formed out of the remnant frontal boundary across the Florida gulf waters west of Tampa, FL on the 15th August. The highest sustained winds were recorded at Alligator Point (Franklin County, FL) with sustained winds of 45 mph with a peak gust of 57 mph. Due to southwest wind shear, Tropical Storm Claudette failed to intensify and quickly degenerated to a tropical depression over Milton (Santa Rosa County, FL) after midnight 16th August. Damage was confined to a brief power outage, isolated tree damage, and minor beach erosion; however, one drowning fatality occurred in the Gulf of Mexico near Panama City Beach (Bay County, FL). Widespread rainfall of 1 to 4 inches fell across the Florida panhandle with Milligan (Okaloosa County, FL) reporting 4.66 inches and this resulted in road flooding to the north of Baker (Okaloosa County) where the month's highest precipitation of 13.75 inches occurred.

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



August 2009 Climate Summary

Jackson Guard rainfall for August totaled **7.47** inches and the Niceville (NVOC) Regional Sewer Board, Inc. recorded **8.35** inches. Eglin AFB recorded **5.33** inches for the month, *1.53* inches below the normal of 6.86 inches. Pensacola, FL recorded **8.86** inches, which is *2.01* inches *above* the normal of 6.85 inches. There were 15 days with measurable precipitation in Niceville, which is 3 days above normal. There were 15 thunderstorm days recorded at Eglin AFB, which is 1 day *above* normal. Year to date rainfall at NVOC is **47.26** inches, which is *1.42* inches *below* normal the normal of 48.68. Year to date rainfall at Eglin AFB is **40.65** inches, which is *2.69* inches *below* the normal of 43.34 inches. Year to date rainfall at Pensacola, FL is **48.23** inches, which is *2.26* inches *above* normal of 45.97 inches.

The [Keetch-Byram Drought Index](#) (KBDI) at the end of August 2009 was *normal*; except for Okaloosa County where the index was *low*. Widespread, precipitation fell during Tropical Storm Claudette covering most of Florida except for the western panhandle. The Florida Division of Forestry's [fire weather outlook](#) for the fall 2009 season will be updated in October. Normal values of the KBDI are an indication that [wildfire](#) conditions are possible across the western Florida panhandle. When the index exceeds **420** during the fall months of September-October-November for north Florida, the wildfire danger becomes high. The values below are an indicator of soil moisture conditions in the counties containing Eglin AFB natural resources.

Florida County	Average KBDI (1 September 09)	Florida County	Average August 2009 Rainfall (inches)
Santa Rosa	287	Santa Rosa	6.89
Okaloosa	215	Okaloosa	7.12
Walton	344	Walton	7.20
Gulf	295	Gulf	7.30

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

The monthly mean temperature was **78.19**°F which was *2.61*°F *below* normal. Niceville's record lowest August average temperature is 76.71°F (1943). The average high temperature at Niceville NVOC was **86.3**°F (*4.6*°F *below* normal). The highest temperature of the month was 92°F recorded on the 6th August. There were 5 days when the maximum temperature reached 90°F or above, which was 15.5 days *below* normal. One record low maximum temperature was established during August 2009. On 17th August, **78**°F broke the previous record of 83°F (1939). The average low temperature was **70.1**°F (*0.4*°F *below* normal). The lowest temperature of the month was 61°F observed on 24th August. One minimum temperature record was established during August 2009. On 25th August, **62**°F broke the previous record of 63°F (1956). The table below is the summary conditions for June through August 2009 at Niceville, FL:

Niceville, FL (NVOC)	Normal Summer (June-August) Temperature (1971-2000)	80.2°F
	June 2009-August 2009 Average Temperature	79.40°F (-0.8°F)
Niceville, FL (NVOC)	Normal Summer (June-August) Rainfall (1971-2000)	22.39 inches
	June 2009-August 2009 Total Rainfall	17.23 inches (-23.1%)

September Climatology

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

September transitions slowly into meteorological fall as the Atlantic hurricane seasons peaks by September 10th. The sea breeze phenomenon of afternoon showers and thunderstorms fade as cold fronts return to the Gulf Coast. Thunderstorm frequency averages 8 days with 9 days of measurable rain. Rainfall averages **6.73** inches at Eglin AFB (climatic period 1940-2006) and **6.72** inches at Niceville recording stations (climatic normal 1971-2000). The maximum 24-hour Eglin AFB rainfall is 10.20 inches recorded on 28th September, 1998 during Hurricane Georges. Record September rainfall is 28.63 inches (1998) and this is

an all time record for any month of any year of record at Eglin AFB. Niceville also set a similar record of 31.41 inches for September 1998. The driest September produced only 0.03 inch in 1984.

Average monthly temperatures range from **66°F** to **88°F** for Niceville. The record high is 102°F (1st September 1954) and the record low is 37°F (30th September 1967). High temperatures warm to 90°F or above an average 11 days and rarely exceed 95°F during September. Low temperatures rarely fall below 50°F during the month.

Relative humidity (RH) averages 73%. RH > 70% occurs 59 percent of the time. The highest hourly humidity (average RH = 85%) occurs between the hours of 3 and 5 a.m.

Surface winds are calm or northerly during the nighttime and early morning hours. Winds shift to southerly winds by midmorning with the speed averaging between 8 to 11 m.p.h. Highest September wind gust was 111 m.p.h. in 1975 from the west-northwest at Eglin AFB.

September 2009 Weather Outlook

The Climate Prediction Center [30-day outlook](#) for September 2009 predicts near normal temperatures and rainfall in the western Florida panhandle.

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.