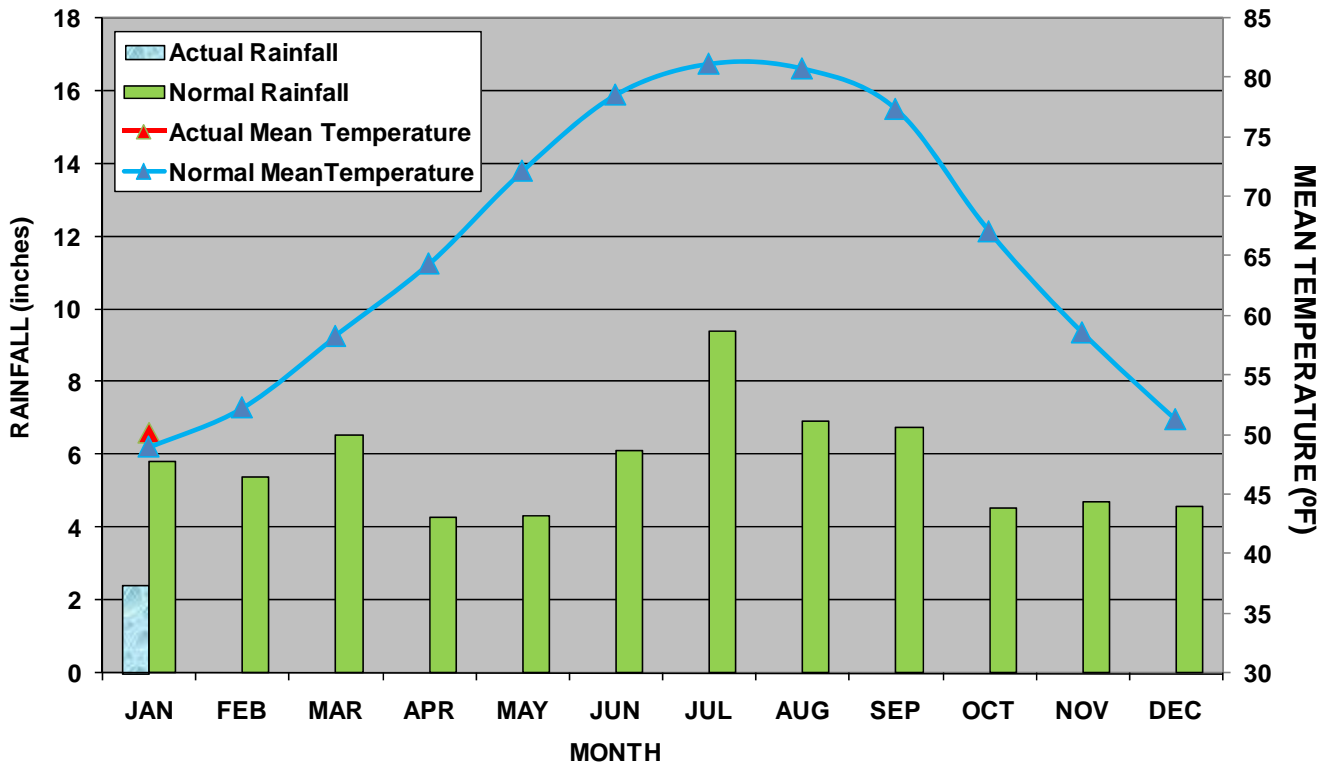


Introduction

January 2009 produced above normal temperatures and below normal precipitation for Niceville, FL. The upper-level ridge that was so dominant over the southeast U.S. during December and early January broke down and allowed an upper-level trough to move seasonably colder air into the region. An unusually late starting La Niña (abnormal cooling of the equatorial Pacific) is expected during February-May 2009 to bring below-average precipitation across the South and above-average temperatures across much of the southern United States. The La Niña phenomenon will likely divert the storm track northeast of the Lower Mississippi Valley as the upper-level ridge becoming established once again. There were frequent cold fronts that cleared the Florida panhandle on the 9th, 11th, 13th, 18th, 20th, 25th, & 28th January. The weather was briefly cold as one arctic-air mass occurred during the third week of the month bringing in the coldest temperatures of the winter season. Morning lows were in the lower 20's across the western Florida panhandle to the upper teens across southwest Alabama on 21st and 22nd January. No significant weather was noted during the month and no weather records were established for the local area.

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



January 2009 Climate Summary

Jackson Guard rainfall for January totaled **2.45** inches and the Niceville (NVOC) Regional Sewer Board, Inc. recorded **2.26** inches. Eglin AFB recorded **1.87** inches for the month, 2.64 inches *below* the average (1940-2008) of 4.51 inches. Pensacola, FL recorded **1.49** inches, which is 3.85 inches *below* the normal (1971-2000) of 5.34 inches. There were 6 days with measurable precipitation at the NVOC, which is 3 days *below* average. There were 2 thunderstorm days, which is normal. Fog obstructed visibility on 3rd, 5th, 26th, & 27th January to less than ½ mile.

The [Keetch-Byram Drought Index](#) (KBDI) at the end of January 2009 was *very low to normal*. Northwest Florida is moister than the rest of the state where indices show moderate to severe fire danger are present, particularly the south central Florida where average KBDI index is exceeding 650. The values below are an indicator of soil moisture conditions in the counties containing Eglin AFB natural resources.

Florida County	Average KBDI (31 January 09)	Florida County	Average January 2009 Rainfall (inches)
Santa Rosa	287	Santa Rosa	2.23
Okaloosa	146	Okaloosa	2.33
Walton	205	Walton	2.26
Gulf	187	Gulf	2.88

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

The monthly mean temperature was **50.2°F** which was 1.2°F *above* normal. The average high temperature at NVOC was **62.3°F** (1.1°F *above* normal). The highest temperature of the month was 72°F observed on the 7th January. The average low temperature was **38.0°F** (1.3°F *above* normal). The lowest temperature of the month was 21°F observed on 22nd & 23rd January. There were 12 mornings when the minimum temperature was ≤32°F, which is normal. No record temperatures occurred during the month.

2008 U.S. Temperature Average

The 2008 average annual temperature for the contiguous U.S. was near the 20th century average. Based on preliminary data from the National Climatic Data Center, the 2008 annual average temperature was 53.0°F; 0.2°F *above* the mean of 52.8°F (Figure 1). The nation's January-December average temperature has increased at a rate of 0.12 degree F per decade since 1895, and at a faster rate of 0.41 degree F per decade during the last 50 years.

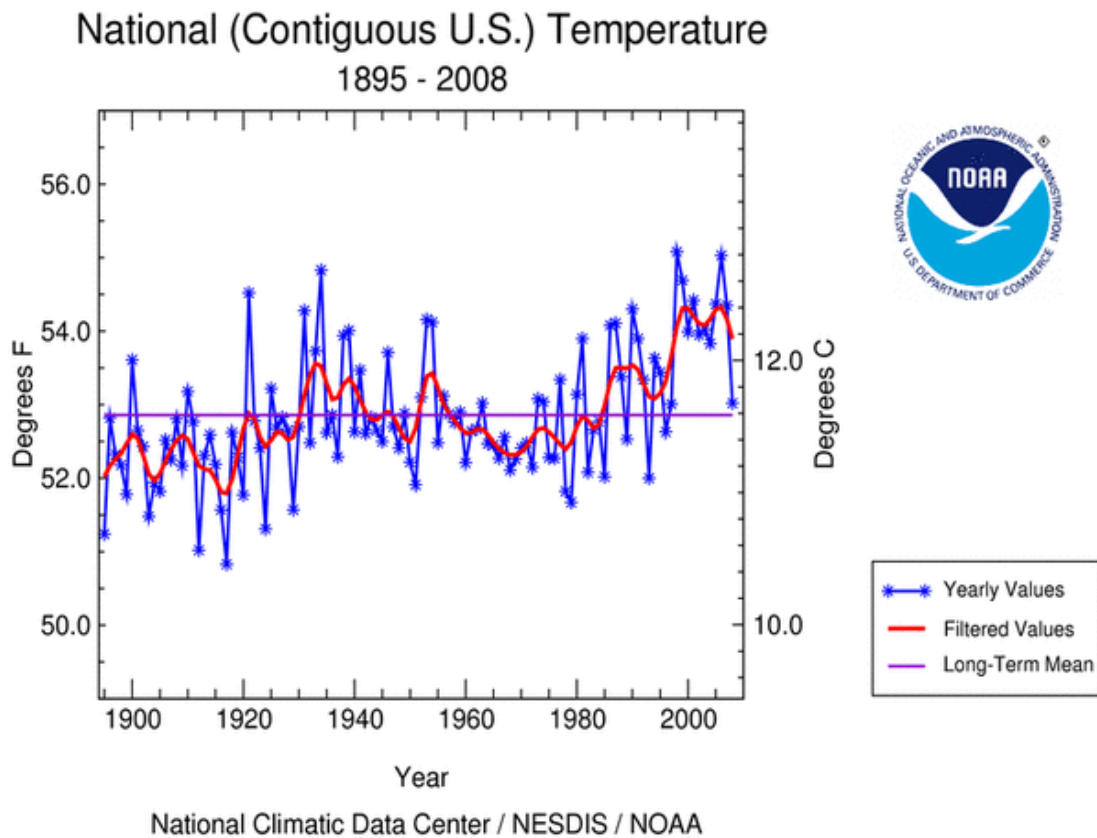


Figure 1. 2008 U.S. annual temperature was the coolest since 1997 in part due to below-average temperatures experienced the central and southern regions of the U.S.

La Niña Outlook

Sea surface temperatures have decreased across the equatorial Pacific during the last 30 days, with the most recent departure of 1.0°C in the principal monitor region indicates weak La Niña conditions are now present. A majority of the statistical and coupled model forecasts indicate SST anomalies will persist during the next 3 months. Thus, a return to a drier and earlier spring warm-up will occur once the jet stream is deflected further north of the Gulf of Mexico. Moderate drought conditions are expected to persist over the central and south Florida with a high potential for an active wildfire season this spring. In the western panhandle region, abnormally dry conditions are encroaching into the Escambia and Santa Rosa Counties as surplus soil moisture is being depleted prior to the onset of the growing season. See Figure 2 for the latest Drought Monitor for the southeast U.S.

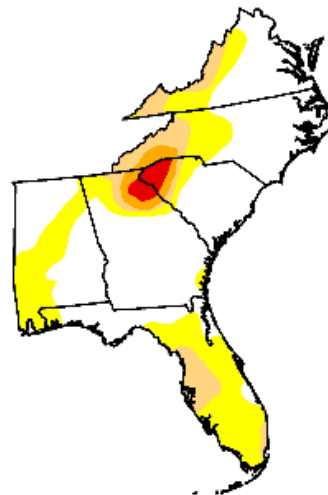
U.S. Drought Monitor Southeast

January 27, 2009
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	59.7	40.3	13.2	4.2	1.7	0.0
Last Week (01/20/2009 map)	66.4	33.6	12.4	4.2	1.7	0.0
3 Months Ago (11/04/2008 map)	47.3	52.7	30.0	19.1	8.8	2.0
Start of Calendar Year (01/06/2009 map)	65.3	34.7	15.7	5.3	2.8	0.0
Start of Water Year (10/07/2008 map)	35.2	64.8	41.8	20.8	9.4	1.9
One Year Ago (01/29/2008 map)	7.3	92.7	72.8	57.8	39.2	21.3

Intensity:

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



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

<http://drought.unl.edu/dm>



Released Thursday, January 29, 2009

Author: Eric Luebehusen, U.S. Department of Agriculture

Figure 2. Florida drought covers nearly 70% of the state, an increase of nearly 14% over the previous week, but is down from 84% coverage from one year ago.

February Outlook

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

February Climatology

February is the last winter month with weather systems similar to that of January. Polar fronts arrive every four to five days. Low pressure systems occasionally form when the orientation of the jet stream traverses the Gulf of Mexico or induces a wave along a stationary front. These weather systems result in steady and showery weather producing moderate to heavy precipitation. Severe weather is infrequent, but can occur as a squall line ahead of a cold front producing strong winds or rarely tornadoes. Visibility becomes obstructed due to fog an average of 17 days. Advection or “sea” fog (warm Gulf of Mexico air moving over the cooler coastal region) most often forms during the afternoon and can persist for several days. Morning fog caused by radiational cooling following cold fronts is also common. Low-level stratus clouds usually remain once the surface visibility becomes unrestricted.

Thunderstorm frequency averages 3 days during February and 9 days have measurable rainfall. Average rainfall is 4.77 inches at Eglin AFB (1940-2008) and 5.39 inches is the Niceville normal (1971-2000). The maximum 24-hour Eglin AFB rainfall is 5.86 inches recorded on February 1, 1983. At Niceville the record 24-hour rainfall is 8.30 inches observed on February 16, 1970. Record Niceville February rainfall is 12.78 inches (1979). The driest February in Niceville produced 0.26 inch in 1951. Snowfall has been recorded only three years since record keeping began in 1940 at Eglin AFB. Maximum Eglin snowfall of 1.3 inches fell February 9, 1973.

Average monthly temperatures for Niceville range from 64°F to 40°F. The record high is 83°F (February 24, 1980) and the record low is 11°F (February 3, 1951). Minimum temperatures below 32°F average eight days during February.

Relative humidity (RH) averages 70%. RH > 70% occurs 54 percent of the time. The highest hourly humidity (average RH = 78%) occurs between the hours of midnight and 8 a.m.

Surface winds are primarily northerly during the day occur with speeds averaging up to 9 mph. Frontal waves and gulf lows alter winds to a easterly or southerly component. Highest February wind gust was 59 m.p.h. in 1983 from the west.

This information was compiled from Jackson Guard rainfall observations. NVOC Regional Water Sewer Board, Inc. in Niceville, FL provided the temperature and additional rainfall data. Other reports were obtained from Eglin AFB 46th Weather Squadron, Mobile National Weather Service, NOAA Climate Prediction Center, Southeast Regional Climate Center, Community Collaborative Rain, Hail, & Snow Network, and the Florida Division of Forestry websites. Special thanks given to Mr. Richard Henning, Meteorologist at the 46th Weather Squadron, Eglin, AFB for providing additional assistance.