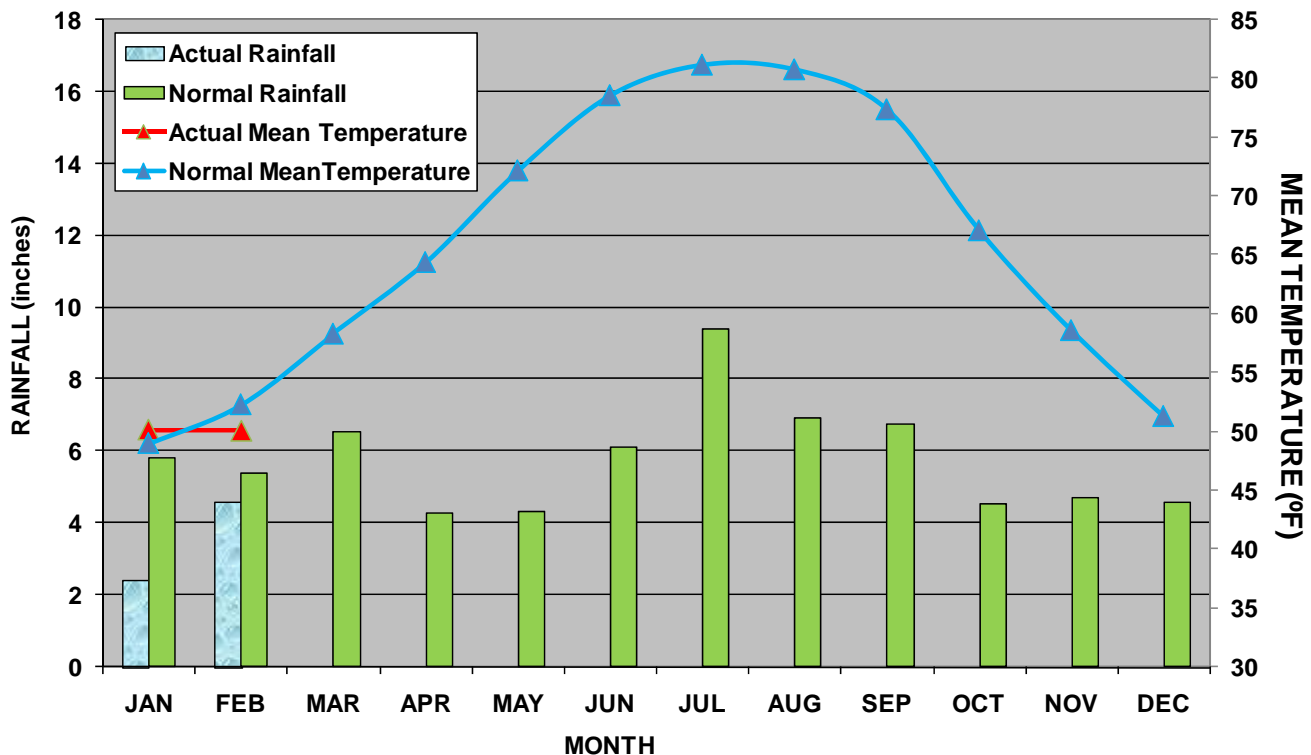


Introduction

February 2009's temperature averaged below normal for Niceville, FL, while precipitation was slightly drier than normal. The progressive pattern produced a wide variety of weather across the region was due in part to weak La Niña conditions in the equatorial Pacific Ocean, alternating upper-level trough/ridge patterns over the eastern U.S., and intermittent surges of arctic air. Seven cold fronts cleared the FL panhandle on the 2nd, 4th, 11th, 14th, 19th, 22nd, & 28th February. Temperatures fluctuated widely during the month with unseasonable cold air during the first and third weeks and unseasonable warm air around mid month and the last few days of the month. Heavy rainfall (greater than three inches) fell on the 13-15th February across much of the FL panhandle. A severe weather outbreak skirted parts of the northern FL panhandle into southeast GA from Wednesday afternoon 18th February through the predawn hours of Thursday morning 19th February. A long-lived supercell thunderstorm averaging 60 mph raced through Walton and Holmes Counties, FL dropping baseball-size hail along with 70-80 wind gusts. The storm rapidly intensified again over eastern Jackson County, FL spawning a 300-400 yard wide EF-2 tornado over central Grady County through eastern Thomas County, GA culminating into a short-tract EF-3 tornado (maximum winds between 140- 145 mph) near Boston, GA. Damage occurred to 160 structures, destroying 9 mobile homes and 20 single family homes without causing serious injuries or fatalities. See Figure 1 for map and tree damage as well as [Severe Weather of February 18-19, 2009](#). Despite this stormy pattern, abnormally dry conditions persisted across the entire FL panhandle and will likely affect winter pastures and long-term recharge of aquifers and rivers into the spring season.

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



February 2009 Climate Summary

Jackson Guard rainfall for February totaled **4.60** inches and the Niceville (NVOC) Regional Sewer Board, Inc. recorded **4.96** inches, which is 8% *below* normal (5.39 inches). There were 6 days (including 2 days with thunder) with measurable precipitation, which is 2 days below the normal February average. Record NVOC rainfall occurred on 14th February when **2.51 inches** broke the previous record of 2.05 inches set back in 1965. Eglin AFB recorded **4.54** inches for the month, 0.23 inches below the normal of 4.77 inches. Pensacola, FL recorded **4.41** inches, which is 0.27 inches below the normal of 4.68 inches.

Year to date 2009 rainfall at Eglin AFB was **6.41** inches which is 2.85 inches below the normal of 9.26 inches. Year to date 2009 rainfall at Pensacola, FL was **5.90** inches, which is 4.12 inches below the normal of 10.02 inches.

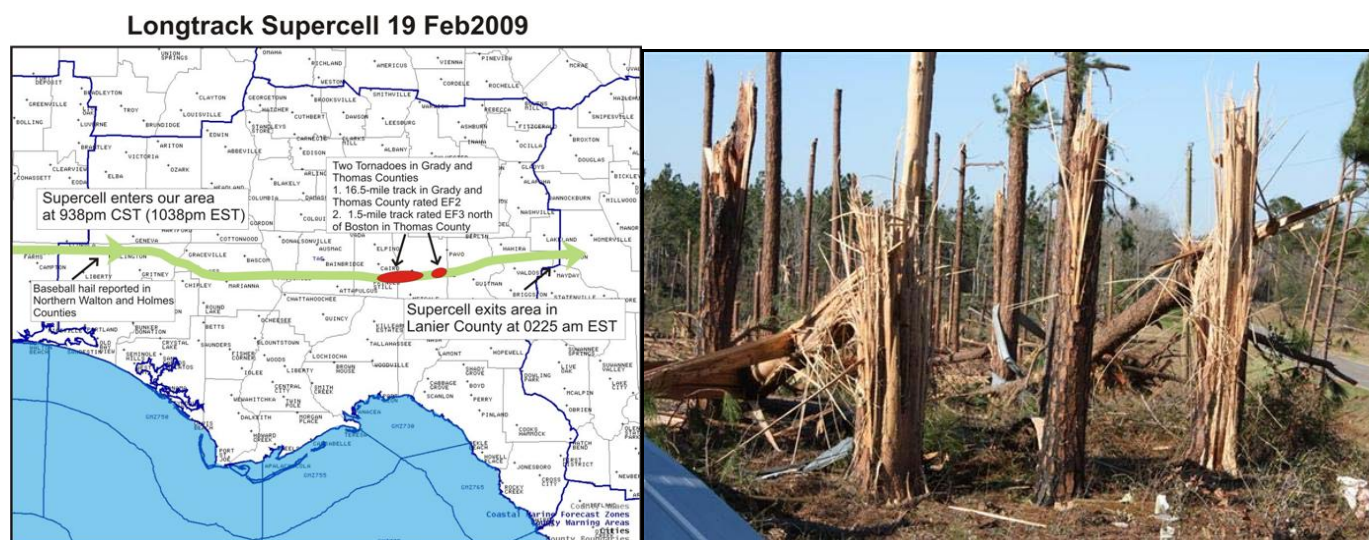


Figure 1. Storm track map & pine tree damage in Thomas County, GA. (Courtesy NWS-Tallahassee, FL)

The monthly mean temperature was **50.1**°F which is 2.1°F *below* normal. The average high temperature at Niceville NVOC was **62.7**°F (2.2°F *below* normal). There were two days when the maximum temperature was ≥ 70 °F. The highest temperature of the month was 72°F recorded on the 13th & 14th February. The average low temperature was **37.5**°F (2.1°F *below* normal). The lowest temperature of the month was 19°F observed on 6th February. There were 12 mornings when the temperature fell to 32°F or below, which was 4 days *above* normal. No new temperature records were observed during the month.

The Keetch-Byram Drought Index (KBDI) at the beginning of March 2009 was very low to normal. The anomalous Santa Rosa reading is due to isolated dryness in the north-central area of the county. The values below are an indicator of drought conditions in the counties containing Eglin AFB natural resources.

Florida County	Average KBDI (1 March 09)	Florida County	Average February 2009 Rainfall (inches)
Santa Rosa	279	Santa Rosa	4.58
Okaloosa	95	Okaloosa	4.14
Walton	102	Walton	3.35
Gulf	113	Gulf	2.89

Low KBDI relates to very wet conditions in the organic, duff layer of the overlying soil, which would make combustion difficult for a fire to carry in the forest understory, however; ideal conditions of a dry, windy airmass can allow for a rapidly spreading wildfire, so the fire danger potential still exists under low KBDI conditions. For more information on these daily values, visit [KBDI](#).

Winter Summary

The winter pattern over the Northeast and Midwest U.S. has been colder than normal (including Florida) while the U.S. West has been warmer than normal, the exact reversal occurred one year ago during January 2008. The natural variability and the difference between the past two Januarys is the strength of the present La Nina phenomena (strong during January 2008 and weak during January 2009). Thus, the local climate during the 2008-2009 winter was *cooler and drier than normal*, but certainly within dynamic variability of climate patterns. See Table 1 for the mean temperature and total precipitation when compared to the weather normal for the period 1948-2006 at Niceville, FL.

Niceville, FL (NVOC)	Normal Winter (Dec.-Feb.) Temperature (1948-2006)	51.2°F	
	December 2008-February 2009 Average Temperature	49.3°F (-1.9°F)	<i>16th coolest winter</i>
Niceville, FL (NVOC)	Normal Winter (Dec.-Feb.) Rainfall (1948-2006)	14.66 inches	
	December 2008-February 2009 Total Rainfall	12.72 inches (-13.2%)	<i>34th driest winter</i>

Table 1. Winter season (Dec-Jan-Feb) summary of temperature and precipitation for Niceville, FL.

March Outlook

The Climate Prediction Center [30-Day Outlook](#) for March 2009 predicts above normal temperatures for the western FL panhandle and below normal rainfall for the Florida panhandle. Drought conditions will continue to worsen as the growing season commences.

March Climatology

March is the first month of meteorological spring with weather systems similar to that of February. Cool weather prevails during the first week, and then a warming trend becomes noticeable for the remainder of the month. Polar fronts and gulf low formation decrease in frequency. As the southerly flow returns, an increase in precipitation results in the wettest month of spring. Severe weather reaches its peak during March along the Gulf Coast and moves northwards over the course of late spring (March-May). Squall lines that form ahead of fast moving cold fronts are most likely to produce severe thunderstorms than any other spring month. Radiational fog becomes more common during the night and morning hours as the frequency of advection “sea” fog diminishes during the day.

Thunderstorm frequency averages 4 days during March and 9 days have measurable rainfall. Normal rainfall is 5.94 inches at Eglin AFB and 6.52 inches at Niceville recording stations. The maximum 24-hour Eglin AFB rainfall is 9.32 inches recorded on March 13, 1986. Record March (Eglin AFB) rainfall is 14.56 inches (2005). The driest March (Eglin AFB) produced 0.42 inch in 1967.

Average monthly temperatures in Niceville range from 70°F to 46°F. The record high is 87°F (March 22, 1982) and the record low is 19°F (March 3, 1980). Minimum temperatures below 32°F average 3.4 days during March. The average date of the last freeze at the start of the growing season occurs on March 15 in Niceville.

Relative humidity (RH) averages 70%. RH > 70% occurs 57 percent of the time. The highest hourly humidity (average RH = 81%) occurs between the hours of 3 and 5 a.m.

Surface winds are calm or northerly during the nighttime and morning hours. Afternoon southerly winds occur with speeds averaging 10 mph during the early afternoon. Highest March wind gust was 59 m.p.h. in 1948 from the southwest (Eglin AFB).

La Niña Advisory

The National Oceanic and Atmospheric Administration (NOAA) issued the *first* La Niña advisory on 5th February 2009 under its new El Niño Southern Oscillation (ENSO) Alert System. La Niña is the periodic cooling of ocean waters in the equatorial Pacific, which can impact the typical alignment of weather patterns around the globe. The system will use the familiar terms of “Watch”, “Advisory”, and “Final Advisory” issued by the Climatic Prediction Center on the Thursday falling between the 5th and 11th of every month. Current conditions indicate that the near surface temperatures of the equatorial Pacific have decreased indicating that the current La Niña phase has developed and is expected to continue through the 2009 spring. Recent water temperature measurements have reached 0.5°C below normal in the east-central Pacific (2 March 2009). The last La Niña occurred in August 2007 through June 2008 and was a moderately-strong event comparable to the 1998-2000 event of similar magnitude. For further details visit: [La Nina](#).