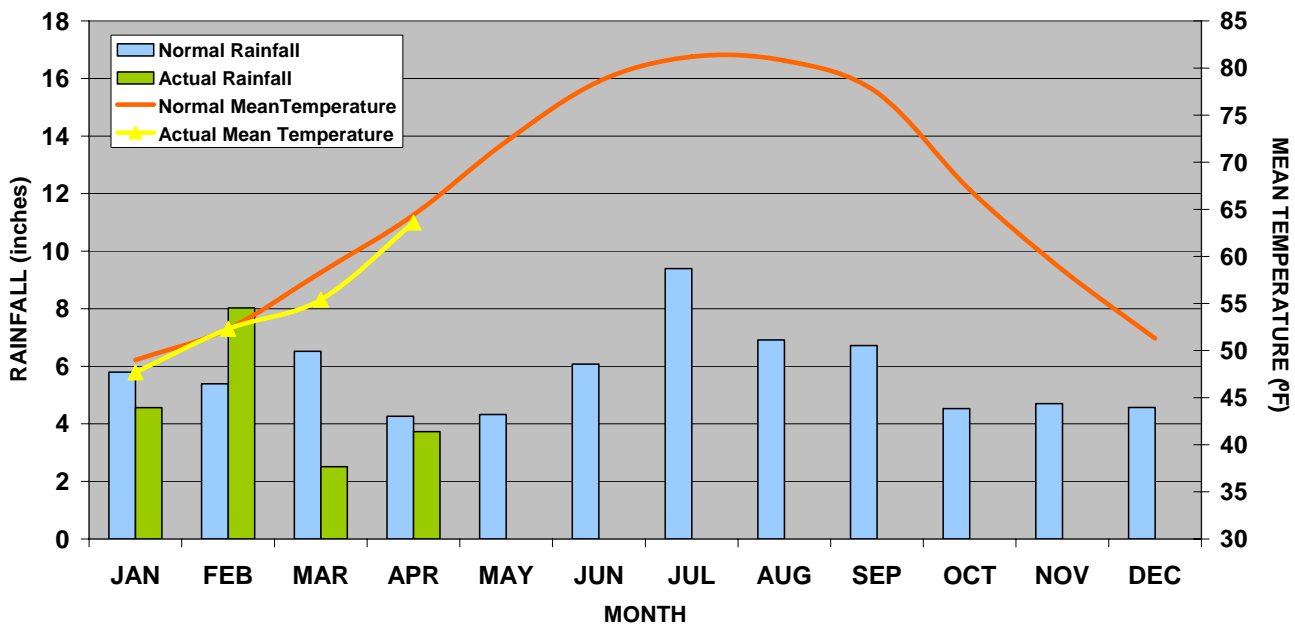


Introduction

April 2008's temperature and precipitation averaged near normal for Niceville, FL trending slightly cooler and drier. The number of frontal passages decreased as is typical for the mid-spring season. Four cold fronts cleared the FL panhandle on the 6th, 12th, 19th, & 28th April. Temperatures fluctuated widely over a 50 degree range for the third month in a row setting several new temperature records for April 2008. The month's greatest rainfall occurred on the 5th April when a slow moving front developed a persistent line of heavy thunderstorms from Mobile, AL to Tallahassee, FL that produced record 24-hour rainfall totals. Rainfall approaching 12 inches occurred in Mobile County, AL with 5 to 8 inches of rainfall oriented west to east along Interstate 10 from extreme southwest Alabama through the western Florida panhandle. Lesser amounts between 2 to 4 inches covered most of north Florida and the south half of Alabama and Georgia. Unseasonably cool air resulted in record low minimums in the mid to upper 30s°F on the 15th & 16th April from Mobile, AL, Pensacola, Tallahassee, and Apalachicola, FL. Warm temperatures rebounded in the third week as highs reached the mid 80s°F. Apalachicola experienced a record high of 88°F on 22nd April. Temperatures quickly fell at month's end with unseasonable cool air establishing a record low minimum of 46°F at Mobile on 29th April.

2008 Jackson Guard Rainfall/NVOC Temperature
1971-2000 Climatic Normal (Niceville, FL)



April 2008 Climate Summary

Jackson Guard rainfall for April totaled **3.73** inches and the Niceville (NVOC) Regional Sewer Board, Inc. recorded **4.66** inches, which is 9% above normal (4.26 inches). There were 5 days with measurable precipitation, which is 1 day below normal. Eglin AFB recorded **3.28** inches for the month, 1.11 inches below the normal of 4.39 inches. Pensacola, FL recorded **3.50** inches, which is 0.39 inches below the normal of 3.89 inches. Record rainfall occurred 5th April in Pensacola when **2.52** inches fell, breaking the old record of 0.69 inch set in 1989. Niceville NVOC set a record of **3.00** inches on 6th April which broke the previous record of 0.63 inch (1969). Year to date 2008 rainfall at Eglin AFB was **16.67** inches which is 2.95 inches below the normal of 19.62 inches. Year to date 2008 rainfall at Pensacola, FL was **17.87** inches, which is 2.44 inches below the normal of 20.31 inches.

The monthly mean temperature was **63.6**°F which is 0.8°F below normal. The average high temperature at Niceville NVOC was **73.9**°F (3.6°F below normal). There were five days when the maximum temperature was ≥ 80 °F. The highest temperature of the month was **85**°F recorded on the 23rd April. The average low temperature was **42.6**°F (2.0°F above normal). The lowest temperature of the month was **35**°F observed on 16th & 17th April. Three record low minimum temperatures were established on 15th

April when 37°F broke the previous record of 39°F set on this date in 1963; 16th April when 35°F broke 38°F (1962); 17th April when 35°F broke 37°F (1953). A record low maximum record of 57°F on 15th April broke the previous record of 62°F (1997) and one record high minimum record of 69°F on 5th April broke the previous record of 68°F (1968).

The Keetch-Byram Drought Index (KBDI) at the end of April 2008 was low; however, the trend was increasing as precipitation was less than normal. The values below are an indicator of drought conditions in the counties containing Eglin AFB natural resources.

Florida County	Average KBDI	Florida County	Average April 2008 Rainfall (inches)
Santa Rosa	258	Santa Rosa	4.30
Okaloosa	257	Okaloosa	4.24
Walton	266	Walton	3.55
Gulf	300	Gulf	1.99

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

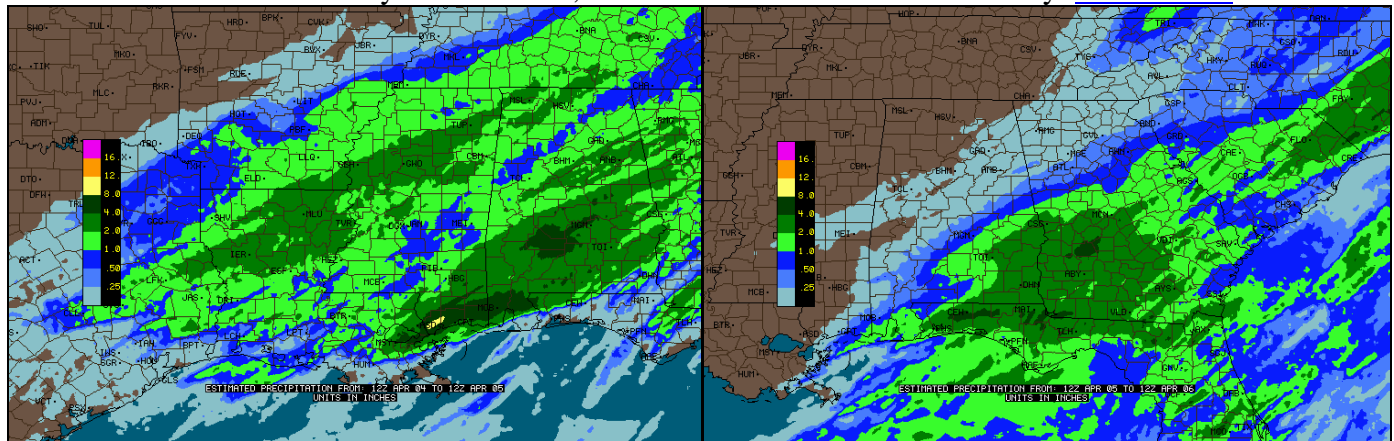


Figure 1. 24-hour rainfall ending 7 a.m. 5 April 08.

Figure 2. 24-hour rainfall ending 7 a.m. 6 April 08.

May Outlook

The Climate Prediction Center [30-day climate outlook](#) for May 2008 predicts above normal temperatures and near normal rainfall for the Florida panhandle.

May Climatology

May continues the spring seasonal dry pattern for the Florida panhandle. May is normally drier than other months because frontal passages become less frequent and sea breeze thunderstorms have not strengthened to summertime levels. Daytime temperatures increase over the course of the month an average of six degrees into the upper 80s°F. Offshore water temperatures in the Gulf of Mexico average around 80°F. Typically, the May atmosphere is stable, despite warm afternoons. Scattered cumulus clouds can be seen during the afternoon moving northward ahead of the sea breeze front containing a line of towering cumulus clouds and isolated cumulonimbus (thundershowers). Behind the sea breeze front, clear skies persist until the early morning hours when a land breeze sets up coastal cloudiness. When rainfall does occur in May, usually an organized complex of thunderstorms form inland over Mississippi, Alabama, and drift over the Florida panhandle; but at most only a one or two these events occur. Thunderstorm frequency averages 6 days during May and 6 days have measurable rainfall. Normal rainfall is 3.50 inches at Eglin AFB and 4.32 inches at Niceville recording stations. The maximum 24-hour Niceville rainfall is 5.10 inches on 21st May 1989 and at Eglin AFB 24-hour rainfall record is 5.24 inches recorded on May 3, 1978. Record May rainfall (Niceville) is 12.51 inches (1989). The driest May (Eglin AFB) produced 0.02 inch in 1965.

Average monthly temperatures range from 65°F for morning lows to 83°F for afternoon highs. The record high (Eglin AFB) is 102°F (May 27, 1953) and the record low (Niceville) is 38°F (May 8, 1958). High temperatures 90°F or above occur four days during May.

Relative humidity (RH) averages 72%. RH > 70% occurs 60 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. Afternoon southerly winds occur with the speed averaging between 8 to 11 mph during the afternoon. Highest May wind gust was 64 m.p.h. in 1973 from the west northwest.

La Niña Continues

Current conditions indicate that the near surface temperatures of the equatorial Pacific have decreased indicating that the current La Niña phase is past the maximum (1.5°C) that occurred during December-January-February. Recent water temperature measurements average 0.8°C below normal in the east-central Pacific and a weak La Niña episode will likely continue through the early summer of 2008. Weekly summary updates can be found at Climate Prediction Center [La Nina Weekly Update](#).

Air Quality Monitoring

There are new guidelines for ozone levels which will have an impact on Florida's air emissions. The revised primary standard for unhealthy ozone has been reduced to >0.075 parts per million (ppm) down from 0.08 ppm in an 8 hour sampling period. [Ozone](#) (O₃) is a surface based pollutant produced from volatile organic compounds (VOC) and oxides of nitrogen (NO_x) from automobile and industrial emissions which are altered during the day by sunlight and heat. Ozone levels rise when high pressure occurs over the Gulf coast and the concentration builds over a period of a few days. During the year a few days result in air quality that is unhealthy for sensitive groups, but most days have good or moderate ozone levels in the local area. [Particulate matter](#) is another pollutant in the air that is made up of both solid and liquid, microscopic (< 10 microns) substances that are both manmade and natural. Examples of these airborne aerosols include dust, pollen, sea spray, and smoke; these particles create the atmospheric haze responsible for colorful sunrises and sunsets. The particle size of greatest concern is 2.5 microns which can be easily breathed and may cause respiratory distress. [National Air Quality Forecast](#) is an excellent source for a current local and nation forecast. The [Air Quality Index](#) is a guide for what the numbers mean for levels of ozone and particulate matter.

Southeast US Water Resources

John Feldt of the National Weather Service-Southeast River Forecast Center has an audio version [Water Resources Outlook](#) of the latest conditions pertaining to the hydrologic conditions. Click on the map and get the latest state forecast.

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, Florida Division of Forestry and the Southeast Regional Climate Center websites. NVOOC Regional Water Sewer Board, Inc. in Niceville, FL provided the temperature and rainfall data.