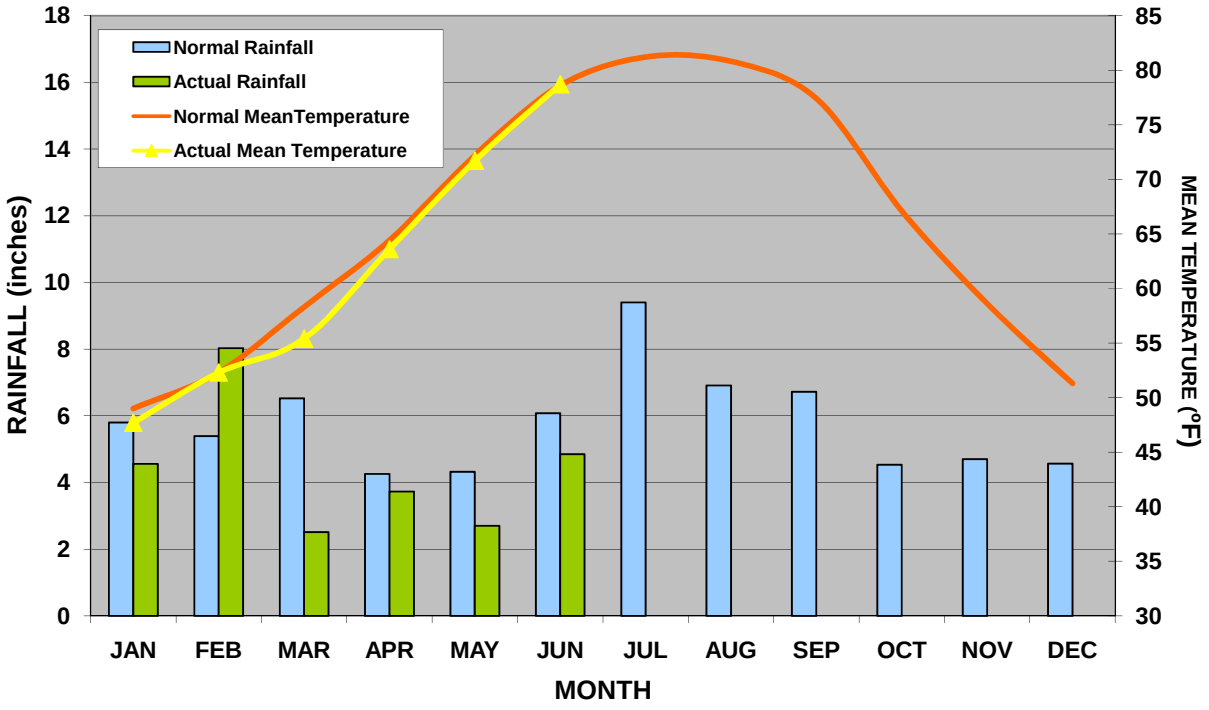
Introduction

June 2008 produced normal temperatures and below normal precipitation for Niceville, FL. A rare cold front cleared the FL panhandle on the 18th June. Temperatures were seasonal under typical humid conditions. Dry weather prevailed during the first week of June as a strong high pressure ridge dominated the southeast U.S. Despite the presence of tropical air masses around mid-month and the near month's end aided by an upper level trough and an active sea breeze; rainfall amounts were generally light to moderate. There were sixteen days with measureable rainfall recorded at Jackson Guard (Eglin AFB Natural Resources). Sporadic rainfall coverage resulted in the reintroduction of abnormally dry (D0) drought conditions at the beginning of June for most of the western FL panhandle. Severe weather occurred on the early afternoon of 29th June as thunderstorm winds of 60 m.p.h. uprooted trees in several communities in Escambia, Santa Rosa, Okaloosa and Walton Counties. A roof was damaged by a falling tree near Whiting Field (Naval Air Station) in Santa Rosa County, FL. An approaching cold front late on 30th June brought rainfall of 1 to 2 inches across the region as a drier airmass moved over the western FL panhandle on 1st July.

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



June 2008 Climate Summary

Jackson Guard rainfall for June totaled **4.85** inches and the Niceville (NVOC) Regional Sewer Board, Inc. recorded **5.27** inches. Eglin AFB recorded **4.66** inches for the month, 1.13 inches below the normal of 5.79 inches. Pensacola, FL recorded **6.40** inches, which is 0.01 inch above the normal of 6.39 inches. There were 14 thunderstorm days which is 3 days above normal; 16 days had measurable precipitation, which is 6 days above the normal June average. The heaviest rainfall at Jackson Guard was 1.32 inches which fell on 14th June. Year to date rainfall at Eglin AFB is **23.34** inches, which is 5.52 inches below the normal of 28.86 inches. Year to date rainfall at Pensacola, FL is **27.57** inches, which is 3.53 inches below normal of 31.10 inches.

The monthly mean temperature was **78.7**°F which was 0.1°F above normal. The average high temperature at Niceville NVOC was **88.1**°F (1.6°F below normal). The highest temperature of the month was 92°F observed on the 9th June. There were 10 days when the maximum temperature reached 90°F or above, which was 4 days below normal. The average low temperature was **69.2**°F (1.7°F above normal). The lowest temperature of the month was 63°F observed on 19th June. There were 14 days when the minimum

temperature fell to 70°F or above. A record high minimum temperature was established on 6th June when 74°F broke the old record of 72°F (1994).

The Keetch-Byram Drought Index (KBDI) at the end of June 2008 was ***moderate***; however, the trend was decreasing as widespread moderate precipitation fell at the end of the month. The Florida Division of Forestry's fire weather outlook for the summer 2008 forecasts a return to normal conditions. Moderate values of the KBDI are an indication that above normal conditions are somewhat favorable for the occurrence and rapid spread of wildfires when the index exceeds ***500*** during the summer months of June-July-August for north Florida. The values below are an indicator of drought conditions in the counties containing Eglin AFB natural resources.

Florida County	**Average KBDI**	**Florida County**	**Average June 2008 Rainfall (inches)**
Santa Rosa	497	Santa Rosa	3.31
Okaloosa	523	Okaloosa	3.98
Walton	563	Walton	4.94
Gulf	447	Gulf	5.93

For more information on daily KBDI values, visit the Florida Division of Forestry: KBDI index.

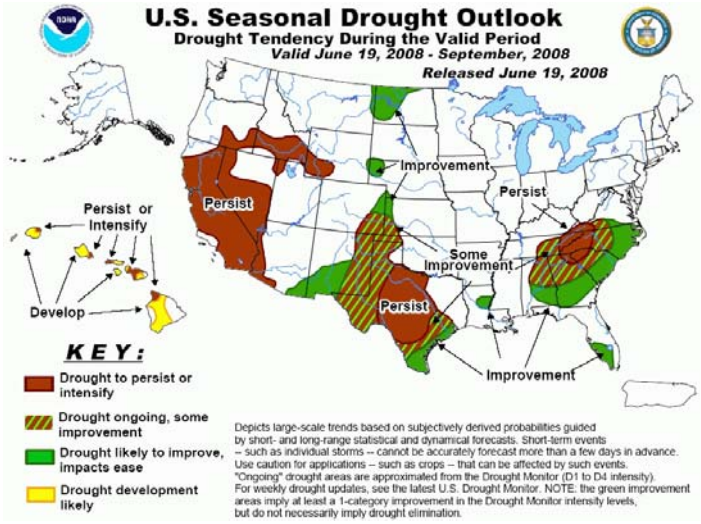


Figure 1. Long-term drought outlook through September based upon long-term climate models trends and soil moisture effects.

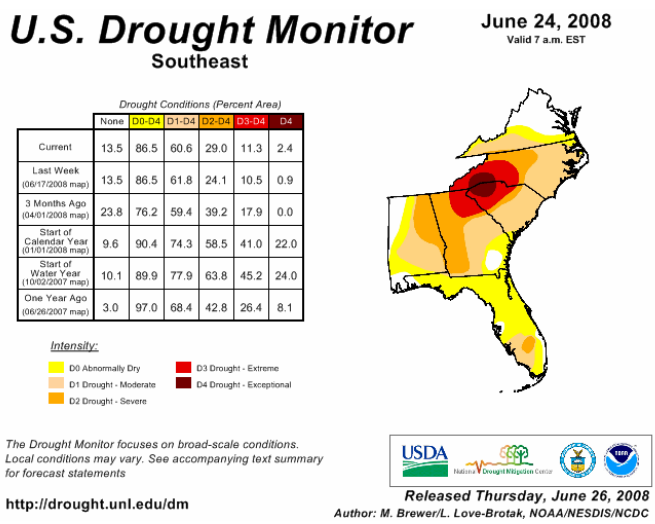


Figure 2. Latest Drought Monitor Index for southeast U.S.

July Climatology

July is the wettest month of the year as well as the hottest. A maritime tropical airmass dominates the hot, humid weather pattern as the Gulf of Mexico warms to near 85ºF. The landbreeze-seabreeze phenomenon is well established and continues through August. Afternoon thunderstorms push inland with the seabreeze and early morning thunderstorms form offshore with the landbreeze and occasionally drift over the coast. Thunderstorm frequency averages 18 days with 14 days of measurable rain. There is 32% frequency of occurrence of a thunderstorm between 1200 to 1700 hours, the highest of the year. Rainfall averages **7.70** inches at Eglin AFB (climatic period 1940-2007) and **9.40** inches at Niceville recording stations (climatic normal 1971-2000). The maximum 24-hour Eglin AFB rainfall is 5.90 inches recorded on July 30, 1975. Record July rainfall is 19.88 inches (1975) at Eglin AFB and 31.42 inches (1994) at Niceville. The driest July produced only 0.66 inch in 1986 at Eglin AFB and 2.62 inches (1972) at Niceville.

Average monthly temperatures range from **71º**F to **91**ºF. The Eglin AFB record high at is 106ºF (July 14, 1980) and the record low is 60ºF (July 23, 1947). The Niceville record high is 107 ºF (July 15, 1980) and the record low is 55 ºF (July 16, 1967). High temperatures average 90ºF or above for 14 days, and rise above 95ºF an average of two days during July. Low temperatures do not fall below 70ºF during the month.

Relative humidity (RH) averages 74%. RH > 70% occurs 64 percent of the time. The highest hourly humidity (average RH = 84%) 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.

La Niña Transitions to Neutral ENSO Conditions

Current conditions indicate that the near surface temperatures of the equatorial Pacific have increased indicating that the current La Niña phase is over. Recent water temperature measurements average 0.3°C below normal in the east-central Pacific and the trend has weakened considerably since mid-February 2008. El Niño Southern Oscillation (ENSO)-neutral conditions will continue through the fall of 2008. Weekly summary updates can be found at Climate Prediction Center La Nina Weekly Update.

July Tropical Weather Outlook

The average date of the first named tropical storm occurs by 10th July and the first named hurricane by 14th August. There is a nearly 50 percent chance of the first named system occurring by the middle of July. Weather model forecasts predict the possible formation of a tropical depression by this average July date between the African Cape Verde Islands and the Lesser Antilles as the upper level wind shear relaxes over favorably warm sea surface temperatures. High wind shear remains unfavorable over the Gulf of Mexico and the Caribbean Sea in the near future due to a vigorous upper level trough over the southern U.S.; but this sheared environment may also relax over the remainder of July.

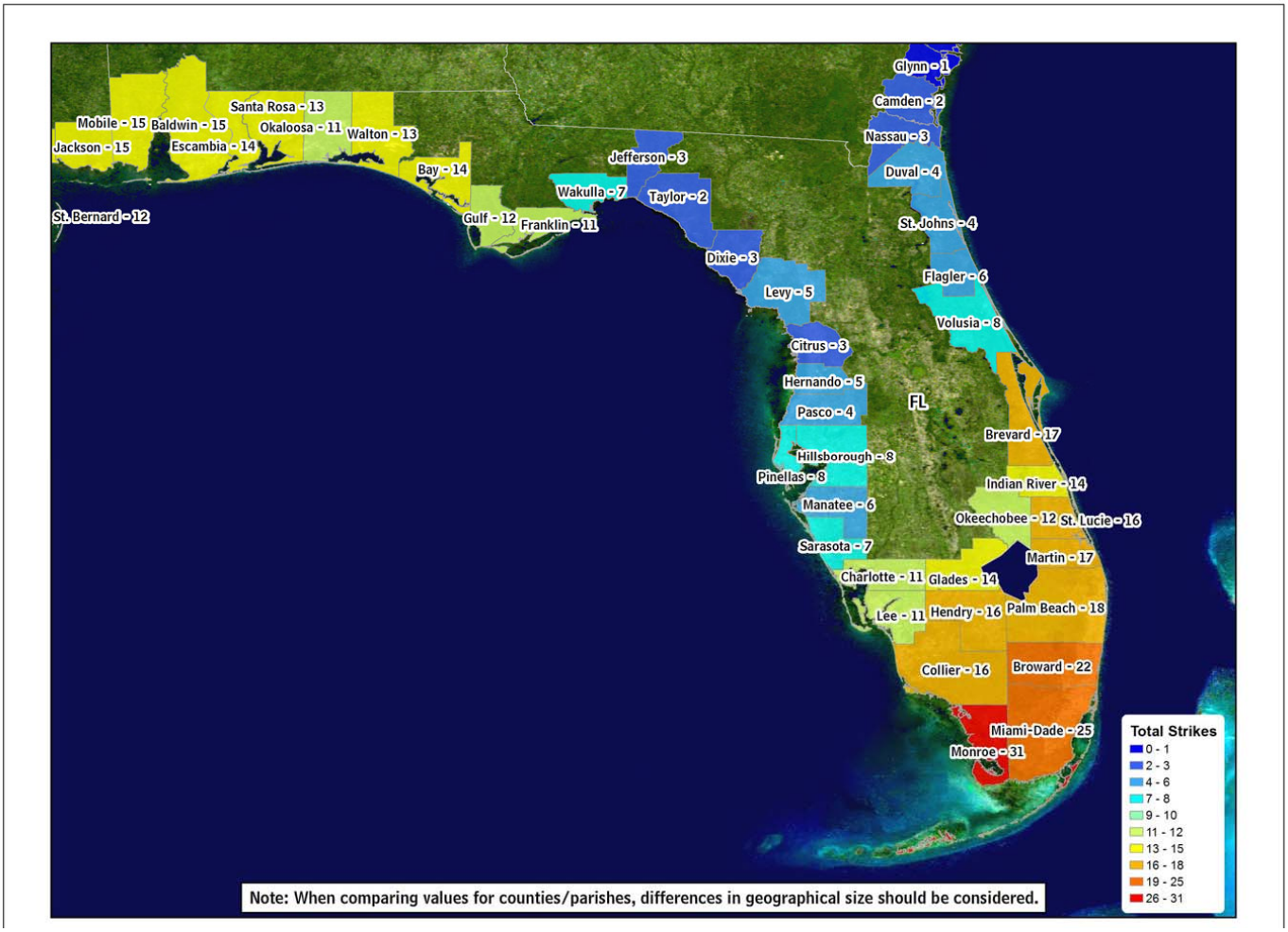


Figure 3. Total number of hurricane strikes by county, 1900-2007. Courtesy of National Hurricane Center.

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, Southeast Regional Climate Center, Florida Division of Forestry, and Community Collaborative Rain, Snow, and Hail Network websites. NVOC Regional Water Sewer Board, Inc. in Niceville, FL provided the temperature and rainfall data.