

Summary of El Niño Expected Impacts on Florida

- The Climate Prediction Center announced the arrival of El Niño in early July, 2009.
- El Niño is the periodic warming of the central and eastern tropical Pacific waters which typically occurs every two to five years and on average lasts about 12 months.
- The Climate Prediction Center has indicated that a weak to moderate strength El Niño episode is expected through the fall months with potential strengthening into the 2009-10 winter months.
- Forecasts for the magnitude of this El Niño episode should become better defined by October.
- El Niño shifts the fall/winter/spring position of the jet stream further southward than normal.
- El Niño episodes bring more frequent and stronger storms across the Gulf of Mexico and southern United States which results in a higher threat for severe weather, excessive rainfall, and coastal storms in Florida.
- Severe weather events in Florida, particularly the occurrence of strong and violent tornadoes during the fall/winter/spring months have shown a striking relationship to the strength of El Niño. El Niño events in 1982-83, 1997-98, and 2006-07 produced significant and deadly tornadoes.
- Florida's two deadliest tornado outbreaks (42 fatalities on February 22-23, 1998 and 21 fatalities on February 2, 2007) occurred during overnight events during El Niño episodes.
- The only recorded EF-4 tornadoes (166-200 mph wind gusts) in Florida's history (4/4/66 and 4/15/58) occurred during relatively strong El Niño episodes.
- El Niño's 1997-98 storm tracks brought numerous heavy rain events that resulted in significant river floods throughout north Florida.
- The Florida Division of Emergency Management is working with the Northwest Florida and Suwannee River Water Management Districts and FEMA to augment the existing river gauge networks throughout north Florida.
- El Niño often increases atmospheric wind shear across the Caribbean Sea and the tropical Atlantic Ocean which reduces the frequency of tropical storms and hurricanes.
- Although only 6 named storms formed during the 1992 Atlantic hurricane season which coincided with an El Niño episode, the first storm of that season was Hurricane Andrew.
- NOAA will release an updated Atlantic hurricane season forecast on August 6th.