

2006 Hurricane Season Summary

The 2006 Hurricane Season was much less active than the 2005 record-breaking season. The hurricane experts are attributing this slightly below-average hurricane season activity to a late-developing El Niño and increased dryness in the tropical Atlantic. This is the first year that there have been no land falling hurricanes along the U.S. coastline since 2001.

According to Philip Klotzbach and William Gray of the Colorado State University hurricane forecast team*, the 2006 hurricane season had the following special characteristics:

1. Another early-starting season. Alberto formed on June 11. The climatological average date for the first named storm formation in the Atlantic, based on 1944-2005 data, is July 10.
2. Nine named storms formed during the 2006 season. This is the fewest named storms to form in the Atlantic since 1997, when only seven named storms formed.
3. Five hurricanes formed during the 2006 season. This is the fewest hurricanes to form in the Atlantic since 2002, when four hurricanes formed.
4. Two major hurricanes formed during the 2006 season; 1997 was the most recent year to have fewer than two major hurricanes form (one named Erika).
5. 50 named storm days occurred in 2006. This is the lowest value of named storm days since 1997, when only 28.75 named storm days occurred.
6. 20 hurricane days occurred in 2006. This is the lowest value of hurricane days since 2002, when 10.75 hurricane days were observed.

7. Three intense hurricane days occurred in 2006. This ties 2002 for the lowest value of intense hurricane days observed since 1997, when only 2.25 intense hurricane days occurred.
8. No Category 4 or 5 hurricanes formed in the Atlantic basin this year. This is the first year with no Category 4-5 hurricanes in the Atlantic since 1997.
9. Three named storms made United States landfall in 2006. This is the fewest number of named storms to make landfall in the United States since 2001 when three named storms (Allison, Barry and Gabrielle) made landfall.
10. From Alberto-Helene, each tropical cyclone lasted as long as or longer than the cyclone preceding it. For example, Alberto and Beryl lasted 2.75 named storm days, Chris and Debby lasted 3.25 named storm days, Ernesto lasted 6 named storm days, etc.
11. Both Gordon and Helene accumulated 7.5 hurricane days. These two storms accrued as many hurricane days as Wilma, which was the longest-lived hurricane of the 2005 season.

A more detailed analysis of the season:

1. *June and July*

June and July experienced average amounts of tropical cyclone activity with two named storms forming - Alberto and Beryl. Unlike 2005, when two major hurricanes - Dennis and Emily - developed and intensified in the tropical Atlantic and Caribbean, no hurricane activity occurred in the deep tropics during June and July 2006.

2. *August*

Three named storms (Chris, Debby and Ernesto) formed during August, but only Ernesto briefly reached hurricane status. This is the fewest hurricanes to form in August since 2002, when no hurricanes formed.

3. *September*

- a. Four named storms (Florence, Gordon, Helene and Isaac) formed during September, and all four became hurricanes. Gordon and Helene became major hurricanes.
- b. 18.25 hurricane days occurred in September 2006. This is more than were observed in September 2005 (16.75 hurricane days).

4. *October*

- a. No named storms formed in October. This is the first time that no named storms have formed in October since 2002. Prior to 2006, only eleven years since 1950 witnessed no named storm formations in October.
- b. Only two named storm days were observed in October (from Isaac which formed in late September). This is the fewest named storm days in October since 1994, when zero named storm days were observed.

The following chart compares actual activity to the May 31, 2006 hurricane forecast by William Gray and Philip Klotzbach of the Colorado State University forecast team:

	ACTUAL	GRAY/KLOTZBACH FORECAST (MAY 31, 2006)
Named Storms	9	17
Hurricanes	5	9
Major Hurricanes	2	5

The following is a list of the named tropical cyclones for the 2006 Hurricane Season:

<u>NAME</u>	<u>DATES</u>	<u>HIGHEST WINDS</u>
Tropical Storm Alberto	June 11-14	69 mph
Tropical Storm Beryl	July 19-21	57 mph
Tropical Storm Chris	August 1-4	63 mph
Tropical Storm Debby	August 23-26	51 mph
Hurricane Ernesto (Cat 1)	Aug 25-Sept 1	74 mph
Hurricane Florence (Cat 1)	Sept 5-12	92 mph
Hurricane Gordon (Cat 3)	Sept 11-20	120 mph
Hurricane Helene (Cat 3)	Sept 14-24	126 mph
Hurricane Isaac (Cat 1)	Sept 28-Oct 2	86 mph

Impacts to Indian River County During 2006

1. Hurricane Ernesto formed in the eastern Caribbean Sea on August 24, 2006. Within a day, it had become organized enough to be classified as a tropical storm and get named as the fifth storm of the 2006 Atlantic hurricane season. Ernesto built in power gradually as it moved westward and slightly north through the Caribbean Sea, just reaching hurricane strength on August 27 as it neared Hispaniola, the island on which the nations of Haiti and Dominican Republic are located.
2. Tropical Storm Ernesto hit Cuba west of the U.S. naval air base at Guantanamo Bay on Monday, August 28, after killing one person in Haiti as it stayed on track toward Florida.
3. Ernesto lost much of its punch crossing eastern Cuba and made landfall late Tuesday, August 29, on Plantation Key, Florida, with 45 mph winds.
4. Hurricane Watch issued for Indian River County (Aug 28 115pm).
5. Tropical Storm Warning issued for Vero Beach southward (Aug 28 612 pm).

6. Hurricane Watch canceled for Indian River County (Aug 29 902pm).
7. Tropical Storm Warning canceled for south of Sebastian Inlet (Aug 30 1100 am).
8. After crawling up the Florida peninsula throughout Wednesday, August 30, Ernesto's remnants were centered in Brevard County around 11:00 p.m. and the storm was emerging into the Atlantic near Cape Canaveral.
9. Indian River County had no official reports of damage or injury and was not included in any Presidential Declarations of Disaster.

Tropical Storm Ernesto Post-Tropical Cyclone Report for Indian River County:

1. Highest 2-minute winds = 27 knots (31 mph)
2. Highest gust reported = 34 knots (39 mph)
3. Pressure data = 1001.7 mb
4. Total rainfall = 1.51 inches

While the development of El Niño has likely helped us this past hurricane season, El Niño will likely hurt us a bit and keep us on our toes by bringing us unfavorable weather patterns during the coming winter and spring months. El Niño is a naturally occurring climate phenomenon linked to a periodic warming in sea surface temperature across the central and east-central equatorial Pacific. El Niño causes major shifts in the patterns of tropical precipitation, pressure and our Jet Stream.

What Kind of Weather can we Expect Winter/Spring 2007:

- More severe weather (these extra-tropical storms can sometimes have as great an impact as tropical systems);
- Higher rainfall totals; and,
- Cooler temperatures.

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*Based on information obtained from the November 17, 2006, Summary of 2006 Atlantic Tropical Cyclone Activity and Verification Report, Department of Atmospheric Science, Colorado State University.