2006 ATLANTIC HURRICANE SUMMARY

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2006 Atlantic Tropical Storm/Hurricane Statistics and Summary

NAME	DATES	INTENSITY	CAT	LOWEST* PRESSURE	MAX** WIND	DEATHS
				MBS	KTS	
ALBERTO	10 – 14 June	Tropical Storm		995	60	
UNNAMED	17 – 19 July	Tropical Storm		998	45	
BERYL	18 – 21 July	Tropical Storm		1001	50	
CHRIS	1 – 5 August	Tropical Storm		1001	55	
DEBBY	21 – 27 August	Tropical Storm		1000	45	
ERNESTO	24 Aug – 1 Sep	Hurricane	1	988	65	5
FLORENCE	3 – 12 Sep	Hurricane	1	972	80	
GORDON	10 – 20 Sep	Hurricane	3	955	105	
HELENE	12 – 24 Sep	Hurricane	3	954	110	
ISAAC	27 Sep – 2 Oct	Hurricane	1	985	75	

Total Hurricanes	**5**
Total Major Hurricanes	**2**
Total Sub-tropical Storms	**0**
Total Tropical Storms	**5**
Total US Landfalls	**3**
Total Named Systems	**10**

To obtain wind speed in miles per hour (mph), multiply the wind by 1.15.

*Lowest pressure during the life of the storm.

**Highest maximum wind during the life of the storm taken from NHC advisories.

SEASON HIGHLIGHTS

The 2006 hurricane season began with a tropical depression forming east of the northern Yucatan Peninsula on June 10th, just nine days after the season officially began. The storm intensified to Tropical Storm Alberto on June 11th as it tracked into the Gulf of Mexico. Alberto was the only system to move through the Gulf of Mexico.

There was over one month of inactivity in the Atlantic until Tropical Storm Beryl formed in mid-July. Beryl stayed on a northerly track parallel to the East Coast through most of its lifetime and made landfall over Nantucket, Massachusetts. After the season ended, the National Hurricane Center identified a 10th storm of the season, which developed on July 17th, just one day before Beryl.

August began with Tropical Storm Chris forming on the 1st of the month. Chris was predicted to track into the Gulf of Mexico but dissipated just north of Cuba as a result of strong vertical wind shear. Another Tropical Storm, Debby, formed in August as well as Hurricane Ernesto towards the end of the month. Ernesto made three landfalls including one over Cuba and two in the United States, killing five people in its path.

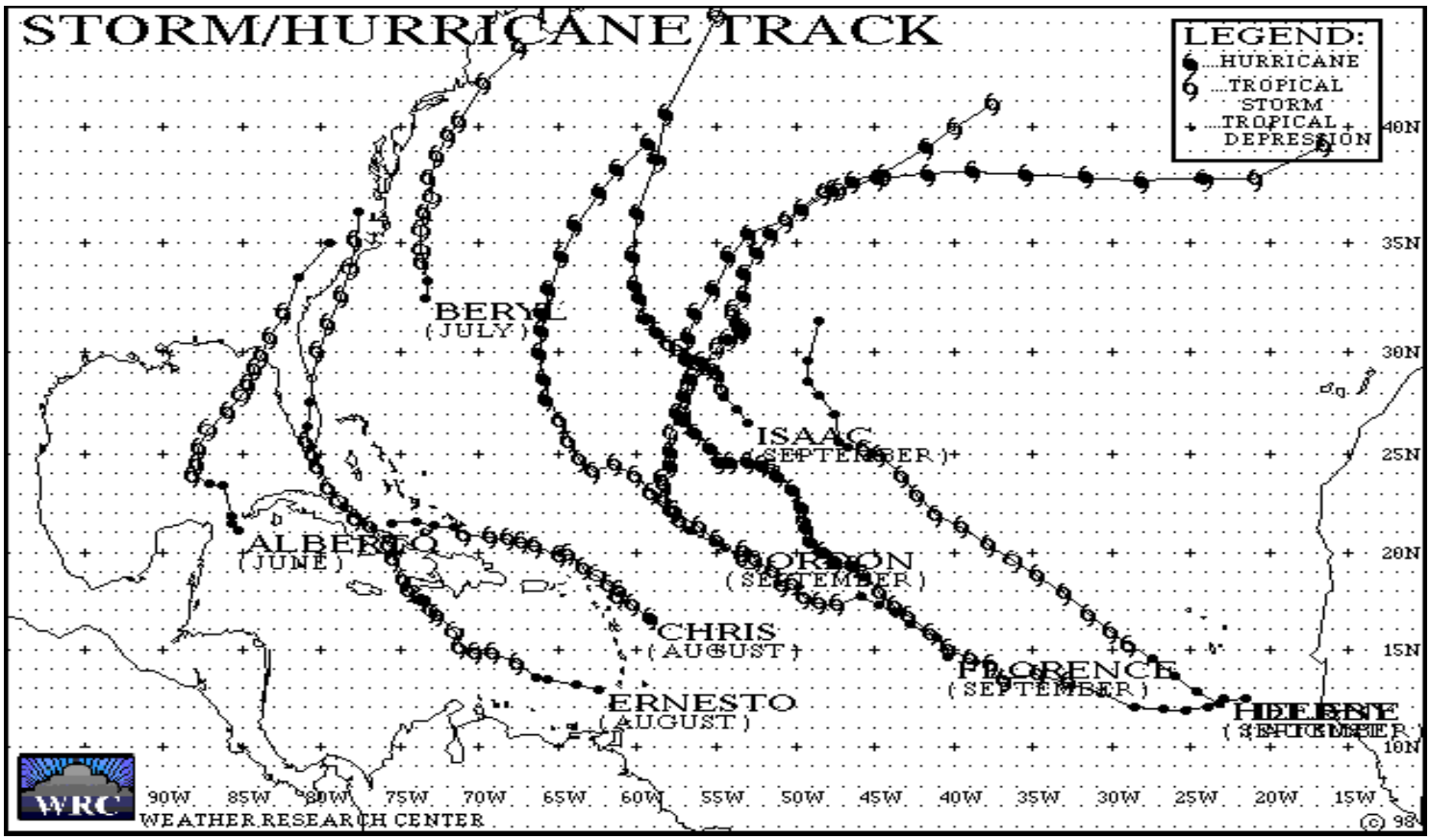
The month of September was active and slightly above average with four hurricanes forming, two reaching category three status. All of these storms remained well out to sea and did not effect the US mainland. September 12th marked the only day of the season when three storms were active including Hurricanes Florence, Gordon, and Helene.

The season quietly came to end with no storms forming in October or November, thought to be the result of the onset of El Niño. The last time that no tropical cyclones formed in the Atlantic Basin through the month of October was in 1994.

The 2006 hurricane season was quiet compared to 2005, even though it was predicted to be active. The season was just slightly below normal with nine named storms, five hurricanes, and two major hurricanes. A dominant high pressure system was stationed over the central and eastern Atlantic, causing many storms to remain in the open Atlantic as they tracked around the southern and western peripheries of the high. Seven out of nine storms formed from tropical waves and six out of nine storms did not make landfall. Three storms, however, did make landfall over the United States mainland including Tropical Storms Alberto, Beryl, and Ernesto. No hurricanes made landfall over the United States, which is the first time since 2001.

SAFFIR/SIMPSON DAMAGE POTENTIAL SCALE

CATEGORY	WIND SPEED [KTS]	PRESSURE [MB]	SURGE [FT]
1	64-83	980	4 - 5
2	84-96	965-979	6 - 8
3	97-113	945-964	9 –12
4	114-135	920-944	13 –18
5	>135	<920	18



2006 Atlantic Tropical Cyclone Tracks

NATIONAL SUMMARY

1. Tropical Storm ALBERTO –- 10-14 June 2006 – Near Adams Beach, Florida

An area of disturbed weather had persisted over the far northwestern Caribbean for several days in early June before it interacted with a tropical wave. This increased thunderstorm activity and caused the formation of Tropical Depression One on June 10th just east of the Yucatan Peninsula. Tropical Depression One intensified to Tropical Storm Alberto just 12 hours later on June 11th as the storm tracked north to northwest through the Yucatan Channel and into the southern Gulf of Mexico. Alberto then turned northeast toward Florida on the 12th, tracking over the warm waters of the Gulf of Mexico, and reaching its peak intensity as a strong tropical storm with maximum sustained winds of 60 knots gusting to 75 knots. As Tropical Storm Alberto neared the Florida Peninsula, some slight weakening occurred due to the cooler ocean waters along the coast just before the storm made landfall near Adams Beach during the early afternoon of June 13th. Alberto weakened to a tropical depression after landfall on the 14th over Georgia then quickly moved off the North Carolina Coast into the Atlantic as an extratropical cyclone. Damage was minimal from Alberto, but the storm surge did damage buildings in Florida's Levy and Citrus counties.

2. Unnamed Tropical Storm – 17-19 July 2006

After the 20006 season officially ended in November, the National Hurricane Center identified a short-lived tropical storm, which developed in the North Atlantic in mid-July. A cold front moved off the Northeastern US Coast on July 13 and an extratropical low formed along the front on July 16th. The front dissipated on the 16th and the low moved into an area of favorable environmental conditions with warm sea surface temperatures. This allowed a tropical depression to form early on July 17th about 210 nautical miles southeast of Nantucket, MA, and strengthened into a tropical storm six hours later. The unnamed tropical storm reached its maximum intensity of 45 knots on the afternoon on the 17th and began weakening that night as it encountered cooler ocean temperatures. The unnamed storm continued to weaken over the next day and dissipated on the 19th, just 60 hours after its development.

3. Tropical Storm BERYL – 18-21 July 2006 – Nantucket, Massachusetts

A stationary front was present off the coast of North Carolina on July 16th and began to decay over the next few days. An area of low pressure developed on July 18th east-southeast of Wilmington, North Carolina and was named Tropical Depression Two. The depression was named Tropical Storm Beryl just 6 to 12 hours later as it moved along a northerly track parallel to the East Coast of the US along the western periphery of a high pressure system over the central Atlantic. Tropical Storm Beryl reached its peak intensity with maximum sustained wind of 50 knots with gusts to 60 knots on the afternoon of July 19th. Beryl maintained this intensity for almost 24 hours before slightly weakening as the storm moved northeast over cooler waters. Continuing on a northeast track, Tropical Storm Beryl made landfall over Nantucket, Massachusetts early on July 21st and became extratropical later that morning near Nova Scotia.

4. Tropical Storm CHRIS – 1-5 August 2006

The third tropical depression of the season formed from a tropical wave east of the Leeward Islands just after midnight on August 1st. Tropical Depression Three quickly strengthened and became Tropical Storm Chris just six hours later. Tropical Storm Chris continued on a west-

northwest track and gradually intensified, reaching its peak intensity of 55 knot winds gusting to 65 knots on the 2nd as the storm neared Puerto Rico. Models indicate Chris to continue to strengthen and move toward the Gulf of Mexico, however, the storm began to weaken early on August 3rd as it encountered strong vertical wind shear. Tropical Storm Chris never recovered from the influence of shear and weakened to a tropical depression on the 4th near Turks and Caicos and dissipated early on the 5th just west of Cuba. Heavy rainfall was caused by Chris over several islands including Puerto Rico, Hispaniola, and the Bahamas.

5. Tropical Storm DEBBY – 21-27 August 2006

August 21st marked the development of the fourth tropical depression of the 2006 season. Tropical Depression Four formed from a tropical wave in the far eastern Atlantic about 250 nautical miles southeast of the Cape Verde Islands. Tropical Depression Four intensified to Tropical Storm Debby very early on the 23rd and reached its peak intensity later that morning with maximum sustained winds of 45 knots with gusts to 55 knots. Debby remained a minimal tropical storm throughout the lifetime of the storm as it tracked west-northwest to northwest through the eastern and central Atlantic. Southerly wind shear increased on the 25th allowing Debby to weaken and then dissipate on the 27th ahead of a cold front moving across the Atlantic.

6. Hurricane ERNESTO – 24 August - 1 September 2006 – West of Guantanamo Bay, Cuba; Southern tip of Florida; Near Oak Island, North Carolina

A tropical wave moved west over the Windward Islands on August 24th and formed Tropical Depression Five. Twenty-four hours later, the system intensified into Tropical Storm Ernesto over the eastern Caribbean Sea. Tropical Storm Ernesto continued to intensify as it tracked west-northwest to northwest through the eastern and central Caribbean, becoming the first hurricane of the season on the 27th with maximum sustained winds of 65 knots gusting to 80 knots. Ernesto weakened slightly as it moved near the southwestern tip of Haiti before making its first landfall as a tropical storm near Guantanamo Bay early on August 28th. The storm then re-emerged over the Atlantic eighteen hours later and remained a weak tropical storm before making its second landfall over the southern tip of Florida on the 30th. Ernesto weakened to a Tropical Depression over Florida and moved off the coast of Cape Canaveral, Florida into the Atlantic on the 31st. The storm strengthened once again while over the warm waters of the Atlantic, reaching near hurricane strength with winds of 60 knots just before making its third landfall near Oak Island, North Carolina late on the 31st. The regions along the East Coast of the United States from Virginia to New York experienced gale force winds. Heavy rainfall and flooding was produced from Ernesto in Haiti, Dominican Republic, and the East Coast of the US. Five direct deaths can be attributed to Ernesto in Haiti and two indirect deaths in Virginia.

7. Hurricane FLORENCE – 3-12 September 2006

A tropical wave moved off the coast of Africa on August 29th and developed into Tropical Depression Six on September 3rd in the eastern Atlantic. Despite strong vertical wind shear, Tropical Depression Six strengthened to Tropical Storm Florence on the 5th. Florence gradually intensified and remained a tropical storm for several days while tracking west-northwest around the southern periphery of a ridge of high pressure in the central Atlantic. Tropical Storm Florence turned northwest and became the second hurricane of the season early on the 10th, reaching its peak intensity with maximum sustained winds of 80 knots with gusts to 100 knots that evening. On September 11th, Hurricane Florence moved north just west of Bermuda at its strongest

intensity bringing hurricane conditions including large swells and high winds to the island. Florence became extratropical on the 12th as it moved into the North Atlantic Ocean.

8. Hurricane GORDON – 10-20 September 2006

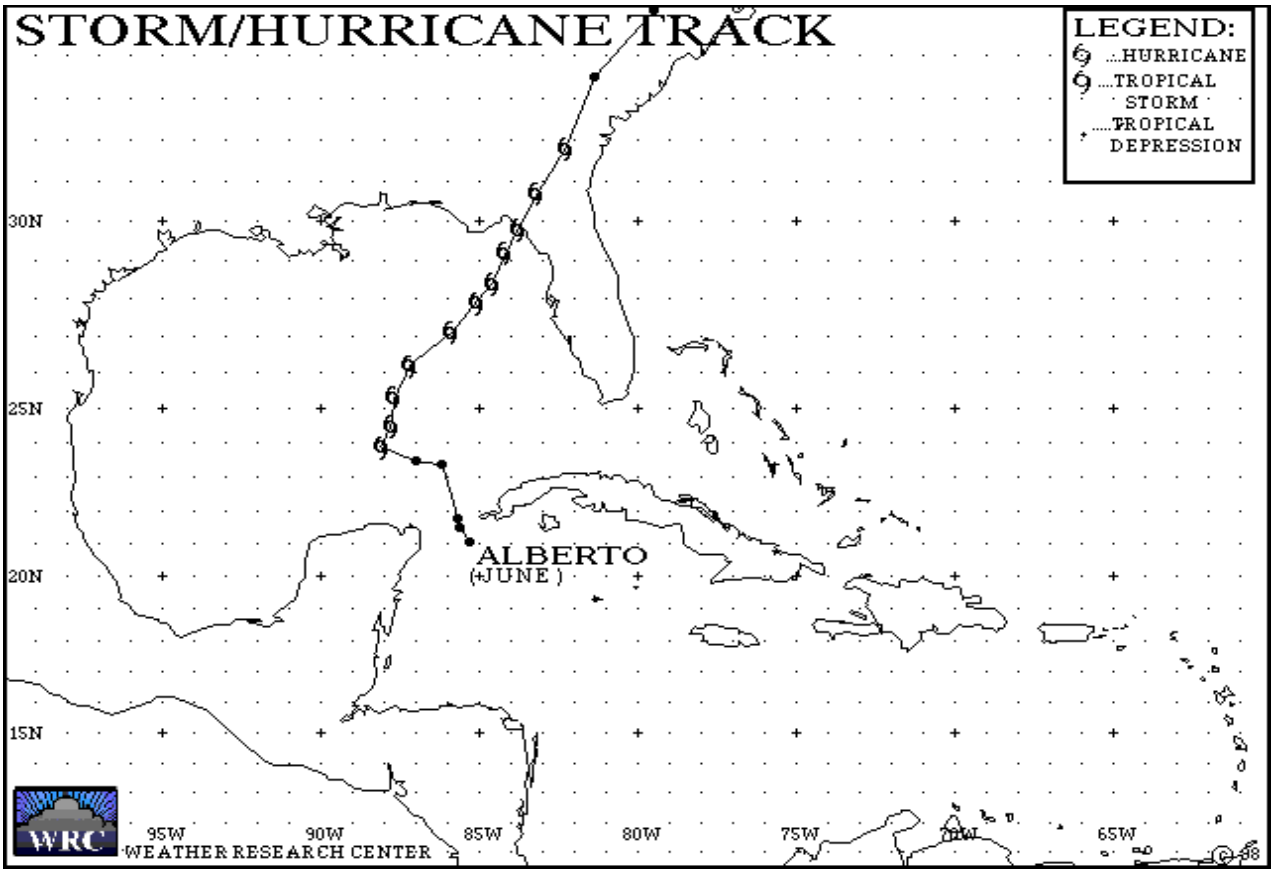
On the 1st of September, a tropical wave moved off the coast of Africa. Development from this wave could not occur before September 11th because of the proximity to Hurricane Florence. Once Florence moved into the western Atlantic, Tropical Depression Seven formed very early on September 11th about 525 nautical miles east-northeast of the Leeward Islands. Strengthening continued throughout the day and Tropical Storm Gordon formed that evening. Gordon gradually intensified while moving along a north to north-northwest track around the western periphery of a ridge of high pressure for a few days and became a hurricane late on September 12th. Hurricane Gordon rapidly intensified, became the first major hurricane of the 2006 season on the 13th with winds of 105 knots gusting to 130 knots, and remained a category three hurricane for almost 24 hours. While over the central Atlantic, Gordon became stationary and gradually weakened. An upper-level trough moved east across the Atlantic allowing a weak Hurricane Gordon to move northeast then east and gain intensity on the 17th through the 19th, reaching second peak intensity of 90 knots on the morning of September 19th about 630 nautical miles west of the Azores. As Gordon moved into the far northeastern Atlantic, the system became extratropical.

9. Hurricane HELENE – 12-24 September 2006

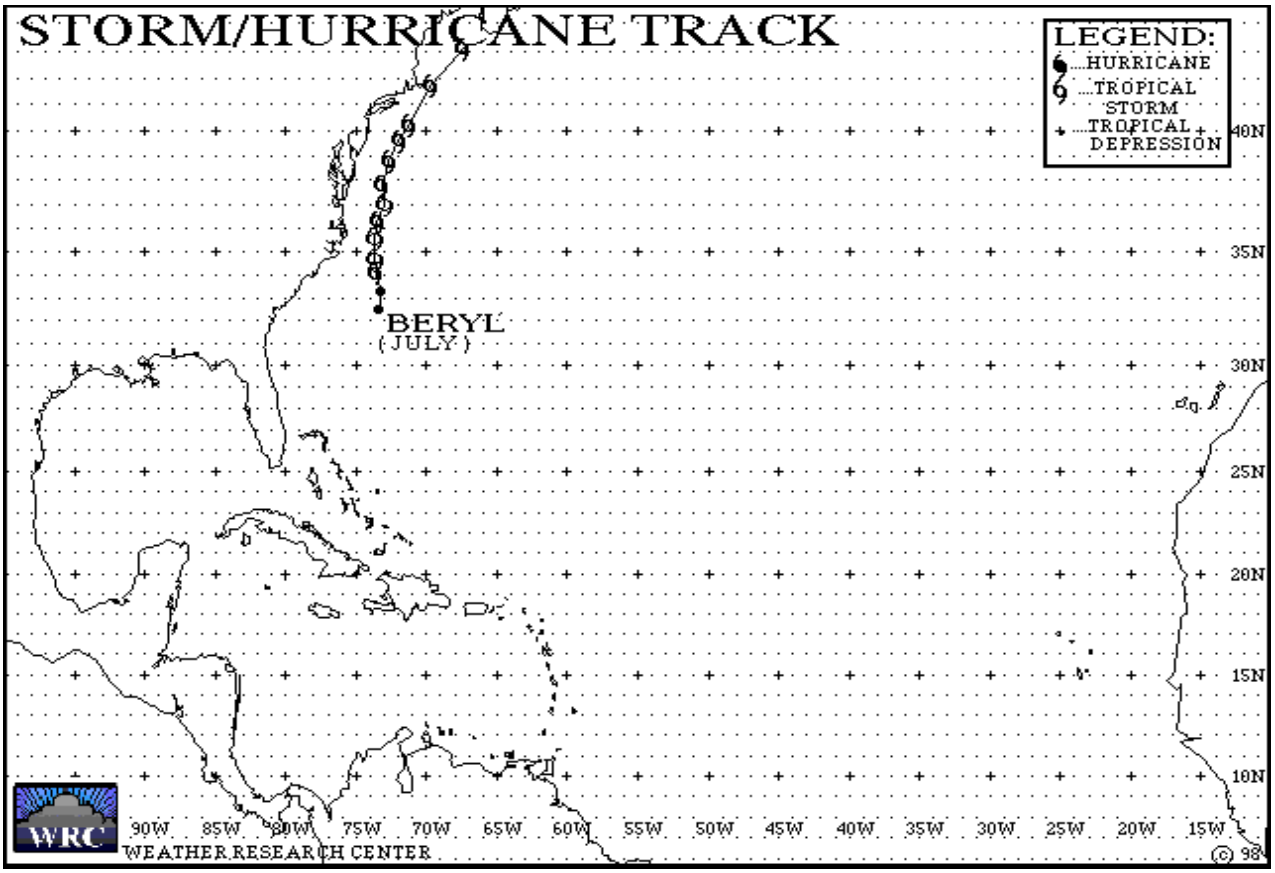
Tropical Depression Eight formed on September 12th in the far eastern Atlantic from a tropical wave that moved off the coast of Africa and was upgraded to Tropical Storm Helene on the 14th as it moved south of the Cape Verde Islands. Similar to some previous storms of the season, Helene gradually strengthened as it moved on a west-northwest to northwest track around a ridge of high pressure in the eastern Atlantic, becoming a hurricane on the 16th. Hurricane Helene reached category three status on the 18th and became the second major hurricane with maximum wind speeds of 110 knots gusting to 135 knots. Conditions remained favorable for Helene to maintain category three wind speeds for 36 hours. Helene began to weaken late on the 19th but remained a hurricane throughout the rest of its lifetime before becoming extratropical on the 24th in the north central Atlantic.

10. Hurricane ISSAC – 27 September - 2 October 2006

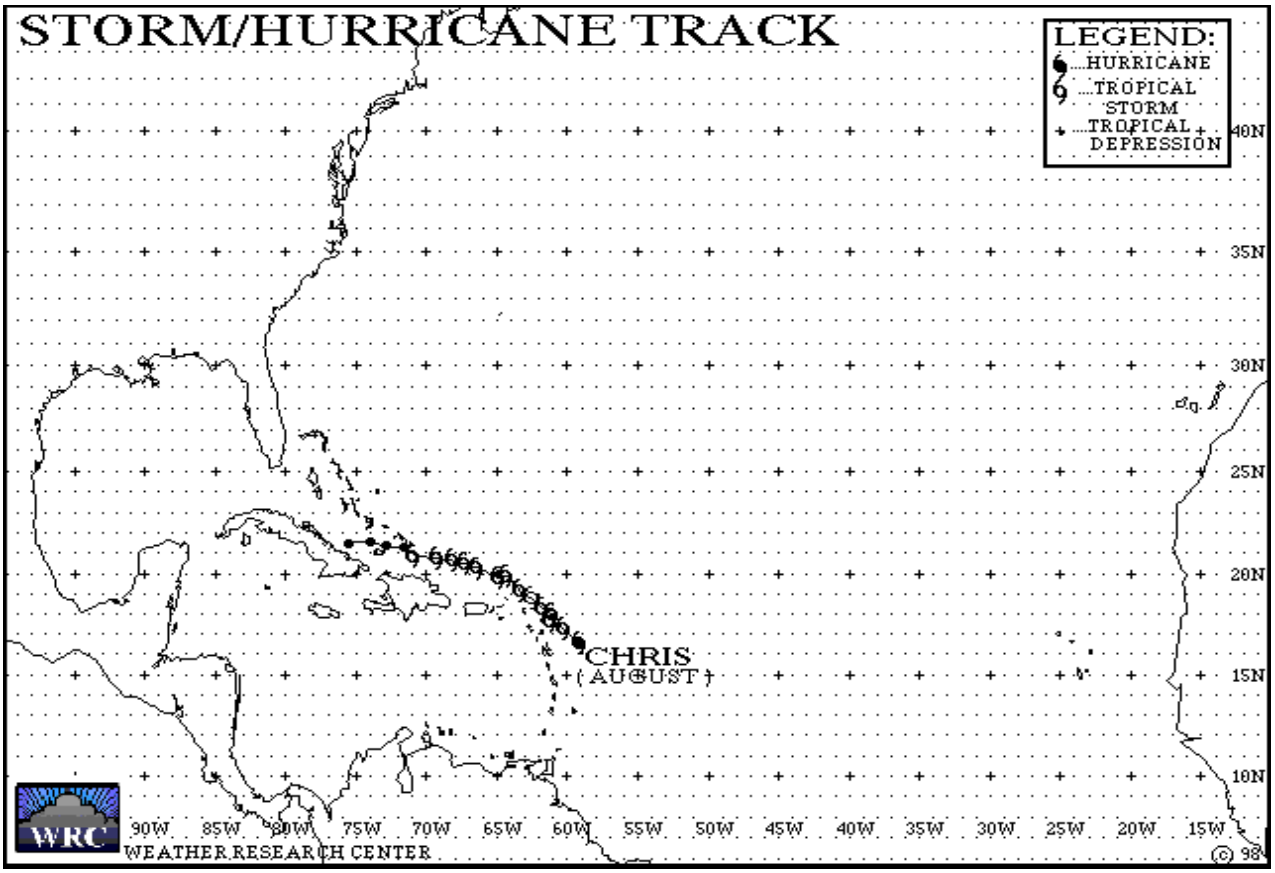
Like several of the storms this season, Tropical Depression Nine formed from a tropical wave that moved off the coast of Africa on September 18th. The tropical wave moved west but Tropical Depression Nine did not form until the 27th in the central Atlantic when the system became organized and upper-level winds decreased. The depression quickly became Tropical Storm Isaac on the morning of the 28th and a hurricane on the 30th, about 370 nautical miles east-southeast of Bermuda. Isaac's peak intensity was reached on October 1st, with maximum sustained winds of 75 knots gusting to 90 knots. Hurricane Isaac encountered wind shear and cooler ocean temperatures on the 2nd causing Isaac to weaken to a tropical storm as it moved north-northeast into the north Atlantic, just south of the Avalon Peninsula of Newfoundland. Isaac brought tropical storm conditions to the Avalon Peninsula before becoming extratropical overnight on the 2nd.



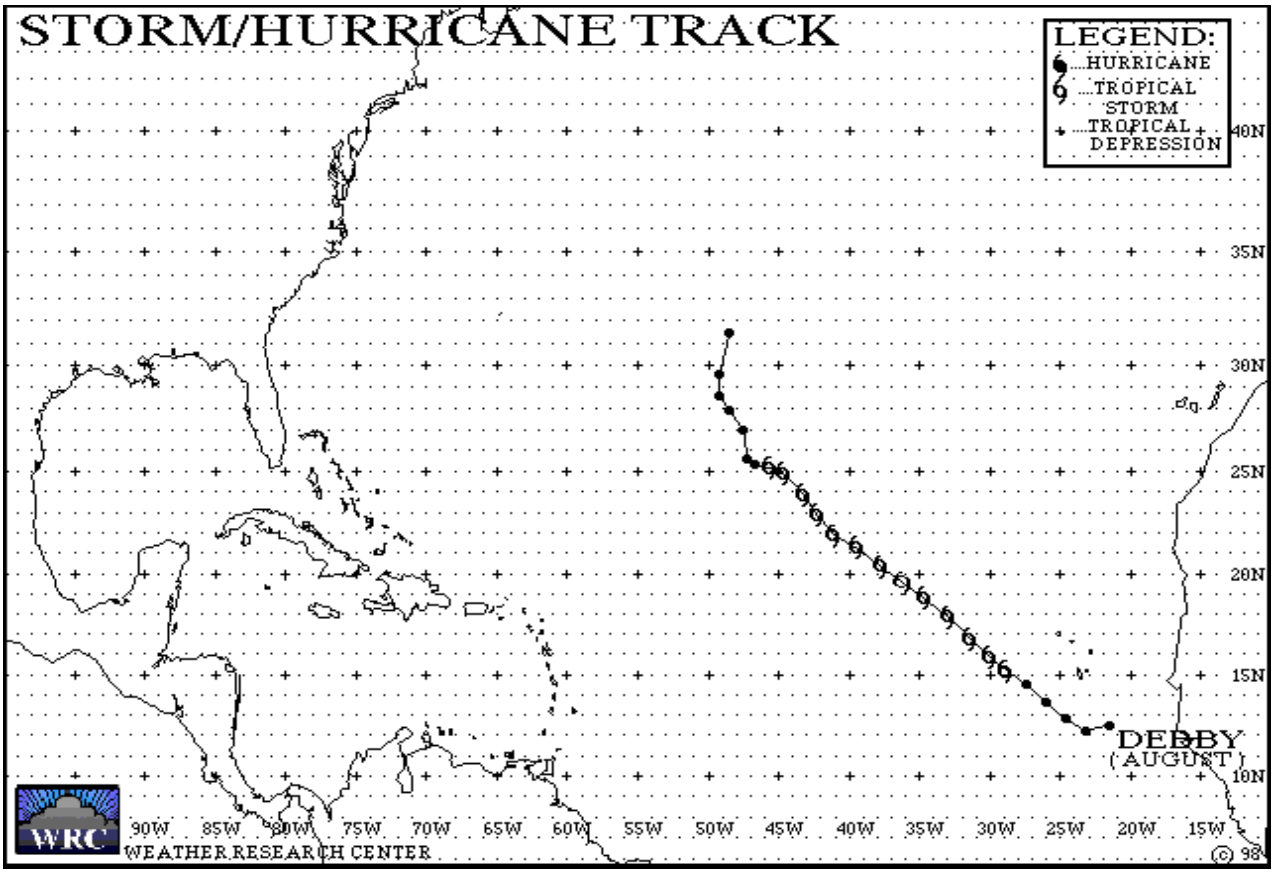
ALBERTO	JUNE	2006										
Advisory #	DATE	TIME UTC	LAT	LONG	MAX WIND KTS	GUST KTS	SPEED KTS	HEADING	PRESSURE MBS	RADIUS 34 KTS	RADIUS 50 KTS	RADIUS 64 KTS
1	10	1300	21.1	85.3	30	40	10	NNW	1003	0	0	0
2	10	1500	21.5	85.6	30	40	10	NNW	1003	0	0	0
3	10	2100	21.8	85.7	30	40	5	NNW	1004	0	0	0
4	11	0300	23.4	86.2	30	40	8	NNW	1003	0	0	0
5	11	0900	23.5	87.0	30	40	8	NW	1003	0	0	0
6	11	1500	23.9	88.1	40	50	8	NW	1004	150	0	0
7	11	2100	24.5	87.8	40	50	6	N	1004	200	0	0
8	12	0300	25.3	87.7	40	50	7	NNE	1004	200	0	0
9	12	0900	26.2	87.2	45	55	7	NNE	1001	200	0	0
10	12	1500	27.1	85.9	60	75	6	NNE	997	200	125	0
11	12	2100	27.9	85.1	60	75	9	NE	997	200	125	0
12	13	0300	28.4	84.6	60	75	9	NE	995	140	60	0
13	13	0900	29.2	84.2	55	65	8	NE	995	90	30	0
14	13	1500	29.8	83.8	45	55	8	NE	996	100	0	0
15	13	2100	30.7	83.2	35	45	9	NE	1000	150	0	0
16	14	0300	31.8	82.3	35	45	14	NE	1002	130	0	0
17	14	0900	33.5	81.4	30	40	18	NE	1003	0	0	0
18	14	1500	35.0	79.5	30	40	20	NE	1004	0	0	0



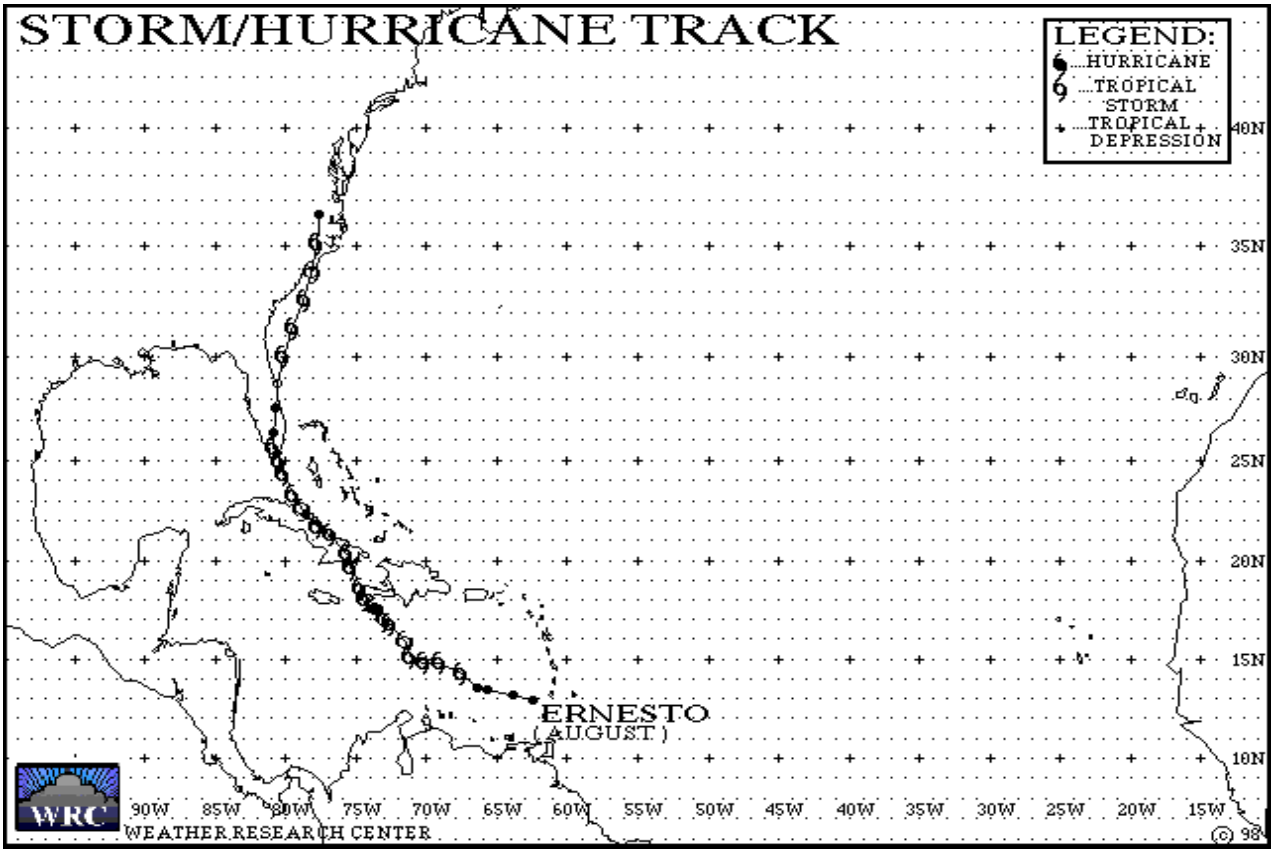
BERYL	JULY	2006										
Advisory #	DATE	TIME UTC	LAT	LONG	MAX WIND KTS	GUST KTS	SPEED KTS	HEADING	PRESSURE MBS	RADIUS 34 KTS	RADIUS 50 KTS	RADIUS 64 KTS
1	18	1500	32.5	73.4	30	40	4	N	1011	0	0	0
2	18	2100	33.3	73.3	30	40	5	N	1008	0	0	0
3	19	0300	34.1	73.6	35	45	6	N	1006	60	0	0
4	19	0900	34.7	73.7	35	45	6	N	1005	60	0	0
5	19	1500	35.6	73.7	40	50	8	N	1004	85	0	0
6	19	2100	36.3	73.5	50	60	7	N	1002	85	15	0
7	20	0300	37.0	73.0	50	60	8	NNE	1002	120	20	0
8	20	0900	37.8	73.2	50	60	8	N	1001	120	40	0
9	20	1500	38.8	72.7	50	60	11	NNE	1002	120	40	0
10	20	2100	39.6	72.0	45	55	12	NE	1002	120	0	0
11	21	0300	40.2	71.3	45	55	11	NE	1003	90	0	0
12	21	0900	41.7	69.7	45	55	18	NE	1001	75	0	0
13	21	1500	43.1	67.4	40	50	20	NE	1002	75	0	0



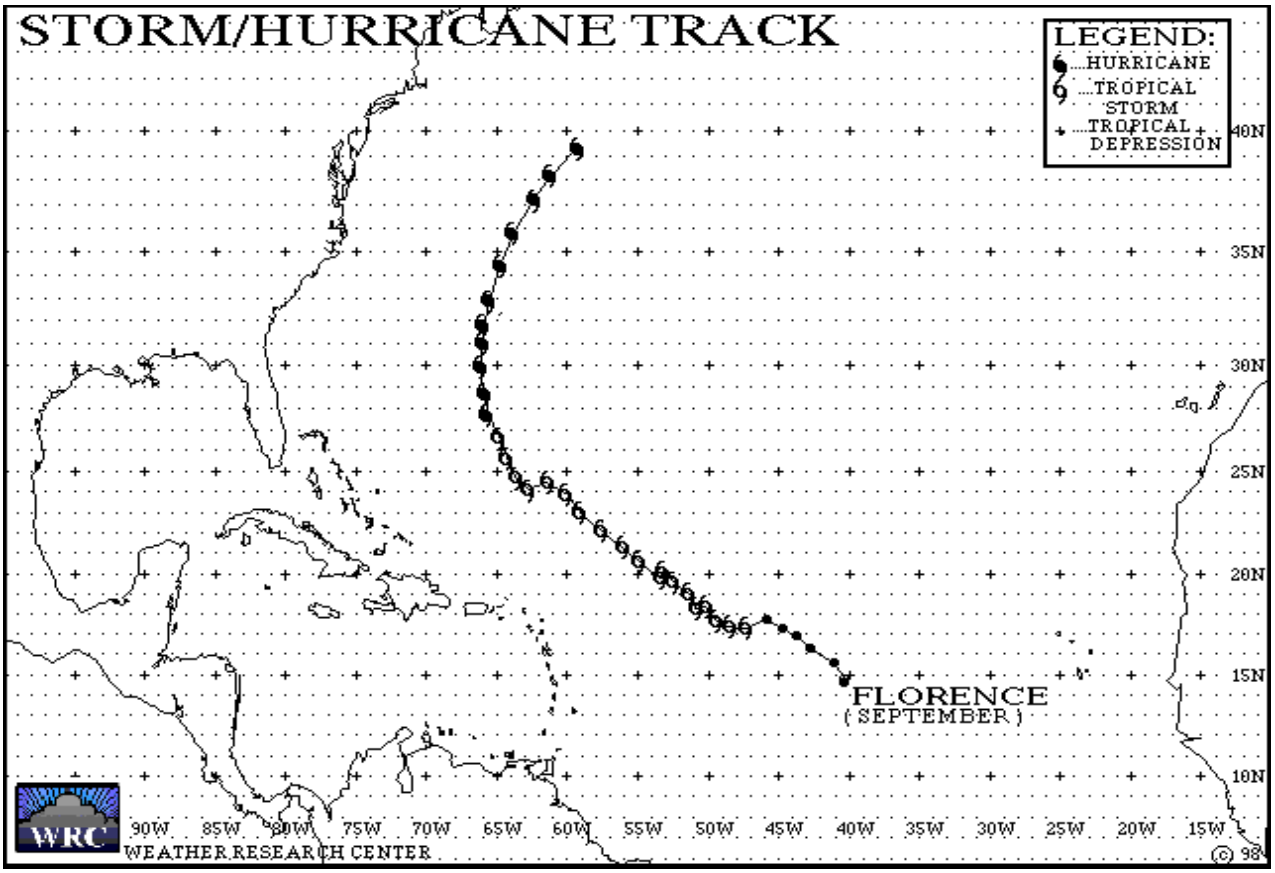
CHRIS	AUGUST	2006										
Advisory #	DATE	TIME UTC	LAT	LONG	MAX WIND KTS	GUST KTS	SPEED KTS	HEADING	PRESSURE MBS	RADIUS 34 KTS	RADIUS 50 KTS	RADIUS 64 KTS
1	1	0300	16.6	59.4	30	40	14	WNW	1011	0	0	0
2	1	0900	16.6	59.2	35	45	8	WNW	1009	30	0	0
3	1	1500	17.3	60.3	35	45	9	WNW	1009	30	0	0
4	1	2100	17.7	61.2	40	50	9	WNW	1007	20	0	0
5	1	2130	18.0	61.1	50	60	9	WNW	1003	20	15	0
6	2	0300	18.3	61.8	50	60	9	WNW	1003	25	15	0
7	2	0900	18.8	62.6	50	60	9	WNW	1001	65	20	0
8	2	1500	19.2	63.4	55	65	9	WNW	1001	65	20	0
9	2	2100	19.9	64.3	50	60	9	WNW	1005	70	20	0
10	3	0300	19.8	64.9	50	60	7	W	1007	70	25	0
11	3	0900	20.3	66.4	40	50	11	W	1010	70	0	0
12	3	1500	20.5	67.3	35	45	10	WNW	1012	70	0	0
13	3	2100	20.7	68.2	35	45	9	WNW	1011	70	0	0
14	4	0300	20.8	69.3	35	45	10	W	1012	60	0	0
15	4	0900	20.9	70.9	35	45	13	W	1012	60	0	0
16	4	1500	21.3	71.6	30	40	11	W	1012	0	0	0
17	4	2100	21.4	72.8	30	40	10	W	1011	0	0	0
18	5	0300	21.6	74.0	25	35	11	W	1012	0	0	0
19	5	0900	21.5	75.6	20	25	11	W	1011	0	0	0



DEBBY	AUGUST	2006										
Advisory #	DATE	TIME UTC	LAT	LONG	MAX WIND KTS	GUST KTS	SPEED KTS	HEADING	PRESSURE MBS	RADIUS 34 KTS	RADIUS 50 KTS	RADIUS 64 KTS
1	21	2100	12.5	21.5	30	40	10	WNW	1007	0	0	0
2	22	0300	12.2	23.2	30	40	13	WNW	1007	0	0	0
3	22	0900	12.8	24.6	30	40	14	WNW	1007	0	0	0
4	22	1500	13.6	26.1	30	40	15	WNW	1007	0	0	0
5	22	2100	14.5	27.5	30	40	16	WNW	1005	0	0	0
6	23	0300	15.2	28.9	35	45	16	WNW	1003	40	0	0
7	23	0900	15.9	30.1	40	50	14	WNW	1002	45	0	0
8	23	1500	16.8	31.5	45	55	15	WNW	1000	45	0	0
9	23	2100	17.9	33.0	40	50	17	NW	1002	45	0	0
10	24	0300	18.8	34.7	40	50	16	WNW	1003	45	0	0
11	24	0900	19.6	36.3	40	50	17	WNW	1003	45	0	0
12	24	1500	20.4	37.8	45	55	17	WNW	1000	50	0	0
13	24	2100	21.3	39.5	45	55	17	WNW	1000	50	0	0
14	25	0300	21.9	41.1	45	55	16	WNW	1000	45	0	0
15	25	0900	22.9	42.3	45	55	15	WNW	1000	45	0	0
16	25	1500	23.9	43.3	35	45	15	WNW	1003	45	0	0
17	25	2100	24.9	44.7	35	45	15	NW	1003	45	0	0
18	26	0300	25.2	45.6	35	45	12	WNW	1008	90	0	0
19	26	0900	25.3	46.7	30	40	11	WNW	1009	0	0	0
20	26	1500	25.6	47.3	25	35	7	WNW	1009	0	0	0
21	26	2100	27.0	47.5	25	35	10	NNW	1009	0	0	0
22	27	0300	27.9	48.5	25	35	10	NNW	1012	0	0	0
23	27	0900	28.6	49.3	25	35	11	NW	1012	0	0	0
24	27	1500	29.6	49.2	25	35	11	N	1012	0	0	0
25	27	2100	31.5	48.6	25	35	15	N	1012	0	0	0



ERNESTO	AUGUST	2006										
Advisory #	DATE	TIME UTC	LAT	LONG	MAX WIND KTS	GUST KTS	SPEED KTS	HEADING	PRESSURE MBS	RADIUS 34 KTS	RADIUS 50 KTS	RADIUS 64 KTS
1	24	2100	12.9	62.4	30	40	19	W	1007	0	0	0
2	25	0300	13.2	63.9	30	40	16	W	1007	0	0	0
3	25	0900	13.4	65.7	30	40	17	W	1005	0	0	0
4	25	1500	13.5	66.4	30	40	13	W	1005	0	0	0
5	25	2100	14.3	67.6	35	45	14	WNW	1004	80	0	0
6	26	0300	14.8	69.1	40	50	14	WNW	1003	80	0	0
7	26	0900	14.8	70.2	40	50	14	WNW	999	100	0	0
8	26	1500	15.1	71.2	45	55	12	WNW	997	100	0	0
9	26	2100	15.9	71.6	50	60	11	WNW	997	100	20	0
10	27	0300	16.8	72.7	50	60	12	WNW	997	80	20	0
11	27	0900	17.0	73.1	65	80	8	WNW	990	80	30	15
12	27	1500	17.6	73.7	65	80	8	NW	997	80	25	0
13	27	2100	18.0	74.5	50	60	7	NW	1007	80	25	0
14	28	0300	18.6	74.7	45	55	6	NW	1004	60	0	0
15	28	0900	19.6	75.4	45	55	10	NW	1002	60	0	0
16	28	1500	20.3	75.7	35	45	9	NW	1006	60	0	0
17	28	2100	21.3	76.9	35	45	11	NW	1007	90	0	0
18	29	0300	21.7	77.8	35	45	10	WNW	1007	75	0	0
19	29	0900	22.6	78.9	40	50	12	NW	1005	75	0	0
20	29	1500	23.3	79.5	40	50	11	NW	1005	75	0	0
21	29	2100	24.3	80.2	40	50	11	NW	1005	90	0	0
22	30	0300	24.9	80.5	40	50	7	NNW	1004	90	0	0
23	30	0900	25.6	80.9	40	50	7	NNW	1001	90	0	0
24	30	1500	26.4	80.9	30	40	9	N	1003	0	0	0
25	30	2100	27.6	80.8	30	40	12	N	1001	0	0	0
26	31	0300	28.7	80.6	30	40	12	N	1000	0	0	0
27	31	0900	30.0	80.2	45	55	13	N	998	75	0	0
28	31	1500	31.3	79.6	50	60	15	NNE	994	75	25	0
29	31	2100	32.6	78.7	60	75	15	NNE	991	100	40	0
30	1	0300	33.9	78.2	60	75	16	NNE	988	125	50	0
31	1	0900	35.1	77.8	50	60	13	N	990	100	50	0
32	1	1500	36.4	77.6	30	40	12	N	992	0	0	0


STORM/HURRICANE TRACK
LEGEND:
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
40N
35N
30N
25N
20N
15N
10N
FLORENCE
(SEPTEMBER)
90W 85W 80W 75W 70W 65W 60W 55W 50W 45W 40W 35W 30W 25W 20W 15W
WRC
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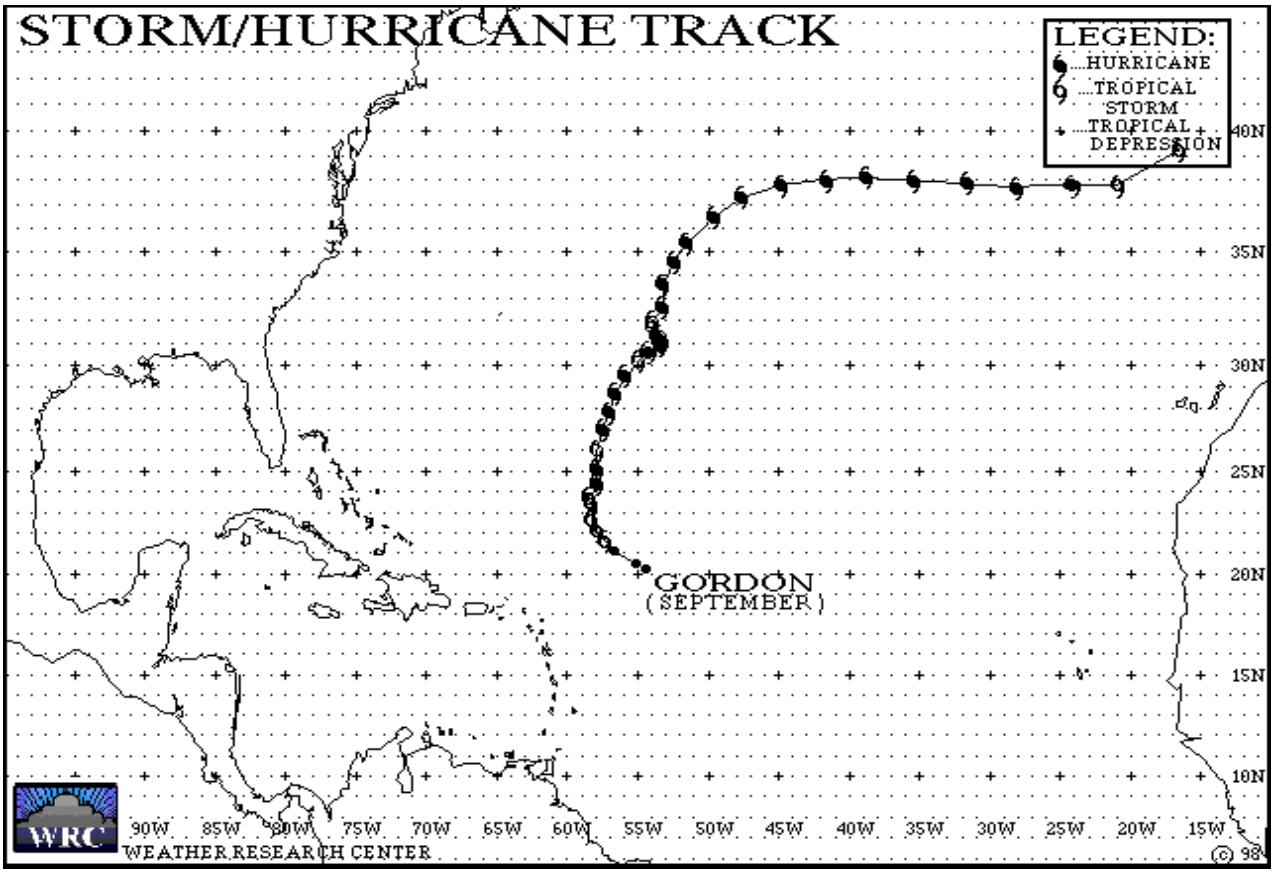
FLORENCE	SEPTEMBER	2006										
Advisory #	DATE	TIME UTC	LAT	LONG	MAX WIND KTS	GUST KTS	SPEED KTS	HEADING	PRESSURE MBS	RADIUS 34 KTS	RADIUS 50 KTS	RADIUS 64 KTS
1	3	2100	14.6	40.4	30	40	12	NW	1005	0	0	0
2	4	0300	14.8	40.4	30	40	10	NW	1005	0	0	0
3	4	0900	15.6	41.1	30	40	10	NW	1005	0	0	0
4	4	1500	16.3	42.7	30	40	10	NW	1005	0	0	0
5	4	2100	16.9	43.8	30	40	10	NW	1005	0	0	0
6	5	0300	17.3	44.8	30	40	11	WNW	1007	0	0	0
7	5	0900	17.7	45.9	30	40	11	WNW	1007	0	0	0
8	5	1500	17.3	47.3	35	45	11	W	1005	100	0	0
9	5	2100	17.4	48.5	40	50	10	WNW	1003	110	0	0
10	6	0300	17.7	49.5	40	50	10	WNW	1003	125	0	0
11	6	0900	18.4	50.2	40	50	11	WNW	1003	125	0	0
12	6	1500	18.3	50.9	45	55	10	WNW	1000	250	0	0
13	6	2100	19.0	51.4	45	55	8	WNW	999	225	0	0
14	7	0300	19.6	52.5	45	55	9	WNW	999	225	0	0
15	7	0900	20.1	53.2	45	55	9	WNW	999	225	0	0
16	7	1500	19.8	53.4	45	55	7	WNW	1000	250	0	0
17	7	2100	20.6	54.9	45	55	12	WNW	1000	350	0	0
18	8	0300	21.3	56.1	45	55	13	WNW	1000	350	0	0
19	8	0900	22.1	57.6	45	55	14	WNW	1000	350	0	0
20	8	1500	23.0	59.1	45	55	15	WNW	1000	350	0	0
21	8	2100	23.9	60.1	45	55	13	NW	1000	325	0	0
22	9	0300	24.5	61.4	55	65	13	NW	994	300	50	0
23	9	0900	24.1	62.8	55	65	12	WNW	993	300	50	0
24	9	1500	24.7	63.7	60	75	11	NW	992	250	50	0
25	9	2100	25.6	64.3	55	65	11	NW	992	250	50	0
26	10	0300	26.6	64.9	55	65	11	NNW	992	225	50	40
27	10	0900	27.7	65.7	70	85	13	NNW	976	225	75	40
28	10	1500	28.7	65.9	70	85	11	NNW	976	225	75	50
29	10	2100	29.9	66.2	80	100	11	N	975	225	80	50
30	11	0300	31.0	66.1	80	100	12	N	975	225	80	50
31	11	0900	31.8	66.0	70	85	10	N	976	250	70	60
32	11	1500	32.9	65.6	80	100	11	NNE	972	250	80	60
33	11	2100	34.4	64.8	80	100	14	NNE	972	250	80	60
34	12	0300	35.8	63.9	75	90	16	NNE	974	250	90	60
35	12	0900	37.2	62.4	65	80	17	NE	980	360	150	60
36	12	1500	38.2	61.2	65	80	20	NE	982	360	120	90
37	12	2100	39.3	59.3	65	80	17	NE	980	360	180	90


STORM/HURRICANE TRACK
LEGEND:
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
GORDON
(SEPTEMBER)
40N
35N
30N
25N
20N
15N
10N
90W 85W 80W 75W 70W 65W 60W 55W 50W 45W 40W 35W 30W 25W 20W 15W
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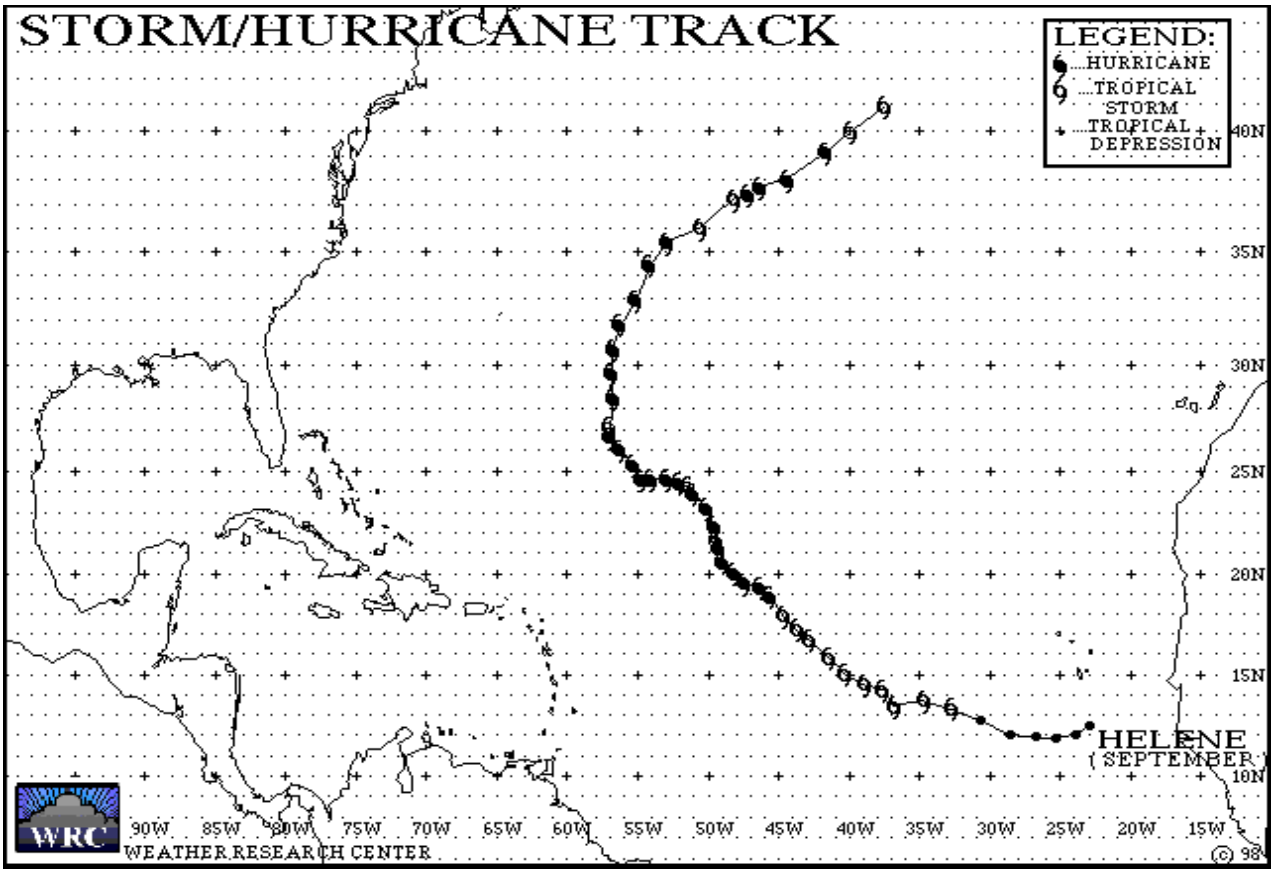
GORDON	SEPTEMBER	2006										
Advisory #	DATE	TIME UTC	LAT	LONG	MAX WIND KTS	GUST KTS	SPEED KTS	HEADING	PRESSURE MBS	RADIUS 34 KTS	RADIUS 50 KTS	RADIUS 64 KTS
1	11	0300	20.2	54.5	25	35	5	W	1012	0	0	0
2	11	0900	20.5	55.1	30	40	6	WNW	1010	0	0	0
3	11	1500	21.1	56.7	30	40	8	WNW	1009	0	0	0
4	11	2100	21.6	57.3	40	50	8	NW	1003	40	0	0
5	12	0300	22.1	57.9	50	60	8	NW	1000	75	45	0
6	12	0900	22.6	58.3	50	60	7	NW	1000	75	30	0
7	12	1500	23.4	58.3	50	60	8	NNW	1000	75	30	0
8	12	2100	23.7	58.4	55	65	6	N	994	75	30	20
9	13	0300	24.4	57.9	65	80	8	N	987	75	30	20
10	13	0900	25.1	57.9	65	80	8	N	987	75	30	20
11	13	1500	26.0	57.9	80	100	8	N	977	80	40	25
12	13	2100	27.0	57.5	95	115	10	N	965	90	50	25
13	14	0300	27.8	57.1	105	130	11	NNE	955	120	50	25
14	14	0900	28.7	56.6	105	130	11	NNE	955	120	50	25
15	14	1500	29.5	55.9	105	130	10	NNE	955	120	50	25
16	14	2100	30.2	54.9	105	130	10	NE	955	120	50	25
17	15	0300	30.6	54.3	100	120	8	NE	960	120	50	25
18	15	0900	30.9	53.4	95	115	8	ENE	965	120	50	30
19	15	1500	31.1	53.3	85	105	6	NE	973	90	60	30
20	15	2100	31.1	53.5	80	100	1	NE	976	90	60	20
21	16	0300	31.3	53.4	75	90	4	NNE	980	90	40	20
22	16	0900	31.3	53.7	65	80	1	NNE	987	90	40	20
23	16	1500	31.3	53.7	65	80	1	NNE	987	90	50	20
24	16	2100	31.7	54.0	65	80	3	NNW	987	90	50	20
25	17	0300	32.0	53.9	65	80	3	N	987	100	50	20
26	17	0900	32.6	53.3	65	80	5	N	987	100	50	20
27	17	1500	33.6	53.2	70	85	9	N	983	100	50	20
28	17	2100	34.6	52.4	70	85	12	NNE	983	100	50	20
29	18	0300	35.4	51.5	70	85	12	NE	983	80	40	20
30	18	0900	36.5	49.6	70	85	17	NE	983	80	40	30
31	18	1500	37.3	47.6	80	100	17	NE	980	80	40	35
32	18	2100	37.8	44.8	80	100	19	ENE	977	80	40	35
33	19	0300	38.0	41.6	85	105	24	E	972	100	60	35
34	19	0900	38.1	38.7	90	110	24	E	970	100	60	35
35	19	1500	38.0	35.4	75	90	27	E	979	150	60	35
36	19	2100	37.9	31.6	75	90	29	E	979	150	60	35
37	20	0300	37.7	28.1	70	85	29	E	980	150	60	40
38	20	0900	37.8	24.2	65	80	30	E	987	150	80	0
39	20	1500	37.8	20.9	50	60	29	E	995	200	80	0
40	20	2100	39.2	16.6	45	55	30	ENE	997	200	150	0


STORM/HURRICANE TRACK
LEGEND:
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
40N
35N
30N
25N
20N
15N
10N
HELENE
(SEPTEMBER)
WRC
90W 85W 80W 75W 70W 65W 60W 55W 50W 45W 40W 35W 30W 25W 20W 15W
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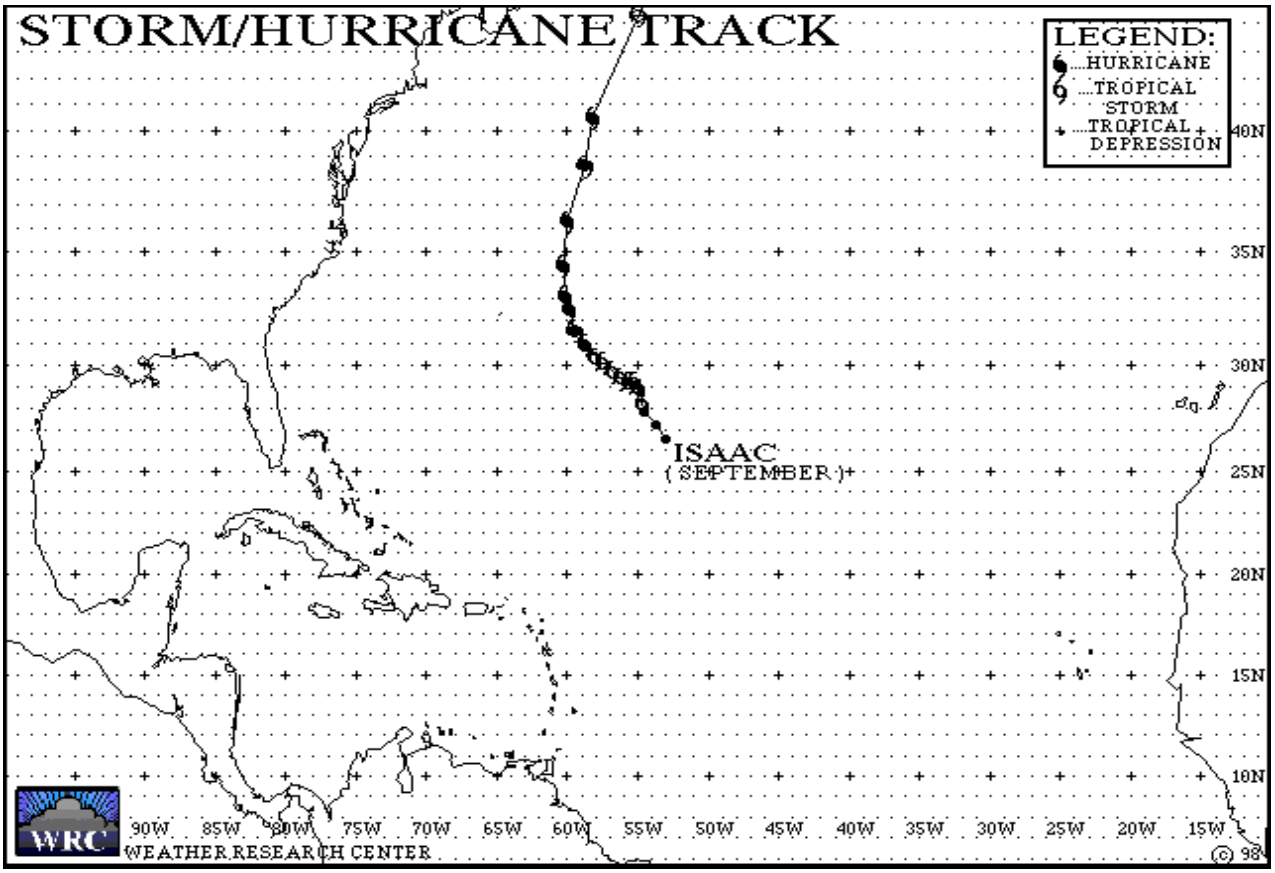
HELENE	SEPTEMBER	2006										
Advisory #	DATE	TIME UTC	LAT	LONG	MAX WIND KTS	GUST KTS	SPEED KTS	HEADING	PRESSURE MBS	RADIUS 34 KTS	RADIUS 50 KTS	RADIUS 64 KTS
1	12	1500	12.5	23.0	25	35	16	W	1007	0	0	0
2	12	2100	12.0	23.9	30	40	13	W	1007	0	0	0
3	13	0300	11.8	25.3	30	40	13	W	1007	0	0	0
4	13	0900	11.9	26.7	30	40	14	W	1007	0	0	0
5	13	1500	12.0	28.5	30	40	15	W	1007	0	0	0
6	13	2100	12.7	30.7	30	40	16	W	1007	0	0	0
7	14	0300	13.3	32.7	35	45	19	WNW	1005	60	0	0
8	14	0900	13.7	34.7	35	45	19	W	1005	75	0	0
9	14	1500	13.4	36.8	40	50	17	W	1003	75	0	0
10	14	2100	14.2	37.6	40	50	14	WNW	1003	90	0	0
11	15	0300	14.5	38.9	40	50	13	WNW	1003	90	0	0
12	15	0900	15.0	40.3	40	50	13	WNW	1003	90	0	0
13	15	1500	15.8	41.4	50	60	11	WNW	1000	90	25	0
14	15	2100	16.7	42.8	60	75	13	WNW	992	100	25	0
15	16	0300	17.2	43.7	60	75	12	WNW	992	100	25	0
16	16	0900	17.9	44.7	60	75	13	WNW	992	100	25	0
17	16	1500	18.8	45.6	65	80	12	NW	987	150	40	25
18	16	2100	19.3	46.3	65	80	11	NW	987	150	40	25
19	16	0300	19.5	47.5	70	85	9	WNW	984	150	40	20
20	17	0900	20.0	48.2	75	90	8	NW	979	150	40	20
21	17	1500	20.5	49.0	90	110	9	NW	970	150	60	35
22	17	2100	21.2	49.3	90	110	8	NW	970	150	60	35
23	18	0300	21.6	49.4	100	120	7	NW	962	175	90	45
24	18	0900	22.3	49.6	105	130	6	NNW	958	175	90	45
25	18	1500	23.2	50.2	110	135	8	NW	954	175	90	45
26	18	2100	23.9	51.1	100	120	8	WNW	960	175	100	60
27	19	0300	24.2	51.4	100	120	7	WNW	960	200	100	60
28	19	0900	24.4	52.1	100	120	7	WNW	960	200	100	60
29	19	1500	24.6	52.9	100	120	8	WNW	960	200	100	60
30	19	2100	24.6	54.1	95	115	8	WNW	956	190	95	55
31	20	0300	24.6	54.8	95	115	8	W	958	175	100	40
32	20	0900	25.3	55.4	95	115	8	NW	958	175	100	40
33	20	1500	26.0	56.3	90	110	10	NW	958	200	100	50
34	20	2100	26.6	57.1	90	110	8	NW	960	150	75	30
35	21	0300	27.1	57.0	85	105	8	N	961	175	75	60
36	21	0900	28.4	56.8	80	100	11	N	964	175	70	40
37	21	1500	29.6	56.9	70	85	11	N	970	175	70	30
38	21	2100	30.7	56.8	70	85	12	N	972	200	70	30
39	22	0300	31.8	56.3	75	90	12	NNE	970	200	90	35
40	22	0900	32.9	55.2	75	90	13	N	970	200	90	35
41	22	1500	34.4	54.2	75	90	18	NE	970	200	90	45
42	22	2100	35.4	53.0	65	80	18	NE	980	200	90	45
43	23	0300	36.0	50.6	60	75	20	ENE	982	300	135	0
44	23	0900	37.2	48.2	60	75	22	ENE	982	300	135	0
45	23	1200	37.4	47.2	80	100	22	ENE	970	300	175	115
46	23	1500	37.7	46.4	80	100	19	ENE	970	300	175	115
47	23	2100	38.0	44.4	80	100	19	ENE	970	300	175	115
48	24	0300	39.1	41.7	75	90	20	ENE	973	325	200	80
49	24	0900	39.9	39.9	75	90	20	ENE	973	325	200	80
50	24	1500	40.9	37.5	60	75	18	NE	970	375	175	0



ISAAC	SEPTEMBER	2006										
Advisory #	DATE	TIME UTC	LAT	LONG	MAX WIND KTS	GUST KTS	SPEED KTS	HEADING	PRESSURE MBS	RADIUS 34 KTS	RADIUS 50 KTS	RADIUS 64 KTS
1	27	2100	26.5	53.1	30	40	12	NW	1012	0	0	0
2	28	0300	27.2	53.8	30	40	11	NW	1012	0	0	0
3	28	0900	27.8	54.6	30	40	10	NW	1011	0	0	0
4	28	1500	28.2	54.7	35	45	7	NW	1008	100	0	0
5	28	2100	28.9	54.9	40	50	7	NNW	1006	100	0	0
6	29	0300	29.2	55.2	40	50	6	NW	1006	120	0	0
7	29	0900	29.2	55.6	40	50	4	NW	1006	120	0	0
8	29	1500	29.4	56.2	40	50	5	WNW	1006	100	0	0
9	29	2100	29.7	56.8	50	60	6	WNW	1000	100	40	0
10	30	0300	30.1	57.4	60	75	7	WNW	995	100	40	0
11	30	0900	30.3	58.0	60	75	6	WNW	995	100	40	0
12	30	1500	30.9	58.7	65	80	6	NW	992	110	60	30
13	30	2100	31.6	59.5	70	85	9	NW	989	110	60	35
14	1	0300	32.5	59.9	70	85	9	NNW	989	90	40	15
15	1	0900	33.1	60.1	75	90	8	NNW	985	100	40	20
16	1	1500	34.4	60.3	70	85	11	N	985	130	40	20
17	1	2100	36.3	60.0	70	85	18	N	987	125	40	20
18	2	0300	38.6	58.8	65	80	23	NNE	989	150	40	20
19	2	0900	40.5	58.2	65	80	26	NNE	989	250	75	20
20	2	1500	44.3	55.0	50	60	36	NNE	994	250	60	0
21	2	2100	47.1	52.2	50	60	35	NE	992	225	50	0

Weather Research Center
5104 Caroline Houston, Texas 77004 Phone: 713-529-3076 Fax: 713-528-3538 E-mail: wrc@wxresearch.org

For Immediate Release
November 29, 2006
For information, contact: 713-529-3076

WRC's 2006 Hurricane Prediction verifies again this year

Houston (2006) – According to Jill Hasling, Certified Consulting Meteorologist at Houston's Weather Research Center (WRC), the Center's 2006 Hurricane Prediction verified with the landfall of Tropical Storm Ernesto in North Carolina. Also the Center's prediction was best of the season for the number of expected named storms. In March 2006, WRC's OCSI model forecasted that there would be at least 11 named storms in the Atlantic this year with at least 5 of them intensifying into hurricanes. There were 9 names storms with 5 intensifying into hurricanes, [Hurricane Ernesto, Hurricane Florence, Hurricane Gordon, Hurricane Helene, Hurricane Isaac]. Dr. William Gray's April 2006 forecast called for 17 named storms of which 9 would intensify into hurricanes and NOAA's May 2006 forecast predicted 13 to 16 named storms with 8 to 10 becoming hurricanes.

NAME	DATES	INTENSITY	CAT	LOWEST PRESSURE	MAX WIND	LANDFALL
				MBS	KTS	
ALBERTO	10 – 14 June	Tropical Storm		995	60	Adams Beach, FL
BERYL	18 – 21 July	Tropical Storm		1001	50	Nantucket, MA
CHRIS	1 – 5 August	Tropical Storm		1001	55	
DEBBY	21 – 27 August	Tropical Storm		1000	45	
ERNESTO	24 Aug – 1 Sep	Hurricane	1	988	65	Cuba, Southern Tip of FL & Long Beach, NC
FLORENCE	3 –12 Sep	Hurricane	1	972	80	
GORDON	10 – 20 Sep	Hurricane	3	955	105	
HELENE	12 – 24 Sep	Hurricane	3	954	110	
ISAAC	27 Sep – 2 Oct	Hurricane	1	985	75	

WRC meteorologist's forecast indicated that at least 5 hurricanes would form during the season and that at least 4 tropical storms or hurricanes would make landfall somewhere along the U.S. Coast. There were 3 US landfalls: Tropical Storm Alberto in June which made landfall on the west coast of Florida, Tropical Storm Beryl in July which moved over Nantucket, Massachusetts, and Tropical Storm Ernesto in August which made landfall on the southern tip of Florida, continued moving through Florida and finally moved offshore to make landfall again in North Carolina.

-more-

WRC meteorologist Jill F. Hasling had stated that the highest risk for landfall of tropical cyclones this year would be along the southeast coast of the United States and the west coast of Florida. The OCSI predicted that the US coast from Georgia to North Carolina had a 90% chance of experiencing the landfall of a tropical storm or hurricane followed by the west coast of Florida which had a 70% chance. Both of these forecasts were verified with Tropical Storms Alberto, Beryl, and Ernesto.

The Houston-based Weather Research Center is one of a handful of organizations that make predictions each season. WRC uses a model called Orbital Cyclone Strike Index (OSCI) which uses the solar cycle to predict the hurricane season. The OCSI model is based on the premise that there are orbital influences that are reflected in the global circulation pattern on the sun and subsequently the global circulation pattern of the earth. The sun's orbit influences the sun spot cycle. The 2006 Atlantic hurricane season marked the start of a new Phase in the OCSI which then allows the Center's meteorologists to predict the Atlantic hurricane activity through at least 2015. The 2006 sunspot minimum marks the time to begin a new cycle starting with Phase 1 in the OCSI. If 2006 is the year of the sun spot minimum, then the OCSI is reset to Phase 1 which also includes other years when the sunspot minimum occurred: 1878, 1889, 1901, 1913, 1923, 1933, 1944, 1954, 1964, 1976, 1986, and 1996. The tropical cyclone landfalls that occurred in these years are then used to calculate the probabilities of landfall on certain sections of the United States coast in percent.

Below is the probability of a tropical storm or hurricane making landfall on the section of the North American coast indicated. The percentages shown under Climatology are the risk of experiencing a tropical storm or hurricane on that particular coast in any year. This percentage is calculated by taking the number of years since 1871 that particular section of the coast has experienced a landfall of a tropical storm or hurricane, divide it by the total number of years since 1871 and multiply by 100. For example 40% of the years from 1871 to 1985 had a tropical storm or hurricane make landfall.

2006 WRC OCSI FORECAST FOR THE ATLANTIC

COAST	WRC OCSI	CLIMATOLOGY	OBSERVED
Mexico	**40%**	**40%**	
Texas	**40%**	**51%**	
Louisiana to Alabama	**60%**	**59%**	
West Florida	**70%**	**71%**	**Alberto, Ernesto**
East Florida	**40%**	**41%**	
Georgia to N. Carolina	**90%**	**56%**	**Ernesto**
East Coast of US	**60%**	**36%**	**Beryl, Ernesto**
Gulf Oil Blocks	**90%**	**88%**	

-more-

Secondary 2006 Predictors from the OCSI:

	Forecast	Observed [10/3/06]
Number of Named Storms :	**11**	**9**
Number intensifying into Hurricanes:	**5**	**5**
Number of Hurricane Days:	**28**	**18.5**
US Landfalls:	**4**	**3**
Cat 3 or Higher Storms:	**50%**	**Gordon Helene**

During the 22-year period from 1985 to 2006, there have only been three years (1987, 1992, and 1999) when a storm or hurricane did not make landfall in the section of the United States coastline that had the highest risk. In all three of these years cyclones made landfall in the section of the coast with the second highest risk. This gives the OCSI an 86% accuracy rate.

The outlook for 2007 unfortunately gives the Louisiana to Alabama coast the highest probability of experiencing a landfall of a tropical storm or hurricane with a 70% chance. The second highest risk will be for the west coast of Florida and the Georgia to North Carolina coast each with 60% chance.

The secondary predictors are for the number of named storms and how many will intensify into hurricanes. For the 2007 Atlantic hurricane season we are expecting 7 named storms of which 4 are expected to intensify into hurricanes. We are expecting 3 of these 7 storms to make landfall somewhere along the United States Coast.

2007 WRC OCSI FORECAST FOR THE ATLANTIC

COAST	WRC OCSI	CLIMATOLOGY
Mexico	**40%**	**40%**
Texas	**40%**	**51%**
Louisiana to Alabama	**70%**	**59%**
West Florida	**60%**	**71%**
East Florida	**30%**	**41%**
Georgia to N. Carolina	**60%**	**56%**
East Coast of US	**30%**	**36%**
Gulf Oil Blocks	**80%**	**88%**

Secondary 2007 Predictors from the OCSI:

	Forecast
Number of Named Storms :	**7**
Number intensifying into Hurricanes:	**4**
Number of Hurricane Days:	**7**
US Landfalls:	**3**
Cat 3 or Higher Storms:	**50%**

The OCSI was developed by meteorologists, Dr. John C. Freeman and Jill F. Hasling. This index has been used since 1985 to make annual hurricane season forecasts of which section of the North American coast has the highest risk of experiencing a tropical storm or hurricane.

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In addition to its ongoing research, WRC also provides storm and hurricane information via the Internet through Storm Navigator®. This service helps provide detailed storm updates and related information. WRC's current and past predictions can be found at www.wxresearch.com/outlook.

Founded in 1987, the non-profit Weather Research Center manages a worldwide forecasting operation and provides groundbreaking research to scientists around the world. Meteorologists work on severe weather advisories, marine forecasts, long-range outlooks, environmental studies and forensic meteorology services. Weather Research Center provides research into tropical cyclones as well as real-time weather forecasts. President Jill F. Hasling is a Fellow and Certified Consulting Meteorologist from the American Meteorological Society as well as a member of the National Council of Industrial Meteorologists.

For more information about the John C. Freeman Weather Museum at Weather Research Center, please call (713) 529-3076 or logon to www.wxresearch.org.

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