Tropical Cyclone Report Tropical Storm Alberto AL012006 10-14 June 2006

## Lixion A. Avila and Daniel P. Brown National Hurricane Center 11 August 2006 Revised 11 September 2007 to change the storm surge at Crystal River (Table 2)

Tropical Storm Alberto made landfall near Adams Beach, Florida and produced torrential rains in western Cuba and in the eastern United States.

## a. Synoptic History

Alberto formed from an area of disturbed weather that persisted for several days over Central America and the northwestern Caribbean Sea. The thunderstorm activity increased on 8 June with the arrival of a westward moving tropical wave and became concentrated between the Yucatan Peninsula and Cuba where pressures began to fall. It is estimated that by 0600 UTC 10 June, there was a surface circulation and organized convection to classify the system as a tropical depression. It was then centered about 120 n mi south of the western tip of Cuba. The depression moved slowly northwestward toward a region of a strong southwesterly wind shear and the center of circulation became displaced to the southwest of the main area of convection. The winds increased over the eastern semicircle and the depression became a tropical storm at 0000 UTC 11 June. By then, the cyclone was located about 60 n mi northeast of the northeastern tip of Yucatan. Thereafter, Alberto turned northward and northeastward, producing intermittent bursts of deep convection. The cyclone intensified and reached its peak intensity of 60 kt and a minimum pressure of 995 mb about 100 n mi south of Apalachicola, Florida at 0000 UTC 13 June.

Thereafter, the cyclone began to weaken as it moved toward the coast and Alberto made landfall with 40-knot winds near Adams Beach, Florida at about 1630 UTC 13 June. Alberto continued toward the northeast farther inland and weakened. It began to lose tropical characteristics over South Carolina and became extratropical at 1200 UTC 14 June and then moved back over the Atlantic, where it became a powerful extratropical storm just south of Nova Scotia. The cyclone was tracked all the way to the British Isles where it was absorbed by a frontal system. The "best track" chart of the tropical cyclone's path is given in Fig. 1, with the wind and pressure histories shown in Figs. 2 and 3, respectively. The best track positions and intensities are listed in Table 1.

b. Meteorological Statistics

Observations in Tropical Storm Alberto (Figs. 2 and 3) include satellite-based Dvorak technique intensity estimates from the Tropical Analysis and Forecast Branch (TAFB), the Satellite Analysis Branch (SAB) and the U. S. Air Force Weather Agency (AFWA), as well as flight-level and dropwindsonde observations from flights of the 53<sup>rd</sup> Weather Reconnaissance Squadron of the U. S. Air Force Reserve Command. Microwave satellite imagery from NOAA polar-orbiting satellites, the NASA Tropical Rainfall Measuring Mission (TRMM), the NASA QuikSCAT, and Defense Meteorological Satellite Program (DMSP) satellites were also useful in tracking Alberto.

Alberto produced tropical storm force winds in the Dry Tortugas at an elevated 40-ft high platform at 0000 UTC 11 June when the center of the cyclone was almost 300 n mi to the southwest of the location. At the same time, the crew on board the Air Force aircraft measured flight level winds of 40 to 45 knots in a few convective bands. These winds were considered unrepresentative of the cyclone's intensity and the system was kept as a tropical depression operationally. Twelve hours later, a second reconnaissance aircraft measured 51 knots at 1400-ft and ship WDB3258 reported sustained winds of 33 knots. This suggests that the earlier observations were indeed representative of the cyclone's intensity. Consequently, it is estimated that the cyclone became a tropical storm at 0000 UTC 11 June. A NOAA P-3 reconnaissance plane measured a peak wind of 81 knots at 5000 feet at 1657 UTC 12 June. This wind was considered transient and unrepresentative of the storm's strength since wind values nearby were lower. Alberto's peak intensity was estimated at 60 kt at that time.

The cyclone produced torrential rains in western Cuba, where there was a report of 17 inches and several of 10 to 15 inches. There were seven tornadoes in South Carolina, most of them rated as F0. Selected surface observations from land stations and data buoys are given in Table 2.

## c. Casualty and Damage Statistics

Numerous houses received flood damage as two feet of water covered the road to downtown in Levy County, FL. Storm surge flooding near Homossassa, Citrus County put 3 ft of water into a restaurant and damaged 20 homes. A few trees were downed in Tallahassee causing power outages. There were no direct deaths associated with Alberto as a tropical storm. However, it caused one death and some damage after it became extratropical. An 8 year old boy drowned in Franklin County, NC north of Raleigh. He was chasing a ball which was going down the drainage system and was pulled in. There was a press report of 4 sailors missing about 200 n mi south of Nova Scotia when Alberto was a strong extratropical storm. The American Insurance Services Group indicated that the property loses associated with Alberto were small.

## d. Forecast and Warning Critique

Tropical Weather Outlooks from the National Hurricane Center began describing the area of disturbed weather from which Alberto developed two days prior to tropical cyclogenesis. For

a few days in advance, global models in general suggested the formation of a large area of low pressure over the northwestern Caribbean Sea and the Gulf of Mexico. This low became Alberto.

Because Alberto was forecast to become a hurricane, a hurricane warning was issued for a portion of the Florida west coast. Watches and warnings associated with Alberto are summarized in Table 3.

A verification of official and guidance model track forecasts is given in Table 4. Average official track errors for Alberto were 34, 63, 70, 93, 217, and 236 n mi for the 12, 24, 36, 48, 72, and 96 h forecasts, respectively. The number of forecasts ranged from 15 at 12 h to 1 at 96 h. These errors are lower than the average long-term official track errors (Table 4).

Average official intensity errors were 6, 8, 11, 11, 5, and 15 kt for the 12, 24, 36, 48, 72, and 96 h forecasts, respectively. For comparison, the average official intensity errors over the 5-yr period 2001-2005 are 6, 10, 12, 14, 18, and 20 kt, respectively. Table 5 shows the official intensity errors, the model forecast errors and the long-term average errors.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
10 / 0600	20.0	85.0	1004	25	tropical depression
10 / 1200	21.0	85.3	1003	30	"
10 / 1800	21.9	85.7	1003	30	"
11 / 0000	22.5	86.3	1003	35	tropical storm
11 / 0600	23.1	87.1	1003	35	п
11 / 1200	23.6	87.8	1002	40	"
11 / 1800	24.3	87.8	1004	40	"
12 / 0000	25.0	87.8	1004	40	"
12 / 0600	25.8	87.4	1004	45	п
12 / 1200	26.8	86.3	1000	60	п
12 / 1800	27.5	85.4	997	60	"
13 / 0000	28.0	85.0	995	60	"
13 / 0600	28.8	84.4	995	55	"
13 / 1200	29.5	84.1	996	45	"
13 / 1800	30.3	83.5	997	35	"
14 / 0000	31.3	82.8	1001	35	11
14 / 0600	32.8	81.9	1003	30	tropical depression
14 / 1200	34.3	80.7	1003	35	extratropical
14 / 1800	35.5	77.5	1002	35	11
15 / 0000	37.0	73.0	999	45	"
15 / 0600	38.8	69.9	990	45	11
15 / 1200	40.9	66.8	979	50	"
15 / 1800	42.6	64.2	971	55	"
16 / 0000	44.0	62.0	969	55	"
16 / 0600	46.0	58.5	972	50	"
16 / 1200	47.4	55.0	985	45	"
16 / 1800	49.3	51.5	990	40	"
17 / 0000	50.8	45.2	995	40	"
17 / 0600	51.5	39.0	995	40	"
17 / 1200	53.0	34.5	995	40	"
17 / 1800	54.0	29.0	995	35	"
18 / 0000	54.5	23.0	995	30	"
18 / 0600	54.5	16.0	995	30	11
18 / 1200	54.5	12.0	995	30	11
18 / 1800	55.0	9.0	997	30	11
19 / 0000	56.5	5.5	999	30	n
19 / 0600	57.0	3.0	999	30	n
19 / 1200					Absorbed by a front
13 / 1630	29.9	83.7	998	40	Landfall near Adams Beach, FL
13 / 0000	28.0	85.0	995	60	minimum pressure

Table 1.Best track for Tropical Storm Alberto, 10-14 June 2006.

	Minimu Level Pi			ximum Surfa Wind Speed	ce	Storm	Storm	Total
Location	Date/ time (UTC)	Press. (mb)	Date/ time (UTC) <sup>a</sup>	Sustained (kt) <sup>b</sup>	Gust (kt)	surge (ft) <sup>c</sup>	tide (ft) <sup>d</sup>	rain (in)
Cuba								
Rio Seco, Pinar Del Rio								17.52
Sumidero, Pinar Del Rio								15.67
Francia, Isla de la Juventud								13.19
Consolacion del Sur, Pinar del Rio								12.72
Sabanilla, Pinar del Rio								12.52
Presa Mal Pais, Isla de la Juventud								12.20
Ciro Redondo, Pinar del Rio								11.97
Derivadota Jagua, Isla de la Juventud								11.85
Herradura, Pinar del Rio								11.26
San Juan y Martinez, Pinar del Rio								11.07
Minas de Matahambre, Pinar del Rio								10.47
Santa Fe, Isla de la Juventud								9.96
Las Terrazas, Pinar del Rio								9.72
Playa Baracoa, La Habana								8.46
Santa Lucia, Pinar del Rio								8.19
Florida								
Official								
The Villages (VVG)	13/0745	1008.1	13/1805	24	36			0.87
Brooksville (BKV)	13/0859	1006.8	13/1928	24	37			2.60
St. Petersburg (PIE)	13/0836	1007.1	13/0540	35	44			3.97
St. Petersburg (SPG)	13/0810	1007.1	13/0637	32	42			3.20
Tampa (TPA)	13/0931	1007.8	13/0509	29	39			3.46
Vandenburg (VDF)	13/2050	1007.5	13/1801	26	47			
Sarasota (SRQ)	13/0908	1008.1	13/0640	29	38			4.51
Punta Gorda (PGD)	13/0724	1010.5	13/0729	28	40			2.32

Table 2.Selected surface observations for Alberto, 10-14 June.

	Minimu Level Pr			ximum Surfa Wind Speed	ce	Storm	Storm	Total
Location	Date/ time (UTC)	Press. (mb)	Date/ time (UTC) <sup>a</sup>	Sustained (kt) <sup>b</sup>	Gust (kt)	surge (ft) <sup>c</sup>	tide (ft) <sup>d</sup>	rain (in)
MacDill AFB (MCF)	13/0434	1006.4	13/0637	33	49			3.39
Apalachicola (AAF)	13/0956	1003.3	13/0556	24	31			1.79
Tallahassee (TLH)	13/1118	1004.0	13/0550	30	33			3.25
Perry (40J)	13/1735	997.2						4.39
Jacksonville (JAX)	13/2056	1006.9	13/1956	25	38			2.80
Jacksonville Craig Field (CRG)	13/2053	1007.7	13/2253	27	40			
Mayport Naval Airstation (NRB)	13/1855	1008.1	13/1802	22	36			2.28
NAS Jacksonville (NIP)	13/2055	1007.3	13/2055	24	34			
Jacksonville Cecil Field (VQQ)	13/1950	1007.5	13/1950	20	47			
Ocala (OCF)	13/0853	1007.1	13/1655	28	37			1.31
Vero Beach (VRB)	13/0817	1010.8	11/1809	28	36			0.77
Melbourne (MLB)	13/0729	1010.5	11/1755	31	49			2.32
Titusville (TTS)	13/0855	1010.5	13/1809	26	44			
Orlando (MCO)	13/0724	1009.2	13/0724	33	46			2.86
Orlando (ORL)	13/0721	1009.8	13/1810	31	37			3.48
Sanford (SFB)	13/0803	1009.2	13/1534	31	46			4.03
Daytona Beach (DAB)	13/1052	1010.2	13/1614	26	32			3.61
Leesburg (LEE)	13/1004	1008.1	11/1733	29	40			2.38
Fort Pierce (FPR)			11/1753	29	40			
Unofficial								
New Port Richey EOC					47			
Hernando Beach						4 e		
Pine Island						4 e		
Port Richey						4 e		
Crystal River Power Plant						4 e		
Taylor County						4 e	8 e	
Dixie County						5 e	9 e	
Suwannee 6 NE								4.23
Chiefland 5 SE								3.67
Usher Tower								4.07

	Minimu Level Pr			ximum Surfa Wind Speed	ce	Storm	Storm	Total
Location	Date/ time (UTC)	Press. (mb)	Date/ time (UTC) <sup>a</sup>	Sustained (kt) <sup>b</sup>	Gust (kt)	surge (ft) <sup>c</sup>	tide (ft) <sup>d</sup>	rain (in)
Williston								4.53
Inglis								4.56
Pinellas Park								4.10
Clearwater								4.05
Largo								4.63
Dunedin								4.70
Tarpon Springs 5 E								7.08
Dunedin 1 SE								4.70
Apollo Beach								5.05
Ruskin								6.76
Wimauma 4 SW								5.53
Lithia								5.15
Plant City								5.35
Mulberry								4.57
Winter Haven								4.46
Fort Meade								4.19
Bartow								5.33
Fort Meade								4.00
Four Corners								5.69
Bradenton								4.61
Myakka Head 8 W								5.23
Palma Sola								4.47
Wares Creek								5.57
Bowling Green								4.15
Sanford								4.90
Asheville								4.32
Cooks Hammock								4.46
Foley								4.10
Governor Hill								4.00
Hopewell Fire								4.06
Lamont								5.04

	Minimu Level Pr			ximum Surfa Wind Speed	ce	Storm	Storm	Total
Location	Date/ time (UTC)	Press. (mb)	Date/ time (UTC) <sup>a</sup>	Sustained (kt) <sup>b</sup>	Gust (kt)	surge (ft) <sup>c</sup>	tide (ft) <sup>d</sup>	rain (in)
Luraville								4.06
Мауо								5.02
Panacea								5.68
Perry								4.04
Monticello								4.17
Lake City								4.64
Georgia								
Official								
Moody AFB (VAD)						· · · · · · · · · · · · · · · · · · ·		2.83
Savannah (SAV)	14/0753	1007.0	14/0025	28	39			3.29
St. Simons Island (SSI)	13/2253	1007.2	13/1953	21	35			0.85
Brunswick (BQK)			13/2322		38			
Alma (AMG)	14/0053	1002.6						2.01
Unofficial								
Downtown Savannah					37			
Tybee Island					43			
Meridian					34			
Rincon								7.05
Wilmington Island								5.37
Fort Pulaski								4.38
Pritchardville								4.23
Port Wentworth								4.19
Tybee Island								4.06
South Carolina								
Official								
Charleston (CHS)	14/1056	1006.3	14/1309	26	34			2.51
Downtown Charleston (CHL)			14/0818	28	36			
Edisto Beach (NWS Sensor)					44			
Unofficial								

	Minimu Level Pr			ximum Surfa Wind Speed	ce	Storm	Storm	Total
Location	Date/ time (UTC)	Press. (mb)	Date/ time (UTC) <sup>a</sup>	Sustained (kt) <sup>b</sup>	Gust (kt)	surge (ft) <sup>c</sup>	tide (ft) <sup>d</sup>	rain (in)
Pineville			14/1431	33	42			
Edisto Beach Town Hall					42			
Folly Beach Town Hall					41			
Fripp Island					38			
Capers Island					38			
Isle of Palms					37			
Hilton Head					35			
Pritchardville								4.42
Allendale								4.25
Bluffton								4.13
Buoys/CMAN								
Gulf of Mexico								
Pulaski Shoal Light (PLSF1) (24.7°N 82.8°W)			11/0540	36	47			
Sand Key (SANF1) (24.5°N 81.9°W)			10/1740	32	40			
Buoy 42003 (26.1°N 85.9°W)	12/0750	1002.9	12/1350	39	49			
Buoy 42013 USF (27.2°N 83.0°W)	12/2210	1008.3	12/2210	29	35			
Buoy 42036 (28.5°N 84.5°W)	13/0250	995.8	13/1040	35	45			
Buoy 42039 (28.8°N 86.0°W)	12/2050	1005.4	12/2050	31	39			
Buoy 42021 USF (28.3°N 83.3°W)	13/0700	1004.5	13/0300	35	39			
Tyndall AFB Tower (SGOF1) (29.4°N 84.9°W)	13/0800	1001.1	13/0540	45	52			
Shell Point (SHPF1) USF (30.1°N 84.3°W)	13/1054	1001.5						
Keaton Beach (KTNF1) (29.8°N 83.6°W)	13/1600	997.5	13/1820	32	39			
Cedar Key (CDRF1) (29.1°N 83.0°W)	13/0900	1004.1	18/0830	36	48	4.09	6.74	
Homosassa (HSSF1) USF (28.8°N 82.7°W)	13/0754	1005.3	13/1754	33	42			

	Minimu Level Pr			ximum Surfa Wind Speed	ce	Storm	Storm	Total
Location	Date/ time (UTC)	Press. (mb)	Date/ time (UTC) <sup>a</sup>	Sustained (kt) <sup>b</sup>	Gust (kt)	surge (ft) <sup>c</sup>	tide (ft) <sup>d</sup>	rain (in)
Port Richey (PTRF1) USF (28.3°N 82.7°W)	13/0854	1003.0	13/1154	29	35			
Fred Howard (FHPF1) USF (28.2°N 82.8°W)	13/0854	1006.1	13/0754	35	47			
Clearwater Beach (CWBF1) NOS (28.0°N 82.8°W)	13/0800	1005.9	13/0354	40	52	2.42	4.02	
McKay Bay (MCYF1) NOS (27.9°N 82.4°W)			13/0712	37	47	3.28	4.75	
St. Petersburg (SAPF1) NOS (27.8°N 82.6°W)			13/0324	30	41	2.52	3.79	
Anclote Key (ANCF1) NOS (28.2°N 82.8°W)			13/1200	26	37			
Old Port Tampa (OPTF1) NOS			13/0500	42	52	2.75	4.28	
Tampa Birth 223NOS			13/0730	34	40			
Sunshine Skyway			13/0646	39	49			
Port Manatee			13/0730	29	38	2.06	3.40	
(PMAF1) NOS			15/0750	2)	50	2.00	5.40	
Egmont Key (EGKF1) USF (28.2°N 82.8°W)			13/0054	31	39			
Venice (VENF1) (27.1°N 82.5°W)	13/0800	1009.2	13/0640	36	46			
Fort Myers (FMRF1) (26.7°N 81.9°W)						1.51	1.95	
Atlantic								
St. Augustine (SAUF1) (29.9°N 81.3°W)	13/2000	1008.7	13/0900	35	42			
Mayport (MYPF1) (30.4°N 81.4°W)	13/1912	1009.4	13/0812	27	39		4.90	
Fernandina Beach (FRDF1) (30.7°N 81.5°W)			13/2348	28	38		5.60	
Buoy 41004 (32.5°N 79.1°W)	14/1050	1009.3	14/1440	30	41			
Buoy 41008 (31.4°N 80.9°W)	13/2250	1008.1	14/0200	31	43			
Saint Simons Island						0.98	7.63	
Navy Tower R8 (TYBG1) (31.6°N 79.9°W)	14/0826	1009.0	14/0426	31	41			
Navy Tower R2 (SPAG1) (31.4°N 80.6°W)			14/0633	37	43			
Navy Tower M2R6 (SKMG1) (31.5°N 80.2°W)	13/2233	1008.8	14/0333	36	43			

Location	Minimum Sea Level Pressure		Maximum Surface Wind Speed			Storm	Storm	Total
	Date/ time (UTC)	Press. (mb)	Date/ time (UTC) <sup>a</sup>	Sustained (kt) <sup>b</sup>	Gust (kt)	surge (ft) <sup>c</sup>	tide (ft) <sup>d</sup>	rain (in)
Fort Pulaski NOS (FPKG1) (32.0°N 80.9°W)			13/1718	29	37	0.98	8.53	
Fripp Island NOS (FRPS1) (32.3°N 80.4°W)			13/2312	33	36	1.33	7.81	
Folly Island (FBIS1) (32.7°N 79.9°W)	14/1000	1008.6	14/1100	35	44			
South Capers Island NOS (SCIS1)	14/1112	1007.9	14/1054	30	38	1.30	6.65	
Charleston Harbor NOS						1.19	6.82	

<sup>a</sup> Date/time is for sustained wind when both sustained and gust are listed.
<sup>b</sup> Except as noted, sustained wind averaging periods for C-MAN and land-based ASOS reports are 2 min; buoy averaging periods are 8 min.
<sup>c</sup> Storm surge is water height above normal astronomical tide level.
<sup>d</sup> Storm tide is water height above National Geodetic Vertical Datum (1929 mean sea level).

Date/Time (UTC)	Action	Location
11 / 2100	Tropical Storm Watch issued	Bonita Beach to Steinhatchee
12/0900	Tropical Storm Watch issued	Englewood to Indian Pass
12 /0900	Tropical Storm Watched modified	Bonita Beach to Englewood
12/1500	Hurricane Warning issued	Longboat Key to Ochlockonee River
12/1500	Tropical Storm Warning modified	Longboat Key to Englewood and Ochlockonee River to Indian Pass
12/2100	Tropical Storm Warning issued	Flagler Beach to Savannah River
12/2100	Tropical Storm Watch discontinued	Bonita Beach to Englewood
13/0900	Tropical Storm Warning extended	Savannah River to South Santee River
13/1500	Hurricane Warnings downgraded to Tropical Storm Warning	Bayport to Indian Pass
13/2100	Tropical Storm Warning discontinued	Bayport to Indian Pass
14/0000	Tropical Storm Warning modified	Altamaha Sound to South Santee River
14/0900	Tropical Storm Warning discontinued	All

Table 3.Watch and warning summary for Tropical Storm Alberto 10-14 June.

Forecast			Forecast	Period (h)		
Technique	12	24	36	48	72	96
CLP5	49 (15)	98 (13)	134 (11)	179 ( 9)	195 ( 5)	125 ( 1)
GFNI	42 (15)	82 (10)	131 ( 8)	148 ( 4)	104 ( 1)	178 ( 1)
GFDI	45 (15)	78 (13)	115 (11)	168 ( 9)	371 ( 5)	482 (1)
GFDL	48 (14)	69 (12)	84 (10)	127 ( 8)	345 ( 4)	
GFDN	60 (14)	83 (10)	144 ( 7)	212 ( 2)		
GFSI	57 (15)	110 (12)	161 (10)	209 ( 8)	261 ( 4)	302 (1)
GFSO	63 (13)	127 (10)	190 ( 7)	191 ( 5)	280 ( 3)	
AEMI	59 (15)	111 (13)	169 (11)	170 ( 9)	168 ( 5)	213 ( 1)
NGPI	54 (15)	106 (13)	168 (11)	232 ( 8)	315 ( 3)	
NGPS	53 (14)	103 (12)	171 (10)	228 ( 8)	259 ( 4)	
UKMI	39 (11)	71 ( 9)	119 ( 7)	210 ( 5)	147 ( 2)	
UKM	60 ( 7)	65 ( 6)	61 ( 4)	116 ( 3)	79 ( 1)	
A98E	48 (15)	83 (13)	103 (11)	134 ( 9)	189 ( 5)	361 (1)
A9UK	54 (7)	94 ( 6)	107 ( 5)	122 ( 4)	118 ( 2)	
BAMD	52 (14)	75 (12)	93 (10)	149 ( 8)	341 ( 4)	285 (1)
BAMM	57 (14)	114 (12)	181 (10)	267 (8)	325 ( 4)	366 (1)
BAMS	70 (14)	149 (12)	268 (10)	413 ( 8)	571 ( 4)	690(1)
CONU	44 (15)	80 (13)	117 (11)	136 ( 9)	254 ( 5)	315 (1)
GUNA	46 (11)	90 ( 8)	139 ( 6)	177 ( 4)	247 ( 2)	
FSSE	40 ( 9)	50 ( 7)	70 ( 5)	79 ( 3)		
OFCL	34 (15)	63 (13)	70 (11)	93 ( 9)	217 ( 5)	256 (1)
NHC Official (2001-2005 mean)	37 (1930)	65 (1743)	91 (1569)	118 (1410)	171 (1138)	231 (913)

Table 4. Preliminary forecast evaluation (heterogeneous sample) for Tropical Storm Alberto, 10-14 June. Forecast errors (n mi) are followed by the number of forecasts in parentheses. Errors smaller than the NHC official forecast are shown in bold-face type. Verification includes the depression stage, but does not include the extratropical stage, if any.

Table 5. Preliminary intensity forecast evaluation (heterogeneous sample) for Tropical Storm Alberto, 10-14 June. Forecast errors (kt) are followed by the number of forecasts in parentheses. Errors smaller than the NHC official forecast are shown in bold-face type. Verification includes the depression stage, but does not include the extratropical stage, if any.

Forecast			For	ecast Period	l (h)		
Technique	12	24	36	48	72	96	120
SHF5	8.4 (15)	10.8 (13)	12.5 (11)	16.4 ( 9)	8.6 (5)	2.0 (1)	
GFDI	7.5 (15)	7.8 (13)	12.4 (11)	12.0 ( 9)	18.4 ( 5)	17.0 (1)	
GFDL	8.0 (14)	7.6 (12)	11.6 (10)	13.8 ( 8)	19.0 ( 4)		
SHIP	8.1 (15)	10.8 (13)	11.5 (11)	13.8 ( 9)	13.8 ( 5)	27.0 (1)	
DSHP	6.7 (15)	7.2 (13)	7.3 (11)	10.4 ( 9)	9.4 ( 5)	8.0 (1)	
FSSE	6.7 (9)	12.6 (7)	14.6 ( 5)	12.3 ( 3)			
ICON	7.1 (15)	7.5 (13)	9.5 (11)	11.1 ( 9)	13.8 ( 5)	12.0 ( 1)	
OFCL	6.3 (15)	8.1 (13)	11.4 (11)	10.6 ( 9)	5.0 ( 5)	15.0 (1)	
NHC Official (2001-2005 mean)	6.3 (1930)	9.8 (1743)	12.1 (1569)	14.3 (1410)	18.4 (1138)	19.8 (913)	21.8 (742)

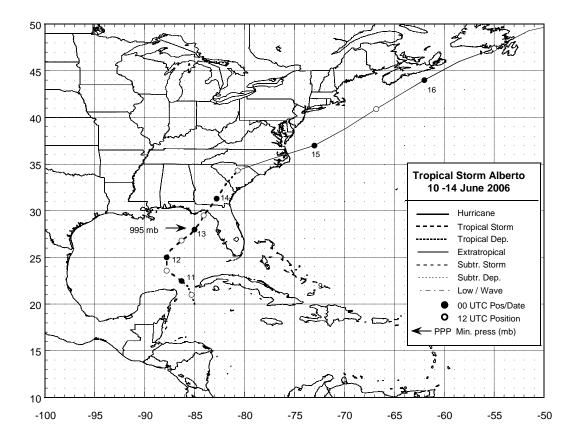


Figure 1. Best track positions for Tropical Storm Alberto, 10-14 June, 2006. Track during the extratropical stage is based on analyses from the NOAA Ocean Prediction Center and a post analysis performed at NHC.

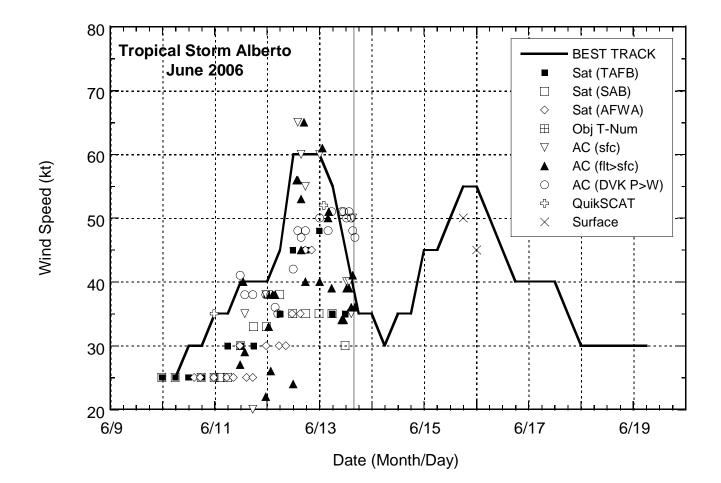


Figure 2. Selected wind observations and best track maximum sustained surface wind speed curve for Tropical Storm Alberto, 10 to 14 June 2006. Aircraft observations have been adjusted for elevation using 90%, 80%, and 80% reduction factors for observations from 700 mb, 850 mb, and 1500 ft, respectively. Estimates during the extratropical stage are based on analyses from the NOAA Ocean Prediction Center and a post analysis performed at NHC. Vertical solid line represents the landfall time.

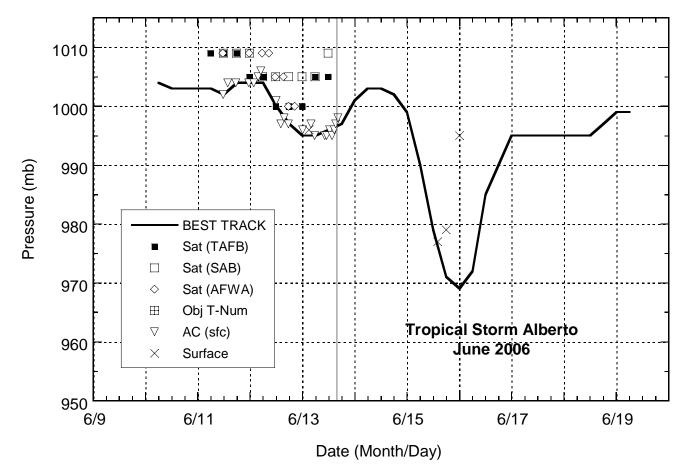


Figure 3. Selected pressure observations and best track minimum central pressure curve for Tropical Storm Alberto, 10-14 June 2006. Estimates during the extratropical stage are based on analyses from the NOAA Ocean Prediction Center and a post analysis performed at NHC. Vertical solid line represents the landfall time.