



DEPARTMENT OF THE AIR FORCE
24TH WEATHER SQUADRON (MAC)
RANDOLPH AIR FORCE BASE TX 78150

REPLY TO
ATTN OF: Det 22, 24 WS/CC (AV868-3938)

27 Aug 85

SUBJECT: Surface Weather Observations

TO: OL-G HQ AWS/CARCAH
ATTN: Mr. Thompson
National Hurricane Center
1320 South Dixie Hwy, Room 631
Coral Gables FL 33146

The attached surface weather observations are forwarded for your information.

FOR THE COMMANDER

Larry W. Franklin
LARRY W. FRANKLIN, MSgt, USAF
Chief, Weather Station Operations

*HUM.
DANNY*

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Event HURRICANE DANNY Date Aug 15 1985

Location LA 82 at Cameron Parish line

Observations

Hourly Summaries

Observations					Hourly Summaries		
Time	Sust	Gust	Press	R	Time	Av. Sust	P. Gust
2:03 pm		67	29.38	T			
2:03 pm		75	29.40	T	2-3 pm	46	75
2:06	51	69	29.41	H			
Water rising rapidly					3-4 pm	43	60
2:08		70	29.40	T			
2:10	48	60	29.41	H			
2:16		70	29.43	H			
2:30		70	29.46	M			
2:38		71	29.48	H			
2:42	39	52	29.49	M			
2:52		70	29.49	M			
3:06	47	60	29.54	H			
3:21	39	50	29.58	L	Observer	TERRY NIXON	
3:28		57	29.59	L	Site Description	Same	
					Barometer Calibration	Same	

R - rain: L - light M - moderate H - heavy T - torrential
SUST = sustained wind = average one minute velocity

Aug. 17, 1985

Bob,

Enclosed are my observations during Hurricane Danny. All observations beginning with 7:44 am Aug 15 were taken at an isolated spot along Highway 82 eleven miles west of Pecan Island. The roadbed in this area is elevated approximately eight feet above the bayou flatlands and my wind sensor is elevated 10 feet above the ground (mounted on the rear of my truck). This gives a total sensor height of about eighteen feet.

All wind speeds are in miles per hour. My sustained wind figures were obtained by averaging the highest and lowest velocity visually observed during 60 seconds. Sustained wind observation periods were selected at random.

Gusts were also visually observed.

The anemometer used was a Sims CSC-3-100, Simerl Instruments, 238 West St, Annapolis, Maryland (301) 849-8667.

Before leaving Louisiana I dropped off copies of these observations with Carl Perkins in Lake Charles and Clarence Vieroy at Slidell. At Slidell (prior to the storm) I brought my barometer in for calibration and it was in exact agreement with their station pressure at that time. To maintain integrity of the barometer I do not make adjustments using the set screw.

A rather dramatic break occurred at 9:29 a.m. when the sun broke through and birds appeared for the first time. Wind and pressure changes were less dramatic, but I feel certain that 9:29 a.m. is when the eye arrived at my location. Departure of the eye was pretty clearly at 1:00 p.m. when a burst of moderate rain occurred with southwest winds and the pressure rose steadily thereafter.

Only once, when the eye first arrived, did the sun shine through briefly. An interesting aspect of Danny's eye was the temperature rise from 83° at 9:17 a.m. to 96° at 11:03 a.m. Conditions of temperature and humidity became truly oppressive in the eye of Danny.

Please make any suggestions relating to improvements in my observation procedures and send me a copy of the summaries of Danny once they have been written.

Terry Nixon

William Terry Nixon

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Earth Science Teacher
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Training Officer
Office of Emergency Management
Volusia County, Florida

National Weather Service:

1980 National Oceanic & Atmospheric Administration PUBLIC SERVICE AWARD
1984 Weather Sensing Workshop, National Weather Service Training Center
Kansas City, MO

Foreign Assignments:

1982 UNITED NATIONS, PanCaribbean Disaster Preparedness Project
Barbados, Antigua, Dominica, St. Lucia
Design materials and programs for hurricane education. Assess national and community level needs in disaster preparedness.
1983 U.S. STATE DEPARTMENT ... AGENCY FOR INTERNATIONAL DEVELOPMENT
Kingston, Jamaica
Assist Office of Disaster Preparedness in design and implementation of hurricane training programs.

Publications:

Hurricanes: What to Know and Do
Hurricanes and Volusia County
Tides and the Florida Coast
Volusia County Hurricanes

Presenter: National Hurricane Conference 1981

References:

Bob Case, Miles Lawrence, Gil Clark
National Hurricane Center
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Event HURRICANE DANNY Date Aug. 14-15

Location ① Grand Chenier, Cameron Parish Louisiana 1985

② and New Iberia Louisiana

Observations

Hourly Summaries

	Time	Sust	Gust	Press	R	Time	Av. Sust	F. Gust	
		mph							
4 th	9:46 p.m.	-	-	29.92	NO	← Grand Chenier			
5 ^h	3:08 a.m.	21	28	29.79	L	3-4 a.m.	21	46	} New Iberia
	3:34	22	28	29.78	m				
	3:41		32		m	4-5 a.m.	24	33	
	3:48	19	23						
	3:57		46	29.77	m				
	4:11 a.m.	24	32	29.76	L	② Shoulder of highway 90.			
	4:15		lightning			New Iberia			
	4:21	25	33	29.76	L				
	4:35	23	30	29.75	m	Observer <u>TERRY NIXON</u>			
						Site Description			
	5:18	27	36	29.73	L	① Exposed shell road leading south from 82. Sensor approx. 15' above flat coastal plain. Very few obstructions - none east through south.			
	5:31	24	33	29.72	m				
						Barometer Calibration			
						Checked at SIL 08/14/85 0845Z and found to be accurate.			
						Bedford P. Brown, PIC WSR 514			

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SUST = sustained wind = average one minute velocity NO - none observed

Event DANNY Date Aug. 15

Location Back in Cameron Parish

Observations

Hourly Summaries

Time	Sust	Gust	Press	R	Time	Av. Sust	P. Gust
7:32		52	29.44	M			
7:33		61					
7:44	Cameron/Vermilion Boundary Highway 82						
↙ N wind	41	54	29.44	M	Barometer pulsing		
7:50	41	55					
7:57		63	29.38	L	7-8 am	41	63
					8-9 am	39	68
8:01		68	29.38	L	} Cameron		
8:10	40	58	29.37	M			
8:19	39	52	29.37	H	- Eye 29.0 92.6 Me 29.7 92.7		
8:24 NE	41	53	29.37	M	Observer TERRY NIXON		
8:50	35	48	29.34	NO	Site Description		
8:56		59			Elevated road bed, Surrounded by marsh.		
9:03 ENE	34	46	29.34	L	Open terrain all directions.		
9:07		53	29.32	L	At Rockefeller Wildlife Refuge.		
9:09		61	29.32	L	Barometer Calibration		
9:11		51	29.30	L	Same		
9:17		65	29.29	L			

R - rain: L - light M - moderate H - heavy T - torrential
SUST = sustained wind = average one minute velocity

Event DANNY Date Aug. 15, 1985
 Location Cameron / Vermilion Boundary, Louisiana

Observations

Hourly Summaries

Time	Sust	Gust	Press	R	Time	Av. Sust	F. Gust
9:22 am	40	59	29.29	NO			
9:29	32	43	29.29	Sun	9-10am	29	65
	Birds appearing						
9:35	29	40	29.29	NO	10-11 am	15	24
9:39	24	30	29.28	NO			
9:44 NE	24	35	29.27	NO			
9:48			29.26	NO			
9:55	more birds 23	30	29.25	NO			
10:08			29.24	L			
10:10	18	24	29.23	L			
10:15			29.22	L			
10:21 E	15	20	29.22	L			
10:24	15	QUIET 17	29.22	NO	Observer <u>TERRY NIXON</u>		
10:33			29.23	NO	Site Description		
10:37	14	18	29.24	NO	Same		
10:45	Fish jumping		29.25	NO			
10:53	12	15	29.25	NO			
10:56	Oppressive heat + humidity						
	Eye wall visible to SE				Barometer Calibration		
11:03	12	14	29.24	NO	Same		

R - rain: L - light M - moderate H - heavy T - torrential
 SUST = sustained wind = average one minute velocity NO none observed

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Event DANNY Date Aug 15, 1985

Location Cameron / Vermilion Parish Boundary Highway 82

Observations

Hourly Summaries

	Time	Sust	Gust	Press	R	Time	Av. Sust	P. Gust
	11:12 am			29.26	NO			
94°	11:18	16	20	29.26	NO	11-NOON	16	25
	11:25	16	19	29.26	NO			
93°	11:38	16	20	29.25	NO	NOON-1	19	30
	11:46	19	25	29.25	L			
92°	12:04 pm	11	13	29.24	NO	1-2 pm	39	70
94°	12:07			29.23	NO			
	12:24	15	22	29.25	NO			
	12:28	24	30	29.25	NO			
	12:38	21	28	29.25	NO			
	12:45			29.24	NO			
	12:56	22	25	29.25	NO			
	1:00 SW	35	44	29.26	M	Observer	TERRY NIXON	
	1:13	33	41	29.26	NO	Site Description	Between	
	1:26	33	40	29.26	L		White Lake and Rockefeller	
	1:29		58	29.27	M		Wildlife Refuge along Highway	
	1:33	47	60	29.28	H		82 just inside Cameron	
	1:41			29.33	L		Parish. (same as previous)	
	1:47 SW		70	29.35	H	Barometer Calibration		
	1:52	48	60	29.37	H		Same	

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