

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Miami, Florida

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Weather Bureau Airport Station
Hialeah, Fla.

October 31, 1946

Chief U. S. Weather Bureau,
Washington, D. C.

Subject: Forecasters Report on Hurricane of October 6-9, 1946.

Sir:

The hurricane of October 1946, will be known in Florida as one that quickly lost force only a few hours before striking and did comparatively little damage. The potential damage, especially to the citrus crop, was so great, and the actual damage so small, that many in Florida attributed it to the miraculous intervention of Providence in answer to state-wide invocations. This is attested to by a flood of letters to our office and the newspapers over the state. The damage to the citrus crop was negligible, probably about 2% or 2,000,000 boxes (\$5,000,000) while property damage in all areas will total only about \$200,000. No lives were lost and no serious injuries occurred in the States, but newspapers report five deaths in Cuba due to the storm.

This storm formed in the northwestern Caribbean Sea south of the Yucatan Channel during the night of October 5-6th and increased rather rapidly to hurricane force during the 6th and began moving north-northeastward. A Navy destroyer about 40 to 50 miles south of the extreme western tip of Cuba reported a maximum wind of 85 knots at 5:30 p.m. of the 6th. During the night the center crossed extreme western Cuba and the station at San Julian reported winds in gusts to 112 MPH. At around noon of the 7th the center passed a short distance west of Dry Tortugas, where observations by ships, planes, and land stations indicated a severe hurricane. (See synoptic reports on map attached). Dry Tortugas reported 84 MPH, while several ships to the west of this place reported 80 to 100 Knots, and a reconnaissance plane estimated highest wind at 115 Knots (132 MPH), but there is some question about the accuracy of this estimate. It appears that maximum intensity was attained about this time, however, for a plane entered the storm about 100 miles west-southwest of Ft. Myers at 4:18 P.M. and estimated the wind at only 85 Knots (98 MPH) - still a severe hurricane. When the center reached the coast in the Tampa Bay area a few hours later, the strongest winds did not exceed 75 MPH, with gusts of 80 MPH. These readings were reported to the right of the center. At Tampa, over which the calm center passed near midnight, the strongest wind was only 47 MPH.

The forward movement accelerated rapidly during the 7-8th from about 14 MPH when leaving Cuba, to 33 MPH while passing over Florida and Southeastern Georgia. This rapid acceleration doubtless contributed to loss of force, however, winds were nearly as strong over northeastern Florida as on the west coast where it first struck. This indicates that most of the loss in intensity occurred between noon and midnight of the 7th; in fact, most of the loss occurred between 4 P.M. and 10 P.M.

There is attached copies of all advisories, warnings, and bulletins issued by this office in connection with the storm. These will show movement were forecast with a very high degree of accuracy, timely and justified, although the winds were not as strong as warnings, due to the sudden loss of force mentioned above. Showing extremes of pressure, wind, etc., are included with show graphically these elements at many places.

There was some complaining, especially at Key West, that our

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Summary of Oct 6-9, 1946

Tides on the Florida west coast were unusually high and caused much of the damage reported. The town of Everglades was inundated to depths ranging from 1½ to 3 feet. Parts of Punta Gorda and Ft. Myers were also flooded as well as low beaches and islands from Tampa Bay to the Keys. Some few beach cottages were undermined and damaged or destroyed, while piers, bulkheads, sea-walls, and house-boats suffered considerable damage. As the storm moved northward through the State some communications and power lines were downed by falling trees and limbs, but the aggregate loss was not great. Slight damage was also reported along the Atlantic Coast from around Titusville, Florida, to Charleston, S. C., mostly from high tides. The actual amount along this stretch of coast is difficult to estimate due to many small amounts spread over a long coast line.

The storm finally came to a sudden stop between Columbia, S. C. and Augusta, Ga. on the 8th and continued to lose force. Heavy rains spread over the Carolinas and Virginia but winds diminished. After a stop of about 18 hours, the remnants moved eastward into the Atlantic off the North Carolina Capes as weak low pressure system.

There follows a recapitulation of damage estimates:

Crops (mostly Florida fruit) \$5,000,000*

Property damage (all inclusive) 200,000

Total \$5,200,000

Deaths: States none, Cuba 5 - Total - - - - - 5

Serious injuries: None reported - - - - - 0

*The figure for the Florida fruit crop loss is estimated at 2% or 2,000,000 boxes at \$2.50 per box. Actually the damage is negligible because in a crop of over 100,000,000 boxes there would be more than 2% of wastage anyway. In some west coast counties such as Sarasota, Charlotte, and Lee, the loss will run to 10% for oranges and 15-20% for grapefruit, but the total production of these counties is small compared to the whole crop.

Respectfully,

Grady Norton,
Supervising Forecaster

GN:mc

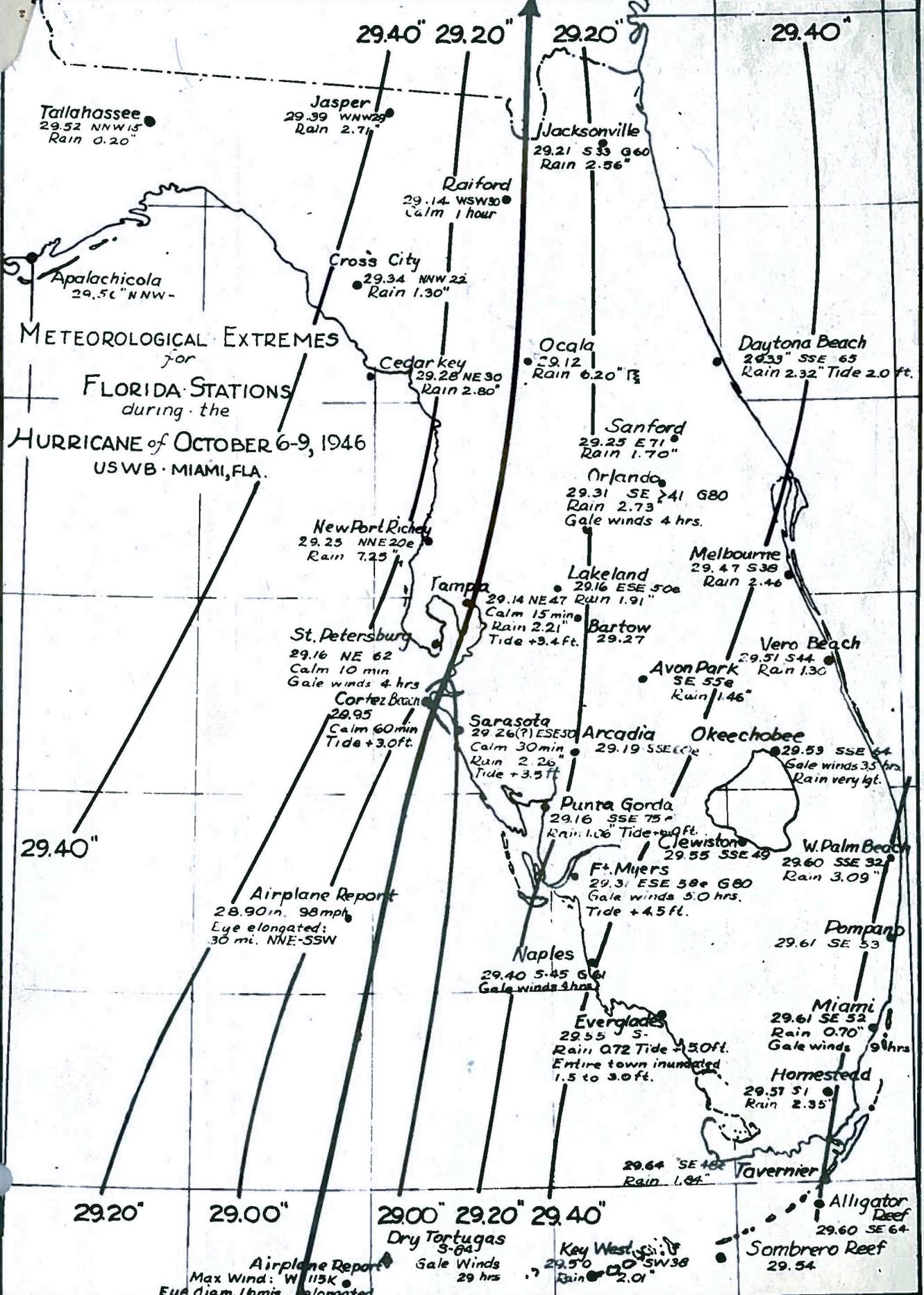
Encls:

STATION	Lowest Pres. (Inches)	TIME (EST)	Max Wind 5 Min (MPH)	TIME (EST)	Extreme Wind 1 Min (MPH)	TIME (EST)	Extreme Gust	MISCELLANEOUS
1. Alligator Light	29.60	7th 1430	SE-61	7th 0857	SE-64	7th 0900		
2. Apalachicola	29.56	8th 0300	NNW-					
3. Avon Park			SE-55 est.	7th 2355				Rain 1.46 inches
4. Arcadia	29.19?	?			SSE-50 to 60 est.	7th 2230		Damage: 5% of Oranges 10-20% of Grapefruit
5. Banana River	29.47	8th 0400			SE-58			
6. Bartow	29.27	8th 0100						
7. Brunswick, Ga. (St. Simons Is.)	29.20	8th 0715	SE-39	8th 0815	S-40	8th 0845	SE-50	Tide: +9.5 ft. (MHW + 3.0). Causeway & mainland inundated $\frac{1}{4}$ mi. inland.
8. Captiva	29.20	7th 2100	SE-					Tide: +6.0 ft. at 0300, 8th. Rain 0.99 inches. Bright Moonlight throughout storm.
9. Carysfort Reef Light	29.67	7th 1900	SE-51	7th 0800				Duration of gale winds: 13 hours.
10. Cedar Key	29.28	8th 0230	NE-28	7th 2000	NE-30	7th 2000		Rain: 2.80 inches.
11. Charleston, S. C.	29.39	8th 1430	ESE-28 SSE-28	8th 1114 1250			55	
12. Clearwater	29.29	7th 2400	NE-	8th 0030				Rain: 5.95 inches.
13. Clewiston	29.55	7th 2000	SSE-42	7th 2000	SSE-49	7th 2000		
14. Cortez	28.95	7th 2230	NE-	7th 2100				Lull 8th 0000 to 0100 E, Tide: +3.0 ft.
15. Cross City	29.34	8th 0301	NNW-22	8th 0226	NNW-22	8th 0226		Rain: 1.30 inches.
16. Daytona Beach	29.33	8th 0300-0445	-	-	SSE-65	8th 0300		Rain: 2.32 inches Tide: + 2.0 ft.
17. Dry Tortugas	-	-	S-80	7th 1230	S-84	7th 1230		Duration of gale winds: 6

STATION	Lowest Pres. (Inches)	TIME (EST)	Max Wind 5 Min (MPH)	TIME (EST)	Extreme Wind 1 Min (MPH)	TIME (EST)	Extreme Gust	MISCELLANEOUS
18. Everglades	29.55	7th 1900 E	S-	7th 2030				Entire town inundated 1.5 to 3.0 ft. Tide: +5.0 ft. Rain: 0.72 inches.
19. Ft. Myers	29.31	7th 2115			ESE-58 est.	7th 2027	SSE 80	Duration of gale winds .5 hrs. Tide: +4.5 ft. Waterfront streets inundated 1.0-1.5 ft.
20. Hillsboro Light	29.61	7th 1700	SE-51	7th 0827	SE-53	7th 0827		
21. Homestead	29.51	7th 1800	SE-35 est.	7th 1800	S-40	7th 1800		Rain: 2.35 inches
22. Jacksonville(WBO)	29.21	8th 0550	S-33	8th 0700	S-33	8th 0701		Damage estimated \$111 due to water backed up in river. Rain: 2.56
23. Jacksonville(WBAS)	29.21	8th 0550			ESE-33	8th 0433	60	
24. Key West	29.50	7th 1600	SW-36	7th 1939	SW-38	7th 1933		Tide about normal Rain 2.01 inches
25. Lakeland (WBO)	29.16	8th 0035	SE-31	7th 2300	SE-34	7th 2330		Rain: 1.91 inches
26. Lakeland (WBAS)	29.19	8th 0035			ESE-50 est	7th 2330	55	Rain: 1.87 inches
27. Jasper	29.39	8th 0630			WNW-29	8th 0830	40	Rain: 2.71 inches
28. Melbourne	29.47	8th 0235			S-38	8th 0305		Rain: 2.46 inches
29. Miami (WBO)	29.61	7th 1930	SE-50	7th 0723	SE-52	7th 0723		Duration gale winds 9.0 hours. Rain 0.70
30. Miami (WBAS)	29.59	7th 1726			SSE-30	7th 1726		
31. Naples	29.40	7th 1945			S-45	8th 2120	61	Duration of gales 4 hrs. Mainland inundated 10 inches. Rain 1.05 in. Bright moonlight at height of storm.
32. New Port Richey	29.25	8th 0100	NNE-20 E	7th 2300				Rain: 7.25 inches.
33. Ocala	29.12	8th 0315						Rain: 6.20 inches. Heavy thunderstorm preceding lowest pressure. Wind shifted thru south to west

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STATION	Lowest Pres. (Inches)	TIME (EST)	Max Wind 5 Min (MPH)	TIME (EST)	Extreme Wind 1 Min (MPH)	TIME (EST)	Extreme Gust	(C)
								MISCELLANEOUS
34. Okeechobee	29.53	7th 2400	SSE 50	7th 2045	SSE-64	7th 2045		Duration of gale winds 3.5 hrs. Rain very light
35. Orlando	29.31	8th 0145	SE-41 or higher	-			80	Rain 2.73. Duration of gale winds 4 hours.
36. Punta Gorda	29.16	7th 2200	SSE-55 est.	7th 2300	SSE-75 est.	7th 2300		Rain: 1.06 inches. Tide: + 6.0 ft.
37. Punta Sassa	29.32	7th 2030						Entire point inundated 4.0 ft.
38. Raiford	29.14	8th 0600	WSW-30 est.					Calm: 8th 0515-0615 EST.
39. St. Augustine	29.25	8th 0430	S-					
40. St. Petersburg	29.16	7th 2350	NE-48	7th 2200	NE 62	7th 2200		Dead calm for 10 min. 8th 0000. Duration of gale winds: 4 hrs.
41. Sanford	29.25	8th 0230			E 71	8th 0230		Rain 1.70 inches.
42. Sarasota	29.26	7th 2310	ESE 40	7th 2130	ESE 50	7th 1945		Calm: 7th 2300-2300. Rain: 2.26 in. Tide: + 3.0 ft. Few streets inundated
43. Savannah, Ga.	29.21	8th 1115	S-42	8th 1252	S-48	8th 1353	55	Rain: 4.25 inches.
44. Sombrero Key	29.54	7th 1600						
45. Tallahassee	29.52	8th 0430-			NNW-15	8th 0956		Rain: 0.20 inches.
46. Tampa	29.14	8th 0030	W-33	8th 1110	NE 47 W 47	7th 2200 8th 1110		Lull 15 min. Rain 2.21 inches. Tide: +3.4 ft. center passed between Drew Field and Davis Island.
47. Tavernier	29.64	-	SE-48 est.	7th 0600				Rain: 1.84 inches Tide: + 1.5 ft.
48. Vero Beach	29.51	8th 0230	S-34 38	8th 0330	S-44	8th 0300		Rain: 1.30 inches.
49. West Palm Beach	29.60	7th 2028			SSE-32	7th 1616		Rain: 3.09 inches.



METEOROLOGICAL EXTREMES
for
FLORIDA STATIONS
during the
HURRICANE of OCTOBER 6-9, 1946
USWB · MIAMI, FLA.

Tallahassee
29.52 NNW 15
Rain 0.20"

Jasper
29.39 WNW 29
Rain 2.71"

Jacksonville
29.21 S 33 G60
Rain 2.56"

Raiford
29.14 WSW 30
Calm 1 hour

Cross City
29.34 NNW 22
Rain 1.30"

Apalachicola
29.56 " NNW -

Ocala
29.12
Rain 6.20" 1 1/2

Daytona Beach
29.33 SSE 65
Rain 2.32" Tide 2.0 ft.

Cedar Key
29.28 NE 30
Rain 2.80"

Sanford
29.25 E 71
Rain 1.70"

Orlando
29.31 SE 41 G80
Rain 2.73
Gale winds 4 hrs.

New Port Richey
29.25 NNE 20e
Rain 7.25"

Melbourne
29.47 S 38
Rain 2.46"

Lakeland
29.16 ESE 50e
Rain 1.91"

Tampa
29.14 NE 47
Calm 15 min
Rain 2.21"
Tide +3.4 ft.

Bartow
29.27

Vero Beach
29.51 S 44
Rain 1.30"

St. Petersburg
29.16 NE 62
Calm 10 min
Gale winds 4 hrs

Avon Park
SE 55e
Rain 1.46"

Cortez Beach
29.95
Calm 60 min
Tide +3.0 ft.

Sarasota
29.26 (?) ESE 50
Calm 30 min
Rain 2.26"
Tide +3.5 ft.

Arcadia
29.19 SSE 10e

Okeechobee
29.53 SSE 64
Gale winds 35 hrs
Rain very lgt.

Punta Gorda
29.16 SSE 75
Rain 1.06" Tide +0.9 ft.

Clewiston
29.55 SSE 49

W. Palm Beach
29.60 SSE 32
Rain 3.09"

Airplane Report
28.90 in. 98 mph
Eye elongated:
30 mi. NNE-SSW

Ft. Myers
29.31 ESE 58e G80
Gale winds 5.0 hrs.
Tide +4.5 ft.

Naples
29.40 S-45 G61
Gale winds 4 hrs.

Pompano
29.61 SE 53

Everglades
29.55 S-
Rain 0.72" Tide +5.0 ft.
Entire town inundated
1.5 to 3.0 ft.

Miami
29.61 SE 52
Rain 0.70"
Gale winds 9 hrs

Homestead
29.51 S 1
Rain 2.35"

Tavernier
29.64 SE 10e
Rain 1.94"

29.20"

29.00"

29.00" 29.20" 29.40"

Dry Tortugas
S-64
Gale Winds
29 hrs

Key West
29.50 S-38
Rain 2.01"

Alligator Reef
29.60 SE 64
Sombbrero Reef
29.54

Airplane Report
Max Wind: W 113K
Eye diam. 1.6 mis. elongated

