

UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU

Chief, U. S. Weather Bureau  
Washington 25, D. C.

October 15, 1947

Subject: Report of Hurricanes, September 1947

Sir:

The hurricane of mid-September crossed Florida from Ft. Lauderdale on the east to Naples on the west on September 17th. Eleven persons were killed as a direct result of the storm and six others died as an indirect result. In addition 186 persons were injured, with twenty-two seriously injured. Two deaths and twelve injuries occurred in a tornado that occurred on the edge of the hurricane at Apalachicola on the 18th. Property and crop damage is estimated at slightly over \$31,000,000.

This hurricane was first reported to us by the SS ARAKAKA in about latitude 15 north longitude 49 west on the night of September 10th. Prior to that, however, Mr. G. A. Mikulan of Pan American Airways, stationed at Dakar, F.W.A., reported in part as follows:

"The low aloft over the intertropical convergence zone was reflected on the surface and a disturbance developed, which, while still on land gave us at Dakar moderate E to NE winds. Just as soon as it hit the sea it deepened and picked up moisture and gave Dakar 85.4 mm. of rain on September 4th. The last I could keep track of it was on September 5 at 1200Z when it was over the Cape Verde Islands. Once it got beyond the Cape Verde Islands I lost track of it because of lack of reports."

From the position given by Lr. Mikulan on the 5th until the ARAKAKA reported it the night of the 10th would have required a movement of about 17 MPH, and we believe there is little doubt that it was the same disturbance. We believe, therefore, that the genesis of this great hurricane was over Africa in the vicinity of Dakar.

Reconnaissance planes of the army and navy followed the hurricane during the ensuing several days on a west-northwest course to a position off Abaco Island, Bahamas, on the 15th, where it came to a virtual standstill for about 24 hours. Thereafter it turned west-southwestward and reached the Florida coast with center at Ft. Lauderdale about 11.30 am of the 17th. Hopetown on Abaco Island recorded 160 MPH highest wind when the center passed nearly over that place. The highest wind recorded by a reliable instrument in Florida was 155 MPH at Hillsboro Light near Pompano at 12.56 pm on the 17th. This station also reported the lowest pressure from a reliable instrument, 27.97 inches (corrected) at 11.25 am. It is pointed out, however, that Hillsboro Light was not in the calm center, but very close to the edge on the north side. It is very probable that pressure was lower in the exact center. The center moved on a westward course across the state at about 10 MPH and entered the Gulf of Mexico a short distance north of Naples about 10 pm of the 17th.

Hurricane force winds were experienced along the Florida east coast from about Cape Canaveral to Carysfort Reef Light, a distance of about 240 miles, while winds of 100 MPH or over were felt from the northern portion of Miami to well north of Palm Beach, or about 70 miles. This classes this hurricane as one of the great storms of recent years.

The Cape Verde family of hurricanes, as they are sometimes called, are the really great storms of the mid-season. They reach full maturity and violence in crossing the Atlantic, and are usually of great size as well as severe intensity.

It was fortunate that the most destructive portion of this hurricane passed between the largest communities--Miami and Palm Beach--or the damage toll would have been far greater. As it was, the smaller communities from Ft. Lauderdale to

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(607)  
(607)  
Mikulan  
Pan Am  
Dakar  
F.W.A.  
Report of Sept 1947  
Hurricanes

Lake Worth bore the brunt of its violence. Pompano, Deerfield, Boca Raton, and Delray Beach were in the path of strongest winds.

As it crossed Florida the center was over the swamp lands of the Everglades and the Big Cypress where there was little damage. The area around Lake Okeechobee had hurricane force winds, but was outside the strongest area. The dikes held and there was no flooding from the Lake, but heavy rains of around six to eight inches coming on top of a completely saturated and partly flooded country from previous rains, resulted in great and extensive flooding of the rich farm lands and pastures. The loss to crops, especially sugar cane, will run to several million dollars, while a good many livestock were lost in the floods.

When the storm reached the west coast communities it still retained much of its violence. The strongest wind at a west coast point was reported from Sanibel Light where gusts of 120 MPH were noted. The official in charge at Ft. Myers estimated highest sustained wind at that place at about 90 MPH, with gusts to 110, while at Naples 105 MPH was recorded on good instruments but with rather poor exposure. The gale was felt for an hour at Naples from 9 to 10 pm, and the wind dropped to 12 MPH at 9.45 pm, with shift from northwest through west to south. This leads us to conclude that Naples was near the southern edge of the calm. Heavy damage was done in the west coast communities from Everglades City to Sarasota, with greatest damage in the Ft. Myers-Punta Gorda area. The town of Everglades City was inundated by about two feet of tidewater when it rose  $5\frac{1}{2}$  feet above normal. North of the center, however, strongest winds were offshore and low tides resulted.

After leaving Florida the hurricane turned more northwesterly over the Gulf and passed inland over the southeast Louisiana coast on the 19th. Reports indicate very heavy damage on the middle Gulf coast area, which has been estimated by the New Orleans office tentatively at \$80,000,000 with 34 deaths. If these figures are correct, the total damage by this hurricane will run to about \$110,000,000, with about 50 deaths as a direct or indirect result.

#### SUMMARY OF CASUALTIES AND DAMAGE IN FLORIDA

##### DEATHS and INJURIES:

Deaths directly caused by hurricane (8 drowned) - - - - -	11
Deaths indirectly caused (accidents, electrocutions, etc.) - - - - -	6
Injured requiring treatment (22 seriously injured) - - - - -	186

##### DAMAGE ESTIMATES:

Property damage - - - - -	\$ 10,800,000
Crop damage (includes 6,000,000 boxes of citrus) - - - - -	10,000,000
Trees, shrubbery, and tropical ornamentals - - - - -	2,000,000
Highways, bridges, and city streets - - - - -	2,500,000
Piers, docks, seawalls, bulkheads & few small craft - - - - -	3,000,000
Power and communications - - - - -	1,500,000
Cost of clean-up and removal of debris - - - - -	2,000,000
TOTAL - - - - -	\$ 31,800,000

##### HOUSES DAMAGED and DESTROYED:

Houses destroyed - - - - -	205
Houses seriously damaged - - - - -	10,543
Families receiving assistance from Red Cross - - - - -	27,075

The relatively small figure for houses destroyed and damaged reflects resistance of buildings constructed in accordance with "hurricane codes" in the communities along the southeast Florida coast, as well as the protective measures taken before the storm, such as boarding windows and removing awnings and signs. The Red Cross sheltered upward of 40,000 people who were evacuated from dangerous location, which

...edly saved hundreds of lives. The Coast Guard carried the warnings to all iso-places and assisted in evacuations, while their planes dropped hurricane war-streamers to all vessels around Florida to be sure they didn't fail to get ings. We were surprised to learn that some Cuban fishing vessels failed to re- and, which resulted in the sinking of the "Antonio Cerdedo" off Ft. Myers with the loss of seven of her crew.

#### ADVICES AND WARNINGS

The Miami office issued 26 advisory and warning bulletins in connection with this hurricane, after we had coordinated and advised with San Juan in the issuance of the first eight. The behavior of this storm was complicated from the forecaster's standpoint by the long standstill in the vicinity of Abaco Island, and its subsequent turn to west-southwestward. No forecaster I know anticipated this turn very long in advance, but regardless of this "unusual" behavior we alerted the Florida peninsula nearly 48 hours ahead of the storm and actual hurricane warnings were ordered 24 hours in advance for most of the area affected. When the southwestward turn was noted, it was necessary to extend the hurricane warning southward to include the greater Miami area only about 12 hours ahead of the storm, but this proved ample for all protective measures. Protective work was well underway before hurricane warnings were extended, since gale warnings were ordered 12 hours previously. The most complete preparations were made for protection of property and life.

#### FAILURE OF COMMUNICATIONS

The hurricane disrupted power and communications lines and put the Miami Hurricane Central out of business about two hours before the center reached the coast at Ft. Lauderdale. By pre-arranged plan, advisory responsibility went to the New Orleans office and coordination to the sub-center at Washington. From about 10 am of the 17th until noon of the 19th this office was entirely inoperative. At this time power was restored to the Aviation Building and some local lines were working. It was 11 am of the 20th before lines were completely restored and we could resume operations.

#### RECONNAISSANCE AND USE OF RADAR

The course of the storm over the Atlantic until it reached the northern Bahamas was charted by aircraft reports. The use of planes equipped with radar were used in night operations for the first time and proved very effective. The fixes on the hurricane obtained by radar were as good or better than those by daylight navigation. Poor communications and careless handling of reports were the great weaknesses of the reconnaissance program. A great loss of time in the receipt of inflight reports amounting to several hours at times, proved very aggravating to the forecasters, and rendered these reports less effective than in former years.

#### COORDINATION WITH MILITARY

Coordination was effected through the Miami Central for all advices issued at San Juan and Miami, and we believe all official sources used the coordinated basic data in making distribution. Natural difference of opinion, especially with regard to future movement, were constantly before us. Effort was made to keep within the spirit as well as the letter of the Agreement in these coordination conferences. But of course we had to compromise at times in order to bring about agreement. Prognostic positions proved the greatest source of trouble. The military services require a 24- and 48-hour prognosis, but it is our belief that it is never good policy to go further in forecasting a hurricane than conditions reasonably warrant. These prog-

istic positions by the military forecasters and the WBAN analysis center, all proved wrong at the critical time and caused some confusion. When our communications were disrupted, coordination was transferred to the sub-center at Washington after the 6.45 am advisory on the 17th and coordination was returned to Miami at 11 am of the 20th.

#### UNOFFICIAL FORECASTS AND PUBLIC REACTION

Never in my experience have so many independent forecasters put out forecasts. Every airline, both regular and charter, were forecasting. Some newspapers and press associations and many radio commentators were jumping in to tell where the hurricane would strike the coast--in fact, everybody who thought he was a forecaster or wanted some publicity, were at it! Some of these unauthorized and unofficial predictions were widely circulated and caused confusion and trouble. It was fortunate that we had microphones in most of our offices here in Florida where we could give the official advices directly to the people and counteract these independents. I think a salutary lesson resulted when the hurricane turned in direction no one was expecting. This enhanced the esteem enjoyed by the Weather Bureau in these parts as the reliable source of storm information. So far as we could learn only one newspaper in the state was inclined to criticise us for lack of long range forecasts at the critical time of the turn, and that one admitted the wisdom of our stand after the fact!

Public reaction after the storm was universally favorable, and no word of criticism has reached us.

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The Tropical disturbance of September 20-25, formed in the Caribbean south of Cuba on the 20th from an easterly wave. It moved northwestward across western Cuba during the night of the 21st without achieving a well organized center of circulation, although it was preceded by an area of squalls up to 40-50 MPH 200 miles or more to the north. After it entered the Gulf west of Havana it began a slow increase in intensity and thereafter had a fairly well defined center as it moved up the west Florida coast and passed inland between Tampa and Cedar Keys about 5 to 6 pm on the 23rd. Winds were about 60 MPH along the coast from Sarasota northward to near Cedar Keys, and squalls of 40-60 MPH were quite general over the entire Peninsula.

The lowest pressures reported were Cedar Keys 29.23 inches and St. Leo 29.22 inches. The center passed between these two places when it moved inland. Rainfall was heavy throughout the state and greatly aggravated the flood situation already existing from the recent hurricane and previous rains. The storm lost force rapidly as it moved northeastward. It passed west of Jacksonville during the night of the 23rd and by morning was west of Savannah and Charleston. Thereafter winds were not very strong and the remnants of the storm moved off into the Atlantic between the North Carolina and Virginia Capes on the morning of the 25th.

A notable feature of this storm was the series of small tornadoes that occurred on its northern edge as it advanced northward. Two or three tornadoes occurred in the west coast area around Tampa--one in Tampa. Another was reported near Ocala, while four were reported in and around Jacksonville. These tornadoes were small and rather short lived and did not cause extensive damage. Other damage consisted of some damage to beaches from Bradenton to Tarpon Springs, slight damage to power and communications lines, and the aggravation of flood conditions mentioned above. The damage to citrus fruits was negligible. It is believed that \$100,000 would cover the entire damage.

This office issued 20 advisory and warning bulletins in connection with this storm.

Copies of all advices, charts showing tracks, and other related matter regarding both the hurricane and the second storm are attached.

Respectfully,

Grady Norton  
Supervising Forecaster

HURRICANE  
Sept. 16-19, 1947

STATION	Date	BAROMETER		WIND DATA (MPH)			Time	Xtrm Cups	MISCEL. TIMES, TIDES ET
		Lowest	Time	5 Min Max	Time	1 Min Max			
Hopetown, Bahamas	16	28.18	2:30p			160 NW			
Daytona Beach	18	29.82	3:12a			43 ENE	6:18p 17th	60	
Ponce de Leon Lgt	17	29.85	3:30p	66 E	12:05a 18th	75 E	12:05a 18th		
Orlando	18	29.65	3:00a						
Melbourne	17	29.71	2:25p			54 ESE	7:30p	85 6:30p	
West Palm Beach	17	29.02	10:30a			100 NW (Etd)		110	Cups blew away 100 NO LULL
Hillsboro Light	17	27.97	11:25a	121 NW	9:57a	155 ENE	12:56p		
Ft. Lauderdale	17								Lull 11:30a to 12:45p
Miami WBAS	17	28.72	12:00N	85 W	11:00a	90 SSW (Etd)	2:00p		Cups blew down a 1:25p
Miami WBO	17	28.75	11:48a	73 W	10:42a	86 W	10:57a		
Carysfort Reef Lgt	17	29.29	1:45p	68 SW	2:25p	76 SW	2:25p		
Tavernier	17	29.43	2:30p			50-60 SSW	around 8:00p		
Key West WBAS	17	29.52	7:25p			58	12:47a 18th		
Everglades City	17	28.81	7:45p			60-65			Tide +5.5' Town indndated +2
Naples	17			100 NW	8:00p	105 NW	8:05p		Lull 9p to 10p 12mph at 9:45p
Ft. Myers	17	28.82	10:15p	85-90 (Etd)	10:15p	90 MNW (Etd)			Wind etd 10:15p 110 MNW
Sanibel Light	17	28.67	11:00p	120 S	12:15a 18th	120 S	12:15a 18th		Island 3' under water
Tampa	18	29.53	3:30a	34 NE	3:12a	38 NE	3:12a		
Lakeland WBO	18	29.63	2:15a	34 NE	7:57p 17th	46 ENE	8:01p 17th		
Lakeland WBAS	18	29.64	2:00a			44 ENE	4:28p 17th		75 ENE at 4:59p on 17th
Moorehaven	17	29.09	5:00p	52 NE	5:00p	92 NE	5:00p		
Apalachicola	18	29.69	4:40p	54 SE	12:09a 19th	67 SE	12:11a 19th		
Pensacola WBO	19	29.54	4:20a	61 SE	6:00a 19th	91 SE	6:00a 19th		tide +4

UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU

Hurricane Office  
302 Aviation Building  
Miami 37, Florida  
October 31, 1947

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(500-100-1000)

Chief, U. S. Weather Bureau  
Washington 25, D. C.

Subject: Forecaster's Report of Hurricanes of October, 1947

Sir:

The month of October gave us three tropical storms in the Miami District. Two of these were hurricanes, while the third was a moderate disturbance.

The first disturbance of the month was a moderate and partly developed wave disturbance that had its inception over the Bahama Islands and Florida Straits on the 6th. It advanced northward and northwestward and moved inland near Brunswick, Georgia during the night of the 6-7th. Highest winds were force nine from some ships off the Georgia coast during the afternoon of the 6th. The strongest wind on land was about 50 MPH, and no damage resulted.

The second storm was the hurricane of the 9-15th, which was first noted as it generated on the intertropical convergence zone which had been pushed north of the Isthmus of Panama. By the 9th it was off the coast from Cape Gracias, Nicaragua, and on the night of the tenth it crossed western Cuba as a moderate storm. It increased very rapidly to hurricane force on the 11th and passed over the extreme southern portion of the Florida peninsula on the night of the 11-12. Northeastward movement continued over the Atlantic to a position about 100 miles southeast of Cape Hatteras on the night of the 13-14th, where it apparently dissipated. However, a secondary development occurred about 180 to 200 miles to the southwest of where the original center was lost. This secondary center was rather weak at first but developed hurricane force late on the 14th and moved westward into Georgia near Savannah on the morning of the 15th.

The third storm of the month was first noted east of the Leeward Islands as an easterly wave. This wave developed on the 16th north of the Virgin Islands and moved on a broad curving path over the Atlantic. It reached hurricane intensity during the night of the 17th when it was some distance northeast of Turks Island, and its curving path brought the center close to but west of Bermuda during the forenoon of the 20th. Bermuda reported winds in excess of 100 MPH during the passage.

THE HURRICANE OF OCTOBER 9-15, 1947.

The principal interest to the States centers around the small hurricane of October 9-15, or the second storm mentioned above. It presented a number of unusual and interesting aspects that are worthy of note. In Florida there was very little wind damage, even though it had a small center of winds above hurricane velocity. This was because it passed over swampland from where it entered on the west coast just north of Cape Sable until it reached the east

Report of Oct-1947 Hurricanes

coast communities between Miami and Palm Beach. Over the area it followed the same route as the great hurricane of a few weeks earlier and there was not much that the weaker winds of the second storm could damage.

The heavy rainfall associated with this storm was the crowning stroke that, added to the flood conditions already existing over south Florida, resulted in the worst flood ever experienced in this section. It should be pointed out, however, that the rains of this hurricane did not in themselves cause the flood, but rather it was the accumulation of water from previous rains, including a very wet summer and the great hurricane and two lesser storms that gave heavy rains during the month preceding. The rainfall of from five to thirteen inches in connection with this hurricane was confined to south Florida from around the Lake Okechobee area, where 3.0 to 4.50 inches occurred, southward. These rains merely furnished the climax to floods already dangerous. The flooded area covered a good portion of 12 counties and lesser portions of others and extended from Ocala County southward to the lower end of the peninsula.

It is not possible to estimate damage resulting from these floods as related to the hurricane of October 11-12th for the reasons stated above, and because we cannot separate its effect from the rainfalls of the month preceding. Damage for the whole flood condition has been variously estimated at about \$20,000,000. Wind damage will probably be about \$75,000 in Florida.

The rainfall of this storm constituted one of its unusual features, not because it was heavier than expected, but because it practically all fell in a very severe thunder and electrical storm on the advance edge of the hurricane circulation several hours ahead of the hurricane winds. There was practically no rainfall associated with the hurricane center proper, only a fine spray of misty rain that probably did not total more than a tenth of an inch. Lightning flashes were so continuous in the thunderstorm that it produced such continuous illumination that it could have been used for reading. The intensity of the rainfall was such that a recording gage at Hialeah Water Plant recorded six inches in one hour and fifteen minutes before the gage overflowed. At the Miami City Office, which was on the edge of the heavy rain area, 3.60 inches fell in one hour and 1.32 inches in ten minutes.

There was a series of small tornadoes associated with the electrical storm, but otherwise winds were variable and not very strong. Five tornadoes were reported over the area from Key Largo to the Greater Miami Area. They were small and apparently had short paths and the aggregate damage was not very great. It might be pointed out that the hurricanes of this season have been very prolific tornado producers, and the occurrence of tornadoes on the periphery of hurricanes is not unusual.

Another "unusual" feature of this storm was the sudden increase in intensity in the vicinity of Dry Tortugas. From a storm of moderate proportions when it crossed Cuba, where the strongest winds were gusts to 57 MPH at Batista Field, there was an increase in the space of about three or four hours of

nearly 200%. The observer at Dry Tortugas estimated wind at 150 MPH after his anemometer bearing froze after registering 84 MPH. In amplification of his estimate of 150 MPH, he states that several small hardy trees that had withstood all storms for years were torn up and carried through the air like straws. We believe, however, that this estimate is excessive for the reason that other velocities reported from the vicinity were not nearly as high. It may be that the observer became excited, but we do believe winds were 100 MPH or more.

We are unable by any analysis of the energy field at our command, to account for such a sudden intensification, from forces inherent in the storm surroundings at the time. We are at a complete loss to account for it unless it was the result of tornadoic action, and there was no mention of tornadoes at that place, and the strong winds were reported for an hour or more, so this hypothesis has been discarded. The lowest pressure at Dry Tortugas was 29.11 inches at 2.00 PM of the 11th. The record of 84 MPH before the anemometer froze from friction and lack of oil, was at 12.30 PM and 150 MPH hour estimate was made about 1.30 pm. An airplane that flew into the center just before this time reported lowest sea level pressure 983 mbs. or about 29.03 inches. We conclude, therefore, that a minimum pressure above 29 inches does not provide a gradient sufficient to produce such superhurricane velocities.

After passing the Dry Tortugas area, the storm turned rather abruptly from a north-northeast course to an east-northeast direction and entered Florida just north of Cape Sable. This turn was not unexpected, since the upper winds were in accord with such a movement. It traversed the swamp lands of the Everglades until it reached the east coast communities after midnight. The center passed Miami a short distance to the northwest about 1.00 a.m. of the 12th. The City Office recorded 62 MPH for fastest mile at 12.23 am and lowest pressure was 29.47 inches at 1.05 a.m. The Airport Station was about seven miles closer to the center and recorded lowest pressure 29.39 inches. The wind instruments at the airport were considered unreliable, but the observer estimated several gusts of 90 MPH.

The center passed directly over Hillsboro Lighthouse near Pompano as it entered the Atlantic, with calm center experienced from 3.30 a.m. to 4.30 a.m. of the 12th. The strongest winds were 86 MPH for five minutes and 92 MPH for fastest mile registered at 2.30 a.m. The lowest pressure was 29.27 inches, which occurred at 2.45 a.m., or about 45 minutes before the beginning of the calm and pressure was rising during the passage of the calm center. This is considered another very peculiar feature of this hurricane. Both the barometric minimum and the rainfall ran out ahead of the surface position of the center.

After leaving Florida the storm was followed by aircraft on a northeastward course over the Atlantic to a position about 75 to 100 miles southeast of Cape Hatteras on the night of the 13-4th, where the original center apparently dissipated. A secondary disturbance was observed, however, about

this time about 180 or 200 miles to the southwest. This disturbance was not of hurricane force as late as 1.00 p.m. of the 14th when a plane estimated highest winds at 50 to 55 knots. It gained force during the afternoon and another plane that flew into it near sunset estimated winds at 80 knots. After some hesitancy and uncertainty of movement, it was finally established that it was moving on a westward course. The speed picked up some and the center moved into Georgia about 7.00 a.m. of the 15th a short distance south of Savannah. The lowest pressure at Savannah was 28.76 inches at 7.00 a.m., and the strongest wind estimated at 85 MPH at 6.59 a.m. with gust estimated at 95 MPH. The area of hurricane winds was very small, probably about 40 miles in width.

The city of Savannah and its vicinity experienced the worst part of the hurricane, when the center passed inland about 15 miles to the south. Damage in the Savannah Area is estimated at about \$2,000,000, while in all other areas of Georgia total damage will not exceed \$500,000, or a grand total of about \$2,500,000. Some structural damage occurred in Savannah, with many roofs damaged either by direct action of the wind or by falling trees. Window glass was extensively broken, while signs, ventilators, chimney tops, awnings, and other like objects were blown down. A small tornado was reported near Hinesville in the storm area, and vivid lightning was observed at Savannah and Charleston. There are no reports of any casualties in Georgia.

In South Carolina strong gales prevailed along the coast, especially from the Charleston area southward. Strongest wind at Charleston was 54 MPH at 3.55 a.m., while Parris Island reported gusts to 65 MPH at 4.30 a.m. of the 15th. Damage from wind and high tides in South Carolina will run to about \$175,000, and about \$150,000 of this amount was to crops. The only death reported in connection with this hurricane in its entire history was at Charleston where a man was killed by a falling tree.

High tides along the Georgia and South Carolina coast ranged from 12.0 ft. above mean low at Savannah Beach and Parris Island, to 9.0 ft. at Charleston and 9.6 ft. at St. Simons Island, near Brunswick. The lower sections of Charleston were flooded about a foot deep, while low lying beaches and islands with causeways thereto were flooded and damaged. Considerable damage also resulted to rice crops in lowlands by salt water flooding. Some small communities as far north as Cape Hatteras were partly or wholly inundated by the tides.

Warnings were timely and effective in all areas in connection with this hurricane. There were some complaints from the Savannah area that warnings were not issued soon enough, but even the complainants admitted that they had sufficient time to make preparations and evacuate people from danger areas ahead of the storm. In this area hurricane warnings were ordered only seven or eight hours ahead of the storm, and we realize that this was not sufficient for orderly procedures, or the best preparations. The rather short advance warnings to this area was due to the very erratic and unusual behavior of this storm off the South Atlantic coast, plus the uncertainty regarding ships and airplane reports received, and their late arrival at the forecast center. The storm regained hurricane force (or

the secondary storm developed hurricane force) in the late afternoon of the 14th, and by time reports of this were charted and analysed it was 10.00 p.m. when the warning was issued.

Copies of all advices for this hurricane are inclosed, as well as those issued for the other two storms of the month. There is also attached a table giving wind and pressure data at a number of places and track charts of the storms. An analysis of conditions surrounding the storm off the South Atlantic coast on the 13th to 15th has been prepared by Mr. Gentry (for limited distribution) and a copy is attached.

Respectfully,

Grady Norton  
Supervising Forecaster

Incls.

*[Faint, mostly illegible text follows, appearing to be a weather report or advisory. Key words are difficult to discern but seem to include:]*

*... storm still has a broad first center and is located 25 miles S.W. of Jacksonville, Florida. Intensity has increased since. Strongest winds seen about 25 mph, with gusts to 40 mph, but winds range up to 50 mph in squalls near the center. Strongest winds are about 30 miles to north and northeast of the center where the gradient between the center and the high pressure area farther to the north is most intense. The center is moving between 10° and 15° N. about 10 mph.*

*... the storm should continue to move slowly toward the northeast for the next 12 hours and will approach the Jacksonville Savannah by noon tomorrow. Windy squalls increasing on the Georgia and North Carolina coasts and North Carolina coasts for the next few hours. Velocities of surface winds on the 14th are expected to be between 20 and 30 mph in squalls.*

*... these warnings are displayed south of Baltimore to support, and small craft warnings from Baltimore to the Virginia Capes.*

*Grady Norton*

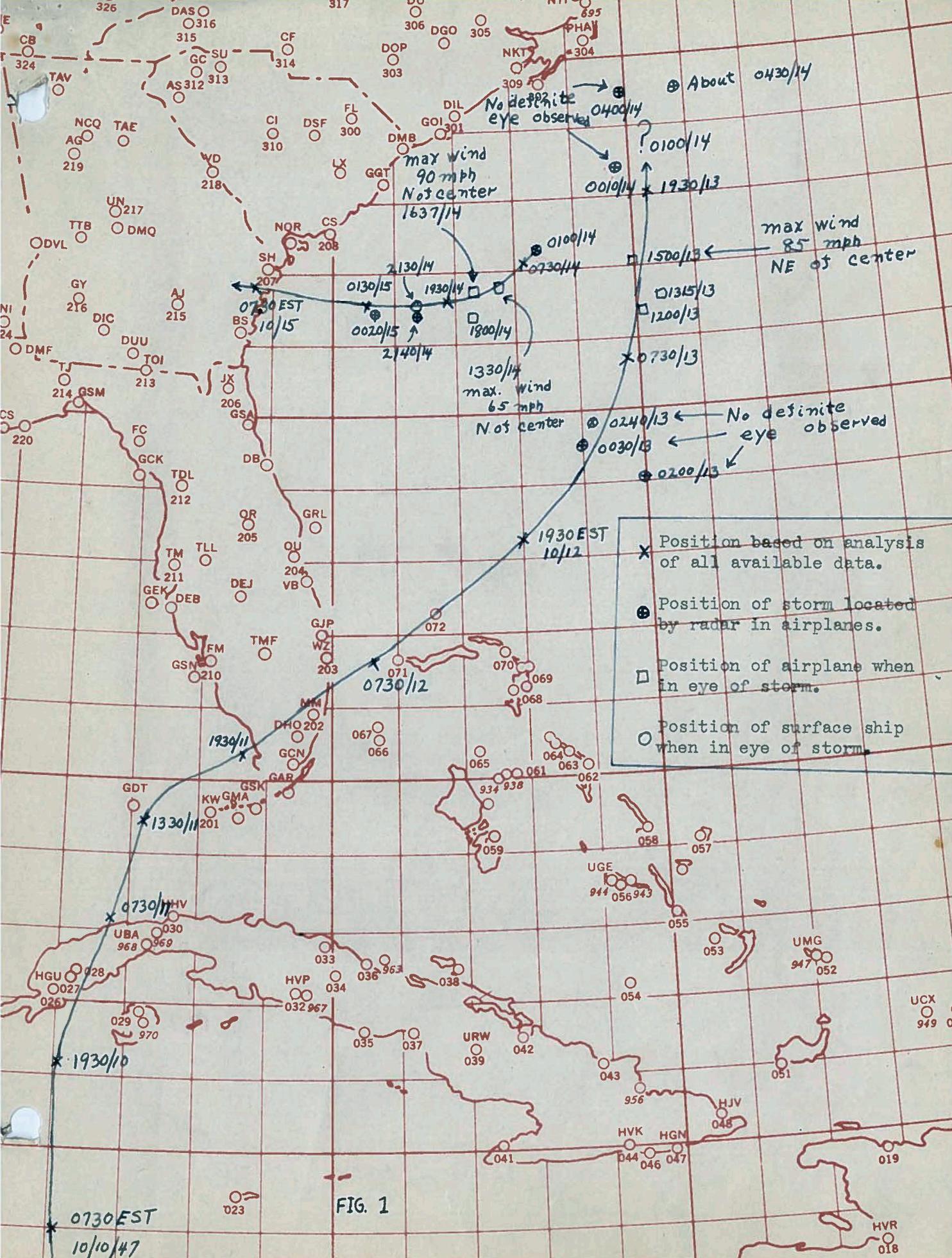


FIG. 1

*Tropical Disturbances*  
*October 1947*

DATE \_\_\_\_\_ TIME \_\_\_\_\_

STATION *Miami* PLOTTER *L.N.*

