

UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU

Chief, F&SR Division

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Supervising Forecaster, WBAS, San Juan, P. R.

Tropical Storm Helena, October 25-29, 1963

Tropical Storm Helena developed on a slow moving easterly wave in the Atlantic a short distance east of the Lesser Antilles on October 25, 1963. A very extensive suspicious cloud mass, which was located by the weather satellite Tiros VII at 1535Z October 24 near 15N 55W, indicated the possible development of a tropical disturbance beneath it.

At 1800Z October 25, reports from the ship Americus Vespucci at 14.7N 58.7W with a wind of 160 degrees 37 mph, light continuous rain and pressure 1006.6 millibars and the Liberian ship Rio Orinoco at 13.5N 58.8W with a wind of 180 degrees 46 mph, moderate continuous rain and pressure 1010.3 millibars showed that a tropical cyclone had formed about 120 miles east of Martinique in the Windward Islands. Conditions at the 300- and 200-mb levels being favorable for some intensification, the San Juan Weather Bureau issued a bulletin locating and naming a tropical depression near 15.0N 59.6W at 4 PM AST on the 25th.

Reconnaissance aircraft reached the area shortly thereafter and found a tropical storm with winds of 50 mph and central pressure of 1005.3 millibars. The first advisory on Helena was issued by the San Juan Weather Bureau at 6 PM AST placing the storm about 125 miles east of the island of Dominica moving on a course toward the west-northwest at 12 mph. Gale warnings were issued at the same time for the Lesser Antilles north of St. Lucia to Antigua and St. Kitts and a Hurricane Watch was placed in effect for Guadeloupe and Dominica at 9 PM AST.

Tropical Storm Helena intensified slightly as it moved toward the island of Dominica, however, passage across the island chain which has mountains to 5,200 feet on Dominica and 4,900 feet on Guadeloupe, weakened the storm. Helena moved slowly west-northwest into the Caribbean and a reconnaissance flight during the late afternoon of October 26 found that Helena had degenerated into a tropical depression with highest sustained winds about 35 mph and lowest pressure 1006.2 millibars.

Hurricane Watch for Guadeloupe and Dominica was discontinued at 9 AM AST on the 26th and gale warnings were lowered for all areas of display at midnight the same day.

During the early morning of the 27th, Helena changed course (making a loop) and moved back eastward toward Guadeloupe. Aircraft reconnaissance discovered it had reintensified into a tropical storm with winds of 50 mph and minimum pressure 1002.0 millibars. The 12 Noon AST advisory issued by the San Juan Weather Bureau raised gale warnings for the Leeward Islands from Antigua to Guadeloupe, Dominica and Martinique and located the storm about 50 miles west of Guadeloupe moving slowly northward.

Tropical Storm Helena moved slowly on a north to north-northeast course during the next 48 hours gradually weakening. A reconnaissance flight during the morning of October 29 found only a weak circulation, light winds and minimum surface pressure of 1010.0 millibars. The last advisory issued by the San Juan Weather Bureau at 12 Noon AST October 29 located the weak circulation near latitude 20N and longitude 60W and indicated that Helena had degenerated into an area of squally weather with highest winds about 25 mph.

Passage of Helena across the Windward Islands on the morning of October 26 caused considerable damage to small craft and shore roads, and left five dead and 500 homeless, 14 seriously injured, 14 banana barges, 2 tow boats and many fishing craft on Guadeloupe. Details are not available as to casualties or damages on Dominica or other islands near the track of the storm.

The San Juan Weather Bureau issued 17 advisories and 10 bulletins on Tropical Storm Helena. Copies of the advisories and bulletins issued by this office and a chart of the location of the center as given in advisories are attached.

Harry M. Hoose

cc: Marine Climatology Section  
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WBAS, Washington  
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## Tropical Storm Helena

5 deaths 14 injured at Guadalupe early Sunday morning, October 20th.  
500 homeless, 14 banana barges and 2 tug boats plus many fishing boats sunk or  
several roads suffered important damage