Georges Pummels Caribbean, Florida Keys, and U.S. Gulf Coast
Storm Review (Apr 12, 1999 Update)

From September 21-30, 1998, Hurricane Georges left a trail of destruction in the Caribbean region and across the southern U.S. Gulf coast. Estimates indicate more than 600 people were killed (or still missing) as the storm pushed its way across the islands of the Caribbean. The Caribbean islands where preliminary death totals are reported so far include Antigua, Barbuda, St. Kitts, U.S. Virgin Islands, Puerto Rico, Dominican Republic, Haiti, Cuba, and the Bahamas. In the U.S. mainland, there were four Georges-related fatalities. An elderly woman died from heat stress while being evacuated from New Orleans. Two more people died in Florida and Louisiana in fires started by candles during power outages, and another person died as a result of an auto accident on a slick highway near Crestview, Florida. Puerto Rico reported 12 fatalities.

Damage estimates for the U.S. including Puerto Rico are now $5.9 billion. Extreme flooding was reported with rainfall amounts in excess of 20 to possibly 30 inches along portions of the southern U.S. Gulf coast. Mobile, Alabama received 13.0 inches of rain from the storm, which boosted the monthly total to 23.0 inches, breaking the September record of 16 inches set 100 years ago. The highest individual storm total reported thus far is Munson, Florida, which reported 25.0 inches of rain from Georges.

Following are reports from individual states and countries as provided by the Southeast Regional Climate Center and other sources:

Alabama: Gusts to 85 mph reported. 25-foot waves on immediate coast. 177,000 customers without power. No deaths or major injuries. Severe flooding in southern Alabama, with many homes and businesses flooded. Downtown Mobile flooded in many areas.

Florida: 18-30 inches of rain in portions of Panhandle, with NEXRAD estimates exceeding 35 inches for one small area near the AL state line. Mandatory evacuations total about 225,000. Severe flooding, high winds, and isolated tornadoes caused extensive damage. Nearly 700,000 without power at some point during storm. Approximately 200 residents in the Florida panhandle were rescued by the Coast Guard Sunday night. A portion of Interstate 10 near the Alabama border was destroyed or washed over. One death reported statewide.

On the Florida Keys, 90 mph winds were reported for >10 hours during storm passage; heavy structural damage from the storm, according to the Florida Division of Emergency Management. More than 900 homes suffered minor damage, 500 major damage, and more than 150 homes were completely destroyed, including 75 houseboats on so-called "Houseboat Row." All Key West residents were without power, and residents are under a "boil water" order. Utility restoration expected to take 7-10 days. Big Pine Key and Kudjoe Key were hardest hit, including severe storm surge damage. Since the highest elevation in the Keys is 14 feet, high water quickly swept into homes and businesses.

Puerto Rico: A major disaster. Damages estimated to exceed $2 billion. Three direct deaths; nine others from medical complications (heart attacks, etc.). Power and water out to 80% of the 3.8 million people on island. The Federal Emergency Management Agency (FEMA) estimates 33,113
homes destroyed in Puerto Rico, with nearly 50,000 more suffering major or minor damage. The storm destroyed 75 percent of the coffee crop, 95 percent of Puerto Rico's plantains, and 65 percent of its chickens.

US Virgin Islands: No deaths and little major damage was reported. Only about 20 homes were destroyed and another 50 damaged. Adherence to building codes likely prevented further damage. Most structures on the three islands had been rebuilt to FEMA standards after hits by Hugo (1989) and Marilyn (1995). Damage reported is almost solely restricted to agriculture (coconuts & mangoes) and livestock losses.

Antigua: Two dead; major structural damage island-wide; major coastal flooding; major marina, boat, and port damages.

St. Kitts & Nevis: Three dead, 3000 homeless; 85% of all homes damaged. Early damage estimate is $402 million. Infrastructure damaged (most hospitals, police stations, schools damaged); severe damage to airport terminal and control tower.

Cuba: Five dead; 2100 homes destroyed; 40,000 homes damaged. 20,000 homes flooded in Holguin Province. Major crop damage; 200,000 evacuated during and after the storm.

Haiti: 94 deaths at last tally. 60 missing. Flooding in Port-au-Prince, in Artibonite Valley, Cap-Haitien.

Dominican Republic: At least 210 dead, more than 500 missing. About 100,000 homeless. 70% of all bridges damaged or out; 90% of all plantation crops destroyed; damages estimated at more than $1 billion.

Satellite/Radar Images of Hurricane Georges

- **September 26-28 - Mobile (KMOB) NEXRAD** - Derived 48-hour Storm Totals
- **September 28 - Radar Image** - at 1:07 pm (CDT)
- **September 28 - Radar Image** - at 4:57 am (CDT)
- **September 28 - MPEG movie** - 4.7mb
- **September 28 - MPEG movie** - 2.6mb
- **September 28 - Colorized IR** - Center Moving Inland Over Mississippi
- **September 27 - Visible** - Approaching Mississippi Coast
- **September 25 - Colorized IR** - Over the Florida Keys
- **September 25 - Visible** - Over the Florida Keys
- **September 22 - Visible** - With Tropical Storms Ivan and Jeanne
- **September 22 - Visible** - Striking Dominican Republic
- **September 22 - Colorized IR** - With Well Defined Eye
- **September 21 - Visible** - Near Virgin Islands
- **September 18 - Visible**

**NESDIS Operational Significant Event Imagery**
**Precipitation Table**

**Preliminary Precipitation Reports (Based on daily rainfall data from the Climate Prediction Center)**

Rainfall in affected states for 6-day period ending at 12Z on Sep 30, 1998 - amounts listed for totals exceeding 10.00:

DAYS = Number of days of data for Sep 25-30, 1998 period --
Note that some stations did not report for all 6 days
ID = National Weather Service Station ID
STATION = Station name
COUNTY = County for the station
ST = State
ELEV = Elevation in feet
LAT/LON = Latitude and Longitude in degrees and hundredths
RAINFALL = Total reported rainfall (inches) for Sep 25-30 period, ending at 12Z on the 30th

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All rainfall reports for LA, MS, AL, GA, SC, and FL

Rainfall in Puerto Rico for 2-day period ending at 12Z on Sep 23, 1998 - amounts listed for totals exceeding 10.00:

DAYS = Number of days of data for Sep 22-23, 1998 period --
Note that some stations reported only for 1 of the 2 days
ID = National Weather Service Station ID
STATION = Station name
ST = State or Territory
ELEV = Elevation in feet
LAT/LON = Latitude and Longitude in degrees and hundredths
RAINFALL = Total reported rainfall (inches) for Sep 22-23 period, ending at 12Z on the 23rd

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All rainfall reports for Puerto Rico

Noteworthy Hispaniola and Puerto Rico Hurricanes

List of modern day (post 1950) hurricanes that have struck Hispaniola and/or Puerto Rico. Click on name to see track. For more information on these hurricanes visit the Satellite's Eye Gallery discussion area.

1996 - Hortense
1989 - Hugo
1987 - Emily
1980 - Allen
1979 - David
1967 - Beulah
1966 - Inez
1964 - Cleo
1963 - Flora
1963 - Edith
1958 - Ella
1956 - Betsy
1955 - Katie
1954 - Hazel

Additional information and Links

National Hurricane Center
Climatic Extremes and Weather Events
Hurricanes—Climatology and Reports

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