

= 1985 Puerto Rico floods =

The 1985 Puerto Rico floods produced the deadliest single landslide on record in North America , killing at least 130 people in the Mameyes neighborhood of barrio Portugués Urbano in Ponce . The floods were the result of a westward @-@ moving tropical wave that emerged off the coast of Africa on September 29 . The system moved into the Caribbean Sea on October 5 and produced torrential rainfall across Puerto Rico , peaking at 31 @.@ 67 in (804 mm) in Toro Negro State Forest . Two stations broke their 24 @-@ hour rainfall records set in 1899 . The rains caused severe flooding in the southern half of Puerto Rico , which isolated towns , washed out roads , and caused rivers to exceed their banks . In addition to the deadly landslide in Mameyes , the floods washed out a bridge in Santa Isabel that killed several people . The storm system caused about \$ 125 million in damage and 180 deaths , which prompted a presidential disaster declaration . The tropical wave later spawned Tropical Storm Isabel .

= = Meteorological history = =

The tropical wave that caused the flooding moved off the west coast of Africa on September 29 . Moving westward , the system entered the eastern Caribbean Sea on October 5 , although rainfall began spreading across Puerto Rico the day prior . The wave 's associated convection , or thunderstorms , were amplified by an upper @-@ level trough to its west . It was developing into a tropical cyclone while it moved across Puerto Rico . When the system 's rainbands reached the mountains of southern Puerto Rico , it produced torrential rainfall , and additional precipitation occurred owing to the system 's slow movement .

The most intense rainfall occurred on October 6 , and on that day two stations recorded 24 @-@ hour precipitation totals exceeding 23 in (580 mm) . These totals broke the 24 @-@ hour rainfall records set during the 1899 San Ciriaco hurricane , and amounted to nearly half of the annual precipitation totals . The town of Peñuelas reported very high rainfall totals in a short amount of time , including 2 @.@ 75 in (70 mm) in one hour and 5 @.@ 5 in (140 mm) in two hours . The highest rainfall total on Puerto Rico was 31 @.@ 67 in (804 mm) in Toro Negro State Forest . Rainfall spread across the island , and the southern half of Puerto Rico experienced totals of over 10 in (250 mm) . Rainfall totals over 7 in (180 mm) spread across the United States Virgin Islands . The tropical wave later spawned a low pressure area north of Hispaniola that became Tropical Storm Isabel on October 7 , a day before the rains subsided in Puerto Rico . The storm ultimately struck Florida before dissipating on October 15 .

= = Impact = =

Across Puerto Rico , heavy rains from the weather system caused river flooding and landslides . The rains most significantly affected the municipalities of Ponce , Juana Díaz , Santa Isabel , and Coamo . Several stations reported 100 year flooding , just five months after similar floods affected the island . The floods in May generally affected the northern portion of the island , and the October event generally affected southern Puerto Rico , although the town of Barceloneta experienced floods in both events . Several rivers exceeded their banks , and the Toa Vaca reservoir filled to its capacity for the second time since it was constructed in 1972 .

Saturated soils caused mudslides throughout Puerto Rico , although only one resulted in loss of life . In the hillside community of Mameyes , within Ponce , there was a block slide at around 3 : 00 am local time on October 7 . A large slab of sandstone detached from a hill , moving about 250 @,@ 000 cu yd (190 @,@ 000 m³) of material down the hill . The intense rainfall triggered the landslide , although pre @-@ existing conditions such as a leaking water main and poor sewage flow likely contributed to the event . The landslide destroyed about 90 houses , killing at least 130 people ; however , the death toll could have been as high as 300 . This made it the deadliest single landslide on record in North America . Many of the homes in Mameyes were poorly built with tin and wood materials , and some were built on stilts . Two landslides occurred near Peñuelas , collectively

damaging or destroying 13 buildings .

A flooded creek in Quebrada del Agua , near Ponce , killed 16 people . Flooding washed away the westbound bridge over the Río Coamo near Santa Isabel along San Juan ? Ponce highway . At least six cars drove into an unlit 35 ft (11 m) gap in the road , killing 29 people . Four of the deaths were police officers who were trying to rescue a family from a car that was washed away . At least six bridges were washed out across the island . The floods left about 32 @, @ 000 people without power , and some towns were isolated . The floods shut down 11 water filtration plants and 13 sewage treatment plants , which left 16 municipalities temporarily without water . Across Puerto Rico , the floods damaged 1 @, @ 700 houses and destroyed another 1 @, @ 300 . About 50 @, @ 000 people had to leave their houses for shelter across Puerto Rico . Damage was estimated at \$ 125 million (1985 USD) , and throughout the territory , the floods killed 180 people , 150 of whom lived in Ponce . Officials considered the system to be the " worst disaster " on the island since Hurricane Donna in 1960 .

= = Aftermath = =

On October 7 , Puerto Rican governor Rafael Hernández Colón declared an islandwide state of emergency and activated 300 National Guardsmen to assist in search and rescue operations . Governor Colón sought " technical advice " from Mexico , as the country had experienced a devastating earthquake two weeks prior . The United States Coast Guard flew helicopters into flooded areas to rescue stranded residents , including 18 people along a hill in the western portion of the island . About \$ 10 million in emergency funds was allocated by the Puerto Rican legislature , of which \$ 1 million was distributed among the most affected families with \$ 300 checks . The American Red Cross deployed a team of 15 people to Puerto Rico , who specialized in damage assessment , health services , or other services . After the storm , the Puerto Rican government created a Rainfall @-@ Runoff Alert Network , designed to predict flash flooding in advance , in conjunction with the National Weather Service , the United States Geological Survey , and the territory 's Department of Natural Resources .

On October 10 , United States president Ronald Reagan declared 33 municipalities across Puerto Rico as disaster area . This allocated federal funding for assistance to individual families and public aid to repair public facilities . Federal Emergency Management Agency ultimately provided \$ 63 million in aid to the territory . Puerto Ricans living in the United States raised money and collected donations for the residents on the island .

Governor Colón considered turning the Mameyes neighborhood into a common grave to prevent the spread of disease outbreak . As a result , the National Guard evacuated the town , although the governor changed his mind after public outcry . Initially , a death toll of 500 people was reported , although that was " the product of the original , collective hysteria , " according to the mayor of Ponce 's press officer . Additionally , the number of destroyed houses was overestimated , only to be revised downward owing to before @-@ and @-@ after satellite images and interviews with survivors . After the Mameyes landslide , about 150 people , including National Guardsmen , worked to locate bodies with the assistance of six rescue dogs . Rescue workers also recovered 23 bodies from the collapsed bridge near Coamo . On October 13 , officials halted the search for any survivors of the landslide , although workers continued to look for storm victims . On October 22 , Governor Colón ordered the teams to stop searching for bodies after officials determined that there was a threat of further landslides . Workers initially had difficulty assisting the affected families due to the occurrence in early morning and the continued intensity of the rain , and as a result , only 50 bodies were recovered . Many houses around the Mameyes landslide were later demolished as they were at risk for further landslides .

Governor Hernández Colón announced that a memorial would be created for the Mameyes victims at the site . Originally the memorial was known as " el Parque de la Recordación del Barrio Mameyes " , literally " Park of the Recollection of the Neighborhood Mameyes " in English . In 2011 , however , residents of Ponce successfully petitioned to change the name from a park to a memorial site .

= = Children drawings = =

Three days before the Mameyes landslide , a group of children from a nearby Head Start school were asked by their teacher to draw " whatever came to their minds " . Several of them made drawings that some people see as premonitions of the disaster . Several of the drawings featured crosses , and dark earth @-@ like colors . Some of the children died in the landslide . The drawings were handed by an unidentified teacher to Gladys Torres , administrator of public documents and Director of the Historic Archive of Ponce . They are exhibited in the Ponce Museum of History .