## = Tropical Storm Georgette (2010) =

Tropical Storm Georgette was a short @-@ lived tropical storm that struck the Baja California Sur in September 2010 . Georgette originated from an area of disturbed weather over the eastern Pacific on September 20 . The next day , the system was upgraded into a tropical storm a short distance south of Baja California Sur . As the storm moved over the peninsula , it weakened to a topical depression . It continued north and as such made landfall on mainland Mexico on September 22 . Georgette dissipated early the next day while located inland over Sonora . Although officials noted the threat for heavy rainfall across northwest Mexico and Baja California , damage was minimal and no deaths were reported in the country . However , remnant moisture moved into New Mexico , producing flooding that killed one person .

## = = Meteorological history = =

The origins of Tropical Storm Georgette were from a tropical wave that moved off the west coast of Africa on September 1 . Lacking organization , the wave was difficult to track as it moved across the Atlantic basin . Convection eventually increased on September 7 , as the system approached the Lesser Antilles . On September 14 , Hurricane Karl developed from the northern portion of the system over the western Caribbean Sea ; however , the southern portion of the wave crossed northern Central America and entered the Pacific Ocean on September 17 . The area of disturbed weather was first mentioned on the National Hurricane Center ( NHC ) around that time , but signification development was initially not anticipated . Wind shear was forecast to decrease slightly ; however , and based on this the NHC gave the system a medium chance of undergoing tropical cyclogenesis during the next two days .

Gradual development took place as convection consolidated around the center of circulation while located west of Sonora . During the afternoon of September 20 , an area of low pressure developed within the system , prompting the NHC to classify it as a tropical depression . At this time , the depression was situated roughly 240 mi ( 390 km ) south @-@ southeast of Cabo San Lucas . Situated along the western edge of a subtropical ridge , the system was steered towards the north @-@ northwest throughout its existence .

Within hours of becoming a depression on September 20 , strong wind shear caused convection to diminish . However , data from an ASCAT scatterometer pass revealed that the system attained gale @-@ force winds , resulting in the depression being upgraded to a tropical storm on 0000 UTC September 21 . Operationally , the first advisory on storm was not issued until 1200 UTC , where it was named Georgette . Meanwhile , thunderstorm activity increased near the center of the storm . Little change took place throughout the day as the storm approached Baja California Sur . Around 1800 UTC , Georgette made landfall near San Jose del Cabo with winds of 40 mph ( 65 km / h ) . Additionally , a barometric pressure of 999 mbar ( hPa ; 29 @.@ 5 inHg ) was measured . Shortly before entering the Gulf of California , Georgette weakened to a tropical depression . Maintaining winds of 35 mph ( 55 km / h ) , the storm later made a second landfall near San Carlos in Sonora . Shortly after moving inland , the low @-@ level circulation dissipated over the mountains of western Mexico .

## = = Preparations and impact = =

Prior to the arrival of Georgette , the Mexican government issued a tropical storm warning for extreme southern Baja California Sur . , but was dropped when Georgette moved inland . Officials warned rural areas in Baja California Sur of heavy rain and high wind . Forecasters at the NHC noted the potential for up to 10 in (  $25~\rm mm$  ) of rainfall , especially over the higher terrain . The forecasters also noted potential for deadly flooding and mudslides . Officials evacuated over 1 @,@ 000 families from floodplains and opened four shelters in Los Cabos .

In Sonora, the state 's civil protection committee placed the south portion of the state under an "orange" alert, and a "red" alert soon after; the alert was lifted that same evening, after Georgette

moved inland . A total of 52 shelters were opened in the Cajeme municipality . In Guaymas , 300 people from the city and surrounding areas were placed in shelters ; 250 more people sought shelter from Georgette in Empalme . Schools in Bahía Kino and coastal areas of the Hermosillo Municipality suspended classes as a precaution . Classes resumed statewide on September 23 .

Georgette caused the heaviest rains on Baja California Sur in the last 15 years , leaving many people homeless . Georgette also produced high waves . The tropical cyclone worsened Mexico 's flooding problem which started when Hurricane Karl made landfall several days earlier . A peak rainfall total of 5 @.@ 9 in ( 150 mm ) fell in Todos Santos . Throughout Sonora , rainfall up to 4 @.@ 7 in ( 120 mm ) triggered flooding that damaged 220 homes . Georgette caused 2 @.@ 61 in ( 66 mm ) of rainfall in Guaymas Flooding was reported in several places ( Empalme , Etchojoa , Navojoa , Guaymas , Los Mochis ) , causing 500 @,@ 000 people to be evacuated . Heavy runoff caused inflows of 18 @,@ 000 cu ft / s ( 510 m3 / s ) into El Novillo Dam , forcing the Comisión Nacional del Agua , the local water authorities , to release water from the dam .

Moisture from the system combined with an approaching trough to produce heavy rainfall and thunderstorms across New Mexico . A total of 6 @.@ 42 in ( 163 mm ) was reported in Gladstone . The rains caused flooding that killed a person along the Rio Grande near Carnuel .