

= Hurricane Estelle ( 1986 ) =

Hurricane Estelle was the first major hurricane of the above @-@ average 1986 Pacific hurricane season . It formed as a tropical depression formed well southwest of the Baja California Peninsula on July 16 , and strengthened into a tropical storm within 24 hours . Located within a favorable environment , Estelle intensified into a hurricane on July 18 . It attained major hurricane status ( Category 3 intensity or higher on the Saffir @-@ Simpson Hurricane Scale ) two days later . After peaking in intensity at Category 4 strength , Estelle slowly weakened . By July 24 , Estelle was no longer a hurricane while passing south of Hawaii . It completely dissipated on July 26 after further deteriorating to a tropical depression . The arrival of the hurricane prompted a hurricane watch for Hawaii , and 200 people evacuated from their homes . Hurricane Estelle produced high waves offshore Hawaii , causing \$ 2 million in damage and two deaths . The remnants of the storm also produced intermittent showers across the state , though there was no major damage .

= = Meteorological history = =

Based on data from satellite imagery and weather reports from the cargo ships Hamburg Express and Aleksander Vermishev , the Eastern Pacific Hurricane Center ( EPHC ) upgraded a tropical disturbance into a tropical depression . At this time , the depression was located 390 mi ( 630 km ) west of Clipperton Island , a small remote island in the Pacific Ocean , at 1200 UTC July 16 . Moving towards the west beneath a high pressure area , the depression intensified into Tropical Storm Estelle 12 hours after formation . Upon being named sea surface temperatures along the storm 's path were 84 ° F ( 29 ° C ) , and thus Estelle began to rapidly intensify . The EPHC reported that Estelle had intensified a Category 1 hurricane on the Saffir @-@ Simpson Hurricane Scale on 1200 UTC July 17 , 24 hours after first forming .

Shortly after attaining hurricane intensity , an eye began to appear on weather satellite imagery . Based on this , the EPHC re @-@ assessed the intensity of the system at 85 mph ( 135 km / h ) . Continuing to intensify , Hurricane Estelle became the first major hurricane of the 1986 Pacific hurricane season on 0000 UTC July 18 . As its motion accelerated , Estelle peaked intensity at 135 mph ( 215 km / h ) . Moving west , Hurricane Estelle emerged into the Central Pacific Hurricane Center 's area of responsibility while still a major hurricane . Shortly thereafter , Estelle 's forward motion increased to close to 25 mph ( 40 km / h ) . As such , forecasters noted the path of a potential landfall on the Big Island . Due to a shearing environment from a trough , Estelle weakened as it continued to approach Hawaii . A possible re @-@ curve towards the island never materialized , and the hurricane veered to west and passed south of the islands . Estelle weakened to a tropical storm on July 23 while passing south of Hawaii , and two days later it weakened to a depression . The tropical cyclone dissipated on July 27 .

= = Preparations , impact , and observation = =

On July 22 , the National Weather Service issued a hurricane watch and high @-@ surf advisory for the Island of Hawaii as the storm was anticipated to produce life @-@ threatening waves throughout the island chain . Gale warnings and small craft advisories were also issued . Hurricane Estelle was described by meteorologists as " small but dangerous " . More than 200 people evacuated from their homes near the shoreline , but others refused to leave . However , the hurricane watch was dropped on July 24 when Estelle weakened to a tropical storm .

Due to its rapid motion , Estelle kept pace with a large swell of water that it generated . In combination with a high spring tide and peripheral winds generated by Estelle , 15 ft ( 4 @. @ 6 m ) to 20 ft ( 6 @. @ 1 m ) waves crashed on the shores of the Big Island on the afternoon of July 22 . Five homes were destroyed and another five sustained extreme damage . Twelve other homes received minor damage . Three beachfront divisions were destroyed . Dozens of other places in Vacation Land were also damaged . On Maui , waves washed away a dirt road on the eastern part of the island between Kipahulu and Kaupo . After Estelle passed by the islands , moisture related to

the tropical cyclone caused heavy rainfall in the Ka 'u and Puna districts on the Big Island . On July 22 , a wind gust of 55 mph ( 89 km / h ) was recorded near Kalapana Sand Beach . The total damage was around \$ 2 million ( 1986 USD ) . Two drownings were reported on Oahu that occurred on July 23 , due to rough surf caused by Estelle .

Although isolated showers were initially recorded in the southern portion of the state , after Hurricane Estelle dissipated , its moisture became entrapped in a trough over the islands , causing significant rainfall and thunderstorms over the archipelago . Some areas in Hawaii received 5 in ( 130 mm ) to 10 in ( 250 mm ) . The rains in Hawaii had cleared up by July 29 .

Estelle was a well @@ observed storm , with Reconnaissance Aircraft flying into the hurricane to provide a fix on its location . It also passed near NOAA Buoy 51004 on July 22 , providing valuable meteorological data for its future path .