

Tropical Cyclone Report
Tropical Depression Two-E
(EP022010)
16-17 June 2010

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Tropical Depression Two-E was a short-lived tropical cyclone that formed south of the Gulf of Tehuantepec and brought heavy rainfall to the coast of Mexico as it moved west-northwestward before dissipating. The genesis of the depression was associated with a tropical wave that moved off the west coast of Africa on 2 June and entered the eastern Pacific on 13-14 June. As the wave approached the Gulf of Tehuantepec convection began to increase in organization and it is estimated that a tropical depression formed around 0600 UTC 16 June, centered about 95 n mi south of Salina Cruz, Mexico. The depression moved slowly west-northwestward after genesis and deep convection remained displaced to the west and southwest of the center due to northeasterly vertical wind shear. Data from the European Space Agency's ASCAT scatterometer around 1630 UTC 16 June indicated that the intensity had increased to 30 kt. However, the convection became disorganized by 0000 UTC 17 June, and geostationary and microwave satellite imagery indicated that the low-level circulation dissipated by 0600 UTC that day. The best track positions and intensities for the depression are listed in Table 1¹.

The genesis of Two-E was relatively well anticipated. The precursor system was first mentioned in the Tropical Weather Outlook 54 h prior to genesis. The probability of genesis first reached the "medium" category (30-50%) 18 h prior to genesis, but never reached the "high" category (greater than 50%).

The depression produced heavy rainfall along portions of the Pacific coast of Mexico. Bahias de Huatulco in the Mexican state of Oaxaca reported 2.52 in. of rainfall in the 24-h period ending at 1200 UTC 17 June. According to media reports, 70 to 80 homes were damaged due to rainfall in San Juan Bautista Tuxtepec in Oaxaca. Additional damage was reported in Rio Grande and Santa Gertrudis, where 40 and 20 homes were damaged, respectively.

There were no casualties associated with the depression. Due to the proximity of the depression to the coast of Mexico, tropical storm watches and warnings were issued (Table 2).

¹ A digital record of the best track can be found online at <ftp://ftp.nhc.noaa.gov/atcf>. Data for the current year's storms are located in the *btk* directory, while previous years' data are located in the *archive* directory.

Table 1. Best track for Tropical Depression Two-E, 16-17 June 2010.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
16 / 0600	14.6	95.2	1008	25	tropical depression
16 / 1200	14.7	95.4	1008	25	"
16 / 1800	14.9	95.9	1007	30	"
17 / 0000	15.2	96.4	1008	25	"
17 / 0600					dissipated
16 / 1800	14.9	95.9	1007	30	minimum pressure

Table 2. Watch and warning summary for Tropical Depression Two-E, 16-17 June 2010.

Date/Time (UTC)	Action	Location
16/1530	Tropical Storm Warning issued	Salina Cruz to Lagunas de Chacahua, Mexico
16/1530	Tropical Storm Watch issued	Lagunas de Chacahua to Punta Maldonado, Mexico
16/2100	Tropical Storm Warning modified to	Salina Cruz to Punta Maldonado, Mexico
16/2100	Tropical Storm Watch issued	Punta Maldonado to Acapulco, Mexico
17/0300	Tropical Storm Warning modified to	Salina Cruz to Acapulco, Mexico
17/0300	Tropical Storm Watch issued	West of Acapulco to Zihuatanejo, Mexico
17/1500	All watches and warnings discontinued	

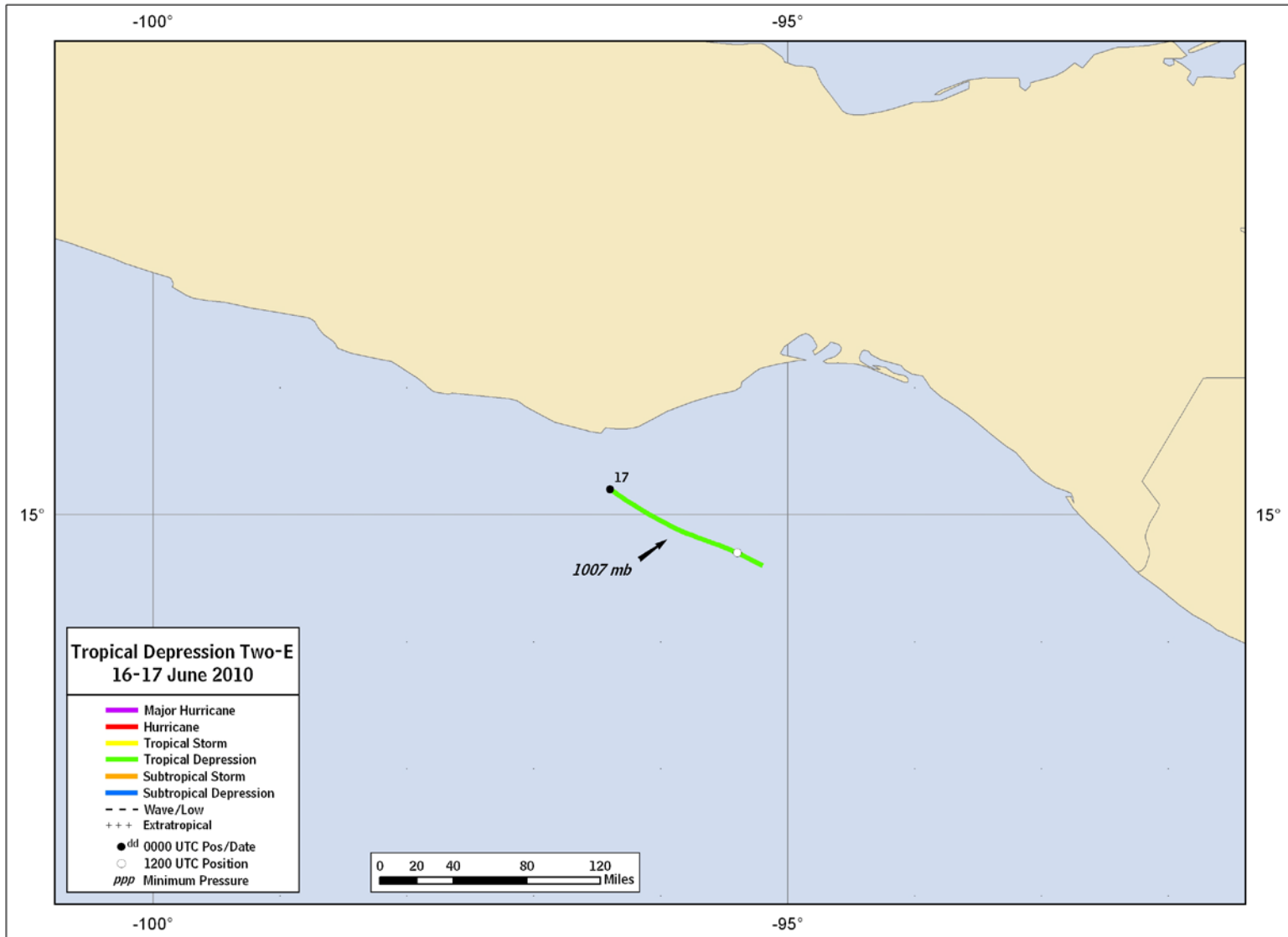


Figure 1. Best track positions for Tropical Depression Two-E, 16-17 June 2010.