

Tropical Cyclone Report
Tropical Depression Ten-E
(EP102010)
3-4 September 2010

John P. Cangialosi
National Hurricane Center
28 October 2010

The origin of Tropical Depression Ten-E can be traced back to a tropical wave that exited the west coast of Africa on 14 August. The wave was relatively inactive while over the Atlantic Ocean but began to develop some shower and thunderstorm activity when it crossed Central America and entered the eastern North Pacific Ocean on 26 August. During the next several days, the associated showers and thunderstorms remained disorganized and displaced to the west of the wave axis due to easterly vertical wind shear. The thunderstorm activity gradually became better organized on 1 and 2 September but the system did not have a closed circulation at that time. Conventional satellite and microwave data indicate that the system developed a well-defined center and organized deep convection to be classified a tropical depression at 0000 UTC 3 September, when it was located about 220 n mi south-southeast of the southern tip of Baja California. The “best track” chart of the tropical cyclone’s path is given in Fig. 1. The best track positions and intensities are listed in Table 1¹.

The depression moved slowly northwestward for the next day or so, steered between a deep-layer ridge over Mexico and a deep-layer trough over the eastern North Pacific Ocean. The combination of moderate to strong easterly shear and a short time over relatively warm water prevented the cyclone from intensifying. The depression moved over cool waters early on 4 September and became a remnant low by 1200 UTC that day when located about 160 n mi west-southwest of the southern tip of Baja California. The remnant low continued northwestward for about another day before dissipating.

The genesis of Tropical Depression Ten-E was well forecast. The disturbance from which the depression developed was introduced in the Tropical Weather Outlook at 0600 UTC 28 August, about six days before formation, and was categorized to have a low chance (<30%) of development. This was raised to the medium category (30-50%) about four days prior to genesis and the high category (>50 %) about 42 hours before the depression developed.

There were no reports of damage or casualties associated with the depression.

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

Table 1. Best track for Tropical Depression Ten-E, 3-4 September 2010.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
03 / 0000	19.3	109.0	1003	30	tropical depression
03 / 0600	19.6	109.4	1003	30	"
03 / 1200	19.9	109.8	1003	30	"
03 / 1800	20.3	110.3	1003	30	"
04 / 0000	20.8	110.8	1003	30	"
04 / 0600	21.3	111.3	1005	25	"
04 / 1200	21.8	111.8	1006	25	remnant low
04 / 1800	22.3	112.4	1007	20	"
05 / 0000	22.8	112.9	1008	20	"
05 / 0600	23.3	113.4	1008	20	"
05 / 1200					dissipated
03 / 0600	19.3	109.0	1003	30	minimum pressure

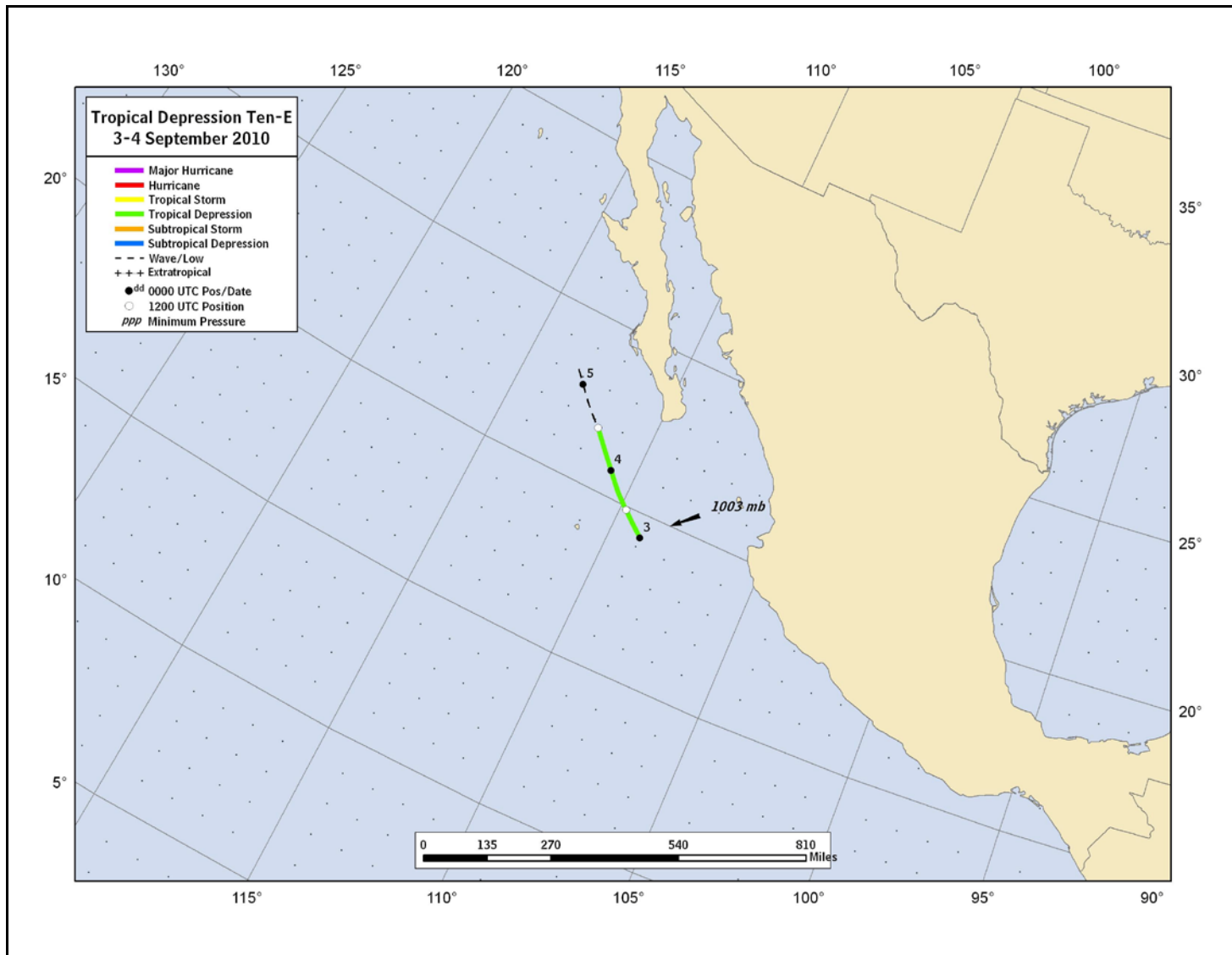


Figure 1. Best track positions for Tropical Depression Ten-E, 3-4 September 2010.