

Tropical Cyclone Report
Tropical Depression Nine-E
(EP092009)
9-11 August 2009

Daniel P. Brown
National Hurricane Center
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Tropical Depression Nine-E formed from a tropical wave that appears to have entered the eastern North Pacific Ocean on 1 August. The wave was poorly defined and difficult to track until 6 August when it was located about 600 n mi south of Manzanillo, Mexico. The next day the wave spawned a broad area of low pressure about 700 n mi south-southwest of the southern tip of Baja California. The circulation gradually became better defined over the next 24 to 36 h, although the associated shower and thunderstorm activity remained limited. Shortly before 1200 UTC 9 August, thunderstorm activity began to increase in association with the low. The convective activity continued to become organized during the next several hours, and it is estimated that a tropical depression formed by 1800 UTC 9 August, about 770 n mi southwest 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.

Within an environment of moderate westerly shear, the depression did not strengthen as it moved generally westward during the next day or so. Although Dvorak classifications from both TAFB and SAB suggested the system was near tropical storm strength around 0600 UTC 11 August, microwave imagery during that time (not shown) indicated that the low-level center was exposed to the west of a fragmented band of thunderstorms. Visible satellite images later that day showed that the center was exposed to the west of the convective activity, confirming that the cyclone was not well organized. The deep convection dissipated later that day, and it is estimated that the depression degenerated into a remnant low around 0000 UTC 12 August, while centered about 1200 n mi west-southwest of the southern tip of Baja California. The low turned west-southwestward and produced intermittent and disorganized showers and thunderstorms during the next couple of days. On 14 August, the low became less defined as it moved near the inter-tropical convergence zone (ITCZ). The low dissipated about 1825 n mi west-southwest of the southern tip of Baja California as it was absorbed into the ITCZ shortly after 0000 UTC 15 August.

The genesis of Tropical Depression Nine-E was not well forecast, although perhaps with good reason. The incipient disturbance was introduced into the NHC Tropical Weather Outlook about 30 h before genesis. The chance of formation, however, remained low (less than 30%) in the Outlook until the time that genesis occurred, since the overall environmental conditions were judged to be not especially favorable for development. Although the disturbance did become a tropical cyclone, the marginal environment did not allow for any additional development.

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 Nine-E, 9-11 August 2009.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
09 / 0000	14.1	118.1	1010	25	low
09 / 0600	14.1	118.7	1010	25	"
09 / 1200	14.2	119.4	1008	25	"
09 / 1800	14.4	120.2	1007	30	tropical depression
10 / 0000	14.7	121.1	1007	30	"
10 / 0600	14.8	121.9	1006	30	"
10 / 1200	14.9	122.7	1006	30	"
10 / 1800	15.0	123.7	1006	30	"
11 / 0000	15.1	124.9	1006	30	"
11 / 0600	15.1	126.0	1006	30	"
11 / 1200	15.1	127.1	1006	30	"
11 / 1800	15.1	128.3	1006	30	"
12 / 0000	15.0	129.4	1007	30	low
12 / 0600	14.8	130.5	1007	30	"
12 / 1200	14.5	131.6	1007	30	"
12 / 1800	14.2	132.7	1007	30	"
13 / 0000	13.9	133.7	1007	25	"
13 / 0600	13.4	134.5	1007	25	"
13 / 1200	12.9	135.2	1007	25	"
13 / 1800	12.3	135.8	1008	25	"
14 / 0000	11.8	136.6	1009	25	"
14 / 0600	11.5	137.4	1009	25	"
14 / 1200	11.2	138.1	1009	25	"
14 / 1800	11.0	138.7	1009	25	"
15 / 0000	10.7	139.3	1009	25	"
15 / 0600					dissipated
10 / 0600	14.8	121.9	1006	30	minimum pressure

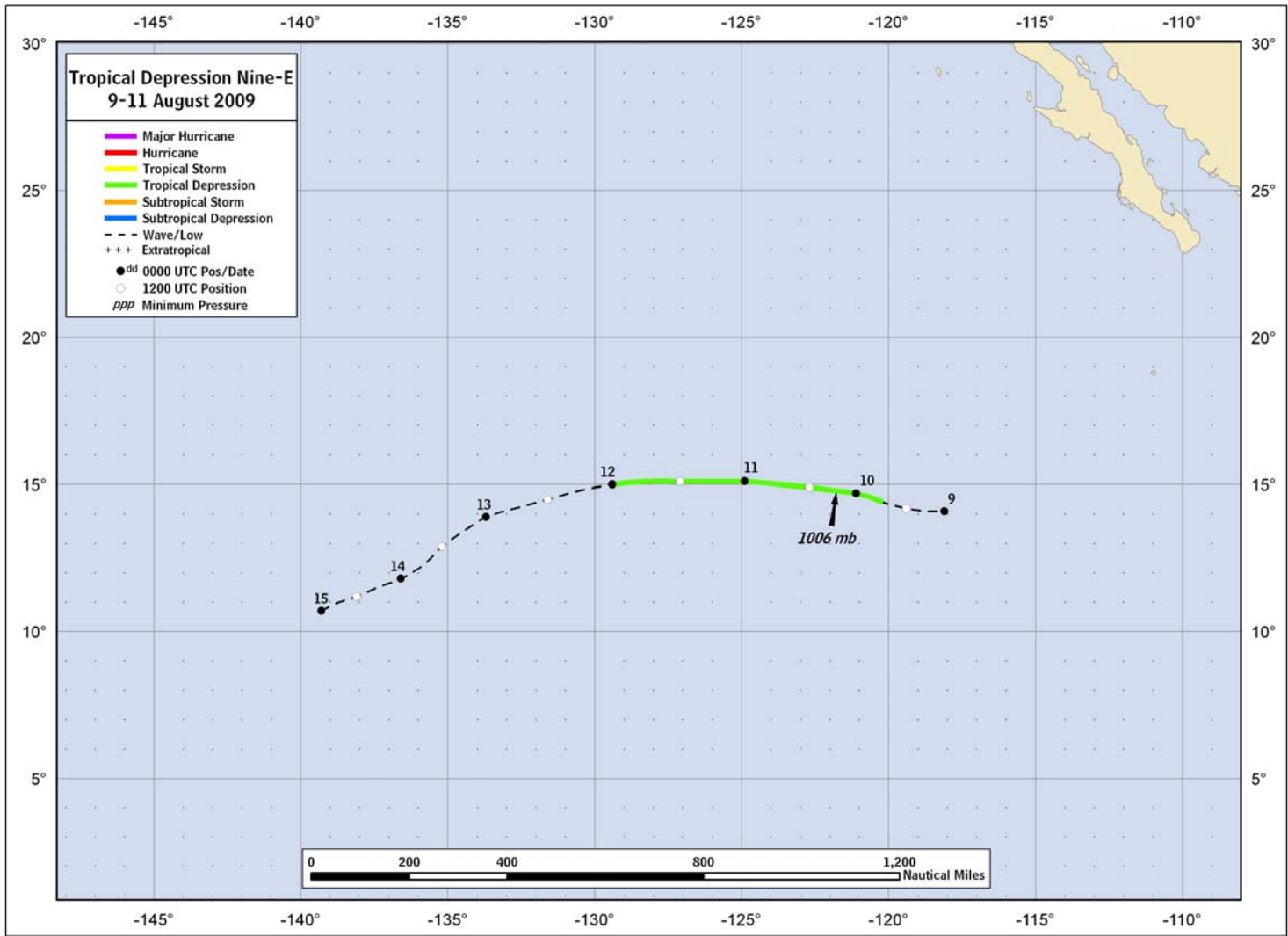


Figure 1. Best track positions for Tropical Depression Nine-E, 9-11 August 2009.