Tropical Cyclone Report
Tropical Depression Six-E
(EP062010)
14-16 July 2010

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The development of Tropical Depression Six-E can be traced back to a tropical wave that exited the west coast of Africa on 28 June. The wave crossed Central America and entered the eastern Pacific Ocean on 9 July. A couple of days later, a broad low pressure area developed along the wave axis south of the coast of Guatemala. Shower and thunderstorm activity increased in association with the broad low on 12 July as it passed south of the Gulf of Tehuantepec. As the low moved west-northwestward off of the southern coast of Mexico, the low-level circulation became better defined. Bands of thunderstorms developed over the western semicircle of the low early on 14 July and by 1200 UTC that day, when the system was located about 285 n mi south-southwest of Manzanillo, Mexico, it had acquired sufficient convective organization to be considered a tropical depression. 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 1[1].

The depression initially moved west-northwestward, but turned toward the northwest on 15 July. Moderate to strong easterly shear prohibited the cyclone from strengthening. The depression moved over cooler water on 16 July and deep convection dissipated later that day. This resulted in the depression degenerating to a remnant low by 1800 UTC. The remnant low turned westward to west-northwestward and continued on this heading until it dissipated about 600 n mi west-southwest of the southern tip of the Baja Peninsula by 1200 UTC 18 July.

The genesis of Tropical Depression Six-E was fairly well forecast. The disturbance from which the depression developed was introduced to the Tropical Weather Outlook at 1800 UTC 11 July, nearly three days before genesis. The disturbance was first categorized to have a low chance (<30%) of development. This was raised to the medium category (30-50%) about 42 hours prior to formation. The disturbance, however, was never assessed to have a high chance (>50%) of development before it became a tropical depression. This can be attributed to forecaster's concluding that the strong upper-level easterlies were considered to be not especially conducive for formation. Although the system became a tropical cyclone, the strong easterly shear 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 *btk* directory, while previous years' data are located in the *archive* directory.

Table 1. Best track for Tropical Depression Six-E, 14-16 July 2010.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
14 / 0000	14.3	102.6	1007	25	low
14 / 0600	14.4	104.2	1007	25	"
14 / 1200	14.5	105.6	1006	30	tropical depression
14 / 1800	14.6	106.5	1006	30	"
15 / 0000	14.8	107.3	1006	30	"
15 / 0600	15.0	107.7	1007	25	"
15 / 1200	15.4	107.9	1007	25	"
15 / 1800	15.9	108.1	1007	25	"
16 / 0000	16.5	108.6	1007	25	"
16 / 0600	17.2	109.6	1007	25	"
16 / 1200	17.8	110.8	1007	25	"
16 / 1800	18.2	112.4	1007	25	remnant low
17 / 0000	18.5	114.1	1007	25	"
17 / 0600	18.7	115.1	1008	25	"
17 / 1200	18.9	116.1	1009	25	"
17 / 1800	19.0	117.1	1010	25	"
18 / 0000	19.0	118.3	1011	20	"
18 / 0600	19.0	119.6	1011	20	"
18 / 1200					dissipated
14 / 1200	14.5	105.6	1006	30	minimum pressure

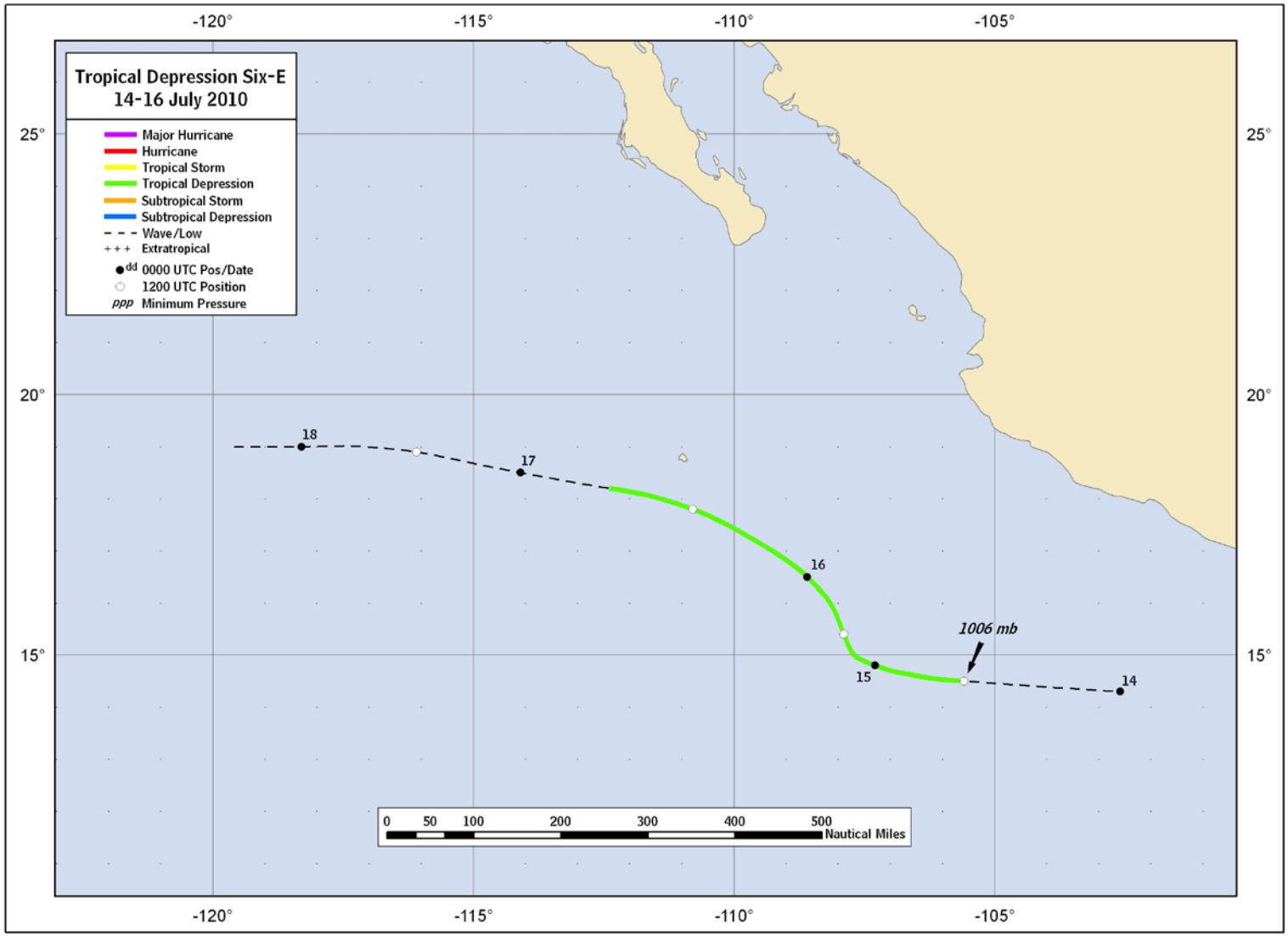

Figure 1. Best track positions for Tropical Depression Six-E, 14-16 July 2010.