

Tropical Cyclone Report  
Tropical Storm Erick  
20-24 July 2001

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Erick formed well to the southwest of Mexico and soon moved over cool waters resulting in weakening.

a. Synoptic History

Erick apparently formed from a poorly-defined tropical wave that traveled westward across the tropical Atlantic and reached the eastern North Pacific on 16 July. The thunderstorm activity associated with the wave increased on the 18<sup>th</sup> when the disturbance was centered about 700 n mi south of the southern tip of Baja California. Thereafter, deep convection gradually developed around a large cyclonic gyre which accompanied the wave. It was not until 1800 UTC 20 July that a well-defined center of circulation formed and satellite intensity estimates supported tropical depression status. Moving on a general west-northwest track, the system became a tropical storm and reached maximum winds of 35 knots and 1001 mb minimum pressure 1200 UTC 22 July. It then moved over relatively cooler waters and weakened as the deep convection quickly vanished. By 0000 UTC 24 July, it was just a non-convective and dissipating swirl of low clouds, although some showers re-developed intermittently.

b. Meteorological Statistics

Table 1 gives the best track positions and intensities of Erick at six-hourly intervals. Figure 1 shows a plot of this track. Figures 2a and 2b depict the curves of maximum one-minute average "surface" (10 m above sea-level) wind speed and minimum central sea-level pressure, respectively, as functions of time. Also plotted are the observations on which the curves are based. These consist of Dvorak-technique estimates using satellite imagery by the Tropical Analysis and Forecast Branch (TAFB), the Satellite Analysis Branch (SAB), and the U.S. Air Force Weather Agency (AFWA). Data from several QUIKSCAT passes helped to identify the initial closed low-level circulation associated with the tropical cyclone, as well as its intensity.

c. Casualty and Damage Statistics

No reports of casualties or damage associated with Erick have been received.

d. Forecast and Warning Critique

Erick was a tropical storm for less than 48 hours. However, the limited sample indicates that the NCEP Global Model performed remarkably well and somewhat better than the official forecast. The official intensity forecasts captured quite well both the development and the weakening trends of Erick.

Table 1. Best track, Tropical Storm Erick, 20-24 July, 2001.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
20 / 1800	13.9	117.4	1007	30	tropical depression
21 / 0000	14.3	118.1	1007	30	"
21 / 0600	14.9	118.8	1007	30	"
21 / 1200	15.5	119.6	1007	30	"
21 / 1800	16.2	120.4	1005	35	tropical storm
22 / 0000	17.0	121.5	1005	35	"
22 / 0600	17.7	122.3	1005	35	"
22 / 1200	18.5	123.3	1001	35	"
22 / 1800	19.2	124.5	1002	35	"
23 / 0000	19.6	125.6	1002	35	"
23 / 0600	20.0	126.5	1003	35	"
23 / 1200	20.4	127.4	1005	30	tropical depression
23 / 1800	20.8	128.0	1006	30	"
24 / 0000	21.1	128.6	1008	25	"
24 / 0600					dissipated
22 / 1200	18.5	123.3	1001	35	minimum pressure

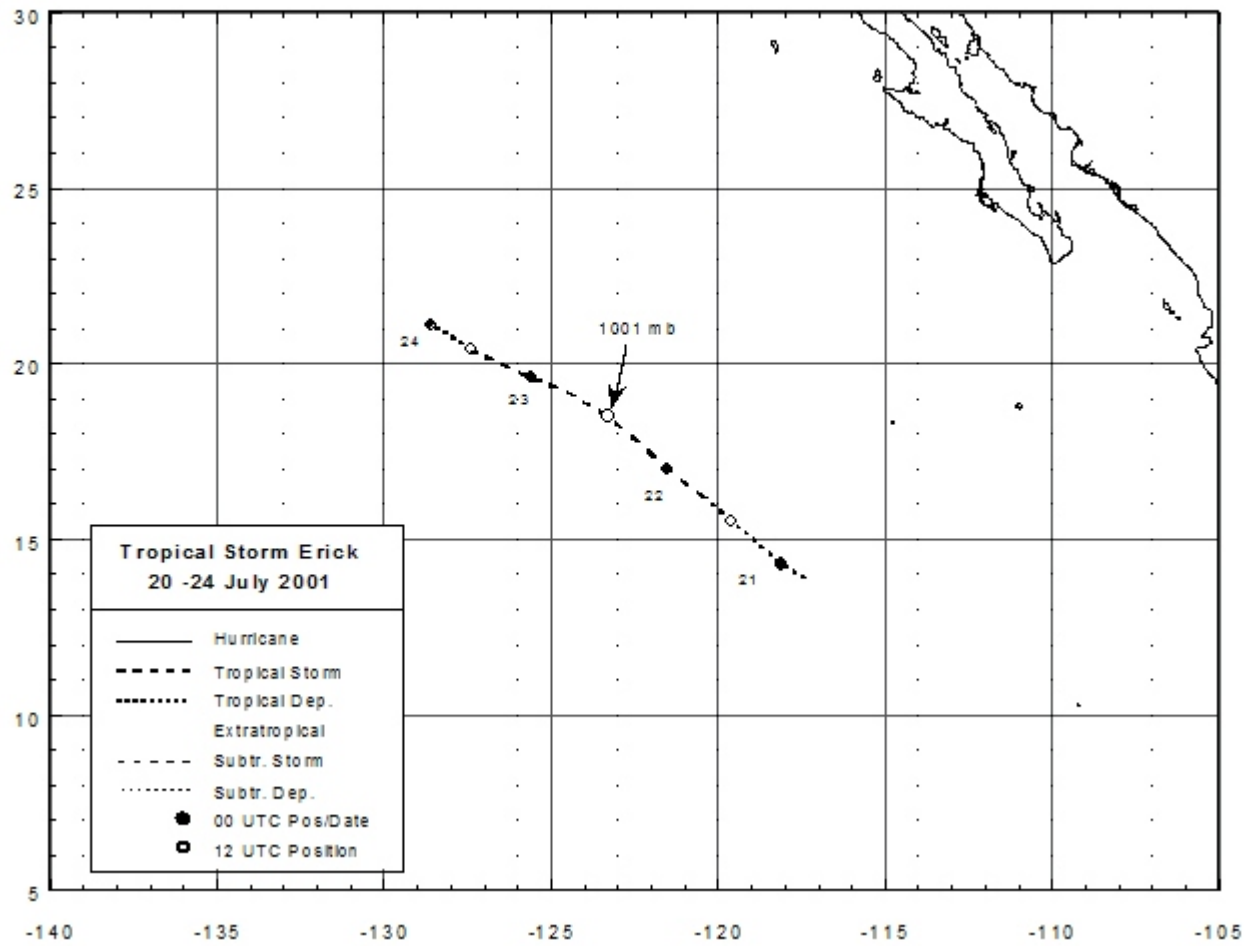


Figure 1. Best track positions for Tropical Storm Erick, 20-24 July 2001.

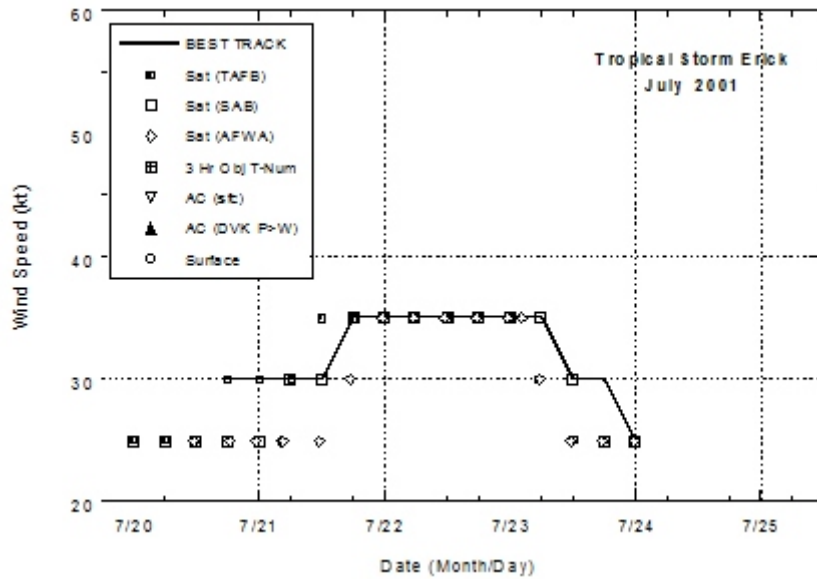


Figure 2 a. Best track maximum sustained surface wind speed curve for Tropical Storm Erick, 20-24 July, 2001.

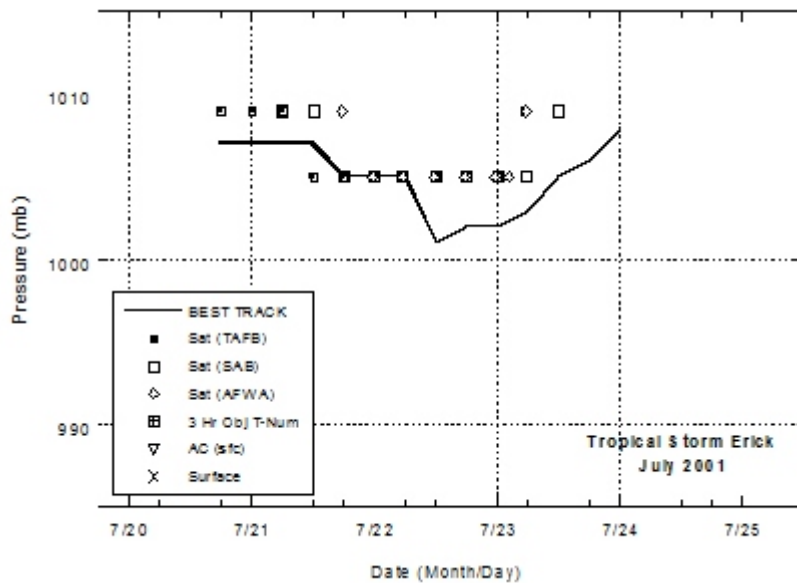


Figure 2 b. Best track minimum central pressure curve for Tropical Storm Erick, 20-24 July, 2001.