

Abbreviated Tropical Cyclone Report  
Tropical Depression Ten  
13-14 August 2005

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Tropical Depression Ten formed from a tropical wave that emerged from the coast of Africa on 8 August. The wave moved westward and began showing signs of convective organization on 11 August. The system continued to develop, and it is estimated that a tropical depression formed around 1200 UTC 13 August about 925 n mi east of Barbados (Table 1 and Figure 1). The depression moved erratically westward and, due to strong southwesterly vertical wind shear, weakened to a non-convective remnant low the next day. The low moved generally west-northwestward and occasionally produced convection until it degenerated to a tropical wave on 18 August just northeast of the Leeward Islands.

Operationally, there was a question of whether the remnants of Tropical Depression Ten spawned Hurricane Katrina. Analysis of satellite imagery indicates that the remnant low-level vorticity of Tropical Depression Ten dissipated near Cuba on 21 August. However, a mid-level vorticity center generated by a convective burst lagged to the east of the low-level remnants and was overtaken by the low-level vorticity of the next westward-moving tropical wave on 19 August. This combination of meteorological features went on to spawn Hurricane Katrina.

Table 1. Best track for Tropical Depression Ten, 13 – 14 August 2005.

Date/Time (UTC)	Latitude (EN)	Longitude (EW)	Pressure (mb)	Wind Speed (kt)	Stage
13 / 1200	13.3	43.6	1009	25	tropical depression
13 / 1800	13.8	44.7	1008	30	"
14 / 0000	13.8	45.7	1008	30	"
14 / 0600	13.4	46.0	1009	25	"
14 / 1200	13.5	46.4	1009	25	"
14 / 1800	13.9	46.7	1010	25	remnant low
15 / 0000	14.4	47.4	1010	25	"
15 / 0600	14.5	48.4	1010	25	"
15 / 1200	14.6	49.3	1010	25	"
15 / 1800	14.8	49.9	1010	25	"
16 / 0000	15.1	50.4	1010	25	"
16 / 0600	15.5	51.1	1010	25	"
16 / 1200	16.0	52.0	1010	25	"
16 / 1800	16.1	53.2	1010	25	"
17 / 0000	16.1	54.1	1010	25	"
17 / 0600	16.1	54.9	1010	25	"
17 / 1200	16.7	55.6	1010	25	"
17 / 1800	17.1	56.6	1010	25	"
18 / 0000	17.3	57.7	1010	25	"
18 / 0600	17.6	58.9	1012	25	"
18 / 1200	18.0	60.1	1014	25	"
18 / 1800					dissipated
13 / 1800	13.8	44.7	1008	30	minimum pressure

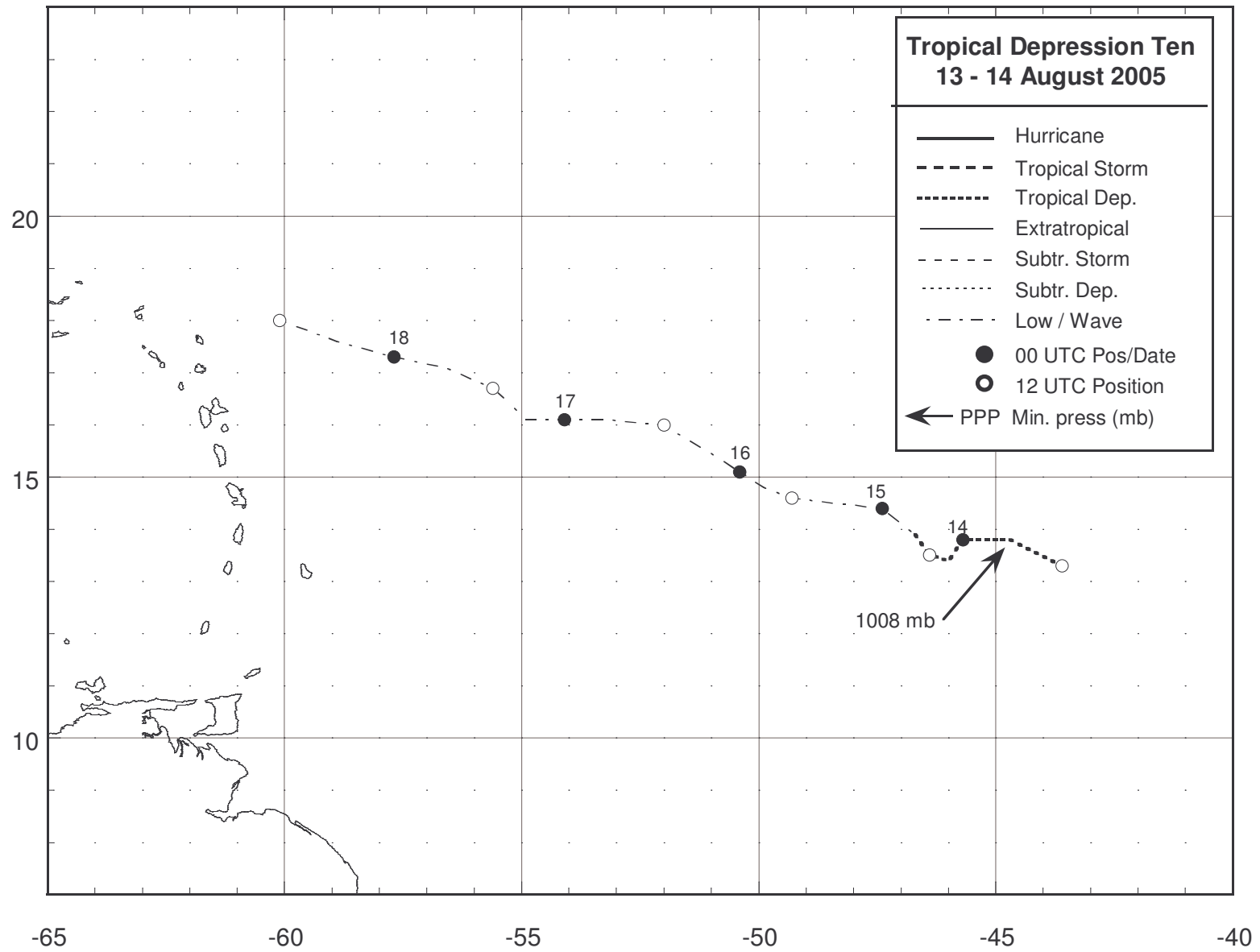


Figure 1. Best track positions for Tropical Depression Ten, 13-14 August 2005.