

Tropical Cyclone Report
Tropical Storm Jerry (AL112007)
23-24 September 2007

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Jerry was a short-lived tropical cyclone over the far northeastern Atlantic.

a. Synoptic History

A non-tropical low formed in the central North Atlantic on 21 September and meandered for a few days, while gradually developing deep convection. The thunderstorm activity became better organized and eventually wrapped around the low. Since the system was still well-involved with an upper-level low and the strongest winds were well removed from the center, it is estimated that the depression that formed at 0000 UTC 23 September was subtropical in nature. The cyclone lacked a well-defined inner core, and there were multiple low-cloud swirls near the estimated center, but when both satellite estimates and QuikScat data indicated that the maximum winds increased to 35 knots, the cyclone became a subtropical storm. Jerry became a tropical storm at 0000 UTC 24 September, with a peak intensity of 35 knots and a minimum pressure of 1003 mb, when deep convection developed near the center and the radius of maximum winds decreased. Thereafter, Jerry moved slowly toward the northeast over cooler waters and began to weaken. A strong cold front approached the area and Jerry accelerated northeastward ahead of the front. By 0000 UTC 25 September, the circulation of Jerry had opened up into a sharp trough and dissipated.

The “best track” chart of the tropical cyclone’s path is given in Fig. 1, with the wind and pressure histories shown in Figs. 2 and 3, respectively. The best track positions and intensities are listed in Table 1.

b. Meteorological Statistics

Observations in Jerry (Figs. 2 and 3) include satellite intensity estimates from the Tropical Analysis and Forecast Branch (TAFB) and the Satellite Analysis Branch (SAB). Data and imagery from NOAA polar-orbiting satellites, the NASA Tropical Rainfall Measuring Mission (TRMM), and the NASA QuikSCAT, among others, were also useful in tracking Jerry. Data from QuikScat played an important role in determining the transformation of Jerry from a subtropical storm to a tropical storm.

c. Casualty and Damage Statistics

There are no reports of casualties or damage associated with Jerry.

d. Forecast and Warning Critique

The description of the non-tropical low from which Jerry originated was included in Tropical Weather Outlook (TWO) products beginning on 20 August. However, the possibility of tropical or subtropical cyclone formation was not included in the TWO until 2130 UTC 22 September, only a couple of hours prior to genesis.

Jerry was a short-lived cyclone and there were only a few forecasts. Average official track errors for Jerry were 28, 52 and 101 n mi for the 12, 24 and 36 h forecasts, respectively. The official 5-yr period (2002-2006) average errors are 35, 61 and 86 n mi for these three forecast periods, respectively.

Average official intensity errors were 3, 10 and 10 kt for the 12, 24 and 36 h forecasts, respectively. For comparison, the average official intensity errors over the 5-yr period 2002-2006 are 6, 10 and 12 kt, respectively.

Table 1. Best track for Tropical Storm Jerry, 23-24 September 2007.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
23 / 0000	36.2	46.1	1008	30	subtropical depression
23 / 0600	36.2	46.1	1007	35	subtropical storm
23 / 1200	36.0	46.3	1004	35	"
23 / 1800	36.5	46.3	1004	35	"
24 / 0000	37.1	46.3	1003	35	tropical storm
24 / 0600	38.1	45.9	1004	35	"
24 / 1200	39.3	44.7	1004	35	"
24 / 1800	41.0	43.5	1004	30	tropical depression
25 / 0000					dissipated
24 / 0000	37.1	46.3	1003	35	minimum pressure

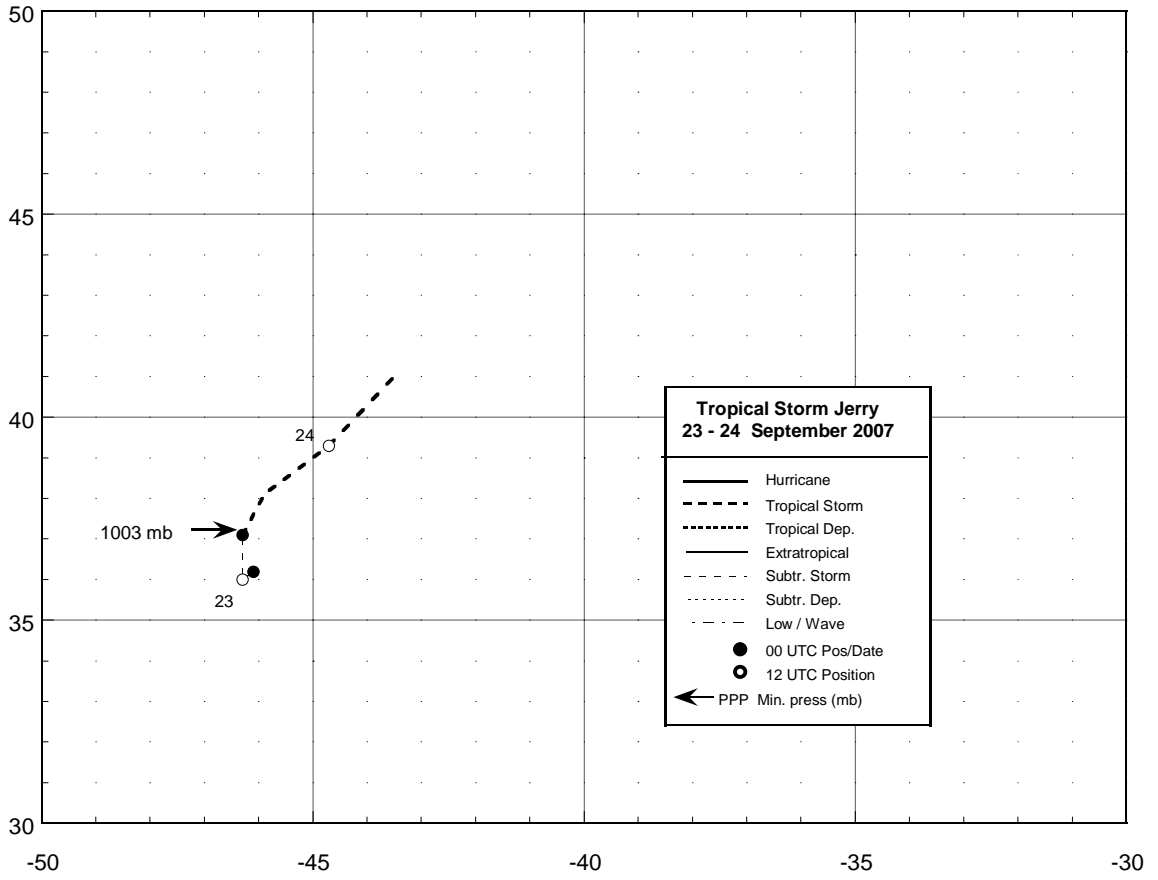


Figure 1. Best track positions for Tropical Storm Jerry, 23-24 September 2007.

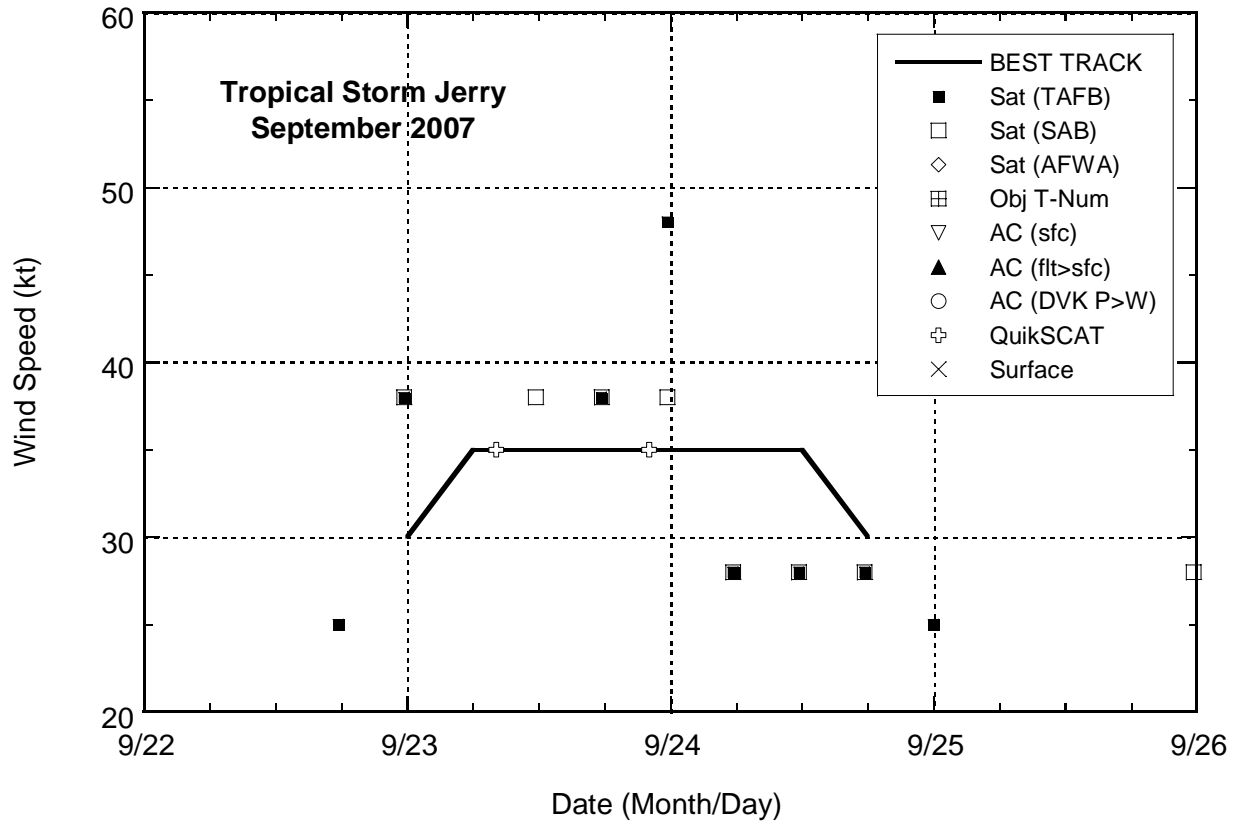


Figure 2. Selected wind observations and best track maximum sustained surface wind speed curve for Tropical Storm Jerry, 23-24 September 2007.

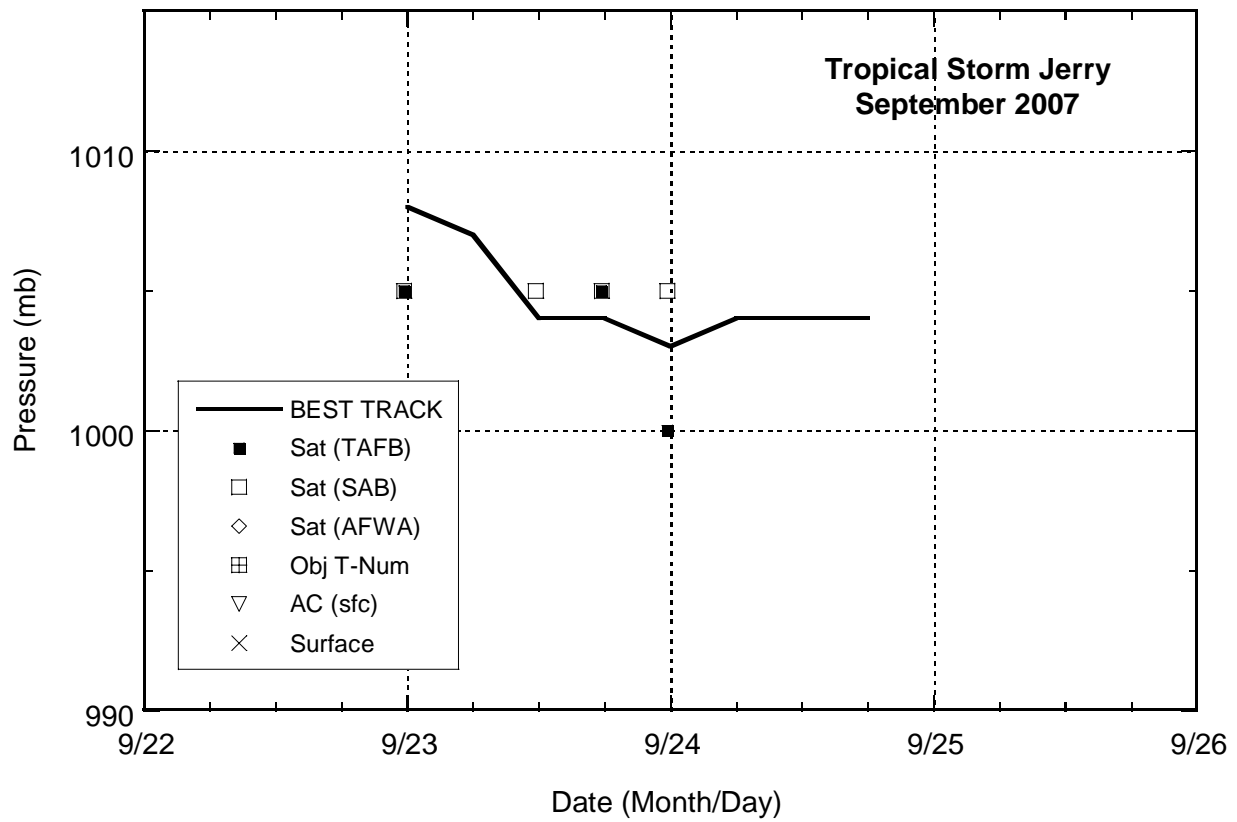


Figure 3. Selected pressure observations and best track minimum central pressure curve for Tropical Storm Jerry, 23-24 September 2007.