

Tropical Cyclone Report
Tropical Storm Julio
25 - 26 September 2002

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Tropical Storm Julio made landfall on the Pacific coast of Mexico just west-northwest of Lazaro Cardenas.

a. Synoptic History

Julio formed from a persistent area of monsoon-like disturbed weather near the west coast of Mexico. An area of convection and westerly surface winds first developed on 21 September from 10°N-17°N between 90°W-107°W, possibly in response to Atlantic Hurricane Isidore approaching the Yucatan Peninsula of Mexico. Convective activity generally increased over the next two days, and a poorly-defined low-level circulation developed late on 23 September. The system gradually became better organized, and it is estimated that it became a tropical depression by 0000 UTC 25 September about 175 n mi southwest of Acapulco, Mexico. 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.

The depression moved northward and strengthened. It became Tropical Storm Julio near 1200 UTC that day, then reached a maximum intensity of 40 kt prior to landfall on the coast of Mexico just west-northwest of Lazaro Cardenas around 0000 UTC 26 September. A subsequent northwestward motion took the center over the mountains of southwestern Mexico, where the system dissipated north of Manzanillo later that day.

b. Meteorological Statistics

Observations in Julio (Figs. 2 and 3) include satellite-based Dvorak technique intensity estimates from the Tropical Analysis and Forecast Branch (TAFB), the Satellite Analysis Branch (SAB) and the U. S. Air Force Weather Agency (AFWA), and reports from one surface station. Zihuatanejo, Mexico reported 35 kt sustained winds with a gust to 45 kt at 2042 UTC 25 September, along with a minimum pressure of 1002.3 mb from 1745-2042 UTC.

c. Casualty and Damage Statistics

There were no reports of casualties from Julio. Press reports indicate that 100 homes in Acapulco and Zihuatanejo were either damaged or destroyed by flash flooding.

d. Forecast and Warning Critique

Julio was a tropical storm for only 18 h, so no significant forecast error verification is possible.

A tropical storm warning was issued for the coast of Mexico from Zihuatanejo to Punta San Telmo at 1500 UTC 25 September, while a tropical storm watch was issued west of Punta San Telmo to Manzanillo. These warnings and watches were discontinued at 0900 UTC 26 September when Julio weakened over land.

Table 1. Best track for Tropical Storm Julio, 25-26 September 2002.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
25 / 0000	14.6	101.8	1005	25	tropical depression
25 / 0600	15.4	101.6	1005	30	"
25 / 1200	16.1	101.6	1003	35	tropical storm
25 / 1800	17.0	101.9	1001	40	"
26 / 0000	18.0	102.4	1000	40	"
26 / 0600	18.7	103.3	1003	35	"
26 / 1200	19.4	104.3	1005	25	tropical depression
26 / 1800					dissipated
26 / 0000	18.0	102.4	1000	40	minimum pressure and landfall just west-northwest of Lazaro Cardenas, Mexico

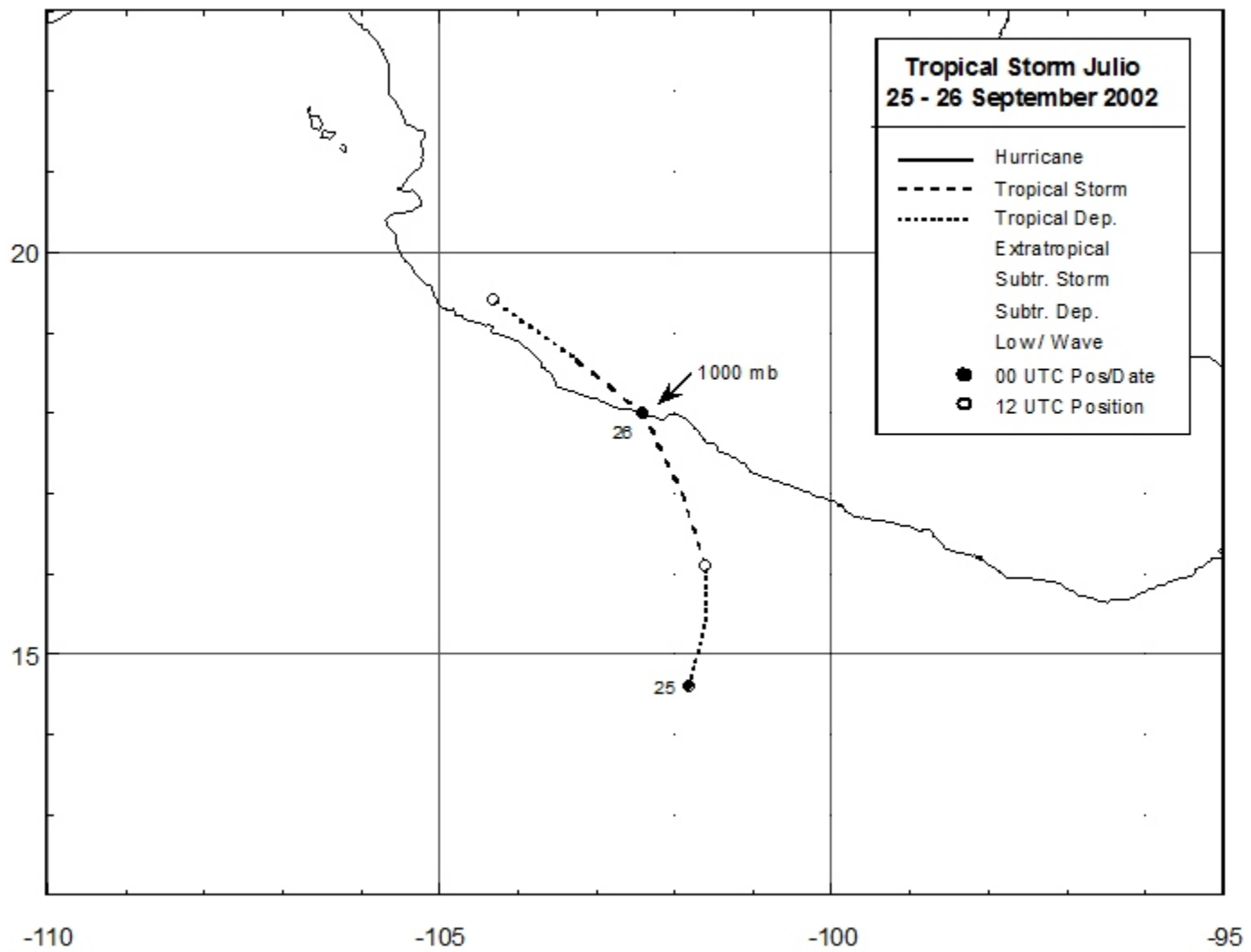


Figure 1. Best track positions for Tropical Storm Julio, 25 - 26 September 2002.

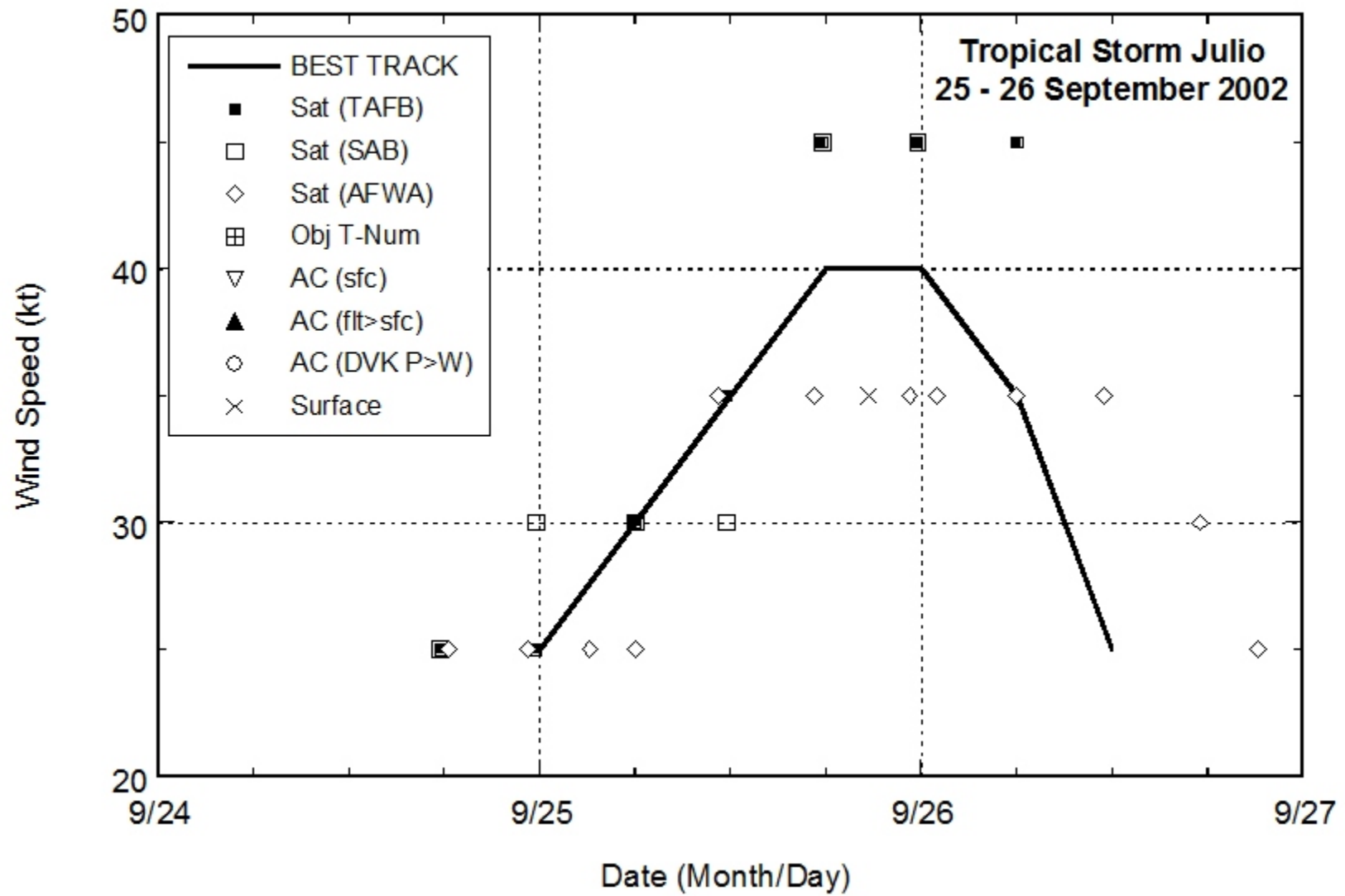


Figure 2. Selected wind observations and best track maximum sustained surface wind speed curve for Tropical Storm Julio, 25 - 26 September 2002.

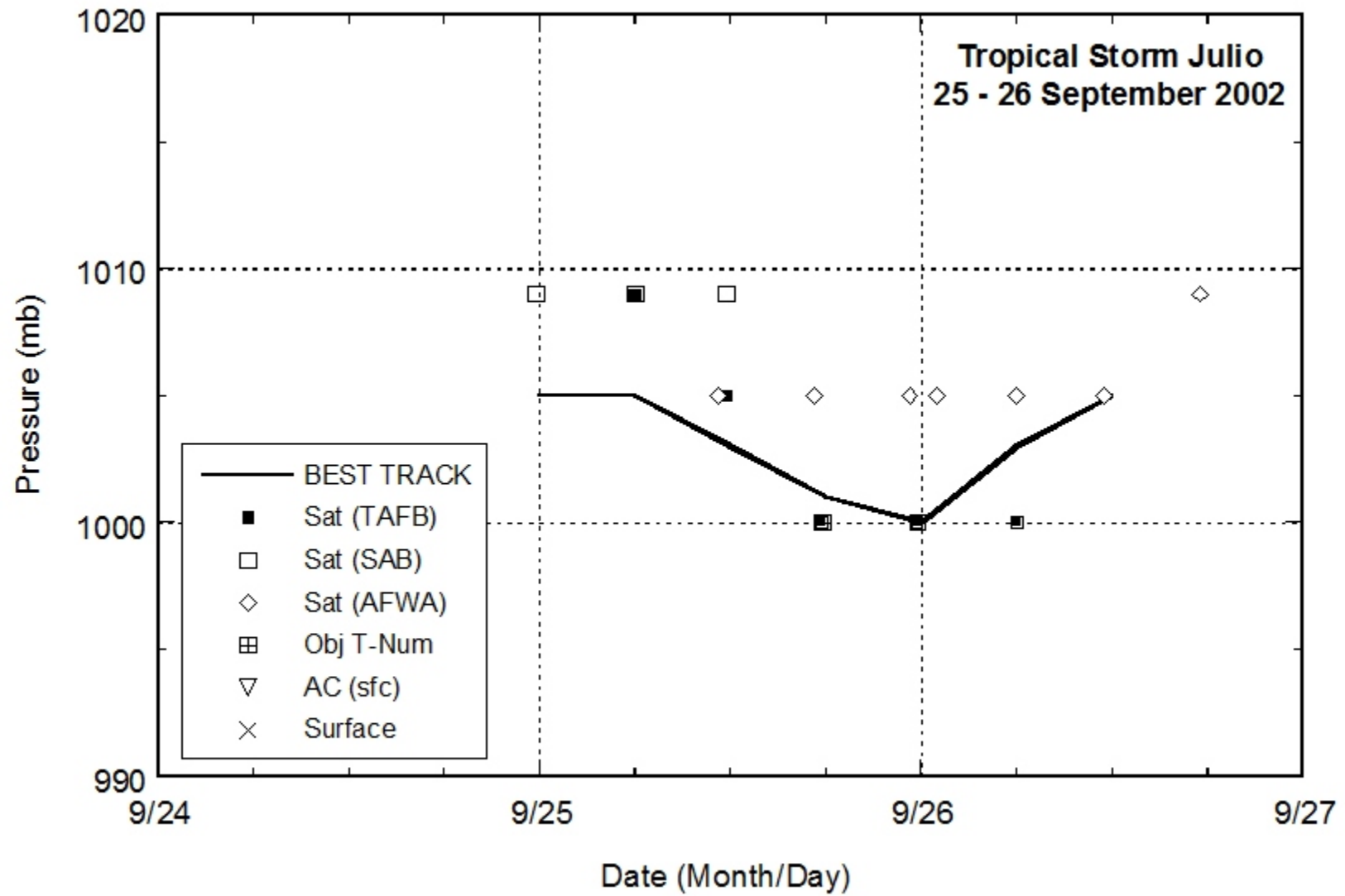


Figure 3. Selected pressure observations and best track minimum central pressure curve for Tropical Storm Julio, 25 - 26 September 2002.