

Tropical Cyclone Report
Tropical Storm Kristy
31 August - 3 September 2000

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Kristy was a short-lived, uneventful tropical cyclone that moved little during its existence.

a. Synoptic History

Kristy's development appears to be at least partly attributable to a tropical wave which moved off the coast of Africa on 12 August. The northern portion of this wave spawned Tropical Storm Chris east of the Leeward Islands on 17 August. Radiosonde data from the Lesser Antilles and satellite pictures show that the southern part of the wave continued westward into the Caribbean on 19 August. The wave was ill-defined as it moved westward over northern South America for the next few days. It crossed over Central America on the 22nd, and continuity of westward motion puts the wave at about 124°W on 28 August, in the same locale as an area of disturbed weather. The next day, a low-cloud swirl was identifiable in the vicinity of 12°N 128°W. By the 30th, the system crossed 130°W where there was an increase of deep convection just west of the center. Based on the development of deep convection close to the low-cloud center, it is estimated that Tropical Depression Thirteen-E formed at 0000 UTC 31 August. The system was centered about 1380 n mi west-southwest of Cabo San Lucas at that time.

The cyclone moved slowly west-northwestward for about a day, but steering currents soon collapsed, with weak low-level ridging to the north of the system and a band of low-level westerlies to its south. A weak steering regime persisted through the short life of the tropical cyclone, resulting in little overall motion. Also, the meandering depression remained in an environment of moderate easterly vertical shear, and this prevented significant strengthening. Around 0000 UTC 2 September, however, microwave imagery showed that the system had become a little better organized, suggesting that the cyclone became Tropical Storm Kristy at that time. Deep convection near the center fluctuated for a while, but by 1800 UTC 2 September, the low-level center became separated from the main area of convection, which indicated that the system weakened back to a tropical depression. Soon the low-level center became distorted and the cyclone dissipated by 0600 UTC 3 September, in a place not far from where it originated.

b. Meteorological Statistics

Table 1 lists Kristy's best track positions and intensities at six-hourly intervals, and Fig. 1 shows its track. Figures 2 and 3 depict the curves of maximum one-minute average "surface" (10 meters above ground level) wind speed and minimum central sea-level pressure for Kristy, 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).

c. Casualty and Damage Statistics

No reports of casualties or damages associated with Kristy have been received.

d. Forecast and Warning Critique

Because Kristy was so short-lived, there are no meaningful forecast verification statistics. In most of the official forecasts, Kristy was moved several degrees too far to the west, and the intensity of the system was generally over-predicted.

Table 1. Best track, Tropical Storm Kristy, 31 August - 3 September 2000.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
31 / 0000	13.0	131.4	1008	25	tropical depression
31 / 0600	13.2	132.2	1008	25	"
31 / 1200	13.4	132.6	1008	30	"
31 / 1800	13.5	133.0	1007	30	"
01 / 0000	13.7	133.2	1007	30	"
01 / 0600	13.8	133.2	1007	30	"
01 / 1200	13.8	133.3	1006	30	"
01 / 1800	13.5	133.3	1006	30	"
02 / 0000	13.2	133.3	1004	35	tropical storm
02 / 0600	13.2	133.5	1005	35	"
02 / 1200	13.6	133.4	1006	35	"
02 / 1800	14.3	133.2	1007	30	tropical depression
03 / 0000	14.7	133.2	1007	25	"
03 / 0600					dissipated
02 / 0000	13.2	133.3	1004	35	minimum pressure

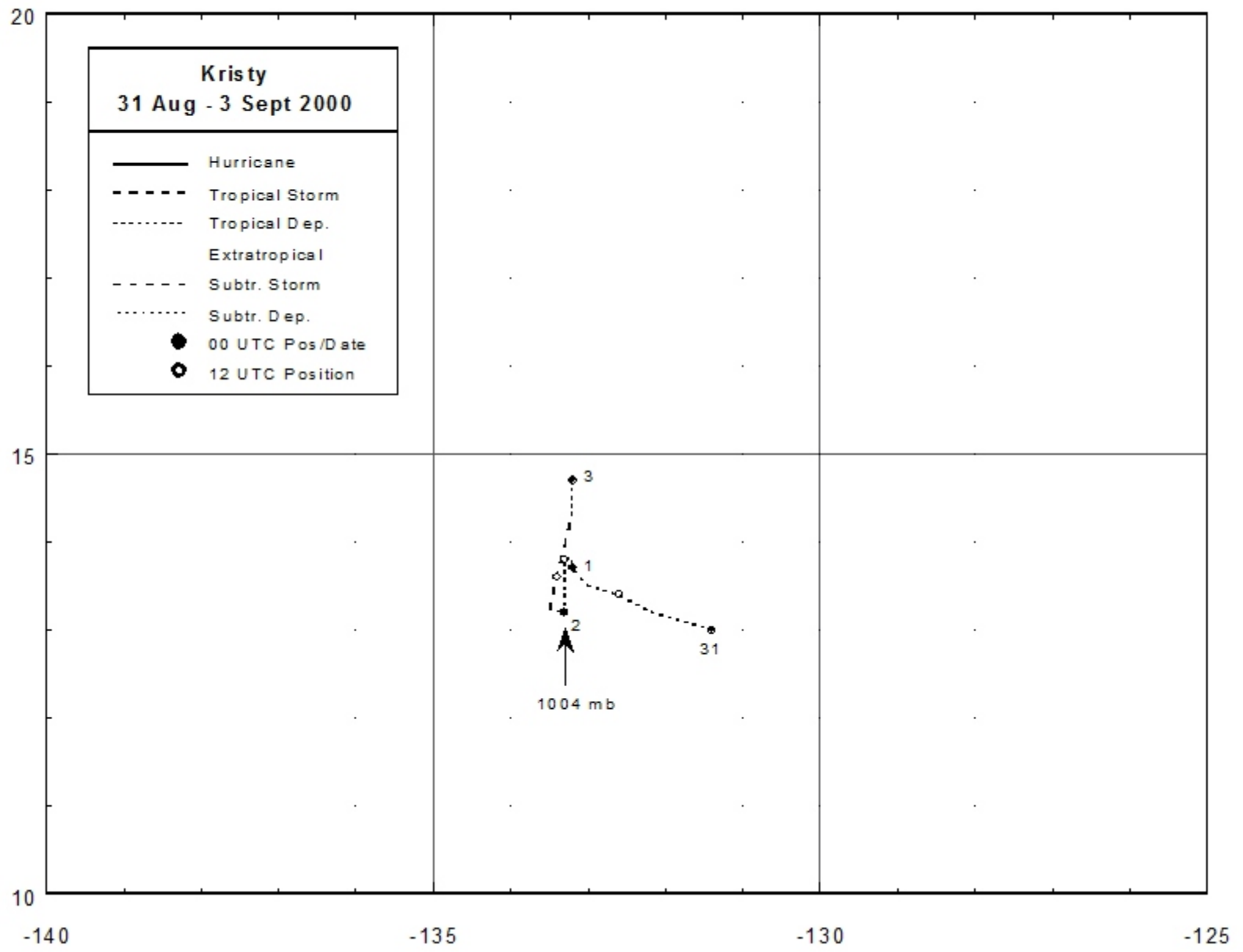


Fig. 1. Best track positions for Tropical Storm Kristy, 31 August - 3 September 2000.

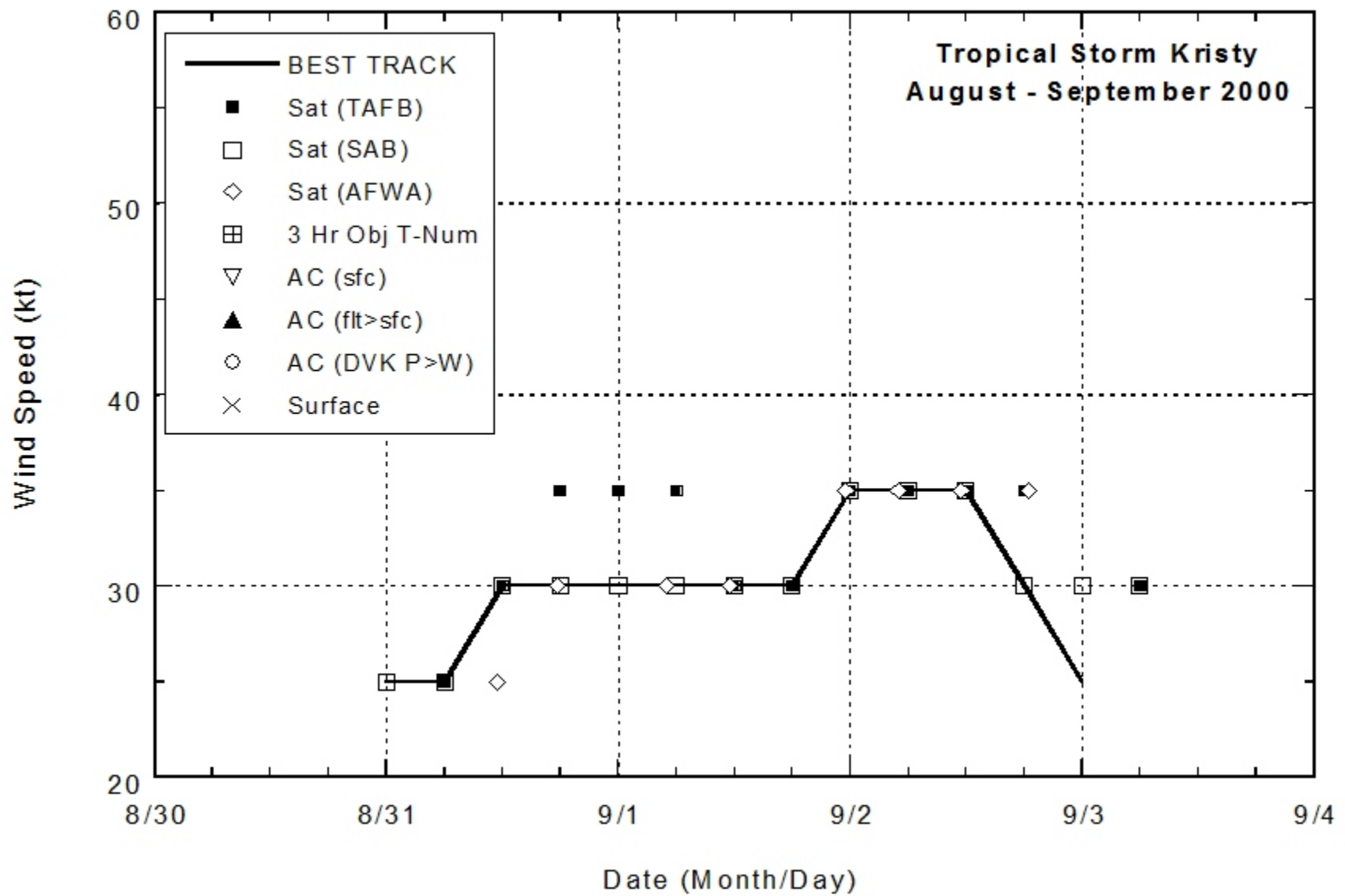


Fig. 2. Best track maximum sustained surface wind speed curve for Tropical Storm Kristy, 31 August - 3 September 2000.

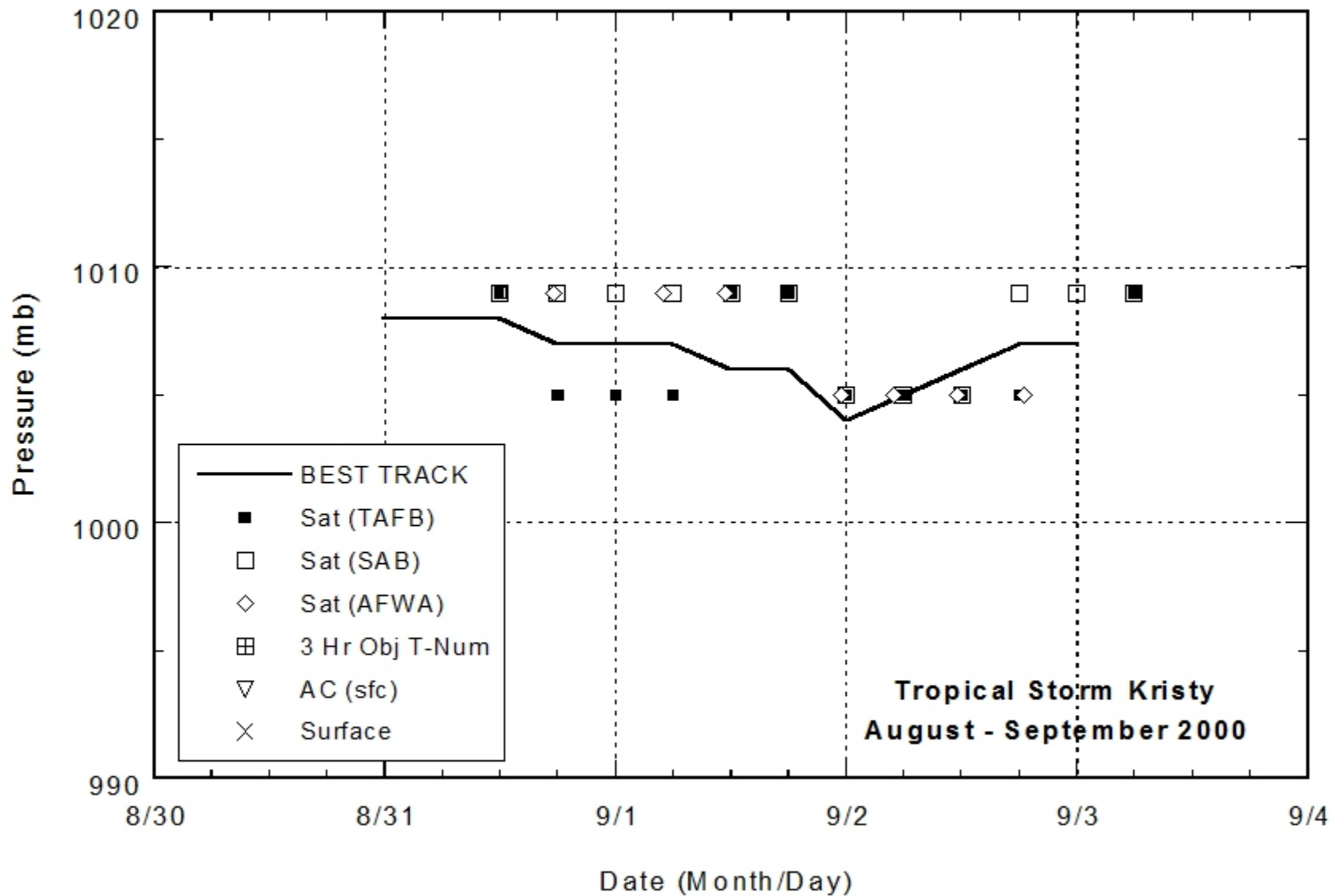


Fig. 3. Best track minimum central pressure curve and central pressure estimates for Tropical Storm Kristy, 31 August - 3 September 2000.