

Tropical Cyclone Report
Hurricane Narda
20-25 October 2001

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National Hurricane Center
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a. Synoptic History

Narda developed from a westward moving tropical wave that crossed Dakar, Senegal around the 3rd of October. The wave became convectively active after it crossed Central America when it produced a large burst of convection in the Bay of Campeche on the 15th. The southern portion of the wave continued westward over the Pacific waters south of Mexico and under favorable upper-level winds, it began to acquire banding features and but with several centers of circulation. The system finally consolidated and developed one center at 1200 UTC 20 October. It became a tropical depression about 1150 n mi southwest of Cabo San Lucas, Mexico. Moving on a west-northwest track, it intensified and reached tropical storm status later that day. The cloud pattern continued to become better organized and visible satellite imagery showed an intermittent eye feature, and it is estimated that Narda became a hurricane at 1800 UTC 21 October. Narda peak's intensity of 75 knots occurred at 0000 UTC 22 October. Thereafter, a gradual weakening began and strong shear took a toll on Narda. The tropical cyclone became a tight swirl of low clouds with intermittent convection on the 24th, as it moved westward steered by the low-level flow and crossing 140° W over the Central Pacific area of responsibility. It then continued westward as a tropical depression until dissipation. 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 best track west of 140° W was provided by the Central Pacific Hurricane Center.

b. Meteorological Statistics

Observations in Narda (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). Narda was upgraded to hurricane status based on 4.0 Dvorak T-numbers and the formation of a ragged eye. Its peak intensity of 75 knots was based on a 3-hour average objective T-numbers.

c. Casualty and Damage Statistics

There were no reports of damage or casualties associated with Narda.

d. Forecast and Warning Critique

Average official track errors for Narda were 30 (11), 54(9), 86(7), 86 (5), and 76(1) n mi for the 12, 24, 36, 48, and 72 h forecasts, respectively. The number in parenthesis corresponds to the number of forecasts. These errors are lower than the average official track errors for the 10-yr period 1991-2000 of 37, 68, 99, 128, and 185 n mi, respectively.

Average official intensity errors were 7, 13, 13,11, and 10 kt for the 12, 24, 36, 48, and 72 h forecasts, respectively. For comparison, the average official intensity errors over the 10-yr period 1991-2000 are: 7, 12, 16, 19, and 21 kt, respectively.

Watches and warnings for Narda were not required.

Table 1. Best track for Hurricane Narda, 20-25 October 2001.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage
20 / 1200	11.0	125.0	1006	30	tropical depression
20 / 1800	11.6	126.4	1004	35	tropical storm
21 / 0000	12.1	127.5	1002	40	"
21 / 0600	12.6	128.5	1000	45	"
21 / 1200	13.3	129.6	994	55	"
21 / 1800	13.9	130.6	987	65	hurricane
22 / 0000	14.5	131.4	980	75	"
22 / 0600	15.1	132.2	983	70	"
22 / 1200	15.5	133.3	983	70	"
22 / 1800	15.9	134.2	987	65	"
23 / 0000	16.1	135.2	990	60	tropical storm
23 / 0600	16.2	136.4	994	55	"
23 / 1200	16.3	138.1	1002	40	"
23 / 1800	16.3	139.6	1002	35	"
24 / 0000	16.4	141.2	1004	30	tropical depression
24 / 0600	16.5	142.4	1004	30	"
24 / 1200	16.7	143.5	1004	30	"
24 / 1800	16.9	144.4	1004	30	"
25 / 0000	16.9	145.5	1004	30	"
25 / 0600	16.9	146.5	1005	25	"
25 / 1200					dissipated
22 / 0000	14.5	131.4	980	75	minimum pressure

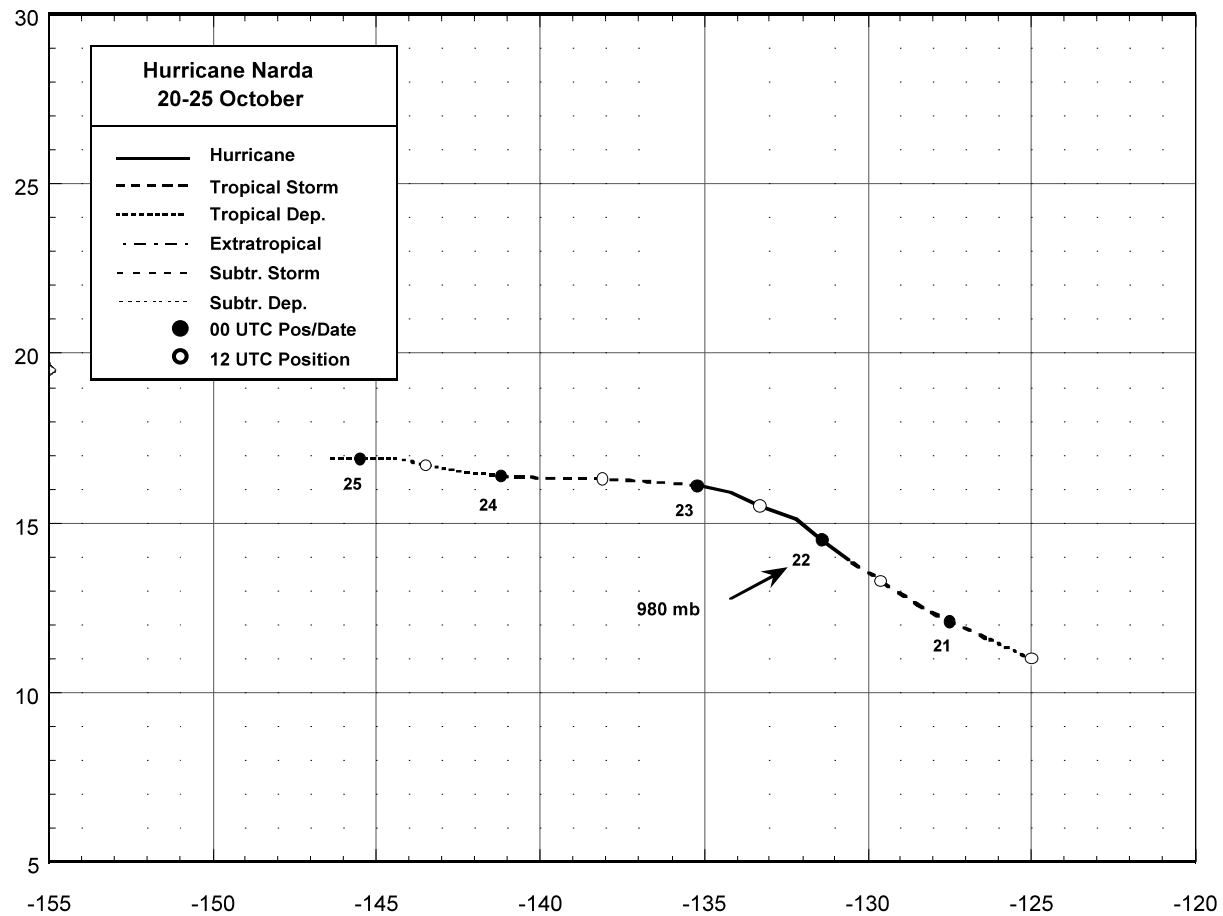


Figure 1. Best track positions for Hurricane Narda. 20-25 October 2001.

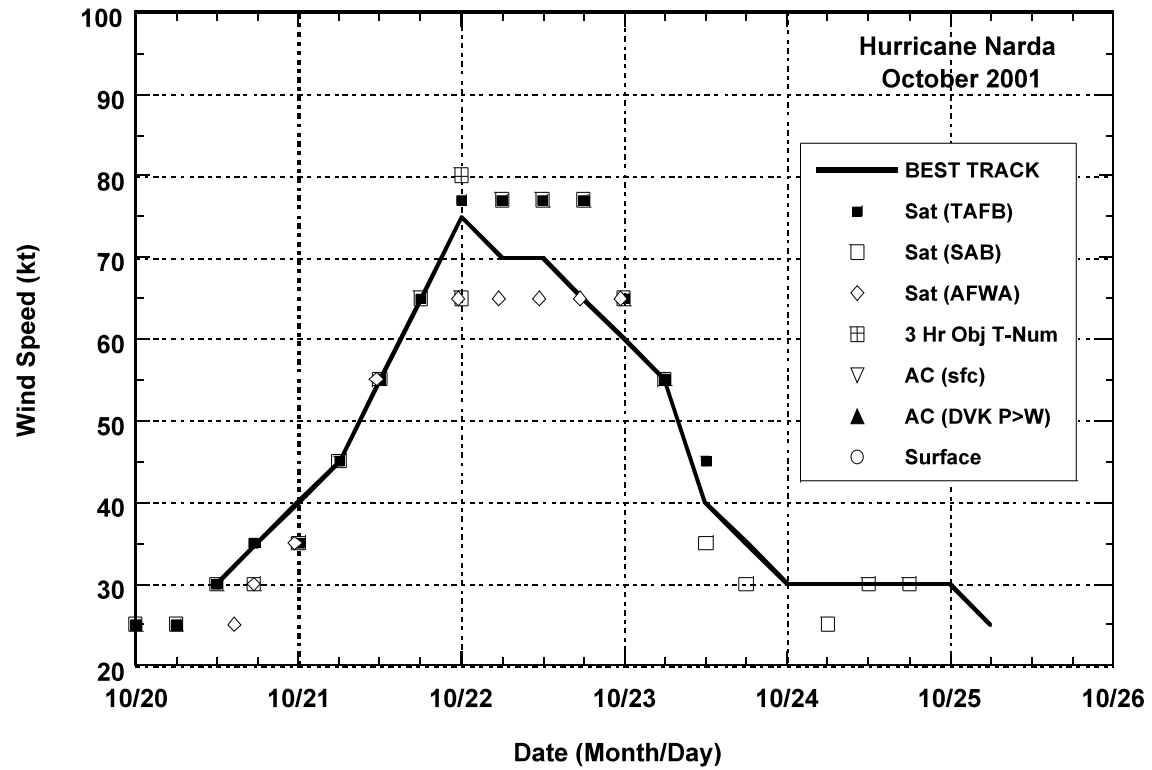


Figure 2. Best track maximum sustained surface wind speed curve for Hurricane Narda 20-25 October 2001.

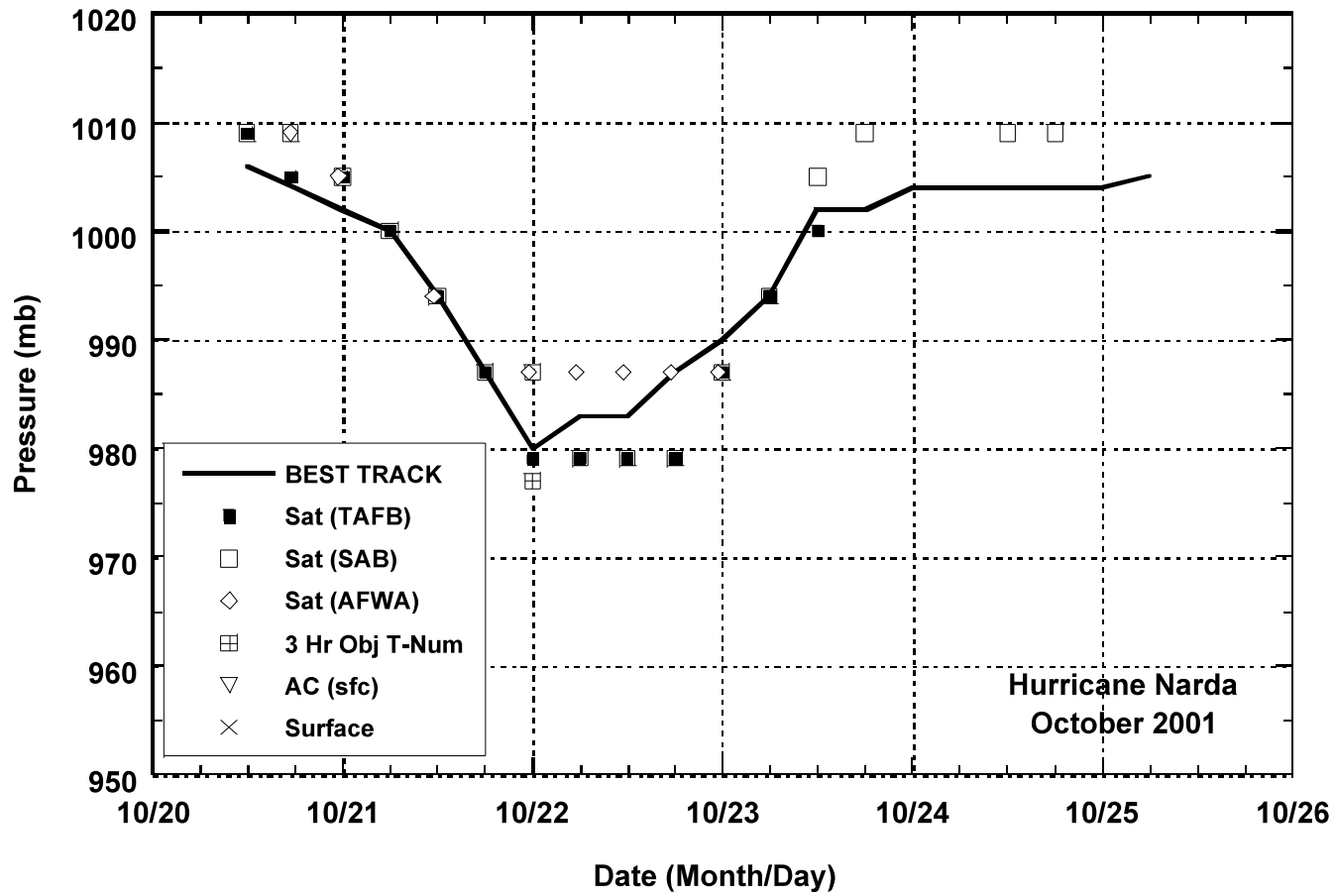


Figure 3. Best track minimum central pressure curve for Hurricane Narda . 20 -25 October 2001.