

PRELIMINARY REPORT
Tropical Storm Blanca
9-12 June 1997

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a. Synoptic History

A broad area of strong cyclonic low-level westerly flow became established over the eastern Pacific east of 100°W while Tropical Storm Andres was near the coast of El Salvador. A tropical disturbance grew within this perturbed environment and developed into Tropical Depression Two-E in the Gulf of Tehuantepec. Blanca's track begins at 1800 UTC 9 June. Under an upper-level ridge and over a warm ocean, the depression quickly became Tropical Storm Blanca. Initially, Blanca moved toward the west-northwest toward the coast of Mexico. However, a strong mid-level ridge over northern Mexico later steered the storm westward away from the coast.

Blanca reached its maximum intensity of 40 knots and a minimum pressure of 1002 mb at 0000 UTC 11 June. At that time, there was a good outflow and some banding features while the T-numbers were 2.5 and 3.0 on the Dvorak scale. On the contrary, surface observations indicated that Blanca's circulation was not well defined and the SSM/I 85 GHz images revealed that the tropical cyclone was quite small.

Soon thereafter, a weakening process began. Satellite and surface data suggested that the system no longer had a closed circulation at 1200 UTC 12 June. Blanca was then declared dissipated.

Blanca's track is shown in Fig. 1. Table 1 is a listing, at six-hour intervals, of the best-track position, estimated minimum central pressure and maximum 1-minute surface wind speed.

b. Meteorological Statistics

The best track pressure and wind curves as a function of time shown in Figures 2 and 3 are based on satellite intensity estimates from the Tropical Analysis and Forecast Branch (TAFB), estimates from the Satellite Analysis Branch (SAB) and from the Air Force Global Weather Center (AFGWC).

c. Casualty and Damage Statistics

There are no reports of damages or casualties associated with

Blanca.

d. Forecast and Warning Critique

Initially, most of the guidance and the official forecast, indicated a west-northwest track toward the coast of Mexico. This prompted a tropical storm warning for a portion of the coast from Puerto Angel to Acapulco at 0300 UTC 10 June. Warnings were discontinued the next day when Blanca turned westward away from the coast. Since Blanca was a short-lived storm, the evaluation of the average forecast track errors is not very meaningful.

Blanca never reached hurricane strength as anticipated in the official forecast and suggested by SHIPS97 (intensity forecast model). The official forecast was based on the fact that Blanca was moving over surface temperatures that were 2.5° C warmer than normal and under a high pressure ridge. It is not clear why the intensification process stopped. On the other hand, global and the GFDL models consistently weakened the tropical cyclone.

Figure Captions:

- Fig. 1. Best track positions for Tropical Storm Blanca, 9-12 June 1997.
- Fig. 2. Best track one-minute surface wind speed curve for Tropical Storm Blanca
- Fig. 3. Best track minimum central pressure curve for Tropical Storm Blanca.

Table 1. Preliminary best track, Tropical Storm Blanca, 9-12 June, 1997.

Date/time (UTC)	Position Lat. °N	Lon. °W	Pressure (mb)	Wind speed (kt)	Stage
9/1800	14.1	94.5	1009	30	TD
10/0000	14.6	95.6	1005	35	TS
0600	14.8	96.9	1003	40	"
1200	14.8	98.4	1003	40	"
1800	15.0	100.0	1003	40	"
11/0000	15.0	101.5	1002	40	"
0600	15.2	102.9	1004	35	"
1200	15.5	104.3	1005	35	"
1800	15.8	105.7	1006	35	"
12/0000	16.2	107.2	1007	30	TD
0600	16.6	108.7	1008	25	"
1200					Dissipated

11/0000 15.0 101.5 1002 40 Minimum Pressure

TD: Tropical Depression

TS: Tropical Storm

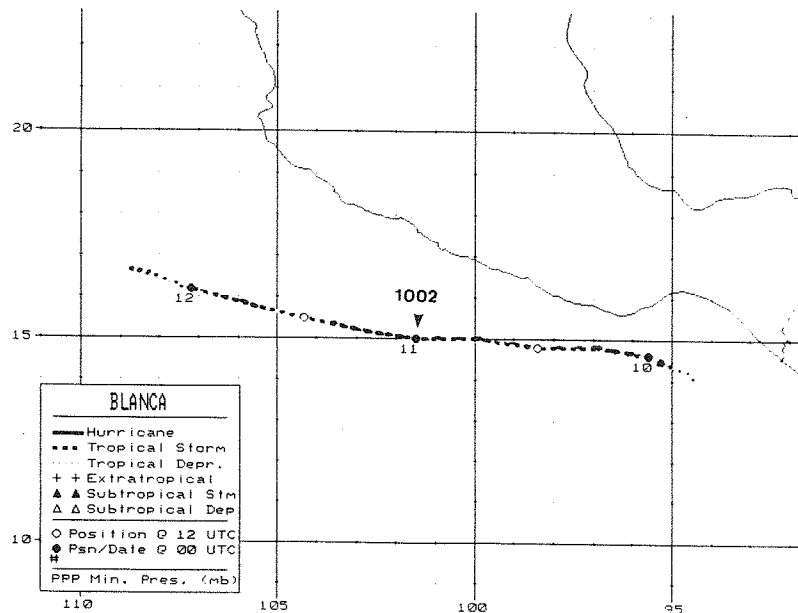


Fig. 1. Best track positions for Tropical Storm Blanca, 9-12 June 1997.

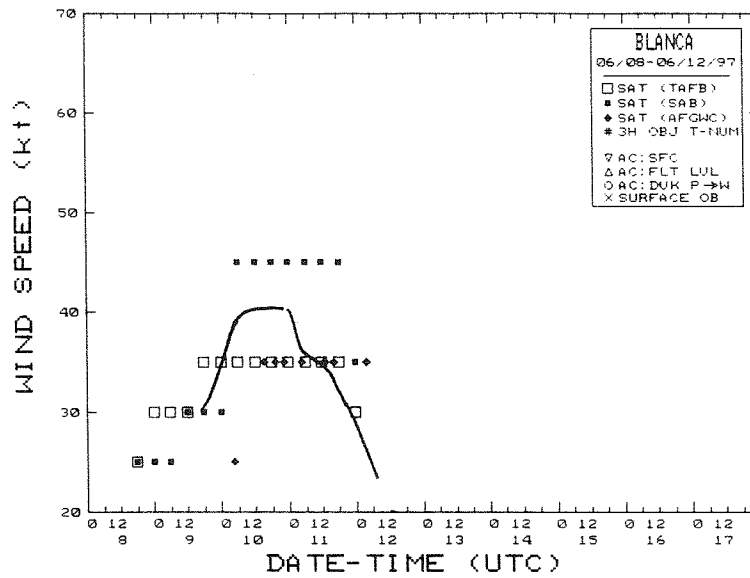


Fig. 2. Best track one-minute surface wind speed curve for Tropical Storm Blanca

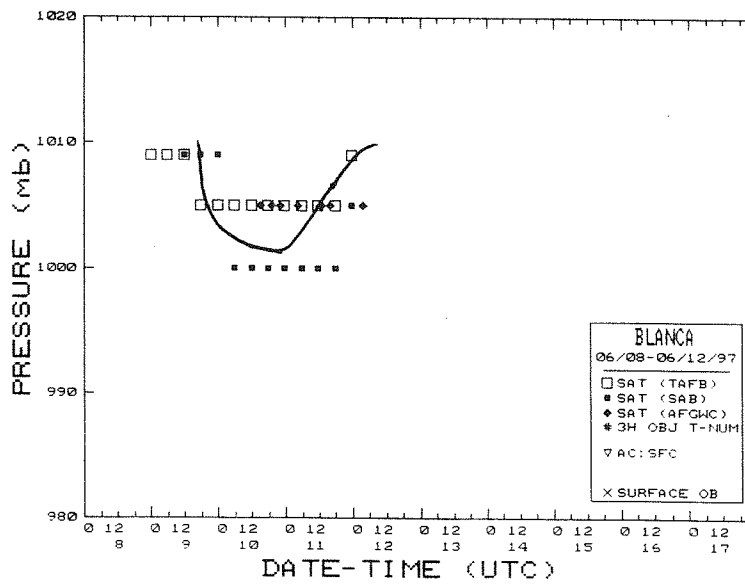


Fig. 3. Best track minimum central pressure curve for Tropical Storm Blanca.