

**TROPICAL STORM CLARA**  
 BEST TRACK TC-09W  
 07 AUG-16 AUG 88  
 MAX SFC WIND 45KT  
 MINIMUM SLP 991MB

**LEGEND**

- /—/— 6-HOUR BEST TRACK POSIT
- A SPEED OF MOVEMENT
- B INTENSITY
- C POSITION AT XX/0000Z
- TROPICAL DISTURBANCE
- TROPICAL DEPRESSION
- TROPICAL STORM
- TYPHOON
- ◆ SUPER TYPHOON START
- ◇ SUPER TYPHOON END
- ◆◆◆◆ EXTRATROPICAL
- ◆◆◆◆ SUBTROPICAL
- \*\*\* DISSIPATING STAGE
- F FIRST WARNING ISSUED
- L LAST WARNING ISSUED

DTG	SPEED	INTENSITY
10/1800Z		40
11/0000Z	2	45
11/0600Z	2	45
11/1200Z	1	35
11/1800Z	4	35
12/0000Z	6	35

## TROPICAL STORM CLARA (09W)

Tropical Storm Clara was the second of five significant tropical cyclones to develop during August. Although hindered by vertical wind shear, Clara proved to be very persistent. Even after the central deep convection was stripped away and the final warning issued, the residual cyclonic vorticity could be identified four days later as a spiral of low-level stratocumulus on the satellite imagery.

Clara was originally detected on satellite imagery as an area of weakly organized convection about 540 nm (1,000 km) north of

Wake Island and it was mentioned on the Significant Tropical Weather Advisory on 070600Z August. Easterly flow along the southern edge of the subtropical ridge steered the disturbance westward. Over the next 16-hours the convection persisted and became more organized. The satellite intensity analysis at 072126Z indicated a shearing-type cloud pattern with sustained surface winds of 30 kt (15 m/sec) and an exposed low-level circulation defined by cumulus lines spiraling inwards. The first Tropical Cyclone Formation Alert followed at 072330Z. A second Alert was issued at

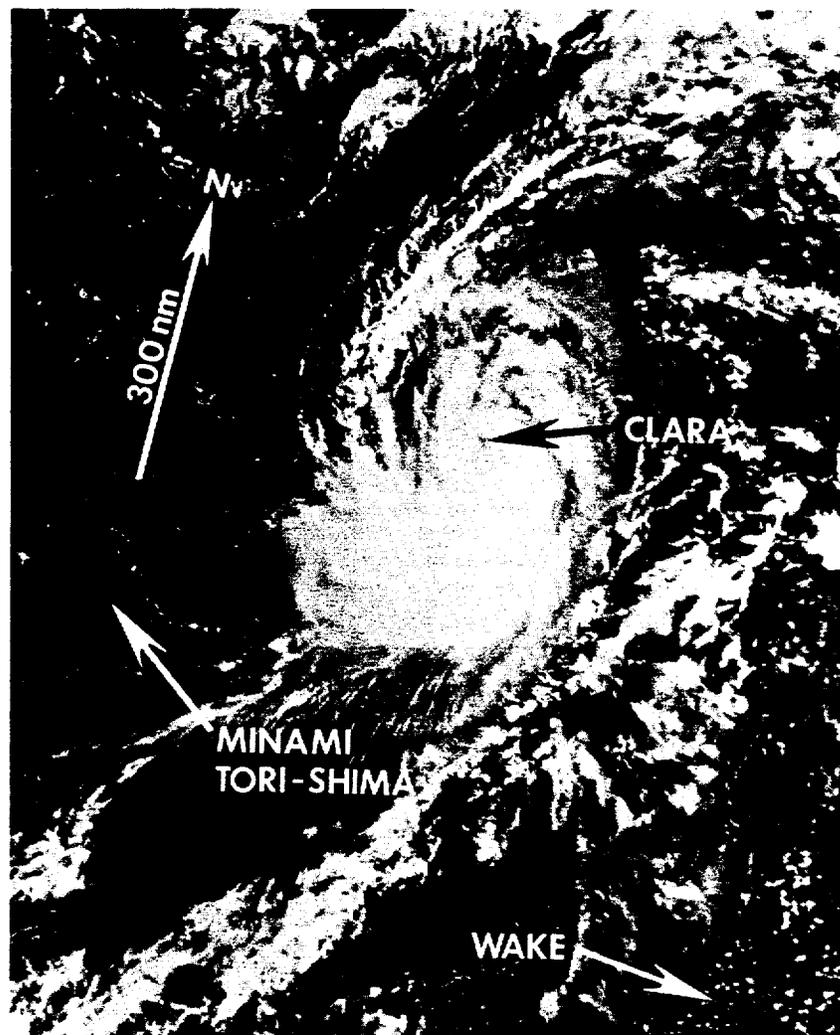


Figure 3-09-1. Tropical Storm Clara, shortly after the first warning (102201Z August NOAA visual imagery).

081600Z for procedural, not meteorological, reasons. However, the disturbance experienced stronger vertical wind shear, and its deep convection was displaced more than 90 nm (167 km) north of the circulation center. Based on this, the second Alert was canceled at 090600Z.

Increased central convection on 10 August and an evaluation of satellite imagery and synoptic data, which indicated 20 to 30 kt (10 to 15 m/sec) sustained surface winds, resulted in a third Alert at 100100Z. As the disturbance continued to move westward, its upper-level outflow improved and its central convection increased. The first warning on

Tropical Storm Clara was issued at 101915Z. Sustained surface winds at that time were estimated to be 35 kt (18 m/sec) (Figure 3-09-1). Due to the close proximity to regions of stronger vertical wind shear, Clara was not forecast to intensify beyond the 40 to 45 kt (21 to 23 m/sec) range.

As ridging to the west increased, Clara made a small counterclockwise loop while maintaining its 35 kt (18 m/sec) intensity. Clara reached a peak intensity of 45 kt (23 m/sec) at 110000Z and began moving northeastward (Figure 3-09-2) at 110600Z. Analysis of satellite imagery on 12 August

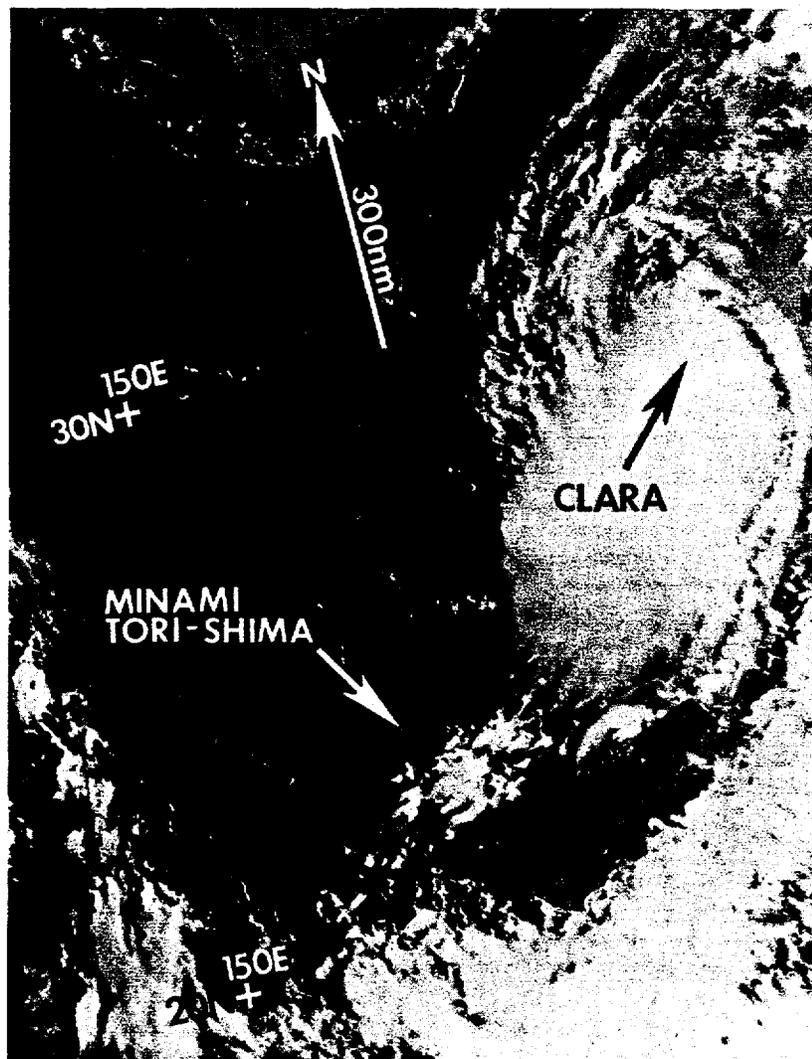


Figure 3-09-2. Clara near peak intensity (110513Z August NOAA visual imagery).

indicated Clara had weakened to 30 kt (15 m/sec) sustained surface winds as its main convection was displaced southeast of the low-level circulation center. The final warning on the system was issued at 120000Z. The remnants of Clara tracked northward,

northwestward and, then again, northward for the next four days in response to steering flow around the subtropical ridge to its east. By 16 August, the remains of the system were no longer identifiable. No damage reports relating to Clara were received.