

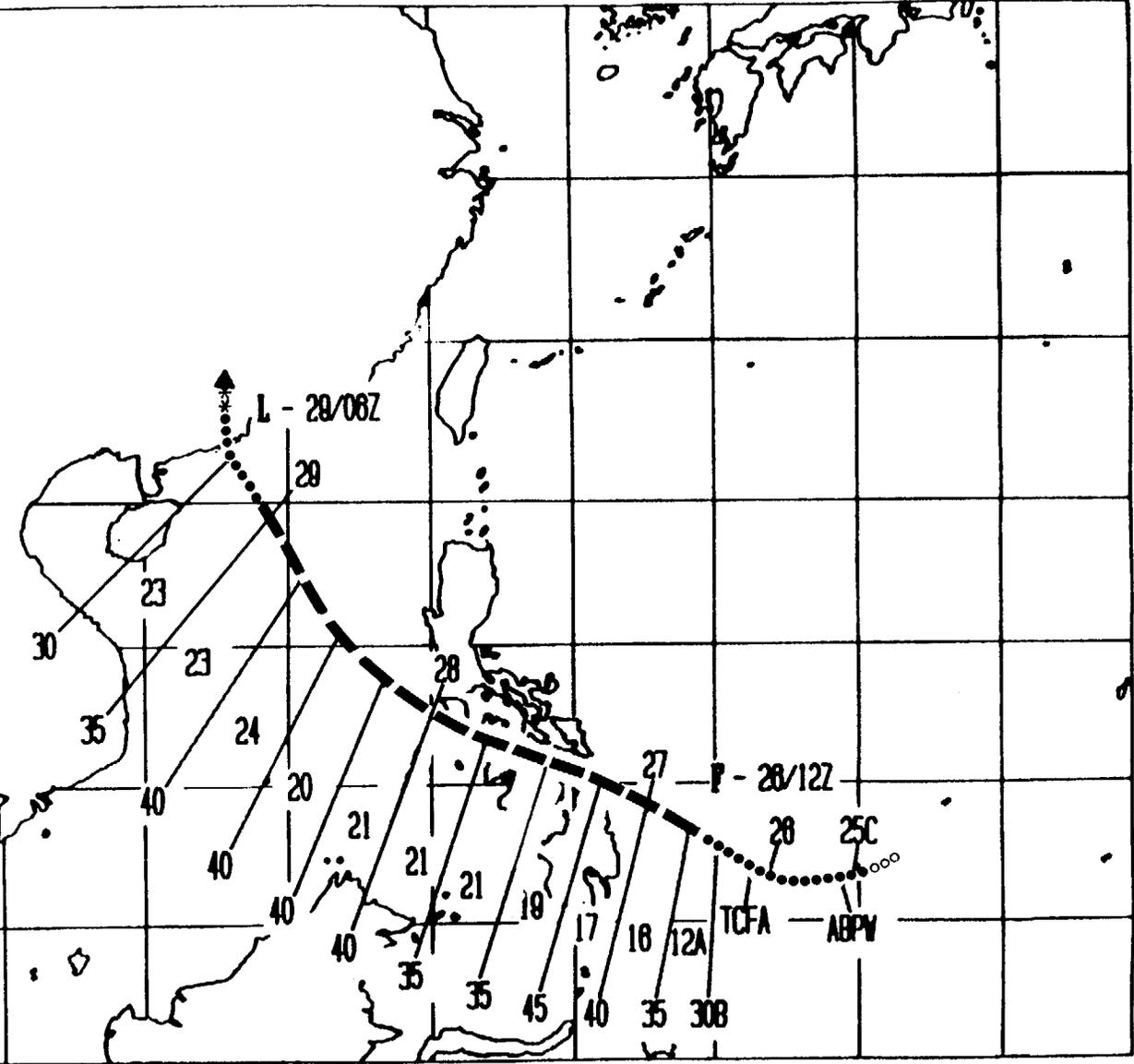
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TROPICAL STORM VANESSA
BEST TRACK TC-05W
 24 JUN-29 JUN 88
 MAX SFC WIND 45KT
 MINIMUM SLP 991MB

LEGEND

- 6-HOUR BEST TRACK POSIT
- A SPEED OF MOVEMENT
- B INTENSITY
- C POSITION AT XX/0000Z
- oooooo 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



48

TROPICAL STORM VANESSA (05W)

The third of three significant tropical cyclones to develop during the month of June, Vanessa was the first "straight-runner" of the year in the western North Pacific. It tracked across the Philippine Islands and into the South China Sea before dissipating over southern China.

As Thad (04W) moved northeastward and weakened over the Philippine Sea east of the island of Okinawa, Vanessa was first detected at 241200Z by satellite imagery analysts 125 nm (232 km) east of Koror in the western Caroline Islands. A flare-up of convection at 241800Z resulted in an increase in high clouds. The upper-level outflow began to show organization (Figure 3-05-1). At 250600Z, the tropical disturbance was described

on JTWC's Significant Tropical Weather Advisory as an area of persistent convection 55 nm (102 km) southeast of Koror. Synoptic data indicated a well organized low-level circulation embedded in the near-equatorial trough. Satellite imagery revealed a Tropical Upper-Tropospheric Trough (TUTT) low located 250 nm (463 km) northeast of the disturbance's low-level circulation. The upper-level cold low interrupted the disturbance's upper-level outflow in its northeast quadrant. At 260440Z, a Tropical Cyclone Formation Alert was issued when satellite imagery revealed increased convection. The TUTT low had weakened and passed north of the low-level circulation, resulting in divergent upper-level flow across the disturbance.

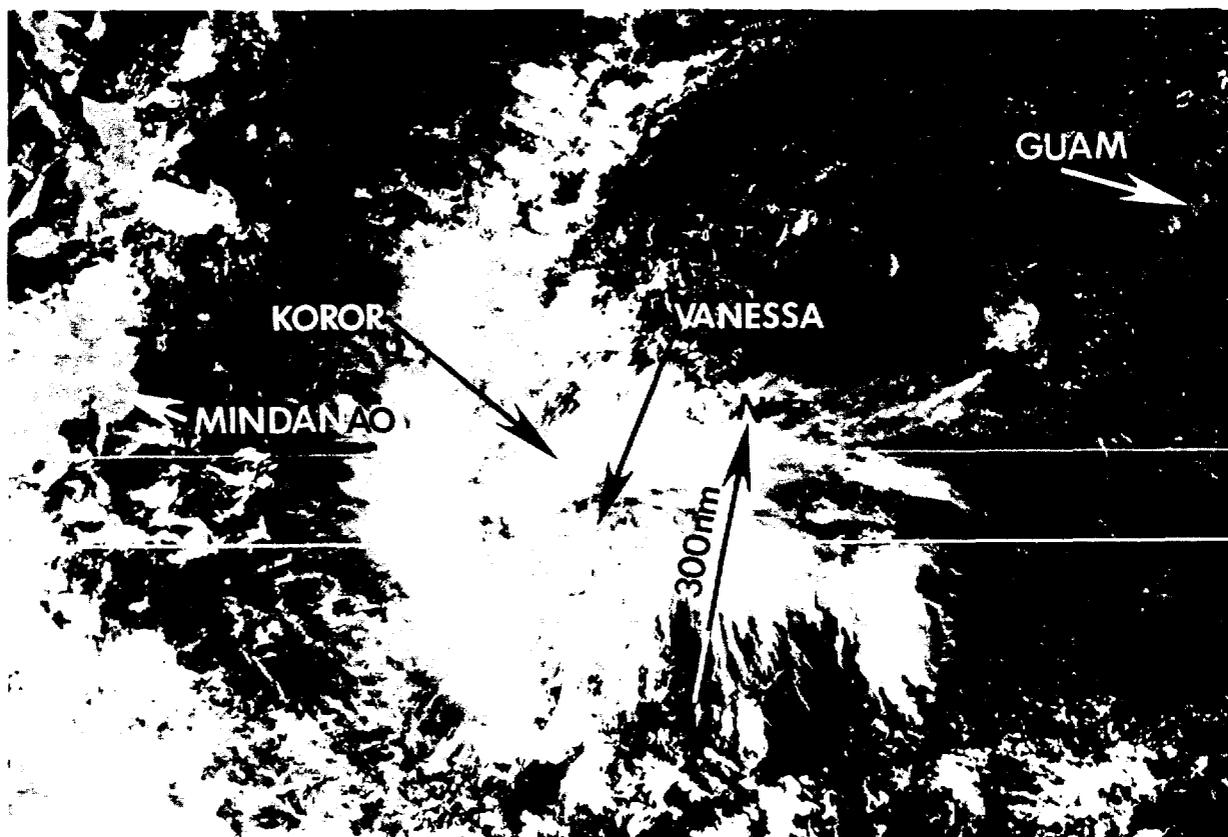


Figure 3-05-1. Vanessa as a tropical disturbance (250028Z June DMSP visual imagery).

The first warning followed at 261200Z, when the tropical disturbance was upgraded to Tropical Depression 05W, based on continued improvement in the system's organization and convection. Satellite intensity analysis indicated surface wind speeds of 30 to 35 kt (15 to 18 m/sec). The system continued to intensify. At 270000Z, Vanessa (Figure 3-05-2) was again upgraded, this time to a tropical storm, based on a satellite intensity analysis of

35 kt (18 m/sec) surface winds. With winds of 45 kt (28 m/sec), Vanessa made landfall over the Republic of the Philippines, at 270600Z, between the islands of Samar and Mindanao.

The tropical cyclone tracked rapidly across the central Philippine Islands, as a weak tropical storm, and entered the South China Sea at 280200Z. Vanessa continued its rapid movement as it tracked across the South China

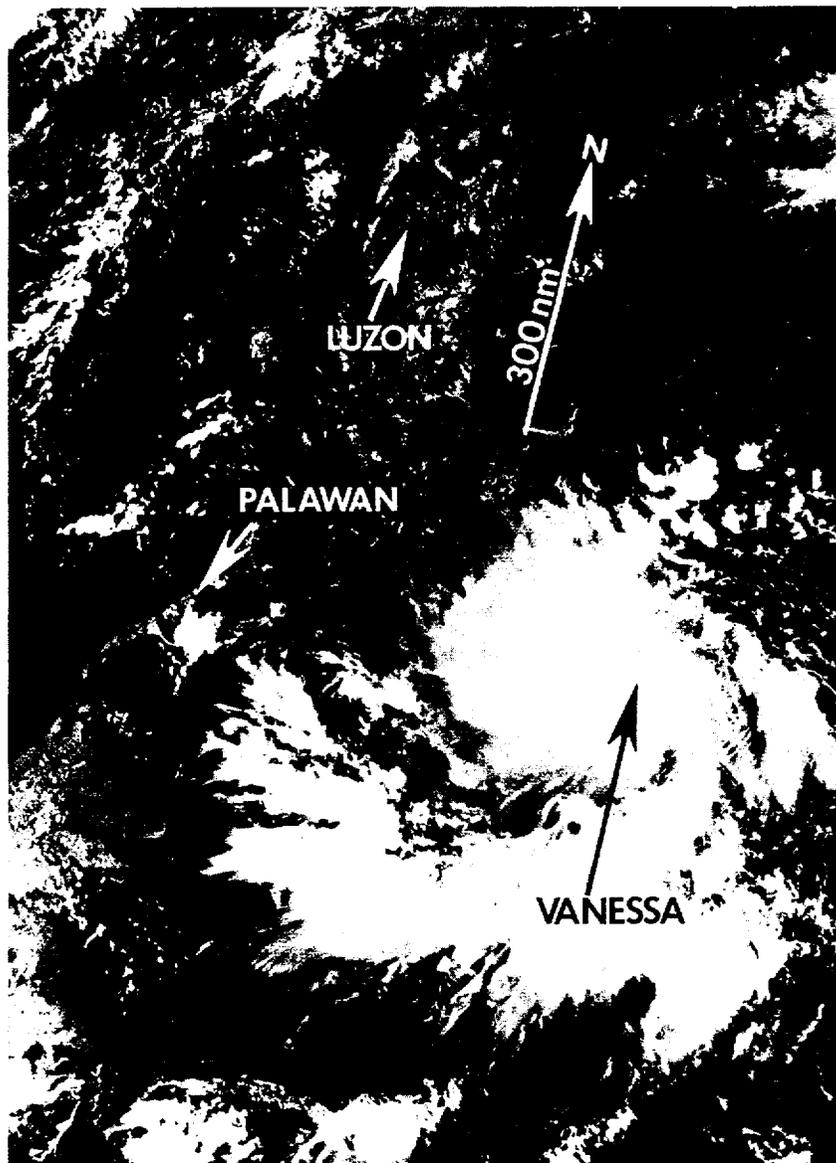


Figure 3-05-2. Nearing peak intensity, Vanessa approaches the central Philippine Islands (270130Z June DMSP visual imagery).

Sea. Despite increased vertical wind shear, Vanessa tenaciously resisted weakening until 290000Z. Over the next six hours, the deep convection was stripped away from the low-level circulation center (Figure 3-05-3) and the final warning followed at 290600Z. Vanessa

made landfall just west of Macao on the south coast of China at 290800Z. Nearby land stations reported 35 kt (18 m/sec) maximum surface winds. No reports of major damage were received.

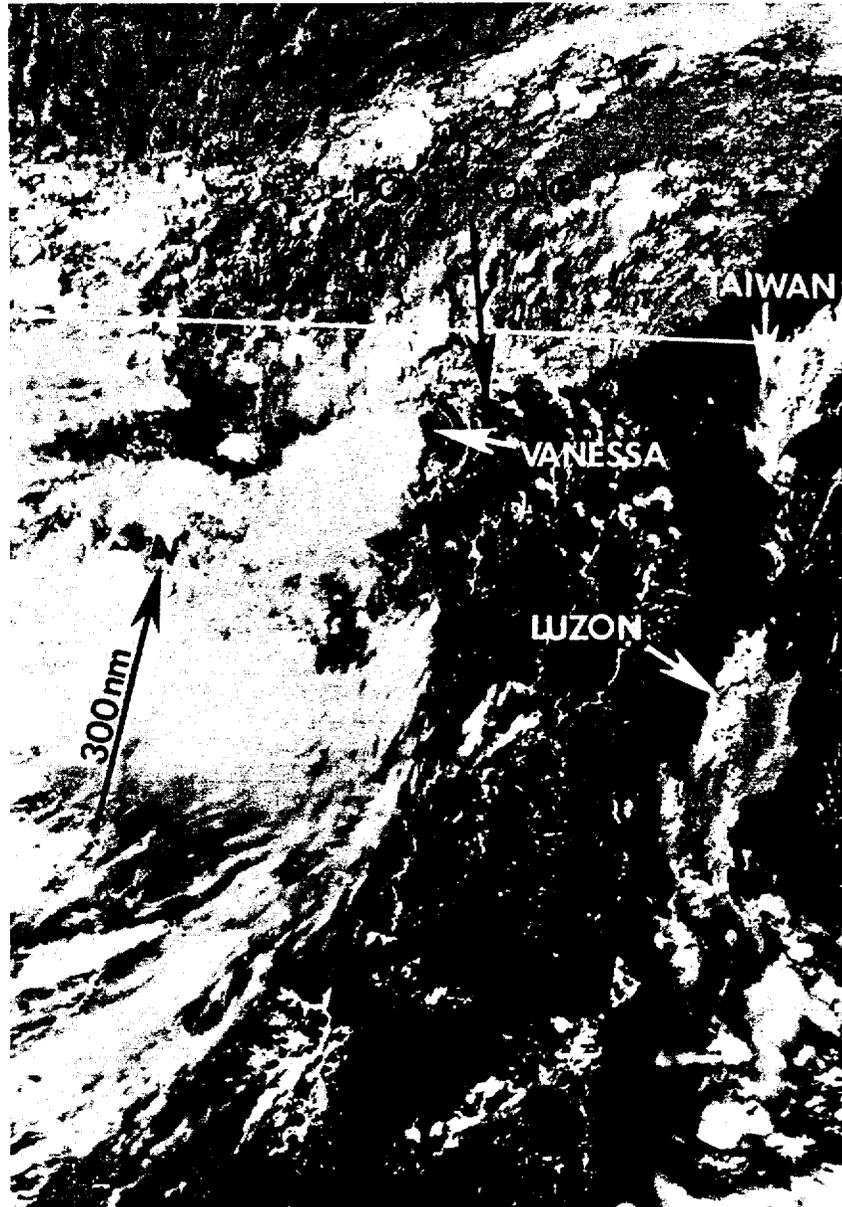


Figure 3-05-3. Vanessa's exposed low-level circulation, shortly before the system made landfall near Macao (290802Z June NOAA visual imagery).