

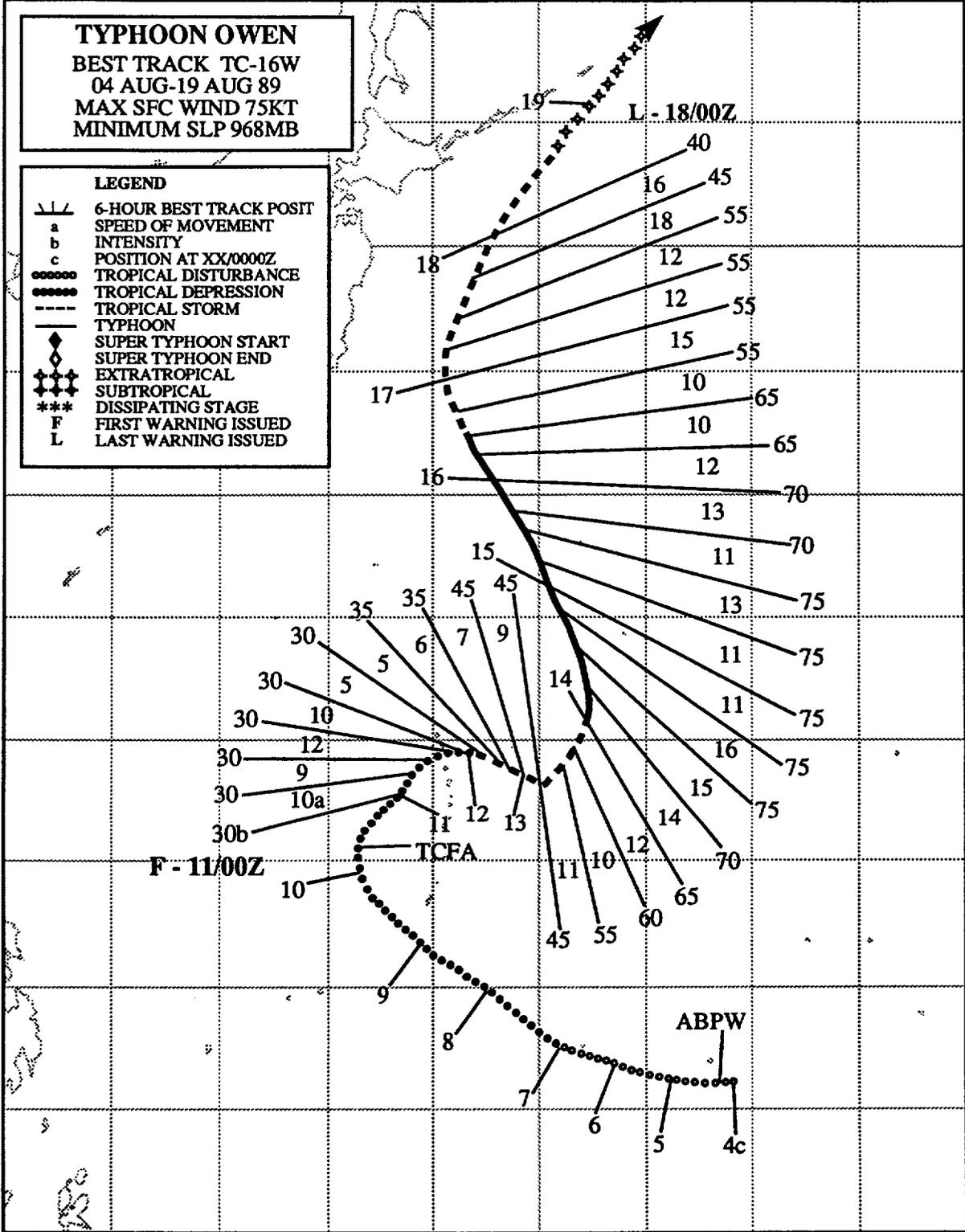
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TYPHOON OWEN
BEST TRACK TC-16W
04 AUG-19 AUG 89
MAX SFC WIND 75KT
MINIMUM SLP 968MB

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



TYPHOON OWEN (16W)

Typhoon Owen generated in the monsoon trough and intensified slowly while moving on a general northwest to northward track. Due to the proximity* of Typhoon Nancy (17W) to the east, Owen took more than a week to reach tropical storm intensity. Later, its binary interaction with Typhoon Nancy (17W) resulted in an unusual southeastward track during its developing stage. Then, the tropical cyclone followed Nancy (17W) through recurvature, extratropical transition and into high latitudes.

The initial disturbance that spawned Typhoon Owen began as an area of convection in the monsoon trough south of Pohnpei in the eastern Caroline Islands. After the convection persisted for 24 hours, JTWC included the disturbance as a suspect area on the Significant Tropical Weather Advisory at 040600Z. Synoptic data indicated a weak low-level circulation under easterly flow aloft. During the next six days, the amount and organization of the convection associated with the disturbance fluctuated as the monsoon trough repositioned further north. Finally convection consolidated beneath an upper-level anticyclone, prompting JTWC to issue a Tropical Cyclone Formation Alert at 100600Z.

During the next 18 hours, the system continued to organize, although its upper-level outflow was restricted by a TUTT cell centered four to five degrees latitude to the north-northwest. At 110000Z, JTWC issued a 36 hour tropical depression warning on Tropical Depression 16W and forecast no intensification because of its proximity to the TUTT cell. The tropical cyclone tracked northeastward along the monsoon trough axis and through the northern Mariana Islands for the next 18 hours, influenced both by the TUTT cell and by Tropical Depression 17W. By 120000Z, a well-defined upper-level anticyclone had established itself over Owen, and the system improved its organization and convection. Anticipating further intensification, JTWC transitioned to a regular 72-hour warning. At 121200Z, the depression reached tropical storm intensity based on satellite intensity estimates. By this time, a binary interaction with Nancy (17W) was beginning to influence Owen's track and resulting in a slow southeastward movement until 131200Z. (For specific diagrams of this binary interaction, please see the following article on Typhoon Nancy (17W). Owen became a typhoon at 131800Z and reached its peak intensity of 75 kt (38 m/sec) at 141200Z.

* If formative tropical cyclones are separated by distances of less than fifteen degrees, interaction (at the expense of one, or the other) between the two circulations is often observed.

As Owen followed Nancy (17W) to the north-northwest, the recently formed eye began to fill (Figure 3-16-1). With the subtropical ridge close by, at 161500Z, Owen weakened to tropical storm intensity and began to be buffeted by upper-level westerly flow. Twelve hours later Owen recurved around the ridge and

accelerated to the northeast. At 180000Z, JTWC issued its final warning on Owen as it crossed 40° north latitude and was becoming extratropical. During its lifetime, Owen was a threat primarily to maritime interests. No reports of damage or loss of life were received.

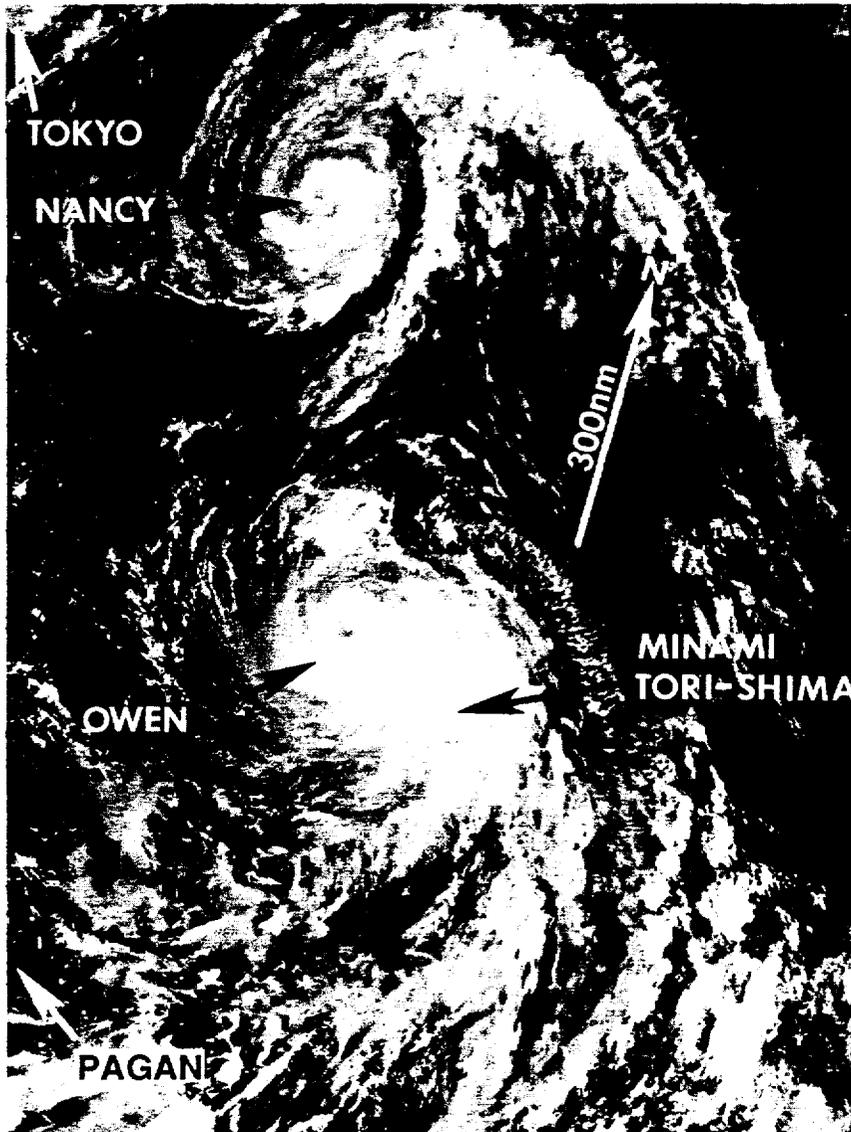


Figure 3-16-1. Typhoon Owen with a cloud filled eye follows Nancy (17W) north-northwestward (142243Z August DMSP visual imagery).