

KATHY

The first typhoon of the 1976 season, a January storm, was initially detected by ship reports on the morning of the 25th as a cyclonic circulation unusually close to the equator (2N - 149E). By the morning of the 26th meteorological satellite data indicated a region of intense convective activity centered near 2.3N - 149.0E. During the next three days, the disturbance destined to become Typhoon Kathy slowly intensified as it moved northeastward and then northwestward (Fig. 4-1). On the morning of the 29th reconnaissance aircraft indicated that the circulation was nearly at tropical storm intensity, and the first warning was issued at 0000Z on the 28th. During the next 48 hours, Tropical Storm Kathy moved northwestward at 12 to 13 kt. Reconnaissance aircraft at 2143Z on the 29th reported the center of Kathy over Ulithi Atoll, and further indicated the absence of an eye or wall cloud. At 0000Z on the 30th, when Kathy was 40 nm to the northwest, Ulithi recorded winds of 25 kt and a sea level pressure of 1001.2 mb.

Later on the 30th a deep mid-latitude trough moved eastward into the Philippine Sea, weakening the mid-tropospheric subtropical ridge and providing an efficient outflow channel to the mid-latitude

westerlies. In response, Kathy intensified into a typhoon and moved northward, slowing to 10 kt. By that evening, the typhoon was drifting north through the weakness in the ridge, still intensifying slowly.

Late on the 30th, Kathy passed the point of recurvature and began to move north-northeastward as the slow moving mid-latitude trough to the west dug deeper toward the tropics (Fig. 4-2). Twelve hours later it attained its maximum intensity of 80 kt. At 0504Z on the 31st reconnaissance aircraft recorded maximum flight level winds of 90 kt and a minimum sea level pressure of 969 mb. At 0600Z a ship, JQFN, reported 55 kt winds 160 nm northeast of Kathy.

Embedded in westerly flow Kathy began to accelerate to the northeast. By the afternoon of February 1st the storm was on an east-northeast track moving at more than 20 kt, and had weakened into a tropical storm. The strong westerly shear and cooler temperatures rapidly stripped the storm of its tropical characteristics, and by 1800Z on the 1st Kathy had become extratropical. This extratropical low later produced copious precipitation over the Hawaiian Islands with Wailua, Oahu recording 18.81 inches of rain during the 6th, 7th and 8th of February.

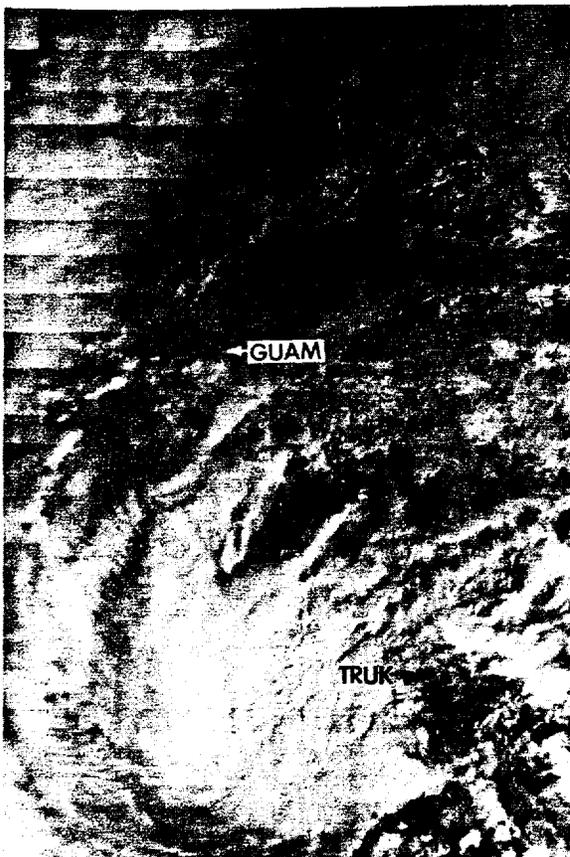


FIGURE 4-1. Kathy during early development 250 nm south of Truk, 26 January 1976, 2059Z. (DMSP imagery)

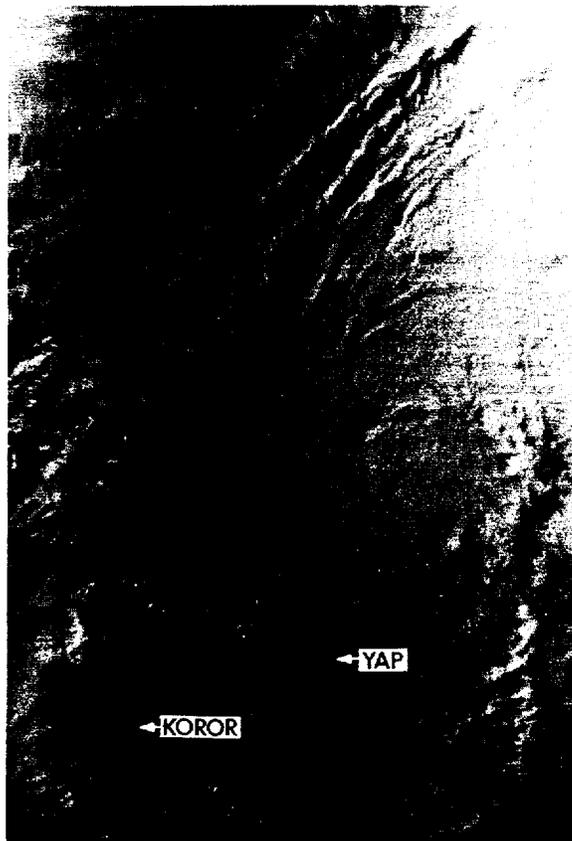


FIGURE 4-2. Typhoon Kathy just after recurvature and 8 hours prior to attaining its 80 kt peak intensity 260 nm north of Yap, 30 January 1976, 2152Z. (DMSP imagery)