

FIGURE 3-06-1. Typhoon Ellen, the remnants of Typhoon Dom, and the initial stage of Tropical Storm Georgia in the South China Sea, 19 May 1980, 2332Z. (NOAA6 imagery)

Tropical Storm Georgia is a classic example of a tropical cyclone which developed in the South China Sea during the transition period between the northeast and southwest monsoon. "Monsoon depressions" are often short-lived, difficult to locate with precision, and usually have broad, but relatively weak, surface circulation patterns. Georgia may well have reached typhoon strength if she had been able to remain over open water.

During the latter part of May, an active surface trough extended from near Iwo Jima southwestward into the South China Sea. Embedded in this trough were Typhoon Ellen, near Iwo Jima, the remnants of Typhoon Dom (an exposed low-level circulation), and the weak tropical disturbance which would become Tropical Storm Georgia (Fig. 3-06-1).

Synoptic data first indicated possible tropical cyclone development in the South

China Sea on the 19th of May. Although the satellite signature was poor, the synoptic data showed a surface circulation with a significant pressure drop near the center. Based on this data, a Tropical Cyclone Formation Alert (TCFA) was issued at 191341Z. Figure 3-06-2 is a surface streamline analysis at 200000Z and illustrates the well-defined surface circulation. The corresponding satellite imagery at about the same time still showed a lack of convective organization (Fig. 3-06-1). The depression finally began to show significant development, and the first warning on TD 06 was issued at 210600Z.

JTWC forecasters relied heavily on the forecast aids which were consistent in indicating northward movement with recurvature between the coast of China and the east coast of Taiwan. Southerly 500 mb steering winds also supported northward movement.

Figures 3-06-3 and 3-06-4 show the increase in surface inflow and the resulting increase in organized convective activity that occurred shortly after Georgia reached tropical storm strength.

Only two aircraft reconnaissance missions were flown on TS Georgia. The first

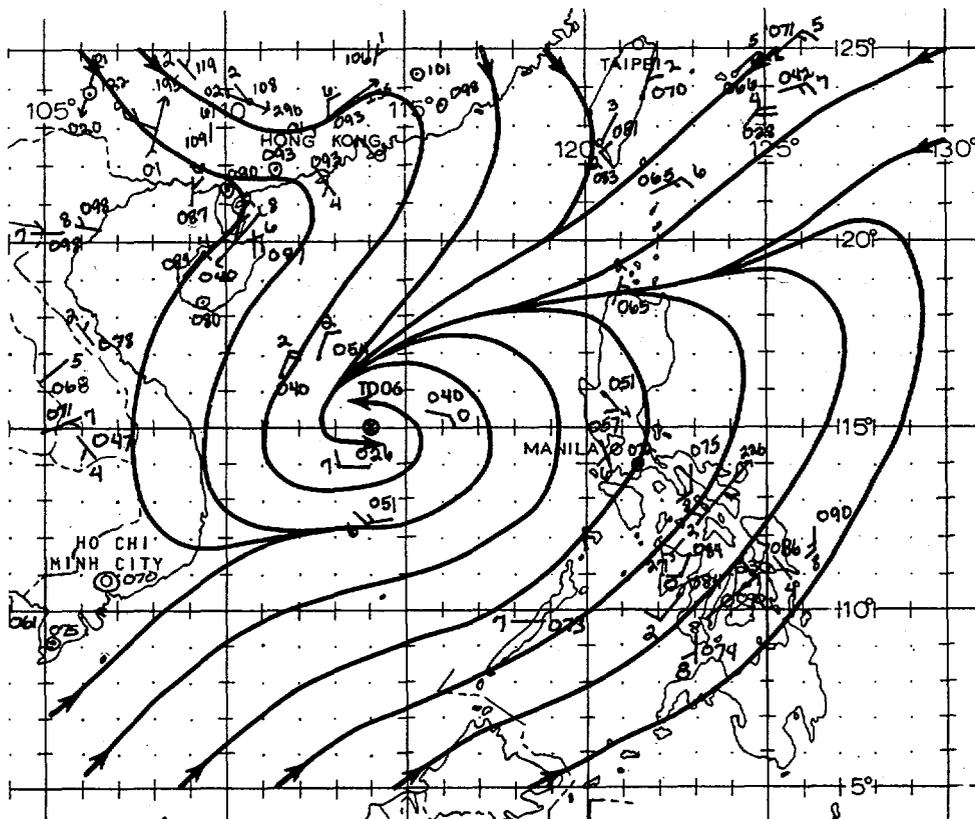


FIGURE 3-06-2. The 200000Z May 1980 surface (—) / gradient (←) level streamline analysis in the vicinity of Tropical Storm Georgia. Winds are in knots.

mission observed a minimum sea-level pressure of 986 mb and surface winds of 50 kt (26 m/sec). The second mission could not provide a center fix because of restricted air space due to Georgia's proximity to both China and Hai-nan Island. Two ships, the "Clara Maersk" and the "Chevalier Paul", reported winds of 50 kt (26 m/sec) and 54 kt (28 m/sec), respectively. These observations support the best track estimated maximum intensity of 55 kt (28 m/sec).

After making landfall near Shan-tou, Georgia traveled north-northeastward, about 20 nm (37 km) inland from the coast, eventually passing north of Chin-men-tao, which reported winds of 44 kt (23 m/sec) with gusts to 60 kt (31 m/sec). Rapid weakening occurred thereafter as Georgia was absorbed into an extratropical low pressure system that was moving over the East China Sea from the Asian mainland.

