

Super Typhoon Todd (10W)

Super Typhoon (STY) Todd (10W) formed in the Philippine Sea within a reverse oriented monsoon trough. Initially detected in mid September, STY Todd (10W) developed rapidly while moving cyclonically in response to mid-tropospheric steering flow and the influence of a monsoon gyre located in the South China Sea. STY Todd (10W) attained a maximum intensity of 130 kt then dissipated in the East China Sea 6 days after initial formation.

JTWC issued a Tropical Cyclone Formation Alert at 150900Z September. The disturbance was embedded in a large area of deep convection, which masked its initial intensification. JTWC issued the first warning with a maximum intensity of 45 kt at 160300Z September. This initial warning forecast northeast movement and typhoon intensity at 48 hours. However, by 170600Z September, STY Todd had reached its peak intensity of 130 kt with an observed 12 nm diameter cloud-filled eye while moving northeastward at 11 kt.

Between 170000Z and 180000Z STY Todd began to change direction and accelerate in response to the steering flow of a developing anticyclone over Kyushu and a monsoon gyre in the South China Sea. As a result, STY Todd attained a maximum speed of movement of 30 kt between 171800Z and 180000Z September.

After 171200Z September, STY Todd experienced increased vertical wind shear, weakening and moving westward. When STY Todd made landfall on the east coast of China, 85 nm south of Shanghai, it had weakened to a 55 kt system and continued to weaken as it moved westward over land. After 200000Z September, however, the cyclone reversed course and the exposed low-level circulation turned eastward and tracked into the East China Sea. The remnants of STY Todd became quasi-stationary and dissipated. JTWC issued its final warning at 200300Z September.

Although Kyushu did not experience passage of the cyclone center, heavy rains from STY Todd caused seven fatalities from flooding and mudslides. No reports of fatalities or damage in China were available at the time of this report.

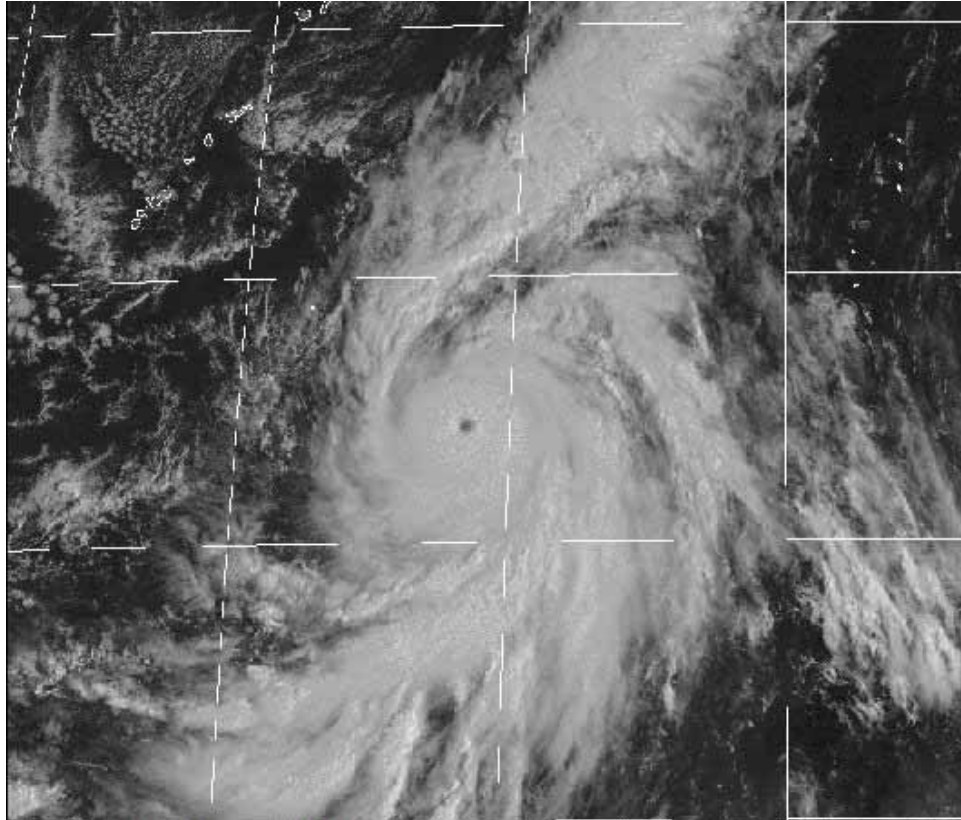


Figure 3-10-1. Visual Satellite image of Typhoon Todd at 2334Z on the 16th of September. At this point, TY Todd is a 120 kt system and will reach its maximum intensity of 130 kt within a few hours.

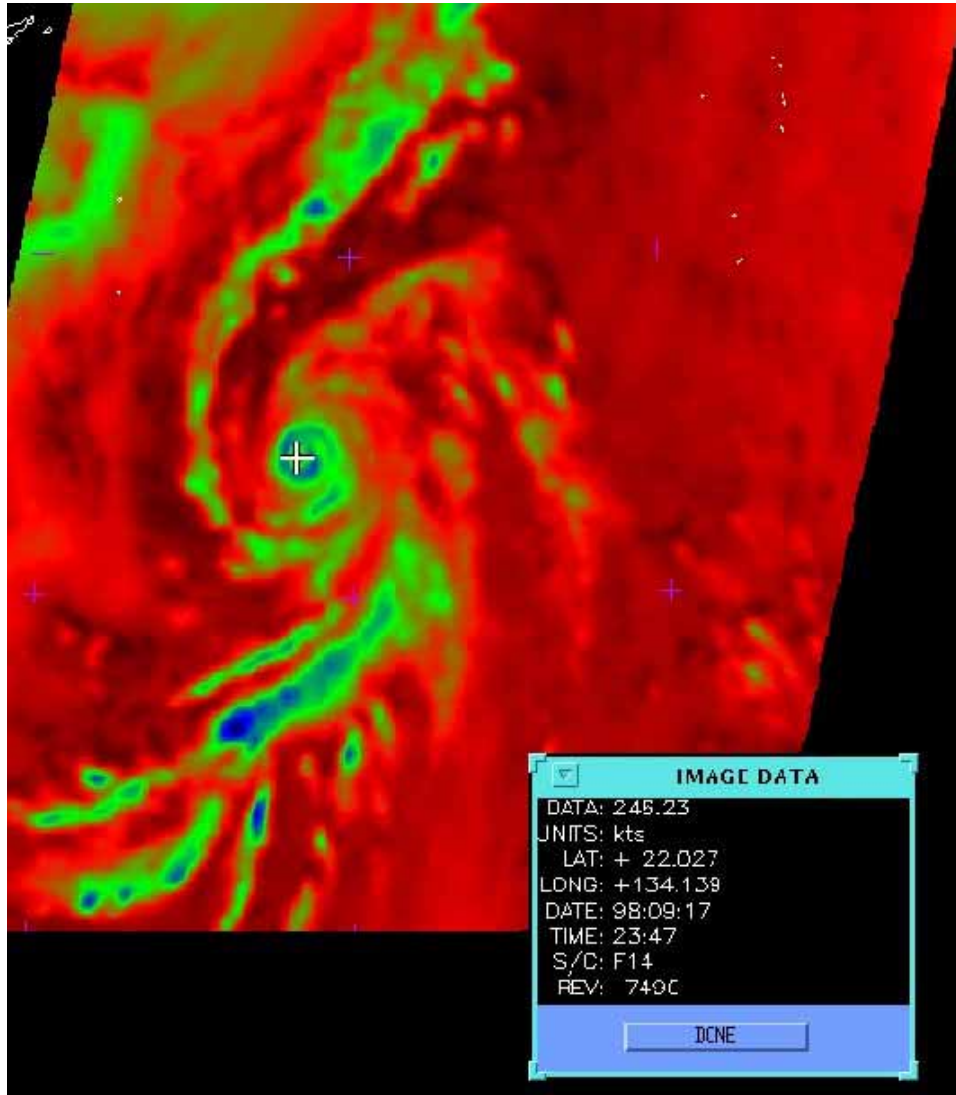


Figure 3-10-2. 172347Z September Special Sensor Microwave Image of STY Todd as an 80 kt system.

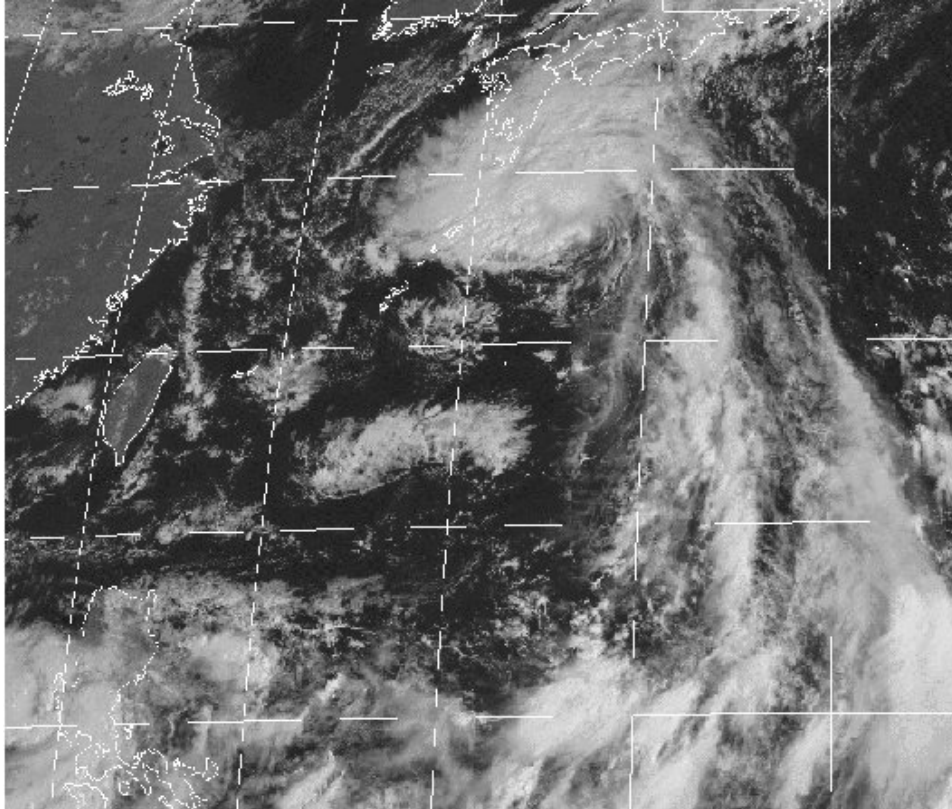


Figure 3-10-3. Visible imagery indicating STY Todd is experiencing vertical wind shear as shown by the partially exposed low level circulation. Application of the Dvorak Technique indicates STY Todd (10W) has a maximum intensity of 80 kt at this time.

