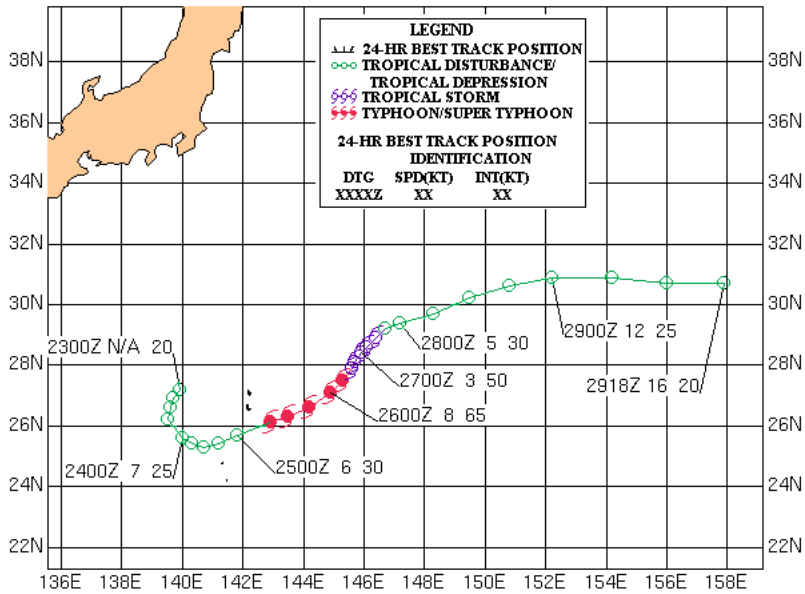
Typhoon Virgil (19W)

Typhoon (TY) Virgil (19W) developed as a very small-sized (midget) tropical cyclone at the end of a quasi-stationary shear line north-northwest of Iwo Jima. After a short southward jog, TY Virgil moved east, intensified to a peak intensity of 70 kt, and then dissipated over water after 7 days. TY Virgil was one of three midget tropical cyclones JTWC warned on during the 1999 season. All three developed within the mid-latitude region of the Northwest Pacific.

JTWC identified the area which was to become TY Virgil (19W) on the 230600Z August ABPW and subsequently issued a TCFA at 230930Z August as a tropical upper-level trough (TUTT) moved to the east and vertical wind shear decreased. After a scatterometer pass indicated 25 kt winds, JTWC issued the first warning at 240300Z August. Between the 250300Z warning and 250600Z August, the cyclone rapidly intensified from 30 kt to 65 kt. Shortly after reaching typhoon intensity, TY Virgil reached a maximum intensity of 70 kt at around 251200Z August.

TY Virgil (19W) initially moved counter-clockwise while a tropical depression. As the cyclone began to develop further, it moved more rapidly, but then slowed as it again interacted with the TUTT. After the cyclone became vertically sheared, it accelerated rapidly in the low level steering flow, interacting with a passing mid-latitude front and continued to weaken as it became absorbed into the boundary. JTWC issued the 21st and final warning at 290300Z August as the cyclone dissipated over water.



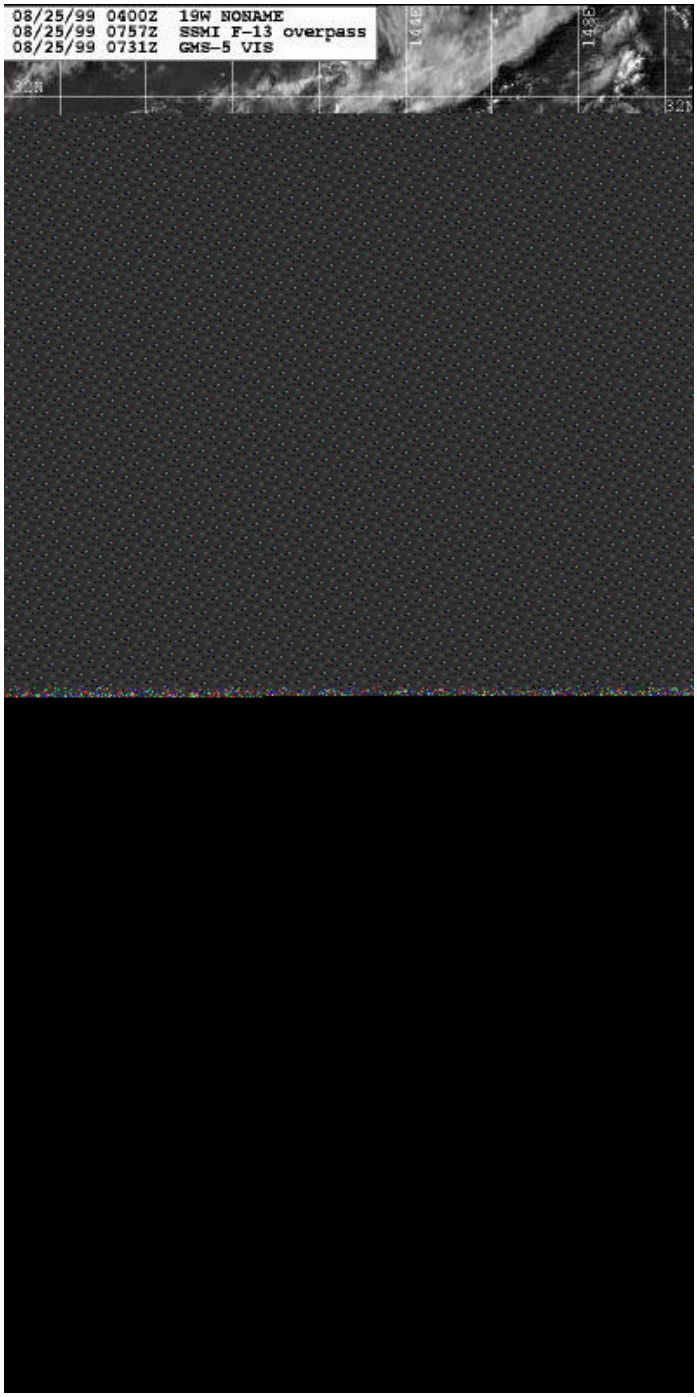


Figure 1-19-1. 250757Z microwave and 250731Z August visible imagery showing the low level circulation center of TY Virgil (19W) as it reached typhoon intensity (65 kt). Visible imagery indicates a possible eye, but the microwave image leaves little doubt.

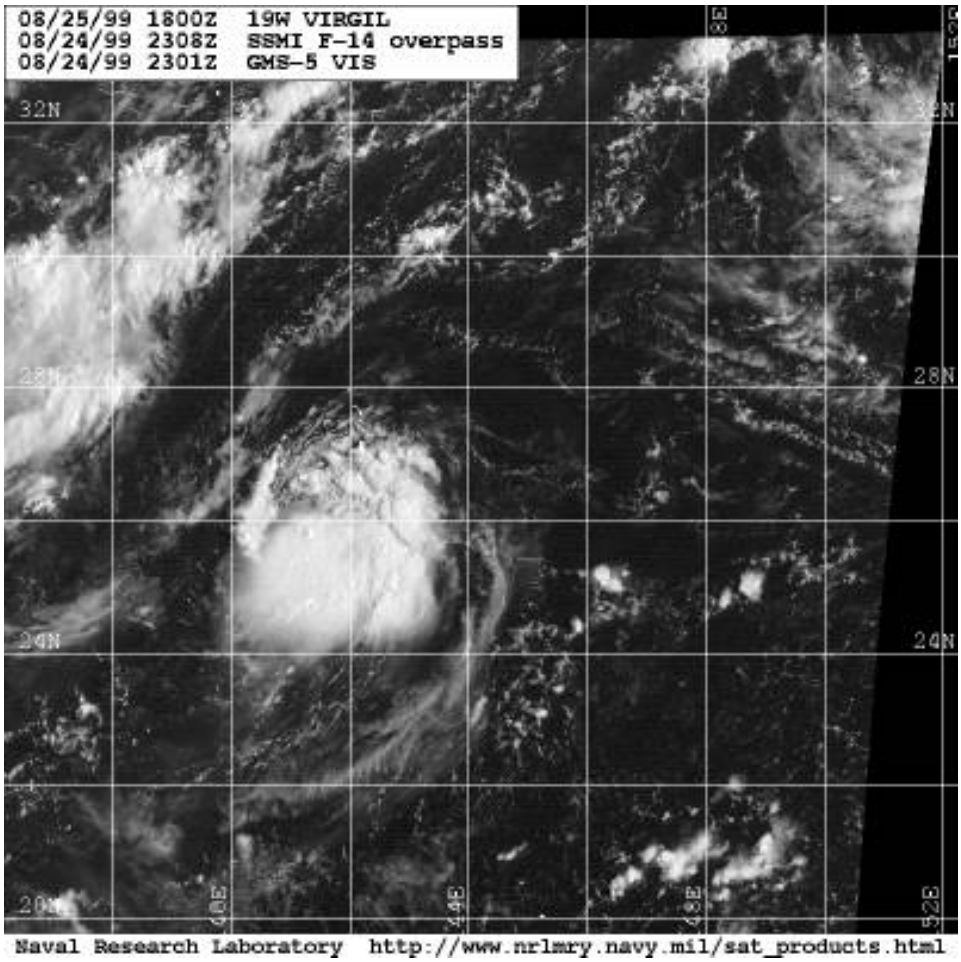


Figure 1-19-2. 242308Z visible image showing the tropical disturbance that 6 hours later developed into TY Virgil (19W) with an intensity of 65 kts. This explosive development was the result of the the upper-tropospheric low filling, and no longer restricting the outflow of the system.