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TROPICAL STORM FAYE (07W)

After a two-week break in activity, Faye was the first of seven tropical cyclones to form in July. It formed in the monsoon trough and intensified at a normal rate as it tracked west-northwestward towards the Philippines. Faye weakened as it crossed north-central Luzon and reintensified slightly in the South China Sea. It weakened again in the central South China Sea, and crossed the island of Hainan before making landfall on the coast of northern Vietnam.

On 4 July, a surge in the southwest monsoon caused a widespread increase of convective activity in an area west of the Mariana Islands. This convection was short-lived — peaking at 050000Z and dissipating for the most part by 051200Z. Out of the remnants of this convection arose a small area of deep convection near 15° north latitude and 130° east longitude. This deep convection continued to

develop after the early morning convective maximum, and at 060200Z a Tropical Cyclone Formation Alert was issued on the disturbance. The first tropical cyclone warning on Tropical Depression 07W followed at 060600Z. At that time, the depression had a partially exposed low-level circulation to the north of the deep convection with restricted upper-level outflow in the northern semicircle. This displacement of convection introduced some uncertainty in the location of the low-level circulation center (Figure 3-07-1) until first light the next day.

A short wave trough passing to the north induced a small northward shift in track during the first 24 hours in warning. As the short wave trough moved eastward, the subtropical ridge strengthened to its west and the depression began moving to the west. Continued development resulted in an upgrade to tropical

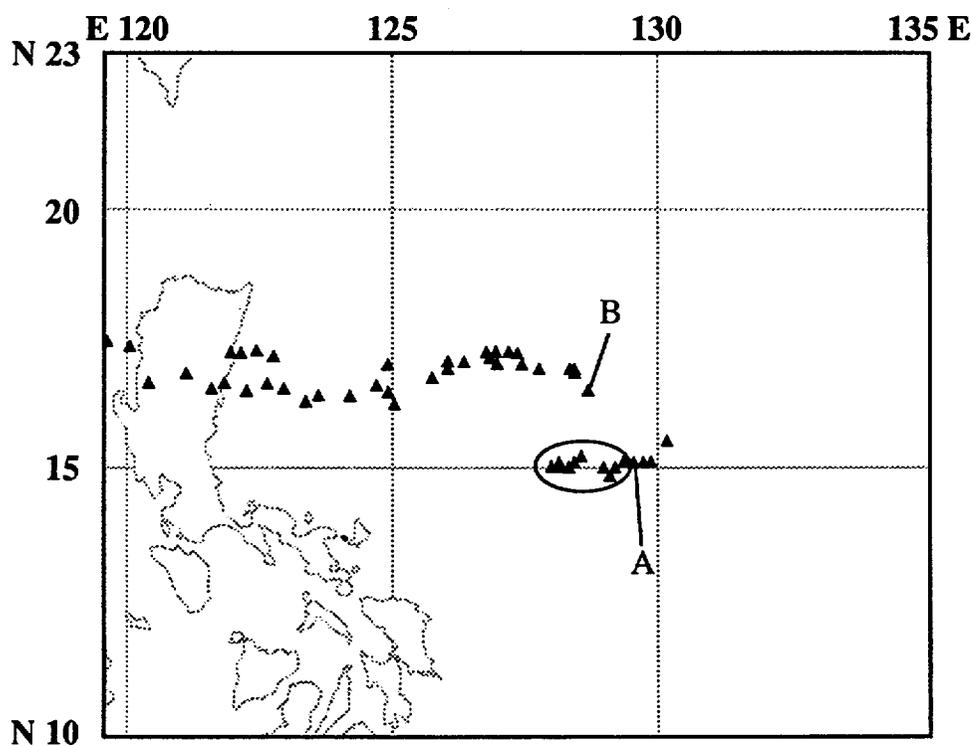


Figure 3-07-1. After the last visual fix at 060730Z (point A), plots of satellite fixes (encircled) through the night show that cold cloud top targets on the infrared imagery can be misleading. The visual data the next day at 062330Z (point B) enabled the forecaster to get the weak circulation back on track.

storm intensity at 070600Z. Throughout the next 24 hours, the subtropical ridge remained unchanged and Faye tracked westward and intensified.

Tropical Storm Faye reached its peak intensity of 60 kt (31 m/sec) at 081200Z, just prior to making landfall in north-central Luzon. Remarks from the radar site at Baguio (WMO 98321) about the change of wind direction from northwest to southwest and 35 kt (18 m/sec) gusts proved invaluable in tracking Faye as it accelerated over Luzon and retained tropical storm intensity as it entered the warm waters of the South China Sea late on 8 July. Moving out into open waters, it began to reintensify. In the central South China Sea, Faye moved into an

environment of strong upper-level north-easterlies which began to shear the system. Despite this strong shear, Faye (Figure 3-07-2) retained much of its convective organization and its tropical storm intensity until it reached the island of Hainan.

Late on the 10 July, Faye crossed northern Hainan causing telecommunication interruptions and the destruction of pepper, sugar cane and coffee crops. It was downgraded to a tropical depression as it entered the Gulf of Tonkin. The low-level circulation, which was displaced 45 nm (85 km) from the deep convection, made landfall near Haiphong, Vietnam at 110600Z and quickly dissipated.

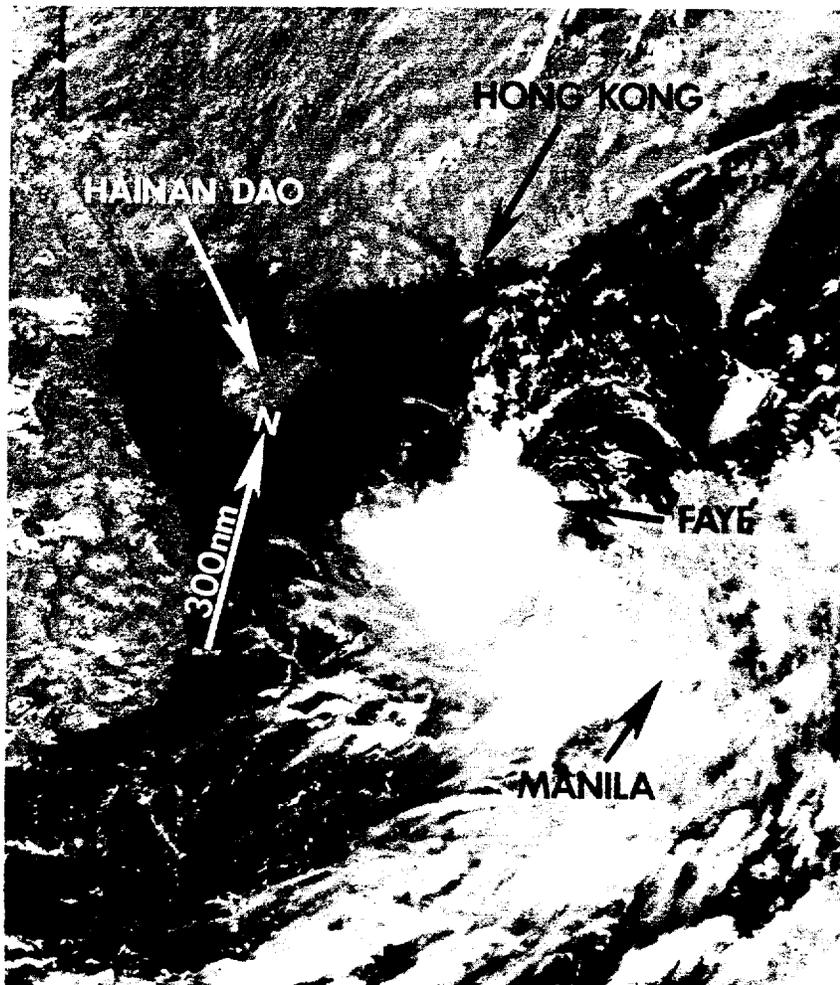


Figure 3-07-2. The exposed low-level circulation center is evidence of a shearing regime in the South China Sea (090607Z July NOAA visual imagery).