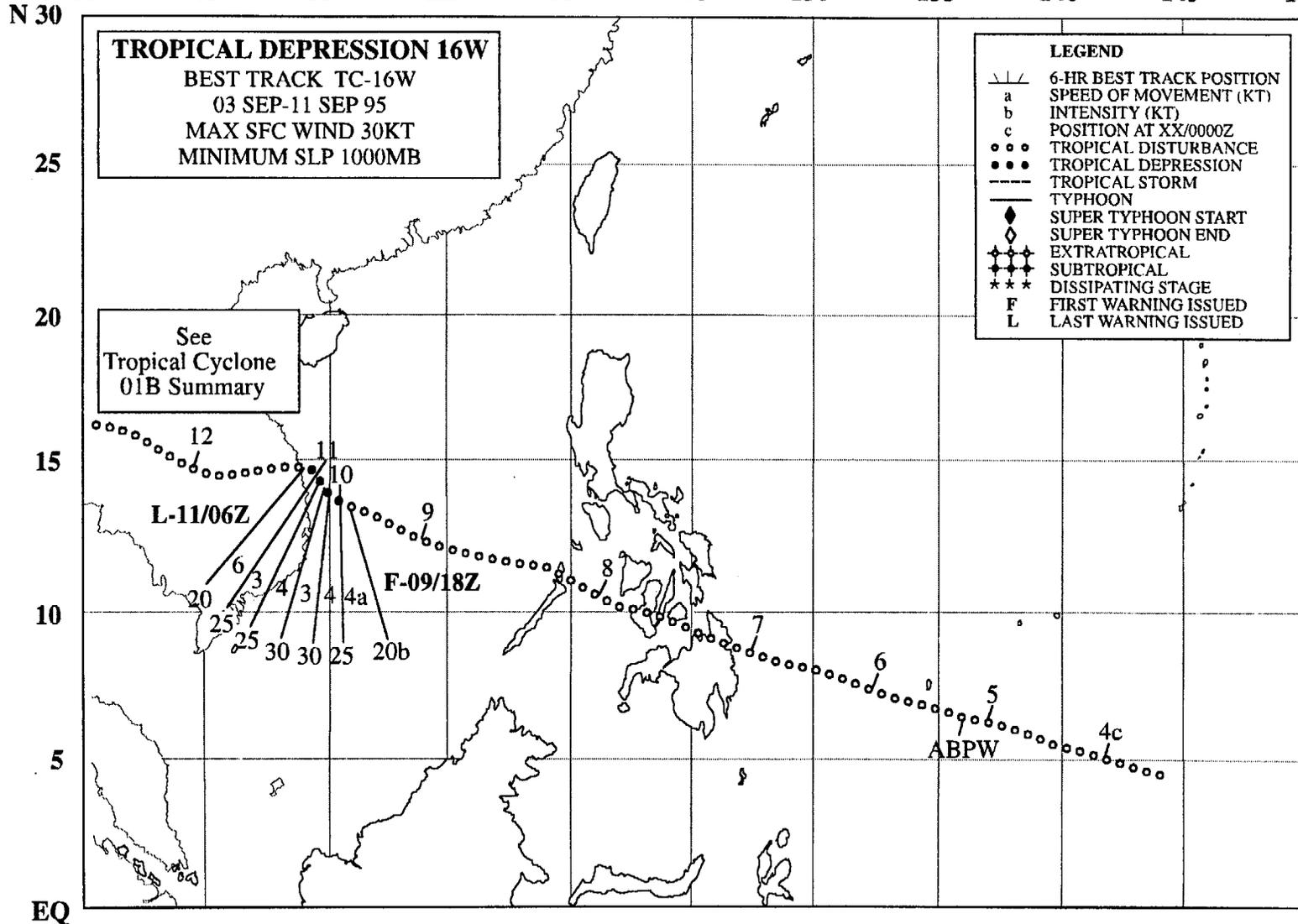


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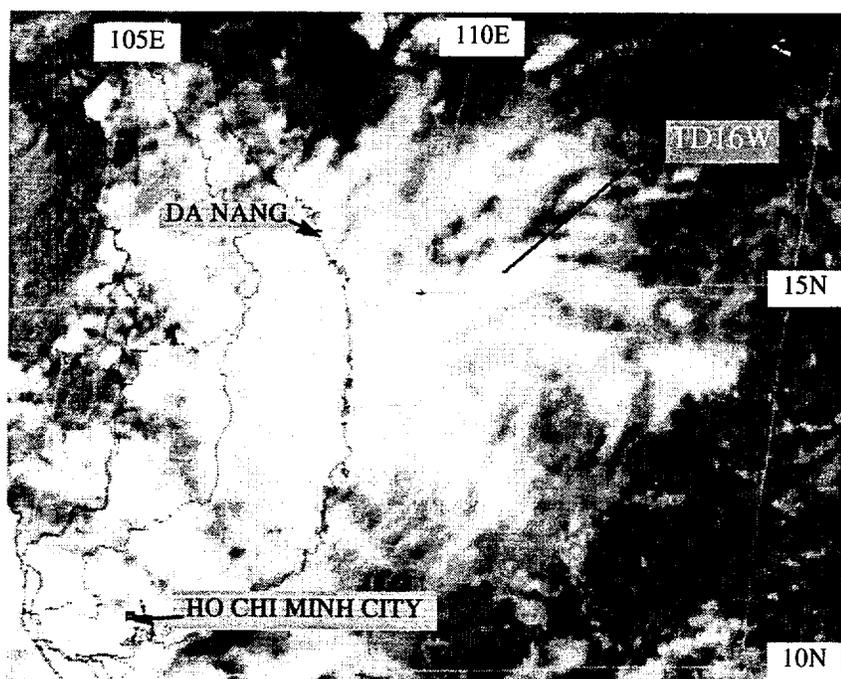
## TROPICAL DEPRESSION (16W)

### I. HIGHLIGHTS

Tropical Depression 16W (TD 16W) followed three days behind Tropical Storm Nina (15W) on an almost parallel track, approximately 5 degrees latitude further to the south. Although their tracks were similar, TD 16W failed to develop into a significant tropical cyclone until just prior to making landfall on the Vietnam coast. The remains of TD 16W continued westward across Southeast Asia to form Tropical Cyclone 01B in the Bay of Bengal.

### II. TRACK AND INTENSITY

The tropical disturbance that would eventually become Tropical Depression 16W (TD 16W) was first identified on satellite imagery as a large area of enhanced convection centered near 5°N 145°E on 03 September. Similar to other disturbances during this period, the system was slow to develop as it tracked slowly westward under persistent upper-level easterly shear. By 050600Z September, when it was first discussed on the Significant Tropical Weather Advisory, a well-defined low-level circulation still could not be readily identified on visual satellite imagery although it could be inferred from the gradient wind flow over Yap (WMO 91413) and Koror (WMO 91408). The disturbance continued to track westward for the next five days across the southern Philippine Islands and into the South China Sea with little sign of development. At 081200Z satellite imagery indicated the convective organization had improved and synoptic data indicated several 20-25 kt (10-13 m/sec) wind reports along the outer periphery of the convective area. During this time, however, the 200 mb analysis continued to show 25-35 kt (13-18 m/sec) easterly winds in the vicinity of the disturbance. The first warning for TD 16W was finally issued at 091800Z when scatterometer data from 091512Z and nearby ship reports indicated 25 kt (13 m/sec) winds near the circulation center. TD 16W reached a maximum intensity of 30 kt (15 m/sec) just prior to reaching the coast of Vietnam (Figure 3-16-1). The final warning for this system was issued at 110600Z after TD 16W had made landfall. The remains of TD 16W continued to move slowly

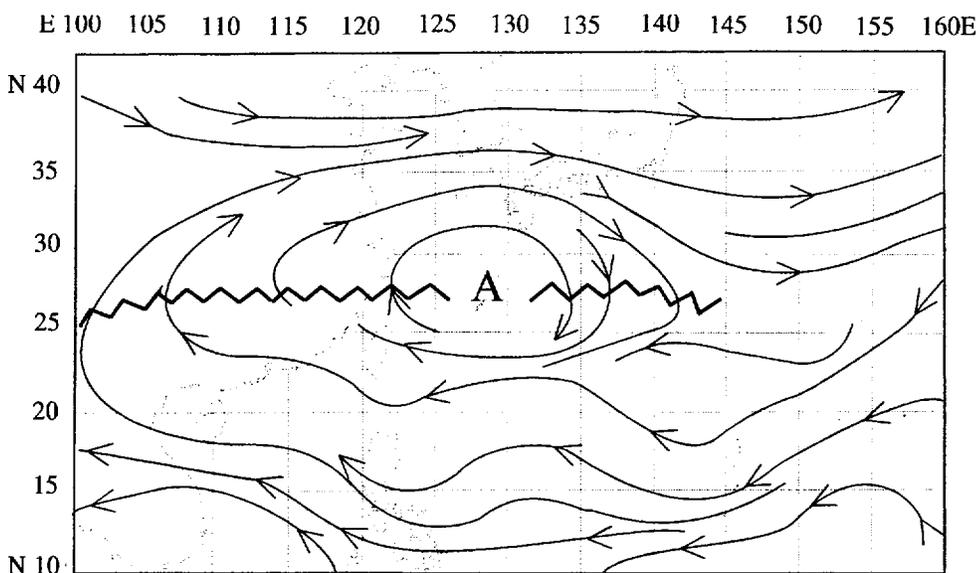


**Figure 3-16-1** Tropical Depression 16W approaches the coast of Vietnam (100631Z September visible GMS imagery).

westward across Southeast Asia where it eventually became Tropical Cyclone 01B in the Bay of Bengal.

### III. DISCUSSION

Eleven tropical cyclones formed in the western North Pacific during the nearly seven week period between 26 July and 10 September. Of these, eight formed in either the Philippine Sea or the South China Sea and were straight movers — presumably related to a strong dominant ridge (Figure 3-16-2) over the East China Sea and a monsoon flow that generally only extended as far east as the Philippine Islands. Typical of 1995, seven of the eight were relatively weak systems (one tropical depression, four tropical storms, and two minimal typhoons). TD 16W was the last of this series of weak systems.

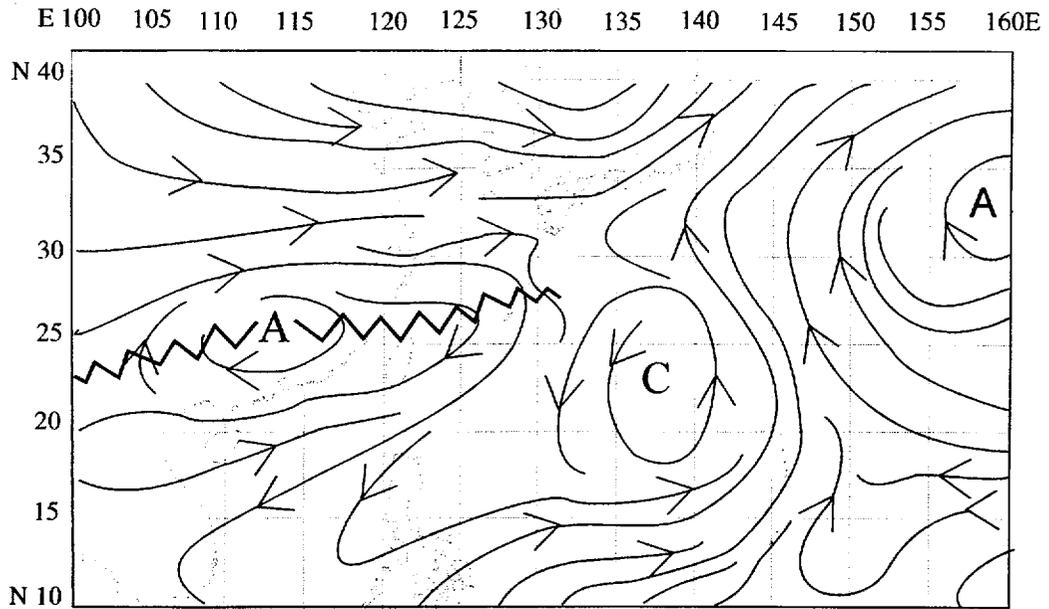


**Figure 3-16-2** A strong subropical ridge dominates the synoptic scale steering flow in the western North Pacific (091200Z September 500-mb NOGAPS streamline analysis).

Situated within the equatorial trough, the disturbance that was to become TD 16W fell under the influence of a strong upper-level ridge situated over the East China Sea and eastern China throughout most of its life. This dominant flow served to steer the cyclone on a mostly westward track under moderate to strong easterly shear. It was not until the disturbance moved into the South China Sea and under the influence of southwest monsoon flow, that development occurred. After TD 16W, the dominant ridge moved back into China (Figure 3-16-3) while the monsoon pushed east of the Philippines, and a series of more intense recurring tropical cyclones developed.

### IV. IMPACT

No reports were received of significant damage or fatalities in Vietnam. However, news releases dated 07 September from the Mindanao Islands in the Philippines reported numerous homes damaged. The damage was initially attributed to a surprise eruption of a volcano. Later reports attributed the damage to mudslides from the collapse of a volcanic wall due to heavy rains in the area. Postanalysis shows that these heavy rains were probably associated with the disturbance that would eventually become TD 16W.



**Figure 3-16-3** By mid-September, the subtropical ridge had receded westward into China, allowing a series of more intense recurving tropical cyclones to form (150000Z September 500-mb NOGAPS streamline analysis).