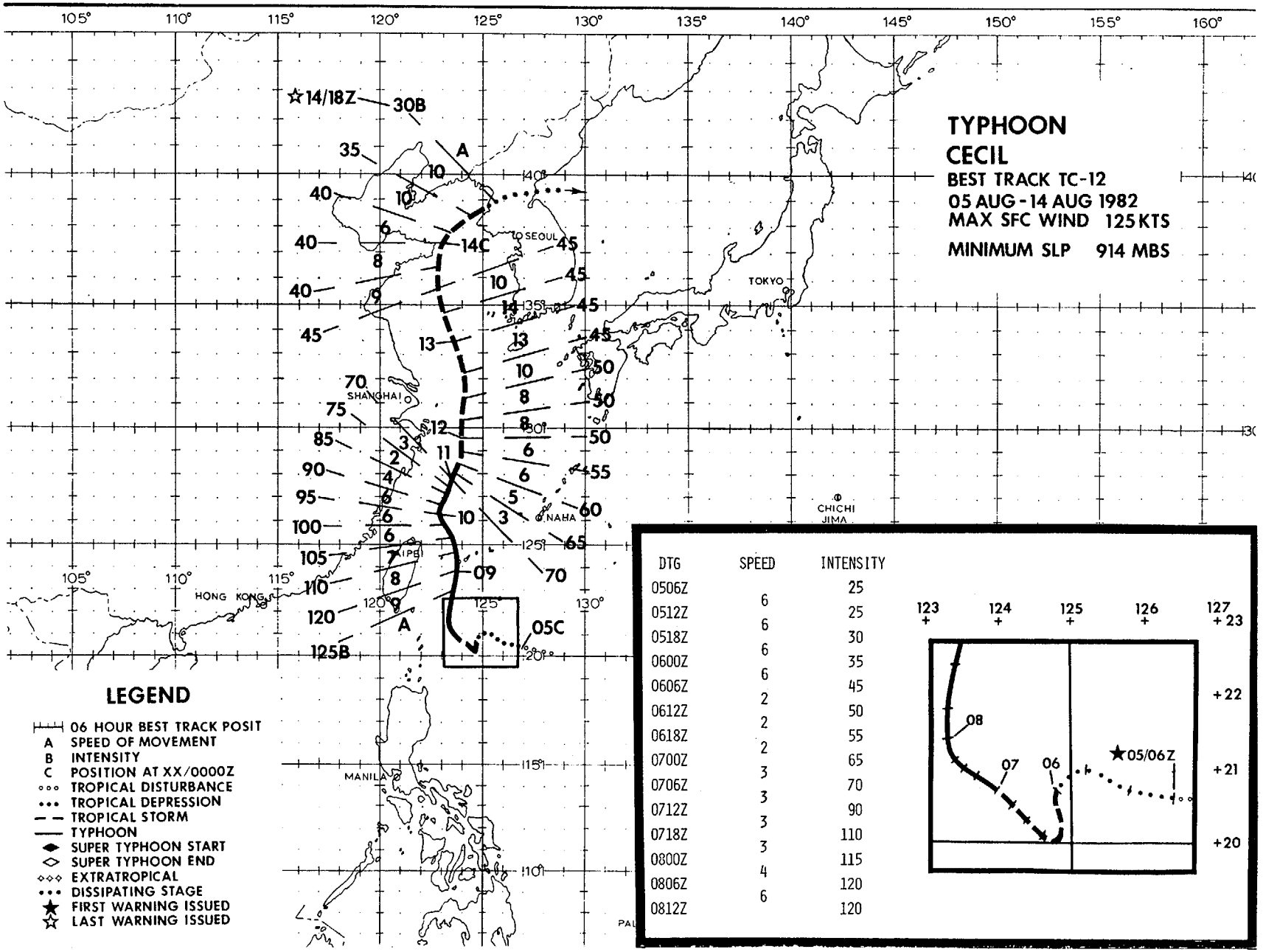
TYPHOON
CECIL
BEST TRACK TC-12
05 AUG - 14 AUG 1982
MAX SFC WIND 125 KTS
MINIMUM SLP 914 MBS
LEGEND
06 HOUR BEST TRACK POSIT
A SPEED OF MOVEMENT
B INTENSITY
C POSITION AT XX/0000Z
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
SUPER TYPHOON START
SUPER TYPHOON END
EXTRATROPICAL
DISSIPATING STAGE
FIRST WARNING ISSUED
LAST WARNING ISSUED
DTG SPEED INTENSITY
0506Z 25
0512Z 6 25
0518Z 6 30
0600Z 6 35
0606Z 6 45
0612Z 2 50
0618Z 2 55
0700Z 2 65
0706Z 3 70
0712Z 3 90
0718Z 3 110
0800Z 3 115
0806Z 4 120
0812Z 6 120
05/06Z
SEOUL
TOKYO
SHANGHAI
NAHA
CHICHI JIMA
HONG KONG
MANILA
IPEI

The tropical disturbance which later became Typhoon Cecil was first distinguishable as a low-level circulation about 250 nm (463 km) north of Truk (WMO 91334) on 31 July. This disturbance persisted as a closed circulation on the surface streamline analyses and as an area of enhanced convective activity on satellite imagery that travelled westward along the monsoon trough for the next four days. Although mentioned in four consecutive Significant Tropical Weather Advisories (ABEH PGTW), a Tropical Cyclone Formation Alert (TCFA) was not issued on the system during this period because a strong easterly flow at upper-levels was expected to inhibit development of the disturbance. Figure 3-12-1 is typical of the upper-level (200 mb) flow during this period. On 4 August, increased convective activity was apparent from satellite imagery, ship reports in the area indicated that central pressures had dropped to 1000-1003 mb and weakening of the upper-level easterlies was indicated by the 200 mb analysis data. When it became evident that the disturbance had indeed intensified, and that further intensification was likely, a TCFA was issued at 041400Z.

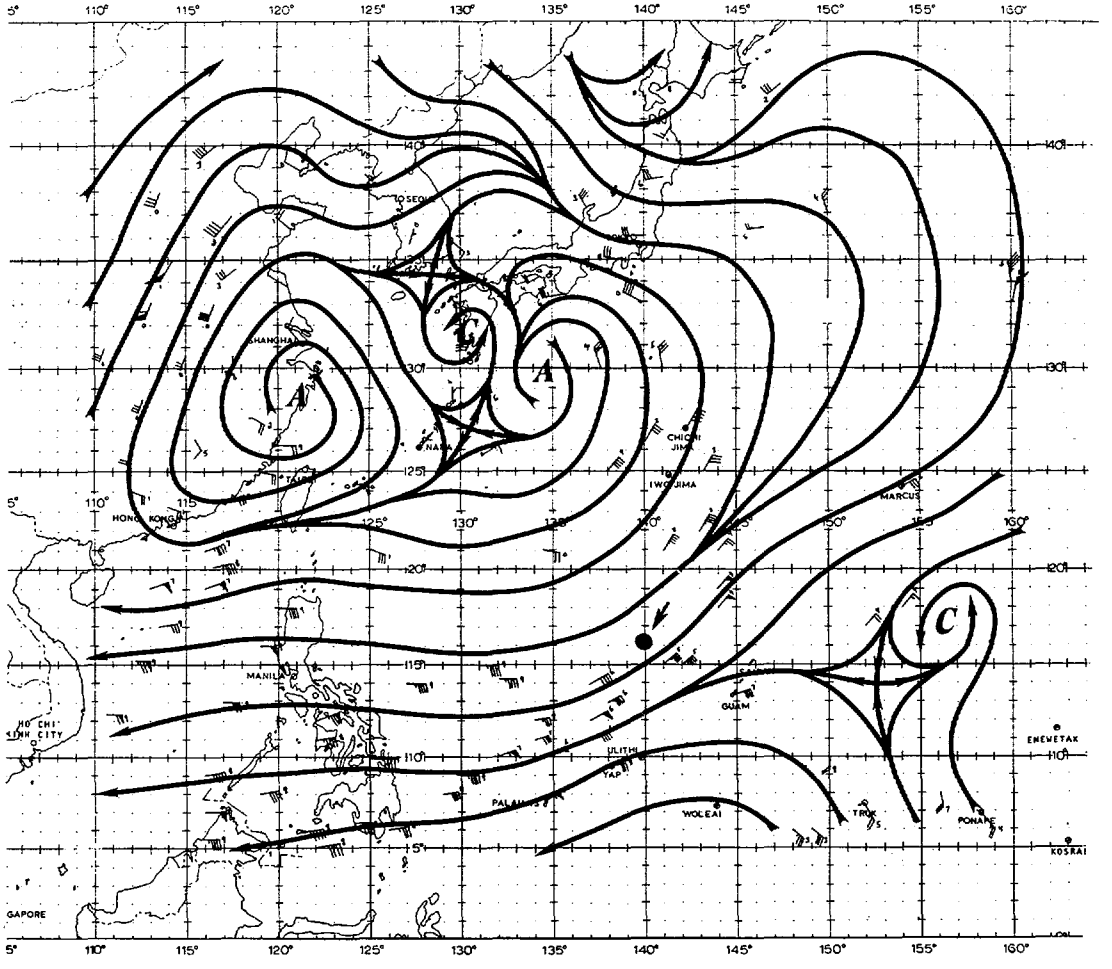

Figure 3-12-1. 030000Z August 200 mb streamline analysis. The location of the surface circulation is indicated by the dark circle.

Figure 3-12-2. 081838Z August (NOAA 7 infrared imagery).

The first warning on Tropical Depression 12 was issued at 050600Z after an aircraft reconnaissance mission observed sustained winds of 25 kt (13 m/sec) associated with the circulation. Tropical Depression 12 continued to track westward under the influence of easterly steering currents along the southern periphery of the subtropical ridge. Upgraded to tropical storm status on 6 August, Cecil turned southward, slowed to 3 kt (6 km/hr), and then turned northwestward. From 6 to 8 August, Cecil intensified from 35 kt (18 m/sec) to 115 kt (59 m/sec), reaching a peak intensity of 125 kt (64 m/sec) at 081800Z while located 120 nm (222 km) east of Taiwan (figures 3-12-2 and 3-12-3).

As Cecil approached Taiwan from the southeast, its track turned sharply northward until reaching 25N when Cecil once again assumed a more northwestward track. Although Cecil never approached closer than 80 nm (148 km) to Taiwan, heavy rains associated with its peripheral circulation touched off landslides which killed at least 19 people in Wu-Koo County, near Taipei.

On 10 August, Cecil turned toward the north-northeast and the combined effects of colder ocean temperatures, vertical wind shear, and cooler surrounding air began to take their toll. Within three days after reaching maximum intensity, Cecil was downgraded to a tropical storm.

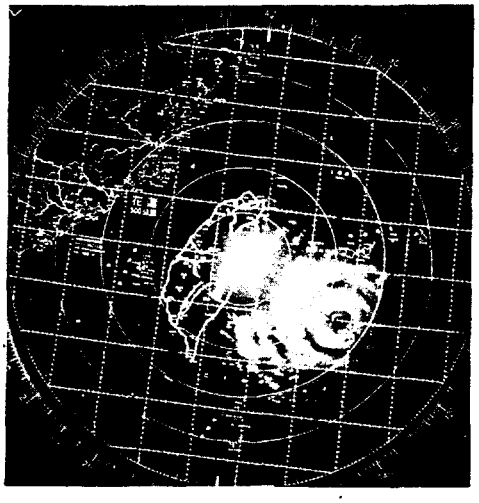

Figure 3-12-3. Typhoon Cecil as seen by radar from Hua Lien (WMO 46699) at 081900Z August (Photograph courtesy of the Central Weather Bureau, Taipei, Taiwan).

As a tropical storm, Cecil continued to move northward in response to steering from an extension of the subtropical ridge which had built northward into the Sea of Japan. The situation at 500 mb is illustrated by the 101200Z August 500 mb streamline analysis (Figure 3-12-4) which is typical of the mid-level synoptic pattern during Cecil's northward movement.

By 14 August, Cecil, located near 38N 124E, was beyond the northward influence of the subtropical ridge and entering an area of westerly flow. Cecil moved eastward in response to its new environment and made landfall on Korea with 35 kt (18 m/sec) winds. Although, at this time, Cecil was a weak storm in terms of wind intensity, there was a great deal of precipitation associated with the circulation. Heaviest rains, 21.2 inches (55 cm), were recorded in Sanchong, resulting in severe flooding which left 35 dead, 28 missing, and 42 injured in addition to an estimated 30 million dollars in property damage. Cecil's circulation was unable to reorganize after crossing the Korean peninsula and dissipated in the Sea of Japan on 15 August.

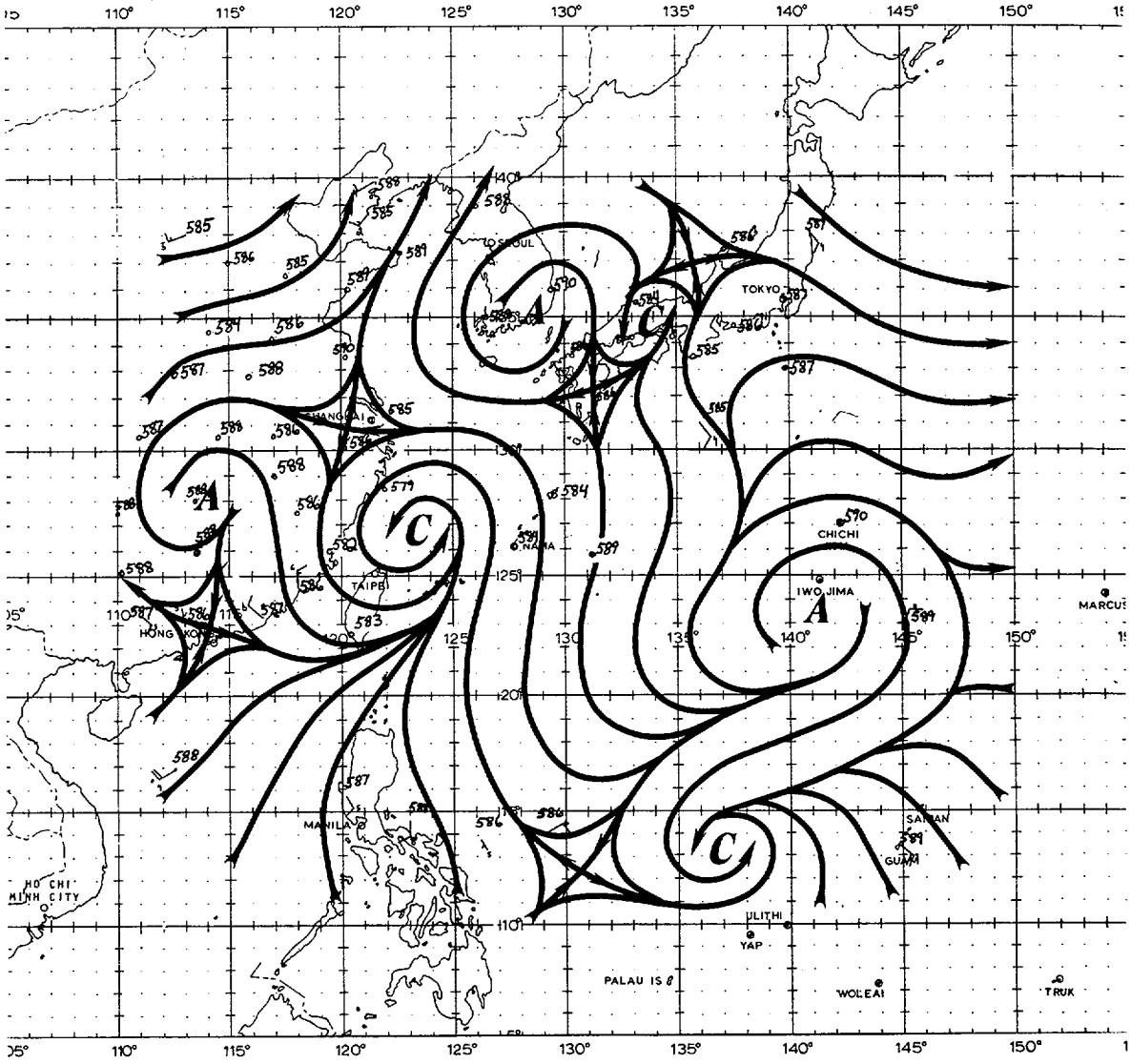

Figure 3-12-4. 101200Z August 500 mb streamline analysis.