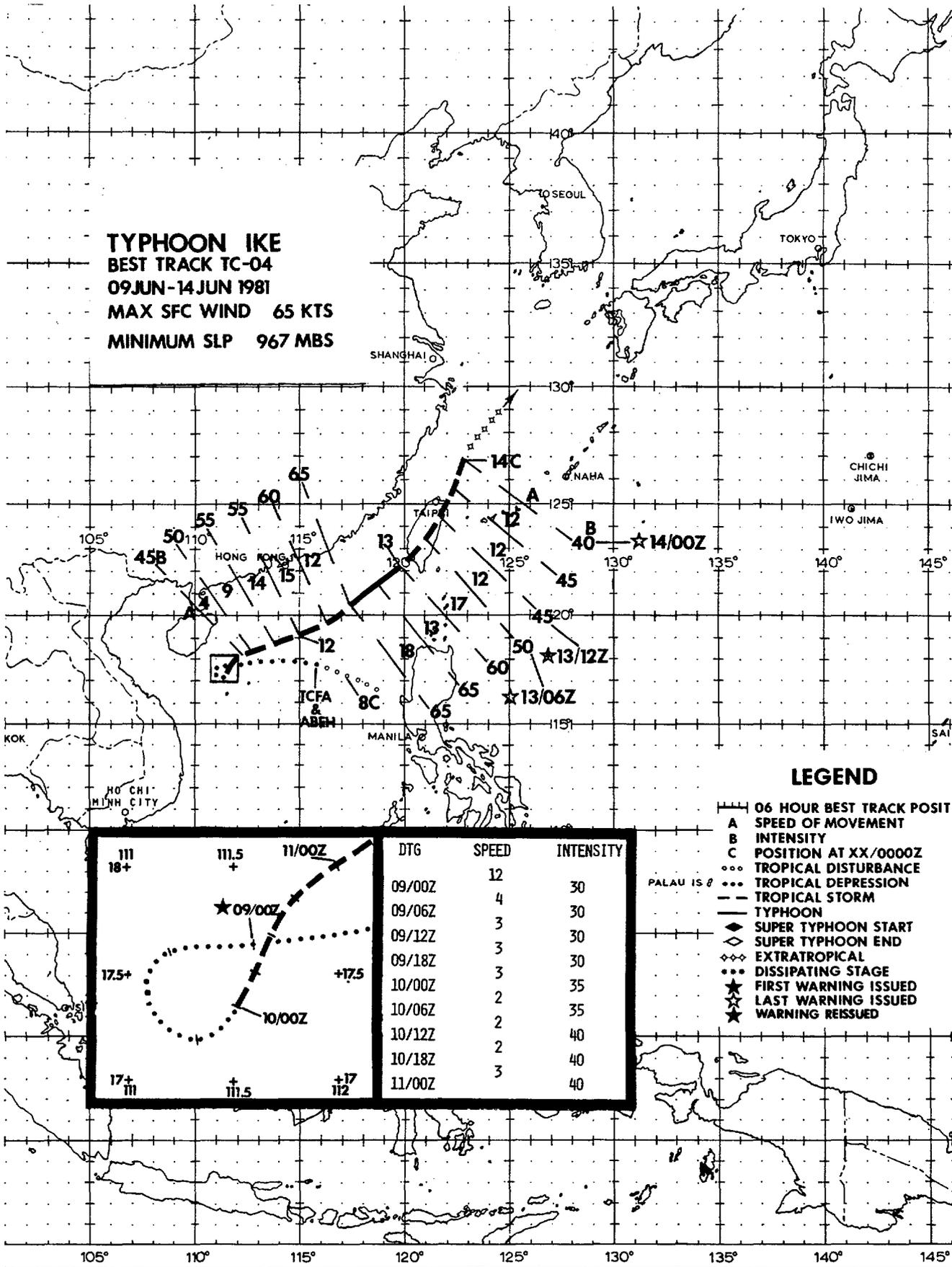


TYPHOON IKE
BEST TRACK TC-04
09 JUN - 14 JUN 1981
MAX SFC WIND 65 KTS
MINIMUM SLP 967 MBS



DTG	SPEED	INTENSITY
09/00Z	12	30
09/06Z	4	30
09/12Z	3	30
09/18Z	3	30
10/00Z	3	35
10/06Z	2	35
10/12Z	2	40
10/18Z	2	40
11/00Z	3	40

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
- ★ WARNING REISSUED

Typhoon Ike was one of several recent examples of tropical cyclone development over the South China Sea during the end of the monsoonal transition season. Several characteristic features have often been observed by JTWC forecasters. Both in the tropical cyclogenesis and during the lifetime of the system as a tropical storm and typhoon, these include:

- 1) The system becomes initially evident on satellite imagery as a mid-tropospheric monsoonal depression with fluctuating associated convection.
- 2) The system is often initially slow to develop a closed surface circulation, despite persistent associated convection.
- 3) The system is also slow to intensify, even after evidence of surface development.
- 4) The system frequently maintains a broad asymmetrical wind distribution throughout its life cycle.
- 5) The system is usually short-lived, with repeated interactions with

nearby land masses.

Ike was typical of this pattern and displayed all the above characteristics during his development. The first evidence that Ike may develop occurred on June 8th, as the 080000Z surface analysis indicated relatively lower surface pressures just west of the Philippine Islands. Based on this data, and satellite imagery which indicated continued convective support, a Tropical Cyclone Formation Alert (TCFA) was issued at 080600Z.

Ike had a difficult time persisting as a tropical cyclone as steady upper-level shear displaced Ike's 700 mb center as much as 60 nm (111 km) southwest of the surface circulation. Finally, on 9 June, Ike moved into an area of decreased shear aloft, which allowed vertical alignment to intensify the system. The first warning was issued at 090000Z and Ike reached tropical storm intensity at 100000Z (Figure 3-04-1). In the meantime, a mid-latitude, mid-tropospheric trough over Asia continued propagating eastward, and Ike accelerated to the northeast, steered by the increasingly strong southwesterly flow. Intensification continued during the acceleration process.

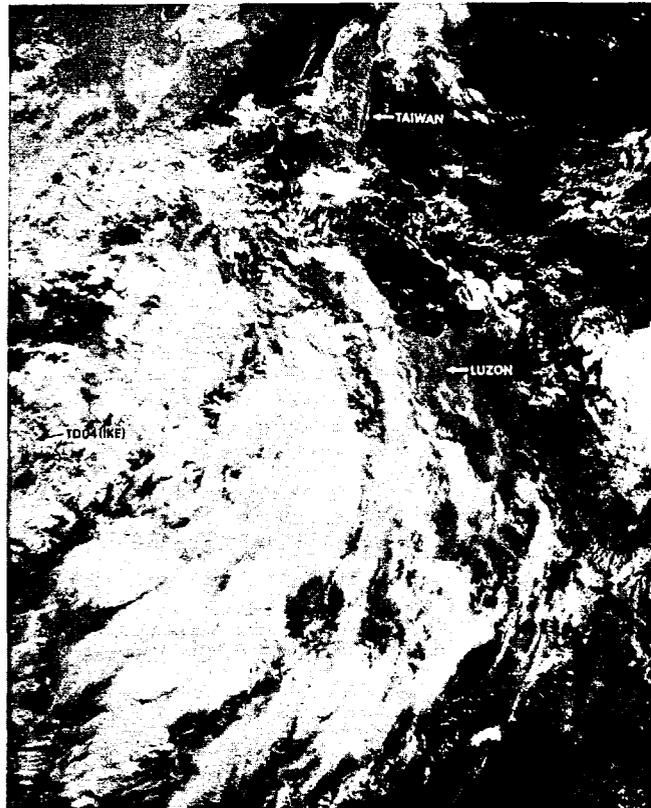


Figure 3-04-1. Tropical Depression 04 as it began to develop and consolidate its associated convection while over the South China Sea, 9 June 1981, 2336Z (NOAA 6 visual imagery).

Only one aircraft reconnaissance mission was able to penetrate Ike due to geographical and political constraints. This aircraft fixed Ike near the storm's peak intensity just prior to landfall over Taiwan. The crew reported that Ike's minimum sea-level pressure had decreased to 967 mb, 700 mb winds of over 60 kts (111 km/hr) were measured, and aircraft radar indicated partial eyewall formation. Based on the above data, it was concluded in post-analysis that Ike reached minimal typhoon intensity near this time. Less than 12 hours later, Ike moved ashore over southwestern Taiwan.

Ike weakened significantly while traversing Taiwan but emerged over open water north of Taipei around 131500Z with a small, persistent knot of central convection. This area of convection dissipated as Ike became an extratropical low at 140000Z (Figure 3-04-2).

Subsequent press releases reported minor damage over Taiwan due to heavy rains and flooding which accompanied Ike. Eight storm-related fatalities were reported, four from Taiwan and four from the Philippine Islands.

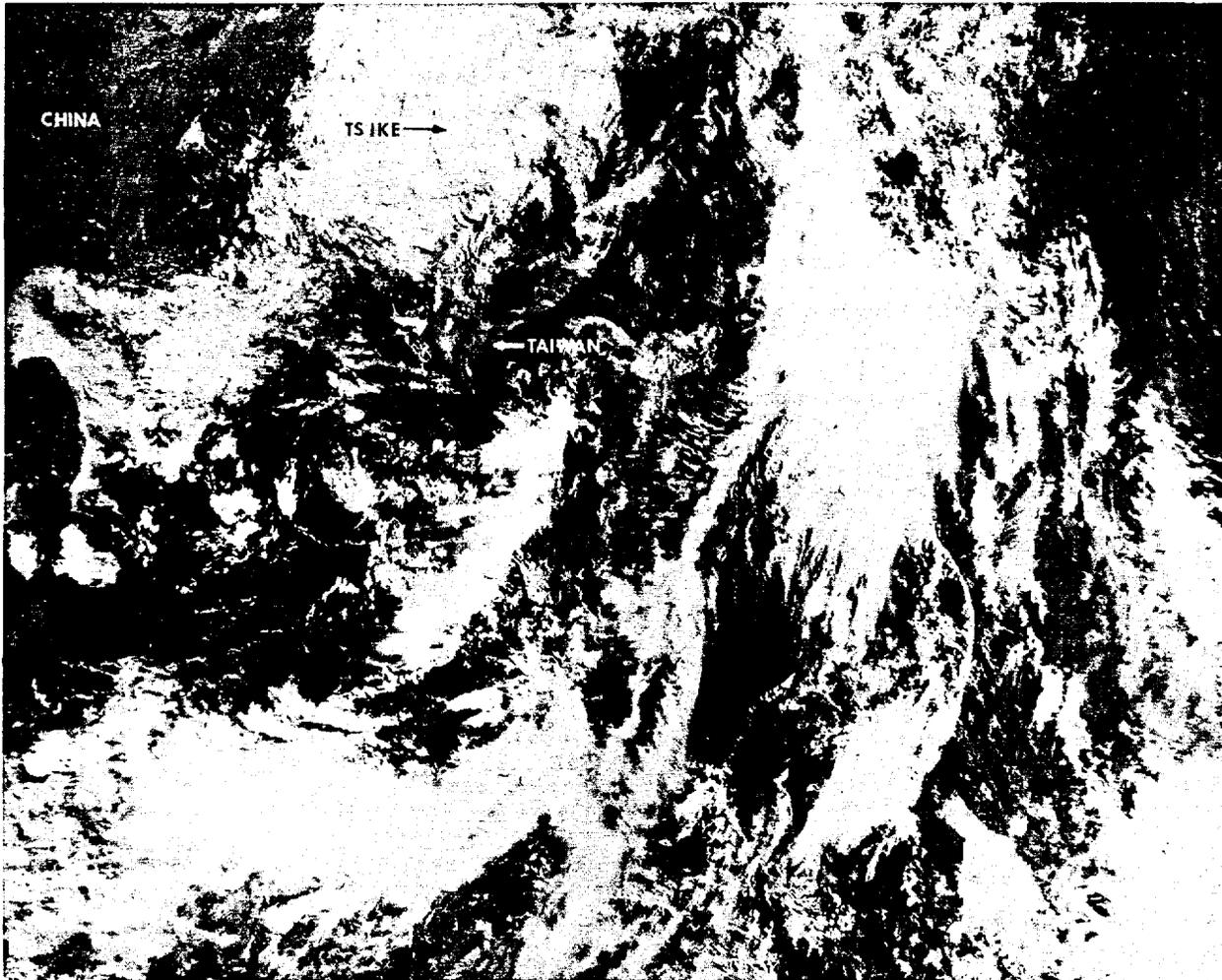


Figure 3-04-2. Tropical Storm Ike as a partially exposed low-level circulation as he began extratropical transition, 13 June 2245Z (NOAA 6 visual imagery).

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