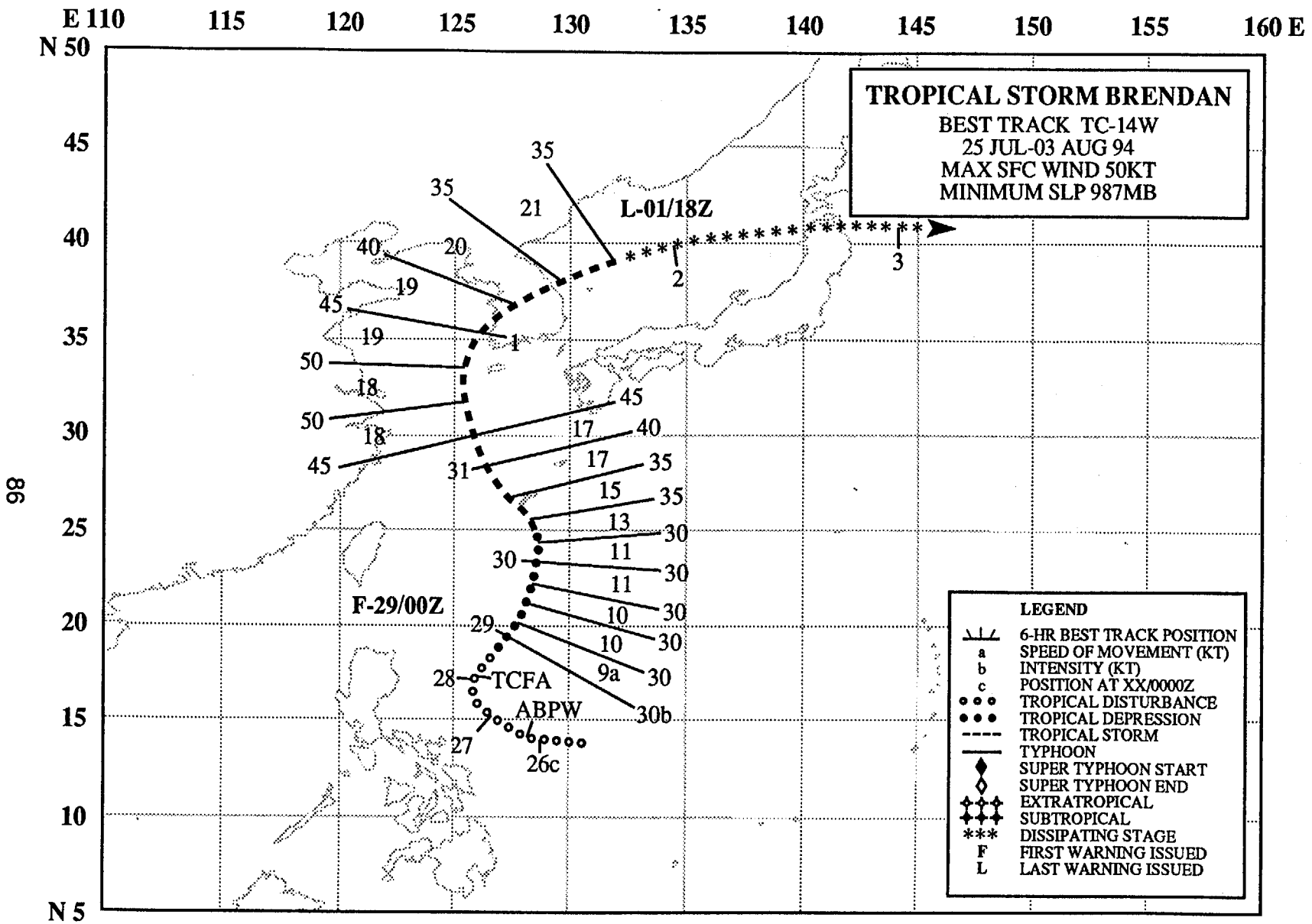
TROPICAL STORM BRENDAN
BEST TRACK TC-14W
25 JUL-03 AUG 94
MAX SFC WIND 50KT
MINIMUM SLP 987MB
E 110
115
120
125
130
135
140
145
150
155
160 E
N 50
45
40
35
30
25
20
15
10
N 5
L-01/18Z
F-29/00Z
TCFA
ABPW
LEGEND
6-HR BEST TRACK POSITION
SPEED OF MOVEMENT (KT)
INTENSITY (KT)
POSITION AT XX/0000Z
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
SUPER TYPHOON START
SUPER TYPHOON END
EXTRATROPICAL
SUBTROPICAL
DISSIPATING STAGE
FIRST WARNING ISSUED
LAST WARNING ISSUED

TROPICAL STORM BRENDAN (14W)

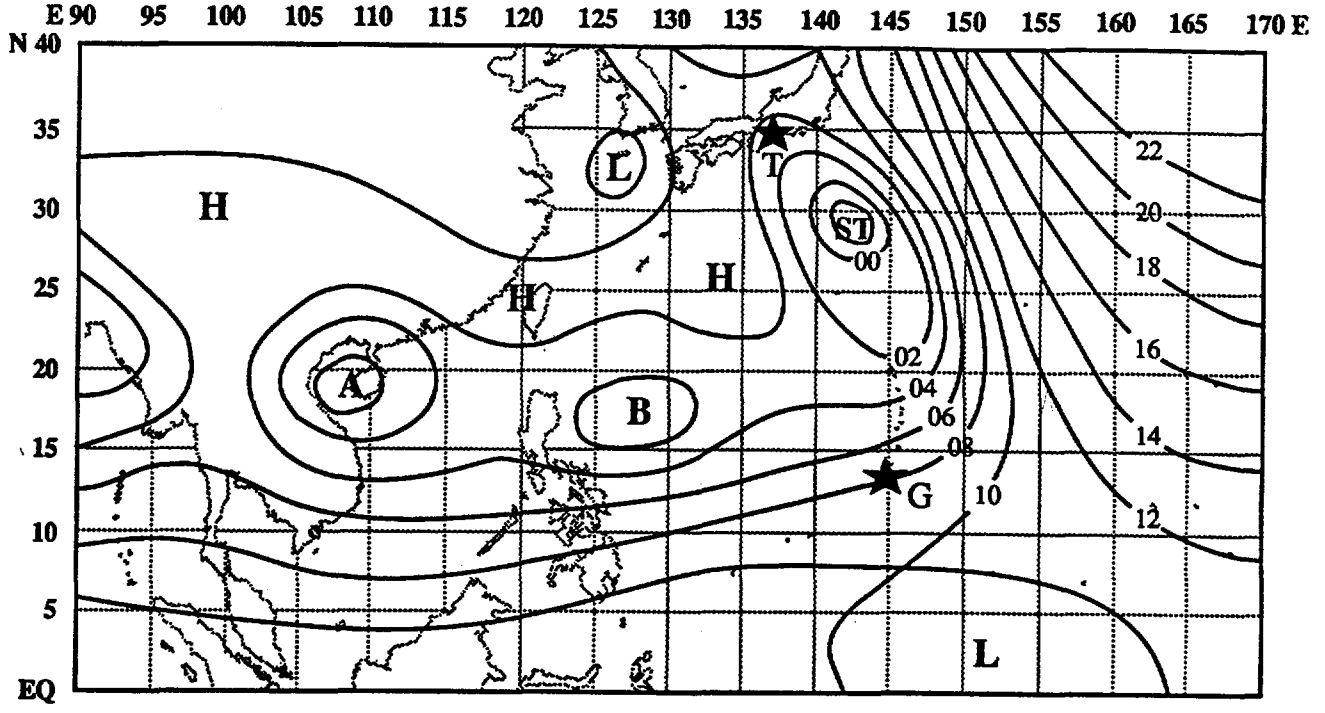

Figure 3-14-1 Sea-level pressure analysis at 280000Z July showing the location of the pre-Brendan (B) tropical disturbance in an active monsoon trough. A sub-tropical cyclone (ST) — possibly the continuation of Tropical Depression 13W — is seen southeast of Tokyo. A low pressure area in the Tonkin Gulf would later become Amy (15W) (A). Dotted lines outline major land masses, bold lines are isobars at 2 mb intervals, stars are labeled G for Guam and T for Tokyo.

I. HIGHLIGHTS

For six days, Brendan meandered northward in a sinusoidal pattern, passing over Okinawa, and eventually striking Korea on 01 August. Up to 8 inches (203 mm) of rain helped to alleviate drought conditions in some areas of the Korean peninsula.

II. TRACK AND INTENSITY

On 26 July, convection began to consolidate into a discrete tropical disturbance in the monsoonal cloud band over the Philippine Sea. This disturbance — the precursor to Brendan — was first mentioned on the 260600Z July Significant Tropical Weather Advisory. During the next two days, the disturbance moved at an average speed of 6 kt (11 km/hr), initially to the northwest, and then, in association with a surge in the southwest monsoon, it turned northward. Based upon improved organization of the deep convection, a Tropical Cyclone Formation Alert was issued at 280200Z. At this time the monsoon circulation was very active (Figure 3-14-1). The first warning on Tropical Depression 14W was issued at 290000Z based upon ship reports of 25 kt (13 m/sec) wind and sea-level pressure below 1000

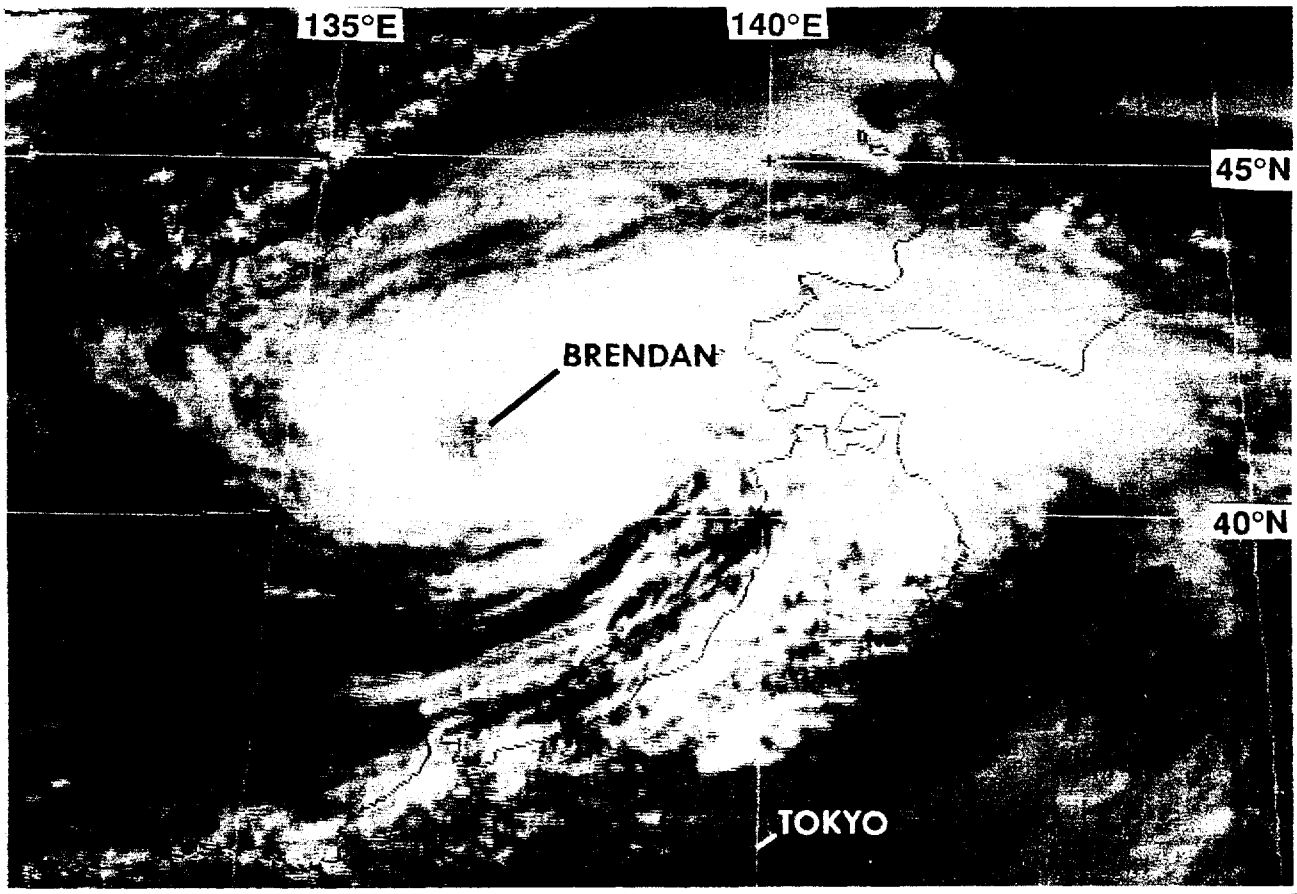

Figure 3-14-2 Brendan exhibits a well-defined exposed low-level circulation center as it approaches Okinawa (300631Z July visible GMS imagery).

mb. As Tropical Depression 14W accelerated northward, it reached tropical storm intensity on the evening of 30 July (Figure 3-14-2) just prior to crossing Okinawa.

Brendan was moving at 18 kt (33 km/hr) when it reached its maximum intensity of 50 kt (26 m/sec) about 120 nm (220 km) south of Cheju Island, Korea. The system reached its point of recurvature at 311800Z in the Yellow Sea, and then accelerated northeastward passing over the Korean peninsula. After weakening over Korea, Brendan continued to accelerate while crossing the Sea of Japan, became extra-tropical, and reintensified to 45 kt (23 m/sec). The system passed near Misawa, Japan at 021500Z August, and later merged with a frontal cloud band after crossing Japan.

III. DISCUSSION

As Brendan passed over Korea, it acquired characteristics of a hybrid tropical cyclone (i.e., possessing characteristics of both a tropical and extratropical cyclone) (Gray 1968, Hebert and Poteat 1975). As the system moved into the Sea of Japan, it elongated in an east-west direction, characteristic of an occlusion, but maintained organized convection near the central eye-like feature (Figure 3-14-3).

IV. IMPACT

Brendan's path over Korea left two dead and 28 missing as high waves overturned fishing boats. No other reports of significant damage were received.

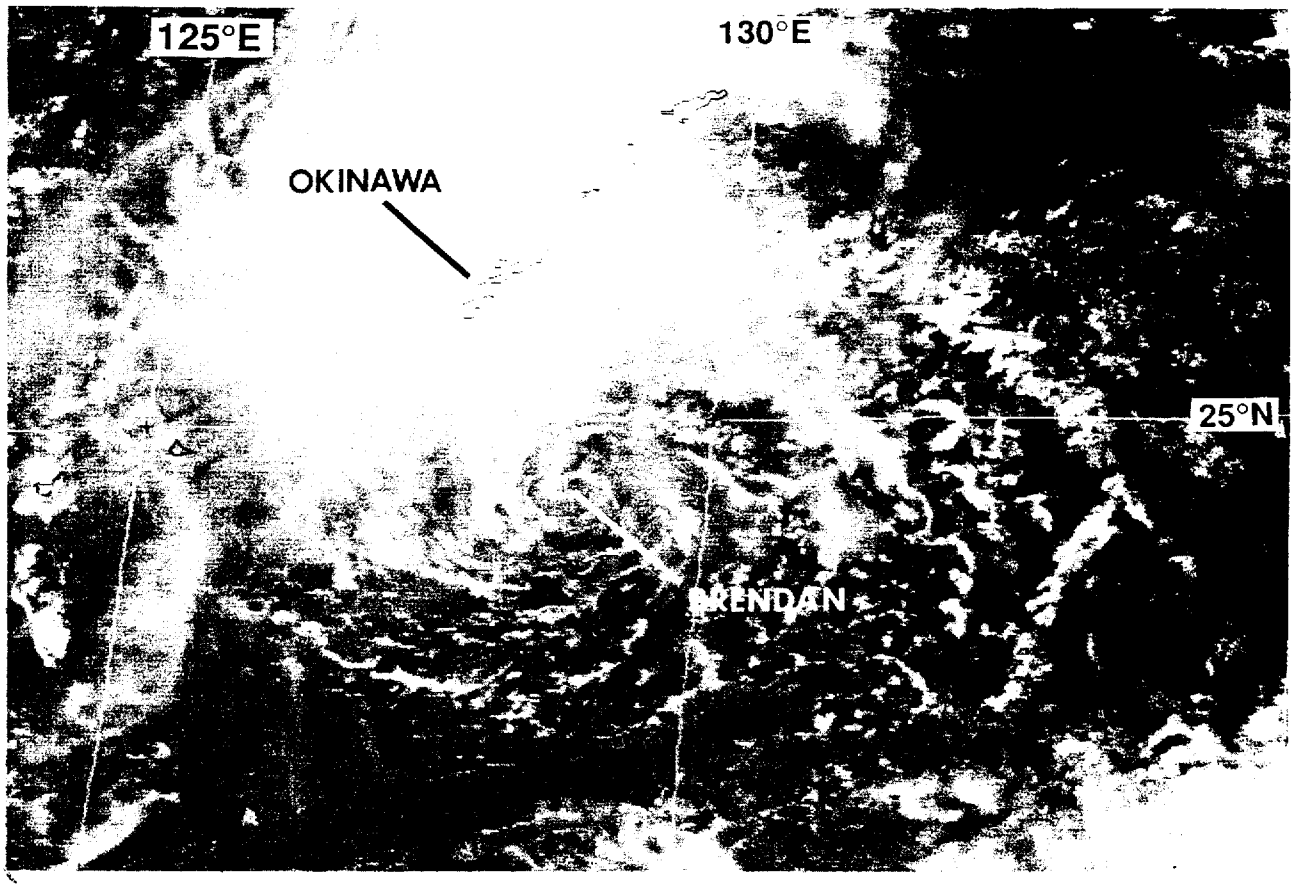

Figure 3-14-3 As a hybrid system, Brendan exhibits both tropical (e.g., organized central convection and an eye-like feature) and extratropical (e.g., the beginnings of a frontal cloud band in its eastern periphery) characteristics (020531Z August visible GMS imagery).