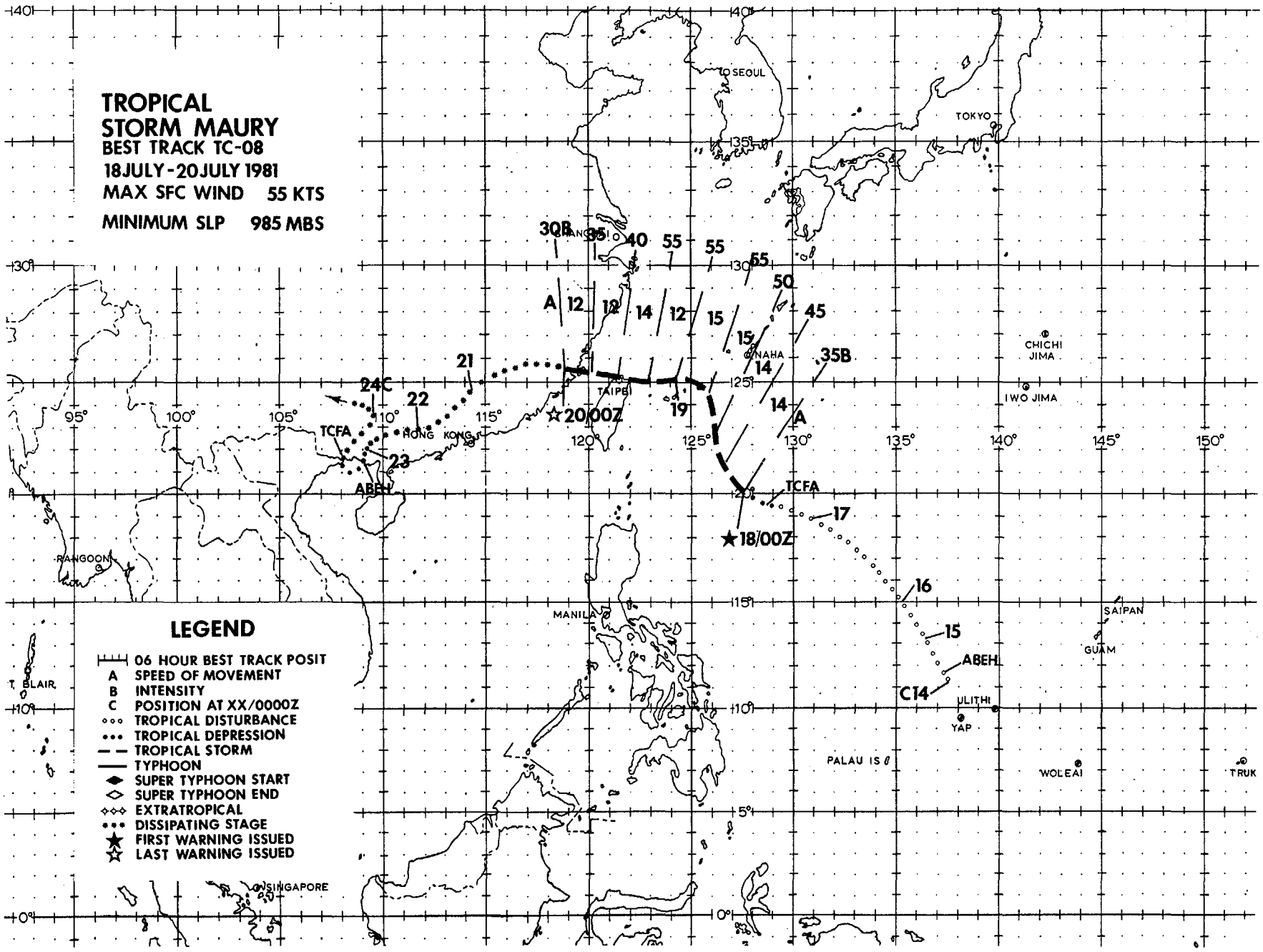
TROPICAL
STORM MAURY
BEST TRACK TC-08
18JULY-20JULY 1981
MAX SFC WIND 55 KTS
MINIMUM SLP 985 MBS
LEGEND
06 HOUR BEST TRACK POSIT
A SPEED OF MOVEMENT
B INTENSITY
C POSITION AT XX/0000Z
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
SUPER TYPHOON START
SUPER TYPHOON END
EXTRATROPICAL
DISSIPATING STAGE
FIRST WARNING ISSUED
LAST WARNING ISSUED
SEOUL
TOKYO
CHICHI JIMA
IWO JIMA
NAHA
TAIPEI
HONG KONG
TCFA
ABEH
20/00Z
18/00Z
RANGOON
MANILA
SAIPAN
GUAM
ULITHI
YAP
PALAU IS
WOLEAI
TRUK
SINGAPORE
T. BLAIR

At 0000Z on 14 July, satellite imagery revealed what was to become Tropical Storm Maury within a convective area near 11N 137E, about 110 nm (204 km) north-northwest of the island of Yap (WMO 91413). Southwesterly low-level flow moved the disturbance at 05 kt (09 km/hr) during the initial 48 hour period. A 500 mb ridge influenced the system thereafter and accelerated it to 14 kt (26 km/hr) by 170000Z. A mid-level circulation was identified on 161200Z satellite imagery and could also be analyzed on the 500 mb charts. The disturbance slowed and moved west-northwest under the influence of the 500 mb ridge located to the northeast while south-southwesterly monsoonal flow continued near the surface.

A Tropical Cyclone Formation Alert was issued at 171600Z when synoptic data indicated winds associated with the disturbance, then located near 20N 128E, had reached 25 kts (13 m/sec). Pressures within the disturbance and the surrounding environment were 1003 mb.

The first warning on Tropical Storm Maury was issued at 180000Z based on several ship reports in the area at 171800Z. Once the disturbance became enhanced by the monsoonal flow, and the central pressure dropped to 999 mb, the system began rapid movement; once again being totally steered by the 500 mb flow.

Aircraft reconnaissance of the storm shortly after the first warning found the 700 mb center displaced to the north-northeast of the surface center by 50 nm (93 km), indicating the storm was tilted in that direction. Figure 3-08-1 depicts the exposed low level circulation, near 21N 128E, to the southwest of the main convection. The exposed low level circulation and displaced convection gave the appearance that Maury was moving to the northwest of his previous positions. The vertical alignment of the system eventually improved and the entire system moved northward under the influence of the 500 mb ridge, as Figure 3-08-2 indicates. The 181816Z position was near 24N 127E.

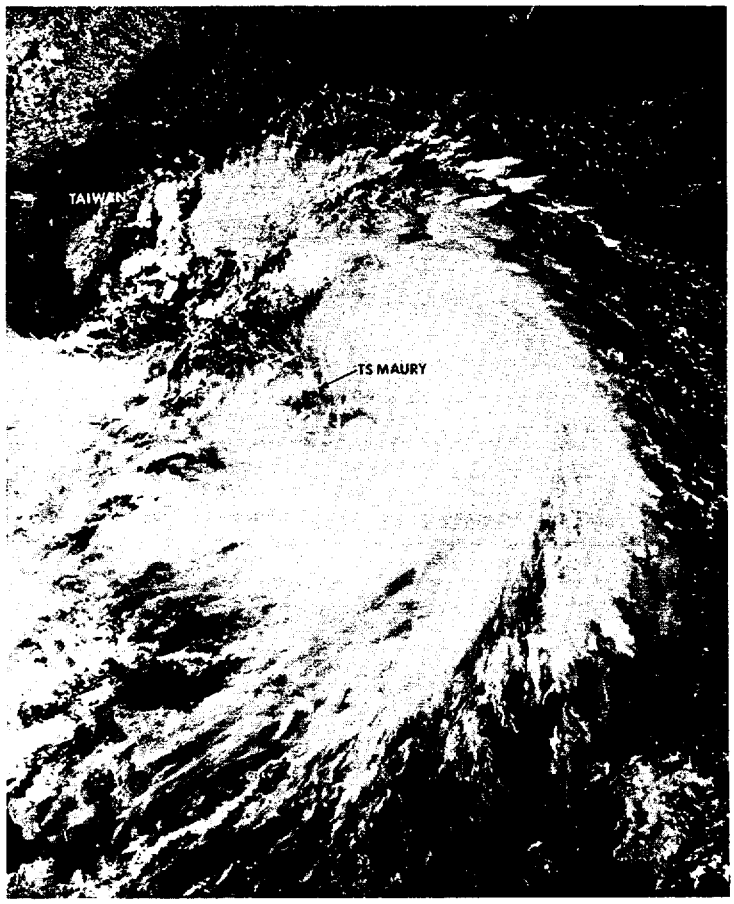

FIGURE 3-08-1. Tropical Storm Maury at 35 kts (18 m/sec) intensity, 18 July 1981, 0513Z. Maury's low-level center was exposed to the southwest of the main convection. (NOAA 7 visual imagery)

FIGURE 3-08-2. Tropical Storm Maury at 55 kts (28 m/sec) intensity, 18 July 1981, 1816Z. This imagery showed Maury had moved north during the preceding six hours instead of the forecasted northwestward movement. (NOAA 7 infrared imagery)

Following this northward movement, the system was forecast to track to the northwest, toward China, as indicated by steering aids from Fleet Numerical Oceanography Center, Montery, California. An apparent weak ridge over China turned out to be much stronger than originally believed and Maury was diverted toward Taiwan, as shown in Figure 3-08-3, when the position was analyzed to be 25.5N 124E. Aircraft reconnaissance of the storm at 190543Z found the 700 mb center continued to be displaced from the surface position, but now by 45 nm (83 km) to the west-southwest. This precession of the 700 mb center and erratic motion of the surface center presented a great deal of difficulty in forecasting the movement of the storm.

The Storm center made landfall on the northern tip of Taiwan at approximately 191000Z. Maury caused heavy flooding in the northern and central portions of Taiwan, leaving 27 dead and many others missing or injured. The flooding was the worst of this year in Taipei City, according to Taiwan press reports.

Maury then moved into the Formosa Strait, still maintaining tropical storm strength, but the intensity was now reduced to 35 kts (18 m/sec) following its interaction with the orographic features of Taiwan. Maury made its second landfall approximately 30 nm (56 km) south-southwest of Fu-chou, China, at 192100Z. Three hours later, at 200000Z, Maury was downgraded to

The remanents of Maury did not completely dissipate over China as expected, but continued inland and began tracking towards the southwest, eventually re-emerging in the Gulf of Tonkin. The remanents were identified as being over water based upon synoptic data at 230600Z, at which time the system was again discussed in the Significant Tropical Weather Advisory. The convective activity lagged behind the surface circulation until the surface circulation moved into the Gulf of Tonkin. A Tropical Cyclone Formation Alert was issued at 231200Z; synoptic data indicated the low level system had recurved northward to make final landfall, approximately 30 nm (56 km) southwest of Yin-chou, while the convective activity continued to move to the southwest. The remanents of the surface circulation then followed orographic features inland and could no longer be distinguished after 241200Z. The convective activity went over land south of Nam Dinh, Vietnam at 240000Z. These cells finally dissipated in the mountains of Laos at 241200Z.

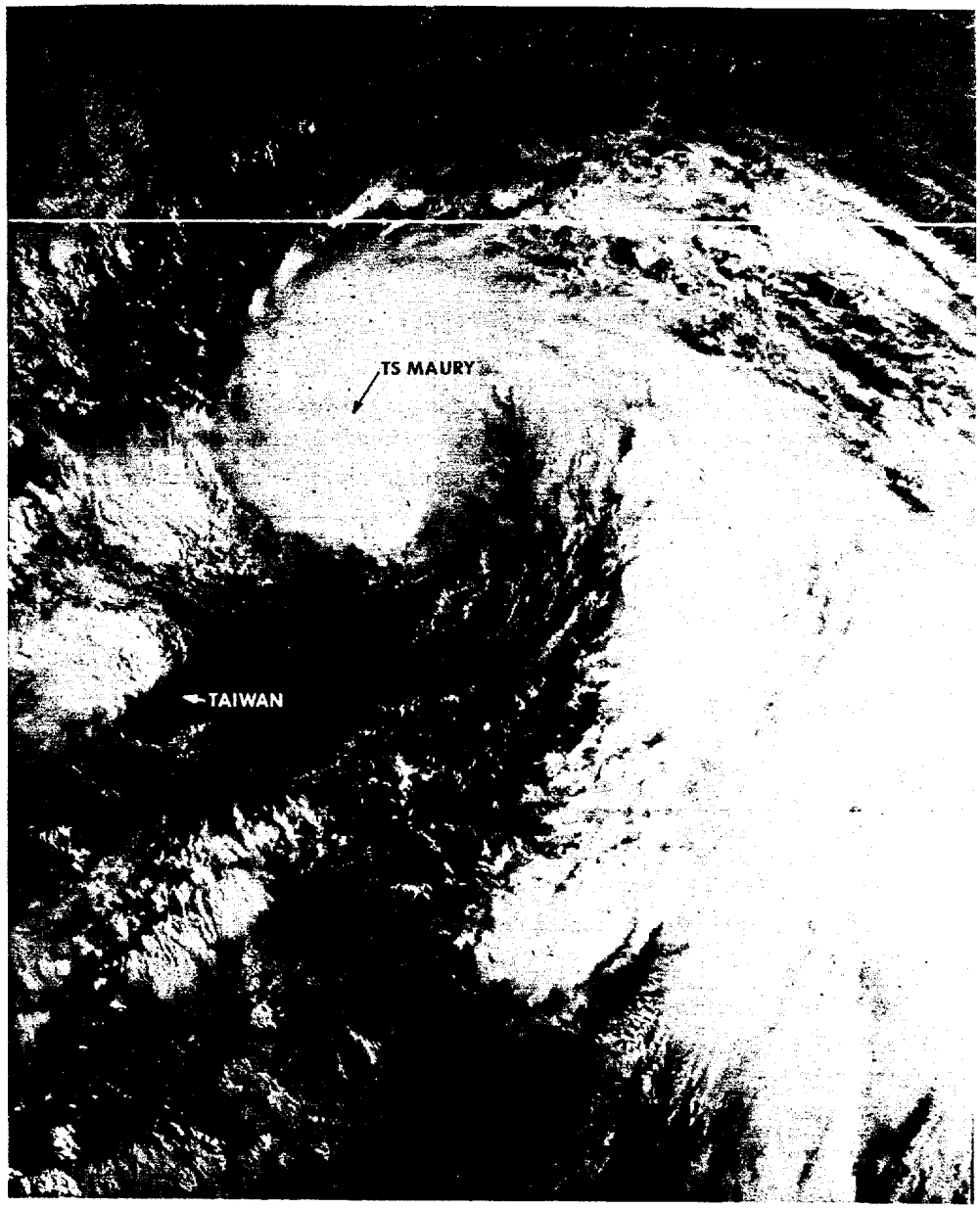

FIGURE 3-08-3. Tropical Storm Maury showed westward movement at the time of this imagery, 18 July 1981, 2305Z. Maury 10 hours before making landfall at the northern tip of Taiwan. (NOAA 6 visual imagery)