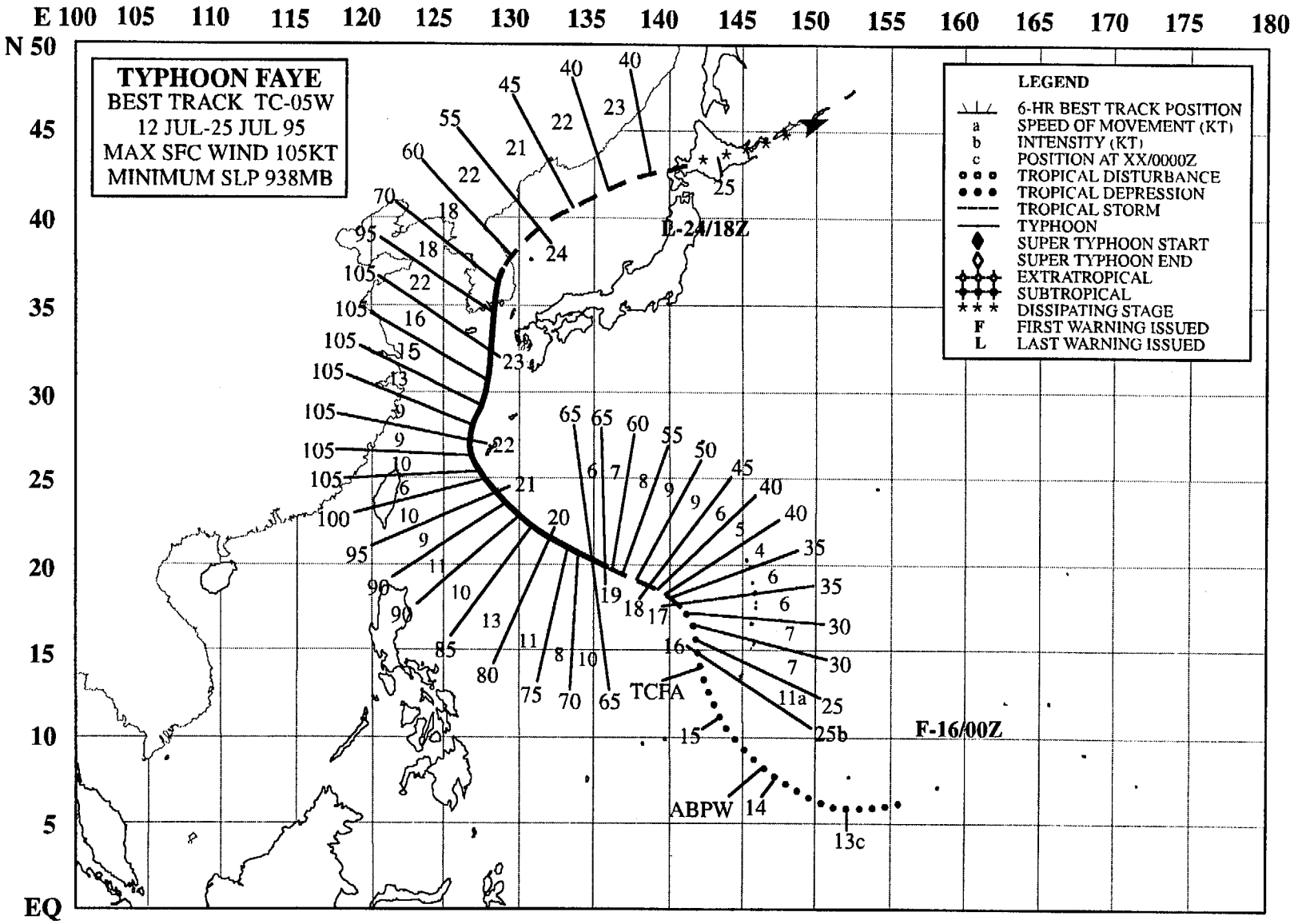
TYPHOON FAYE
BEST TRACK TC-05W
12 JUL-25 JUL 95
MAX SFC WIND 105KT
MINIMUM SLP 938MB
LEGEND
6-HR BEST TRACK POSITION
a SPEED OF MOVEMENT (KT)
b INTENSITY (KT)
c POSITION AT XX/0000Z
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
SUPER TYPHOON START
SUPER TYPHOON END
EXTRATROPICAL
SUBTROPICAL
DISSIPATING STAGE
F FIRST WARNING ISSUED
L LAST WARNING ISSUED
L-24/18Z
F-16/00Z
TCFA
ABPW
E 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180
N 50 45 40 35 30 25 20 15 10 5 EQ

TYPHOON FAYE (05W)

I. HIGHLIGHTS

Faye (05W) was the first tropical cyclone of 1995 to become a typhoon. Reaching typhoon intensity on 19 July, Faye tied the record for the latest date for the occurrence of a typhoon in the western North Pacific. Moving on a north-oriented track through the East China Sea, Faye made landfall on the southern coast of Korea, and was one of the most intense tropical cyclones to strike the Korean peninsula in many years.

II. TRACK AND INTENSITY

During the first week of July, most of the deep convection in the tropics of the western North Pacific was located near the Philippines and over the South China Sea. Throughout Micronesia, amounts of deep convection were relatively low, the low-level winds were predominantly from the east, and the upper-level winds were predominantly from the west (creating a zone of high vertical wind shear within which isolated mesoscale convective systems grew and decayed). Toward the end of the second week of July, an area of persistent deep convection was located in the Caroline Islands. On 14 July, synoptic data indicated that a low-level circulation center accompanying this area of deep convection was located about 300 nm (550 km) south-southeast of Guam, prompting its first mention on the 140600Z July Significant Tropical Weather Advisory. During the next 24 hours, this weak low-level circulation turned toward the north-northwest and passed about 180 nm (330 km) to the west of Guam. Late on 15 July, satellite imagery and radar data from Guam indicated that the organization of the system was improving. A Tropical Cyclone Formation Alert was issued at 151730Z.

On the morning of 16 July, visible satellite imagery indicated that the system had a well-defined low-level circulation center associated with its small area of deep convection. This prompted the JTWC to issue the first warning on Tropical Depression 05W, valid at 160000Z. Despite numerical guidance (i.e., NOGAPS) that indicated that the system would not deepen, the relatively small-sized tropical cyclone continued to intensify and, on the warning valid at 170600Z, Tropical Depression 05W was upgraded to Tropical Storm Faye. In keeping with indications of northeasterly shear on the system, and with NOGAPS not indicating deepening, Faye was not forecast to reach typhoon intensity.

Faye continued to intensify as it moved northwestward toward Okinawa. It was upgraded to a typhoon on the warning valid at 191200Z. After passing to the southwest of Okinawa on 21 July, Faye turned to the north and intensified. It reached its peak intensity of 105 kt (54 m/sec) at 211200Z as it was moving northward (Figure 3-05-1). Now on a north-oriented track, Faye maintained its intensity of 105 kt (54 m/sec) for the next 36 hours. It began to weaken after 230000Z, while accelerating toward Korea. Shortly after 230600Z, Faye made landfall on the south coast of Korea with an intensity of 95 kt (49 m/sec) (Figure 3-05-2). Weakening rapidly over the Korean peninsula, Faye was downgraded to a tropical storm on the warning valid at 240000Z after it had recurved and entered the Sea of Japan. In postanalysis it was downgraded to a tropical storm about nine hours earlier, while it was over the mountains of Korea. Moving rapidly across the Sea of Japan, Faye continued to weaken, and the final warning was issued, valid at 241800Z, shortly before it made landfall on the west coast of Hokkaido.

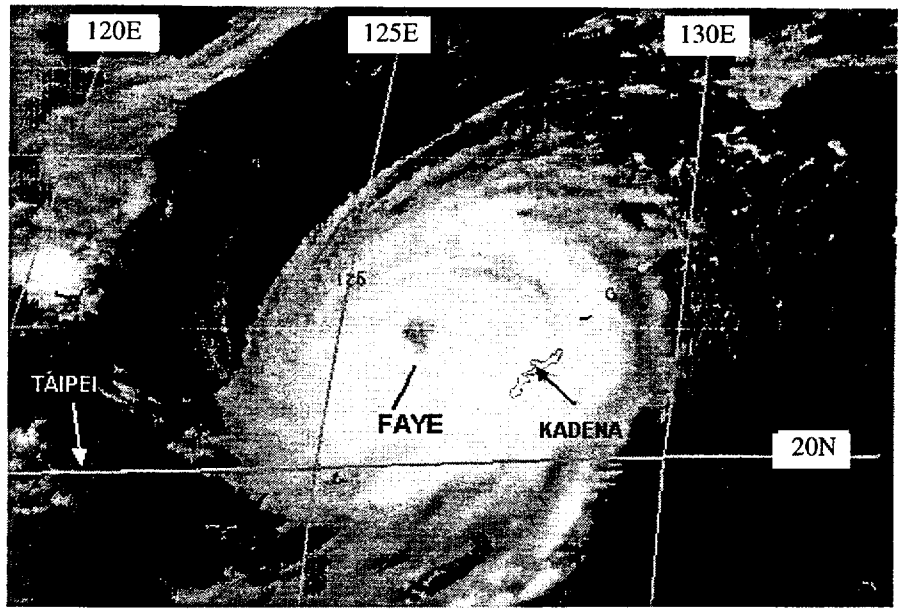

Figure 3-05-1 Faye at peak intensity of 105 kt (54 m/sec) (212331Z July visible GMS imagery).

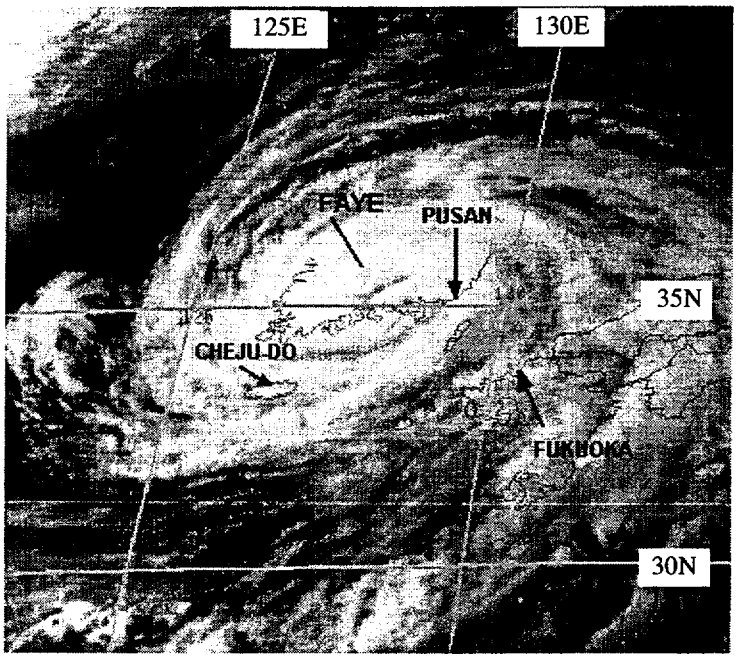

Figure 3-05-2 Faye makes landfall on the southern coast of Korea (230831Z July visible GMS imagery).

III. DISCUSSION

a. *A late date for the first typhoon*

Faye became a typhoon on 19 July, tying the latest date in the year for a tropical cyclone to become a typhoon in the western North Pacific. In the 37-year period 1959-1995, only one other year — 1977 — had such a late date of record for the first tropical cyclone of typhoon intensity. Other years during which the first typhoon intensity was recorded in July (but before 19 July) include 1973 (07 July), 1983 (11 July), and 1984 (02 July). Note: the latest occurrence of typhoon intensity during what might be considered the most active part of the year in the western North Pacific was 01 August 1975, not counting the occurrence of a typhoon during January of that year.

b. *Forecast performance*

The JTWC's mean track forecast errors for Faye (91 nm, 194 nm, and 348 nm at 24, 48, and 72 hours respectively) were close to their long-term averages. During the period 21 through 23 July, however, Faye underwent a synoptic-scale meander along its north-oriented track that led to track forecasts with some large errors. By 220000Z, Faye had passed to the west of Okinawa and began to head to the north-northeast. At 221200Z it appeared that Faye had begun its recurvature to the northeast, and a significant track change was forecast, bringing Faye along an accelerating recurve trajectory that skirted along the southeastern coast of Japan (Figure 3-05-3). This was in sharp contrast to earlier track forecasts that had Faye tracking northward toward the coast of southern Korea. Soon after 221200Z, Faye's track began to shift back to a more northward direction, and the next warning, valid at 221800Z indicated that Faye would pass approximately 35 nm (65 km) to the east of Pusan, Korea — the 24-hour forecast position on this warning was nearly 240 nm (450 km) to the northwest of the 24-hour forecast position given on the previous warning. Faye's meandering track caused the JTWC to incur some large forecast errors.

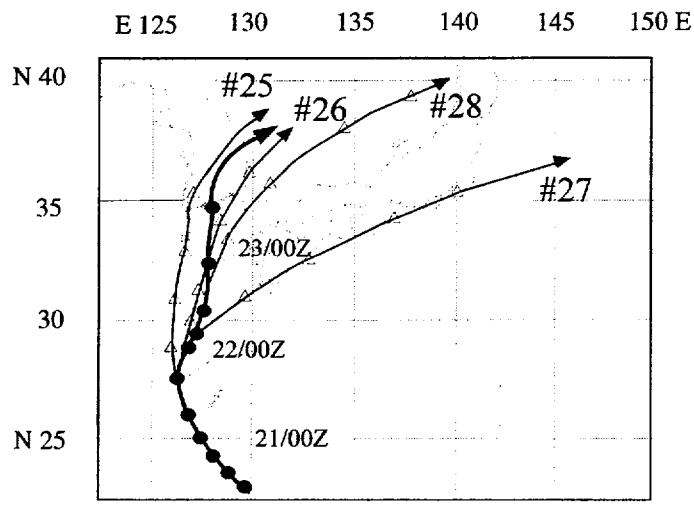

Figure 3-05-3 A synoptic-scale meander in Faye's track prompts dramatic changes in the forecast track. The final best track is indicated by the thick black line that connects large black dots at six hour intervals. The thin lines connecting the open triangles indicate the forecast track of the indicated warning. Open triangles are at 12-hour intervals.

IV. IMPACT

As Faye approached Okinawa, aircraft from Kadena Air Force Base were evacuated to Guam and other locations. Kadena reported gales and gusts over 50 kt throughout the evening of 21 July as Faye passed about 120 nm (220 km) to the southwest.

On the afternoon of 23 July, the USNS Wilkes (an oceanographic survey ship operated by the Commander, Military Sealift Command for the Commander, Naval Meteorology and Oceanography Command) was overtaken by Typhoon Faye, and probably experienced eye passage. During its encounter with Faye, the Wilkes reported winds of 70-80 kt (36-41 m/sec) and a minimum sea level pressure of 965 mb. At approximately 230530Z July, the master of Wilkes judged that the ship was in the eye of Faye. Damage to the Wilkes caused by Typhoon Faye included: broken wires, lights, and chemical containers; numerous holes in the deck; crane cradle torn loose; VHF and INMARSAT antennae damaged; salt water contamination of oil in all deck machinery; and damage to scientific equipment stowed on weather decks. Personnel casualties were limited to only one minor head laceration.

In the East China Sea, the cargo ship Far East Beauty sank with two Chinese crewmen reported dead and three others missing. In Korea, Faye was described as the worst typhoon to hit the Korean peninsula in 37 years. It capsized dozens of small boats, overturned cars, uprooted trees, and disrupted train

service. At least 14 people were reported killed and 21 others were missing. Nine people died and three were missing after high surf swept a bus off of a coastal highway. The 140,000-ton tanker Sea Prince ran aground and leaked oil into the sea around Yochon, one of many small islands off the coast of Yosu on the southern tip of South Korea. In southern Japan, the typhoon disrupted air travel and caused power outages, but no injuries or deaths were reported. U.S. military bases in South Korea and Japan reported no significant damage.