TOKYO

SHANGHAI

NAHA

CHICHI JIMA

IWO JIMA

DACCA

14/06Z

25 — 45 — 50 — 55 — 60 — 65 — 65 — 65 — 65 — 55 — 55 — PEI

25 — 25

65 — 65

B 15

105°   110°   115°   65 — 60

HONG KONG   55 — 45

A   20   20   18   15   14   13   12   11   8   9   8   40 — 35

6   12   11   11

14   13   12   10   10   10   10   12

RANGOON

11   17

TYPHOON BESS
BEST TRACK TC-27
08 OCT - 14 OCT 1974
MAX SFC WIND 65 KTS
MINIMUM SLP 980 MBS

MANILA   10   09

08

GUAM

BANGKOK

07   06 C

SAIGON

PT. BLAIR

ULITHI

LEGEND

18   15   15 /A   YAP

|⊢⊢⊣| 6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
C POSITION AT XX/0000 Z
——— TYPHOON
– – – TROPICAL STORM
• • • TROPICAL DEPRESSION
∘ ∘ ∘ TROPICAL DISTURBANCE
+ + + EXTRATROPICAL
✳ ✳ ✳ DISSIPATING STAGE
★ FIRST WARNING ISSUED
☆ LAST WARNING ISSUED

PALAU IS   WOLEAI   TR

25

35   35   30 B

08/06Z

SINGAPORE

38

The circulation that eventually developed into Typhoon Bess was first noted on synoptic charts south of Guam on 7 October (0000Z). The circulation was accompanied by broad monsoonal flow, and, by the 9th, evidence from satellite data and aircraft reconnaissance indicated two centers had developed (Figure 4-20). The northern system dominated, while the center that had initially been tracked for several days dissipated. Due to a strong subtropical ridge, movement of the entire circulation complex up to this time had been rapid, with a forward speed of 18 knots. Due to a deepening trough in the westerlies over the East China Sea, the pressures north of the storm weakened, and Bess slowed to almost half its original speed.

Winds in the cyclone reached typhoon intensity early on the 10th as it approached northern Luzon. Approximately 24 hrs later, coastal crossing occurred about 50 nm south of Escarpada Point. Inland, Tuguegarao City reported a pressure of 976.9 mb (the minimum reported during the storm's lifetime) while Bess's center passed 30 nm north of the station. Relatively unaffected by a short journey over the mountainous island, Bess emerged into the South China Sea as a minimal typhoon.

Bess's circulation brought high winds affecting much of Luzon and the straits. Inland, Baguio weather station (elevation 4860 feet) experienced wind gusts to 80 knots while Appari on the northern coast recorded a gust to 96 knots. In the Luzon straits several ships reported strong winds as the typhoon's center passed to the south on the 11th. The Indian ship BAILADIA and a German vessel (call sign DEBC) experienced northeasterly winds of 50 knots and 57 knots respectively. Considerable rainfall with 24 hour totals of 5 to 6 inches occurred over much of northern Luzon, with a 24 hour ex-
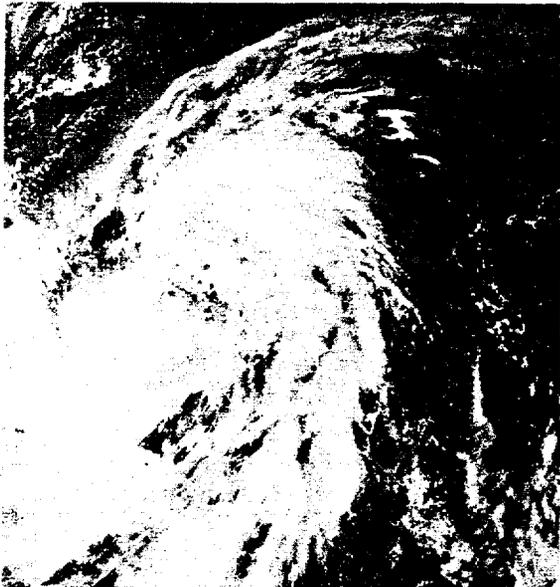
treme of 30.8 inches measured at Baguio during passage. Landslides and flash flooding accounted for casualties of 26 killed and 3 missing. Total damage including public and private property, agricultural crops (rice), and livestock were estimated near $9.2 million.

Once in the South China Sea, Bess turned westward in response to a massive high pressure area dominating central and South China. The combination of the typhoon"s envelope of low pressure and this high pressure area generated a strong northeast flow over the waters south of the China coast. Pratas Island, 110 nm to the northwest of the typhoon's center, reported sustained (10 minute) winds of 50 knots on the 12th while the British ship MARCO POLO estimated winds of 45 knots 220 nm northwest of the center (Figure 4-21). As Bess tracked south of Hong Kong late on the 12th, peak gusts of 58 knots and 49 knots were observed at Wagland Island and the Royal Observatory respectively.

As the modifying northeast monsoon flow entered the typhoon's circulation, the central pressure began to fill and winds associated with Bess dropped to tropical storm strength on 13th. Bess increased in forward speed crossing Hainan Island late in the day and weakened to depression intensity. Emerging into the Gulf of Tonkin, the circulation continued to weaken, eventually dissipating on the North Vietnam coast early on the 14th.

In addition to the damage wrought on the Philippines, Bess claimed a U. S. Air Force reconnaissance aircraft in the South China Sea south of Hong Kong on the 12th. Last contact with the mission occurred while the aircraft was collecting peripheral data in the typhoon's northern semicircle. Nothing was ever heard again of the plane or its crew of six.

FIGURE 4-20. Tropical Storm Bess exhibiting a broad circulation center 500 nm east of Luzon Island, 9 October 1974, 0235Z.

FIGURE 4-21. Bess of minimal typhoon strength in the South China Sea 290 nm southeast of Hong Kong, 12 October 1974, 0321Z. (DMSP imagery)