

= Typhoon Brian (1989) =

Typhoon Brian was the first in a series of tropical cyclones to impact southern China and northern Vietnam in October 1989 . Originating from an area of low pressure associated with a monsoon trough in late @-@ September , Brian quickly organized into a tropical storm over the South China Sea on September 30 . Tracking along a general west @-@ southwest to westerly course , the storm attained typhoon status on October 1 before making landfall along the southern coast of Hainan Island the following day . Slight weakening occurred during Brian 's brief passage of Hainan Island before the system entered the Gulf of Tonkin . The storm ultimately struck Vietnam on October 3 before dissipating the next day over Laos .

Across Hainan Island , Brian caused extensive damage to property and infrastructure . Nearly 185 @,@ 000 homes were damaged or destroyed by the storm 's high winds or flash flooding . Communications were severely disrupted as 2 @,@ 800 km (1 @,@ 700 mi) of power and telephone lines were downed . Brian killed 40 people and inflicted 837 million Renminbi (US \$ 222 million) in damage throughout Hainan before impacting Vietnam and causing further damage . Significant losses were reported in Vietnam as well ; however , the rapid succession of Brian and two other typhoons made it difficult to differentiate the losses caused by each storm .

= = Meteorological history = =

In late September 1989 , an active monsoon trough over the South China Sea spawned a tropical disturbance near northern Luzon . By September 28 , a broad band of convection associated with a weak area of low pressure developed within the trough . Later that day , the Japan Meteorological Agency (JMA) began monitoring the system as a tropical depression . Aided by a well @-@ defined anticyclone , the low quickly organized , prompting the Joint Typhoon Warning Center (JTWC) to issue a Tropical Cyclone Formation Alert . Initially steered westward by a subtropical ridge , the depression became quasi @-@ stationary on September 30 about 360 km (225 mi) southeast of Hong Kong as the ridge weakened . Shortly after the system stalled , the JTWC also began warning on it as a tropical depression .

Following a reintensification of the ridge later on September 30 , the depression resumed a west @-@ southwesterly track . During this time , the depression attained tropical storm status and was given the name Brian by the JTWC . Over the following 24 hours , Brian continued to intensify and ultimately reached typhoon strength late on October 1 . After developing a large eye , Brian reached its peak intensity on October 2 with winds of 150 km / h (90 mph ; one @-@ minute sustained) . The JMA also classified Brian as a typhoon around this time , estimating the storm to have attained peak ten @-@ minute sustained winds of 120 km / h (75 mph) as well as a minimum pressure of 970 mbar (hPa ; 28 @.@ 64 inHg) . Now tracking due west , the typhoon moved towards Hainan Island and ultimately made landfall along the southeastern coast of the island around 1500 UTC .

Only slight weakening took place as the typhoon skirted along the southern coast of Hainan Island . By October 3 , Brian had entered the Gulf of Tonkin and struck Vietnam later that day near Vinh with winds of 140 km / h (85 km / h) . Rapid dissipation ensued once onshore and Brian eventually dissipated on October 4 over the mountainous terrain of Laos .

= = Impact = =

Striking Hainan Island as a strong typhoon , Brian caused widespread wind damage in the region . Approximately 700 km (430 mi) of power lines and 2 @,@ 100 km (1 @,@ 300 mi) of telephone lines were downed by the storm , severely disrupting communications . Many homes in southern areas of Hainan either collapsed or lost their roofs amidst hurricane @-@ force winds . About 15 @,@ 900 homes collapsed throughout the island and another 169 @,@ 000 were damaged . Over 25 million lumber and rubber trees were snapped or uprooted by the typhoon . Heavy rains accompanying the storm triggered significant flash flooding . Many rivers across the island overtopped their banks and inundated surrounding areas , including an estimated 194 @,@ 000

acres of rice paddies . Across Hainan , 40 people were killed and 529 others were injured by the storm . Losses throughout the region reached 837 million Renminbi (US \$ 222 million) .

Although Hong Kong was not in the direct path of the storm , the Hong Kong Observatory issued storm signals on September 30 as high winds associated with the typhoon were expected to impact the city . On October 2 , the storm passed 270 km (170 mi) south of the city . Wind gusts associated with the storm reached 124 km / h (77 mph) on Waglan Island ; however , no damage was reported . Along the coast , a storm surge of 0 @. @ 62 m (2 @. @ 0 ft) occurred on Waglan .

Due to the severe damage caused by Typhoon Brian , the provincial flood control headquarters urged the Chinese Government to organize relief efforts at all levels . By October 8 , the Government of Hainan Island deployed two relief teams to the hardest hit areas . Additionally , 5 million Renminbi in aid was supplied to the region .

In Vietnam , heavy rains produced by the typhoon caused widespread flooding in northern provinces . Early assessments from the Vietnamese flood control committee indicated that 60 @, @ 000 hectares (148 @, @ 000 acres) of rice fields were submerged and 6 @, @ 700 metric tons (7 @, @ 400 short tons) of grain were soaked . High winds also caused extensive damage . At least 29 @, @ 000 homes collapsed and 119 @, @ 000 others were left roofless . Additionally , 572 hospitals or clinics were damaged . Several fatalities were reported in the region ; however , they had yet to be verified by October 12 . Within two weeks of Brian 's passage , Typhoons Angela and Dan struck the country , causing further damage and loss of life . Due to the rapid succession of storms , losses resulting from the three typhoons are difficult to differentiate . Because of the widespread damage caused by the storms , the Vietnamese Government appealed for international assistance .