= Tropical Storm Vongfong (2002) =

Tropical Storm Vongfong , known in the Philippines as Tropical Storm Milenyo , affected both the Philippines and China after a deadly flood season . The 14th named storm of the 2002 Pacific typhoon season , Vongfong developed as a tropical depression on August 10 . Initially it was disorganized due to hostile conditions , and it failed to intensify significantly before crossing the Philippine island of Luzon . There , flooding forced 3 @,@ 500 people to evacuate their homes . In the Philippines , the storm killed 35 people and caused $ 3 @.@ 3 million in damage .

After affecting the Philippines , the tropical depression dissipated in the South China Sea , although it reformed on August 15 . It moved northwestward , strengthening into Tropical Storm Vongfong . It brushed eastern Hainan before making landfall on August 19 in southern China near Wuchuan , Guangdong . Soon after it dissipated , the storm dropped heavy rainfall across the region , causing one traffic accident in Hong Kong and killing twelve people due to landslides . The storm destroyed 6 @,@ 000 houses , mostly in Guangdong , and damage in the country totaled at least $ 86 million .

= = Meteorological history = =

On August 8 , an area of convection , or thunderstorms , formed to the west @-@ northwest of Palau , with a weak circulation connected to the monsoon trough . The system had good outflow , although it was initially within an area of increasing moderate wind shear , which limited organization . Convection increased , and although the circulation was exposed , the shear later decreased enough for the system to organize into a tropical depression on August 10 ; the Joint Typhoon Warning Center (JTWC) labeled it as Tropical Depression 18W , the Japan Meteorological Agency (JMA) labeled it as an unnumbered depression , and the Philippine Atmospheric , Geophysical and Astronomical Services Administration (PAGASA) gave it the name Tropical Depression Milenyo .

Upon developing , the depression was located in an area of weak steering currents , still connected to the monsoon rough , and it moved slowly to the west @-@ northwest . The thunderstorms continued to be sheared to the west of the circulation , which limited strengthening . On August 12 , the JTWC briefly upgraded the system to a tropical storm after a temporary increase in thunderstorms , although the system soon weakened . A ridge to the north caused a general westward track toward the Philippines . With a fully exposed circulation , the depression made landfall at 0800 UTC on August 13 near Infanta on the Philippine island of Luzon . It soon dissipated due to continued shear and land interaction . The remnants continued westward into the South China Sea , and PAGASA and JMA both discontinued advisories early on August 14 . However , on August 15 , a tropical depression re @-@ developed halfway between Vietnam and the Philippines , with a circulation exposed from the convection due to moderate wind shear . That day , the JTWC initiated advisories on Tropical Depression 20W .

After redevelopment , wind shear continued to be a problem , with convection located southwest of the center . Early on August 17 , a pulse in the monsoon increased thunderstorms and allowed the system to become better organized . The convection became more concentrated and the circulation less exposed . As a result , the JMA upgraded the depression to Tropical Storm Vongfong early on August 18 , still in the central South China Sea . Around that time , the storm began moving more quickly to the northwest due to a developing ridge to its northeast . Although the JMA estimated peak 10 ? minute sustained winds of only 75 km / h (45 mph) , the JTWC assessed Vongfong as continuing to intensify to peak 1 ? minute winds of 100 km / h (65 mph) , early on August 19 . By that time , the storm was near Hainan , and at 1240 UTC that day , Vongfong made landfall in southern China near Wuchuan , Guangdong . It quickly weakened over land , dissipating early on August 20 to the west of Guilin .

= = Preparations and impact = =

Heavy rains from the storm affected the Philippines , causing flooding that forced 3 @,@ 500

people to evacuate their houses . This occurred after a month of heavy rainfall from several tropical cyclones in July . Officials closed schools and advised small boats to remain at port . A vessel capsized offshore Antique Province , and its crew of 15 was rescued . At least six people died due to electrocution , after downed power lines touched floodwaters . The storm spawned a tornado and caused landslides in Negros Oriental . The storm killed 35 people in the country and injured 22 others . Damage was estimated at $ 3 @.@ 3 million (? 172 million 2002 PHP) . Milenyo was the final storm to be named by PAGASA during 2002 .

On August 17 , the Hong Kong Observatory (HKO) issued standby signal number 1 due to the storm 's reformation in the South China Sea . Vongfong made landfall west of the territory , although its outer rainbands spread across the region . Slick roads contributed to a traffic accident in Sai Kung in which one person was killed . Rainfall in Hong Kong reached 133 mm (5 @.@ 2 in) in the town of Kwai Chung . The rainbands also produced gusty winds ; sustained winds peaked at 75 km / h (47 mph) , with gusts to 110 km / h (68 mph) at the mountain peak of Tai Mo Shan . While moving ashore , Vongfong produced a storm surge of 0 @.@ 48 m (1 @.@ 6 ft) in Shek Pik . The storm downed a few trees across the territory , and a fallen branch injured one man . Another person was injured by a damaged awning .

In Hainan , the threat from Vongfong prompted officials to close the primary airport and to restrict sea traffic with Guangdong . As a result , 113 flights were delayed , stranding more than 3 @,@ 000 people . On the island , rainfall reached as high as 240 mm (9 @.@ 4 in) in Haikou over a three @-@ day period . In the city , the storm downed 2 @,@ 145 trees , and damage was estimated at $ 456 @,@ 000 (¥ 3 @.@ 8 million CNY . In the midst of a deadly flooding season across China , including Tropical Storm Kammuri that affected the region only 12 days earlier , Vongfong brought additionally heavy rainfall to southwestern China ; totals in Guangdong peaked at 222 @.@ 6 mm (8 @.@ 76 in) in Zhanjiang , and in Guangxi , rainfall reached 124 mm (4 @.@ 9 in) in a nine @-@ hour period in Bobai County . The storm washed a boat ashore about 60 km (37 mi) southwest of Hong Kong , although the passengers were rescued . Rains spread as far north as Hunan , where previous flooding prompted a state of emergency . In neighboring Jiangxi , floods caused the Yangtze River to crest above warning levels in Jiujiang . River levels also rose in Liuzhou in Guangxi . Wind gusts as strong as 144 km / h (90 mph) were reported in Zhanjiang , and a station in Guangxi reported gusts to 115 km / h (71 mph) . The storm caused flooding and landslides that damaged thousands of houses . Some areas lost electricity during the storm , and the storm disrupted traffic in the region . Vongfong flooded 46 @,@ 000 ha (110 @,@ 000 acres) of crop fields , and storm flooding also damaged hundreds of reservoirs . Vongfong destroyed 5 @,@ 600 houses in Guangdong , many of them in Zhanjiang , and provincial damage there was estimated at $ 46 million (¥ 382 million CNY) . In Guangxi , the storm killed twelve people , eight due to landslides . At least 400 houses were destroyed in Guangxi , and damage in the province was estimated at over $ 36 @.@ 2 million (¥ 300 million CNY) .