

= Typhoon Wipha (2007) =

Typhoon Wipha , known in the Philippines as Typhoon Goring , was the strongest typhoon to threaten the Chinese coastline since Typhoon Saomai in August 2006 . Forming out of a tropical disturbance on September 15 , 2007 , it quickly developed into a tropical storm , and intensified into a typhoon the following day with the appearance of an eye feature . After a period of rapid intensification , Wipha attained its peak intensity on September 18 , with winds of 185 km / h (115 mph) and a barometric pressure of 925 mbar (hPa) , according to the Japan Meteorological Agency . Later that day , the storm began to weaken as it interacted with the mountainous terrain of Taiwan before brushing the northern edge of the island . Wipha subsequently made landfall near Fuding along the Fujian @-@ Zhejiang provincial border with winds estimated at 185 km / h (115 mph) by the JTWC . Shortly thereafter , the typhoon weakened as it moved inland , weakening to a tropical storm within 18 hours of moving over land .

Nearly 2 million residents along the Chinese coastline evacuated ahead of Typhoon Wipha 's arrival . Nearly 20 @,@ 000 Chinese soldiers were deployed to the area to assist residents in reinforcing flood barriers and speeding up evacuations . The typhoon triggered severe flooding with rainfall in excess of 353 mm (13 @.@ 9 in) . Roughly 13 @,@ 000 homes were destroyed , 57 @,@ 000 more were damaged and 100 @,@ 000 hectares of farmland was inundated . Throughout China , 14 people were killed and damage amounted to ¥ 7 @.@ 45 billion (\$ 1 billion USD) .

Although the center of the storm did not pass near the Philippines , its outer rainbands brought severe flooding to Negros Occidental . Two people died and three others were listed as missing . Damage amounted to PHP 15 @.@ 3 million (\$ 314 @,@ 000 USD) . In Taiwan , high winds killed one person and injured another . Up to 495 mm (19 @.@ 5 in) of precipitation caused landslides and flooding across the island . Agricultural losses in Taiwan amounted to NT \$ 7 @.@ 8 million (US \$ 236 @,@ 300) . In Okinawa , high winds and rainfall up to 335 mm (13 @.@ 2 in) caused significant damage and resulted in two fatalities . Seven homes across the islands were destroyed and damage totaled ¥ 28 @.@ 3 billion (\$ 285 million USD) .

= = Meteorological history = =

Typhoon Wipha originated from a tropical disturbance that was first identified by the Joint Typhoon Warning Center (JTWC) on September 13 , 2007 roughly 1 @,@ 435 km (892 mi) east of Guam . Deep convection had developed around an area of low pressure that formed within the disturbance . Low wind shear allowed the system to steadily develop as it moved northward . Late on September 14 , convective banding features had formed around the center of circulation , prompting the JTWC to issue a Tropical Cyclone Formation Alert . Several hours later , the Japan Meteorological Agency (JMA) began monitoring the system as a tropical depression . At the same time , the JTWC declared that the disturbance had become Tropical Depression 13W . Shortly thereafter , the Philippine Atmospheric , Geophysical and Astronomical Services Administration (PAGASA) also began issuing advisories on the developing depression , assigning it the local name Goring . Initially , a Tropical Upper Tropospheric Trough situated to the north of the depression suppressed convective development and outflow . However , late on September 15 , this system weakened , leading to both the JTWC and JMA upgrading the depression to a tropical storm early on September 16 . Upon being declared a tropical storm , the JMA assigned the name Wipha to the storm .

Throughout September 16 , Wipha underwent a brief period of rapid intensification , with the JTWC upgrading it to a Category 1 hurricane , on the Saffir ? Simpson Hurricane Scale , within 12 hours . The intensifying system maintained a northwesterly track in response to a subtropical ridge over the northwest Pacific . Early on September 17 , Wipha was upgraded to a typhoon as 10 @-@ minute sustained winds reached 120 km / h (75 mph) . A second round of rapid intensification took place through most of the day , leading to the typhoon attaining its peak intensity late on September 17 with winds of 185 km / h (115 mph 10 @-@ minute sustained) and a barometric pressure of 925 mbar (hPa ; 27 @.@ 31 inHg) . At the same time , the JTWC assessed Wipha to have nearly attained Category 5 status , peaking as a high @-@ end Category 4 super typhoon with winds of

250 km / h (155 mph 1 @-@ minute sustained) . Upon reaching this intensity , Wipha became the second strongest storm of the 2007 Pacific typhoon season .

Not long after reaching its peak intensity , Wipha began to weaken as it started to interact with the high terrain of Taiwan . Early on September 18 , PAGASA issued their final advisory on Typhoon Goring as it left their area of responsibility . Later that day , the center of the typhoon passed roughly 130 km / h (80 mi) north of Taipei , Taiwan . Continued weakening took place as the storm neared landfall in Mainland China . Around 1800 UTC , the eye of Wipha crossed the Chinese coastline near Wenzhou with sustained winds of 140 km / h (85 mph 10 @-@ minute sustained) . The JTWC assessed Wipha to have made landfall as a low @-@ end Category 3 typhoon with winds of 185 km / h (115 mph 1 @-@ minute sustained) . Rapid weakening took place as the storm moved further inland . The JTWC issued their final advisory on Wipha during the afternoon of September 19 as they classified the system as an extratropical cyclone . However , the JMA continued to monitor the system as a tropical depression until September 20 . At this time , the remnants of Wipha had entered the Yellow Sea and accelerated northeastward towards the Korean Peninsula . The extratropical remnants of Wipha persisted for several more hours before dissipating off the coast of North Korea that afternoon .

= = Preparations = =

= = = Taiwan = = =

The Songshan Airport in Taipei was shut down due to the threat of Typhoon Wipha . All businesses , including the stock exchange , were closed for September 18 . Typhoon warnings were issued in northern areas of the island and residents were warned about the possibility of landslides in the mountainous regions . Accordingly , 169 people left landslide @-@ prone areas . An additional 237 people were evacuated from the northern areas of Taiwan due to the storm . A code red alert was issued for the areas closest to the center of the cyclone . Nearly 4 @, @ 300 Chinese fishermen sought refuge in Taiwan after being called back to port .

= = = China = = =

As Wipha approached the Chinese coastline , threatening the city of Shanghai , one of the largest evacuations in the country 's history took place . Local media warned that Wipha " may be the most destructive typhoon in a decade . " More than 2 million people evacuated from coastal areas , 1 @. @ 79 million of whom were in Zhejiang Province , the largest relocation of residents in the history of Zhejiang . Following the issuance of a Super Typhoon Warning , Shanghai officials evacuated 291 @, @ 000 people from old buildings , temporary construction sites , and those who live near the coast . About 20 @, @ 000 soldiers were sent to assist in the evacuation and reinforce flood barriers . A parade which was scheduled to take place in Shanghai was cancelled due to the warnings . About 365 workers were evacuated from the Pinghu oil rig located in the East China Sea . Zoos caged animals and increased staff numbers to prevent escape and contain any fires which may be sparked by downed power lines . More than 39 @, @ 000 people were evacuated from Jiangsu Province , mainly along the coast . Numerous cities cancelled schools and closed business for the day of and following the typhoon . The typhoon also caused FIFA to reschedule four matches in the Women 's World Cup . Nearly 40 @, @ 000 vessels were recalled to port throughout China . About 250 @, @ 000 people were also evacuated from Fujian Province with an additional 1 @. @ 41 million text messages were also sent out to residents in the province . The China Meteorological Administration (CMA) commenced " level one " emergency plan , the highest state of emergency . The Office of State Flood Control and Drought Relief commenced a " level two " flood control emergency plan and sent four teams to the provinces which were anticipated to be impacted by Wipha . About 50 @, @ 000 factories in Zhejiang were shut down until Wipha passed . The large @-@ scale evacuations resulted in a lower loss of life from the typhoon .

== Japan and South Korea ==

In Okinawa , about 30 @, @ 000 people were evacuated from low @-@ lying areas near rivers which threatened to overflow their banks . At least 50 flights in and out of the prefecture were also cancelled or delayed . Already hit by Typhoon Nari just a few days prior to Wipha , South Korea began evacuating residents as the remnants of the typhoon were expected to hit the country . Rainfall was expected to impact South Korea for several days with accumulations exceeding 150 mm (6 in) . About 940 people were evacuated to shelters throughout the country .

== Impact ==

== Philippines ==

Although Wipha did not directly impact the Philippines , the outer bands of the storm produced severe flooding in Negros Occidental . The flooding washed out large areas of agricultural land worth PHP 10 @. @ 3 million (\$ 211 @, @ 000 USD) . Numerous farm to market roads were also damaged or destroyed , costing PHP 5 million (\$ 103 @, @ 000 USD) . The floods also destroyed 13 homes and damaged 31 others . A rare tornado spawned by the storm destroyed four homes and damaged 19 others . A total of 7 @, @ 640 families were affected by Wipha in the Philippines . The heavy rains caused a landslide which killed one person on September 16 . Another man drowned in a flood swollen river on September 21 . Three other people were listed as missing after being swept away in a river swollen by Wipha .

== Taiwan ==

One person was killed and another was injured in Taipei after a 20 m (65 ft) high scaffolding in a construction site collapsed . At least 495 mm (19 in) of rain fell in the mountains of Taiwan , triggering flooding which damaged about 24 hectares of crops , leaving NT \$ 7 @. @ 8 million (US \$ 236 @, @ 300) in losses . A total of 8 @, @ 795 residences were left without power at the height of the storm . Several roads and bridges were also washed out from flooding . Officials in Taiwan recorded 29 landslides , mostly in northern areas , and urged residents to evacuate due to the possibility of more .

== China ==

The outer bands of Typhoon Wipha began impacting parts of eastern China on September 17 . Heavy rains dropped up to 162 mm (6 @. @ 3 in) in some cities , causing rivers to near flood stage . Eighty streets in Shanghai flooded due to the rains ahead of Wipha , with news reports showing waters rising up to people 's knees . Upwards of 191 mm (7 @. @ 5 in) of additional rain fell during the typhoon , causing significant flooding which destroyed at least 13 @, @ 000 homes , damaged 57 @, @ 000 others , and flooded over 160 @, @ 000 hectares of farmland . At least 1 @, @ 900 communities were left without power as high winds knocked down numerous power lines . A total of 14 people were killed in China in direct relation to Wipha . One man was electrocuted and died after stepping into floodwaters with live power lines submerged in the water . A landslide triggered by the heavy rains killed five people . At least 11 million people were affected by the storm in Fujian and Zhejiang . Once floodwaters receded , a car was found turned over , the five passengers inside were declared dead on scene . Damages in China amounted to ¥ 7 @. @ 45 billion (\$ 1 billion USD) .

== Japan ==

As Wipha brushed Okinawa , it produced upwards of 335 mm (13 @. @ 1 in) throughout the islands , peaking on Ishigaki . The highest winds were recorded on Ohara , Okinawa at 140 km / h (87 mph) . Typhoon Wipha killed two people , one of which died during the evacuation from an illness , injured six others , and left another missing throughout the country . A total of seven homes were destroyed , four were damaged , and 39 others were affected . About 3 @, @ 931 hectares of farmland , 7 km (4 @. @ 3 mi) of roads , and three ports , along with ten ships , were damaged or destroyed . At the height of the storm , about 10 @, @ 800 residences were without power . Damages from the storm amounted to ¥ 28 @. @ 3 billion (\$ 285 million USD) .

= = = North Korea = = =

Heavy rainfall from the typhoon 's remnants , ruined over 100 @, @ 000 hectares of crops and either damaged or destroyed 14 @, @ 000 homes . Additionally , over 8 @, @ 000 public buildings were partially or fully demolished . A total of 1 @, @ 649 people were left homeless following the storm . A month prior to Wipha , deadly flooding impacted most of the country , leaving at least 600 people dead or missing and destroyed thousands of structures .

= = Aftermath = =

= = = Philippines and China = = =

Following the flooding , the local governments in Valladolid and San Enrique declared a state of calamity to allow funds to reach flood victims . By September 26 , about PHP 700 @, @ 000 (\$ 14 @, @ 000 USD) worth of relief supplies had been distributed to the affected areas . At least PHP 480 @, @ 000 (\$ 10 @, @ 000 USD) of the calamity funds were sent to the local governments in Negros Occidental . On September 20 , the Chinese Government allocated ¥ 81 million (\$ 11 @. @ 8 million USD) in living subsidies for those affected by the typhoon . The International Red Cross , which was already assisting China in recovery from flooding in August , took preparatory measures and worked with local branches to get damage assessments . The Zhejiang Red Cross branch provided ¥ 200 @, @ 000 (\$ 29 @, @ 000 USD) in relief items to the hardest hit areas .

= = = North Korea = = =

Following the impacts of Wipha to the already severely flooded areas of North Korea , the International Red Cross delivered relief supplies to the 2 @, @ 000 people made homeless by the typhoon . Hundreds of medical clinics which were damaged or destroyed set up makeshift clinics as up to 70 percent of the affected population reported abdominal pains or diarrhea . More than 23 @, @ 000 volunteers from the Red Cross mobilized to provide quick rehabilitation in the affected regions . By mid @- @ September , ? 420 @, @ 000 (\$ 527 @, @ 000 USD) was provided to repair hospitals and an additional ? 110 @, @ 000 (\$ 138 @, @ 000 USD) was planned to be sent . By the end of September , health kits were provided for 300 @, @ 000 people and an additional \$ 300 @, @ 000 (USD) was provided for medical supplies in hospitals . From October 15 to 18 , a Rapid Nutritional Screening of children took place in the worst affected areas . Eleven hospitals were restocked with medical supplies and a permanent water supply was constructed at the Wonsan general hospital . About \$ 180 @, @ 000 in aid from Norway was sent to North Korea . By October 22 , 2007 , 80 percent of the \$ 14 @. @ 1 million pledged in assistance had been funded . About 4 @, @ 800 tonnes of cereal was to be distributed in October as part of the second shipment of food , following the first which was sent prior to Wipha . Funds and materials , worth \$ 166 @, @ 000 (USD) , for revegetation were expected to arrive between December 2007 and February 2008 .