

= Typhoon Thad (1981) =

Typhoon Thad was considered the worst storm to affect Japan in two years . Originating from a monsoon trough , Typhoon Thad was first classified on August 15 , 1981 and was upgraded into a tropical storm the next day . Meanwhile , Thad moved north and northeast and attained typhoon intensity midday on August 18 . The next day , the storm reached its peak intensity of 80 mph (130 km / h) . On August 22 , Thad accelerated northward , striking eastern Japan the next day just before weakening to a tropical storm . After passing through the country , the cyclone transitioned into an extratropical cyclone on August 23 .

Thirty @-@ one persons perished in Japan due to the typhoon and 82 others were hurt . Thad flooded 22 @,@ 433 houses and demolished 112 others . Roughly 27 @,@ 000 people were left homeless because of Thad . Moreover , 111 @,@ 500 homeowners were without power during the height of the storm . Furthermore , the storm also destroyed 449 roads , and was responsible for 499 landslides . The cyclone inundated 417 @,@ 400 acres (168 @,@ 900 hectares) of farm land . Train service was interrupted in 22 lines .

= = Meteorological history = =

Typhoon Thad originated from an active monsoon trough several hundred miles east of the Philippines in mid @-@ August 1981 . On August 10 , a weak surface circulation was first noted on satellite imagery . At that time , the center was embedded within the monsoon trough . Within five days , the system developed outflow . Midday on August 15 , the Japan Meteorological Agency (JMA) first classified the system . Based on data from Hurricane Hunters , a Tropical Cyclone Formation Alert was issued by the Joint Typhoon Warning Center (JTWC) at 1800 UTC on August 15 . Situated south of a subtropical ridge , the cyclone was located within a favorable environment for further development . Early on August 16 , the JMA upgraded the system into a tropical storm . Following an increase in organization , the JTWC upgraded the system into Tropical Depression 15 that day .

Initially , the depression was expected by the JTWC to move north before accelerating towards the northwest . On August 17 , the JTWC upgraded the depression into a tropical storm . At this time , the agency anticipated Thad to re @-@ curve well east of Japan . By 0000 UTC on August 18 , the JTWC upgraded Thad to typhoon status as the cyclone developed a ragged eye . Six hours later , the JMA followed suit . During the evening of August 18 , the agency estimated that Thad reached its peak intensity of 80 mph (130 km / h) and a minimum barometric pressure of 955 mbar (28 @.@ 2 inHg) . Early the next day , the JTWC estimated peak winds of 100 mph (160 km / h) . According to the JMA , Thad would maintain its peak wind speed until August 21 , when the storm weakened slightly . However , the JTWC suggested that Thad began to deteriorate on August 20 . The next day , forecasts from the JTWC indicated that the typhoon was expected to re @-@ curve and accelerate due to a trough located south of Japan . However , since the trough moved into the Sea of Japan instead , a subtropical ridge developed east of Typhoon Thad . On August 22 , however , Thad accelerated northward in the general direction of Japan . At 0000 UTC on August 23 , the JTWC downgraded Thad into a tropical storm while moving onshore in central Japan . Several hours later , the JMA followed suit , even though Thad had moved well inland by that time . By this time , cooler air had taken toll on the storm , and that afternoon , data from both agencies indicated that Thad finished its transition into an extratropical cyclone . By that time , Thad merged with a trough over the Tatar Strait . However , the JMA continued monitoring the system until the morning of August 25 .

= = Preparations and impact = =

While moving across northern Japan , Thad affected 21 of Japan 's 47 provinces while becoming the first storm to directly strike Kanto in 16 years . A peak rainfall total of 590 mm (23 in) was recorded in Oku @-@ Nikko in Tochigi , including 571 mm (22 @.@ 5 in) in a day . A peak hourly

storm total of 571 mm (22 @. @ 5 in) was measured at Kamisatomi in Gunma . Thad was responsible for strong winds , including a 76 km / h (47 mph) wind speed at Hidakamombetsu on Hokkaido .

In all , 31 people perished and 82 were injured . Overall , the typhoon flooded 22 @, @ 433 houses and demolished 112 dwellings . Furthermore , the storm also blocked roads in 850 spots , destroyed 449 others , collapsed 80 bridges , broke dikes at 173 places , and generated 499 landslides . Approximately 27 @, @ 000 people were left homeless because of Thad . About 115 @, @ 000 households were left without electricity . Furthermore , Thad inundated 417 @, @ 400 acres (168 @, @ 915 ha) of farm land . Train service was interrupted in 22 lines , including 18 " bullet " trains . Four flights were also cancelled ; however , by August 24 , air traffic had returned to normal .

Along the Kanto Plain near Tokyo , Thad wrecked 22 houses , damaged 31 bridges , damaged roads in 145 places , and flooded 27 rivers . According to police reports , five individuals drowned and six others were initially reported missing in Suzaka , because of flooding from the nearby Ayu River that crushed houses along the bank . In Akita , a fishing boat with nine people aboard was capsized by strong winds ; all nine were rendered as missing by police . Elsewhere , one person was killed by a falling tree and a fisherman drowned when his boat overturned . In the Ibaraki Province , just north of Tokyo , officials ordered the evacuation of 5 @, @ 000 dwellings in the city of Ryugasaki , 2 @, @ 500 of which were flooded . After the nearby Kogai River threatened to overflow their banks , over 1 @, @ 000 families were evacuated . Another 4 @, @ 000 families were evacuated in Fujishiro , though by August 25 , the majority of the evacuated had returned to their homes . In the island of Hokkaido , air service was suspended ; damage was severe in the area . However , the capital city of Tokyo avoided the worst of the storm . In all , Thad was considered the worst storm to strike the nation in two years .