

= Typhoon Irma (1981) =

Typhoon Irma , known in the Philippines as Typhoon Anding , was a powerful typhoon that struck the Philippines in November 1981 . The twenty -@-@ fifth named storm and fourteenth typhoon of the 1981 Pacific typhoon season , Irma originated from an active monsoon trough to the east of the Philippines . The cyclone slowly developed as it moved westward . Following an increase in organization , the system was first classified on November 18 and was subsequently upgraded into a tropical storm on the next day . After passing near Guam , Irma continued to deepen , and was estimated to have attained typhoon intensity early on November 21 . The intensification rate accelerated thereafter , and on the afternoon of November 22 , Irma reached its peak wind speed of 205 km / h (125 mph) . After maintaining this intensity for 16 hours , Irma weakened considerably due to interaction with the mountainous terrain of the Philippines . On the morning of November 24 , Irma moved ashore northeast of Manila , with winds of 165 km / h (105 mph) . The storm rapidly deteriorated overland , but was still believed to have been a typhoon when it emerged into the South China Sea . Typhoon Irma then began to re @-@ curve towards the northwest while weakening ; the cyclone was estimated to have obtained extratropical characteristics on November 26 .

Affecting an area already severely impacted by Typhoon Hazen , Typhoon Irma brought significant damage and flooding to the Philippines , especially in the province of Camarines Norte . Additionally , a 15 m (50 ft) storm surge was noted in four towns in the Camarines Sur province , resulting in the deaths of 137 people . The nearby village of Benagaspasan was nearly demolished , where 47 fatalities occurred . In all , 595 were killed due to Irma . A total of 482 @,@ 678 persons were directly affected by Typhoon Irma . Irma destroyed or damaged 119 @,@ 233 dwellings , which left nearly 40 @,@ 000 homeless . A total of 24 @,@ 137 families or 141 @,@ 974 individuals left their homes , including 57 @,@ 198 that sought emergency shelter . Overall , damage totaled to \$ 63 @.@ 3 million (1981 USD) .

= = Meteorological history = =

Typhoon Irma originated from an active monsoon within the vicinity of Micronesia . The second of three storms to form within this region in mid @-@ November 1981 , the cyclone was first noted on November 10 as a " zone of strong convection activity " . Although the zone was well @-@ organized , there was initially little to no evidence of a low @-@ level circulation . However , a weak circulation was detected on a few days later , and on November 15 , the system was situated to the east of Ponape as satellite imagery indicated that convection was developing . During the next three days , thunderstorm activity waxed and waned as the disturbance moved north and then west . During this time , the disturbance was located 1 @,@ 100 km (685 mi) east of Typhoon Hazen . By November 18 , shower activity had improved in both coverage and organization . That afternoon , the Joint Typhoon Warning Center (JTWC) issued a Tropical Cyclone Formation Alert (TCFA) for the disturbance . Within two hours , the Japan Meteorological Agency (JMA) began to track the system .

On the morning of November 19 , a Hurricane Hunter aircraft reported winds of 55 km / h (35 mph) , prompting the JTWC to classify the system as a tropical depression . After passing north of Guam , Irma was upgraded into a tropical storm by both agencies . Around this time , the JTWC expected that Irma would pass south of a front and then turn southwest . Tropical Storm Irma began to deepen more rapidly , and on November 20 , the JMA upgraded Irma into a severe tropical storm . Thereafter , Irma turned west as a subtropical ridge built north and northwest of the storm , which protected Irma from feeling the effects of strong wind shear . At 1800 UTC on November 20 , the JTWC upgraded Irma into a typhoon . Later that evening , a Hurricane Hunter aircraft reported winds of 160 km / h (100 mph) and a pressure of 968 mbar (28 @.@ 6 inHg) . Following the formation of a 74 km (46 mi) eye , the JMA declared that Irma attained typhoon status at 0000 UTC on November 21 ; subsequently , the system passed south of a second cold front . By 0900 UTC that day , rapid deepening to pressures below 925 mbar (27 @.@ 3 inHg) was anticipated by the JTWC . At 1800 UTC on November 21 , the JMA raised the intensity of the typhoon to 175 km / h (110

mph) while the JTWC reported that Irma reached winds of 200 km / h (125 mph) , equivalent to a Category 3 hurricane on the United States @-@ based Saffir @-@ Simpson Hurricane Wind Scale (SSHWS) . Midday on November 22 , a Hurricane Hunter airplane reported a pressure of 905 mbar (25 inHg) . Based on this the JTWC upgraded Irma into a super typhoon . Meanwhile , data from both the JTWC and JMA suggested that Irma reached its peak intensity , with the former reporting winds of 250 km / h (155 mph) and the latter reporting winds of 200 km / h (125 mph) . On that day , the Philippine Atmospheric , Geophysical and Astronomical Services Administration (PAGASA) also started to monitor the storm and assigned it with the local name Anding .

Irma maintained super typhoon intensity for 16 hours before gradually weakening due to the storm 's close proximity to the mountainous terrain of the Philippines . After turning northwest towards a break within the subtropical ridge , Irma moved ashore around 0900 UTC on November 24 , roughly 100 km (60 mi) northeast of Manila . At the time of landfall , both agencies estimated winds of 160 km / h (100 mph) , equal to Category 2 intensity on the SSHWS . Although the JTWC downgraded Irma to a tropical storm that afternoon just before entering the Lingayen Gulf and the South China Sea , the JMA maintained Irma at typhoon intensity throughout the storm 's passage of the Philippines . Ten hours later , a Hurricane Hunter aircraft investigated Irma and noted that Irma was poorly organized , with most of the convection sheared off to the north of the center . Influenced by a trough east of Asia , Irma began to re @-@ curve into the Luzon Straits on November 25 . Around this time , the JMA downgraded Irma into a severe tropical storm . Early on November 26 , the JMA reported that Irma had transitioned into an extratropical cyclone . About 24 hours later , Irma merged with a cold front in the Ryukyu Islands . On the evening of November 27 , both PASAGA and the JMA ceased monitoring Irma .

= = Preparations and impact = =

= = = Philippines = = =

A few days prior to Irma 's passage , the Philippines archipelago was affected by Typhoon Hazen , which left 2 @, @ 000 homeless . As Irma neared landfall , radio and television authorities warned residents to take precautions . Relief agencies were placed on standby . Schools were closed . Much of the Philippines , including the capital city of Manila , was placed on typhoon alert .

After striking the Philippines , the storm caused widespread damage while becoming the strongest storm to affect the archipelago since 1970 , which was also ironically also named Irma . The hardest hit was the province of Camarines Norte along the eastern portion of the island of Luzon .

A 15 m (50 ft) storm surge hit the towns of Garchitorena , Serona , Lagonoy and Caramoan in the Camarines Sur province , situated roughly 230 km (145 mi) southeast of Manila . Throughout the aforementioned four towns , 137 people were killed . Virtually every house was demolished due to storm surge in Benagaspan , a small town with a population 1 @, @ 000 . A total of 47 killed in the village . Thirty @-@ seven were injured in Bengaspan as well . Fourteen survivors sought refuge in a health center 150 ft (46 m) from the shore . In Caramoan , only one of 2 @, @ 000 homes remained standing ; 38 persons were killed . Elsewhere , in Garchitorena , a town with 20 @, @ 000 residents , 117 people perished and only the mayor 's house was left standing . The communities of Serona and Lagonoy also suffered heavy damage .

Across much of Luzon , Irma flattened houses and flooding streets , resulting in considerable damage . Irma brought down power lines , which led to blackouts along the suburbs of Manila . One army officer died via electrocution while trying to fix the roof of his dwelling in Makati . Many other deaths occurred when they were crushed to death under collapsed houses or killed by flying debris . For instance , two people died when their house on Mindoro Island collapsed and a farmer in Quezon died after being hit by a falling coconut . Elsewhere on Midoro Island , 60 homes were destroyed . Offshore , eighteen fisherman were listed as missing . Twenty @-@ six of the casualties happened in Manila while 12 others died in the rural town of Daet along the southern part of Luzon due to flooding and falling debris . Due to the storm , iron sheets were littered across the slums of

Manila . Communication lines between Daet and Manila were disconnected ; many villages between the two location were destroyed . In Lucena , two people were killed and many coconuts were tossed from trees . In Bulacan , civil defense officials advised thousands of inhabitants on the banks of the Angat River to flee as water along the river threatened to overflow their banks . In the Rizal province , one agency reported that it dispatched several army trucks to fetch roughly 2 @, @ 000 stranded 12- to 15 @-@ year @-@ old boy scouts . In a nearby park , the typhoon blew down houses , power poles , billboards and trees . Even though the Clark Air Base and Subic Bay , both United States @-@ run , sustained little damage , six C @-@ 130 transports had to be evacuated to the Kadena Air Base in Okinawa and ships , including the aircraft carrier Constellation . Philippine President Ferdinand E. Marcos ordered the closure of all government offices in affected areas , which included the capital city of Manila . Additionally , many private offices sent their employees home .

A total of 482 @, @ 678 individuals were directly affected by the storm . According to press reports , 12 @, @ 076 families in six provinces lost their homes . Nearly 40 @, @ 000 persons were rendered as homeless . In all , Typhoon Irma destroyed or damaged 119 @, @ 233 houses . A total of 24 @, @ 137 families or 141 @, @ 974 persons left their homes , 57 @, @ 198 of which fled to evacuation centers because of flash flooding . The aforementioned evacuation camps included schools , town halls , and churches . Overall , damage totaled to \$ 63 @. @ 3 million , including \$ 41 @. @ 8 million from infrastructure . Crop damage was minimal , estimated at \$ 10 million . Furthermore , 595 people were killed because of Irma . Seventy @-@ two others were wounded .

= = = Elsewhere = = =

Officials issued a tropical storm warning for Guam when Irma formed on November 17 . Winds of 56 km / h (35 mph) were measured in addition to 81 km / h (50 mph) gusts . However , no major damage was reported . The decaying remnants of Irma then brought 105 to 150 mm (5 to 5 in) of rain and winds of up to 72 km / h (45 mph) to Okinawa .

= = Aftermath = =

Following Irma , many survivors in Benagaspasan demanded for an emergency airlift of food , medicine , and clothing . These were expected to be provided by air force authorities . Provençal governments asked the president to declare Camarines Norte and Camarines Sur provinces disaster areas . Marcos also toured over the devastated area , noting that damage was less than initially feared . On December 1 , President Marcos declared a state of emergency in 17 Philippines provinces . Following a meeting , Marcos ordered the release of \$ 278 @, @ 750 to help subsidize rice to farmers . Moreover , \$ 250 @, @ 000 was ordered to be released for other relief operations .