= Typhoon Roy =

Typhoon Roy , known in the Philippines as Typhoon Asiang , was the second @-@ most intense January tropical cyclone on record in the Western Pacific basin . Forming out of an area of disturbed weather on January 7 , 1988 , Roy quickly intensified as it moved through the Marshall Islands . By January 9 , the storm intensified into a typhoon and attained its peak intensity the following day . At its peak , sustained winds reached 215 km / h (135 mph) . Slight weakening took place before the storm moved through the Mariana Islands . Continuing westward , the system eventually struck the Philippines as a minimal typhoon before dissipating over the South China Sea on January 19 .

Throughout its track , Typhoon Roy was responsible for two fatalities and $ 28 @.@ 5 million (1988 USD) in losses , mainly in the Mariana Islands . Light to moderate structural damage took place across the Marshall Islands as the system moved through the region as a tropical storm . On January 12 , the typhoon caused widespread damage to Guam and Rota as it brushed the two islands , destroying at least 200 homes . Due to the severity of damage wrought by the storm , the name Roy was retired following its usage and was replaced with the name Ryan .

= = Meteorological history = =

Typhoon Roy originated from an area of disturbed weather in early January 1988 in the central Pacific . Above average sea surface temperatures in the area allowed for gradual development as convection increased . By January 6 , the JTWC began monitoring the disturbance for the possibility of it developing into a tropical cyclone ; a mirror system was present in the Southern Hemisphere at the same time . The system south of the equator eventually developed into Tropical Cyclone Anne . By January 7 , the Japan Meteorological Agency (JMA) classified the system as a tropical depression ; shortly thereafter , the JTWC issued a Tropical Cyclone Formation Alert for the depression . Early on January 8 , the JTWC issued their first advisory on Tropical Depression 08W , at which time the system was located near the Marshall Islands .

Tracking nearly due west , the depression was upgraded to Tropical Storm Roy six hours after the first advisory based on satellite data . By this time , the JMA had already classified Roy as a tropical storm . Continued deepening took place as the storm moved through the Marshall Islands ; weather radar data from Kwajalein Atoll indicated the formation of an eye several hours after Roy was named ; this was later supported by satellite information on January 9 , at which time the storm was upgraded to a typhoon . Embedded within a moderate east @-@ southeasterly flow along the south side of a subtropical ridge , the typhoon accelerated , obtaining a forward speed of 40 km / h (25 mph) .

During the afternoon of January 10 , Roy reached its peak intensity as a low @-@ range Category 4 equivalent typhoon on the Saffir ? Simpson Hurricane Scale , attaining peak winds of 215 km / h (135 mph) . At the same time , the JMA estimated that the storm attained peak winds of 155 km / h (100 mph) along with a barometric pressure of 940 mbar (hPa ; 27 @.@ 76 inHg) . Upon reaching this strength , the storm was situated roughly 945 km (587 mi) east @-@ southeast of Guam . Over the following few days , Roy gradually slowed and weakened as it neared the Mariana Islands . The storm made its closest approach to the islands early on January 12 , passing within 14 km (8 @.@ 7 mi) south of Rota . As the storm passed through the region , a new ridge built east of the typhoon , causing Roy to temporarily track southwestward before resuming a westward movement .

Moving along the southern edge of the ridge , Roy accelerated again as it headed towards the Philippines . On January 14 , the storm crossed 135 ° E , prompting the Philippine Atmospheric , Geophysical and Astronomical Services Administration to issue advisories on Roy , assigning it with the local name Asiang . As it neared the country , wind shear began to increase , resulting in further weakening . On January 16 , Roy made landfall in the Bicol Region as a minimal typhoon before succumbing to shear and increased friction with the mountains of the Philippines . Later that day , the system weakened to a tropical storm before entering the South China Sea . The JTWC downgraded Roy to a tropical depression during the afternoon of January 17 and ceased issuing advisories early the next day . However , the JMA continued to monitor Roy as a tropical storm until

the morning of January 18 and declared the system dissipated early on January 19 , at which time the depression was situated roughly 700 km (435 mi) east @-@ northeast of Ho Chi Minh City , Vietnam .

= = Preparations and impact = =

On January 8 , Roy passed near the Majuro island chain in the Marshall Islands as a minimal tropical storm . Sustained winds of 65 km / h (40 mph) and gusts up to 85 km / h (50 mph) affected the area , resulting in minor structural damage . Later that day , the intensifying storm passed close to Kwajalein Atoll , bringing strong winds and large swells . Moderate structural damage took place on Kwajalein Island where winds gusted up to 105 km / h (65 mph) . Just to the north , more severe damage was recorded on Ebeye Island where low @-@ lying areas were inundated by waves between 6 @.@ 1 and 6 @.@ 7 m (20 and 22 ft) . Approximately one third of the homes on Ebeye were destroyed by the storm . One person was killed and damage was estimated at $ 5 million (1988 USD) . An estimated 3 @,@ 500 people were left homeless as a result of Roy in the Marshall Islands .

Ahead of Roy 's arrival in the Mariana Islands and Guam , the public was given sufficient warning by the local disaster preparedness team . An estimated 1 @,@ 200 people evacuated to shelters across Guam and all flights to and from the island were canceled for January 12 .

On January 12 , Typhoon Roy passed through the Mariana Islands and Guam , causing moderate structural damage and extensive crop losses . On Guam alone , agricultural losses reached $ 23 @.@ 5 million (1988 USD ; $ 47 million 2016 USD) . Most structural damage was limited to broken windows on the island . Located within 15 km (9 @.@ 3 mi) of Roy 's eye during its passage of the Mariana Islands , Rota received the worst damage from the cyclone . Winds on the island gusted up to 193 km / h (120 mph) , wreaking havoc to structures and vegetation . At least 200 of the 450 of homes on Rota were destroyed and the remainder were damaged ; 95 % of the power poles fell across the island , resulting in severe disruption to daily life . Roughly 80 % of the concrete homes had their windows blown out . Four people were injured after the roof of one building was blown into another where people had sought shelter . One person died after suffering a heart attack induced by the storm . In the wake of the storm , the Federal Emergency Management Agency declared a state of emergency for Guam .

The last area affected by Typhoon Roy was the Philippines , which was struck by the storm on January 16 . Prior to the storm 's arrival , typhoon warnings were raised for 29 provinces in the country , including the capital city of Manila . In the Bicol Region , winds likely reached typhoon intensity ; however , no known damage took place in the area . Continuing westward , the Roy brought gale @-@ force winds to parts of southern Luzon before moving into the South China Sea . Low @-@ lying areas in the storm 's path were flooded by heavy rains and strong winds downed power lines in Sorsogon .

= = Records and retirement = =

Since the JMA kept reliable records in 1951 , Roy became the ninth known typhoon to develop during the month of January as well as the second most intense during the month , attaining a minimum pressure of 940 mbar (hPa ; 27 @.@ 76 inHg) . It also attained the second @-@ highest sustained winds during January , estimated at 150 km / h (90 mph) . According to the JTWC , Roy was the third @-@ most intense typhoon during the month , attaining peak winds of 215 km / h (135 mph) and an estimated pressure of 927 mbar (hPa ; 27 @.@ 37 inHg) . In addition to intensity records , Typhoon Roy also was an unusually long @-@ lived storm , spanning 12 days from formation to dissipation . This ranks it as the second @-@ longest lived storm during January , just 12 hours short of Typhoon Alice in 1979 .

Due to the severity of damage wrought by Typhoon Roy , the name was retired following its usage and replaced with Ryan . Since little damage took place in the Philippines , the name Asiang was not retired and was later used for another cyclone .