

= Typhoon Sarah ( 1959 ) =

Typhoon Sarah was among the deadliest typhoons on record in the western Pacific Ocean , killing around 2 @, @ 000 people . It formed during the peak of the busy 1959 Pacific typhoon season near Guam , and moved generally to the west @-@ northwest . Continued observations from the Hurricane Hunters allowed the Joint Typhoon Warning Center ( JTWC ) to track Sarah from its origins to its peak as a powerful typhoon , with maximum sustained winds estimated at 305 km / h ( 190 mph ) on September 15 . Shortly thereafter , the typhoon struck the small Japanese island of Miyako @-@ jima , where the barometric pressure fell to 908 @. @ 1 mbar ( 26 @. @ 82 inHg ) , the second @-@ lowest on record for the country . Sarah turned to the north and northeast , weakening from its peak intensity . On September 17 , the typhoon made landfall just west of Busan , South Korea with winds of 185 km / h ( 115 mph ) , the nation 's strongest landfall at the time and only to be surpassed by Typhoon Maemi in 2003 . Sarah later became extratropical over the Japanese island of Hokkaido on September 18 , although the remnants persisted for several days , crossing into the Russian Far East and later dissipating on September 23 .

On Miyako @-@ jima , Sarah damaged all of the crops and destroyed about 6 @, @ 000 houses . Damage was estimated at \$ 2 million , and there were seven deaths . The damage prompted the Japan Meteorological Agency to give Sarah the special name of the " Miyakojima Typhoon " . However , the effects were worst in South Korea , and Sarah was described as the worst typhoon there in 50 years . Wind gusts there peaked at 169 km / h ( 105 mph ) , the highest at the time in the country . High winds and waves heavily damaged the port of Busan . Nationwide , the storm destroyed over 14 @, @ 000 homes and left 782 @, @ 126 people homeless , causing over \$ 100 million in damage . At least 669 people were killed in South Korea , and an additional 1 @, @ 200 fishermen were lost offshore the country . In Japan , widespread flooding killed 47 people and destroyed 16 @, @ 632 homes .

= = Meteorological history = =

On September 10 , a tropical disturbance persisted within the intertropical convergence zone near Pohnpei . When the Hurricane Hunters approached the system at 02 : 00 UTC on September 11 , they observed a center with several small circulations about 130 km ( 80 mi ) east of Guam . On that basis , the Joint Typhoon Warning Center classified the system as Tropical Depression Sarah . The depression passed near or just north of Guam , as tracked by radar . By late on September 11 , the Hurricane Hunters were reporting flight @-@ level winds of 95 km / h ( 60 mph ) . Early on September 12 , the JTWC upgraded Sarah to a tropical storm after the circulation became better defined . The storm exhibited a parabolic trajectory that was slightly to the west of the typical September storm . It moved westward initially but gradually curved to the northwest . A Hurricane Hunters flight at 14 : 15 UTC on September 12 observed a 65 km ( 40 mi ) eye diameter , prompting the JTWC to upgrade Sarah further to typhoon status , with maximum sustained winds of 120 km / h ( 75 mph ) .

After becoming a typhoon , Sarah quickly intensified ; at 08 : 00 UTC on September 13 , the Hurricane Hunters reported flight @-@ level winds of 185 km / h ( 115 mph ) . Subsequent analysis estimated that the typhoon attained these winds at 00 : 00 UTC that day . At 12 : 00 UTC on September 14 , the JTWC estimated that Sarah intensified to the equivalent of a Category 5 on the Saffir @-@ Simpson scale , based on aircraft estimates . The typhoon intensified further , and late on September 14 the Hurricane Hunters reported flight @-@ level winds of 250 km / h ( 155 mph ) , estimating surface winds of 315 km / h ( 195 mph ) . The intensity was adjusted slightly downward in a post @-@ analysis , with peak winds of 305 km / h ( 190 mph ) at 06 : 00 UTC on September 15 about 415 km ( 260 mi ) east of Taiwan . In addition , the typhoon attained a minimum barometric pressure of 905 mbar ( 26 @. @ 7 inHg ) .

About three hours after Sarah reached peak winds , the typhoon moved directly over Miyako @-@ jima , an island of Japan east of Taiwan . Sarah weakened while curving to the north , and it passed west of Okinawa late on September 15 . The winds dropped quickly ; by 24 hours after peak

intensity , Sarah 's winds had decreased from 305 km / h ( 190 mph ) to 185 km / h ( 115 mph ) . The typhoon turned and accelerated to the northeast toward the Korean peninsula , re-intensifying slightly . By late on September 16 , the winds increased to 215 km / h ( 130 mph ) while Sarah passed just east of Jeju island . The typhoon weakened again to winds of 185 km / h ( 115 mph ) by 00 : 00 UTC on September 17 . That day , Sarah made landfall a few miles west of Busan , South Korea at that intensity ; this made Sarah the strongest typhoon to strike the country since records began in 1904 , and it remained as such until Typhoon Maemi surpassed it in 2003 . The typhoon very quickly emerged into the Sea of Japan , its circulation becoming poorly defined . On September 18 , Sarah became extratropical after moving over the northern Japanese island of Hokkaido . The remnants continued to the northeast initially before turning sharply westward , passing over Sakhalin . The circulation progressed into Primorsky Krai in the Russian Far East before turning back east . Former Typhoon Sarah struck Sakhalin a second time on September 20 while moving east-southeastward . After passing through the Kuril Islands , the remnants of Sarah dissipated on September 23 .

= = Preparations and impact = =

Early in its duration , Sarah brought gusty winds and passing showers to Guam .

Shortly after reaching peak intensity , Sarah passed near the island of Miyako-jima . The pressure there fell to 908 hPa ( 26.82 inHg ) , which was the lowest recorded for the station and the second-lowest on record for Japan , both as of 2003 . The typhoon produced sustained winds of 196 km / h ( 122 mph ) and gusts up to 240 km / h ( 150 mph ) before the anemometer broke . The winds destroyed over 6,000 homes and wrecked all of the crops . Sarah also left the island without power for an extended period of time after damaging power lines . The combination of high winds and rough seas destroyed a fishing pier and 670 m ( 2,200 ft ) of seawall , as well as several tidal weirs . Sarah also sank four fishing boats and damaged seven others . On Miyako-jima , Sarah killed seven people , injured 88 others , and left \$ 2 million in damage . The heavy damage on the island prompted the Japan Meteorological Agency to give Sarah the special name of the " Miyakojima Typhoon " . Sarah was part of a series of typhoons striking the island in 1959 , causing food shortages that forced the population to change their diet . The storm brushed Okinawa with gusts of 135 km / h ( 84 mph ) .

Sarah was the worst typhoon to strike the Korean peninsula in 50 years . The peak wind gust in South Korea was 169 km / h ( 105 mph ) , which was the highest for a typhoon at the time , with records dating back to 1904 ; as of 2010 , the value has fallen to the ninth place . Damage was heaviest at Busan where the storm struck . The port there sustained over \$ 100,000 in damage , and nearby American military bases had over \$ 900,000 in damage . Coastal floods washed away or damaged 15,379 homes in the Busan area , leaving 25,834 people homeless . The waves also damaged or sank 5,400 boats . Nationwide , floods damaged 127,000 hectares ( 313,000 acres ) of crop fields . Throughout South Korea , Sarah destroyed over 14,000 homes and left 782,126 people homeless , thousands of whom were injured . The Ministry of Social Affairs estimated property damage at over \$ 100 million , and the typhoon killed at least 669 people . After the storm , the CARE relief agency launched an appeal in the United States , collecting \$ 18,500 worth of shoes and underwear for storm victims . The Australian Red Cross also provided assistance to the country , including money , sheets , and blankets . Due to the ongoing Korean War and Sarah , South Korea lost much of its fishing fleet , resulting in diminished catches over the subsequent decades . The typhoon also caused a rise in the wholesale price index , in conjunction with political uncertainty .

A fleet of 46 boats left Oenarodo near Busan on August 28 to fish near Komundo Island . The fleet failed to return after the passage of Typhoon Sarah , and local newspapers reported all 1,200 fishermen were lost .

Late in its duration , Sarah struck Hokkaido , producing a 6 m ( 20 ft ) storm surge at Taisei along the southwest coast that left behind a sediment layer 60 m ( 200 ft ) inland . Before the storm arrived , the United States evacuated plans from Marine Corps Air Station Iwakuni to Misawa Air Base ,

although Sarah approached closer to the latter base . The storm affected much of the nation , flooding many communities , including 14 @, @ 360 houses . Across the country , the typhoon damaged 778 boats . The storm also damaged 3 @, @ 566 ha ( 8 @, @ 810 acres ) of crop fields . Nationwide , Sarah destroyed 16 @, @ 632 homes , injured 509 people , and killed 47 .

Overall , Typhoon Sarah caused around 2 @, @ 000 deaths , making it among the deadliest typhoons on record .