= Cyclone Magda =

Severe Tropical Cyclone Magda was a relatively small tropical cyclone that brought minor damage to parts of Western Australia in January 2010 . The third named storm of the 2009 ? 10 Australian region cyclone season , Magda originated from a tropical low near the Indonesian island of Roti on 18 January . Quickly strengthening , the system attained tropical cyclone status on 20 January and later reached severe tropical cyclone intensity on 21 January as it approached Western Australia . Late on 21 January , Magda made landfall in the Kimberley region with winds of 130 km / h (80 mph) before quickly weakening over land . The remnants of Magda persisted until 24 January , at which time they dissipated east of Port Hedland .

Prior to Cyclone Magda 's arrival , several severe weather warnings were issued for the coastline of Western Australia . Although the storm made landfall with winds of 130 km / h (80 mph) , damage was limited due to the sparsely populated region it struck . The most severe damage was defoliation around Kuri Bay . Following its usage , the name Magda was retired and replaced with Megan .

= = Meteorological history = =

Severe Tropical Cyclone Magda originated from a tropical low that was first identified by the Australian Bureau of Meteorology (BOM) on 18 January 2010 near the Indonesian island of Roti . Initially situated in a weak steering environment , the low drifted towards the southwest and gradually gained intensity . The following day , the Joint Typhoon Warning Center (JTWC) also began monitoring the system . Throughout 19 January , a developing low @-@ level circulation showed improved organization , feature deep convection over its centre . Atmospheric conditions in the region favored further development , featuring low to moderate wind shear . A trough situated near the coast of Western Australia aided in improving the low 's outflow . Later that day , the JTWC issued a Tropical Cyclone Formation Alert on the system ; they expected the low to intensify into a tropical cyclone within the following 24 hours .

Early on 20 January , the BOM upgraded the low to a tropical cyclone , at which time it was given the name Magda . However , there is uncertainty whether the system actually obtained this strength or if it strengthened hours later . At the time of the upgrade , Magda featured deep convection over its centre , but banding features extended a little more than halfway around the circulation . Later that day , the small cyclone underwent a period of rapid intensification as an eye feature became apparent in satellite imagery . In response to an approaching trough , Magda tracked towards the southeast . Around 2100 UTC , the JTWC issued their first advisory on Magda , designating it as Tropical Cyclone 08S . Over the following several hours , the eye feature became increasingly defined , allowing the storm to intensify into a severe tropical cyclone by 0000 UTC on 21 January . Upon reaching this strength , Magda attained ten @-@ minute sustained winds of 120 km / h (75 mph) and a barometric pressure of 978 mbar (hPa ; 28 @.@ 88 inHg) . However , shear abruptly increased hours later , causing the low @-@ level circulation of Magda to become displaced from the deepest convection .

As the storm continued to near landfall in Australia , it re @-@ intensified as deep convection redeveloped over its centre , combined with the formation of an eye . Around 1800 UTC on 21 January , Magda was classified as a severe tropical cyclone for the second time . Within hours of reattaining severe tropical cyclone status , Magda passed over Augustus Island . Around 2100 UTC , the storm reached its peak intensity with winds of 130 km / h (80 mph) and a pressure of 975 mbar (hPa ; 28 @.@ 79 inHg) . Initially , the JTWC estimated the system to have peaked as a strong tropical storm with one @-@ minute sustained winds of 110 km / h (70 mph) ; however , further analysis of the system resulted in an upgrade to a minimal Category 1 equivalent with winds of 120 km / h (75 mph) . Further uncertainty in the storm 's peak intensity exists through data from AMSU and CIMSS which estimated peak one @-@ minute sustained winds of 133 km / h (83 mph) and 150 km / h (93 mph) respectively .

Around the time when the cyclone made landfall , gale @-@ force winds extended roughly 85 km (50 mi) from the center of Magda , classifying it as a " midget " cyclone . The system made its

second landfall near Kuri Bay , a remote area in the Kimberley region , at peak strength before it began to weaken . Early on 22 January , the storm briefly moved back over water , having weakened slightly , before making another landfall east of the Buccaneer Archipelago with winds of 110 km / h (70 mph) . Later that day , Magda passed directly over the town of Derby , where winds were measured under gale @-@ force . This prompted the BOM to downgrade the system to a tropical low . Once the trough which initially steered Magda into Western Australia relaxed , the system slowly turned towards the south @-@ southwest before fully dissipating early on 24 January east of Port Hedland .

= = Preparations and impact = =

As Cyclone Magda approached the Western Australian coastline , severe weather warnings were issued for parts of the Kimberley region . Initial forecasts indicated that it would obtain Category 4 intensity and produce destructive winds up to 250 km / h (160 mph) . A mining company , working in Mount Gibson on Koolan Island , evacuated 228 employees due to the threat of the cyclone . However , 64 members of an emergency crew would remain behind in a cyclone shelter . Hours before the storm made landfall , a red alert , the highest level of storm alert , was issued for areas around where the storm was expected to move onshore . The State Emergency Service warned that all residents around Kuri Bay " need to go to shelter immediately . " Heavy rains in excess of 100 mm (3 @.@ 9 in) were expected to fall along the storm 's track . Most of the alerts remained in place until Magda weakened to a tropical low on 22 January .

Although Magda made landfall as a severe tropical cyclone , it struck a sparsely populated region . Rainfall peaked at 185 mm (7 @.@ 3 in) in Kuri Bay over a three @-@ day span . Near where the storm made landfall , wind gusts were estimated up to 185 km / h (115 mph) , resulting in significant defoliation and affecting a few structures . A few homes around Kuri Bay sustained roof damage , but no injuries were reported . Although damage in relation to Magda was limited , its name was retired following its usage and was later replaced with Megan .