= Cyclone John =

Severe Tropical Cyclone John was an intense tropical cyclone that rapidly deepened offshore before devastating areas of Western Australia . The system was the second cyclone and first severe tropical cyclone of the active 1999 ? 00 Australian region cyclone season . Cyclone John developed from a monsoon trough positioned northwest of Australia on 9 December 1999 . As it moved to the west and later south as the result of a subtropical ridge under favourable conditions , the cyclone was able to rapidly intensify . John reached peak intensity on 14 December as a Category 5 cyclone on the Australian cyclone scale , the highest rating possible . Cyclone John later began interacting with a mid ? latitude trough , which slightly weakened the cyclone prior to making landfall near Whim Creek early on 15 December . Increasingly unfavourable conditions further inland resulted in the cyclone 's rapid weakening , before it dissipated during the next day .

Cyclone John extensively affected areas of Western Australia , but damage was not as bad as expected . Widespread power outages across the Pilbara region were caused by John . Strong winds caused minor damage to infrastructure across the coast , as well as tree damage . 140 windmills were destroyed by the cyclone on the coast . Further inland , rainfall associated with the cyclone and its remnants brought flooding , which flooded 25 houses and caused rivers to overflow . The system was responsible for no deaths and a limited amount of damage . After the season , the name John was retired from the Australian tropical cyclone naming list .

= = Meteorological history = =

In early December , a monsoon trough north of Australia intensified due to a strong northwest cross ? equatorial surge in the South China Sea . This resulted in the formation of a tropical low southwest of Timor on 9 December . At 0600 UTC on 10 December , the Joint Typhoon Warning Center (JTWC) began to monitor the system , designating it as 02S . As it moved towards the west and subsequently southwards , improving upper ? air divergence allowed the system to intensify , reaching tropical cyclone intensity on the evening of 11 December and thus attaining the name John . At the time , a Tropical Rainfall Measuring Mission (TRMM) pass of the system revealed a compact system , with a convective rainband tightly surrounding a central cloud ? filled eye . A developed anticyclone positioned over the system provided favorable conditions for development . Due to the presence of a subtropical ridge to the east over Australia , Cyclone John was forecast to generally move in a south @-@ southwestward direction .

Steadily intensifying , the cyclone attained Category 3 cyclone intensity on the Australian cyclone scale at 1600 UTC on 12 December . TRMM imagery indicated that the cyclone had developed a banding eye feature , and had good outflow and a symmetric structure . Cyclone John continued to intensify under favorable atmospheric conditions , before reaching its peak intensity as a Category 5 cyclone on the Australian cyclone scale at 0800 UTC on 14 December , while located 170 km (105 mi) northwest of Port Hedland , Western Australia . At peak intensity , the storm had maximum 10 ? minute sustained wind speeds of 200 km / h (125 mph) and a minimum barometric pressure of 915 mbar (27 @.@ 0 inHg) .

However , after peak intensity , dry air began to become wrapped into the northwestern quadrant of the system . Moving towards the Australian coastline , radar imagery from Dampier , Western Australia showed a strong eyewall associated with John . Cyclone John began to become elongated along a northwest ? southeast axis as it neared the coast . The cyclone also began interacting with a mid ? latitude trough the southwest . This generated some vertical wind shear , which weakened John slightly and caused it to curve towards the southeast . Cyclone John made landfall near Whim Creek , Western Australia as a Category 5 cyclone at 0000 UTC on 15 December with a minimum central pressure between 930 ? 940 mbar (27 @.@ 46 ? 27 @.@ 46 inHg) , with maximum 10 ? minute sustained winds of 240 km / h (150 mph) , gusting to 285 km / h (175 mph) . The entirety of the cyclone 's eye crossed the coast by 0200 UTC as the storm moved further inland into an area of wind shear and dry air , which caused it to rapidly weaken . The cyclone was last noted by TCWC Perth and the JTWC on 16 December as it dissipated overland .

= = Preparations and impact = =

Prior to Cyclone John 's landfall , hundreds of people were evacuated from homes , primarily in Karratha , where two shelters were set up . In Point Samson , 500 people evacuated to shelters in Wickham , Western Australia . TCWC Perth began issuing hourly warnings for potentially affected areas beginning at 1400 UTC on 14 December . As the storm made landfall , some residents of Whim Creek took refuge in a shipping container .

Strong winds from the cyclone caused widespread power outages to areas in Pilbara . At Cape Lambert , winds averaged 150 km / h (95 mph) for five hours , with a peak wind gust of 210 km / h (130 mph) . Karratha suffered minor damage from John , primarily in the form of wind damage . Various trees were uprooted by strong winds , and some homes suffered minor roof damage . Palm fronds in Karratha were blown off palm trees due to strong winds . In Whim Creek , where the cyclone had made landfall , the top floor of a 113 @-@ year @-@ old pub and hotel was destroyed . A temporary roof made up of tarpaulins later collapsed in a flood event the following month . 140 windmills between Whim Creek and Newman were destroyed by the cyclone .

Offshore , 220 cattle aboard a ship died after the ship was battered by rough seas associated with Cyclone John . Production from an oil field off the coast of northwest Australia were down 38 % , partly due to being shut down in preparation for Cyclone John . Rough seas from John also caused a maximum storm surge height of 2 m (6 @.@ 6 ft) , recorded in Port Hedland by the Port Hedland Authority on 15 December . Further inland , Cyclone John brought widespread rainfall and flooding . In Newman , Western Australia , 240 mm (9 @.@ 4 in) of rain was recorded early on 16 December . As a result , some roads and 25 houses were flooded by the rains . By the evening of that day , the rainfall total had increased to 500 mm (20 in) . Todd River was flooded after 80 mm (3 @.@ 1 in) of rain fell as a result of the cyclone . Overall John was responsible for no deaths and a limited amount of damage . After the season had ended the name John was retired from the Australian tropical cyclone naming list .