

= Cyclone Tia =

Severe Tropical Cyclone Tia was the first of six tropical cyclones to affect Vanuatu , during the 1991 ? 92 South Pacific cyclone season . The system was first noted within the South Pacific convergence zone as a small tropical depression on November 13 , to the northeast of the Solomon Islands . Over the next few days the system gradually developed further within an area of light winds in the upper troposphere , before it was named Tia early on November 16 . Later that day due to a developing northerly steering current , the system slowed down and undertook a small anticlockwise loop before starting to move towards the southwest and rapidly intensify . After rapidly intensifying throughout November 16 and 17 , Tia passed within 55 km (35 mi) of the Solomon Island : Anuta at around 1800 UTC on November 17 , before passing near Tikopia Island six hours later . As Tia moved near Tikopia , the system reached its peak intensity as a category 3 severe tropical cyclone , with 10 ? minute sustained windspeeds of 140 km / h (85 mph) .

During November 18 , due to cooler waters and increased wind shear , Tia started to weaken as it moved southwards under the influence of a strengthening upper @-@ level northerly wind flow . Over the next 24 hours , the system continued to move southwards and passed within 150 km (95 mi) of Vanuatu 's Banks Islands , while gradually weakening further . Tia subsequently degenerated into a tropical depression during November 20 , before it was last noted the next day as it crossed a part of its former track , where it had been producing hurricane @-@ force wind speeds a few days earlier . While it was active Tia directly affected the Solomon Islands and Vanuatu , while it indirectly affected Kiribati . The Solomon Island of Tikopia was the worst affected island , after more than 1000 people were left homeless on the island and 90 % of all dwellings were destroyed . Damage was minimal in Vanuatu , and was mainly confined to crops and fruit trees on the Banks and Torres Islands . After this usage of the name Tia , the name was retired and withdrawn from use on the tropical cyclone naming lists .

= = Meteorological history = =

A small tropical depression developed within the South Pacific convergence zone , to the northeast of the Solomon Islands during November 13 . During that day the system moved towards the south @-@ west , before it sharply turned towards the east early the next day , as an equatorial westerly wind burst took place to the north of the cyclone . During that day the depression gradually developed further within an area of light winds in the upper troposphere and sea @-@ surface temperatures of over 30 ° C (86 ° F) . Early on November 15 , the United States Joint Typhoon Warning Center initiated advisories on the depression and designated it as Tropical Cyclone 03P , after it had become equivalent to a tropical storm . During that day the system 's upper level outflow characteristics became more favourable for further development , before the system was named Tia by the Fiji Meteorological Service TCWC Nadi named the system Tia early the next day after the system had developed into a category one tropical cyclone on the Australian tropical cyclone intensity scale . When it was named , Tia moving slowly and was located about 250 nmi (465 km) to the northeast of the Santa Cruz Islands , before the JTWC reported at around 0600 UTC that Tia had become equivalent to a category one hurricane on the Saffir ? Simpson hurricane scale with 1 ? minute sustained windspeeds of 120 km / h (75 mph) . Around this time , because of a developing northerly steering current , Tia slowed down and undertook a small anticlockwise loop , before starting to move towards the southwest and rapidly intensify .

After rapidly intensifying throughout November 16 and 17 , Tia passed within 55 km (35 mi) of Anuta Island at around 1800 UTC on November 17 , before passing near Tikopia Island six hours later . As Tia moved near Tikopia , TCWC Nadi reported that the system had reached its peak intensity as a category 3 severe tropical cyclone , with sustained windspeeds of 140 km / h (85 mph) . The JTWC followed suit six hours later and reported that the cyclone had peaked as a category 2 equivalent hurricane with sustained windspeeds of 175 km / h (110 mph) . By 1800 UTC on November 18 , due to cooler waters and increased wind shear , Tia started to weaken as it moved southwards under the influence of a strengthening upper @-@ level northerly wind flow . Over the

next 24 hours , the system continued to move southwards and passed within 150 km (95 mi) of Vanuatu 's Banks Islands , while gradually weakening further before moving to the southeast under the influence of strong upper level northwesterlies . By 0000 UTC on November 20 , Tia had weakened into a category one tropical cyclone on the Australian Scale and became slow moving while located about 370 km (230 mi) to the east of Port Villa in Vanuatu . During that day the system turned and moved towards the northwest , before TCWC Nadi reported later that day at 1200 UTC , that Tia had weakened below tropical cyclone intensity . However , the JTWC monitored the system as a tropical cyclone for another 24 hours , before issuing their final advisory on the system at 1200 UTC as the system had weakened below tropical cyclone intensity . Tia was subsequently last noted by TCWC Nadi and JTWC later that day as it crossed a part of its former track , where it had been producing hurricane @-@ force windspeeds a few days earlier .

= = Preparations and impact = =

Apart from several smaller islands no major inhabited islands lied in the path of Tia , while no deaths were associated with the system . After this usage of the name Tia , the name was retired and withdrawn from use on the tropical cyclone naming lists .

= = = Solomon Islands = = =

During November 17 , warnings were issued by the Solomon Islands Meteorological Service for parts of Temotu Province in the Solomon Islands , after it became apparent that Tia was moving towards the eastern most islands of Anuta and Tikopia . During that day the system affected the province and came to within 55 km (35 mi) of Anuta at around 1800 UTC on November 17 , before passing near to Tikopia six hours later . The southern most Solomon Island of Tikopia was the worst affected island , with 90 % of all dwellings destroyed and the remaining 10 % either having walls destroyed or roofs blown off . As a result , more than 1000 people were left homeless on the island , which was declared a disaster area by the Solomon Islands National Disaster Council . The cyclone also destroyed seven of the eight church buildings and all but one of the classroom buildings belonging to the two primary schools . Food crops were destroyed with all coconut trees either blown down or uprooted . High seas and waves caused extensive damage to the coasts and flooded low @-@ lying areas , which damaged the taro , other food crops and the water supply on the island due to salt spray . Sustained windspeeds of 120 km / h (75 mph) , wind gusts of 172 km / h (105 mph) and a minimum pressure of 987 @.@ 9 hPa (29 @.@ 17 inHg) were all reported by the automatic weather station on Anuta .

= = = Other islands = = =

On November 16 , the Kiribati islands suffered the side @-@ effects of Cyclone Tia , with several houses in Tarawa and seaweed farms damaged . Late on November 17 , TCWC Nadi started to release special advisories for Vanuatu after it had become clear that the systems south @-@ southwest movement , would bring the cyclone sufficiently close to the Banks and Torres Islands to cause either gale or storm force winds . Over the next 24 hours , TCWC Nadi continued to issue these bulletins as the system moved southwards and brought gale force winds to Maewo , Pentecost and the Banks Islands before they issued the final advisory early on November 19 . Tia was the first of six tropical cyclones to affect Vanuatu during the 1991 ? 92 South Pacific cyclone season , and caused minor damage that was mainly confined to houses , crops and fruit trees on the Banks and Torres Islands . Within the Banks Islands a church was flattened , several roads were blocked and a man was slightly injured by flying debris .