= Cyclone Fantala =

Very Intense Tropical Cyclone Fantala was the strongest tropical cyclone of the south @-@ west Indian Ocean in terms of sustained winds . Part of the 2015 ? 16 cyclone season , Fantala formed on 11 April to the south of Diego Garcia , an island in the central Indian Ocean . With a ridge to the south , the storm moved westward for several days while gaining strength , aided by warm waters and decreasing wind shear . Late on 17 April , the Météo @-@ France office on Réunion (MFR) estimated peak 10 @-@ minute winds of 250 km / h (155 mph) , making Fantala the strongest tropical cyclone of the basin in terms of 10 @-@ minute sustained winds . The Joint Typhoon Warning Center (JTWC) estimated peak 1 @-@ minute winds of 280 km / h (175 mph) , equivalent to Category 5 on the Saffir @-@ Simpson scale and tied only with Agnielle from November 1995 as the strongest on record in the south @-@ west Indian Ocean .

While near peak intensity , Fantala passed near the Farquhar Group of the Seychelles , damaging most of the buildings in the small archipelago . By 18 April , Fantala had weakened to an intense tropical cyclone and slowed its forward motion , eventually reversing its direction of movement . After fluctuating in strength , the disorganized system reversed direction again , making its closest approach to Madagascar . Fantala degenerated into a remnant low on 24 April , and the remnants continued toward Tanzania . There , heavy rainfall resulted in flooding that washed away roads and houses , killing 13 people . Rains extended further into Kenya , with similar effects .

= = Meteorological history = =

An area of disturbed weather persisted as of 9 April to the southeast of Diego Garcia . The system moved generally westwards , steered by a ridge , and a low @-@ level circulation gradually became more defined . Limiting factors to faster development included poor inflow and moderate wind shear , although associated convection became more organized . At 06 : 00 UTC on 11 April , the Regional Specialized Meteorological Center Météo @-@ France in La Réunion (MFR) classified the system as Tropical Disturbance 8 about 600 km (375 mi) south of Diego Garcia . Six hours later , the agency upgraded the system to a tropical depression . At 13 : 00 UTC on 11 April , the American @-@ based Joint Typhoon Warning Center (JTWC) issued a tropical cyclone formation alert , noting the increased organization of the convection , circulation , and outflow . Later that day , the MFR upgraded the depression to Moderate Tropical Storm Fantala , and the JTWC classified it as Tropical Cyclone 19S . By that time , the convection was quickly consolidating around the center , organizing into a circular central dense overcast .

On 12 April , the previously detrimental wind shear began easing , allowing the structure to become more symmetric . On that day , an eye feature began developing in the center of Fantala , indicative of strengthening . At 12 : 00 UTC on 12 April , the MFR upgraded Fantala to severe tropical storm status , and six hours later , the JTWC upgraded it to the equivalent of a minimal hurricane , with 1 minute maximum sustained winds of 120 km / h (75 mph) ; rapid strengthening was prevented by the entrainment of nearby dry air , although the core of convection continued to contract . At 06 : 00 UTC on 13 April , the MFR upgraded Fantala to tropical cyclone status , with 10 minute winds of 130 km / h (80 mph) . By that time , the eye feature persisted , consisting of a warm area within the deepest convection , although the dry air in the region prevented quicker strengthening .

By early on 14 April , the eye became better defined after an eyewall replacement cycle . The intensity fluctuated after outflow decreased to the north , although increasingly warm waters favored further intensification . Early on 15 April , the MFR upgraded Fantala to an intense tropical cyclone , while the storm was undergoing rapid deepening . The outflow was enhanced by a large upper @-@ level low well to the southeast , and shear had decreased to a minimum . After reaching an initial peak intensity with 10 @-@ minute sustained winds of 205 km / h (125 mph) at 12 : 00 UTC that day , Fantala 's intensity leveled off for the following 48 hours , with its 10 @-@ minute sustained winds fluctuating between 195 km / h (120 mph) and 215 km / h (130 mph) . Meanwhile , the JTWC estimated 1 @-@ minute sustained winds of 220 km / h (140 mph) for the first 6 hours of this time period , 240 km / h (150 mph) for the following 24 hours , and 250 km / h (155 mph) for

the remaining 18 hours , all equivalent to a Category 4 hurricane , with the latter two wind estimates equivalent to a western Pacific super typhoon .

On 16 April , Fantala turned more to the west @-@ northward toward the southern islands of the Seychelles , steered by a strengthening ridge near Madagascar . Intensification resumed by 12 : 00 UTC the following day , with the JTWC estimating 1 @-@ minute sustained winds of 260 km / h (160 mph) , classifying Fantala as a Category 5 @-@ equivalent cyclone on the Saffir @-@ Simpson scale . Around 15 : 00 UTC , the cyclone moved through the Farquhar Group of the Seychelles , and its eyewall moved over several small islands . At 18 : 00 UTC on 17 April , the MFR upgraded Fantala to a very intense tropical cyclone ; based on a Dvorak rating of T7.5 , the satellite @-@ derived wind estimate was 10 @-@ minute sustained winds of 250 km / h (155 mph) , along with an estimated barometric pressure of 910 mbar (hPa ; 26 @.@ 87 inHg) . However , in the best track for Fantala , the MFR concluded that Fantala had been a very intense tropical cyclone 6 hours earlier as well , with 10 @-@ minute sustained winds of 220 km / h (140 mph) , and that its minimum central pressure of 910 mbar (hPa ; 26 @.@ 87 inHg) had occurred 12 hours later , at 06 : 00 UTC the following day . The JTWC also estimated peak 1 minute winds of 280 km / h (175 mph) .

While maintaining peak intensity , Fantala slowed its forward movement as the ridge to its south over Madagascar weakened . The cyclone turned back to the southeast due to the building influence of a ridge to the northeast , and the storm retraced its former path . Cooler waters along its path ? the result of upwelling ? as well as another eyewall replacement cycle , caused Fantala to weaken to an intense tropical cyclone by 19 April . Fantala had maintained at least Category 4 @-@ equivalent intensity for about 90 hours , and of those 90 hours , about 30 were at both very intense tropical cyclone status and Category 5 @-@ equivalent intensity . That day , the eye disappeared on satellite imagery and the storm deteriorated further to tropical cyclone status . The eye redeveloped on 20 April , with pronounced outflow assisting in the re @-@ intensification , although increased shear resulted in weakening again on 21 April . That day , the MFR downgraded Fantala to a severe tropical storm . The structure improved again on 22 April as the system stalled due to the building ridge to the south . At 00 : 00 UTC that day , the MFR upgraded Fantala to an intense tropical cyclone once the eye became more pronounced again , only to downgrade it to tropical cyclone status by 06 : 00 UTC , though this was pushed back to 12 : 00 UTC in the best track . A small area of convection persisted over the center , although dry air in the region continued to weaken the thunderstorms .

The MFR again downgraded Fantala to a severe tropical storm on 23 April as the storm began drifting to the northwest . Increasing wind shear weakened Fantala further to a moderate tropical storm that day , and on 24 April , both the JTWC and MFR issued their final advisories ; the latter agency had first downgraded it to a tropical depression . By that time , the circulation was exposed from the convection as Fantala moved over cooled waters where it traversed a few days prior . The circulation continued to the northwest , with occasional flares of convection . By 27 April , a circulation was no longer present as the convective remnants of Fantala approached the coastline of Tanzania .

= = Impact and records = =

Cyclone Fantala first threatened Agaléga , part of the Outer Islands of Mauritius . Government officials forced all 72 residents on the South Island to evacuate to the North Island , and strongly advised fishermen to avoid sailing .

Fantala was the first tropical cyclone to threaten the Farquhar Group since Cyclone Bondo in 2006 . Most of the 34 residents on Farquhar Atoll evacuated ahead of the storm , and those that remained behind were uninjured . While moving through the Seychelles near peak intensity , Fantala had estimated 10 @-@ minute sustained winds of 250 km / h (155 mph) , and days later it moved through the region again with 10 @-@ minute sustained winds estimated at 130 km / h (80 mph) . Based on satellite imagery , it was estimated that of the 50 structures on Farquhar Atoll , 19 were destroyed and 27 sustained severe damage . Only four buildings , which were constructed to be

cyclone @-@ proof after Bondo , withstood the estimated 350 km / h (220 mph) gusts , even then suffering moderate damage . In addition , many of the island 's trees were knocked down . Due to the storm 's prolonged passage through the island group , the Seychelles government declared the Farquhar islands as a disaster area on 20 April . In a visit to the Seychelles , United Nations Secretary @-@ General Ban Ki @-@ moon stated that the country has become " highly vulnerable to storm surges , as we are reminded by the recent devastating effects of Cyclone Fantala . " A World Bank survey team found $ 4 @.@ 5 million in damage . The lodge on the island is not expected to be rebuilt until March 2017 , about 11 months after the storm .

The remnants of Fantala spurred warnings from the Tanzania Meteorological Agency after the storm produced heavy rainfall . In Kilimanjaro Region , the rains caused flooding that covered roads and entered houses , trapping hundreds of residents and killing eight . Officials required helicopters from nearby Kilimanjaro National Park to rescue residents . Five people were killed in the country 's Morogoro Region , all drowning in flooded rivers . The overflowing Umba River isolated several villages . In the region , 13 @,@ 933 people were left homeless after 315 houses were washed away . Flooding also washed away 12 @,@ 073 ha (29 @,@ 830 acres) of crop fields , prompting officials to purchase and distribute maize , beans , and cooking oil to affected residents . The storm also sent a plume of moisture northward to Kenya , where storm @-@ influenced rainfall reached 133 mm (5 @.@ 2 in) in Kwale in just four hours . This resulted in flooding in coastal portions of Kenya that destroyed several houses . About 10 @,@ 000 ha (25 @,@ 000 acres) of crop fields were flooded . The port and several roads were closed in the city of Mombasa , Kenya 's second @-@ largest city .

The MFR 's estimate of peak 10 @-@ minute sustained winds of 250 km / h (155 mph) made Fantala the strongest tropical cyclone on record in the south @-@ west Indian Ocean by that measure . According to estimates from the JTWC , Fantala attained peak 1 @-@ minute sustained winds of 280 km / h (175 mph) , tied only with Cyclone Agnielle from November 1995 as the strongest cyclone on record in the south @-@ west Indian Ocean . Reliable satellite @-@ based intensity estimates date back to 1990 . The storm was fueled by the powerful 2014 ? 16 El Niño event , which also contributed to the record intensities of Hurricane Patricia in the northeastern Pacific Ocean and Cyclone Winston in the southern Pacific Ocean .