= Cyclone Kalunde =

Intense Tropical Cyclone Kalunde was the strongest storm of the 2002 ? 03 South @-@ West Indian Ocean cyclone season . The eleventh named storm and sixth cyclone of the season , Kalunde formed on March 4 from an area of disturbed weather east @-@ southeast of Diego Garcia . The storm steadily strengthened and attained severe tropical storm intensity on March 6 . After starting a phase of rapid deepening , Kalunde attained cyclone intensity the next day . Kalunde attained its peak intensity on March 8 , as an intense tropical cyclone . It maintained its peak strength for a day ; shortly thereafter , the system began to weaken . After undergoing an eyewall replacement cycle , the storm brushed Rodrigues . Shortly after doing so , Kalunde weakened into a tropical cyclone and later a severe tropical storm . Two days later , on March 16 , the cyclone transitioned into an extratropical cyclone and dissipated the next day .

Cyclone Kalunde brought US $ 3 @.@ 15 million in damage to Rodrigues Island . A total of 1 @,@ 600 homes and 40 boats were damaged . Severe coastal damage took place across the island ; many roads were washed out . Power outages also occurred across the island , delaying residents access to information pertaining to Kalunde . About 80 percent of the drinking water was contaminated and the entire food crop was destroyed . However , no deaths were reported .

= = Meteorological history = =

An area of convection developed on March 3 several hundred miles to the east @-@ southeast of Diego Garcia . That day , Météo @-@ France (MFR) issued the first bulletin on Tropical Disturbance 14 while located 580 mi (930 km) east @-@ southeast of Diego Garcia . In an environment of weak to moderate wind shear , MFR upgraded the system to tropical depression status . Later on March 4 , the Joint Typhoon Warning Center (JTWC) issued a Tropical Cyclone Formation Alert (TCFA) for the disturbance as shower activity increased , though it initially concentrated west @-@ southwest of the atmospheric circulation . MFR upgraded the depression to moderate tropical storm status at 0600 UTC on March 5 ; subsequently , the Meteorological Service of Mauritius assigned the system the name Kalunde . Moving west @-@ northwest , the JTWC issued their first warning on the system . Initially , Kalunde did not become much better organized even though deep convection was still increasing . Cyclone Kalunde steadily intensified over the next couple of days while performing a small clockwise loop . MFR upgraded Kalunde to severe tropical storm status at 1200 UTC on March 6 . At 1800 UTC , JTWC reported 1 @-@ minute sustained winds of 100 km / h (60 mph) . On March 7 , Kalunde began to undergo rapid intensification , and at 0600 UTC the MFR upgraded it to a tropical cyclone . At the same time , JTWC also estimated winds of 120 km / h (75 mph) , the equivalent of a Category 1 hurricane on the Saffir ? Simpson hurricane wind scale (SSHWS) .

After the formation of an eye , Kalunde continued to intensify rapidly and at 1800 UTC March 7 MFR declared the system an intense cyclone . Simultaneously , JTWC estimated that Kalunde had attained winds of 215 km / h (135 mph) while located several hundred miles south @-@ southwest of Diego Garcia . Continuing to trek southwest by a mid @-@ level ridge to the southeast , the rapid intensification trend continued until it leveled off early on March 8 . At this time , the JTWC reported winds of 255 km / h (160 mph) , equivalent to Category 5 intensity on the SSHWS . Subsequently , MFR remarked that the system had reached its peak wind speed of 215 km / h (135 mph) , as an intense tropical cyclone . After attaining peak intensity , MFR and the JTWC began to lower their intensity estimates as thunderstorms began to erode in the northwestern quadrant of the eyewall .

Moving slowly southwest , Intense Tropical Cyclone Kalunde underwent an eyewall replacement cyclone late on March 9 . The next day , the JTWC notes that Kalunde re @-@ intensified somewhat ; however , this is not supported by MFR ? s estimates . While slowly approaching the small island of Rodrigues , Kalunde was estimated (according to MFR) to have winds of 140 km / h (85 mph) . On March 12 , Kalunde passed 55 km (35 mi) away from Rodrigues , and around that time the JTWC reported winds of 100 km / h (60 mph) . MFR downgraded Kalunde to severe tropical storm status at 0000 UTC on March 14 . Twelve hours later , the center of circulation

became exposed from the convection . Kalunde continued trekking south @-@ southeastward on the March 15 as it underwent extratropical transition . The JTWC stopped monitoring the low at 1200 UTC while estimating winds of 55 km / h (35 mph) . At 1800 UTC on March 15 , MFR declared the system extratropical , located approximately 690 mi (1 @,@ 110 km) south @-@ southeast of Rodrigues . The agency officially stopped tracking the system at 1200 UTC the next day though the storm finally dissipated on March 17 .

= = Preparations , impact , and aftermath = =

Prior to the storm 's arrival , a class four cyclone alert was issued for Rodrigues Island . Between March 11 and 13 , flights to and from Rodrigues were canceled due to high winds . In addition , Cyclone Kalunde briefly posed a threat to Mauritius .

Severe coastal damage took place across Rodrigues . Many roads were washed out , isolating many communities . Wind gusts estimated up to 210 km / h (130 mph) destroyed the island 's power and telecommunications grid , leaving the entire populous without power . Communication lines between Rodrigues and nearby Mauritius were also cut . Hospitals were also without electricity ; one operation had to be done using a torch light . Because communication was lost during Kalunde 's passage , residents lacked information about the storm for several hours . About 80 percent of the drinking water was contaminated and food crop on the island was washed away . During the storm 's three @-@ day passage of the island , 329 @.@ 1 mm (12 @.@ 96 in) of rain fell . A total of 1 @,@ 600 homes and 40 boats were damaged and losses across the island amounted to ? 3 @.@ 4 million (US $ 3 @.@ 15 million) .

In the wake of the storm , the French Red Cross supplied 1 @.@ 5 tons of supplies to approximately 10 @,@ 000 people victims of Kalunde . Mauritius Deputy Prime Minister Paul Berenger visited the island Friday to assess the damage while another official called on Mauritius officials to contribute to a cyclone relief fund for the island group . Twenty technicians were also sent to the area in wake of the storm . Officials estimated that it would take five weeks for power to be fully restored across Rodrigues . They also stated that if a similar situation took place and people were in need of emergency services , no one would be able to receive them . Furthermore , they proposed that bridges would to be built in order to forestall roads from being washed out again .