

= Cyclone Elita =

Cyclone Elita was an unusual tropical cyclone that made landfall on Madagascar three times . The fifth named storm of the 2003 ? 04 South @-@ West Indian Ocean cyclone season , Elita developed in the Mozambique Channel on January 24 , 2004 . It strengthened to become a tropical cyclone before striking northwestern Madagascar on January 28 . Elita weakened to tropical depression status while crossing the island , and after exiting into the southwest Indian Ocean , it turned to the west and moved ashore in eastern Madagascar on January 31 . After once again crossing the island , the cyclone reached the Mozambique Channel and re @-@ intensified . Elita turned to the southeast to make its final landfall on February 3 along southwestern Madagascar . Two days later , it underwent an extratropical transition ; the remnant system moved erratically before dissipating on February 13 .

Elita dropped heavy rainfall of more than 200 mm (8 inches) , which damaged or destroyed thousands of houses in Madagascar . Over 50 @,@ 000 people were left homeless , primarily in Mahajanga and Toliara provinces . Flooding from the storm ruined more than 450 km ² (170 sq mi) of agricultural land , including important crops for food . Across the island , the cyclone caused 33 deaths , with its impact further compounded by Cyclone Gafilo about two months later . Elsewhere , Elita brought rainfall and damage to Mozambique and Malawi , and its outer wind circulation produced rough seas and strong gusts in Seychelles , Mauritius , and Réunion .

= = Meteorological history = =

An area of thunderstorms developed in the Mozambique Channel on January 25 , 2004 , about 95 km (60 mi) west of Madagascar . Deep convection developed and organized around a mid- to low @-@ level circulation , and at 0600 UTC on January 26 , Météo @-@ France (MFR) classified the system as Tropical Disturbance 06 , about 105 km (65 mi) west of Maintirano , Madagascar . Six hours later , it was upgraded to Tropical Depression 06 , and later that day the depression was named Elita . At the same time , the Joint Typhoon Warning Center (JTWC) began issuing advisories on the cyclone . Strengthening at first was slow , due to moderate wind shear limiting the convection to the northern portion of the cyclone . Initially , the storm tracked in an unusual northward motion toward the equator , which was caused by a ridge to its west .

Early on January 27 , Elita was upgraded to a moderate tropical storm , though later that day it weakened to tropical depression status . However , it quickly re @-@ attained tropical storm status early on January 28 , with convection increasing further . Elita turned east @-@ southeastward due to a ridge to its north , quickly intensifying as it approached land and developing a well @-@ defined eye on visible satellite imagery . It intensified to tropical cyclone status , or the equivalence of a minimal hurricane , at 1200 UTC on January 28 . Three hours later , Elita made landfall on Bombetoka Bay in northwestern Madagascar with wind gusts of over 180 km / h (110 mph) . The storm rapidly weakened to tropical depression status over land , though as it crossed the island convection re @-@ developed over the waters east of Madagascar . Elita reached the southwest Indian Ocean by January 30 , and its convection quickly organized into rainbands . It drifted southward a short distance offshore , slowly intensifying before attaining tropical storm status at 0000 UTC on January 31 . About six hours later , after turning to the west , Elita moved ashore near Mananjary with winds of about 75 km / h (45 mph) , as reported by MFR .

The cyclone quickly weakened to tropical depression status as it tracked westward across Madagascar , and late on January 31 it emerged into the Mozambique Channel . Deep convection increased as it reached open waters , with outflow improving . A strengthening ridge to its north caused Elita to decelerate before turning to the east @-@ southeast . Late on February 2 , the JTWC assessed Elita with peak winds of 120 km / h (75 km / h) , and shortly thereafter MFR reported the cyclone as attaining peak winds of 110 km / h (70 mph) . Early on February 3 , Elita moved ashore near Morondava at peak intensity . Weakening rapidly while crossing the island for a third time , the cyclone emerged into the southwest Indian Ocean as a tropical depression by 0000 UTC on February 4 . Despite initial forecasts of re @-@ intensification , Elita accelerated

southeastward and lost its remaining convection , leaving its center exposed under the influence of a strong upper @-@ level trough . By February 5 , it had transitioned into an extratropical cyclone , and its motion had halted due to weak steering currents . For about a week , the remnants of Elita meandered to the southeast of Madagascar before dissipating on February 13 .

Elita 's crossing of Madagascar three times is unusual , but not unprecedented ; Severe Tropical Storm Felicia in January 1970 and Storm Justine in March 1982 accomplished the same feat .

= = Impact = =

The Mozambique National Institute of Meteorology advised people living in Nampula , Zambezia , Sofala , and Inhambane Provinces to make preparations for strong winds and rainfall . In Nampula province , over 2000 buildings were destroyed . The most severe damage was to generally poorly built houses in Memba , Nacala @-@ a @-@ Velha , Mogincual , and Nampula city . In the latter city , an Islamic school was badly damaged , and in Nacla @-@ a @-@ Velha survivors had to spend the night of January 29 in the open . All in all , Elita impacted four provinces of Mozambique . Much of the impact was along the coast from Inhambane to Nampula . The inflow of the storm brought moisture from the Intertropical Convergence Zone through Malawi , which produced heavy rainfall of over 150 mm (6 in) ; the rainfall destroyed more than 80 houses and a clinic in Karonga district . The storm brought rough seas , gusty winds , and some precipitation to the southwestern islands in Seychelles .

Upon making its first landfall on Madagascar , Elita dropped heavy rainfall along its path , peaking at 715 mm (28 @.@ 1 in) including a 24 ? hour total of 222 mm (8 @.@ 74 in) in Antsohihy . Wind gusts reached over 180 km / h (110 mph) in Mahajanga . The passage of the cyclone left 5 @,@ 000 people homeless in the vicinity of its first landfall , with 90 percent of the buildings in northwestern Mahajanga Province damaged by the storm . At least two people were killed in the region . Throughout the country , Cyclone Elita destroyed or severely damaged 12 @,@ 408 homes , which left 55 @,@ 983 people homeless , primarily in Mahajanga and Toliara . This forced around 7 @,@ 000 people to seek shelter in either stadiums or in the remaining standing buildings . Additionally , a total of 510 schools and hospitals received major damage . The cyclone affected five of the six provinces of Madagascar , with roads and power being severely disrupted in some areas ; at least 39 bridges were damaged or destroyed . The cities of Maintirano and Soavinandriana were both severely damaged . In Midongy Atismo , heavy rainfall flooded 80 % of the town 's rice crop , and the corn and manioc crops were both similarly affected . These represent the staple foods of the population , and across the nation the storm damaged more than 450 km² (170 sq mi) of agricultural land . Throughout Madagascar , the cyclone killed at least 33 people and injured 129 others .

The extratropical remnants of Elita produced rough seas and strong winds on Mauritius and Réunion island , which caused one ship to sink .

= = Aftermath = =

On February 13 , 2004 , officials in Madagascar issued an appeal for international aid . By a month after the storm , the governments of France , the United States , Germany , and Japan sent a total of \$ 287 @,@ 000 (2004 USD) in assistance . The government of France sent a plane with food , medicine , and other equipment to the affected areas . The government of Germany sent aid to be used for foods and medicines . On February 27 , the government of Japan sent aid to the country , including tents , generators , and plastic sheets .

Officials distributed emergency relief items to the affected areas , including rice , sugar , soap , candles , matches and water purification tablets . In Morondava in Toliara Province , the government distributed 4 tons of rice seed , while in Ambatolampy in Antananarivo Province , the government sent 10 tons of rice ; additionally , the World Food Programme sent 80 tons of flour to the nation . The combined efforts of the United Nations and aid agencies repaired the schools and distributed meals to the families affected by the disaster . Workers in association with the Madagascar Red

Cross set up a water system that provided about 45 @, @ 000 litres (11 @, @ 900 gallons) of drinkable water per day .

The impact of Cyclone Elita was severely compounded by Cyclone Gafilo about two months later , which killed hundreds and left over 240 @, @ 000 people homeless .