

= Cyclone Bella =

Cyclone Bella was a destructive tropical cyclone that passed near the Mauritius outer island of Rodrigues . The second named storm of the season , Bella originated in the middle of January 1991 from a surge in the monsoon trough to the southwest of Sumatra . For several days , the system remained weak as it moved generally west @-@ southwestward . On January 25 , it intensified to tropical storm status , but Bella took three more days to intensify to tropical cyclone status , with 10 minute maximum sustained winds of 120 kilometres per hour ( 75 miles per hour ) . The cyclone attained peak intensity on January 29 , officially reaching winds of 155 km / h ( 100 mph ) . The Joint Typhoon Warning Center unofficially estimated winds of 240 km / h ( 150 mph ) , the highest the agency estimated for any storm in the Southern Hemisphere in the year . Bella later turned to the southeast and weakened , passing about 50 km ( 30 mi ) west of Rodrigues on January 31 . The storm turned to the south @-@ southwest and back to the southeast again , becoming extratropical on February 4 .

While passing near Rodrigues , Bella produced strong winds and high tides , the latter of which caused flooding in the capital Port Mathurin . The storm was considered the worst on the island in 20 years . About 1 @, @ 500 homes were damaged or destroyed , leaving 1 @, @ 000 people homeless . Bella also severely damaged crops , roads , and the power grid on Rodrigues . The storm killed about half of the Rodrigues flying fox , a critically endangered species . Elsewhere , Bella was believed to have sunk a Madagascar cargo ship , with its 36 people on board .

= = Meteorological history = =

Similar to Cyclone Alison that had formed in early January 1991 , a surge in the monsoon trough spawned what would become Tropical Cyclone Bella , associated with the intertropical convergence zone . On January 13 , the Joint Typhoon Warning Center ( JTWC ) began monitoring a system about 660 km ( 410 mi ) southwest of Padang , Sumatra in the Australian basin . Moving to the west @-@ southwest , the system crossed into the south @-@ west Indian Ocean on January 17 , and the next day was tracked by the Météo France office in Réunion ( MFR ) . On January 20 , the disturbance turned sharply to the south @-@ southeast , although its westward motion resumed late the following day , influenced by a ridge to the south .

On January 22 , the disturbance intensified into a tropical depression . The JTWC upgraded the storm to tropical storm status on January 23 , three days after classifying it as Tropical Cyclone 08S . On January 25 , the MFR upgraded the depression to Tropical Storm Bella , a week after beginning to issue advisories . Around that time , the storm became visible on MFR satellite imagery . Following a lengthy period of minimal development , Bella subsequently intensified at a more regular rate as it slowed its forward motion . On January 26 , it turned more to the southwest , but the westward track resumed on the next day . Aided by warm sea surface temperatures of 28 ° C ( 82 ° F ) , Bella began to intensify quickly . On January 28 , both the JTWC and the MFR upgraded the storm to the equivalent of a minimal hurricane , estimating winds of 120 km / h ( 75 mph ) ; this made Bella a tropical cyclone , the first of the season . Around this time , the storm developed a well @-@ defined eye 60 km ( 35 mi ) in diameter .

After becoming a tropical cyclone , Bella continued to intensify , reaching peak winds on January 29 . The MFR estimated 10 minute winds of 155 km / h ( 100 mph ) , and assessed a barometric pressure of 936 mbar ( 27 @. @ 6 inHg ) at that time . Meanwhile , the JTWC estimated 1 minute peak winds of 240 km / h ( 150 mph ) ; this strength , equivalent to a super typhoon , was the highest the JTWC estimated for any Southern Hemisphere storm during the tropical cyclone year . On January 30 , Bella turned to the southeast and began weakening , affected by wind shear in the region . The cyclone passed about 50 km ( 30 mi ) west of Rodrigues at 03 : 00 UTC on January 31 , with 10 minute winds of 135 km / h ( 85 mph ) . Shortly thereafter , the cyclone deteriorated into a tropical storm . The southeast trajectory was short @-@ lived , as Bella turned more to the south @-@ southwest on February 1 . After a final turn to the southeast , Bella became an extratropical cyclone on February 4 .

= = Impact and aftermath = =

Before Bella affected land , a class one warning , the lowest of four , was issued for Réunion , while a class four warning was issued for Rodrigues .

While moving near Rodrigues , Bella produced wind gusts of 210 km / h ( 130 mph ) , along with high tides that flooded the northern coastline , including the capital Port Mathurin . The storm damaged 1 @, @ 200 homes and destroyed 300 others , leaving about 1 @, @ 000 people homeless . About 30 schools were wrecked . The storm damaged about 75 % of the electrical network was damaged , which also disrupted water supply on the island , and about 30 % of roads were damaged . Over 90 % of the cropson the island were destroyed , with many livestock killed . Cyclone Bella killed about half of the Rodrigues flying fox , a critically endangered species , decreasing the numbers from around 800 to around 400 . The species had regrown from a minimum of around 70 in 1971 , and the trend toward regrowth continued after the storm , reaching about 3 @, @ 500 in 2002 . The storm also affected the Rodrigues warbler . The storm also injured nine people , and overall , Bella was considered the worst storm on the island in 20 years .

A 16 @, @ 570 ton cargo ship traveling from Madagascar to Réunion was lost on January 30 about 700 km ( 430 mi ) to the south of the center of Bella . The ship likely sank due to the cyclone , with 36 people on board .

In the aftermath of the storm , seven people contracted Typhoid fever on Rodrigues in relation to the storm . After Bella passed , the government of Mauritius noted the need for 4 @, @ 500 m ( 15 @, @ 000 ft ) of galvanized pipes to assist in rebuilding , as well as generators . The United States Agency for International Development donated \$ 25 @, @ 000 ( 1991 USD ) to Mauritius to help in the aftermath . France , the United Kingdom , and India also donated to the country .