

Factsheet: Tropical Cyclones

What is a tropical cyclone?

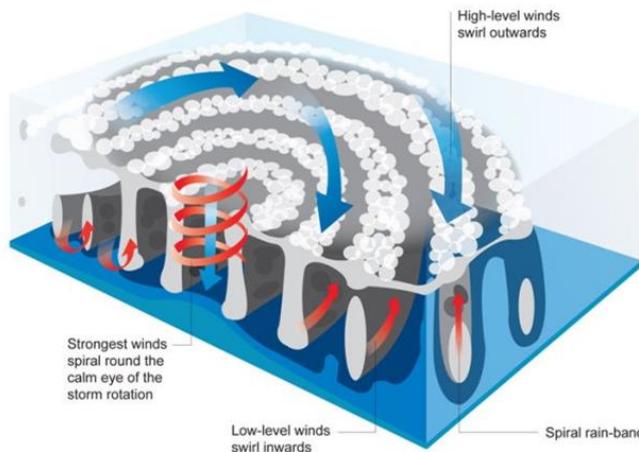
A tropical cyclone is the generic term for a low-pressure system over tropical or subtropical waters, with organised convection (thunderstorm activity) and winds at low levels circulating either anti-clockwise in the northern hemisphere or clockwise in the southern hemisphere. The storm system may be five to six miles high and 300 to 400 miles wide, although they can sometimes be even bigger. It typically moves forward at speeds of 10 to 15 mph, but can travel as fast as 40 mph. The tropical storm is referred to as a hurricane in the Atlantic and eastern North Pacific, a typhoon in the western North Pacific, or a tropical cyclone in the Indian Ocean and South Pacific.



Madagascan case study – January 2025

Tropical cyclone Dikeledi passed over northern Madagascar on 11th January 2025. As of 13th January, media reports three fatalities and around 15,200 people displaced across northern Madagascar. The cyclone continued to eastern Africa, making landfall over north-eastern Mozambique on 13th January.

Source: [reliefweb](https://reliefweb.int/report/madagascar/tropical-cyclone-dikeledi-impacts-northern-madagascar-11-january-2025)



Tropical cyclone classifications

Tropical storms with wind speeds of up to 38 mph are classified as tropical depressions and those with wind speeds ranging between 39 to 73 mph are classified as tropical storms.

Category 1: wind 74 to 95 mph

Once wind speeds exceed 73 mph, tropical storms are classified as a tropical cyclone (or equivalent name for other regions). However, there are five categories for tropical cyclones, based on wind speed, as shown to the left.

Category 2: wind 96 to 110 mph

Category 3: wind 111 to 129 mph

Category 4: wind 130 to 156 mph

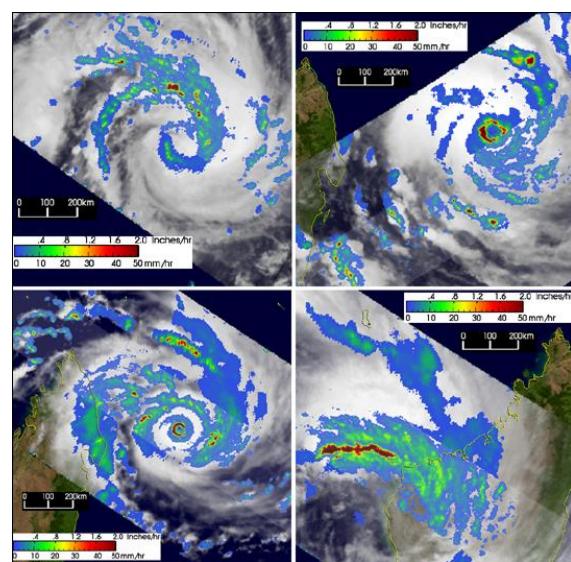
Category 5: wind >156 mph

Source: [Met Office](https://www.metoffice.gov.uk/weather/uk/tropical-cyclones)

Madagascan case study – Strongest

The strongest tropical storm to make landfall over Madagascar was Cyclone Gafilo in March 2004. The Category 5 Cyclone made landfall on the island's northeast coastline with sustained winds reaching an estimated 161 mph, destroying much of the town of Antalaha.

Source: [NASA Earth Observatory](https://earthobservatory.nasa.gov/images/173000/cyclone-gafilo)



Cyclone Gafilo, Image source: [NASA](https://earthobservatory.nasa.gov/images/173000/cyclone-gafilo)