

Tropical storms and cyclone severity

Terms used to describe the weather conditions in the tropics

Tropical disturbance: a tropical weather system, generally 200 to 600 km in diameter, originating in the tropics or subtropics, having a migratory character and maintaining its identity for twenty-four hours or more.

Tropical depression: a tropical cyclone in which the maximum sustained wind speed is 65 km/h or less. Depressions have a closed circulation.

Tropical storm: a tropical cyclone in which the maximum sustained surface wind speed ranges from 65 km/h to 105 km/h. The rainfall in tropical storms is usually concentrated near the centre, with outer rainfall in distinct bands.

Tropical cyclone: when winds in a tropical cyclone equal or exceed 105 km/h, it is called a cyclone (in the south-western Pacific Ocean). Cyclones are put into numbered categories. Cyclones tend to form near the Equator and then travel in a southerly direction towards cooler ocean conditions, where they lose intensity.

Note: Wind gusts during a cyclone (or storm) can be much higher than 105 km/h. The term for a cyclone in the northern Atlantic is *hurricane*, and in the northern Pacific it is *typhoon*. They are similar weather conditions. A tornado is a funnel-shaped column of air that leaves a narrow path of destruction over land.

Severity categories of tropical cyclones (winds and typical effects)

Category 1: strongest gust less than 125 km/h; minimal house damage; damage to some crops, trees and caravans; craft may drag on moorings

Category 2: strongest gust 125–170 km/h; minor house damage; significant damage to signs, trees and caravans; heavy damage to some crops; risk of power failure; small craft may break moorings

Category 3 (e.g. Cyclone Ami, Fiji): strongest gust 170–225 km/h; some roof and structural damage; some caravans destroyed; trees uprooted; power failure likely

Category 4 (e.g. Cyclone Tracy, Darwin): strongest gust 225–280 km/h; significant roofing loss and structural damage; many caravans destroyed and blown away; dangerous airborne debris; widespread power failure

Category 5 (e.g. Hurricane Katrina, Louisiana): strongest gust more than 280 km/h; extremely dangerous, with widespread destruction