

# CYCLONES

Tropical Cyclones are formed over the ocean in the area around the equator, between the Tropic of Cancer and the Tropic of Capricorn.

Cyclones are giant, spinning, whirlwind storms. They are called hurricanes in North America and typhoons in Asia. In order for a cyclone to be identified as a cyclone, it must be travelling over 119 km per hour and it must have been formed over the ocean in a tropical region. These great storms are usually dangerous and can cause damage to everything in their path. A cyclone will often bring with it heavy rains that can cause flooding.

In order for a cyclone to form, the ocean waters need to be warm, at least 26°C. Above the warm ocean, water evaporates and forms clouds. If there is low air pressure where the clouds are formed, it pulls them in and they begin to rotate. It is the earth rotating and spinning on its axis that causes the cyclone's clouds to rotate. Clouds will continue to form and begin spinning more.

This is the stage when it can develop into a mature cyclone, or lose its momentum. Even if it has developed into a mature cyclone, it can still grow in size and

increase its wind speed. In order for it to be categorised as a cyclone, its average sustained wind speed needs to exceed 63 km per hour. To be classified as severe, the average sustained wind speed needs to exceed 118 km per hour.

Once a cyclone arrives over land, its strength weakens and it begins to fade out. This is due to the lack of moisture and heat compared to the ocean over which it was formed.

## How often do they occur?

Cyclone season in Australia is between November and April, however cyclones can still occur in May. The season for hurricanes and typhoons in the Northern Hemisphere (<http://schools.aemi.edu.au/node/18#n>) is between June and November. Bureau of Meteorology (<http://www.bom.gov.au>), Australia has, on average, 13 cyclones a year. Half of these occur in the western regions.

## Severity and Categories

Cyclones are categorised according to their strength. There are five categories: Category 1 is the weakest and Category 5 is the strongest.

Category	Wind gusts	Ocean Swells	Damage
1	Upto 125kmh Gales	1.2m to 1.6m Slight damage	Trees and farmland damaged
2	126kmh to 169kmh	1.7m to 2.5m Significant damage	Minor house damage. Severe damage to signs and trees. Heavy damage to crops
3	170kmh to 222kmh Destructive	2.6m to 3.7m	House roofs and most likely power failures
4	225kmh to 279kmh Destructive	3.8m to 5.4m Significant roof and structural damage	Airborne debris, widespread power failure
5	Winds above 280kmh Very destructive	More than 5.5m. Significant destruction and extremely dangerous conditions	Houses flattened, cars overturned

## Every cyclone has an eye

The eye is in the centre of the cyclone and can vary in size from 10 km to 100 km, depending on the severity of the storm. Because there is the least amount of air pressure in the eye, it produces clear weather with light wind, no clouds, no rain and some sunshine. Do not be fooled by the eye: the storm is not over yet. This is only the middle of the storm. Depending on the wind gusts, the eye may pass in a few minutes or in a few hours.

You are always advised to stay indoors during the passing of the eye of the storm, because the cyclone will continue. Always listen for the official word that the cyclone has passed and when it is safe to leave your shelter. When going outside, be aware of fallen powerlines, debris and damage left behind after the cyclone.

## Did you know?

The average life of a cyclone is one week.

After the eye passes and the other side of the cyclone hits, the wind blows with equal strength but in the opposite direction.

Tropical cyclones from the Southern Hemisphere spin

clockwise, while hurricanes and typhoons in the Northern Hemisphere spin anti-clockwise.

Cyclone Tracy was Australia's most destructive cyclone.

Cyclones are assigned names, which are chosen from a list.

## Names of cyclones

Each cyclone is named from one of the names in the below table. The names start from the top of the list and alternate between male and female name. Once the end of the list is reached it begins again.

Letter	Cyclone names				
A	Anika	Anthony	Alessia	Alfred	Ann
B	Billy	Bianca	Bruce	Blanche	Blake
C	Charlotte	Courtney	Christine	Caleb	Clauadia
D	Dominic	Dianne	Dyland	Debbie	Damien
E	Ellie	Errol	Edna	Ernie	Esther
F	Freddy	Fina	Fletcher	Frances	Ferdinand
G	Gabrielle	Grant	Gillian	Greg	Gretel
H	Herman	Hayley	Hadi	Hilda	Harold
I	Ilsa	Iggy	Ita	Ira	Imogen
J	Jasper	Jenna	Jack	Joyce	Joshua
K	Kirrily	Koji	Kate	Kelvine	Kimi
L	Lincoln	Luana	Lam	Linda	Lucas
M	Megan	Mitchell	Marcia	Marcus	Marian
N	Neville	Narelle	Nathan	Nora	Noah
O	Olga	Oswald	Olwyn	Owen	Odette
P	Paul	Peta	Penny	Paddy	
Q	Quang				
R	Robyn	Rusty	Raquel	Riley	Ruby
S	Sean	Sandra	Stan	Savannah	Seth
T	Tasha	Tim	Tatjana	Trevor	Riffany
U	Uriah				
V	Vince	Victoria	Vernon		
W	Wallace				
Y	Yvette				
Z	Zelia	Zane			