

Tropical Cyclones

A tropical cyclone is a rapidly rotating storm system characterized by a low-pressure center, strong winds, and a spiral arrangement of thunderstorms that produce heavy rain. Depending on location and strength, a tropical cyclone is called:

- **Hurricane**
- **Typhoon**
- **Cyclone**



A storm can also be called a "tropical storm", "cyclonic storm" or "tropical depression".

A **hurricane** is a tropical cyclone that occurs in the Atlantic Ocean and northeastern Pacific Ocean. This is a common phenomenon in the USA and Caribbean between June and November. Names given to hurricanes follow the alphabet. These are the names for storms in the Atlantic Ocean for 2017:

Arlene	Harvey	Ophelia
Bret	Irma	Philippe
Cindy	Jose	Rina
Don	Katia	Sean
Emily	Lee	Tammy
Franklin	Maria	Vince
Gert	Nate	Whitney

A **typhoon** is a tropical cyclone that occurs in the northwestern Pacific Ocean. This is a common phenomenon in the Asia region between May and October. Names given to typhoons also follow the alphabet. These are the names for storms in the Pacific Ocean for 2022:

- Agatha
- Blas
- Celia
- Darby
- Estelle
- Frank
- Georgette
- Howard
- Ivette
- Javier
- Kay
- Lester
- Madeline
- Newton
- Orlene
- Paine
- Roslyn
- Seymour
- Tina
- Virgil
- Winifred
- Xavier
- Yolanda
- Zeke

Source: https://en.wikipedia.org/wiki/2022_Pacific_hurricane_season

A **cyclone** occurs in the south Pacific Ocean or Indian Ocean.

How do they form?

These storms typically form over large bodies of relatively warm water. Evaporation of water from the ocean surface eventually cools and recondenses into clouds and rain.

This energy source differs from that of mid-latitude cyclonic storms, such as in Europe, which are fueled by horizontal temperature contrasts. The strong rotating winds of a tropical cyclone are a result of the conservation of angular momentum imparted by the Earth's rotation as air flows toward the axis of rotation.

These storms rarely form within 5° of the equator. Tropical cyclones are typically between 100 and 2,000 km in diameter. They are far less common south of the equator, mainly because the warmer waters, and areas of atmospheric instability, are features of the northern hemisphere. Also, vertical wind movements are much stronger south of the equator, which typically prevents storms from developing there.

Tropical refers to the geographical origin of these systems, which usually form over tropical seas. **Cyclone** refers to their winds which move in a circle, around their central "eye", with their winds blowing *anticlockwise* in the northern hemisphere, and *clockwise* in the southern hemisphere. The direction of circulation is due to the *Coriolis* effect.

Coastal regions are particularly vulnerable to the impact of a tropical cyclone, and coastal damage is caused by strong winds, heavy rain and high waves. The storms can also cause rivers to overflow, causing flooding in low areas.

Though their effects on human populations are often devastating, tropical cyclones can relieve drought conditions. They also carry heat energy away from the tropics and transport it toward temperate latitudes, which can play an important role in modulating regional and global climates.

**Images of
Hurricane Irma,
2017**



Sources:

https://en.wikipedia.org/wiki/Tropical_cyclone

<https://www.rappler.com/science-nature/environment/157343-pagasa-2017-tropical-cyclone-names-philippines>