



Hurricane Eta

Why in News

Recently, Hurricane Eta has hit northeastern **Nicaragua** with life-threatening storm surge, catastrophic winds and flash flooding occurring over **portions of Central America**.

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Key Points

- **Description:** It is categorised as a **Category 4 hurricane**. A Category 4 storm has wind speeds between **130-156 mph** and can uproot trees and bring down power lines.

Saffir-Simpson Hurricane Wind Scale

- Hurricanes are categorized on the Saffir-Simpson Hurricane Wind Scale, which rates them on a scale of 1 to 5 based on wind speed.
 - Hurricanes that reach category three or higher are classified as major hurricanes.

Saffir-Simpson Hurricane Wind Scale



Category 1 - 5



WIND: 74-95 mph

DAMAGE: Very dangerous winds will produce some damage



WIND: 96-110 mph

DAMAGE: Extremely dangerous winds will cause extensive damage



WIND: 111-129 mph

DAMAGE: Devastating damage will occur



WIND: 130-156 mph

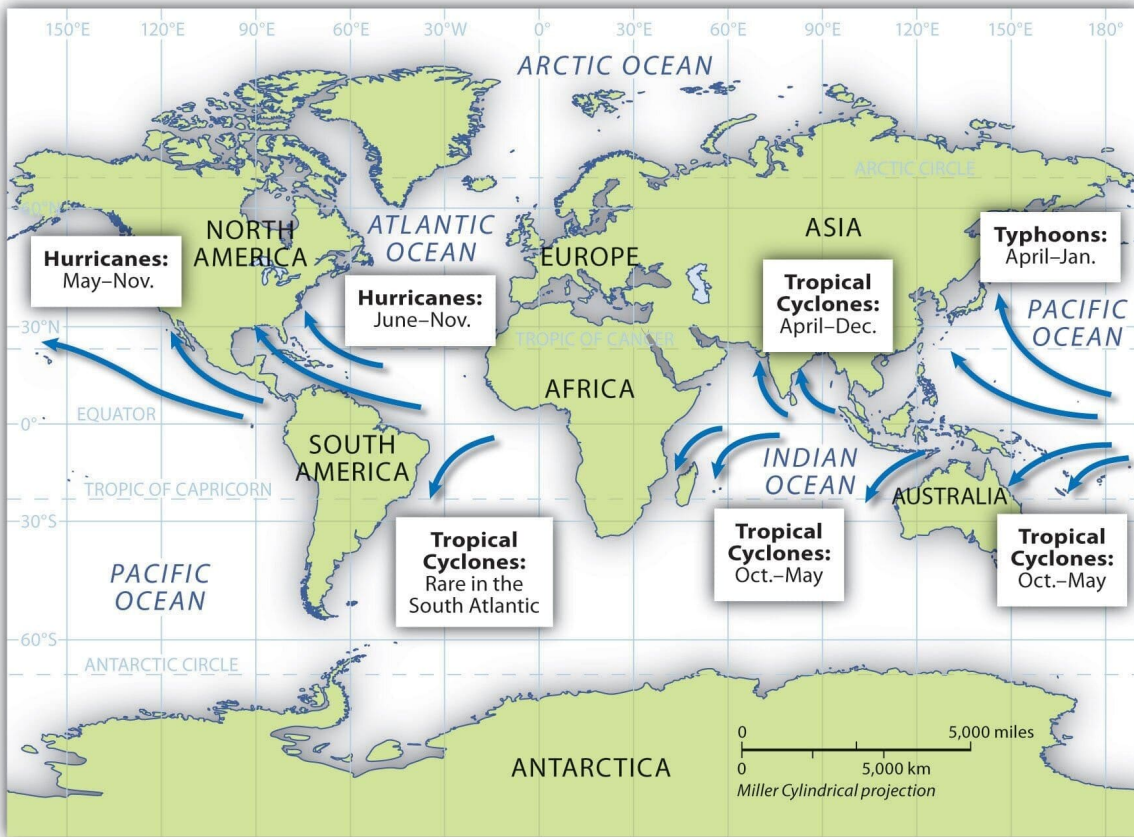
DAMAGE: Catastrophic damage will occur



WIND: 157 mph or higher

DAMAGE: Catastrophic damage will occur

- **Origin:** Tropical cyclones or hurricanes use warm, moist air as fuel, and therefore form over warm Equatorial water.
- **Mechanism:**
 - **Low-Pressure Creation:** When the warm, moist air rises upward from the surface of the ocean, it creates an area of low air pressure below.
 - When this happens, the air from the surrounding areas rushes to fill this place, eventually rising when it becomes warm and moist too.
 - An **eye forms** in the centre. It is the calmest part of the cyclone. Before the wind reaches the centre it gets warmed up and rises upwards.
 - When the warm air rises and cools off, the moisture forms clouds. This system of clouds and winds continues to grow and spin.
 - This disturbance is fuelled by the ocean's heat and the water that evaporates from its surface.
 - Such storm systems rotate faster and faster. Storms that form towards the north of the equator **rotate counterclockwise**, while those that form to the **south spin clockwise** because of the rotation of the Earth.



Source:IE

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