

What Are the Parts of a Hurricane?

Hurricanes (by whatever name) are by far most common in the Pacific Ocean, with the western Pacific being most active.

Cross-Section of a Hurricane

1. Outflow

The high level clouds moving clockwise out away from the hurricane at heights of over 35,000 feet. These clouds are indicative of air spreading out over the top of the storm, which is essential to its development.

2. Feeder Bands

These are squally bands of showers characterized by strong gusty winds and heavy rains. These bands become more pronounced as the storm intensifies, and are fed by the warm ocean.

3. The Eyewall

A band of clouds, strong winds and heavy rains surrounding the eye of the storm. At the eyewall, there is rapid movement of air toward the center and upward into the cloud.

4. The Eye

What goes up must come down, so with the violent rising air converging toward the storm center at the eye, sinking air develops within. This air dries out, creating the clear, calm eye. Winds are very light here since the focus of convergence and hence strong winds are in the eyewall.

The Storm Surge

Low pressure in the hurricane can act as a plunger, slightly pulling up the water level. However, the components that contribute to the greatest storm surge affect are the winds blowing to the left side of the storm and the topography of the land as the storm makes land fall. The strongest surge comes ashore just to the right of the eye, where the fierce hurricane winds are blowing toward land. Winds on the left side of the storm might actually cause the water level to run slightly lower than normal. Higher water level allows waves to strike farther inland, causing massive property damage.