

## TSUNAMI GLOSSARY

Term	Definition
Arrival time	The time of arrival of the first wave of a tsunami.
Bore	A wave with a steep vertical front. A tsunami wave may form a bore as it approaches shore.
Continental shelf	The continental shelf is the portion of the ocean floor closest to land. It slopes gradually underneath the water, before meeting up with the continental slope, which then makes a sharp descent to the deep ocean floor. When a tsunami wave reaches the continental shelf it becomes most dangerous, because the sudden loss of water depth pushes the waves to their greatest heights.
Crest	The crest of a wave is its highest point. Tsunami waves have been recorded at over 60 meters, but even waves of a meter can cause damage.
Drawback	Drawback is when the ocean recedes from land before a tsunami strikes. It is one of the natural warning signs of an approaching tsunami, but does not always happen.
Distant source tsunami	A tsunami that is generated from a distance source, traveling a great distance across the ocean before hitting another shore.
Earthquake	An earthquake is a sudden shaking of the Earth's crust, which is its outermost, rocky layer.
Epicenter	The epicenter is the point on the Earth's surface directly above the place that an earthquake occurred. It is one of the indicators, along with magnitude and type of fault motion, of whether a tsunami will be propagated as a result of an earthquake.
Evacuation zone	Area that should be evacuated prior to the arrival of a tsunami.
Frequency	The number of times a wave is produced within a certain time period. For example, there might be 3 tsunami waves over the period of one hour.
Inundation area	Normally dry land area that has been, or is predicted to be, flooded by a tsunami, measured horizontally landward from the shore.
Inundation line	The demarcation line between the inundation area and the safe zone.
Leading wave	The first tsunami wave to arrive on a shore.
Local tsunami	A tsunami that quickly reaches a shoreline close to the source of the earthquake or landslide. It does not have to travel far, so there is little or no warning of its arrival. Local tsunamis often cause the greatest loss of life.
Magnitude	Magnitude describes the energy release of an earthquake as measured by the moment magnitude scale. People normally don't feel earthquakes that have a magnitude of less than 3.0. It usually takes an undersea earthquake of 7.5 or greater magnitude to generate a tsunami.
Period	The amount of time between two specific and successive waves. A tsunami wave period can range from 5 minutes to several hours.
Plate	The crust of the Earth is broken into sections called plates (also known as tectonic plates), which are enormous parts of the crust that float atop the soft mantle. It is the movement of these plates that causes earthquakes.
Ring of Fire	The Ring of Fire is an area that surrounds the Pacific Ocean and is high in seismic and volcanic activity, both of which can cause tsunamis.
Runup	Runup is the vertical height a tsunami wave reaches above a reference sea level.
Safe zone	An area that should not be reached by the water from a tsunami, either by virtue of its elevation or by its distance from the shore.
Sea level	Sea level is the normal level of the sea's surface, halfway between mean high and low tide levels.

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Seismograph	Also called a seismometer, this piece of equipment records the motion of the ground during an earthquake, and is used to calculate the magnitude of the earthquake.
Subduction earthquake	Subduction refers to the action of one plate sliding underneath another. Although this is normal, sometimes a portion of the underlying plate gets stuck. When it finally slips free, it results in an earthquake. Most tsunamis are caused by subduction zone earthquakes.
Subduction zone	A subduction zone is an area where one plate is being pushed beneath another plate. When these zones are located in or near the ocean, the tsunami hazard will be higher. The Pacific Northwest and Alaska are located along subduction zones.
Submarine landslide	An underwater landslide. Depending on the location and amount of displaced water, a submarine landslide can trigger a significant local source tsunami.
Tidal wave	A tsunami wave is sometimes incorrectly called a tidal wave. Tsunamis have no relationship with the tide.
Travel time	Time required for the first tsunami wave to travel from its source to a given point on a coastline.
Tsunami	A series of traveling waves of extremely long wavelength and period, generated by the sudden displacement of water associated with earthquakes occurring below or near the ocean floor, volcanic eruptions, or large underwater landslides.
Tsunamigenic earthquake	An earthquake capable of generating a tsunami.
Tsunami hazard	The probability that a tsunami of a particular size will strike a particular section of coast.
Trough	The trough of a wave is its lowest point.
Wave	Most waves are caused by the wind.
Wavelength	The wavelength of a wave is the distance between two waves, measured from crest to crest or from trough to trough.
Wrap around effect	Tsunami waves can bend around islands and bays, making all coastline areas in the vicinity vulnerable.

**Additional Resources:**

Enchanted Learning - Tsunami Glossary

<http://www.enchantedlearning.com/subjects/tsunami/glossary>

International Tsunami Information Center - Tsunami Glossary

[http://itic.ioc-unesco.org/index.php?option=com\\_content&view=article&id=1328&Itemid=1142&lang=en](http://itic.ioc-unesco.org/index.php?option=com_content&view=article&id=1328&Itemid=1142&lang=en)

Oracle Education Foundation ThinkQuest - Tsunami Glossary

<http://library.thinkquest.org/16132/html/glossary/tsunami.html>