



By-Lauren Joof



Tsunamis are giant waves that travel very fast on top of the ocean.



What Causes a Tsunami

Tsunamis are cause by volcanos and earthquakes underneath the sea.

4. Approach 5. Impact As the tsunami waves approach the coastline of a Finally, with the wavelength compressed and landmass they are slowed dramatically by the heightened to large levels (often between five and ten friction of their collision with the rising seabed. As metres), the giant waves collide with the shore the velocity lessens, however, the wavelengths causing massive damage. The succeeding outflow of become shortened and amplitude increases. water then continues the destruction, uprooting trees and washing away people and property. 1. Tectonic Tectonic upthrust in the form of earthquakes and 2. Build ocean floor volcanoes 3. Travel The energy from the quake or impulse cause vast quantities of water to be displaced in a causes a train of simple, progressive The wavelengths of the tsunami continue to grow, very short space of time, oscillatory waves to propagate over with the waves' periods (the lengths of time for generating a massive the ocean surface in ever-widening successive crests or troughs to pass a single point amount of energy. circles at speeds as fast as 500mph. varying from five minutes to more than an hour.

What tools are used to predict Tsunami

"SWASH is a development of the SWAN (**S**imulating **WA**ves **N**ear **SH**ore), which has been around since 1993 and is used by over 1,000 institutions around the world. SWAN calculates wave heights and wave speeds generated by wind and can also analyze waves generated elsewhere by a distant storm. The program can be run on an ordinary computer and the software is free."





Effects of a Tsunami

The **effects** of a **tsunami** include loss of human and animal life, devastating property damage, severe flooding and disease. There are also environmental **effects** such as contamination of soil and water, a permanent change to the landscape, solid waste and disaster debris, and hazardous materials and toxic substances. Where do Tsunamis most occur

About 80% happen in the **Pacific Ocean's "Ring of Fire"**, where earthquakes are common. Tsunamis also occur in the Mediterranean Sea and Caribbean Sea regions as well. Tsunamis commonly occur in seismic zones where the underwater crust of the earth is unstable and the tectonic plates likely to slide over one another.



How can people prepare for a Tsunámi



Make a disaster supply kit and have a family emergency plan. Talk to everyone in your household about what to do if a tsunami occurs. Create and practice an evacuation plan for your family. Familiarity may save your life. Be able to follow your escape route at night and during inclement weather. You should be able to reach your safe location on foot within 15 minutes. Practicing your plan makes the appropriate response more of a reaction, requiring less thinking during an actual emergency. If the school evacuation plan requires you to pick your children up from school or from another location. Be aware telephone lines during a tsunami watch or warning may be overloaded and routes to and from schools may be jammed. Knowing your community's warning systems and disaster plans, including evacuation routes. Know the height of your street above sea level and the distance of

Know the height of your street above sea level and the distance of your street from the coast or other high-risk waters. Evacuation orders may be based on these numbers. If you are a tourist, familiarize yourself with local tsunami evacuation protocols. You may be able to safely evacuate to the third floor and higher in reinforced concrete hotel structures. If an earthquake occurs and you are in a coastal area, turn on your radio to learn if there is a tsunami warning.

How is a tsunamis strength measured

Tsunamis are measured by their runup, which is the difference between an observed sea level and the distance the tsunami waters reach on shore. This is generally measured once the danger has passed, so debris and destruction of plant life are often used as gauges of runup.



Sources

- <u>http://www.bing.com</u>
- <u>https://www.google.com/</u>
- <u>http://tsunami.noaa.gov/</u>

Thanks for watching !!!!