### WHAT TO DO IN A TSUNAMI WARNING?

- When an evacuation is necessary, sirens will sound. Significant and widespread land flooding is expected. Stay away from rivers, streams and any water channels that lead to the ocean due to strong tsunami wave action and currents. If you are not in a tsunami evacuation zone, stay where you are to minimize traffic congestion.
- Check Hawai'i radio and TV stations or NOAA Weather Radio for emergency information. (National news stations may not have information about Hawai'i)
- Move boats and ships to deep water if there is time.
- Stay out of Tsunami Evacuation Zones until an "All Clear" is issued by local emergency officials. Obey local emergency and law enforcement authorities. Do not return to Tsunami Evacuation Zones until local authorities say it is safe.
- Check local Hawai'i radio/TV stations or NOAA Weather Radio for emergency information, regarding long-term public shelters and/or disaster assistance centers.

## **HOW DO**

#### I PREPARE?

- Double check if you live, work, play, or travel in a Tsunami Evacuation Zone, an Extreme Tsunami Evacuation Zone or in a Safe Zone.
- Study the Tsunami Evacuation Information and Maps online at www.kauai.gov/kema, in the local Hawaiian Telcom White Pages Telephone Book, or at any Public Library.
- Prepare a GO BAG of essential items beforehand. A GO BAG is a bag, suitcase, or kit that you can guickly grab and take with you during an emergency situation.









## IF YOU EXPERIENCE THE TSUNAMI NATURAL WARNING SIGNS, **FOLLOW THIS ADVICE**

- Evacuate immediately to safe zones, inland to high ground and away from low-lying coastal areas. Or evacuate vertically to the 4th floor and higher of a concrete building.
- Do not wait for an official warning.
- · Go on foot or bicycle if at all possible.
- Do not pack your belongings or delay.
- Do not return to the beach large waves may continue to come onshore for hours.







## WHAT TO DO

FOR DISTANT OR LOCAL **EARTHQUAKES** AND **TSUNAMIS**?

For distant earthquakes and tsunamis that occur around the Pacific Rim, check if there is a Tsunami Watch, Advisory, or Warning for Hawai'i.

#### For local earthquakes and tsunamis

#### **DROP**

Drop down onto your hands and knees so the earthquake doesn't knock you down.

#### **COVER**

Cover your head and neck with your arms to protect yourself from falling debris. Stay away from glass and windows.

#### **HOLD ON**

Hold on to any sturdy covering so you can move with it until the shaking stops.

- Stay where you are until the shaking stops. Do not go outside until the shaking stops.
- The earthquake may have caused a local tsunami that could arrive in a few minutes. If you are near the ocean, move immediately to higher ground to a Safe Zone outside of the Tsunami Evacuation Zone once the shaking stops.
- Do not wait for a tsunami warning to be issued.
- Calmly walk or bike guickly to a Safe Zone, do not drive your vehicle.

#### **ENGLISH**













### Prepare today for a tsunami

## **TSUNAMI FACTS**

#### IMPORTANT INFORMATION YOU NEED TO KNOW

Learn about tsunami facts and help save lives!



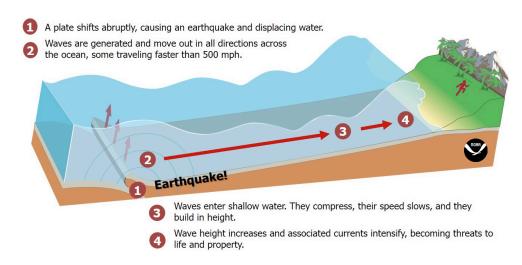


**KAUA'I** 

Kaua'i Emergency Management Agency www.kauai.gov/kema · kema@kauai.gov Phone (808) 241-1800

# WHAT IS A **TSUNAMI?**

- Tsunamis are a series of very dangerous, large, long ocean waves. You
  cannot swim or surf tsunamis because they flood the land like a wall of water
  (or fast-rising tide) rather than curling and breaking like a regular surfing wave.
  Tsunamis pick up and carry debris, which greatly increases the chance of injury
  and drowning.
- Tsunami waves may keep coming for hours, with waves arriving every five (5) minutes to one hour apart. The first wave may not be the largest.
- Tsunamis travel as fast as a jet airliner (approximately 500 mph) in the deep ocean with waves only a few inches high.
- As tsunamis approach the shore they slow down but increase dramatically in height. Tsunamis strike with devastating force and quickly flood all low-lying coastal areas threatening life and property. Historically, locations in Hawai'i have been flooded with water more than 30 feet deep.
- Tsunamis are usually caused by shallow, undersea earthquakes.
- Tsunamis are less frequently caused by underwater volcanic eruptions, landslides, slumps, and meteorites.
- · Homes and small buildings are not designed to withstand tsunami impacts.



## WHAT ARE THE TSUNAMI NATURAL WARNING SIGNS?

**FEEL:** Feel the earth shake (earthquake) so strong that you feel you cannot stand.

**SEE:** See the ocean water recede, swirl or act unusual.

**HEAR:** Hear the roar of the tsunami that sounds like a jet aircraft or freight train.

## **TSUNAMI ALERT LEVELS**

PACIFIC TSUNAMI WARNING CENTER (PTWC)

#### Tsunami Information Statement

If a Tsunami Information Statement is issued, there is no tsunami threat.



tsunami.gov

#### Tsunami Watch

If a Tsunami Watch is issued, you should prepare and be ready to act because a tsunami may occur.

#### Tsunami Advisory

If a Tsunami Advisory is issued, you should move away from beaches, rivers and low-lying coastal areas and evacuate harbors/marinas.

Move boats and ships to deep water if there is time. You can expect strong currents and dangerous waves in coastal areas and waterways. But significant land flooding is not expected.

#### Tsunami Warning

If a Tsunami Warning is issued, quickly leave Red Tsunami Evacuation Zones (outlined in a bold line) to Green Safe Zones as indicated on the Tsunami Evacuation Map.

#### Extreme Tsunami Warning.

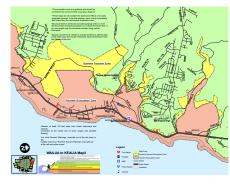
If an Extreme Tsunami Warning is issued, quickly leave Yellow Extreme Tsunami Evacuation Zones (outlined in a dotted line) and Red Tsunami Evacuation Zones (outlined in a bold line) to Green Safe Zones as indicated on the Tsunami Evacuation Map.

A very large magnitude 9+ earthquake may cause an extreme tsunami. There may only be 4.5 hours to evacuate before the first wave arrives.

#### Sign-up for Kaua'i County Alerts & Notifications





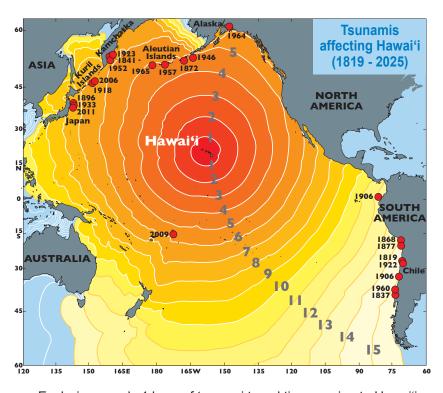


Tsunami Evacuation Map (Wailua to Kealia)



# AFTER A TSUNAMI, WHEN IS IT SAFE TO RETURN?

- A tsunami may have been destructive or non-destructive. If it was destructive, emergency search and rescue operations will immediately start on land and at sea after the tsunami warning is cancelled. An "all clear" to return to impacted areas may not be issued for hours or days.
- If the tsunami was non-destructive, an "all clear" allowing return to coastal areas may be issued. But it still may not be safe to go back into the water.
- Coastal areas could be devastated with flooding, damaged homes, buildings, debris, fires, hazardous material spills (HAZMAT) and inoperable utility lifeline systems (electrical, telecommunications, roads / bridges, natural gas lines, etc.).
   The public will not be able to re-enter these areas until roadway debris is cleared.
- Wait for an "All Clear" from local emergency officials before returning to low-lying areas or the water.



Each ring equals 1 hour of tsunami travel time coming to Hawai'i.

#### FOR MORE INFORMATION:

Kaua'i Emergency Management Agency www.kauai.gov/kema · kema@kauai.gov Phone (808) 241-1800

NOAA · International Tsunami Information Center · Pacific Tsunami Warning Center hawaiitsunami.org · tsunami.gov · itic.tsunami@noaa.gov
Phone (808) 725-6050