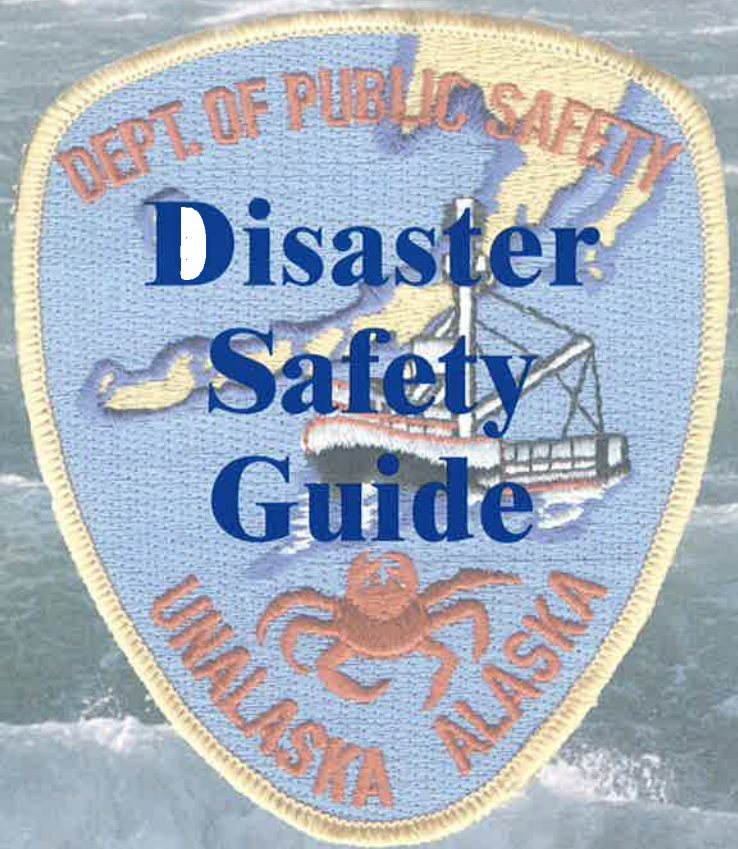


**ALEUTIAN PRIBILOF ISLAND  
EMERGENCY PLANNING COMMITTEE**



**LEPC**  
*...safety in knowledge*



**EMERGENCY  
CONTACT INFORMATION**

**Unalaska      Public Safety – 581-1233  
Emergency 9 1 1**

**St. Paul      Public Safety – 546-3130  
Emergency 9 1 1**

**Atka      VPSO 24hrs – 839-2214  
Marine VHF CH 16**

**Adak      Power Plant – 592-8175  
Emergency 9 1 1**

**St. George      Public Safety – 859-2403**



## WHAT IS A TSUNAMI?

A Tsunami is a series of waves with a long wavelength and period (time between crests) generated by a large impulsive displacement of sea water.

Time between crests of the waves can vary from a few minutes to over an hour.

Tsunamis are often incorrectly called tidal waves; they have no relation to the daily ocean tides.

## BASIC TSUNAMI INFORMATION

Tsunamis are generated by a large impulsive displacement of the sea level.

Earthquakes which produce horizontal sea floor motion, will generate little to no tsunami.

Tsunamis are also triggered by landslides into or under the water surface, and can be generated by volcanic activity and meteorite impacts.

On the average, two tsunamis occur per year throughout the world which inflict damage near the source.

Approximately every 15 years a destructible, ocean-wide tsunami occurs.

Tsunami velocity depends on the depth of water through which it travels (velocity equals the square root of the product of the water depth times the acceleration of gravity).

Tsunamis travel approximately 475 mph in 15,000 feet of water. In 100 feet of water the velocity drops to about 40 mph.

Tsunamis range in size from inches to over a hundred feet.

Tsunami heights vary along a coast. The waves can be amplified by shoreline and sea floor features.

A large tsunami can flood low-lying coastal land over a mile from the coast.

Normally, a tsunami appears as a rapidly advancing or receding tide.

Wind-generated waves break as they shoal and lose energy offshore. Tsunamis act more like a flooding wave. A twenty-foot tsunami is a twenty-foot rise in sea level.

## Disaster Supplies Checklist For Pets

- ✓ Medications and medical records stored in a waterproof container.
- ✓ A pet first aid kit and book.
- ✓ Sturdy leashes, harnesses, and carriers for safe transportation of your pets.
- ✓ Food and water for at least seven days for each pet, bowls, cat litter and litter box.
- ✓ Current photos and descriptions of your pets to help identify them in case you and your pet become separated.

## WHAT IS A TSUNAMI WATCH?

A tsunami watch is an alert issued to areas outside the warned area.

The geographical extent of the watch area is based on the size of the earthquake and tsunami travel times throughout the area-of-responsibility.

The watch will either be upgraded to a warning in subsequent

## WHAT IS A TSUNAMI WARNING?

- A tsunami warning indicates that a tsunami may be imminent and that coastal locations in the warned area should prepare for flooding.
- The initial warning is typically based solely on seismic information.
- After the tsunami is recorded on sea level gauges, the warning will be cancelled, restricted, expanded incrementally, or expanded to cover the entire coast in the event of a major tsunami.
- Tsunami warnings include estimated wave arrival times for key coastal locations in the **warned** area.

## WEST COAST AND ALASKA TSUNAMI WARNING CENTER'S RESPONSIBILITIES

- The main mission of the WC/ATWC is to help protect life and property from tsunami hazard by providing tsunami information and warning messages to its area-of-responsibility (AOR).
- The WC/ATWC area-of-responsibility is the U.S. West, Alaskan, Pacific, and Gulf of Mexico coasts as well as the coast of British Columbia in Canada.
- Develop new processes and techniques to improve response times, accuracy, and bulletin content to residents in the AOR.
- Increase community preparedness and public tsunami education through the Tsunami Ready program and outreach.
- For more information on the center, see <http://wcatwc.arh.noaa.gov>

## TSUNAMI SAFETY RULES

- Coastal residents who feel a very strong earthquake (lasting over 30 seconds or if you have difficulty standing) should move to higher ground immediately.
- Earthquakes that are close enough to feel can generate either above or below ocean surface landslides, which can create a local tsunami.
- After the shaking stops, everyone should immediately proceed away from the coastline and move uphill or move at least a mile inland if they are located in low tidal areas.
- No attempt should be made to move a ship for locally generated tsunamis.
- All large earthquakes do not cause tsunamis, but many do. If the quake is located near or directly under the ocean, the probability of a tsunami increases. When you hear that an earthquake has occurred in the ocean or coastline regions, prepare for a tsunami emergency.
- Tsunamis can occur at any time, day or night. They can travel up rivers and streams that lead to the ocean.
- A tsunami is not a single wave, but a series of waves. Stay out of danger until an "ALL CLEAR" is issued by a competent



Approaching large tsunamis are usually accompanied by a loud roar that sounds like a train or aircraft. If a tsunami arrives at night when you cannot see the ocean, this is also nature's tsunami warning and should be heeded.

A small tsunami at one beach can be a giant a few miles away. Do not let the modest size of one make you lose respect for all. Sooner or later, tsunamis visit every coastline in the Pacific. All tsunamis, like hurricanes, are potentially dangerous even though they may not damage every coastline they strike. Never go down to the beach to watch for a tsunami!

## WHEN YOU CAN SEE THE WAVE YOU ARE TOO CLOSE TO ESCAPE.

Tsunamis can move faster than a person can run!

During a tsunami emergency, your local emergency management office, police, fire and other emergency organizations will try to save your life. Give them your fullest cooperation. Homes and other buildings located in low-lying coastal areas are not safe. Do not stay in such buildings if there is a tsunami warning.

The upper floors of high, multi-story, reinforced concrete hotels can provide refuge if there is no time to quickly move inland or to higher ground.

If you are on a boat or ship and there is time, move your vessel to deeper water (at least 100 fathoms). If it is the case that there is concurrent severe weather, it may be safer to leave the boat at the pier and physically move yourself to higher ground.

Damaging wave activity and unpredictable currents can affect harbor conditions for a period of time after the tsunami's initial impact. Be sure conditions are safe before you return your boat or ship to the harbor.

Stay tuned to your local radio, marine radio NOAA Weather Radio, or television stations during a tsunami emergency – bulletins issued through your local emergency management office and National Weather Service offices can save your life.

## TSUNAMI SIREN INFORMATION

Unalaska has a series of outdoor sirens to facilitate community warning in the event of a disaster emergency.

Sirens are operationally tested on the following schedule:

- A growl test lasting less than 5 seconds every Saturday at 12:00 noon.
- 30 second activation on the 15th of every month at 12:00 noon.

Residents are encouraged not to wait for siren activation following an earthquake lasting over 30 seconds or making it difficult to stand. Begin evacuation immediately, seek high ground!

Siren activation will occur for a period of three (3) minutes, followed by a short pause (lasting no longer than 20-30 seconds), which will be followed by activation for three (3) minutes. This process will continue for a total of five (5) activation cycles.

The "All-Clear" signal will consist of a one (1) minute activation of the sirens.

## IMPORTANCE OF DISASTER SUPPLIES KIT

A Disaster Supplies Kit is a collection of basic items that members of a household would probably need in the event of a

- The number of people in a household, their ages, and abilities, will determine the items you put in your Disaster Kit.
- Establish a Disaster Kit for your household and keep the items up to date.
- Basic services, such as electricity, gas, water, sewage treatment, and telephones, may be cut off for days or even weeks.
- Advance purchase of Disaster Supplies is essential. You may not have an opportunity to shop or search for the items you will need.
- Prepare your Disaster Kit with enough supplies to last your household for seven days.
- A Disaster Supplies Kit can help your family stay safe and be more comfortable after a disaster.
- Involve children in disaster preparedness at home so they are aware of the need to prepare and know what is being done. As they are able, have children help plan and assemble the kits. Involving children is the first step in helping them know what to do in an emergency.
- Children can help keep the kits updated by making calendars for checking emergency supplies.
- Disaster Supply Kits should also be prepared for family pets.

## SOME ESSENTIAL ITEMS FOR DISASTER SUPPLY KITS

- **Food, Water, Medications, Cell Phone, Radio, Change of Clothing, Shelter, Blankets, Matches**
- Water-five gallons per person in the kit and an additional four gallons per person readily accessible for use if you are confined to home.
- Medications- Prescription and non-prescription that are regularly used. Check with your physician or pharmacist on storage requirements.
- Household liquid bleach.
- One complete change of clothing and footwear for each person, including sturdy work shoes or boots, raingear, and other items adjusted for the season, such as hat and gloves, thermal underwear, sunglasses, dust mask.
- Blankets or sleeping bag for each person.
- Small tent, compass, small shovel.
- Paper, pencil; needles, thread; small A-B-C-type fire extinguisher; medicine dropper; whistle; emergency preparedness manual.
- Sanitation and hygiene items: toilet paper, towelettes, soap, hand sanitizer, liquid detergent, feminine supplies, shampoo, deodorant, toothpaste, toothbrushes, comb and brush, lip balm, sunscreen, plastic garbage bags (heavy-duty) and ties (for personal sanitation uses), medium-sized plastic bucket with tight lid, disinfectant.
- Entertainment, such as games and books.
- Roll of duct tape (10 millimeters thick) and scissors.
- Plastic Sheeting
- Manual Can Opener

## LEARNING TO LIVE IN EARTHQUAKE COUNTRY

- Earthquakes are a part of the process that shapes the surface of the earth, the process that raises mountains and deepens valleys. Thousands of earthquakes happen each year in the United States, most too small to be felt.
- Each year larger earthquakes happen, earthquakes that damage property and threaten lives.



Review the ideas in this brochure and TAKE THE STEPS, to protect yourself and your loved ones, before the next earthquake.

## WHAT TO DO DURING AN EARTHQUAKE

**FIND COVER** - If you are inside stay inside, move away from windows and high furniture. Move to an interior doorway, or under heavy furniture like a table. If you are outside stay outside and away from overhead objects and power lines. Tell others to seek cover. Get out of the way of any falling objects.

## DANGER IN THE HOME

### AWARE OF...

heavy objects on high shelves (they'll fall on you)  
hanging plants (they'll swing, or come off their hooks)  
furniture (bookcases and china closets will fall and could block your way out following an earthquake)  
things on walls (mirrors or picture frames will fall and glass will fly)  
cupboards (jars, cans, pots and pans will be heading your way)  
appliances (refrigerators, washers, stoves and water heaters will all be on the move. Broken gas lines can start fires)  
bedroom areas (mirrors, pictures, and shelves may fall on you or block your escape)  
Better yet, take steps to reduce these dangers now.

## THINGS YOU NEED IN AN EMERGENCY

**WATER**  
Water mains break in an earthquake. Have at least 5 gallons per person in plastic containers in a safe place. Change it every 6 months.  
Emergency water can also be found in your water heater (if you secured it), toilet reservoirs, canned food, beverages and ice.

**FOOD**  
Transportation and refrigeration fail in earthquakes. An unplugged refrigerator will stay cold for 24 hours if you don't open the door. Eat food that will spoil first.  
Keep at least 3 days worth of canned food on hand, rotating your regular stock every 6 months. Make sure you have a manual can opener. Keep in mind any dietary restrictions you or your family may have. Keep extra food for your pets.

## AFTER AN EARTHQUAKE

Be ready for more shaking - aftershocks - which will follow the first earthquake.  
Check for injuries, to you and others. Don't move seriously injured people unless they are in danger.  
Check for building damage and evacuate if it appears dangerous. Don't use an elevator.  
Check for gas leaks. If you smell gas, shut your gas off at the source, or have someone do it.  
Also, shut off your water and electricity if they are damaged.  
Wear protective shoes and clothing. After a large earthquake,

## CLOTHING

- You're going to need to relocate and may move over broken glass and other debris. Keep a pair of thicksoled shoes and work gloves under your bed, or nearby.

## RADIO

- To get information on food, water, shelter centers, and evacuation areas after an earthquake, keep a radio handy, with extra batteries. An AM radio tuned to 1450 KIAL will broadcast this vital information.

## FLASHLIGHTS

- Keep them around the house and at work, including one next to your bed, with extra batteries.

## ELECTRICITY

- If you are dependent on electrical power for life support or require an electric wheelchair, buy a small generator and keep it with extra fuel or store and keep fully charged batteries.
- Most of all, use common sense. By preparing for an earthquake, you're a lot better off than those who don't.

## VOLCANIC ACTIVITY

- Makushin volcano on Unalaska Island is only 16 miles west of downtown Unalaska.
- ***SINCE 1700, AT LEAST 41 VOLCANOES IN ALASKA HAVE ERUPTED, SOME OF THESE AS MANY AS 25 TIMES.***
- **FRESH VOLCANIC ASH** may be harsh, acidic, gritty and smell like sulphur. Heavy ashfall may reduce sunlight, causing a sudden demand and possible brownouts of electrical power. Ash can clog watercourses, sewage plants, and all kinds of machinery. A one-inch layer of ash weighs ten pounds per square foot, and fine ash is extremely slippery, hampering both driving and walking.
- ***ASH CAN ALSO DAMAGE THE LUNGS OF SMALL INFANTS, THE VERY OLD AND INFIRM, OR THOSE ALREADY SUFFERING FROM RESPIRATORY ILLNESSES.***

## DURING AN ASHFALL

- Stay indoors if possible.
- Close doors, windows and dampers.
- Avoid burning wood stoves or fireplaces.
- Eliminate draft sources.
- Do not run exhaust fans or clothes dryers.
- Listen to your radio.
- Vacuum furniture, carpets, etc., and try not to wipe, as ash will scratch.
- Use plenty of water and detergent, do not use hand and body soap as it tends to gum up.
- If you have been working in ashfall, have your work clothes laundered at work or outside the home.
- Cover and don't use personal computers, stereos, and other sensitive equipment.

## AFTER AN ASHFALL

- Wear a respirator during ash cleanup.
- Consider using goggles for eye protection.
- Remove heavy accumulations of ash from flat or low-pitched roofs and from rain gutters.
- When sweeping, dampen or sprinkle ash with "Industrial Sweep" to avoid raising unnecessary dust.
- Mow lawns when damp and bag lawn clippings to reduce dust.
- Replace items used from the emergency kit.



## SEVERE WINTER STORM

- During periods of heavy snowfall or blizzard conditions it is important that citizens not attempt to drive unless absolutely necessary. Public works personnel will be attempting to clear the roads as fast as possible. Keeping vehicles off the streets will make snow removal safer and easier.
- Stay tuned to KIAL 1450 AM on your portable radio for updated information on weather conditions and shelter locations.
- When informed by emergency service personnel to evacuate, do so immediately whether it be because of an earthquake, tsunami, hazardous material spill, or any other emergency - do not delay!
- The Unalaska Department of Public Safety updates an **Emergency Information Line**, which can be dialed at **581-6080**. The information line contains hazard and weather advisories during local events.
- These are the levels of travel advisory:
- Category #1- To advise the public of current road/traffic conditions regarding visibility, traffic hazards, snow accumulations and any other conditions.
- Category #2- To advise the public that due to certain conditions/hazards, travel should be limited to that which is absolutely necessary.
- Category #3- To notify the public that due to certain conditions/hazards, roads or certain areas are closed to vehicular travel.

### Reference Web Sites:

Alaska Division of Homeland Security and Emergency  
Management  
[www.ak-prepared.com](http://www.ak-prepared.com)

West Coast/ Alaska Tsunami Warning Center  
<http://wcatwc.arh.noaa.gov/>

National Weather Service  
<http://www.nws.noaa.gov>

City of Unalaska  
<http://www.unalaska-ak.us/>

Alaska Volcano Observatory  
<http://www.avo.alaska.edu/>

Federal Emergency Management Agency  
<http://www.fema.gov/>

Red Cross  
<http://www.redcross.org/>