

## HOW TO PREPARE FOR A VOLCANIC ERUPTION



Anyone who lives in Alaska for any length of time learns to be prepared. We live in a land of movement and fire. Earthquakes are regular, forests can burn, and many of the beautiful tall mountains of our scenery are actually active volcanoes. Most people don't think of Alaskan volcanoes as much of a threat because we are not so close as to be affected by hot burning lava. However, the ash cloud that comes with an eruption is something to learn about.

Volcanoes are right out your window. Think of a corked champagne bottle. Eventually they uncork themselves, and depending on the pressures inside, this can be catastrophic. Explosive releases of with ash (pulverized rock) and lava along with steam and gasses are called eruptions. Within 200 miles of the Matanuska-Susitna Borough there are four active volcanoes. Any one of these could have a major eruption.

- ▲ **Mt Augustine**, south of Homer, erupted in 1986. Increasingly active since May of 2005, current monitoring is active and ongoing.

- ▲ **Mt. Iliamna**, between Mt. Augustine and Mt. Redoubt,

has intermittently vented since the 1700s.

- ▲ **Mt. Redoubt**, 100 miles from Anchorage, last erupted in the winter of 1989-1990. Ash was blasted seven miles into the sky, closing many schools, business and the Anchorage International Airport. The resultant damages cost about \$160 million.
- ▲ **Mt. Spurr**, only 75 miles west of Anchorage, occasionally steams and vents. Its last major eruption was in 1992, disrupting travel and commerce. It too is heavily monitored.

With these ominous mountains so close and so active, what is a self prepared person to do? Here are some helpful tips for a volcanic ash emergency.

### **EMERGENCY CAR KIT (everyone should have these for any emergency!)**

- ▲ Blankets and extra clothing
- ▲ Emergency food and water
- ▲ First aid kit, flashlight, fire extinguisher, tool kit, flares, etc.
- ▲ Waterproof tarp and heavy tow rope
- ▲ Cell phone and extra battery

For volcano emergencies include these:

- ▲ Don't drive unless you absolutely have to!
- ▲ Dust masks and protective eye wear
- ▲ Change air filters and oil filters frequently: every 50-100 miles in heavy dust (less than 50 feet visibility) and every 500-1,000 miles in light dust. Do NOT drive without an air filter!
- ▲ Windshield wiper fluid and wiper blades

## EMERGENCY HOME KIT

- ▲ Emergency food for 7 days and a non-electric can opener
- ▲ Drinking water (1 gallon per person per day)
- ▲ Extra medications
- ▲ First aid kit
- ▲ Battery operated radio
- ▲ Lanterns and flashlights
- ▲ Extra blankets and warm clothing
- ▲ Extra cash (ATMs may not be working)

For volcano emergencies add:

- ▲ Dust or particle filter masks to cover mouth and nose
- ▲ Protective eye wear (goggles)
- ▲ Cleaning supplies (broom and dust pan, vacuum, shovel)
- ▲ Plastic wrap for electronics

**For Children:**

- ▲ Know your school's emergency plan
- ▲ Have quiet games and activities available
- ▲ Explain to them what a volcano is and what they should do if ash falls

**For Pets:**

- ▲ Store extra food and water
- ▲ Extra medications
- ▲ Keep them indoors or under cover if possible

**If ash falls in your area:**

- ▲ Close doors, windows, dampers, vents.
- ▲ Cover or seal places where ash can infiltrate your home: place damp towels at door thresholds and other draft sources, tape drafty windows.
- ▲ Do not use electronic equipment. Cover tightly with plastic as they are very sensitive.
- ▲ Keep roofs clean of ash, more than 4 inches of wet ash can cause a roof collapse. Wet ash is very slippery, use caution on ladders and roofs.
- ▲ Wear dust masks and eye goggles if you have to go outside. Brush off clothes or pets before going back into the house.
- ▲ Do not drive if it can possibly be avoided! Ash is very abrasive and damaging to cars.
  - If you must drive: use headlights, go slowly and have lots of windshield washer fluid. Change your air filter.
- ▲ Ash should be kept out of sewer or septic systems.

If you wonder why all this is important to have ready ahead of time, read this quote from witnesses of the 1912 Katmai eruption on the Alaskan Peninsula. Remember, we have not one, but four active volcanoes within 200 miles of us!

**“On the afternoon of June 6, 1912, an ominous cloud rose into the sky above Mount Katmai on the Alaska Peninsula. The cloud quickly reached an altitude of 20 miles, and within 4 hours, ash... began to fall on the village of Kodiak, 100 miles to the southeast. By the end of the eruption on June 9th, the**

ash cloud.... shrouded southern Alaska and western Canada, and sulfurous ash was falling on Vancouver, British Columbia, and Seattle, Washington...By June 17th it reached Algeria in Africa. “

"During the three days of the eruption, darkness and suffocating conditions caused by falling ash and sulfur dioxide gas immobilized the population of Kodiak. Sore eyes and respiratory distress were rampant, and water became undrinkable. Radio communications were totally disrupted, and with visibility near zero, ships couldn't dock. Roofs in Kodiak collapsed under the weight of more than a foot of ash..... Other structures burned after being struck by lightning from the ash cloud. “

"Animal and plant life was decimated by ash and acid rain ... Bears and other large animals were blinded by ash and starved when large numbers of the plants and small animals they lived on were wiped out. Millions of dead birds ....littered the ground. .... mussels, insect larvae, and kelp, as well as the fish that fed upon them, perished in ash-choked shallow water. Alaska's salmon-fishing industry was devastated, especially from 1915 to 1919, because of the starvation and failure of many adult fish to spawn in ash-choked streams.” From Fierstein, Judy, Hildreth, Wes, Hendley, J. W. II., and Stauffer, P. H., 1998, Can another great volcanic eruption happen in Alaska?: U.S. Geological Survey Fact Sheet FS 0075-98, 2 p.

There is lots of material about emergency preparedness, not just about volcanoes, emergency kits, and much more information to be found at the following websites:

- ▲ **Alaska Volcano Observatory** (a fantastic website!!) [www.avo.alaska.edu/index.php](http://www.avo.alaska.edu/index.php)
- ▲ **United States Geological Survey Ash Info Page** [volcanoes.usgs.gov/ash/index.html](http://volcanoes.usgs.gov/ash/index.html)
- ▲ **Municipality of Anchorage** [www.muni.org/oem/volcanic%20ash%20alert.cfm](http://www.muni.org/oem/volcanic%20ash%20alert.cfm)
- ▲ **Red Cross** [www.redcross.org](http://www.redcross.org)
- ▲ **Federal Emergency Management Administration** [www.fema.gov](http://www.fema.gov)
- ▲ **State of Alaska** [www.ak-prepared.com/plans/](http://www.ak-prepared.com/plans/)
- ▲ **Army Corps of Engineers** [www.poa.usace.army.mil/co/dis/disast.htm](http://www.poa.usace.army.mil/co/dis/disast.htm)