

# **Volcano Detectives: Locating, Predicting and Avoiding Ash Clouds**

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## ***Science for Alaska Lecture Series 2009***

A list of materials about this topic provided by Aldean Kilbourn,  
Geophysical Institute Keith B. Mather Library



### **Internet Resources**

#### ***GENERAL INFORMATION (ALL SITES ACCESSIBLE AS OF 20 APRIL 2009)***

Alaska Science Forum: Volcanoes Index. Fairbanks, AK: Geophysical Institute, University of Alaska. <<http://www.gi.alaska.edu/ScienceForum/volcanoes.html>>.

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

This site has current information on volcanoes, a searchable "library", images of volcanoes in a myriad of formations, the ability to search, links to other websites.

Chile's Chaiten volcano spewing ash again. *Reuters* 19 Feb 2009 12:00P.M.

<[http://www.reuters.com/article/homepageCrisis/idUSN19510984.\\_CH\\_.2400](http://www.reuters.com/article/homepageCrisis/idUSN19510984._CH_.2400)>.

CUSVO: Consortium of US Volcano Observatories - Alaska, Cascades, Hawaii, Long Valley, Yellowstone. <<http://www.cusvo.org/>>.

Geophysical Institute Quarterly. University of Alaska, Fairbanks. <<http://www.gi.alaska.edu/Quarterly/>>.  
Look to archives for articles on various volcanoes, eruptions, and impacts of volcanic activity.

Global Volcanism Program: World-wide Holocene Volcano and Eruption Information. Washington, D. C.: Smithsonian Institution. <<http://www.volcano.si.edu/>>.

Holocene Kamchatka Volcanoes. Institute of Volcanology and Seismology.

<<http://www.kscnet.ru/ivs/volcanoes/holocene/main/main.htm>>.

King, H.M. Geology.com: Volcanic Ash. 2009. <<http://geology.com/articles/volcanic-ash.shtml>>.

Looking at articles by topic, there are many for volcanoes.

NOAA Satellite and Information Services: Volcano Ash Advisory. [modified 2009 April 8]

<<http://www.ssd.noaa.gov/VAAC/>>.

Perkins, S. 2008. Global cooling: huge volcanic eruptions trigger chilling effects around the World. *Science News*: 174(5).

<[http://www.sciencenews.org/view/feature/id/35245/title/Disaster\\_Goes\\_Global](http://www.sciencenews.org/view/feature/id/35245/title/Disaster_Goes_Global)>

Rozell, N. 2002. Eruption clues from a humming volcano. *Alaska Science Forum*, no.1580.

<<http://www.gi.alaska.edu/ScienceForum/ASF15/1580.html>>.

Shishaldin Volcano on Unimak Island in the Aleutians.

Rozell, N. 2006. Fairbanks scientists wired into erupting Augustine. *Alaska Science Forum*, no.1786.

<<http://www.gi.alaska.edu/ScienceForum/ASF17/1786.html>>.

Rozell, N. 2003. Golden anniversary of Anchorage's first blackout. *Alaska Science Forum*, no.1652.

<<http://www.gi.alaska.edu/ScienceForum/ASF16/1652.html>>.

Mount Spurr ashfall.

Rozell, N. 2001. The sudden disappearance of Mount Katmai. *Alaska Science Forum*, no.1551.  
<<http://www.gi.alaska.edu/ScienceForum/ASF15/1551.html>>.  
Mount Spurr ashfall.

Rozell, N. 2007. Super eruptions are disasters like none other. *Alaska Science Forum*, no.1857.  
<<http://www.gi.alaska.edu/ScienceForum/ASF18/1857.html>>.  
Mentions Krakatoa, Katmai and ashflow.

Rozell, N. 2008. Tiny Aleutian island has big impact. *Alaska Science Forum*, no.1920.  
<<http://www.gi.alaska.edu/ScienceForum/ASF19/1920.html>>.  
Kasatochi in central Aleutian chain.

Rozell, N. 2008. Twenty years of the Alaska Volcano Observatory. *Alaska Science Forum*, no.1904.  
<<http://www.gi.alaska.edu/ScienceForum/ASF19/1904.html>>.

Rozell, N. 2008. Volcanologists step on familiar but different ground. *Alaska Science Forum*,  
no. 1924. <<http://www.gi.alaska.edu/ScienceForum/ASF19/1924.html>>.  
Includes Umnak Island, Okmok volcano.

Volcanic Ash Fall—A "Hard Rain" of Abrasive Particles. U. S. Geological Survey.  
[modified 2004 Oct 13]. <<http://pubs.usgs.gov/fs/fs027-00/>>.  
U.S. Geological Survey Fact Sheet 027-00 Online Version 1.0

What is Volcanic Ash? U.S. Geological Survey. [modified 2009 February 3]  
<<http://volcanoes.usgs.gov/ash/>>.



### Book Resources

Burleigh, R., Giraudon, D., Bourseiller, P. 2003. *Volcanoes: Journey to the Crater's Edge*.  
New York: Harry N. Abrams, 80p.  
Recommended for 4<sup>th</sup> to 9<sup>th</sup> grades.

O'Meara, D. 2005. *Into the Volcano*. Tonawanda, NY: Kids Can Press, 56p.  
Recommended for ages 9 to 14.

Yount, B.M., Game, R. 1976. *Alaska's Volcanoes*. *Alaska Geographic Society*, 18-2.  
Anchorage: Alaska Northwest Pub. Co., 80p.



### Video and Electronic Resources

Mount St. Helens, Keeper of the Fire. Directed by David Rosen ; written and conceived by Otto Sieber.  
VHS, 30 min., Finley-Holiday Film Corp., 1980.  
"Otto Sieber and his film crew staggered down the ruined slopes of Mt. St. Helens. Blinded by ash and near death from exposure, he carried with him footage taken of the volcanic eruption and its devastating aftermath. Included is the only photographic sequence ever recorded of the instant a volcano blasted itself apart, with the force of 500 atomic bombs." -Noel Wien Catalog, Fairbanks, AK public library

## TEACHER RESOURCES THROUGH FAIRBANKS NORTH STAR BOROUGH SCHOOL DISTRICT'S LIBRARY MEDIA CENTER

Nye B. Bill Nye The Science Guy: Volcanoes. DVD, 26 min., Disney 2005.

In the Path of a Killer Volcano. DVD, 56 min., WGBH Educational Foundation, 2006.  
Philippines' Mount Pinatubo volcanic eruption

Volcano! An Event-Based Science Module. Science/Boreal Lab 2001.  
Multimedia kit; Teacher's guide, 1 student manual, and 1 video.

The Fire Below Us: Remembering Mount St. Helens. VHS, 30 min., Great Plains Network 1995.



### Teacher Resources

Geological Society of America - Education Resources.

<<http://www.geosociety.org/educate/resources.htm>>.

This site links to lesson plans and resources for topics in Earth Science such as volcanoes, energy, paleontology, space, weather and more. The lesson plans are sorted by topic or by age group (elementary, intermediate and secondary).

Volcanic Ash. Oracle Education Foundation's ThinkQuest Library. 1998.

<<http://library.thinkquest.org/17457/volcanoes/hazards.ash.php>>.

Volcano World. Oregon State University. <<http://volcano.oregonstate.edu/>>.

Volcano World for Educators. Oregon State University.

<<http://volcano.oregonstate.edu/education/index.html>>.

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Plate Tectonics! : A GEMS kit. Carolina Biological Supply Co, 2008.  
multimedia kit + Guide.

### Key words for browser searches:

volcanic bombs

lapilli

volcanic ash advisory center

pyroclastic flow

tephra

lahar

caldera

volcanoes

volcanic ash