



Publications of the Volcano Hazards Program 2007

By Manuel Nathenson

Open-File Report 2009-1071

U.S. Department of the Interior
U.S. Geological Survey

U.S. Department of the Interior
KEN SALAZAR, Secretary

U.S. Geological Survey
Suzette M. Kimball, Acting Director

U.S. Geological Survey, Reston, Virginia: 2009

For product and ordering information:
World Wide Web: <http://www.usgs.gov/pubprod>
Telephone: 1-888-ASK-USGS

For more information on the USGS—the Federal source for science about the Earth,
its natural and living resources, natural hazards, and the environment:
World Wide Web: <http://www.usgs.gov>
Telephone: 1-888-ASK-USGS

Suggested citation:
Nathenson, Manuel, 2009, Publications of the Volcano Hazards Program 2007: U.S. Geological Survey
Open-File Report 2009-1071, 13 p. [<http://pubs.usgs.gov/of/2009/1071/>].

Any use of trade, product, or firm names is for descriptive purposes only and does not imply
endorsement by the U.S. Government.

Although this report is in the public domain, permission must be secured from the individual
copyright owners to reproduce any copyrighted material contained within this report.

Publications of the Volcano Hazards Program 2007

By Manuel Nathenson

The Volcano Hazards Program of the U.S. Geological Survey (USGS) is part of the Geologic Hazards Assessments subactivity as funded by Congressional appropriation. Investigations are carried out in the Geology and Hydrology Disciplines of the USGS and with cooperators at the Alaska Division of Geological and Geophysical Surveys, University of Alaska Fairbanks Geophysical Institute, University of Hawaii Hilo, University of Utah, and University of Washington Geophysics Program. This report lists publications from all these institutions.

This report contains only published papers and maps; numerous abstracts produced for presentations at scientific meetings have not been included. Publications are included based on date of publication with no attempt to assign them to Fiscal Year.

Volcano Hazards Bibliography 2007

- Bachmann, O., Charlier, B.L.A., and Lowenstern, J.B., 2007, Zircon crystallization and recycling in the magma chamber of the rhyolitic Kos Plateau Tuff (Aegean arc): *Geology*, v. 35, p. 73-76.
- Bacon, C.R., Sisson, T.W., and Mazdab, F.K., 2007, Young cumulate complex beneath Veniaminof caldera, Aleutian arc, dated by zircon in erupted plutonic blocks: *Geology*, v. 35, p. 491-494.
- Balistreri, L.S., Shanks, W.C., III, Cuhel, R.L., Aguilar, Carmen, and Val Klump, J., 2007, The influence of sublacustrine hydrothermal vent fluids on the geochemistry of Yellowstone, *in* Morgan, L.A., ed., *Integrated geoscience studies in the greater Yellowstone area—Volcanic, tectonic, and hydrothermal processes in the Yellowstone geocosystem*: U.S. Geological Survey Professional Paper 1717, p. 173-199, available at <http://pubs.usgs.gov/pp/1717/>.
- Bedrosian, P.A., Unsworth, M.J., and Johnston, M.J.S., 2007, Hydrothermal circulation at Mount St. Helens determined by self-potential measurements: *Journal of Volcanology and Geothermal Research*, v. 160, p. 137-146.
- Belousov, Alexander, Voight, Barry, and Belousova, Marina, 2007, Directed blasts and blast-generated pyroclastic density currents—A comparison of the Bezymianny 1956, Mount St Helens 1980, and Soufrière Hills, Montserrat 1997 eruptions and deposits: *Bulletin of Volcanology*, v. 69, p. 701-740.
- Benson, Carl, Motyka, Roman, McNutt, Stephen, Lüthi, Martin, and Truffer, Martin, 2007, Glacier-volcano interactions in the North Crater of Mt Wrangell, Alaska, *in* Clarke, Garry, and Smellie, John, eds., *The International Symposium on Earth and Planetary Ice—Volcano Interactions*, Reykjavík: *Annals of Glaciology*, v. 45, p. 48-57.
- Caplan-Auerbach, Jacqueline, and Huggel, Christian, 2007, Precursory seismicity associated with frequent, large ice avalanches on Iliamna volcano, Alaska, USA: *Journal of Glaciology*, v. 53, no. 180, p. 128-140.
- Chang, Wu-Lung, Smith, R.B., Wicks, Charles, Farrell, J.M., and Puskas, C.M., 2007, Accelerated uplift and magmatic intrusion of the Yellowstone Caldera, 2004 to 2006: *Science*, v. 318, p. 952-956.
- Chen, C.L., and Major, J.J., eds., 2007, *Debris flow hazards mitigation—Mechanics, prediction, and assessment: 4th International Debris-Flow Hazards Mitigation Conference, Chengde, China, September 10-13, 2007*, Proceedings: Rotterdam, Netherlands, Millpress Science Publishers, 768 p.
- Christenson, B.W., Werner, C.A., Reyes, A.G., Sherburn, S., Scott, B.J., Miller, C., Rosenburg, M.J., Hurst, A.W., and Britten, K.A., 2007, Hazards from hydrothermally sealed volcanic conduits: *Eos Transactions of the American Geophysical Union*, v. 88, no. 5, p. 53-55.
- Christiansen, L.B., Hurwitz, S., and Ingebritsen, S., 2007, Annual modulation of seismicity along the San Andreas Fault near Parkfield, CA: *Geophysical Research Letters*, v. 34, L04306, doi:10.1029/2006GL028634, 5 p.

- Christiansen, R.L., Lowenstern, J.B., Smith, R.B., Heasler, Henry, Morgan, L.A., Nathenson, Manuel, Mastin, L.G., Muffler, L.J.P., and Robinson, J.E., 2007, Preliminary assessment of volcanic and hydrothermal hazards in Yellowstone National Park and vicinity: U.S. Geological Survey Open-File Report 2007-1071, 94 p., available at <http://pubs.usgs.gov/of/2007/1071/>.
- Clor, L.E., Lowenstern, J.B., and Heasler, H.P., 2007, Systematics of water temperature and flow at Tantalus Creek during calendar year 2005, Norris Geyser Basin, Yellowstone National Park, Wyoming: U.S. Geological Survey Scientific Investigations Report 2007-5234, 17 p., data file, available at <http://pubs.usgs.gov/sir/2007/5234/>.
- Collins, R.L., Fochesatto, Javier, Sassen, Kenneth, Webley, P.W., Atkinson, D.E., Dean, K.G., Cahill, C.F., and Mizutani, Kohei, 2007, Predicting and validating the motion of an ash cloud during the 2006 eruption of Mount Augustine volcano, Alaska, USA: *Journal of the National Institute of Information and Communications Technology*, v. 54, no. 1-2, p. 17-28.
- Coombs, M.L., McGimsey, R.G., and Browne, B.L., 2007, Preliminary volcano-hazard assessment for the Tanaga volcanic cluster, Tanaga Island, Alaska: U.S. Geological Survey Scientific Investigations Report 2007-5094, 41 p., 1 plate, available at <http://pubs.usgs.gov/sir/2007/5094/>.
- Coombs, M.L., White, S.M., and Scholl, D.W., 2007, Massive edifice failure at Aleutian arc volcanoes: *Earth and Planetary Science Letters*, v. 256, p. 403-418.
- De Angelis, Silvio, and McNutt, S.R., 2007, Observations of volcanic tremor during the January–February 2005 eruption of Mt. Veniaminof, Alaska: *Bulletin of Volcanology*, v. 69, p. 927-940.
- de Fontaine, C.S., Kaufman, D.S., Anderson, R.S., Werner, Al, Waythomas, C.F., and Brown, T.A., 2007, Late Quaternary distal tephra-fall deposits in lacustrine sediments, Kenai Peninsula, Alaska: *Quaternary Research*, v. 68, p. 64-78.
- Donnelly-Nolan, J.M., Nathenson, Manuel, Champion, D.E., Ramsey, D.W., Lowenstern, J.B., and Ewert, J.W., 2007, Volcano hazards assessment for Medicine Lake volcano, northern California: U.S. Geological Survey Scientific Investigations Report 2007-5174-A, 26 p., 1 plate, available at <http://pubs.usgs.gov/sir/2007/5174/a/>.
- Doukas, M.P., and McGee, K.A., 2007, A compilation of gas emission-rate data from volcanoes of Cook Inlet (Spurr, Crater Peak, Redoubt, Iliamna, and Augustine) and Alaska Peninsula (Douglas, Fourpeaked, Griggs, Mageik, Martin, Peulik, Ukinrek Maars, and Veniaminof), Alaska, from 1995-2006: U.S. Geological Survey Open-File Report 2007-1400, 13 p., available at <http://pubs.usgs.gov/of/2007/1400/>.
- Dutton, D.R., Ramsey, D.W., Bruggman, P.E., Felger, T.J., Lougee, Ellen, Margriter, Sandy, Showalter, Patrick, Neal, C.A., and Lockwood, J.P., 2007, Database for the geologic map of the summit region of Kilauea Volcano, Hawaii: U.S. Geological Survey Data Series 293, 1 CD-ROM, available at <http://pubs.usgs.gov/ds/2007/293/>.
- Dzurisin, Daniel, 2007, *Volcano deformation—Geodetic monitoring techniques*: Berlin, Springer-Verlag, 441 p., 1 DVD.
- Dzurisin, Daniel, and Lu, Zhong, 2007, Interferometric synthetic-aperture radar (InSAR), *in* Dzurisin, Daniel, *Volcano deformation—Geodetic monitoring techniques*: Berlin, Springer-Verlag, p. 153-194.
- Edmonds, Marie, and Gerlach, T.M., 2007, Vapor segregation and loss in basaltic melts: *Geology*, v. 35, p. 751-754.

- Eichelberger, J.C., 2007, Introduction—Subduction's sharpest arrow, *in* Eichelberger, John, Gordeev, Evgenii, Izbekov, Pavel, Kasahara, Minoru, and Lees, Jonathan, eds., *Volcanism and subduction—The Kamchatka Region: Geophysical Monograph 172*, American Geophysical Union, p. 1-2.
- Elias, T., and Sutton, A.J., 2007, Sulfur dioxide emission rates from Kīlauea Volcano, Hawai'i, an update—2002-2006: U.S. Geological Survey Open-File Report 2007-1114, 37 p., available at <http://pubs.usgs.gov/of/2007/1114/>.
- Evans, W.C., Bergfeld, Deb, McGimsey, R.G., and Hunt, A.G., 2007, Magmatic gas efflux at the Ukinrek Maars, Alaska, *in* Bullen, T.D., and Wang, Y., eds., *Water-rock interaction 12*, v. 1, London, Taylor and Francis, p. 65-69.
- Ewert, J.W., 2007, System for ranking relative threats of U.S. volcanoes: *Natural Hazards Review*, v. 8, p. 112-124.
- Farrar, C.D., Evans, W.C., Venezky, D.Y., Hurwitz, Shaul, and Oliver, L.K., 2007, Boiling water at Hot Creek—The dangerous and dynamic thermal springs in California's Long Valley caldera: U.S. Geological Survey Fact Sheet 2007-3045, 4 p., available at <http://pubs.usgs.gov/fs/2007/3045/>.
- Feldman, Joanne, and Tilling, R.I., 2007, Danger lurks deep—The human impact of volcanoes: *Geotimes*, v. 52, no. 11, p. 30-35.
- Feldman, Joanne, and Tilling, R.I., 2007, Volcanic eruptions, *in* Auerbach, P.S., ed., *Wilderness medicine* (5th ed.): Philadelphia, Elsevier, p. 372-398.
- Fierstein, Judy, 2007, Explosive eruptive record in the Katmai region, Alaska Peninsula—An overview: *Bulletin of Volcanology*, v. 69, p. 469-509.
- Finn, C.A., Deszcz-Pan, Maryla, Anderson, E.D., and John, D.A., 2007, Three-dimensional geophysical mapping of rock alteration and water content at Mount Adams, Washington—Implications for lahar hazards: *Journal of Geophysical Research*, v. 112, B10204, doi:10.1029/2006JB004783, 21 p.
- Fournier, R.O., 2007, Hydrothermal systems and volcano geochemistry, *in* Dzurisin, Daniel, *Volcano deformation—Geodetic monitoring techniques*: Berlin, Springer-Verlag, p. 323–341.
- Gardner, J.E., Burgisser, Alain, and Stelling, Pete, 2007, Eruption and deposition of the Fisher Tuff (Alaska)—Evidence for the evolution of pyroclastic flows: *Journal of Geology*, v. 115, p. 417-435.
- Gemery-Hill, P.A., Shanks, W.C., III, Balistrieri, L.S., and Lee, G.K., 2007, Geochemical data for selected rivers, lake waters, hydrothermal vents, and subaerial geysers in Yellowstone National Park, Wyoming and vicinity, 1996–2004, *in* Morgan, L.A., ed., *Integrated geoscience studies in the greater Yellowstone area—Volcanic, tectonic, and hydrothermal processes in the Yellowstone geocosystem*: U.S. Geological Survey Professional Paper 1717, p. 367-426, available at <http://pubs.usgs.gov/pp/1717/>.
- Gregg, C.E., Houghton, B.F., Paton, Douglas, Johnston, D.M., Swanson, D.A., and Yanagi, B.S., 2007, Tsunami warnings—Understanding in Hawai'i: *Natural Hazards*, v. 40, p. 71-87.
- Guffanti, Marianne, Brantley, S.R., Cervelli, P.F., Nye, C.J., Serafino, G.N., Siebert, Lee, Venezky, D.Y., and Wald, Lisa, 2007, Technical-information products for a National Volcano Early Warning System: U.S. Geological Survey Open-File Report 2007-1250, 23 p., available at <http://pubs.usgs.gov/of/2007/1250/>.

- Guffanti, Marianne, Mayberry, G.C., Casadevall, T.J., and Wunderman, Richard, 2007, Compilation of disruptions to airports from volcanic activity (version 1.0, 1944–2006): U.S. Geological Survey Open-File Report 2007–1256, 26 p., available at <http://pubs.usgs.gov/of/2007/1256/>.
- Harris, A.J., Dehn, Jonathan, and Calvari, Sonia, 2007, Lava effusion rate definition and measurement—A review: *Bulletin of Volcanology*, v. 70, p. 1-22.
- Harris, A.J.L., Dehn, Jonathan, James, M.R., Hamilton, Christopher, Herd, Richard, Lodato, Luigi, and Steffke, Andrea, 2007, Pāhoehoe flow cooling, discharge, and coverage rates from thermal image chronometry: *Geophysical Research Letters*, v. 34, L19303, 10.1029/2007GL030791, 6 p.
- Helz, R.T., and Gaynor, J.E., 2007, Reducing loss of life and property from disasters: a societal benefit area of the strategic plan for U.S. Integrated Earth Observation System (IEOS): U.S. Geological Survey Open-File Report 2007-1147, 65 p., available at <http://pubs.usgs.gov/of/2007/1147/>.
- Hildreth, Wes, 2007, Quaternary magmatism in the Cascades—Geologic perspectives: U.S. Geological Survey Professional Paper 1744, 125 p., available at <http://pubs.usgs.gov/pp/pp1744/>.
- Hildreth, Wes, Fierstein, Judy, and Calvert, A.T., 2007, Blue Mountain and The Gas Rocks—Rear-arc dome clusters on the Alaska Peninsula, *in* Haeussler, P.J., and Galloway, J.P., eds., *Studies by the U.S. Geological Survey in Alaska, 2006*: U.S. Geological Survey Professional Paper 1739-A, 27 p., available at <http://pubs.usgs.gov/pp/pp1739/a/>.
- Hildreth, Wes, and Wilson, C.J.N., 2007, Compositional zoning of the Bishop Tuff: *Journal of Petrology*, v. 48, p. 951-999.
- Huggel, Christian, Caplan-Auerbach, Jacqueline, Waythomas, C.F., and Wessels, R.L., 2007, Monitoring and modeling ice-rock avalanches from ice-capped volcanoes—A case study of frequent large avalanches on Iliamna Volcano, Alaska: *Journal of Volcanology and Geothermal Research*, v. 168, p. 114-136.
- Hurwitz, Shaul, Christiansen, L.B., and Hsieh, P.A., 2007, Hydrothermal fluid flow and deformation in large calderas—Inferences from numerical simulations: *Journal of Geophysical Research*, v. 112, B02206, 10.1029/2006JB004689, 16 p.
- Hurwitz, Shaul, Eagan, Sean, Heasler, Henry, and Lowenstern, J.B., 2007, River chemistry and solute flux in Yellowstone National Park: U.S. Geological Survey Data Series 278, data file, available at <http://pubs.usgs.gov/ds/2007/278/>.
- Hurwitz, S., Evans, W.C., Lowenstern, J.B., Bergfeld, D., Werner, C., Heasler, H., and Jaworowski, C., 2007, Extensive hydrothermal rock alteration in a low pH, steam-heated environment—Hot Springs Basin, Yellowstone National Park, *in* Bullen, T.D., and Wang, Y., eds., *Water-rock interaction 12*, v. 1, London, Taylor and Francis, p. 81-85.
- Hurwitz, Shaul, Lowenstern, J.B., and Heasler, Henry, 2007, Spatial and temporal geochemical trends in the hydrothermal system of Yellowstone National Park— Inferences from river solute fluxes: *Journal of Volcanology and Geothermal Research*, v. 162, p. 149-171.
- International Volcanic Hazards Health Network, 2007, Guidelines on preparedness before, during and after an ashfall: International Volcanic Hazards Health Network, 18 p., available at <http://www.ivhhn.org/>.
- International Volcanic Hazards Health Network, 2007, The health hazards of volcanic ash—A guide for the public: International Volcanic Hazards Health Network, 18 p., available at <http://www.ivhhn.org/>.

- Johnson, J.B., and Malone, S.D., 2007, Ground-coupled acoustic airwaves from Mount St. Helens provide constraints on the May 18, 1980 eruption: *Earth and Planetary Science Letters*, v. 258, p. 16-31.
- Johnston, M.J.S., 2007, Volcano-electromagnetic effects, *in* Gubbins, David, and Herrero-Bervera, Emilio, eds., *Encyclopedia of geomagnetism and paleomagnetism*: Dordrecht, Netherlands, Springer, p. 984-987.
- Jolly, A.D., Moran, S.C., McNutt, S.R., and Stone, D.B., 2007, Three-dimensional P-wave velocity structure derived from local earthquakes at the Katmai group of volcanoes, Alaska: *Journal of Volcanology and Geothermal Research*, v. 159, p. 326-342.
- Kauahikaua, Jim, 2007, Lava flow hazard assessment, as of August 2007, for Kīlauea East Rift Zone eruptions, Hawai‘i Island: U.S. Geological Survey Open-File Report 2007-1264, 9 p., available at <http://pubs.usgs.gov/of/2007/1264/>.
- Kent, A.J.R., Blundy, Jon, Cashman, K.V., Cooper, K.M., Donnelly, Carrie, Pallister, J.S., Reagan, Mark, Rowe, M.C., and Thornber, C.R., 2007, Vapor transfer prior to the October 2004 eruption of Mount St. Helens, Washington: *Geology*, v. 35, p. 231-234.
- Kuntz, M.A., Skipp, Betty, Champion, D.E., Gans, P.B., Van Sistine, D.P., and Snyders, S.R., 2007, Geologic map of the Craters of the Moon 30' x 60' Quadrangle, Idaho: U.S. Geological Survey Scientific Investigations Map 2969, 64 p., 1 plate, scale 1:100,000.
- Lanphere, Marvin, Champion, Duane, Melluso, Leone, Morra, Vincenzo, Perrotta, Annamaria, Scarpati, Claudio, Tedesco, Dario, and Calvert, Andrew, 2007, $^{40}\text{Ar}/^{39}\text{Ar}$ ages of the AD 79 eruption of Vesuvius, Italy: *Bulletin of Volcanology*, v. 69, p. 259-263.
- Larsen, J.F., Neal, Christina, Schaefer, Janet, Beget, Jim, and Nye, Chris, 2007, Late Pleistocene and Holocene caldera-forming eruptions of Okmok Caldera, Aleutian Islands, Alaska, *in* Eichelberger, John, Gordeev, Evgenii, Izbekov, Pavel, Kasahara, Minoru, and Lees, Jonathan, eds., *Volcanism and subduction—The Kamchatka Region: Geophysical Monograph 172*, American Geophysical Union, p. 343-364.
- Lipman, P.W., 2007, Incremental assembly and prolonged consolidation of Cordilleran magma chambers—Evidence from the Southern Rocky Mountain volcanic field: *Geosphere*, v. 3, p. 42–70.
- Lisowski, Michael, 2007, Analytical volcano deformation source models, *in* Dzurisin, Daniel, *Volcano deformation—Geodetic monitoring techniques*: Berlin, Springer-Verlag, p. 279-304.
- Livo, K.E., Kruse, F.A., Clark, R.N., Kokaly, R.F., and Shanks, W.C., III, 2007, Hydrothermally altered rock and hot-spring deposits at Yellowstone National Park—Characterized using airborne visible- and infrared-spectroscopy data, *in* Morgan, L.A., ed., *Integrated geoscience studies in the greater Yellowstone area—Volcanic, tectonic, and hydrothermal processes in the Yellowstone geocosystem*: U.S. Geological Survey Professional Paper 1717, p. 493-507, available at <http://pubs.usgs.gov/pp/1717/>.
- Lodato, L., Spampinato, L., Harris, A., Calvari, S., Dehn, J., and Patrick, M., 2007, The morphology and evolution of the Stromboli 2002–2003 lava flow field—An example of a basaltic flow field emplaced on a steep slope: *Bulletin of Volcanology*, v. 69, p. 661-679.
- Logan, Matthew, and Iverson, R.M., 2007, Video documentation of experiments at the USGS Debris-Flow Flume 1992-2006: U.S. Geological Survey Open-File Report 2007-1315, videos, available at <http://pubs.usgs.gov/of/2007/1315/>.
- Lu, Zhong, 2007, InSAR imaging of volcanic deformation over cloud-prone areas—Aleutian Islands: *Photogrammetric Engineering and Remote Sensing*, v. 73, p. 245-257.

- Lu, Zhong, 2007, Monitoring and characterizing natural hazards with satellite InSAR imagery, *in* International Society for Photogrammetry and Remote Sensing Symposium on Techniques and Applications of Optical and SAR Imagery Fusion, Chengdu, China, September 24-27, 2007, Proceedings, p. 57-67.
- Lu, Zhong, Dzurisin, Daniel, Wicks, Charles, Jr., Power, John, Kwoun, Ohig, and Rykhus, Russell, 2007, Diverse deformation patterns of Aleutian volcanoes from satellite interferometric synthetic aperture radar (InSAR), *in* Eichelberger, John, Gordeev, Evgenii, Izbekov, Pavel, Kasahara, Minoru, and Lees, Jonathan, eds., *Volcanism and subduction—The Kamchatka Region: Geophysical Monograph 172*, American Geophysical Union, p. 249-262.
- Lu, Zhong, Kwoun, Ohig, and Rykhus, Russell, 2007, Interferometric synthetic aperture radar (InSAR)—Its past, present and future: *Photogrammetric Engineering and Remote Sensing*, v. 73, p. 217-221.
- Marzocchi, W., Neri, A., Newhall, C.G., and Papale, P., 2007, Probabilistic volcanic hazard and risk assessment: *Eos Transactions of the American Geophysical Union*, v. 88, p. 318.
- Mastin, L.G., 2007, A user-friendly one-dimensional model for wet volcanic plumes: *Geochemistry, Geophysics, and Geosystems*, v. 8, Q03014, doi:10.1029/2006GC001455, 24 p.
- Mastin, L.G., 2007, Generation of fine hydromagmatic ash by growth and disintegration of glassy rinds: *Journal of Geophysical Research*, v. 112, B02203, 10.1029/2005JB003883, 17 p.
- Morgan, L.A., Shanks, W.C.P., Lee, G.K., and Webring, M.W., 2007, Bathymetry and geology of the floor of Yellowstone Lake, Yellowstone National Park, Wyoming, Idaho, and Montana: U.S. Geological Survey Scientific Investigations Map 2973, 2 plates, scale 1:76,821, available at <http://pubs.usgs.gov/sim/2007/2973/>.
- Morgan, L.A., Shanks, W.C., III, Pierce, K.L., Loyalvo, D.A., Lee, G.K., Webring, M.W., Stephenson, W.J., Johnson, S.Y., Harlan, S.S., Schulze, Boris, and Finn, C.A., 2007, The floor of Yellowstone Lake is anything but quiet—New discoveries from high-resolution sonar imaging, seismic-reflection profiling, and submersible studies, *in* Morgan, L.A., ed., *Integrated geoscience studies in the greater Yellowstone area—Volcanic, tectonic, and hydrothermal processes in the Yellowstone geocosystem: U.S. Geological Survey Professional Paper 1717*, p. 96-126, available at <http://pubs.usgs.gov/pp/1717/>.
- Nakano, M., Kumagai, H., Chouet, B., and Dawson, P., 2007, Waveform inversion of volcano-seismic signals for an extended source: *Journal of Geophysical Research*, v. 112, B02306, 10.1029/2006JB004490, 21 p.
- Nakata, Jennifer, 2007, Hawaiian Volcano Observatory seismic data, January to December 2006: U.S. Geological Survey Open-File Report 2007-1073, 100 p., available at <http://pubs.usgs.gov/of/2007/1073/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1956 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1316, 19 p., available at <http://pubs.usgs.gov/of/2007/1316/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1957 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1317, 31 p., available at <http://pubs.usgs.gov/of/2007/1317/>.

- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1958 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1318, 31 p., available at <http://pubs.usgs.gov/of/2007/1318/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1959 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1319, 209 p., available at <http://pubs.usgs.gov/of/2007/1319/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1960 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1320, 112 p., available at <http://pubs.usgs.gov/of/2007/1320/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1961 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1321, 46 p., available at <http://pubs.usgs.gov/of/2007/1321/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1962 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1322, 195 p., available at <http://pubs.usgs.gov/of/2007/1322/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1963 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1323, 156 p., available at <http://pubs.usgs.gov/of/2007/1323/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1964 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1324, 163 p., available at <http://pubs.usgs.gov/of/2007/1324/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1965 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1325, 146 p., available at <http://pubs.usgs.gov/of/2007/1325/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1966 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1326, 72 p., available at <http://pubs.usgs.gov/of/2007/1326/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1967 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1327, 73 p., available at <http://pubs.usgs.gov/of/2007/1327/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1968 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1328, 112 p., available at <http://pubs.usgs.gov/of/2007/1328/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1969 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1329, 109 p., available at <http://pubs.usgs.gov/of/2007/1329/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1970 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1330, 253 p., available at <http://pubs.usgs.gov/of/2007/1330/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1971 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1331, 354 p., available at <http://pubs.usgs.gov/of/2007/1331/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1972 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1332, 167 p., available at <http://pubs.usgs.gov/of/2007/1332/>.

- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1973 quarterly administrative reports: U.S. Geological Survey Open-File Report 2007-1333, 177 p., available at <http://pubs.usgs.gov/of/2007/1333/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1974 annual administrative report: U.S. Geological Survey Open-File Report 2007-1334, 171 p., available at <http://pubs.usgs.gov/of/2007/1334/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1975 annual administrative report: U.S. Geological Survey Open-File Report 2007-1335, 124 p., available at <http://pubs.usgs.gov/of/2007/1335/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1976 annual administrative report: U.S. Geological Survey Open-File Report 2007-1336, 76 p., available at <http://pubs.usgs.gov/of/2007/1336/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1977 annual administrative report: U.S. Geological Survey Open-File Report 2007-1337, 83 p., available at <http://pubs.usgs.gov/of/2007/1337/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1978 annual administrative report: U.S. Geological Survey Open-File Report 2007-1338, 66 p., available at <http://pubs.usgs.gov/of/2007/1338/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1979 annual administrative report: U.S. Geological Survey Open-File Report 2007-1339, 92 p., available at <http://pubs.usgs.gov/of/2007/1339/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1980 annual administrative report: U.S. Geological Survey Open-File Report 2007-1340, 82 p., available at <http://pubs.usgs.gov/of/2007/1340/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1981 annual administrative report: U.S. Geological Survey Open-File Report 2007-1341, 83 p., available at <http://pubs.usgs.gov/of/2007/1341/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1982 annual administrative report: U.S. Geological Survey Open-File Report 2007-1342, 97 p., available at <http://pubs.usgs.gov/of/2007/1342/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1983 annual administrative report: U.S. Geological Survey Open-File Report 2007-1343, 92 p., available at <http://pubs.usgs.gov/of/2007/1343/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1984 annual administrative report: U.S. Geological Survey Open-File Report 2007-1344, 93 p., available at <http://pubs.usgs.gov/of/2007/1344/>.
- Nakata, Jennifer, compiler, 2007, Hawaiian Volcano Observatory 1985 annual administrative report: U.S. Geological Survey Open-File Report 2007-1345, 89 p., available at <http://pubs.usgs.gov/of/2007/1345/>.
- Nathenson, Manuel, 2007, Publications of the Volcano Hazards Program 2005: U.S. Geological Survey Open-File Report 2007-1064, 11 p., available at <http://pubs.usgs.gov/of/2007/1064/>.
- Nathenson, Manuel, Bacon, C.R., and Ramsey, D.W., 2007, Subaqueous geology and a filling model for Crater Lake, Oregon, *in* Larson, G.L., Collier, Robert, and Buktenica, M.W., Long-term limnological research and monitoring at Crater Lake, Oregon: *Hydrobiologia*, v. 574, p. 13-27.

- Nathenson, Manuel, Donnelly-Nolan, J.M., Champion, D.E., and Lowenstern, J.B., 2007, Chronology of postglacial eruptive activity and calculation of eruption probabilities for Medicine Lake volcano, northern California: U.S. Geological Survey Scientific Investigations Report 2007-5174-B, 10 p., available at <http://pubs.usgs.gov/sir/2007/5174/b/>.
- Office of the Federal Coordinator for Meteorological Research, 2007, National volcanic ash operations plan for aviation: National Oceanic and Atmospheric Administration, Office of the Federal Coordinator for Meteorological Research FCM-P35-2007, 47 p., available at <http://www.ofcm.gov/p35-nvaopa/fcm-p35.htm>.
- Park, J., Morgan, J.K., Zelt, C.A., Okubo, P.G., Peters, L., and Benesh, N., 2007, Comparative velocity structure of active Hawaiian volcanoes from 3-D onshore-offshore seismic tomography: *Earth and Planetary Science Letters*, v. 259, p. 500-516.
- Patrick, M.R., Harris, A.J.L., Ripepe, Maurizio, Dehn, Jonathan, Rothery, D.A., and Calvari, Sonia, 2007, Strombolian explosive styles and source conditions: insights from thermal (FLIR) video: *Bulletin of Volcanology*, v. 69, p. 769-784.
- Petersen, Tanja, 2007, Swarms of repeating long-period earthquakes at Shishaldin Volcano, Alaska, 2001–2004: *Journal of Volcanology and Geothermal Research*, v. 166, p. 177-192.
- Petersen, Tanya, and McNutt, S.R., 2007, Seismo-acoustic signals associated with degassing explosions recorded at Shishaldin Volcano, Alaska, 2003–2004: *Bulletin of Volcanology*, v. 69, p. 527-536.
- Pierce, K.L., Cannon, K.P., Meyer, G.A., Trebesch, M.J., and Watts, R.D., 2007, Postglacial inflation-deflation cycles, tilting, and faulting in the Yellowstone Caldera based on Yellowstone Lake shorelines, *in* Morgan, L.A., ed., *Integrated geoscience studies in the greater Yellowstone area—Volcanic, tectonic, and hydrothermal processes in the Yellowstone geocosystem*: U.S. Geological Survey Professional Paper 1717, p. 131-168, available at <http://pubs.usgs.gov/pp/1717/>.
- Pierce, K.L., Despain, D.G., Morgan, L.A., and Good, J.M., 2007, The Yellowstone hotspot, greater Yellowstone ecosystem, and human geography, *in* Morgan, L.A., ed., *Integrated geoscience studies in the greater Yellowstone area—Volcanic, tectonic, and hydrothermal processes in the Yellowstone geocosystem*: U.S. Geological Survey Professional Paper 1717, p. 5-39, available at <http://pubs.usgs.gov/pp/1717/>.
- Pierson, T.C., 2007, Dating young geomorphic surfaces using age of colonizing Douglas fir in southwestern Washington and northwestern Oregon, USA: *Earth Surface Processes and Landforms*, v. 32, p. 811-831.
- Poland, M.P., 2007, ASAR images a diverse set of deformation patterns at Kīlauea volcano, Hawai‘i, *in* Lacoste, H., and Ouwehand, L., eds., *ENVISAT Symposium 2007*, Montreux, Switzerland, Apr. 23–27, 2007, *Proceedings*: Noordwijk, The Netherlands, ESA Communication Production Office, ESA SP-636, 6 p., available at <http://earth.esa.int/workshops/envisatsymposium/proceedings/contents.html>.
- Price, S.F., and Walder, J.S., 2007, Modeling the dynamic response of a crater glacier to lava-dome emplacement: Mount St Helens, Washington, USA, *in* Clarke, Garry, and Smellie, John, eds., *The International Symposium on Earth and Planetary Ice–Volcano Interactions*, Reykjavík: *Annals of Glaciology*, v. 45, p. 21-28.

- Purbawinata, M.A., Ratdomopurbo, Antonius, Surono, Pallister, John, Birger, Luehr, and Newhall, Chris, 2007, Understanding Merapi-type volcanoes: *Eos Transactions of the American Geophysical Union*, v. 88, no. 1, p. 5.
- Puskas, C.M., Smith, R.B., Meertens, C.M., and Chang, W.L., 2007, Crustal deformation of the Yellowstone–Snake River Plain volcano–tectonic system—Campaign and continuous GPS observations, 1987–2004: *Journal of Geophysical Research*, v. 112, B03401, doi:10.1029/2006JB004325, 19 p.
- Ramsey, D.W., Robinson, J.E., Schilling, S.P., Schaefer, J.R., and Trusdell, F.A., 2007, Crisis GIS—Preparing for and responding to volcanic eruptions in the United States, *in* Thomas, C., ed., *Standards for Success—GIS for Federal Progress and Accountability*: Redlands, California, ESRI Press, p. 3-8.
- Ramsey, D.W., Schilling, S.P., Messerich, J.E., and Thompson, R.A., 2007, Rebuilding Mount St. Helens: *Earth Imaging Journal*, v. 4, no. 3, p. 26-27.
- Ramsey, D.W., Schilling, S.P., Robinson, J.E., Griswold, J.P., Wardwell, R.S., and Ewert, J.W., 2007, Mount St. Helens reloaded—Applying GIS to the ongoing eruption of Mount St. Helens, Washington: *ESRI Map Book*, v. 22, p. 6.
- Roeloffs, E.A., and Linde, A.T., 2007, Borehole observations of continuous strain and fluid pressure, *in* Dzurisin, Daniel, *Volcano deformation—Geodetic monitoring techniques*: Berlin, Springer-Verlag, p. 305-322.
- Rowe, M.C., Pallister, J.S., and Grunder, Anita, 2007, Mount St. Helens petrology workshop: *Eos Transactions of the American Geophysical Union*, v. 88, no. 2, p. 15.
- Rye, R.O., and Truesdell, A.H., 2007, The question of recharge to the deep thermal reservoir underlying the geysers and hot springs of Yellowstone National Park, *in* Morgan, L.A., ed., *Integrated geoscience studies in the greater Yellowstone area—Volcanic, tectonic, and hydrothermal processes in the Yellowstone geocosystem*: U.S. Geological Survey Professional Paper 1717, p. 239-270, available at <http://pubs.usgs.gov/pp/1717/>.
- Sasai, Yoichi, Johnston, M.J.S., Tanaka, Yoshikazu, Mueller, Robert, Hashimoto, Takeshi, Utsugi, Mitsuru, Sakanaka, Shinya, Uyeshima, Makoto, Zlotnicki, Jaques, and Yvetot, Paul, 2007, Drag-out effect of piezomagnetic signals due to a borehole—The Mogi source as an example: *Annals of Geophysics*, v. 50, p. 93-104.
- Sassen, Kenneth, Zhu, Jiang, Webley, Peter, Dean, Ken, and Cobb, Patrick, 2007, Volcanic ash plume identification using polarization lidar—Augustine eruption, Alaska: *Geophysical Research Letters*, v. 34, L08803, doi:10.1029/2006GL027237, 4 p.
- Shanks, W.C., III, Alt, J.C., and Morgan, L.A., 2007, Geochemistry of sublacustrine hydrothermal deposits in Yellowstone Lake—Hydrothermal reactions, stable-isotope systematics, sinter deposition, and spire formation, *in* Morgan, L.A., ed., *Integrated geoscience studies in the greater Yellowstone area—Volcanic, tectonic, and hydrothermal processes in the Yellowstone geocosystem*: U.S. Geological Survey Professional Paper 1717, p. 205-234, available at <http://pubs.usgs.gov/pp/1717/>.
- Sherrod, D.R., Murai, Takashi, and Tagami, Takahiro, 2007, New K–Ar ages for calculating end-of-shield extrusion rates at West Maui volcano, Hawaiian island chain: *Bulletin of Volcanology*, v. 69, p. 627-642.
- Sherrod, D.R., Sinton, J.M., Watkins, S.E., and Brunt, K.M., 2007, Geologic map of the State of Hawai‘i: U.S. Geological Survey Open-File Report 2007-1089, 85 p., 8 plates, scale 1:100,000, 1:250,000, data files, available at <http://pubs.usgs.gov/of/2007/1089/>.

- Teng, F.-Z., Wadhwa, Meenakshi, and Helz, R.T., 2007, Investigation of magnesium isotope fractionation during basalt differentiation: implications for a chondritic composition of the terrestrial mantle: *Earth and Planetary Science Letters*, v. 261, p. 84-92.
- Thomas, R.J., Krehbiel, P.R., Rison, W., Edens, H.E., Aulich, G.D., Winn, W.P., McNutt, S.R., Tytgat, G., and Clark, E., 2007, Electrical activity during the 2006 Mount St. Augustine volcanic eruptions: *Science*, v. 315, p. 1097.
- Thompson, R.A., and Schilling, S.P., 2007, Photogrammetry, *in* Dzurisin, Daniel, *Volcano deformation—Geodetic monitoring techniques*: Berlin, Springer-Verlag, p. 195-221.
- Tilling, R.I., 2007, Discussion of B. T. Jordan, the mantle debate in undergraduate geoscience education—Overview, history, and recommendations, *in* Foulger, G.R., and Jurdy, D.M., eds., *Plates, plumes, and planetary processes: Geological Society of America Special Paper 430*, p. 942-943.
- Tucker, David, Hildreth, Wes, Ullrich, Tom, and Friedman, Richard, 2007, Geology and complex collapse mechanisms of the 3.72 Ma Hannegan caldera, North Cascades, Washington, USA: *Geological Society of America Bulletin*, v. 119, p. 329-342.
- Turrin, B.D., Muffler, L.J.P., Clynne, M.A., and Champion, D.E., 2007, Robust 24 ± 6 ka $^{40}\text{Ar}/^{39}\text{Ar}$ age of a low-potassium tholeiitic basalt in the Lassen region of NE California: *Quaternary Research*, v. 68, p. 96-110.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004—Steam and ash emission and dome growth, October 1, 5, 11, and 27, 2004: U.S. Geological Survey General Interest Publication 22, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip22>.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004—Instrumentation and continuing dome growth, late October to mid November, 2004: U.S. Geological Survey General Interest Publication 23, videos, available at <http://pubs.usgs.gov/gip/2004/23/>.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004—Instrumentation and continuing dome growth II, November 20, 29, and December 16, 2004: U.S. Geological Survey General Interest Publication 24, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip24>.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004-2005—Instrumentation and continuing dome growth IV, January 25, 2005: U.S. Geological Survey General Interest Publication 25, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip25>.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004-2005—Instrumentation and continuing dome growth V, February 1 to March 15, 2005: U.S. Geological Survey General Interest Publication 26, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip26>.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens—September 2004-May 2005: U.S. Geological Survey General Interest Publication 27, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip27>.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004-2005—Instrumentation and continuing dome growth VI, April 6 to July 27, 2005: U.S. Geological Survey General Interest Publication 28, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip28>.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004-2005—Instrumentation and continuing dome growth VII, October 1, 2004 to September 14, 2005: U.S. Geological Survey General Interest Publication 29, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip29>.

- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004-2006—Instrumentation and continuing dome growth VIII, September 21, 2005 to February 16, 2006: U.S. Geological Survey General Interest Publication 30, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip30>.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004-2006—Instrumentation and continuing dome growth IX, May 17, 2006: U.S. Geological Survey General Interest Publication 39, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip39>.
- U.S. Geological Survey, 2007, Eruption of Mount St. Helens 2004-2006—Instrumentation and continuing dome growth X, September 28, 2006: U.S. Geological Survey General Interest Publication 46, videos, available at <http://pubs.er.usgs.gov/usgspubs/gip/gip46>.
- U.S. Geological Survey, 2007, Natural hazards—A national threat: U.S. Geological Survey Fact Sheet 2007-3009, 4 p., available at <http://pubs.er.usgs.gov/usgspubs/fs/fs20073009>.
- Venezky, D.Y., and Newhall, C.G., 2007, WOVOdat design document—The schema, table descriptions, and create table statements for the database of worldwide volcanic unrest (WOVOdat Version 1.0): U.S. Geological Survey Open-File Report 2007-1117, 184 p., available at <http://pubs.usgs.gov/of/2007/1117/>.
- Walder, J.S., LaHusen, R.G., Vallance, J.W., and Schilling, S.P., 2007, Emplacement of a silicic lava dome through a crater glacier: Mount St Helens, 2004-06, *in* Clarke, Garry, and Smellie, John, eds., *The International Symposium on Earth and Planetary Ice–Volcano Interactions*, Reykjavík: *Annals of Glaciology*, v. 45, p. 14-20.
- Wark, D.A., Hildreth, W., Spear, F.S., Cherniak, D.J., and Watson, E.B., 2007, Pre-eruption recharge of the Bishop magma system: *Geology*, v. 35, p. 235-238.
- Waythomas, C.F., 2007, Mid-Holocene sector collapse at Mount Spurr volcano, south-central Alaska, *in* Haeussler, P.J., and Galloway, J.P., eds., *Studies by the U.S. Geological Survey in Alaska, 2006: U.S. Geological Survey Professional Paper 1739-C*, 15 p., available at <http://pubs.usgs.gov/pp/pp1739/c/>.
- Welch, B.C., Dwyer, Kieran, Helgen, Michael, Waythomas, C.F., and Jacobel, R.W., 2007, Geophysical survey of the intra-caldera icefield of Mt Veniaminof, Alaska, *in* Clarke, Garry, and Smellie, John, eds., *The International Symposium on Earth and Planetary Ice–Volcano Interactions*, Reykjavík: *Annals of Glaciology*, v. 45, p. 58-65.
- Wilson, C.J.N., Rhoades, D.A., Lanphere, M.A., Calvert, A.T., Houghton, B.F., Weaver, S.D., and Cole, J.W., 2007, A multiple-approach radiometric age estimate for the Rotoiti and Earthquake Flat eruptions, New Zealand, with implications for the MIS 4/3 boundary: *Quaternary Sciences*, v. 26, p. 1861-1870.
- Wolfe, C.J., Brooks, B.A., Foster, J.H., and Okubo, P.G., 2007, Microearthquake streaks and seismicity triggered by slow earthquakes on the mobile south flank of Kilauea Volcano, Hawai‘i: *Geophysical Research Letters*, v. 34, L23306, doi:10.1029/2007GL031625, 5 p.
- Yun, Sang-Ho, Zebker, Howard, Segall, Paul, Hooper, Andrew, and Poland, Michael, 2007, Interferogram formation in the presence of complex and large deformation: *Geophysical Research Letters*, v. 34, L12305, doi:10.1029/2007GL029745, 6 p.