

Kathleen F. McKee

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GESTAR II Postdoctoral Researcher

NASA Goddard Space Flight Center, Greenbelt, MD 20771

(720) 326-8515 | kfmckee@alaska.edu | www.kathleenfmckee.com | ORCID: 0000-0003-3189-9189

Postdoctoral Training

NASA Goddard Space Flight Center
GESTAR II Postdoctoral Researcher
Mentor: Dr. Ralph Kahn

Greenbelt, Maryland
Feb. 2022 – present

Los Alamos National Laboratory
Postdoctoral Researcher
Mentor: Dr. Phil Blom

Los Alamos, New Mexico
Apr. 2021 – Jan. 2022

Carnegie Institution for Science
Carnegie Postdoctoral Fellow
NSF Earth Sciences Postdoctoral Fellow
Mentors: Dr. Diana Roman, Dr. David Fee, Dr. Gregory Waite

Washington, DC
Jan. 2020 – Feb. 2021
Dec. 2017 – Dec. 2019

Education

University of Alaska Fairbanks
PhD in Geophysics
Dissertation: Detection, source location, and analysis of volcano infrasound
Advisor: Dr. David Fee

Fairbanks, Alaska
2013 – 2017

Michigan Technological University
Peace Corps Masters International – MS in Geology
Thesis: Using auto- and cross-correlations from seismic ambient noise to monitor velocity changes at Villarrica Volcano, Chile
Advisor: Dr. Gregory Waite

Houghton, Michigan
2008 – 2012

The University of Tulsa
BS in Geoscience, minor in Mathematics
Advisor: Dr. J. Bryan Tapp

Tulsa, Oklahoma
2004 – 2008

Awards

NASA Goddard Space Flight Center Fellowship
Carnegie Institution for Science Postdoctoral Fellowship
NSF Earth Sciences Postdoctoral Fellowship
NSF East Asia Pacific Summer Institute (EAPSI) Fellowship

Feb. 2022 – 2023
Jan. 2020 – Feb. 2021
Dec. 2017 – 2019
Jun. – Aug. 2015

Peer-Reviewed
Publications

Matoza, R.S., Fee, D., Assink, J.D., Iezzi, A.M., Green, D.N., Kim, K., Toney, L., Lecocq, T., Krishnamoorthy, S., Lalande, J.-M., Nishida, K., Gee, K.L., Haney, M.M., Ortiz, H.D., Brissaud, Q., Martire, L., Rolland, L., Vergados, P., Nippres, A., Park, J., Shani-Kadmiel, S., Witsil, A., Arrowsmith, S., Caudron, C., Watada, S., Perttu, A.B., Taisne, B., Mialle, P., Le Pichon, A., Vergoz, J., Hupe, P., Blom, P.S., Waxler, R., De Angelis, S., Snively, J.B., Ringler, A.T., Anthony, R.E., Jolly, A.D., Kilgour, G., Averbuch, G., Ripepe, M., Ichihara, M., Arciniega-Ceballos, A., Astafyeva, E., Ceranna, L., Cevuard, S., Che, I.-Y., De Negri, R., Ebeling, C.W., Evers, L.G., Franco-Marin, L.E., Gabrielson, T.B., Hafner, K., Harrison, R.G., Komjathy, A., Lacanna, G., Lyons, J., Macpherson, K.A., Marchetti, E., **McKee, K.F.**, Mellors, R.J., Mendo-Pérez, G., Mikesell, T.D., Munaibari, E., Oyola-Merced, M., Park, I., Pilger, C., Ramos, C., Ruiz, M.C., Sabatini, R., Schwaiger, H.F., Tailpied, D., Talmadge, C., Vidot, J., Webster, J., Wilson, D.C. (2022), Atmospheric waves and global seismoacoustic observations of the January 2022 Hunga eruption, Tonga, *Science*, <https://doi.org/10.1126/science.abo7063>

Watson, L. M., Iezzi, A. M., Toney, L., Maher, S. P., Fee, D., **McKee, K.**, Ortiz, H. D., Matoza, R. S., Gestrich, J. E., Bishop, J. W., Witsil, A. J. C., Anderson, J. F., Johnson, J. B. (2022), Volcano Infrasound: Progress and Future Directions, *Bulletin of Volcanology*, 84:44, <https://doi.org/10.1007/s00445-022-01544-w>

McKee, K., Smith, C., Reath, K., Snee, E., Maher, S., Matoza, R. S., Carn, S., Mastin, L., Anderson, K., Damby, D., Roman, D. C., Itikarai, I., Mulina, K., Saunders, S., Assink, J., de Negri Leiva, R., Perttu, A. (2021), Evaluating the State-of-the-Art in Remote Volcanic Eruption Characterization Part II: Ulawun Volcano, Papua New Guinea, *Journal of Volcanology and Geothermal Research*, 420, <https://doi.org/10.1016/j.jvolgeores.2021.107381>

McKee, K., Smith, C., Reath, K., Snee, E., Maher, S., Matoza, R. S., Carn, S., Mastin, L., Anderson, K., Damby, D., Roman, D. C., Degterev, A., Rybin, A., Chibisova, M., Assink, J., de Negri Leiva, R., Perttu, A. (2021), Evaluating the State-of-the-Art in Remote Volcanic Eruption Characterization Part I: Raikoke Volcano, Kuril Islands, *Journal of Volcanology and Geothermal Research*, 419, <https://doi.org/10.1016/j.jvolgeores.2021.107354>

Haney, M., Fee, D., **McKee, K.**, Lyons, J. J., Matoza, R. S., Wech, A. G., Tepp, G., Searcy, C., and Mikesell, T. D. (2020), Co-eruptive tremor from Bogoslof Volcano, Alaska: Seismic wavefield composition at regional distances, *Bulletin of Volcanology*, 82, <https://doi.org/10.1007/s00445-019-1347-0>

McKee, K., Fee, D., Haney, M., Matoza, R. S., and Lyons, J. J. (2018), Infrasound signal detection and back-azimuth estimation using ground-coupled airwaves on a seismo-acoustic sensor pair, *Journal of Geophysical Research: Solid Earth*, <https://doi.org/10.1029/2017JB015132>

Matoza, R. S., Fee, D., Green, D., Le Pichon, A., Vergoz, J., Haney, M. M., Mikesell, T. D., Franco, L., Valderrama, O. A., Kelley, M. R., **McKee, K.**, Ceranna, L. (2018), Local, regional, and remote seismo-acoustic observations of the April 2015 VEI 4 eruption of Calbuco volcano, Chile, *Journal of Geophysical Research: Solid Earth*, 123, 3814-3827, <https://doi.org/10.1002/2017JB015182>

McKee, K., D. Fee, A. Yokoo, R. S. Matoza, K. Kim (2017). Analysis of gas jetting and fumarole acoustics at Aso Volcano, Japan, *Journal of Volcanology and Geothermal Research*, 340, 16-29, <http://doi.org/10.1016/j.jvolgeores.2017.03.029>

McKee, K., D. Fee, C. Rowell, and A. Yokoo (2014). Network-based evaluation of the infrasonic source location at Sakurajima Volcano, Japan, *Seismological Research Letters*, 85, 1200-1211, <http://doi.org/10.1785/0220140119>

Publications
in Progress

McKee, K., Roman, D.C., Waite, G.P., Fee, D. (in review), Silent Very Long Period Seismic Events (VLPs) at Stromboli Volcano, Italy, *Geophysical Research Letters*

Smith, C., Van Eaton, A.R., Schneider, D.J., Mastin, L., Matoza, R.S., **McKee, K.**, Maher, S. (accepted), Spatial analysis of globally-detected volcanic lightning from the June 2019 eruption of Raikoke volcano, Kurile Islands, Russia, *Volcanica*

Perttu, A., Assink, J., Van Eaton, A.R., Caudron, C., Vagasky, C., Krippner, J., **McKee, K.**, De Angelis, S., Perttu, B., Taisne, B., Lube, G. (submitted), Remote characterization of the 12 January 2020 eruption of Taal Volcano, Philippines, using seismo-acoustic, volcanic lightning, and satellite observations, *Bulletin of the Seismological Society of America*

Kahn, R.A., J.A. Limbacher, K.T. Junghenn Noyes, V.J.B. Flower, **K. McKee** (in prep). Evolving Particles in the 2022 Hunga, Tonga Volcano Eruption Plume.

McKee, K., Snee, E., Maher, S., Smith, C., Reath, K., Roman, D. C., Matoza, R. S., Carn, S., Mastin, L., Anderson, K., Damby, D., Perttu, A., Assink, J., de Negri Leiva, R., Degterev, A., Rybin, A., Chibisova, M., Itikarai, I., Mulina, K., Saunders, S. (in prep), Decrease in Volcano Jet Noise Peak Frequency as Crater Expands.

Professional
Service Activities

IAVCEI Scientific Assembly Session Convener	Jan. 2023
AGU Fall Meeting Session Convener	Dec. 2019
CONVERSE Infrasound Workshop Presenter and Participant	Nov. 2019
CIDER 2019 Summer Program: Volcanoes Participant	Jun. – Jul. 2019
AGU Fall Meeting Session Convener	Dec. 2018
COVE Workshop Participant, Albuquerque, NM	Nov. 2018

Reviewer: 2017 – present
Seismological Research Letters, Earth, Planets, and Space, Journal of Volcanology and Geothermal Research, Geophysical Research Letters, Geology, Science, Pure and Applied Geophysics

Recent
Conference
Presentations
(Past Three Years)

McKee, K., Blom, P.S. (2021) “Analysis of Regional Infrasound Propagation: Temporal Variability of the Atmosphere and Interaction with Terrain.” Oral presentation at: American Geophysical Union Fall Meeting. New Orleans, LA.

McKee, K., Smith, C., Reath, K., Snee, E., Maher, S., Matoza, R. S., Carn, S., Mastin, L., Anderson, K., Damby, D., Roman, D. C., Degterev, A., Rybin, A., Chibisova, M., Itikarai, I., Mulina, K., Saunders, S., Assink, J., de Negri Leiva, R., Perttu, A. (2021) “Multi-disciplinary characterization of the June 2019 eruptions of Raikoke, Kuril Islands and Ulawun, Papua New Guinea volcanoes using remote techniques.” **Invited** oral presentation at: AGU Fall Meeting. New Orleans, LA.

McKee, K., Snee, E., Maher, S., Smith, C., Reath, K., Roman, D. C., Matoza, R. S., Carn, S., Mastin, L., Anderson, K., Damby, D., Perttu, A., Assink, J., de Negri Leiva, R., Degterev, A., Rybin, A., Chibisova, M., Itikarai, I., Mulina, K., Saunders, S. (2021) “Decrease in Volcano Jet Noise Peak Frequency as Crater Expands.” e-Lightning presentation at: AGU Fall Meeting. New Orleans, LA.

Berg, E.M., Dannermann Dugick, F.K., Albert, S., Koch, C., **McKee, K.F.** (2021) “Investigation of Ground-Coupled Airwave Applications on Seismo-Acoustic Stations.” Poster presentation at: AGU Fall Meeting. New Orleans, LA.

Perttu, A., **McKee, K.**, Assink, J.D., Van Eaton, A.R., Vagasky, C., Krippner, J., Snee, E., Taisne, B. (2021) “Coupling infrasound, lightning, and satellite imagery to characterize the 2020 Taal volcanic eruption.” eLightning presentation at: AGU Fall Meeting. New Orleans, LA.

McKee, K., Smith, C., Reath, K., Snee, E., Maher, S., Matoza, R. S., Carn, S., Mastin, L., Anderson, K., Damby, D., Roman, D. C., Degterev, A., Rybin, A., Chibisova, M., Itikarai, I., Mulina, K., Saunders, S., Assink, J., de Negri Leiva, R., Perttu, A. (2021) “Multi-disciplinary characterization of the June 2019 eruptions of Raikoke (Kuril Islands) and Ulawun (Papua New Guinea) volcanoes using remote technologies.” Presentation at: CTBT: Science and Technology Conference. Vienna, Austria.

McKee, K., Snee, E., Maher, S., Smith, C., Reath, K., Roman, D. C., Matoza, R. S., Carn, S., Mastin, L., Anderson, K., Damby, D., Perttu, A., Assink, J., de Negri Leiva, R., Degterev, A., Rybin, A., Chibisova, M., Itikarai, I., Mulina, K., Saunders, S. (2021) “Decrease in Volcano Jet Noise Peak Frequency from Crater Expansion.” Presentation at: European Geophysical Union General Assembly. Vienna, Austria.

McKee, K., Roman, D., Fee, D., Waite, G., Ripepe, M. (2019) “Multiplet and particle motion analysis of very-long-period (VLP) events at Stromboli Volcano, Italy, during a period of low surface activity in 2018.” Oral presentation at: AGU Fall Meeting. San Francisco, CA.

Smith, C., **McKee, K.**, Maher, S., Reath, K., Snee, E., Matoza, R., Carn, S., Mastin, L., Anderson, K., Damby, D., Roman, D., Degterev, A., Rybin, A., Chibisova, M., Itikarai, I. (2019) “Multi-disciplinary characterization of the June 2019 eruptions of Raikoke (Kuril Islands) and Ulawun (Papua New Guinea) volcanoes using remote techniques.” Poster presentation at: AGU Fall Meeting. San Francisco, CA.

Smith, C., Van Eaton, A., Schneider, D., Behnke, S., Gaudin, D., Reader, S., McNutt, S., Thompson, G., Maher, S., **McKee, K.**, Matoza, R., Pavlonis, M. (2019) “Insights Into the Electrification of Volcanic Plumes from Lightning and Infrasound.” Oral presentation at: AGU Fall Meeting. San Francisco, CA.

McKee, K., Roman, D., Fee, D., Waite, G., Ripepe, M. (2019) “Seismic very long period signal characterization and association with explosions and jetting at Stromboli Volcano, Italy.” Poster presentation at: CIDER 2019 Summer Program: Volcanoes. Berkeley, CA.

McKee, K., Fee, D., Waite, G., Roman, D., Ripepe, M., Aiuppa, A., Carn, S., Le Mevel, H., Delle Donne, D., Bitetto, M., Lacanna, G., Sealing, C., Cigala, V. (2019) “Explosion volume flux comparison using seismically derived tilt, infrasound, and gas data at Stromboli Volcano, Italy.” **Invited** oral presentation at: Seismological Society of American Annual Meeting. Seattle, WA.

McKee, K., Fee, D., Waite, G., Roman, D., Ripepe, M., Aiuppa, A., Carn, S., Le Mevel, H., Delle Donne, D., Bitetto, M., Lacanna, G., Sealing, C., Cigala, V. (2019) “Explosion volume flux comparison using seismically derived tilt, infrasound, and gas data at Stromboli Volcano, Italy.” Oral presentation at: European Geophysical Union General Assembly. Vienna, Austria.

**Invited Seminars
(Past Three Years)**

McKee, K., Roman, D., Waite, G.P., Fee, D. (Apr. 2022) “Using Seismo-acoustic Data to Characterize Volcanic Processes.” Seminar at: Departamento de Geología, Universidad de Chile. Santiago, Chile.

McKee, K., Smith, C., Reath, K., Snee, E., Maher, S., Matoza, R. S., Carn, S., Mastin, L., Anderson, K., Damby, D., Roman, D. C., Degterev, A., Rybin, A., Chibisova, M., Itikarai, I., Mulina, K., Saunders, S., Assink, J., de Negri Leiva, R., Perttu, A. (Dec. 2021) “Multi-disciplinary characterization of the June 2019 eruptions of Raikoke, Kuril Islands and Ulawun, Papua New Guinea volcanoes using remote techniques.” Seminar for: IAVCEI Early Career Researcher Webinar Series.

McKee, K., Roman, D., Fee, D., Waite, G., Ripepe, M. (Jan. 2021) “Using Seismic Waves and Sound to Characterize Volcanic Processes.” Seminar at: Department of Earth Sciences, SOEST, University of Hawaii, Manoa. Honolulu, HI.

McKee, K., Roman, D., Fee, D., Waite, G., Ripepe, M. (Jan. 2021) “Using Seismic Waves and Sound to Characterize Volcanic Processes.” Seminar at: School of Earth Sciences, University of Bristol. Bristol, UK.

McKee, K., Roman, D., Fee, D., Waite, G., Ripepe, M. (Oct. 2020) “Using Seismo-acoustic Data to Characterize Volcanic Processes.” Seminar at: Department of Earth Sciences, Montana State University. Bozeman, MT.

McKee, K., Roman, D., Fee, D., Waite, G., Ripepe, M. (Oct. 2020) “Silent VLPs at Stromboli Volcano, Italy.” Seminar at: Department of Geology, University of Maryland. College Park, MD.

McKee, K., Roman, D., Fee, D., Waite, G., Ripepe, M. (Nov. 2019) “Stromboli’s Silent VLPs: Multiplet and particle motion analysis of very-long-period events during a period of low surface activity in 2018.” Seminar at: Alaska Volcano Observatory, USGS. Anchorage, AK.

McKee, K., Fee, D., Waite, G., Roman, D., Ripepe, M., Aiuppa, A., Carn, S., Le Mevel, H., Delle Donne, D., Bitetto, M., Lacanna, G., Sealing, C., Cigala, V. (Jun. 2019) “Towards volume flux comparison using seismically derived tilt, infrasound, and gas data at Stromboli Volcano, Italy.” Seminar at: Geophysical Institute, University of Alaska Fairbanks. Fairbanks, AK.

McKee, K., Fee, D., Waite, G., Roman, D., Ripepe, M., Aiuppa, A., Carn, S., Le Mevel, H., Delle Donne, D., Bitetto, M., Lacanna, G., Sealing, C., Cigala, V. (May 2019) “Explosion volume flux comparison using seismically derived tilt, infrasound, and gas data at Stromboli Volcano, Italy.” Seminar at: Lamont-Doherty Earth Observatory, Columbia University. Palisades, NY.

McKee, K., Fee, D., Waite, G., Roman, D., Ripepe, M., Aiuppa, A., Carn, S., Le Mevel, H., Delle Donne, D., Bitetto, M., Lacanna, G., Sealing, C., Cigala, V. (Feb. 2019) “Explosion volume flux comparison using seismically derived tilt, infrasound, and gas data at Stromboli Volcano, Italy.” Seminar at: Department of Mineral Sciences, National Museum of Natural History, Smithsonian Institution. Washington, DC.

McKee, K. (Jan. 2019) “Volcano Acoustics: Sound from Volcanoes and What It Tells Us.” Seminar at: Department of Terrestrial Magnetism, Carnegie Institution for Science. Washington, DC.

Research
Experience

NASA Goddard Space Flight Center (GSFC)

NASA GSFC GESTAR II Postdoctoral Researcher February 2022 – Present

Mentor: Dr. Ralph Kahn (GSFC)

Collaborators: Dr. Verity Flower, Dr. Jelle Assink, Dr. Sonja Behnke, Dr. Alexa Van Eaton, Chris Vagasky, Dr. David Green, Dr. Robin Matoza

Examining how explosive volcanic eruption dynamics relate to lightning generation and seismo-acoustic characteristics during eruptions using microphysical plume properties derived from Multi-angle Imaging SpectroRadiometer (MISR) data.

Los Alamos National Laboratory (LANL)

LANL Postdoctoral Researcher April 2021 – January 2022

Mentor: Dr. Phil Blom (LANL)

Investigating the influence of topography on regional to remote infrasound propagation.

Carnegie Institution for Science (CIS)

Carnegie Postdoctoral Fellow Jan. 2020 – Feb. 2021

Mentors: Dr. Diana Roman (CIS), Dr. David Fee (UAF), and Dr. Greg Waite (MTU)

Investigated eruption dynamics with multiparameter geophysical datasets including infrasound, seismic, lightning, and satellite remote sensing at various volcanic systems: Stromboli, Italy, Raikoke, Kuril Islands, Ulawun, Papua New Guinea, and Villarrica, Chile.

Carnegie Institution for Science

NSF Earth Sciences Postdoctoral Fellow Dec. 2017 – Dec. 2019

Mentors: Dr. Diana Roman (CIS), Dr. David Fee (UAF), and Dr. Greg Waite (MTU)

Collaborators: Dr. Maurizio Ripepe and Dr. Alessandro Aiuppa

Proposed, granted funding, and investigated shallow volatile escape processes using seismic and infrasound data at Stromboli Volcano, Italy.

Aso Volcanological Laboratory (AVL), Aso, Japan

NSF East Asia Pacific Summer Institute Fellow Jun. – Aug. 2015

Advisor: Dr. Akihiko Yokoo (AVL)

Proposed, granted funding, investigated and published paper on the acoustics of gas jetting fumaroles at Aso Volcano in collaboration with local volcanologists.

U.S. Geological Survey, Anchorage, AK

Alaska Volcano Observatory Volunteer Jun. – Aug. 2014

Advisor: Dr. Matthew Haney

Investigated detection of ground-coupled airwaves in seismo-acoustic data produced by Cleveland and Pagan volcanoes. Assisted in preparation of acoustic array deployed at Cleveland volcano.

Peru

U.S. Peace Corps Volunteer in Water and Sanitation 2009 – 2011

Worked with local leaders and students to obtain funds, \$500, to establish a community library containing 500 books and a world map, Peru map and mural. The library books, maps, and mural were arranged and painted, respectively by local students.

Michigan Technological University, Houghton, MI

Graduate Research Assistant 2008 – 2009

Advisors: Dr. John S. Gierke and Dr. William I. Rose

Assisted fellow graduate student serving in Peace Corps through acquisition of papers for research. Learned to use Trimble high precision GPS and data reduction software.

Colorado Mesa University, Grand Junction, CO

NSF Research Experience for Undergraduates Jun. – Jul. 2005

Advisors: Dr. Lawrence S. Jones and Dr. Andres Aslan

Collaborated on a field-based study of landscape evolution in Western Colorado's Gibbler Gulch. Used GPS, aerial photography, and topographic maps to map terrace features. Created and used stratigraphic columns with carbon dated charcoal to clarify arroyo evolution timeline.

Geoscience Department, University of Tulsa, Tulsa, OK

Summer Undergraduate Research Program Jun. – Jul. 2004

Advisors: Dr. J. Bryan Tapp and Dr. Winton Cornell

Assisted in restoration study of the Oklahoma grasslands damaged from brine spills. Worked with a team to assess the status of a brine scar using ground penetrating radar, GPS, and soil samples.

Teaching
Experience

Instructor Jun. 2014

Alaska Summer Research Academy (UAF)

Co-developed and taught two-week science camp on volcanoes and volcanic hazards for middle school age students. Activities ranged from learning about volcanic rock types in the lab and in the field to investigating volcanic eruptions with analog models.

Research assistant 2012 – 2013

Michigan Teacher Excellence Program (MTU)

Worked with professors and veteran teachers to capacitate participants, Michigan middle and high school science teachers, in earth science during two-week summer field courses. Aided in quarterly Pedagogy Days in which participants learned about inquiry-based science education and worked to adapt lessons to inquiry style.

Teaching assistant May – Jun. 2012

Dept. of Geological and Mining Engineering and Science (MTU)

GE2000: Understanding the Earth

Taught semi-weekly lab practicum in basic geology and geological concepts and graded assignments.

U.S. Peace Corps Volunteer in Water and Sanitation 2009 – 2011

Taught cooking and hygiene best practices classes at local women's group. Co-planned and implemented a three-day girls leadership camp focused on career exploration, goal achievement, self-esteem and sexual health. Secured funding through grants and donations and oversaw the camp's budget.

Teaching assistant Jul. 2009

Michigan Teacher Excellence Program (MTU)

Managed and helped implement two-week summer field course on earth science for middle and high school science teachers.

Advisor: Dr. William I. Rose

Instructor Jun. 2009

Summer Youth Program (MTU)

Developed curriculum and taught two one-week geological engineering camps for high school age students with particular focus on landslides.

Field Experience

Villarrica Volcano, Chile Feb. 2020, Jan. & Apr. 2022

Collaborator

Collaborated with a team of volcanologists in two-week field campaign to deploy an acoustic array, seismic network, gravimeters, GPS, and a MultiGAS for a year at Villarrica Volcano to examine gravitational signature of lava lake dynamics and relate it to variations in other observations. Data recorded onsite.

Stromboli Volcano, Italy May 2018

Principal Investigator – NSF Earth Science Postdoctoral Fellow

Led an international team of volcanologists in two-week field campaign to temporarily deploy a seismo-acoustic network, gravimeter, and gas sensors (FTIR, FLIR, and MultiGAS) at the summit of Stromboli Volcano to examine gas flow from shallow seismic to subaerial. Data recorded onsite.

Unalaska, Alaska Jul. 2016

AVO Field Assistant

Worked on a three-person team to disassemble 54 seismic stations deployed in three arrays on the island and one network around Makushin Volcano in two weeks.

Santiaguito Volcano, Guatemala Jan. 2016

Principal Scientist – NSF Workshops on Volcanoes

Co-organized and deployed a temporary acoustic network. Gave an introductory talk on volcano infrasound to international group of volcano researchers, observers and students in Quetzaltenango, Guatemala. Data recorded onsite.

Aso Volcano, Japan Jun. – Aug. 2015

Principal Investigator – EAPSI Fellow at Aso Volcanological Laboratory

Led the deployment of 6-elements acoustic array with local collaborators and adjusted deployment relative to volcanic activity. Data recorded onsite.

Wake Atoll, U.S. Minor Outlying Islands Feb. – Mar. 2015

Nuclear Arms Control Technology Field Assistant

Aided in completing permanent infrasound array installation. This included instrument installation and wind noise reduction system and solar panel assembly. Data telemetered.

Sakurajima Volcano, Japan Jul. -- Aug. 2013

Workshop Participant – Volcano Acoustics: from installation to analysis

Assisted with the installation of, data collection from and retrieval of 5 infrasound sensors. Data recorded onsite.

Colima Volcano, Mexico Jan. 2013

Participant – NSF Pan-American Advanced Studies Institutes Workshop: Applying Computational Models to Real-Case Scenarios for Volcanic Hazard Assessment

Modeled tephra fall, pyroclastic density currents, and lahars at Colima Volcano using Tephra2, Titan2D, and Laharz, respectively. Compared model predictions with field observations.

Clintonville, WI Mar. 2012

Field Assistant

Assisted with the installation of 4 broadband sensors with 2 collocated infrasound microphones at each in an effort to assess the recent shallow seismicity disturbing the town. Data recorded onsite.

Villarrica Volcano, Chile Feb. 2011

Field Assistant

Assisted with data retrieval and seismic station relocation and removal. Learned to use UV camera to image the volcanic plume. Data recorded onsite.

Achievements

Geophysical Institute Graduate Student Association President, Michigan Space Grant Consortium Graduate Fellowship, University of Tulsa McMahon Scholarship, Advanced Placement Scholar, Girl Scout Gold, Silver and Leadership Awards, Presidential Service Gold Award

Skills

Programming

Proficient in: MATLAB, Python.

Languages

English (Native Language)

Spanish (speak, read, and write with basic competence)

Professional Memberships

American Geophysical Union

Association for Women Geoscientists

European Geosciences Union

International Association of Volcanology and Chemistry of Earth's Interior

Seismological Society of America

References
(Listed
Alphabetically)

Simon Carn, Ph.D.

Professor
Department of Geological and Mining Engineering and Sciences
Michigan Technological University
Houghton, MI 49931
Office: 906-487-1756
E-mail: scarn@mtu.edu

Katharine Cashman, Ph.D.

Professor
Department of Earth Sciences
University of Oregon
Eugene, OR 97403
Office:
E-mail: cashman@uoregon.edu

David Fee, Ph.D.

Research Professor
Wilson Alaska Technical Center
Alaska Volcano Observatory
Geophysical Institute
University of Alaska Fairbanks
Fairbanks, AK 99775
Office: 907-474-7564
E-mail: dfee1@alaska.edu

Diana C. Roman, Ph.D.

H.O. Wood Chair of Seismology
Earth and Planets Laboratory
Carnegie Institution of Science
Washington, D.C. 20015
Office: 202-478-8834
E-mail: droman@carnegiescience.edu

Gregory P. Waite, Ph.D.

Professor
Department of Geological and Mining Engineering and Sciences
Michigan Technological University
Houghton, MI 49931
Office: 906-487-3554
E-mail: gpwaite@mtu.edu