

## **Doerte Mann, PhD**

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### **Education**

Ph.D., Geophysics (2002), University of Alaska Fairbanks, USA. Research/Thesis: "Deformation of Alaskan volcanoes measured using SAR interferometry and GPS"

M.S., Geophysics (1996), University of Kiel, Germany. Research/Thesis: "Fluid flow and heat transport through fractures in accretionary wedges applied to the Cascadia subduction zone"

One year study (1992/93) in Concepcion, Chile. Project: "Ash distribution after the 1992 eruption of Lonquimay volcano, Chile"

### **Research and Professional Experience**

Field Engineer, Unavco Inc., Richmond CA (July 2006 – September 2008)  
Reconnaissance, installation and maintenance of continuous high precision GPS stations in Northern California and Alaska. Part of the Plate Boundary Observatory, a geodetic research project funded by the National Science Foundation. <http://pboweb.unavco.org>

Postdoctoral Scholar, Stanford University, Department of Geophysics (September 2002 – April 2005) - Development of models to interpret volcano deformation as measured with high precision GPS and other geodetic techniques.

Research Assistant at the University of Alaska Fairbanks and Alaska Volcano Observatory (August 1997 - August 2002) - Geodetic data (GPS, SAR Interferometry) acquisition, processing, modeling and interpretation.

Member of the Alaska Volcano Observatory (AVO) crisis response team during the eruption of Shishaldin volcano, Alaska (1999).

Research Assistant at GEOMAR Research Center for Marine Geosciences, Germany (August 1994 – August 1996) - Finite element modeling of fluid and heat transport through fractures in subduction zones. Participation in marine seismic surveys aboard RV Sonne and RV Polarstern.

### **Technical Expertise and Responsibilities**

Processing and analysis of GPS and Synthetic Aperture Radar (SAR) data.

Modeling, interpretation, presentation and publication of geodetic data and research results at international conferences and in peer reviewed journals.

GPS surveying and station installations. Troubleshooting of field equipment, technical hardware and software issues. Documentation of installations, maintenance, technical issues. Remote solar power systems and data communications.

Windows, Unix, MS Office, HTML, PHP, MySQL, Matlab, some C and Fortran programming. Various GPS processing, satellite imaging and mapping software.

## **Awards**

Jack Kleinman Grant for volcano research for GPS fieldwork at Westdahl volcano, Alaska (2000)

Journalistic writing award for the essay: "The math and science enrichment program at the University of Alaska Fairbanks". Transatlantic idea contest USABLE, Koerber Foundation (2002)

Outstanding student paper award. Annual meeting of the German Geophysical Society (1997)

## **Memberships**

American Geophysical Union (AGU)

## **Selection of Relevant Scientific Publications**

(for download at <http://www.geo-explorer.net/doerte/professional/articles.html>)

Mann, D. and J. Freymueller, Volcanic and tectonic deformation of Unimak Island in the Aleutian Arc, Alaska, *Journal of Geophysical Research*, 108, 10.1029/2002JB001925, 2003.

Mann, D., J. Freymueller, and Z. Lu, Deformation associated with the 1997 eruption of Okmok volcano, Alaska, *Journal of Geophysical Research*, 107, 10.1029/2001JB000163, 2002.

Mann, D., Deformation of Alaskan volcanoes measured using SAR interferometry and GPS, PhD thesis, University of Alaska Fairbanks, 122 pp., 2002.

## **References**

Available on request