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APPOINTMENTS AND EDUCATION

Research Assistant Professor Geophysical Institute, University of Alaska Fairbanks Alaska Volcano Observatory	9/2004-present
Post-Doctoral Fellow New Mexico State University Focus on magmatic systems and rift tectonics in the Southwest U.S. and Tibet. Project development in Colima, Mexico	11/2001-9/2004
Ph.D. with Distinction, June 2001 Lamont-Doherty Earth Observatory of Columbia University emphasis: seismology, geophysics, structural geology Thesis: <i>The deep structure of Axial Volcano</i> . Advisor: William Menke	4/1998-6/2001
M.S., Lamont-Doherty Earth Observatory of Columbia University Thesis: <i>Structure of the northern volcanic zone in Iceland from compressional waves, shear waves and gravity</i> . Advisor: William Menke	9/1996-4/1998
B.A., Colorado College, <i>cum laude</i> Major: Physics Phi Beta Kappa GPA: 3.8/4.0	9/1989-5/1993

RESEARCH INTERESTS

Characterizing the generation and transport of magma from the mantle through the crust
Tracking solid Earth systems with time-lapsed geophysics
Inverse theory and tomography

TEACHING EXPERIENCE

Taught Introduction to Geophysics, New Mexico State University New curriculum specific to undergrad and grad students in geology	Spring 2003
Taught AP, honors and regular Physics, Cape Cod Academy, MA Full-time high school teaching and mentoring	1993-1996
Lectured as teaching assistant, Columbia University "Solid Earth System" and "Intro to Seismology" courses	1997-1998

STUDENTS ADVISED

Kimberly Genareau (summer intern from Univ. of S. Florida) - Used seismic data to model shallow structure of the Valles caldera. Presented results at Fall AGU 2003.	summer 2003
Derek Adams (NMSU geology undergraduate) – Imaging the Jemez volcanic lineament. Presented results at Fall AGU 2003.	present
Suzanne Renolds (NMSU physics undergraduate) – Gravity modeling of the Rio Grande rift. Independent research for course credit, NMSU Physics Dept.	2002

PAPERS

(All papers are available electronically at www.avo.alaska.edu/input/west/vitae.html)

- West, M., Gao, W., S. Grand (2004), A simple approach to the joint inversion of seismic body and surface waves applied to the southwest U.S. *Geophys. Res. Lett.*, 31, L15615, doi:10.1029/2004GL020373.
- West, M., J. Ni, W. S. Baldrige, D. Wilson, R. Aster, W. Gao, and S. Grand (2004), Crust and upper mantle shear wave structure of the southwest United States: Implications for rifting and support for high elevation, *J. Geophys. Res.*, 109, B03309, doi:10.1029/2003JB002575.
- Gao, W., S. P. Grand, W. S. Baldrige, D. Wilson, M. West, J. F. Ni, and R. Aster (2004), Upper mantle convection beneath the central Rio Grande rift imaged by P and S wave tomography, *J. Geophys. Res.*, 109, B03305, doi:10.1029/2003JB002743.
- Wilson, D., R. Aster, W. S. Baldrige, W. Gao, R. Gok, S. Grand, J. Ni, E. Sandvol, S. Semken, M. West (2003), Imaging crust and upper mantle seismic structure in the southwestern United States using teleseismic receiver functions, *The Leading Edge*, v.22, n.3, p.232-237.
- West, M., W. Menke, and M. Tolstoy (2003), Focused magma supply at the intersection of the Cobb hot spot and the Juan de Fuca ridge. *Geophys. Res. Lett.*, 30, 1724, doi:10.1029/2003GL017104.
- Gök, R., J. Ni, M. West, E. Sandvol, D. Wilson, R. Aster, W. S. Baldrige, S. Grand, W. Gao, F. Tilmann, and S. Semken (2003), Shear Wave Splitting and Mantle Flow Beneath LA RISTRA, *Geophys. Res. Lett.*, 30, doi:1614,10.1029/2002GL016616.
- Rapine, R., F. Tilmann, M. West, J. Ni and A. Rodgers (2003), Crustal Structure of Northern and Southern Tibet from Surface Wave Dispersion Analysis, *J. Geophys. Res.* 108, doi:10.1029/2001JB000445.
- West, M., W. Menke, M. Tolstoy, S. Webb and R. Sohn (2001), Magma storage beneath Axial Volcano on the Juan de Fuca mid-ocean ridge. *Nature* 413, 833-836.
- Menke, W. M. West and M. Tolstoy (2002), The 1993 eruption of the CoAxial segment of the Juan de Fuca ridge. *Geology* 30, 359-362.
- Kim, W.-Y, L.R.Sykes, J. H. Armitage, J. K. Xie, K. Jacob, P. G. Richards, M. West, F. Waldhauser, J. Armbruster, L. Seeber, W.X. Du and A. Lerner-Lam (2001), Seismic waves generated by aircraft impacts and building collapses at World Trade Center, NY, *EOS* 82, 565.
- West, M. and W. Menke (2000), Fluid-Induced Changes in Shear Velocity from Surface Waves. Proceedings, Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), 21-28.
- Menke, W., M. West, B. Brandsdottir and D. Sparks (1998), Compressional and Shear Velocity Structure of the Lithosphere in Northern Iceland. *BSSA* 88, 1561-1571.

MEETING PRESENTATIONS

EarthScope Active Magmatic Systems Workshop	2002
IRIS, Annual Meeting	2002-2003
EEGS, Symposium on Applications of Geophysics to Environmental Problems	2000
RIDGE, Plume-Ridge Interaction Workshop	2000
NAGT , Quantitative Skills Assessment Workshop	2000
AGU, Annual meeting	1999-2003
RIDGE, Juan de Fuca Results symposium	1999

PROFESSIONAL CONSULTING

Scholastic Inc., NY, Content review of children's book on earthquakes	2001
Rockland Cemetery, NY, Seismic imaging site evaluation	1999
American Museum of Natural History, Multimedia content for earthquake exhibit	1998

PROFESSIONAL AFFILIATIONS

American Geophysical Union
National Assoc. of Geoscience Teachers

Seismological Society of America
Environmental and Eng. Geophys. Soc.

SELECTED FIELD EXPERIENCE

Portable seismic array deployments:	Iceland (1997), NY (1997-2000), NM (2003)
Permanent broadband seismic installations:	LCSN, Northeast US (1999-2000)
Ocean bottom seismometer deployments:	Northeast Pacific Ocean (1998-99)
Ground Penetrating Radar surveys:	Archeological Surveys, NY (1998)
Multichannel seismic surveys:	Long Island, NY (1998)
Geotechnical seismic surveys:	New York, NY (1997)
Gravity surveys:	Co. Springs, (1993) & at sea (1998-99)

REFERENCES

Graduate advisor

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