

Curriculum Vitae

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Current Position

Assistant Professor in Geophysics, August 2005 - Present: The School of Earth and Atmospheric Sciences, Georgia Institute of Technology

Education

2000: Ph.D. (Geophysics), Northwestern University, Evanston, IL

1997: M.S. (Geophysics), Northwestern University, Evanston, IL

1995: B.S. (Geophysics; minor in Civil Engineering), Texas Tech University, Lubbock, TX

Research Experience

Interests

My research focus is on active deformation and brittle failure of the earth's lithosphere in seismic and volcanic provinces. This focus can be broadly defined as earthquake and volcano physics through seismology and geodesy. Other research interests include earthquake recurrence, seismic and volcanic hazard analysis, and "tsunami earthquakes".

Projects

Numerical modeling of the effect of viscoelasticity on ground deformation from magmatic sources at depth; focus on activity at Long Valley and Valles calderas (funding: LANL-LDRD/IGPP/CSTARS).
Detailed examination of plate coupling and shallow subduction processes across the Middle America Trench of Costa Rica using local earthquake seismology and GPS geodetic observations (funding: NSF-MARGINS).
Geodetic investigations of ground deformation from magma ascent within the Socorro Magma body, New Mexico (funding: LANL-LDRD/IGPP).
Geodetic and seismic investigation of the New Madrid seismic zone in central United States and implications for earthquake recurrence and seismic hazard (funding: NASA/Aon Risk Technologies).
Development of near real-time approximations of earthquake energy release for use in the identification of tsunami hazard from large slow-source earthquakes (funding: NSF).

Field Experience

2006: Continuous GPS installations and campaigns across Santorini Caldera, Greece; Georgia Tech with the University of Patras, Greece.
2005: Continuous GPS installations over the Socorro Magma Body (SMB), New Mexico; Georgia Tech with New Mexico Tech and New Mexico Bureau of Geology and Mineral Resources (NMBG).
2002, 2003, 2004: High precision GPS surveys of the Valles Caldera and SMB for Los Alamos National Laboratory and NMBG (for SMB).
2001: High precision GPS survey of Arenal Volcano, Costa Rica, with University of California Santa Cruz, University of Miami & National University of Costa Rica
2000: Passive seismic survey in Guanacaste, Costa Rica, with University of California Santa Cruz, University of Miami & National University of Costa Rica
1999: L1 GPS receiver/antenna installations on Popocatepetl Volcano, Mexico, with University of Miami, National University of Mexico & UNAVCO
1997: High precision GPS study of the New Madrid Seismic Zone, central United States, with Northwestern University
1997: Passive seismic survey in Long Valley Caldera, California, with Duke University & Incorporated Research Institutes in Seismology (IRIS)

Honors

- 2004: IGPP Young Fellow Award, for excellence in advancing our understanding of volcano and earthquake processes through geodesy and seismology, Los Alamos National Laboratory
 2002-2004: Director's Postdoctoral Fellow, Los Alamos National Laboratory
 1999-2000: Horace A. Scott Award for Outstanding Graduate Research and Potential, Northwestern University, Department of Geological Sciences
 1997: University Fellow, Northwestern University
 1993-1994: Undergraduate Scholarship in Geology, Texas Tech University

Teaching Experience

- Assistant Professor*, 2005 - present: Georgia Institute of Technology
 Modern Topics in Tectonophysics: A seminar on Modern topics in tectonophysics, Fall 2005.
 Geodynamics: Graduate course in understanding the mechanisms of Earth's dynamic processes, Spring 2006.
Instructor, 2002: University of California Santa Cruz
 Global Dynamics: Introduction to Solid Earth Geophysics for approximately 40 undergraduate earth science majors, Spring 2002.
Teaching Assistant, 1995-1999: Northwestern University
 Body of the Earth: Introduction to Geophysics, 1996, 1999 (Instructor for one third of the course).
 Earth's Processes and Products: Physical Geology, 1996.
 Global and Environmental Change: Introduction to ESSE, 1996.
 Plate Tectonics: Introductions to Tectonic Processes, 1997, 1998.
 Earth as a Planet: Introductions to Planetary Geology, 1997.
 Physics of the Earth: Advanced Geophysics study for the Interdisciplinary Science Program, 1998.
Graduate Student Delegate, June 1996:
 Earth System Science Education Program of the Universities Space Research Association, NASA Goddard Space flight Center, Greenbelt, MD. Program to help the development of undergraduate curricula in Earth System Science.

Applicable Employment

- 2002-2005: Director's Postdoctoral Fellow/Postdoctoral Researcher, Los Alamos National Laboratory
 2000-2002: IGPP Postdoctoral Researcher, University of California Santa Cruz
 1996, 1999: Seismology Intern, Impact Forecasting (Aon Risk Technologies)
 1995-2000: Research Assistant, Northwestern University
 1995-1999: Teaching Assistant, Northwestern University
 1997: Summer Intern, IRIS/PASSCAL Seismological Instrument Center
 1994-1995: Undergraduate Research Assistant, Texas Tech University
 1994: Student Research Assistant, Texas Tech University

Professional Activities

- Membership Committee Member and Georgia Tech Member Representative to UNAVCO, Inc., Aug. 2005 - present.
 Special Editor for Journal of Volcanology and Geothermal Research special issue "The Changing Shape of Active Volcanoes: Recent Advances in Volcano Geodesy", Published February 1, 2006.
 Convener for 2004 AGU annual fall meeting session "Recent Results and Advances in Volcano Geodesy"
 Los Alamos National Lab representative to UNAVCO, Inc.
 Coordinator for IGPP sponsored Los Alamos National Laboratory and U.S. Department of Energy EarthScope Workshop, May 24-25, 2004.
 Convener for 2003 AGU annual fall meeting session "Changing Shape of Active Volcanoes".

Professional Affiliations

- Member: American Geophysical Union (1995 - present)
 Member: Seismological Society of America (1996 - present)
 Member: Geological Society of America (1996 - present)
 Member: Union of Concerned Scientists (1998 - present)

Publications**Ph.D. Thesis**

Newman, A. V., Geodetic and Seismic Studies of the New Madrid Seismic Zone and Implications for Earthquake Recurrence and Seismic Hazard, *Northwestern University*, 2000.

Papers in Refereed Journals

Ghosh, A. , A. V. Newman, A. M. Thomas, G. T. Farmer, Interface Locking along the Subduction Megathrust from Microseismicity near Nicoya, Costa Rica, *Science* [Submitted March 2007].

Newman, A., Earthquake Risk from Strain Rates on Slipping Faults, *Trans. Am. Geoph. Union (EOS)*, 88 (5), 60, 2007.

Newman, A. V., T. H. Dixon & N. Goumelen, A Four-Dimensional Viscoelastic Model for Deformation of the Long Valley Caldera, California, Between 1995 and 2000, *Journ. Volc. Geoth. Res.*, 150 (1-3), doi:10.1016/j.jvolgeores.2005.07.017, 244 - 269, 2006.

Poland, M., M. Hamburger, & A. Newman, The Changing Shapes of Active Volcanoes: History, Evolution, and Future Changes for Volcano Geodesy, *Journ. Volc. Geoth. Res.*, 150 (1-3), doi:10.1016/j.jvolgeores.2005.11.005, 1 - 13, 2006.

DeShon, H. R., S. Y. Schwartz, L. M. Dorman, A. V. Newman, V. Gonzalaz, M. Protti, T. Dixon, E. Norabuena & E. Flüeh, Seismogenic Zone Structure along the Middle America Trench, Nicoya Peninsula, Costa Rica, from 3D local earthquake tomography using *P*- and *S*-wave data, *Geoph. Journ. Int.*, 164 (1), 109-124, 2006.

Calais, E., G. Mattioli, C. DeMets, J.-M. Nocquet, S. Stein, A. Newman, & P. Rydelek, Tectonic strain in plate interiors?, *Nature*, 438, doi: 10.1038/nature04428, 2005.

Stein, S. A., A. Friedmann, & A. V. Newman, Dependence of Possible Characteristic Earthquakes on Spatial Sampling of Seismicity and Paleoseismic Estimates: Illustration for the Wasatch Seismic, *Seism. Res. Lett.* 76 (4), 2005.

Newman, A. V., NBC's "10.5" may answer an age-old seismologic question, *Trans. Am. Geoph. Union (EOS)* 85, (17), 172-173 2004.

Norabuena, E., T. H. Dixon, S. Y. Schwartz, H. R. DeShon, A. V. Newman, M. Protti, V. Gonzalez, L. M. Dorman, E. Flueh, P. Lundgren, F. Pollitz & D. Sampson, Geodetic and Seismic Constraints on some Seismogenic Zone Processes in Costa Rica, *J. Geophys. Res.* 109 (B11403), doi:10.1029/2003JB002931, 2004.

Stein, S. & A. Newman, Characteristic, Uncharacteristic, and Absent Earthquakes as Possible Artifacts of Short Earthquake Histories, *Seismo. Res. Lett.*, 75, 2, 173-187, 2004.

Stein, S., J. Thomasello, & A. V. Newman, Reply to: Frankel, A.D., and Hough, S.E., Should Memphis Build for California's Earthquakes?, *Trans. Am. Geophys. Union (EOS)*, 84 (29), 273, 2003.

Stein, S., J. Thomasello, & A. V. Newman, Should Memphis Build for California's Earthquakes?, *Trans. Am. Geophys. Union (EOS)*, 84 (19), 17, 2003.

Newman, A. V., S. Y. Schwartz, V. Gonzalez, H. R. DeShon, J. M. Protti & L. Dorman, Along-strike Variability in the Seismogenic Zone Below Nicoya Peninsula, Costa Rica, *Geoph. Res. Lett.*, 29 (20), 38:1-4, doi:10.1029/2002GL015409, 2002.

Newman, A. V., J. Schneider, S. Stein & A. Mendez, Uncertainties in Seismic Hazard Maps for the New Madrid Seismic Zone, *Seismol. Res. Lett.*, 72 (6), 653-667, 2001.

Okal, E. A. & A. V. Newman, Tsunami Earthquakes: The Quest for a Regional Signal, *Phys. Earth and Planet. Int.*, 124, 45-70, 2001.

Newman, A. V., T. H. Dixon, G. Ofoegbu & J. E. Dixon, Geodetic and Seismic Constraints on Recent Activity at Long Valley Caldera, California: Evidence for Viscoelastic Rheology, *Jour. of Volcan. and Geoth. Res.*, 105 (3), 183-206, 2001.

Newman, A. V., S. Stein, J. C. Weber, J. F. Engeln, A. Mao & T. H. Dixon, Reply to: Zoback, M. D., Seismic hazard at the New Madrid seismic zone, *Science*, 285, 30 July, 1999.

Newman, A. V., S. Stein, J. C. Weber, J. F. Engeln, A. Mao & T. H. Dixon, Reply: New Results Justify Open Discussion of Alternative Model, *Trans. Am. Geophys. Union (EOS)*, 80 (17), April 27, 1999.

Newman, A. V., S. Stein, J. C. Weber, J. F. Engeln, A. Mao & T. H. Dixon, Slow Deformation and Implied Long Earthquake Recurrence Intervals From GPS Surveys Across the New Madrid Seismic Zone, *Science*, 284, 619-621, April 23, 1999.

Newman, A. V. & E. A. Okal, Teleseismic Estimates of Radiated Seismic Energy: The E/M_0 Discriminant for Tsunami Earthquakes, *Jour. of Geoph. Res.*, 103 (11), 26,885-26,898, 1998.

Presentations**Invited Presentations**

- Newman, A. V., Tsunami, Tectonics, and Global Effects, *National Conference Distinguished Lecture: National Consortium for Specialized Secondary Schools of Mathematics, Science and Technology*, November, 2005.
- Newman, A. V., Towards Realistic Models of Volcano Deformation: Example from Long Valley Caldera in California, *Seminar: Georgia State University*, October 2005.
- Newman, A. V., Using Realistic Rheology to Better Understand Volcanic Deformation Sources: The Case of Long Valley Caldera, *Keynote presentation: Workshop on Calderas*, October 2005.
- Newman, A. V., Geodetic Constraints on the Deformation of Volcanic Bodies, *Rocky Mountains EarthScope Workshop*, Fall 2004.
- Newman, A. V., Geodetic Monitoring of Carbon Sequestration Sites, *US-Norway Summer School for Carbon Capture and Storage in Geologic Formations*, Summer 2004.
- Stein, S., A. V. Newman, G., Sella, T. Dixon, M. Liu, R. Dokka and J. Tomasello, Science, hazards, and policy questions for intraplate earthquakes in eastern North America, *Trans. Amer. Geophys. Un. (EOS)*, 85(17), S13A-01, Spring 2004.
- Norabuena, E., T. H. Dixon, S. Y. Schwartz, H. R. DeShon, L. M. Dorman, E. Flueh, P. Lundgren, A. V. Newman, F. Pollitz, M. Protti & D. Sampson, Geodetic and Seismic Constraints on Some Seismogenic Zone Processes in Costa Rica, *Trans. Amer. Geophys. Un. (EOS)*, 84, Fall 2003.
- Newman, A. V., New Madrid Zone Seismic Hazards: A Look from Current Activity, *Closing session: Institute for Business and Home Safety*, 1999 Congress, October 1999.
- Newman, A. V., S. Stein[†], T. H. Dixon, A. Mao & J. C. Weber, Smaller-Than-Expected Motions and Implied Lower- Than-Expected Seismic Hazard From GPS Surveys Across the New Madrid Seismic Zone, *Trans. Amer. Geophys. Un. (EOS)*, 79 (45), F201, Fall 1998.

Volunteered Presentations

- Newman, A. V., & J. Convers, Rapid Teleseismic Estimates of Rupture Duration for Large to Great Earthquakes Using Radiated Energy *Seismo. Res. Let.* , Ann. Meet. Suppl., 2007.
- Thomas, A. M., A. V. Newman, A. Ghosh & G. T. Farmer, Statistical Modeling of the Middle America Subduction Zone Using Interplate Seismicity *Seismo. Res. Let.* , Ann. Meet. Suppl., 2007.
- Schramm, K. A., S. Stein, A. V. Newman, & S. L. Bilek, Oceanic Transform Earthquakes: Not Predominately Slow *Seismo. Res. Let.* , Ann. Meet. Suppl., 2007.
- Newman, A. V. & S. L. Bilek, Rupture and Energy Characteristics of the July 17, 2006 Tsunami Earthquake near the Java Trench, *Trans. Amer. Geophys. Un. (EOS)*, 87(52), Fall Meet. Suppl., 2006.
- Ghosh, A., A. V. Newman, A. M. Thomas & Variability in Shallow Subduction Zone Locking Inferred From Earthquake Activity Near Nicoya Peninsula, Costa Rica, *Trans. Amer. Geophys. Un. (EOS)*, 87(52), Fall Meet. Suppl., 2006.
- Galgana, G. A., A. V. Newman, M W. Hamburger & B. A. Bartel, Elastic and Viscoelastic Modeling of Time-Variable Deformation Patterns at Taal Volcano, Philippines *Trans. Amer. Geophys. Un. (EOS)*, 87(52), Fall Meet. Suppl., 2006.
- Farmer, G. T., A. V. Newman, A. Ghosh & A. M. Thomas, Cross-Network Microseismic Relocations of Some Aftershocks From the 1992 Nicaraguan Tsunami Earthquake *Trans. Amer. Geophys. Un. (EOS)*, 87(52), Fall Meet. Suppl., 2006.
- Newman, A. V. & S. L. Bilek, The Relationship Between Shallow Subduction Thrust Rupture and Tsunami Generation: Examples from Sumatran and Other Tsunamigenic Earthquakes *Trans. Amer. Geophys. Un. (EOS)*, 87(36), West. Pac. Geophys. Meet. Suppl., 2006.
- Newman, A. V., T. Dixon & N.J. Gourmelen, From Ground Deformation to Magmatic Source Processes, Why Simple Elastic Models are not Enough: Examples from Long Valley Caldera, California, USA, *Trans. Amer. Geophys. Un. (EOS)*, 86, Fall 2005.
- Calais, E., G. Mattioli, J.M., Nocquet, S. Stein, A. Newman, P. Rydelek, An Upper Bound on Tectonic Strain in The Central U.S. from Continuous GPS Measurements, *Eastern Section, Seismo. Soc. Amer. Ann. Meeting*, Fall, 2005.
- Newman, A. V., & S. L. Bilek, A Comparison of the March 28, 2005 and December 26, 2004 Sumatran Earthquakes: Near-trench Rupture Exciting Tsunami Generation?, *Trans. Amer. Geophys. Un. (EOS)*,

[†]Presenter of paper if other than first author

- 86, Spring 2005.
- Bilek, S., A. V. Newman, & H. R. DeShon, Aftershock Characteristics of the 2004 M=9.0 Sumatra-Andaman Islands Earthquake *Seism. Soc. America* Spring 2005.
- Swafford, L., S. A. Stein, A. V. Newman, & A. Friedrich, Characteristic Earthquake and Seismic Hazard Studies: Illustrations for the Wasatch, New Madrid, and North Africa Seismic Zones, *Seism. Soc. America* Spring 2005.
- Newman, A. V., D. Love, R. Chamberlin, P. LaFemina & T. H. Dixon, Rapid inflation across the central Socorro Magma Body?, *Trans. Amer. Geophys. Un. (EOS)*, 85, Fall 2004.
- DeShon, H. R., S. Y. Schwartz, A. V. Newman, V. Gonzalez, L. M. Dorman, M. Protti[‡], Seismogenic zone structure along the Middle America Trench, Nicoya Peninsula, Costa Rica, from 3D local earthquake tomography *Trans. Amer. Geophys. Un. (EOS)*, 85, Fall 2004.
- Stein, S., and A. V. Newman, Characteristic and uncharacteristic earthquakes as possible artifacts: what does the seismic history actually tell us?, *Trans. Amer. Geophys. Un. (EOS)*, 85(17), S14A-01, Spring 2004.
- Newman, A. V., T. H. Dixon, & N. Gourmelen, Towards a 4D Viscoelastic Model for Deformation of the Long Valley Caldera 1997 Inflation Episode, *Trans. Amer. Geophys. Un. (EOS)*, 84, Fall 2003.
- Stein, S. & A. V. Newman[†], Characteristic and Uncharacteristic Earthquakes as Possible Artifacts: Application to the New Madrid and Wabash Seismic Zones, *Trans. Amer. Geophys. Un. (EOS)*, 84, Fall 2003.
- DeShon, H. R., S. Y. Schwartz, A. V. Newman, L. M. Dorman & M. Protti, Geometry and Velocity Structure of the Northern Costa Rica Seismogenic Zone From 3D Local Earthquake Tomography, *Trans. Amer. Geophys. Un. (EOS)*, 84, Fall 2003.
- Newman, A. V., S. Schwartz, V. Gonzalez, M. Protti, H. DeShon, & L. Dorman, Evidence for a Thermally Controlled Seismogenic Updip Limit for Subduction at Nicoya, Costa Rica, *Trans. Amer. Geophys. Un. (EOS)*, 83(47), Fall 2002.
- Newman, A. V., C. Bernot[†], S. Y. Schwartz & M. Densmore[‡], Characteristics of the Nicoya Peninsula, Costa Rica Seismogenic Zone From Focal Mechanism Determinations, *Trans. Amer. Geophys. Un. (EOS)*, 83(47), Fall 2002.
- Dorman, L. M., A. W. Sauter, S. Schwartz, H. DeShon, A. V. Newman, M. Protti, S. Bilek, E. Flüh & T. Dixon, Seismic Attenuation in the Subduction Zone of Costa Rica, *Trans. Amer. Geophys. Un. (EOS)*, 83(47), Fall 2002.
- Newman, A. V., S. Schwartz, H. DeShon, D. Sampson, M. Protti, V. Gonzalez, F. Guendel, L. Dorman & M. Avants, Characteristics of the Nicoya Peninsula, Costa Rica Seismogenic Zone from Microseismicity, *Trans. Amer. Geophys. Un. (EOS)*, 82, Fall 2001.
- Schwartz, S. Y., A. V. Newman, M. Protti, & M. Vallee, A Large Tensional Outer-Rise Earthquake in the Nicoya Seismic Gap, Costa Rica, *Trans. Amer. Geophys. Un. (EOS)*, 82, Fall 2001.
- Avants, M., S. Schwartz, A. V. Newman, H. DeShon, M. Protti & F. Güendel, Large Underthrusting Earthquakes Beneath the Nicoya Peninsula, Costa Rica, *Trans. Amer. Geophys. Un. (EOS)*, 82, Fall 2001.
- Newman, A. V., T. H. Dixon, G. Ofoegbu & J. E. Dixon, Geodetic and Seismic Constraints on the 1997 inflation Event at Long Valley Caldera, *Trans. Amer. Geophys. Un. (EOS)*, 81, F1385, Fall 2000.
- Dixon, T. H., G. Ofoegbu, J. E. Dixon, & A. V. Newman, A Volcano Deformation Model Incorporating Viscoelastic Rheology, *Trans. Amer. Geophys. Un. (EOS)*, 81, F337, Fall 2000.
- Newman, A. V., J. Schneider, S. Stein[†] & A. Mendez, Presenting Earthquake Hazards to the Public: A Meteorological Approach, *Trans. Amer. Geophys. Un. (EOS)*, 81 (19), S309, Spring 2000.
- Newman, A. V., S. Stein, J. Schneider & A. Mendez, Uncertainties in Seismic Hazard Assessment for the New Madrid Seismic Zone, *Trans. Amer. Geophys. Un. (EOS)*, Fall 1999.
- Newman, A. V., J. E. Dixon & T. H. Dixon, Geodetic and Seismic Constraints on Rheologic Properties from Shallow Magmatic Movement at Long Valley Caldera, CA, USA, *UNAVCO, Volcano Geodesy Workshop*, Jackson Hole, WY, September 1999.
- Newman, A. V., J. E. Dixon & T. H. Dixon, Geodetic and Seismic Constraints on Recent Activity and Shallow Magmatic Properties at Long Valley Caldera, CA, USA, *22nd general Assembly of the International Union of Geodesy and Geophysics*, Birmingham, U.K., July 1999.
- Newman, A. V., S. Stein, J. C. Weber, J. F. Engeln, A. Mao & T. H. Dixon, Application of GPS to Intraplate

[‡]Author order changed from original abstract

[†]Presenter of paper if other than first author

- Seismic Hazard Assessment at the New Madrid Seismic Zone, *Trans. Amer. Geophys. Un. (EOS)*, 80, Spring 1999.
- Newman, A. V., T. H. Dixon, J. E. Dixon, C. Meertens, B. Perin & S. Stein, Applications of GPS to Volcano Monitoring, *Seismological Society of America Annual Meeting*, May 1999.
- Newman, A. V., S. Stein, J. C. Weber, J. F. Engeln, A. Mao & T. H. Dixon, Slow Deformation and Implied Long Earthquake Recurrence Intervals from GPS Surveys, *Seismological Society of America Annual Meeting*, May 1999.
- Newman, A. V. & E. A. Okal, Moderately Slow Character of the July 17, 1998 Sandaun Earthquake as Studied by Teleseismic Energy, *Trans. Amer. Geophys. Un. (EOS)*, 79 (45), F564, Fall 1998.
- Newman, A. V., T. H. Dixon[†] & J. E. Dixon, Recent Activity at Long Valley Caldera, California: Constraints on Magmatic Characteristics from Space Geodesy, *IAVCEI, International Volcanological Congress*, July 1998.
- Newman, A. V. & E. A. Okal, The E/M0 Discriminant for Tsunami Earthquakes: The Quest for a Regional Signal, *Trans. Amer. Geophys. Un. (EOS)*, 79 (17), S226, Spring 1998.
- Newman, A. V., S. Stein, T. H. Dixon, J. F. Engeln & J. C. Weber, Results From GPS Surveys Across the New Madrid Seismic Zone, *Trans. Amer. Geophys. Un. (EOS)*, 79 (17), S340, Spring 1998.
- Newman, A. V. & P. Malin, Fluid Pulsations in the Casa Diablo Area, Mammoth, CA?, *Trans. Amer. Geophys. Un. (EOS)*, 78 (46), F431, Fall 1997.
- Malin, P., E. Shalev, D. Schleupner, A. Stroujkova, L. Boyd, A. Newman, M. Alvarez & D. Lyster, The 1997 Mammoth Wave Propagation Experiment: S-wave Splitting, Fault-Guided Waves, Seismotectonics, and Exotic Sources in the Casa Diablo Area. *Trans. Amer. Geophys. Un. (EOS)*, 78 (46), F443, Fall 1997.
- Lerman, A., A. V. Newman[†] & J. Werne, Laboratory Instruction in Earth System Science Undergraduate Courses, *Geol. Soc. Am. Annual Meeting*, 67, 1997.
- Okal, E.A., A. V. Newman & A. Langenhorst, Source Characteristics of Earthquakes in the Eltanin-Udintsev Area, in Relation to the Newly-Discovered Hollister Ridge Structure, *IASPEI, 29th General Assembly*, 9, 1997.
- Newman, A. V. & E. A. Okal, Earthquake Energy Estimates from Teleseismic P Waves: Towards Real-time Identification of "Tsunami Earthquakes", *IASPEI, 29th General Assembly*, 254, 1997.
- Newman, A. V. & E. A. Okal, Teleseismic Estimates of Seismic Source Energy: Towards Real-Time Identification of "Tsunami Earthquakes", *Trans. Amer. Geophys. Un. (EOS)*, 78 (17), S215, Spring 1997.
- Newman, A. V. & E. A. Okal, Source Slowness of the February 21, 1996 Chimbote Earthquake Studied from Teleseismic Energy Estimates, *Trans. Amer. Geophys. Un. (EOS)*, 77 (17), S184, Spring 1996.

[†]Presenter of paper if other than first author