

## Timothy H. Dixon: Curriculum Vitae

**Date:** August 1, 2016

### PERSONAL

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**Academic Rank:** Professor

**Department:** Geoscience

**Citizenship:** US

### HIGHER EDUCATION

**Institutional:** Ph.D., Scripps Institution of Oceanography, University of California, 1979  
B.Sc., University of Western Ontario, Honors in Geology, 1974

**Certifications:** Commercial Pilot, Instructor Rating  
NAUI Advanced SCUBA Diver

### EXPERIENCE

**Academic:** 01/11 – Present Professor, Dept Geology, University of South Florida  
6/95- 12/10 Professor, Marine Geology & Geophysics, RSMAS,  
University of Miami  
9/92-5/95 Associate Professor, Marine Geology & Geophysics,  
RSMAS, University of Miami

#### **Non-Academic:**

Jet Propulsion Laboratory; Post-doctoral Fellow; 9/79-9/80  
Jet Propulsion Laboratory; Senior Scientist; 10/80-10/81  
Jet Propulsion Laboratory; Member, Technical Staff; 10/81-5/92  
Geodynamics Group, Technical Group Leader; 1/85-5/92  
NASA Headquarters, Geodynamics Program, Acting Program Manager; 5/92-9/92  
Co-Director, Center for Southeastern Tropical Advanced Remote Sensing, 2000-2008  
Director and Founder, Natural Hazards Network, University of South Florida, 2013

#### *Field Work & Expedition Experience:*

Conducted geological field investigations in the Canadian Shield, Northern Mariana Archipelago, Northeast Africa, California, Dominican Republic. Participated in five sea-going expeditions, including responsibility for Arc Seamount investigations on MARIANA expedition in 1979. Organized GPS field programs in California, Mexico, the northern Caribbean, Central America, northern and central South America, and Iceland. Installed GPS volcano monitoring equipment on Popocateptl (Mexico), Arenal (Costa Rica), Misti (Peru) and Cotopaxi (Ecuador) volcanoes. Conducted glacier studies

in Iceland and Greenland using ground-based interferometric radar. Conducted volcano deformation and DEM studies with ground-based interferometric radar at Nevado del

GPS Program Scientist, NASA GPS Program, 1984-1992  
Member, Committee on Geodesy, National Research Council, 1987-1990  
Co-Chairman, NASA Topographic Science Working Group, 1986-1988  
Member, NASA Working Group on Water Vapor Radiometry, 1988-1990  
Convenor, NASA Workshop on SAR Interferometry and Surface Change, 1994  
Member, AGU Whitten Medal Committee, 1992-95  
Co-Convenor, NASA/NOAA/NSF Workshop on Sea Level Change, 1995  
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**2014**

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Dixon, T. H., D. Voytenko, C. Lembke, S. de la Peña, I. Howat, N. Gourmelen, C. Werner, B. Oddsson (2012) Emerging technology monitors ice-sea interface at outlet glaciers, *EOS: Trans. Am. Geophys. Union*, 93, 497-499.

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**2011** OsmanoglA31437a(m)56(er)-11(f)4noeraanser

persistent scatterer InSAR and a hyperbolic model. *Geophys. Res. Letters*, 37, L05304, doi:10.1029/2009GL041644.

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Outerbridge KC, Outerbridge, T. H. Dixon, S. Y. Schwartz, J. I. Walter, M. Protti, V. Gonzalez, J. Biggs, M. Thorwart, and W. Rabbel (2010) A tremor and slip event on the Cocos-Caribbean subduction zone as measured by a global positioning system (GPS) and seismic network on the Nicoya Peninsula, Costa Rica. *J Geophys Res* 115: B10408.

Fulton, P. M., G. Schmalzle, R. Harris, T. Dixon (2010) Reconciling patterns of interseismic strain accumulation with thermal observations across the Carrizo section of the San Andreas Fault, *Earth Planet Sci. Letters* 300, p 402-406, doi 10.1016/j.epsl.2010.10.024

Weber, J., M. Vrabec, P. Pavlov-Preseren, T. Dixon, Y. Jiang, B. Stopar, GPS-derived motion of the Adriatic microplate from Istria Peninsula and Po Plain sites, and geodynamic implications, *Tectonophysics*, 483, 214-222, 2110.

**2009** Biggs J, F. Amelung, N. Gourmelen N, T. Dixon et al. InSAR observations of 2007 Tanzania rifting episode reveal mixed fault and dyke extension in an immature continental rift, *Geophys. J. Int*, 179, 549-558.

LaFemina P, T. H. Dixon, R. Govers et al, Fore-arc motion and Cocos Ridge collision in Central America, *Geochem, Geophys., Geosys*, 10, Article Number: Q05S14.

Biggs J, D. P. Robinson, T. H. Dixon, The 2007 Pisco, Peru, earthquake (M8.0): seismology and geodesy, *Geophys. J. Int*, 176, 657-669.

**2008** Wdowinski, S., S. W. Kim, F. Amelung, T. H. Dixon, F. Miralles-Wilhelm, R. Sonenshein, Space-based detection of wetlands' surface water level changes from L-band SAR interferometry, *Remote Sensing of Environment* 112, 681 – 696.

Kim, S. W., S. Wdowinski, T.H. Dixon, F. Amelung, Joong-Sun Won, and Jeong Woo Kim, InSAR -based mapping of surface subsidence in Mokpo City, Korea, using JERS-1 and ENVISAT SAR data, *Earth Planets Space*, v.60, p. 453-461, 2008.

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**2007** Turner H. L. III, P. LaFemina, A. Saballos, G. S. Mattioli, P. E. Jansma, T. Dixon, Kinematics of the Nicaraguan forearc from GPS geodesy, *Geophys. Res. Lett.*, 34, L02302, doi:10.1029/2006GL027586.

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Sinigalliano, C. D., M. L. Gidley, T. Shibata, D. Whitman, T. H. Dixon, E. Laws, A. Hou, D. Bacheon, L. Brand, L. Amaral-Zettler, R. J. Gast, G. F. Steward, O. D. Nigro, R. Fujioka, W. Q. Betancourt, G. Vithanage, J. Mathews, L. E. Fleming, and H. M. Solo-Gabriele, Impacts of Hurricanes Katrina and Rita on the microbial landscape of the New Orleans area, *Proc. National Academy Sciences*, balt4/zpq-pnas/zpq-pnas/zpq-orig/zpq6250-07a.

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**2006** Dokka, R. K., G. Sella, T. H. Dixon, Tectonic control of New Orleans subsidence and coupled southward displacement of Southeast Louisiana, *Geophysical Research Letters*, v. 33, L23308, doi 10.1029/2006GL027250, 2006.

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- 1999 DeMets, C., and T. H. Dixon, New kinematic models for Pacific-North America motion from 3 Ma to present, 1: evidence for steady motion and biases in the NUVEL-1A model, *Geophys. Res. Letters*, v. 26, 1921-1924.
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- 1992 M.M. Miller and T.H. Dixon, Late Proterozoic evolution of the northern part of the Onib-Hamisana zone, northeast Sudan: constraints on Pan-African accretionary tectonics, J. Geol. Soc. London, v.149, p.743-750.
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S. Kornreich Wolf, T.H. Dixon and J. Freymueller, The effect of tracking network configuration on GPS baseline estimates for the CASA UNO experiment, Geophys. Res. Lett., v. 17, p.647-650.







Collaborative Research: A Plate Boundary Observatory on the Nicoya Peninsula, Costa Rica. 8/25/2011 – 9/30/2014. \$199,743 (NSF)

Collaborative Research: Acquisition of GPS and seismic equipment for Phase 2 of a Plate Boundary Observatory, Nicoya Peninsula, Costa Rica. 6/1/2011 – 4/30/2013. \$36,890 (NSF)

Integrating GRACE and surface deformation data to study hydrological...4/1/2014 – 3/31/2017 (NASA)

Geodetic observations at the early stage of subduction zone seismic cycle: towards complete seismic cycle coverage. 3/01/2014 – 2/28/2017 \$250,000 (NSF)

Collaborative Research: RAPID: Nevado del Ruiz Volcano, Colombia: Enhancing Geodetic Observations and Digital Elevation Models in Response to Recent Activity.7/1/2015-6/30/2016. \$29,000 (NSF).

Measuring Sea Floor Motion: New Technology for Continental Margin Geodesy 12/1/2015 – 11/30/2018. \$822,000 (NSF).

## **SERVICE**

### **University Service**

UM: MGG Geophysics Search Committees, Research Advisory Council, Academic Committee, Facilities Committee, Strategic Planning Committee.