

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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Karegar, M.A., T.H.Dixon, and S. E. Engelhart (2016), Subsidence along the Atlantic Coast of North

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

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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.

Dixon, T. H. and R. K. Dokka, Earth scientists and public policy: have we failed New Orleans? *EOS: Trans. Am. Geophys. Union* v. 89, #10, p. 96, 2008.

Cabral-Cano, E., T. H. Dixon, O. Sánchez-Zamora, R. E. Carande, A. FitzGerrell, O. Díaz-Molina, Space geodetic Imaging of ground subsidence in Mexico City. *Geol. Soc. Am. Bull.*, v. 120, p. 1556-1566.

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. Bachoon, 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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- 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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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.