

William Prescott, Ph.D., Geophysicist

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Education

1980 PhD Stanford University, Geophysics
1971 MA Univ, of Calif., Berkeley, Mathematics
1967 BA Middlebury College, Mathematics and Physics

Selected Contributions and Honors

Fellow of the American Geophysical Union
Meritorious Service Award, US Department of Interior
Contributions to understanding deformation in US particularly in San Francisco area
Developed a variety of methods for analyzing crustal deformation data
Developed techniques for processing and displaying geodetic data

Professional Experience

2017-present Democrats Abroad - various roles Globally, Nationally (Mexico) and locally (Guadalajara), Treasurer, Board Member, IT, Voting Representative
2012-2021 Computer resources lead, Trek Medics, International
2010-present Consultant, Geophysics and IT
2009 Geophysicist, Comisión Nacional Forestal, Guadalajara, México
2008-2010 U.S. Peace Corps, Comisión Nacional Forestal, Guadalajara, México
2002-2007 President, UNAVCO, Inc., Boulder, CO, USA
1971-2002 Research Geophysicist, US Geological Survey
1968-1970 U.S. Army, 25th Div., Artillery, Vietnam
1963-1967 Various land surveying positions

Management Experience

2002-2007 President, UNAVCO: \$30M+ budget, 100+ employees, university consortium
1998-2002 President/Pres.-Elect, Geodesy Section, American Geophysical Union
1975-2002 Research scientist and program manager in earthquake research group
1996-1997 Chairman, Southern California Integrated GPS Network
1989-1994 Chief, Branch of Earthquake Geology and Geophysics, USGS
1969-1970 Section Chief, Fire Direction Control, US Army, Vietnam

Computer Experience

2020-present Global IT Team, Democrats Abroad International
2012-2021 Lead developer for Beacon, a medical emergency dispatch tool. Ruby on Rails backend with an Angular web app front end.
2008-2009 Lead architect, programmer for development of a web site providing Google map based access to CONAFOR forest data base. Utilizes java servlets, javascript back end and google map front end.
1980-2002 Lead architect, programmer, and team leader for development of GP (GPS Processing). GP is a collection of hundreds of shell scripts and perl programs that take field GPS observations and process them automatically to time series and velocity maps on web servers. Satellite modeling and parameter estimation is done by a set of JPL programs. GP

is a wrapper that prepares input for these routines and manipulates results. <http://quake.wr.usgs.gov/QUAKES/geodetic/gps>

1985-2002 Lead architect, programmer and team leader for a group maintaining USGS web servers. We handled a few 100,000 hits per day between earthquakes and millions of hits/hour after earthquakes. I was responsible for system design and for content management. I developed EHSDNS (see references), a low cost system for providing DNS service to web servers with load sharing and failure protection. <http://quake.wr.usgs.gov>

Field Experience

2012-2021 Field work in Haiti, Dominican Republic, Malawi

1971-2007 Geodetic field work (laser distance measurement, GPS) in Western US including Alaska and some in China/Japan/Taiwan

Other Skills and Activities

Auto repair, electrical installation and repair, running (completed 53 marathons), hiking (Camino de Santiago 3 times, Lycian Way, Talpa de Allende 12 times, Hadrian's Wall), motorcycling, baking and traveling.

Languages

English (native language) and Spanish (reading and writing 90%. speaking and listening 80%)
Python (3 years); Ruby on Rails (6 years); Angular (3 years); Java (4 years); HTML (7 yrs); Perl (12 yrs); C-Shell (12 yrs); Fortran (35+ yrs); DBs (MySQL, SQLite, MS Sequel Server, 4th Dimension, Postgres), Javascript (5 yrs); PHP (5 yrs); Solaris Unix; MacOS X; Linux; Windows XP.

Scientific Investigations (Selected Publications)

For complete list of publications (234 papers y abstracts) see: <https://www.theprescotts.com/will/ReferenceList.html>

Gan, W. and W. H. Prescott, Crustal Deformation Rates in the Eastern and Central U.S. Geophysical Research Letters 28, 3733-3736, 2001.

Prescott, W.H., J.C. Savage, J.L. Svarc, and D. Manaker, Deformation across the Pacific- North America plate boundary near San Francisco, California, J. Geophys. Res., 106, 6673-6682, 2001.

Celebi, M., W. Prescott, R. Stein, K. Hudnut, and J. Behr, GPS Monitoring of Dynamic Behavior of Long-Period Structures, Earthquake Spectra, 15 (1), 55-66, 1999.

Prescott, W., Bock, Y., Hudnut, K., Watkins, M., Agnew, D., Donnellan, A., Fenske, L., Hager, B., Jackson, D., Mori, J., D'Onofrio, D., Young, B., Webb, F., and Wyatt, F., Operations plan for the Southern California Integrated GPS Network, Fiscal Year, USGS Open-File Report, 96-283, p. 86 pp, 1996.

Prescott, W.H., Yes: The L.A. array will radically improve seismic risk assessment, EOS, Transactions, American Geophysical Union, 77(43), p. 419, 427, 1996.

King, N.E., H. Johnson, W.H. Prescott, M.H. Murray, J.L. Svarc, R. Clymer, and B. Romanowicz, Estimates of GPS and monument noise from the Bay Area Regional Deformation (BARD) permanent array, EOS, Transactions, American Geophysical Union, 77 (46), F153, 1996.

Prescott, William H., James L. Davis, and Jerry L. Svarc, Global Positioning System measurements for crustal deformation, Precision and accuracy, Science, 244, 1337- 1340, 1989.

Davis, James L., William H. Prescott, Jerry L. Svarc, and Karen L. Wendt, Assessment of Global Positioning System measurements for studies of crustal deformation, J. Geophys. Res., 94(B10), 13635-13650, 1989.

Prescott, W.H., and Yu, Shui-Beih, Geodetic measurement of horizontal deformation in the northern San Francisco Bay region, California, *J. Geophys. Res.*, 91(B7), 7475-7484, 1986.

Prescott, W.H., Savage, J.C., and Kinoshita, W.T., Strain accumulation rates in the western United States between 1970 and 1978, *J. Geophys. Res.*, 84(B10), 5423-5435, 1979.

Prescott, W.H., An extension of Frank's method for obtaining crustal shear strains from survey data, *Bull. Seism. Soc. Amer.*, 66(11), 1847-1853, 1976.