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For Immediate Release

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John Anderson honored with Bruce A. Bolt Medal for strong-motion earthquake research

SAN FRANCISCO, March 30, 2015— One of John Anderson's first publications in 1979 estimated the earthquake recurrence rate on a fault by incorporating how much a fault slips each year, a novel approach to examining seismicity that foreshadowed the impact of his research on seismic hazard assessment.

Anderson, a professor of geophysics at the University of Nevada at Reno (UNR), has contributed to all aspects of engineering seismology, including the physical processes controlling strong ground motion and applications of geological and seismological information to estimate seismicity and seismic hazards.

For his work, Anderson will be honored with the Bruce A. Bolt Medal, which recognizes individuals who use strong-motion earthquake data and transfer scientific and engineering knowledge into practice or policy for improved seismic safety. The honor is a joint award given by the Consortium of Organizations for Strong-Motion Observation Systems, the Earthquake Engineering Research Institute and the Seismological Society of America.

Prior to UNR, Anderson earned his doctorate at Columbia University and held research positions at the California Institute of Technology, University of Southern California and University of California at San Diego. With more than 180 publications during his career, Anderson's work reflects all aspects of observational and theoretical ground-motion seismology and seismic hazard estimation. His 1984 paper, co-authored with Susan Hough, introduced kappa as a parameter in the description of high-frequency acceleration spectra. Later papers presented ground-motion prediction equations, probabilistic seismic hazard analysis and the use of precariously balanced rocks and other fragile geological features for testing the predictions of likely ground motion from future earthquakes.

During his 27-year tenure at UNR, Anderson has focused on ground-motion data of major earthquakes, while also serving as director of the Nevada Seismological Lab at UNR for 11 years and as a member of the Nevada Earthquake Safety Council and various national committees. Currently he is chairing the National Steering Committee for



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National Seismic Hazard and Risk Assessment in support of the U.S. Geological Survey National Seismic Hazard Maps.

Anderson participated in the development of the National Seismic Hazard Maps for the 1996, 2002, 2008 and 2014 revisions. For the 1996 maps Anderson advocated use of early geodetic evidence for a zone of increased activity in the Nevada region that boosted the hazard of Reno above that of the Central Nevada Seismic Zone, even though that zone had ruptured most recently in a sequence of M7-class earthquakes from 1915-1954. Subsequent geodetic and geologic research has confirmed this recommendation. It was not until the 2014 maps that geodetic data was sufficient to be used in a major, systematic way to develop the seismicity models for a large region, specifically all of California, with lesser influence in the rest of the western United States.

The impact of Anderson's work spans the world, contributing to the installation of strong motion networks in Mexico, Turkey, Los Angeles and the Eastern U.S., collaborations to interpret data from those networks, and research collaborations with numerous scientists in Japan and other Asian countries, Latin America, and Europe.

Anderson will be honored with the Bruce A. Bolt Medal at the Seismological Society of America's annual meeting to be held April 21 – 23 in Pasadena, California.

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SSA is an international scientific society devoted to the advancement of seismology and its applications in understanding and mitigating earthquake hazards and in imaging the structure of the Earth. Founded in 1906 in San Francisco, the Society now has members throughout the world representing a variety of technical interests: seismologists and other geophysicists, geologists, engineers, insurers and policy-makers in preparedness and safety.