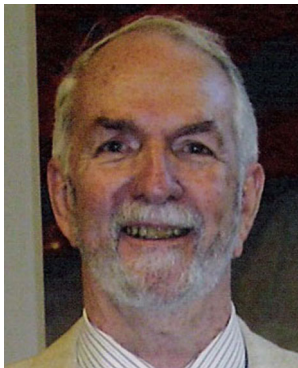


In memoriam Alvaro F. Espinosa (1933–2015)

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Received: 16 April 2015 / Accepted: 16 April 2015 / Published online: 3 May 2015
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On 11 March 2015, Alvaro Espinosa, a seismologist from the U.S. Geological Survey, died in Boulder, CO. He was born in Barranquilla, Colombia, and moved to the USA in 1953 to study Geophysical Engineering at Saint Louis University where he obtained M.S. in Seismology in 1959, and in 1962, he obtained an M.S. degree in seismology at Columbia University (New York). Later in 1991, he was awarded a Doctor of Science degree at the Universidad Complutense de Madrid. From 1959 to 1965, Espinosa worked at the Lamont-Doherty Geological Observatory developing early computer programs for seismological applications, working on the calibration of seismological instrumentation, and participating in the study of the discrimination problem between explosions and earthquakes. He

was part of the Lamont research groups led by M. Ewing, J. Oliver, J. Brune G. Sutton, and P. Pomeroy.

In 1965–1971, Espinosa moved to the Geophysical Research Group of NOAA and from 1971 to 1973 to the Earth Science Laboratory of ERL. Finally, from 1973 to his retirement, he worked at the U.S. Geological Survey in Golden, CO, in the areas of seismicity, tectonics, earthquake hazard, and risk assessment. During his long career in seismology, he published a large number of articles as a result of his research in various branches of seismology. He participated in many projects together with T. Algermissen, was a promoter and facilitator of international cooperation in earthquake studies in multinational projects, and was a strong advocate of international seismological partnerships. In 1984, he led a cooperative 5-year project with the Universidad Complutense de Madrid on seismic hazard in Spain. This project promoted an active collaboration between American and Spanish seismologists. Espinosa consulted with the United Nations; the U.S. Department of State; and various international agencies such as OAS, US-AID, and CERESIS. He was particularly proud of the international “lateral transfer of knowledge” projects which he established that focused on emerging nations. His accomplishments were recognized by receipt of the Medal of Merit, awarded by President Ronald Reagan. Especially significant was his collaboration with countries in South and Central America, such as Colombia, Venezuela, Ecuador, Peru, and Guatemala. He carried out field studies of some large earthquakes in some of these countries such as that of Guatemala 24 February 1976. He developed a special interest in cartography which resulted in his

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production of several hundred of maps. Particularly, he published a popular Seismicity of the Earth Map, combining his love of seismicity and cartography, with a representation of the topography of the ocean's bottom together with the distribution of earthquakes. Alvaro, stemming from an old aristocratic Spanish family, the Espinosa de los Monteros, was always a man of high

affability and kindness in his personal relations. He had a great love for the mountains of Colorado, his country of adoption, and enjoyed family gatherings, sharing his passion for photography, sailing, and his love of classical music. He is survived by his loving wife, Eugenia, their 9 children, his 13 grandchildren, and his sister, Rebeca Adams.