

Biographical Sketch for: Jerry P. Eaton

BORN: December 11, 1926, near Fresno, California, U.S.A.

EDUCATION:

B. A. Physics (1949), University of California, Berkeley
Ph. D. Geophysics (1953), University of California, Berkeley

POSITIONS HELD:

Geophysicist, U. S. Geological Survey, 1953-1995.
Assignments: Hawaiian Volcano Observatory, Hawaii, 1953-1961;
Branch of Crustal Studies, Denver, Colorado, 1961-1965;
Office of Earthquake Studies, Menlo Park, California, 1965-1995.
Leadership Positions: Scientist-in-Charge of the Hawaiian Volcano Observatory, 1955-1958 and 1960-1961;
Chief of the Office of Earthquake Research and Crustal Studies, 1970-1973;
Chief of the Branch of Seismology, 1973-1975;
Acting Chief of the Branch of Network Operations, 1978-1982.
Geophysicist Emeritus, U. S. Geological Survey, Menlo Park, 1995-present.

VOLCANOLOGICAL CONTRIBUTIONS:

Improved the seismic and tiltmeter networks on Hawaii and employed the evidence they provided to develop a model of the internal structure and eruptive mechanism of Hawaiian volcanoes.

SEISMOLOGICAL CONTRIBUTIONS:

Played a major role in building the dense telemetered northern and southern California seismic networks and in developing methods for reducing and analyzing their records; Pioneered the detailed study of microearthquakes and the structures and processes they define by means of dense microearthquake networks.

SELECTED PUBLICATIONS:

- Eaton, J. P., (1957), The theory of the electromagnetic seismograph, *Bull. Seis. Soc. Am.* **47**, 37-75.
Eaton, J. P., (1959), A portable water-tube tiltmeter, *Bull. Seis. Soc. Am.*, **49**, 301-316.
Eaton, J. P., and Murata, K. J., (1960), How volcanoes grow, *Science*, **132**, 925-938.
Eaton, J. P., Richter, D. H., and Ault, W. U., (1961), The tsunami of May 23, 1960, on the island of Hawaii, *Bull. Seis. Soc. Am.*, **51**, 135-157.
Eaton, J. P., (1963), Crustal structure and volcanism in Hawaii, in Crust of The Pacific Basin, *Am. Geophys. Union Monograph no. 6*, 13-29.
Eaton, J. P., (1969), HYPOLAYR, a computer program for determination of hypocenters of local earthquakes in an earth consisting of uniform flat layers over a half space, *U. S. Geological Survey Open-File Report*.
Eaton, J. P., O'Neill, M. E., and Murdock, J. N., (1970), Aftershocks of the 1966 Parkfield-Cholame, California, earthquake: a detailed study, *Bull. Seis. Soc. Am.*, **60**, 1151-1197.
Eaton, J. P., Lee, W. H. K., and Pakiser, L. C., (1970), Use of microearthquakes in the study of earthquake generation along the San Andreas fault in central California, *Tectonophysics*, **9**, 259-282.
Richter, D. H., Eaton, J. P., Murata, K. J., Ault, W. U., and Krivoy, H. L., (1970), Chronological narrative of the 1959-1960 eruption of Kilauea Volcano, Hawaii, *U. S. Geological Survey Professional Paper 537-E*, 73 p.
Eaton, J. P., Richter, D. H., and Krivoy, H. L., (1987), Cycling of magma between the summit reservoir and Kilauea Iki lava lake during the 1959 eruption of Kilauea Volcano, Hawaii, in Volcanism in Hawaii, R. W. Decker, et. al., eds., *U. S. Geological Survey Professional Paper 1350*, 1307-1335.
Eaton, J. P., (1990), The earthquake and its aftershocks from May 2 through September 30, 1983, in the Coalinga, California earthquake of May 2, 1983, M. J. Rymer and W. E. Ellsworth, eds., *U. S. Geological Survey Professional Paper 1487*, 58 p.
Eaton, J. P., and Rymer, M. J., (1990), Regional seismotectonic model for the southern Coast Ranges, in *U.S.G.S. Prof. Paper 1487*, 16 p.
Eaton, J. P., (1992), Determination of amplitude and duration magnitudes and site residuals from short-period seismographs in northern California, *Bull. Seis. Soc. Am.*, **82**, 45 p.
Eaton, J. P., (1996), Microearthquake seismology in USGS volcano and earthquake hazard studies: 1953-1995., *U. S. Geological Survey Open-File Report 96-54*, 144 p.