

Biographical Sketch for: George Plafker

Born: March 6, 1929 in Upland, PA, USA (Male). Email: gplafker@usgs.gov; george@plafker.com

EDUCATION:

B.S. (Geology) Brooklyn College, 1949; M.S. (Geology) U.C. Berkeley, 1956; Ph.D. (Geology and Geophysics) Stanford University, 1972.

POSITIONS HELD:

Engineering Geologist, U.S. Army Corps of Engineers, 1949-1950; Geologist & Research Geologist, U.S. Geol. Surv., 1951-1956, 1962-1995; Petroleum Geologist, Chevron, 1956-1961; Consulting Engineering Geologist, 1995-present.

EARTH SCIENCE CONTRIBUTIONS

- Postquake field studies of subduction zone earthquakes and backarc thrust fault earthquakes with emphasis on application of coseismic surface warping and faulting to interpreting the earthquake mechanism and tsunami generation
- Contributions to evaluating hazards from earthquake-related ground shaking, surface faulting, high-speed avalanches, subaerial and submarine landslides, and landslide-generated tsunamis
- Paleoseismologic study of marine terraces and buried soil horizons to determine earthquake recurrence intervals and the seismic cycle in the eastern Aleutian subduction zone
- Synthesis of faulting, neotectonics, and tectonic evolution of Alaska
- Geologic mapping of large areas of active deformation in Alaska, primarily along the Gulf of Alaska margin

SELECTED PUBLICATIONS

- Plafker, G., 1965, Tectonic deformation associated with the 1964 Alaska earthquake: *Science*, v. 148, p. 1675-1687.
- Plafker, G., 1969, Tectonics of the March 27, 1964, Alaska Earthquake: U.S. Geol. Surv. Prof. Paper 543-I, 74 p.
- Plafker, G., Kachadoorian, R., Eckel, E. B., and Mayo, L. R., 1969, Effects of the earthquake of March 27, 1964, on various communities: U.S. Geol. Surv. Prof. Paper 542-G, 50 p.
- Plafker, G., 1972, The Alaskan earthquake of 1964 and Chilean earthquake of 1960; Implications for arc tectonics and tsunami generation: *J. Geophys. Res.*, v. 77, no. 5, p. 901-925.
- Plafker, G., 1973, Field reconnaissance of the effects of the earthquake and tsunami of April 13, 1973, near Laguna de Arenal, Costa Rica: *Bull. Seismol. Soc. Am.*, v. 63, no. 5, p. 1847-1856.
- Plafker, G. and Brown, R. D., Jr., 1973, Surface geologic effects of the Managua earthquake of December 23, 1972, in Managua, Nicaragua earthquake of December 23, 1972: *Earthquake Engineering Research Institute Conference Proceedings, Vol. I*, p. 115-142
- Plafker, G., 1976, Tectonic aspects of the Guatemala earthquake of 4 Feb., 1976, *Science*, v. 193, p. 1201-1208.
- Plafker, G., and Ericksen, G. E., 1977, Nevados Huascarán avalanches, Peru: Elsevier, Amsterdam, p. 277-314.
- Plafker, G. and Rubin, M., 1978, Uplift history and earthquake recurrence as deduced from marine terraces on Middleton Island, Alaska in *Methodology for identifying seismic gaps and soon-to-break gaps*: U.S. Geol. Surv. Open-File Rept. 78-943, p. 687-721
- Plafker, G., Hudson, T., Bruns, T., and Rubin, M., 1978, Late Quaternary offsets along the Fairweather fault and crustal plate interactions in southern Alaska: *Can. Jour. of Earth Sci.*, v. 15, no. 5, p. 805-816.
- Plafker, G., and Eyzaguirre, V. R., 1979, Rock avalanche and wave at Chungar, Peru, in Voight, B., ed., *Rockslides and avalanches*, v. 2, Engineering sites: Elsevier, Amsterdam, p. 269-279.
- Plafker, G. and Ward, S. N., 1992, Backarc thrust faulting and tectonic uplift along the Caribbean Sea coast during the April 22, 1991 Costa Rica earthquake: *Tectonics*, v. 11, no. 4, p. 709-718.
- Plafker, G. and Berg, H. C., 1994, An overview of the geology and tectonic evolution of Alaska, in Plafker, G. and Berg, H.C., eds., *The geology of Alaska*: Boulder, Colorado, Geol. Soc. of Am., *The Geology of North America*, v. G1, p. 989-1021.
- Plafker, G., Gilpin, L. M., and Lahr, J. C., 1994, Neotectonic map of Alaska, in Plafker, G., and Berg, H.C., eds., *The geology of Alaska*: Boulder, Colorado, Geol. Soc. of Am., *The Geology of North America*, v. G1, Plate 12, 1 sheet with text, scale 1:2,500,000.
- Plafker, G., Moore, J. C., and Winkler, G. R., 1994, Geology of the southern Alaska margin, in Plafker, G. and Berg, H.C., eds., *The geology of Alaska*: Boulder, Colorado, Geol. Soc. of Am., *The Geology of North America*, v. G1, p. 389-449.