Biographical Sketch for: Manuel G. Bonilla

BORN: July 19, 1920, in Sacramento, California; Male.
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EDUCATION:
A.B. (Geology) University of California, Berkeley, 1943
M.S. (Geology) Stanford University, 1960

POSITIONS HELD:
Geologist/Research Geologist, U.S. Geological Survey, 1947-1993
Geologist Emeritus, U.S. Geological Survey, 1994-present

SEISMOLOGICAL CONTRIBUTIONS:
Identified aspects of surface faulting and related earthquakes that are important in engineering applications and risk evaluation, then compiled, analyzed, and summarized the pertinent information in cooperation with others. Topics examined include relation of historic surface faulting to preexisting faults; length, width, and pattern of surface ruptures; statistical relations among earthquake magnitude, surface rupture length, and fault displacement at the surface; minimum earthquake magnitude accompanied by surface faulting; variation in surface slip along faults; nonvisibility of fault strands in exploratory trenches and its importance in paleoseismology; and impact of faulting and seismic events on engineering works. Field investigations included study of 19 earthquakes.

SELECTED PUBLICATIONS:
Bonilla, M. G., 1959, Geologic observations in the epicentral area of the San Francisco earthquake of March 22, 1957: California Division of Mines, Special Report 57, p. 25-37.

Schlocker, J., and Bonilla, M.G., 1964, Engineering geology of the proposed nuclear power plant on Bodega Head, Sonoma County, California: U.S. Geological Survey report prepared for U.S. Atomic Energy Commission, 31 p. (URL http://www.diggles.com/mbonilla/bonilla2/).

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Bonilla, M. G., Mark, R. K., and Lienkaemper, J. J., 1984, Statistical relations among earthquake magnitude, surface rupture length, and surface fault displacement: Seismological Society of America Bulletin, v . 74, p. 2379-2411.

Bonilla, M. G., 1988, Minimum earthquake magnitude associated with coseismic surface faulting: Association of Engineering Geologists Bulletin, v. 25, no. 1, p. 17-29. (URL http://www.diggles.com/mbonilla/bonilla_1988.pdf).

Bonilla, M. G., and Lienkaemper, J. J., 1990, Visibility of fault strands in exploratory trenches and timing of rupture events: Geology, v. 18, no. 2, p. 153-156. (URL http://www.diggles.com/mbonilla/b_and_l_1990.pdf).

Bonilla, M. G., and Lienkaemper, J. J., 1991a, Factors affecting the recognition of faults exposed in exploratory trenches: U. S. Geological Survey Bulletin 1947, 54 p.

Bonilla, M. G., 1991b, The Marina District, San Francisco, California: Geology, history, and earthquake effects: Seismological Society of America Bulletin, v. 81, no 5, p. 1958-1979.

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Bonilla, M. G., Jachens, R. C., Jayko, A. S., Wentworth, C. M., and McGarr, A. F., 2000, The Demise of the San Bruno Fault: California Geology, v. 53, no. 2 (March/April), p. 4-19.