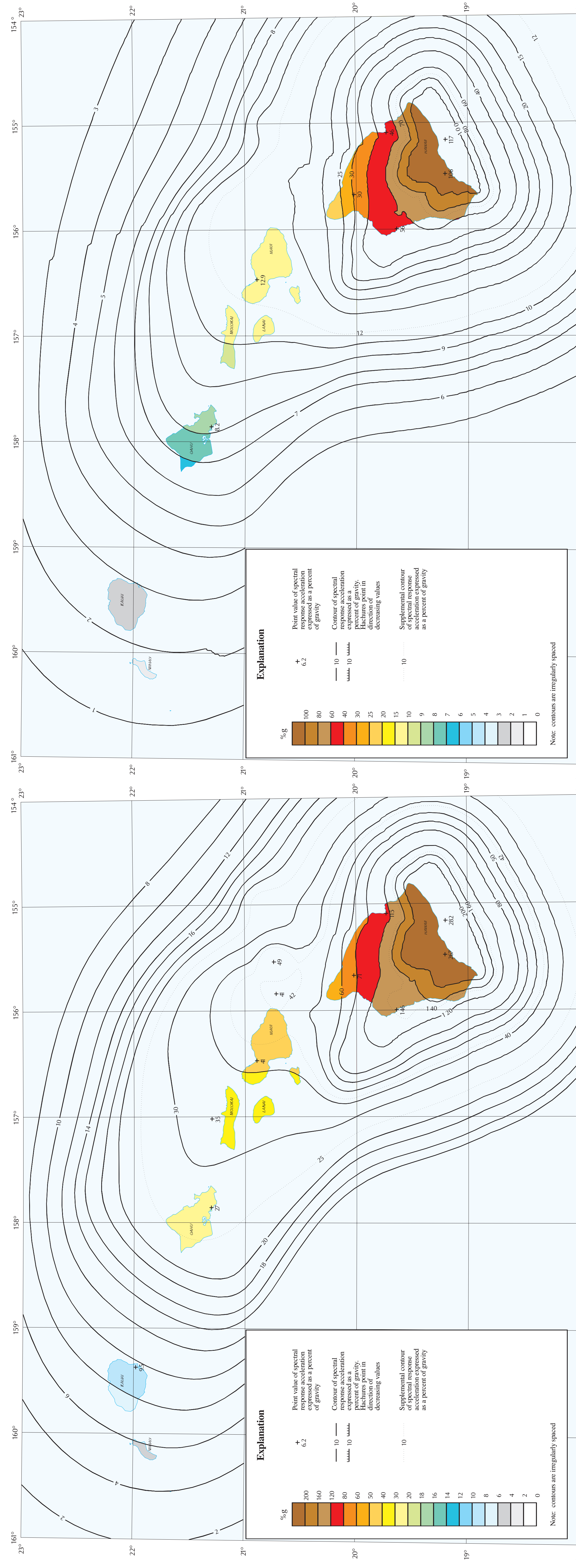


**PEAK HORIZONTAL ACCELERATION
WITH 10% PROBABILITY OF EXCEEDANCE IN 50 YEARS**

**HORIZONTAL SPECTRAL RESPONSE ACCELERATION FOR 0.3 SECOND PERIOD (5% OF CRITICAL DAMPING)
WITH 10% PROBABILITY OF EXCEEDANCE IN 50 YEARS**

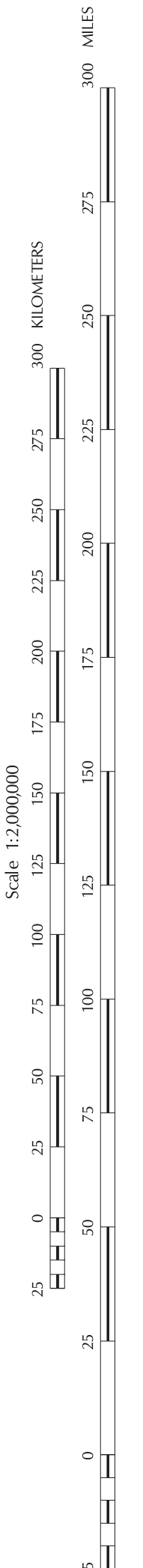


**HORIZONTAL SPECTRAL RESPONSE ACCELERATION FOR 0.3 SECOND PERIOD (5% OF CRITICAL DAMPING)
WITH 10% PROBABILITY OF EXCEEDANCE IN 50 YEARS**

**HORIZONTAL SPECTRAL RESPONSE ACCELERATION FOR 1.0 SECOND PERIOD (5% OF CRITICAL DAMPING)
WITH 10% PROBABILITY OF EXCEEDANCE IN 50 YEARS**

DISCUSSION
The acceleration values contoured are the random horizontal component. Reference site condition is firm rock, defined as having an average shear wave velocity of 760 m/sec. (C. See Klein and others (2000) for a description of the seismic data and assumptions used to make the maps.
Comments, including published values and ARC/INFO coverages used to make the maps, is available at: <http://pubsdata.cr.usgs.gov/>
This, and other USGS publications are available on-line at: <http://greenwood.cr.usgs.gov/>

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Ken Rolakales prepared the GIS digital data and performed the cartographic layout of the maps.



**10% PROBABILITY OF EXCEEDANCE IN 50 YEARS FOR
PEAK HORIZONTAL ACCELERATION AND
HORIZONTAL SPECTRAL RESPONSE ACCELERATION FOR 0.2, 0.3, AND 1.0 SECOND PERIODS (5% OF CRITICAL DAMPING)
SEISMIC-HAZARD MAPS FOR HAWAII**

By
Fred W. Klein, Arthur D. Frankel, Charles S. Mueller, Robert L. Wesson, and Paul G. Okubo
2000

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Digital data prepared with ARC/INFO 2.1.3
Map printed with Adobe Acrobat 4.0
Albers Equal-Area Conic Projection
Standard Parallel 19°N and 18°N
Central Meridian 155°W
Printed on recycled paper



REFERENCES
Frankel, A., Mueller, C., Barnhardt, T., Perkins, D., Levander, E.V., Dickman, N., Hanson, S., and Hopper, M., 1996, National Seismic-Hazard Maps: Documentation June 1996, U.S. Geological Survey Open-File Report 97-130, 12 sheets, scale 1:2,000,000.
—, 1997, Seismic-Hazard Maps for California, Nevada and Western Arizona/Utah: U.S. Geological Survey Open-File Report 97-131, 12 sheets, scale 1:2,000,000.
Klein, F., 1984, Seismic Hazards at Kilauea and Mauna Loa Volcanoes, Hawaii: U.S. Geological Survey Open-File Report 97-131, 12 sheets, scale 1:700,000.
Klein, F., Frankel, A., Mueller, C., Wesson, R., and Okubo, P., 2000, Seismic Hazard in Hawaii: High Rate of Large Earthquakes, and PGA and Spectral Acceleration Maps. Prepared for the U.S. Geological Survey, U.S. Geological Survey Open-File Report 97-130, 12 sheets, scale 1:2,000,000.
Peterson, M., Bryant, W., Cramer, C., Cox, T., Reichle, M., Frankel, A., Lierkehammer, J., McCrory, P., and Schwartz, D., 1996, Probabilistic Seismic Hazard Assessment for the Hawaiian Islands, U.S. Geological Survey Open-File Report 96-706, 66 p.
Wesson, R., Frankel, A., Mueller, C., and Hanson, S., 1999, Probabilistic Seismic Hazard Maps of Alaska: U.S. Geological Survey Open-File Report 99-36, 48 p.

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