

**Explanation**

**Contour intervals, % g**

- 300 —
- 200 —
- 175 —
- 150 —
- 125 —
- 100 —
- 90 —
- 80 —
- 70 —
- 60 —
- 50 —
- 40 —
- 35 —
- 30 —
- 25 —
- 20 —
- 15 —
- 10 —
- 5 —
- 0 —

Note: contours are irregularly spaced

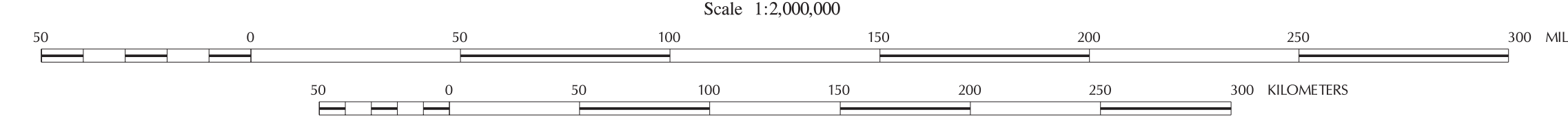
- + 6.2 Point value of spectral response acceleration expressed as a percent of gravity
- 10 — Contours of spectral response acceleration expressed as a percent of gravity. Hachures point in direction of decreasing values.
- 10 ---
- --- International boundary
- --- State boundary
- --- County boundary

Index map showing location of study area

**DISCUSSION**

This map is based on U.S. Geological Survey Open-File Report 97-130 (1997). The contour intervals have been modified to correspond to the intervals used in the Maximum Considered Earthquake Ground Motion Map. 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 in the top 30 meters, corresponding to the boundary between NEHRP site classes B and C. For use with the 1997 NEHRP Recommended Provisions for Seismic Regulations for New Buildings (FEMA 302), and NEHRP Guidelines for the Seismic Rehabilitation of Buildings (FEMA 273). The site class may be taken as Site class B.

In some situations, particularly in areas of high ground-motions (e.g., along the San Andreas Fault) there are discontinuous chains, or islands, of high ground-motion values. This is an artifact of the grid spacing used in the calculations. In most cases these chains should be replaced with continuous bands of high ground-motion values enclosing the chains.



**MAP 29**  
**Probabilistic Earthquake Ground Motion**  
**for California/Nevada**  
 of  
**0.2 sec Spectral Response Acceleration (5% of Critical Damping)**  
**10% Probability of Exceedance in 50 years**

**REFERENCES**

Frankel, A., Mueller, C., Barnhard, T., Perkins, D., Layendecker, E.V., Dickman, N., Hanson, S., and Hopper, M., 1996, National Seismic-Hazard Maps: Documentation June 1996. U.S. Geological Survey Open-File Report 96-532, 110 p.

Frankel, A., Mueller, C., Barnhard, T., Perkins, D., Layendecker, E.V., Dickman, N., Hanson, S., and Hopper, M., 1997, Seismic - Hazard Maps for California, Nevada and Western Arizona/Utah, Map D - Horizontal Spectral Response Acceleration for 0.2 Second Period with 10% Probability of Exceedance in 50 Years: U.S. Geological Survey Open-File Report 97-130-D, scale 1:2,000,000.

Petersen, M., Bryant, W., Cramer, C., Cao, T., Reichle, M., Frankel, A., Lienkaemper, J., McCrory, P., and Schwartz, D., 1996, Probabilistic Seismic Hazard Assessment for the State of California. California Division of Mines and Geology Open-File Report 96-08, 66 p., and U.S. Geological Survey Open-File Report 96-706, 66 p.

Digital data prepared with ARC/INFO 7.1.1 running under Solaris 2.5 on a UNIX workstation