U.S. DEPARTMENT OF THE INTERIOR
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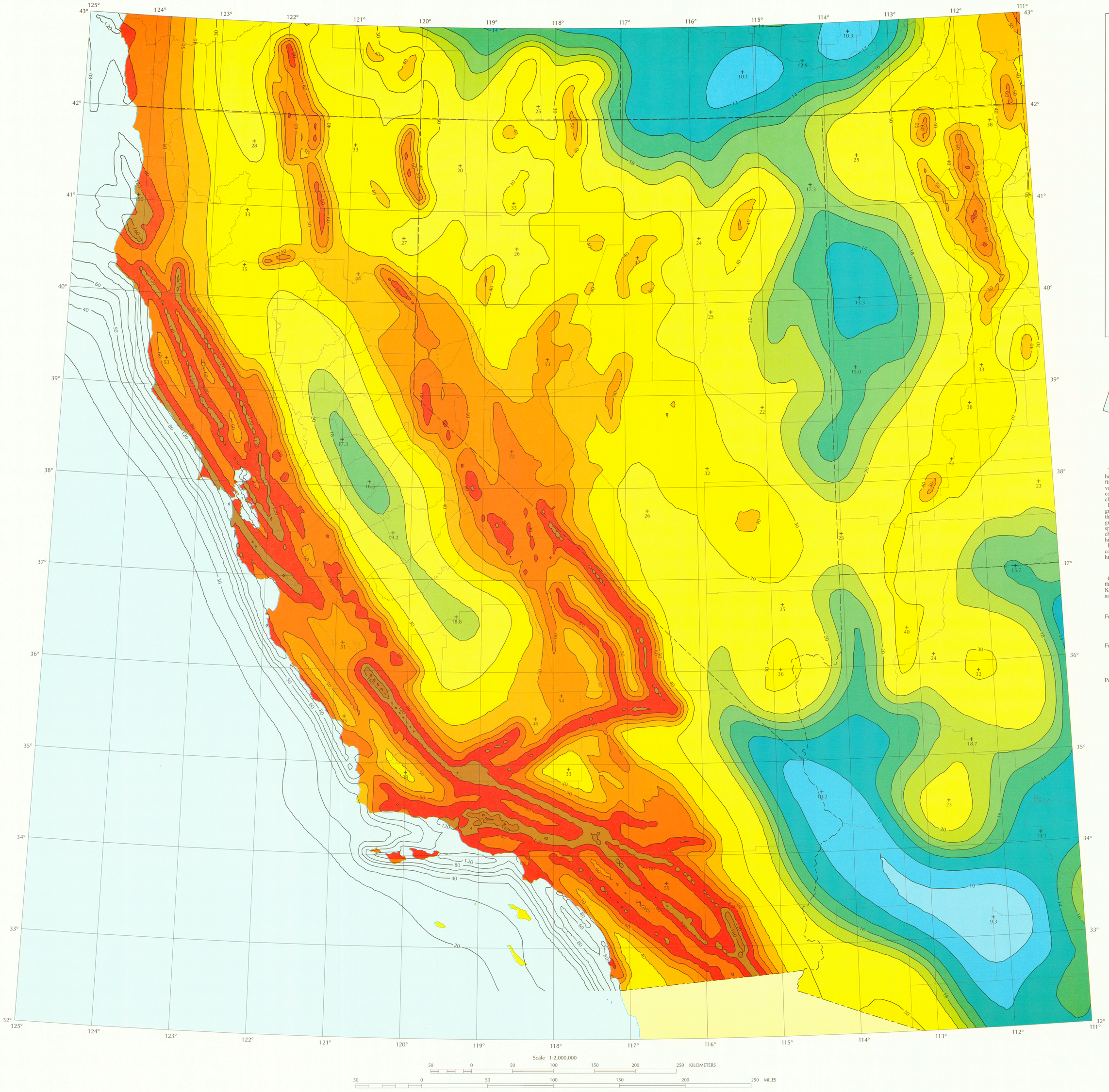
97-130-C




## Explanation

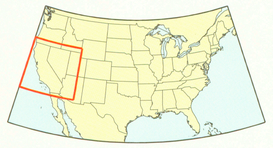
%g

200
160
120
80
60
50
40
30
20
18
16
14
12
10
8
6
4
2
0

+ 6.2 — Point value of peak acceleration expressed as a percent of gravity

— 10 — Contour of peak acceleration expressed as a percent of gravity

Note: contours are irregularly spaced



Index map showing location of study area

## 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 in the top 30 meters, corresponding to the boundary between NEHRP site classes B and C.

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.

Documentation, gridded values, and ARC/INFO coverages used to make the maps are available at: http://geohazards.cr.usgs.gov/eq/

## ACKNOWLEDGMENTS

California portion of the map produced jointly with the California Division of Mines and Geology.
Ken Rukstales prepared the ARC/INFO digital data and formatted the GIS versions of the maps.

## REFERENCES

Frankel, A., Mueller, C., Barnhard, T., Perkins, D., Leyendecker, 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., Leyendecker, E.V., Dickman, N., Hanson, S., and Hopper, M., 1997, Seismic-Hazard Maps for the Conterminous United States: U.S. Geological Survey Open-File Report 97-131, 12 sheets, scale 1:7,000,000.

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.

# SEISMIC-HAZARD MAPS FOR CALIFORNIA, NEVADA AND WESTERN ARIZONA/UTAH
# MAP C - PEAK HORIZONTAL ACCELERATION
# WITH 2% PROBABILITY OF EXCEEDANCE IN 50 YEARS

By

**Arthur Frankel, Charles Mueller, Theodore Barnhard, David Perkins, E.V. Leyendecker, Nancy Dickman, Stanley Hanson and Margaret Hopper**

**1997**

Digital data prepared with ARC/INFO 7.0.4 running under Solaris 2.5 on a UNIX workstation

Albers Equal-Area Conic Projection
Standard Parallels 29.5°N and 45.5°N
Central Meridian 118°W

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