

EXPLANATION

Spectral response acceleration expressed as a percent of gravity (%g)

Dark Red	>60
Red	40-60
Orange	30-40
Yellow-Orange	25-30
Yellow	20-25
Light Yellow	15-20
Yellow-Green	10-15
Green	9-10
Light Green	8-9
Green	7-8
Light Blue	6-7
Blue	5-6
Light Blue	4-5
Light Blue	3-4
Light Blue	2-3
Light Blue	1-2
Light Blue	≤1

Contours of spectral response acceleration expressed as a percent of gravity (%g)

- Onshore
- Offshore

Point values of spectral response acceleration expressed as a percent of gravity (%g)

- 2.9 Local maximum
- ⊕ 3.7 Local minimum
- ⊕ 7.3 Saddle point

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/s in the top 30 meters, corresponding to the boundary between NEHRP (National Earthquake Hazards Reduction Program) site classes B and C. Documentation, gridded values, interactive maps, and GIS data used to make the map are available online at <http://earthquake.usgs.gov/hazards> or <http://dx.doi.org/10.3133/sim3325>.

ACKNOWLEDGMENTS

We would like to thank the hundreds of workshop participants who made valuable suggestions that significantly improved the quality of the maps. The California part of the maps was produced jointly with the California Geological Survey.

REFERENCES

Petersen, M.D., Moschetti, M.P., Powers, P.M., Mueller, C.S., Haller, K.M., Frankel, A.D., Zeng, Yuehua, Rezaeian, Sanaz, Harmsen, S.C., Boyd, O.S., Field, Ned, Chen, Rui, Rukstales, K.S., Luco, Nico, Wheeler, R.L., Williams, R.A., and Olsen, A.H., 2014, Documentation for the 2014 Update of the United States National Seismic Hazard Maps: U.S. Geological Survey Open-File Report 2014-1091, 243 p., <http://dx.doi.org/10.3133/ofr20141091>.

Shaded relief base from Esri Inc., 2008, Data and Maps
All other base map data from Esri Inc., 1993, Digital Chart of the World
United States County base map from the U.S. Geological Survey National Atlas, available at <http://nationalatlas.gov/>
Projection: Albers equal-area conic
Standard parallels 29.5°N, and 45.5°N, central meridian 95°W

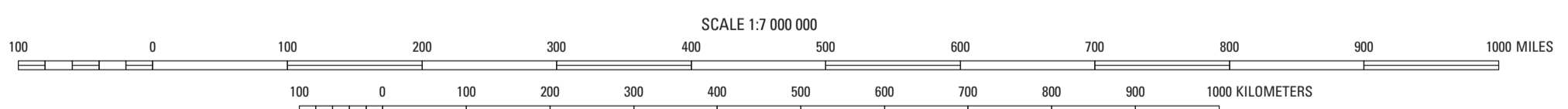
Publishing support provided by:
Denver Publishing Service Center
Edit and digital layout by L.J. Binder
Manuscript approved for publication on April 6, 2015
For more information concerning this publication, contact:
Center Director, USGS Geologic Hazards Science Center
Box 25096, Mail Stop 966
Denver, CO 80225
(303) 273-8579

Or visit the Geologic Hazards Science Center Web site at:
<http://geohazards.cr.usgs.gov/>

Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Although this information product, for the most part, is in the public domain, it also contains copyrighted materials as noted in the text. Permission to reproduce copyrighted items must be secured from the copyright owner.

This database, identified as SIM 3325, has been approved for release and publication by the U.S. Geological Survey (USGS). Although this database has been subjected to rigorous review and is substantially complete, the USGS reserves the right to revise the data pursuant to further analysis and review. Furthermore, it is released on condition that neither the USGS nor the U.S. Government may be held liable for any damages resulting from its authorized or unauthorized use.



Seismic-Hazard Maps for the Conterminous United States, 2014
Horizontal Spectral Response Acceleration for 1.0-Second Period (5 Percent of Critical Damping)
with 10 Percent Probability of Exceedance in 50 Years

By
Mark D. Petersen,¹ Morgan P. Moschetti,¹ Peter M. Powers,¹ Charles S. Mueller,¹ Kathleen M. Haller,¹ Arthur D. Frankel,¹ Yuehua Zeng,¹ Sanaz Rezaeian,¹ Stephen C. Harmsen,¹ Oliver S. Boyd,¹ Edward H. Field,¹ Rui Chen,² Nicolas Luco,¹ Russell L. Wheeler,¹ Robert A. Williams,¹ Anna H. Olsen,¹ and Kenneth S. Rukstales¹
2015

This and other USGS information products are available at <http://store.usgs.gov/>
U.S. Geological Survey
Box 25096, Denver Federal Center
Denver, CO 80225
To learn about the USGS and its information products visit <http://www.usgs.gov/>
1-800-ASK-USGS
This report is available at <http://pubs.usgs.gov/sim3325/>

Suggested citation: Petersen, M.D., Moschetti, M.P., Powers, P.M., Mueller, C.S., Haller, K.M., Frankel, A.D., Zeng, Yuehua, Rezaeian, Sanaz, Harmsen, S.C., Boyd, O.S., Field, E.H., Chen, Rui, Luco, Nicolas, Wheeler, R.L., Williams, R.A., Olsen, A.H., and Rukstales, K.S., 2015, Seismic-hazard maps for the conterminous United States, 2014: U.S. Geological Survey Scientific Investigations Map 3325, 5 sheets, scale 1:7,000,000, <http://dx.doi.org/10.3133/sim3325>.

U.S. Geological Survey
California Geological Survey, Sacramento, Calif.

ISSN 2229-132X (online)
<http://dx.doi.org/10.3133/sim3325>