

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Maps of peak horizontal and vertical accelerations recorded
for the Northridge, California, earthquake of January 17, 1994
and general geology of the epicentral region

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Open-File Report 94-197

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Description of the Maps

The magnitude 6.7 Northridge earthquake, which occurred northwest of central Los Angeles, California, on January 17, 1994, was recorded on a large number of strong-motion seismic stations maintained by the California Division of Mines and Geology (Shakel and others, 1994), the University of Southern California (Trifunac and others, 1994), and the U.S. Geological Survey (Porcella and others, 1994).

Two colored maps are presented at page size that display the peak horizontal and peak vertical accelerations recorded in the Northridge epicentral region over a generalized geologic background. Acceleration values are shown near the stations at which they were recorded and contours of those values are superimposed on the maps.

The maps were prepared digitally and the parts assembled in ARC/INFO, a commercial geographic information system. The geologic background was prepared by editing a crude scan of the linework from the Geologic Map of California (Jennings, 1977), the original scale of which is 1:750,000, and simplifying the bedrock unit identities from that already very generalized map. The acceleration contours were prepared by gridding the station values (grid spacing 0.02 degrees of latitude and longitude) with a minimum curvature gridding routine (Webring, 1981, USGS Open-file Report 81-1224) and then contouring the grids at a contour interval of 0.05 g.



