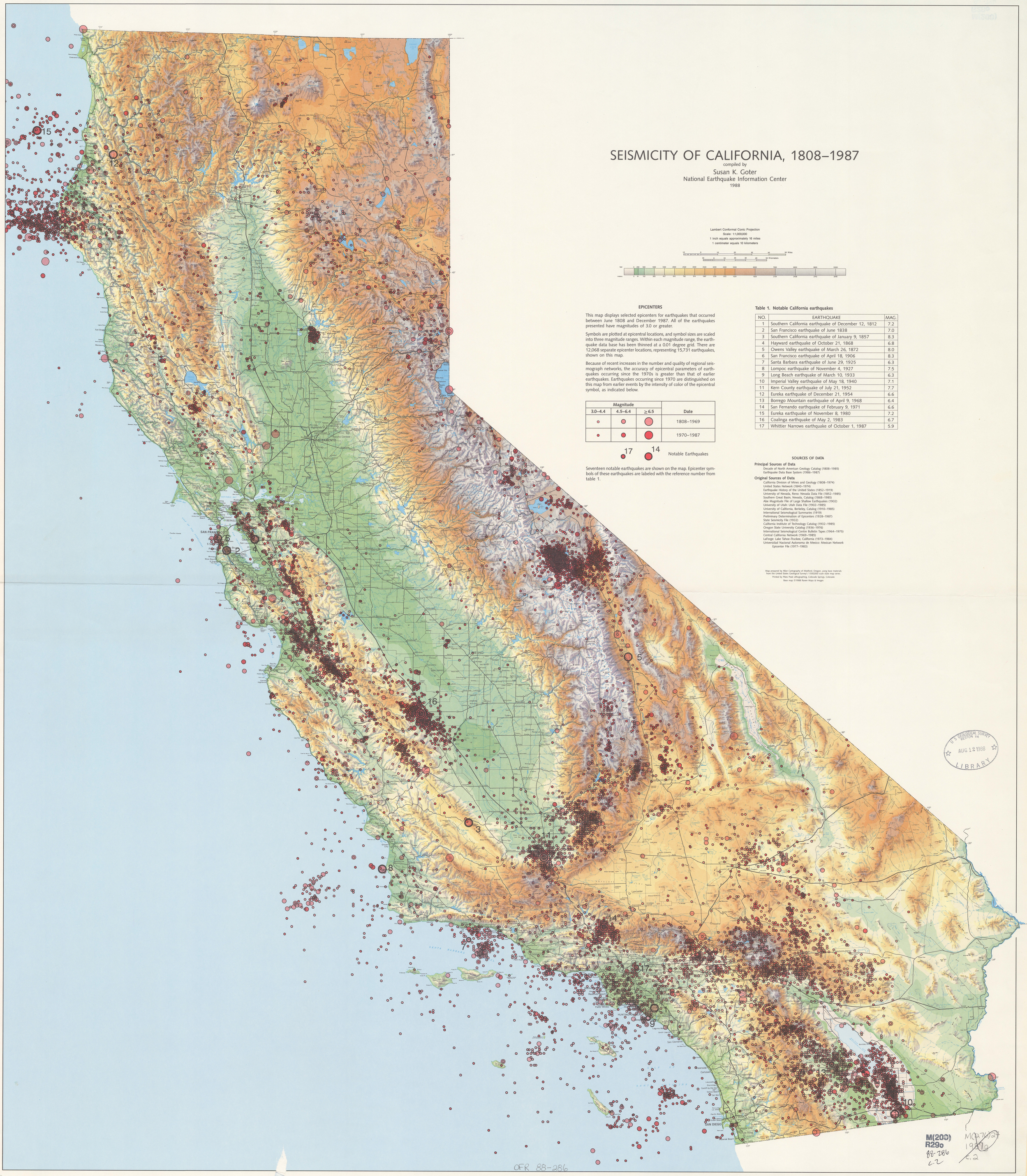
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OPEN-FILE REPORT 88-286



SEISMICITY OF CALIFORNIA, 1808–1987

compiled by
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National Earthquake Information Center
1988

Lambert Conformal Conic Projection
Scale: 1:1,000,000
1 inch equals approximately 16 miles
1 centimeter equals 10 kilometers

EPICENTERS

This map displays selected epicenters for earthquakes that occurred between June 1808 and December 1987. All of the earthquakes presented have magnitudes of 3.0 or greater.

Symbols are plotted at epicentral locations, and symbol sizes are scaled into three magnitude ranges. Within each magnitude range, the earthquake data base has been thinned at a 0.01 degree grid. There are 12,068 separate epicenter locations, representing 15,731 earthquakes, shown on this map.

Because of recent increases in the number and quality of regional seismograph networks, the accuracy of epicentral parameters of earthquakes occurring since the 1970s is greater than that of earlier earthquakes. Earthquakes occurring since 1970 are distinguished on this map from earlier events by the intensity of color of the epicentral symbol, as indicated below.

Magnitude			
3.0–4.4	4.5–6.4	≥6.5	Date
			1808–1969
			1970–1987

17 14 Notable Earthquakes

Seventeen notable earthquakes are shown on the map. Epicenter symbols of these earthquakes are labeled with the reference number from table 1.

Table 1. Notable California earthquakes

NO.	EARTHQUAKE	MAG.
1	Southern California earthquake of December 12, 1812	7.2
2	San Francisco earthquake of June 1838	7.0
3	Southern California earthquake of January 9, 1857	8.3
4	Hayward earthquake of October 21, 1868	6.8
5	Owens Valley earthquake of March 26, 1872	8.0
6	San Francisco earthquake of April 18, 1906	8.3
7	Santa Barbara earthquake of June 29, 1925	6.3
8	Lompoc earthquake of November 4, 1927	7.5
9	Long Beach earthquake of March 10, 1933	6.3
10	Imperial Valley earthquake of May 18, 1940	7.1
11	Kern County earthquake of July 21, 1952	7.7
12	Eureka earthquake of December 21, 1954	6.6
13	Borrego Mountain earthquake of April 9, 1968	6.4
14	San Fernando earthquake of February 9, 1971	6.6
15	Eureka earthquake of November 8, 1980	7.2
16	Coalinga earthquake of May 2, 1983	6.7
17	Whittier Narrows earthquake of October 1, 1987	5.9

SOURCES OF DATA

Principal Sources of Data

Decade of North American Geology Catalog (1808–1985)
Earthquake Data Base System (1986–1987)

Original Sources of Data

California Division of Mines and Geology (1808–1974)
United States Network (1840–1974)
Earthquake History of the United States (1852–1919)
University of Nevada, Reno: Nevada Data File (1852–1985)
Southern Great Basin, Nevada, Catalog (1868–1985)
Abe Magnitude File of Large Shallow Earthquakes (1902)
University of Utah: Utah Data File (1902–1985)
University of California, Berkeley, Catalog (1910–1985)
International Seismological Summaries (1919)
Preliminary Determination of Epicenters (1928–1987)
State Seismicity File (1932)
California Institute of Technology Catalog (1932–1985)
Oregon State University Catalog (1936–1976)
International Seismological Centre Bulletin Tapes (1964–1975)
Central California Network (1969–1985)
LaForge: Lake Tahoe–Truckee, California (1973–1984)
Universidad Nacional Autonoma de Mexico: Mexican Network Epicenter File (1977–1983)

Map prepared by Allan Cartography of Medford, Oregon, using base materials from the United States Geological Survey's 1:500,000 scale state map series.
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