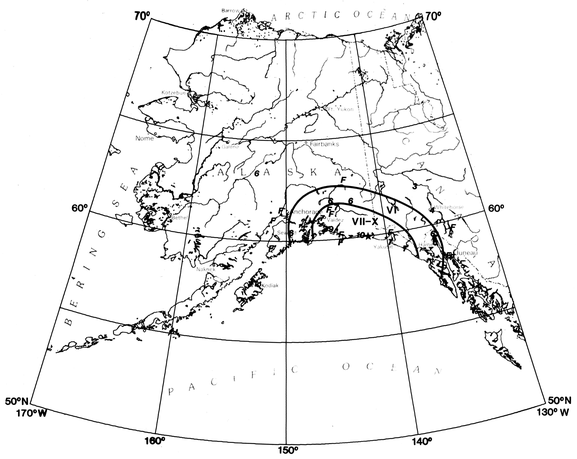
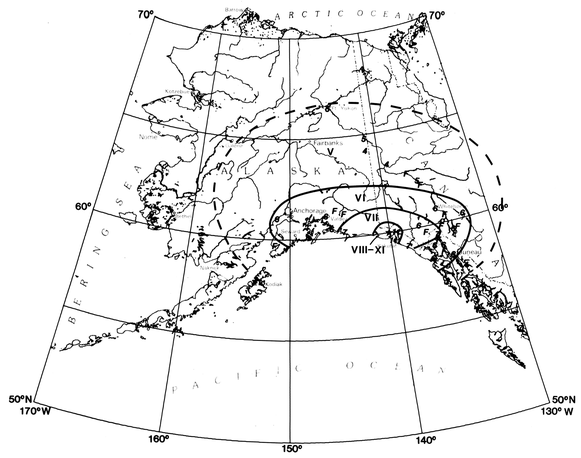
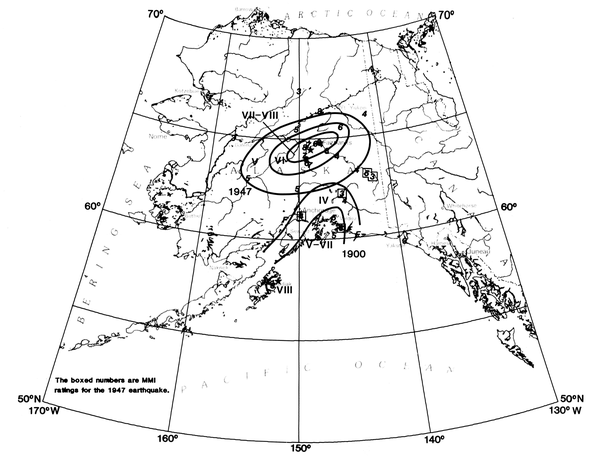


September 4, 1899 00:22 UTC
60.0° N 142.0° W h=25 km
M_S=8.3 (Richter, 1958) M_S=7.9 (Abe & Noguchi, 1983)
I_0=X

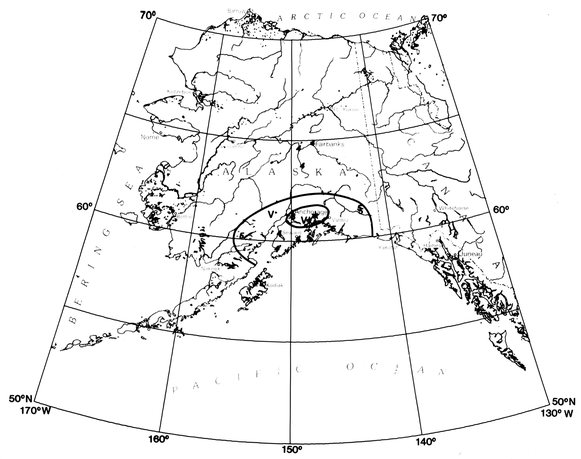


September 10, 1899 21:40 UTC
60.0° N 140.0° W
M_S=8.6 (Richter, 1958) M_S=8.0 (Abe & Noguchi, 1983)
I_0=XI

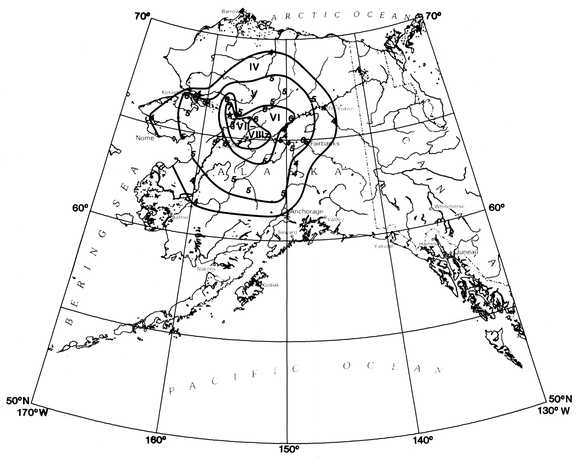


October 9, 1900 12:28 UTC
58.0° N 152.0° W h=25 km
M_S=8.3 (Richter, 1958) M_S=8.1 (Davies, et al., 1981)
M_S=7.7 (Abe & Noguchi, 1983) I_0=VIII

October 16, 1947 02:09:47 UTC
64.5° N 148.5° W h=50 km
M_S=7.0 (Gutenberg & Richter, 1954) I_0=VIII

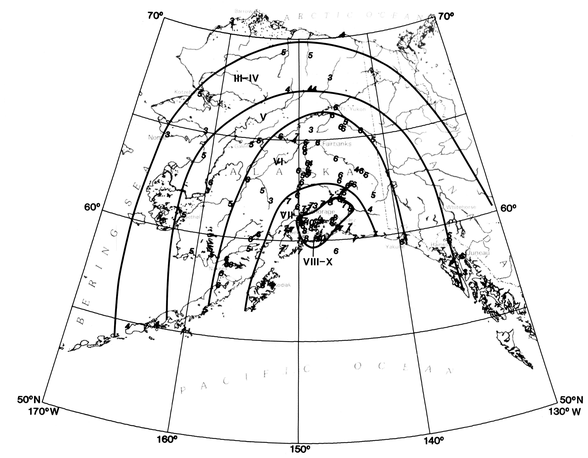


May 4, 1934 04:36:07 UTC
61.25° N 147.50°W h=80 km
M_S=7.2 (Gutenberg & Richter, 1954) I_0=VI



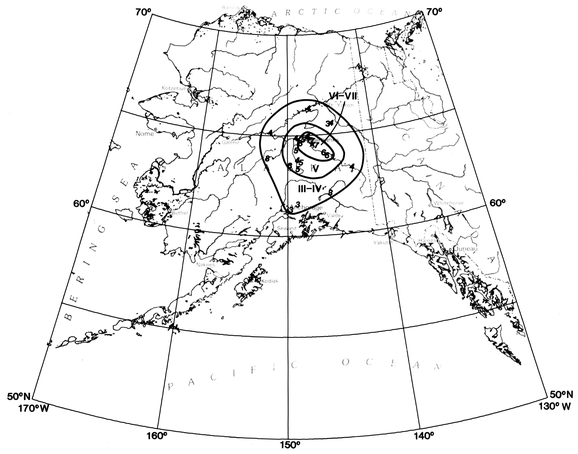
April 7, 1958 15:30:40 UTC
66.03° N 156.59° W
M_S=7.3 (PAS) I_0=VIII

August 18, 1962 16:43:54.3 UTC
62.3° N 152.5° W h=32 km
M_S=6.1 (PAS) I_0=V

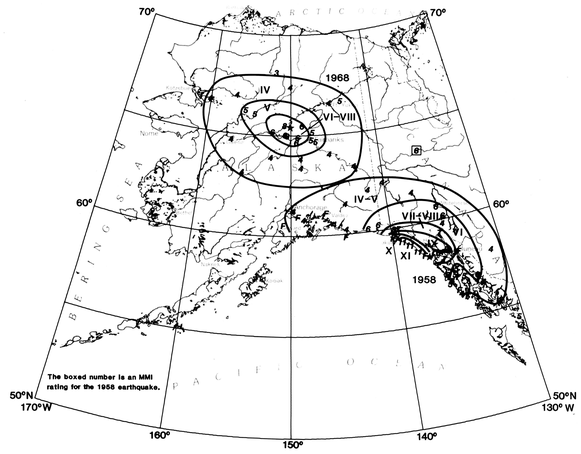


March 28, 1964 03:36:14 UTC
61.04° N 147.73°W h=33 km
M_S=8.3 (CGS) I_0=X

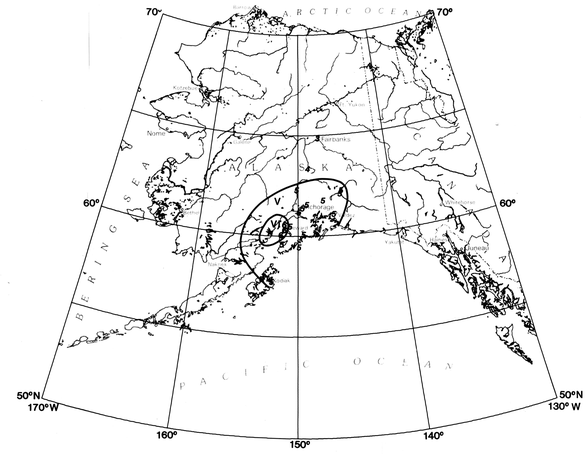
April 16, 1965 23:22:18.6 UTC
64.7° N 160.1° W h=5 km
M_S=5.9 (PAS) I_0=VI



June 21, 1967 18:13:02.9 UTC
64.8° N 147.4° W h=17 km
m_b=5.6 (CGS) I_0=VII



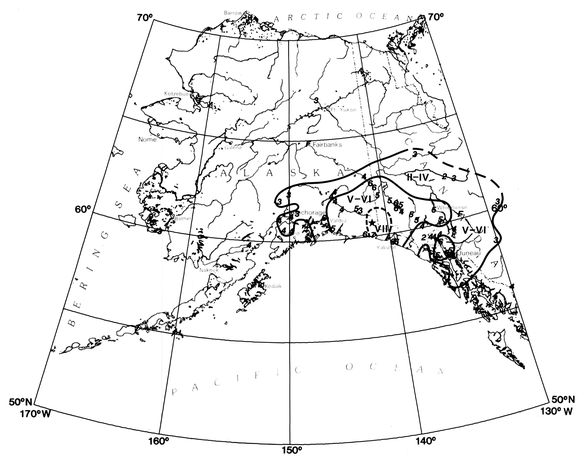
October 29, 1968 22:16:15.6 UTC
65.4° N 150.1° W h=7 km
M_S=6.5 (CGS) I_0=VIII



July 10, 1958 06:15:51 UTC
58.6° N 137.1° W
M_S=7.9 (PAS) I_0=XI

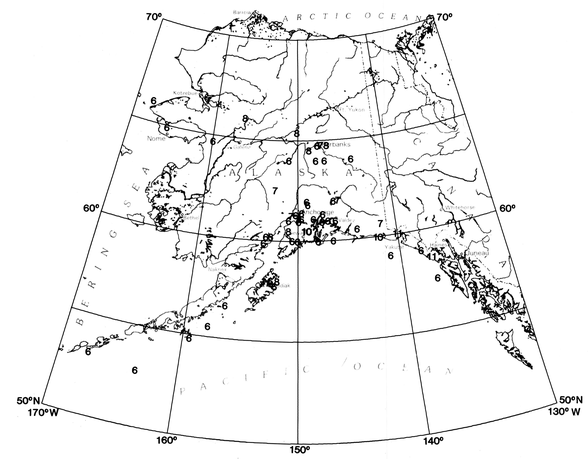
December 17, 1968 12:02:15 UTC
60.2° N 152.8° W h=86 km
M_S=6.5 (PAS) I_0=VI

August 22, 1976 02:01:47.4 UTC
60.22° N 153.30° W h=144 km
m_b=5.5 (GS) I_0=VI

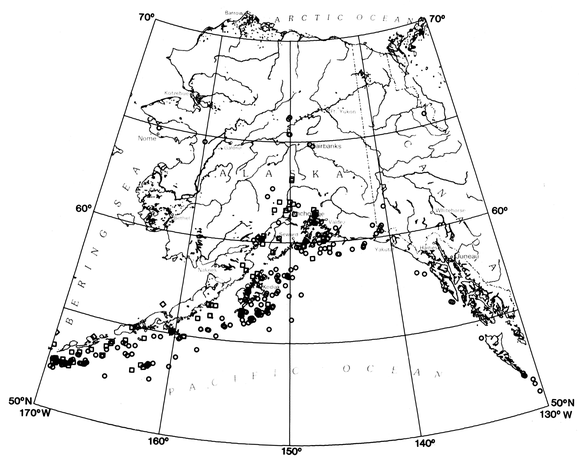


February 28, 1979 21:27:06.1 UTC
60.64° N 141.59° W h=15 km
M_S=7.4 (PAS) I_0=VII

August 1, 1981 01:42:16.5 UTC
60.14° N 153.19° W h=114 km
m_b=5.2 (GS) I_0=V



Maximum intensity (I_0) for earthquakes which have occurred from 1899 through 1985 in Alaska with $I_0 \geq$ VI. Arabic numbers denote the I_0 rating plotted on the epicenter location.



Seismicity of Alaska: 1960–1985, from 130°W to 170°W longitude and from 50°N to 70°N latitude. This data-base represents earthquakes for which a magnitude (m_b or M_s) greater than or equal to 5.5 has been assigned. The epicenters shown are identified for different depth of foci (h) as follows: open circles (○) represent shallow focus earthquakes in the $0 \leq h \leq 33$ km range; open squares (□) represent events in the $33 < h \leq 100$ km range; and open rhombs (◇) represent earthquakes with a depth greater than 100 km.

m_b represents body-wave magnitude and M_s represents surface-wave magnitude.
(CGS)=Coast and Geodetic Survey (GS)=Geological Survey (PAS)=CALTECH, Pasadena, CA
h represents depth-of-focus, in kilometers.
★ indicates the epicenter for the earthquake shown.
I_0 represents the assigned maximum Modified Mercalli rating for the earthquake shown.
IV Roman numerals represent the Modified Mercalli intensity between isoseismal lines.
6 Arabic numbers denote the assigned Modified Mercalli intensity rating at the location shown.
F denotes earthquake was felt.

Epicenter locations were calculated using the Jeffreys-Bullen Travel Time Tables for earthquakes occurring from January1, 1960 through December 31, 1985. The hypocentral data displayed on one of these maps was calculated using the observations of 10 or more seismological stations which were reported by the U. S. Geological Survey, National Earthquake Information Center, the Lamont-Doherty Geological Observatory of Columbia University, The California Institute of Technology, The Seismological Laboratory of the University of California at Berkeley and the Institute of Physics of the Earth, Academy of Sciences, U.S.S.R.

These maps are preliminary and have not been reviewed for conformity with U. S. Geological Survey editorial standards and nomenclature.
Boundaries shown on this map should not be regarded as having official significance.

MODIFIED-MERCALLI INTENSITY DISTRIBUTION FOR THE MOST SIGNIFICANT EARTHQUAKES IN ALASKA, 1899-1981

By

A. F. Espinosa, S. R. Brockman and J. A. Michael

1:12,500,000

Modified-Stereographic Conformal Projection

1986

REFERENCES

Abe, K. and Noguchi, S., 1983, Revision of magnitudes of large shallow earthquakes, 1897-1912: Physics of the Earth and Planetary Interiors, v. 33, p. 1-11.
Cloud, W.K. and Scott, N.H., 1969, Distribution of intensity: The Great Alaska Earthquake of 1964, Seismology and Geodesy, National Academy of Sciences, Washington D. C., p. 65-138.
Davies, J., Sykes, L., House, L. and Jacob, K., 1981, Shumagin seismic gap, Alaska Peninsula: history of great earthquakes, tectonic setting, and evidence for high seismic potential: Journal of Geophysical Research, v. 86, no. B5, p. 3821-3855.
Espinosa, A. F., 1984, Seismicity of Alaska and the Aleutian islands: U. S. Geological Survey Open-File Map 84-855.
Gutenberg, B. and Richter, C. F., 1954, Seismicity of the Earth (2d ed.): New York, Hafner, 310 p.
Richter, C. F., 1958, Elementary seismology: San Francisco, W. H. Freeman and Co., 768 p.
Stover, C. W., Reagor, B. G. and Wetmiller, R. J., 1980, Intensities and isoseismal map for the St. Elias earthquake of February 28, 1979: Bulletin of the Seismological Society of America, v. 70, no. 5, p. 1635-1649.

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