



**Table 1. Chronological listing of Earthquakes for the State of South Dakota, 1872-1986.**

Map Listing	Date	Time of Event	Latitude	Longitude	Intensity (Modified Mercalli)
1.	02/09/1872	-----	44.7	100.7	III
2.	08/17/1876	05:25	44.1	099.6	IV
3.	12/29/1879	06:30	42.9	097.3	V
4.	10/11/1895	23:55	43.9	103.3	IV
5.	10/12/1895	01:25	43.9	103.3	V
6.	12/06/1899	12:00	44.5	099.0	IV
7.	03/14/1900	03:00	45.6	098.5	III
8.	03/14/1900	05:00	45.6	098.5	III
9.	05/10/1906	00:27	43.0	101.3	VI
10.	06/02/1911	22:34	44.2	098.2	V
11.	10/23/1915	06:05	43.8	101.5	V
12.	02/24/1916	04:30	43.0	102.5	III
13.	06/29/1916	07:45	43.4	099.9	III
14.	07/14/1920	23:00	43.2	103.2	III
15.	03/16/1921	23:45	43.5	096.7	III
16.	09/24/1921	00:30	43.7	098.7	IV
17.	01/02/1922	14:50	43.8	099.3	VI
18.	12/30/1924	22:10	43.5	103.5	IV
19.	12/30/1924	22:15	43.5	103.5	IV
20.	12/30/1924	22:20	43.5	103.5	IV
21.	12/30/1924	22:30	43.5	103.5	IV
22.	11/16/1928	13:45	44.1	103.7	V
23.	01/17/1931	18:45	43.7	098.7	IV
24.	01/29/1934	12:30	45.9	097.7	IV
25.	08/30/1934	03:50	43.5	099.1	IV
26.	11/01/1935	10:00	44.0	096.6	III
27.	10/30/1936	10:30	43.5	103.5	IV
28.	01/02/1938	17:05	44.5	098.3	IV
29.	10/01/1938	22:15	43.8	099.3	V
30.	10/11/1938	09:37	43.6	096.7	V
31.	11/04/1938	22:10	43.2	098.9	IV
32.	11/04/1938	22:15	43.2	098.9	IV
33.	06/10/1939	18:30	43.0	098.9	IV
34.	05/25/1941	06:25	43.5	103.5	V
35.	03/11/1942	17:55	44.4	103.5	III
36.	05/16/1943	20:40	43.5	103.5	IV
37.	11/10/1945	09:00	42.9	097.8	IV
38.	07/23/1946	06:45	44.1	098.6	VI
39.	08/25/1947	14:00	43.1	098.9	IV
40.	05/07/1949	14:54	44.5	099.0	III
41.	06/03/1949	02:06	45.0	100.0	IV
42.	12/14/1949	03:15	43.2	099.5	III
43.	11/14/1952	-----	44.1	103.5	IV
44.	12/21/1953	22:43	45.2	102.8	IV
45.	12/31/1953	22:30	43.1	099.3	IV
46.	12/03/1957	07:30	43.8	098.2	IV
47.	01/12/1959	13:--	44.9	098.1	IV
48.	12/31/1961	16:36	44.3	100.7	VI
49.	03/24/1964	06:12	43.5	103.5	V
50.	08/26/1964	16:58	43.8	102.2	IV
51.	06/26/1966	11:59	44.3	103.4	VI
52.	11/23/1967	06:23	43.6	099.6	V
53.	10/19/1971	21:07	43.7	101.3	IV
54.	05/16/1975	05:57	43.3	103.9	IV
55.	09/13/1981	22:16	43.0	101.9	V
56.	07/11/1982	19:42	44.0	096.7	V
57.	11/15/1982	02:58	43.0	097.9	V
58.	03/04/1983	06:32	44.2	099.4	VI
59.	05/25/1986	07:13	43.9	098.3	IV

**Recorded Earthquakes in South Dakota, 1872-1986**

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**Table 2. Comparison of Modified Mercalli Scale and Richter Scale (from Burchett, 1979).**

MODIFIED MERCALLI SCALE		RICHTER SCALE: MAGNITUDE
INTENSITY	EFFECT	
I	<i>Not felt except by a very few under especially favorable conditions.</i>	1.5
II	<i>Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.</i>	2
III	<i>Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration similar to the passing of a truck. Duration estimated.</i>	2.5
IV	<i>Felt indoors by many, outdoors by few during the day. At night some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.</i>	3
V	<i>Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.</i>	3.5
VI	<i>Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.</i>	4
VII	<i>Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.</i>	4.5
VIII	<i>Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture moved.</i>	5
IX	<i>Damage considerable in specially designed structures, well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.</i>	5.5
X	<i>Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.</i>	6
XI	<i>Few, if any, (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.</i>	6.5
XII	<i>Damage total. Lines of sight and level are distorted. Objects thrown into the air.</i>	7

**LIST OF DATA SOURCES**

Heck, N.H., 1938, Earthquake history of the United States: U.S. Dept. of Commerce Coast and Geodetic Survey, Serial No. 609, p. 35-50.	
Burchett, R.R., 1979, Earthquakes in Nebraska: University of Nebraska Conservation and Survey Division, Educational Circular No. 4, 20p.	Reagor, B.G., Stover, C.W., and Algermissen; S.T., 1981, Seismicity map of the State of South Dakota: USGS Misc. Field Studies Map MF-1325.
Docekal, J., 1970, Earthquakes of the stable interior, with emphasis on the midcontinent: Unpub. Ph. D. thesis, University of Nebraska, v. 2, 332 pp.	U.S. Dept. of the Interior, 1982-1986, Preliminary determination of epicenters: Monthly listing National Earthquake Information Service.