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**Modified Mercalli Intensities (MMI) for Large
Earthquakes Near New Madrid, Missouri, in 1811-
1812 and Near Charleston, South Carolina, in 1886**

by

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Abstract

Large historical earthquakes occurred in the eastern United States on December 16, 1811 near New Madrid, MO, on January 23, 1812 near New Madrid, MO, on February 7, 1812 near New Madrid, MO, and on September 1, 1886 near Charleston, SC. Modified Mercalli Intensity (*MMI*) assignments for these earthquakes were used by Bakun *et al.* (submitted) to estimate the location and moment magnitude **M** of these earthquakes from *MMI* observations. The *MMI* assignments used by Bakun *et al.* (submitted) are listed in this report.

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Explanation of Tables 1 - 4: MMI Assignments

MMI values were assigned according to the descriptions of Wood and Neumann (1931) and current USGS NEIC practice for assigning MMI (Stover and Coffman, 1993). The MMI are listed by state, and then by city, in chronological order. The MMI for the 3 events near New Madrid, Missouri (Tables 1-3) were assigned by A. C. Johnston. The MMI for the September 1, 1886 earthquake near Charleston, South Carolina (Table 4) were assigned by M. G. Hopper using unpublished USGS NEIC data, including that of Dutton (1889) and Bollinger and Stover (1976).

References

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**Table 1. MMI for the December 16, 1811 Earthquake
Near New Madrid, Missouri**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Ft. St. Stephens	AL	31.54	88.06	5
Arkansas Post (Ozark Vil.)	AR	34.02	91.34	7.25
Strawberry River	AR	35.87	91.20	8
White River	AR	35.85	91.85	8.5
New Haven	CT	41.31	72.93	2
Washington	DC	38.89	77.04	4.5
Augusta	GA	33.46	81.97	5.5
Milledgeville	GA	33.08	83.24	6.25
Savannah	GA	32.08	81.10	3.5
Spring Place	GA	34.76	84.82	5
St. Marys	GA	30.76	81.57	4.5
Athens (Kaskaskia River)	IL	39.87	89.74	7.5
Big Muddy River	IL	37.58	89.50	7.5
Cahokia	IL	38.56	90.18	7
Clinton Hill	IL	38.53	89.98	5
Fort Massac	IL	37.15	88.71	7.25
Goshen	IL	38.75	90.01	6
Kaskaskia	IL	37.93	89.92	8
Vincennes	IN	38.67	87.53	7
Big Sandy River	KY	38.42	82.60	7
Birdsville	KY	37.22	88.45	7.5
Christian County	KY	36.66	87.68	6.5
Frankfort	KY	38.20	84.87	6.25
Henderson	KY	37.83	87.59	7
Henderson (Red Banks)	KY	37.90	87.54	7.75
Hodgenville	KY	37.62	87.74	6
Hopkins County	KY	37.24	87.47	6
Lebanon Academy	KY	36.88	87.49	4.5
Lexington	KY	38.05	84.46	5
Livingston County	KY	37.22	88.34	8
Louisville	KY	38.25	85.76	7
Maysville	KY	38.64	83.74	6
Muhlenberg County	KY	37.21	87.11	6
Newport	KY	39.09	84.49	7
South Union	KY	36.87	86.66	5
Uniontown	KY	37.77	87.93	8
Washington	KY	38.62	83.81	5
Natchitoches	LA	31.76	93.09	6.5
New Orleans [V. Nolte]	LA	29.95	90.08	2
Orchard Lake	MI	46.26	89.57	6
Cape Girardeau	MO	37.30	89.53	7
Cape Girardeau (South)	MO	37.02	89.35	8
Dorena (J. Shaw Acct)	MO	36.62	89.21	8
Fort Osage	MO	39.18	94.19	6.7
Herculaneum	MO	38.26	90.38	6.5
New Bourbon	MO	37.96	90.00	7.75
Saint Louis	MO	38.63	90.02	6.75
Natchez	MS	31.56	91.40	6.25

**Table 1. MMI for the December 16, 1811 Earthquake
Near New Madrid, Missouri**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Asheville	NC	35.60	82.55	5
Edenton	NC	36.06	76.60	5
Raleigh	NC	35.77	78.64	4
Salem	NC	36.08	80.25	5
Jersey Shore	NJ	40.72	74.04	3.5
Allegany County	NY	42.25	78.04	5.75
Hudson	NY	42.25	73.79	3.5
Norwich	NY	42.53	75.52	3.75
Rockland Couty	NY	41.08	73.92	3.5
Chillicothe	OH	39.33	82.98	5.5
Cincinnati	OH	39.10	84.51	6.75
Circleville	OH	39.60	82.95	5
Clarksburg	OH	39.51	83.16	4.5
Dayton	OH	39.76	84.19	5.75
Lancaster	OH	39.72	82.60	6.5
Lebanon	OH	39.44	84.21	6
Marietta	OH	39.42	81.46	6
Warren County	OH	39.30	84.20	5.5
Worthington	OH	40.09	83.02	3.5
Zanesville	OH	39.95	82.01	5.25
Toronto	ONT.	43.68	79.63	3.5
Meadville	PA	40.07	75.99	6
Pittsburg	PA	40.44	80.00	5
Waterford	PA	40.25	79.17	4.75
Charleston	SC	32.77	79.93	6
Columbia	SC	34.00	81.04	6.5
Coosawhatchie	SC	32.59	80.93	5.5
Georgetown	SC	33.37	79.29	5.75
Goose Creek	SC	32.98	80.00	5
Carthage	TN	36.25	85.96	7
Clarksville	TN	36.53	87.36	5
Columbia	TN	35.62	87.04	5.25
Knoxville	TN	35.96	83.92	5.5
Memphis (Ft. Pickering)	TN	35.14	90.06	7.75
Memphis (River)	TN	35.13	90.07	9.5
Nashville	TN	36.16	86.78	6.5
Sevierville	TN	35.86	83.56	4
Springfield	TN	36.51	86.88	5.5
Wells Creek (Stewart Cty)	TN	36.40	87.66	7
Williamson County	TN	35.92	86.84	6
Alexandria	VA	38.81	77.05	5
Norfolk	VA	36.84	76.28	5
Richmond	VA	37.55	77.46	5
Pairie Du Chien	WI	43.04	91.14	4.5
Clarksburg	WV	39.28	80.35	4.5
Wheeling	WV	40.06	80.72	5

**Table 2. MMI for the January 23, 1812 Earthquake
Near New Madrid, Missouri**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Hartford	CT	41.76	72.68	3
New Haven	CT	41.31	72.93	2
Washington	DC	38.89	77.04	4
Augusta	GA	33.46	81.97	5
Savannah	GA	32.08	81.10	4
Vincennes	IN	38.67	87.53	6.75
Frankfort	KY	38.20	84.87	4.5
Hodgenville	KY	37.62	85.74	6
Lexington	KY	38.05	84.46	4
Livingston County (Crist)	KY	37.22	88.34	8.5
Louisville	KY	38.25	85.76	7.25
Mammoth Cave	KY	37.18	86.15	5.5
Maysville	KY	38.64	83.74	5.5
Newport	KY	39.09	84.49	5.5
Paris	KY	38.21	84.26	5
Washington	KY	38.62	83.81	4.5
New Orleans	LA	29.95	90.08	4.5
Annapolis	MD	38.97	76.49	5
Baltimore	MD	39.29	76.61	3.5
Easton	MD	38.77	76.07	5
Norrttingham	MD	39.20	76.64	3
West River	MD	38.85	76.59	3
Detroit	MI	42.33	83.05	5.5
Grosse Pointe	MI	42.37	82.92	5
Cape Girardeau	MO	37.30	89.53	7.25
Natchez	MS	31.56	91.40	4
Edenton	NC	36.06	76.60	4
Newark	NJ	40.73	74.17	4
Fort William Henry	NY	43.42	73.72	3.75
Jamaica	NY	40.69	73.81	3
New York	NY	40.71	74.01	3.5
Chillicothe	OH	39.33	82.98	4-5
Cincinnati	OH	39.10	84.51	6
Coshoc[K]Ton	OH	40.27	81.85	7
Dayton	OH	39.76	84.19	5.75
Lancaster	OH	39.72	82.60	5
Marietta	OH	39.42	81.46	5.5
Worthington	OH	40.09	83.02	4
Zanesville	OH	39.95	82.01	5
Charleston	SC	32.77	79.93	6.75
Columbia	SC	34.00	81.04	6.25
Carthage	TN	36.25	85.96	6.5
Dandridge	TN	36.02	83.42	4
Knoxville	TN	35.96	83.92	5
Rogersville	TN	36.41	83.01	5
Sevierville	TN	35.86	83.56	4
Alexandria	VA	38.81	77.05	4
Norfolk	VA	36.84	76.28	5.5
Richmond	VA	37.55	77.46	6

**Table 2. MMI for the January 23, 1812 Earthquake
Near New Madrid, Missouri**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Suffolk	VA	36.73	76.58	4
Wheeling	WV	40.06	80.72	4.5

**Table 3. MMI for the February 7, 1812 Earthquake
Near New Madrid, Missouri**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Toronto	Canada	43.68	79.63	4
New Haven	CT	41.31	72.93	4
Washington	DC	38.89	77.04	5
Augusta	GA	33.46	81.97	5.75
Jefferson (Briar Creek)	GA	33.62	83.37	7
Savannah	GA	32.08	81.10	5.75
Fort Massac	IL	37.15	88.71	8.5
Vincennes	IN	38.67	87.53	6.75
Augusta	KY	38.77	84.01	5.5
Hodgenville	KY	37.62	85.74	6
Lebanon Academy	KY	36.88	87.49	5
Lexington	KY	38.05	84.46	6.5
Louisville	KY	38.25	85.76	7.5
Maysville	KY	38.64	83.74	6.5
Paris	KY	38.21	84.25	6
South Union	KY	36.87	86.66	5.5
Frankfort	KY	38.20	84.87	6.5
Natchitoches	LA	31.76	93.09	6.5
New Orleans	LA	29.95	90.08	3.5
Baltimore	MD	39.29	76.61	4
Cape Girardeau	MO	37.30	89.53	8
Defiance	MO	38.63	90.78	7
Saint Louis	MO	38.63	90.20	7.5
St. Charles	MO	38.78	90.48	7
Natchez	MS	31.56	91.40	6
Pinckneyville	MS	31.02	91.48	4.5
Newbern	NC	35.11	77.05	5
Raleigh	NC	35.80	78.65	4
Wilmington	NC	34.23	77.94	3.5
New York	NY	40.71	74.01	4
Brownsville	OH	39.26	83.05	4.75
Chillicothe	OH	39.33	82.98	7
Cincinnati	OH	39.10	84.51	7
Circleville	OH	39.60	82.95	6.5
Dayton	OH	39.76	84.19	6
Lancaster	OH	39.72	82.60	6.5
Marietta	OH	39.42	81.46	6.25
Troy	OH	40.04	84.21	5.5
Worthington	OH	40.09	83.02	5
Zanesville	OH	39.95	82.01	6
Brownsville	PA	40.02	79.88	4.5
Philadelphia	PA	39.95	75.16	5
Pittsburg	PA	40.44	80.00	6
Beaufort	SC	32.43	80.68	6
Charleston	SC	32.77	79.93	6
Columbia	SC	34.00	81.04	7
Georgetown	SC	33.37	79.29	6
Knoxville	TN	35.96	83.92	6
Nashville	TN	36.16	86.78	7

**Table 3. MMI for the February 7, 1812 Earthquake
Near New Madrid, Missouri**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Alexandria	VA	38.81	77.05	4
Fredericksburg	VA	38.30	77.47	5
Richmond	VA	37.55	77.46	6.25
Wheeling	WV	40.06	80.72	7

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Auburn	AL	32.61	85.48	4
Birmingham	AL	33.52	86.82	4
Blountsville	AL	34.08	86.59	4
Camden	AL	31.99	87.29	5
Carrollton	AL	33.26	88.10	5
Centre	AL	34.15	85.68	4
Clanton	AL	32.84	86.63	6
Cullman	AL	34.09	86.79	6
Florence	AL	34.80	87.67	4
Gadsden	AL	34.02	86.00	6
Greensboro	AL	32.70	87.59	5
Mobile	AL	30.71	88.18	3
Montgomery	AL	32.38	86.30	4
Opelika	AL	32.65	85.38	5
Oswichee	AL	32.28	85.01	3
Oxford	AL	33.62	85.83	3
Ozark	AL	31.46	85.64	3
Selma	AL	32.42	87.02	4
Shelby Iron Works	AL	33.12	86.52	3
St Stephens	AL	31.52	88.02	3
Tuscaloosa	AL	33.21	87.57	6
Tuskegee	AL	32.42	85.69	5
Union Springs	AL	32.14	85.71	3
Valley Head	AL	34.57	85.62	5
Wetumpka	AL	32.54	86.21	4
Augusta	AR	35.28	91.36	3
Devils Bluff	AR	34.80	91.42	3
Fayetteville	AR	36.06	94.16	3
Hampton	AR	33.54	92.47	3
Helena	AR	34.53	90.59	3
Jonesboro	AR	35.84	90.70	3
Little Rock	AR	34.75	92.29	3
Monticello	AR	33.63	91.79	3
Pocahontas	AR	36.26	90.97	3
Sans Souci	AR	35.65	89.95	3
Van Buren	AR	35.44	94.35	3
Central Village	CT	41.72	71.91	3
Clarks Fallage	CT	41.45	71.87	3
Collinsville	CT	41.81	72.92	3
Durham	CT	41.48	72.68	3
Hartford	CT	41.80	72.72	5
Jewett City	CT	41.61	71.98	3
Middlebury	CT	41.52	73.12	3
New Haven	CT	41.30	72.91	5
New London	CT	41.50	72.13	3
Quarryville	CT	41.79	72.42	3
Voluntown	CT	41.57	71.86	3
Waterbury	CT	41.55	73.04	3

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
West Haven	CT	41.28	72.95	3
Westbrook	CT	41.29	72.45	3
Winsted	CT	41.91	73.06	3
Delaware Breakwater	DE	38.82	75.12	3
Middletown	DE	39.45	75.72	3
Milford	DE	38.91	75.43	3
New Castle	DE	39.66	75.56	5
Seaford	DE	38.65	75.61	5
Wilmington	DE	39.74	75.55	4
Altamonte	FL	28.65	81.42	4
Apalachicola	FL	29.73	84.99	5
Baldwin	FL	30.30	81.98	4
Bartow	FL	27.90	81.84	4
Callahan	FL	30.56	81.83	5
Cape Canaveral Lighthouse	FL	28.47	80.52	5
Cedar Keys	FL	29.20	83.02	5
Cedar Keys Lighthouse	FL	29.10	83.07	3
Chaseville	FL	30.38	81.62	6
Crescent City	FL	29.44	81.51	5
Daytona	FL	29.15	81.10	6
De Land	FL	29.03	81.30	5
Ellaville	FL	30.24	83.24	4
Enterprise	FL	28.87	81.27	4
Eustis	FL	28.85	81.69	3
Fernandina Beach	FL	30.67	81.45	4
Fort Meade	FL	27.75	81.80	3
Fowey Rocks Lighthouse	FL	25.60	80.10	4
Gainesville	FL	29.65	82.33	5
Gulf Hammock	FL	29.25	82.72	4
Highland	FL	30.11	82.05	5
Higley	FL	28.85	81.77	6
Jacksonville	FL	30.33	81.66	5
Key West	FL	24.56	81.80	3
Lake Annie	FL	28.75	81.42	4
Lake City	FL	30.19	82.64	6
Lake Como	FL	29.48	81.57	3
Lake Helen	FL	28.98	81.23	6
Lake Hollingsworth	FL	28.02	81.95	6
Lakeland	FL	28.05	81.95	4
Leesburg	FL	28.81	81.89	5
Limona	FL	27.95	82.30	3
Live Oak	FL	30.58	85.87	4
Macclenny	FL	30.28	82.12	5
Manatee Village	FL	27.55	82.55	3
Minneola	FL	28.57	81.75	5
Monticello	FL	30.54	83.87	4
New Smyrna	FL	29.05	81.05	5
Norwalk	FL	29.43	81.74	4

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Olustee	FL	30.20	82.43	4
Orlando	FL	28.56	81.38	5
Pensacola Light Station	FL	30.42	87.22	3
Quincy	FL	30.59	84.58	5
Sanderson	FL	30.25	82.27	5
Sanford	FL	28.81	81.27	4
Satsuma	FL	29.55	81.66	3
Sorrento	FL	28.81	81.56	5
Spring Garden	FL	29.12	81.40	7
St Augustine	FL	29.90	81.32	4
Starke	FL	29.95	82.11	5
Suwannee	FL	29.33	83.14	4
Tallahassee	FL	30.44	84.28	7
Tampa	FL	27.95	82.46	7
Waldo	FL	29.79	82.17	4
Wellborn	FL	30.23	82.82	5
White Sulphur Springs	FL	29.97	81.65	5
Zellwood	FL	28.73	81.61	4
Adairsville	GA	34.36	84.93	4
Americus	GA	32.07	84.23	4
Arcola	GA	32.34	81.60	5
Athens	GA	33.96	83.38	5
Atlanta	GA	33.76	84.39	8
Augusta	GA	33.47	81.96	8
Bainbridge	GA	30.91	84.57	6
Baxley	GA	31.78	82.35	5
Brunswick	GA	31.15	81.49	5
Butler	GA	32.56	84.24	5
Cairo	GA	30.88	84.21	5
Calhoun	GA	34.50	84.95	5
Carrollton	GA	33.58	85.07	6
Chauncey	GA	32.10	83.07	5
Climax	GA	30.88	84.43	4
Cockspur Island	GA	32.07	80.83	4
Columbus	GA	32.46	84.99	8
Covington	GA	33.60	83.86	8
Darien	GA	31.37	81.44	7
Diamond	GA	34.67	84.28	4
Douglas	GA	31.51	82.85	4
Eastman	GA	32.20	83.18	5
Eatonton	GA	33.33	83.39	7
Eden	GA	32.18	81.39	5
Elberton	GA	34.11	82.87	4
Forsyth	GA	34.19	84.10	6
Fort Gaines	GA	31.61	85.05	4
Gainesville	GA	34.30	83.83	5
Georgetown	GA	33.67	83.85	3
Griffin	GA	33.25	84.26	5

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Guyton	GA	32.33	81.39	5
Halcyon Dale	GA	32.53	81.55	6
Hawkinsville	GA	32.28	83.47	5
Hephzibah	GA	33.31	82.10	6
Hogansville	GA	33.17	84.91	3
Irwinton	GA	32.81	83.17	5
Jesup	GA	31.61	81.88	5
Kingston	GA	34.24	84.95	4
La Grange	GA	33.04	85.03	6
Lawrenceville	GA	33.96	83.99	5
Lexington	GA	33.87	83.11	7
Longstreet	GA	33.38	84.67	5
Lumber City	GA	31.93	82.68	7
Macon	GA	32.84	83.63	7
Madison	GA	34.14	83.18	7
Midville	GA	32.82	82.24	5
Milledgeville	GA	33.08	83.24	5
New Holland	GA	34.31	83.80	7
Newman	GA	33.33	84.75	3
Owens Ferry	GA	30.97	81.81	5
Oxford	GA	33.62	83.87	5
Reynolds	GA	32.56	84.10	5
Rome	GA	34.25	85.17	5
Sandersville	GA	32.98	82.81	5
Savannah	GA	32.08	81.10	8
Scarboroughh	GA	32.67	81.82	6
Smyrna	GA	33.88	84.51	4
Sparta	GA	33.28	82.97	4
Springfield	GA	32.37	81.31	7
Surrency	GA	31.73	82.20	4
Tallapoosa	GA	33.74	85.29	5
Tennille	GA	32.94	82.81	5
Thomasville	GA	30.84	83.98	5
Ty Ty	GA	31.47	83.65	5
Valdosta	GA	30.83	83.28	6
Walthourville	GA	31.77	81.63	4
Washington	GA	33.74	82.74	7
Waycross	GA	31.21	82.35	6
Waynesborough	GA	33.08	81.95	5
Burlington	IA	40.80	91.11	5
Cedar Rapids	IA	41.98	91.67	4
Charles City	IA	43.07	92.67	3
Corydon	IA	40.76	93.32	3
Davenport	IA	41.52	90.58	4
Des Moines	IA	41.59	93.60	3
Dubuque	IA	42.50	90.67	5
Forest City	IA	43.26	93.63	3
Fort Madison	IA	40.63	91.30	3

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Hopkinton	IA	42.35	91.25	4
Independence	IA	42.47	91.89	3
Iowa City	IA	41.67	91.57	3
Keokuk	IA	40.40	91.39	3
Manchester	IA	42.49	91.46	3
Maquoketa	IA	42.07	90.67	3
Marshalltown	IA	42.05	92.91	3
Monticello	IA	42.24	91.19	3
Ottumwa	IA	41.02	92.41	3
Washington	IA	41.34	91.72	3
Waverly	IA	42.72	92.48	3
Webster City	IA	42.47	93.83	3
Big Prairie	IL	38.13	88.12	3
Bloomington	IL	40.48	88.99	4
Cairo	IL	37.00	89.18	6
Carlyle	IL	38.61	89.37	3
Carmi	IL	38.10	88.17	4
Carthage	IL	40.41	91.14	4
Charleston	IL	39.50	88.18	3
Chicago	IL	41.88	87.63	6
Danville	IL	40.15	87.62	4
Decatur	IL	39.85	88.95	5
Effingham	IL	39.12	88.54	3
Elgin	IL	42.04	88.28	3
Evanston	IL	42.04	87.69	5
Greenville	IL	38.88	89.40	4
Hillsborough	IL	39.18	89.52	3
Jacksonville	IL	39.73	90.23	5
Joliet	IL	41.53	88.08	3
Kankakee	IL	41.12	87.86	3
Kewanee	IL	41.25	89.92	3
Lewistown	IL	40.40	90.15	3
Louisville	IL	38.77	88.50	3
Marshall	IL	41.04	89.35	3
Mount Vernon	IL	38.28	88.92	3
Murphysboro	IL	37.76	89.34	6
Oakland	IL	39.65	88.03	3
Olney	IL	38.75	88.10	3
Oregon	IL	42.01	89.33	3
Pacific	IL	41.92	87.72	5
Paris	IL	39.61	87.70	5
Pekin	IL	40.57	89.65	3
Peoria	IL	40.69	89.59	3
Quincy	IL	39.92	91.41	3
Ridgway	IL	37.78	88.25	4
Shelbyville	IL	39.41	88.79	4
Sparland	IL	41.03	89.44	3
Springfield	IL	39.80	89.65	3

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Sullivan	IL	39.60	88.61	3
Vatseka	IL	40.78	87.77	3
Bloomington	IN	39.83	87.25	3
Bloomington	IN	39.17	86.53	3
Boonville	IN	38.05	87.28	3
Brazil	IN	39.52	87.13	5
Brookville	IN	39.42	85.01	3
Butler	IN	39.04	85.51	3
Centerville	IN	39.82	85.00	5
Clinton	IN	40.28	86.47	4
Connersville	IN	39.64	85.14	4
Covington	IN	40.14	87.40	3
Crawfordsville	IN	40.04	86.90	4
Danville	IN	39.76	86.53	5
Eugene	IN	39.96	87.48	3
Frankfort	IN	40.28	86.51	5
Greencastle	IN	39.64	86.87	3
Indianapolis	IN	39.77	86.15	6
Jasper	IN	38.39	86.93	4
Kentland	IN	40.77	87.44	3
Knightstown	IN	39.80	85.52	4
La Porte	IN	41.61	86.72	4
Lafayette	IN	40.42	86.90	3
Liberty	IN	39.64	84.93	5
Logansport	IN	40.75	86.37	3
Madison	IN	40.17	85.72	6
Michigan City	IN	41.71	86.90	5
Muncie	IN	40.19	85.38	3
Nashville	IN	39.21	86.25	3
New Castle	IN	39.93	85.37	3
New Cumberland	IN	40.38	85.50	3
New Harmony	IN	38.15	87.93	4
Noblesville	IN	40.05	86.01	5
North Manchester	IN	41.00	85.77	5
Portland	IN	40.43	84.97	4
Princeton	IN	38.35	87.57	4
Rensselaer	IN	40.93	87.15	3
Rising Sun	IN	38.95	84.85	6
Rockville	IN	39.76	87.23	5
Salem	IN	40.31	84.84	3
Shelbyville	IN	39.52	85.77	3
South Bend	IN	41.68	86.26	5
Spencer	IN	39.29	86.77	5
Terre Haute	IN	39.47	87.42	6
Union City	IN	40.20	84.81	3
Valparaiso	IN	41.47	87.06	6
Vevay	IN	38.75	85.07	5
Wabash	IN	40.80	85.82	3

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Warsaw	IN	41.23	85.85	3
Washington	IN	38.66	87.17	3
Worthington	IN	39.12	86.98	4
Ashland	KY	38.48	82.64	8
Beattyville	KY	37.57	83.71	4
Bellview	KY	38.36	85.14	5
Booneville	KY	37.47	83.68	4
Bowling Green	KY	36.99	86.44	3
Brownsville	KY	36.53	89.22	3
Burkesville	KY	36.79	85.37	5
Campton	KY	37.73	83.55	4
Caseyville	KY	37.54	88.06	4
Catawba	KY	38.72	84.32	3
Catlettsburg	KY	38.42	82.60	5
Clinton	KY	36.65	88.98	6
Columbia	KY	37.10	85.30	4
Cynthiana	KY	38.39	84.30	3
Dayton	KY	39.11	84.47	5
East Point	KY	37.75	82.80	5
Edmonton	KY	36.98	85.61	4
Elizabethtown	KY	37.69	85.86	3
Frankfort	KY	38.20	84.81	4
Glasgow	KY	37.00	85.91	4
Grayson	KY	37.48	86.33	4
Greensburg	KY	37.26	85.50	4
Harlan	KY	36.85	83.19	6
Harrodsburg	KY	37.76	84.84	4
Hazard	KY	37.25	83.19	6
Hodgenville	KY	37.57	85.74	4
Hyattsville	KY	37.60	84.52	4
Lawrenceburg	KY	38.04	84.89	4
Lebanon	KY	37.57	85.25	3
Leitchfield	KY	37.48	86.29	4
Lexington	KY	38.05	84.50	4
London	KY	37.13	84.08	3
Louisville	KY	38.25	85.76	5
Manchester	KY	37.15	83.76	4
Mannington	KY	37.12	87.49	3
Marion	KY	37.57	85.28	3
Maysville	KY	38.64	83.76	5
Midway	KY	37.31	88.18	3
Morehead	KY	37.27	87.18	4
Mount Savage	KY	38.26	82.90	4
Mount Sterling	KY	38.06	83.94	4
Nicholasville	KY	37.88	84.57	4
Owensboro	KY	37.77	87.13	5
Paducah	KY	37.03	88.59	5
Pikeville	KY	37.48	82.52	4

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Prestonsburg	KY	37.67	82.77	5
Richmond	KY	37.75	84.30	3
Sand Spring	KY	37.53	84.08	4
Sandy Hook	KY	38.09	83.13	6
Scottsville	KY	36.75	86.19	5
Somerset	KY	37.09	84.61	5
Stanford	KY	37.53	84.66	6
Whitesburg	KY	37.12	82.83	5
Alexandria	LA	31.31	92.46	3
Bayou Sara	LA	30.74	91.32	3
Covington	LA	30.47	90.10	3
Franklinton	LA	30.85	90.15	3
Natchitoches	LA	31.76	93.09	3
New Orleans	LA	29.94	90.08	3
Port Vincent	LA	30.33	90.85	3
Shreveport	LA	32.51	93.75	3
Winnsboro	LA	32.17	91.72	3
Amherst	MA	42.38	72.52	3
Andover	MA	42.66	71.13	3
Athol	MA	42.59	72.23	3
Blue Hill	MA	42.26	71.10	3
Boston	MA	42.36	71.06	3
Cape Ann	MA	42.63	70.65	3
Cohasset	MA	42.25	70.80	3
Concord	MA	42.46	71.35	3
Fitchburg	MA	42.58	71.80	3
Gilbertville	MA	42.31	72.21	3
Greenfield	MA	42.59	72.60	3
Groton	MA	42.61	71.57	3
Gurnet Point Lighthouse	MA	42.00	70.62	3
Holbrook	MA	42.16	71.01	3
Jamaica Plain	MA	42.31	71.12	3
Long Island Lighthouse	MA	42.33	70.97	3
Long Meadow	MA	42.07	72.42	4
Lowell	MA	42.64	71.31	3
Manchester	MA	42.58	70.77	3
Minots Ledge Light Station	MA	42.25	70.85	3
Nantucket	MA	41.28	70.10	3
Newburyport	MA	42.81	70.88	3
North Adams	MA	42.70	73.11	3
Northfield	MA	42.69	72.45	3
Osterville	MA	41.63	70.39	3
Pittsfield	MA	42.45	73.25	3
Somerville	MA	42.39	71.11	3
Springfield	MA	42.12	72.60	3
Taunton	MA	41.90	71.09	3
Annapolis	MD	38.98	76.49	3
Baltimore	MD	39.30	76.63	5

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Bishops Head	MD	38.27	76.07	4
Cambridge	MD	38.57	76.08	5
Fish Commission Station	MD	39.55	76.10	5
Frederick	MD	39.47	77.39	5
Frostburg	MD	39.66	78.93	7
Hagerstown	MD	39.65	77.72	3
Jefferson	MD	39.36	77.53	5
Knoxville	MD	39.33	77.67	4
Leading Point Lighthouse	MD	39.33	76.62	3
Libertytown	MD	39.48	77.24	3
Lime Kiln	MD	39.35	77.43	3
Manchester	MD	39.66	76.89	3
Middletown	MD	39.44	77.55	4
Oakland	MD	38.86	76.91	3
Oxford	MD	38.69	76.17	3
Petersville	MD	39.35	77.61	3
Rose Hill	MD	38.56	76.57	4
Smithsburg	MD	39.65	77.57	4
Sykesville	MD	39.37	76.97	3
Woodstock	MD	39.33	76.87	3
Augusta	ME	44.31	69.78	3
Bar Harbor	ME	44.38	68.20	3
Bethel	ME	44.41	70.79	3
Brighton	ME	45.05	69.70	3
Gardiner	ME	44.23	69.77	3
Mayfield	ME	45.09	69.68	3
Orono	ME	44.88	68.67	3
Portland	ME	43.65	70.28	3
Riverside	ME	44.40	69.71	3
Sanford	ME	43.44	70.78	3
Windsor	ME	44.31	69.58	3
Woolwich	ME	43.92	69.80	3
Adrian	MI	41.91	84.05	3
Ann Arbor	MI	42.28	83.73	5
Bad Axe	MI	43.80	83.00	3
Charity Island Light	MI	44.02	83.38	3
Detroit	MI	42.34	83.06	5
East Saginaw	MI	43.45	83.95	3
Escanaba	MI	45.75	87.07	3
Fort Gratiot Light Sta	MI	42.97	82.43	3
Grand Haven	MI	43.06	86.22	5
Grand Haven Light Sta	MI	43.00	86.37	3
Grande Pointe Au Sable	MI	44.17	86.50	3
Hersey	MI	43.85	85.44	3
Kalamazoo	MI	42.30	85.63	3
Lansing	MI	42.75	84.58	3
Lapeer	MI	43.08	83.25	3
Manistee Light Station	MI	44.22	86.32	5

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Marshall	MI	42.30	84.93	3
Port Austin Light	MI	44.67	83.00	3
Prentis Bay	MI	45.98	83.22	3
Saginaw River Range Lights	MI	43.67	83.85	3
Sandusky	MI	43.42	82.83	3
St Clair Flats Lights	MI	42.58	82.55	3
Thunder Bay Sound Light	MI	45.00	83.17	3
Northfield	MN	44.46	93.16	3
Rochester	MN	44.02	92.47	3
Waseca	MN	44.08	93.51	3
Alton	MO	36.69	91.40	3
Bloomfield	MO	36.88	89.93	4
Columbia	MO	38.95	92.33	3
Eminence	MO	37.15	91.36	3
Fayette	MO	39.15	92.68	3
Glasgow	MO	39.22	92.84	3
Hannibal	MO	39.71	91.36	5
Jefferson City	MO	38.57	92.17	3
Kansas City	MO	39.10	94.57	3
Marshall	MO	39.12	93.20	3
Mexico	MO	39.17	91.88	3
Milan	MO	40.20	93.12	3
New Madrid	MO	36.63	89.65	3
Sedalia	MO	38.71	93.23	3
Springfield	MO	37.21	93.29	3
St Louis	MO	38.65	90.25	5
Steelville	MO	37.97	91.35	3
Union	MO	38.44	91.00	3
Warrenton	MO	38.81	91.15	3
Waynesville	MO	37.83	92.20	3
Batesville	MS	34.31	89.95	4
Brookhaven	MS	31.58	90.44	3
Columbus	MS	33.50	88.42	5
Corinth	MS	31.35	89.12	3
Enterprise	MS	32.17	88.81	3
Grenada	MS	33.54	90.17	5
Hazelhurst	MS	31.87	90.33	3
Houston	MS	33.90	89.00	3
Jackson	MS	30.53	88.64	3
Meridian	MS	32.36	88.70	3
Natchez	MS	31.56	91.40	3
Oxford	MS	34.36	89.52	4
Tupelo	MS	34.26	88.71	3
Vicksburg	MS	32.35	90.88	3
West	MS	33.20	89.78	3
Abbotsburg	NC	34.53	78.78	6
Albemarle	NC	35.35	80.21	5
Ansonville	NC	35.10	80.11	6

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Asheboro	NC	35.71	79.81	7
Bear Poplar	NC	35.68	80.69	5
Beaufort	NC	34.72	76.66	7
Brinkley	NC	34.28	78.28	7
Buena Vista	NC	35.53	82.53	5
Carthage	NC	35.35	79.42	5
Chapel Hill	NC	35.91	79.05	4
Charlotte	NC	35.23	80.84	8
Clinton	NC	35.00	78.32	5
Concord	NC	35.41	80.58	6
Covington	NC	35.14	79.85	7
Currituck	NC	36.45	76.01	6
Dallas	NC	35.32	81.18	7
Durham	NC	36.05	78.86	5
Edenton	NC	36.07	76.61	5
Elizabeth City	NC	36.30	76.22	6
Enfield	NC	36.18	77.67	5
Fair Bluff	NC	34.31	79.03	6
Faison Depot	NC	35.13	78.07	7
Fayetteville	NC	35.05	78.88	7
Flat Rock	NC	35.27	82.44	6
Flemington	NC	34.26	78.57	7
Gold Hill	NC	36.32	79.93	6
Goldsboro	NC	35.38	78.00	6
Gravel Hill	NC	34.70	78.38	6
Greenville	NC	35.61	77.38	5
Hatteras	NC	35.22	75.69	4
Hickory	NC	35.73	81.34	6
Hope Mills	NC	34.97	78.95	6
Idaho	NC	35.08	78.80	6
Jonesboro	NC	35.46	79.15	5
Kings Mountain	NC	35.24	81.34	5
Kinston	NC	35.27	77.58	5
Laurinburg	NC	34.77	79.46	6
Lilly	NC	34.86	79.32	4
Lincolnton	NC	35.47	81.26	6
Long Creek	NC	34.45	78.00	7
Magnolia	NC	34.90	78.06	6
Masonboro	NC	34.18	77.85	5
Monroe	NC	34.98	80.55	6
New Bern	NC	35.11	77.05	5
New Supply	NC	34.00	78.37	5
Oxford	NC	36.31	78.59	5
Pineville	NC	35.09	80.89	4
Raleigh	NC	35.78	78.64	8
Richlands	NC	34.90	77.55	5
Rockingham	NC	36.39	79.77	5
Rutherfordton	NC	35.37	81.96	5

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Salisbury	NC	35.67	80.47	5
Smithville	NC	33.93	78.00	6
Statesville	NC	35.79	80.89	5
Troy	NC	35.36	79.89	7
Wadesboro	NC	34.97	80.08	5
Wadeville	NC	35.29	79.97	5
Waynesville	NC	35.49	82.99	7
Wilmington	NC	34.24	77.95	7
Alton	NH	43.45	71.22	3
Bristol	NH	43.59	71.74	3
Concord	NH	43.21	71.54	3
Deerfield	NH	43.20	71.22	3
Dover	NH	43.20	70.87	3
East Andover	NH	43.46	71.75	3
Epping	NH	43.04	71.08	3
Epsom	NH	43.22	71.33	3
Manchester	NH	42.99	71.46	3
Meredith Center	NH	43.61	71.53	3
Nottingham	NH	43.12	71.10	3
Portsmouth	NH	43.07	70.79	3
Quincy	NH	43.79	71.78	3
Rochester	NH	43.30	70.98	3
Union	NH	43.70	71.23	3
Walpole	NH	43.08	72.43	3
Wolfboro	NH	43.58	71.23	3
Wolfboro Junction	NH	43.57	71.03	3
Absecon	NJ	39.42	74.50	3
Atlantic City	NJ	39.36	74.43	5
Barnegat	NJ	39.75	74.22	4
Bay Head	NJ	40.07	74.05	3
Belvidere	NJ	40.83	75.08	4
Bloomfield	NJ	40.79	74.20	4
Bordentown	NJ	40.15	74.71	3
Bridgeton	NJ	39.43	75.24	5
Burlington	NJ	39.86	74.74	4
Camden	NJ	39.94	75.12	5
Cape May	NJ	38.93	74.92	3
Eatontown	NJ	40.30	74.07	3
Elmer	NJ	39.59	75.17	5
Freehold	NJ	40.26	74.27	3
Hackensack	NJ	40.89	74.05	5
Hightstown	NJ	40.27	74.52	3
Hoboken	NJ	40.74	74.03	3
Jersey City	NJ	40.73	74.06	5
Keyport	NJ	40.43	74.20	3
Mays Landing	NJ	39.45	74.73	3
Moorestown	NJ	39.96	74.95	5
Navesink Highlands	NJ	40.38	73.97	3

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
New Brunswick	NJ	40.49	74.45	3
Newark	NJ	40.73	74.18	5
Orange	NJ	40.77	74.23	3
Paterson	NJ	40.92	74.17	3
Pemberton	NJ	39.97	74.68	3
Plainfield	NJ	40.62	74.43	4
Seabright	NJ	40.35	73.97	4
Shamong	NJ	39.80	74.52	4
South Orange	NJ	40.75	74.26	3
Trenton	NJ	40.22	74.75	5
Woodbury	NJ	39.84	75.15	5
Albany	NY	42.65	73.76	5
Barbers Point Lighthouse	NY	44.15	73.37	3
Binghamton	NY	42.10	75.91	3
Blue Mountain Lake	NY	43.85	74.44	3
Bluff Point Lighthouse	NY	42.62	77.07	3
Bolton	NY	43.54	73.67	3
Brooklyn	NY	40.72	74.00	5
Buffalo	NY	42.89	78.88	4
Buffalo Lights	NY	42.88	78.95	3
Castile	NY	42.63	78.05	3
College Point	NY	40.79	73.84	3
Conewango Valley	NY	42.24	79.05	4
Coxsackle	NY	42.37	73.68	3
Crown Point Light Station	NY	44.03	73.35	3
Dale	NY	42.82	78.17	3
Dansville	NY	42.56	77.69	3
Delhi	NY	42.28	74.91	3
Dunkirk Light Station	NY	42.48	79.37	3
East Albany	NY	42.67	73.67	3
Flushing	NY	40.75	73.83	3
Fonda	NY	42.96	74.37	3
Fort Niagara Light Station	NY	43.25	79.05	3
Glens Falls	NY	43.31	73.65	4
Gloversville	NY	43.05	74.35	3
Governors Island	NY	40.68	74.00	3
Gowanda	NY	42.46	78.94	3
Greenbush	NY	42.67	73.67	3
Hicksville	NY	40.77	73.53	3
Hoosick Falls	NY	42.90	73.35	3
Hudson	NY	42.25	73.77	5
Ithaca	NY	42.43	76.50	5
Jamestown	NY	42.11	79.23	5
Kingston	NY	41.92	74.00	5
Lake Placid	NY	44.29	73.99	4
Long Island City	NY	40.76	73.93	4
Monticello	NY	41.65	74.68	3
Montrose	NY	41.25	73.93	4

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Narrowsburg	NY	41.61	75.07	3
New Brighton	NY	40.64	74.09	3
New York	NY	40.71	73.98	5
Newburgh	NY	41.50	74.02	3
Newton	NY	40.75	73.87	3
North Salem	NY	41.33	73.57	3
Oak Orchard Light Station	NY	43.37	78.23	3
Oswego	NY	43.45	76.51	3
Oswego Lights	NY	43.45	76.50	3
Owego	NY	42.10	76.26	3
Peekskill On Hudson	NY	41.30	73.92	3
Penn Yan	NY	42.58	77.03	3
Plattsburgh Light Station	NY	44.68	73.40	3
Poughkeepsie	NY	41.70	73.93	3
Purdys	NY	41.57	74.45	3
Rochester	NY	43.16	77.61	3
Sackets Harbor Light Sta	NY	43.93	76.13	3
Saratoga Springs	NY	43.08	73.78	3
Schenectady	NY	42.84	74.06	3
Shandaken	NY	42.12	74.40	4
Split Rock Lighthouse	NY	44.26	73.25	3
Stuyvesant	NY	42.39	73.78	5
Utica	NY	43.10	75.23	3
Warsaw	NY	42.74	78.13	5
Warwick	NY	41.26	74.36	3
Waterford	NY	42.79	73.68	3
Watkins	NY	42.38	76.87	3
Akron	OH	41.08	81.50	3
Ashtabula Light Station	OH	41.87	80.78	3
Athens	OH	39.38	82.15	5
Batavia	OH	39.08	84.18	3
Bellaire	OH	40.02	80.74	3
Buchtel	OH	39.46	82.17	3
Calais	OH	39.85	81.28	6
Caldwell	OH	39.75	81.52	3
Canton	OH	40.83	81.36	5
Chagrin Falls	OH	41.43	81.40	3
Chillicothe	OH	39.33	82.97	5
Cincinnati	OH	39.10	84.53	5
Circleville	OH	39.60	82.94	4
Cleveland	OH	41.50	81.69	5
Cleveland Light Station	OH	41.52	81.77	3
Collinwood	OH	41.55	81.63	3
Columbus	OH	39.93	83.00	4
Crayon	OH	40.20	83.89	5
Dayton	OH	39.75	84.20	5
Dennison	OH	40.39	81.32	5
Gallipolis	OH	38.81	82.20	5

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Garrettsville	OH	41.28	81.17	3
Hamilton	OH	39.40	84.56	5
Hillsboro	OH	39.20	83.61	4
Ironton	OH	38.52	82.67	5
Lancaster	OH	39.71	82.60	7
Leipsic	OH	41.10	83.99	4
Lima	OH	40.73	84.11	5
Lincoln	OH	38.78	82.48	4
Linwood	OH	39.12	84.41	5
Lockland	OH	39.22	84.46	5
Logan	OH	39.54	82.41	7
London	OH	39.88	83.45	3
Ludlow	OH	39.20	84.50	5
Mansfield	OH	40.78	82.53	5
Marblehead Light Station	OH	41.53	82.77	3
Marietta	OH	39.40	81.50	5
Marion	OH	40.59	83.13	3
Massillon	OH	40.79	81.53	5
Millersburg	OH	40.56	81.93	5
Montpelier	OH	41.59	84.60	3
Morrow	OH	39.35	84.12	3
Mount Vernon	OH	40.43	82.50	5
Nelsonville	OH	39.50	82.23	5
New Philadelphia	OH	40.50	81.45	5
New Richmond	OH	38.95	84.28	5
Newark	OH	40.06	82.41	5
Newcomerstown	OH	40.27	81.60	4
Oberlin	OH	41.19	82.22	3
Portsmouth	OH	38.75	82.98	5
Ripley	OH	38.75	83.84	5
Rockland	OH	39.28	81.61	3
Steubenville	OH	40.40	80.66	6
Toledo	OH	41.66	83.55	4
Turtle Island	OH	41.74	83.38	3
Upper Sandusky	OH	40.83	83.36	5
Van Wert	OH	40.86	84.58	4
Versailles	OH	40.23	84.45	4
Washington Court House	OH	39.54	83.44	3
Waynesville	OH	39.53	84.09	3
Wellsville	OH	40.61	80.65	4
Zanesville	OH	39.94	82.00	5
Belleville	ON	44.17	77.37	3
Guelph	ON	43.55	80.27	3
Hyacinthe	ON	45.50	74.50	3
London	ON	43.97	81.25	4
Montreal	ON	45.50	73.50	3
Ottawa	ON	54.03	75.72	3
Port Dover	ON	42.78	80.19	3

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Sarnia	ON	42.95	82.40	4
Toronto	ON	43.65	79.38	4
Watford	ON	42.95	81.88	3
Woodstock	ON	43.12	80.77	3
Altoona	PA	40.52	78.41	3
Beaver Falls	PA	40.75	80.31	5
Bellefonte	PA	40.91	77.78	4
Birdsboro	PA	40.26	75.81	5
Boalsburg	PA	40.78	77.79	5
Bossardsville	PA	40.93	75.27	3
Centre Hall	PA	40.85	77.69	3
Franklin	PA	40.33	78.90	3
Germantown	PA	40.79	76.36	3
Harrisburg	PA	40.27	76.87	3
Hazelwood	PA	40.41	79.94	3
Howard	PA	41.48	78.32	3
Hulton	PA	40.53	79.84	4
Laporte	PA	41.42	76.50	3
Macungie	PA	40.52	75.56	3
Meadville	PA	41.63	80.15	5
Media	PA	39.92	75.39	4
Montrose	PA	40.30	75.99	3
Mount Holly Springs	PA	40.12	77.19	4
Myerstown	PA	40.37	76.30	4
New Castle	PA	41.00	80.33	5
Philadelphia	PA	39.98	75.15	4
Pittsburgh	PA	40.45	79.94	5
Presqueville Light Station	PA	42.15	80.12	3
Reading	PA	40.37	75.93	5
Scranton	PA	41.40	75.66	4
Selins Grove	PA	40.80	76.92	4
Sewickley	PA	40.54	80.18	4
Titusville	PA	41.63	79.67	5
Uniontown	PA	40.71	78.83	4
Unionville	PA	40.24	75.70	4
Wernersville	PA	40.33	76.08	4
Williamsport	PA	41.23	77.03	3
Youngsville	PA	41.85	79.32	5
Block Island North Light	RI	41.23	71.57	3
Bristol	RI	41.71	71.29	3
Kingston	RI	41.48	71.52	3
Providence	RI	41.83	71.42	3
Abbeville	SC	34.25	82.49	8
Acton	SC	33.87	80.66	7
Aiken	SC	33.54	81.60	6
Allendale	SC	32.95	81.35	8
Alston	SC	34.24	81.32	8
Anderson	SC	34.50	82.65	7

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Antreville	SC	34.30	82.54	6
Appleton	SC	33.04	81.36	7
Arnolds Mills	SC	34.82	82.53	6
Arrowwood	SC	35.07	81.75	6
Baldock	SC	33.08	81.42	8
Bamberg	SC	33.30	81.04	7
Barmoris	SC	34.35	82.47	8
Barnwell	SC	33.24	81.36	7
Batesburg	SC	33.91	81.54	8
Bath	SC	33.51	81.87	7
Beaufort	SC	32.39	80.72	8
Beech Island	SC	33.43	81.89	5
Belton	SC	34.53	82.49	6
Bennettsville	SC	34.62	79.68	8
Bishopville	SC	34.22	80.25	6
Black Mingo	SC	33.43	79.58	8
Blacksburg	SC	35.12	81.52	6
Blairsville	SC	34.92	81.37	6
Bluffton	SC	32.24	80.86	6
Blythewood	SC	34.22	80.97	6
Bonneau	SC	33.30	79.95	8
Brewerton	SC	34.44	82.25	5
Brighton	SC	32.61	81.27	8
Brightsville	SC	34.75	79.60	8
Browns Ferry	SC	33.55	79.38	6
Brunson	SC	32.92	81.19	6
Bucksville	SC	33.72	79.06	6
Buena Vista	SC	34.95	82.25	7
Bufords Bridge	SC	33.13	81.17	8
Bull Creek	SC	33.74	79.03	7
Calhoon Mills	SC	33.92	82.33	6
Camden	SC	34.25	80.61	8
Campbells Bridge	SC	34.30	79.23	8
Campton	SC	35.03	82.06	7
Cape Roman Light Tower	SC	33.03	79.33	7
Cartersville	SC	34.08	80.03	9
Cashua Ferry	SC	34.38	79.70	5
Cedar Bluff	SC	34.74	81.77	7
Cedar Shoal	SC	34.67	80.92	5
Cedar Spring	SC	35.08	81.30	7
Charleston	SC	32.79	79.94	9
Cheraw	SC	34.70	79.88	8
Chester	SC	34.70	81.21	5
Chesterfield	SC	34.74	80.09	7
Claremont	SC	33.97	80.56	7
Clarks Hill	SC	33.67	82.17	6
Clinton	SC	34.47	81.88	6
Clio	SC	34.58	79.55	8

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Columbia	SC	34.00	81.03	8
Conway	SC	33.83	79.05	6
Cool Springs	SC	34.00	79.13	6
Coosaw	SC	32.55	80.77	9
Cowpens	SC	35.02	81.80	7
Darlington	SC	34.30	79.87	8
Donalds	SC	34.37	82.35	8
Doves Station	SC	34.38	79.92	8
Due West	SC	34.33	82.39	8
Early Branch	SC	32.75	80.93	7
Edgefield	SC	33.76	81.92	8
Effingham	SC	34.06	79.75	9
Elko	SC	33.38	81.38	6
Ellenton	SC	33.22	81.74	6
Eutawville	SC	33.40	80.35	6
Florence	SC	34.20	79.77	8
Frazierville	SC	34.07	82.32	6
Gadsden	SC	33.85	80.77	8
Gaffney	SC	35.07	81.65	5
Georgetown	SC	33.45	79.34	8
Gilbert	SC	33.92	81.39	8
Golden Grove	SC	34.74	82.44	6
Gourdin	SC	33.48	79.89	9
Graniteville	SC	33.56	81.81	8
Grannys Quarter	SC	34.38	80.67	8
Greenville	SC	34.85	82.40	8
Greenwood	SC	34.18	82.10	7
Greer	SC	34.94	82.23	7
Guthriesville	SC	34.89	81.21	7
Hamburg	SC	33.48	81.95	7
Hampton	SC	32.79	81.13	5
Hardeeville	SC	32.28	81.08	6
Hodges	SC	34.29	82.25	8
Honea Path	SC	34.45	82.39	6
Hornsboro	SC	34.80	80.29	7
Huntersville	SC	34.77	82.17	5
Hunting I. Light Sta	SC	32.38	80.42	5
Indiantown	SC	33.72	79.56	7
Irvington	SC	34.70	80.08	7
Jackson	SC	33.33	81.79	6
Johnston	SC	33.83	81.80	5
Kingsburg	SC	33.88	79.45	5
Kingstree	SC	33.66	79.83	5
Kingsville	SC	33.82	80.68	5
Kirkwood	SC	34.33	80.60	8
Lancaster	SC	34.76	80.66	6
Langley	SC	33.52	81.85	9
Laurens	SC	34.50	82.02	7

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Leesville	SC	33.92	81.51	5
Lexington	SC	33.98	81.24	6
Liberty Hill	SC	34.48	80.80	6
Lincolnton	SC	33.01	80.16	9
Lowndesville	SC	34.21	82.65	5
Lynchburgh	SC	34.05	80.07	7
Manning	SC	33.69	80.21	7
Marion	SC	34.00	79.35	7
Mars Bluff	SC	34.21	79.64	5
Mayesville	SC	33.98	80.21	5
Mcconnellsville	SC	34.80	81.25	7
Midway	SC	33.28	80.98	5
Mullins	SC	34.20	79.25	7
Newberry	SC	34.27	81.62	5
Nichols	SC	34.24	79.15	7
Orangeburg	SC	33.45	80.80	7
Pacolet	SC	34.90	81.76	7
Pendleton	SC	34.65	82.78	5
Pickens	SC	34.85	82.71	6
Plantersville	SC	33.56	79.22	5
Port Royal	SC	32.37	80.69	9
Ridgeway	SC	34.31	80.96	6
Rock Hill	SC	34.92	81.03	5
Society Hill	SC	34.51	79.85	7
Spartanburg	SC	34.89	81.97	7
Stateburg	SC	33.96	80.54	7
Steedman	SC	33.78	81.44	5
Summerville	SC	33.02	80.18	9
Sumter	SC	33.91	80.27	7
Timmons ville	SC	34.13	79.94	8
Union	SC	34.71	81.63	5
Varnville	SC	32.85	81.08	5
Vaucluse	SC	33.61	81.81	7
Walhalla	SC	34.76	83.07	7
Walnut Grove	SC	34.83	81.97	7
Williamston	SC	34.62	82.48	6
Willington	SC	33.97	82.47	8
Williston	SC	33.40	81.42	5
Winnsboro	SC	34.38	81.09	6
Woodstock	SC	32.85	80.30	9
Woodward	SC	34.53	81.17	5
York	SC	34.99	81.18	5
Athens	TN	35.44	84.59	5
Blountville	TN	36.53	82.33	4
Bolivar	TN	35.26	88.99	4
Bristol	TN	36.59	82.18	5
Brownsville	TN	35.59	89.26	4
Caryville	TN	36.30	84.22	6

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Celina	TN	36.55	85.51	3
Chattanooga	TN	35.05	85.31	6
Chestnut Mound	TN	36.20	85.83	4
Clarksville	TN	36.53	87.36	4
Cookeville	TN	36.16	85.50	4
Covington	TN	35.53	89.67	3
Dayton	TN	35.49	85.01	3
Dowellton	TN	35.97	84.93	4
Dyersburg	TN	36.03	89.39	3
Gainesboro	TN	36.35	85.66	4
Gordonsville	TN	36.17	85.94	4
Granville	TN	36.27	85.80	4
Greeneville	TN	36.16	82.83	5
Humboldt	TN	35.82	88.91	3
Huntingdon	TN	36.00	88.45	4
Jamestown	TN	35.55	89.86	4
Knoxville	TN	35.98	83.92	6
Manchester	TN	35.48	86.09	5
Memphis	TN	35.12	90.08	5
Milan	TN	35.92	88.76	6
Nashville	TN	36.16	86.78	6
Paris	TN	36.28	88.33	4
Pulaski	TN	35.20	87.03	4
Rogersville	TN	36.40	83.01	6
Saulsby	TN	35.05	89.09	4
Sneedville	TN	36.53	83.22	5
Tullahoma	TN	35.36	86.21	4
Whitman	TN	36.26	84.42	4
Winchester	TN	35.18	86.11	4
Alexandria	VA	38.81	77.04	5
Alleghany Spring	VA	37.13	80.27	6
Ashcake	VA	37.70	77.40	6
Big Spring Depot	VA	37.25	80.30	3
Buchanan	VA	37.30	82.02	4
Buffalo Lithia Springs	VA	36.65	78.65	3
Charlottesville	VA	38.04	78.49	7
Chatham	VA	36.82	79.40	4
Churchland	VA	36.86	76.40	5
Clifton Forge	VA	37.83	79.82	5
Daggers Springs	VA	37.68	79.83	4
Danville	VA	36.59	79.40	6
Eastville	VA	37.35	75.95	4
Fairfax Courthouse	VA	38.82	77.30	4
Fredericksburg	VA	37.89	79.44	4
Glade Spring	VA	36.79	81.78	5
Hillsville	VA	36.76	80.73	3
Hot Springs	VA	38.00	79.83	3
Jamestown	VA	37.21	76.78	5

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Jonesville	VA	36.69	83.11	6
Lexington	VA	37.78	79.44	4
Lunenburg Courthouse	VA	36.97	78.22	3
Lynchburg	VA	37.41	79.17	6
Madison	VA	38.43	78.28	5
Manchester	VA	37.53	77.42	6
Marion	VA	36.83	81.52	4
Martinsville	VA	36.68	79.87	5
Natural Bridge	VA	37.63	79.54	4
New Store	VA	37.41	78.55	5
Norfolk	VA	36.90	76.25	5
Petersburg	VA	37.22	77.40	5
Point Of Shoals Lighthouse	VA		0.00	4
Pungoteague	VA	37.63	75.82	4
Rappahannock Station	VA	38.55	77.82	3
Richmond	VA	37.56	77.43	8
Ruther Glen	VA	37.93	77.46	5
Smithville	VA	37.07	78.63	3
Suffolk	VA	36.73	76.58	5
Trenton Mills	VA	37.63	78.23	4
Winchester	VA	39.18	78.16	4
Wise Courthouse	VA	37.08	82.57	4
Woodford	VA	38.11	77.41	4
Woodstock	VA	37.49	77.48	3
Wytheville	VA	36.95	81.09	5
Augusta	WI	44.68	91.12	3
Beloit	WI	42.50	89.03	5
Buncombe	WI	42.52	90.43	3
Chambers Island Light Sta	WI	45.20	87.37	3
Durand	WI	44.63	91.96	3
Eagle Bluff Lighthouse	WI	45.17	87.33	3
Eau Claire	WI	44.81	91.50	3
Fond Du Lac	WI	43.74	88.52	3
Janesville	WI	42.68	89.02	5
Juneau	WI	43.41	88.71	3
La Crosse	WI	43.90	91.17	4
Light Station	WI	44.17	87.50	3
Mauston	WI	43.80	90.08	3
Milwaukee	WI	43.03	87.91	5
Neillsville	WI	44.56	90.58	3
Port Du Most Light	WI	45.38	86.93	3
Prairie Du Chien	WI	43.05	91.15	3
Racine	WI	42.74	87.80	3
Sauk City	WI	43.28	89.72	3
Sheboygan	WI	43.72	87.93	3
Twin River Point	WI	44.17	87.50	3
Wausau	WI	44.96	89.63	3
Barboursville	WV	38.41	82.29	3

**Table 4. MMI for the September 1, 1886 Earthquake
Near Charleston, South Carolina**

Place	State/ Prov.	Latitude (°N)	Longitude (°W)	MMI
Braxton Courthouse	WV	38.65	80.80	4
Buckhannon	WV	38.99	80.23	5
Charleston	WV	38.36	81.63	7
Grafton	WV	39.31	80.01	5
Huntington	WV	38.41	82.41	5
Logan Courthouse	WV	35.95	82.07	3
Madison	WV	38.06	81.82	4
Martinsburg	WV	39.46	77.96	3
Moundsville	WV	39.95	80.91	5
Mouth Of Pigeon	WV	37.93	82.42	7
Nicholas	WV	38.32	80.84	3
Parkersburg	WV	39.29	81.55	6
Peeryville	WV	37.43	81.92	3
Petersburg	WV	38.99	79.13	4
Point Pleasant	WV	38.85	82.14	5
Princeton	WV	37.37	81.10	3
Romney	WV	39.34	78.76	4
Saint George	WV	39.13	79.74	3
Volcano	WV	39.23	81.28	7
Webster	WV	39.26	80.08	3
Wellsburg	WV	40.27	80.61	3
West Union	WV	39.26	80.85	3
Weston	WV	39.00	80.50	3
Wheeling	WV	40.05	80.71	5
White Sulphur Springs	WV	37.80	80.03	4
Winfield	WV	38.53	82.00	4