

INTRODUCTION

The earthquake data shown on this map and listed in table 1 are a list of earthquakes that were originally used in preparing the Seismic Risk Studies in the United States (Algermissen, 1969) which have been recompiled and updated through 1977. The data have been reexamined and intensities assigned where none had been assigned before, on the basis of available data. Other intensity values were updated from new and additional data sources that were not available at the time of original compilation. Some epicenters were relocated on the basis of new information. The data shown in table 1 are estimates of the most accurate hypocenter, magnitude, and intensity of each earthquake, on the basis of historical and current information. Known or suspected explosions are listed in table 1 but are not plotted on the seismicity map.

The data in table 1 were used to compile the seismicity map. The latitude and longitude were rounded to the nearest tenth of a degree and sorted so that all identical locations were grouped together and counted. A triangle represents the epicenter plotted to a tenth of a degree. The number of earthquakes at each location is shown on the map by the number to the right of the triangle. A Roman numeral to the left of a triangle is the maximum Modified Mercalli intensity (Wood and Neumann, 1931) of all earthquakes located at that geographic position. The absence of an intensity value indicates that no intensities have been assigned to earthquakes at that location. A year shown below a triangle is the latest year for which the maximum intensity was recorded.

EXPLANATION OF THE TABLES

The data are listed chronologically in table 1 in the following categories: date, origin time, N. latitude, W. longitude, depth, hypocenter quality and referenced data sources, magnitude, and intensity (Modified Mercalli) and intensity source references. Table 1 has some basic limitations in terms of the size (magnitude or intensity) of the earthquakes listed. Prior to 1965 all recorded felt earthquakes are listed; after 1965 only published earthquakes having magnitudes above the 2.5-3.0 range are listed; the lower magnitude levels apply mostly to the eastern United States. The low magnitude events located in recent years with dense seismograph networks have not been included.

Listed below is an explanation of the symbols and codes used in the tables:

- Leaders (..) indicate information not available.
- Latitude and longitude are listed to a hundredth of a degree if they have been published with that degree of accuracy, or greater; however, most historical events have been published only to the nearest degree or tenth of a degree and are therefore listed at this accuracy in table 1. An asterisk (*) to the right of the longitude indicates that the latitude and longitude were not given in the source reference, but were assigned by the compilers of the data file. An (x) to the right of the longitude indicates that the event is an explosion, a suspected explosion, or a nontectonic event; these have not been plotted on the map.
- The letter code in the HYPOCENTER, QUAL column is defined below:
 - Determination of instrumental hypocenters are estimated to be accurate within the ranges of latitude and longitude listed below; each range is letter coded as indicated:

A	0.0°-0.1°
B	0.1°-0.2°
C	0.2°-0.5°
D	0.5°-1.0°
E	1.0° or larger
 - Determination of noninstrumental epicenters from felt data are estimated to be accurate within the ranges of latitude and longitude listed below; each range is letter coded as indicated:

F	0.0°-0.5°
G	0.5°-1.0°
H	1.0°-2.0°
I	2.0° or larger
- The reference identification numbers in the HYPOCENTER, REF and INTENSITY, REF columns indicate the sources of the hypocenter and intensity. They are listed in numerical order in table 2.
- The magnitudes listed under "USGS" are mb values (Gutenberg and Richter, 1956) published in the Preliminary Determination of Epicenters (PDE) by the National Earthquake Information Service, U. S. Geological Survey and predecessor organizations. Associated with the magnitude values listed under "OTHER" are the source code and type. Type is defined by 1 = ML (Richter, 1958), 2 = mBLg (Nuttli, 1973), and 3 = MS (Bath, 1966). The source codes are listed below:

GS	National Earthquake Information Service, U. S. Geological Survey, Golden, Co.
SLM	St. Louis University, St. Louis, Mo.
TUL	Oklahoma Geophysical Observatory, Oklahoma Geological Survey, Leonard, Ok.
- An asterisk (*) in the INTENSITY, MM column indicates that the intensity was assigned by the compiler on the basis of the available data at the time the catalog was compiled.

REFERENCES

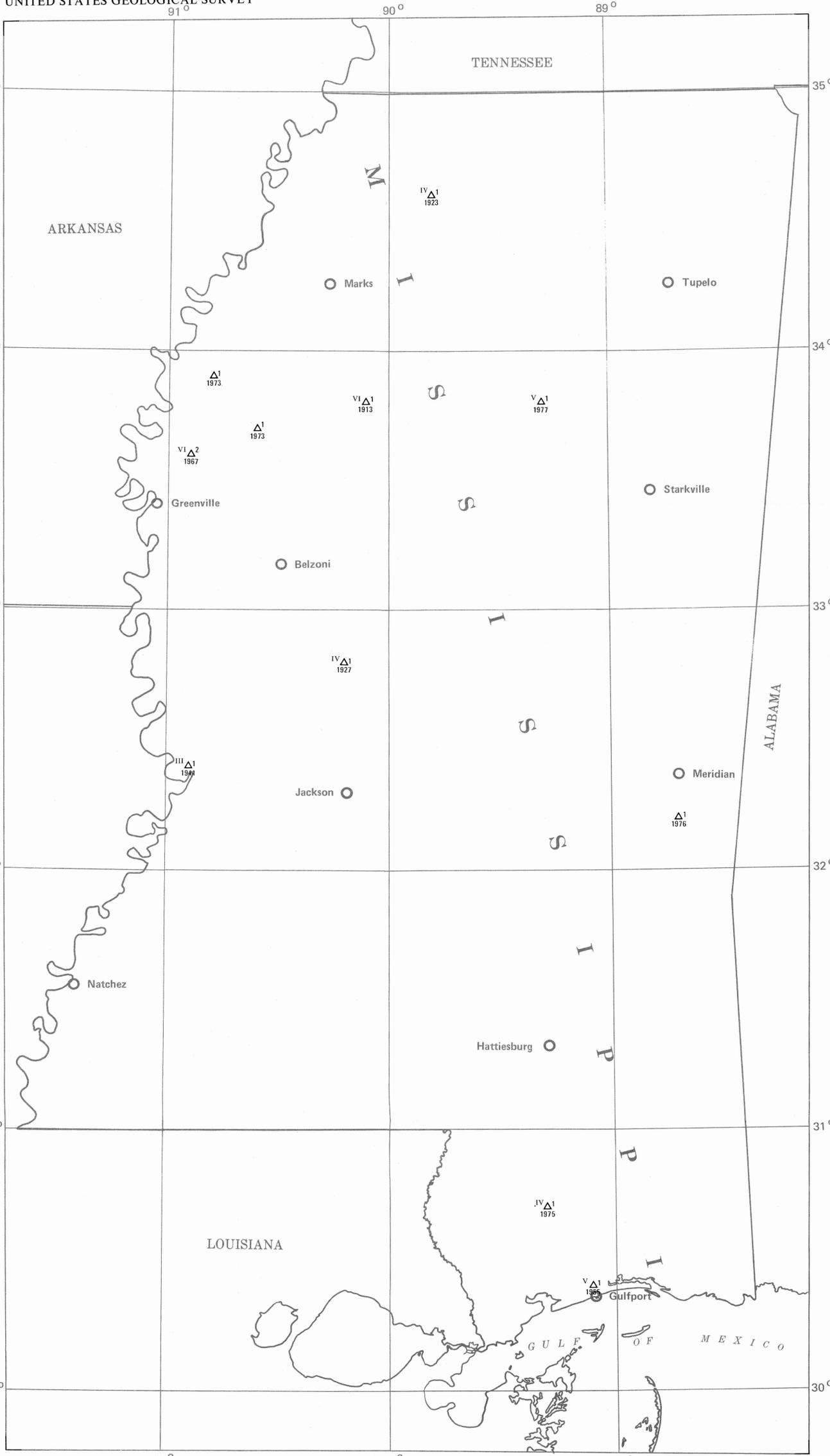
Algermissen, S. T., 1969, Seismic risk studies in the United States: Fourth World Conference on Earthquake Engineering, Santiago, Chile, January 13-18, 1969, Proceedings, v. 1, p. 14-27.
 Bath, Markus, 1966, Earthquake energy and magnitude, in v. 7 of Physics and chemistry of the Earth: Oxford and New York, Pergamon Press, p. 115-165.
 Gutenberg, B. and Richter, C. F., 1956, Magnitude and energy of earthquakes: Annali di Geofisica, v. 9, no. 1, p. 1-15.
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 Richter, C. F., 1958, Elementary Seismology: San Francisco, Calif., W. H. Freeman and Co., Inc., 768 p.
 Wood, H. O., and Neumann, F., 1931, Modified Mercalli Intensity Scale of 1931: Seismological Society of America Bulletin, v. 21, no. 4, p. 277-283.

Table 1.--Chronological listing of Earthquakes for the State of Mississippi

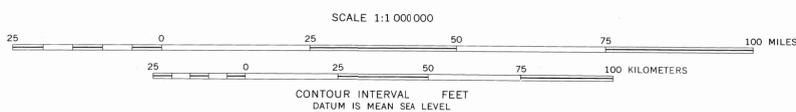
YEAR	MONTH	DAY	ORIGIN TIME(UTC)			LAT. (N.)	LONG. (W.)	DEPTH (KM)	HYPOCENTER QUAL	REF	MAGNITUDE USGS	OTHER	INTENSITY MM	REF	
			H	M	S										
1923	MAR	27	08	00	..	34.6	89.8	..	H	105	..	..	IV	105
1927	NOV	13	16	21	..	32.8	90.2	..	G	105	..	..	IV	105
1931	DEC	17	03	36	..	33.8	90.1	*	C	4	..	..	VI	4
1941	JUN	28	18	30	..	32.4	90.9	*	G	14	..	..	III*	..
1955	FEB	01	14	45	..	30.4	89.1	..	G	38	..	..	V	38
1967	JUN	04	16	14	13.6	33.6	90.9	033	A	74	3.4	..	VI	40	
1967	JUN	29	13	57	07.2	33.6	90.9	033	A	74	3.4	..	V	40	
1973	JAN	08	09	11	36.8	33.73	90.63	007	A	74	..	3.5SLM	2
1973	MAY	25	14	40	13.9	33.92	90.77	006	B	74
1975	SEP	09	11	52	44.1	30.66	89.25	005	B	89	..	2.9TUL	2	IV	89
1976	OCT	23	00	40	59.5	32.20	88.73	005	C	95	..	3.0GS	2
1977	NOV	04	11	21	07.0	33.83	89.28	005	C	92	..	3.4SLM	2	V	92

Table 2.--List of data sources

- Neumann, F., 1932, United States Earthquakes 1931, U. S. Department of Commerce, Coast and Geodetic Survey, Serial No. 553, p. 1-26.
- Neumann, F., 1943, United States Earthquakes 1941, U. S. Department of Commerce, Coast and Geodetic Survey, Serial No. 655, p. 1-41.
- Coffman, J. L. and von Hake, C. A., 1973, Earthquake History of the United States, U. S. Department of Commerce, National Oceanic and Atmospheric Administration, No. 41-1 (through 1970), p. 1-208.
- von Hake, C. A. and Cloud, W. K., 1969, United States Earthquakes 1967, U. S. Department of Commerce, Environmental Science Services Administration, p. 1-90.
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Data compiled in 1978



SEISMICITY MAP OF THE STATE OF MISSISSIPPI

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