



**EARTHQUAKE DATA FOR TENNESSEE AND
SURROUNDING AREAS
(1699-1979)**

**TENNESSEE DIVISION OF GEOLOGY
ENVIRONMENTAL GEOLOGY SERIES NO. 8**

1980

Cover Photo —

Reelfoot Lake in Lake County, Tennessee, formed by the great earthquakes of 1811-1812 (The New Madrid, Missouri, earthquake series). Photo courtesy of the Department of Conservation.

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By

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Department of Conservation
Division of Geology
Nashville, Tennessee**

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STATE OF TENNESSEE
LAMAR ALEXANDER, *Governor*

DEPARTMENT OF CONSERVATION
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DIVISION OF GEOLOGY
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ABSTRACT

Increasing awareness of the possibility of damaging earthquake activity in Tennessee, especially in the western part of the state, has prompted the Tennessee Division of Geology to work toward a more accurate and detailed evaluation of earthquake risk in Tennessee. A necessary first step to this end is the compilation of information on all earthquakes that have been felt in the region. This report presents a synthesis of several existing compilations, with the goal of listing as completely as possible earthquakes that have affected Tennessee and surrounding areas. The nature of earthquake records, especially those

that predate instrumental recording of earthquakes, is such that there are ambiguities and uncertainties concerning the details of date, location, and size of many shocks. The earthquake data in the two appendices of this report are presented in such a way as to either resolve the ambiguities where possible or define the uncertainties where they exist. In addition to earthquake magnitudes and intensities, types of earthquake waves are also described. Completeness of the earthquake record for West Tennessee is discussed, as well as an apparent increase in earthquake activity since about 1900.

EARTHQUAKE DATA FOR TENNESSEE AND SURROUNDING AREAS (1699-1979)

by
Terry R. Templeton¹ and Barry C. Spencer²

INTRODUCTION

Earthquakes have affected Tennessee, especially the western part of the state, throughout the recorded history of the region. Although people in sections of the United States where earthquakes occur more frequently have dealt with the problem for a long time, Tennesseans are just beginning to take seriously the possibility of major earthquake damage in certain parts of the state. With increasing urbanization in the Memphis area and in other communities in the region, the Tennessee Division of Geology recognizes the importance of assessing earthquake hazards in Tennessee. The frequency and intensity of past earthquakes and the probability of future earthquakes must be studied in order to understand the nature of earthquake risk in the region. Factors relating to potential damage in a vulnerable population center such as Memphis must also be considered. The first step is the compilation of information on all earthquakes felt in Tennessee and surrounding areas. Thus this report will deal

primarily with the record of earthquakes in this region.

The goal of this report is to compare and collate available lists of earthquakes in order to obtain the most complete record possible of earthquakes that have affected Tennessee and surrounding areas, and to assist future workers with their study of the earthquake record in the region. Therefore, data on earthquakes that have occurred between 34° and 38° north latitude and between 80° and 92° west longitude are listed in Appendices A and B. This area includes all of Tennessee and parts of Alabama, Arkansas, Georgia, Illinois, Indiana, Kentucky, Mississippi, Missouri, North Carolina, South Carolina, Virginia, and West Virginia. In addition, some earthquakes that occurred outside this area, but which were felt within the area, especially in Tennessee, have been included. Appendix A covers the region west of the 87th meridian, and Appendix B covers the region east of the 87th meridian.

MEASUREMENT OF EARTHQUAKES

Earthquakes and their effects are the result of the sudden movement of one part of the earth's crust past another. This movement takes place along what is called a fault. It may occur at the earth's surface, but commonly occurs at some depth within the earth's crust. The point (or more correctly, area) of actual rupture in the crust is called the focus, or hypocenter, of the earthquake. That place on the

earth's surface directly above the focus is called the epicenter (Figure 1). Earthquakes are divided into three classes according to their focal depth. Shallow focus earthquakes have a focal depth of from 0 to 70 kilometers; intermediate depth foci are from 70 to 300 kilometers; and deep foci are greater than 300 kilometers. Only about three percent of all earthquakes have deep foci. Most earthquakes have

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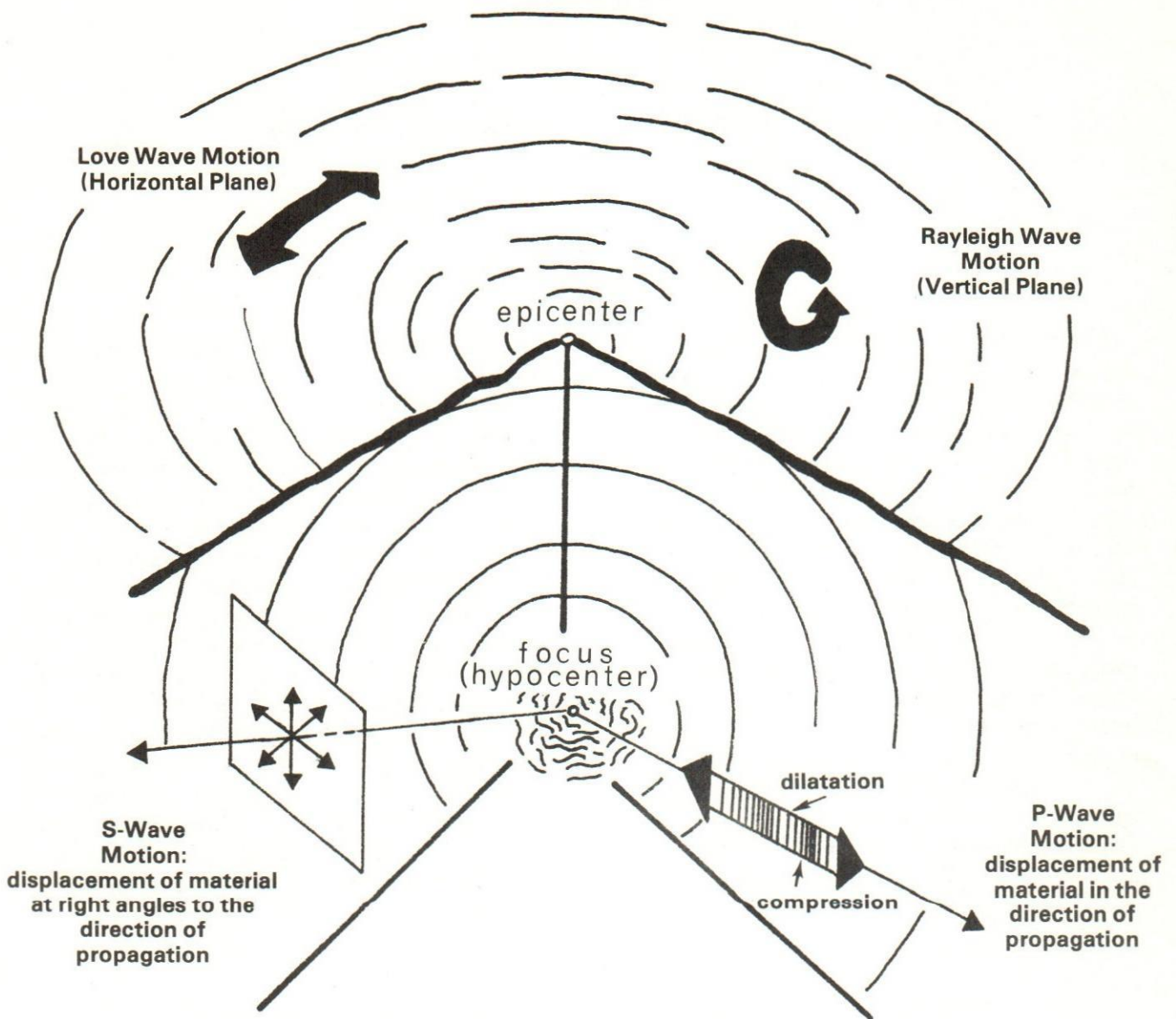


Figure 1. Diagrammatic representation of earthquake waves. Modified from Podolny and Cooper, 1974.

shallow foci. Recent data indicate that earthquakes in Tennessee have shallow foci.

Part of the energy released by rock movement during an earthquake is dispersed in the form of waves that travel through the earth and along its surface, with the remainder converted to heat or expended in crushing the rocks. There are two basic types of seismic waves generated by earthquakes — body waves and surface waves (Figure 1). The body waves consist of so-called "P" and "S" waves, which travel through the interior of the earth. The P, or primary, wave motion causes deformation in the direction of propagation. It is the fastest of the seismic waves and produces a push-pull (compression-dilatation) motion. The S, or secondary (because it is slower) wave motion causes displacement at right angles to the direction of wave travel. It is also known as the shear, or shake wave. The other type of seismic wave is the surface wave, of which there are two varieties. The L wave produces lateral motion in the horizontal plane (no vertical or longitudinal component). The Rayleigh wave produces a retrograde, elliptical motion, similar to wind-driven ocean waves. These waves are constrained to the surface of the earth. In comparison with body waves, surface waves usually produce stronger vibrations and cause most earthquake damage.

There are two basic systems presently used for the measurement of earthquakes. One is a measurement of the *magnitude* of the earthquake, and the other is a determination of the *intensity* of the earthquake. Every felt earthquake has many intensities, but each earthquake (felt or not) has only one magnitude. This is because the magnitude of an earthquake is related to the total amount of energy released during the event, which is finite.

As originally defined for Southern California earthquakes by seismologist Charles F. Richter, magnitude is the logarithm, to the base ten, of the amplitude, measured in microns, of the largest trace written on a "standard" seismograph by an earthquake at a distance of 100 kilometers. In practice, the maximum trace amplitude is corrected for non-standard distances before magnitude computation. Further information concerning measurement of earthquake magnitudes, as well as intensities, can be found in another Tennessee

Division of Geology publication, "Earthquake Hazards in Tennessee," by Richard G. Stearns and Robert A. Miller (1977).

On the Richter scale of magnitude, a difference of one unit (for example, from 6.0 to 7.0) represents a ten times greater wave amplitude on the seismogram, and a thirty-two times greater energy release, in the larger event. The largest earthquakes ever recorded were 8.9 events (Colombia-Ecuador border in 1906 and Sanriku, Japan in 1933), according to Richter (1958). The smallest recorded earthquakes are about -3, with human perception beginning at about +2.

Although magnitude measurements are useful for many purposes, including comparison of earthquakes, they indicate nothing specific about damage or other effects resulting from an earthquake. Earthquake intensity determinations, however, are concerned with earthquake effects, including damage. It is not presently possible to exactly correlate magnitude and intensity of an earthquake. This is because intensity determinations depend upon distance from the epicenter, effects of varying geologic conditions at different localities where the earthquake is felt, and subjective human reactions, rather than the unbiased instrumental record of a shock.

Intensity, therefore, is the basis for the second system of earthquake measurement. Tocher (1964) pointed out that intensity describes the effects of an earthquake at a particular place. It is a relative determination based on the observed effects of an earthquake on buildings, people, and the ground. Human observations and impressions, and damage to natural and manmade objects, are thus criteria for the intensity scales that have been devised. These include the 5-degree Pignataro scale of 1783, the 10-degree Rossi-Forel scale of 1883, and the 10-degree Mercalli scale of 1902 (Podolny and Cooper, 1974). Harry Wood and Frank Neumann of the United States Coast and Geodetic Survey modified and revised the Mercalli scale in 1931. The 12-degree modified Mercalli intensity scale is used almost exclusively in the United States today. An abridged version of this scale is given in Table 1.

**TABLE 1. ABRIDGED VERSION OF THE MODIFIED
MERCALLI INTENSITY SCALE OF 1931
(From Wood and Neumann, 1931)**

- I. Not felt except by a very few under especially favorable circumstances.
- II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
- III. Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motorcars may rock slightly. Vibration like passing of truck. Duration estimated.
- IV. During the day, felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensation like heavy truck striking building. Standing motorcars rocked noticeably.
- V. Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbance of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.
- VI. Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.
- VII. Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motorcars.
- VIII. Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motorcars disturbed.
- IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.
- X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with their foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.
- XI. Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.
- XII. Damage total. Waves seen on ground surfaces. Lines of sight and level distorted. Objects thrown upward into air.

There are several problems inherent in designating an intensity for an earthquake. First, since they are subjective, intensity designations may have different interpretations. For this reason, a single intensity report is not a very good representation of the total character of a given earthquake. Second, accurate facts from witnesses, necessary for the most complete intensity determination, may be difficult to obtain from those who may have been affected by panic or loss of equilibrium. Third, seemingly contradictory effects are sometimes observed. For example, one building may be heavily damaged while another nearby may suffer only minor damage. This

may result in part from variations in geologic conditions at different sites, or from different types of construction. Fourth, since earthquake effects are influenced by local geologic conditions, and since the effects of any earthquake diminish with increasing distance from the epicenter, attempts to designate intensities over the entire felt area can be difficult. This is especially true for earthquakes in cases where only limited descriptive data exist. Isoseismal maps, which delineate areas of equal intensity effects, can be helpful in showing the intensity character of an earthquake over its felt area, provided adequate descriptions of effects can be obtained.

EARTHQUAKES IN WEST TENNESSEE AND SURROUNDING AREAS

One of the chief methods for determining where to expect earthquakes to occur in the future is to examine the historical record of where earthquakes have occurred in the past, since it may be assumed in general that future earthquakes will occur in the same areas as past earthquakes. Study of past earthquakes in this region is therefore vital. In California, where active faults are visible at the surface and can easily be studied, and where earthquakes occur relatively frequently, the study of earthquakes is more advanced. In the Mississippi Embayment, however, many suspected faults are buried beneath a thick section of unconsolidated sediments. Earthquakes in West Tennessee also occur less frequently. The study of earthquakes here is thus more difficult.

Although several lists of earthquakes that include all or part of the study area have been compiled, three lists have been used as the chief sources for compilation of the data in Appendix A. First, the Tennessee Valley Authority, Geologic Services Branch, has made a preliminary compilation of historic earthquakes for an area that includes all of the present study area. Second, Richard G. Stearns³ (1978) has compiled a revised list of earthquakes that includes the present study area, except for areas near the northern boundary. Third, a list by Otto Nuttli⁴ (1979) was examined to make this compilation as complete as possible. These three sources are hereinafter referred to as TVA, RGS, and ON, respectively. Also, in order to complete this compilation through 1978, several additional sources were consulted for 1976-1978. These include a computer list of earthquakes by W.C. McClain of Oak Ridge National Laboratory; "Earthquakes in the United States," published by the United States Geological Survey; earthquake information published by St. Louis University; personal communication with John Minsch of the National Earthquake Information Service; and personal communication with James Zollweg of the Tennessee Earthquake Information Center. These are later abbreviated in Appendix A as MC, USGS, SLU, NEIS, and TEIC, respectively. Finally, supplemental references for

1979 earthquakes are identified in the listing of each 1979 earthquake. However, the list of 1979 earthquakes should not be considered exhaustive, particularly for the last half of the year in East Tennessee and for the last quarter in West Tennessee.

The nature of past earthquake records is such that discrepancies between any two lists are likely to exist. For example, accounts of earthquakes that occurred before the days of widespread population and communications facilities in the region are commonly sketchy, and various sources may differ on principal facts for a given earthquake. Ultimately, a search of original records is required to eliminate as many differences as possible in current lists. Even then, discrepancies that defy resolution may remain in original records. It should also be noted that there are perhaps "undiscovered" errors in consulted sources that are thus uncorrected in this compilation. It is hoped that more of these will be found and corrected in future compilations.

Differences in data that were found in the lists examined for this study are, in general, simply listed, with the data source identified by abbreviation. In some cases, possible explanations of differences are given. Where the source lists agree on the pertinent data for an earthquake, no source identification is made. This format presents information about earthquakes that have been felt in West Tennessee and surrounding areas in a way that not only portrays the extent of earthquake activity in the region but also points out the numerous problems in interpreting the records of many earthquakes.

The recorded history of earthquakes in the West Tennessee region begins in 1699. The record includes the famous New Madrid (Missouri) earthquake series of 1811-1812 that some estimate to have been among the strongest shocks ever felt in this country. The New Madrid area has continued to experience earthquake activity. Figure 2 is an isoseismal map of the first of the three main earthquakes in the 1811-1812 series. From this map, one can gain an idea how

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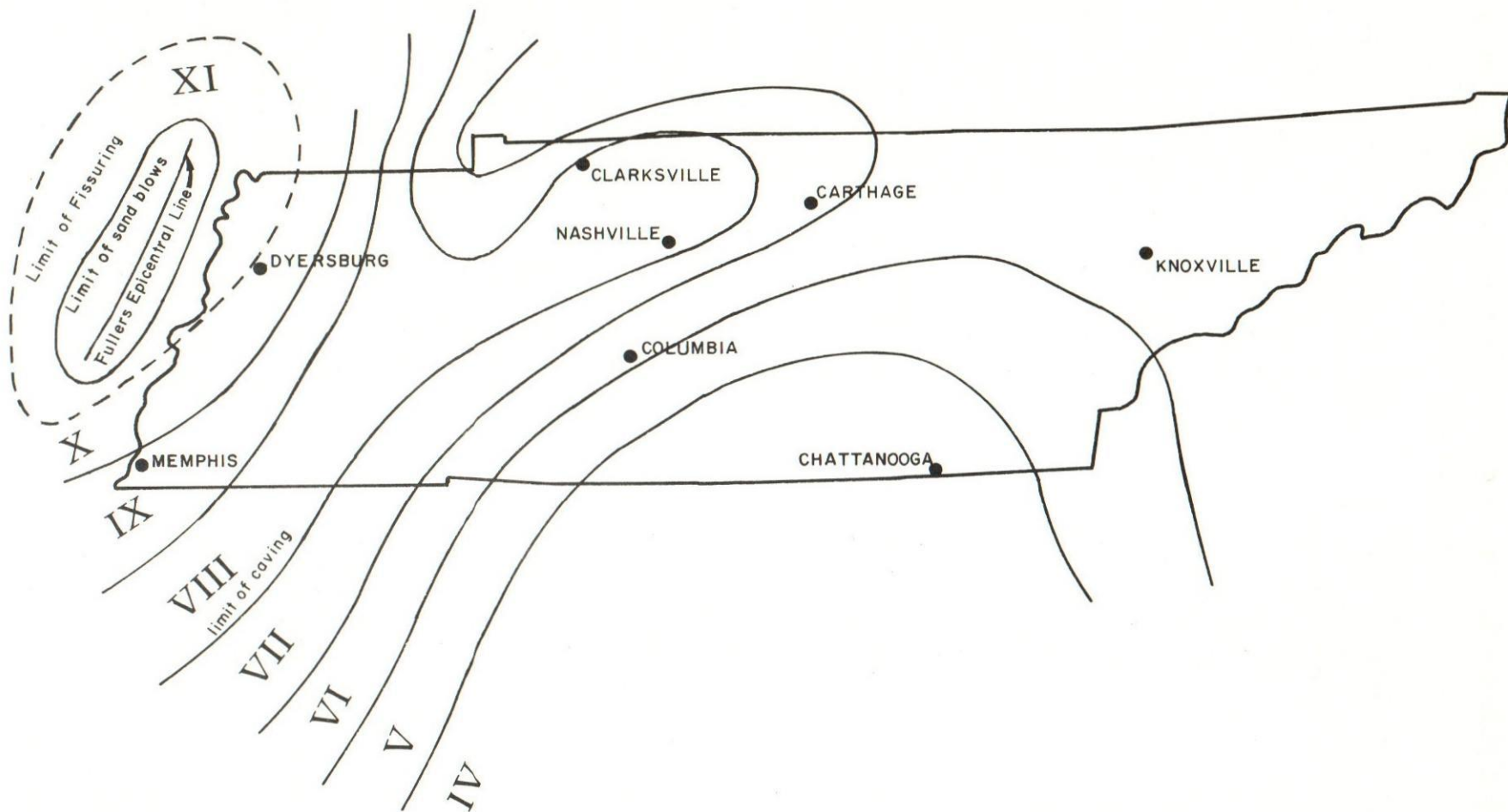


Figure 2. Isoseismal map of the New Madrid earthquake of December 16, 1811. Intensity IX-XII isoseismals drawn from physical evidence. Intensity II-VIII isoseismals drawn from experience ratings. Redrawn from Stearns and Wilson, 1972.

the shock was attenuated with distance. Since the estimates of intensity are based on human observations and impressions, the pattern resulting from reported effects was certainly influenced by the population distribution at the time. However, it can be seen that a significant area experienced a modified Mercalli intensity of IX-X or greater. This clearly illustrates the potential widespread destructiveness of a similar earthquake recurring in a populated region such as West Tennessee.

The record of earthquakes from 1699 to about 1870 in the region must be considered incomplete, owing primarily to the sparse population and lack of consistent historical records for that time period. There were probably many small events that were unnoticed, and larger events that were either unnoticed or not recorded. From about 1870 to 1931 the record is good, but probably incomplete. It is likely that some small events were either not felt or not recorded. It is also likely that "new" earthquakes will be discovered in records not yet searched, especially for this time period. An example is the discovery of the record of an earthquake felt at Osceola, Arkansas on December 17, 1877. This event is recorded in "Years of Discontent," the diary of Dr. Frank L. James in Arkansas, 1877-1878, published by the Memphis State University Press in 1977. From about 1931 to the present the record is considered to be essentially complete, with many earthquakes having been detected by seismographs, especially since 1962. However, it is possible that a few small earthquakes were not recorded. Records since 1974 also include microearthquakes (only detected instrumentally and not felt) owing to the installation of new seismograph stations in the area, primarily by St. Louis University. Although microearthquakes have not been included in this compilation, the locations of some of these stations are given in Table 2. Additional stations in the Tennessee Earthquake Information Center network were in operation at the time of this writing. They are also listed in Table 2.

Data on more than 449 earthquakes that have been felt in West Tennessee and surrounding areas are listed chronologically through 1979 in Appendix A. Line 1 of each entry in Appendix A lists the year,

month, and day of the event. Any Greenwich Mean Time (GMT) dates in source lists have been converted to the date of local time (Central Standard Time). Also on line 1 are the latitude, longitude, and modified Mercalli intensity estimate, respectively, of the earthquake. Latitudes and longitudes enclosed by parentheses are non-instrumental estimates. These are determined by study of historical accounts, such as newspaper reports, and are subject to discrepancies resulting from different interpreter's judgments. Latitudes and longitudes shown without parentheses are epicenter locations that have been determined from seismograph detection of the earthquake. However, parentheses were not used in the ON data consulted by the author. Where sources differed on the latitude or longitude, all data are shown, with the source identified. The same is true for discrepancies in intensity estimates. Locations and intensities of the earthquakes listed in both Appendix A and Appendix B are shown on Plate 1. Latitude-longitude and intensity data plotted on Plate 1 are italicized in the appendices, if there is a discrepancy. Line 2 describes a general geographic location for the earthquake, except in the case of earthquakes that are listed only by ON. It also lists magnitude and focal depth of recent earthquakes, where available. Where sources differed on magnitude or focal depth for a given earthquake, all values are listed, with the source identified. Some magnitude discrepancies are probably attributable to undesignated reporting of magnitudes calculated by using different types of earthquake waves in the computations. Discrepancies in reported focal depth may result from differences in mathematical techniques used by the original investigators. Line 3 contains additional explanatory remarks, including discrepancies in reported origin times of, in general, one-half hour or more.

Figure 3 is a histogram showing the number of earthquakes per year for both the East and West Tennessee areas. Although there is an apparent increase in earthquake activity for the West Tennessee area since about 1870, and especially since the early 1900's, the author believes that much

TABLE 2. REGIONAL SEISMOGRAPH STATIONS**Stations in the St. Louis University Seismic Network
Within the West Tennessee Study Area**

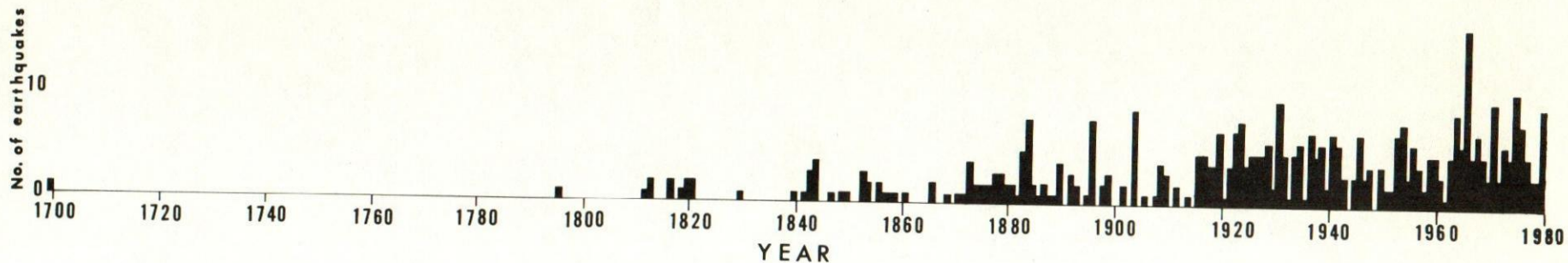
STATION	LOCATION	LATITUDE	LONGITUDE	ELEVATION (M)
CRU	Crutchfield, KY	36.595° N	89.020° W	127
DON	Dongola, MO	37.176° N	89.933° W	165
DWM	Dogwood, MO	36.805° N	89.490° W	92
ECD	Elk Chute Ditch, MO	36.060° N	89.940° W	79
ELC	Elco, IL	37.285° N	89.227° W	153
GRT	Gratio, TN	36.264° N	89.420° W	137
JHP	Judd Hill Plantation, AR	35.605° N	90.510° W	68
LST	Lone Star, MO	36.523° N	89.731° W	83
NKT	Nankipoo, TN (2 components)	35.850° N	89.544° W	153
OKG	Oak Grove, TN	35.626° N	89.835° W	129
PGA	Paragould, AR	36.060° N	90.620° W	122
POW	Powhatan, AR	36.150° N	91.180° W	156
RMB	Rombauer, MO	36.886° N	90.278° W	147
WCK	Wilson Creek, KY	36.934° N	88.874° W	137
CIRL	Cave In Rock, IL	37.512° N	88.108° W	119
CSIL	Creal Springs, IL	37.632° N	88.790° W	168
NHIL	New Haven, IL	37.927° N	88.171° W	134
CGM	Cape Girardeau, MO	37.317° N	89.533° W	134
FVM	French Village, MO	37.984° N	90.426° W	334
NMMO	New Madrid, MO	35.588° N	89.552° W	90
GOIL	Rosebud, IL	37.291° N	88.582° W	165

Stations in the TEIC Network

MET	Memphis, TN (MSU)	35.122° N	89.935° W	93
MPH	Memphis, TN (TEIC)	35.123° N	89.932° W	94
WLA	Wittsburg Lake, AR	35.186° N	90.716° W	115
SFTN	Shelby Forest, TN	35.358° N	90.019° W	-23
LGAR	La Grange, AR	34.652° N	90.656° W	100
PGM	Pleasant Grove, MS	34.464° N	90.113° W	105
OLY	Olyphant, AR	35.503° N	91.470° W	236
PWLA	Pickwick Lake, AL	34.980° N	88.064° W	204
EBZ	Ebenezer Cemetery, TN	35.141° N	89.351° W	169

Other Regional Stations Within the Study Area

ROL	Rolla, MO	37.918° N	91.869° W	200
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Note: In general, aftershocks are not included in the total number of earthquakes for a given year. However, in some specific cases significant aftershocks are included in the total. There are some years in which the actual number of earthquakes is uncertain, for various reasons. The lack of earthquakes for many years, especially before about 1860, should not be interpreted to mean that there were not earthquakes in those years. Earthquakes probably occurred that were simply not noticed because of sparse population in the region.

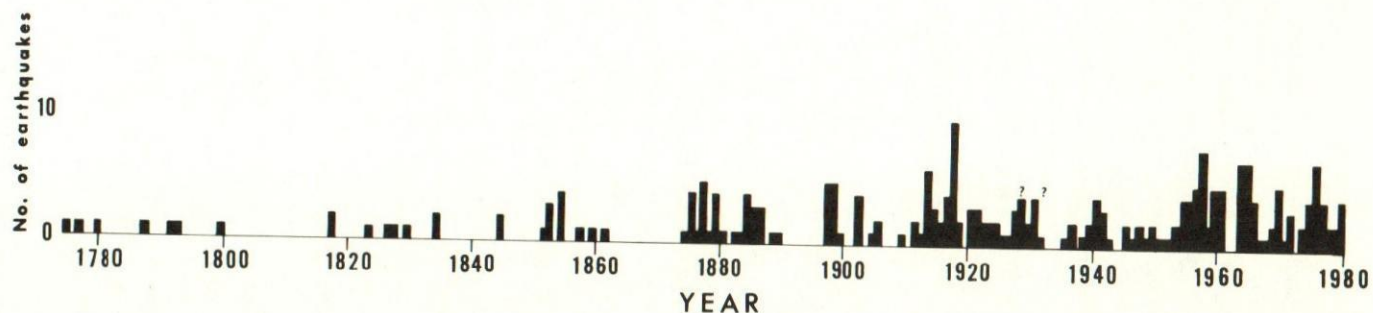


Figure 3. Histogram of recorded earthquakes per year for Tennessee and surrounding areas. Top, West Tennessee and surrounding areas (34° to 38° north latitude — 87° to 92° west longitude). Bottom, East Tennessee and surrounding areas (34° to 38° north latitude — 80° to 87° west longitude).

of this apparent increase is attributable to the increasing population, with the implication that more people feel and report more earthquakes. However, it is not possible to state unequivocally what the level of earthquake activity was in those early years with sketchy or nonexistent records.

Additional detailed information concerning the

earthquakes listed in Appendix A is contained in the source lists, which are on open file at the Tennessee Division of Geology office, Memphis State University, Memphis, Tennessee. Included in this additional information are isoseismal maps for many of the earthquakes listed here, as well as origin times for most of the shocks listed in both appendices.

EARTHQUAKES IN EAST TENNESSEE AND SURROUNDING AREAS

The eastern half of Tennessee and parts of neighboring states exhibit low-to-moderate seismic activity. For this reason, until recently the area received only limited detailed study relative to more seismically active areas. The principal reason for more intensive studies in the past decade in the East Tennessee region has been the requirement by the United States Nuclear Regulatory Commission that utilities consider the potential effect of seismic activity on nuclear power plants that they build. Therefore, various individuals have compiled lists of earthquakes in the Southeast, and specifically in East Tennessee and surrounding areas, for use in those reports.

Appendix B is the result of the close examination of these listings, and others, with the purpose of presenting a single, comprehensive list of earthquakes for this region. When possible, the original references were cross-checked to verify locations and dates of the earthquakes. Efforts to assure completeness through 1979 for Appendix B were the same as for Appendix A.

All information presented in Appendix B was obtained from previous publications, from personal communications with regional seismologists, and from two unpublished computer lists. These sources were synthesized into a list of more than 253 probable earthquakes that occurred from 1774 through 1979. Line 1 of each entry in Appendix B lists the year, month, and day of the shock, corrected to Greenwich Mean Time (GMT) dates. Dates are standardized to GMT because of possible confusion

owing to the presence of two time zones in the area covered by Appendix B. Also included on line 1 are the epicentral latitude and longitude, modified Mercalli intensity estimate (Roman numerals) and selected literature references (Arabic numerals). Latitude and longitude coordinates enclosed by parentheses are estimated either by the original workers or by the author. In those cases where geographic descriptions differed from coordinate locations in original lists by 0.5 degrees or more, new coordinates were assigned by the author to better conform to the description. Latitudes and longitudes shown without parentheses are epicenter locations determined by seismographs. Some epicenters lie outside the study area, but have been included because the effects of those earthquakes were most likely felt in the study area, especially within East Tennessee. Line 2 describes a general geographic location for each earthquake. Also on line 2 are the magnitudes and focal depths of recent earthquakes, where known. Line 3 contains additional remarks.

Since the early 1900's there has been an apparent increase in the number of earthquakes in the East Tennessee region (Figure 3). The author believes that this is primarily attributable to the increase in population, as explained in the section on earthquakes in West Tennessee.

Additional detailed information on the majority of the earthquakes listed in Appendix B may be found on open file at the Tennessee Division of Geology office in Memphis.

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APPENDIX A

WEST TENNESSEE AND SURROUNDING AREAS

1. 1699 12/25 (35.0° 90.0°) TVA IV TVA, RGS; IV-V ON
MEMPHIS, TENNESSEE AREA
ON latitude-longitude 35.2° 90.5°. RGS gives no latitude-longitude.
 2. 1795 1/8 (38.0° 90.0°) TVA III-V TVA, RGS; IV-V ON
KASKASKIA, ILLINOIS
ON and RGS latitude-longitude (37.9° 89.9°).
 3. 1811 12/16 (35.8° 90.3°) RGS XI/ RGS, ON; XII/ TVA
NEW MADRID, MISSOURI
TVA latitude-longitude (36.6° 89.6°). ON latitude-longitude 36° 90°.
 4. 1812 1/23 (36.4° 90.0°) RGS X RGS; X-XI ON; XII/ TVA
NEW MADRID, MISSOURI
TVA latitude-longitude (36.6° 89.6°). ON latitude-longitude 36.3° 89.6°.
 5. 1812 2/7 (36.3° 89.9°) RGS XI/ RGS; XI-XII ON; XII/ TVA
NEW MADRID, MISSOURI
TVA latitude-longitude (36.6° 89.6°). ON latitude-longitude 36.5° 89.6°.
- NOTE: The three preceding shocks were the major ones in a series of perhaps 2000+ shocks felt in West Tennessee in 1811 and 1812. The intensities and exact epicentral locations are estimates. However, the severity and extent of the shaking left little doubt as to the destructive nature of these events and the size of the affected area.
6. 1816 7/25 (36.6° 89.5°) RGS III-IV RGS, ON; III-V TVA
NEW MADRID, MISSOURI
Two shocks this date, which ON describes similarly, with latitude-longitude 36.5° 89.5°. TVA latitude-longitude (36.6° 89.6°).
 7. 1816 ? (36.6° 89.5°) RGS III RGS
NEW MADRID, MISSOURI
RGS list only; month and day unknown.
 8. 1818 3/8 (36.2° 89.7°) TVA, ON II-V TVA, RGS; III ON
MISSISSIPPI VALLEY
Several shocks reported. RGS lists no latitude-longitude. RGS and ON list only March for the date.
 9. 1819 9/2 (36.6° 89.9°) TVA III-IV TVA, RGS; V ON
MISSISSIPPI VALLEY
RGS lists no latitude-longitude. ON latitude-longitude 37.7° 89.7°.
 10. 1819 9/16 (37.3° 89.5°) RGS, TVA III-IV TVA, RGS
CAPE GIRARDEAU, MISSOURI
Two shocks are listed on this date by ON at latitude-longitude 38.1° 89.8°, with the first having an intensity of IV, and the second an intensity of III-IV.
 11. 1820 11/9 (37.3° 89.5°) IV RGS; IV-V TVA; V ON
CAPE GIRARDEAU, MISSOURI
 12. 1820 ? (36.6° 89.5°) RGS, ON III-IV RGS, ON
NEW MADRID, MISSOURI
TVA list omits this shock.

13. 1829 May (35.6° 88.8°) IV TVA
WEST TENNESSEE (JACKSON)
Date unknown. RGS and ON omit intensities.
14. 1839 9/5 (36.7° 88.6°) III-IV TVA, RGS; IV ON
MAYFIELD, KENTUCKY
15. 1841 12/27 (36.6° 89.2°) RGS, ON V
HICKMAN, KENTUCKY
TVA latitude-longitude (36.5° 89.2°).
16. 1842 5/27 (36.6° 89.2°) RGS, ON III RGS; III-IV TVA; IV ON
HICKMAN, KENTUCKY
TVA latitude-longitude (36.5° 89.2°).
17. 1842 11/4 (36.5° 89.2°) TVA, RGS V
HICKMAN, KENTUCKY
Two shocks. ON latitude-longitude 36.6° 89.2°. TVA does not list a time for this shock, stating it is unknown, although RGS and ON do list a time.
18. 1843 1/4 (35.5° 90.5°) RGS IX-X RGS; VIII ON, TVA
NEW MADRID, MISSOURI REGION
TVA lists latitude-longitude as (36.2° 89.6°). ON latitude-longitude agrees with RGS.
19. 1843 2/16 (35.5° 90.5°) ON V ON
This earthquake is listed only by ON, although TVA and RGS do mention a shock at the same time on this date, but occurring at St. Louis, Missouri, with a large area affected.
20. 1843 6/13 (36.6° 89.2°) III
HICKMAN, KENTUCKY
21. 1843 8/9 (35.6° 87.0°) TVA III-IV
COLUMBIA, TENNESSEE
RGS reports that a reference to Somerville, Tennessee, as the location for this earthquake may be in error. ON latitude-longitude 35.6° 87.1°. RGS latitude-longitude (35.6° 87.1°).
22. 1846 3/26 (36.6° 89.5°) TVA, RGS II-III TVA, RGS; III ON
NEW MADRID, MISSOURI
ON latitude-longitude 36.6° 89.6°.
23. 1848 1/24 (36.6° 89.2°) III-IV TVA; V RGS, ON
HICKMAN, KENTUCKY
TVA reports a shock on this date in 1849. RGS and ON report it in 1848.
24. 1849 3/12 (36.6° 89.2°) RGS VI + (?) RGS
HICKMAN, KENTUCKY
Only RGS reports this "newly discovered" earthquake, along with 2 at Memphis on the same date.
25. 1852 1/23 (35.2° 90.0°) RGS, TVA intensity unknown
MEMPHIS, TENNESSEE
Felt as far north as St. Louis. ON omits this shock.
26. 1852 1/24 (35.2° 90.0°) RGS, TVA intensity unknown
MEMPHIS, TENNESSEE
Several shocks reported. ON omits this shock. Times and therefore exact dates of numbers 25 and 26 are uncertain.

27. 1852 8/19 (36.6° 89.5°) RGS, TVA ?
NEW MADRID, MISSOURI
ON omits this shock.
28. 1853 8/28 (36.6° 89.2°) III
HICKMAN, KENTUCKY
29. 1853 12/18 (36.6° 89.2°) IV-V
HICKMAN, KENTUCKY
ON lists date as 12/12.
30. 1855 5/2 (37.0° 89.2°) IV-V RGS; IV TVA, ON
CAIRO, ILLINOIS
31. 1855 5/3 (37.0° 89.2°) III-IV RGS; III ON
CAIRO, ILLINOIS
Aftershocks of the preceding event, with TVA and RGS listing 2, at different intervals. TVA doesn't list a separate intensity.
32. 1856 11/9 (37.0° 89.2°) TVA IV-V TVA, RGS; IV ON
MISSISSIPPI VALLEY
RGS lists no latitude-longitude. ON latitude-longitude 36.6° 89.5°.
33. 1857 Feb. (36.6° 89.5°) IV
NEW MADRID, MISSOURI
Date unknown.
34. 1858 9/21 (36.5° 89.2°) TVA, ON V-VI TVA, RGS; VI ON
HICKMAN, KENTUCKY
RGS lists no latitude-longitude.
35. 1860 8/7 (37.8° 87.5°) IV-V TVA, RGS; V ON
HENDERSON, KENTUCKY
RGS lists this shock 2 hours later than TVA and ON.
- NOTE: It is possible that earthquakes occurred during the Civil War and were not recorded.
36. 1865 8/17 (36.7° 89.5°) RGS VII
MISSISSIPPI VALLEY
TVA and ON latitude-longitude (36.5° 89.5°).
37. 1865 9/7 (36.5° 89.5°) TVA III-IV
MISSISSIPPI VALLEY
ON latitude-longitude 36.6° 89.5°. RGS does not list a latitude-longitude.
38. 1868 11/21 (36.6° 89.2°) III
HICKMAN, KENTUCKY
39. 1870 12/4 (36.6° 89.2°) III-IV
HICKMAN, KENTUCKY
ON lists date as 12/14.
40. 1871 7/24 (37.0° 89.2°) III
CAIRO, ILLINOIS
41. 1872 2/8 (37.0° 89.2°) IV RGS, TVA; III-IV ON
CAIRO, ILLINOIS

42. 1872 3/26 (37.1° 88.6°) III
PADUCAH, KENTUCKY
43. 1872 4/20 (35.1° 90.0°) RGS, ON III
MEMPHIS, TENNESSEE
TVA latitude-longitude (33.2° 90.0°), with an apparent typographical error in the latitude. ON lists this shock an hour earlier than TVA and RGS.
44. 1872 8/20 (35.1° 90.0°) RGS, ON II-III
MEMPHIS, TENNESSEE
TVA latitude-longitude (35.2° 90.0°).
45. 1873 5/3 (35.7° 89.2°) RGS III-IV TVA, RGS; IV ON
MISSISSIPPI VALLEY
TVA reports this shock felt at Memphis, with a probable epicenter in Dyer County, Tennessee, at latitude-longitude (35.2° 90.0°). ON latitude-longitude 36.0° 89.6°. RGS reports 2 shocks.
46. 1873 8/22 (35.1° 90.0°) RGS, ON III TVA, RGS; II-III ON
MEMPHIS, TENNESSEE
TVA latitude-longitude (35.2° 90.0°). ON reports this shock 12 hours later than RGS and TVA.
47. 1874 7/4 (37.0° 89.2°) RGS I-II RGS
CAIRO, ILLINOIS
TVA and ON omit.
48. 1874 7/9 (37.0° 89.2°) III TVA, RGS; III-IV ON
CAIRO, ILLINOIS
49. 1875 10/7 (36.0° 89.7°) RGS III-IV
MEMPHIS, TENNESSEE, AND CAIRO, ILLINOIS
TVA list omits. ON latitude-longitude 36.1° 89.6°.
50. 1875 10/27 (35.1° 90.0°) ON, RGS III-IV TVA, RGS; IV ON
MEMPHIS, TENNESSEE
RGS lists 3 shocks. TVA latitude-longitude (35.2° 90.0°). TVA reports 1 shock was felt at Purdy, Tennessee, 80 miles east of Memphis, which RGS notes. TVA lists separately another shock on this date felt at Memphis and Cairo, Illinois, which may be another one of the 3 mentioned by RGS.
51. 1876 9/25 (37.8° 88.0°) RGS VI TVA, ON (1st two)
WABASH VALLEY, INDIANA
TVA latitude-longitude (38.0° 88.0°). ON latitude-longitude 38.5° 87.8°. Two shocks are reported, with ON listing separately a third shock of intensity III at latitude-longitude 38.5° 87.8° on 9/26, GMT (hour unknown).
52. 1877 7/14 (35.1° 90.0°) RGS III-IV RGS, ON; III TVA
MEMPHIS, TENNESSEE
Two (3?) shocks. TVA lists date as 7/4. ON latitude-longitude 36.8° 89.7°. TVA latitude-longitude (35.2° 90.0°).
53. 1877 11/19 (37.0° 89.2°) ON III-IV ON
This earthquake is listed only by ON.
54. 1877 12/17 exact coordinates unknown intensity unknown
OSCEOLA, ARKANSAS
This is a "newly discovered" earthquake, found by the author in the journal of "Dr. Frank L. James in Arkansas, 1877-1878," edited by W. David Baird, Memphis State University Press, 1977.

55. 1878 1/8 (37.0° 89.2°) III-IV
CAIRO, ILLINOIS
RGS and TVA report 2 shocks. RGS and ON list this shock 1 hour later than TVA.
56. 1878 3/12 (36.8° 89.1°) RGS, ON V
COLUMBUS, KENTUCKY
TVA latitude-longitude (36.8° 89.2°).
57. 1878 11/18-19 (36.0° 89.7°) RGS VI-VIII RGS; VI TVA, ON
MISSISSIPPI VALLEY — NEW MADRID, MISSOURI AREA
Two shocks. TVA also mentions small aftershocks. TVA latitude-longitude (36.7° 90.4°).
ON latitude-longitude 36.7° 89.3°. ON lists only the first shock, on 11/18.
58. 1879 7/26 (37.0° 89.0°) TVA II-III
CAIRO AND MOUND CITY, ILLINOIS AREA
ON latitude-longitude 37.0° 89.2°. RGS latitude-longitude (37.1° 89.2°).
59. 1879 9/25 (35.2° 90.0°) TVA III-IV
MEMPHIS, TENNESSEE AREA
RGS lists at Memphis, Tennessee, and Gayoso, Missouri, with latitude-longitude (35.7° 89.9°).
ON latitude-longitude 35.3° 90.3°.
60. 1880 7/13 (35.2° 90.0°) TVA III-IV RGS, TVA; IV ON
MEMPHIS, TENNESSEE AREA
RGS lists at Memphis, Tennessee, and Gayoso, Missouri, with latitude-longitude (35.7° 89.9°).
ON latitude-longitude 35.3° 90.3°. A second shock also reported by TVA and RGS.
61. 1880 11/30 (35.5° 87.1°) TVA III
ASHWOOD, TENNESSEE
RGS lists latitude-longitude as (35.6° 87.2°). ON latitude-longitude 35.6° 87.3°. Correction of
ON date by personal communication with ON.
62. 1881 10/7 (35.1° 90.0°) RGS, ON III-IV TVA, RGS; IV ON
MEMPHIS, TENNESSEE
TVA latitude-longitude (35.2° 90.0°).
63. 1882 7/20 (37.0° 89.2°) TVA, RGS V
CAIRO, ILLINOIS
ON latitude-longitude 36.9° 89.2°.
64. 1882 7/28 (37.6° 90.6°) III TVA, RGS; III-IV ON
IRONTON, MISSOURI
65. 1882 9/27 (38.0° 89.0°) RGS VI-VII TVA, RGS; VI ON
SOUTHERN ILLINOIS
TVA and ON list latitude-longitude outside the study area at (39.0° 90.0°) and 39° 89.5°,
respectively.
66. 1882 10/14-15 (39.0° 90.0°) TVA V (both)
SOUTHERN ILLINOIS
Two shocks. RGS omits a latitude-longitude, but states that the affected area was about the
same as the preceding earthquake (9/27/1882). ON latitude-longitude 39° 89.5°. ON lists the
second shock about 4 hours later than TVA and RGS.
67. 1882 12/31 (35.5° 87.1°) TVA, RGS III TVA, RGS
ASHWOOD, TENNESSEE
This shock is not listed by ON.

68. 1883 1/10 (37.4° 89.3°) ON III ON
This earthquake is apparently listed only by ON, although RGS mentions a shock on this date (at a different time) at latitude-longitude (36.5° 92.9°).
69. 1883 1/11 (36.9° 90.2°) RGS V-VI
MISSISSIPPI VALLEY
TVA lists at Cairo, Illinois, with latitude-longitude (37.0° 89.2°). Different numbers of foreshocks or aftershocks reported at different localities in the felt area. ON latitude-longitude agrees with TVA.
70. 1883 4/12 (37.0° 89.2°) VI-VIII RGS; VI-VII TVA, ON
CAIRO, ILLINOIS
71. 1883 6/11 35.1° 90.0° ON VI ON
MEMPHIS, TENNESSEE
Omitted by RGS and TVA.
72. 1883 7/6 (37.0° 89.2°) III
CAIRO, ILLINOIS
73. 1883 7/14 (37.0° 89.2°) TVA IV-V
CAIRO, ILLINOIS
RGS lists latitude-longitude as (37.0° 89.1°) and reports the shock was also felt at Wickliffe, Kentucky. ON latitude-longitude also 37.0° 89.1°.
74. 1883 12/5 (36.3° 91.8°) TVA, RGS IV TVA; V RGS, ON
MELBOURNE AND RAVENDEN SPRINGS IN NORTHEAST ARKANSAS
ON latitude-longitude 36.3° 91.2°.
75. 1883 12/6 (38.6° 90.4°) RGS VII RGS
ST. LOUIS, MISSOURI
Seven shocks. Only RGS lists these events, which are outside the study area, and notes that they were also felt at Memphis.
76. 1884 2/15 (37.8° 90.8°) TVA III TVA, ON
WASHINGTON COUNTY, MISSOURI
RGS omits this shock. ON lists date as 2/14, and latitude-longitude as 37.7° 90.7°.
77. 1884 11/29 (35.6° 89.7°) RGS IV
MISSISSIPPI VALLEY, FROM MEMPHIS TO DYERSBURG, TENNESSEE
ON latitude-longitude 35.5° 89.7°. TVA latitude-longitude (35.2° 90.0°).
78. 1886 3/18 (37.0° 89.2°) III-IV TVA, RGS; VI ON
CAIRO, ILLINOIS
This shock is listed on 3/17 by ON, at a different time from TVA and RGS. It may not be the same event as the intensity III-IV shock reported on 3/18 by TVA and RGS, although all report the shock at the same latitude-longitude.
79. 1886 8/31 (32.9° 80.0°) TVA, RGS X TVA, RGS
CHARLESTON, SOUTH CAROLINA
Although the epicenter of this earthquake is outside the area covered by Appendix A, the Mississippi Valley region was shaken with an intensity of IV to VI. TVA lists over 80 aftershocks in the succeeding 11 months. ON's list does not include this shock since it is outside his study area. Because this is the greatest earthquake in the Southeast other than the 1811-1812 New Madrid series, and because it greatly affected the area covered by Appendix B, this shock is also listed there.
80. 1887 8/2 (37.0° 89.2°) V
CAIRO, ILLINOIS

81. 1888 11/3 (35.2° 90.0°) TVA IV
MEMPHIS, TENNESSEE
ON latitude-longitude 35.4° 90.4°. RGS latitude-longitude (35.1° 90.0°).
82. 1889 1/5 (35.2° 90.0°) TVA III RGS; IV TVA
MEMPHIS, TENNESSEE
ON does not list this shock. RGS latitude-longitude (35.1° 90.0°).
83. 1889 6/5 (35.2° 90.0°) TVA III
MEMPHIS, TENNESSEE
ON latitude-longitude 35.1° 90.0°. RGS latitude-longitude (35.1° 90.0°).
84. 1889 6/6 (35.9° 88.8°) RGS III-IV
WESTERN TENNESSEE
TVA lists at latitude-longitude (35.9° 88.7°) in Benton County, Tennessee. ON latitude-longitude is also 35.9° 88.7°. ON lists this shock 10 hours earlier than TVA and RGS.
85. 1889 7/19 (35.2° 90.0°) TVA, ON V-VII RGS; VI TVA, ON
MEMPHIS, TENNESSEE
RGS latitude-longitude (35.1° 90.0°).
86. 1891 1/14 (35.1° 90.0°) RGS, ON III-IV RGS, ON
MEMPHIS, TENNESSEE
TVA list omits.
87. 1891 7/26 (37.9° 87.5°) VI
EVANSVILLE, INDIANA
88. 1891 9/26 (37.0° 89.2°) V
CAIRO, ILLINOIS
89. 1892 1/14 (35.1° 90.1°) TVA III
MEMPHIS, TENNESSEE
Two shocks. ON and RGS list latitude-longitude as 35.1° 90.0°, with RGS including parentheses. This shock may be confused with the 1/14/1891 earthquake at Memphis.
90. 1894 7/18 (35.2° 90.0°) TVA III
MEMPHIS, TENNESSEE
ON lists latitude-longitude as 35.0° 90.0°. RGS latitude-longitude 35.1° 90.0°.
91. 1895 7/27 (35.2° 88.2°) RGS III-IV
SAVANNAH, TENNESSEE
TVA omits this earthquake. ON lists latitude-longitude as 35.2° 88.3°.
92. 1895 10/3 (35.2° 90.0°) TVA, ON III RGS, ON
MEMPHIS, TENNESSEE
TVA does not list an intensity. RGS latitude-longitude (35.1° 90.0°).
93. 1895 10/18 (36.5° 89.5°) TVA III
NEW MADRID, MISSOURI
Two shocks, although ON lists the first shock on 10/17. ON lists the latitude-longitude of both shocks as 36.6° 89.5°. RGS latitude-longitude also (36.6° 89.5°). There are other discrepancies in the times listed for these shocks.
94. 1895 10/30 (36.4° 90.6°) III
CORNING, ARKANSAS
Three shocks in an 8-hour period. ON lists separately all 3 with the same latitude-longitude and intensity.

95. 1895 10/31 (37.0° 89.4°) TVA, ON VIII TVA; IX RGS, ON
 CHARLESTON, MISSOURI
 This shock is 1 of 2 great earthquakes felt in the Mississippi Valley since 1811-12. RGS lists latitude-longitude as (36.9° 89.4°).
96. 1895 11/1 (37.0° 89.4°) TVA, ON IV
 CHARLESTON, MISSOURI
 Aftershock of the 10/31/1895 earthquake; felt at Memphis, Tennessee. RGS omits latitude-longitude. ON lists this shock 2 hours later than RGS and TVA.
97. 1895 11/2 (37.0° 89.4°) TVA, ON III-IV
 CHARLESTON, MISSOURI
 Two aftershocks of the 10/31/1895 earthquake. ON lists both separately with the same latitude-longitude and intensity. RGS omits latitude-longitude.
98. 1895 11/17 (37.0° 89.4°) ON III-IV RGS, ON
 MISSISSIPPI VALLEY
 Aftershock of the 10/31/1895 earthquake. TVA mentions, but doesn't list separately. RGS doesn't list latitude-longitude.
99. 1897 4/25 (35.7° 90.0°) TVA III TVA, RGS; IV-V ON
 OSCEOLA, ARKANSAS AREA
 RGS lists latitude-longitude as (36.4° 89.6°) and reports the shock also felt at Cairo, Illinois. ON latitude-longitude 35.8° 89.6°.
100. 1897 4/30 (37.0° 89.0°) TVA, ON IV-V
 MISSISSIPPI VALLEY
 RGS latitude-longitude (36.7° 88.6°). TVA lists at Wickliffe, Kentucky.
101. 1898 1/26 (34.5° 90.6°) TVA, RGS III TVA, RGS; IV ON
 HELENA, ARKANSAS
 ON latitude-longitude 34.6° 90.6°. ON lists this shock 2 hours earlier than RGS and TVA.
102. 1898 4/14 (36.4° 90.6°) ON no intensity listed
 This earthquake is listed only by ON.
103. 1898 6/14 (36.5° 89.6°) TVA III-IV TVA, RGS; IV ON
 NEW MADRID, MISSOURI AREA
 RGS doesn't list latitude-longitude. TVA lists this shock 12 hours earlier than ON and RGS, on 6/13. ON latitude-longitude 36.0° 89.4°.
104. 1899 11/13 coordinates unknown ON intensity unknown
 TENNESSEE
 This shock, probably somewhere in West Tennessee, is listed only by ON.
105. 1901 2/14 36.0° 90.0° ON IV ON
 This earthquake is listed only by ON.
106. 1901 9/14 (35.2° 90.0°) TVA III
 MEMPHIS, TENNESSEE
 RGS and ON list latitude-longitude as 35.1° 90.0°, with RGS coordinates enclosed by parentheses.
107. 1903 2/8 (37.8° 89.3°) RGS, ON VI
 MISSISSIPPI VALLEY
 TVA lists latitude-longitude as (37.0° 89.2°), and reports the shock at Cairo, Illinois.

108. 1903 10/4 (36.9° 90.2°) RGS III TVA; V RGS; V-VI ON
 MISSISSIPPI VALLEY
 Reported at Memphis, Tennessee, and St. Louis, Missouri. TVA latitude-longitude 36.2° 90.0°. ON latitude-longitude 37° 90°.
109. 1903 11/3 37.8° 89.3° ON III-IV ON
 This shock is listed only by ON.
110. 1903 11/4 (37.0° 89.5°) RGS VI RGS; VI-VII TVA; VII ON (first)
 MISSISSIPPI VALLEY
 Two shocks. TVA lists at St. Louis with latitude-longitude (38.5° 90.3°). ON latitude-longitude 36.9° 89.3°, with the first shock intensity VII, and the second intensity VI.
111. 1903 11/24 (36.6° 89.5°) RGS, ON III
 NEW MADRID, MISSOURI
 TVA latitude-longitude (36.5° 89.6°).
112. 1903 11/25 (36.6° 89.5°) RGS, ON III RGS, TVA; II-III ON
 NEW MADRID, MISSOURI
 TVA latitude-longitude (36.5° 89.6°).
113. 1903 11/27 (36.9° 89.1°) RGS III-V RGS; V ON (both)
 MISSISSIPPI VALLEY
 Two shocks. TVA lists at New Madrid, Missouri, with latitude-longitude (36.5° 89.6°). Intensity of first: III-IV; second: IV-V. ON latitude-longitude 36.5° 89.5°.
114. 1905 8/21 (36.9° 89.6°) TVA, RGS V-VI TVA; VI RGS; VI-VII ON
 SIKESTON, MISSOURI
 RGS notes 3 shocks reported at some localities. ON latitude-longitude 36.8° 89.6°.
115. 1907 7/4 37.8° 90.4° ON IV-V ON
 This shock is listed only by ON.
116. 1908 9/28 (36.7° 89.2°) RGS IV RGS, ON; IV-V TVA
 NEW MADRID, MISSOURI — CAIRO, ILLINOIS
 TVA lists 2 shocks at New Madrid, Missouri, with latitude-longitude (36.6° 89.6°). ON latitude-longitude is also 36.6° 89.6°.
117. 1908 10/27 (37.0° 89.2°) V TVA; IV-V RGS, ON
 CAIRO, ILLINOIS
 RGS notes that this shock was also felt at New Madrid, Missouri.
118. 1908 12/28 (35.2° 90.0°) TVA IV ON; III RGS, TVA
 MEMPHIS, TENNESSEE
 RGS latitude-longitude (35.1° 90.0°). ON lists date as 12/27, and latitude-longitude as 37.0° 89.0°. RGS and TVA omit a time, with TVA stating it is unknown, although ON does list a time for the shock on 12/27. Thus it is possible that the ON shock is different from the TVA and RGS shock listed on 12/28.
119. 1908 12/31 (36.9° 88.9°) RGS III
 BLANDVILLE, KENTUCKY
 Several light shocks indicated by TVA and RGS. TVA lists latitude-longitude as (36.9° 89.0°). ON latitude-longitude 37.0° 88.9°.
120. 1909 9/27 (39.0° 87.7°) TVA, RGS VII
 WABASH VALLEY, INDIANA
 Although out of the study area, this shock was felt in West Tennessee. TVA and RGS record an aftershock 5 minutes after the first shock. ON latitude-longitude 39.5° 87.4°.

121. 1909 10/22 (37.6° 90.7°) TVA, RGS IV
 IRONTON, MISSOURI
 RGS and TVA mention 3 shocks. ON mentions shocks on this date at different latitudes and longitudes (out of the area of study) that do not totally agree with others mentioned by TVA and RGS for this date. ON latitude-longitude 37.6° 90.6°.
122. 1909 10/23 (37.0° 89.2°) RGS V TVA; V-VI RGS, ON
 MISSISSIPPI VALLEY
 TVA latitude-longitude (37.0° 89.5°). ON latitude-longitude 37.0° 89.5°.
123. 1911 3/31 (34.1° 92.1°) RGS VI-VII RGS; V TVA
 PINE BLUFF AND RISON, ARKANSAS
 TVA and ON list 2 shocks at latitude-longitude (33.8° 92.2°) slightly more than an hour apart. RGS notes that many claim to have felt 2 shocks, each with the same intensity. ON lists the first with intensity VI, and the second with intensity IV-V. Although out of the area of study, these shocks were felt at Memphis.
124. 1913 6/9 (35.8° 88.9°) III
 HUMBOLDT, TENNESSEE
125. 1915 2/5 (37.7° 88.6°) ON IV ON; IV-V RGS, TVA
 HARRISBURG, ILLINOIS
 RGS latitude-longitude (37.7° 88.5°). TVA does not list a shock on 2/5, but lists what may be this shock on 2/15, at latitude-longitude (37.6° 88.7°).
126. 1915 2/18 (37.1° 89.2°) ON, RGS II-III RGS, TVA; IV ON
 CAIRO, ILLINOIS
 RGS reports this shock also felt at Mound City, Illinois. TVA latitude-longitude (37.0° 89.2°).
127. 1915 4/28 (36.5° 89.5°) IV-V
 NEW MADRID, MISSOURI AREA
128. 1915 10/26 (36.7° 88.6°) IV-V RGS; V TVA, ON
 MAYFIELD, KENTUCKY
129. 1915 12/7 (36.7° 89.1°) TVA, ON V-VI
 CAIRO, ILLINOIS
 RGS reports 2 shocks and lists latitude-longitude as (37.0° 89.2°).
130. 1916 2/17 (37.6° 88.8°) III
 NEW BURNSIDE, ILLINOIS
131. 1916 5/21 (36.7° 89.2°) RGS IV
 NEW MADRID, MISSOURI — CAIRO, ILLINOIS
 TVA latitude-longitude (36.5° 89.2°). ON latitude-longitude 36.6° 89.5°.
132. 1916 8/24 (36.5° 89.6°) TVA III RGS; III-IV TVA; IV ON
 MISSISSIPPI VALLEY
 ON latitude-longitude 37.0° 89.2°. RGS lists 1 shock at New Madrid, Missouri, and Cairo, Illinois, and 2 shocks at Anna, Illinois, with latitude-longitude (36.7° 89.2°).
133. 1916 10/19 (36.7° 88.6°) RGS, ON III
 MAYFIELD, KENTUCKY
 TVA latitude-longitude (36.7° 88.7°).
134. 1916 12/18 (36.6° 89.3°) TVA, RGS V-VI RGS, ON; VI-VII TVA
 HICKMAN, KENTUCKY AREA
 RGS and TVA list 2 shocks, which RGS reports were also felt at New Madrid, Missouri. ON latitude-longitude 36.6° 89.2°.

135. 1917 4/9 (38.0° 90.0°) RGS VI TVA, RGS; VI, then IV ON
 STE. GENEVIEVE, MISSOURI AREA
 TVA latitude-longitude (38.1° 90.6°). An aftershock occurred less than 3 hours after the main shock. ON lists both at latitude-longitude 38.1° 90.2°.
136. 1917 5/8 (36.9° 90.5°) RGS III TVA, RGS; III-IV, then III ON
 HENDRICKSON, MISSOURI
 See number 137. TVA latitude-longitude (36.8° 90.5°). ON latitude-longitude for 2 shocks is 36.8° 90.4°.
137. 1917 5/9 (36.9° 90.5°) RGS III TVA, RGS
 HENDRICKSON, MISSOURI
 TVA and RGS list 2 shocks on this date at the same hours that ON lists for the 2 shocks on 5/8. The hour that RGS and TVA show for the 5/8 shock is the same hour as 1 of the 2 ON lists on 5/8. Therefore, RGS and TVA list 1 more shock during these 2 days than does ON. TVA latitude-longitude (36.8° 90.5°).
138. 1917 6/9 (36.7° 89.0°) RGS IV
 NEW MADRID, MISSOURI AREA
 TVA latitude-longitude (36.5° 89.6°). ON latitude-longitude 36.8° 90.4°.
139. 1918 2/17 (37.0° 89.2°) IV RGS, TVA; III ON
 CAIRO, ILLINOIS
140. 1918 10/4 (34.7° 92.3°) RGS, TVA V
 LONOKE COUNTY, ARKANSAS
 Although RGS and TVA list this shock outside the area of study, ON lists it at latitude-longitude 34.7° 91.7°. RGS indicates it was felt at Memphis, Tennessee.
141. 1918 10/13 (36.1° 91.1°) TVA, RGS IV-V RGS; V TVA, ON
 BLACK ROCK, ARKANSAS AREA
 RGS notes that 3 shocks were felt. ON latitude-longitude 36.1° 91.0°. TVA lists this shock 12 hours later than RGS and ON.
142. 1918 10/15 (36.6° 89.5°) RGS IV RGS; IV-V TVA; V ON
 NEW MADRID, MISSOURI AREA
 TVA lists latitude-longitude as (35.2° 89.2°), possibly incorrectly. ON latitude-longitude 36° 89.2°.
143. 1919 2/10 (37.8° 87.5°) III-IV
 HENDERSON, KENTUCKY
144. 1919 4/8 (36.2° 91.2°) RGS III-IV RGS, ON
 RAVENDEN, ARKANSAS
 TVA does not list. Seismic origin questioned on RGS list. ON latitude-longitude 36.2° 91.3°. RGS also lists this shock at a different time from ON.
145. 1919 5/23 (36.6° 89.2°) III
 HICKMAN, KENTUCKY
 There was an aftershock on 5/24, which RGS and ON list with intensity III, and which TVA also mentions, but without a separate intensity designation.
146. 1919 5/26 (36.9° 89.0°) RGS III
 MISSISSIPPI VALLEY
 TVA latitude-longitude listed as (37.0° 89.2°), at New Madrid, Missouri. RGS lists 3 shocks at different localities in the area. ON latitude-longitude 36.6° 89.2°.

147. 1919 5/28 (36.6° 89.2°) III
HICKMAN, KENTUCKY
148. 1919 5/28 (36.4° 89.5°) III
TIPTONVILLE, TENNESSEE
This shock is reported 2 hours and 15 minutes later than the preceding one.
149. 1919 11/3 (36.2° 90.9°) RGS, TVA IV-V
RANDOLPH COUNTY (POCAHONTAS), ARKANSAS
ON latitude-longitude 36.3° 91.0°.
150. 1920 4/7 (36.3° 88.2°) II
This earthquake is listed only by ON. See number 109 in Appendix B for additional comments.
151. 1921 1/9 (36.4° 89.5°) TVA, ON IV
NEW MADRID, MISSOURI AREA
RGS latitude-longitude (36.5° 89.3°).
152. 1921 2/27 (37.0° 89.2°) III
CAIRO, ILLINOIS
153. 1921 3/31 (37.9° 87.8°) TVA, ON IV
KENTUCKY – INDIANA BORDER
RGS gives no latitude-longitude.
154. 1921 10/1 (37.7° 88.5°) TVA, RGS IV
HARRISBURG, ILLINOIS
ON latitude-longitude 37.7° 88.6°.
155. 1922 1/10 (37.9° 87.9°) TVA, RGS V TVA, RGS; IV-V ON
KENTUCKY – INDIANA BORDER
ON latitude-longitude 37.9° 87.8°.
156. 1922 3/22 (37.3° 88.6°) TVA V
SOUTHERN ILLINOIS
RGS lists at latitude-longitude (37.5° 89.0°). RGS also lists separately a foreshock that occurred 10 minutes earlier at latitude-longitude (36.8° 89.0°). ON latitude-longitude 37.3° 88.9°. TVA mentions the foreshock, but ON does not.
157. 1922 3/22 (37.5° 89.4°) RGS V
CAIRO, ILLINOIS AREA
The TVA latitude-longitude for the shock that occurred at this time is (37.0° 88.0°). TVA describes the area as Western Kentucky, although RGS indicates the shock was not reported felt in Kentucky (by Weather Bureau observers). ON latitude-longitude 37.3° 88.9°. ON lists the time of this shock approximately 2 hours later than TVA and RGS.
158. 1922 3/23 (36.9° 88.8°) RGS V TVA, RGS; IV ON
WESTERN KENTUCKY
TVA latitude-longitude is (37.0° 88.0°). ON latitude-longitude 37.0° 88.9°. ON and TVA agree on the time of this shock, but RGS lists it about ½ hour later.
159. 1922 3/28 (36.8° 90.4°) TVA III TVA, ON
POPLAR BLUFF, MISSOURI
RGS does not list this shock. ON latitude-longitude 36.7° 90.4°.

160. 1922 3/30? (37.0° 89.2°) RGS V RGS, TVA; IV-V ON
 MISSISSIPPI VALLEY
 TVA lists a shock at latitude-longitude (35.2° 90.0°) in the Memphis, Tennessee area exactly 12 hours earlier (on 3/29) than the one listed by ON and RGS for 3/30. ON latitude-longitude for this shock is 36.1° 89.6°. The apparent spread of locations for this shock may result from confusion with a shock on 3/29 in Marshall County, Tennessee, where RGS indicates the 3/30 shock was also felt.
161. 1922 11/26 (37.8° 88.4°) TVA, RGS V RGS; V-VI TVA; VI-VII ON
 ELDORADO, ILLINOIS
 ON latitude-longitude 37.8° 88.5°.
162. 1923 3/27 (34.6° 89.7°) RGS, ON IV TVA, RGS; III-IV ON
 WYATTE, MISSISSIPPI
 TVA latitude-longitude (34.8° 89.5°).
163. 1923 5/6 (37.0° 89.2°) III TVA, RGS; III-IV ON
 CAIRO, ILLINOIS
164. 1923 5/15 (37.0° 89.2°) III TVA, RGS; III-IV ON
 CAIRO, ILLINOIS
165. 1923 10/28 (35.5° 90.4°) RGS, ON VII-VIII RGS; VII TVA, ON
 MARKED TREE, ARKANSAS
 TVA latitude-longitude (35.5° 90.3°).
166. 1923 11/26 (35.2° 90.8°) RGS IV ON; V-VI RGS; VI TVA
 EASTERN ARKANSAS AREA — MEMPHIS, TENNESSEE
 TVA latitude-longitude (35.2° 90.2°). ON latitude-longitude 35.5° 90.4°.
167. 1923 11/28 (37.5° 87.3°) III
 This shock is apparently listed only by ON.
168. 1923 11/29 (37.0° 89.0°) TVA III TVA, RGS; IV ON
 WICKLIFFE, KENTUCKY
 RGS indicates this shock was also felt at Cairo, Illinois. RGS latitude-longitude (37.0° 89.1°). ON latitude-longitude 37.0° 89.2°. RGS and TVA list this shock 12 hours earlier than ON. However, there is another earthquake in the TVA list that is out of proper order but agrees with the ON time and intensity. One of these TVA earthquakes is listed at Wickliffe, Kentucky, and the other is listed at Cairo, Illinois.
169. 1923 12/31 (35.7° 89.6°) RGS V
 WESTERN TENNESSEE
 TVA lists this shock at Memphis, Tennessee, with latitude-longitude (35.4° 90.3°). ON latitude-longitude 35.4° 90.3°.
170. 1924 3/2 (36.9° 89.1°) TVA, RGS V
 MISSISSIPPI VALLEY
 TVA lists near Cairo, Illinois. ON latitude-longitude 37.0° 89.1°.
171. 1924 4/2 (37.1° 88.6°) ON, RGS IV
 PADUCAH, KENTUCKY
 TVA latitude-longitude (37.0° 88.4°).
172. 1924 4/3 (36.5° 87.3°) TVA, RGS III-IV
 CLARKSVILLE, TENNESSEE
 This shock is not listed by ON.

173. 1924 6/6 (36.4° 89.5°) IV RGS; IV-V TVA, ON
TIPTONVILLE, TENNESSEE
174. 1925 1/27 (35.8° 91.7°) RGS III-IV RGS; III TVA, ON
BATESVILLE, ARKANSAS
ON latitude-longitude 36.2° 91.7°. TVA latitude-longitude (36.6° 91.6°). TVA reports the time of this shock is unknown, although ON and RGS do list a time for it.
175. 1925 4/26 (38.0° 87.0°) RGS V TVA; VI RGS; VI-VII ON
OHIO VALLEY
TVA lists at Vanderburgh County, Indiana, with latitude-longitude (38.0° 87.5°). ON latitude-longitude 38.3° 87.6°.
176. 1925 5/13 (36.7° 88.6°) IV RGS; V TVA; IV-V ON
MAYFIELD, KENTUCKY AREA
177. 1925 9/2 (37.8° 87.6°) TVA, RGS V-VI TVA; VI RGS, ON
NEAR HENDERSON, KENTUCKY
ON latitude-longitude 37.8° 87.5°.
178. 1925 9/20 (37.8° 88.0°) RGS IV TVA, ON; VI RGS
OHIO VALLEY
RGS notes that several shocks (up to 3) occurring on this date were probably aftershocks of the 9/2 earthquake. TVA latitude-longitude (37.8° 87.6°). ON latitude-longitude 37.8° 87.5°.
179. 1926 3/22 (37.7° 88.5°) RGS IV
HARRISBURG, ILLINOIS
TVA latitude-longitude is (37.6° 88.7°). ON latitude-longitude 37.8° 88.6°.
180. 1926 4/27 (36.2° 89.0°) RGS III RGS; III-IV TVA; IV ON
KENTON, TENNESSEE
TVA latitude-longitude (36.5° 89.2°). ON latitude-longitude 36.2° 89.6°. ON lists this shock 2 hours later than TVA and RGS.
181. 1926 10/27 (36.8° 90.4°) RGS, TVA IV TVA; IV-V RGS
POPLAR BLUFF, MISSOURI
Two shocks. These shocks are apparently omitted by ON, although ON lists a shock on 10/26 during the 10 o'clock p.m. hour, in contrast to the 10 o'clock a.m. hour on 10/27 listed by RGS and TVA, but at a location outside the study area.
182. 1926 12/13 (36.6° 89.8°) RGS IV TVA, RGS; III ON
PARMA, MISSOURI
TVA latitude-longitude (36.6° 89.6°). ON latitude-longitude 36.7° 89.4°.
183. 1926 12/17 (36.4° 89.5°) IV
TIPTONVILLE, TENNESSEE
RGS indicates 2 shocks, about a minute apart.
184. 1927 1/31 (37.4° 89.7°) RGS, ON IV
JACKSON, MISSOURI
TVA latitude-longitude (37.3° 89.7°).
185. 1927 2/3 (36.8° 90.4°) TVA, RGS IV
POPLAR BLUFF, MISSOURI
ON latitude-longitude 36.7° 90.4°.
186. 1927 4/18 (36.3° 89.5°) IV
RIDGELY, TENNESSEE
Two aftershocks are listed by TVA and RGS as occurring approximately 2 hours later.

187. 1927 5/7 (35.5° 90.3°) RGS, TVA VII
 MARKED TREE, ARKANSAS
 RGS notes 2 shocks felt at several localities. ON latitude-longitude 35.7° 90.6°.
188. 1927 8/13 (36.4° 89.5°) V
 TIPTONVILLE, TENNESSEE
189. 1928 3/6 (35.6° 87.0°) RGS, ON II-III RGS, ON; III-IV TVA
 CENTRAL TENNESSEE
 TVA lists latitude-longitude as (35.6° 86.9°), which is the latitude-longitude given for the duplicate listing of this shock in Appendix B.
190. 1928 4/15 (36.6° 89.5°) RGS, ON III RGS; IV ON
 NEW MADRID, MISSOURI
 TVA doesn't list this event, but indicates a shock about 4 hours later on the same date at CAPE GIRARDEAU, MISSOURI, latitude-longitude (37.4° 89.7°), of intensity III. RGS and ON also refer to the later shock, with ON listing it separately at latitude-longitude 37.3° 89.5°, with intensity IV.
191. 1928 4/23 (36.6° 89.2°) TVA, RGS III TVA, RGS; IV ON
 HICKMAN, KENTUCKY
 ON latitude-longitude 36.5° 89.2°.
192. 1928 5/31? (36.6° 89.5°) IV
 NEW MADRID, MISSOURI
 There is some uncertainty as to the date of this earthquake; RGS notes that it may have occurred a few days earlier. TVA also refers to this uncertainty.
193. 1928 11/10 (36.2° 91.1°) TVA, RGS III-IV TVA; IV ON
 BLACK ROCK, ARKANSAS
 RGS does not list an intensity for this earthquake. ON latitude-longitude 36.1° 91.1°.
194. 1928 12/25 (36.2° 91.1°) TVA, RGS III TVA, RGS; IV ON
 BLACK ROCK, ARKANSAS
 ON latitude-longitude 36.1° 91.1°.
195. 1929 2/26 (37.6° 90.6°) TVA, ON III TVA, RGS; IV ON
 ARCADIA, MISSOURI
 RGS lists latitude-longitude as (37.9° 90.6°).
196. 1929 5/12 (36.4° 89.5°) TVA, ON III
 TIPTONVILLE, TENNESSEE
 RGS lists latitude-longitude as (36.5° 89.3°), and indicates this shock was also felt at Hickman, Kentucky.
197. 1930 1/2 (35.7° 89.5°) RGS, ON II
 RIPLEY, TENNESSEE
 TVA lists latitude-longitude as (35.8° 89.6°), and lists this shock 10 hours earlier than RGS and ON.
198. 1930 1/26 (36.2° 91.1°) RGS III TVA; IV ON
 BLACK ROCK, ARKANSAS
 TVA lists latitude-longitude as (36.1° 91.2°). RGS omits an intensity designation. ON latitude-longitude 36.1° 91.1°.
199. 1930 2/18 (35.5° 90.4°) III
 MARKED TREE, ARKANSAS

200. 1930 2/25 (37.0° 89.2°) RGS, TVA III TVA, RGS; III-IV ON
 CAIRO, ILLINOIS
 ON lists latitude-longitude as 37.0° 90.2°, which is incorrect for Cairo.
201. 1930 3/26? (35.2° 89.9°) RGS II-III RGS
 RALEIGH, TENNESSEE
 ON and TVA omit this shock.
202. 1930 3/27? (35.3° 89.9°) TVA III TVA; IV ON
 RALEIGH, TENNESSEE
 ON latitude-longitude 35.1° 90.1°. RGS notes that this is probably the same shock as the preceding one, and that the correct date is uncertain. Otherwise, RGS does not list the 3/27 shock separately.
203. 1930 4/2 (36.2° 89.7°) RGS, TVA IV
 CARUTHERSVILLE, MISSOURI
 ON latitude-longitude 36.1° 89.7°.
204. 1930 8/13 (36.6° 89.5°) RGS, ON II RGS, ON; II-III TVA
 NEW MADRID, MISSOURI
 TVA lists the same latitude-longitude without parentheses.
205. 1930 8/29 37.0° 89.1° TVA, ON IV ON; V RGS; IV-V TVA
 CAIRO, ILLINOIS AREA
 RGS notes 4 shocks "in quick succession" felt at Blandville, Kentucky. RGS lists latitude-longitude as (37.0° 89.0°).
206. 1930 9/1 (36.6° 89.4°) RGS, ON IV RGS, TVA; V ON
 NEW MADRID, MISSOURI AREA
 RGS notes that 2 shocks were felt at Tiptonville, Tennessee. TVA latitude-longitude is 36.5° 89.5°.
207. 1930 9/3 (36.9° 88.9°) RGS III
 BLANDVILLE, KENTUCKY
 Two shocks about 17 ½ hours apart. TVA latitude-longitude is erroneous, apparently due to a typographical error. ON lists both shocks separately and identically, at latitude-longitude 37.0° 88.9°.
208. 1931 4/1 (36.7° 88.6°) RGS III
 CAIRO, ILLINOIS AREA — WESTERN KENTUCKY
 TVA lists at Hopkinsville and Mayfield, Kentucky, with latitude-longitude (36.8° 87.5°). ON latitude-longitude 36.9° 88.3°.
209. 1931 4/6 (36.8° 89.1°) RGS III RGS, TVA; IV ON
 BERKLEY, KENTUCKY AREA
 TVA also lists at Lovelaceville, Kentucky, with latitude-longitude (36.7° 89.1°). ON latitude-longitude 36.8° 89.0°.
210. 1931 7/18 (36.5° 89.5°) RGS IV
 NEW MADRID, MISSOURI — TIPTONVILLE, TENNESSEE AREA
 ON latitude-longitude 36.6° 89.5°. TVA latitude-longitude (36.4° 89.5°). TVA lists this shock 12 minutes earlier than RGS and ON.
211. 1931 12/10 35.9° 89.9° TVA, ON IV
 MISSISSIPPI VALLEY
 RGS lists latitude-longitude as (35.9° 89.9°).

212. 1931 12/16 34.0° 90.1° RGS VI RGS; VI-VII TVA, ON
 BATESVILLE, MISSISSIPPI
 Although this epicenter was reportedly instrumentally determined, TVA and ON list it differently from RGS, at latitude-longitude 34.1° 89.8°.
213. 1932 11/22 (36.0° 90.3°) RGS III
 BLYTHEVILLE AND PARAGOULD, ARKANSAS
 TVA lists latitude-longitude as 35.9° 89.8°. TVA lists this earthquake as occurring on 12/22, probably incorrectly. ON latitude-longitude 36.0° 90.2°.
214. 1933 3/11 (36.8° 90.4°) RGS, TVA III TVA, RGS; IV ON (both)
 POPLAR BLUFF, MISSOURI
 Two shocks, 16 minutes apart. ON latitude-longitude 36.7° 90.4°.
215. 1933 7/13 (37.9° 89.9°) RGS, ON III TVA, ON
 ST. MARYS, MISSOURI
 TVA latitude-longitude (37.9° 90.0°). RGS does not list an intensity.
216. 1933 8/3 (37.9° 89.9°) RGS, ON III-IV TVA, RGS; IV ON
 ST. MARYS, MISSOURI
 TVA latitude-longitude 37.9° 90.0°.
217. 1933 10/24 (37.3° 89.5°) III
 CAPE GIRARDEAU, MISSOURI
218. 1933 12/9 (35.9° 90.2°) RGS V RGS; VI TVA, ON
 MANILA, ARKANSAS
 RGS notes 2 shocks. TVA and ON list latitude-longitude as 35.8° 90.2°. RGS, TVA, and ON each list the same hour, but a different minute, for this shock.
219. 1934 4/17 (37.9° 90.0°) RGS III
 ST. MARYS, MISSOURI
 TVA lists the same latitude-longitude as RGS with no parentheses. ON latitude-longitude 37.9° 89.9°.
220. 1934 5/15 (37.9° 89.9°) RGS, ON III-IV
 ST. MARYS, MISSOURI
 TVA latitude-longitude (37.9° 90.0°).
221. 1934 7/2 (35.1° 90.0°) RGS IV
 MEMPHIS AND RALEIGH, TENNESSEE
 A light shock was reported in Hayti (Pemiscot County), Missouri, at the same time. ON latitude-longitude 35.2° 90.0°. TVA latitude-longitude (35.1° 90.1°).
222. 1934 7/3 (36.3° 89.8°) RGS II
 HAYTI, MISSOURI
 ON lists latitude-longitude for this shock as 36.2° 89.7°. TVA lists the latitude-longitude for St. Marys, Missouri, (37.9° 90.0°), for this earthquake, probably incorrectly. However, the preceding earthquake, also reported at Hayti, Missouri, occurred at 9:10 p.m. according to TVA and RGS. TVA and RGS report this earthquake at 9:10 a.m. ON, however, reports the 7/2 earthquake at 9:10 a.m. and omits a time for the 7/3 earthquake.
223. 1934 8/19 37.0° 89.2° TVA VII TVA, RGS; VI ON
 RODNEY, MISSOURI
 RGS latitude-longitude 36.95° 89.2°. ON latitude-longitude 36.9° 89.2°. An aftershock occurred about 3 hours later, which ON lists separately at latitude-longitude 37.0° 89.2°, with intensity II-III. TVA and RGS also note this aftershock.

224. 1934 10/29 37.5° 88.5° IV
 HARTSVILLE, ILLINOIS
 RGS notes an apparent correlation of this earthquake with a known fault.
225. 1935 7/23 (36.4° 89.5°) IV
 TIPTONVILLE, TENNESSEE
 RGS notes 2 shocks.
226. 1936 2/16 (36.2° 89.8°) RGS IV
 HAYTI, MISSOURI
 TVA notes an instrumentally determined epicenter of 36.3° 89.8°. ON latitude-longitude 36.2° 89.7°.
227. 1936 8/2 (36.3° 89.0°) RGS III
 MISSISSIPPI VALLEY
 TVA lists this shock at latitude-longitude (36.4° 89.5°). TVA also lists this shock 6 hours later than RGS and ON. ON latitude-longitude 36.7° 89.0°.
228. 1936 10/20 (36.6° 89.5°) RGS I TVA, RGS; II ON
 NEW MADRID, MISSOURI AREA
 TVA lists the same latitude-longitude as RGS, except without parentheses. ON latitude-longitude 36.6° 89.6°.
229. 1936 10/31 (36.6° 89.5°) RGS I TVA, RGS; II ON
 NEW MADRID, MISSOURI AREA
 TVA latitude-longitude (36.5° 89.5°). ON latitude-longitude 36.6° 89.6°.
230. 1936 11/23 36.8° 90.6° TVA, RGS II-III TVA, RGS; II ON
 BUTLER COUNTY, MISSOURI
 ON latitude-longitude 36.6° 90.6°.
231. 1936 11/25 36.8° 90.6° TVA, RGS II-III TVA, RGS; II ON
 BUTLER COUNTY, MISSOURI
 ON latitude-longitude 36.6° 90.6°.
232. 1936 12/20 (37.3° 89.5°) RGS, ON III TVA, RGS; II ON
 CAPE GIRARDEAU, MISSOURI
 TVA lists the same latitude-longitude without parentheses.
233. 1937 1/30 36.2° 89.7° III TVA, RGS; IV ON
 CARUTHERSVILLE, MISSOURI
234. 1937 3/18 (37.7° 89.9°) TVA, ON III TVA, RGS; II-III ON
 PERRYVILLE, MISSOURI
 RGS latitude-longitude (37.7° 89.8°). ON lists this shock 12 hours earlier than RGS and TVA.
235. 1937 5/16 36.1° 90.4° TVA III-V RGS; IV-V TVA, ON
 NORTHEASTERN ARKANSAS
 RGS latitude-longitude 36.08° 90.38°. ON latitude-longitude 36.1° 90.6°.
236. 1937 6/23 (36.4° 89.5°) RGS, ON III
 TIPTONVILLE, TENNESSEE
 TVA lists the same latitude-longitude without parentheses.
237. 1937 10/5 (36.6° 89.5°) RGS, ON III
 NEW MADRID, MISSOURI
 TVA lists the same latitude-longitude without parentheses.

238. 1938 1/16 (37.7° 89.9°) PERRYVILLE, MISSOURI II-III TVA, RGS; III ON
239. 1938 3/16 (36.6° 89.5°) RGS, TVA II
NEW MADRID, MISSOURI AREA
ON latitude-longitude 36.6° 89.6°.
240. 1938 6/17 (35.8° 89.9°) RGS, ON II-III TVA, RGS; III ON
MISSISSIPPI COUNTY, ARKANSAS — LAUDERDALE COUNTY, TENNESSEE
TVA latitude-longitude (35.8° 89.8°).
241. 1938 9/17-18? 35.5° 90.3° NEAR MARKED TREE, ARKANSAS IV RGS; IV-V TVA, ON
One foreshock and 1 aftershock also occurred. ON lists the main shock and the aftershock at the same time as TVA and RGS, except 1 day before. ON lists the aftershock with intensity II-III. There is also a discrepancy in the time of the foreshock between TVA and RGS, who agree, and ON. ON omits an intensity for the foreshock.
242. 1938 9/19 (36.4° 89.5°) TVA, RGS III TVA, RGS
TIPTONVILLE, TENNESSEE
ON does not list this earthquake. See number 245.
243. 1938 9/28 (36.6° 90.0°) RGS III
MALDEN, MISSOURI
TVA lists latitude-longitude as 36.0° 90.0°. However, 36.0° is not the correct latitude for Malden. ON latitude-longitude 36.5° 89.9°. Again, there is a discrepancy in the time of this shock, as in number 234, with ON listing this shock 12 hours earlier than RGS and TVA.
244. 1939 4/15 (36.7° 89.6°) RGS III-IV TVA, RGS; III ON
NEW MADRID, MISSOURI AREA
TVA lists latitude-longitude as 36.6° 89.5°, without parentheses. ON latitude-longitude 36.8 89.4°. TVA lists this shock about 3/4 hour later than ON and RGS.
245. 1939 9/19 36.4° 89.5° ON III ON
This earthquake is listed only by ON. However, it is possible that this is the same shock listed by TVA and RGS on 9/19/1938, since the same month, day, latitude-longitude, and intensity are repeated by ON.
246. 1940 2/4 (37.2° 89.5°) RGS, ON II-III TVA, RGS; III ON
CAPE GIRARDEAU, MISSOURI
TVA lists latitude-longitude as 37.3° 89.5°, without parentheses.
247. 1940 2/14 (35.9° 89.9°) RGS, TVA III
BLYTHEVILLE, ARKANSAS
ON latitude-longitude 35.9° 89.8°.
248. 1940 5/31 (37.1° 88.6°) RGS, ON IV-V RGS, TVA; V ON
PADUCAH, KENTUCKY
TVA lists the same latitude-longitude without parentheses.
249. 1940 9/19 (36.6° 89.5°) TVA, RGS III TVA, RGS; II-III ON
NEW MADRID, MISSOURI
ON latitude-longitude 36.5° 89.6°. TVA and RGS omit a time for this shock, stating it is unknown, although ON's listing includes a time.

250. 1940 10/10 (36.6° 89.5°) TVA, RGS II-III
 NEW MADRID, MISSOURI
 ON latitude-longitude 36.8° 89.2°. Again, as for the preceding shock, TVA and RGS omit a time, with ON including one.
251. 1940 11/23 38.2° 90.1° RGS VI TVA, RGS
 SOUTHERN ILLINOIS
 Although out of the study area, this shock was felt in West Tennessee from Tiptonville to Memphis. TVA lists the same latitude-longitude with parentheses. ON does not list this shock. It is possible that this shock is confused with one on 11/23/39 at the same location, although a reference given by TVA contains the (suspected) error, and both RGS and ON mention the 11/23/39 shock.
252. 1940 12/28 (37.8° 87.2°) TVA, RGS III
 OWENSBORO, KENTUCKY
 RGS notes this shock was also felt at Evansville, Indiana. ON latitude-longitude 37.9° 87.3°. ON lists this shock 2 hours later than RGS and TVA.
253. 1941 10/8 (36.2° 89.8°) RGS IV TVA, RGS; IV-V ON
 BLYTHEVILLE, ARKANSAS — TIPTONVILLE, TENNESSEE
 TVA lists latitude-longitude as 36.5° 89.5°. ON latitude-longitude 36.2° 89.7°.
254. 1941 10/21 (37.0° 89.1°) RGS, ON IV
 CAIRO, ILLINOIS AREA
 TVA latitude-longitude (37.0° 89.2°). RGS indicates the shock was also felt at Wickliffe, Kentucky.
255. 1941 10/26 (37.3° 89.5°) TVA, RGS III
 CAPE GIRARDEAU, MISSOURI
 TVA lists this earthquake 2 hours earlier than RGS and ON. ON latitude-longitude 36.7° 89.7°.
256. 1941 11/14 (35.1° 90.0°) RGS, ON III TVA, RGS; IV ON
 MEMPHIS, TENNESSEE
 TVA latitude-longitude (35.1° 90.1°).
257. 1941 11/16 (35.5° 89.7°) TVA, ON V RGS; V-VI TVA; VI ON
 COVINGTON, TENNESSEE
 RGS latitude-longitude (35.6° 89.7°).
258. 1941 11/22 (37.3° 89.5°) II-III
 CAPE GIRARDEAU, MISSOURI
 TVA and RGS omit a time for this shock, with RGS stating it is unknown, although ON does list a time.
259. 1942 3/29 37.7° 88.6° ON IV ON
 This earthquake is listed only by ON.
260. 1942 8/31 (37.0° 89.2°) IV
 CAIRO, ILLINOIS
261. 1942 11/30 36.8° 89.7° ON III ON
 This earthquake is listed only by ON.
262. 1944 1/7 37.5° 89.7° III RGS, TVA; IV ON
 MISSISSIPPI VALLEY
 ON lists this shock 1 hour earlier than TVA and RGS, making the date 1/6, local time.

263. 1944 9/25 (38.7° 90.3°) TVA III-IV TVA, RGS; IV ON
 ST. LOUIS, MISSOURI AREA
 RGS latitude-longitude (38.6° 90.4°). Although TVA and RGS list this shock outside the study area, ON lists it at latitude-longitude 37.9° 90.0°, an hour earlier than TVA and RGS.
264. 1944 12/23 (36.2° 89.7°) IV
 CARUTHERSVILLE, MISSOURI
 TVA and RGS omit a time for this shock, stating it is unknown, although ON does list a time.
265. 1945 1/15 (37.8° 90.6°) RGS about III RGS; III-IV TVA; IV ON
 FARMINGTON, MISSOURI AREA
 TVA latitude-longitude (37.8° 90.4°). ON latitude-longitude 37.8° 90.2°. ON lists this shock about 21 hours later than TVA and RGS.
266. 1945 5/2 (36.5° 89.6°) TVA, RGS IV
 MARSTON, MISSOURI
 ON latitude-longitude 36.5° 89.7°. TVA and RGS omit a time for this shock, stating it is unknown, although ON does list a time.
267. 1945 7/24 (37.7° 88.3°) TVA, RGS I TVA, RGS
 GALLATIN COUNTY, ILLINOIS
 ON does not list this shock.
268. 1945 8/6 (36.2° 89.7°) TVA, RGS III
 CARUTHERSVILLE, MISSOURI
 ON latitude-longitude 36.1° 89.7°. ON also lists a second shock occurring at the same latitude-longitude with intensity III. TVA and RGS do not list a time for this shock, stating it is unknown, although ON does list times for the 2 shocks mentioned.
269. 1945 9/23 (37.0° 89.2°) TVA, RGS III-IV TVA, RGS; IV ON
 CAIRO, ILLINOIS
 ON latitude-longitude 37.0° 89.8°. ON lists this shock an hour earlier than TVA and RGS.
270. 1945 10/27 (36.5° 89.6°) TVA, RGS III
 NEAR NEW MADRID, MISSOURI
 ON latitude-longitude 36.5° 89.5°. TVA and RGS omit a time for this shock, with RGS stating it is unknown, although ON does list a time.
271. 1945 11/13 (37.0° 89.2°) IV
 CAIRO, ILLINOIS
 ON lists this shock an hour earlier than TVA and RGS.
272. 1946 5/15 (36.6° 90.7°) RGS III-IV RGS, ON; IV TVA
 RIPLEY COUNTY, MISSOURI
 TVA lists latitude-longitude as 36.5° 90.6°, and locates the shock at Marston and Doniphan, Missouri. ON latitude-longitude 36.6° 90.8°.
273. 1946 10/7 37.5° 90.6° IV-V
 NEAR CHLORIDE, MISSOURI
 RGS lists this shock at 1:12 p.m., local time, whereas ON and TVA list it at 1:12 GMT (on 10/8).
274. 1946 11/7 38.0° 90.7° ON II-III ON; III RGS, TVA
 WASHINGTON COUNTY, MISSOURI
 RGS and TVA list this shock outside the study area, at latitude-longitude (38.2° 90.7°). RGS and TVA omit a time for this shock, stating it is unknown, although ON does list a time.
275. 1947 1/16 (37.0° 89.2°) II-III
 CAIRO, ILLINOIS
 RGS and TVA omit a time for this shock, stating it is unknown, although ON does list a time.

276. 1947 3/26 37.0° 88.4° RGS, ON VI
 WESTERN KENTUCKY
 This earthquake is not present on the TVA list.
277. 1947 12/1 36.7° 90.6° RGS, ON III-IV RGS, TVA; IV ON
 POPLAR BLUFF, MISSOURI
 TVA lists latitude-longitude as 36.7° 90.5°. ON lists this shock an hour earlier than TVA and RGS.
278. 1947 12/15 (35.7° 90.0°) TVA, RGS V RGS, ON; IV-V TVA
 OSCEOLA, ARKANSAS
 ON lists this shock at the same time as TVA and RGS, but on 12/14. ON latitude-longitude 35.6° 90.1°.
279. 1949 1/13 (36.2° 89.7°) RGS V
 MISSISSIPPI VALLEY
 TVA latitude-longitude (36.5° 89.5°). ON latitude-longitude 36.4° 89.7°.
280. 1949 1/31 36.3° 89.7° ON V ON
 This earthquake is listed only by ON.
281. 1949 6/8 (38.0° 90.1°) TVA, RGS III
 STE. GENEVIEVE, MISSOURI
 ON lists latitude-longitude outside the study area at 38.1° 90.3°. TVA and RGS omit a time for this shock, stating it is unknown, although ON does list a time.
282. 1949 8/13 (36.2° 89.7°) TVA, RGS III
 CARUTHERSVILLE, MISSOURI
 ON latitude-longitude 36.1° 89.7°.
283. 1950 5/1 (36.5° 89.9°) II TVA, RGS; II-III ON
 GIDEON, MISSOURI
 ON lists this shock 12 hours earlier than TVA and RGS.
284. 1950 9/16 35.8° 90.0° RGS, TVA III-IV
 MISSISSIPPI COUNTY, ARKANSAS
 ON latitude-longitude 35.7° 89.9°.
285. 1951 12/17 (36.6° 89.5°) TVA III (first)
 NEW MADRID, MISSOURI
 RGS lists latitude-longitude as (36.0° 90.0°), which is incorrect for New Madrid. TVA lists an aftershock on 12/18 as intensity II-III, which RGS also mentions. ON lists both shocks at 35.6° 90.3°, with the first having intensity III, and the second II-III. The differences in reported latitude-longitude may be due to the fact that, as RGS indicates, this shock was felt between New Madrid and Marked Tree, Arkansas.
286. 1952 2/20 36.4° 89.5° V
 TIPTONVILLE, TENNESSEE
 RGS lists epicenter between Tiptonville and Hickman, Kentucky. RGS also indicates that 2 shocks were felt at Tiptonville.
287. 1952 3/16 (36.0° 89.4°) RGS III-IV RGS; IV ON
 DYERSBURG, TENNESSEE
 TVA omits this earthquake. ON latitude-longitude 36.2° 89.6°.
288. 1952 5/28 36.7° 89.2° TVA, RGS III TVA; III-IV RGS; IV ON
 NEW MADRID, MISSOURI AREA
 ON latitude-longitude 36.6° 89.7°.

289. 1952 7/16 36.2° 89.6° IV-VI RGS; VI ON (first), TVA
 DYERSBURG, TENNESSEE AREA
 Two shocks, about 20 minutes apart. RGS indicates the first was "much the stronger." ON lists the second shock separately with intensity IV.
290. 1952 10/17? 36.2° 89.6° IV
 DYERSBURG, TENNESSEE AREA
 Three aftershocks within 30 minutes. ON lists the aftershocks separately, all with intensity II-III. ON lists these shocks at the same time as TVA and RGS, except on 10/16.
291. 1952 12/24 36.1° 90.0° RGS, TVA III-IV RGS; IV ON (first), TVA
 NEAR BLYTHEVILLE, ARKANSAS
 ON lists an aftershock, which TVA also mentions, with intensity II. ON latitude-longitude for both shocks is 35.9° 89.8°.
292. 1952 12/28 (36.9° 89.3°) RGS III
 MISSISSIPPI COUNTY, MISSOURI
 TVA lists this shock near New Madrid, Missouri, with latitude-longitude 36.7° 89.6°. ON latitude-longitude also 36.7° 89.6°.
293. 1953 1/26 (36.0° 89.5°) RGS, ON III TVA, RGS; IV ON
 FINLEY, TENNESSEE
 TVA lists the same latitude-longitude without parentheses.
294. 1953 1/26? (36.0° 89.5°) RGS, ON IV ON (first), RGS
 FINLEY, TENNESSEE
 Two shocks, an hour apart. TVA does not list these shocks. ON lists these shocks at the same time as RGS, except on 1/27. ON lists the second shock separately with intensity II.
295. 1953 2/11 36.6° 89.5° RGS IV
 NEW MADRID, MISSOURI
 TVA and ON list latitude-longitude as 36.5° 89.5°.
296. 1953 2/17 (36.0° 89.5°) TVA, RGS IV (first shock)
 FINLEY, TENNESSEE
 Two shocks about 13 hours apart. ON latitude-longitude 36.5° 89.5°. RGS, TVA, and ON all disagree on the time of the first shock, but all agree on the time of the second shock. TVA and ON list the second shock separately, ON with intensity III and TVA with intensity IV.
297. 1953 2/18 (36.0° 89.5°) IV TVA, RGS; III ON
 FINLEY, TENNESSEE
 Aftershock of the 2/17 Finley, Tennessee, earthquake.
298. 1953 5/6 (37.0° 89.2°) III
 CAIRO, ILLINOIS
299. 1953 5/12 (35.6° 90.3°) RGS, ON III TVA, RGS; IV ON
 LEPANTO, ARKANSAS
 TVA latitude-longitude (35.6° 90.4°).
300. 1953 5/15 (37.0° 89.2°) III
 CAIRO, ILLINOIS
301. 1954 1/17 (36.0° 89.4°) IV
 DYERSBURG, TENNESSEE

302. 1954 2/2 (36.5° 90.7°) RGS VI
 POPLAR BLUFF, MISSOURI AREA
 ON latitude-longitude 36.7° 90.3°. TVA latitude-longitude (36.5° 90.3°). TVA lists this shock 2 hours earlier than RGS and ON.
303. 1954 4/26 35.2° 90.0° TVA, RGS IV-V TVA, RGS; V ON
 MEMPHIS, TENNESSEE AREA
 ON latitude-longitude 35.1° 90.0°. ON lists this shock 2 hours later than TVA and RGS. James Zollweg indicates that instrumental records for this shock show an actual epicenter north of Memphis, near 35.9° 90.0°.
304. 1955 1/25 36.0° 89.5° RGS, ON VI
 FINLEY, TENNESSEE
 TVA lists this shock in New Madrid, Missouri area at latitude-longitude 35.6° 90.3°, which is incorrect for New Madrid.
305. 1955 3/29 (36.0° 89.5°) RGS, ON VI
 FINLEY, TENNESSEE
 TVA lists the same latitude-longitude without parentheses.
306. 1955 4/11 (37.7° 88.5°) TVA, RGS II
 HARRISBURG, ILLINOIS
 ON latitude-longitude 37.7° 88.6°.
307. 1955 9/5 (36.0° 89.5°) V (ON, first only)
 FINLEY AND DYERSBURG, TENNESSEE
 Two shocks indicated by RGS and ON. TVA lists this shock about 11 hours earlier than RGS and ON. ON lists the second shock separately with intensity III.
308. 1955 9/24 (36.4° 89.5°) III-IV TVA, RGS; IV ON
 TIPTONVILLE, TENNESSEE
309. 1955 12/13 (36.0° 89.5°) III-IV RGS; V ON (first), TVA
 FINLEY, TENNESSEE
 Two shocks a few minutes apart, with RGS indicating the first one as the stronger. ON lists the second shock separately with intensity III.
310. 1956 1/23 (36.2° 89.7°) TVA, RGS II-III
 CARUTHERSVILLE, MISSOURI
 ON latitude-longitude 36.1° 89.7°.
311. 1956 1/28 35.6° 89.6° RGS, ON VI
 NEAR COVINGTON, TENNESSEE
 TVA latitude was apparently transposed, since it was written as 36.5°. TVA longitude is 89.6°. ON lists this shock 30 minutes later than TVA and RGS.
312. 1956 10/29 (36.1° 89.4°) RGS V
 CARUTHERSVILLE, MISSOURI
 TVA lists latitude-longitude as 36.1° 89.4°. ON latitude-longitude 36.1° 89.7°.
313. 1956 11/25 37.1° 90.6° VI
 WAYNE COUNTY, MISSOURI
314. 1957 3/26 (37.1° 88.6°) RGS V TVA, RGS; IV ON
 PADUCAH, KENTUCKY
 TVA and ON list latitude-longitude as 37.0° 88.4°.

315. 1957 8/17 (36.2° 89.4°) RGS IV
 BOGOTA, TENNESSEE
 TVA lists latitude-longitude as (36.2° 89.5°), as does ON. TVA and RGS indicate only a late evening time of occurrence. ON indicates a time of 5:00 p.m.
316. 1958 1/26 (35.1° 90.0°) RGS V
 MEMPHIS, TENNESSEE
 TVA lists latitude-longitude as 35.1° 90.0°. ON lists latitude-longitude as 36.1° 89.7°.
317. 1958 1/27 (37.3° 89.3°) RGS V
 ILLINOIS — KENTUCKY — MISSOURI BORDER AREA
 TVA lists latitude-longitude as 37.0° 89.0°, near Wickliffe, Kentucky. ON latitude-longitude 37.1° 89.2°.
318. 1958 4/8 (36.3° 89.2°) RGS, ON V
 OBION COUNTY, TENNESSEE
 TVA latitude-longitude (36.2° 89.2°).
319. 1958 4/26 (36.3° 89.5°) TVA V TVA, RGS; IV ON
 LAKE COUNTY, TENNESSEE
 RGS latitude-longitude (36.4° 89.5°). ON latitude-longitude also 36.4° 89.5°.
320. 1958 5/19 (35.5° 90.4°) RGS, ON IV
 MARKED TREE, ARKANSAS
 TVA lists latitude-longitude as (35.6° 90.4°). TVA lists this shock about 12½ hours earlier than RGS and ON.
321. 1959 1/21 (36.3° 89.5°) IV
 RIDGELY, TENNESSEE
322. 1959 2/13 (36.2° 89.4°) RGS V
 BOGOTA, TENNESSEE
 TVA latitude-longitude (36.2° 89.5°). ON latitude-longitude 36.1° 89.5°. RGS and TVA indicate 2 shocks, although RGS only attributes that report to one observer.
323. 1959 7/20 (35.9° 89.9°) RGS, TVA I-III RGS; II-III TVA; III ON
 BLYTHEVILLE, ARKANSAS
 TVA lists latitude-longitude without parentheses. ON latitude-longitude 35.9° 89.8°.
324. 1959 8/12 35.0° 87.0° IV? RGS; VI TVA, ON
 ALABAMA — TENNESSEE BORDER
 The RGS list contains an internal ambiguity regarding the intensity of this shock; VI is probably correct.
325. 1959 12/21 (36.0° 89.5°) V
 FINLEY, TENNESSEE
 TVA lists this shock an hour earlier than RGS and ON.
326. 1960 1/28 (36.0° 89.5°) V
 FINLEY, TENNESSEE
327. 1960 4/21 (36.3° 89.5°) TVA, ON V
 LAKE COUNTY, TENNESSEE
 RGS latitude-longitude (36.4° 89.5°).
328. 1960 5/4 (34.2° 92.0°) RGS, ON IV
 PINE BLUFF, ARKANSAS
 TVA lists the same latitude-longitude without parentheses.

329. 1961 9/9 36.4° 91.3° IV
ARKANSAS — MISSOURI BORDER
330. 1962 2/2 36.5° 89.6° VI
NEW MADRID, MISSOURI AREA M = 4.2 RGS, 4.3 TVA; 25 km RGS
Focal depth omitted by TVA. ON lists m_b as 4.3, and M_s as 3.5
- NOTE: Some magnitudes listed by ON are estimates instead of actual instrumentally determined ones. Estimates were not distinguished from instrumental magnitudes on the list by ON consulted for this compilation. Further, since focal depths were not included in the ON list, focal depth data to follow does not include ON identification. In addition, many of the following earthquakes are listed only by ON. Many of these, particularly those without an intensity listed, were not known to have been felt, although their magnitudes were large enough that they should have been felt.
331. 1962 6/1 36.0° ? 90.2° ON no intensity listed
This shock is listed only by ON. ON lists m_b as 3.2. James Zollweg indicates that this shock actually occurred at 35.0° 90.2°, and was not known to have been felt.
332. 1962 6/26 37.7° 88.5° V
SOUTHERN ILLINOIS M = 4.4 RGS, 5.5 TVA; 25 km
ON reports m_b as 4.4.
333. 1962 7/13 (36.9° 89.9°) RGS II-III ON
BLOOMFIELD, MISSOURI m_b = 3.2 ON; 18 km RGS
TVA does not list this shock. RGS does not list an intensity. ON latitude-longitude 36.9° 90.0°.
334. 1962 7/23 36.1° 89.8° VI
DYERSBURG, TENNESSEE M = 4.2 RGS
The longitude listed is actually in southeast Missouri, which the TVA list notes. ON lists m_b as 3.6.
335. 1963 3/3 36.7° 90.1° TVA, RGS V-VI TVA; VI RGS, ON
SOUTHEAST MISSOURI M = 4.7 RGS, 4.5 TVA; 18 km RGS
TVA omits a focal depth. ON lists latitude-longitude as 36.7° 90.0°, m_b as 4.7, and M_s as 4.1.
336. 1963 3/31 36.5° 89.5° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0.
337. 1963 4/6 (36.4° 89.4°) TVA, RGS IV TVA, RGS
NEW MADRID, MISSOURI AREA
TVA and RGS omit a time for this shock, stating it is unknown, although ON does list a time. ON lists m_b as 3.1, and latitude-longitude as 36.4° 89.8°. ON omits an intensity.
338. 1963 4/19 36.7° 90.1° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.5.
339. 1963 5/1 (36.7° 89.4°) TVA, ON intensity unknown
NEW MADRID, MISSOURI AREA
RGS omits this earthquake. TVA lists this shock on 5/2, but states the time is unknown. ON lists a time on 5/2 GMT, but 5/1 local time. ON lists m_b as 3.1.
340. 1963 7/8 (37.0° 90.5°) TVA, ON intensity unknown
WAYNE COUNTY, MISSOURI
RGS omits this earthquake. TVA states the time is unknown, but ON includes a time. ON lists m_b as 3.1.

341. 1963 8/2 37.0° 88.8° V
PADUCAH, KENTUCKY AREA M = 3.6 TVA; 18 km
ON lists m_b as 4.4.
342. 1963 12/5 (37.2° 87.0°) II-III
DRAKESBORO, KENTUCKY
TVA and RGS do not list a time for this shock, stating it is unknown, although ON does list a time. ON lists m_b as 3.2.
343. 1963 12/14 (37.5° 87.0°) RGS, TVA III
BEECHMONT, KENTUCKY
TVA lists latitude-longitude without parentheses. ON latitude-longitude 37.2° 87.1°. TVA lists this shock 1 hour earlier than RGS and ON. ON lists m_b as 3.4.
344. 1964 1/15 36.8° 89.5° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.2.
345. 1964 1/25 36.5° 89.5° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0.
346. 1964 3/16 (36.2° 89.7°) TVA, RGS IV TVA, RGS
CARUTHERSVILLE, MISSOURI
ON latitude-longitude 36.2° 89.6°. ON lists m_b as 3.5. ON omits an intensity.
347. 1964 5/23 36.6° 89.9° TVA, RGS IV-V TVA, RGS
NEW MADRID, MISSOURI AREA M = 4.5 TVA, RGS; 18 km
ON and (apparently) TVA (see remarks, number 348) list 2 shocks separately on this date. ON lists m_b as 3.9 for the first shock. ON lists the first shock at latitude-longitude 36.5° 89.9°, and the second shock at 36.5° 90.0°. ON lists m_b as 3.6 for the second shock. ON omits intensities.
348. 1964 5/2? 36.6° 90.0° TVA IV-V TVA
NEW MADRID, MISSOURI AREA M = 4.3 TVA; 18 km TVA
TVA's listing of this event on 5/2 appears to be a typographical error. This is apparently the second shock on 5/23 referred to in number 347.
349. 1964 9/24 37.1° 91.1° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0.
350. 1965 2/10 36.4° 89.7° ON III ON
This earthquake is listed only by ON. ON lists m_b as 3.3.
351. 1965 3/6 37.8° 91.2° TVA, RGS VI-VII TVA, RGS; III ON
JEFFERSON COUNTY, MISSOURI M = 5.3 TVA, 4.1 RGS; 18 km
RGS lists a magnitude of 5.3 in Fletcher (Jefferson County). ON latitude-longitude 37.4° 91.1°. ON lists m_b as 4.1. The great difference in intensity reported for this shock is unexplained.
352. 1965 3/25 36.4° 89.5° III RGS; VI TVA
TENNESSEE — MISSOURI BOUNDARY M = 3.7 RGS, 5.0 TVA
The compiler could not account for the significant discrepancy in the reported intensity of this event. However, RGS notes that this shock was not "generally noticed," so perhaps the TVA listing is in error. ON lists m_b as 3.7, and omits an intensity.
353. 1965 5/25 36.1° 89.9° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.3.
354. 1965 6/1 36.5° 89.5° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0.

355. 1965 7/8 36.5° 89.5° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.3.
- THE FOLLOWING SERIES OF EARTHQUAKES, NUMBERS 356 TO 360, IS REPORTED DIFFERENTLY BY TVA, RGS, AND ON:
356. 1965 8/13 37.1° 89.3° TVA, ON no intensity listed
SOUTHWESTERN ILLINOIS
This foreshock (?) is omitted by RGS. ON lists m_b as 3.0.
357. 1965 8/13 37.2° 89.3° RGS /V RGS, ON; VII TVA
SOUTHWESTERN ILLINOIS M = 3.2 RGS, 5.0 TVA; 33 km TVA
RGS notes that the center of these shocks was apparently in the vicinity of Tamms, Illinois. TVA lists the latitude-longitude as 37.3° 89.2°. ON latitude-longitude 37.3° 89.5°. ON lists m_b as 3.2.
358. 1965 8/14? 37.4° 89.5° TVA VI TVA M = 5.1 TVA
SOUTHWESTERN ILLINOIS
This shock may be omitted by ON and RGS. However, ON and RGS list a shock at the same time of day and latitude-longitude on 8/15. Both list the intensity as V. ON lists m_b as 3.4, and RGS lists M = 4.3. RGS lists focal depth as 16 km.
359. 1965 8/14 37.2° 89.3° RGS VI TVA, RGS; VII ON
SOUTHWESTERN ILLINOIS M = 4.8 TVA, RGS; 38 km RGS
TVA lists latitude-longitude as 37.1° 89.2°, as does ON. ON lists m_b as 3.8.
360. 1965 8/15? 37.4° 89.5° V M = 3.4 RGS, 5.1 TVA
SOUTHWESTERN ILLINOIS
RGS and ON apparently list this earthquake, with the same latitude-longitude, intensity and time as TVA, on 8/14. ON lists m_b as 3.4.
361. 1965 10/20 37.5° 91.1° TVA VI M = 5.2; 5-10 km RGS, 33 km TVA
NEAR CENTERVILLE, MISSOURI
TVA and ON list latitude-longitude as 37.5° 91.0°. RGS also notes the occurrence of 4 aftershocks via a personal communication. TVA apparently lists only 1 aftershock, a description of which follows (number 362). ON lists m_b as 4.9, and M_s as 4.1.
362. 1965 10/20 37.4° 91.1° TVA no intensity listed M = 3.9
CENTERVILLE, MISSOURI
This is an aftershock of the preceding event, listed by TVA, as referred to above. This is apparently one of the 4 aftershocks mentioned by RGS in number 361 above.
363. 1965 11/3 37.1° 91.1° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0.
364. 1965 11/4 37.1° 91.1° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.5.
365. 1965 12/9 37.4° 91.1° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.5.
366. 1965 12/19 35.9° 89.9° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.6.
367. 1966 2/11 35.9° 90.0° IV RGS, ON; V TVA
NORTHEASTERN ARKANSAS M = 3.6 RGS, 4.4 TVA; 10 km RGS, 33 km TVA
ON lists m_b as 3.6.

368. 1966 2/13 37.1° 91.0° IV
EASTERN MISSOURI
ON lists m_b as 3.6. $M = 4.7$; 7 km TVA
369. 1966 2/13 (35.6° 89.7°) RGS IV TVA, RGS
COVINGTON, TENNESSEE 1 km TVA
TVA lists latitude-longitude and location as 37.2° 90.9°, Eastern Missouri, respectively. ON also lists latitude-longitude as 37.2° 90.9°. ON lists m_b as 3.1, but omits an intensity. There are unresolved differences between the reported details of this shock and the preceding one.
370. 1966 2/26 37.2° 91.0° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.7.
371. 1966 3/13 36.2° 90.0° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0.
372. 1967 4/11 36.1° 89.7° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0.
373. 1967 6/4 33.5° 90.9° RGS V RGS; VI TVA, ON
NEAR GREENVILLE, MISSISSIPPI $M = 4.5$ RGS, 3.8 TVA; 10 km RGS, 33 km TVA
TVA and ON list latitude-longitude as 33.6° 90.9°. Although the epicenter of this shock is outside the study area, the shock was felt at Memphis. Another shock at the same location occurred on 6/29, but it was lighter. Although the 6/29 shock was felt north of 34.0° north latitude, it was apparently not felt in Tennessee. ON lists m_b as 4.5, and M_s as 3.0.
374. 1967 7/6 35.8° 90.4° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.4.
375. 1967 7/21 37.5° 90.4° TVA, ON V RGS; VI TVA, ON
SOUTHEASTERN MISSOURI $M = 3.9$ TVA, 4.2 RGS ($m_b[P]$); 10 km RGS, 35 km TVA
RGS latitude-longitude 37.5° 90.6°. ON lists m_b as 4.3, and M_s as 2.8.
376. 1967 8/25 37.1° 91.1° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.1.
377. 1967 10/17 36.5° 89.5° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0. James Zollweg indicates latitude-longitude was 33.3° 90.9°.
378. 1968 1/23 36.5° 89.5° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.3.
379. 1968 2/9 36.5° 89.9° III RGS, ON; V TVA
NEW MADRID, MISSOURI AREA $M = 3.5$ RGS, 3.8 TVA; 33 km
ON lists m_b as 3.5.
380. 1968 5/29 36.5° 89.5° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.5. James Zollweg indicates latitude-longitude was 37.2° 91.0°.
381. 1968 7/14 36.5° 89.5° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0. James Zollweg indicates latitude-longitude was 35.7° 90.8°.

382. 1968 11/9 38.0° 88.5° VII M = 5.5; 19 km
HAMILTON COUNTY, ILLINOIS
Felt area over one million km². ON lists m_b as 5.5, and M_S as 5.2. ON also lists separately an aftershock 6 minutes later at the same latitude-longitude, with $m_b = 3.8$, and intensity IV.
383. 1969 1/1 34.8° 92.6° VI M = 4.2; 12 km
CENTRAL ARKANSAS
Although outside the study area, this shock was felt at Memphis, Tennessee. ON lists m_b as 4.5, and M_S as 3.3.
384. 1969 1/20 (37.8° 90.4°) III M = 3.4 RGS, 2.7 TVA
FARMINGTON, MISSOURI
ON lists m_b as 3.4.
385. 1969 2/28 37.9° 88.9° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.2.
386. 1970 1/7 (35.2° 89.9°) IV
RALEIGH, TENNESSEE AREA
ON lists m_b as 3.8. James Zollweg indicates there is no seismograph record of this shock.
387. 1970 2/5 37.9° 90.6° ON II ON (all three)
Only ON lists these 3 shocks that occurred within about 30 minutes. ON lists m_b of the first, second, and third, respectively, as 3.0, 3.2, and 3.4. James Zollweg indicates that these shocks are attributable to rock bursts.
388. 1970 3/26 36.5° 89.7° III ON; IV TVA, RGS M = 3.5; 5 km
NEW MADRID, MISSOURI
ON lists m_b as 3.3.
389. 1970 7/6 37.9° 90.6° ON II ON
This earthquake is listed only by ON. ON lists m_b as 3.0. James Zollweg indicates that this shock is attributable to a rock burst.
390. 1970 11/5 36.0° 90.0° no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0.
391. 1970 11/16 35.9° 90.2° RGS VI M = 3.6 TVA, 4.4 RGS (m_b [P]); 19 km
BLYTHEVILLE, ARKANSAS
RGS indicates this shock caused the Keltner landslide in Lauderdale County, Tennessee. TVA latitude-longitude 35.9° 89.9°. ON latitude-longitude 35.9° 90.1°. ON lists m_b as 4.4, and M_S as 2.9. A magnitude transposition error with number 390 by ON is corrected here (personal communication with ON).
392. 1970 11/29 36.3° 89.5° RGS, ON III-IV RGS, ON M = 2.8 RGS
NEW MADRID, MISSOURI AREA
This shock is omitted by TVA. ON lists m_b as 3.0.
393. 1970 12/8 38.0° 89.0° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0.
394. 1970 12/14 35.7° 90.0° ON no intensity listed
This earthquake is listed only by ON. ON lists m_b as 3.0 (personal communication).

395. 1970 12/24 36.7° 89.5° TVA, ON IV ON; VI TVA, RGS
 NEW MADRID, MISSOURI AREA $m_b(P) = 3.5$ RGS; 12 km
 RGS latitude-longitude 36.8° 89.7°. ON lists m_b as 3.6. TVA notes an SLM (St. Louis, Missouri) magnitude of 3.5, and a calculated magnitude of 4.8.
396. 1971 4/13 35.8° 90.1° no intensity listed
 NORTHEAST ARKANSAS $M = 3.0$ RGS; 33 km TVA
 ON lists m_b as 3.0. TVA states intensity and magnitude are unknown, while listing a focal depth.
397. 1971 10/1 35.8° 90.4° V RGS; V-VI ON; VI TVA
 JONESBORO, ARKANSAS $M = 4.1$ RGS; 5 km RGS, 19 km TVA
 ON lists m_b as 4.1, and M_s as 2.9.
398. 1971 10/18 36.7° 89.6° ON no intensity listed
 This earthquake is listed only by ON. ON lists m_b as 3.0.
399. 1972 1/31 36.4° 90.8° V RGS, TVA; V-VI ON
 RANDOLPH COUNTY, ARKANSAS $M = 4.1$ TVA, 3.9 RGS; 17 km TVA
 ON lists m_b as 4.2, and M_s as 2.8.
400. 1972 3/29 36.1° 89.8° TVA V
 MISSOURI BOOTHEEL AREA $M = 3.7$ RGS; 10 km
 RGS lists latitude-longitude as 36.2° 89.61°. ON latitude-longitude 36.2° 89.6°. ON lists m_b as 3.7.
401. 1972 5/6 35.9° 90.0° TVA, ON IV
 BLYTHEVILLE, ARKANSAS AREA $M = 3.4$ RGS; 4 km
 RGS lists latitude-longitude as 35.88° 89.97° (SLM crustal model). ON lists m_b as 3.4.
402. 1972 6/9 37.7° 90.4° TVA, ON IV TVA, RGS; III-IV ON
 SOUTHEASTERN MISSOURI $M = 3.0$ RGS; 18 km RGS, 20 km TVA
 RGS lists latitude-longitude as 37.7° 90.41°. ON lists m_b as 3.1.
403. 1972 6/18 37.0° 89.1° TVA, ON III ON; IV RGS; V TVA
 CAPE GIRARDEAU, MISSOURI $M = 3.3$ RGS, 4.5 TVA; 13 km
 RGS lists latitude-longitude as 37.0° 89.08°. ON lists m_b as 3.2.
404. 1972 9/5 36.4° 89.9° RGS no intensity given
 EASTERN MISSOURI $M = 2.5 \pm$ RGS
 TVA and ON omit this event.
405. 1973 1/7 37.4° 87.3° IV TVA, RGS
 MADISONVILLE, KENTUCKY $M = 3.2$; 15 km TVA
 ON lists m_b as 3.2. ON does not list an intensity.
406. 1973 1/12 37.9° 90.5° TVA, ON III TVA; IV RGS, ON
 EASTERN MISSOURI $M = 3.2$ TVA; 20 km TVA
 RGS latitude-longitude 37.93° 90.52°. ON lists m_b as 3.2. RGS lists this shock 1 hour later than TVA and ON.
407. 1973 10/2 35.9° 90.0° TVA, ON IV
 MISSISSIPPI COUNTY, ARKANSAS $M = 3.4$; 10 km
 RGS lists latitude-longitude as 35.91° 90.0°. ON lists m_b as 3.4.

408. 1973 10/9 36.5° 89.6° TVA, ON IV
 NEW MADRID, MISSOURI AREA M = 3.8 RGS, 3.6 TVA; 1 km TVA
 RGS latitude-longitude 36.4° 89.2°. ON lists m_b as 3.7.
409. 1973 12/20 36.2° 89.6° TVA, ON III RGS; III-IV TVA; IV ON
 MISSOURI BOOTHEEL AREA M = 3.4; 10 km
 RGS lists latitude-longitude as 36.157° 89.58°. ON lists m_b as 3.4.
410. 1974 1/7 36.2° 89.4° TVA, ON V
 NORTHWEST TENNESSEE M = 4.1; 1 km
 RGS lists latitude-longitude as 36.2° 89.39°. ON lists m_b as 4.3.
411. 1974 2/24 35.8° 90.4° ON III TVA
 M = 3.2 TVA; 6 km TVA
 TVA lists a shock occurring at this time at latitude-longitude 34.0° 93.0°. ON omits an intensity and lists m_b as 3.2. RGS does not list a shock for this date. The location discrepancy between TVA and ON may result from the shock being related to a series of shocks reported on 2/15/74 at approximately 34.0° 93.0° by TVA and ON. RGS also notes that series, but lists the latitude-longitude as 33.96° 93.03°.
412. 1974 3/4 35.7° 90.4° TVA, RGS no intensity listed
 NEAR JONESBORO, ARKANSAS M = 3.0
 ON latitude-longitude 35.7° 90.3°. ON lists m_b as 3.0.
413. 1974 3/9 36.2° 89.5° TVA no intensity listed
 SOUTHEAST MISSOURI M = 2.5 TVA
 RGS and ON omit this earthquake.
414. 1974 3/12 35.7° 89.8° no intensity listed
 NEAR BLYTHEVILLE, ARKANSAS M = 3.2
 ON lists m_b as 3.2.
415. 1974 4/3 38.6° 88.1° TVA, ON VI
 SOUTHERN ILLINOIS M = 4.5 RGS, 4.7 TVA; 11 km TVA
 Although outside the area of study, this earthquake was felt in Tennessee. RGS lists latitude-longitude as 38.59° 88.09°. RGS also notes the occurrence of tornadoes in the vicinity shortly after the shock, which may have confused reported effects of the earthquake. ON lists m_b as 4.7.
416. 1974 5/13 36.7° 89.4° TVA, ON V-VI TVA; VI RGS, ON
 NEW MADRID, MISSOURI AREA M = 4.1; 1 km
 RGS lists latitude-longitude as 36.71° 89.39°. ON lists m_b as 4.1.
417. 1974 8/11 36.9° 91.2° TVA, ON V
 FREMONT, MISSOURI M = 3.6; 4 km TVA
 RGS lists latitude-longitude as 36.92° 91.17°. ON lists m_b as 3.6.
418. 1974 12/12 34.6° 91.8° TVA V
 EAST-CENTRAL ARKANSAS M = 3.4; 5 km
 RGS lists latitude-longitude as 34.67° 91.88°. ON latitude-longitude 34.7° 91.9°. ON lists m_b as 3.4.
419. 1974 12/13 36.7° 91.6° TVA, RGS III TVA, RGS
 WEST PLAINS, MISSOURI AREA M = 2.8; 5 km TVA
 ON omits this shock.

420. 1974 12/25 35.8° 90.0° TVA II RGS
NEAR BLYTHEVILLE, ARKANSAS 10 km
RGS gives latitude-longitude as 35.78° 90.01°. ON omits this shock. TVA does not list an intensity.
421. 1975 1/2 34.9° 90.9° RGS, ON II-III RGS, ON; III TVA
FORREST CITY, ARKANSAS M = 2.9 TVA; 25 km TVA
TVA latitude-longitude 34.8° 90.9°. ON lists m_b as 3.0.
422. 1975 2/13 36.5° 89.6° TVA, ON V
CONRAN, MISSOURI M = 3.3; 5 km TVA
RGS gives latitude-longitude as 36.53° 89.56°. ON lists m_b as 3.3.
423. 1975 6/13 36.5° 89.7° TVA, ON V RGS, ON; VI TVA
NEW MADRID, MISSOURI AREA M = 4.3; 2 km TVA
RGS gives latitude-longitude as 36.54° 89.68°. ON lists m_b as 4.3.
424. 1975 7/6 36.2° 89.5° TVA, RGS II RGS
SOUTHEAST MISSOURI — NORTHWEST TENNESSEE M = 2.9; 5 km TVA
ON does not list this shock. TVA does not list an intensity.
425. 1975 8/20 36.6° 89.8° TVA no intensity listed
NEW MADRID, MISSOURI AREA M = 2.9 TVA; 5 km TVA
ON and RGS omit this shock.
426. 1975 8/24 37.2° 90.9° TVA no intensity listed
WAYNE COUNTY, MISSOURI M = 2.7 TVA; 5 km TVA
ON and RGS omit this shock.
427. 1975 8/25 36.1° 89.8° TVA no intensity listed
MISSOURI BOOTHEEL AREA M = 3.0 TVA; 11 km TVA
This earthquake is omitted from the RGS list. ON lists m_b as 3.0 and latitude-longitude as 36.0° 89.8°.
428. 1975 12/2 36.5° 89.6° TVA, ON V TVA, RGS; VI ON
NEW MADRID, MISSOURI AREA M = 2.8; 5 km TVA
RGS lists latitude-longitude as 36.54° 89.57°. ON lists m_b as 2.8.
- NOTE: ON's list ends after 12/3/75. The preceding earthquake is the last ON entry within the study area.
429. 1976 3/24 35.6° 90.5° TVA VI TVA (first shock), RGS
NEAR HARRISBURG, ARKANSAS M = 4.9; 15 km TVA
An aftershock occurred approximately 19 minutes after the main shock, which TVA lists with a magnitude of 4.1 at the same focal depth and latitude-longitude. RGS latitude-longitude 35.59° 90.48°. MC lists the first shock at 35.5° 90.4° with magnitude 4.9, and the second shock at 35.6° 90.4° with magnitude 4.1. MC does not list an intensity or focal depth for these shocks.
430. 1976 4/15 37.4° 87.3° TVA, MC V RGS, TVA
HOPKINSVILLE, KENTUCKY M = 3.2 TVA, 3.3 RGS; 15 km RGS
The latitude-longitude given is not that of Hopkinsville. RGS latitude-longitude 37.41° 87.31°. MC omits an intensity, magnitude, and focal depth.
431. 1976 5/22 36.0° 89.8° TVA, MC V RGS, TVA
MISSOURI BOOTHEEL AREA M = 3.2; 10 km
RGS latitude-longitude 36.04° 89.84°. MC omits an intensity and focal depth.

432. 1976 9/25 35.6° 90.5° RGS, TVA V RGS, TVA M = 3.6; 5 km TVA
 NEAR TRUMANN, ARKANSAS
 MC lists latitude-longitude as 35.6° 90.4°, and omits an intensity and focal depth.

433. 1976 12/13 37.8° 90.2° TVA V M = 3.5; 5 km TVA
 NEAR FARMINGTON, MISSOURI
 RGS lists latitude-longitude as 37.8° 90.24°. MC lists latitude-longitude as 37.7° 90.2°, and omits an intensity and focal depth.

NOTE: The TVA list ends after 2/27/77. The preceding earthquake is the last TVA entry within the study area.

434. 1977 1/3 37.5° 89.7° MC VI USGS M = 3.3 RGS, 3.4 MC, NEIS
 APPLETON, MISSOURI
 NEIS lists latitude-longitude as 37.55° 89.79°. RGS also lists latitude-longitude as 37.55° 89.79°.

435. 1977 3/28 36.4° 89.5° MC II USGS 10 km USGS
 MISSOURI
 USGS lists latitude-longitude as 36.48° 89.54°.

436. 1977 5/29 34.44° 87.74° RGS no intensity listed M = 2.6 RGS
 NEAR RUSSELLVILLE, ALABAMA
 Only RGS lists this shock. James Zollweg indicates this shock is not known to have been felt.

NOTE: The RGS list ends after 6/2/77. The preceding earthquake is the last RGS entry within the study area.

437. 1978 1/18 36.25° 89.42° NEIS II TEIC M = 2.6 NEIS
 RIDGELY, TENNESSEE AREA

438. 1978 7/20 35.89° 90.13° SLU no intensity listed M = 2.6 SLU
 MANILA, ARKANSAS AREA
 James Zollweg indicates this shock was felt.

439. 1978 8/30 36.09° 89.42° SLU V TEIC M = 3.5 SLU, 3.6 NEIS
 DYERSBURG, TENNESSEE
 NEIS reports latitude-longitude as 36.1° 89.42°.

440. 1978 11/21 35.97° 89.92° SLU III-IV TEIC M = 2.4 SLU; 9.8 km SLU
 BLYTHEVILLE, ARKANSAS

441. 1979 2/2 36.26° 89.45° II-III TEIC $m_{bLg} = 2.5$
 RIDGELY, TENNESSEE
 This was the first of about 10 felt shocks in a swarm of more than 150 microearthquakes over a 4-day period. James Zollweg reports maximum intensities of felt shocks were II-III.
 Reference: Earthquake Information Bulletin, 1979, United States Geological Survey, v. 11, no. 4.

442. 1979 2/4 35.87° 90.09° IV $m_{bLg} = 3.2$; 10 km
 BLYTHEVILLE, ARKANSAS
 Reference: Earthquake Information Bulletin, 1979, United States Geological Survey, v. 11, no. 4.

443. 1979 2/27 35.94° 91.26° V
 STRAWBERRY, ARKANSAS $m_bLg = 3.4; 13 \text{ km}$
 James Zollweg indicates that this shock, and another about 18 seconds later, were the only ones felt in a swarm of approximately 42 events.
 Reference: Earthquake Information Bulletin, 1979, United States Geological Survey, v. 11, no. 4.
444. 1979 6/10 36.2° 89.6° V
 FINLEY, TENNESSEE AREA $m_bLg = 3.8; 14 \text{ km}$
 Reference: Earthquake Information Bulletin, 1979, United States Geological Survey, v. 11, no. 6.
445. 1979 6/25 35.6° 90.4° V
 MARKED TREE, ARKANSAS AREA $m_bLg = 3.0; 9 \text{ km}$
 Reference: Earthquake Information Bulletin, 1979, United States Geological Survey, v. 11, no. 6.
446. 1979 7/8 36.899° 89.290° felt
 NEW MADRID, MISSOURI AREA $m_bLg = 3.5; 5 \text{ km}$
 Reference: Preliminary Determination of Epicenters, 1979, United States Geological Survey, no. 25-79.
447. 1979 7/13 36.090° 89.790° felt
 NEW MADRID, MISSOURI AREA $m_bLg = 2.7; 2 \text{ km}$
 Reference: Preliminary Determination of Epicenters, 1979, United States Geological Survey, no. 26-79.
448. 1979 9/12 37.74° 89.95° felt
 PERRYVILLE, MISSOURI AREA $M = 2.5; 3 \text{ km}$
 Reference: Central Mississippi Valley Earthquake Bulletin, Third Quarter 1979, St. Louis University, Quarterly Report no. 21.
449. 1979 11/5 36.465° 91.039° felt
 DALTON, ARKANSAS AREA $m_bLg = 3.2; 6 \text{ km}$
 Reference: Preliminary Determination of Epicenters, 1979, United States Geological Survey, no. 45-79.

APPENDIX B

EAST TENNESSEE AND SURROUNDING AREAS

NOTE: Dates are standardized to Greenwich Mean Time.

1.	1774	2/? or 3/?	(36.0° 80.2°)	intensity unknown	2
	WINSTON-SALEM, NORTH CAROLINA				
2.	1776	11/5	(35.3° 83.2°)	IV-V	4, 5, 6a, 23
	JACKSON COUNTY, NORTH CAROLINA				
	Listed by 4 and 5 as (35.0° 83.0°).				
3.	1779	1/1	(38.0° 85.0°)	intensity unknown	23
	NORTHERN KENTUCKY				
4.	1787	11/9 or 10	(36.0° 80.2°)	III	2, 23
	WINSTON-SALEM, NORTH CAROLINA				
5.	1791	4/1	(38.0° 83.0°)	IV-V	23
	NORTHERN KENTUCKY				
	Location and date are approximate.				
6.	1792	8/11	(36.0° 80.2°)	intensity unknown	2
	WINSTON-SALEM, NORTH CAROLINA				
	May have been a meteorite.				
7.	1799	4/11	(34.3° 80.6°)	IV-V	2, 4, 23
	CAMDEN, SOUTH CAROLINA				
	There was possibly a second shock.				
8.	1817	1/8	(37.0° 81.0°)	?	4, 5
	SOUTHWEST VIRGINIA				
9.	1817	1/8	(36.0° 80.2°)	?	2
	WINSTON-SALEM, NORTH CAROLINA				
	This is probably the same shock described in number 8.				
10.	1823	8/23	(36.0° 80.2°)	II-III	2, 23
	WINSTON-SALEM, NORTH CAROLINA				
11.	1826	11/11	(36.0° 80.2°)	II-III	2, 23
	WINSTON-SALEM, NORTH CAROLINA				
12.	1827	5/11	(36.2° 81.2°)	IV	2, 23
	WILKESBORO, NORTH CAROLINA				
13.	1829	?	(35.0° 84.0°)	?	2
	CHEROKEE COUNTY, NORTH CAROLINA				
14.	1834	11/20	(38.0° 85.0°)	V	2, 23
	NORTHERN KENTUCKY				
15.	1834	11/29	(36.0° 80.2°)	?	2, 23
	WINSTON-SALEM, NORTH CAROLINA				
16.	1844	11/28	(36.0° 84.0°)	VI	2, 4, 5
	KNOXVILLE, TENNESSEE				

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|-----|--|-------|--------|--------|-------------------|---------------------|
| 17. | 1844 | 6/? | (35.4° | 83.4°) | intensity unknown | 2 |
| | MACON COUNTY, NORTH CAROLINA
May have occurred in June 1845. | | | | | |
| 18. | 1851 | 8/11 | (35.6° | 82.6°) | IV | 2, 23 |
| | ASHEVILLE, NORTH CAROLINA | | | | | |
| 19. | 1852 | 4/29 | (36.6° | 81.6°) | VI | 2, 4, 5 |
| | VIRGINIA — NORTH CAROLINA — TENNESSEE REGION | | | | | |
| 20. | 1852 | 5/3 | (36.7° | 82.0°) | II-III | 2, 23 |
| | ABINGDON, VIRGINIA | | | | | |
| 21. | 1852 | 9/28 | (36.7° | 82.0°) | II-III | 2, 23 |
| | ABINGDON, VIRGINIA
Reported by 2 as occurring on 9/18. | | | | | |
| 22. | 1854 | 2/12 | (37.2° | 83.8°) | III-IV | 23 |
| | MANCHESTER, KENTUCKY
Three shocks reported. | | | | | |
| 23. | 1854 | 2/28 | (37.6° | 84.5°) | IV | 23 |
| | GARRARD COUNTY, KENTUCKY | | | | | |
| 24. | 1854 | 5/3 | (37.1° | 81.5°) | intensity unknown | 5 |
| | TAZEWELL CITY, VIRGINIA | | | | | |
| 25. | 1854 | 11/22 | (37.1° | 81.5°) | III | 2, 4 |
| | TAZEWELL CITY, VIRGINIA | | | | | |
| 26. | 1857 | 12/10 | (37.8° | 80.4°) | intensity unknown | 2 |
| | LEWISBURG, WEST VIRGINIA
Possible landslide. | | | | | |
| 27. | 1859 | 3/22 | (37.2° | 81.5°) | IV | 2, 5, 23 |
| | TAZEWELL CITY, VIRGINIA | | | | | |
| 28. | 1861 | ? | (36.3° | 83.5°) | intensity unknown | 2, 6b |
| | EASTERN TENNESSEE (GRAINGER COUNTY)
A shock on 8/31/1861 is listed at (36.1° 81.1°) with intensity VI by 23. | | | | | |
| 29. | 1874 | 2/10 | (35.7° | 82.1°) | II-VII | 2, 4, 5, 6b, 23, 26 |
| | MCDOWELL COUNTY, NORTH CAROLINA
Swarm of 50-100 shocks followed at various time intervals until April 10. Most severe shock occurred on 2/22. Shocks grew in number and intensity until 2/22, from about 3/17 to 3/26, and again from about 4/14 to 4/17. | | | | | |
| 30. | 1875 | 6/18 | (40.2° | 84.0°) | VII | 6b |
| | WESTERN OHIO
Southern limit of felt area is unknown. Although outside the study area, this shock was probably felt within the study area. | | | | | |
| 31. | 1875 | 11/2 | (33.8° | 82.5°) | VI-VII | 2, 6b, 26 |
| | NORTHERN GEORGIA — WESTERN SOUTH CAROLINA
Although outside the study area, this shock was felt within the study area. | | | | | |

32. 1875 11/12 (35.9° 83.9°) III-IV 2, 4, 5, 6b, 23
KNOXVILLE, TENNESSEE
Vibrations traveled from west to east.
33. 1875 12/23 (37.6° 78.5°) VII 5, 25, 26
ARVONIA, VIRGINIA
Although outside the study area, this shock was probably felt within the study area. Five shocks felt "in quick succession."
34. 1876 12/21 (36.9° 81.1°) III-IV 2, 4, 5, 6b
WYTHEVILLE, VIRGINIA
35. 1877 4/26 (35.2° 83.2°) III-IV 2, 4, 5, 6b, 23
FRANKLIN, NORTH CAROLINA
36. 1877 5/25 (35.9° 83.9°) III-IV 2, 4, 5, 6b, 23
KNOXVILLE, TENNESSEE
37. 1877 6/3 (37.5° 84.7°) III 23
STANFORD, KENTUCKY
38. 1877 10/8 (35.0° 82.7°) intensity unknown 2
BREVARD — HENDERSONVILLE, NORTH CAROLINA
Seismic origin is questionable.
39. 1877 11/16 (35.5° 84.0°) IV-V 2, 3, 4, 5, 6b, 23, 25, 26
KNOXVILLE, TENNESSEE AREA
Three shocks.
40. 1878 11/24 (35.1° 84.0°) III-IV 2, 4, 5, 6b, 23
MURPHY, NORTH CAROLINA
Shock waves appeared to move from west to east.
41. 1879 10/26 (34.5° 81.1°) intensity unknown 2, 4, 5
WINNSBORO, SOUTH CAROLINA
42. 1879 12/12 (35.2° 80.8°) V-VI 2, 4, 5, 26
CHARLOTTE, NORTH CAROLINA
This is possibly the same event reported by 25 as occurring on 12/22/1879 (see number 44).
43. 1879 12/13 (35.2° 80.8°) intensity unknown 4, 5
CHARLOTTE, NORTH CAROLINA
Aftershock of the preceding event (number 42).
44. 1879 12/22 (35.2° 80.8°) V 25
CHARLOTTE, NORTH CAROLINA
45. 1880 1/28 (36.0° 82.7°) II-III 4, 5, 6b, 23
BALD MOUNTAIN, NORTH CAROLINA
Subsequent shocks on 1/29 and 2/10.
46. 1882 10/15 (35.1° 84.0°) III-IV 2, 4, 5, 6b
MURPHY, NORTH CAROLINA
47. 1883 9/21 (36.0° 79.8°) III-IV 2, 23
GREENSBORO, NORTH CAROLINA

48. 1884 1/? (35.6° 82.0°) intensity unknown 2
MCDOWELL COUNTY, NORTH CAROLINA
49. 1884 4/30 (35.2° 84.0°) III 2, 4, 5, 6b, 23
OGREETA, NORTH CAROLINA
No tremors were felt, but a low rumbling sound was heard from the north (6b).
50. 1884 Summer (35.7° 82.5°) intensity unknown 2
ELK MOUNTAIN, NORTH CAROLINA
51. 1884 8/25 (35.9° 83.9°) IV 2, 5, 6b, 23
KNOXVILLE, TENNESSEE
52. 1885 2/2 (36.9° 81.1°) III-IV 2, 4, 5, 6b
WYTHEVILLE, VIRGINIA
53. 1885 8/6 (36.2° 81.6°) IV-V 2, 5, 6b, 23
WATAUGA COUNTY, NORTH CAROLINA
54. 1885 8/13 (36.2° 81.6°) IV 5
WATAUGA COUNTY, NORTH CAROLINA
55. 1886 9/1 (32.9° 80.0°) IX-X 3, 5, 6b
CHARLESTON, SOUTH CAROLINA
Although outside the study area, this is the largest recorded shock in the southeastern United States. Three shocks felt in Knoxville, Tennessee.
56. 1886 9/3 (36.9° 81.1°) III 2, 4, 5, 23
WYTHEVILLE, VIRGINIA
57. 1886 9/25 (36.9° 81.1°) IV 2, 4, 5, 23
WYTHEVILLE, VIRGINIA
At least one aftershock occurred.
58. 1888 3/17 (36.4° 82.5°) III 2, 5, 6b, 23
JONESBORO, TENNESSEE
59. 1889 9/28 (35.2° 84.5°) III-IV 2, 4, 5, 6b, 23
POLK COUNTY, TENNESSEE (PARKSVILLE)
60. 1897 5/3 (37.1° 80.7°) VII 2, 4, 5, 6b, 25, 26
GILES COUNTY, VIRGINIA
Location listed by 4 as Roanoke, Virginia.
61. 1897 5/31 (37.3° 80.7°) VIII 2, 3, 4, 5, 6b, 25, 26
GILES COUNTY, VIRGINIA
About 250 shocks followed the initial disturbance.
62. 1897 9/3 (37.3° 80.7°) IV 2
PEARISBURG, VIRGINIA
63. 1897 9/4 (36.9° 81.1°) III 2, 5, 23
WYTHEVILLE, VIRGINIA

64.	1897	10/22	(36.9°	81.1°)	V	2, 4, 5, 6b, 25, 26
	SALEM AND WYTHEVILLE, VIRGINIA					
65.	1898	2/5	(37.0°	81.0°)	IV	2, 4, 5
	PULASKI AND WYTHEVILLE, VIRGINIA There were possible aftershocks.					
66.	1898	2/5	(37.2°	80.6°)	intensity unknown	2
	DUBLIN, VIRGINIA This is possibly an aftershock of the preceding earthquake.					
67.	1898	3/30	(36.7°	85.8°)	III	2, 4, 5, 6b, 23
	MT. HERMON, KENTUCKY (MONROE COUNTY)					
68.	1898	6/6	(37.7°	84.4°)	III	2, 23
	RICHMOND, KENTUCKY May have occurred on 6/26/98 (23).					
69.	1898	11/25	(37.0°	81.0°)	IV-V	2, 4, 5, 6b
	WYTHEVILLE, VIRGINIA					
70.	1899	2/13	(37.0°	81.0°)	V-VI	2, 4, 5, 6b, 25, 26
	LYNCHBURG, VIRGINIA Four shocks felt in East Tennessee.					
71.	1902	5/17	(37.3°	80.7°)	V	2, 4, 5
	PEARISBURG, VIRGINIA					
72.	1902	5/29	(35.1°	85.3°)	V	2, 3, 4, 5, 6c, 23, 25, 26
	CHATTANOOGA, TENNESSEE Aftershock felt 10 ½ hours later.					
73.	1902	10/18	(35.0°	85.3°)	III-IV	2, 3, 4, 5, 6c, 23, 25, 26
	LAFAYETTE, GEORGIA					
74.	1902	10/18	(35.0°	85.3°)	V	2, 4, 5, 6c, 23
	LAFAYETTE, GEORGIA Four hours after the preceding shock (number 73).					
75.	1904	3/5	(35.7°	83.5°)	V	2, 3, 4, 6c, 23, 25, 26
	MARYVILLE, TENNESSEE					
76.	1905	1/27	(34.0°	86.0°)	VIII	2, 4, 5, 6c, 25, 26
	GADSDEN, ALABAMA					
77.	1905	1/28	(34.0°	86.0°)	VIII	2, 4, 5, 26
	GADSDEN, ALABAMA Second shock.					
78.	1909	10/8	(34.8°	85.0°)	IV-V	2, 5, 23
	DALTON AND RINGGOLD, GEORGIA					
79.	1911	4/20	(35.2°	82.7°)	V	2, 25, 26
	CAESAR'S HEAD, SOUTH CAROLINA					

80.	1911	4/22	(35.2°	82.7°)	V	4, 5, 6c, 23
	CAESAR'S HEAD, SOUTH CAROLINA					
81.	1912	12/7	(34.7°	81.7°)	III-IV	2, 4, 5
	UNION COUNTY, SOUTH CAROLINA					
82.	1913	1/1	(34.7°	81.7°)	VII-VIII	2, 4, 6c, 25, 26
	UNION COUNTY, SOUTH CAROLINA					
83.	1913	3/13	(34.5°	85.0°)	IV	4, 5, 6c, 23
	CALHOUN AND GORDON COUNTY, GEORGIA					
84.	1913	3/28	(36.2°	83.7°)	VII	2, 3, 4, 5, 6c, 23, 25, 26
	KNOXVILLE, TENNESSEE					
85.	1913	4/17	(35.3°	84.2°)	V-VI	2, 3, 4, 5, 6c, 23, 25, 26
	DUCKTOWN, TENNESSEE					
86.	1913	5/2	(35.5°	84.4°)	III-IV	2, 4, 5, 6c, 23
	MADISONVILLE, TENNESSEE					
87.	1913	8/3	(35.9°	83.9°)	IV	2, 4, 5, 6c, 23
	KNOXVILLE, TENNESSEE					
88.	1914	1/24	(35.6°	84.5°)	IV-V	2, 3, 4, 5, 6c, 23, 25, 26
	NIOTA AND SWEETWATER, TENNESSEE					
	Two shocks of the same intensity, with the second occurring 17 minutes after the first.					
89.	1914	3/5	(33.5°	83.5°)	VI	2, 3, 6c
	NEAR ATLANTA, GEORGIA					
	Although outside the study area, this shock was felt within the study area.					
90.	1914	3/6	(34.7°	81.3°)	III	2
	CHESTER, SOUTH CAROLINA					
91.	1915	1/14	(36.6°	82.1°)	III-IV	2, 4, 5, 6c, 23
	BRISTOL, TENNESSEE — VIRGINIA					
92.	1915	10/29	(35.8°	82.7°)	V	2, 3, 4, 5, 6c, 23, 25, 26
	MARSHALL, NORTH CAROLINA					
93.	1916	2/21	(35.5°	82.5°)	VI-VII	2, 3, 4, 5, 6c, 23, 25, 26
	WAYNESVILLE, NORTH CAROLINA					
94.	1916	3/2	(34.5°	82.7°)	IV-V	2, 4, 5, 23
	ANDERSON, SOUTH CAROLINA					
	Six shocks.					
95.	1916	8/26	(36.0°	81.0°)	V	2, 4, 5, 6c, 25, 26
	STATESVILLE AND TAYLORSVILLE, NORTH CAROLINA					
	Three shocks.					

96.	1916	10/18	(33.5°	86.2°)	VII-VIII	2, 5, 6c, 25
	IRONDALE, ALABAMA					
	Although outside the study area, this shock was felt within the study area. Several aftershocks within the next few days and weeks were probably not felt within the study area.					
97.	1917	1/2	(36.1°	83.9°)	intensity unknown	2, 4, 5, 6c
	MCMILLAN, TENNESSEE					
	Possible explosion.					
98.	1917	1/25	(36.1°	83.5°)	III	2, 4, 5, 23
	JEFFERSON CITY, TENNESSEE					
99.	1917	1/26	(36.1°	83.5°)	III	2, 4, 5, 6c
	JEFFERSON CITY, TENNESSEE					
100.	1917	1/27	(36.1°	83.5°)	II-III	2, 4, 5, 6c
	JEFFERSON CITY, TENNESSEE					
101.	1917	3/5	(36.0°	84.0°)	III	2, 5, 6c
	KNOXVILLE, TENNESSEE					
102.	1917	3/25	(36.1°	83.5°)	III-IV	2, 4, 5, 6c
	JEFFERSON CITY, TENNESSEE					
103.	1917	3/26	(36.1°	83.5°)	III	2, 4, 5, 6c
	TALBOTT, TENNESSEE					
104.	1917	3/27	(36.1°	83.5°)	III-IV	2, 4, 5, 6c
	JEFFERSON CITY, TENNESSEE					
105.	1917	4/19	(37.0°	82.0°)	III	2, 4, 5, 6c
	SOUTHWESTERN VIRGINIA					
106.	1917	6/21	(36.0°	83.0°)	IV	5, 6c
	EASTERN TENNESSEE					
107.	1918	1/16	(35.9°	83.9°)	IV-V	2, 4, 5, 6c, 23
	KNOXVILLE, TENNESSEE					
108.	1918	6/22	(36.1°	84.1°)	V	2, 3, 4, 5, 6c, 23, 25, 26
	LENOIR CITY, TENNESSEE					
109.	1920	4/7?	(36.5°	86.9°)	II-III	2
	SPRINGFIELD, TENNESSEE					
	Possibly an explosion. A shock on this date is listed in Appendix A at (36.3° 88.2°). The town of Springville, Tennessee, is near these coordinates, so it is likely that the location of this shock at Springfield is incorrect.					
110.	1920	12/24	(36.0°	85.0°)	V	2, 3, 4, 5, 6c, 23, 25, 26
	ROCKWOOD, TENNESSEE					
111.	1920	?	(36.4°	80.3°)	?	2
	STOKES COUNTY, NORTH CAROLINA					

- | | | | | | | |
|------|---|-------|--------|--------|-------------------|----------------------------|
| 112. | 1921 | 7/15 | (36.6° | 82.3°) | V-VI | 2, 4, 5, 6c, 25, 26 |
| | MENDOTA, VIRGINIA | | | | | |
| 113. | 1921 | 9/2 | (36.1° | 86.2°) | III | 2, 4, 5, 6c, 23 |
| | STATESVILLE, TENNESSEE
Several shocks felt. | | | | | |
| 114. | 1921 | 12/15 | (35.8° | 84.6°) | IV-V | 2, 5, 6c, 23 |
| | KINGSTON, TENNESSEE | | | | | |
| 115. | 1922 | 3/30 | (35.5° | 86.7°) | V | 2, 4, 5, 6c |
| | FARMINGTON, TENNESSEE | | | | | |
| 116. | 1922 | 3/30 | (36.5° | 82.2°) | IV | 4, 5, 23 |
| | ACADIA, TENNESSEE
Two shocks of the same intensity separated by 20 hours. There is some confusion about the details of the shocks reported on this date in this listing and in number 115. | | | | | |
| 117. | 1923 | 10/18 | (35.3° | 82.5°) | III | 2, 4, 5, 23 |
| | HENDERSONVILLE, NORTH CAROLINA | | | | | |
| 118. | 1923 | 12/31 | (34.8° | 82.5°) | IV-V | 2, 4, 5, 23 |
| | GREENVILLE, SOUTH CAROLINA | | | | | |
| 119. | 1924 | 10/20 | (35.0° | 82.6°) | V | 2, 4, 5, 6c, 23, 25, 26 |
| | PICKENS COUNTY, SOUTH CAROLINA | | | | | |
| 120. | 1924 | 11/13 | (36.6° | 82.1°) | IV-V | 2, 4, 5, 6c, 23 |
| | BRISTOL, TENNESSEE — VIRGINIA
Tremors lasted over a year. | | | | | |
| 121. | 1925 | 5/15 | (37.0° | 81.0°) | intensity unknown | 4, 5 |
| | SWIFT CREEK, VIRGINIA | | | | | |
| 122. | 1926 | 7/8 | (35.9° | 82.1°) | VI-VII | 2, 4, 5, 6d, 23, 25, 26 |
| | MITCHELL COUNTY, NORTH CAROLINA
Very local event. | | | | | |
| 123. | 1927 | 6/16 | (34.7° | 86.0°) | V | 2, 3, 4, 5, 6d, 23, 25, 26 |
| | SCOTTSBORO, ALABAMA | | | | | |
| 124. | 1927 | 7/20 | (35.9° | 83.9°) | intensity unknown | 2, 4, 5, 6d |
| | KNOXVILLE, TENNESSEE
Possible explosion. An intensity VI shock is reported by 7 on this date at latitude-longitude 35.8° 86.0°. | | | | | |
| 125. | 1927 | 10/8 | (35.0° | 85.3°) | V | 2, 4, 6d, 23 |
| | CHATTANOOGA, TENNESSEE
Many shocks between 23:30 (10/7) and 02:00 (10/8). | | | | | |
| 126. | 1928 | 3/7 | (35.6° | 86.9°) | II-III | 2, 4, 5, 6d |
| | FRANKLIN AND LYNNVILLE, TENNESSEE
This shock is also listed in Appendix A at (35.6° 87.0°), on 3/6 (local time). | | | | | |

127a.	1928	11/3	(36.0°	82.6°)	VI-VII	2, 3, 4, 5, 25, 26
ASHEVILLE, NORTH CAROLINA						
127b.	1928	11/3	(35.8°	82.8°)	VII	6d
BIG PINE, NORTH CAROLINA						
127c.	1928	11/3	(36.4°	82.6°)	VI	23
MADISON COUNTY, NORTH CAROLINA						
NOTE: It is probable that the 3 preceding listings are all reports of the same shock, although all 3 locations are shown on Plate 1.						
128.	1928	11/20	(35.9°	82.8°)	IV	2, 4, 5, 6d, 23
ASHEVILLE, NORTH CAROLINA						
129.	1928	12/22	(35.3°	80.8°)	?	2
CHARLOTTE, NORTH CAROLINA						
130.	1929	1/3	(33.9°	80.3°)	III	2, 5, 23
SUMTER, SOUTH CAROLINA						
131.	1929	10/28	(34.3°	82.4°)	III	2, 4, 5, 23
DUE WEST, SOUTH CAROLINA						
132.	1930	8/30	(35.9°	84.4°)	V	2, 4, 5, 6d, 23
KINGSTON, TENNESSEE						
133.	1930	10/16	(36.0°	84.0°)	III-IV	2, 4, 5, 6d, 23
KNOXVILLE, TENNESSEE						
A foreshock and an aftershock apparently accompanied this shock.						
134.	1930	12/10	(34.3°	82.4°)	III-IV	2, 4, 5, 23
DUE WEST, SOUTH CAROLINA						
There were aftershocks to this event.						
135.	1930	12/26	(34.5°	80.3°)	II-III (23)	2, 4, 5, 23
CHESTERFIELD COUNTY, SOUTH CAROLINA						
This event is listed by 23 at Chesterfield City, North Carolina, with latitude-longitude (35.4° 80.3°), although there is apparently no modern town called Chesterfield City.						
136.	1931	5/6	(34.3°	82.4°)	intensity unknown	2, 4, 5
DUE WEST, SOUTH CAROLINA						
The report of this earthquake may be confused with a shock that occurred outside the study area in northern Alabama, but at the same time of day, on 5/5.						
137.	1931	11/27	(36.2°	86.7°)	III	2, 4, 5, 6d
NASHVILLE, TENNESSEE						
Several light shocks.						
138.	1935	1/1	(35.1°	83.6°)	V	2, 4, 5, 6d, 23, 25, 26
HAYESVILLE, NORTH CAROLINA						
139.	1936	1/1	(35.0°	84.2°)	III	2, 4, 5, 6d, 23
BLUE RIDGE, GEORGIA						
140.	1936	9/6	(35.4°	80.3°)	III (23)	2, 23
ALBEMARLE, NORTH CAROLINA						

141.	1938	3/31	(35.6°	83.6°)	III-IV	2, 4, 5, 6d, 23
	NORTH CAROLINA — TENNESSEE BORDER					
142.	1939	6/24	(34.7°	86.6°)	III	2, 4, 6d
	HUNTSVILLE, ALABAMA					
143.	1939	6/24	(34.7°	86.6°)	IV	4, 5
	HUNTSVILLE, ALABAMA					
	The second shock in this series (numbers 142 and 143) may have been the strongest. There was also another shock on the same date.					
144.	1940	10/19	(35.0°	85.0°)	IV	2, 4, 5, 6d, 23
	CHATTANOOGA, TENNESSEE					
145.	1940	12/25	(35.9°	82.9°)	III	2, 5, 6d, 23
	GREENEVILLE, TENNESSEE AREA					
	Foreshock of the 12/25/40 event (number 146).					
146.	1940	12/25	(35.9°	82.9°)	V	2, 4, 5, 6d, 23
	ASHEVILLE, NORTH CAROLINA AREA					
	Main shock.					
147.	1940	12/26	(35.9°	82.9°)	III	2, 5, 23
	ASHEVILLE, NORTH CAROLINA AREA					
	Aftershock of the 12/25/40 event (number 146). Latitude-longitude for this series (numbers 145, 146, and 147) is reported by 2 as (35.5° 82.5°).					
148.	1941	3/4	(35.9°	83.9°)	III	2, 4, 5, 6d, 23
	KNOXVILLE, TENNESSEE					
149.	1941	5/10	(35.6°	82.6°)	III	2, 4, 5, 6d, 23
	ASHEVILLE, NORTH CAROLINA					
150.	1941	9/8	(35.0°	85.3°)	III-IV	2, 5, 6d, 23
	CHATTANOOGA, TENNESSEE					
151.	1942	11/1	(34.5°	81.1°)	II (23)	2, 4, 5, 23
	WINNSBORO, SOUTH CAROLINA					
152.	1945	6/14	(35.2°	84.9°)	IV-V	2, 3, 4, 5, 6d, 23, 26
	CLEVELAND, TENNESSEE					
153.	1945	7/26	34.3°	81.4°	IV-V	2, 3, 4, 5, 6d, 25, 26
	MURRAY LAKE, SOUTH CAROLINA					
	Intensity IV in Asheville, North Carolina.					
154.	1946	4/7	(35.2°	84.9°)	III-IV	2, 4, 5, 6d, 23
	CLEVELAND, TENNESSEE					
155.	1947	6/6	(35.9°	83.9°)	III	2, 4, 5, 6d, 23
	KNOXVILLE, TENNESSEE					
156.	1947	12/28	(35.0°	85.3°)	IV	2, 4, 5, 6d, 23
	CHATTANOOGA, TENNESSEE					

157.	1948	2/10	(36.4°	84.1°)	V-VI	2, 4, 5, 6d, 23
	LAFOLLETTE, TENNESSEE					
158.	1949	9/16	(36.7°	83.0°)	II-III	2, 4, 5, 6d, 23
	PENNINGTON GAP, VIRGINIA					
159.	1949	9/17	(36.7°	83.0°)	IV-V	2, 4, 5, 6d, 23
	PENNINGTON GAP, VIRGINIA					
160.	1950	6/19	(35.7°	84.0°)	IV	2, 4, 5, 6d, 23
	ALCOA, TENNESSEE					
	Maximum intensity at Calderwood, Tennessee.					
161.	1951	6/4	(35.9°	83.9°)	III	6e
	KNOXVILLE, TENNESSEE					
	Nonseismic disturbance caused by collapse of residuum into solution cavern.					
162.	1952	6/11	(36.4°	82.4°)	II-IV	2, 4, 5, 6e, 23
	JOHNSON CITY, TENNESSEE					
163.	1953	11/10	(35.9°	83.9°)	IV	2, 4, 5, 6e, 23
	KNOXVILLE, TENNESSEE					
164.	1953	12/5	(35.9°	83.9°)	III	2, 4, 5, 6e, 23
	KNOXVILLE, TENNESSEE					
165.	1954	1/1	(37.3°	83.2°)	IV	5, 6e, 23
	HAZARD, KENTUCKY					
166.	1954	1/2	(36.6°	83.7°)	VI	2, 4, 5, 6e, 23
	MIDDLESBORO, KENTUCKY					
167.	1954	1/14	(35.9°	83.9°)	III	6e
	KNOXVILLE, TENNESSEE					
168.	1954	1/22	(35.3°	84.4°)	V	4, 5, 6e, 23
	ETOWAH, TENNESSEE					
169.	1955	1/6	(36.6°	82.2°)	IV	2, 4, 5, 6e, 23
	BRISTOL, TENNESSEE — VIRGINIA					
	Intensity II in Knoxville, Tennessee.					
170.	1955	1/12	(35.8°	84.0°)	IV	2, 4, 5, 6e, 23
	MARYVILLE, TENNESSEE					
171.	1955	1/25	(35.9°	83.9°)	IV	2, 4, 5, 6e, 23
	KNOXVILLE, TENNESSEE					
172.	1955	9/28	(36.6°	81.4°)	V	2, 4, 5
	NORTH CAROLINA — VIRGINIA BORDER					
173.	1956	1/5	(34.3°	82.4°)	IV	2, 4, 5, 23
	DUE WEST, SOUTH CAROLINA					
	An aftershock of intensity IV occurred 30 minutes after the main shock.					

174.	1956	5/19	(34.3°	82.4°)	IV	2, 5, 23
	DUE WEST, SOUTH CAROLINA					
175.	1956	5/27?	(34.3°	82.4°)	IV	2, 4, 5, 23
	DUE WEST, SOUTH CAROLINA					
	This aftershock of the 5/19/56 event is reported by 23 on 5/21/56.					
176.	1956	9/7	35.5°	84.0°	VI	2, 3, 4, 5, 6e, 23, 25, 26
	MARYVILLE, TENNESSEE					
	An aftershock of nearly equal intensity occurred 13 minutes after the main shock.					
177.	1956	9/9	(35.7°	86.6°)	IV	2, 4, 5, 6e, 23
	COLLEGE GROVE, TENNESSEE					
178.	1957	1/25	(36.6°	83.7°)	V-VI	2, 4, 5, 6e, 23
	MIDDLESBORO, KENTUCKY					
179.	1957	4/23	(34.5°	86.8°)	VI	2, 4, 5, 6e, 26
	MORGAN COUNTY, ALABAMA					
180.	1957	5/14 ?	(35.7°	82.0°)	VI	2, 3, 4, 6e, 23, 26
	MARION, NORTH CAROLINA					
	The date of this shock is questionable.					
181.	1957	6/23	36.5°	84.5°	V	2, 3, 4, 5, 6e, 23, 26
	SCOTT COUNTY, TENNESSEE					
182.	1957	7/2	(35.5°	82.5°)	VI	2, 3, 4, 5, 6e, 23, 26
	ASHEVILLE, NORTH CAROLINA					
183.	1957	11/7	(35.9°	83.9°)	III	6e
	POWELL, TENNESSEE AREA					
184.	1957	11/24	35.0°	83.5°	VI	2, 3, 4, 5, 6e, 26
	HARTFORD, TENNESSEE					
185.	1957	11/24	35.4°	83.8°	V-VI	2, 4, 6e, 23
	BRYSON CITY, NORTH CAROLINA					
186.	1958	5/10	(35.6°	82.6°)	IV	2, 4, 5, 6e, 23
	ASHEVILLE, NORTH CAROLINA					
	Reported by 2 and 5 on 5/16/58.					
187.	1958	10/20	(34.5°	82.8°)	V	2, 4, 5, 23, 26
	ANDERSON, SOUTH CAROLINA					
188.	1959	4/23	(37.5°	80.5°)	VI	2, 26
	VIRGINIA — WEST VIRGINIA BORDER					
189.	1959	6/12?	(35.4°	84.3°)	IV	2, 4, 5, 6e, 23
	TELLICO PLAINS, TENNESSEE					
190.	1959	7/7	(37.4°	80.7°)	IV	2
	GILES COUNTY, VIRGINIA					

191.	1959	8/21	(37.4°	80.7°)	IV	2
	GILES COUNTY, VIRGINIA					
192.	1959	10/27	(34.5°	80.3°)	VI	2, 4, 5, 26
	NORTHEASTERN SOUTH CAROLINA					
193.	1960	1/3	(36.0°	82.0°)	IV	2, 6e
	SPRUCE PINE, NORTH CAROLINA					
194.	1960	2/9	(35.3°	82.5°)	IV	2, 4, 5, 23
	HENDERSON COUNTY, NORTH CAROLINA					
	The seismic origin of this shock is questionable, as is an associated sequence of other shocks.					
195.	1960	2/22	(35.9°	83.9°)	III	6e
	KNOXVILLE, TENNESSEE					
	Seismic origin questionable — thought to be attributable to supersonic aircraft.					
196.	1960	2/23	(35.9°	83.9°)	III	6e
	KNOXVILLE, TENNESSEE					
	Seismic origin questionable — thought to be attributable to supersonic aircraft.					
197.	1960	4/15	35.8°	84.0°	V	2, 3, 4, 5, 6e, 23, 26
	NEAR ALCOA, TENNESSEE					
198.	1963	1/17	(37.3°	80.1°)	IV	2, 4, 5, 6e
	SALEM, VIRGINIA					
	An aftershock of the same intensity occurred approximately 8 hours after the main shock.					
199.	1963	4/11	(34.8°	82.3°)	IV	2, 4, 5, 23
	GREENVILLE, SOUTH CAROLINA					
200.	1963	10/8	(34.2°	82.7°)	?	2
	GEORGIA — SOUTH CAROLINA BORDER					
201.	1963	10/28	(35.4°	81.2°)	?	2
	LAUREL SPRINGS, NORTH CAROLINA					
202.	1963	10/28	36.7°	81.0°	V	4, 5, 26, 27
	GALAX, VIRGINIA					
	An aftershock of equal intensity occurred 3 hours, 19 minutes after the main shock.					
203.	1963	11/14	(36.2°	86.8°)	III	6e
	NASHVILLE, TENNESSEE					
	Questionable seismic origin.					
204.	1963	12/15	(37.5°	87.0°)	III	2, 6e
	BEECHMONT, KENTUCKY					
	This shock is also listed in Appendix A.					
205.	1964	1/20	(35.9°	82.2°)	IV	2, 4, 5, 6e, 23
	CANE RIVER, NORTH CAROLINA					
206.	1964	2/18	34.8°	85.5°	V	2, 4, 5, 6e, 23
	DADE COUNTY, GEORGIA — DEKALB COUNTY, ALABAMA					
	Magnitude: 4.4; focal depth: 15 km					

207.	1964	3/7	(34.1°	82.8°)	?	2	
	ELBERTON, GEORGIA		Possible blast.				
208.	1964	4/20	(34.0°	81.0°)	V	2, 4, 5	
	COLUMBIA, SOUTH CAROLINA						
209.	1964	7/28	(35.9°	83.9°)	II-III	2, 4, 5, 6e, 23	
	KNOXVILLE, TENNESSEE						
210.	1964	10/13	(35.9°	83.9°)	II-III	2, 4, 5, 6e, 23	
	KNOXVILLE, TENNESSEE						
211.	1964	11/25	37.4°	81.7°	IV	2	Magnitude: 3.6
	SOUTHERN WEST VIRGINIA						
212.	1965	4/7	(34.0°	82.5°)	II-III (23)	2, 23	
	GEORGIA — SOUTH CAROLINA BORDER						
213.	1965	4/26	37.3°	81.6°	?	2, 23	
	SOUTHERN WEST VIRGINIA						
214.	1965	9/9	(34.7°	81.2°)	III-IV	2, 4, 5, 23	
	CHESTER, SOUTH CAROLINA						
	Aftershocks felt at 14:42:20 (9/9), 7:32:00 (9/10), and 17:25:02 (9/12). First shock occurred at 4:37:16 on 9/9. All times are GMT. Intensities ranged from II-III to III-IV (23).						
215.	1965	11/8	(34.2°	84.6°)	?	2, 23	
	CANTON, SOUTH CAROLINA						
	A second shock occurred 6 minutes after the main shock.						
216.	1966	8/24	(35.9°	83.9°)	IV	2, 4, 5, 6e, 23	
	KNOXVILLE AND ALCOA, TENNESSEE						
217.	1967	12/16	37.4°	81.6°	?	2, 23	Magnitude: 3.5; focal depth: 33 km
	SOUTHERN WEST VIRGINIA						
218.	1968	3/8	37.3°	80.8°	IV	2, 4, 6e	Magnitude: 4.1 (2), 3.9 (4)
	NARROWS, VIRGINIA						
219.	1968	9/22	34.0°	81.5°	IV	2, 4, 5	Magnitude: 3.7 (2)
	BATESBURG, SOUTH CAROLINA						
220.	1969	7/13	36.1°	83.7°	IV-V	2, 3, 4, 5, 6e, 23	Magnitude: 3.5; focal depth: 1 km
	KNOXVILLE AND JEFFERSON CITY, TENNESSEE						
221.	1969	7/14	36.1°	83.7°	II-III	2, 4, 5, 6e, 23	Magnitude: 1.0
	KNOXVILLE AND JEFFERSON CITY, TENNESSEE						
	Aftershock of 7/13/69 event.						
222.	1969	7/24	(35.9°	83.9°)	III	2, 6e, 23	
	KNOXVILLE, TENNESSEE						
223.	1969	11/20	37.4°	81.0°	V-VI	2, 3, 4, 5, 6e	Magnitude: 4.6 (2), 4.3 (4); focal depth: 3 km
	ELGOOD, WEST VIRGINIA						

224.	1969	12/13	35.1°	83.0°	V	2, 3, 4, 6e, 23 focal depth: 33 km
	SYLVA, NORTH CAROLINA					
225.	1970	9/10	36.1°	81.4°	V	2, 3, 4, 6e, 23, 27 Magnitude: 2.5 (4); focal depth: 33 km
	WILKES COUNTY, NORTH CAROLINA					
226.	1971	7/12	(35.8°	84.0°)	IV-V	2, 28
	EASTERN TENNESSEE Strongest intensities near Kingston and Knoxville.					
227.	1971	7/13	(34.7°	82.9°)	IV-V	2, 4, 23 Magnitude: 3.8
	SENECA, SOUTH CAROLINA					
228.	1971	10/9	35.9°	83.5°	III-V	2, 4, 23 Magnitude: 3.4; focal depth: 18 km
	SEVIER COUNTY, TENNESSEE					
229.	1973	10/30	35.7°	84.0°	IV-V	2, 4, 23 Magnitude: 3.4 (2,4); focal depth: 33 km
	MARYVILLE, TENNESSEE					
230.	1973	11/30	35.8°	84.0°	VI	2, 4, 23 Magnitude: 4.5 (2, 23), 4.6 (4); focal depth: 3 km
	MARYVILLE, TENNESSEE Numerous aftershocks followed.					
231.	1974	1/11	(35.7°	85.7°)	II	30
	MCMINNVILLE, TENNESSEE					
232.	1974	5/16	(35.0°	82.5°)	?	30
	BREVARD, NORTH CAROLINA Not recorded on area seismographs.					
233.	1974	5/30	37.38°	80.42°	V	2, 4, 12 Magnitude: 3.8 (2), 3.6 (4); focal depth: 8 km
	GILES COUNTY, VIRGINIA					
234.	1974	8/2	33.87°	82.49°	VI	2, 30 Magnitude: 4.8 (2); focal depth: 1 km
	GEORGIA — SOUTH CAROLINA BORDER Although outside the study area, this shock was felt within the study area.					
235.	1975	2/10	36.1°	83.6°	III	4, 23 Magnitude: 3.0
	GATLINBURG, TENNESSEE Reported by 23 at 35.6° 83.5°.					
236.	1975	5/2	35.9°	84.4°	III	8, 23, 31 Magnitude: 2.6; focal depth: 15 km
	OAKDALE, TENNESSEE					
237.	1975	5/14	35.9°	85.2°	II	4, 8, 23, 31 Magnitude: 2.7; focal depth: 5 km
	OAK RIDGE, TENNESSEE Oakdale is near Oak Ridge, and the longitude for Oak Ridge is actually about 84.2°.					
238.	1975	8/29	33.82°	86.6°	VI	23, 31 Magnitude: 4.2 (23)
	NORTHERN ALABAMA Although outside the study area, this shock was felt within the study area. Maximum reported intensity in Tennessee was IV at Five Points, Tennessee.					
239.	1975	11/11	37.19°	80.84°	VI	23, 31 Magnitude: 3.2 (23)
	SOUTHWESTERN VIRGINIA Felt in Giles, Montgomery, and Pulaski counties.					

240. 1975 11/15 34.26° 80.57° II 31
CAMDEN, SOUTH CAROLINA
241. 1975 11/25 34.87° 82.96° IV 31
OCONEE COUNTY, SOUTH CAROLINA
242. 1976 1/19 36.8° 83.8° (4) VI 4, 23
KNOX COUNTY, KENTUCKY Magnitude: 4.0
243. 1976 2/4 35.0° 84.7° VI 4, 13, 23
CONASAUGA, TENNESSEE Magnitude: 3.0; focal depth: 5 km
244. 1976 6/19 37.36° 81.62° V 9, 23
SOUTHERN WEST VIRGINIA Magnitude: 3.0; focal depth: 5 km
245. 1976 9/13 36.6° 80.81° VI 22
VIRGINIA — NORTH CAROLINA BORDER Magnitude: 3.3; focal depth: 5 km
246. 1977 7/27 35.42° 84.42° V 4, 21
SOUTHEASTERN TENNESSEE Magnitude: 3.5; focal depth: 7 km
247. 1977 10/23 36.97° 82.04° no intensity given 20
WESTERN VIRGINIA Magnitude: 2.8; focal depth: 5 km
This shock is not known to have been felt.
248. 1978 2/28 34.4° 86.71° III USGS NEIS
NORTHERN ALABAMA Magnitude: 2.5
249. 1978 3/17 36.75° 80.74° V USGS NEIS
WESTERN VIRGINIA Magnitude: 2.8
250. 1979 1/19 34.64° 82.84° IV
NORTHWEST SOUTH CAROLINA Magnitude: 2.8 (M_L); focal depth: 1 km
Reference: Earthquake Information Bulletin, 1979, United States Geological Survey, v. 11, no. 4.
251. 1979 8/13 35.201° 84.360° felt
SOUTHEAST TENNESSEE Magnitude: 3.5 (m_bLg); focal depth: 8 km
Magnitude was also calculated as 3.7 (m_bLg).
Reference: Preliminary Determination of Epicenters, 1979, United States Geological Survey, no. 30-79.
252. 1979 8/26 34.899° 82.936° V
GREENVILLE, SOUTH CAROLINA Magnitude: 3.7 (m_bLg); focal depth: 2 km
Reference: Preliminary Determination of Epicenters, 1979, United States Geological Survey, no. 33-79.
253. 1979 9/12 35.570° 83.936° felt
NORTH CAROLINA Magnitude: 3.2 (m_bLg); focal depth: 5 km
Felt in the Maryville-Alcoa, Tennessee area.
Reference: Preliminary Determination of Epicenters, 1979, United States Geological Survey, no. 35-79.