Southern Appalachian Regional Seismic Network

Manuscript Completed: June 1994
Date Published: August 1994

Prepared by
S-C. C. Chiu, A. C. Johnston, J-M. Chiu

Center for Earthquake Research and Information
Memphis State University
Memphis, TN 38152

Prepared for
Division of Engineering
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
NRC FIN D1553

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

js

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency Thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

SECRET

CONFIDENTIAL - SECURITY INFORMATION

IN THE MATTER OF THE
UNITED STATES OF AMERICA
vs.
JOHN EDGAR HOOVER

CONFIDENTIAL - SECURITY INFORMATION

EXHIBIT 100-441111-100

EXHIBIT 100-441111-100

EXHIBIT 100-441111-100

EXHIBIT 100-441111-100

ABSTRACT

The seismic activity in the southern Appalachian area was monitored by the Southern Appalachian Regional Seismic Network (SARSN) since late 1979 by the Center for Earthquake Research and Information (CERI) at Memphis State University. This network provides good spatial coverage for earthquake locations especially in east Tennessee. The level of activity concentrates more heavily in the Valley and Ridge province of eastern Tennessee, as opposed to the Blue Ridge or Inner Piedmont. The large majority of these events lie between New York - Alabama lineament and the Clingman/Ocoee lineament, magnetic anomalies produced by deep-seated basement structures. Therefore SARSN, even with its wide station spacing, has been able to define the essential first-order seismological characteristics of the Southern Appalachian seismic zone.

The focal depths of the southeastern U. S. earthquakes concentrate between 8 and 16 km, occurring principally beneath the Appalachian overthrust. In cross-sectional views, the average seismicity is shallower to the east beneath the Blue Ridge and Piedmont provinces and deeper to the west beneath the Valley and Ridge and the North American craton.

Results of recent focal mechanism studies by using the CERI digital earthquake catalog between October, 1986 and December, 1991, indicate that the basement of the Valley and Ridge province is under a horizontal, NE-SW compressive stress. Right-lateral strike-slip faulting on nearly north-south fault planes is preferred because it agrees with the trend of the regional magnetic anomaly pattern.

[illegible]

Table of Contents

List of Figures	page vi
List of Tables	vii
Introduction	1
Seismic Network Configuration	1
Hypocenter Locations	6
Crustal Velocity Model	6
Seismicity in the SASZ	7
Active Faults in Eastern Tennessee	7
Focal Mechanism Study in Eastern Tennessee	16
Publications	21
References	22
Appendix 1	23

List of Figures

	page
Figure 1. SARSN Station Map _____	2
Figure 2. Seismicity in South Central U.S.A. Recorded by SARSN and MARSN between 1974 and 1992 _____	3
Figure 3a. Cumulative Activity in SASZ with Magnitude Greater Than or Equal To 0.0 and Focal Depth Greater Than or Equal To 5.0 km Recorded by SARSN between 1981 and 1992 _____	8
Figure 3b. Cumulative Activity in SASZ with Magnitude Greater Than or Equal To 3.0 Recorded by SARSN between 1981 and 1992 _____	9
Figure 3c. Cumulative Activity in SASZ Recorded by SARSN between 1981 and 1992 with Quality A of Hypocentral Location _____	10
Figure 3d. Cumulative Activity in SASZ Recorded by SARSN between 1981 and 1992 with Quality B of Hypocentral Location _____	11
Figure 3e. Cumulative Activity in SASZ Recorded by SARSN between 1981 and 1992 with Quality A or B of Hypocentral Location _____	12
Figure 4a. Depth Distribution of the Analog Earthquake Catalog Between September, 1981 and September, 1986 _____	13
Figure 4b. Depth Distribution of the Digital Earthquake Catalog between October, 1986 and December, 1991 _____	14
Figure 5a. Index Map for the Cross-sectional Views in SASZ _____	15
Figure 5b. Seven Cross-sections of Depth Distribution in SASZ _____	17
Figure 6. Locations of 19 Selected Events and Their Focal Mechanisms _____	20

List of Tables

Table 1 Information on SARN stations	page 4
Table 2 Summary of 19 Selected Focal Mechanisms	18

INTRODUCTION

Under U.S. Nuclear Regulatory Commission grant support (original grant NRC-04-78-200 followed by NRC-04-85-107), the Southern Appalachian Regional Seismic Network was established in late 1979 by the Center for Earthquake Research and Information (CERI) at Memphis State University to provide supplemental regional seismic monitoring in eastern Tennessee. The first stations were installed in early 1981, a locational ability was achieved in mid-1981, and the network was completed in early 1983. Earthquake data collected by SARSN and by the Tennessee Valley Authority (TVA) have become the primary source for the assessment of regional seismic hazard and more advanced seismological, geological, structural, and tectonic research in the southern Appalachian seismic zone (SASZ). The CERI Quarterly Seismological Bulletin which combined data from SARSN and the Memphis Area Regional Seismic Network (MARSN) was published routinely by the Center for Earthquake Research and Information. Figure 1 shows station locations for SARSN. A map of epicenters located by this regional network is shown in the Figure 3a. The distribution pattern of earthquake locations in the SASZ clearly indicates a heavy concentration of activity in the Valley and Ridge province of east Tennessee.

SEISMIC NETWORK CONFIGURATION

The southern Appalachian study area is the region between 81° to 87° W longitude and 34.5° to 37° N latitude. As such, it includes the Valley and Ridge and Blue Ridge physiographic provinces, portions of the Inner Piedmont and Charlotte Belt to the east, and the Cumberland Plateau and Nashville Dome to the West (Figure 2). This network has a station density of 50-130 km in the southern Appalachians of eastern Tennessee and western North Carolina, thus obviating reliable determination of hypocentral depth on a routine basis. However, increased station density, through the joint efforts of CERI, Georgia Institute of Technology, which operated a five-station array in southeastern Tennessee from April, 1982 to recent, and the Tennessee Valley Authority's 18 station network, results in good depth control in some portions of SASZ.

Figure 1 shows the location distribution of SARSN stations. SARSN consists of 18 short period seismic stations that cover parts of 4 states: eastern Tennessee, western North Carolina, southwestern Virginia, and northern Georgia. Signals are telemetered via radio to central receiving sites in Knoxville, Tennessee and Morganton, North Carolina and multiplexed for leased telephone transmission to CERI in Memphis. All but 3 of the 18 permanent seismic stations have vertical single component sensors, and all but a few have modest dynamic range (40-60 dB). Table 1 contains information on the station code, location, instrumentation and calibration, operation status, and site geology of the CERI SARSN stations. All short-period data (and long-period data for one station) have been continuously recorded digitally at 50 samples per second on a PDP 11/44 since late 1986. Selected stations are also recorded in analog form on pen-and-ink paper records. Prior to November 11, 1989, analog data were also recorded on 16-mm Develocorder film. Arrival times are read from digital records to an accuracy of 0.01 seconds and from pen-and-ink records to an accuracy of 0.1 seconds.

Figure 1. Southern Appalachian Regional Seismic Network. Solid squares denote 3-component stations.

Southcentral United States Seismicity: 1974 - 1992

Figure 2. Earthquake activity in the south central United States recorded by SARN and MARSN between 1974 and 1992. Geological provinces are separated and indicated by lines. Dots represent the epicenters. Magnitude code is as follows:

- $M \geq 5.0$;
- $4.0 \leq M < 5.0$;
- $3.0 \leq M < 4.0$;
- $2.0 \leq M < 3.0$;
- $0.0 \leq M < 2.0$;
- * $M < 0.0$.

**Table 1: Information on Permanent CERI Stations
SARSN**

CODE	STATION	LOCATION	DATE OPENED/CLOSED	SITE GEOLOGY	INSTRUMENTATION
TKL	Tuckaleechee Caverns, TN	35.658N 83.774W 351m	30 Jul 1978- 24 Jul 1985-	Cambrian-Ordovician limestone Knox Group	Geotech S-13 $T_0=1$ sec horizontals: $T_0=1$ sec
RCG	Rock City, GA	34.975N 85.348W 468m	23 Oct 1981-	Lower Pennsylvanian conglomerate	Geotech S-13 $T_0=1$ sec
BHT	Blowhole, TN	35.847N 84.945W 826m	23 Oct 1981-	Lower Pennsylvanian sandstone	Geotech S-13 $T_0=1$ sec
ETT	Etowah, TN	35.326N 84.455W 588m	25 Nov 1981- 21 Jul 1985-	Lower Pennsylvanian conglomerate	Geotech S-13 $T_0=1$ sec horizontals; $T_0=1$ sec
BENN	Benn Knob, NC	35.565N 81.661W 878m	22 Jan 1982-	Upper Precambrian metamorphic complex gneiss and schist	Geotech S-13 $T_0=1$ sec
BBG	Brasstown Bald, GA	34.874N 83.811W 1355m	27 Jan 1982- 20 Jul 1985-	Upper Precambrian schist	Geotech S-13 $T_0=1$ sec horizontals; $T_0=1$ sec
GFM	Grandfather Mtn, NC	36.111N 81.807W 1726m	27 May 1982-	Upper Precambrian metamorphic complex	Geotech S-13 $T_0=1$ sec
BRBC	Blue Ridge Broadcasting Co. Mt Mitchell, NC	35.739N 82.286W 1976m	26 May 1982-	Upper Precambrian metasedimentary sequence	Geotech S-13 $T_0=1$ sec
RBNC	Richland Balsam, NC	35.357N 82.986W 1829m	26 May 1982-	Upper Precambrian metasedimentary sequence	Geotech S-13 $T_0=1$ sec
SMTN	Short Mountain, TN	36.382N 83.182W 768m	05 Oct 1982- 19 Dec 1991 closed	Silurian Clinch sandstone	Geotech S-13 $T_0 = 1$ sec

Table 1 Continued

CODE	STATION	LOCATION	DATE OPENED/CLOSED	SITE GEOLOGY	INSTRUMENTATION
FGTN	Flat Gap, TN	36.434N 83.195W 499.87m	19 Dec 1991-	Mississippian limestone	Geotech S-13 $T_0 = 1$ sec
CCVA	Cudjo Caverns, VA	36.602N 83.667W 509m 36.603N 83.667W 571m	06 Oct 1982- 12 Nov 1982 closed 12 Nov 1982-	Mississippian Newman limestone	Geotech S-13 $T_0 = 1$ sec
PKNC	Pores Knob, NC	36.046N 81.158W 785m	11 Nov 1982-	Devonian Heldenberg Group limestone	Geotech S-13 $T_0 = 1$ sec
PLVA	Point Lookout, VA	36.666N 81.161W 1353m	30 Nov 1982-	Precambrian Striped Rock granite	Geotech S-13 $T_0 = 1$ sec
TRYN	Tryon Peak, NC	35.267N 82.244W 968m 35.246N 82.267W 915m	30 Nov 1982- 22 Mar 1983 22 Mar 1983-	Precambrian metamorphic gneiss	Geotech S-13 $T_0 = 1$ sec
GBTN	Greenback, TN	35.666N 84.211W 326m	23 Mar 1983-	Ordovician Holston limestone	Geotech S-13 $T_0 = 1$ sec
RICH	Rich Mtn, NC	35.920N 82.820W 968m	18 Jun 1983-	Upper Precambrian metasedimentary sequence	Geotech S-13 $T_0 = 1$ sec
GMG	Grassy Mtn, GA	34.863N 84.670W 1097m	27 Sep 1985-	Quartz sandstone	Geotech S-13 $T_0 = 1$ sec
WSSR	Wesser Bald, NC	35.278N 83.578W 1340m	04 Oct 1985 -	Gneiss/ mica schist	Geotech S-13 $T_0 = 1$ sec

HYPOCENTER LOCATIONS

All earthquakes recorded by a sufficient number of SARNs stations have been located using either HYPO71 (Lee and Lahr, 1975) or HYPOELLIPSE (Lahr, 1984). HYPO71 was used to locate events recorded by the SARNs network from September 1981 through December 1985 and HYPOELLIPSE has been used since then. CERI readings are supplemented by other regional data whenever possible. An earthquake catalog from September, 1982 through December, 1992 is listed in Appendix 1. Events within the area of 81.0° – 87.0° W longitude and 34.5° – 37.0° N latitude are located by SARNs and published in Table II(A) in the CERI Quarterly Seismological Bulletin. Other regional earthquakes hypocenters are published in Table II(B) of the Quarterly Bulletin for informational purposes only. Earthquakes are located to an epicentral accuracy of 1-2 km; in general, depths are uncertain by 5 km or more unless close-in station control exists. In the case of poor azimuthal station distribution or lack of depth control, the depth is restricted to a value yielding the smallest travel time residual (RMS).

In Appendix 1, several quantities can be used to judge the general quality of the hypocenter solution. ST/PH indicates the number of stations and phases actually used in the hypocenter computation. DMIN is the epicentral distance in kilometers to the closest station. GAP is the maximum arc sector in degrees of azimuth between recording stations. RMS is the root-mean-square in seconds of the travel-time residuals. SQD indicates HYPOELLIPSE two solution quality grades, the first based on travel-time residuals of recorded phases, and the second on station distribution. Q, is an overall measure of solution quality based on an average of these two factors. ERH1, ERH2, ERZ, AZM are computed error measures as specified in HYPOELLIPSE. ERH1 and ERH2 are the semi-major and semi-minor axes of the horizontal error ellipse, respectively, and ERZ is the vertically projected semi-major axis of the error ellipsoid. AZM is the bearing, with respect to north, of the semi-major axis (ERH1).

CRUSTAL VELOCITY MODEL

The crustal velocity model used for the SARNs region is given as the Moore model (MOR) that was developed by VPI and SU (Moore, 1980) for Giles County located in the Virginia Valley and Ridge province. The MOR model has been extensively tested and shown appropriate to the southern Appalachians (Bollinger et al., 1980; Johnston, 1985). It is summarized below:

Model	Depth (km)	P-Velocity (km/sec)
Moore	0.0- 5.7	5.63
	5.7-14.7	6.05
	14.7-50.7	6.53
	Halfspace	8.18

S-Velocities corresponding to each P-velocity may be calculated by:

$$V_s = V_p/\sqrt{3}$$

SARSN magnitudes are computed using duration formulae developed by others for the eastern United States:

$$M_d = 2.23\text{Log}(D) + 0.12\text{Log}(k) - 2.36$$

where D is the coda duration in seconds and k is the epicentral distance in kilometers (Vudler and Raica, 1980); or

$$M_d = -3.38 + 2.74\text{Log}(D)$$

where D is the coda duration in seconds (Viret, 1980). The first of these is satisfactory for larger events ($M \geq 2.8$) but overestimates smaller events, for which the second formula is used.

SEISMICITY IN THE SASZ

A series of the cumulative seismicity maps in the southern Appalachian seismic zone from data collected by SARSN are shown in Figure 3a-3e and cumulative seismicity is listed in Appendix 1. The geological provinces in the southern Appalachian area, published by the U. S. Geological Survey, are indicated by the lines. The solid circles are the locations of the epicenters. The magnitude scale is represented by the size code as follows: $\bullet$ - 4 to 4.9; $\bullet$ - 3 to 3.9; $\bullet$ - 2 to 2.9; $\bullet$ - 0.0 to 2.0; $\times$ - less than 0.0. They show that the level of activity concentrates more heavily in the Valley and Ridge province of eastern Tennessee, as opposed to the Blue Ridge or Inner Piedmont. The large majority of these events lie between the New York - Alabama lineament and the Clingman/Ocoee lineaments, magnetic anomalies produced by deep-seated basement structures. In other words, this regional seismic network has proved adequate to define the essential first-order seismological characteristics of the SASZ.

One of the most important contributions of SARSN to the monitoring of seismicity in the SASZ is to provide good spatial coverage for earthquake locations especially in the eastern Tennessee. A cluster of earthquake epicenters delineating a zone parallel to the geological provinces is evident in Figure 3a-3e.

ACTIVE FAULTS IN EASTERN TENNESSEE

As stated earlier, this network has a station density of 50-130 km in eastern Tennessee. All but 3 of the 18 permanent seismic stations have single component vertical sensors, and all but a few have modest dynamic range (40-60 dB). Figure 4(a) and 4(b) are the cumulative focal depth distribution of the southeastern U. S. earthquakes, including reservoir activity, for the digital data between October, 1986 and December, 1991, and analog data between September, 1981 and September, 1986. Both show that depths range down to 30 km but concentrate between 10 and 16 km, occurring principally beneath the Appalachian overthrust. This pattern of depth distribution is similar to that reported by Johnston et al (1985) based on only two years of SARSN data.

Figure 5a is the index map for the cross-sectional views of seismicity in Valley and Ridge province, eastern Tennessee. A number of cross-sectional views of SASZ seismicity

S. Appalachian Seismicity (dep $\geq$ 5., mag $\geq$ 0.): 1981 - 1992

Figure 3a. Cumulative earthquake activity in the southern Appalachian with magnitude greater than or equal to 0.0 and focal depth greater than or equal to 5.0 km recorded by SARN between 1981 and 1992.

S. Appalachian Seismicity ($\text{mag} \geq 3.0$): 1981 - 1992

Figure 3b. Cumulative earthquake activity in the southern Appalachian with magnitude greater than or equal to 3.0 recorded by SARN between 1981 and 1992.

S. Appalachian Seismicity (q : A): 1981 - 1992

Figure 3c. Cumulative southern Appalachian seismicity recorded by SARN between 1981 and 1992 with quality A of the hypocentral location.

S. Appalachian Seismicity (q : B): 1981 - 1992

Figure 3d. Cumulative southern Appalachian seismicity recorded by SARN between 1981 and 1992 with quality B of the hypocentral location .

S. Appalachian Seismicity (q : A&B): 1981 - 1992

Figure 3e. Cumulative southern Appalachian seismicity recorded by SARNs between 1981 and 1992 with quality A or B of the hypocentral location.

DEPTH DISTRIBUTION
SEPTEMBER 1981 - SEPTEMBER 1986
TOTAL NUMBER OF EARTHQUAKES 302

Figure 4a. Depth distribution of the CERI analog earthquake catalog between September, 1981 and September, 1986. Depths concentrate in a range of 8 - 16 km.

Figure 4b. Depth distribution of the CERI digital earthquake catalog between October, 1986 and December, 1991. Depths concentrate in a range of 10 - 16 km.

S. Appalachian Seismicity: 1981 - 1992

Figure 5a. Index Map for the cross-sectional views for the Figure 5b in the Valley and Ridge province of the southern Appalachian seismic zone.

located by the Southern Appalachian Regional Seismic Network for 1981 - 1992 are presented in Figure 5b. It is a depth of 60 km in each section. They show that on average seismicity is shallower to the east beneath the Blue Ridge and Piedmont provinces and deepens to the west beneath the Valley and Ridge and the North American craton.

FOCAL MECHANISM STUDY IN EASTERN TENNESSEE

In recent research supported by this contract (Li, 1994), a grid-searching procedure using first motions of the P-wave and modeling of P-wave amplitudes is used to obtain well-constrained focal mechanisms for 19 southern Appalachian earthquakes. The methodology is in the following.

(1). A family of possible focal mechanism solutions of each event is generated by using the P-wave first-motion polarities from FOCMEC (Snoke, 1984).

(2). A forward modeling of focal mechanism technique, which is derived from Ebel's moment tensor inversion (Ebel and Bonjer, 1990), is used to calculate the theoretical vertical displacement amplitudes for each possible fault plane solution. The root-mean-square (RMS) of the amplitudes for each set of fault parameters (strike, dip, rake) is also calculated by the following equation,

$$RMS = \sqrt{\frac{1}{n} \sum_{i=1}^n [O(i) - C(i)]^2}$$

where n is the number of amplitude; $O(i)$ and $C(i)$ are the observed and calculated vertical displacement amplitudes at one station. The preferred focal mechanism that has minimum RMS is selected from all these possible focal mechanism solutions.

For this study, nineteen events in the Valley and Ridge province of east Tennessee have been chosen from the CERI digital earthquake catalog collected by SARSN between October, 1986 and December, 1991. The fault plane parameters of preferred focal mechanism solutions for these events are summarized in the Table 2 and also shown in Figure 6 (Li, 1994). These results indicate that the basement of the Valley and Ridge province is under a horizontal, NE-SW compressive stress. The principal mode of faulting is right-lateral strike-slip on nearly north-south faults or left-lateral on faults of east-west orientation. The north-south orientation is favored because it agrees with the trend of the region's magnetic anomaly pattern (Johnston et al., 1985).

Figure 5b. 7 cross-sections of depth distribution indicated in Figure 5a. It is a depth of 60 km in each section. They show that on average seismicity is shallower to the east beneath the Blue Ridge and Piedmont provinces and deepens to the west beneath the Valley and Ridge province and the North American craton.

Table 2. Summary of Focal Mechanisms

CODE	EVENT	NPS*	STIKE	DIP	RAKE	P-AXIS		T-AXIS		B-AXIS	
						TREND	PLUNGE	TREND	PLUNGE	TREND	PLUNGE
1	8704090131	84	267.07 176.77	88.27 80.15	9.85 178.24	41.51	5.71	132.33	8.18	276.93	80.00
2	8707110248	17	286.91 33.93	69.30 52.24	-40.89 -153.44	243.95	43.07	343.97	10.55	84.70	45.00
3	8707170819	8	108.65 211.45	48.36 76.01	-18.88 -136.78	79.29	39.85	334.13	17.39	225.88	45.00
4	8709012302	50	91.11 181.97	82.36 83.59	-6.47 -172.31	46.62	9.96	316.47	0.86	221.57	80.00
5	8709221723	204	93.33 185.11	84.92 70.71	-19.37 -174.62	47.63	17.23	140.72	9.85	259.19	70.00
6	8712260727	1092	88.84 348.97	73.33 60.22	31.23 160.70	216.53	8.53	312.23	33.65	114.16	55.00
7	8801090016	106	308.49 41.32	60.50 85.01	-5.73 -150.38	268.96	24.18	171.23	16.66	50.01	60.00
8	8801090107	723	306.57 43.70	75.52 64.34	-26.57 -163.89	262.81	28.88	356.94	7.44	100.01	59.99
9	8802130552	524	99.95 199.82	73.33 60.22	-31.23 -160.70	56.53	33.65	152.26	8.53	254.63	55.00
10	8803111639	110	291.60 196.31	75.97 69.74	20.91 165.02	63.08	4.21	155.01	24.60	324.00	65.00

Table 2. (continued)

CODE	EVENT	NPS*	STIKE	DIP	RAKE	P-AXIS		T-AXIS		B-AXIS	
						TREND	PLUNGE	TREND	PLUNGE	TREND	PLUNGE
11	8804230101	594	100.78	76.00	14.43	54.00	0.01	324.00	20.00	144.00	70.00
			7.22	76.01	165.56						
12	8804240008	276	289.43	83.59	-39.57	239.31	31.77	343.53	21.63	101.74	50.00
			24.70	50.73	-171.71						
13	8807261927	294	256.23	75.06	1.34	212.03	9.57	120.07	11.44	341.05	75.00
			165.88	88.71	165.06						
14	8811011634	1260	284.33	87.50	-29.91	235.90	22.53	333.99	18.75	99.99	60.00
			15.77	60.12	-177.12						
15	8907111453	638	75.33	86.17	49.89	196.89	29.50	311.09	35.93	78.55	40.00
			340.80	40.26	174.07						
16	8909070518	897	255.59	71.11	-47.21	209.38	46.05	315.74	15.19	58.91	40.00
			4.87	46.03	-153.26						
17	9007111841	1469	258.62	74.81	-48.24	209.49	43.97	318.77	18.89	65.45	40.00
			4.98	43.96	-157.82						
18	9105290247	1223	90.00	60.00	0.00	49.11	20.70	310.89	20.70	180.00	60.00
			180.00	90.00	-150.00						
19	9109240721	5	268.19	69.75	-52.31	220.81	50.33	331.42	16.27	73.22	35.00
			22.32	42.06	-148.89						

* NPS -- Number of Possible Solutions obtained by program FOCMEC (5° increment searching).

Figure 6. Locations of nineteen selected events in the Valley and Ridge province and their focal mechanisms. Black and white shaded areas in each focal sphere represent the compressional and dilatational quadrants respectively. P and T axes of nineteen focal mechanisms are also summarized in the left-handed focal sphere. The arrow indicates the average direction of the compressional stress in this region.

PUBLICATIONS

CERI's publications based on SARSN data are as follows.

- Bollinger, G. A., A. Teague, J. W. Munsey, and A. C. Johnston, (1985). *Focal Mechanism Analyses for Virginia and Eastern Tennessee Earthquakes (1978-1984)*, NUREG/CR-4288, U. S. Nuclear Regulatory Commission Washington, D.C., 83 pp.
- Johnston, A.C., D.J. Reinbold, and S.I. Brewer, (1985). *Seismotectonics of the Southern Appalachians*, Bull. Seism. Soc. Am., 75, no. 1, pp. 291-312.
- Johnston, A.C. and J.E. Zollweg, (1981). *Two New Regional Seismic Networks in the Central and Southeastern United States*, Earthquake Notes, 52, no. 2, pp. 66-71.
- Li, H.S., (1994). *A Focal Mechanism Analysis of Eastern Tennessee Seismic Zone Earthquakes*, Thesis of Master of Science Degree, Memphis State University.
- Long, L.T., K.-H. Zelt, J.-S. Liow, R. Propes, J. Shand, D. Reinbold, and B. Schechter, (1986). *The North Georgia Earthquake of October 9, 1984*, Earthquake Notes, 57, no. 3, pp. 77-82.
- Nava, S.J., J.W. Munsey, and A.C. Johnston, (1989). *First Fault Plane Identification in the Southern Appalachians: The mbLg 4.2 Vonore, Tennessee, Earthquake of March 27, 1987*, Seismol. Res. Lett., 60, no. 3, pp. 119-129.
- Powell, C.A., G.A. Bollinger, M.C. Chapman, A.C. Johnston, and R.L. Wheeler (1994). *A Seismotectonic Model for Eastern Tennessee*, in press, Science.
- Reinbold, D.J. and A.C. Johnston, (1987). *Historical Seismicity of the Southern Appalachian Seismic Zone*, U. S. Geological Survey Open-File Report 87-433, 674 pp.
- Sibol, M.S., J.A. Snoke, G.A. Bollinger, M.C. Chapman, J.B. Birch, and A.C. Johnston, (1990). *The Probability of a Major Earthquake in the Eastern United States*, Seismol. Res. Lett., 61, no. 2, pp. 131-134.
- Teague, A.G., G.A. Bollinger, and A.C. Johnston, (1986). *Focal Mechanism Analysis for Eastern Tennessee Earthquakes (1981-1983)*, Bull. Seism. Soc. Am., 76, no. 1, pp. 95-109.
- Yao, P. and J. Dorman, (1992). *Short-Period Surface-Wave Dispersion and Shallow Crustal Structure of Central and Eastern Tennessee*, Bull. Seism. Soc. Am., 82, no. 2, pp. 962-979.

REFERENCES

- Bollinger, G.A., M.C. Chapman, and T.P. Moore (1980), *Central Virginia Regional Seismic Network: Crustal Velocity Structure in Central and Southwestern Virginia*, NUREG/CR-1217.
- Bollinger, G.A., M.S. Sibol, and E.C. Mathena (1984), *Seismicity of the Southeastern United States*, *Southeastern U.S. Seismic Network Bulletin*, No. 13.
- Ebel, J.E. and K.P. Bonjer (1990), *Moment Tensor Inversion of Small Earthquakes in Southwestern Germany for The Fault Plane Solution*, *Geophys. J. Int.*, 101, pp.133-146.
- Johnston, A.C., D. Reinbold, and S. Brewer (1985), *Seismotectonics of the Southern Appalachians*, *Bulletin of the Seismological Society of America*, vol. 75, No. 1, pp. 291-312.
- Lahr, J.C. (1980), *HYPOELLIPSE/MULTICS: A Computer Program for Determining Local Earthquake Hypocentral Parameters, Magnitude and First-Motion Pattern*, *USGS Open File Report 80-59*.
- Lee, W.H.K., and J. Lahr, (1975), *HYPO71 (revised): A Computer Program for Determining Hypocenter, Magnitude, and First Motion Pattern of Local Earthquakes*, *USGS Open File Report 75-311*.
- Snoke, J.A., J.W. Munsey, A.G. Teague, and G.A. Bollinger (1984). *A Program for Focal Mechanism Determination by Combined Used of Polarity and SV-P Amplitude ratio data*, *Earthquake Notes* 55, pp. 15.
- Stauder, W., R. Herrmann, S. Singh, R. Perry, E. Haug, and S.T. Morrissey (1980), *Central Mississippi Valley Earthquake Bulletin*, Quarterly Report No. 23, Saint Louis University.
- Viret, M., (1980), *Determination of a duration magnitude relationship for the Virginia Tech Seismic Network*, in Bollinger, G.A., *Central Virginia Regional Seismic Report Dec. 1, 1980*, U.S. Nuclear Regulatory Commission Contract No. NRC-04-077-034, p.1-8.
- Vudler, V., and P. Raica (1980), *Seismicity of the Northeastern United States*, *Bulletin No. 19*, Weston Observatory, Boston College.

Appendix 1.

SOUTHERN APPALACHIAN (SARSN) HYPOCENTERS: CUMULATIVE LISTING

SEPTEMBER 1981 - DECEMBER 1992

(A). STUDY AREA EARTHQUAKES (SARSN IS PRIMARY NETWORK)

All events from September 1981 - December 1985 were located using HYPO71.

DATE	ORIGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
810904	1721	44.52	34.634	85.166	2.6	3.0	7 14	116	139	C A D	0.13	0.50	0.00	1.10	0.0
GA, CATLETT QUAD															
810928	18 3	35.08	34.573	85.435	8.6	2.1	9 13	29	139	B A C	0.12	0.60	0.00	1.10	0.0
GA, DOUGHERTY QUAD															
811125	1154	26.10	35.647	84.642	12.7	2.9	13 23	35	74	B A C	0.13	0.40	0.00	0.60	0.0
TN, TEN MILE QUAD															
811204	446	20.40	35.295	84.004	10.7	1.9	8 11	41	189	C B D	0.24	1.70	0.00	4.60	0.0
TN, BIG JUNCTION QUAD; TN/NC BORDER															
811213	942	34.00	34.985	85.143	4.0	0.6	3 5	19	152	C B D	0.04	1.00	0.00	3.20	0.0
GA, EAST RIDGE QUAD; GA/TN BORDER															
811223	1610	12.20	34.825	85.813	6.3	1.6	5 8	46	179	C B C	0.11	1.80	0.00	1.40	0.0
AL, STEVENSON QUAD															
811225	16 3	31.43	35.470	84.178	10.2	2.3	7 13	30	136	B A C	0.12	0.60	0.00	0.80	0.0
TN, RAFTER QUAD															
820102	2 0	26.20	35.179	86.429	12.9	3.1	9 13	63	138	C B D	0.17	0.70	0.00	2.60	0.0
TN, MULBERRY QUAD; FELT LINCOLN, FRANKLIN, MOORE & MARSHALL COUNTIES, TN															
820130	1239	12.90	35.796	83.964	20.4	2.8	11 18	5	96	B A B	0.13	0.40	0.00	0.50	0.0
TN, MARYVILLE QUAD															
820131	1013	42.50	35.716	83.664	13.8	2.2	10 15	12	135	C B C	0.20	0.80	0.00	0.60	0.0
TN, WEAR COVE QUAD															
820223	919	8.80	34.575	85.445	6.5	2.3	11 17	51	128	C B D	0.20	0.70	0.00	1.50	0.0
GA, DOUGHERTY QUAD															
820224	1210	6.30	35.733	84.304	20.5	1.5	4 7	20	163	B A C	0.04	0.30	0.00	1.00	0.0
TN, LENOIR CITY QUAD															
820413	13 4	13.32	36.512	82.041	3.4	3.0	11 15	111	150	C A D	0.15	0.50	0.00	1.40	0.0
TN, HOLSTON VALEY QUAD; TN/VA BORDER															
820505	1528	16.60	35.675	84.415	13.0	1.9	6 9	39	243	C B D	0.10	1.20	0.00	1.30	0.0
TN, PHILADELPHIA QUAD															
820512	121	52.20	34.896	85.020	10.0	2.6	13 25	31	89	B A C	0.14	0.30	0.00	0.60	0.0
GA, RINGGOLD QUAD; GA/TN BORDER															
820515	354	47.40	35.679	84.345	21.2	1.6	5 9	26	143	B A C	0.14	0.90	0.00	1.70	0.0
TN, LOUDON QUAD															
820520	712	7.70	35.039	85.148	10.7	1.3	8 13	20	161	B A C	0.12	0.60	0.00	0.60	0.0
TN, CHATTANOOGA QUAD															
820526	742	43.00	34.990	85.265	18.5	2.0	14 23	8	119	B A B	0.14	0.50	0.00	0.50	0.0
GA, FORT OGLETHORPE QUAD; GA/TN BORDER															
820530	711	59.10	35.702	84.135	11.6	1.4	10 14	19	91	B A B	0.09	0.30	0.00	0.60	0.0
TN, MEADOW QUAD															
820612	1220	29.50	36.093	83.777	16.3	1.1	3 5	21	333	C A D	0.03	0.60	0.00	0.70	0.0
TN, JOHN SEVIER QUAD															
820617	21 9	38.23	35.208	84.498	6.4	1.7	7 9	14	119	C B C	0.09	0.70	0.00	2.10	0.0
TN, MC FARLAND QUAD															
820708	518	50.90	35.484	84.178	15.2	0.7	5 8	23	137	B A C	0.08	0.60	0.00	1.40	0.0
TN, RAFTER QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
820710	2242	26.80	35.846	82.708	6.4	1.1	3 5	40	225	D C D	0.13	3.00	0.00	53.60	0.0
NC, MARSHALL QUAD															
820719	434	42.60	35.738	83.978	12.6	0.9	4 6	21	212	C A D	0.04	0.40	0.00	0.70	0.0
TN, BLOCKHOUSE QUAD															
820825	744	47.78	35.922	83.906	14.3	1.5	7 14	2	172	B A C	0.12	0.60	0.00	0.40	0.0
TN, KNOXVILLE QUAD															
820902	2152	45.34	34.917	82.891	7.6	3.0	4 8	50	236	C B D	0.13	1.10	0.00	1.30	0.0
SC, SALEM QUAD															
820905	1011	9.40	35.192	84.506	12.6	3.2	11 16	16	101	B A B	0.09	0.30	0.00	0.30	0.0
TN, OSWALD DOME QUAD; FELT AROUND ETOWAH, TN															
820907	756	45.10	35.292	84.116	21.7	0.3	3 5	31	239	D C D	0.09	1.10	0.00	5.40	0.0
TN, BIG JUNCTION QUAD TN/NC BORDER															
820920	17 1	48.60	36.036	83.868	10.2	1.1	6 12	12	241	C A D	0.14	1.00	0.00	0.60	0.0
TN, JOHN SEVIER QUAD															
820921	1 7	18.30	36.113	83.750	15.7	1.4	10 17	24	226	C A D	0.11	0.60	0.00	0.90	0.0
TN, GRAVESTON QUAD															
820924	2157	42.50	35.680	84.238	13.1	3.4	15 20	23	63	B A B	0.15	0.50	0.00	0.70	0.0
TN, MEADOW QUAD; FELT IN KNOX, LOUDON, BLOUNT, ANDERSON & MONROE COUNTIES															
820924	2219	16.95	35.684	84.251	8.1	3.5	16 22	43	62	B A C	0.14	0.40	0.00	0.70	0.0
TN, LOUDON QUAD; FELT IN KNOX, LOUDON, BLOUNT, ANDERSON MONROE & McMINN COUNTIES															
820924	2254	11.88	35.681	84.241	6.7	0.0	6 11	42	167	C C C	0.14	0.60	0.00	17.00	0.0
TN, MEADOW QUAD															
820926	234	1.52	35.678	84.271	4.4	0.0	3 4	1	234	C A D	0.08	0.00	0.00	0.00	0.0
TN, LOUDON QUAD															
820927	748	25.97	35.683	84.239	14.5	0.0	6 7	4	94	B B B	0.09	1.30	0.00	0.70	0.0
TN, MEADOW QUAD															
821018	426	27.04	35.683	84.239	17.8	0.0	4 4	23	228	C A D	0.04	0.00	0.00	0.00	0.0
TN, MEADOW QUAD															
821022	234	32.50	36.324	84.067	20.2	1.6	7 8	47	204	C A D	0.06	0.60	0.00	1.50	0.0
TN, DEMORY QUAD															
821102	844	45.64	35.766	83.970	13.6	1.2	5 9	20	147	B A C	0.09	0.50	0.00	0.70	0.0
TN, MARYVILLE QUAD															
821108	956	10.57	35.222	84.345	18.3	0.5	5 9	15	307	C A D	0.09	0.90	0.00	1.00	0.0
TN, FARNER QUAD; TN/NC BORDER															
821114	1031	59.10	36.206	82.876	10.3	2.7	13 21	34	151	B A C	0.13	0.40	0.00	0.60	0.0
TN, MOSHEIM QUAD															
821201	3 6	23.80	35.767	83.741	22.9	1.0	5 8	12	158	B A C	0.08	1.00	0.00	0.80	0.0
TN, WILDWOOD QUAD															
821201	1339	44.60	35.255	84.428	13.1	0.4	6 12	8	109	B A B	0.12	0.50	0.00	0.80	0.0
TN, MECCA QUAD															
821206	1052	35.10	36.136	83.747	9.0	1.7	7 12	26	199	C A D	0.12	0.80	0.00	0.80	0.0
TN, LUTTRELL QUAD															
821214	635	10.20	35.298	84.166	12.2	2.4	17 24	11	78	A A A	0.09	0.30	0.00	0.30	0.0
TN, BALD RIVER FALLS QUAD															
821215	227	59.30	35.749	84.220	13.1	2.1	13 22	20	81	B A B	0.11	0.30	0.00	0.30	0.0
TN, CONCORD QUAD															
830118	5 9	12.30	35.589	84.287	8.2	2.3	11 18	32	88	B A C	0.15	0.40	0.00	1.00	0.0
TN, MADISONVILLE QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
830126	1130	55.40	35.416	84.135	12.9	0.9	6 7	19	113	B A B	0.05	0.20	0.00	0.30	0.0
TN, RAFTER QUAD															
830127	22 9	35.15	36.059	83.631	12.8	3.1	13 22	46	102	B A C	0.09	0.30	0.00	0.40	0.0
TN, MASCOT QUAD															
830129	18 8	30.40	36.125	83.737	14.7	2.1	10 16	25	122	B A B	0.14	0.60	0.00	0.60	0.0
TN, LUTTRELL QUAD															
830211	115	37.50	35.038	85.006	13.0	0.7	4 7	54	316	C B D	0.10	2.40	0.00	2.50	0.0
TN, OOLTEWAH QUAD															
830304	14 3	27.70	35.599	84.354	12.5	2.3	7 12	9	145	B A C	0.10	0.40	0.00	0.50	0.0
TN, MADISONVILLE QUAD															
830311	2229	39.93	35.210	84.422	16.7	1.7	5 8	13	168	B A C	0.02	0.20	0.00	0.30	0.0
TN, MC FARLAND QUAD															
830313	353	12.61	35.507	84.352	10.3	1.3	7 10	7	95	B A B	0.08	0.50	0.00	0.70	0.0
TN, MADISONVILLE QUAD															
830313	1421	44.30	35.801	84.013	11.7	1.1	5 8	18	107	B A B	0.11	0.70	0.00	1.20	0.0
TN, LOUISVILLE QUAD															
830316	913	52.13	35.228	84.551	11.7	2.6	14 19	14	92	B A B	0.14	0.50	0.00	0.50	0.0
TN, OSWALD DOME QUAD															
830319	157	57.44	35.285	83.326	2.5	1.6	8 14	32	150	B A C	0.12	0.50	0.00	1.10	0.0
NC, GREENS CREEK QUAD															
830325	247	11.09	35.333	82.460	11.5	3.3	21 27	21	71	B A B	0.15	0.30	0.00	0.60	0.0
NC, HENDERSONVILLE QUAD; FELT IN HENDERSONVILLE, NC															
830330	1152	14.02	35.410	84.504	10.4	1.3	6 9	10	145	B A C	0.08	0.40	0.00	0.80	0.0
TN, ATHENS QUAD															
830405	317	59.30	35.542	84.166	12.9	2.1	9 14	14	86	B A B	0.13	0.40	0.00	0.50	0.0
TN, VONORE QUAD															
830416	726	43.60	35.420	84.188	10.6	1.5	6 10	25	96	B A B	0.06	0.40	0.00	1.50	0.0
TN, RAFTER QUAD															
830516	650	23.50	35.545	84.064	16.4	1.9	9 16	29	114	B A B	0.12	0.40	0.00	1.40	0.0
TN, TALLASSEE QUAD															
830525	1046	5.98	35.741	84.442	17.8	1.6	7 12	22	109	B A B	0.13	0.50	0.00	1.50	0.0
TN, PHILADELPHIA QUAD															
830526	1230	2.20	35.666	84.264	3.3	2.5	17 30	27	64	B A C	0.11	0.20	0.00	0.50	0.0
TN, LOUDON QUAD															
830622	553	24.30	35.596	84.864	19.8	0.9	9 15	29	107	B A B	0.14	0.50	0.00	1.20	0.0
TN, DECATUR QUAD															
830626	1734	2.25	35.288	84.251	13.9	0.5	5 9	3	164	B A C	0.09	0.60	0.00	0.50	0.0
TN, TELLICO PLAINS QUAD															
830702	646	28.10	35.696	84.195	13.1	1.8	7 13	4	181	C A D	0.11	0.60	0.00	0.40	0.0
TN, MEADOW QUAD															
830708	1929	5.90	35.548	84.153	9.7	3.4	15 23	14	87	B A B	0.10	0.20	0.00	0.50	0.0
TN, VONORE QUAD; FELT IN VONORE, TN															
830709	328	46.80	35.549	84.143	9.5	1.0	7 9	2	88	A A A	0.09	0.40	0.00	0.90	0.0
TN, VONORE QUAD															
830709	957	47.70	35.537	84.135	5.3	1.3	5 8	8	164	C B C	0.07	1.20	0.00	2.00	0.0
TN, VONORE QUAD															
830711	1254	36.09	35.636	86.789	29.3	2.4	9 14	23	98	B A B	0.14	0.50	0.00	1.30	0.0
TN, RALLY HILL QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
830715	1932	56.10	35.547	84.164	6.8	2.6	14 20	14	66	B A C	0.11	0.30	0.00	0.80	0.0
TN, VONORE QUAD															
830715	2048	37.20	35.797	84.307	9.3	0.7	2 4	17	315	C A D	0.02	0.00	0.00	0.00	0.0
TN, LENOIR CITY QUAD															
830728	18 7	29.90	34.886	83.947	6.3	2.1	8 12	13	159	B A C	0.14	0.90	0.00	0.90	0.0
GA, BLAIRSVILLE QUAD; GA/NC BORDER															
830730	631	53.20	36.653	81.637	9.1	2.3	6 10	43	137	B A C	0.09	0.70	0.00	1.30	0.0
VA, KONNAROCK QUAD															
830803	1340	47.20	36.065	83.787	9.5	1.5	6 9	18	208	C B D	0.20	1.60	0.00	1.10	0.0
TN, JOHN SEVIER QUAD															
830805	722	36.90	35.783	83.762	22.5	2.0	5 5	14	209	C B D	0.04	1.30	0.00	0.90	0.0
TN, WILDWOOD QUAD															
830812	549	13.58	35.623	84.336	12.9	2.1	6 9	12	179	B A C	0.05	0.50	0.00	0.30	0.0
TN, LOUDON QUAD															
830828	2245	7.40	36.681	83.844	16.0	3.2	14 17	84	205	C B D	0.19	0.90	0.00	1.70	0.0
KY, KAYJAY QUAD; FELT IN MIDDLESBORO, KY AREA															
830828	2256	39.70	36.652	83.843	16.8	2.6	7 11	110	271	C B D	0.19	1.90	0.00	2.20	0.0
KY, KAYJAY QUAD															
830913	135	34.70	35.972	82.433	8.1	1.7	5 6	59	162	D C D	0.22	4.00	0.00	6.60	0.0
NC, BALD CREEK QUAD; NC/TN BORDER															
830913	11 6	0.32	35.073	84.338	8.3	0.2	3 5	30	225	D C D	0.09	2.80	0.00	7.40	0.0
TN, ISABELLA QUAD; TN/NC BORDER															
830916	947	48.92	34.811	85.021	21.2	1.5	7 9	35	154	B A C	0.09	0.80	0.00	1.70	0.0
GA, TUNNEL HILL QUAD															
831003	251	34.80	34.810	85.056	6.2	1.2	3 5	32	218	C B D	0.05	1.50	0.00	2.70	0.0
GA, TUNNEL HILL QUAD															
831005	350	25.90	35.732	84.104	21.2	1.7	9 15	12	87	A A A	0.12	0.40	0.00	0.60	0.0
TN, BINFIELD QUAD															
831008	426	12.23	35.331	84.190	10.5	1.5	9 13	24	123	B A C	0.10	0.40	0.00	0.90	0.0
TN, BALD RIVER FALLS QUAD															
831008	621	34.70	35.210	84.186	12.5	1.9	7 11	27	158	B A C	0.09	0.40	0.00	1.10	0.0
NC, UNAKA QUAD; NC/TN BORDER															
831008	17 9	33.30	35.720	83.930	23.2	1.6	9 15	16	95	B A B	0.07	0.30	0.00	0.40	0.0
TN, BLOCKHOUSE QUAD															
831013	1056	16.80	34.879	85.156	17.4	2.0	7 12	21	172	B A C	0.11	0.50	0.00	0.90	0.0
GA, EAST RIDGE QUAD; GA/TN BORDER															
831016	22 2	48.40	35.838	84.507	7.2	2.4	14 23	20	130	B A C	0.12	0.30	0.00	0.60	0.0
TN, BACON GAP QUAD															
831017	745	20.00	35.670	84.162	19.4	2.6	14 17	5	98	B A B	0.11	0.40	0.00	0.40	0.0
TN, MEADOW QUAD															
831025	1635	56.50	35.661	84.286	6.9	2.1	11 17	7	65	A A A	0.08	0.20	0.00	0.30	0.0
TN, LOUDON QUAD															
831105	630	33.80	36.836	83.095	6.7	1.8	11 15	51	231	C A D	0.14	0.80	0.00	1.10	0.0
VA, PENNINGTON GAP QUAD; VA/KY BORDER															
831106	012	58.50	36.868	83.821	12.1	2.2	13 19	33	200	C B D	0.26	1.30	0.00	1.10	0.0
KY, FOUNT QUAD															
831108	2018	44.30	36.044	83.826	5.7	1.5	8 13	31	201	C B D	0.09	0.80	0.00	2.20	0.0
TN, JOHN SEVIER QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
831111	619	11.00	36.350	83.526	6.4	1.6	10 15	31	117	B A C	0.12	0.40	0.00	1.30	0.0
TN, DUTCH VALLEY QUAD															
831114	1634	25.10	35.759	83.969	10.1	0.9	7 10	13	196	C A D	0.09	0.70	0.00	1.30	0.0
TN, MARYVILLE QUAD															
831120	4 4	27.00	35.409	84.133	16.7	0.6	8 15	10	204	C A D	0.08	0.40	0.00	0.40	0.0
TN, RAFTER QUAD															
831123	1813	37.80	35.269	82.229	11.2	1.7	4 6	2	206	C A D	0.05	0.70	0.00	0.50	0.0
NC, LAKE LURE QUAD															
831124	1940	33.10	35.759	83.036	6.8	0.7	5 7	27	155	C B C	0.22	1.40	0.00	4.80	0.0
TN, WATERVILLE QUAD; TN/NC BORDER															
831124	2137	51.10	34.987	84.450	21.5	1.2	8 12	38	257	C A D	0.05	0.40	0.00	0.80	0.0
GA, EPWORTH QUAD; GA/TN BORDER															
831127	817	3.80	36.277	81.110	4.4	1.9	8 10	26	196	C B D	0.14	1.30	0.00	1.60	0.0
NC, TRAPHILL QUAD															
831129	1930	28.10	36.027	82.653	7.1	2.7	14 18	19	89	B A C	0.14	0.50	0.00	1.00	0.0
TN, GREYSTONE QUAD															
831205	1035	10.50	35.299	82.492	7.4	2.1	14 23	23	150	B A C	0.09	0.30	0.00	0.50	0.0
NC, HENDERSONVILLE QUAD															
831206	446	49.40	35.793	83.682	12.2	1.1	8 12	13	152	B A C	0.11	0.70	0.00	0.70	0.0
TN, WALDEN CREEK QUAD															
831221	9 1	33.83	35.574	84.420	19.1	1.5	9 9	20	257	C A D	0.12	0.70	0.00	0.80	0.0
TN, MADISONVILLE QUAD															
831223	10 3	3.99	35.744	83.592	13.7	-0.2	5 7	19	318	C A D	0.04	0.60	0.00	0.70	0.0
TN, GATLINBURG QUAD															
831230	2 5	23.20	35.212	84.421	4.4	1.5	5 7	13	146	C B C	0.10	1.40	0.00	0.90	0.0
TN, MC FARLAND QUAD															
840105	549	26.80	35.598	84.377	9.3	1.6	12 18	17	116	B B B	0.16	0.50	0.00	1.30	0.0
TN, SWEETWATER QUAD															
840202	633	56.16	35.636	84.084	11.6	0.1	6 10	12	159	C B C	0.19	1.00	0.00	2.00	0.0
TN, BINFIELD QUAD															
840207	632	19.56	35.651	84.678	24.7	1.5	11 15	26	135	B A B	0.09	0.40	0.00	0.90	0.0
TN, TEN MILE QUAD															
840214	1340	8.79	35.309	82.489	7.8	1.8	16 20	23	169	B A C	0.12	0.40	0.00	0.80	0.0
NC, HENDERSONVILLE QUAD															
840214	2051	46.09	36.138	83.727	10.8	1.4	8 12	27	122	C B C	0.18	0.80	0.00	1.20	0.0
TN, LUTTRELL QUAD; FORESHOCK OF 20:54 EVENT															
840214	2054	30.94	36.125	83.737	9.8	3.5	24 34	26	65	C B C	0.21	0.60	0.00	1.00	0.0
TN, LUTTRELL QUAD; FELT KNOXVILLE AREA															
840222	2215	30.19	35.525	84.214	15.8	1.7	12 21	4	86	A A A	0.13	0.40	0.00	0.60	0.0
TN, VONORE QUAD															
840227	17 8	11.01	34.662	85.390	10.9	2.1	10 14	35	159	B A C	0.08	0.30	0.00	0.40	0.0
GA, CEDAR GROVE QUAD															
840304	11 6	27.94	36.042	83.657	11.0	1.3	4 7	44	192	D C D	0.13	2.20	0.00	5.80	0.0
TN, MASCOT QUAD															
840311	654	8.44	35.587	84.161	14.1	-0.9	9 14	10	110	B A B	0.10	0.40	0.00	0.60	0.0
TN, VONORE QUAD															
840314	132	52.29	35.527	84.254	18.9	-1.2	7 11	16	155	B A C	0.07	0.40	0.00	0.70	0.0
TN, MADISONVILLE QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
840317	2326	11.37	35.832	84.050	7.3	3.0	22 24	13	141	C B C	0.16	0.60	0.00	0.80	0.0
TN, LOUISVILLE QUAD; FELT KNOXVILLE AREA															
840318	2021	14.30	36.335	84.196	11.5	2.2	17 26	48	181	C A D	0.14	0.70	0.00	0.90	0.0
TN, JACKSBORO QUAD															
840323	1535	22.34	34.703	88.120	1.1	2.0	8 12	31	113	C C C	0.44	2.30	0.00	3.00	0.0
AL, BISHOP QUAD															
840327	120	34.08	35.174	84.755	18.0	0.8	10 15	32	283	C A D	0.12	0.90	0.00	1.40	0.0
TN, EAST CLEVELAND QUAD															
840327	1327	29.82	35.641	84.402	10.8	-1.0	6 10	18	243	C A D	0.07	0.50	0.00	1.20	0.0
TN, PHILADELPHIA QUAD															
840416	740	11.68	34.696	85.062	8.9	1.5	10 15	41	194	C A D	0.12	0.60	0.00	0.90	0.0
GA, VILLANOW QUAD															
840422	1526	47.36	35.002	84.426	12.4	2.1	7 11	36	252	C A D	0.09	0.80	0.00	0.60	0.0
TN, DUCKTOWN QUAD															
840423	6 8	0.12	34.857	85.156	19.9	1.2	6 8	22	179	B A C	0.10	0.80	0.00	1.10	0.0
GA, NICKAJACK QUAD															
840512	7 3	57.80	35.792	83.665	12.8	0.4	3 6	18	149	B A C	0.04	0.30	0.00	0.90	0.0
TN, WALDEN CREEK QUAD															
840519	346	29.59	36.377	83.499	6.0	2.1	15 23	55	219	C A D	0.11	0.50	0.00	0.60	0.0
TN, HOWARD QUARTER QUAD															
840520	748	22.95	35.618	84.428	7.9	-0.2	5 8	20	251	C B D	0.07	0.60	0.00	2.20	0.0
TN, SWEETWATER QUAD															
840525	1015	38.75	35.601	84.623	24.7	2.2	16 22	20	70	A A A	0.13	0.40	0.00	0.80	0.0
TN, NIOTA QUAD															
840602	912	38.22	35.925	83.839	13.6	-0.4	4 6	4	258	C A D	0.04	0.50	0.00	0.50	0.0
TN, SHOOKS GAP QUAD															
840607	1657	50.18	35.542	84.146	17.7	2.1	8 14	15	89	A A A	0.12	0.40	0.00	0.80	0.0
TN, VONORE QUAD															
840614	14 3	57.51	35.828	83.977	13.2	-1.0	4 6	14	219	C B D	0.05	1.10	0.00	0.50	0.0
TN, MARYVILLE QUAD															
840623	14 3	57.26	35.787	83.993	13.8	1.8	10 19	12	165	B A C	0.12	0.50	0.00	0.60	0.0
TN, MARYVILLE QUAD															
840705	340	7.56	34.995	84.447	8.9	0.9	3 6	60	273	C B D	0.13	2.20	0.00	2.30	0.0
GA, EPWORTH QUAD; GA/TN BORDER															
840708	412	26.22	35.782	84.008	11.9	-1.1	3 6	20	161	B A C	0.06	0.50	0.00	1.60	0.0
TN, LOUISVILLE QUAD															
840718	1957	11.70	35.426	84.341	22.6	0.7	8 11	12	161	B A C	0.08	0.70	0.00	0.60	0.0
TN, MT VERNON QUAD															
840722	418	9.24	35.477	84.080	19.9	-0.4	8 14	3	127	B A B	0.11	0.60	0.00	0.70	0.0
TN, WHITEOAK FLATS QUAD; TN/NC BORDER															
840722	1630	19.11	35.168	84.176	18.7	1.6	7 11	31	170	B A C	0.10	0.60	0.00	1.80	0.0
NC, UNAKA QUAD; NC/TN BORDER															
840804	1249	57.27	35.552	84.522	9.2	1.2	7 11	26	234	C A D	0.09	0.60	0.00	1.50	0.0
TN, NIOTA QUAD															
840805	925	4.19	35.542	84.506	8.2	-0.4	5 7	24	254	D C D	0.13	1.50	0.00	6.10	0.0
TN, NIOTA QUAD															
840806	1112	38.10	35.772	83.990	17.0	-0.4	4 7	16	243	C A D	0.08	0.90	0.00	1.20	0.0
TN, MARYVILLE QUAD; FORESHOCK OF 11:13 M1.3 EVENT															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
840806	1113	42.04	35.750	83.973	19.6	1.3	8 14	13	73	A A A	0.09	0.40	0.00	0.70	0.0
TN, MARYVILLE QUAD															
840809	242	35.81	34.629	86.295	8.2	3.2	19 21	13	66	B B B	0.16	0.50	0.00	0.70	0.0
AL, PAINT ROCK QUAD															
840809	735	8.62	34.655	86.297	6.2	1.9	5 7	13	147	C B C	0.17	1.90	0.00	2.70	0.0
AL, PAINT ROCK QUAD; AFTERSHOCK OF 02:42 M3.2 EVENT															
840824	331	50.22	36.059	84.922	18.0	1.8	19 23	24	86	B A B	0.10	0.30	0.00	0.80	0.0
TN, FOX CREEK QUAD															
840826	816	26.51	34.765	86.035	7.6	1.3	6 9	46	151	B A C	0.08	0.30	0.00	0.70	0.0
AL, MUD CREEK QUAD															
840827	240	44.19	35.061	84.316	10.9	0.7	3 4	32	223	C B D	0.16	0.00	0.00	0.00	0.0
TN, ISABELLA QUAD; TN/NC BORDER															
840827	1126	40.97	35.604	84.190	15.2	-1.7	5 8	7	203	C A D	0.10	0.80	0.00	0.90	0.0
TN, VONORE QUAD															
840829	1252	9.09	35.346	84.437	18.7	1.1	8 14	3	173	B A C	0.13	0.80	0.00	1.00	0.0
TN, MECCA QUAD															
840830	1626	28.42	35.565	84.338	14.0	3.1	23 28	16	48	B B B	0.17	0.40	0.00	0.40	0.0
TN, MADISONVILLE QUAD															
840830	1641	52.29	35.564	84.343	14.3	2.4	20 25	16	53	B A B	0.10	0.30	0.00	0.30	0.0
TN, MADISONVILLE QUA;, AFTERSHOCK OF 16:26 M3.1 EVENT															
840830	1645	25.22	35.571	84.373	15.4	-0.5	5 9	18	219	C A D	0.06	0.50	0.00	0.80	0.0
TN, MADISONVILLE QUAD; AFTERSHOCK OF 16:26 M3.1 EVENT															
840904	1459	35.00	35.313	83.598	5.0	1.5	7 12	39	224	C A D	0.09	0.80	0.00	1.60	0.0
NC, WESSER QUAD															
840905	1338	38.59	35.930	83.751	1.2	1.6	5 6	30	198	C B D	0.14	2.30	0.00	0.00	0.0
TN, SHOOKS GAP QUAD															
840906	2342	1.42	35.752	83.867	17.7	1.7	13 18	13	63	A A A	0.15	0.60	0.00	0.60	0.0
TN, WILDWOOD QUAD															
840923	1018	1.27	35.538	84.162	10.4	0.3	4 7	8	157	B A C	0.04	0.30	0.00	0.50	0.0
TN, VONORE QUAD															
841001	1824	22.03	35.312	83.607	7.6	2.0	11 13	39	185	C A D	0.05	0.30	0.00	1.10	0.0
NC, WESSER QUAD															
841009	1154	26.97	34.754	85.200	11.6	3.8	21 26	47	126	B A C	0.12	0.50	0.00	1.00	0.0
GA, WANNVILLE QUAD; FELT IN CHATTANOOGA AREA															
841009	1212	45.30	34.732	85.179	11.0	1.1	6 8	47	196	C B D	0.13	1.50	0.00	2.50	0.0
GA, CATLETT QUAD; AFTERSHOCK OF 11:54 EVENT															
841014	2338	5.92	35.560	84.164	8.3	-1.1	4 6	12	115	B B B	0.19	1.60	0.00	3.70	0.0
TN, VONORE QUAD															
841015	1656	52.47	34.751	85.203	9.5	1.9	13 19	3	108	B A B	0.11	0.40	0.00	0.30	0.0
GA, WANNVILLE QUAD; AFTERSHOCK OF 10/09 (11:54) M3.8 EVENT															
841019	749	12.97	36.587	83.770	18.1	2.2	11 14	9	180	C A D	0.08	0.50	0.00	0.70	0.0
TN, FORK RIDGE QUAD; TN/KY BORDER															
841022	1858	41.77	36.364	81.677	10.7	3.2	11 12	41	202	C A D	0.10	0.50	0.00	0.60	0.0
NC, ZIONVILLE QUAD; NC/TN BORDER, FELT IN BOONE, NC AND AREA															
841028	722	56.08	36.808	83.338	7.1	2.0	9 11	37	222	C A D	0.12	0.80	0.00	1.00	0.0
KY, HARLAN QUAD															
841029	939	48.82	34.828	84.936	13.3	1.5	7 10	41	155	B A C	0.08	0.50	0.00	0.80	0.0
GA, DALTON NORTH QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
841103	1138	17.07	35.833	83.773	12.6	-0.2	7 11	9	122	B A B	0.12	0.50	0.00	0.90	0.0
TN, WILDWOOD QUAD															
841104	1538	19.48	35.813	84.067	9.4	1.0	10 15	10	168	B A C	0.10	0.40	0.00	0.70	0.0
TN, LOUISVILLE QUAD															
841104	2211	28.45	35.351	84.325	9.8	-0.7	4 7	12	194	C A D	0.07	0.70	0.00	1.10	0.0
TN, TELLICO PLAINS QUAD															
841107	931	19.27	35.589	84.583	10.0	1.9	8 10	31	148	B A C	0.10	0.70	0.00	1.20	0.0
TN, NIOTA QUAD															
841112	1842	28.44	35.472	84.416	13.8	1.0	5 7	17	209	C A D	0.07	0.90	0.00	0.60	0.0
TN, ENGLEWOOD QUAD															
841126	1142	58.93	35.619	84.264	8.6	1.4	6 10	7	145	B A C	0.09	0.40	0.00	0.70	0.0
TN, MADISONVILLE QUAD															
841216	4 2	11.22	36.125	83.711	1.4	2.2	12 18	14	160	C B C	0.18	0.60	0.00	0.80	0.0
TN, LUTTRELL QUAD															
841216	427	25.84	36.149	83.739	12.5	0.1	3 5	11	242	C B D	0.06	1.50	0.00	1.10	0.0
TN, LUTTRELL QUAD; AFTERSHOCK OF 04:02 EVENT															
841217	1848	28.19	35.415	84.309	13.8	2.8	18 21	13	75	A A A	0.12	0.30	0.00	0.30	0.0
TN, MT VERNON QUAD; FORESHOCK AT 1846, Md= -0.5															
841219	1228	52.85	35.618	84.232	16.9	0.7	5 6	6	137	C B C	0.10	1.00	0.00	1.50	0.0
TN, VONORE QUAD															
841220	824	48.42	36.406	83.853	27.4	1.4	10 12	23	170	B A C	0.05	0.30	0.00	0.40	0.0
TN, AUSMUS QUAD															
841222	1428	30.44	36.126	83.707	11.5	1.4	4 7	15	190	D C D	0.29	2.60	0.00	7.00	0.0
TN, LUTTRELL QUAD															
841223	722	44.36	35.494	85.140	20.1	1.9	13 16	43	91	B A C	0.10	0.30	0.00	1.80	0.0
TN, BRAYTON QUAD															
841223	2012	52.54	35.547	83.255	9.6	2.2	10 14	32	83	B A C	0.09	0.30	0.00	0.60	0.0
NC, SMOKEMONT QUAD; NC/TN BORDER															
850105	525	9.47	35.576	84.325	3.7	0.4	4 5	14	160	C B D	0.12	1.90	0.00	2.90	0.0
TN, MADISONVILLE QUAD															
850111	737	57.23	35.321	83.321	6.2	1.0	6 9	31	140	C B C	0.15	0.80	0.00	1.80	0.0
NC, GREENS CREEK QUAD; FORESHOCK OF 07:38 M1.8 EVENT															
850111	738	52.29	35.299	83.328	5.5	1.8	13 18	32	131	B A C	0.14	0.30	0.00	1.30	0.0
NC, GREENS CREEK QUAD															
850112	357	7.69	35.696	84.178	21.0	0.6	4 6	4	123	B A B	0.04	0.40	0.00	0.40	0.0
TN, MEADOW QUAD															
850114	1023	9.90	35.660	83.636	13.1	0.5	3 5	12	224	D D D	0.11	5.20	0.00	2.20	0.0
TN, WEAR COVE QUAD															
850115	025	18.68	35.693	84.571	18.6	0.4	7 12	33	131	B A B	0.06	0.20	0.00	0.90	0.0
TN, PATTIE GAP QUAD															
850119	1 8	59.83	35.686	84.213	9.8	0.8	7 10	2	83	A A A	0.12	0.60	0.00	0.70	0.0
TN, MEADOW QUAD															
850123	039	23.55	35.676	84.213	7.0	-0.2	5 8	1	210	C A D	0.08	0.80	0.00	0.60	0.0
TN, MEADOW QUAD															
850123	039	23.36	35.688	84.230	7.8	0.2	4 4	3	222	C A D	0.00	0.00	0.00	0.00	0.0
TN, MEADOW QUAD															
850125	213	34.28	35.450	84.993	8.3	1.7	19 29	32	55	C B C	0.19	0.40	0.00	0.90	0.0
TN, BIG SPRING QUAD															

DATE	ORIGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
850129	831 0.99	35.466	84.071	15.5	-0.6	5 9	17	194	C B D	0.10	1.20	0.00	2.30	0.0	
TN, WHITEOAK FLATS QUAD; TN/NC BORDER															
850205	849 39.03	34.942	86.174	9.6	0.9	5 8	41	220	C A D	0.06	0.70	0.00	0.60	0.0	
AL, ESTILL FORK QUAD; AL/TN BORDER															
850207	8 4 46.48	35.987	83.809	12.3	2.3	9 16	9	182	C A D	0.14	0.70	0.00	0.70	0.0	
TN, SHOOKS GAP QUAD															
850213	1950 55.66	35.546	84.195	13.4	0.5	7 12	10	152	B A C	0.14	0.70	0.00	1.00	0.0	
TN, VONORE QUAD															
850219	14 2 50.03	34.971	85.674	7.0	1.1	7 12	30	107	C B C	0.17	0.60	0.00	1.50	0.0	
AL, BRIDGEPORT QUAD; AL/TN/GA BORDER															
850226	2352 23.51	36.267	83.542	6.1	1.8	18 26	28	155	B A C	0.12	0.40	0.00	0.90	0.0	
TN, DUTCH VALLEY QUAD															
850301	1053 49.50	35.482	83.045	7.3	1.2	7 11	15	73	C B C	0.18	0.60	0.00	1.20	0.0	
NC, HAZELWOOD QUAD															
850309	1429 57.67	35.014	85.015	7.7	2.5	25 38	14	81	B B B	0.21	0.50	0.00	0.70	0.0	
TN, OOLTEWAH QUAD; TN/GA BORDER															
850312	857 43.27	35.294	84.482	11.3	1.5	5 7	4	238	C A D	0.05	0.90	0.00	0.20	0.0	
TN, MECCA QUAD															
850312	13 4 47.62	35.880	83.606	21.2	2.3	16 21	18	96	B A B	0.11	0.40	0.00	0.60	0.0	
TN, DOUGLAS DAM QUAD															
850317	154 37.50	35.249	82.522	10.3	1.0	7 10	25	187	C A D	0.08	0.80	0.00	0.70	0.0	
NC, STANDING STONE MTN QUAD; NC/SC BORDER															
850318	1733 42.62	35.679	84.378	15.2	-0.2	4 6	15	184	C A D	0.06	0.60	0.00	0.90	0.0	
TN, PHILADELPHIA QUAD															
850319	0 2 5.81	35.300	82.517	9.8	2.1	13 20	25	173	B A C	0.12	0.40	0.00	0.60	0.0	
NC, HORSE SHOE QUAD; FELT IN HENDERSONVILLE, NC															
850409	2051 12.30	35.736	84.048	18.4	0.2	5 8	17	159	B A C	0.05	0.60	0.00	0.50	0.0	
TN, BINFIELD QUAD; FORESHOCK OF 850410 (10:53) M=2.3 EVENT															
850409	2141 0.66	35.729	84.036	16.1	1.4	9 17	17	112	B A B	0.09	0.30	0.00	0.50	0.0	
TN, BINFIELD QUAD; FORESHOCK OF 850410 (10:53) M=2.3 EVENT															
850410	1053 58.94	35.744	84.051	17.1	2.3	20 32	17	56	B B A	0.17	0.30	0.00	0.60	0.0	
TN, BINFIELD QUAD															
850417	1612 11.00	35.306	83.633	11.0	1.4	6 10	41	114	B A C	0.14	0.60	0.00	1.50	0.0	
NC, HEWITT QUAD															
850420	421 3.22	35.488	84.564	12.4	2.5	25 43	14	44	B B B	0.19	0.30	0.00	0.50	0.0	
TN, ATHENS QUAD															
850429	7 4 22.99	35.620	84.222	10.0	0.5	8 13	5	112	B A B	0.13	0.50	0.00	0.70	0.0	
TN, VONORE QUAD															
850507	1410 4.04	35.110	84.793	13.4	1.6	9 15	39	123	B A C	0.13	0.40	0.00	0.70	0.0	
TN, FELKER QUAD															
850517	957 6.91	35.918	83.903	16.5	-0.3	4 8	31	148	C B C	0.15	0.80	0.00	4.60	0.0	
TN, KNOXVILLE QUAD															
850523	529 38.09	35.209	84.272	16.7	-0.2	3 6	21	270	C B D	0.14	2.40	0.00	2.80	0.0	
TN, FARNER QUAD; TN/NC BORDER															
850617	030 47.81	35.588	84.161	19.7	0.3	11 19	10	75	A A A	0.14	0.50	0.00	0.60	0.0	
TN, VONORE QUAD															
850617	039 16.93	35.584	84.168	18.0	0.1	7 10	10	79	A A A	0.13	0.70	0.00	1.10	0.0	
TN, VONORE QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
850620	12 9	22.14	35.057	84.769	13.2	1.7	8 12	32	130	B A C	0.08	0.40	0.00	0.40	0.0
TN, FELKER QUAD															
850712	1820	28.35	35.198	85.156	3.1	3.0	19 26	48	104	B A C	0.12	0.30	0.00	1.00	0.0
TN, DAISY QUAD; FELT AT SEQUOYAH NUCLEAR PLANT															
850812	044	3.34	36.446	83.362	10.3	1.4	9 14	18	171	C B C	0.19	0.90	0.00	1.20	0.0
TN, SWAN ISLAND QUAD															
850815	1731	52.87	35.666	83.949	13.8	2.3	13 21	16	152	B A C	0.13	0.60	0.00	0.40	0.0
TN, BLOCKHOUSE QUAD															
850820	1214	38.92	35.497	86.814	15.2	1.6	10 12	35	76	C C C	0.13	0.60	0.00	6.00	0.0
TN, LEWISBURG QUAD															
850822	1754	13.69	35.083	84.595	17.5	1.2	10 15	16	120	B A B	0.15	0.60	0.00	1.10	0.0
TN, CANEY CREEK QUAD															
850823	756	33.98	35.193	84.770	14.7	1.2	17 26	20	90	B A B	0.15	0.30	0.00	0.30	0.0
TN, EAST CLEVELAND QUAD															
850825	152	46.90	36.098	83.699	6.0	1.7	19 26	17	53	B A C	0.11	0.30	0.00	0.80	0.0
TN, MASCOT QUAD															
850917	1625	8.06	35.490	84.044	10.7	1.8	23 34	15	64	B A B	0.15	0.30	0.00	0.50	0.0
TN, WHITEOAK FLATS QUAD; TN/NC BORDER															
850922	311	35.31	35.593	84.077	18.1	0.3	4 8	13	154	C B C	0.10	1.20	0.00	1.20	0.0
TN, TALLASSEE QUAD															
850922	2154	33.72	35.746	84.247	17.8	-0.1	4 6	9	142	B A C	0.10	0.80	0.00	1.10	0.0
TN, MEADOW QUAD															
850924	0 1	12.02	35.718	84.009	18.8	1.7	18 23	11	44	A A A	0.15	0.40	0.00	0.70	0.0
TN, BINFIELD QUAD															
850927	251	3.42	35.367	84.278	16.7	-0.1	4 7	17	199	C B D	0.11	1.30	0.00	1.10	0.0
TN, TELlico PLAINS QUAD															
851010	843	56.68	36.456	83.525	15.10	1.7	11 17	21	117	B B B	0.15	0.60	0.00	2.10	0.0
TN, TAZEWell QUAD															
851018	145	29.40	35.087	82.982	4.60	2.1	10 17	11	82	B A C	0.14	0.50	0.00	0.60	0.0
NC, REID QUAD; NC/SC BORDER															
851105	059	29.24	36.327	83.622	7.90	1.5	14 19	24	195	C B D	0.17	0.80	0.00	1.10	0.0
TN, DUTCH VALLEY QUAD															
851120	310	2.40	35.501	84.448	17.40	1.1	9 17	5	136	B A C	0.12	0.40	0.00	0.50	0.0
TN, SWEETWATER QUAD															
851122	1319	26.51	36.100	83.815	10.60	1.5	9 12	11	115	B A B	0.12	0.50	0.00	0.60	0.0
TN, JOHN SEVIER QUAD															
851123	1436	15.88	35.409	85.244	22.00	0.9	8 13	30	68	B A B	0.09	0.30	0.00	1.00	0.0
TN, BRAYTON QUAD															
851126	228	51.82	35.520	84.490	14.20	1.2	4 7	7	199	C A D	0.10	1.00	0.00	1.70	0.0
TN, SWEETWATER QUAD															
851128	2249	8.93	35.315	84.260	16.40	0.1	9 13	3	200	C B D	0.27	0.80	0.00	1.40	0.0
TN, TELlico PLAINS QUAD															
851208	445	58.06	35.787	84.047	16.70	1.5	10 17	20	82	B A B	0.14	0.40	0.00	0.90	0.0
TN, LOUISVILLE QUAD															
851211	1143	59.74	35.138	83.138	2.30	1.5	3 4	28	360	D D D	0.12	3.10	0.00	99.00	0.0
NC, GLENVILLE QUAD															
851217	9 4	39.82	35.776	84.051	15.40	0.6	4 7	19	187	C A D	0.08	0.70	0.00	1.20	0.0
TN, LOUISVILLE QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
851218	1223	29.44	35.834	84.604	25.60	2.1	14 25	28	56	B A B	0.11	0.30	0.00	0.50	0.0
TN, BACON GAP QUAD															
851219	3 2	49.86	34.908	85.672	11.90	1.5	9 14	30	145	C B C	0.17	0.60	0.00	1.50	0.0
AL, BRIDGEPORT QUAD; AL/TN/GA BORDER															
851220	1515	6.29	34.917	84.769	10.20	2.6	22 31	11	119	B A B	0.13	0.30	0.00	0.40	0.0
GA, BEAVERDALE QUAD; GA/TN BORDER															
851222	056	4.98	35.701	83.720	13.30	3.3	31 39	7	45	A A A	0.14	0.30	0.00	0.40	0.0
TN, WEAR COVE QUAD; FELT IN GATLINBURG AND AREA.															
851222	2238	30.44	34.794	82.952	2.30	1.8	4 6	63	226	D D D	0.19	2.40	0.00	99.00	0.0
SC, OLD PICKENS QUAD															
851222	2240	46.40	34.795	82.957	12.80	1.9	8 14	15	223	C B D	0.11	0.60	0.00	0.90	0.0
SC, OLD PICKENS QUAD															
860107	126	43.32	35.609	84.762	22.40	3.2	59 39	31	48	B A B	0.13	0.31	0.38	0.53	43.0
TN, DECATUR QUAD; FELT STRONGLY AT DECATUR, TN.															
860108	710	39.52	35.370	84.500	19.80	0.9	21 13	6	121	B A B	0.10	0.43	0.60	0.80	-119.0
TN, ETOWAH QUAD															
860108	854	18.37	35.310	84.439	15.40	1.8	39 32	2	46	A A A	0.14	0.26	0.36	0.61	-98.0
TN, MECCA QUAD															
860108	1539	59.01	35.606	84.756	21.10	1.2	16 11	32	124	B B B	0.13	0.44	1.04	2.31	-85.0
TN, DECATUR QUAD															
860112	135	30.64	34.532	85.285	9.80	1.7	29 10	17	121	B B B	0.14	0.65	0.89	0.88	-69.0
GA, TRION QUAD															
860117	045	59.94	35.191	84.369	16.70	0.8	15 11	16	182	C B D	0.14	0.66	1.04	1.43	-36.0
TN, FARNER QUAD; TN/NC BORDER															
860127	644	26.77	35.926	83.636	20.10	2.7	46 24	21	86	B A B	0.14	0.45	0.50	0.55	-73.0
TN, BOYDS CREEK QUAD															
860127	646	0.45	35.916	83.623	14.70	2.2	20 12	20	186	C B D	0.10	0.59	1.11	1.90	-91.0
TN, DOUGLAS DAM QUAD															
860129	738	36.67	35.836	83.862	18.40	0.1	10 8	21	155	C C C	0.13	0.81	1.13	3.50	-106.0
TN, WILDWOOD QUAD															
860130	1145	32.72	36.095	83.739	7.60	1.9	29 16	15	96	B B B	0.14	0.46	0.67	1.28	-130.0
TN, MASCOT QUAD															
860202	2219	36.54	35.098	84.706	16.30	1.4	27 21	16	70	A A A	0.12	0.34	0.37	0.64	-78.0
TN, PARKSVILLE QUAD															
860203	053	6.78	35.927	83.634	19.40	1.5	14 13	21	86	B A B	0.12	0.54	0.61	0.97	12.0
TN, BOYDS CREEK QUAD															
860208	3 9	18.89	35.339	85.253	22.30	1.1	26 19	27	68	B A B	0.12	0.31	0.44	0.85	-51.0
TN, HENSON GAP QUAD															
860213	1135	45.45	34.793	82.907	4.80	3.5	35 16	63	106	C B D	0.12	0.53	0.70	2.00	-17.0
SC, OLD PICKENS QUAD; FELT AT DUKE POWER, NEAR CLEMSON, SC.															
860219	243	37.02	34.854	85.283	14.90	1.8	36 13	52	93	D C D	0.12	0.31	0.54	45.19	-112.0
GA, KENSINGTON QUAD															
860219	757	11.28	35.833	84.105	11.40	1.5	32 17	20	95	B A B	0.13	0.39	0.48	0.52	-93.0
TN, LOUISVILLE QUAD															
860222	1020	15.09	35.675	84.148	10.10	0.4	17 12	6	135	B A C	0.13	0.50	0.63	0.84	26.0
TN, MEADOW QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
860301	4 9	15.87	34.807	82.950	23.20	1.6	3 6	61	224	D D D	0.23	1.13	3.14	3.58	9.0
SC, OLD PICKENS QUAD															
860325	358	36.24	35.231	84.471	12.80	0.4	12 8	11	196	C A D	0.08	0.57	0.68	0.71	4.0
TN, MC FARLAND QUAD															
860325	445	34.08	35.244	84.466	10.20	1.1	26 14	9	98	B A B	0.10	0.30	0.42	0.57	-5.0
TN, MC FARLAND QUAD															
860411	6 5	25.86	34.676	85.430	13.00	0.0	9 12	7	180	C B D	0.11	0.87	1.76	0.76	25.0
GA, CEDAR GROVE QUAD															
860413	2316	20.05	35.515	84.191	5.60	0.2	5 7	17	235	D C D	0.13	0.69	1.12	0.55	-129.0
TN, VONORE QUAD															
860419	740	52.97	35.187	85.510	27.30	3.0	28 56	28	74	B A B	0.11	0.31	0.44	0.78	-40.0
TN, WHITWELL QUAD															
860423	718	57.23	34.778	85.282	14.80	1.9	33 46	23	140	B A C	0.13	0.28	0.36	0.88	-133.0
GA, KENSINGTON QUAD															
860427	2230	26.44	35.919	83.729	19.70	2.1	22 26	14	72	A A A	0.12	0.32	0.39	0.64	-6.0
TN, BOYDS CREEK QUAD															
860501	121	20.59	35.150	84.677	16.40	1.3	20 25	20	65	B B B	0.13	0.35	0.43	1.20	-135.0
TN, BENTON QUAD															
860504	1925	40.18	35.510	84.201	16.90	1.2	19 22	17	102	B A B	0.10	0.25	0.44	0.76	-133.0
TN, VONORE QUAD															
860508	8 4	9.48	35.383	85.765	13.30	0.7	13 25	14	119	B A B	0.11	0.34	0.69	0.43	38.0
TN, CANE HOLLOW QUAD															
860513	1430	35.97	35.539	84.176	14.30	1.6	27 32	14	98	B A B	0.14	0.26	0.53	0.40	-127.0
TN, VONORE QUAD															
860518	218	5.21	35.508	83.642	15.70	0.9	10 16	20	141	C B C	0.08	0.30	1.00	1.00	-27.0
NC, THUNDERHEAD QUAD; NC/TN BORDER															
860519	2346	47.05	35.516	84.529	10.60	2.8	46 69	10	42	A A A	0.14	0.21	0.32	0.37	-130.0
TN, NIOTA QUAD															
860530	1744	24.60	35.666	84.188	15.80	1.4	18 29	2	106	B A B	0.13	0.43	0.45	0.56	29.0
TN, MEADOW QUAD															
860602	746	12.40	35.441	84.498	18.60	2.5	38 55	13	41	A A A	0.12	0.23	0.32	0.37	-121.0
TN, ENGLEWOOD QUAD															
860606	849	54.90	35.222	84.292	18.00	0.8	14 16	19	90	B A B	0.11	0.43	0.68	0.99	40.0
TN, FARNER QUAD; TN/NC BORDER															
860611	9 3	51.91	35.780	84.192	12.90	1.9	13 15	13	107	B B B	0.20	0.69	1.12	0.98	-38.0
TN, CONCORD QUAD															
860621	040	2.25	35.374	85.144	16.60	1.7	20 24	41	176	C C C	0.19	0.51	0.78	5.51	34.0
TN, SODDY QUAD															
860624	1922	42.03	35.990	83.931	24.30	2.9	40 47	8	59	A A A	0.15	0.30	0.35	0.57	16.0
TN, KNOXVILLE QUAD															
860624	2254	46.53	35.986	83.931	24.10	1.8	29 32	8	59	A A A	0.14	0.33	0.46	0.49	7.0
TN, KNOXVILLE QUAD															
860704	2155	9.75	36.060	83.656	18.10	1.1	10 16	23	177	C B C	0.14	0.45	0.64	1.08	-65.0
TN, MASCOT QUAD															
860705	2116	12.25	35.887	83.900	3.50	1.6	7 11	28	147	C B C	0.20	0.78	0.92	1.81	-7.0
TN, KNOXVILLE QUAD .															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
860706	057	51.12	34.741	82.904	4.70	1.5	7 12	69	235	D C D	0.21	0.95	2.38	3.90	-115.0
SC, SENECA QUAD; RESERVOIR ASSOCIATED															
860711	1426	14.75	34.937	84.987	13.00	3.7	29 38	18	64	B B B	0.16	0.32	0.41	0.39	36.0
GA, COHUTTA QUAD; GA/TN BORDER, WIDELY FELT THROUGHOUT AREA WITH MINOR DAMAGE															
860712	1316	41.21	36.003	84.087	3.80	1.8	9 16	22	87	C B C	0.20	0.51	0.65	0.98	31.0
TN, POWELL QUAD															
860712	1725	6.92	36.029	83.671	12.80	2.3	19 29	22	63	B A B	0.12	0.29	0.32	0.35	-92.0
TN, MASCOT QUAD															
860714	2231	19.78	34.759	82.917	2.10	2.5	14 21	67	223	D C D	0.29	0.95	2.74	2.87	-103.0
SC, OLD PICKENS QUAD; RESERVOIR ASSOCIATED SEQUENCE BEGINNING JUNE 11, 1986*															
860719	1231	53.57	34.953	84.993	13.50	2.4	19 31	17	122	B B B	0.18	0.37	0.55	0.41	-100.0
GA, COHUTTA QUAD; GA/TN BORDER															
860725	1243	55.10	35.634	84.253	14.20	1.5	4 8	5	199	D C D	0.12	0.75	2.95	1.41	-124.0
TN, LOUDON QUAD															
860807	1236	45.98	35.506	84.561	20.00	2.7	20 30	20	85	B B B	0.18	0.34	0.50	1.33	-132.0
TN, NIOTA QUAD															
860817	6 4	10.19	36.360	83.965	23.80	1.9	15 23	21	118	B B B	0.18	0.50	0.86	0.91	33.0
TN, WHITE HOLLOW QUAD															
860819	2051	26.05	36.291	85.020	29.80	2.9	22 30	50	108	B B B	0.15	0.45	0.63	1.77	-62.0
TN, WILDER QUAD; FELT IN JAMESTOWN, TN AREA															
860901	2347	7.29	35.519	84.517	14.80	0.7	7 11	19	151	C B C	0.19	0.81	0.89	1.92	-128.0
TN, NIOTA QUAD															
860917	832	9.72	34.725	85.270	10.30	1.8	22 38	22	102	C B C	0.27	0.46	0.63	0.90	34.0
GA, ESTELLE QUAD															
861018	831	38.80	34.946	81.172	22.70	2.9	12 20	62	147	D C D	0.26	0.79	1.82	6.32	-22.0
SC, ROCK HILL QUAD; FELT IN ROCK HILL, SC															
861026	819	33.34	35.903	83.917	18.90	1.2	8 11	4	146	C B C	0.19	0.75	0.97	2.28	25.0
TN, KNOXVILLE QUAD															
861101	859	57.49	35.001	82.159	4.00	2.2	16 25	31	77	C B C	0.28	0.67	1.02	1.37	-129.0
SC, INMAN QUAD															
861102	344	40.15	36.294	83.515	12.50	1.3	9 16	31	181	C A D	0.14	0.37	0.77	0.75	-110.0
TN, DUTCH VALLEY QUAD															
861102	17 4	47.12	35.761	84.191	11.70	1.5	17 27	11	74	B B A	0.20	0.41	0.53	0.53	10.0
TN, CONCORD QUAD															
861106	326	46.38	36.972	83.793	14.90	2.0	19 29	42	151	C C C	0.22	0.78	1.23	36.80	-99.0
KY, FOUNT QUAD															
861115	12 7	56.24	35.885	83.826	13.90	2.1	24 40	7	48	B B A	0.20	0.35	0.39	0.38	31.0
TN, SHOOKS GAP QUAD															
861116	19 8	36.07	35.935	84.424	21.50	1.7	14 24	11	80	A A A	0.15	0.38	0.47	0.60	22.0
TN, ELVERTON QUAD															
861121	1349	54.60	35.550	84.083	6.80	0.7	5 9	17	111	C C C	0.14	0.65	1.49	7.00	-114.0
TN, TALLASSEE QUAD															
861121	1850	34.22	35.725	83.555	14.50	1.8	21 35	21	54	B B B	0.25	0.44	0.55	0.50	-133.0
TN, GATLINBURG QUAD															
861124	1839	35.03	35.396	84.251	13.20	2.1	16 21	30	111	C B C	0.20	0.65	0.73	0.77	35.0
TN, MT VERNON QUAD															
861202	1147	40.32	35.758	84.197	16.50	0.1	4 6	10	217	C B D	0.12	1.30	1.63	2.26	-14.0
TN, CONCORD QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
861204	3 8	21.42	35.530	84.529	15.60	-0.2	7 10	10	178	C C C	0.24	0.85	2.91	1.77	-113.0
TN, NIOTA QUAD															
861211	14 5	50.18	34.889	82.887	9.00	2.8	16 21	9	75	B B A	0.27	0.79	1.25	1.50	-108.0
SC, SALEM QUAD; FELT IN SALEM, SC; RESERVOIR ASSOCIATED (LAKE KEOWEE)															
861211	14 7	11.51	34.898	82.880	8.50	3.0	18 25	9	79	B B B	0.26	0.76	0.88	0.88	-81.0
SC, SALEM QUAD; FELT IN SALEM, SC; RESERVOIR ASSOCIATED (LAKE KEOWEE)															
861214	8 3	47.11	34.936	82.880	10.50	1.3	6 12	8	209	D C D	0.28	1.53	2.29	1.85	-95.0
SC, SALEM QUAD; RESERVOIR ASSOCIATED (LAKE KEOWEE)															
861214	813	43.47	34.907	82.878	6.90	1.5	13 23	9	232	C B D	0.28	1.02	1.71	1.45	-108.0
SC, SALEM QUAD; RESERVOIR ASSOCIATED (LAKE KEOWEE)															
861221	1331	43.71	35.905	83.880	17.20	0.3	7 9	2	205	C A D	0.10	0.47	0.63	0.81	12.0
TN, KNOXVILLE QUAD															
861226	859	37.96	35.525	84.528	16.10	0.4	7 10	18	155	C B C	0.19	0.77	1.17	1.97	-121.0
TN, NIOTA QUAD															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
870102	410	27.42	35.603	84.849	19.12	1.4	MOR 15 26	15	63	B B A	0.16	0.38	0.46	0.75	-117.	
TN, DECATUR																
870112	6 0	23.61	35.283	85.448	9.74	1.8	MOR 19 36	35	65	C B C	0.27	0.44	0.56	0.95	-65.	
TN, DAUS																
870112	1856	2.90	35.508	84.253	16.02	2.1	MOR 24 43	18	41	B B B	0.21	0.32	0.45	0.82	-132.	
TN, MADISONVILLE																
870113	1056	30.09	35.561	84.178	8.98	0.3	MOR 4 7	12	150	C C C	0.22	1.22	4.98	9.01	-120.	
TN, VONORE																
870116	1441	54.91	35.845	84.800	17.88	0.9	MOR 14 21	37	144	C B C	0.15	0.38	0.47	2.33	-69.	
TN, RODDY																
870117	1012	3.46	36.253	83.995	25.99	0.4	MOR 11 13	15	310	C A D	0.11	0.44	0.57	0.86	-68.	
TN, WHITE HOLLOW																
870203	1032	36.43	34.818	86.315	9.63	2.4	MOR 22 34	25	70	C B C	0.27	0.50	0.65	0.95	-101.	
AL, HOLLYTREE																
870203	1431	27.98	35.497	84.452	11.52	1.3	MOR 14 20	19	78	B B B	0.24	0.54	0.77	0.90	-114.	
TN, ENGLEWOOD																
870208	113	4.98	36.062	83.774	14.11	0.8	MOR 5 7	16	202	C B D	0.07	0.46	0.79	0.74	-7.	
TN, JOHN SEVIER																
870210	9 2	45.98	34.971	85.003	8.43	1.5	MOR 20 35	16	91	B B B	0.25	0.41	0.55	1.08	-113.	
GA, RINGGOLD																
870211	820	0.59	35.250	84.386	21.48	0.6	MOR 8 14	11	103	B A B	0.11	0.35	0.55	0.67	-131.	
TN, MECCA																
870221	1014	2.65	35.585	84.430	15.66	0.7	MOR 9 15	22	123	B B B	0.13	0.38	0.45	1.12	-132.	
TN, SWEETWATER																
870221	2221	40.26	35.207	84.399	16.38	0.7	MOR 13 24	14	90	B B A	0.22	0.53	0.65	0.89	44.	
TN, MCFARLAND																
870222	1035	26.48	36.338	84.186	19.11	2.8	MOR 25 39	28	113	B B B	0.28	0.59	0.74	2.50	-130.	
TN, JACKSBORO																
870223	812	43.16	35.716	84.312	18.16	0.7	MOR 12 19	11	76	B B A	0.20	0.53	0.71	0.89	-96.	
TN, LOUDON																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
870224	958	10.59	34.733	85.333	9.92	2.4	MOR 20 35	18	150	C	B C	0.23	0.51	0.61	0.74	-99.
GA, ESTELLE																
870306	1030	40.37	35.998	84.098	4.99	1.6	MOR 21 33	21	164	C	B C	0.22	0.37	0.54	0.58	-106.
TN, BEARDEN																
870309	1717	52.98	36.023	86.039	3.17	0.4	MOR 10 13	17	192	C	B D	0.17	0.69	1.50	1.06	-124.
TN, ALEXANDRIA																
870313	1955	22.24	35.665	84.219	6.74	1.9	MOR 19 33	1	53	B	B A	0.28	0.48	0.67	0.67	-118.
TN, MEADOW																
870314	2041	58.14	35.778	84.105	17.30	1.5	MOR 19 34	16	63	B	B A	0.18	0.31	0.39	0.65	-105.
TN, LOUISVILLE																
870316	5 0	23.89	35.271	85.259	21.49	0.8	MOR 13 21	26	98	B	A B	0.14	0.34	0.44	0.86	-89.
TN, HENSON																
870324	2013	42.70	35.528	84.278	15.39	1.4	MOR 16 24	16	135	C	B C	0.16	0.30	0.48	0.84	-140.
TN, MADISONVILLE																
870327	729	30.46	35.556	84.229	18.52	4.2	MOR 28 29	11	42	B	B A	0.15	0.40	0.52	1.00	29.
TN, VONORE																
870327	735	38.92	35.555	84.232	16.69	1.6	MOR 15 22	12	48	A	A A	0.14	0.32	0.49	0.68	-123.
TN, VONORE; aftershock of 870327 07:29 event																
870327	753	37.27	35.557	84.227	15.89	-0.2	MOR 5 6	12	360	C	B D	0.11	0.91	1.53	1.87	28.
TN, VONORE; aftershock of 870327 07:29 event																
870327	1623	4.96	35.546	84.230	14.95	1.5	MOR 22 33	2	85	B	B A	0.20	0.34	0.58	0.65	-129.
TN, VONORE; aftershock of 870327 07:29 event																
870328	1530	16.62	35.657	84.390	8.90	0.6	MOR 11 14	13	227	C	B D	0.19	0.55	0.87	2.13	34.
TN, PHILADELPHIA; aftershock of 870327 07:29 event																
870329	8 4	51.23	35.558	84.220	15.80	-1.2	MOR 4 7	2	225	D	C D	0.10	1.06	3.00	1.39	5.
TN, VONORE; aftershock of 870327 07:29 event																
870401	817	21.09	35.546	84.228	15.34	1.0	MOR 19 25	3	42	A	A A	0.12	0.39	0.55	0.36	-127.
TN, VONORE; aftershock of 870327 07:29 event																
870401	821	54.60	36.609	83.989	27.50	-0.2	MOR 4 6	29	273	C	A D	0.02	0.24	0.47	0.63	-79.
TN, EAGAN																
870401	1052	31.88	35.551	84.217	14.33	-1.2	MOR 5 6	8	115	C	C B	0.06	2.10	2.31	0.98	-98.
TN, VONORE; aftershock of 870327 07:29 event																
870403	1212	20.18	35.590	84.440	15.00	0.2	MOR 3 6	7	276	D	C D	0.42	0.61	1.50	0.65	15.
TN, SWEETWATER; aftershock of 870327 07:29 event																
870403	2135	34.98	35.587	84.589	7.24	1.2	MOR 24 36	15	81	C	C C	0.34	0.60	0.88	1.94	-113.
TN, NIOTA; aftershock of 870327 07:29 event																
870404	031	24.03	35.471	84.337	9.62	0.3	MOR 9 18	3	122	B	A B	0.12	0.43	0.67	0.69	45.
TN, MT VERNON; aftershock of 870327 07:29 event																
870404	1423	55.08	35.806	83.868	20.67	-0.3	MOR 8 12	19	142	C	B C	0.10	0.39	0.73	1.30	-128.
TN, WILDWOOD																
870405	7 9	5.50	35.458	84.439	9.12	-1.2	MOR 5 6	8	360	D	C D	0.14	1.53	3.43	4.22	21.
TN, ENGLEWOOD; aftershock of 870327 07:29 event																
870408	2332	58.85	35.536	84.102	21.12	-0.6	MOR 9 10	4	213	C	B D	0.07	0.80	1.51	0.46	-92.
TN, YALLASSEE; aftershock of 870327 07:29 event																
870409	131	23.39	35.561	84.230	16.80	2.6	MOR 39 61	1	36	B	B A	0.18	0.27	0.37	0.37	-128.
TN, VONORE; aftershock of 870327 07:29 event; felt in Vonore, TN area																
870409	136	7.63	35.575	84.243	16.43	-1.2	MOR 7 7	5	127	B	B B	0.02	0.36	0.71	0.25	2.
TN, VONORE; aftershock of 870327 07:29 event																

DATE	ORIGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
870413	1122 30.58 35.658	84.604	10.77	-0.1	MOR	5 8	23	319	D	C D	0.11	1.16	2.53	5.88	24.	
TN, PATTIE GAP; aftershock of 870327 07:29 event																
870414	2228 32.05 34.678	85.092	11.60	1.6	MOR	8 13	39	146	C	B C	0.19	0.64	0.89	1.54	28.	
GA, VILLANOW																
870418	1843 25.25 35.323	84.542	13.95	-0.2	MOR	9 12	8	235	C	B D	0.16	0.70	1.24	1.19	-110.	
TN, ETOWAH; aftershock of 870327 07:29 event																
870420	2336 49.16 35.556	84.228	16.07	-1.5	MOR	9 10	3	155	C	B C	0.09	0.57	0.78	0.72	18.	
TN, VONORE; aftershock of 870327 07:29 event																
870423	2331 29.97 34.909	84.568	14.74	1.8	MOR	26 38	21	136	C	B C	0.19	0.44	0.52	1.28	-79.	
GA, HEMP TOP																
870428	3 2 38.49 35.513	84.560	11.91	0.9	MOR	19 24	15	111	B	B B	0.25	0.61	0.67	1.02	-101.	
TN, NIOTA; aftershock of 870327 07:29 event																
870428	3 6 52.99 35.515	84.680	15.00	-0.9	MOR	3 4	40	360	D	D D	0.08	9.31	35.40	99.00	-112.	
TN, TRANQUILLITY; aftershock of 870327 07:29 event																
870428	339 38.22 35.521	84.552	11.98	2.0	MOR	23 36	16	67	B	B B	0.18	0.34	0.45	0.51	-113.	
TN, NIOTA; aftershock of 870327 07:29 event																
870430	649 25.29 35.644	84.797	14.97	0.8	MOR	11 16	16	142	C	B C	0.21	0.68	0.74	1.14	-37.	
TN, SPRING CITY																
870505	2 3 30.61 36.398	84.079	18.87	1.2	MOR	8 11	31	210	C	B D	0.14	0.49	1.47	2.32	-59.	
TN, LA FOLLETTE																
870505	1941 22.50 35.606	84.234	4.62	0.7	MOR	7 10	7	195	C	A D	0.13	0.52	0.87	0.78	-110.	
TN, VONORE																
870509	910 8.30 34.721	85.232	13.60	1.5	MOR	16 27	24	107	B	B B	0.25	0.65	0.72	0.81	30.	
GA, CATLETT																
870512	1217 59.57 35.988	83.998	13.30	1.0	MOR	6 12	13	138	B	A C	0.13	0.49	0.63	0.84	42.	
TN, KNOXVILLE																
870516	055 7.54 36.287	83.773	19.09	0.9	MOR	17 29	11	154	C	B C	0.17	0.39	0.44	0.51	-126.	
TN, MAYNARDVILLE																
870522	736 22.30 35.036	85.041	15.34	0.5	MOR	11 17	24	101	B	B B	0.17	0.43	0.73	1.47	-129.	
TN, OOLTEWAH																
870525	1117 44.25 35.520	84.502	13.09	0.4	MOR	5 8	20	146	C	B C	0.15	0.93	1.21	2.28	-43.	
TN, NIOTA																
870529	724 20.91 35.708	84.806	20.36	-0.2	MOR	4 7	20	159	C	B C	0.13	0.94	1.41	2.29	5.	
TN, SPRING CITY																
870601	250 22.50 35.568	84.253	14.86	1.6	MOR	21 38	12	62	B	B A	0.18	0.31	0.40	0.64	-133.	
TN, MADISONVILLE																
870602	1614 27.55 35.677	85.509	14.77	1.2	MOR	7 12	10	136	C	B C	0.16	0.64	0.82	0.82	-101.	
TN, WELCHLAND																
870604	1719 41.02 36.623	85.269	18.18	3.0	MOR	22 31	50	75	D	D D	0.15	13.73	21.75	99.00	-49.	
TN, DALE HOLLOW RESERVOIR SE																
870609	2020 54.96 34.550	85.332	9.82	1.2	MOR	7 11	15	149	C	B C	0.17	0.84	1.47	1.18	-29.	
GA, TRION																
870614	617 29.80 35.286	84.235	16.69	1.5	MOR	11 15	21	143	C	B C	0.18	0.63	0.79	1.43	-80.	
TN, BALD RIVER FALLS																
870617	1224 43.67 35.681	85.403	15.22	1.9	MOR	18 31	18	54	B	B B	0.21	0.43	0.47	1.03	-67.	
TN, SPENCER																
870619	1 5 14.08 36.431	82.619	12.10	2.7	MOR	14 20	24	184	C	B D	0.09	0.26	1.42	0.47	-106.	
TN, SULLIVAN GARDENS																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
870704	1047	24.96	35.540	84.445	16.14	0.9	MOR 15 23	24	121	B B B	0.21	0.44	0.68	1.35	-134.	
TN, SWEETWATER																
870707	15 3	33.72	35.560	84.182	14.33	0.7	MOR 7 12	12	214	C B D	0.27	1.01	1.82	1.75	45.	
TN, VONORE																
870709	1 3	54.07	34.782	82.954	5.00	1.9	MOR 15 22	17	224	D C D	0.36	1.16	1.44	1.19	-126.	
SC, OLD PICKENS; reservoir associated																
870711	0 4	29.46	36.102	83.817	25.52	3.6	MOR 29 32	11	48	A A A	0.12	0.30	0.44	0.73	-118.	
TN, JOHN SEVIER; felt in Knoxville, TN and surrounding counties																
870711	022	18.69	36.106	83.816	22.52	1.9	MOR 30 50	11	48	B B A	0.19	0.32	0.33	0.59	36.	
TN, JOHN SEVIER; aftershock of 870711 00:04 event																
870711	122	20.55	34.812	82.987	5.93	1.2	MOR 5 8	60	275	D C D	0.18	1.08	2.00	6.96	-118.	
SC, OLD PICKENS; reservoir associated																
870711	248	5.94	36.101	83.819	23.82	3.3	MOR 29 43	11	47	A A A	0.14	0.25	0.33	0.68	34.	
TN, JOHN SEVIER; felt in Knoxville, TN and surrounding counties; aftershock of 870711 00:04 event																
870711	321	53.50	34.794	82.999	2.98	1.2	MOR 5 8	62	222	D C D	0.25	1.73	3.68	7.25	-118.	
SC, OLD PICKENS; reservoir associated																
870711	2224	10.51	35.877	83.655	15.27	0.6	MOR 9 13	18	117	B B B	0.16	0.63	0.78	1.52	28.	
TN, BOYDS CREEK																
870714	23 2	12.00	35.801	83.987	15.95	0.3	MOR 9 12	17	143	C B C	0.18	0.69	0.84	1.87	-87.	
TN, MARYVILLE																
870717	819	11.15	35.986	83.858	13.46	2.2	MOR 36 59	15	32	B B B	0.17	0.24	0.28	0.31	-135.	
TN, SHOOKS GAP																
870717	1530	25.40	36.092	83.811	22.17	0.5	MOR 9 13	9	123	B A B	0.11	0.47	0.74	0.67	-80.	
TN, JOHN SEVIER																
870719	2332	38.05	34.825	85.070	12.92	0.2	MOR 4 8	30	155	C B C	0.08	0.39	0.76	2.63	-107.	
GA, TUNNEL HILL; Georgia/Tennessee state line																
870722	7 2	9.85	35.678	85.408	15.29	2.1	MOR 25 42	17	54	B B B	0.19	0.36	0.48	0.78	-107.	
TN, SPENCER																
870728	2357	59.61	35.251	84.126	6.51	-0.2	MOR 7 10	31	155	C C C	0.23	0.95	1.13	38.88	44.	
TN, BALD RIVER FALLS																
870801	740	12.91	35.541	84.428	15.82	-0.6	MOR 12 17	1	161	B A C	0.15	0.41	0.57	0.62	38.	
TN, SWEETWATER																
870808	041	47.78	35.071	84.846	18.29	0.4	MOR 7 10	3	184	C B D	0.13	0.65	1.12	1.18	-28.	
TN, FELKER																
870813	7 4	19.03	34.985	85.143	16.57	0.3	MOR 7 11	19	183	C B D	0.15	0.71	1.04	1.78	-93.	
GA, EAST RIDGE																
870813	1337	0.82	35.625	84.312	14.65	1.3	MOR 18 30	10	101	B B B	0.17	0.29	0.52	0.33	-129.	
TN, LOUDON																
870814	221	26.96	35.439	84.646	9.72	0.9	MOR 13 18	10	97	B A B	0.14	0.36	0.54	0.73	-123.	
TN, RICEVILLE																
870814	1948	19.66	35.416	84.989	17.99	0.6	MOR 12 18	19	170	B A C	0.14	0.46	0.55	0.79	-133.	
TN, BIG SPRING																
870819	211	29.69	35.731	84.128	10.67	0.3	MOR 4 7	10	252	C B D	0.09	0.60	0.83	1.53	-36.	
TN, MEADOW																
870822	20 3	36.57	35.651	84.171	25.24	1.4	MOR 15 22	4	88	A A A	0.10	0.24	0.33	0.41	-119.	
TN, MEADOW																
870825	1053	8.46	35.633	84.032	13.83	1.8	MOR 21 30	17	53	B B B	0.22	0.44	0.58	0.51	-101.	
TN, BINFIELD																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
870901 23 2	49.43 35.514	84.396	21.07	3.1	MOR	31 48	4	37	B B A	0.19	0.34	0.42	0.64	-127.		
TN, SWEETWATER; felt in Athens, TN area																
870901 2315	42.44 35.514	84.397	19.19	1.2	MOR	17 27	22	64	B B B	0.18	0.37	0.48	0.83	39.		
TN, SWEETWATER																
870901 2328	26.66 35.511	84.409	16.40	-0.2	MOR	5 6	25	360	D C D	0.10	0.82	1.43	3.00	25.		
TN, SWEETWATER																
870902 757	21.16 34.748	85.203	11.96	1.8	MOR	22 38	18	109	B B B	0.25	0.48	0.56	0.69	37.		
GA, CATLETT																
870905 2013	16.54 35.559	84.905	18.97	1.3	MOR	15 24	17	79	A A A	0.14	0.32	0.50	1.02	-3.		
TN, EVENSVILLE																
870906 846	40.39 35.029	84.928	10.55	1.4	MOR	13 20	25	78	C B C	0.22	0.57	0.65	1.19	-56.		
TN, MCDONALD																
870907 6 6	54.16 34.987	84.638	13.27	1.2	MOR	16 25	14	123	B B B	0.24	0.49	0.92	0.69	33.		
GA, TENNGA; Georgia/Tennessee state line																
870911 1822	43.65 35.105	82.981	5.71	2.2	MOR	16 25	11	85	C C B	0.27	0.56	0.69	2.97	-27.		
NC, REID																
870916 2132	32.34 36.078	83.696	17.62	1.3	MOR	5 8	19	173	C C C	0.20	1.50	1.78	3.61	-88.		
TN, MASCOT																
870919 322	50.07 35.534	84.698	17.29	1.2	MOR	13 20	3	104	B B B	0.19	0.53	0.58	0.68	-81.		
TN, TRANQUILLITY																
870919 2156	44.16 35.853	82.049	6.24	2.0	MOR	18 31	25	63	C C C	0.33	0.62	0.72	2.40	-124.		
NC, LITTLE SWITZERLAND																
870922 1723	50.08 35.626	84.310	19.60	3.3	MOR	28 37	10	50	B B A	0.19	0.37	0.45	0.99	-104.		
TN, LOUDON; felt in Vonore, Philadelphia, Binfield and Madisonville, TN																
871002 211	36.30 35.145	84.736	8.82	0.7	MOR	4 6	31	243	D D D	0.31	2.72	7.43	12.78	21.		
TN, BENTON																
871005 20 9	50.55 35.380	84.099	12.69	2.1	MOR	21 37	19	64	B B B	0.23	0.37	0.45	0.65	-118.		
TN, WHITEOAK FLATS																
871010 1139	11.49 35.708	84.554	19.27	0.7	MOR	7 11	26	237	C A D	0.05	0.21	0.51	0.55	-117.		
TN, PATTIE GAP																
871012 851	45.53 35.846	84.023	0.46	-0.8	MOR	3 4	26	360	D C D	0.15	1.25	3.04	99.00	-71.		
TN, LOUISVILLE																
871019 1 5	32.91 35.876	82.063	4.01	1.0	MOR	5 9	25	127	C C C	0.21	0.72	2.23	2.93	-130.		
NC, SPRUCE PINE																
871020 2249	55.94 35.844	84.444	12.55	2.4	MOR	24 42	15	54	B B B	0.22	0.36	0.46	0.47	-122.		
TN, CAVE CREEK																
871023 940	7.19 35.830	84.162	10.85	1.6	MOR	16 25	16	56	B B B	0.22	0.45	0.53	0.72	-94.		
TN, CONCORD																
871023 1052	51.67 34.889	84.501	6.45	1.7	MOR	12 19	16	161	C B C	0.16	0.42	0.62	1.81	-88.		
GA, HEMP TOP																
871104 2030	45.69 34.697	85.265	12.72	2.8	MOR	26 40	21	86	B B B	0.18	0.37	0.59	0.57	-93.		
GA, ESTELLE; felt in Lafayette, GA area																
871104 2217	39.24 35.539	83.972	16.42	0.6	MOR	9 15	22	113	B B B	0.20	0.59	0.78	1.83	-82.		
TN, CALDERWOOD																
871104 2219	8.27 35.542	83.970	15.91	1.5	MOR	15 24	22	90	B B B	0.24	0.53	0.73	1.83	-68.		
TN, CALDERWOOD																
871108 515	7.16 34.760	85.369	9.50	0.5	MOR	11 18	18	103	B B B	0.23	0.54	0.91	1.14	6.		
GA, KENSINGTON																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
871108	846	51.15	36.301	83.479	10.84	1.5	MOR 9 13	28	180	C B D	0.26	0.84	1.41	1.85	-106.	
TN, AVONDALE																
871110	838	22.92	35.465	85.140	11.00	1.7	MOR 18 18	42	56	C B C	0.28	0.86	0.99	1.61	-85.	
TN, BRAYTON																
871110	2356	36.19	35.225	84.535	14.45	0.7	MOR 6 11	13	168	C B C	0.17	0.81	1.40	0.74	-15.	
TN, OSWALD DOME																
871111	7 2	40.29	35.699	84.144	19.07	1.8	MOR 22 41	7	43	B B A	0.21	0.35	0.47	0.64	-123.	
TN, MEADOW																
871115	643	51.08	35.737	84.297	7.43	-0.1	MOR 4 7	11	160	C B C	0.07	0.37	0.63	1.12	-14.	
TN, LOUDON																
871118	559	11.28	35.662	83.616	5.57	0.0	MOR 3 5	14	232	D C D	0.13	1.95	15.19	16.32	17.	
TN, GATLINBURG																
871121	1415	7.09	35.568	84.176	12.37	-0.1	MOR 3 5	11	240	D C D	0.12	1.65	5.85	7.26	-120.	
TN, VONORE																
871127	1858	20.65	36.853	83.098	25.16	2.8	MOR 27 28	53	71	C B D	0.13	0.48	0.88	1.60	-84.	
KY, PENNINGTON GAP; felt in Harlan, KY and Pennington Gap, VA area																
871127	1858	29.34	36.852	83.110	26.78	3.5	MOR 26 35	57	71	C B D	0.14	0.29	0.66	1.87	-89.	
KY, PENNINGTON GAP; felt in Harlan, KY and Pennington Gap, VA area;																
871128	1525	1.52	35.552	84.227	11.19	0.0	MOR 3 6	13	191	D D D	0.12	1.61	8.07	5.75	30.	
TN, VONORE																
871129	210	51.55	36.854	83.104	9.29	1.8	MOR 6 10	53	226	C B D	0.12	0.74	1.49	1.17	-102.	
KY, PENNINGTON GAP																
871129	1520	35.05	35.591	84.023	21.29	0.9	MOR 11 17	19	103	B B B	0.19	0.57	0.66	1.17	-101.	
TN, TALLASSEE																
871130	7 2	44.14	36.096	83.802	20.60	0.7	MOR 7 10	12	194	C B D	0.19	1.07	1.30	1.76	-85.	
TN, JOHN SEVIER																
871201	814	59.75	35.397	84.290	13.61	0.4	MOR 10 13	17	184	C A D	0.14	0.45	0.83	0.71	40.	
TN, MT VERNON																
871201	1540	3.14	35.729	83.966	10.46	1.3	MOR 6 8	19	222	C B D	0.10	0.48	0.91	1.80	-106.	
TN, BLOCKHOUSE																
871203	422	36.13	35.830	84.683	24.24	-1.1	MOR 5 8	24	263	D C D	0.15	1.01	1.39	2.98	-97.	
TN, ROCKWOOD																
871206	1453	5.77	34.761	85.271	8.66	2.9	MOR 31 55	24	58	C B C	0.22	0.32	0.39	0.60	-110.	
GA, KENSINGTON; felt in Lafayette, GA area																
871207	4 4	48.31	36.014	84.433	22.47	1.9	MOR 19 36	16	75	A A A	0.14	0.30	0.32	0.57	-106.	
TN, PETROS																
871208	928	7.26	34.760	85.215	11.96	1.3	MOR 13 22	27	160	C B C	0.26	0.60	1.04	1.12	-131.	
GA, NICKAJACK GAP																
871211	415	10.93	35.234	84.248	8.32	-0.1	MOR 3 5	21	280	D D D	0.24	2.12	17.41	49.30	5.	
NC, UNAKA																
871211	630	45.49	35.530	84.683	16.10	0.7	MOR 11 17	4	143	C B C	0.20	0.57	0.89	0.84	-131.	
TN, TRANQUILLITY																
871213	039	30.13	35.382	84.486	20.60	0.8	MOR 13 20	7	94	B B B	0.25	0.72	0.86	1.04	-114.	
TN, ENGLEWOOD																
871214	713	20.13	35.762	84.208	19.52	1.6	MOR 21 35	11	49	B B A	0.17	0.33	0.38	0.55	-132.	
TN, CONCORD																
871215	1020	21.08	35.775	84.381	19.02	0.4	MOR 7 12	16	157	B A C	0.08	0.37	0.47	0.53	40.	
TN, CAVE CREEK																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
871216	1122	41.98	35.644	84.142	16.01	0.5	MOR	6 10	7	155	C B C	0.16	0.70	2.66	1.95	-113.
TN, MEADOW																
871218	8 8	59.36	36.151	86.100	15.34	1.3	MOR	15 24	29	67	B B B	0.18	0.48	0.72	2.51	-20.
TN, NEW MIDDLETON																
871218	2320	17.41	35.104	82.970	9.08	2.7	MOR	15 23	28	177	C C C	0.30	0.73	1.25	1.36	-112.
NC, REID																
871223	6 4	29.41	35.281	84.219	7.24	0.5	MOR	5 8	22	215	D C D	0.13	0.69	1.76	10.99	7.
TN, BALD RIVER FALLS																
871226	727	43.42	35.035	84.783	13.35	2.8	MOR	23 39	22	50	B B B	0.18	0.33	0.40	0.46	12.
TN, FELKER																
871229	1339	10.94	35.863	84.002	20.59	0.9	MOR	10 19	13	155	B A C	0.12	0.38	0.59	0.75	24.
TN, LOUISVILLE																
880102	324	50.97	35.007	84.356	6.44	-0.3	MOR	3 5	33	239	D C D	0.13	2.05	3.30	99.00	-10.
TN, ISABELLA																
880102	1743	58.39	35.590	84.268	11.74	-1.0	MOR	3 5	10	181	D C D	0.03	1.86	7.50	6.54	-123.
TN, MADISONVILLE																
880103	2247	21.40	35.046	84.506	11.74	0.3	MOR	3 4	25	208	D C D	0.15	1.95	3.50	18.10	25.
TN, CANEY CREEK																
880104	557	30.22	35.004	84.345	7.77	0.6	MOR	3 4	34	360	D C D	0.12	2.27	3.23	48.47	-22.
TN, ISABELLA																
880105	1232	14.67	35.010	84.373	5.71	-0.4	MOR	3 5	32	242	C B D	0.11	0.72	0.89	61.49	-38.
TN, ISABELLA																
880105	1338	50.74	35.021	84.393	10.28	-0.2	MOR	3 4	31	360	D C D	0.00	2.25	3.76	24.13	-3.
TN, DUCKTOWN																
880108	2327	51.52	35.282	84.183	11.40	1.2	MOR	12 16	25	299	C B D	0.24	0.73	1.01	1.24	-134.
TN, BALD RIVER FALLS																
880108	2347	10.00	35.290	84.202	14.97	2.3	MOR	27 47	23	75	B B B	0.25	0.45	0.56	1.60	-128.
TN, BALD RIVER FALLS																
880109	0 3	28.66	35.282	84.186	15.22	1.1	MOR	11 17	25	101	C C B	0.23	0.75	0.82	2.69	29.
TN, BALD RIVER FALLS																
880109	016	55.41	35.286	84.194	12.64	2.9	MOR	28 51	24	68	B B B	0.27	0.42	0.53	0.58	-128.
TN, BALD RIVER FALLS																
880109	024	36.83	35.281	84.183	12.09	1.8	MOR	13 21	25	102	C B C	0.27	0.64	0.80	1.13	-110.
TN, BALD RIVER FALLS																
880109	1 7	40.62	35.276	84.200	13.84	3.3	MOR	28 48	24	69	C C B	0.37	0.72	0.83	0.96	39.
TN, BALD RIVER FALLS																
880109	115	5.25	35.296	84.198	7.82	1.8	MOR	14 20	24	99	C B C	0.25	0.61	0.72	1.77	-102.
TN, BALD RIVER FALLS																
880109	1921	4.64	35.299	84.202	14.85	1.0	MOR	6 9	23	299	D C D	0.17	0.82	1.87	2.97	-134.
TN, BALD RIVER FALLS																
880109	2211	24.45	35.285	84.180	13.64	1.4	MOR	13 18	25	223	D C D	0.40	1.10	1.30	1.34	35.
TN, BALD RIVER FALLS																
880110	410	3.59	35.024	84.381	7.88	0.1	MOR	3 5	32	247	D C D	0.18	1.74	3.11	36.96	17.
TN, DUCKTOWN																
880110	432	3.51	35.005	84.386	8.69	-0.8	MOR	3 5	30	249	D C D	0.02	1.96	3.22	29.43	3.
TN, DUCKTOWN																
880110	1322	58.08	35.285	84.178	6.03	0.2	MOR	5 7	26	300	D C D	0.14	1.05	1.75	77.02	32.
TN, BALD RIVER FALLS																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
880111 1 1	46.96 35.020	84.387	8.22	-0.4	MOR	3 5	31	246	D	C D	0.04	1.81	3.16	31.85	8.	
TN, DUCKTOWN																
880111 1221	59.07 35.467	84.259	19.00	1.0	MOR	11 18	17	125	C	C B	0.33	0.89	1.70	2.21	-120.	
TN, MT VERNON																
880113 2353	30.68 35.022	84.383	6.04	-0.8	MOR	3 5	32	247	D	C D	0.12	2.02	3.08	99.00	10.	
TN, DUCKTOWN																
880113 2354	5.97 35.010	84.391	12.27	-0.5	MOR	3 5	30	247	D	C D	0.13	2.03	3.20	15.64	6.	
TN, DUCKTOWN																
880114 247	7.67 35.005	84.379	7.65	0.5	MOR	3 6	31	134	C	C C	0.20	0.60	0.86	12.58	-19.	
TN, DUCKTOWN																
880114 1026	57.83 35.021	84.398	8.80	-0.3	MOR	3 5	30	243	D	C D	0.11	1.83	2.57	26.98	-15.	
TN, DUCKTOWN																
880114 2147	11.13 35.013	84.376	7.01	-0.5	MOR	3 5	32	250	D	C D	0.07	2.06	3.20	69.10	6.	
TN, DUCKTOWN																
880115 125	14.80 35.009	84.366	10.50	-0.4	MOR	3 5	32	253	D	C D	0.05	1.93	2.91	20.06	9.	
TN, ISABELLA																
880115 135	31.28 35.011	84.363	6.77	-0.4	MOR	3 5	33	253	D	C D	0.14	2.48	3.15	97.68	-8.	
TN, ISABELLA																
880115 238	30.92 35.009	84.394	19.25	-0.8	MOR	3 5	30	246	D	C D	0.07	2.85	4.15	15.74	4.	
TN, DUCKTOWN																
880116 1913	3.13 35.002	84.378	6.00	0.1	MOR	3 6	31	135	C	C C	0.08	0.29	0.43	25.51	-3.	
TN, DUCKTOWN																
880118 547	52.00 35.160	84.694	9.20	1.4	MOR	3 5	28	234	D	D D	0.06	1.60	10.43	5.63	-74.	
TN, BENTON																
880118 21 5	35.03 35.539	84.140	6.25	0.2	MOR	4 6	15	255	D	C D	0.13	0.20	1.61	7.06	-120.	
TN, VONORE																
880124 2136	11.99 35.284	84.278	5.10	-0.2	MOR	4 5	17	344	D	D D	0.24	2.43	10.46	6.14	23.	
TN, TELlico PLAINS																
880204 849	30.00 35.007	84.375	5.66	-0.1	MOR	3 5	31	251	D	C D	0.07	1.71	1.87	9.20	-115.	
TN, DUCKTOWN																
880207 839	29.25 36.331	83.512	14.94	1.2	MOR	8 12	30	195	D	C D	0.21	0.54	1.65	6.11	-106.	
TN, DUTCH VALLEY																
880211 2213	11.87 35.468	84.311	20.27	2.3	MOR	29 53	13	50	B	B A	0.19	0.27	0.40	0.64	42.	
TN, MT VERNON																
880212 1447	38.63 35.732	83.991	16.98	2.1	MOR	21 36	21	56	B	B B	0.21	0.39	0.50	1.05	-113.	
TN, BLOCKHOUSE																
880213 553	1.40 35.354	84.667	12.44	2.5	MOR	28 50	1	33	B	B A	0.19	0.28	0.33	0.34	38.	
TN, CALHOUN																
880214 313	25.88 34.997	84.411	13.16	-0.6	MOR	3 4	28	360	D	C D	0.14	2.28	3.84	16.14	-9.	
GA, EPWORTH																
880214 4 4	52.25 35.592	84.329	12.58	1.6	MOR	23 31	10	68	B	B A	0.16	0.27	0.40	0.37	-124.	
TN, MADISONVILLE																
880214 1140	46.94 36.085	83.598	12.06	1.9	MOR	9 14	25	155	C	B C	0.20	0.66	0.81	1.20	-33.	
TN, NEW MARKET																
880216 1526	54.70 36.617	82.288	10.86	3.2	MOR	16 24	24	180	D	C D	0.32	0.80	2.02	1.29	-96.	
TN, BLOUNTVILLE																
880217 1130	24.07 36.265	83.455	1.93	0.7	MOR	3 5	28	219	D	C D	0.07	2.45	18.19	99.00	-107.	
TN, AVONDALE																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
880218	037 45.50	35.340	83.836	6.05	3.5	MOR	36 52	36	48	C B C	0.28	0.42	0.55	1.50	45.	
	NC, ROBBINSVILLE															
880220	2031 2.39	35.862	83.604	21.27	1.9	MOR	19 32	18	63	B B A	0.15	0.29	0.39	0.54	-110.	
	TN, PIGEON FORGE															
880302	518 29.34	35.223	84.229	16.58	-0.2	MOR	6 8	24	196	C B D	0.08	0.44	0.63	1.65	32.	
	NC, UNAKA															
880302	1828 10.55	36.299	83.483	10.38	2.0	MOR	23 41	29	97	C B C	0.20	0.32	0.48	-0.74	-106.	
	TN, AVONDALE															
880304	655 9.86	35.000	84.390	12.85	0.2	MOR	3 5	30	249	D C D	0.09	1.92	3.09	13.10	2.	
	TN, DUCKTOWN															
880306	7 6 28.63	34.970	85.162	13.18	1.5	MOR	18 28	17	69	C C B	0.34	0.67	0.92	0.99	-91.	
	GA, EAST RIDGE															
880311	1639 32.68	35.811	83.985	14.96	2.6	MOR	20 36	26	136	C B C	0.18	0.33	0.61	1.09	-104.	
	TN, MARYVILLE															
880331	245 29.63	35.200	84.188	9.65	1.7	MOR	19 30	14	93	B B B	0.24	0.52	0.58	1.26	22.	
	NC, UNAKA															
880402	010 10.88	35.577	84.054	20.91	0.3	MOR	3 6	17	162	C C C	0.10	1.22	3.75	3.85	-105.	
	TN, TALLASSEE															
880402	1718 35.12	35.536	84.048	8.57	1.3	MOR	6 10	21	107	C B C	0.09	0.35	0.66	1.55	-97.	
	TN, TALLASSEE															
880414	542 35.54	35.504	83.419	5.58	0.8	MOR	7 10	29	111	C B C	0.19	0.39	0.45	1.94	-14.	
	NC, CLINGMANS DOME															
880423	1 1 16.64	35.781	84.208	19.30	2.7	MOR	26 41	13	51	B B A	0.15	0.29	0.33	0.44	-132.	
	TN, CONCORD															
880424	0 8 47.61	36.112	83.744	16.44	2.7	MOR	24 44	13	101	B A B	0.13	0.23	0.29	0.47	-102.	
	TN, MASCOT															
880426	018 0.06	35.022	86.324	11.06	1.7	MOR	13 22	37	119	C B C	0.17	0.36	0.79	0.80	-113.	
	TN, HUNTLAND															
880501	034 52.23	35.145	84.696	13.83	-0.6	MOR	7 11	28	128	B A C	0.10	0.35	0.48	0.66	3.	
	TN, BENTON															
880502	1113 32.03	36.105	83.745	15.86	0.4	MOR	12 16	14	222	C A D	0.14	0.57	0.58	0.93	-70.	
	TN, MASCOT															
880505	819 26.60	34.933	85.104	11.32	2.2	MOR	20 39	23	124	C B C	0.20	0.34	0.53	0.50	-108.	
	GA, RINGGOLD															
880508	623 4.29	35.029	84.342	16.52	0.0	MOR	3 5	35	333	D D D	0.08	2.78	8.94	17.14	-41.	
	TN, ISABELLA															
880508	756 36.62	35.169	84.884	6.15	0.0	MOR	3 6	39	276	D C D	0.09	1.02	3.21	2.93	18.	
	TN, SOUTH CLEVELAND															
880508	852 51.08	34.991	84.388	19.84	0.8	MOR	4 7	30	229	D C D	0.09	0.75	1.04	3.28	-18.	
	GA, EPWORTH															
880508	10 6 24.93	35.012	84.385	4.73	0.0	MOR	3 6	31	225	D C D	0.11	0.44	3.16	2.88	32.	
	TN, DUCKTOWN															
880515	9 0 43.87	34.533	85.521	3.84	0.9	MOR	3 5	131	356	D D D	0.05	25.67	51.47	99.00	-29.	
	AL, VALLEY HEAD															
880519	1121 57.06	35.811	84.138	13.85	0.9	MOR	4 7	17	269	D C D	0.10	0.94	2.69	0.67	-110.	
	TN, CONCORD															
880520	718 36.03	34.976	85.070	6.44	0.9	MOR	7 10	21	306	C B D	0.08	0.35	0.61	1.57	-101.	
	GA, RINGGOLD															

DATE	ORIGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
880521	351 21.72 34.925	85.185	13.01	1.5	MOR	14 21	16	120	B B B	0.23	0.51	0.75	0.74	-120.		
	GA, EAST RIDGE															
880522	15 0 31.79 36.967	83.775	9.29	2.2	MOR	17 30	80	207	C B D	0.25	0.67	1.50	1.24	-98.		
	KY, FOUNT															
880523	932 52.16 35.351	84.261	7.78	0.9	MOR	4 6	18	135	C C C	0.11	1.34	2.72	10.80	1.		
	TN, TELlico PLAINS															
880526	953 40.52 35.894	83.936	13.37	0.9	MOR	10 13	30	169	C B C	0.19	0.62	0.65	1.04	-4.		
	TN, KNOXVILLE															
880527	15 6 25.85 35.711	83.983	17.35	1.6	MOR	15 23	20	121	B B B	0.15	0.37	0.41	0.75	-118.		
	TN, BLOCKHOUSE															
880603	1547 53.12 35.260	85.262	16.69	1.5	MOR	17 30	26	76	B A B	0.14	0.28	0.35	1.06	-104.		
	TN, HENSON GAP															
880606	722 57.60 36.034	83.722	11.24	-1.2	MOR	5 8	21	217	D C D	0.23	1.52	2.98	3.25	5.		
	TN, MASCOT															
880610	1331 26.43 35.621	84.534	14.00	0.2	MOR	3 5	30	273	D D D	0.04	2.37	9.16	3.62	40.		
	TN, NIOTA															
880611	1245 28.32 35.298	84.390	13.48	0.3	MOR	4 6	7	344	D D D	0.16	1.45	4.66	2.07	39.		
	TN, MECCA															
880614	154 59.20 35.421	84.462	12.88	1.7	MOR	11 15	11	96	B B B	0.21	0.57	0.99	0.71	-113.		
	TN, ENGLEWOOD															
880614	1210 40.38 35.356	84.691	15.77	2.2	MOR	21 38	22	55	B A B	0.13	0.22	0.30	0.69	-106.		
	TN, CALHOUN															
880614	1337 51.70 36.146	83.686	17.13	1.4	MOR	17 32	15	121	B A B	0.12	0.23	0.38	0.57	-124.		
	TN, LUTTRELL															
880615	1446 16.55 34.630	82.529	1.37	1.4	MOR	9 14	75	262	D C D	0.12	0.57	3.57	3.11	-122.		
	SC, ANDERSON															
880618	1036 28.14 35.569	84.142	11.46	1.5	MOR	20 32	12	52	B B B	0.17	0.31	0.36	0.41	-132.		
	TN, VONORE															
880620	750 18.39 35.835	84.196	10.08	1.7	MOR	18 30	13	65	B B B	0.20	0.39	0.45	0.62	9.		
	TN, CONCORD															
880622	1648 2.98 35.659	84.150	13.57	1.3	MOR	14 25	6	68	B B A	0.20	0.42	0.57	0.46	44.		
	TN, MEADOW															
880630	1257 31.50 36.137	83.462	19.70	1.9	MOR	18 35	35	132	B B B	0.21	0.39	0.71	1.72	-118.		
	TN, TALBOTT															
880702	758 48.47 35.019	84.384	6.71	-0.6	MOR	3 5	31	247	D C D	0.10	2.44	3.60	99.00	7.		
	TN, DUCKTOWN															
880703	1128 8.30 35.687	84.302	17.67	0.9	MOR	10 14	9	160	B A C	0.11	0.36	0.42	0.56	22.		
	TN, LOUDON															
880704	2256 18.79 36.856	83.888	12.30	1.7	MOR	5 8	177	271	D C D	0.09	0.74	6.61	8.74	-115.		
	KY, BARBOURVILLE															
880706	158 48.21 36.315	83.525	4.46	0.5	MOR	5 7	31	191	D C D	0.10	0.45	2.98	2.26	-114.		
	TN, DUTCH VALLEY															
880712	939 31.24 35.011	84.369	13.05	-0.1	MOR	5 8	32	228	D C D	0.23	1.43	1.83	2.69	9.		
	TN, ISABELLA															
880715	1315 28.92 35.662	84.147	13.97	0.6	MOR	9 16	6	79	A A A	0.13	0.41	0.46	0.38	-76.		
	TN, MEADOW															
880726	1927 26.37 35.213	84.941	18.96	2.2	MOR	24 43	5	69	B B A	0.17	0.29	0.35	0.54	-101.		
	TN, SOUTH CLEVELAND															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
880727	437	17.76	35.433	84.972	18.71	1.4	MOR 21 37	21	52	B B B	0.16	0.29	0.36	0.65	-122.	
TN, BIG SPRING																
880729	233	0.85	34.819	85.203	15.00	1.1	MOR 10 17	22	145	C B C	0.17	0.52	0.74	1.70	-119.	
GA, NICKAJACK GAP																
880807	654	41.37	35.283	84.967	15.34	1.1	MOR 12 18	4	115	B B B	0.18	0.54	0.75	0.76	-61.	
TN, BIRCHWOOD																
880814	17 6	45.41	35.178	84.499	15.47	1.8	MOR 18 28	16	52	B B B	0.21	0.50	0.65	1.08	44.	
TN, MC FARLAND																
880820	348	53.76	36.739	81.189	11.12	2.1	MOR 15 21	8	264	D C D	0.31	0.63	1.68	0.70	23.	
VA, ELK CREEK																
880823	22 0	28.35	36.383	83.599	19.26	1.6	MOR 11 17	30	171	C B C	0.16	0.40	1.29	1.36	-116.	
TN, TAZEWEEL																
880910	535	19.62	35.236	84.198	12.75	1.0	MOR 12 20	25	87	B B B	0.21	0.52	0.58	1.08	-116.	
NC, UNAKA																
880915	2240	59.71	35.905	83.658	32.94	0.8	MOR 3 6	29	319	D D D	0.09	2.51	6.26	3.34	-102.	
TN, BOYDS CREEK																
880915	2340	59.07	35.308	84.211	10.85	1.5	MOR 22 36	22	71	C B C	0.22	0.43	0.48	1.01	19.	
TN, BALD RIVER FALLS																
880915	2342	52.81	35.307	84.203	4.65	0.4	MOR 12 17	23	125	C B C	0.23	0.67	0.86	1.39	11.	
TN, BALD RIVER FALLS																
881001	749	43.50	36.138	83.894	4.74	1.7	MOR 9 16	8	133	B B B	0.15	0.41	1.06	0.88	-12.	
TN, BIG RIDGE PARK																
881004	1155	23.72	35.364	84.241	5.80	0.1	MOR 5 8	20	114	C C C	0.16	0.47	1.03	36.51	-5.	
TN, BALD RIVER FALLS																
881014	2217	12.78	34.707	85.106	14.11	1.5	MOR 15 25	35	188	C B D	0.22	0.58	1.02	0.93	-104.	
GA, VILLANOW																
881015	928	5.39	35.512	84.141	10.94	1.0	MOR 5 8	18	170	B A C	0.04	0.20	0.37	0.68	-101.	
TN, VONORE																
881019	856	46.47	35.506	84.161	13.21	0.7	MOR 9 14	18	130	B B B	0.29	1.02	1.55	1.74	38.	
TN, VONORE																
881025	023	52.80	35.519	84.885	20.32	-0.4	MOR 9 13	14	161	B A C	0.08	0.33	0.36	0.54	21.	
TN, EVENSVILLE																
881027	1537	53.56	35.600	84.220	16.58	2.0	MOR 9 17	7	134	C C B	0.33	1.07	1.42	1.44	-128.	
TN, VONORE																
881029	245	49.07	36.648	83.562	18.69	1.3	MOR 8 10	45	284	D C D	0.09	0.57	1.46	3.35	-109.	
KY, VARILLA																
881101	13 7	40.60	35.740	84.094	12.35	1.8	MOR 12 19	13	83	B B B	0.26	0.68	0.77	1.00	-130.	
TN, BINFIELD																
881101	1634	16.27	36.266	83.711	21.99	2.7	MOR 21 33	14	147	C B C	0.15	0.29	0.74	0.91	-120.	
TN, POWDER SPRINGS																
881117	721	46.05	35.555	84.462	10.39	1.6	MOR 18 35	24	62	C B C	0.23	0.37	0.52	0.78	-124.	
TN, SWEETWATER																
881201	918	28.41	35.762	84.159	11.47	0.6	MOR 8 13	12	112	B A B	0.14	0.45	0.59	0.72	6.	
TN, CONCORD																
881204	3 0	0.94	35.544	84.379	14.44	0.0	MOR 8 12	20	144	B A C	0.11	0.32	0.60	0.47	40.	
TN, SWEETWATER																
881222	22 4	46.98	36.110	83.783	10.99	-0.6	MOR 4 5	11	206	D D D	0.06	2.22	8.01	5.49	10.	
TN, JOHN SEVIER																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
890101	1027	53.92	35.837	84.039	14.40	-0.9	MOR	3 6	25	270	D C D	0.07	0.85	2.66	0.93	-98.
TN, LOUISVILLE																
890101	17 5	56.83	35.645	84.109	10.89	-0.5	MOR	3 5	9	297	D C D	0.06	1.60	10.49	8.93	-106.
TN, BINFIELD																
890106	430	7.82	35.780	84.062	12.89	0.1	MOR	3 5	19	250	D D D	0.04	2.10	9.37	2.56	-101.
TN, LOUISVILLE																
890118	425	35.77	36.005	84.287	26.50	1.4	MOR	4 5	38	360	D D D	0.02	2.68	5.01	7.00	-86.
TN, WINDROCK																
890119	1138	25.71	35.658	83.604	7.34	1.1	MOR	8 13	15	105	C B C	0.16	0.57	1.32	1.58	-83.
TN, GATLINBURG																
890121	754	43.32	36.378	82.303	4.63	2.0	MOR	7 10	54	210	D C D	0.29	1.59	2.73	5.89	-116.
TN, BLUFF CITY																
890123	1028	11.93	35.206	84.779	12.98	0.9	MOR	4 7	32	183	D C D	0.20	1.51	3.12	3.23	26.
TN, EAST CLEVELAND																
890215	446	19.65	35.486	85.032	18.85	1.0	MOR	6 11	41	164	C B C	0.09	0.39	0.61	2.59	44.
TN, GRAYSVILLE																
890226	034	6.10	36.329	82.132	22.42	0.8	MOR	3 5	38	256	D D D	0.09	3.05	35.24	57.15	-117.
TN, ELIZABETHTON																
890227	5 5	5.57	35.774	83.957	16.33	0.6	MOR	3 5	21	245	D D D	0.00	1.81	5.63	4.84	-90.
TN, MARYVILLE																
890304	928	3.22	35.409	84.509	17.67	2.0	MOR	7 13	10	83	B B A	0.14	0.50	0.89	0.73	30.
TN, ATHENS																
890306	1957	21.50	35.806	83.965	8.41	1.4	MOR	4 6	24	258	D C D	0.07	0.69	3.18	2.20	-84.
TN, MARYVILLE																
890307	1022	5.68	35.480	84.132	14.78	-0.7	MOR	3 6	22	181	D C D	0.14	0.73	45.80	57.46	-122.
TN, RAFTER																
890310	1052	22.66	35.168	84.600	15.22	1.8	MOR	6 10	22	147	C C C	0.23	0.95	2.19	2.76	20.
TN, OSWALD DOME																
890313	124	48.69	35.571	84.452	17.80	1.4	MOR	5 10	24	124	B B B	0.12	0.62	0.71	1.44	-115.
TN, SWEETWATER																
890316	043	58.27	35.326	84.715	22.05	1.4	MOR	5 8	24	235	C B D	0.12	0.90	2.16	1.57	27.
TN, CALHOUN																
890316	9 5	52.40	36.252	83.503	11.86	1.0	MOR	4 7	32	199	D C D	0.13	2.41	7.34	8.42	-94.
TN, DUTCH VALLEY																
890401	2215	23.54	34.987	85.190	13.65	1.4	MOR	9 13	35	238	D C D	0.22	0.94	2.24	1.14	-94.
GA, EAST RIDGE																
890402	1932	45.94	35.466	84.484	16.38	0.4	MOR	4 6	16	238	D D D	0.12	1.42	5.58	2.70	33.
TN, ENGLEWOOD																
890403	1013	7.20	36.082	83.617	10.62	1.8	MOR	15 23	49	135	C B C	0.20	0.40	0.91	1.16	-126.
TN, NEW MARKET																
890413	1118	57.48	36.069	83.799	20.00	0.9	MOR	3 4	46	360	D D D	0.00	2.52	9.21	32.72	-127.
TN, JOHN SEVIER																
890416	16 2	32.71	35.592	84.134	5.94	-0.4	MOR	3 4	11	360	D C D	0.17	2.38	16.38	37.75	-119.
TN, VONORE																
890420	1525	47.83	35.276	84.873	14.16	0.8	MOR	5 9	10	136	C C C	0.27	1.31	3.29	1.88	-132.
TN, CHARLESTON																
890429	1934	32.75	36.115	82.351	5.70	1.7	MOR	13 20	42	89	C C C	0.41	0.88	0.95	6.08	20.
NC, HUNTDAL																

DATE	ORIGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
890430	1734	49.41	35.364	84.532	15.88	0.7	MOR 4 6	8	228	D	C D	0.14	1.68	3.04	2.84	-118.
TN, ETOWAH																
890503	1447	11.75	35.835	84.641	10.00	1.2	MOR 9 14	31	216	D	D D	7.69	27.08	55.53	53.55	45.
TN, ROCKWOOD																
890504	633	29.80	35.702	84.506	21.05	1.0	MOR 8 14	27	106	B	B B	0.12	0.43	0.63	1.19	-135.
TN, PATTIE GAP																
890521	20 2	49.82	34.986	82.492	9.43	0.0	MOR 3 4	104	360	D	D D	3.47	18.86	61.33	94.82	30.
SC, GREENVILLE																
890524	312	55.21	35.524	84.096	13.55	-0.4	MOR 4 6	19	269	D	C D	0.18	1.82	5.00	6.86	-125.
TN, TALLASSEE																
890525	1327	54.26	35.478	84.256	15.41	0.6	MOR 7 10	21	216	C	B D	0.10	0.38	0.85	1.09	35.
TN, MT VERNON																
890526	1721	45.53	35.706	83.785	15.53	1.6	MOR 10 16	5	123	B	B B	0.15	0.55	0.85	0.59	-59.
TN, KINZEL SPRINGS																
890527	4 9	7.71	36.340	82.306	1.47	2.0	MOR 17 25	20	132	C	C C	0.43	0.84	1.62	2.85	-83.
TN, JOHNSON CITY																
890531	644	24.58	35.120	84.900	14.72	1.0	MOR 12 18	16	83	B	B B	0.22	0.62	0.88	1.39	30.
TN, MCDONALD																
890603	1519	39.78	35.948	84.054	13.50	-0.2	MOR 4 8	16	135	C	B C	0.10	0.45	0.74	1.22	-99.
TN, BEARDEN																
890605	824	34.51	36.777	81.099	10.00	1.6	MOR 3 3	81	321	D	D D	0.12	18.18	51.47	99.00	-68.
VA, CRIPLE CREEK																
890605	1143	36.00	36.046	81.158	10.00	0.9	MOR 0 0	100	360	D	D D	0.12	18.18	51.47	99.00	-68.
NC, MORAVIAN FALLS																
890607	637	52.27	35.415	84.581	9.00	-0.1	MOR 3 5	15	180	D	C D	0.19	1.56	4.30	8.82	-54.
TN, ATHENS																
890609	944	22.26	36.064	83.633	12.54	1.5	MOR 12 20	24	128	B	A B	0.13	0.39	0.53	0.45	12.
TN, MASCOT																
890611	238	14.10	35.571	84.403	16.55	-0.4	MOR 5 7	20	229	C	B D	0.05	0.28	0.73	1.04	31.
TN, SWEETWATER																
890613	232	29.27	36.684	83.652	22.83	2.0	MOR 16 28	9	208	C	B D	0.20	0.55	1.17	0.82	-90.
KY, MIDDLESBORO NORTH																
890613	721	5.80	35.972	83.841	9.81	-1.2	MOR 6 9	6	170	B	A C	0.06	0.27	0.57	0.38	7.
TN, SHOOKS GAP																
890615	6 9	2.45	36.360	83.750	18.41	0.6	MOR 9 16	20	94	B	A B	0.14	0.41	0.53	1.04	-130.
TN, MAYNARDVILLE																
890618	3 0	20.63	35.945	82.490	4.26	1.9	MOR 16 24	29	110	C	B C	0.27	0.55	1.14	1.44	-68.
NC, BALD CREEK																
890620	843	37.80	35.256	82.455	4.68	2.0	MOR 16 23	19	165	C	C C	0.36	0.82	2.09	2.10	-107.
NC, HENDERSONVILLE																
890623	547	29.07	35.054	84.164	7.60	-0.3	MOR 5 7	38	197	D	C D	0.28	1.32	3.09	41.23	-50.
NC, PERSIMMON CREEK																
890701	13 0	58.29	35.935	82.499	12.83	0.8	MOR 4 7	29	166	C	C C	0.26	1.60	2.81	2.38	-89.
NC, BALD CREEK																
890703	1638	1.19	35.777	83.915	15.55	-0.5	MOR 5 8	17	125	C	C B	0.21	1.54	1.68	3.12	-76.
TN, MARYVILLE																
890709	1149	28.12	35.509	84.437	19.84	-1.4	MOR 5 8	20	225	C	B D	0.08	0.46	0.86	1.28	-134.
TN, SWEETWATER																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
890709	1151	57.73	35.527	84.459	14.81	1.3	MOR 14 25	22	72	B A B	0.13	0.30	0.42	1.02	39.	
	TN, SWEETWATER															
890709	1157	5.90	35.520	84.449	17.61	-0.4	MOR 5 7	22	232	D C D	0.16	0.94	2.39	3.11	45.	
	TN, SWEETWATER															
890709	1530	32.10	34.789	82.919	6.14	2.5	MOR 14 20	63	224	C B D	0.18	0.48	1.12	1.13	-110.	
	SC, OLD PICKENS															
890711	1453	28.54	35.531	84.475	22.23	2.0	MOR 16 28	23	63	B A B	0.10	0.22	0.33	0.55	33.	
	TN, SWEETWATER															
890717	639	44.27	35.520	84.301	20.81	1.2	MOR 11 18	18	116	B A B	0.10	0.27	0.38	0.56	27.	
	TN, MADISONVILLE															
890718	334	26.78	35.089	85.187	17.80	-1.1	MOR 10 15	19	139	C B C	0.19	0.49	1.18	1.24	41.	
	TN, EAST CHATTANOOGA															
890719	8 9	20.68	35.012	84.363	6.99	-0.5	MOR 3 6	33	133	C C C	0.07	0.40	0.54	11.94	-14.	
	TN, ISABELLA															
890719	1358	3.26	36.036	83.598	0.95	0.4	MOR 3 4	28	360	D D D	0.09	1.54	14.32	99.00	-2.	
	TN, NEW MARKET															
890725	5 5	45.69	35.597	84.871	22.49	0.6	MOR 12 20	29	74	B A B	0.12	0.33	0.39	1.01	-4.	
	TN, DECATUR															
890730	2038	59.65	36.041	83.942	25.07	-0.2	MOR 7 12	20	133	B A B	0.10	0.43	0.58	0.88	7.	
	TN, FOUNTAIN CITY															
890731	057	26.65	36.453	84.070	9.25	0.9	MOR 10 12	34	341	C A D	0.09	0.33	0.65	0.68	-67.	
	TN, LA FOLLETTE															
890805	526	37.94	35.008	84.373	5.91	0.2	MOR 3 6	32	133	C C C	0.16	0.42	0.52	37.02	-37.	
	TN, ISABELLA															
890808	942	11.57	35.965	84.068	15.67	0.4	MOR 8 12	18	258	C A D	0.07	0.32	0.40	0.76	25.	
	TN, BEARDEN															
890809	926	0.49	35.327	84.376	9.39	1.2	MOR 10 16	7	113	B B B	0.27	0.84	1.06	1.41	-125.	
	TN, MECCA															
890812	157	16.31	34.747	86.076	0.50	1.7	MOR 5 7	160	213	D C D	0.23	0.50	2.67	2.66	-102.	
	AL, SCOTTSBORO															
890815	1246	32.48	35.269	84.872	14.66	1.1	MOR 6 11	10	130	C C B	0.16	0.65	1.84	1.06	35.	
	TN, CHARLESTON															
890820	2254	25.36	35.913	84.163	12.80	1.7	MOR 14 24	13	69	A A A	0.13	0.33	0.37	0.33	-52.	
	TN, LOVELL															
890825	538	36.15	35.472	84.625	13.82	1.5	MOR 12 17	22	106	B B B	0.23	0.70	0.88	0.93	-97.	
	TN, RICEVILLE															
890827	2351	54.93	36.090	84.450	13.30	0.1	MOR 10 15	24	160	C B C	0.17	0.52	0.92	0.96	-19.	
	TN, PETROS															
890830	1042	15.06	35.654	85.013	10.47	0.7	MOR 5 7	45	194	D C D	0.21	1.21	1.98	2.47	-15.	
	TN, MELVINE															
890903	957	33.73	35.533	84.489	16.02	0.0	MOR 15 15	23	62	B B B	0.08	0.36	0.47	1.28	38.	
	TN, SWEETWATER															
890907	518	6.29	35.499	84.431	20.47	3.1	MOR 19 31	19	59	A A A	0.12	0.24	0.35	0.57	43.	
	TN, ENGLEWOOD															
890916	1626	32.56	35.524	84.021	13.96	-0.7	MOR 4 7	23	185	C B D	0.05	0.29	1.00	1.39	-101.	
	TN, TALLASSEE															
890917	16 8	11.10	35.796	83.731	12.08	0.2	MOR 4 7	16	196	C B D	0.09	0.86	1.14	1.08	2.	
	TN, WALDEN CREEK															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
890921	1914	27.96	36.332	86.723	15.45	0.0	MOR 6 11	74	124	D C D	0.40	1.12	1.28	99.00	-104.	
TN, GOODLETTSVILLE																
890922	031	10.74	35.333	84.395	16.01	0.1	MOR 8 11	5	122	B B B	0.14	0.56	0.86	0.73	39.	
TN, MECCA																
890925	2129	39.45	34.978	83.015	22.46	1.8	MOR 7 10	74	223	D D D	0.24	1.76	4.47	14.98	-119.	
SC, TAMASSEE																
891002	1031	3.35	35.521	82.867	12.09	0.8	MOR 4 5	21	155	D C D	0.09	1.79	5.03	5.07	-127.	
NC, CANTON																
891003	2338	18.80	35.583	84.541	16.79	0.1	MOR 4 7	30	268	C B D	0.04	0.33	1.16	1.22	33.	
TN, NIOTA																
891004	1816	17.61	35.534	84.226	16.46	1.3	MOR 6 11	15	143	C B C	0.11	0.44	0.86	1.11	-127.	
TN, VONORE																
891005	9 4	30.49	35.376	84.623	16.01	0.7	MOR 4 7	16	282	D D D	0.35	3.67	6.14	4.84	-39.	
TN, ATHENS																
891008	1254	9.05	36.376	81.206	5.84	1.0	MOR 4 7	32	166	C C C	0.19	0.61	1.64	71.29	4.	
NC, WHITEHEAD																
891025	1837	42.03	35.328	83.617	4.50	1.6	MOR 5 9	7	169	C C C	0.15	0.80	3.48	2.19	-2.	
NC, WESSER																
891027	739	47.75	35.746	83.977	12.70	0.7	MOR 4 6	21	230	D D D	0.10	0.83	4.14	1.78	-87.	
TN, BLOCKHOUSE																
891104	414	20.64	35.639	84.157	13.26	-0.3	MOR 4 7	6	185	D D D	0.10	0.91	2.97	1.86	-118.	
TN, MEADOW																
891112	1218	10.21	36.781	83.520	19.83	1.8	MOR 10 15	24	264	C B D	0.10	0.58	1.25	0.94	-73.	
KY, BALKAN																
891202	059	41.74	35.714	84.043	12.33	1.1	MOR 5 9	16	214	C B D	0.07	0.37	1.29	0.79	-100.	
TN, BINFIELD																
891202	1331	45.64	35.988	83.844	12.73	2.9	MOR 19 27	23	45	B A B	0.15	0.34	0.46	0.51	16.	
TN, SHOOKS GAP																
891202	18 2	27.66	36.610	83.927	25.78	2.4	MOR 15 22	23	224	C B D	0.20	0.96	1.76	1.18	-116.	
TN, EAGAN																
891215	847	45.01	35.900	83.869	26.61	1.3	MOR 3 5	28	179	D D D	0.06	2.70	11.96	12.85	-99.	
TN, SHOOKS GAP																
891217	1840	32.81	35.055	82.949	12.73	1.3	MOR 4 6	34	186	D D D	0.26	3.91	11.82	11.92	-96.	
NC, REID																
891229	1251	12.63	36.264	83.723	12.90	1.1	MOR 6 11	50	221	D C D	0.07	0.70	11.84	19.17	-74.	
TN, POWDER SPRINGS																
900102	2017	24.58	35.093	82.969	5.73	2.1	MOR 9 14	29	179	C C C	0.24	0.79	1.26	10.52	-105.	
NC, REID																
900119	1736	52.70	34.957	84.907	10.79	2.7	MOR 9 16	40	176	C B C	0.17	0.51	1.65	1.30	-111.	
GA, COHUTTA																
900128	1138	23.37	35.217	84.313	9.11	0.5	MOR 3 4	18	184	D D D	0.10	6.70	10.20	18.55	-49.	
TN, FARNER																
900202	1114	35.84	35.656	84.264	13.83	2.2	MOR 8 14	5	148	B A C	0.12	0.44	0.65	0.37	-108.	
TN, LOUDON																
900205	21 0	53.83	35.925	83.190	0.91	1.6	MOR 14 21	34	93	C C C	0.42	1.14	2.76	5.06	-73.	
TN, NEWPORT																
900208	553	31.48	35.546	84.010	12.15	-1.3	MOR 4 7	23	179	C C C	0.26	1.49	4.02	10.95	-90.	
TN, TALLASSEE																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
900210	2342 7.89 35.269	84.068	8.51	2.5	MOR	15 28	36	79	C B C	0.26	0.50	0.57	1.73	-48.		
	TN, BIG JUNCTION															
900214	1043 38.47 35.565	83.544	10.02	1.2	MOR	6 10	23	249	C B D	0.11	0.49	1.08	0.79	-33.		
	NC, SILERS BALD															
900217	1630 32.11 35.713	84.238	2.49	2.7	MOR	13 18	42	207	C A D	0.13	0.41	0.72	0.79	-124.		
	TN, MEADOW															
900222	654 2.80 36.349	81.588	5.97	1.3	MOR	4 7	33	191	D C D	0.30	1.70	3.00	15.61	-132.		
	NC, TODD															
900223	1710 44.83 35.513	84.451	15.59	2.4	MOR	11 18	21	123	B B B	0.16	0.52	0.77	1.42	-67.		
	TN, SWEETWATER															
900223	1712 53.60 35.509	84.446	17.18	2.1	MOR	6 8	20	286	D C D	0.17	1.06	1.60	2.81	-75.		
	TN, SWEETWATER															
900301	441 4.88 36.092	83.769	10.13	1.4	MOR	4 7	48	313	C B D	0.04	0.75	1.08	0.51	0.		
	TN, JOHN SEVIER															
900303	858 28.94 35.987	83.444	12.52	1.3	MOR	5 7	47	348	D D D	0.27	1.45	6.86	3.66	34.		
	TN, SHADY GROVE															
900303	2227 59.82 35.306	82.500	5.73	1.8	MOR	12 20	24	168	C B C	0.19	0.38	0.96	1.82	-87.		
	NC, HORSE SHOE															
900309	611 25.86 35.880	81.729	2.22	1.8	MOR	5 7	27	185	D C D	0.10	0.35	6.14	8.30	-14.		
	NC, COLLETTSVILLE															
900316	226 41.23 35.338	83.375	14.66	1.3	MOR	4 7	20	132	C C B	0.31	2.40	3.09	3.31	-107.		
	NC, ALARKA															
900318	341 34.95 35.671	84.298	9.33	2.8	MOR	12 22	41	100	C B C	0.17	0.40	0.59	0.98	-99.		
	TN, LOUDON															
900320	1610 55.76 36.009	83.443	13.88	1.4	MOR	4 7	49	318	D D D	0.21	4.02	6.01	3.10	29.		
	TN, JEFFERSON CITY															
900321	944 39.39 34.866	85.068	10.59	2.0	MOR	6 10	28	205	C B D	0.11	0.46	1.16	1.39	-83.		
	GA, TUNNEL HILL															
900324	651 47.66 35.148	84.646	17.62	2.0	MOR	6 12	26	148	C B C	0.17	0.60	1.07	1.72	42.		
	TN, BENTON															
900325	1347 16.06 35.192	84.143	11.20	1.2	MOR	5 10	32	95	C C C	0.21	0.85	1.08	6.74	-84.		
	NC, UNAKA															
900326	3 7 19.81 35.551	84.404	14.79	1.1	MOR	4 5	25	360	D C D	0.10	2.17	6.66	18.33	-72.		
	TN, SWEETWATER															
900331	556 30.40 35.304	82.520	5.88	0.8	MOR	6 10	25	149	C C C	0.18	0.53	1.21	5.06	-87.		
	NC, HORSE SHOE															
900331	1627 44.40 35.933	84.506	14.17	2.6	MOR	10 18	41	149	C B C	0.10	0.46	1.17	1.49	-129.		
	TN, HARRIMAN															
900419	2036 48.40 35.944	84.011	22.98	2.3	MOR	9 16	36	195	C A D	0.07	0.28	0.85	0.80	-82.		
	TN, BEARDEN															
900510	2338 32.88 35.243	84.359	11.92	-0.4	MOR	4 7	13	198	D C D	0.13	0.75	36.64	25.68	25.		
	TN, FARNER															
900511	13 1 57.39 35.022	83.019	7.79	1.1	MOR	12 17	37	189	C B D	0.21	0.64	1.07	1.72	-109.		
	NC, CASHIERS															
900514	1133 36.74 35.443	84.518	20.58	0.1	MOR	3 4	14	360	D D D	0.00	4.00	7.10	5.12	25.		
	TN, ATHENS															
900518	927 27.10 34.982	82.967	5.74	1.8	MOR	5 9	42	197	D C D	0.37	1.83	2.97	13.32	-103.		
	SC, SALEM															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
900530	912 54.53 35.246	84.359	6.11	0.1	MOR	4 6	12	299	D C D	0.06	0.75	1.81	4.54	-21.		
	TN, FARNER															
900605	2250 46.13 35.552	84.059	6.46	-1.1	MOR	4 6	19	170	C C C	0.04	0.47	1.16	7.50	-103.		
	TN, TALLASSEE															
900606	1146 51.53 34.527	82.797	0.42	1.7	MOR	8 10	94	251	D C D	0.17	0.66	3.50	3.83	-108.		
	SC, LA FRANCE															
900611	18 7 24.72 35.533	83.534	15.15	1.1	MOR	5 8	26	256	D C D	0.12	0.79	1.30	2.75	26.		
	NC, SILERS BALD															
900613	11 1 58.31 34.861	85.332	10.56	1.6	MOR	5 8	13	264	D C D	0.20	2.35	4.02	2.27	-45.		
	GA, KENSINGTON															
900616	23 0 0.14 35.424	85.209	13.91	1.1	MOR	6 11	51	193	C B D	0.09	0.39	0.66	1.69	21.		
	TN, BRAYTON															
900618	8 1 57.50 35.005	84.360	5.79	0.9	MOR	5 8	32	230	D C D	0.20	0.55	0.62	49.87	39.		
	TN, ISABELLA															
900621	321 32.28 34.948	84.195	5.87	1.0	MOR	6 10	36	155	C C C	0.24	0.90	1.57	99.00	-80.		
	GA, CULBERSON															
900622	926 4.46 35.523	84.131	13.26	1.5	MOR	5 10	17	102	B B B	0.13	0.61	1.65	1.85	-113.		
	TN, VONORE															
900624	11 1 16.05 35.808	84.046	16.86	0.7	MOR	3 4	22	360	D D D	0.00	2.31	9.37	7.17	-89.		
	TN, LOUISVILLE															
900708	1458 7.54 36.503	83.421	10.83	1.5	MOR	5 7	84	282	D C D	0.10	1.19	5.62	9.71	-90.		
	TN, COLEMAN GAP															
900711	1841 10.80 35.795	83.995	15.60	2.8	MOR	14 23	24	104	B A B	0.12	0.35	0.44	0.90	-107.		
	TN, MARYVILLE															
900713	831 13.32 35.014	84.373	6.42	1.7	MOR	5 8	32	132	C C C	0.18	1.16	1.46	57.94	-37.		
	TN, ISABELLA															
900714	2348 29.29 35.683	84.361	18.04	1.1	MOR	5 9	14	163	C B C	0.10	0.59	0.73	0.96	-81.		
	TN, LOUDON															
900721	1332 50.06 36.427	82.078	9.37	2.1	MOR	7 12	43	205	C B D	0.15	1.14	1.34	1.42	-119.		
	TN, CARTER															
900728	11 9 39.24 34.933	85.002	8.85	2.9	MOR	13 22	31	168	C B C	0.15	0.37	0.80	0.87	-81.		
	GA, RINGGOLD															
900729	1419 42.41 35.222	84.821	12.48	2.5	MOR	10 17	35	110	B A C	0.14	0.54	0.60	0.67	-82.		
	TN, EAST CLEVELAND															
900803	1038 24.78 35.933	82.378	2.48	1.6	MOR	4 7	23	161	C C C	0.19	1.02	4.75	8.81	-62.		
	NC, BALD CREEK															
900804	1116 48.15 36.402	83.606	5.38	2.0	MOR	8 13	84	273	C B D	0.07	0.34	1.15	1.56	-104.		
	TN, TAZEWEEL															
900808	1230 55.80 35.865	81.748	3.58	0.8	MOR	3 5	28	182	D C D	0.11	1.44	22.67	29.25	-10.		
	NC, MORGANTON NORTH															
900810	555 37.75 35.023	84.357	7.57	0.7	MOR	3 5	34	253	D C D	0.09	2.17	3.16	57.91	20.		
	TN, ISABELLA															
900810	559 15.46 35.031	84.385	12.74	1.0	MOR	3 5	32	245	D C D	0.15	2.50	3.34	18.58	20.		
	TN, DUCKTOWN															
900816	1020 40.29 35.413	85.146	11.64	1.2	MOR	4 7	51	282	D C D	0.09	0.78	2.14	1.40	-30.		
	TN, BRAYTON															
900817	21 1 16.65 36.891	83.372	3.87	3.5	MOR	14 21	119	225	C B D	0.14	0.56	2.13	2.30	-106.		
	KY, BLEDSOE															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
900819	2110	33.07	35.481	84.045	11.85	1.8	MOR	6 11	25	87	C B C	0.12	0.45	0.78	1.38	-92.
TN, WHITEOAK FLATS																
900824	013	49.26	35.888	84.046	18.45	0.4	MOR	4 6	29	285	D C D	0.08	0.85	2.85	3.41	-88.
TN, BEARDEN																
900824	1046	18.34	35.086	84.494	7.43	1.1	MOR	4 7	27	154	C C C	0.08	0.47	1.38	9.46	26.
TN, DUCKTOWN																
900828	455	10.68	35.115	84.635	15.26	1.1	MOR	4 6	28	208	D C D	0.09	0.69	2.95	4.45	18.
TN, PARKSVILLE																
900830	1735	42.46	36.150	84.557	12.43	1.5	MOR	4 7	48	283	C B D	0.06	0.53	1.46	0.88	-85.
TN, GOBEY																
900901	5 4	12.61	35.530	84.146	12.44	2.3	MOR	9 14	16	88	B A B	0.08	0.27	0.42	0.58	-114.
TN, VONORE																
900910	14 5	57.07	35.629	84.596	16.89	0.7	MOR	5 8	35	149	C B C	0.06	0.37	0.53	2.42	-52.
TN, PATTIE GAP																
900912	738	41.40	36.055	83.699	9.09	1.9	MOR	7 8	44	185	D D D	0.26	1.52	4.93	5.08	-132.
TN, MASCOT																
900915	1533	47.82	34.830	82.971	2.45	2.2	MOR	14 19	58	217	D C D	0.42	1.45	3.07	6.56	-105.
SC, OLD PICKENS																
900916	418	43.44	34.837	82.999	7.58	2.5	MOR	5 8	58	241	D D D	0.34	2.37	5.91	16.52	-131.
SC, OLD PICKENS																
900916	20 5	41.89	34.833	82.979	6.03	1.9	MOR	5 7	58	220	D D D	0.36	2.68	4.80	22.34	-124.
SC, OLD PICKENS																
900917	441	2.46	34.809	82.954	6.15	2.5	MOR	6 9	61	224	D C D	0.25	1.53	2.54	9.55	-124.
SC, OLD PICKENS																
900917	453	44.24	34.803	82.966	9.54	1.6	MOR	3 5	61	278	D D D	0.29	3.98	14.43	99.00	-116.
SC, OLD PICKENS																
900917	521	43.42	34.824	83.000	5.91	1.7	MOR	3 6	59	273	D D D	1.36	12.58	26.92	99.00	-131.
SC, WALHALLA																
900917	640	38.56	34.801	82.985	8.43	1.7	MOR	3 6	62	276	D D D	0.53	3.30	13.84	99.00	-122.
SC, OLD PICKENS																
900918	2255	50.21	35.340	83.927	6.56	1.1	MOR	5 7	32	100	C C C	0.22	1.77	3.84	99.00	-23.
NC, SANTEELAH CREEK																
900919	420	10.10	34.815	82.968	15.30	2.1	MOR	9 12	60	220	D C D	0.43	1.08	6.03	99.00	-112.
SC, OLD PICKENS																
900919	519	28.71	34.810	82.963	5.80	2.1	MOR	12 17	61	218	D D D	0.62	1.48	3.09	8.00	-114.
SC, OLD PICKENS																
900919	532	5.65	34.846	82.997	14.86	0.0	MOR	5 7	57	217	D D D	0.32	2.71	5.84	99.00	-121.
SC, OLD PICKENS																
900919	536	56.61	34.838	83.002	5.17	3.0	MOR	6 10	58	218	D C D	0.46	1.64	6.15	9.79	-129.
SC, WALHALLA																
900919	547	55.79	34.736	82.934	3.95	2.0	MOR	5 8	69	234	D D D	1.07	2.23	8.68	15.59	-127.
SC, SENECA																
900919	550	18.93	34.863	82.998	15.65	2.1	MOR	5 9	55	214	D C D	0.41	1.45	5.70	99.00	-113.
SC, OLD PICKENS																
900919	555	43.13	34.826	82.973	7.58	2.2	MOR	11 17	59	217	D D D	0.62	1.54	3.73	6.55	-117.
SC, OLD PICKENS																
900919	814	4.85	34.868	83.016	16.19	2.7	MOR	4 7	54	233	D C D	0.40	1.77	5.88	62.35	-117.
SC, WALHALLA																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
900919	822 34.55 34.845	82.990	14.91	2.5	MOR	7 10	57	217	D D D	0.41	1.68	5.94	99.00	-119.		
	SC, OLD PICKENS															
900919	830 12.84 34.860	83.016	15.83	1.9	MOR	4 6	55	233	D C D	0.20	0.94	4.56	56.30	-117.		
	SC, WALHALLA															
900919	834 56.68 34.841	83.017	10.41	1.7	MOR	3 5	57	270	D D D	0.48	2.34	31.59	99.00	-124.		
	SC, WALHALLA															
900919	2156 44.76 34.538	85.460	0.95	3.0	MOR	12 22	50	207	C B D	0.26	1.08	1.42	1.33	-93.		
	GA, DOUGHERTY															
900922	747 16.14 34.861	82.907	10.00	1.5	MOR	2 3	55	315	D D D	0.00	11.99	51.47	99.00	-94.		
	SC, OLD PICKENS															
900922	938 48.28 34.885	82.949	1.43	2.6	MOR	9 11	52	250	C B D	0.09	0.69	1.50	2.12	-117.		
	SC, SALEM															
900922	950 31.76 34.846	83.010	15.34	1.3	MOR	3 5	57	271	D D D	0.22	3.02	20.22	99.00	-120.		
	SC, WALHALLA															
900922	10 2 17.34 34.797	82.939	5.99	1.4	MOR	5 7	62	280	D D D	0.28	2.09	6.68	14.62	-129.		
	SC, OLD PICKENS															
900923	346 30.55 34.781	82.906	6.41	1.7	MOR	3 6	64	284	D D D	0.28	3.85	11.44	99.00	-130.		
	SC, OLD PICKENS															
900923	21 6 18.02 36.420	82.504	6.96	1.8	MOR	11 15	62	195	C B D	0.08	0.31	0.80	1.07	-112.		
	TN, SULLIVAN GARDENS															
900924	1213 23.86 34.766	82.978	16.29	1.5	MOR	4 6	66	229	D C D	0.13	1.31	8.41	99.00	-118.		
	SC, OLD PICKENS															
900928	15 6 36.17 35.313	83.639	6.16	1.9	MOR	8 10	7	73	C C B	0.23	0.99	2.18	2.91	-5.		
	NC, HEWITT															
901007	132 20.23 36.079	81.922	8.57	1.7	MOR	4 6	11	249	D D D	0.14	1.57	6.35	2.37	45.		
	NC, NEWLAND															
901007	243 32.57 34.798	82.996	14.71	1.2	MOR	3 5	62	276	D D D	0.16	1.81	5.52	99.00	-121.		
	SC, OLD PICKENS															
901010	415 20.93 35.006	83.008	6.03	0.9	MOR	4 7	39	259	D D D	0.29	2.26	6.00	18.91	-128.		
	NC, CASHIERS															
901011	1038 47.27 35.849	83.680	21.20	0.3	MOR	4 7	23	284	C B D	0.06	0.75	1.51	0.84	-66.		
	TN, WALDEN CREEK															
901023	246 6.51 34.837	82.989	5.61	1.4	MOR	6 10	58	223	D C D	0.29	1.36	5.21	7.67	-129.		
	SC, OLD PICKENS															
901104	222 27.46 35.390	84.372	4.28	1.2	MOR	5 7	10	159	C C C	0.08	1.27	3.31	4.69	-14.		
	TN, MT VERNON															
901107	1955 37.95 35.103	82.977	5.40	2.4	MOR	9 11	28	177	C C C	0.24	1.25	2.07	6.80	-111.		
	NC, REID															
901108	10 2 10.93 36.954	83.053	2.46	2.7	MOR	15 17	65	225	D C D	0.19	1.34	3.59	5.18	-105.		
	KY, LOUELLEN															
901114	1537 46.05 34.827	82.988	5.69	1.9	MOR	9 12	59	219	D C D	0.42	1.34	3.36	6.83	-119.		
	SC, OLD PICKENS															
901118	1929 25.76 35.613	84.350	8.59	1.4	MOR	5 8	14	228	C B D	0.05	0.27	1.11	1.04	-130.		
	TN, MADISONVILLE															
901125	554 31.40 35.405	83.667	3.80	1.5	MOR	3 5	16	191	D D D	0.11	1.10	37.97	28.40	-21.		
	NC, TUSKEEGEE															
901209	221 15.70 35.545	84.430	11.15	1.3	MOR	4 6	24	231	C A D	0.03	0.26	1.11	0.79	33.		
	TN, SWEETWATER															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
901219	1810	31.00	35.587	84.429	20.53	2.4	MOR 9 15	22	124	B A B	0.08	0.30	0.34	0.53	-82.	
TN, SWEETWATER																
910114	5 6	30.26	36.078	83.433	11.55	1.8	MOR 10 16	21	103	B A B	0.10	0.26	0.36	0.63	-117.	
TN, JEFFERSON CITY																
910115	615	28.73	36.054	83.423	12.48	1.7	MOR 9 12	19	175	C B C	0.16	0.71	1.04	1.21	-41.	
TN, JEFFERSON CITY																
910115	21 3	45.94	36.074	83.804	13.01	2.5	MOR 19 29	14	90	B B B	0.20	0.38	0.47	0.52	29.	
TN, JOHN SEVIER																
910116	1822	14.78	36.075	83.423	6.28	2.0	MOR 15 20	40	102	C B C	0.11	0.33	0.40	1.43	-125.	
TN, JEFFERSON CITY																
910121	140	57.34	36.077	83.794	9.96	1.3	MOR 6 10	14	221	D C D	0.26	1.04	3.77	2.30	3.	
TN, JOHN SEVIER																
910126	14 2	17.29	36.714	84.403	2.41	1.6	MOR 4 6	108	350	D C D	0.04	0.59	10.14	10.91	-111.	
KY, WHITLEY CITY																
910127	2035	41.68	36.362	82.529	4.06	2.3	MOR 11 14	30	164	D D C	0.51	2.45	4.33	6.62	-110.	
TN, LEESBURG																
910219	115	15.37	35.498	84.315	16.04	1.1	MOR 4 7	21	173	B A C	0.03	0.21	0.65	0.83	35.	
TN, MT VERNON																
910219	14 0	1.36	35.613	84.249	12.46	1.9	MOR 4 8	7	180	C B D	0.05	0.29	1.25	0.78	-127.	
TN, VONORE																
910307	344	58.00	36.419	83.767	18.58	2.6	MOR 15 23	22	100	B B B	0.19	0.54	0.96	1.37	-133.	
TN, AUSMUS																
910307	931	40.49	35.482	84.232	12.65	1.3	MOR 6 9	21	165	B A C	0.05	0.20	0.59	0.59	-128.	
TN, RAFTER																
910415	555	46.73	35.591	83.590	4.33	2.2	MOR 8 14	35	108	C B C	0.16	0.52	0.53	2.10	31.	
NC, SILERS BALD																
910428	1937	43.89	35.730	84.099	11.11	2.8	MOR 16 24	12	82	B B B	0.19	0.42	0.59	0.82	37.	
TN, BINFIELD																
910505	3 2	16.79	36.336	83.949	23.37	1.9	MOR 15 21	18	139	C B C	0.16	0.43	0.99	0.79	31.	
TN, WHITE HOLLOW																
910510	1350	42.98	35.757	84.671	5.83	2.6	MOR 15 23	27	97	C C C	0.30	0.74	0.85	3.18	-81.	
TN, ROCKWOOD																
910510	1940	36.58	34.865	85.201	11.17	2.3	MOR 10 17	18	133	C C B	0.31	0.95	1.25	1.55	26.	
GA, NICKAJACK GAP																
910519	144	29.10	35.312	84.798	19.67	0.7	MOR 9 13	17	80	B B A	0.24	0.97	1.42	1.72	-101.	
TN, CHARLESTON																
910520	10 5	24.08	34.742	85.112	6.84	0.9	MOR 7 11	34	177	C C C	0.19	0.63	1.47	14.46	-118.	
GA, VILLANOW																
910526	549	27.26	35.488	84.632	15.27	0.9	MOR 7 10	24	95	B B B	0.06	0.24	1.03	1.94	-120.	
TN, RICEVILLE																
910528	2344	9.02	35.310	83.628	2.63	2.2	MOR 15 19	41	114	C C C	0.40	1.19	1.77	3.35	28.	
NC, HEWITT																
910529	247	18.86	35.415	84.292	21.59	2.9	MOR 19 31	18	66	B B A	0.19	0.36	0.65	0.90	-127.	
TN, MT VERNON																
910613	614	52.84	34.965	84.808	14.69	1.4	MOR 6 10	17	263	D C D	0.15	1.46	3.79	2.24	-27.	
GA, BEAVERDALE																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
910613	2246 2.76	35.569	84.734	13.62	1.0	MOR	11 18	36	80	B A C	0.12	0.32	0.35	0.54	-54.	
	TN, TRANQUILLITY															
910616	8 4 18.52	36.374	82.303	1.02	1.9	MOR	14 16	18	163	C C C	0.22	1.01	1.49	3.03	-34.	
	TN, JOHNSON CITY															
910620	720 48.77	35.756	84.202	23.16	-0.1	MOR	8 13	10	97	C C B	0.31	1.03	1.83	2.29	38.	
	TN, CONCORD															
910623	1854 5.64	36.015	83.816	11.88	0.9	MOR	3 6	40	312	D D D	0.21	3.55	6.40	5.85	-78.	
	TN, JOHN SEVIER															
910711	026 15.70	36.052	83.816	8.72	0.9	MOR	4 5	44	360	D D D	0.06	3.49	7.12	4.89	-81.	
	TN, JOHN SEVIER															
910714	731 56.02	35.562	84.423	14.05	1.2	MOR	4 6	22	127	C C B	0.10	1.01	2.03	1.20	40.	
	TN, SWEETWATER															
910715	9 0 8.33	34.505	82.724	12.72	1.5	MOR	6 6	95	265	D D D	0.09	1.80	6.41	84.79	-108.	
	SC, ANDERSON. Possibly related to Keowee Lake, SC															
910718	931 16.88	35.004	84.838	14.78	1.8	MOR	5 10	50	299	D C D	0.19	1.73	2.34	81.63	-15.	
	TN, FELKER															
910726	421 45.19	36.919	83.849	17.30	1.4	MOR	7 11	140	273	D D D	0.31	3.51	8.25	99.00	-86.	
	KY, FOUNT															
910729	1533 21.59	35.133	84.820	13.53	1.7	MOR	7 13	33	247	C B D	0.16	0.64	1.31	0.83	12.	
	TN, EAST CLEVELAND															
910731	744 14.11	35.014	84.360	11.44	0.4	MOR	5 8	33	132	C C C	0.19	1.11	2.33	2.12	-37.	
	TN, ISABELLA															
910817	1759 9.82	34.924	85.451	19.92	2.7	MOR	9 13	11	318	C B D	0.12	1.04	1.56	1.12	-35.	
	GA, HOOKER															
910818	1532 16.84	35.473	84.072	14.89	0.4	MOR	4 7	25	192	C B D	0.09	0.28	1.02	2.51	-111.	
	TN, WHITEOAK FLATS															
910818	1941 35.00	35.011	84.376	6.30	0.1	MOR	3 5	32	250	D C D	0.19	1.97	2.99	99.00	10.	
	TN, DUCKTOWN															
910908	2214 19.92	36.154	83.793	5.93	1.8	MOR	7 11	51	253	D C D	0.21	0.62	2.23	2.97	13.	
	TN, GRAVESTON															
910924	721 7.02	35.691	84.120	14.24	3.3	MOR	15 18	9	124	B A B	0.14	0.47	0.85	0.54	-96.	
	TN, BINFIELD															
911007	12 4 6.26	35.856	82.026	32.79	2.6	MOR	4 7	35	202	D D D	0.21	2.73	20.18	6.42	-128.	
	NC, LITTLE SWITZERLAND															
911009	427 51.11	34.928	84.922	9.74	2.1	MOR	7 9	24	291	C A D	0.06	0.32	0.65	0.87	-89.	
	GA, COHUTTA. Possibly related to road construction(GIT).															
911014	1110 37.62	35.578	84.187	8.20	1.9	MOR	5 9	10	126	B B B	0.12	0.52	1.38	2.31	-115.	
	TN, VONORE															
911019	1530 21.12	34.741	85.189	11.82	2.6	MOR	10 18	30	194	C B D	0.15	0.52	1.45	0.75	-64.	
	GA, CATLETT. Possibly related to road construction(GIT).															
911021	110 48.78	34.735	85.151	14.43	2.0	MOR	7 11	46	321	D C D	0.20	1.19	6.76	10.03	-45.	
	GA, CATLETT															
911025	1044 50.13	35.901	83.690	20.83	1.6	MOR	6 9	28	290	D C D	0.12	1.06	2.49	2.11	-72.	
	TN, BOYDS CREEK															
911027	141 5.53	35.007	84.381	12.14	0.6	MOR	4 7	31	243	C B D	0.15	1.01	1.67	2.38	-44.	
	TN, DUCKTOWN															
911028	1046 20.69	35.611	84.721	13.06	1.6	MOR	7 12	33	180	B A C	0.08	0.30	0.48	0.53	-57.	
	TN, TRANQUILLITY															

DATE	ORIGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
911030	1454 3.37 34.891	84.728	11.90	3.2	MOR	15 25	6	158	C B C	0.25	0.85	1.05	0.81	-80.		
	GA, TENNGA															
911103	653 52.71 35.437	84.207	0.64	1.2	MOR	4 7	25	118	C C C	0.08	0.44	1.21	3.86	35.		
	TN, RAFTER															
911103	7 5 59.93 35.445	84.227	6.57	1.0	MOR	3 6	25	178	C C C	0.05	0.45	1.92	17.22	38.		
	TN, RAFTER															
911110	954 36.78 34.557	85.673	3.91	1.8	MOR	6 7	55	315	C B D	0.03	0.69	1.80	2.35	-18.		
	AL, DUGOUT VALLEY															
911111	23 6 4.49 35.557	84.470	13.08	1.3	MOR	6 7	26	130	C C B	0.20	1.61	2.37	2.84	-38.		
	TN, SWEETWATER															
911115	852 13.20 35.341	84.104	5.85	1.7	MOR	6 9	32	78	C C C	0.12	0.63	0.84	57.87	-124.		
	TN, BIG JUNCTION															
911117	2111 31.71 34.987	82.926	8.23	2.9	MOR	9 9	41	202	D C D	0.19	1.52	3.48	2.98	-90.		
	SC, SALEM. Possibly related to Jocassee Lake, SC.															
911121	512 2.00 35.468	84.343	9.12	2.2	MOR	10 13	19	81	C B C	0.15	0.53	0.83	1.49	41.		
	TN, MT VERNON															
911122	533 41.60 35.476	84.286	10.17	2.1	MOR	6 6	22	82	C C C	0.11	1.28	2.11	3.60	39.		
	TN, MT VERNON															
911201	2239 6.45 34.953	84.963	18.83	1.5	MOR	10 14	29	164	C C C	0.14	0.65	1.55	3.14	-75.		
	GA, COHUTTA. Possibly related to road construction(GIT).															
911203	1515 20.79 35.580	84.111	8.31	1.2	MOR	5 8	13	117	C C B	0.09	0.55	1.33	2.75	-107.		
	TN, TALLASSEE															
911205	1610 31.06 35.569	84.111	6.49	2.0	MOR	6 9	14	112	C C C	0.12	0.57	1.64	7.85	-114.		
	TN, TALLASSEE															
911206	439 32.45 35.489	82.930	11.55	1.4	MOR	7 7	15	88	B B B	0.10	0.92	1.47	1.85	-131.		
	NC, WAYNESVILLE															
911214	215 50.57 35.748	84.240	15.15	0.6	MOR	4 6	10	260	D D D	0.08	0.96	4.21	1.80	-117.		
	TN, MEADOW															
911222	256 10.57 35.378	84.795	9.86	1.9	MOR	5 6	31	250	D C D	0.10	1.70	2.74	3.38	36.		
	TN, GOODFIELD															
911229	422 55.59 35.049	84.692	9.76	1.7	MOR	4 4	21	220	D D D	0.00	2.67	26.86	74.87	10.		
	TN, PARKSVILLE															
920103	459 54.67 36.779	83.040	9.71	2.4	MOR	13 15	59	203	C B D	0.11	0.48	2.35	1.88	-100.		
	VA, PENNINGTON GAP															
920104	2 1 22.21 36.277	83.521	5.74	2.0	MOR	16 22	33	89	C B C	0.15	0.40	0.49	1.52	2.		
	TN, DUTCH VALLEY															
920214	1036 3.50 35.278	84.621	16.62	1.5	MOR	8 11	16	143	C B C	0.09	0.40	0.67	1.37	-109.		
	TN, ETOWAH															
920307	1030 43.65 35.984	83.943	10.81	1.9	MOR	16 20	26	100	C B C	0.22	0.50	0.87	1.00	-132.		
	TN, KNOXVILLE															
920312	1841 58.09 35.313	83.638	4.94	1.7	MOR	9 11	7	79	B B B	0.23	1.09	1.60	1.55	-5.		
	NC, HEWITT															
920313	2249 41.09 35.528	84.397	14.72	2.2	MOR	21 36	23	50	C C B	0.31	0.56	0.67	1.86	-110.		
	TN, SWEETWATER															
920317	847 25.63 35.387	84.992	3.07	-0.5	MOR	8 13	28	201	D D D	2.05	8.26	13.75	15.10	-95.		
	TN, BIG SPRING															
920318	145 40.53 35.871	83.663	18.49	0.8	MOR	8 13	26	197	C B D	0.13	0.51	0.81	1.39	-2.		
	TN, WALDEN CREEK															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
920321	723 31.35 35.815	84.264	11.12	1.1	MOR	11 18	11	97	B B B	0.16	0.41	0.72	0.52	-22.		
	TN, LENOIR CITY															
920323	847 36.35 35.932	84.021	13.88	1.1	MOR	10 17	26	115	B B B	0.16	0.49	0.55	0.66	-63.		
	TN, BEARDEN															
920330	920 30.24 35.516	85.082	18.45	0.5	MOR	7 11	32	204	C B D	0.12	0.64	0.78	1.96	-69.		
	TN, MORGAN SPRINGS															
920402	1117 10.35 35.366	84.660	20.09	1.9	MOR	19 31	18	56	A A A	0.14	0.34	0.37	0.48	-102.		
	TN, CALHOUN															
920425	20 1 59.10 34.904	84.686	6.62	1.7	MOR	15 26	5	114	B B B	0.25	0.63	0.74	0.92	10.		
	GA, TENNGA															
920426	417 1.79 34.719	85.132	25.40	1.2	MOR	13 22	13	185	C B D	0.19	0.48	1.30	0.93	-126.		
	GA, CATLETT															
920505	129 56.15 35.247	84.527	15.52	2.7	MOR	19 29	35	103	C C C	0.23	0.52	0.74	7.71	-134.		
	TN, OSWALD DOME															
920531	436 2.14 36.186	82.884	22.88	1.5	MOR	18 25	19	63	A A A	0.15	0.40	0.68	0.86	-91.		
	TN, MOSHEIM															
920607	955 54.88 35.129	83.502	10.00	1.9	MOR	3 3	40	158	D D D	0.00	6.82	51.47	99.00	-87.		
	NC, WAYAH BALD															
920614	1127 39.73 36.135	83.949	13.93	2.0	MOR	16 22	12	102	B A B	0.12	0.32	0.35	0.30	-118.		
	TN, BIG RIDGE PARK															
920628	521 45.76 36.671	83.636	14.49	2.0	MOR	16 23	47	186	D C D	0.24	0.67	1.61	3.60	-96.		
	KY, MIDDLESBORO NORTH															
920628	1429 10.28 34.742	85.269	9.63	1.6	MOR	6 10	23	186	C B D	0.12	0.54	1.53	1.22	-134.		
	GA, ESTELLE															
920702	347 42.71 34.870	86.349	7.68	1.9	MOR	15 22	30	171	C B C	0.30	0.55	1.43	1.42	-110.		
	AL, HOLLYTREE															
920704	1623 18.91 36.160	83.706	16.88	2.0	MOR	15 24	13	118	B B B	0.24	0.67	0.90	1.02	-118.		
	TN, LUTTRELL															
920706	10 9 41.79 35.505	84.244	13.88	0.4	MOR	4 5	28	360	D D D	0.10	1.88	10.54	4.85	-122.		
	TN, VONORE															
920709	133 56.09 35.556	84.370	16.10	1.1	MOR	4 6	19	213	C A D	0.01	0.07	0.28	0.27	39.		
	TN, MADISONVILLE															
920716	058 3.51 34.876	84.915	24.22	1.3	MOR	5 7	22	306	C B D	0.09	0.85	2.02	1.83	-87.		
	GA, COHUTTA															
920719	5 2 42.35 35.949	84.502	24.44	1.2	MOR	8 14	18	99	B A B	0.11	0.39	0.54	0.79	-54.		
	TN, HARRIMAN															
920801	919 45.45 35.372	85.212	12.57	0.3	MOR	3 5	58	291	D D D	0.06	7.35	23.47	24.92	28.		
	TN, SODDY															
920803	1134 29.07 34.807	85.048	29.14	1.4	MOR	4 7	35	319	D C D	0.15	2.96	6.54	5.34	16.		
	GA, TUNNEL HILL															
920805	342 50.75 35.685	84.396	16.77	0.2	MOR	3 5	17	270	D D D	0.05	2.19	6.97	3.59	-130.		
	TN, PHILADELPHIA															
920808	351 41.80 34.576	85.431	8.54	1.9	MOR	6 10	45	304	C B D	0.10	0.73	1.24	1.09	-51.		
	GA, DOUGHERTY															
920812	416 53.54 35.292	84.301	22.57	0.9	MOR	10 16	15	86	A A A	0.10	0.32	0.41	0.66	-133.		
	TN, TELlico PLAINS															

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
920926	1916	49.71	35.937	84.406	10.77	2.1	MOR 8 9	35	273	C A D	0.06	0.25	0.81	0.69	-71.	
TN, ELVERTON																
921002	828	17.11	34.547	81.330	10.00	2.4	MOR 4 4	116	309	D D D	0.00	22.49	51.47	99.00	-112.	
SC, CARLISLE SE																
921024	1227	59.25	34.976	84.936	1.13	2.0	MOR 4 5	27	165	D D D	0.14	1.77	42.96	37.88	-74.	
GA, COHUTTA																
921025	1448	44.76	35.142	84.415	12.97	2.0	MOR 4 8	39	112	C C C	0.15	1.15	2.80	4.17	-51.	
TN, MC FARLAND																
921110	12 3	48.75	35.576	84.515	14.72	2.3	MOR 6 11	49	103	C B C	0.19	0.60	0.96	81.40	-65.	
TN, NIOTA																
921110	1716	46.76	35.657	84.151	11.49	2.9	MOR 10 14	34	96	C B C	0.19	0.83	1.11	1.71	-115.	
TN, MEADOW																

(B) REGIONAL EARTHQUAKES (OUTSIDE SARSN)

Hypocenters reported for informational purposes only -
consult VPI, GIT, USC/USGS for more complete data

All events from September 1981 - December 1985 were located using HYPO71.

DATE	ORIGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
811130	1733 0.73	37.729	82.221	11.0	0.0	6 8	112	231	D	D D	0.28	7.20	0.00	14.20	0.0
811204	235 6.51	36.997	80.754	7.1	0.0	15 20	6	127	B	B B	0.30	1.10	0.00	1.30	0.0
811209	329 5.68	33.262	87.070	10.1	0.0	7 11	1	95	B	A B	0.11	0.60	0.00	0.30	0.0
820128	452 1.43	32.914	81.405	11.0	0.0	6 9	124	311	D	D D	0.32	31.40	0.00	73.90	0.0
820205	1059 9.67	32.827	86.689	15.8	0.0	7 14	59	224	D	D D	3.65	21.20	0.00	90.10	0.0
820205	1417 5.04	32.689	86.646	25.2	0.0	6 12	74	279	D	D D	1.04	8.40	0.00	6.80	0.0
820301	333 9.76	33.664	81.206	11.0	0.0	3 3	68	278	C	A D	0.14	0.00	0.00	0.00	0.0
820413	925 9.30	34.251	81.260	12.0	3.1	6 8	3	257	D	D D	0.22	7.10	0.00	3.10	0.0
820512	458 3.88	34.252	87.528	7.9	2.4	8 13	95	211	C	B D	0.25	2.40	0.00	2.90	0.0
820616	1840 8.98	38.129	78.826	20.0	0.0	4 8	73	180	D	C D	0.25	1.70	0.00	18.90	0.0
820623	1617 4.01	37.882	80.975	11.1	0.0	8 15	34	243	C	B D	0.19	1.40	0.00	1.40	0.0
820716	1416 0.66	34.201	81.429	6.7	2.9	5 10	188	298	C	B D	0.19	2.10	0.00	2.30	0.0
820813	253 8.33	34.306	81.510	44.7	0.0	4 8	127	277	D	D D	3.13	36.30	0.00	44.20	0.0
821031	307 7.60	32.591	84.896	0.6	3.0	14 19	149	222	D	C D	0.31	1.20	0.00	1.40	0.0
821031	312 5.00	32.680	84.902	0.3	3.1	14 17	255	259	D	D D	1.89	21.60	0.00	19.80	0.0
821208	2336 1.34	32.644	83.254	2.4	0.0	9 13	175	319	D	D D	3.40	32.90	0.00	27.70	0.0
821211	25 2.79	32.853	83.532	11.0	0.0	13 23	152	275	D	D D	21.52	18.20	0.00	19.10	0.0
821221	530 6.39	32.744	83.451	0.6	0.0	8 14	153	246	D	C D	0.32	3.30	0.00	5.40	0.0
830117	206 5.54	32.412	83.433	15.8	0.0	12 21	180	253	D	D D	2.53	18.10	0.00	11.10	0.0
830125	2038 7.29	37.391	80.407	22.0	2.4	3 5	105	342	D	C D	0.11	4.70	0.00	18.00	0.0
830126	1408 1.52	32.728	83.375	17.0	3.2	6 9	0	170	D	D D	12.56	58.40	0.00	36.70	0.0
830131	2341 1.19	34.260	82.391	0.8	2.2	13 19	30	166	C	B D	0.23	0.90	0.00	1.60	0.0
830210	619 0.11	37.024	83.044	17.9	2.5	8 14	73	202	D	C D	0.27	2.70	0.00	2.30	0.0
830428	737 9.25	34.004	81.440	15.0	2.3	4 8	238	289	D	D D	0.12	5.50	0.00	6.30	0.0
830428	859 8.23	34.222	81.425	1.0	2.6	7 10	150	281	D	C D	0.13	2.60	0.00	2.90	0.0
830526	104 5.11	37.502	80.315	11.0	2.5	11 21	348	109	C	D C	0.20	0.80	0.00	2.00	0.0
830720	441 7.00	38.053	80.496	0.7	2.5	4 5	165	340	D	D D	0.71	50.30	0.00	17.70	0.0
830817	1403 7.19	38.307	82.900	20.0	3.4	9 10	80	242	D	D D	1.11	10.00	0.00	4.40	0.0
831209	11 6.34	37.301	80.719	13.1	2.2	7 10	81	302	D	D D	0.31	5.30	0.00	7.10	0.0
831231	631 1.47	32.191	84.938	5.0	2.4	7 10	0	131	D	D D	18.92	84.80	0.00	39.90	0.0
831231	1718 4.73	32.240	85.067	40.5	2.5	7 10	41	171	D	D D	10.95	56.70	0.00	43.90	0.0
840202	510 21.31	37.625	82.213	0.3	1.9	6 10	163	283	D	C D	0.29	4.90	0.00	7.80	0.0
840311	401 38.94	37.451	80.837	2.3	1.9	4 7	92	324	D	C D	0.33	4.40	0.00	5.00	0.0
840420	1439 55.05	33.995	87.406	6.1	1.8	4 5	308	344	D	D D	0.14	67.50	0.00	90.20	0.0
840622	2251 1.69	37.535	81.646	5.0	1.5	4 6	106	276	D	D D	4.92	27.60	0.00	43.90	0.0
840702	1951 37.89	37.259	80.612	7.3	2.0	6 8	17	136	C	B C	0.12	0.80	0.00	2.20	0.0
840824	1947 40.61	34.475	86.654	12.7	1.9	11 17	25	166	B	A C	0.14	0.50	0.00	0.70	0.0
840825	626 1.83	37.452	81.954	23.1	1.4	10 13	112	263	C	A D	0.11	0.90	0.00	0.80	0.0
841118	2023 46.05	33.531	86.207	0.2	2.7	6 9	179	257	D	C D	0.29	3.70	0.00	3.80	0.0
850129	156 58.24	33.980	82.498	2.3	2.0	15 26	25	276	C	B D	0.24	1.50	0.00	1.50	0.0
850609	38 49.52	33.688	81.738	5.0	2.5	6 6	73	271	D	C D	0.08	4.00	0.00	5.50	0.0
850610	1222 38.55	37.275	80.515	4.6	2.9	10 13	11	107	B	A C	0.13	0.70	0.00	0.90	0.0
851107	817 13.04	33.766	84.071	1.1	1.8	12 19	129	223	D	C D	0.44	2.10	0.00	3.40	0.0
851213	5 9 41.94	34.434	82.754	8.2	2.0	12 18	32	154	C	C C	0.36	2.00	0.00	4.50	0.0
860228	412 55.39	33.179	83.106	0.5	2.4	28 10	26	180	D	C D	0.11	1.27	2.33	0.90	-130.0
860313	229 29.65	33.098	83.230	12.4	2.5	16 7	204	315	D	D D	0.08	2.23	4.81	1.85	-65.0

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
860326	1636	24.17	37.252	80.516	7.0	3.0	41 26	9	490	B A C	0.10	0.30	0.36	0.20	-99.0
860809	758	17.15	36.793	80.740	12.3	2.4	12 20	27	800	C A D	0.13	0.39	0.63	0.50	27.0
860829	744	38.20	34.290	85.484	18.5	1.4	7 9	19	40	D D D	0.19	1.09	4.70	2.40	-119.0
860829	749	3.49	34.389	85.538	10.3	1.5	15 22	22	500	B A C	0.15	0.42	0.54	0.40	-106.0
861003	1021	49.45	35.805	80.456	0.2	2.5	12 17	69	600	D C D	0.25	1.13	3.14	3.50	9.0
861017	2203	20.68	35.546	86.041	7.9	2.3	11 18	2	440	C B C	0.20	0.69	1.12	0.50	-129.0
861103	2000	12.41	33.193	83.229	11.7	2.4	9 9	107	560	D D D	0.15	1.46	5.90	3.80	-128.0
861220	813	2.89	38.036	80.619	14.8	1.9	6 9	53	260	D D D	0.22	0.82	5.91	22.20	43.0

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
870106	4 5	39.56	33.158	83.169	19.06	1.7	MOR 6 10	199	304	C B D	0.08	1.05	1.29	0.56	-26.	
870113	1111	38.82	38.340	83.415	25.83	2.3	MOR 15 23	34	191	D C D	0.22	0.62	2.47	1.28	-98.	
870127	1010	0.65	35.822	80.466	5.00R	2.1	MOR 14 24	69	260	D D D	0.52	1.51	4.53	3.80	26.	
870128	730	12.15	33.181	83.152	11.60	1.7	MOR 6 10	197	320	D C D	0.17	2.04	4.60	3.34	-42.	
870129	940	18.75	33.254	83.181	5.00R	2.5	MOR 10 17	189	302	D D D	0.49	3.80	6.35	6.33	-103.	
870201	1612	35.69	33.226	83.270	2.13	1.5	MOR 9 15	11	254	D C D	0.41	1.80	3.46	1.72	-117.	
870202	1213	12.19	33.162	83.166	1.57	1.7	MOR 7 8	22	360	D D D	0.43	2.62	11.41	4.63	-116.	
870214	1223	18.17	32.709	87.269	7.29	2.8	MOR 16 23	40	225	D C D	0.30	0.67	2.73	1.40	-126.	
870219	443	20.74	33.219	83.159	16.95	2.1	MOR 5 7	193	325	D C D	0.12	1.88	3.51	2.69	-14.	
870224	525	33.91	33.228	83.213	0.60	1.8	MOR 5 9	15	277	D C D	0.20	2.28	7.36	5.40	-66.	
870310	7 5	26.66	34.551	80.946	8.81	1.8	MOR 12 23	15	127	C C B	0.20	0.53	2.31	3.22	-126.	
870316	13 9	26.38	34.556	80.961	9.99	3.2	MOR 16 26	16	126	C C B	0.23	0.61	1.98	2.51	-128.	
870510	1947	41.89	37.793	83.393	0.68	3.0	MOR 17 25	73	100	C B D	0.21	0.63	0.76	2.02	-57.	
870629	1049	21.42	34.844	87.658	12.72	2.2	MOR 13 19	40	196	C B D	0.21	0.70	2.69	1.88	-72.	
870708	145	0.61	34.832	87.612	8.56	2.1	MOR 12 19	44	116	C B C	0.20	0.72	0.94	1.38	-97.	
870709	351	43.00	33.249	83.307	8.15	2.0	MOR 7 9	6	311	C B D	0.05	0.75	0.96	0.48	-72.	
871018	1616	34.47	34.191	87.066	2.51	2.1	MOR 16 26	81	243	C B D	0.21	0.61	1.21	1.45	-79.	
871121	1 3	21.24	36.773	80.751	12.12	2.5	MOR 14 26	28	128	C B C	0.19	0.41	0.96	0.73	30.	
871128	850	39.53	33.968	82.533	13.74	1.5	MOR 12 21	147	273	D D D	0.60	2.52	7.49	10.12	-107.	
871212	353	28.10	34.154	82.714	9.88	3.3	MOR 20 28	3	101	B B B	0.16	0.38	0.74	0.51	-54.	
871212	438	57.89	34.159	82.668	9.06	1.4	MOR 7 9	2	281	D C D	0.25	1.42	3.30	1.29	-28.	
871212	10 3	25.74	34.163	82.673	5.02	1.5	MOR 12 19	2	138	C C C	0.30	0.88	1.85	0.72	-15.	
871224	2246	44.22	34.154	82.723	6.70	3.0	MOR 23 36	4	107	B B B	0.21	0.58	0.85	0.65	-66.	
880107	13 2	24.68	33.967	82.641	14.71	1.6	MOR 8 14	147	287	D C D	0.32	1.56	3.09	99.00	-106.	
880126	146	25.28	34.195	82.738	1.89	2.6	MOR 16 29	7	100	C C B	0.38	1.19	2.11	2.96	-125.	
880127	22 5	42.85	34.189	82.750	6.06	1.9	MOR 10 19	124	258	D C D	0.21	1.00	4.01	6.02	-111.	

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
880407	19 2	46.36	34.084	84.169	14.99	1.8	MOR 3 6	94	329	D C D	0.04	1.05	1.23	28.67	18.	
GA, DULUTH																
880521	1249	31.39	34.294	82.357	14.16	2.2	MOR 10 15	108	282	D C D	0.19	0.99	5.66	7.70	-118.	
SC, SHOALS JUNCTION																
880523	1221	34.25	37.778	81.133	20.13	0.0	MOR 4 7	192	310	D C D	0.07	1.54	2.62	3.27	11.	
WV, BECKLEY																
880616	9 0	44.26	34.493	85.498	12.05	0.0	MOR 8 12	15	261	C B D	0.08	0.56	0.83	0.26	-94.	
GA, LYERLY																
880918	1616	1.24	37.277	87.259	12.56	2.8	MOR 15 25	63	104	C B D	0.12	0.26	0.35	1.27	-86.	
KY, MILLPORT																
881007	2229	38.54	38.141	83.849	3.40	2.3	MOR 13 21	76	200	C B D	0.21	0.54	1.95	2.45	-132.	
KY, OWINGSVILLE																
881013	917	25.94	34.356	85.507	13.29	1.9	MOR 15 28	30	228	C B D	0.19	0.74	1.01	0.55	-99.	
AL, GAYLESVILLE																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
881204	1715 5.56	37.175	82.459	19.57	1.5	MOR	12 18	87	289	D C D	0.36	1.43	2.93	6.74	-99.	VA, CLINTWOOD
881211	1857 0.08	36.735	80.753	6.16	2.7	MOR	14 23	37	305	D C D	0.27	1.23	1.87	1.40	-44.	VA, WOODLAWN
881213	3 1 2.55	33.227	80.233	10.00	0.0	MOR	10 12	291	326	D C D	0.14	3.16	39.43	27.71	-119.	SC, SUMMERVILLE NW
890214	2215 24.18	37.487	82.297	19.12	1.9	MOR	5 9	146	294	D C D	0.18	1.61	2.70	10.67	-92.	KY, LICK CREEK
890218	2153 58.23	34.384	80.926	22.42	0.1	MOR	5 7	147	289	D D D	0.32	9.86	12.23	20.24	-12.	SC, FLINT HILL
890407	355 5.95	38.124	83.730	17.49	2.2	MOR	11 19	199	255	D C D	0.43	2.63	3.73	2.43	-59.	KY, OLYMPIA
890423	21 8 5.53	34.311	87.172	17.32	0.0	MOR	5 8	21	236	C B D	0.06	1.02	1.40	1.72	32.	AL, UPSHAW
890428	747 36.00	34.437	87.337	10.00	-0.3	MOR	2 2	352	360	C B D	0.06	1.02	1.40	32.75	32.	AL, MOULTON
890508	2 8 53.90	34.395	85.409	10.05	1.2	MOR	10 16	26	241	C A D	0.10	0.47	0.72	0.44	-89.	GA, LYERLY
890508	323 2.99	35.735	88.251	8.71	1.2	MOR	5 8	70	267	C B D	0.08	0.61	1.42	0.96	-28.	TN, CHESTERFIELD
890630	839 51.90	37.854	80.985	13.98	1.6	MOR	4 6	186	331	D D D	0.37	11.75	68.31	99.00	-71.	WV, MEADOW CREEK
890701	441 14.69	34.493	85.445	15.81	2.0	MOR	13 23	15	195	C B D	0.12	0.43	0.82	0.81	-90.	GA, LYERLY
890715	1858 27.89	34.382	87.349	15.12	3.0	MOR	14 18	6	235	D D D	0.41	1.75	4.39	1.81	-74.	AL, MOULTON
890719	1949 13.65	37.227	83.406	0.78	1.0	MOR	3 6	188	268	D C D	0.10	0.72	8.28	7.57	-102.	KY, HYDEN WEST
890730	623 56.22	33.991	82.648	12.66	1.9	MOR	7 9	145	303	D C D	0.08	1.42	9.05	13.51	-116.	GA, BROAD
890730	852 25.61	34.028	82.375	15.26	1.5	MOR	6 8	158	326	D C D	0.10	1.59	2.81	3.44	-79.	SC, CALHOUN CREEK
890730	1042 14.01	33.803	82.571	20.61	1.2	MOR	4 5	165	346	D D D	0.02	17.07	67.73	36.09	-50.	GA, METASVILLE
890730	1914 58.26	33.995	82.631	14.92	1.7	MOR	9 12	145	298	C B D	0.09	0.63	1.92	38.04	-89.	GA, BROAD
890811	2247 13.64	33.858	86.967	11.44	2.2	MOR	12 24	73	253	C B D	0.15	0.44	1.31	1.64	-79.	AL, CREEL
890820	0 3 18.32	34.801	87.597	6.71	3.5	MOR	16 21	47	89	C B C	0.18	0.51	0.83	1.33	-49.	AL, KILLEN
890821	125 38.55	34.814	87.592	7.82	1.2	MOR	5 8	47	217	D C D	0.16	0.76	2.77	6.42	-49.	AL, KILLEN
890826	218 1.03	33.952	87.037	11.19	1.6	MOR	5 9	61	258	C B D	0.06	0.78	1.02	0.93	-44.	AL, COLD SPRING
890830	921 46.23	34.276	81.086	9.07	1.3	MOR	3 6	152	334	D C D	0.03	1.09	37.08	24.24	-122.	SC, WINNSBORO MILLS

DATE	ORIGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
890831	543 NC, SALISBURY	12.21	35.747	80.488	4.21	1.1	MOR 5 8	69	283	C B D	0.09	1.16	1.63	2.10	7.	
890920	749 GA, MILSTEAD	36.10	33.727	83.888	14.24	1.6	MOR 4 7	127	341	D C D	0.03	0.27	5.20	3.40	-96.	
890930	8 6 GA, LAKE SINCLAIR WEST	32.48	33.130	83.308	15.01	2.8	MOR 7 13	199	309	D C D	0.11	1.11	1.83	0.82	-34.	
890930	20 0 TN, GREENFIELD BEND	17.89	35.713	87.333	2.78	2.1	MOR 15 25	38	80	C C C	0.38	1.24	1.96	3.41	-116.	
891008	11 0 GA, LAKE SINCLAIR EAST	26.68	33.225	83.157	20.54	2.2	MOR 6 10	193	303	D D D	0.19	2.38	3.21	1.28	-26.	
891010	112 GA, LAKE SINCLAIR EAST	27.78	33.224	83.218	18.20	2.4	MOR 4 6	191	322	D D D	0.08	2.14	13.21	2.57	-18.	
891011	745 GA, SHOULDERBONE	41.03	33.355	83.104	15.98	2.0	MOR 6 8	181	319	D C D	0.15	2.23	3.14	3.47	-51.	
900103	425 VA, AMONATE	13.26	37.210	81.726	8.34	2.2	MOR 8 10	79	251	D C D	0.21	1.82	7.30	4.95	-56.	
900103	12 9 TN, MASCOT	46.37	36.072	83.644	11.51	1.8	MOR 12 17	105	267	D D D	9.80	17.04	51.47	99.00	-81.	
900124	1820 KY, ALTON	24.15	38.070	86.409	3.58	3.4	MOR 17 22	115	128	D C D	0.34	1.09	2.82	3.47	41.	
900127	14 5 KY, ALTON	49.31	38.108	86.430	1.13	3.8	MOR 15 17	284	222	D D D	0.31	1.53	6.37	5.86	-85.	
900128	755 GA, LINCOLNTON	9.12	33.809	82.394	16.11	-0.1	MOR 6 8	176	301	D C D	0.12	1.59	2.07	2.59	41.	
900129	923 SC, POMARIA	25.28	34.339	81.481	14.94	1.3	MOR 3 4	125	360	D D D	0.05	12.32	17.07	99.00	7.	
900129	1941 IN, ENGLISH	44.49	38.332	86.466	0.14	2.6	MOR 14 22	307	231	D D D	1.48	5.01	23.56	14.13	-89.	
900207	741 SC, SUMMERVILLE	39.92	33.044	80.227	17.94	2.9	MOR 4 6	309	338	D D D	0.07	6.01	90.51	59.16	-119.	
900227	314 GA, ROCKVILLE	38.50	33.282	83.236	11.10	2.1	MOR 6 9	184	321	D C D	0.08	1.45	4.42	6.74	-103.	
900309	21 1 KY, ALTON	58.05	38.049	86.473	10.00	2.5	MOR 7 7	280	252	D D D	0.20	2.30	10.05	99.00	-93.	
900321	911 KY, LOUISVILLE	37.64	38.146	85.818	5.76	2.4	MOR 3 5	256	328	D D D	0.04	29.05	51.47	99.00	-123.	
900326	17 1 AL, CENTER HILL	51.63	34.922	87.482	10.17	1.8	MOR 2 3	54	360	D D D	0.09	6.36	51.47	99.00	-83.	
900328	1012 AL, OLD BETHEL	40.00	34.591	87.519	5.25	2.5	MOR 15 21	24	155	C C C	0.27	0.73	2.98	3.29	-81.	
900405	329 VA, WOODLAWN	36.47	36.714	80.770	11.26	1.4	MOR 4 7	35	304	C B D	0.05	1.13	2.00	1.58	-109.	
900408	1952 KY, PARADISE	23.05	37.281	86.886	0.76	2.4	MOR 8 12	214	251	D C D	0.38	1.35	10.96	7.54	-87.	
900410	1918 KY, HAZEL GREEN	38.46	37.801	83.381	11.85	2.1	MOR 8 12	135	269	C B D	0.09	0.67	1.45	1.75	-112.	

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
900504	2140	37.39	34.472	85.486	5.67	2.3	MOR 9 17	57	218	C B D	0.11	0.58	1.67	2.07	-49.	
GA, LYERLY																
900618	10 3	45.25	33.871	80.654	24.73	2.2	MOR 5 5	209	319	D D D	0.11	6.54	63.03	93.62	-120.	
SC, WATEREE																
900619	055	5.73	33.836	82.679	7.10	1.3	MOR 3 4	155	360	D D D	0.09	38.33	51.47	99.00	-116.	
GA, TIGNALL																
900623	2044	2.76	33.707	87.989	21.19	3.1	MOR 12 16	141	245	D C D	0.25	1.60	2.33	1.35	-54.	
AL, REGIONAL BLUFF																
900727	556	27.47	34.402	85.489	6.50	2.2	MOR 6 10	65	215	C B D	0.11	1.12	1.43	1.35	-49.	
GA, LYERLY																
900818	2246	52.32	33.643	80.483	14.89	2.4	MOR 5 5	239	331	D D D	0.10	96.59	51.47	99.00	-120.	
SC, SUMMERTON																
900819	1930	5.42	40.158	87.027	10.00	3.0	MOR 4 5	556	320	D D D	0.26	19.32	51.47	99.00	-99.	
IL, WINGATE																
900823	823	11.24	34.036	82.503	14.70	2.8	MOR 11 15	139	271	D C D	0.11	0.61	1.45	14.20	-102.	
SC, CALHOUN FALLS																
900823	919	28.71	34.030	82.494	0.85	2.2	MOR 11 13	139	280	D C D	0.12	0.89	5.74	5.23	-110.	
SC, CALHOUN CREEK																
900824	725	45.16	33.948	82.482	13.21	1.9	MOR 9 12	148	296	D C D	0.20	1.31	8.73	12.77	-111.	
SC, WILLINGTON																
900830	640	19.16	37.423	80.584	10.00	2.7	MOR 5 7	98	339	D D D	0.13	4.91	77.38	50.57	-64.	
VA, INTERIOR																
900902	435	40.70	33.715	87.948	12.92	2.8	MOR 16 21	141	223	D D D	0.53	2.79	3.36	3.82	-33.	
AL, VERNON																
900926	1318	51.66	37.142	89.606	0.25	0.0	MOR 43 50	29	68	D D C	0.72	1.67	2.27	2.88	19.	
MO, SCOTT CITY																
901014	1830	11.17	39.279	81.792	14.82	3.1	MOR 5 5	352	337	D D D	0.08	02.58	51.47	99.00	-87.	
OH, LITTLE HOCKING																
901024	529	38.19	37.381	86.871	0.66	1.6	MOR 6 9	209	226	D D D	0.60	1.25	2.50	2.25	-54.	
KY, HORTON																
901108	10 8	25.42	37.108	83.031	0.38	3.2	MOR 15 28	80	234	D D D	1.05	2.10	7.27	7.46	-100.	
KY, TILFORD																
901113	1522	9.91	32.934	80.021	9.31	3.5	MOR 14 16	329	316	D D D	0.27	5.49	47.75	33.58	-123.	
SC, LADSON																
901129	921	16.22	38.797	81.921	9.14	2.1	MOR 5 8	246	330	D D D	0.66	7.72	51.47	99.00	-87.	
WV, MOUNT ALTO																
901217	524	59.34	40.048	87.024	5.00	3.3	MOR 15 15	362	265	D D D	0.17	1.32	12.92	65.56	-87.	
IN, WAYNETOWN																
901220	14 4	17.36	39.596	86.671	0.53	3.6	MOR 15 15	340	255	D C D	0.29	2.03	11.19	7.66	-81.	
IN, EMINENCE																
910108	624	8.68	33.220	83.194	14.38	2.5	MOR 11 19	192	302	D C D	0.33	2.38	3.46	2.33	-48.	
GA, LAKE SINCLAIR EAST																
910109	510	10.69	33.188	83.221	13.00	2.6	MOR 13 20	195	261	D D D	0.31	2.43	3.66	2.27	-32.	
GA, LAKE SINCLAIR EAST																
910109	759	39.90	33.253	83.336	3.08	1.8	MOR 4 6	185	339	D D D	0.10	8.76	11.06	75.24	-97.	
GA, MEDA																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
910109	949	40.32	33.156	83.299	17.19	2.1	MOR	8 13	196	309	D D D	0.25	2.51	4.40	2.07	-12.
GA, LAKE SINCLAIR WEST																
910115	848	22.48	33.204	83.205	11.61	3.2	MOR	15 22	194	279	D C D	0.29	1.95	2.26	2.03	-47.
GA, LAKE SINCLAIR EAST																
910116	1526	39.40	33.171	83.264	21.69	2.7	MOR	7 10	196	304	C B D	0.07	0.96	1.54	0.67	-36.
GA, LAKE SINCLAIR WEST																
910118	2 5	37.17	33.230	83.228	18.94	2.6	MOR	9 14	190	295	D C D	0.22	2.25	2.56	1.20	-34.
GA, LAKE SINCLAIR EAST																
910121	7 3	23.72	34.490	86.397	12.24	2.0	MOR	11 20	47	206	C B D	0.19	0.49	1.32	0.97	-112.
AL, GUNTERSVILLE DAM																
910126	321	21.75	41.586	81.772	10.00	3.4	MOR	11 12	549	336	D D D	0.27	14.57	51.47	99.00	-90.
OH, CLEVELAND NORTH																
910127	220	34.91	33.231	83.247	20.35	3.1	MOR	8 12	190	295	D C D	0.18	2.12	3.23	1.23	-37.
GA, LAKE SINCLAIR EAST																
910207	4 3	14.33	33.195	83.183	8.01	3.1	MOR	13 18	195	265	D D D	0.47	3.86	5.50	3.26	-77.
GA, LAKE SINCLAIR EAST																
910207	9 1	27.71	33.192	83.141	19.55	2.0	MOR	7 12	197	304	D C D	0.09	0.97	1.73	0.67	-12.
GA, LAKE SINCLAIR EAST																
910207	1315	0.67	33.197	83.181	13.67	2.0	MOR	7 9	195	303	D C D	0.11	1.64	3.56	2.74	-34.
GA, LAKE SINCLAIR EAST																
910217	1735	13.85	33.140	85.771	0.54	2.9	MOR	8 8	137	239	D D D	0.12	1.33	9.59	6.00	-44.
AL, GIBSONVILLE																
910315	653	55.97	38.784	77.442	10.00	3.3	MOR	9 12	403	344	D D D	0.71	39.70	51.47	99.00	-37.
VA, MANASSAS																
910402	1041	34.59	34.439	84.082	14.79	1.7	MOR	3 4	54	314	D D D	0.13	8.52	18.86	99.00	-127.
GA, DAWSONVILLE																
910422	1 1	19.27	37.996	80.266	7.85	3.4	MOR	14 23	168	317	D D D	0.29	1.89	5.08	2.27	8.
WV, ANTHONY																
910502	1035	18.57	34.307	81.203	4.78	0.7	MOR	5 8	143	317	D D D	0.45	6.27	51.34	54.93	-115.
SC, RION																
910723	9 6	48.48	34.764	87.508	13.13	2.1	MOR	6 9	56	202	D D D	0.30	3.53	8.25	2.63	-63.
AL, KILLEN																
910809	135	29.18	33.981	82.507	14.99	0.7	MOR	6 8	145	317	D C D	0.13	1.04	2.01	59.95	-120.
GA, CHENNAULT. Possibly related to Clarks Hill Lake, SC																
910922	1957	22.17	34.311	82.149	0.22	2.3	MOR	15 22	106	261	D C D	0.33	1.51	4.81	4.67	-119.
SC, COKESBURY. Possibly related to Greenwood Lake, SC																
910922	2122	52.95	34.291	82.146	4.99	2.4	MOR	15 19	109	262	D D D	0.30	1.62	7.39	8.09	-113.
SC, COKESBURY. Possibly related to Greenwood Lake, SC																
910922	2342	43.66	34.216	82.112	2.25	1.1	MOR	10 11	150	273	D D D	0.40	3.14	19.00	16.33	-112.
SC, NINETY SIX. Possibly related to Greenwood Lake, SC																
911022	630	57.00	34.498	85.459	14.91	1.8	MOR	7 13	54	297	D C D	0.13	1.21	3.32	49.80	-119.
GA, LYERLY																
920103	421	22.88	33.955	82.481	10.47	3.5	MOR	17 30	147	229	C B D	0.21	0.60	1.57	2.47	-133.
SC, WILLINGTON																
920107	1148	29.32	33.412	82.783	2.23	2.7	MOR	9 10	188	290	D D D	0.20	2.82	4.93	5.05	-85.
GA, SPARTA NE																

DATE	ORGIN	LAT°N	LONG°W	DEP	MAG	MOD	ST PH	DMIN	GAP	Q	SQD	RMS	ERH1	ERH2	ERZ	AZM
920118	1 1	54.22	35.937	80.051	23.65	2.6	MOR 14 23	145	190	D D D	0.79	2.84	4.54	4.21	-110.	
	NC, HIGH POINT WEST															
920130	3 3	56.86	33.825	82.669	12.20	1.9	MOR 9 12	157	291	D D D	0.61	6.24	18.20	27.13	-102.	
	GA, TIGNALL															
920130	312	55.06	33.766	82.593	8.77	1.5	MOR 5 6	166	307	D C D	0.17	2.18	21.08	37.23	-102.	
	GA, METASVILLE															
920130	657	6.98	34.057	82.557	14.99	1.8	MOR 9 11	147	269	D C D	0.16	1.39	3.84	11.45	-91.	
	SC, CALHOUN FALLS															
920201	4 4	54.69	33.742	82.365	4.14	1.7	MOR 6 8	183	331	D C D	0.09	2.31	5.18	5.14	-132.	
	GA, LEAH															
920201	5 6	4.02	33.788	82.500	0.22	1.9	MOR 8 12	171	296	D D D	0.34	4.00	24.07	25.74	-118.	
	GA, METASVILLE															
920201	843	33.02	33.735	82.447	10.43	2.5	MOR 18 26	171	278	D C D	0.42	2.37	3.40	3.93	-127.	
	GA, WOODLAWN															
920201	1417	30.86	34.006	82.544	0.61	2.2	MOR 14 20	143	272	D C D	0.36	1.97	6.06	4.92	-102.	
	SC, CALHOUN FALLS															
920209	136	22.70	33.725	82.322	5.57	2.3	MOR 4 5	187	332	D D D	0.04	42.07	51.47	99.00	-123.	
	GA, LEAH															
920229	629	18.15	35.563	87.091	14.49	2.3	MOR 15 27	64	86	D C D	0.38	0.74	1.13	3.76	-37.	
	TN, COLUMBIA															
920317	1731	35.22	34.432	87.214	8.97	2.1	MOR 7 12	11	191	D D D	0.32	1.16	3.26	2.04	-103.	
	AL, OAKVILLE															
920322	5 7	23.12	35.049	87.597	0.01	2.0	MOR 4 7	43	158	D D C	8.72	16.05	39.53	80.53	-9.	
	TN, ST JOSEPH															
920405	554	32.59	34.635	87.421	15.29	2.1	MOR 7 12	23	186	D C D	0.21	1.21	2.72	8.48	-65.	
	AL, TOWN CREEK															
920405	1157	36.96	34.627	87.458	19.03	2.0	MOR 9 14	24	153	C C C	0.24	1.20	1.69	3.24	-89.	
	AL, TOWN CREEK															
920426	754	52.61	32.725	87.626	9.54	1.8	MOR 12 16	192	296	D D D	0.60	4.74	8.20	4.55	-11.	
	AL, MELTON															
920511	642	29.84	36.840	88.996	5.34	2.3	MOR 14 17	85	202	D C D	0.34	1.46	2.73	3.56	-109.	
	KY, MILBURN															
920519	845	6.18	36.771	80.735	11.26	2.4	MOR 15 23	40	176	C C C	0.37	0.89	1.99	2.45	41.	
	VA, HILLSVILLE															
920616	1928	48.75	38.061	87.464	5.47	2.8	MOR 9 16	22	235	D C D	0.29	1.05	2.66	4.03	6.	
	IN, ALTON															
920802	1036	21.00	34.245	84.322	0.70	1.7	MOR 5 6	76	360	D D D	0.19	2.96	20.51	22.56	-64.	
	GA, BIRMINGHAM															
920821	1632	2.82	33.656	80.508	7.50	3.8	MOR 13 13	240	305	D D D	0.12	1.90	17.66	7.86	-121.	
	SC, ELLOREE															
920929	4 5	22.99	37.286	81.810	8.51	3.2	MOR 7 8	90	254	D C D	0.12	1.16	4.85	6.83	-84.	
	WV, BRADSHAW															
921029	524	54.41	34.364	81.340	0.56	1.8	MOR 4 8	130	297	D C D	0.09	1.82	9.66	10.60	-121.	
	SC, JENKINSVILLE															
921124	226	51.25	37.439	80.988	10.32	1.8	MOR 3 5	87	339	D D D	0.05	59.23	51.47	99.00	-73.	
	WV, LERONA															

BIBLIOGRAPHIC DATA SHEET

(See instructions on the reverse)

1. REPORT NUMBER
(Assigned by NRC, Add Vol. Supp., Rev.,
and Addendum Numbers, if any.)

NUREG/CR-6254

2. TITLE AND SUBTITLE

Southern Appalachian Regional Seismic Network

3. DATE REPORT PUBLISHED

MONTH YEAR
August 1994

4. FIN OR GRANT NUMBER

D1553

5. AUTHOR(S)

Shu-Chioung Chi Chiu, Arch Johnston, Jer-Ming Chiu

6. TYPE OF REPORT

Technical

7. PERIOD COVERED (Inclusive Dates)

1979 - 1991

8. PERFORMING ORGANIZATION - NAME AND ADDRESS (If NRC, provide Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address; If contractor, provide name and mailing address.)

Memphis State University
Center for Earthquake Research and Information
Memphis, Tennessee 38152

9. SPONSORING ORGANIZATION - NAME AND ADDRESS (If NRC, type "Same as above"; If contractor, provide NRC Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address.)

Division of Engineering
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

10. SUPPLEMENTARY NOTES

11. ABSTRACT (200 words or less)

Memphis State University has monitored the seismicity of the southern Appalachian area since late 1979 by means of the Southern Appalachian Regional Seismic Network (SARSN), which has provided good spatial coverage for earthquake location. Activity is more heavily concentrated in the Valley and Ridge province (VR) of eastern Tennessee than in the Blue Ridge (BR) or Piedmont (P). The majority of these events lie between the New York-Alabama and the Clinchman/Ocoee lineaments, magnetic anomalies of deep-seated basement structures. Thus, SARSN has been able to define the first order characteristics of the Southern Appalachian seismic zone. The focal depths of the earthquakes are concentrated between 8 and 16 km, principally beneath the Appalachian overthrust. In cross-section the average seismicity is shallower beneath the BR and P provinces than the VR and North American craton. Results of focal mechanism studies for events that occurred between October 1986 and December 1991, indicate that the basement of the VR province is under horizontal, NE-SW compressive stress. Right-lateral strike-slip faulting on nearly N-S faults is preferred as it agrees with the trend of the regional magnetic anomaly pattern.

12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)

Seismicity
Eastern Tennessee Seismic Zone
Southern Appalachian Seismic Zone
Eastern U.S. Seismicity
Seismic Monitoring
Southern Appalachian Regional Seismic Network

13. AVAILABILITY STATEMENT

unlimited

14. SECURITY CLASSIFICATION

(This Page)

unclassified

(This Report)

unclassified

15. NUMBER OF PAGES

16. PRICE

Federal Recycling Program