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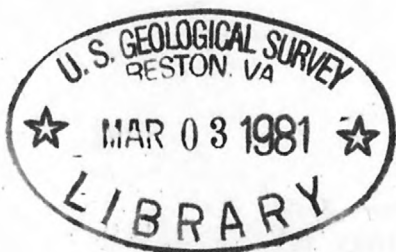
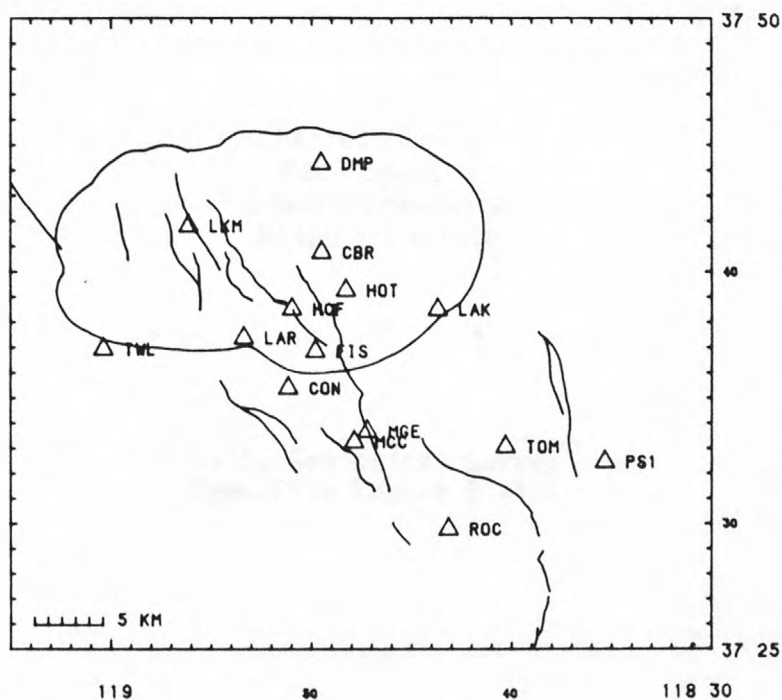
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Preliminary Analysis of Digital Seismograms
from the Mammoth Lakes, California Earthquake
Sequence of May-June, 1980

Charles Mueller
Paul Spudich
Edward Cranswick
Ralph Archuleta



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U. S. Geological Survey
Open-File Report 81-155

This report is preliminary and has not been reviewed
for conformity with U.S. Geological Survey editorial
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INTRODUCTION

Three earthquakes with $M_L \geq 6.0$ occurred near Mammoth Lakes, California on May 25, 1980 ($M_L = 6.1$ at 1633 UTC, $M_L = 6.0$ at 1649, and $M_L = 6.1$ at 1944) followed by a $M_L = 6.2$ shock on May 27 (1450 UTC) (Urhammer and Ferguson, 1980). The U.S. Geological Survey responded by undertaking an aftershock study using portable digital event recording seismographs. Our main goal was to get unclipped recordings of one or more large aftershocks. The data gathering aspects of the study (including details of instrumentation and timing) are described by Spudich et al (1980), hereafter referred to as Report 1. Between May 26 and June 13 we recorded 150 locatable earthquakes (three or more stations with at least three timable P-waves) ranging in seismic moment from 3.0×10^{19} to 1.5×10^{22} dyne-cm. In this report we describe our analysis of these data including: hypocenter locations for 150 aftershocks, fault-plane solutions for nine well-recorded aftershocks, and moment determinations from long period spectral levels for selected aftershocks.

Figure 1 shows station locations superimposed on a map showing surface faults in the Mammoth Lakes area and an outline of the Long Valley caldera. The Long Valley caldera is a prominent tectonic feature of the eastern Sierra Nevada Mountains associated with an embayment of the range front at Mammoth Lakes. The geologic history of the area has been described by Bailey et al (1976). Major volcanism in the area (3.2 million years ago) consisted of basaltic and andesitic eruptions from centers probably not associated with the Long Valley magma chamber itself. The eruption of rhyodacite 3.0 to 2.7 million years ago from centers near the western edge of the present caldera probably corresponded to the last major Sierra uplift and was prior to the

formation of the eastern Sierra escarpment in the area. Extensive rhyolite volcanism from 1.9 to 0.9 million years ago was associated with an arc of volcanic centers along the northeast side of the present caldera (a ring fracture); these rhyolites are thought to be derived from the Long Valley magma chamber. The explosive eruption of the Bishop Tuff (600 km^3) 0.7 million years ago resulted in the collapse of the caldera. The caldera outline shown in Figure 1 is from Bailey et al (1976) and is a geophysical boundary based on the gravity work of Pakiser (1961). Major development of the Sierra range front escarpment continued during the 1.9 to 0.9 m.y. episode of volcanism and today this feature coincides with two major NNW trending faults in the area: the Hilton Creek fault to the southeast of the caldera (it passes through station MGE in Figure 1) and the Hartley Springs fault to the northwest. Major vertical displacements on these faults (several hundred meters, east side down) are truncated by the caldera. There are no major NNW trending intracaldera faults, only small recent faults associated with hot spring activity. Bailey et al emphasize a major tectonic question: how were large post-caldera displacements on the Hartley Springs and Hilton Creek faults accommodated near the caldera? We will show evidence from the aftershocks of the 1980 Mammoth Lakes sequence supporting their hypothesis that tectonic adjustments are occurring along the southern caldera boundary fault west of the Hilton Creek fault.

INSTRUMENTATION

Our basic network consisted of 12 three-component digital recording stations, six with geophones (two Hz natural frequency) and six with force balance accelerometers (FBA's). Our strategy was to run the FBA's at low gain near the center of the network and surround them with the velocity instruments

run at higher gain. Some of the seismographs were moved during the study (consistent with the above strategy) for reasons of noise, access, and usefulness in hypocenter location. For example, station TWL was installed when it became clear that many hypocenters were falling to the southwest of the Convict Lake (CON) area (the mountains prevented the installation of instruments southwest of MGE and CON). Locations and times of operation for each station are included in Report 1.

In the field, earthquakes and WWVB time code were played back on strip chart records and timed by hand allowing preliminary hypocenter locations to be made. When we returned from the field, each record was read into a DEC 11/70 computer and was given a file name composed of station name and event time. Concurrent events were found by searching lists of file names. Table 1 is a list of all aftershocks recorded at three or more stations (a complete list of all recorded events is included in Report 1). The remainder of this report contains our analysis of the subset of these earthquakes with at least three timable P waves.

EARTHQUAKE LOCATIONS

Earthquakes and WWVB code were displayed on a CRT and P and S phases were timed to within 0.01 sec. Useful P and S phase times were given quality weights and after clock correction were input to the hypocenter location program HINV (a modified version of HYPOINVERSE (Klein, 1978)). Our best locations for 150 aftershocks including phase times, weights, residuals, and location quality parameters (with a description of useful parameters) are listed in Appendix A. The location algorithm itself is described by Klein (1978). Appendix B contains seismograms from the largest aftershocks and some randomly selected smaller events.

Figure 2 is a map including all locatable aftershock epicenters, two of the May 25 mainshock epicenters (1633 and 1944 UTC), the May 27 epicenter (1450 UTC), and the October 4, 1978 Bishop epicenter (1642 UTC). The epicenters of the four large earthquakes were provided by R. Cockerham (personal communication). Figures 3 through 12 are maps of aftershock activity in two day groups. The picture of seismicity presented in Figures 3 through 12 is "filtered" through our changing network. For example, apparent increased seismicity on 6/4 and 6/5 is a reflection of increased amplifier gains while we tried (unsuccessfully) to record a quarry blast for station calibration.

We used three crustal velocity models as shown in Table 2: a mountain model (MCC, CON, MGE, TWL, ROC), a caldera model (HOT, CBR, FIS, HCF, LAR, TOM, DMP, LKM), and a separate model for LAK, a station on the boundary of the caldera. PSI was not used in the locations because it lacked a clock correction. The caldera model was based on the refraction work of Hill (1976) and the mountain model was based on Eaton (1966). While Eaton's velocity model for the eastern Sierra Nevada does not show a surface layer with P wave velocity less than 6.0 km/s, we have included a 5.0 km/s layer in our mountain model with a thickness (1.0 km) designed to yield Eaton's observed 1.0 second delay time for the 6.0 km/s refracted arrival. The locations of most stations suggested the correct velocity model, however choices of models for TWL, LAR, FIS, and LAK were unclear since these stations were located near the caldera boundary. In order to determine the optimal model for these stations we followed a trial-and-error procedure aimed at reducing grossly skewed residuals at any stations: after each location run, residuals were plotted and models adjusted. The choices of a mountain model for TWL, a caldera model

for LAR and TOM, and a separate model for LAK resulted from this procedure. We have confidence in these locations to the degree that we have achieved low residuals with a simple approach: crustal models were derived from independent studies and unwarranted station delays were avoided. (We will merge our data with P and S times from five-day tape recorders deployed by the USGS when these data become available. The station at Lake Thomas A. Edison located 35 km southwest of our station TOM may be useful in decreasing the GAP parameter and increasing the quality of some locations.)

Figure 13 is a map of the better located epicenters at a scale similar to that in Figure 1. The selection criteria for earthquakes in Figure 13 are that $ERH < 2.0$ and $ERZ < 2.0$ kilometers. Roughly 40 epicenters are plotted, along with the horizontal projections of the three principal standard error axes (see Appendix A), forming three nebulous clusters like the epicenters in Figure 2. The dense ENE-WSW band of well located events corresponds to the cluster of epicenters near the southern caldera boundary in Figure 2. Events to the south and west are discriminated against because they tend to lie outside the network and are less well located (the southernmost epicenters in Figure 13 tend to have large error bars, within the ERH, ERZ criteria). The triangles and letters A-F in Figure 13 define lines of cross-section. In Figures 14 through 19 all hypocenters and error axes from Figure 13 are projected to vertical planes represented by these cross-section lines. Although Figure 1 suggests a NNW trending system of faults in the area parallel to the Sierra range front, cross-section F (Figure 19) shows that well located aftershock hypocenters were aligned on two ENE-striking, steeply SSE-dipping planes subparallel to the southern boundary of the caldera, a

major east-west structural feature in the area. The plane 13 km from the southeast end of line F is especially well defined; Figure 19 shows that most of the hypocenters on this plane have $ERH < 1$. There is no evidence in cross-section C (Figure 16) of alignment of hypocenters along NNW-striking planes. This suggests that tectonic adjustments during the aftershock sequence occurred on planes subparallel to the southern caldera boundary west of the Hilton Creek fault in agreement with the suggestion of Bailey et al (1976).

FAULT-PLANE SOLUTIONS

Aftershocks with at least seven fully weighted P arrivals were selected for fault-plane analysis. Individual fault-plane solutions for the nine aftershocks so selected are shown in Figure 20 and a composite solution using 71 fully weighted P phases from these nine aftershocks is shown in Figure 21. Shaded regions (Fig. 20) and closed circles (Fig. 21) correspond to compressions in these upper-hemisphere, equal-area projections. Most of the mechanisms demonstrate right-lateral strike-slip motion on nearly vertical east-west striking planes or left-lateral strike-slip motion on nearly vertical north-south striking planes. Dip-slip motion on NNW trending fault planes (parallel to the Hilton Creek-Hartley Springs range front fault system) is ruled out by these mechanisms. Several individual solutions (5/29 0418 and 6/5 1941) suggest strike-slip motion on NNW trending fault planes but such motion is not indicated by the composite solution. A single dip-slip mechanism (5/30 1949) shows reverse slip with a small strike-slip component on a moderately dipping, NE-SW striking fault. Since the best located aftershocks fall on east-west trending planes, right-lateral strike-slip is the preferred mechanism in Figure 21.

SEISMIC MOMENTS

Table 3 shows preliminary seismic moments calculated from long-period spectral levels for selected earthquakes. To determine the range of moments of locatable earthquakes recorded during the study we used most of the large events plus randomly chosen smaller ones. Using the fault model of Brune (1970, 1971), S wave moments were calculated from the long period levels of horizontal component seismograms that were naturally transversely polarized (within 20 degrees). Using the formula:

$$M_0 = 4\pi\rho\beta^3 R \Omega_0$$

where M_0 = seismic moment (dyne-cm), $\rho = 2.7 \text{ gm/cm}^3$, $\beta = 3.5 \times 10^5 \text{ cm/s}$, R = hypocentral distance (cm), and Ω_0 = long-period level of displacement spectrum (cm-s), we calculated moments ranging from 3.0×10^{19} to 1.5×10^{22} dyne-cm. We obtained seismograms from both larger and smaller earthquakes that were unlocatable solely using our data (larger shocks include 5/27 1540 $M_L = 6.2$ and 5/28 0458 $M_L = 4.8$). Using the location shown in Figure 2 for the 5/27 1540 earthquake, we calculated a moment of 5.0×10^{24} dyne-cm. (This seismic moment for the May 27 earthquake agrees with that determined by Urhammer and Ferguson (1980) but is a factor of 10 smaller than Wyss and Brune (1968) predict for a magnitude 6.2 shock in the California-Nevada region. However, this value lies within the envelope of scattered points used by Wyss and Brune to define their moment vs. magnitude law (their Figure 5)). Considering this result, our data span a range in moment of at least five orders of magnitude.

SUMMARY

We have analyzed 150 locatable earthquakes recorded between May 26 and June 13, 1980 at Mammoth Lakes, California. Including the largest events

recorded, our data span a range of at least five orders of magnitude in seismic moment. Maps and cross-sections of well located hypocenters show a distribution of shocks on at least two planes which trend subparallel to the southern boundary of the Long Valley caldera (ENE-WSW) and dip steeply SSE. Fault-plane solutions of nine well-recorded earthquakes imply right lateral strike-slip motion on nearly vertical E-W fault planes (preferred) or left lateral strike-slip motion on nearly vertical N-S planes. These results imply that significant motion occurred along the southern Long Valley caldera boundary faults during the first three weeks following the three magnitude six earthquakes of May 25.

Acknowledgments

We wish to thank Joanne Vinton for help in developing the computer programs used in the compilation of this report, Norman Abrahamson for assistance in plotting fault-plane solutions and calculating seismic moments, Joe Fletcher, Richard Navarro and Richard Warrick for help with the field work, and Barbara Mavko and Marylynne Vivrette for logistical support in the field. Roger Sherburne of CDMG helped with our initial instrument deployment. Finally, thanks to the people of Mammoth Lakes and especially the staff and management of the White Stag Inn and International Inn for their hospitality.

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Table 1. All Mammoth Lakes aftershocks recorded at three or more stations.

THE FOLLOWING 103 EVENTS WERE RECORDED ON 3 STATIONS																
		MCC	HOT	CBR	FIS	LAK	HCF	CON	AGE	LAR	TOI	DIP	LKM	TWL	ROC	PSI
148	1:44			*		*									*	
148	2:22			*		*									*	
148	3:43			*		*									*	
148	8: 4			*		*									*	
148	9: 9					*	*								*	
148	10:27					*	*								*	
148	13:10					*	*								*	
148	17:10					*	*			*						*
148	19:47				*	*		*								
148	21:46				*	*		*								
149	2:12				*			*	*							
149	3:26							*	*						*	
149	5: 5				*			*	*							
149	6: 7							*	*	*						
149	9:20				*				*						*	
149	10: 3		*		*			*								
149	14: 6							*	*						*	
149	23: 7	*				*		*	*							
149	23:50							*	*						*	
150	4:59							*	*						*	*
150	7:32							*	*		*				*	
150	15:57							*	*	*	*				*	
150	18:54				*			*	*						*	
151	5:13							*	*	*						
151	11:14				*				*	*	*				*	
151	15: 5					*	*	*	*	*					*	
151	16:48				*			*	*	*					*	
152	0:13				*			*	*	*	*	*				
152	10:13							*	*	*	*			*		
152	10:49				*	*			*					*		
152	15:17		*					*	*				*			
153	5:28				*	*		*	*	*	*				*	
153	7:47				*	*		*	*	*	*	*				
153	14:59				*	*		*	*	*	*	*	*			
154	2: 6		*		*	*			*					*		
154	12:46				*	*	*		*	*	*	*	*			
154	22:49				*	*			*	*	*	*	*	*	*	*
155	17:10							*	*	*	*		*	*	*	*
156	0:23				*	*		*	*	*	*		*	*	*	*
156	8:57				*	*		*	*	*	*		*	*	*	*
156	13:41				*	*		*	*	*	*		*	*	*	*
156	16:59				*	*		*	*	*	*		*	*	*	*
156	17:13				*	*		*	*	*	*		*	*	*	*
156	20:48				*	*		*	*	*	*		*	*	*	*
156	21: 2				*	*		*	*	*	*		*	*	*	*
156	22:19				*	*		*	*	*	*		*	*	*	*
156	22:20				*	*		*	*	*	*		*	*	*	*
156	23:16				*	*		*	*	*	*		*	*	*	*
157	1:13				*	*		*	*	*	*		*	*	*	*
157	8: 4				*	*		*	*	*	*		*	*	*	*
157	11:26				*	*		*	*	*	*		*	*	*	*
157	14:25				*	*		*	*	*	*		*	*	*	*
157	15:40				*	*		*	*	*	*		*	*	*	*
157	17: 4	*		*				*	*	*	*		*	*	*	*
157	18:52			*	*			*	*	*	*		*	*	*	*
157	18:53			*	*			*	*	*	*		*	*	*	*
157	20: 4							*	*	*	*		*	*	*	*
157	20:58	*			*	*		*	*	*	*		*	*	*	*
157	21:33				*	*		*	*	*	*		*	*	*	*
157	22: 9	*		*	*	*		*	*	*	*		*	*	*	*
157	22:19			*	*	*		*	*	*	*		*	*	*	*
157	22:29	*		*	*	*		*	*	*	*		*	*	*	*
157	23: 2			*	*	*		*	*	*	*		*	*	*	*
157	23:41			*	*	*		*	*	*	*		*	*	*	*

158	4:51			*		*
158	9:19			*		*
158	13: 3		*	*		*
158	15:33	*	*		*	
158	15:35	*		*		*
158	18:41	*			*	*
159	3:38		*		*	*
159	5:19	*			*	*
159	6:14	*			*	*
159	22:25	*		*		*
160	6:11	*		*		*
160	9:26			*	*	
161	8: 5	*		*		*
161	9:13	*		*		*
161	13:16	*	*		*	
161	18: 0	*			*	*
161	21:34	*			*	*
161	22:34	*		*		*
162	0:43	*		*		*
162	1:47				*	*
162	1:49			*	*	*
162	6:56	*		*	*	*
162	10:56			*	*	*
162	15:13	*		*		*
162	15:16	*		*		*
162	17:13		*		*	*
162	18:22		*		*	*
162	18:27				*	*
163	4: 2		*	*		*
163	9:50			*		*
163	12:10		*		*	*
163	17:17	*			*	*
164	0:56			*	*	*
164	5:30	*			*	*
164	6:21		*	*	*	
164	17:16	*		*	*	*
164	17:27				*	*
165	2:36	*			*	*
165	5: 8	*			*	*

THE FOLLOWING 49 EVENTS WERE RECORDED ON 4 STATIONS

	MCC	HOT	CBR	FIS	LAK	HCF	CON	MGE	LAR	TOM	DHP	LK1	TWL	ROC	PS1
147 21:58	*	*			*				*						
148 4: 7		*		*	*									*	
148 20: 0				*	*			*	*						
149 4:22				*	*		*	*	*						
149 6:49			*	*	*				*						
149 7 51			*	*	*			*							
149 13:27			*		*		*	*							
150 5:55							*	*	*	*				*	
150 15:16		*					*	*	*	*					
150 16:14			*			*	*		*						
150 18:24		*	*	*		*									
150 18:56		*		*				*							
151 1:19					*			*		*				*	
152 11:39					*		*		*				*		
152 14: 8					*		*			*				*	
153 3:17					*			*		*				*	
153 7: 0					*			*		*				*	
153 13: 8					*				*	*				*	
153 17:50							*			*	*	*	*		
153 23:34					*		*			*				*	
155 7: 5			*		*	*							*	*	*
156 2:38					*							*	*	*	
156 4: 0					*		*					*	*	*	
156 17: 9					*		*					*	*	*	
156 23:29					*				*			*	*	*	
157 18:54			*			*	*		*					*	
157 19:24			*			*	*		*					*	
157 21:57					*				*		*			*	
158 0:16									*		*	*	*	*	
158 12:14						*	*	*			*	*	*	*	
158 17:41					*		*				*	*	*	*	
158 18:48					*				*			*	*	*	
159 1:21									*		*	*	*	*	
159 2:49					*		*				*	*	*	*	
159 10:30					*		*		*					*	
160 17:56					*				*		*	*	*	*	
161 16: 9					*		*				*	*	*	*	
161 20:30					*				*		*	*	*	*	
162 1:36					*				*			*	*	*	
162 6:49					*				*			*	*	*	
162 11:23					*		*		*			*	*	*	
163 5: 2						*	*		*			*	*	*	
163 5: 5						*	*		*			*	*	*	
163 10:13						*	*		*			*	*	*	
164 0:26					*			*	*					*	
164 12 35					*				*		*			*	
164 20:28					*				*		*			*	
165 3:18					*		*				*			*	
165 9:56					*		*		*					*	

THE FOLLOWING 31 EVENTS WERE RECORDED ON 5 STATIONS

	MCC	HOT	CBR	FIS	LAK	HCF	CON	MGE	LAR	TOM	DMP	LK1	TWL	ROC	PS1
148 23:41			*	*			*	*	*						
148 23:57			*	*	*			*	*						
149 6:13			*	*	*			*	*						
151 6:29	*	*	*			*	*								
151 7:52	*		*				*	*	*						
151 10:30			*	*		*	*	*	*						
151 12: 1				*			*	*		*					*
151 23: 2				*					*	*	*				*
152 13:23				*	*		*	*	*	*					
152 20:14				*	*		*	*	*	*					
153 0:57							*				*	*	*	*	*
155 6:18				*	*							*	*	*	*
156 21: 3				*	*			*		*					*
157 1:24				*	*	*	*	*		*		*	*		*
157 19:38			*				*	*		*		*	*		*
157 20:48				*				*		*		*	*	*	*
158 8:28							*	*		*		*	*	*	*
158 12:38				*			*	*		*		*	*		
159 1 31				*			*			*		*	*		
159 3:14				*			*			*		*	*	*	*
159 3:16				*			*			*		*	*	*	*
159 7:37				*	*	*	*			*		*	*		
159 7:38				*	*	*	*			*		*	*		
160 16:40				*	*	*	*			*		*	*		
161 15:33				*			*			*		*	*	*	*
162 3:28				*			*			*		*	*	*	*
162 14:49				*			*			*		*	*	*	*
162 22:15				*			*			*		*	*	*	*
164 17:15				*			*			*		*	*	*	*
164 23:17				*			*			*		*	*	*	*
165 0:18				*			*			*		*	*	*	*

THE FOLLOWING 18 EVENTS WERE RECORDED ON 6 STATIONS

	MCC	HOT	CBR	FIS	LAK	HCF	CON	MGE	LAR	TOM	DMP	LK1	TWL	ROC	PS1
149 4: 3			*	*	*	*	*	*	*						
150 18:55	*	*	*	*	*		*	*							
151 13:40			*			*	*	*	*	*				*	
151 15:49		*		*	*	*	*	*	*	*				*	
152 13:43			*	*	*	*	*	*	*	*				*	
155 17:34				*	*		*	*	*	*		*	*	*	*
156 8:34				*	*	*	*	*	*	*		*	*	*	*
157 3: 7				*	*	*	*	*	*	*		*	*	*	*
157 8:59				*	*	*	*	*	*	*		*	*	*	*
157 20:33				*	*		*	*	*	*		*	*	*	*
158 15:43				*	*	*	*	*	*	*		*	*	*	*
158 16:26				*	*	*	*	*	*	*		*	*	*	*
158 17:16				*	*	*	*	*	*	*		*	*	*	*
162 9:28				*	*	*	*	*	*	*		*	*	*	*
162 15:21	*	*		*	*	*	*	*	*	*		*	*	*	*
162 22:55				*	*	*	*	*	*	*		*	*	*	*
163 4:47				*	*	*	*	*	*	*		*	*	*	*
165 14:57				*	*	*	*	*	*	*		*	*	*	*

THE FOLLOWING 21 EVENTS WERE RECORDED ON 7 STATIONS

	MCC	HOT	CBR	FIS	LAK	HCF	CON	MGE	LAR	TOM	DMP	LKM	TWL	ROC	PSI
148 19: 1				*	*		*		*	*				*	*
148 21:34				*	*		*		*	*				*	*
149 5:48			*	*	*	*	*	*	*						
152 10:12			*	*			*	*		*			*	*	
152 10:14				*	*		*	*		*	*		*	*	
152 13:13			*	*	*		*	*		*	*				
152 15:30			*	*	*		*	*		*				*	
154 15:19				*	*	*	*			*	*	*	*	*	
155 2:35					*		*	*		*		*	*	*	
157 10:33			*	*	*		*		*	*		*	*	*	
158 9:25				*	*		*	*		*		*	*	*	
158 9:52				*	*		*	*		*		*	*	*	
158 13:33				*	*		*	*		*		*	*	*	
158 14:18				*	*		*	*		*		*	*	*	
159 1:32			*	*		*	*	*				*	*	*	
163 3: 4			*	*	*		*		*		*	*	*	*	
163 4:42				*	*		*	*		*		*	*	*	
163 22:39				*	*		*	*		*		*	*	*	
164 5:29				*	*	*	*	*		*		*	*	*	
164 10:22				*	*	*	*	*		*		*	*	*	
165 12:13				*	*	*	*	*		*		*	*	*	

THE FOLLOWING 7 EVENTS WERE RECORDED ON 8 STATIONS

	MCC	HOT	CBR	FIS	LAK	HCF	CON	MGE	LAR	TOM	DMP	LKM	TWL	ROC	PSI
149 11:54			*	*	*		*	*	*	*				*	*
152 15:20			*	*	*		*	*	*		*	*		*	
152 15:35			*	*	*		*	*	*		*	*		*	
153 12:21			*	*	*		*	*	*	*	*	*		*	
154 6:39				*	*		*	*	*	*	*	*	*	*	
156 21: 0				*	*	*	*	*	*	*	*	*	*	*	
160 23:22			*	*	*		*	*	*	*	*	*	*	*	

THE FOLLOWING 9 EVENTS WERE RECORDED ON 9 STATIONS

	MCC	HOT	CBR	FIS	LAK	HCF	CON	MGE	LAR	TOM	DMP	LKM	TWL	ROC	PSI
150 17:21		*	*	*	*		*	*	*	*	*	*	*	*	*
151 15:42		*	*	*	*		*	*	*	*	*	*	*	*	*
153 17:27		*	*	*	*		*	*	*	*	*	*	*	*	*
156 19: 9		*	*	*	*		*	*	*	*	*	*	*	*	*
157 19:41		*	*	*	*	*	*	*	*	*	*	*	*	*	*
159 23:17		*	*	*	*	*	*	*	*	*	*	*	*	*	*
160 6:25		*	*	*	*	*	*	*	*	*	*	*	*	*	*
163 4:41		*	*	*	*	*	*	*	*	*	*	*	*	*	*
163 17:10		*	*	*	*	*	*	*	*	*	*	*	*	*	*

THE FOLLOWING 7 EVENTS WERE RECORDED ON 10 STATIONS

	MCC	HOT	CBR	FIS	LAK	HCF	CON	MGE	LAR	TOM	DMP	LKM	TWL	ROC	PSI
149 5:16		*	*	*	*	*	*	*	*	*	*	*	*	*	*
150 4:18		*	*	*	*	*	*	*	*	*	*	*	*	*	*
152 8: 5		*	*	*	*	*	*	*	*	*	*	*	*	*	*
152 15:16		*	*	*	*	*	*	*	*	*	*	*	*	*	*
152 23:15		*	*	*	*	*	*	*	*	*	*	*	*	*	*
153 6:47		*	*	*	*	*	*	*	*	*	*	*	*	*	*
154 20:34		*	*	*	*	*	*	*	*	*	*	*	*	*	*

THE FOLLOWING 3 EVENTS WERE RECORDED ON 11 STATIONS

	MCC	HOT	CBR	FIS	LAK	HCF	CON	MGE	LAR	TOM	DMP	LKM	TWL	ROC	PSI
151 19:49		*	*	*	*	*	*	*	*	*	*	*	*	*	*
153 22:30		*	*	*	*	*	*	*	*	*	*	*	*	*	*
154 10:22		*	*	*	*	*	*	*	*	*	*	*	*	*	*

THE FOLLOWING 2 EVENTS WERE RECORDED ON 12 STATIONS

	MCC	HOT	CBR	FIS	LAK	HCF	CON	MGE	LAR	TOM	DMP	LKM	TWL	ROC	PSI
152 0:58		*	*	*	*	*	*	*	*	*	*	*	*	*	*
152 10:11		*	*	*	*	*	*	*	*	*	*	*	*	*	*

Table 2: Crustal velocity models

Mountain Model

<u>Layer</u>	<u>P-vel</u> (km/s)	<u>S-vel</u> (km/s)	<u>Depth</u> (km)	<u>Thickness</u> (km)
1	5.0	2.8	0.0	2.7
2	6.0	3.5	2.7	-

Caldera Model

<u>Layer</u>	<u>P-vel</u>	<u>S-vel</u>	<u>Depth</u>	<u>Thickness</u>
1	1.6	0.8	0.0	0.5
2	4.3	2.4	0.5	1.5
3	6.0	3.5	2.0	-

LAK Model

<u>Layer</u>	<u>P-vel</u>	<u>S-vel</u>	<u>Depth</u>	<u>Thickness</u>
1	2.0	1.1	0.0	1.0
2	6.0	3.5	1.0	-

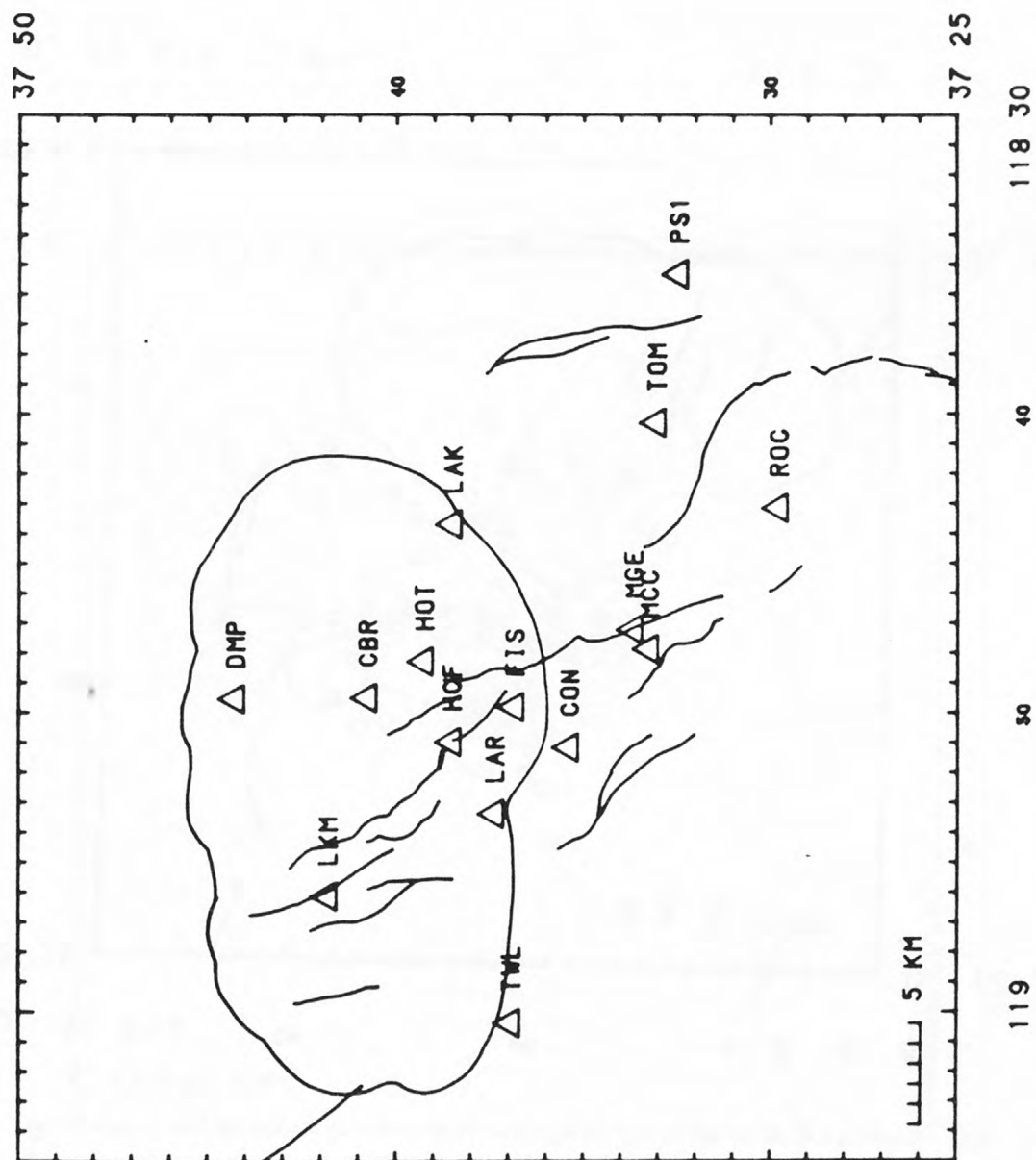
Table 3: Mammoth Lakes seismic moments

<u>Date</u>	<u>Hour-min (UTC)</u>	<u>Moment (dyne-cm)</u>
5-27	1450	5.0 E24*
5-29	0418	3.2 E21
5-30	1949	3.0 E21
5-31	0805	5.6 E21
5-31	1011	1.3 E22
6-1	0647	1.5 E22
6-1	1727	1.6 E21
6-1	2230	1.3 E21
6-2	1022	6.5 E21
6-2	2034	5.0 E21
6-3	0235	6.7 E20
6-3	1734	1.0 E21
6-4	1909	2.1 E21
6-4	2100	1.1 E21
6-5	1540	4.7 E20
6-5	1941	2.4 E21
6-5	2048	5.2 E20
6-5	2157	7.3 E19
6-6	0451	3.5 E19
6-6	1848	3.1 E20
6-7	0738	2.1 E21
6-7	2317	1.3 E22
6-8	0625	3.3 E21
6-11	1710	4.7 E21
6-13	1213	3.7 E20

*Location by R. Cockerham (personal communication).

Figure Captions

- Figure 1: The Mammoth Lakes area with faults, Long Valley caldera outline and seismic station locations.
- Figure 2: Map of all locatable aftershock epicenters and epicenters of four large shocks: 5/25 1633 UTC (near latitude $37^{\circ}36.5$), 5/25 1944 (near latitude $37^{\circ}32.5$), 5/27 1450 (near latitude $37^{\circ}28.5$) and the 10/4/78 1642 Bishop earthquake (near latitude $37^{\circ}31.0$).
- Figures 3-12: Aftershock activity mapped in two day groups. Hour and minute (UTC) of each earthquake are shown with the epicenter at the lower left corner of the leftmost digit.
- Figure 13: Map of well located aftershock epicenters ($ERH \leq 2.0$ and $ERZ \leq 2.0$) with three principal standard error axes projected onto the map plane. Letters indicate lines of cross-section (Figures 14-19).
- Figures 14-19: Hypocenters of well located aftershocks ($ERH \leq 2.0$ and $ERZ \leq 2.0$) projected onto vertical planes of cross-section shown in Figure 13. Three principal standard error axes are projected onto each plane. Scale numbers are kilometers.
- Figure 20: Individual fault-plane solutions for nine aftershocks with seven or more fully weighted P waves. Areas of compression are shaded (upper-hemisphere, equal-area).
- Figure 21: Composite fault-plane solution using aftershocks in Figure 20. Solid circles indicate compressional first P motion (upper-hemisphere, equal-area).



MAMMOTH LAKES STATION LOCATIONS

Figure 1. The Mammoth Lakes area with faults, Long Valley caldera outline and seismic station locations.

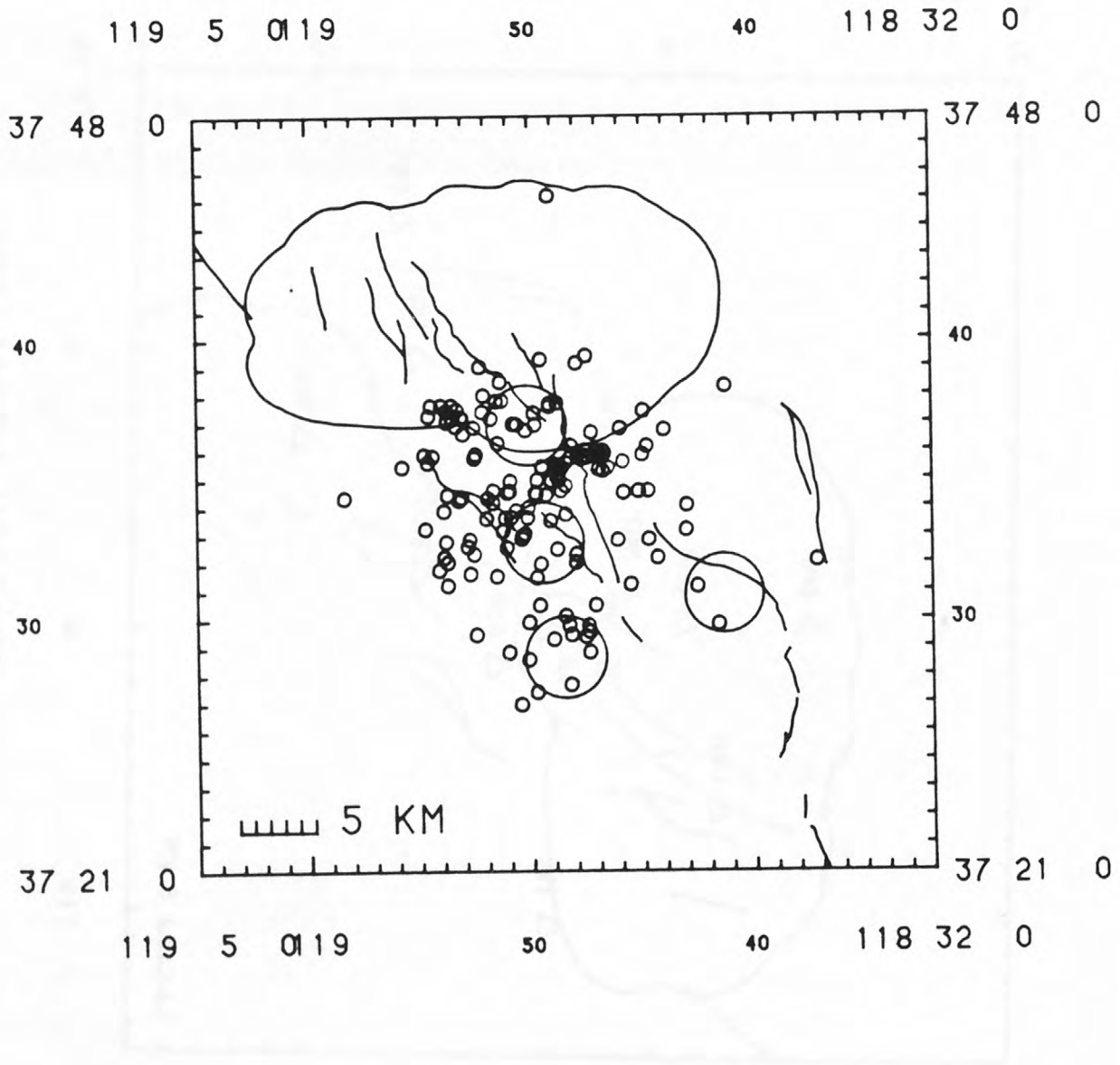
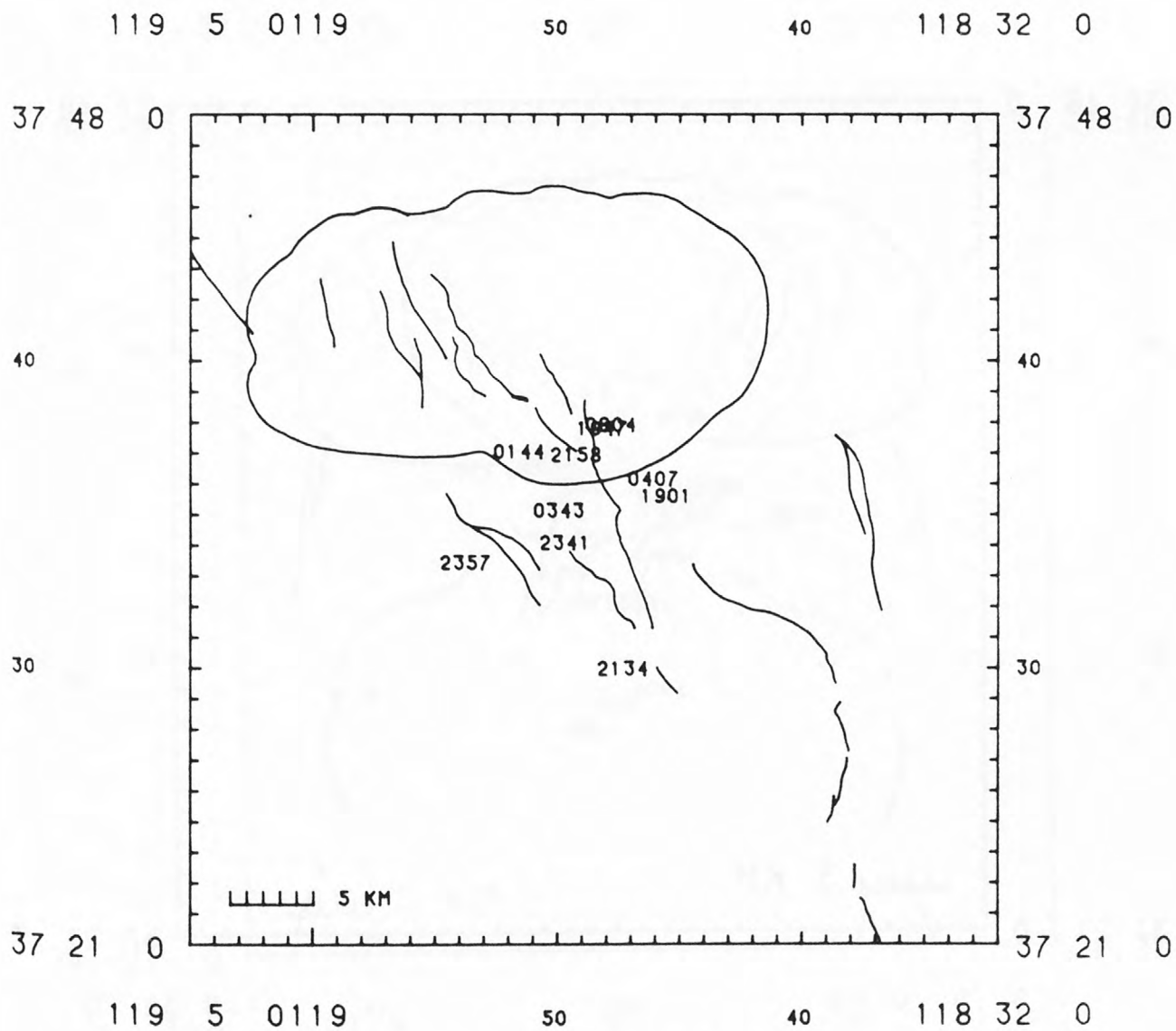
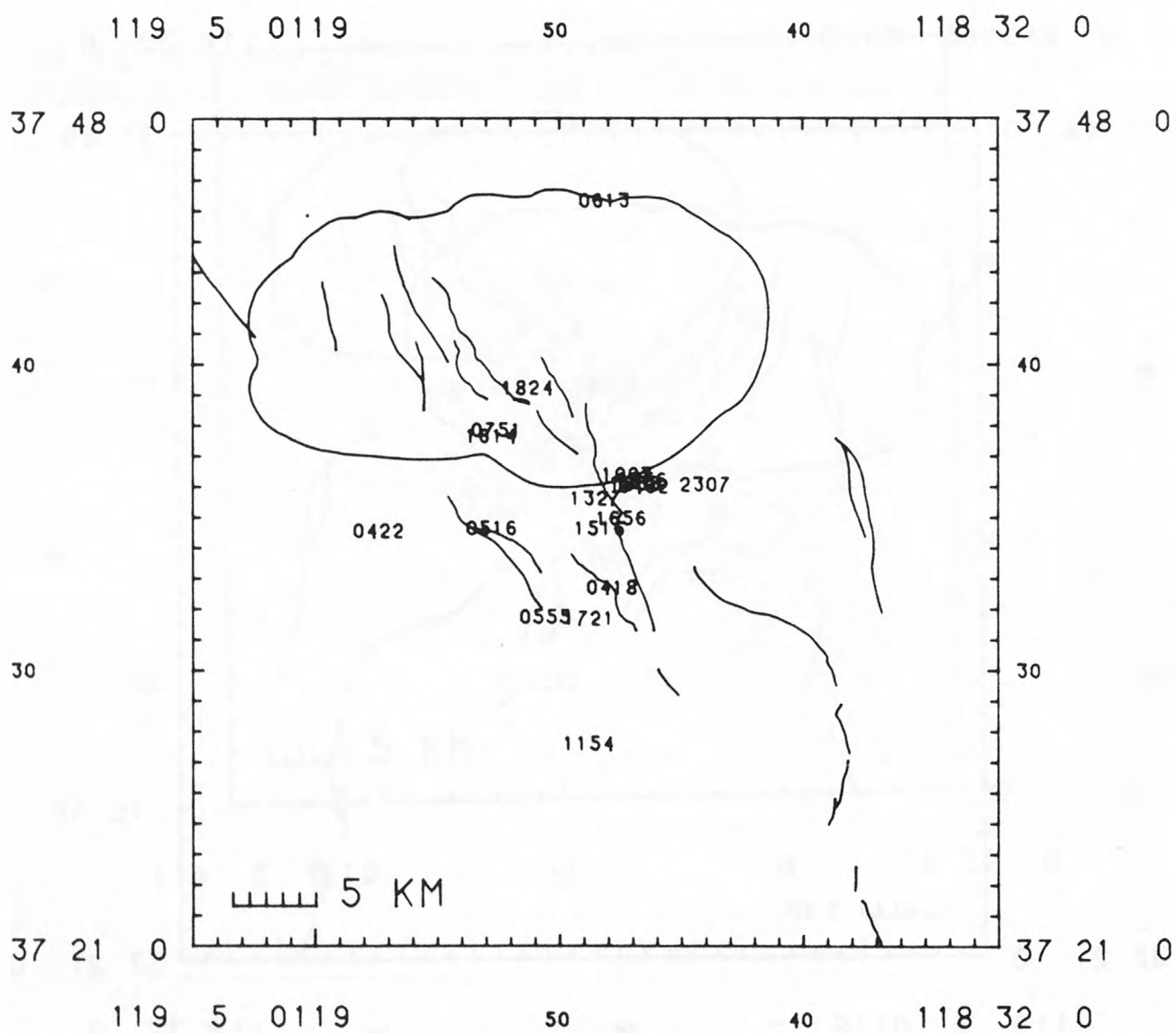


Figure 2. Map of all locatable aftershock epicenters and epicenters of four large shocks: 5/25 1633 UTC (near latitude $37^{\circ}36.5$), 5/25 1944 (near latitude $37^{\circ}32.5$), 5/27 1450 (near latitude $37^{\circ}28.5$) and the 10/4/78 1642 Bishop earthquake (near latitude $37^{\circ}31.0$).



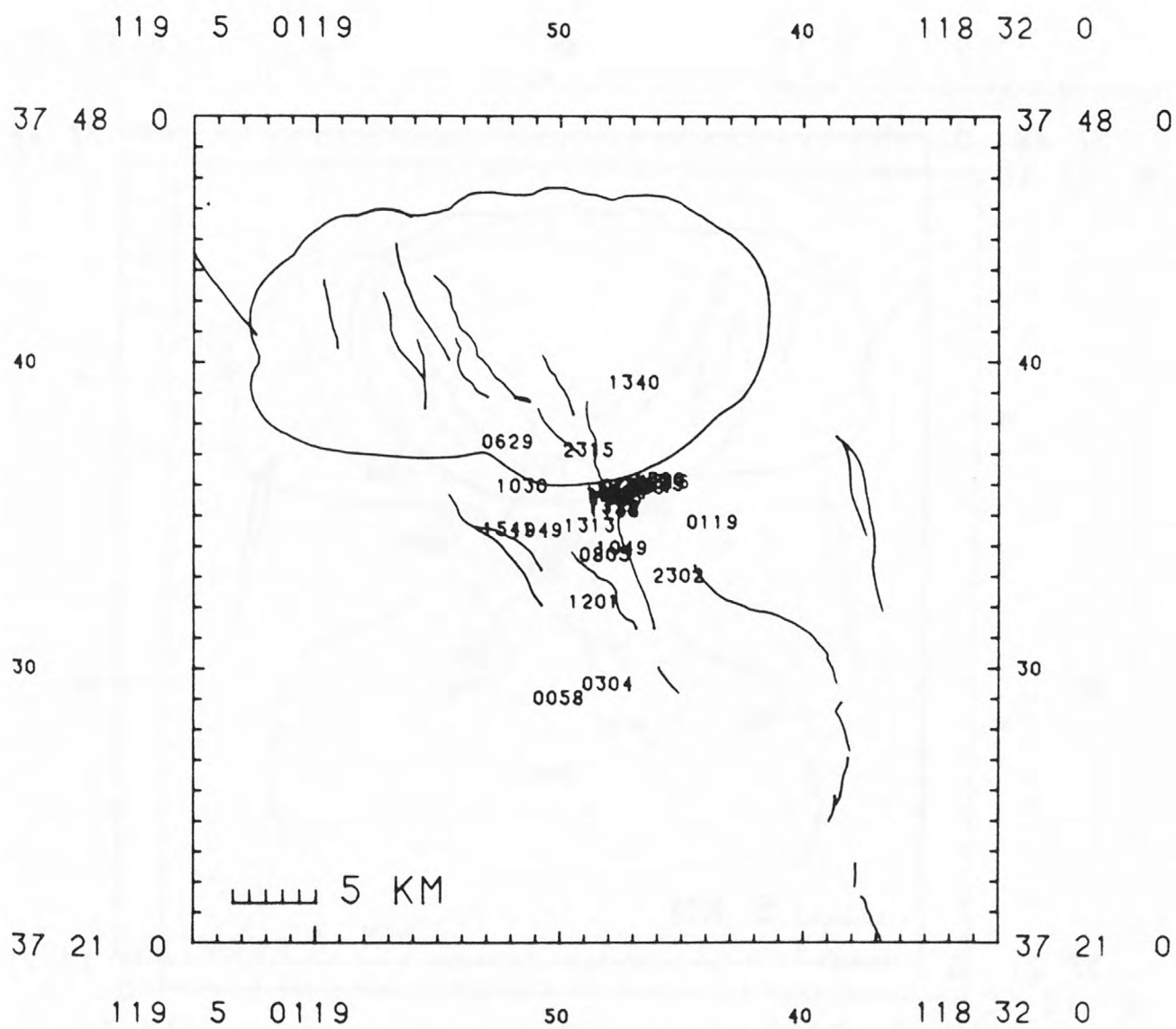
5/26 - 5/27

Figures 3-12. Aftershock activity mapped in two day groups. Hour and minute (UTC) of each earthquake are shown with the epicenter at the lower left corner of the leftmost digit.



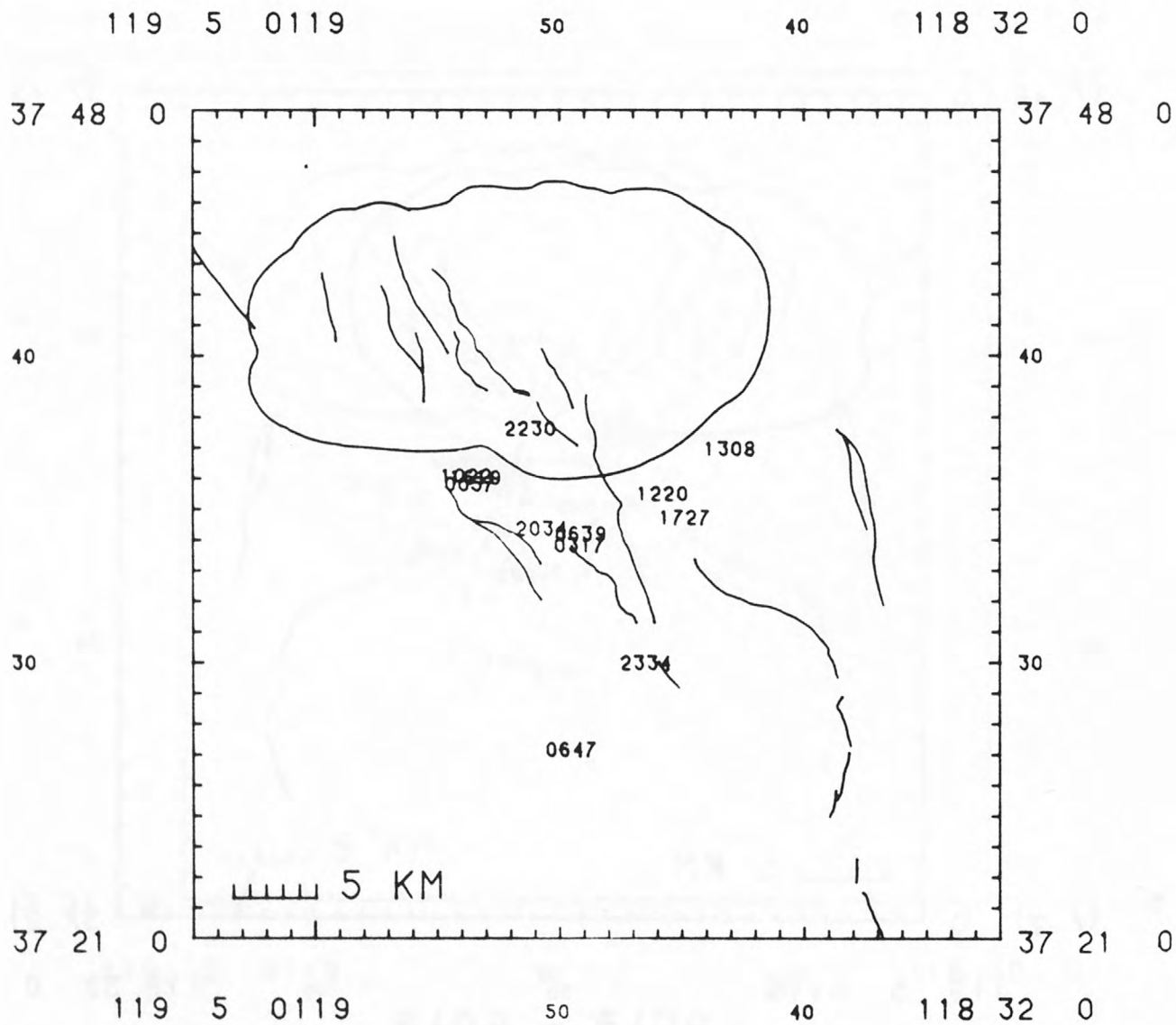
5/28 - 5/29

Figure 4.



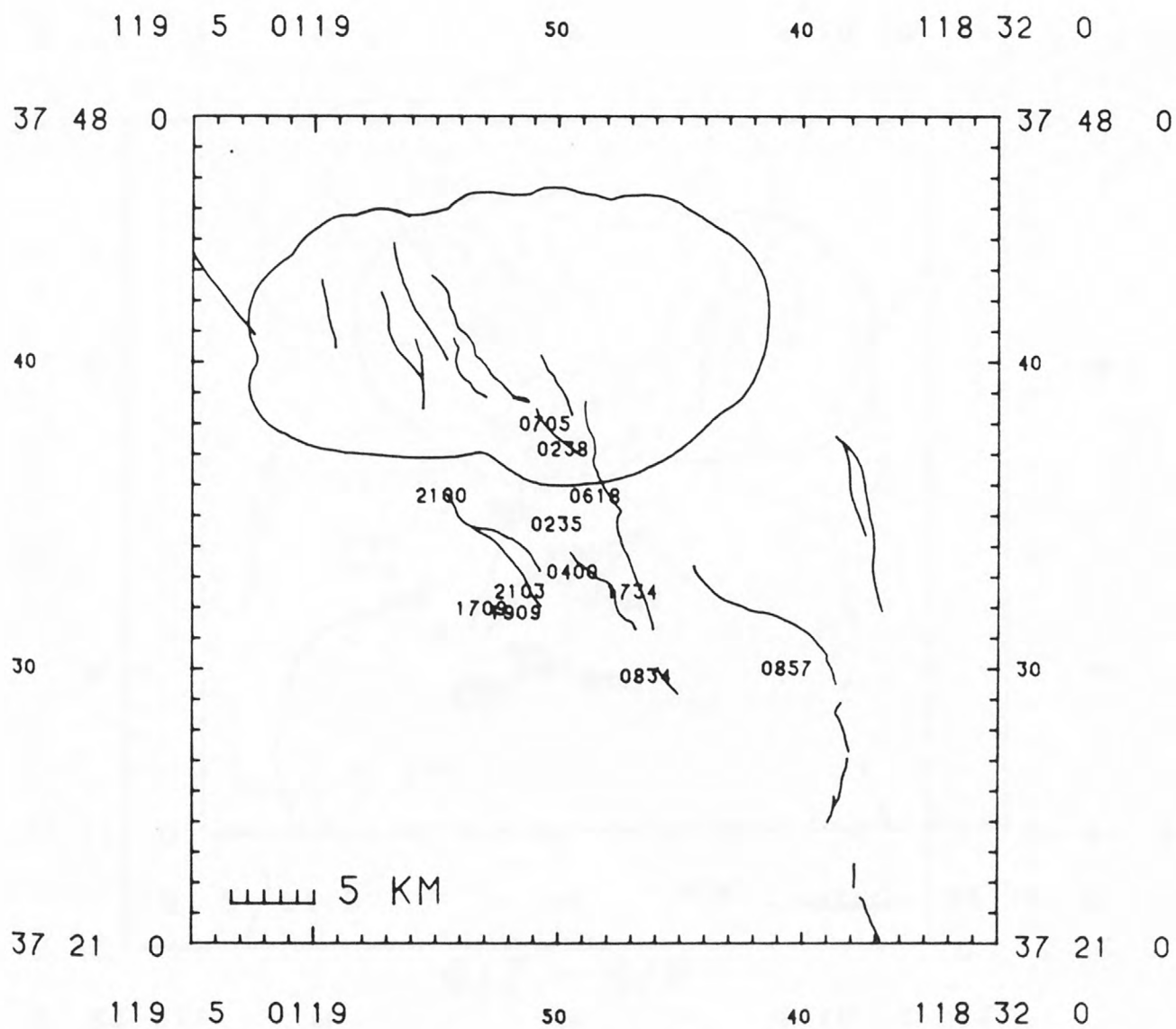
5/30 - 5/31

Figure 5.



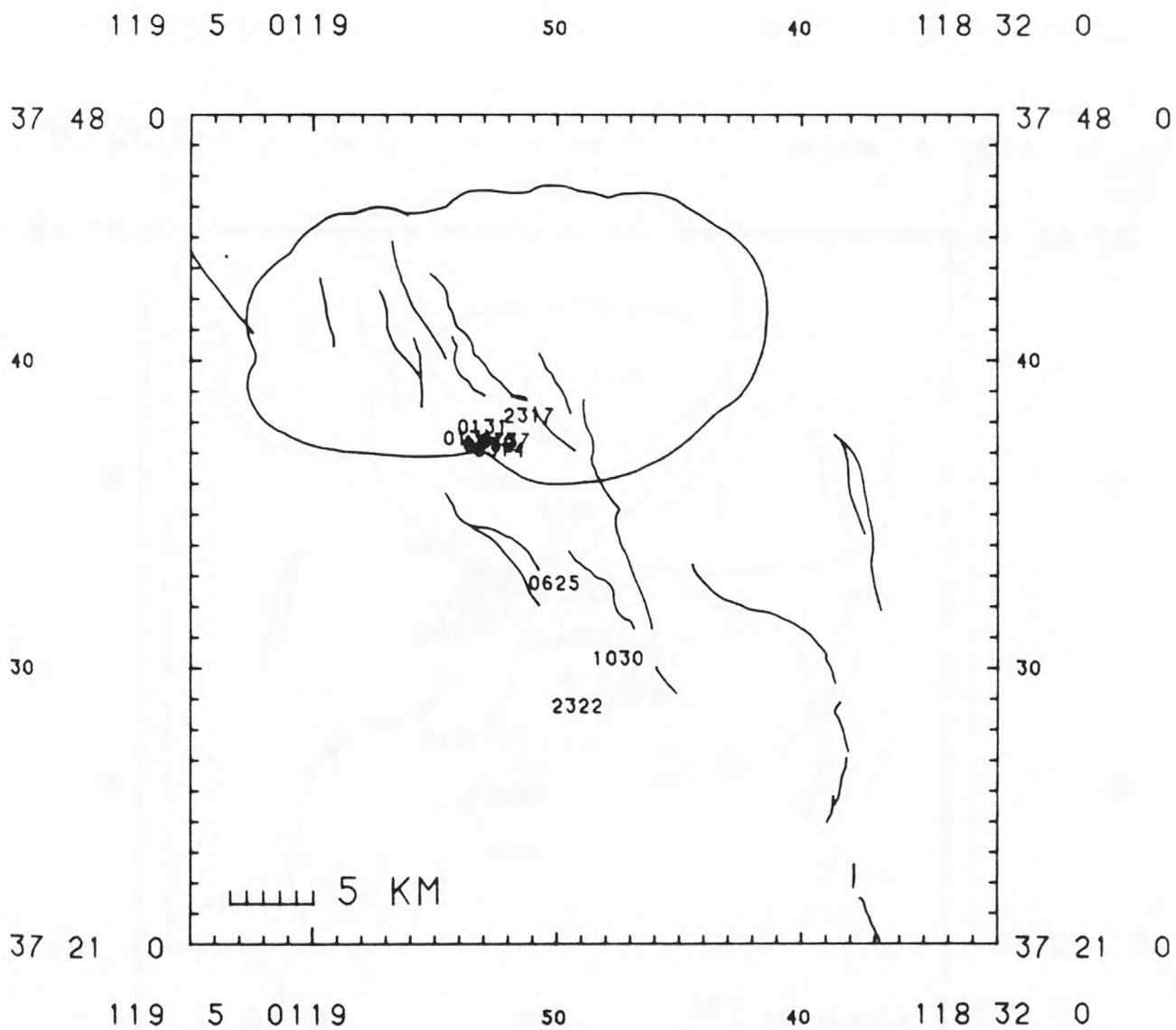
6/1 - 6/2

Figure 6.



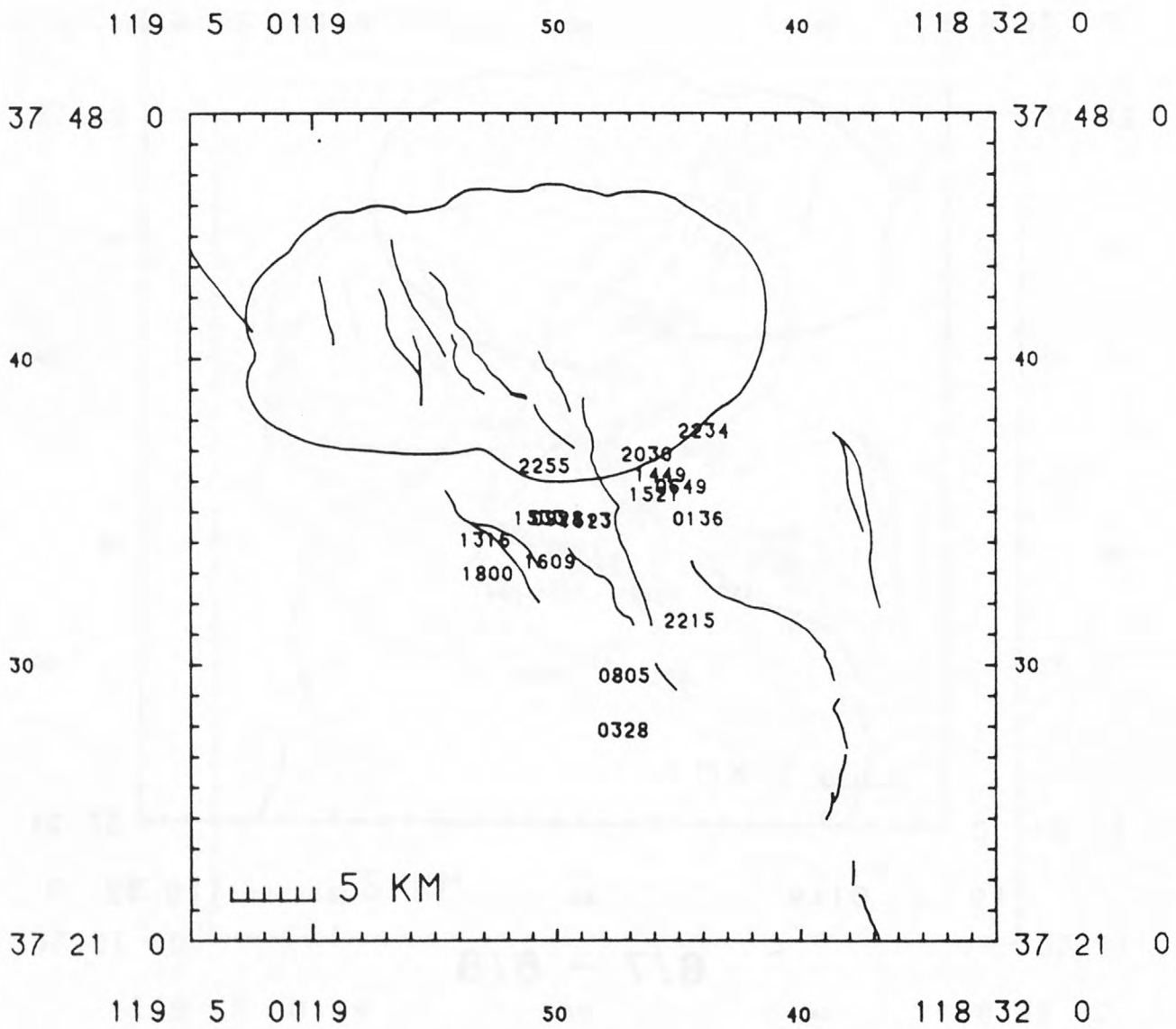
6/3 - 6/4

Figure 7.



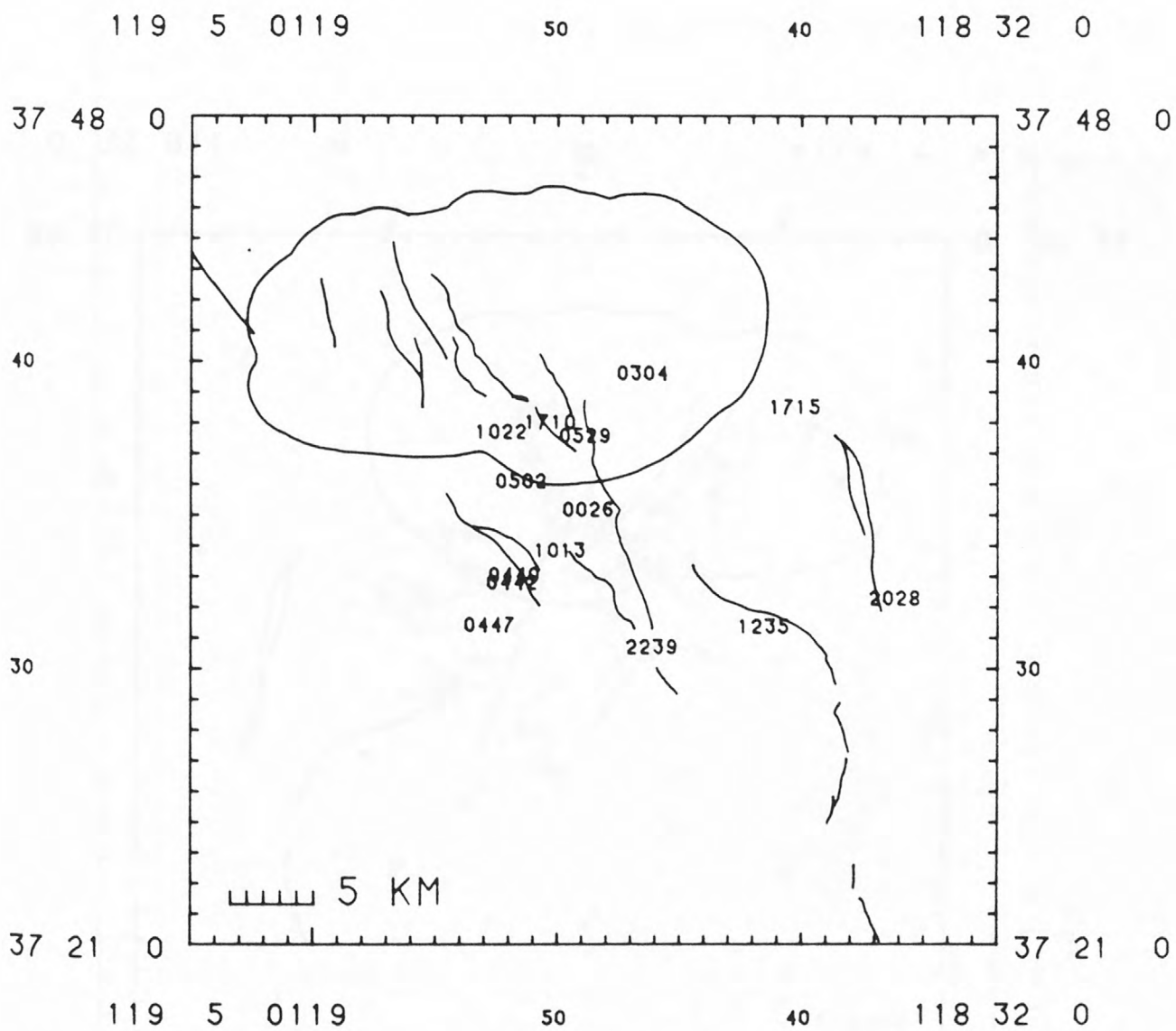
6/7 - 6/8

Figure 9.



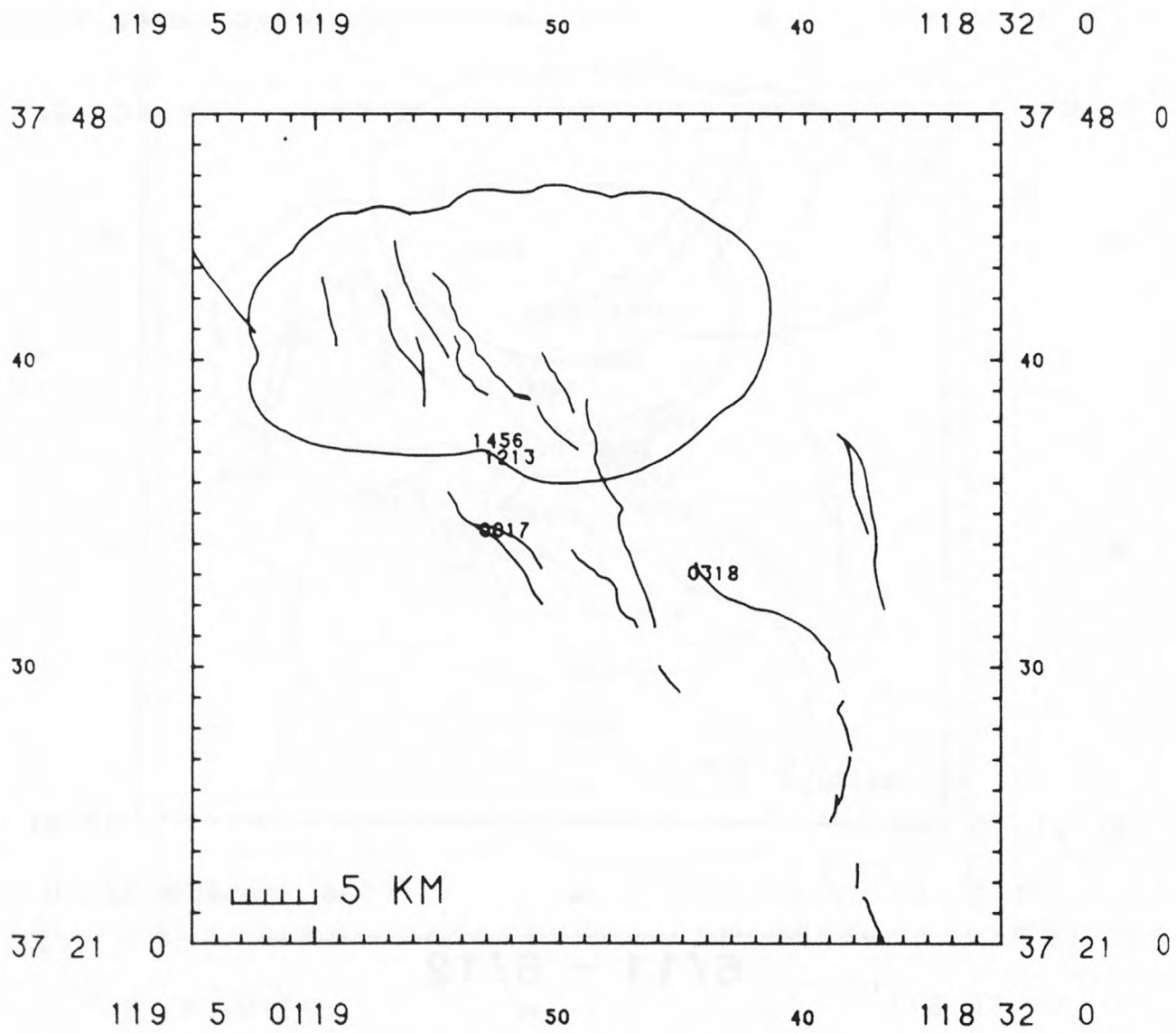
6/9 - 6/10

Figure 10.



6/11 - 6/12

Figure 11.



6/13 - 6/14

Figure 12.

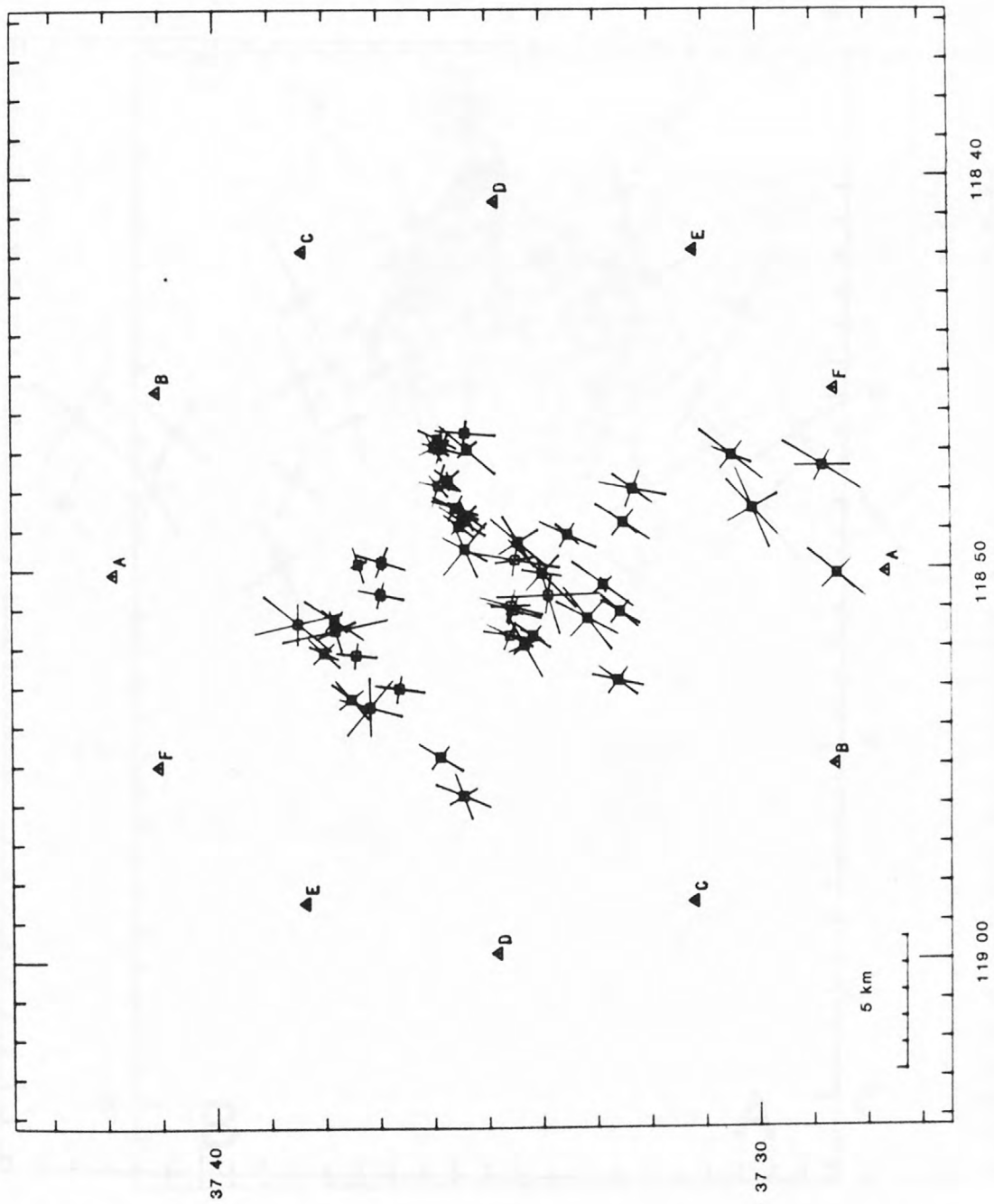
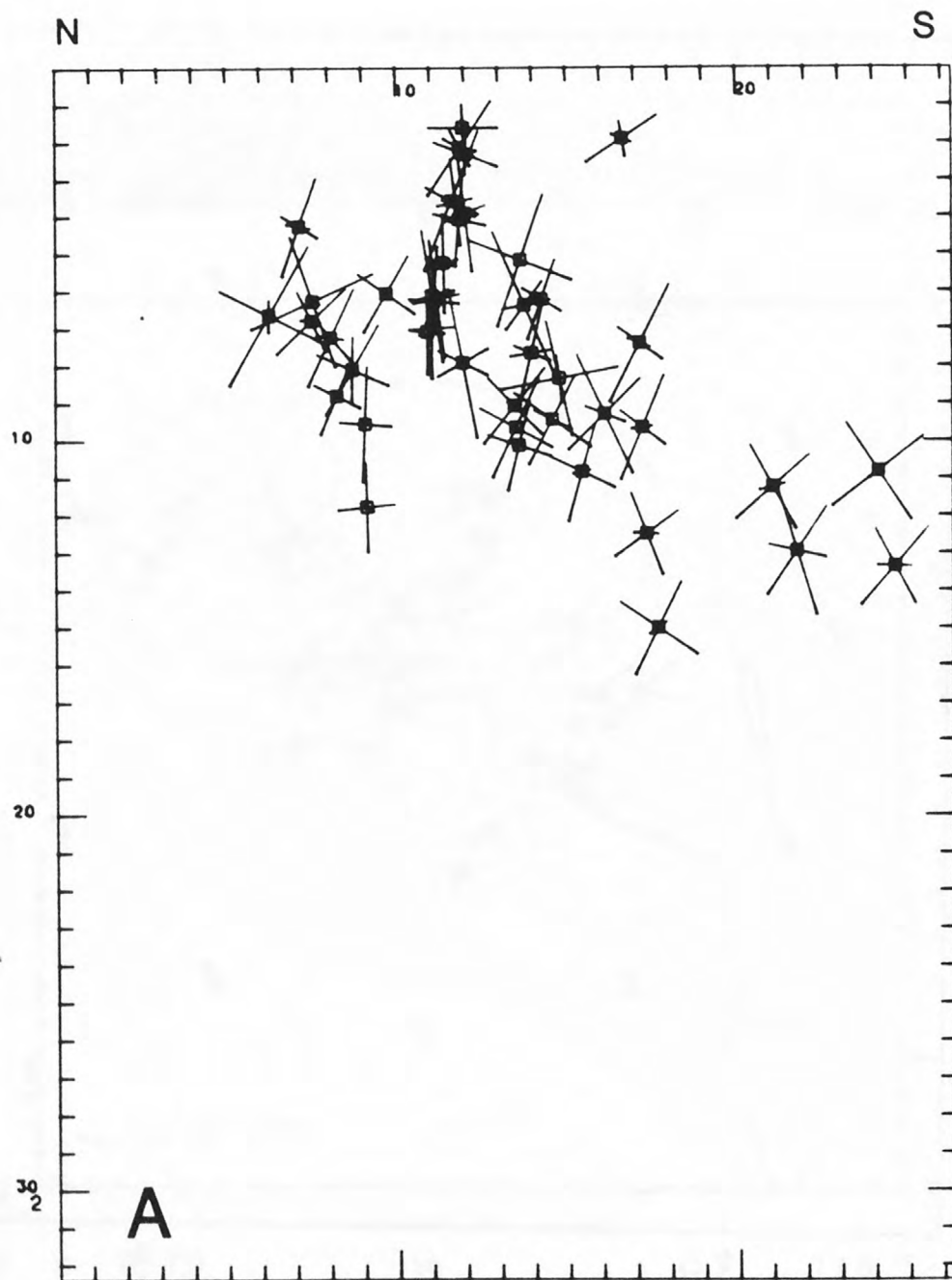


Figure 13. Map of well located aftershock epicenters ($ERH \leq 2.0$ and $ERZ \leq 2.0$) with three principal standard error axes projected onto the map plane. Letters indicate lines of cross-section (Figures 14-19).



Figures 14-19. Hypocenters of well located aftershocks ($ERH \leq 2.0$ and $ERZ \leq 2.0$) projected onto vertical planes of cross-section shown in Figure 13. Three principal standard error axes are projected onto each plane. Scale numbers are kilometers.

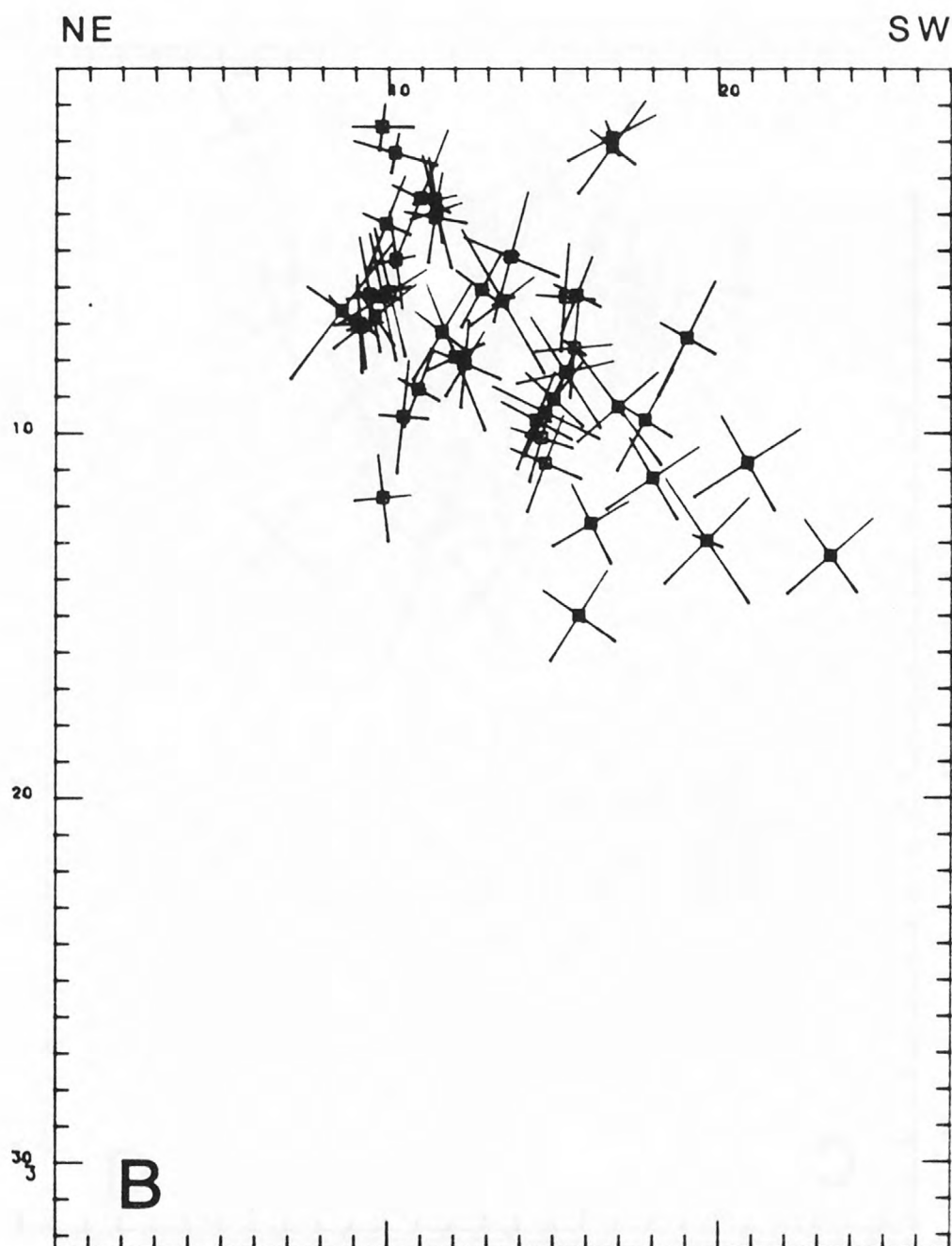


Figure 15.

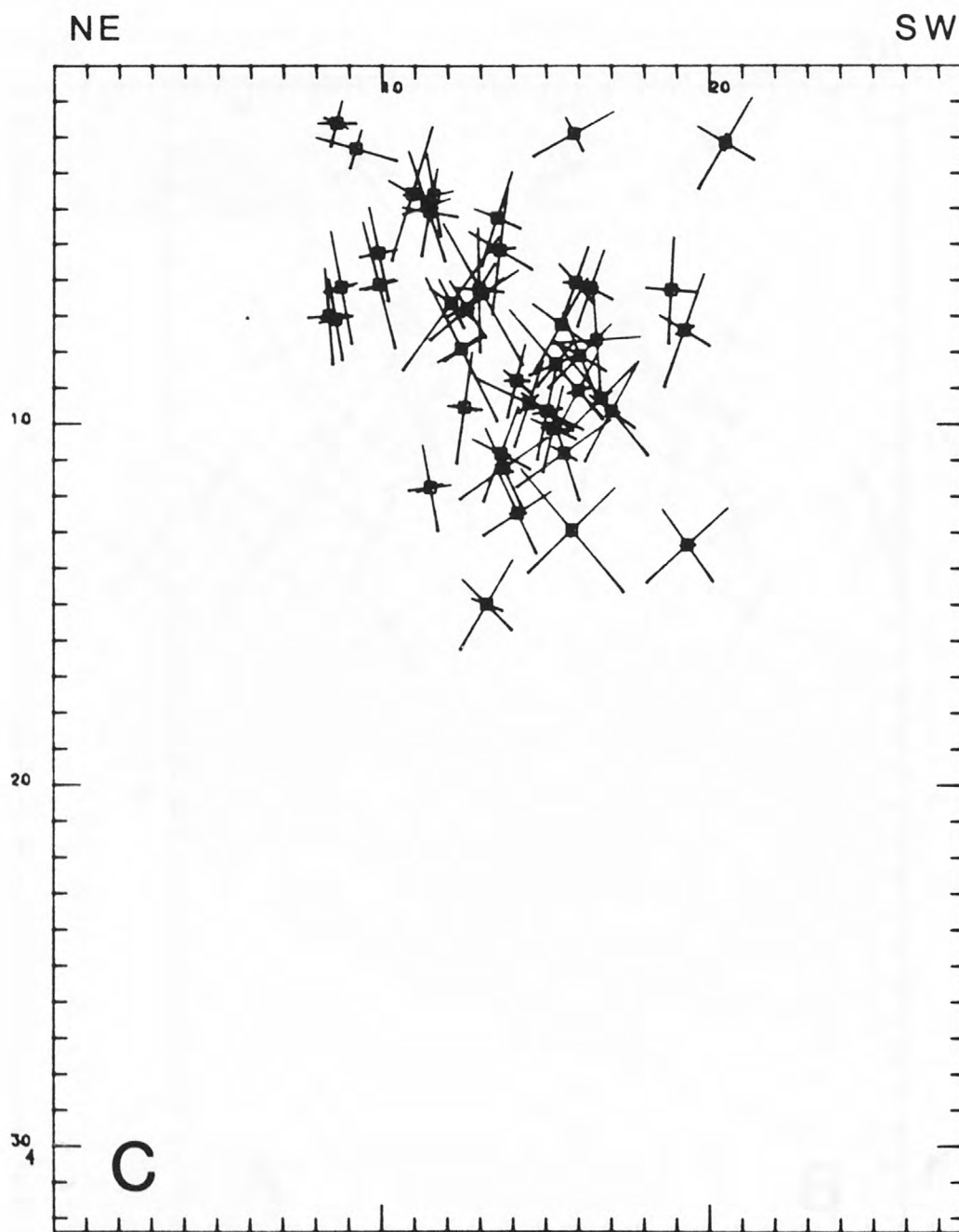


Figure 16.

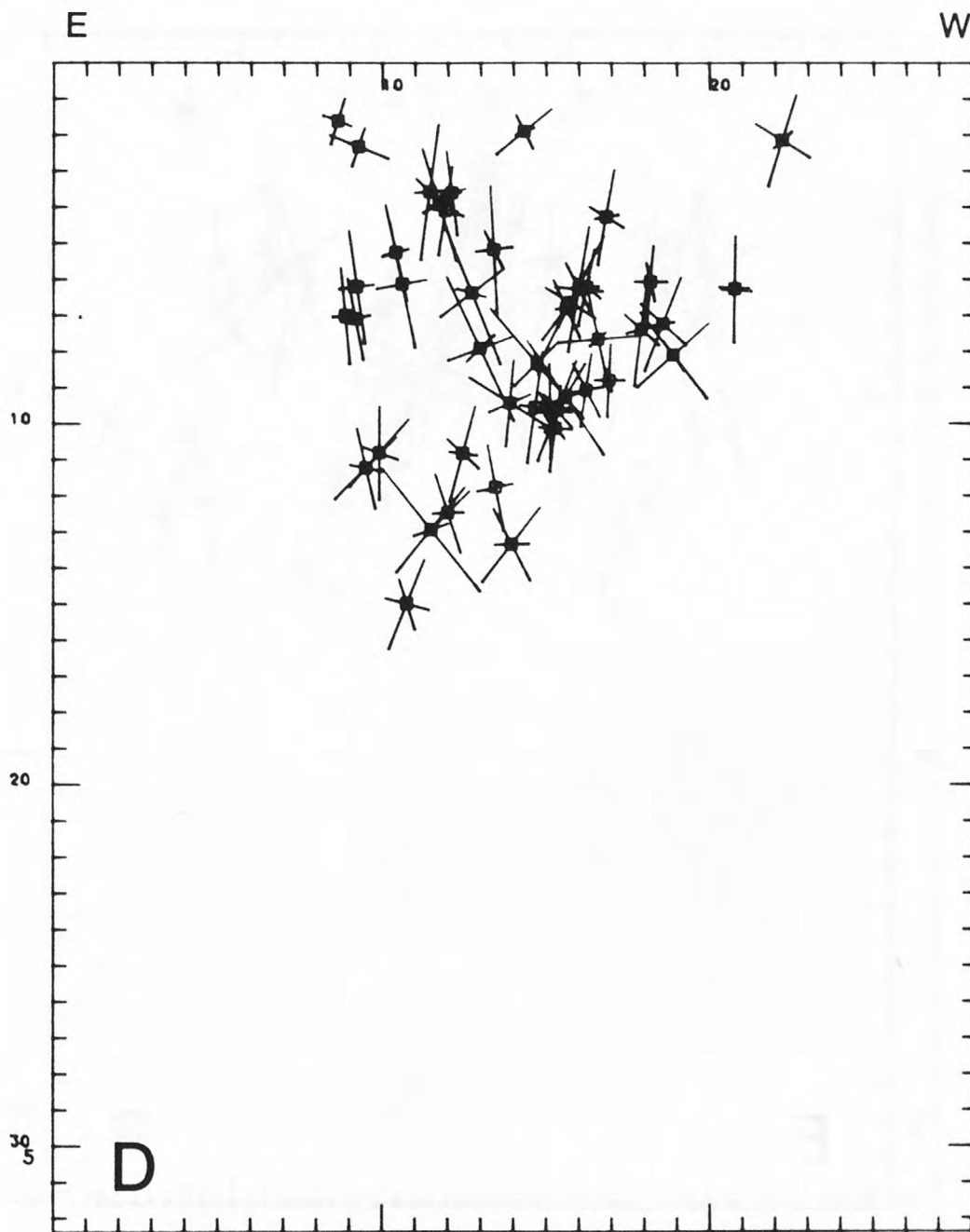


Figure 17.

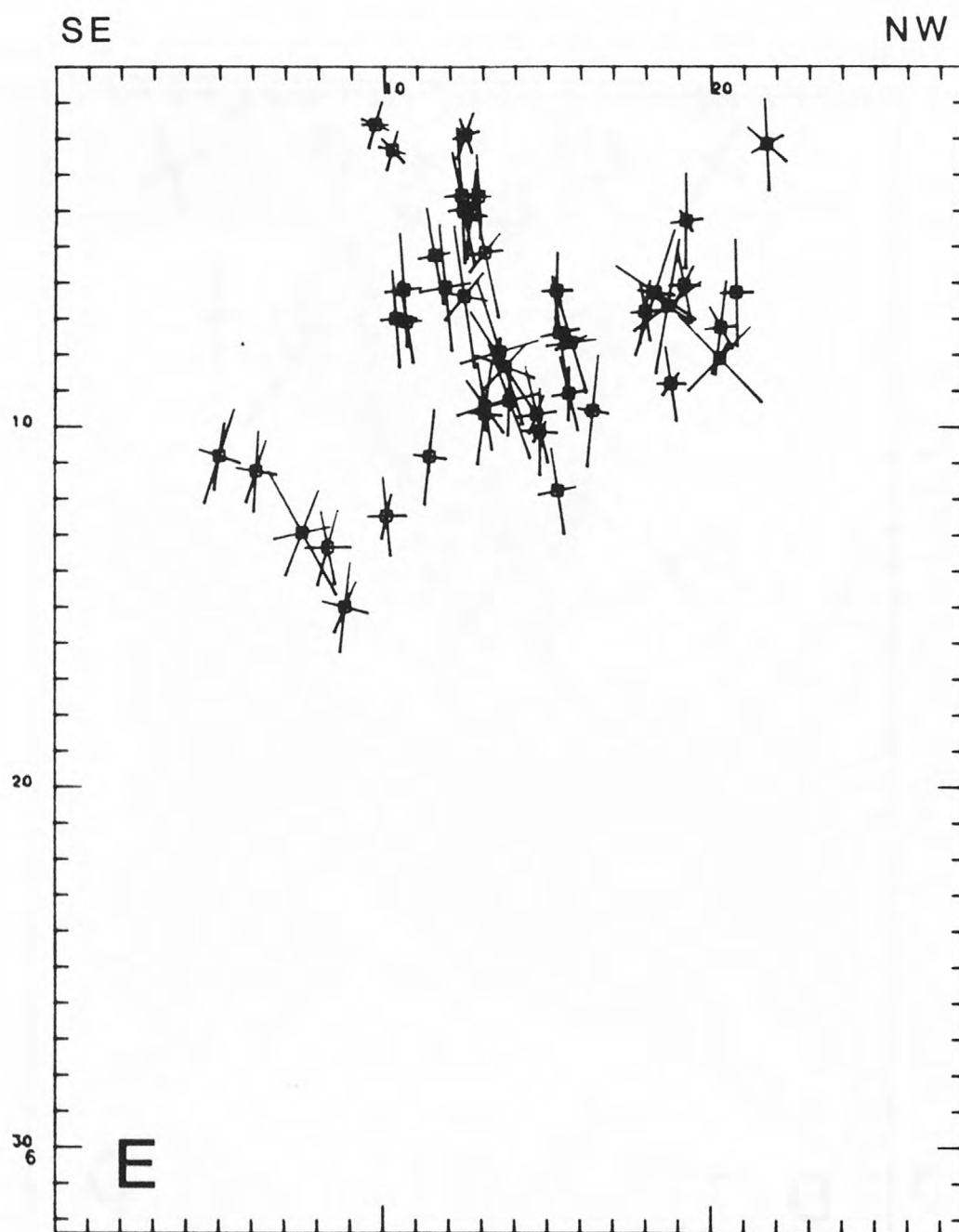


Figure 18.

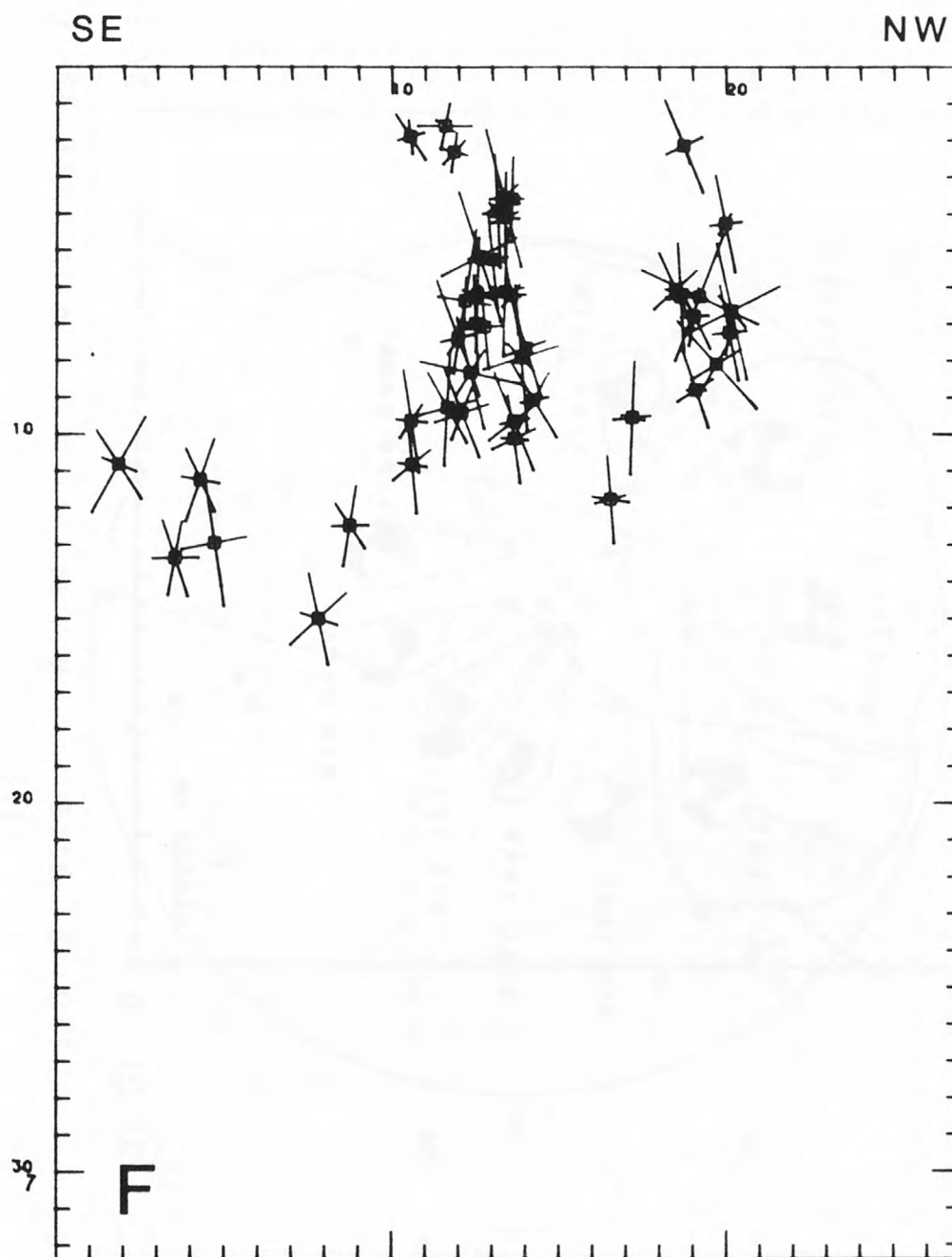


Figure 19.

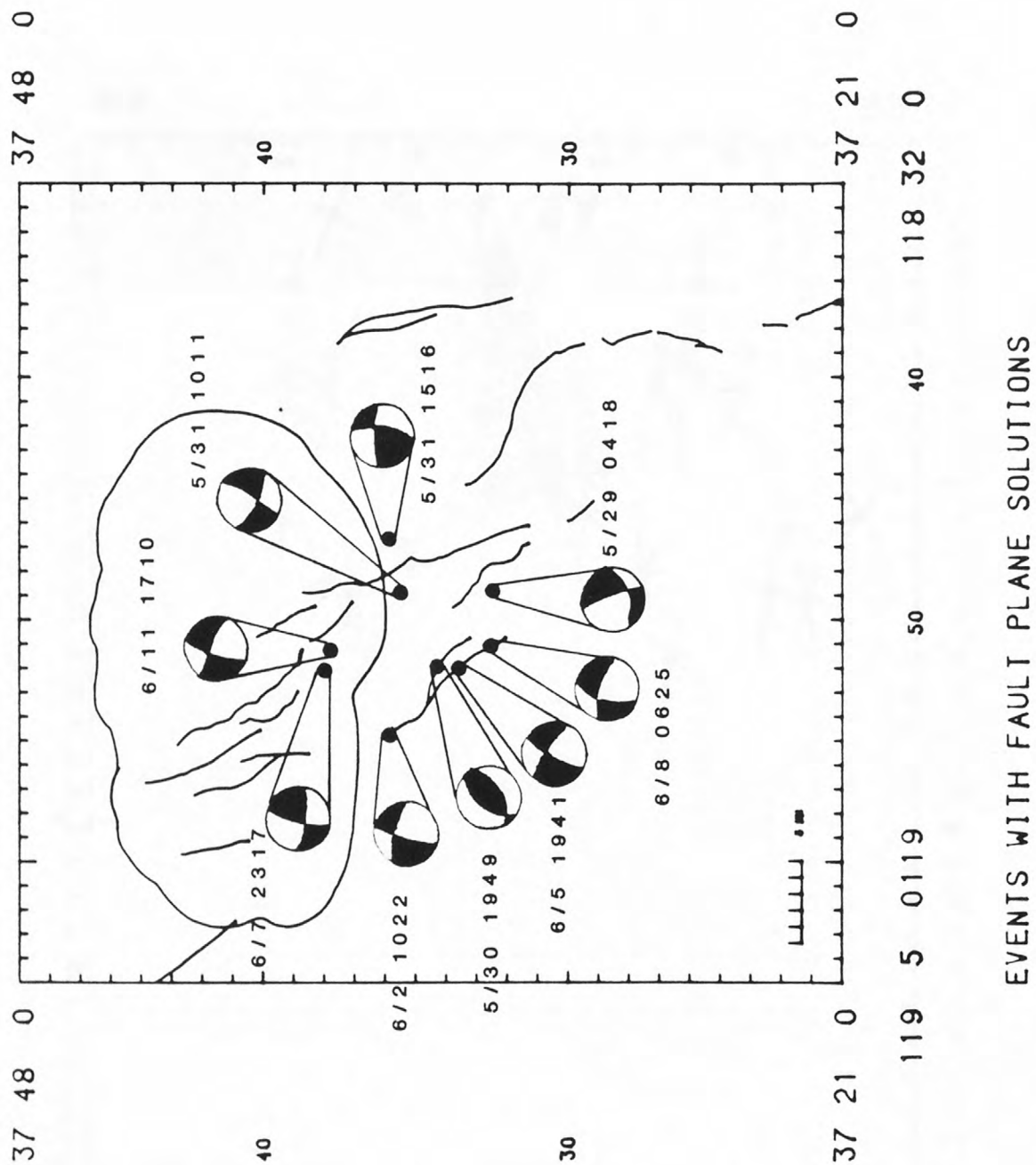


Figure 20. Individual fault-plane solutions for nine aftershocks with seven or more fully weighted P waves. Areas of compression are shaded (upper-hemisphere, equal-area).

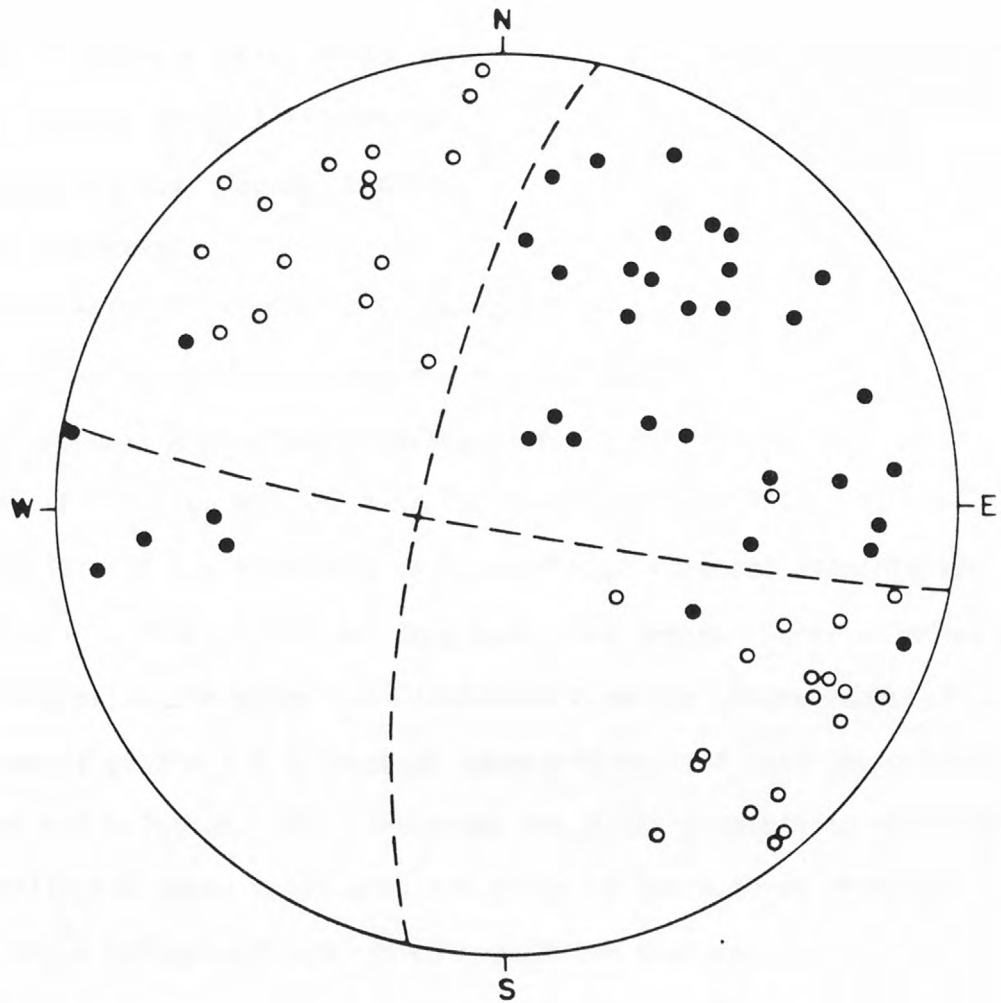


Figure 21. Composite fault-plane solution using aftershocks in Figure 20.
Solid circles indicate compressional first P motion
(upper-hemisphere, equal-area).

Appendix A

Input parameters:

P/S -- P or S phase

W -- Weight (W = 0 indicates full weight, w = 1 indicate 3/4 weight, etc.)

Parameters describing hypocenter location:

YR,MO,DA -- calendar year, month, day

ORIGIN -- hours, decimal minutes (UTC)

LAT, LONG -- degrees, decimal minutes

DEPTH -- kilometers

DIST -- epicentral distance in kilometers

AZM -- azimuth to station in degrees east of north

(Event #1 in Appendix A provides an example of our convention for times:

80/5/26 2158 UTC = Julian day 147 2158 UTC = 80/5/26 1458 PDT).

HINV calculates a 4 x 4 covariance matrix whose diagonal elements are the variances of origin time, latitude, longitude, and depth. Three principal standard errors of the location are calculated from the square-roots of the diagonal elements of the 3 x 3 location submatrix rotated into the principal directions of the solution. The earthquake has a 32% probability of lying inside the ellipsoid whose major axes are given by these three principal standard errors. Parameters describing hypocenter quality:

RMS -- Root-mean-square of weighted travel-time residuals

ERH -- Largest projection of principal standard error axes onto horizontal plane in kilometers

ERZ -- Largest projection of principal standard error axes onto a vertical line in kilometers

GAP -- Largest azimuthal gap between adjacent stations in degrees

(GAP \leq 180 means the epicenter is inside the network).

1 26 MAY 80, 21:58 EVENT NO. 1

```
-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 5-26 2158   9.31 37 36.73 118 50.23  7.45 0.04  1.13  2.38 134

RMSWT DMIN ITR NFM NWR NWS
0.04  4.8   5   0   6   3

STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
LAR   4.8 285 143 P      11.10 0.08  1.87  1.83 0.00  0.04 1.09 0.532
      S      12.45 0.08  3.22  3.25 0.00 -0.03 1.09 0.843
HOT   5.5  31 139 P      11.10 0.05  1.84  1.90 0.00 -0.06 1.09 0.570
      S      1 12.69 0.05  3.43  3.37 0.00  0.05 0.82 0.743
MCC   7.3 151 131 P      11.16 0.02  1.87  1.86 0.00  0.01 1.09 0.567
      S      1 12.52 0.02  3.23  3.23 0.00 -0.01 0.82 0.741
```

1 27 MAY 80, 1:44 EVENT NO. 2

```
-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 5-27 144 45.95 37 36.84 118 52.56  4.00 0.01  3.09  3.77 281

RMSWT DMIN ITR NFM NWR NWS
0.01  4.1   7   0   5   2

STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
FIS   4.1  90 125 P      47.23 0.05  1.33  1.33 0.00  0.00 1.33 0.999
HOT   7.7  54 107 P      47.77 0.05  1.87  1.88 0.00 -0.01 1.33 0.886
      S      1 49.24 0.05  3.34  3.35 0.00 -0.01 1.00 0.932
ROC  19.0 133  94 P      1 49.75-0.33  3.47  3.47 0.00  0.00 1.00 0.799
      S      3 52.30-0.33  6.02  6.02 0.00  0.00 0.33 0.381
```

1 27 MAY 80, 3:43 EVENT NO. 3

```
-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 5-27 343 49.37 37 34.92 118 50.93  6.58 0.14  3.60  2.43 255

RMSWT DMIN ITR NFM NWR NWS
0.14  3.9   4   0   5   3

STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
FIS   3.9  24 145 P      1 51.15 0.05  1.83  1.63 0.00  0.21 1.00 0.555
      S      1 52.09 0.05  2.77  2.91 0.00 -0.13 1.00 0.848
HOT   8.9  25 120 P      51.44 0.04  2.11  2.25 0.00 -0.13 1.33 0.748
      S      1 53.42 0.04  4.09  3.98 0.00  0.12 1.00 0.847
ROC  14.9 129 108 S      2 54.71-0.34  5.00  5.00 0.00  0.00 0.67 1.000
```

1 27 MAY 80, 4: 7 EVENT NO. 4

```
-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 5-27  4 7 11.46 37 35.95 118 47.06 10.40 0.01  3.26  4.96 191

RMSWT DMIN ITR NFM NWR NWS
0.01  6.3   8   0   5   2

STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
HOT   6.3 344 146 P      13.79 0.04  2.37  2.38 0.00 -0.01 1.33 0.886
      S      3 15.62 0.04  4.20  4.20 0.00  0.00 0.33 0.381
LAK   6.8  46 144 P      1 13.83 0.05  2.42  2.43 0.00  0.00 1.00 0.800
      S      1 15.61 0.05  4.20  4.22 0.00 -0.01 1.00 0.932
ROC  12.8 153 126 P      14.67-0.34  2.87  2.87 0.00  0.00 1.33 0.999
```

1 27 MAY 80, 8: 4 EVENT NO. 5

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-27 8 4 8.80 37 37.71 118 48.81 6.55 0.05 2.09 2.31 153

RMSWT DMIN ITR NFM NWR NWS
0.05 2.2 3 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	2.2	222	158	P	1	10.29 0.05	1.54	1.49	0.00	0.05	1.07	0.661
				S	2	11.34 0.05	2.59	2.67	0.00	-0.08	0.71	0.745
HOT	3.0	15	152	S	2	11.51 0.04	2.75	2.76	0.00	-0.01	0.71	0.999
ROC	16.9	150	105	P	1	12.30-0.36	3.14	3.20	0.00	-0.06	1.07	0.658
				S		14.72-0.36	5.56	5.55	0.00	0.01	1.43	0.934

1 27 MAY 80, 19: 1 EVENT NO. 6

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-27 19 1 8.06 37 35.39 118 46.53 1.62 0.10 1.04 0.64 156

RMSWT DMIN ITR NFM NWR NWS
0.10 5.5 8 0 10 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	5.5	300	43	P		9.37 0.04	1.35	1.52	0.00	-0.17	1.29	0.192
				S	1	10.71 0.04	2.69	2.75	0.00	-0.06	0.97	0.384
CON	6.8	271	103	P		6.86 2.58	1.38	1.40	0.00	-0.02	1.29	0.629
				S	2	8.08 2.58	2.60	2.50	0.00	0.10	0.65	0.305
LAK	7.1	35	95	P		9.69 0.03	1.66	1.66	0.00	0.00	1.29	0.621
				S	2	11.05 0.03	3.02	2.90	0.00	0.12	0.65	0.371
TOM	10.1	115	43	P		10.07 0.29	2.30	2.29	0.00	0.01	1.29	0.839
				S	3	11.80 0.29	4.03	4.06	0.00	-0.04	0.32	0.123
LAR	10.7	291	43	P		10.39 0.06	2.39	2.39	0.00	0.00	1.29	0.191
				S	1	12.45 0.06	4.45	4.24	0.00	0.21	0.97	0.341

1 27 MAY 80, 19:47 EVENT NO. 7

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-27 1947 21.73 37 37.59 118 49.16 6.17 0.05 5.50 2.07 222

RMSWT DMIN ITR NFM NWR NWS
0.05 1.7 4 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	1.7	215	162	P		23.13 0.04	1.44	1.40	0.00	0.04	1.14	0.583
				S	1	24.15 0.04	2.46	2.52	0.00	-0.06	0.86	0.751
CON	5.0	216	136	P		20.60 2.58	1.45	1.44	0.00	0.01	1.14	0.577
				S	1	21.64 2.58	2.49	2.51	0.00	-0.02	0.86	0.754
LAK	8.2	78	123	P		23.72 0.03	2.02	2.10	0.00	-0.08	1.14	0.584
				S	1	25.41 0.03	3.71	3.65	0.00	0.06	0.86	0.748

1 27 MAY 80, 21:34 EVENT NO. 8

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-27 2134 53.86 37 29.77 118 48.31 9.86 0.05 2.29 5.76 271

RMSWT DMIN ITR NFM NWR NWS
0.05 13.3 8 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
TOM	13.3	62	123	P		56.75 0.29	3.18	3.15	0.00	0.03	1.26	0.653
				S	1	59.04 0.29	5.47	5.52	0.00	-0.05	0.95	0.771
FIS	13.3	351	122	S	3	59.13 0.04	5.31	5.54	0.00	-0.22	0.32	0.228
LAR	15.9	333	118	P		57.35 0.05	3.54	3.54	0.00	0.01	1.26	0.912
LAK	17.6	22	117	P		57.51 0.03	3.68	3.75	0.00	-0.07	1.26	0.660
				S	1	60.37 0.03	6.54	6.49	0.00	0.05	0.95	0.773

1 27 MAY 80, 23:41 EVENT NO. 9

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YR MO DA  ORIGIN  LAT N  LON W  DEPTH  RMS  ERH  ERZ  GAP
80- 5-27 2341  3.56 37 33.87 118 50.67  8.34 0.05  1.76  1.52 236
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RMSWT DMIN ITR NFM NWR NWS
0.05  2.9   7   0   8   5
```

```
STA DIST AZM  AN P/S W  SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
CON   2.9 346 159 P      2.53 2.58  1.55  1.57 0.00 -0.02 1.78 0.737
      S      1  3.75 2.58  2.77  2.73 0.00  0.04 1.33 0.765
MGE   5.1  93 146 P      5.16 0.16  1.76  1.73 0.00  0.02 1.33 0.685
      S      3  6.21 0.16  2.81  3.01 0.00 -0.21 0.44 0.320
FIS   5.7  13 142 S      6.89 0.04  3.37  3.61 0.00 -0.24 0.44 0.158
LAR   7.6 329 133 S      7.49 0.05  3.98  3.98 0.00 -0.01 0.44 0.222
LAK  13.4  50 119 P      6.56 0.02  3.02  3.02 0.00  0.00 1.78 0.845
      S      3  8.90 0.02  5.36  5.23 0.00  0.13 0.44 0.264
```

1 27 MAY 80, 23:57 EVENT NO. 10

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YR MO DA  ORIGIN  LAT N  LON W  DEPTH  RMS  ERH  ERZ  GAP
80- 5-27 2357 43.22 37 33.22 118 54.74  3.18 0.09  4.37 29.45 239
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RMSWT DMIN ITR NFM NWR NWS
0.10  8.0  12   0   8   4
```

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STA DIST AZM  AN P/S W  SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
LAR   8.0  14 100 P      45.09 0.05  1.92  1.89 0.00  0.03 1.47 0.711
      S      2  46.45 0.05  3.28  3.37 0.00 -0.09 0.73 0.458
FIS   9.9  47  98 P      45.37 0.04  2.19  2.21 0.00 -0.02 1.47 0.248
      S      2  46.83 0.04  3.65  3.92 0.00 -0.27 0.67 0.363
MGE  11.1  85  93 P      45.16 0.16  2.10  2.15 0.00 -0.06 1.47 0.716
CBR  15.9  28  94 S      48.88-0.03  5.63  5.62 0.00  0.01 0.37 0.856
LAK  19.0  58  96 P      46.92 0.02  3.72  3.65 0.00  0.07 1.10 0.191
      S      2  49.75 0.02  6.55  6.31 0.00  0.23 0.73 0.453
```

1 28 MAY 80, 4: 2 EVENT NO. 11

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YR MO DA  ORIGIN  LAT N  LON W  DEPTH  RMS  ERH  ERZ  GAP
80- 5-28  4 2 58.37 37 35.80 118 47.51  4.59 0.09  0.67  2.02 125
```

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RMSWT DMIN ITR NFM NWR NWS
0.09  3.9   8   0  10   5
```

```
STA DIST AZM  AN P/S W  SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
FIS   3.9 300 131 P      59.62 0.03  1.28  1.37 0.00 -0.09 1.18 0.199
      S      S      60.74 0.03  2.40  2.48 0.00 -0.08 1.18 0.732
MGE   4.0 173 133 P      59.33 0.16  1.12  1.13 0.00  0.00 1.18 0.365
      S      S      60.19 0.16  1.98  1.98 0.00  0.00 1.18 0.724
CON   5.4 263 122 P      57.17 2.58  1.38  1.31 0.00  0.07 1.18 0.410
      S      S      58.27 2.58  2.48  2.31 0.00  0.17 0.59 0.131
HCF   7.2 315 113 S      61.78 0.12  3.53  3.27 0.00  0.26 0.55 0.116
LAK   7.5  48 116 P      60.12 0.02  1.77  1.86 0.00 -0.09 1.18 0.446
      S      S      61.74 0.02  3.39  3.25 0.00  0.14 0.89 0.588
CBR   9.6 343 107 P      60.60-0.03  2.20  2.21 0.00 -0.01 0.89 0.284
```

1 28 MAY 80, 4:22 EVENT NO. 12

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-28 422 10.44 37 34.34 118 58.37 3.25 0.13 14.95 73.98 318

RMSWT DMIN ITR NFM NWR NWS
0.13 9.3 11 0 5 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAR	9.3	52	99	S		14.04 0.05	3.65	3.74	0.00	-0.08	1.05	0.999
CON	10.8	79	94	P		9.81 2.58	1.95	2.10	0.00	-0.14	1.05	0.321
				S	3	10.89 2.58	3.03	3.66	0.00	-0.62	0.00	0.000
MGE	16.5	94	92	P		13.26 0.16	2.98	3.04	0.00	-0.06	1.05	0.881
				S	3	14.17 0.16	3.89	5.28	0.00	-1.39	0.00	0.000
LAK	22.9	70	95	P		14.92 0.02	4.50	4.31	0.00	0.20	1.05	0.797
				S	1	17.94 0.02	7.52	7.44	0.00	0.09	0.79	0.999

1 28 MAY 80, 5: 5 EVENT NO. 13

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-28 5 5 24.11 37 37.14 118 50.10 7.00 0.03 14.95 73.98 315

RMSWT DMIN ITR NFM NWR NWS
0.11 3.7 2 0 3 0

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	3.7	204	148	P		25.76 0.03	1.68	1.67	0.00	0.01	1.31	0.654
				S	1	26.50 0.03	2.42	2.98	0.00	-0.56	0.00	0.303
CON	7.1	210	130	P		23.33 2.58	1.80	1.78	0.00	0.02	1.31	0.848
				S	3	24.10 2.58	2.57	3.10	0.00	-0.52	0.00	0.176
MGE	9.6	165	121	P		26.09 0.16	2.14	2.12	0.00	0.02	1.31	0.817
				S	3	27.22 0.16	3.27	3.69	0.00	-0.41	0.06	0.200

3 WEIGHTED PHASES ARE INSUFFICIENT FOR A SOLN

1 28 MAY 80, 5:16 EVENT NO. 14

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-28 516 22.99 37 34.43 118 53.74 3.89 0.08 2.34 2.01 267

RMSWT DMIN ITR NFM NWR NWS
0.08 4.2 8 0 10 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	4.2	64	123	P		21.49 2.58	1.08	1.08	0.00	-0.01	1.43	0.465
				S		22.34 2.58	1.93	1.91	0.00	0.02	1.43	0.879
LAR	5.5	5	114	P		24.47 0.04	1.52	1.53	0.00	-0.02	1.43	0.704
				S	3	25.64 0.04	2.69	2.75	0.00	-0.07	0.36	0.108
FIS	7.3	52	108	P		24.67 0.03	1.71	1.81	0.00	-0.11	1.43	0.287
HCF	8.6	28	104	P		24.93 0.12	2.06	2.01	0.00	0.04	0.36	0.035
				S	3	26.32 0.12	3.45	3.58	0.00	-0.13	0.36	0.207
MGE	9.7	98	100	P		24.79 0.16	1.96	1.94	0.00	0.02	1.07	0.493
				S	2	26.01 0.16	3.18	3.39	0.00	-0.21	0.71	0.299
LAK	16.6	62	100	P		26.38 0.01	3.40	3.27	0.00	0.12	1.43	0.518

1 28 MAY 80, 6:13 EVENT NO. 15

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-28 613 5.52 37 45.11 118 49.12 2.38 0.18 8.16 71.39 323

RMSWT DMIN ITR NFM NWR NWS
0.18 8.1 8 0 5 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CBR	8.1	184	93	P		7.25-0.04	1.69	1.90	0.00	-0.21	1.11	0.744
				S	2	8.76-0.04	3.20	3.38	0.00	-0.18	0.56	0.624
LAK	14.6	147	95	P		8.34 0.01	2.83	2.92	0.00	-0.09	1.11	0.724
				S		10.60 0.01	5.09	5.05	0.00	0.03	1.11	0.906
FIS	15.4	184	91	P		8.88 0.03	3.39	3.11	0.00	0.28	1.10	0.999
				S	2	9.92 0.03	4.43	5.45	0.00	-1.03	0.00	0.000

1 28 MAY 80, 7:51 EVENT NO. 16

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-28 751 44.78 37 37.63 118 53.54 7.69 0.01 7.55 5.02 277

RMSWT DMIN ITR NFM NWR NWS
0.01 5.7 6 0 5 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	5.7	104	139	P		46.70 0.03	1.95	1.95	0.00	-0.01	1.11	0.733
				S	1	48.22 0.03	3.47	3.47	0.00	0.00	0.83	0.838
CBR	8.3	45	128	P	1	47.08-0.04	2.26	2.26	0.00	0.00	0.83	0.519
				S		48.82-0.04	4.00	4.00	0.00	0.00	1.11	0.908
MGE	11.9	128	119	P		47.11 0.16	2.49	2.50	0.00	-0.01	1.11	0.999

1 28 MAY 80, 10: 3 EVENT NO. 17

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-28 10 3 34.76 37 36.18 118 48.19 5.14 0.03 6.03 2.96 264

RMSWT DMIN ITR NFM NWR NWS
0.03 2.7 9 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	2.7	298	147	P		36.01 0.03	1.28	1.31	0.00	-0.03	1.41	0.748
				S	2	37.15 0.03	2.42	2.37	0.00	0.05	0.71	0.673
CON	4.6	252	132	P		33.46 2.58	1.28	1.27	0.00	0.01	1.41	0.748
				S	2	34.35 2.58	2.17	2.22	0.00	-0.05	0.71	0.680
CBR	8.7	348	113	P		36.90-0.04	2.10	2.10	0.00	0.00	1.41	0.871
				S	3	38.50-0.04	3.70	3.72	0.00	-0.02	0.35	0.277

1 28 MAY 80, 11:54 EVENT NO. 18

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-28 1154 37.30 37 27.39 118 49.78 9.21 0.12 1.48 2.83 288

RMSWT DMIN ITR NFM NWR NWS
0.14 10.7 14 0 10 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	10.7	65	127	P		40.32-0.47	2.55	2.48	0.00	0.07	1.29	0.497
				S	2	42.04-0.47	4.27	4.30	0.00	-0.03	0.65	0.431
MGE	12.3	18	123	P		39.97 0.17	2.84	2.69	0.00	0.15	1.29	0.196
				S	1	41.69 0.17	4.56	4.66	0.00	-0.10	0.97	0.378
CON	14.9	353	117	P		37.84 2.58	3.12	3.08	0.00	0.04	1.29	0.485
				S	1	39.95 2.58	5.23	5.33	0.00	-0.10	0.97	0.420
TOM	17.5	52	114	P		40.55 0.27	3.52	3.71	0.00	-0.19	1.29	0.377
				S	1	43.06 0.27	6.03	6.49	0.00	-0.46	0.01	0.000
FIS	17.5	0	114	S	2	43.55 0.03	6.28	6.51	0.00	-0.23	0.65	0.126
LAK	22.5	23	110	P		41.69 0.00	4.39	4.46	0.00	-0.07	1.29	0.364
				S		45.14 0.00	7.84	7.70	0.00	0.14	1.29	0.722
CBR	24.8	0	107	S	2	44.98-0.04	7.64	8.45	0.00	-0.81	0.00	0.000

1 28 MAY 80, 13:27 EVENT NO. 19

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-28 1327 38.27 37 35.40 118 49.49 7.93 0.05 1.20 2.01 137

RMSWT DMIN ITR NFM NWR NWS
0.05 2.5 5 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	2.5	270	161	S	1	38.23 2.58	2.54	2.57	0.00	-0.04	0.95	0.821
MGE	4.7	133	147	P		39.78 0.17	1.68	1.64	0.00	0.04	1.26	0.655
				S	1	40.92 0.17	2.82	2.85	0.00	-0.03	0.95	0.696
CBR	9.9	0	124	S	2	42.80-0.04	4.49	4.42	0.00	0.06	0.63	0.472
LAK	10.3	55	124	P		40.75 0.00	2.48	2.54	0.00	-0.07	1.26	0.607
				S	1	42.71 0.00	4.44	4.41	0.00	0.02	0.95	0.746

1 28 MAY 80, 23: 7 EVENT NO. 20

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-28 23 7 42.35 37 35.86 118 44.99 7.00 0.12 1.56 2.25 198

RMSWT DMIN ITR NFM NWR NWS
0.12 5.2 4 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	5.2	219	140	P		43.86 0.16	1.67	1.56	0.00	0.11	1.14	0.590
				S	1	44.78 0.16	2.59	2.73	0.00	-0.13	0.86	0.753
LAK	5.3	21	139	P		43.98-0.01	1.62	1.82	0.00	-0.19	1.14	0.565
				S		45.61-0.01	3.25	3.17	0.00	0.09	1.14	0.854
HOT	7.9	323	126	P		44.53 0.01	2.19	2.15	0.00	0.05	1.14	0.675
				S	2	45.99 0.01	3.65	3.80	0.00	-0.15	0.57	0.561

1 29 MAY 80, 4:18 EVENT NO. 21

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-29 418 52.32 37 32.49 118 48.82 12.49 0.11 1.15 1.10 204

RMSWT DMIN ITR NFM NWR NWS
0.11 3.3 7 0 16 9

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	3.3	47	164	P		54.44 0.17	2.29	2.24	0.00	0.04	1.19	0.121
				S		56.07 0.17	3.92	3.88	0.00	0.03	1.19	0.448
CON	6.4	328	151	P		52.12 2.58	2.38	2.44	0.00	-0.06	1.19	0.193
				S	1	53.80 2.58	4.06	4.22	0.00	-0.16	0.89	0.229
FIS	8.2	350	144	S	3	57.50 0.01	5.19	4.99	0.00	0.19	0.30	0.020
ROC	9.7	120	140	P		55.74-0.54	2.88	2.75	0.00	0.13	1.19	0.337
				S	1	57.75-0.54	4.89	4.75	0.00	0.14	0.89	0.303
LAR	11.3	324	135	P		55.43 0.02	3.13	3.17	0.00	-0.04	1.19	0.276
				S		57.78 0.02	5.48	5.56	0.00	-0.08	1.19	0.351
HOT	12.6	3	132	P		55.69 0.00	3.37	3.33	0.00	0.04	1.19	0.215
				S	1	58.37 0.00	6.05	5.82	0.00	0.22	0.89	0.263
TOA	12.6	85	132	P		55.31 0.25	3.24	3.33	0.00	-0.09	1.19	0.240
				S		57.69 0.25	5.62	5.82	0.00	-0.21	1.19	0.439
LAK	13.4	34	131	P		55.73-0.02	3.39	3.43	0.00	-0.04	1.19	0.257
				S	2	58.40-0.02	6.06	5.94	0.00	0.12	0.59	0.171
CBR	15.3	357	126	S	2	58.94-0.05	6.57	6.43	0.00	0.13	0.59	0.127

1 29 MAY 80, 5:55 EVENT NO. 22

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-29 555 43.63 37 31.53 118 51.55 8.95 0.06 3.59 2.43 243

RMSWT DMIN ITR NFM NWR NWS
0.06 7.6 10 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	7.6	57	137	P		45.56 0.17	2.10	2.07	0.00	0.04	1.20	0.481
				S		47.08 0.17	3.62	3.59	0.00	0.03	1.20	0.791
LAR	11.2	347	124	S	1	48.42 0.01	4.80	4.88	0.00	-0.08	0.90	0.810
ROC	12.8	104	121	S	2	48.74-0.55	4.56	4.74	0.00	-0.18	0.60	0.514
TOA	16.8	80	114	P		46.99 0.25	3.61	3.59	0.00	0.02	1.20	0.653
				S	1	49.60 0.25	6.22	6.28	0.00	-0.06	0.90	0.747

1 29 MAY 80, 15:16 EVENT NO. 23

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-29 1516 4.66 37 34.42 118 49.32 6.39 0.06 1.27 1.97 191

RMSWT DMIN ITR NFM NWR NWS
0.06 3.3 5 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	3.3	304	150	S	1	4.28 2.58	2.20	2.26	0.00	-0.06	1.00	0.748
MGE	3.4	113	149	P		5.81 0.18	1.33	1.31	0.00	0.02	1.33	0.740
				S	1	6.75 0.18	2.27	2.28	0.00	-0.01	1.00	0.742
LAR	8.1	313	122	S	2	8.53 0.00	3.87	3.75	0.00	0.12	0.67	0.424
HOT	9.1	9	119	P	1	6.81-0.01	2.14	2.25	0.00	-0.11	1.00	0.495
				S	1	8.69-0.01	4.02	3.99	0.00	0.04	1.00	0.848

1 29 MAY 80, 16:14 EVENT NO. 24

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-29 1614 7.92 37 37.43 118 53.77 6.86 0.04 2.93 1.40 271

RMSWT DMIN ITR NFM NWR NWS
0.04 0.6 5 0 7 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAR	0.6	99	174	S	2	10.56 0.00	2.64	2.65	0.00	-0.01	0.64	0.931
HCF	4.6	64	142	P		9.48 0.11	1.67	1.73	0.00	-0.06	1.27	0.294
				S		10.92 0.11	3.11	3.08	0.00	0.03	1.27	0.809
CON	5.3	134	138	P		6.96 2.58	1.62	1.56	0.00	0.06	1.27	0.602
				S	1	8.00 2.58	2.66	2.72	0.00	-0.06	0.95	0.665
CBR	8.7	45	122	P		10.21-0.05	2.24	2.25	0.00	-0.01	1.27	0.612
				S	3	12.04-0.05	4.07	3.98	0.00	0.09	0.32	0.084

1 29 MAY 80, 16:56 EVENT NO. 25

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-29 1656 56.63 37 34.75 118 48.43 11.38 0.04 38.12 2.29 193

RMSWT DMIN ITR NFM NWR NWS
0.05 2.7 4 0 4 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	2.7	137	165	P		58.48 0.18	2.03	2.04	0.00	-0.01	1.35	1.000
				S		59.98 0.18	3.53	3.54	0.00	-0.01	1.35	0.999
CON	4.2	287	158	S	3	57.41 2.58	3.36	3.67	0.00	-0.31	0.29	0.999
LAR	8.7	304	139	S	1	61.46 0.00	4.83	4.84	0.00	-0.01	1.01	0.999
ROC	12.0	139	131	S	3	64.54-0.60	7.31	4.99	0.00	2.32	0.00	0.000
TOA	12.3	104	129	S	2	64.41 0.24	8.02	5.56	0.00	2.46	0.00	0.000

1 29 MAY 80, 17:21 EVENT NO. 26

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-29 1721 1.03 37 31.48 118 49.75 8.01 0.04 2.53 1.72 228

RMSWT DMIN ITR NFM NWR NWS
0.04 5.6 9 0 9 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	5.6	42	142	P		2.62 0.18	1.77	1.73	0.00	0.04	1.44	0.215
				S	1	3.88 0.18	3.03	3.01	0.00	0.02	1.08	0.681
CON	7.6	345	133	S	2	1.75 2.58	3.30	3.39	0.00	-0.09	0.72	0.284
ROC	10.2	107	124	P		3.91-0.60	2.28	2.29	0.00	-0.02	1.44	0.696
				S	2	5.53-0.60	3.90	3.99	0.00	-0.09	0.72	0.323
LAR	12.2	335	118	P		3.86 0.00	2.83	2.83	0.00	0.00	1.44	0.731
				S	3	5.83 0.00	4.80	4.98	0.00	-0.18	0.36	0.073
TOM	14.2	78	115	P		3.91 0.24	3.12	3.13	0.00	-0.01	1.44	0.823
				S	3	6.17 0.24	5.38	5.49	0.00	-0.11	0.36	0.169
HOT	14.6	8	114	S	1	7.42-0.01	6.38	5.60	0.00	0.78	0.00	0.000

1 29 MAY 80, 18:24 EVENT NO. 27

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-29 1824 43.92 37 39.01 118 52.27 6.69 0.01 2.95 3.08 295

RMSWT DMIN ITR NFM NWR NWS
0.01 2.1 4 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
HCF	2.1	116	160	P		45.32 0.11	1.51	1.50	0.00	0.01	1.33	0.736
				S	2	46.47 0.11	2.66	2.69	0.00	-0.04	0.67	0.714
CBR	5.2	51	137	P		45.73-0.05	1.76	1.77	0.00	-0.02	1.33	0.785
				S	2	47.16-0.05	3.19	3.16	0.00	0.02	0.67	0.712
HOT	5.8	85	133	S	1	47.22-0.01	3.29	3.29	0.00	-0.01	1.00	0.999

1 29 MAY 80, 18:55 EVENT NO. 28

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-29 1855 8.78 37 35.88 118 47.87 6.14 0.06 0.80 1.76 115

RMSWT DMIN ITR NFM NWR NWS
0.06 3.4 4 0 10 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	3.4	303	147	P		10.28 0.00	1.50	1.51	0.00	-0.01	1.43	0.374
				S	1	11.42 0.00	2.64	2.71	0.00	-0.08	1.07	0.665
MGE	4.2	166	142	P		9.98 0.18	1.38	1.35	0.00	0.03	1.43	0.555
				S	1	10.94 0.18	2.34	2.35	0.00	-0.02	1.07	0.634
CON	4.9	260	137	S	3	11.53-0.03	2.72	2.48	0.00	0.23	0.36	0.069
HOT	6.2	355	128	P		10.67-0.01	1.88	1.84	0.00	0.04	1.43	0.408
				S	3	12.18-0.01	3.39	3.28	0.00	0.11	0.36	0.061
LAK	7.8	51	124	P		10.77-0.04	1.95	2.04	0.00	-0.09	1.43	0.449
				S	1	12.43-0.04	3.61	3.55	0.00	0.06	1.07	0.720
CBR	9.3	346	117	S	3	13.06-0.05	4.23	4.02	0.00	0.21	0.36	0.059

1 29 MAY 80, 18:56 EVENT NO. 29

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RMS	ERH	ERZ	GAP
80-	5-	29	1856 25.09	37 36.01	118 47.58	4.21	0.05	0.81	3.46	124

RMSWT DMIN ITR NFM NWR NWS
0.06 3.6 11 0 7 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	3.6	296	130	P		26.33 0.00	1.24	1.29	0.00	-0.05	1.51	0.689
				S	1	27.46 0.00	2.37	2.34	0.00	0.03	1.13	0.611
NGE	4.3	172	126	P		26.03 0.18	1.12	1.13	0.00	-0.01	1.51	0.655
				S	3	26.98 0.18	2.07	2.00	0.00	0.08	0.38	0.255
HOT	6.1	351	114	S	3	28.36-0.01	3.26	2.95	0.00	0.32	0.20	0.025
LAK	7.3	50	114	P		26.98-0.04	1.85	1.81	0.00	0.04	1.51	0.724
				S	2	28.17-0.04	3.04	3.16	0.00	-0.12	0.76	0.636

1 30 MAY 80, 1:19 EVENT NO. 30

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RIS	ERH	ERZ	GAP
80-	5-	30	119 32.53	37 34.57	118 44.73	3.45	0.00	0.91	4.01	125

RMSWT DMIN ITR NFM NWR NWS
0.00 4.0 6 0 4 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	4.0	246	118	S	2	34.13 0.19	1.79	1.80	0.00	-0.01	0.67	1.000
TOM	7.1	113	104	S	1	35.43 0.23	3.13	3.13	0.00	-0.01	1.00	1.000
LAK	7.5	11	108	S	1	35.69-0.05	3.11	3.11	0.00	0.00	1.00	0.999
ROC	9.2	165	97	P		34.99-0.63	1.83	1.83	0.00	-0.01	1.33	0.999
				S	3	35.83-0.63	2.67	3.21	0.00	-0.55	0.00	0.000

1 30 MAY 80, 3: 4 EVENT NO. 31

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RMS	ERH	ERZ	GAP
80-	5-	30	3 4 54.19	37 29.28	118 49.01	11.74	0.00	2.41	3.24	295

RMSWT DMIN ITR NFM NWR NWS
0.00 8.6 7 0 4 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	8.6	18	141	S	2	58.38 0.19	4.38	4.39	0.00	-0.01	0.67	0.999
ROC	8.7	83	141	P		57.36-0.64	2.53	2.54	0.00	-0.01	1.33	0.999
				S	1	59.22-0.64	4.39	4.40	0.00	-0.01	1.00	1.000
TOM	14.6	61	125	S	1	60.09 0.23	6.13	6.13	0.00	0.00	1.00	1.000

1 30 MAY 80, 6:29 EVENT NO. 32

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RMS	ERH	ERZ	GAP
80-	5-	30	629 27.59	37 37.20	118 53.14	5.56	0.06	2.28	1.55	260

RMSWT DMIN ITR NFM NWR NWS
0.06 4.0 5 0 9 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
HCF	4.0	52	138	P		29.00 0.10	1.51	1.50	0.00	0.01	1.03	0.302
				S		30.17 0.10	2.68	2.69	0.00	-0.01	1.03	0.706
CON	4.4	139	137	P		28.99-0.03	1.37	1.29	0.00	0.07	1.03	0.424
				S	1	29.88-0.03	2.26	2.26	0.00	-0.01	0.77	0.530
FIS	5.0	97	131	P		29.07-0.01	1.47	1.61	0.00	-0.15	1.03	0.244
				S	3	29.97-0.01	2.37	2.89	0.00	-0.52	0.00	0.000
HOT	8.1	62	117	P		29.64-0.02	2.03	2.04	0.00	-0.01	1.03	0.293
				S		31.29-0.02	3.68	3.62	0.00	0.05	1.03	0.728
CBR	8.4	39	116	P		29.77-0.06	2.12	2.10	0.00	0.02	1.03	0.401
				S		31.36-0.06	3.71	3.72	0.00	-0.02	1.03	0.368

1 30 MAY 80, 7:52 EVENT NO. 33

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-30 752 5.59 37 35.75 118 48.23 3.16 0.04 1.32 3.50 206

RMSWT DMIN ITR NFM NWR NWS
0.04 3.0 9 0 7 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	3.0	312	121	P		6.71-0.01	1.11	1.12	0.00	-0.01	1.08	0.471
				S		7.64-0.01	2.04	2.04	0.00	0.00	1.08	0.851
MGE	4.2	158	111	P		6.39 0.19	0.99	1.01	0.00	-0.03	1.08	0.477
				S		7.21 0.19	1.81	1.80	0.00	0.01	1.08	0.761
CON	4.3	262	109	P		6.65-0.04	1.02	1.05	0.00	-0.03	1.08	0.379
				S		7.47-0.04	1.84	1.85	0.00	-0.02	1.08	0.814
LAR	8.1	292	99	S	2	9.17-0.02	3.56	3.41	0.00	0.15	0.54	0.244

1 30 MAY 80, 10:30 EVENT NO. 34

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-30 1030 50.58 37 35.75 118 52.54 6.96 0.15 2.50 2.15 232

RMSWT DMIN ITR NFM NWR NWS
0.16 2.1 6 0 8 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	2.1	107	161	P		52.07-0.04	1.45	1.30	0.00	0.14	1.03	0.488
				S	1	52.96-0.04	2.34	2.28	0.00	0.06	0.77	0.449
LAR	3.3	339	151	P		52.01-0.02	1.41	1.62	0.00	-0.22	1.03	0.700
				S	1	52.97-0.02	2.37	2.90	0.00	-0.53	0.00	0.000
FIS	4.5	63	142	S		53.48-0.01	2.89	3.09	0.00	-0.21	1.03	0.581
HCF	5.6	24	136	P		52.33 0.10	1.85	1.85	0.00	-0.01	1.03	0.216
				S		54.01 0.10	3.53	3.30	0.00	0.23	1.03	0.556
CBR	10.3	25	118	P		53.18-0.06	2.54	2.48	0.00	0.06	1.03	0.512
				S		54.93-0.06	4.29	4.38	0.00	-0.09	1.03	0.493

1 30 MAY 80, 12: 1 EVENT NO. 35

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-30 12 1 52.84 37 31.97 118 49.57 9.67 0.04 2.43 1.28 282

RMSWT DMIN ITR NFM NWR NWS
0.04 4.7 6 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	4.7	47	152	S	1	55.89 0.20	3.25	3.28	0.00	-0.03	1.23	0.930
CON	6.8	340	142	S	2	56.02-0.04	3.14	3.60	0.00	-0.45	0.00	0.000
ROC	10.3	113	130	S	1	57.84-0.68	4.32	4.29	0.00	0.03	1.23	0.796
TOM	13.8	81	121	P		55.77 0.22	3.15	3.20	0.00	-0.05	1.65	0.545
				S	1	58.23 0.22	5.61	5.62	0.00	0.00	1.23	0.999
LAK	14.9	35	120	P		56.27-0.06	3.37	3.34	0.00	0.03	1.65	0.728
				S	2	59.15-0.06	6.25	5.79	0.00	0.46	0.00	0.000

1 30 MAY 80, 13:40 EVENT NO. 36

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-30 1340 51.10 37 39.13 118 47.94 2.44 0.04 3.06 1.25 280

RMSWT DMIN ITR NFM NWR NWS
0.16 5.1 13 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	5.1	213	97	P		52.47-0.01	1.36	1.39	0.00	-0.03	1.14	0.868
				S	2	53.69-0.01	2.58	2.52	0.00	0.07	0.57	0.532
CON	8.4	215	53	S	1	54.12-0.04	2.98	3.03	0.00	-0.05	0.86	0.830
MGE	10.2	173	53	P		52.97 0.20	2.07	2.02	0.00	0.05	1.14	0.337
				S	1	53.76 0.20	2.86	3.53	0.00	-0.67	0.00	0.000
TOM	15.9	135	91	S		56.46 0.22	5.58	5.60	0.00	-0.01	1.14	0.924
ROC	18.6	157	53	P		55.20-0.69	3.41	3.44	0.00	-0.02	1.14	0.505
				S	1	57.04-0.69	5.25	5.96	0.00	-0.71	0.00	0.000

1 30 MAY 80, 15:42 EVENT NO. 37

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-30 1541 58.02 37 34.34 118 53.10 2.92 0.10 4.97 23.20 259

RMSWT DMIN ITR NFM NWR NWS
0.11 5.7 12 0 5 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAR	5.7	357	102	S	2	0.58-0.03	2.53	2.71	0.00	-0.18	0.92	0.995
FIS	6.7	46	100	S	1	1.04 0.00	3.02	3.00	0.00	0.02	1.38	0.999
MGE	8.7	98	92	S	2	0.88 0.20	3.06	3.08	0.00	-0.03	0.92	0.450
LAK	15.8	60	97	P		1.28-0.07	3.19	3.12	0.00	0.07	1.84	0.995
				S	2	3.94-0.07	5.85	5.41	0.00	0.44	0.01	0.000
TOM	18.9	97	93	S	2	4.05 0.22	6.25	6.47	0.00	-0.22	0.92	0.558

1 30 MAY 80, 19:49 EVENT NO. 38

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-30 1949 2.56 37 34.31 118 51.94 7.67 0.10 1.35 1.38 248

RMSWT DMIN ITR NFM NWR NWS
0.10 2.3 5 0 15 8

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	2.3	29	162	P		4.00-0.04	1.40	1.43	0.00	-0.02	1.24	0.398
				S	2	5.03-0.04	2.43	2.49	0.00	-0.05	0.62	0.245
FIS	5.7	33	139	P		4.40-0.02	1.82	1.95	0.00	-0.12	1.24	0.159
				S	1	5.87-0.02	3.29	3.46	0.00	-0.16	0.93	0.238
MGE	7.1	99	134	P		4.24 0.20	1.88	1.85	0.00	0.03	1.24	0.176
				S	1	5.69 0.20	3.33	3.22	0.00	0.11	0.93	0.437
HCF	7.9	10	129	S		6.46 0.10	4.00	3.92	0.00	0.08	1.24	0.372
HOT	10.6	30	121	P		5.17-0.03	2.58	2.58	0.00	0.00	1.24	0.274
				S	1	7.20-0.03	4.61	4.55	0.00	0.06	0.93	0.278
LAK	14.4	57	115	P		5.74-0.07	3.11	3.11	0.00	0.00	1.24	0.245
				S	1	8.34-0.07	5.71	5.39	0.00	0.32	0.48	0.119
ROC	15.4	122	111	P		6.39-0.71	3.12	3.03	0.00	0.10	1.24	0.362
				S	3	8.75-0.71	5.48	5.25	0.00	0.24	0.31	0.040
TOM	17.3	97	109	P		5.84 0.21	3.49	3.59	0.00	-0.09	1.24	0.251
				S	1	8.45 0.21	6.10	6.28	0.00	-0.17	0.93	0.399
DMP	18.7	10	108	S	3	9.95 0.07	7.46	6.68	0.00	0.78	0.00	0.000

1 30 MAY 80, 23: 2 EVENT NO. 39

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	5-	30	23 2	32.07	37 32.82	118 46.11	13.97	0.03	4.25	3.80 236

RMSWT DMIN ITR NFM NWR NWS
0.03 7.1 8 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	7.1	142	151	P		35.53-0.73	2.73	2.71	0.00	0.02	1.33	0.787
				S	2	37.42-0.73	4.62	4.69	0.00	-0.07	0.67	0.709
TOM	8.5	87	146	S	1	37.25 0.21	5.39	5.39	0.00	0.00	1.00	0.999
LAK	11.1	18	139	P		35.45-0.08	3.30	3.33	0.00	-0.03	1.33	0.788
				S	2	37.97-0.08	5.82	5.77	0.00	0.05	0.67	0.715
LAR	13.6	309	133	S	3	37.12-0.04	5.01	6.33	0.00	-1.32	0.00	0.000

1 31 MAY 80, 0:58 EVENT NO. 40

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	5-	31	058	17.28	37 28.82	118 51.03	8.26	0.19	1.24	3.05 237

RMSWT DMIN ITR NFM NWR NWS
0.19 10.6 7 0 13 8

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	10.6	32	124	P		19.64 0.21	2.57	2.37	0.00	0.20	1.16	0.129
				S		21.24 0.21	4.17	4.12	0.00	0.05	1.16	0.425
ROC	11.7	81	121	P		20.67-0.74	2.65	2.53	0.00	0.12	1.16	0.338
				S	1	22.43-0.74	4.41	4.39	0.00	0.02	0.87	0.373
CON	12.2	0	120	S	1	21.59-0.04	4.27	4.51	0.00	-0.24	0.87	0.251
FIS	14.9	6	114	S		22.70-0.02	5.40	5.73	0.00	-0.33	1.10	0.229
TOM	17.6	63	111	P		20.61 0.21	3.54	3.68	0.00	-0.14	1.16	0.321
				S	1	23.44 0.21	6.37	6.43	0.00	-0.06	0.87	0.283
HCF	18.0	0	110	S	1	23.96 0.10	6.78	6.52	0.00	0.26	0.87	0.160
TWL	20.4	318	107	P		20.98 0.12	3.82	3.84	0.00	-0.02	1.16	0.694
				S	3	23.69 0.12	6.53	6.65	0.00	-0.12	0.29	0.069
LAK	20.9	30	109	P		21.32-0.08	3.96	4.16	0.00	-0.20	1.16	0.291
CBR	22.2	5	106	S		25.28-0.06	7.94	7.67	0.00	0.27	1.16	0.430
DMP	28.7	4	102	S	3	27.72 0.06	10.50	9.47	0.00	1.03	0.00	0.000

1 31 MAY 80, 8: 5 EVENT NO. 41

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	5-	31	8 5	19.38	37 33.51	118 49.13	10.84	0.10	1.07	1.32 164

RMSWT DMIN ITR NFM NWR NWS
0.15 2.9 7 0 13 7

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	2.9	83	164	P		21.13 0.21	1.96	1.96	0.00	0.00	1.18	0.155
				S	1	22.58 0.21	3.41	3.40	0.00	0.01	0.89	0.451
FIS	6.2	351	147	P	1	22.34-0.03	2.93	2.43	0.00	0.50	0.00	0.000
				S	1	23.69-0.03	4.28	4.29	0.00	-0.01	0.89	0.382
ROC	11.2	128	131	P		22.93-0.77	2.78	2.71	0.00	0.06	1.18	0.358
				S	2	24.99-0.77	4.84	4.70	0.00	0.14	0.59	0.154
LAK	12.2	40	129	P		22.41-0.09	2.94	3.09	0.00	-0.16	1.18	0.309
				S	3	22.76-0.09	3.29	5.36	0.00	-2.07	0.00	0.000
TOM	12.9	93	126	P		22.42 0.19	3.23	3.20	0.00	0.03	1.18	0.266
				S		24.75 0.19	5.56	5.61	0.00	-0.05	1.18	0.383
CBR	13.4	358	125	S	2	23.34-0.07	3.89	5.72	0.00	-1.83	0.00	0.000
TWL	17.6	292	118	P		22.83 0.11	3.56	3.60	0.00	-0.04	1.18	0.386
				S	1	25.30 0.11	6.03	6.23	0.00	-0.20	0.89	0.366
LKM	18.5	327	117	P		23.44 0.00	4.06	3.98	0.00	0.08	1.18	0.280
				S	1	26.56 0.00	7.18	6.95	0.00	0.23	0.89	0.261
DMP	19.9	359	115	S	2	26.64 0.06	7.32	7.32	0.00	0.00	0.59	0.242

1 31 MAY 80, 10:11 EVENT NO. 42

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 5-31 1011 30.86 37 35.51 118 48.90  3.61 0.11  0.66  1.16 124
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RMSWT DMIN ITR NFM NWR NWS
0.15  2.8   6   0  17   6
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STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	2.8	332	131	P		31.88-0.03	0.99	1.13	0.00	-0.14	1.10	0.132
				S		32.94-0.03	2.05	2.06	0.00	-0.01	1.10	0.503
CON	3.3	267	128	P		31.78-0.05	0.87	0.94	0.00	-0.07	1.10	0.182
				S	1	32.59-0.05	1.68	1.65	0.00	0.03	0.83	0.284
MGE	4.2	143	119	P		31.76 0.22	1.12	1.06	0.00	0.06	1.10	0.163
				S		32.60 0.22	1.96	1.87	0.00	0.09	1.10	0.404
HCF	6.3	332	108	P		32.52 0.09	1.75	1.64	0.00	0.11	1.10	0.109
				S	1	34.13 0.09	3.36	2.94	0.00	0.42	0.09	0.001
LAK	9.4	54	105	P		32.94-0.10	1.98	2.11	0.00	-0.13	1.10	0.197
				S	3	33.36-0.10	2.40	3.67	0.00	-1.27	0.00	0.000
CBR	9.7	355	101	P		33.07-0.07	2.14	2.19	0.00	-0.05	1.10	0.155
				S	1	34.60-0.07	3.67	3.88	0.00	-0.21	0.83	0.200
TOI	13.4	109	97	P		33.41 0.19	2.74	2.80	0.00	-0.06	1.10	0.176
				S		35.67 0.19	5.00	4.93	0.00	0.07	1.10	0.311
ROC	13.6	141	95	P		34.04-0.78	2.40	2.56	0.00	-0.17	1.10	0.237
				S	2	35.54-0.78	3.90	4.46	0.00	-0.56	0.00	0.000
LKM	15.8	318	96	P		34.20-0.01	3.33	3.19	0.00	0.14	1.10	0.166
				S	2	35.87-0.01	5.00	5.59	0.00	-0.59	0.00	0.000
DMP	16.3	357	96	P		34.29 0.06	3.49	3.27	0.00	0.22	1.10	0.180
				S		35.59 0.06	4.79	5.73	0.00	-0.94	0.00	0.000
TWL	17.1	279	93	P		33.85 0.11	3.10	3.15	0.00	-0.05	1.10	0.301
				S	1	36.15 0.11	5.40	5.46	0.00	-0.06	0.83	0.292

1 31 MAY 80, 10:12 EVENT NO. 43

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 5-31 1012 18.98 37 35.45 118 48.77  4.10 0.06  0.95  1.24 125
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RMSWT DMIN ITR NFM NWR NWS
0.06  3.0   5   0  11   5
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STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	3.0	330	135	P		20.16-0.03	1.15	1.21	0.00	-0.06	1.13	0.255
				S	1	21.17-0.03	2.16	2.19	0.00	-0.03	0.85	0.464
CON	3.5	269	132	P		20.11-0.05	1.08	1.01	0.00	0.07	1.13	0.204
				S	2	20.81-0.05	1.78	1.79	0.00	-0.01	0.56	0.203
MGE	4.0	144	127	P		19.83 0.22	1.07	1.08	0.00	-0.01	1.13	0.216
				S		20.67 0.22	1.91	1.90	0.00	0.01	1.13	0.559
CBR	9.9	354	104	P		21.34-0.07	2.29	2.23	0.00	0.06	1.13	0.591
				S	2	23.57-0.07	4.52	3.95	0.00	0.57	0.00	0.000
TOM	13.2	109	100	S	2	23.46 0.19	4.67	4.88	0.00	-0.21	0.56	0.205
ROC	13.3	141	98	P		22.31-0.78	2.55	2.53	0.00	0.02	1.13	0.442
TWL	17.3	280	95	P		22.09 0.11	3.22	3.19	0.00	0.03	1.13	0.315
				S		24.31 0.11	5.44	5.53	0.00	-0.09	1.13	0.540

1 31 MAY 80, 10:14 EVENT NO. 44

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1014 30.89 37 35.57 118 48.44 3.58 0.05 0.89 1.88 127

R4SWT DMIN ITR NFM NWR NWS
0.06 3.1 4 0 8 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	3.1	320	127	P		32.02-0.03	1.10	1.16	0.00	-0.07	1.07	0.230
				S		33.02-0.03	2.10	2.12	0.00	-0.02	1.07	0.723
MGE	4.0	152	121	P		31.71 0.22	1.04	1.02	0.00	0.02	1.07	0.638
				S	3	34.42 0.22	3.75	1.80	0.00	1.95	0.00	0.000
LAK	8.8	52	106	P		33.04-0.10	2.05	2.00	0.00	0.04	1.07	0.802
				S	2	35.09-0.10	4.10	3.49	0.00	0.61	0.00	0.000
TOM	12.8	111	97	S	2	35.27 0.19	4.57	4.75	0.00	-0.19	0.53	0.180
ROC	13.2	144	95	P		34.19-0.78	2.52	2.51	0.00	0.01	1.07	0.444
				S	3	36.69-0.78	5.02	4.36	0.00	0.65	0.00	0.000
TWL	17.7	279	93	P		33.96 0.11	3.18	3.25	0.00	-0.08	1.07	0.375
				S		36.45 0.11	5.67	5.64	0.00	0.02	1.07	0.603

1 31 MAY 80, 10:49 EVENT NO. 45

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1049 10.46 37 33.73 118 48.44 2.77 0.15 11.95 57.26 251

RMSWT DMIN ITR NFM NWR NWS
0.18 6.1 21 0 4 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	6.1	341	99	P		11.82-0.03	1.33	1.57	0.00	-0.24	1.07	1.000
				S	1	12.75-0.03	2.26	2.83	0.00	-0.56	0.00	0.000
LAK	11.3	38	99	P		12.92-0.10	2.36	2.37	0.00	-0.01	1.07	1.000
				S	1	14.82-0.10	4.26	4.12	0.00	0.14	0.80	1.000
TWL	18.5	289	90	S		16.30 0.11	5.95	5.86	0.00	0.09	1.07	1.000

1 31 MAY 80, 11:38 EVENT NO. 46

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1138 57.82 37 34.96 118 48.74 5.30 0.03 2.57 3.20 147

RMSWT DMIN ITR NFM NWR NWS
0.03 3.3 5 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	3.3	136	144	P		58.76 0.22	1.16	1.14	0.00	0.01	1.25	0.908
				S		59.61 0.22	2.01	2.01	0.00	0.00	1.25	0.980
CON	3.7	283	141	S	2	59.87-0.05	2.00	2.07	0.00	-0.07	0.62	0.746
LAK	9.9	48	114	P		60.20-0.10	2.28	2.28	0.00	0.00	1.25	0.960
				S	3	61.33-0.10	3.41	3.95	0.00	-0.54	0.00	0.000
TOM	12.9	105	106	S	2	62.41 0.19	4.78	4.87	0.00	-0.09	0.62	0.403

1 31 MAY 80, 13:13 EVENT NO. 47

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1313 39.90 37 34.46 118 49.76 6.20 0.11 1.46 2.31 200

RMSWT DMIN ITR NFM NWR NWS
0.11 2.7 9 0 7 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	2.7	311	154	P		41.31-0.05	1.36	1.23	0.00	0.14	1.17	0.467
				S	1	42.08-0.05	2.13	2.14	0.00	-0.01	0.87	0.717
MGE	4.1	111	143	P		41.04 0.22	1.36	1.34	0.00	0.02	1.17	0.679
				S	2	41.86 0.22	2.18	2.34	0.00	-0.16	0.58	0.528
FIS	4.4	0	139	P		41.38-0.03	1.45	1.63	0.00	-0.17	1.17	0.346
				S	1	42.27-0.03	2.34	2.91	0.00	-0.57	0.00	0.000
LAK	11.6	49	114	P		42.56-0.10	2.56	2.60	0.00	-0.03	1.17	0.514
				S	1	44.64-0.10	4.64	4.50	0.00	0.14	0.87	0.746

1 31 MAY 80, 13:28 EVENT NO. 48

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1328 16.75 37 35.06 118 48.80 4.63 0.05 1.54 2.25 144

RMSWT DMIN ITR NFM NWR NWS
0.05 3.5 6 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	3.5	137	137	P		17.59 0.22	1.06	1.07	0.00	-0.01	1.47	0.623
				S		18.44 0.22	1.91	1.88	0.00	0.02	1.47	0.913
CON	3.5	281	137	S	1	18.70-0.05	1.90	1.89	0.00	0.00	1.10	0.794
FIS	3.6	337	134	S	2	19.10-0.03	2.32	2.42	0.00	-0.10	0.73	0.614
LAK	9.9	49	110	P		19.11-0.10	2.26	2.22	0.00	0.03	1.47	0.797
				S	3	21.11-0.10	4.26	3.87	0.00	0.39	0.03	0.001
TOM	13.0	106	102	S	2	21.28 0.19	4.72	4.87	0.00	-0.15	0.73	0.255

1 31 MAY 80, 13:43 EVENT NO. 49

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1343 48.55 37 35.36 118 48.64 3.93 0.07 0.78 1.55 127

RMSWT DMIN ITR NFM NWR NWS
0.07 3.2 5 0 11 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	3.2	329	131	P		49.75-0.03	1.17	1.21	0.00	-0.05	1.26	0.278
				S	1	50.74-0.03	2.16	2.20	0.00	-0.04	0.94	0.424
CON	3.7	272	128	P		49.62-0.05	1.02	1.02	0.00	0.00	1.26	0.401
				S	1	50.44-0.05	1.84	1.80	0.00	0.04	0.94	0.399
MGE	3.7	145	127	P		49.32 0.22	0.99	1.03	0.00	-0.04	1.26	0.194
				S		50.17 0.22	1.84	1.81	0.00	0.03	1.26	0.792
LAK	9.3	51	108	P		50.85-0.10	2.20	2.10	0.00	0.10	1.26	0.572
				S	3	52.09-0.10	3.44	3.65	0.00	-0.22	0.31	0.093
TOM	12.9	109	99	S	2	53.01 0.19	4.65	4.81	0.00	-0.16	0.63	0.156
ROC	13.1	142	97	P		51.80-0.80	2.45	2.50	0.00	-0.05	1.26	0.530
				S	2	53.83-0.80	4.48	4.34	0.00	0.13	0.63	0.155

1 31 MAY 80, 15:16 EVENT NO. 50

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1516 11.48 37 35.89 118 46.69 7.01 0.11 0.74 1.34 77

RMSWT DMIN ITR NFM NWR NWS
0.13 4.2 4 0 14 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	4.2	191	146	P		12.73 0.22	1.47	1.46	0.00	0.01	1.26	0.203
				S	3	15.16 0.22	3.90	2.55	0.00	1.35	0.00	0.000
FIS	4.9	291	140	S		14.37-0.03	2.86	3.18	0.00	-0.32	0.95	0.277
LAK	6.5	42	133	P		13.45-0.10	1.87	1.96	0.00	-0.09	1.26	0.251
				S	1	15.13-0.10	3.55	3.41	0.00	0.14	0.95	0.492
CON	6.7	263	132	P		13.27-0.06	1.73	1.73	0.00	0.00	1.26	0.175
				S		14.55-0.06	3.01	3.01	0.00	0.00	1.26	0.480
HCF	8.0	308	126	P		13.41 0.09	2.02	2.15	0.00	-0.13	1.26	0.164
				S	1	15.23 0.09	3.84	3.82	0.00	0.02	0.95	0.173
CBR	9.9	336	119	P		13.85-0.07	2.30	2.43	0.00	-0.13	1.26	0.260
				S	1	16.17-0.07	4.62	4.28	0.00	0.34	0.50	0.073
TOM	10.7	119	117	P		13.81 0.18	2.51	2.54	0.00	-0.03	1.26	0.245
				S		15.73 0.18	4.43	4.48	0.00	-0.05	1.26	0.450
ROC	12.4	155	114	P		14.95-0.80	2.67	2.54	0.00	0.13	1.26	0.347
				S	2	17.15-0.80	4.87	4.41	0.00	0.46	0.00	0.000
LAK	17.6	309	107	P		15.17-0.02	3.67	3.61	0.00	0.05	1.26	0.401
				S	3	18.23-0.02	6.73	6.32	0.00	0.41	0.03	0.000

1 31 MAY 80, 15:20 EVENT NO. 51

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1520 19.28 37 35.96 118 46.90 7.10 0.07 0.56 1.14 75

RMSWT DMIN ITR NFM NWR NWS
0.08 4.3 5 0 13 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	4.3	187	146	P		20.52 0.22	1.46	1.48	0.00	-0.02	1.35	0.158
				S		21.61 0.22	2.55	2.59	0.00	-0.04	1.35	0.610
FIS	4.6	291	143	P		21.06-0.03	1.75	1.76	0.00	-0.01	1.35	0.171
				S	2	22.31-0.03	3.00	3.14	0.00	-0.14	0.67	0.117
CON	6.3	261	134	P		21.10-0.06	1.76	1.70	0.00	0.06	1.35	0.233
				S		22.31-0.06	2.97	2.97	0.00	0.00	1.35	0.423
LAK	6.7	44	133	P		21.28-0.10	1.90	1.99	0.00	-0.09	1.35	0.237
				S		22.94-0.10	3.56	3.46	0.00	0.10	1.35	0.713
CBR	9.7	337	121	P		21.76-0.07	2.41	2.40	0.00	0.01	1.35	0.382
				S	2	23.44-0.07	4.09	4.24	0.00	-0.14	0.67	0.149
TOM	11.1	119	117	P		21.59 0.18	2.49	2.60	0.00	-0.11	1.35	0.365
				S	2	23.22 0.18	4.12	4.58	0.00	-0.46	0.00	0.000
ROC	12.7	154	114	P		22.75-0.80	2.67	2.58	0.00	0.10	1.35	0.423
				S	2	24.91-0.80	4.83	4.47	0.00	0.36	0.16	0.010
LKM	17.4	309	107	S	2	25.99-0.02	6.69	6.25	0.00	0.44	0.00	0.000

1 31 MAY 80, 15:30 EVENT NO. 52

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1530 52.76 37 35.70 118 47.74 5.26 0.09 0.60 1.33 96

RMSWT DMIN ITR NF1 NWR NWS
0.09 3.7 5 0 11 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	3.7	305	138	P		54.18-0.03	1.39	1.43	0.00	-0.04	1.33	0.277
				S	1	55.28-0.03	2.49	2.58	0.00	-0.09	1.00	0.379
MGE	3.8	168	139	P		53.70 0.22	1.16	1.19	0.00	-0.03	1.33	0.234
				S	1	54.64 0.22	2.10	2.09	0.00	0.01	1.00	0.509
CON	5.1	264	130	S	2	55.32-0.06	2.50	2.34	0.00	0.16	0.67	0.189
LAK	7.9	48	119	P		54.77-0.11	1.90	1.97	0.00	-0.08	1.33	0.232
				S		56.43-0.11	3.56	3.44	0.00	0.12	1.33	0.707
CBR	9.7	345	111	P		55.09-0.07	2.26	2.27	0.00	-0.01	1.33	0.483
				S	3	56.43-0.07	3.60	4.02	0.00	-0.42	0.01	0.000
TOM	11.9	114	107	P		55.15 0.18	2.57	2.62	0.00	-0.05	1.33	0.281
				S	1	57.05 0.18	4.47	4.62	0.00	-0.15	1.00	0.279
ROC	12.9	148	104	P		56.19-0.81	2.62	2.50	0.00	0.12	1.33	0.424
				S	1	58.34-0.81	4.77	4.35	0.00	0.42	0.01	0.000
LKM	16.7	313	102	S	2	59.22-0.02	6.44	5.94	0.00	0.50	0.00	0.000

1 31 MAY 80, 15:35 EVENT NO. 53

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 5-31 1535 17.51 37 35.81 118 46.93 6.21 0.07 0.71 1.57 78

RMSWT DMIN ITR NF1 NWR NWS
0.08 4.0 5 0 11 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	4.0	186	144	P		18.66 0.22	1.37	1.33	0.00	0.03	1.26	0.250
				S	1	19.66 0.22	2.37	2.33	0.00	0.04	0.94	0.508
FIS	4.6	295	138	P		19.14-0.03	1.60	1.65	0.00	-0.05	1.26	0.207
				S	1	20.32-0.03	2.78	2.95	0.00	-0.17	0.94	0.380
CON	6.2	264	130	P		19.22-0.06	1.65	1.59	0.00	0.06	1.26	0.329
				S	2	20.46-0.06	2.89	2.78	0.00	0.11	0.63	0.141
LAK	6.9	43	128	P		19.49-0.11	1.87	1.92	0.00	-0.06	1.26	0.298
				S	1	21.11-0.11	3.49	3.35	0.00	0.14	0.94	0.621
CBR	9.9	338	116	P		19.96-0.07	2.38	2.36	0.00	0.01	1.26	0.440
				S	3	20.92-0.07	3.34	4.18	0.00	-0.84	0.00	0.000
TOM	10.9	117	113	P		19.85 0.18	2.52	2.52	0.00	-0.01	1.26	0.447
				S	1	21.67 0.18	4.34	4.45	0.00	-0.11	0.94	0.370
ROC	12.4	153	110	S	2	23.03-0.81	4.71	4.32	0.00	0.38	0.07	0.002

1 31 MAY 80, 20:14 EVENT NO. 54

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 5-31 2014 40.20 37 35.77 118 47.49  4.88 0.07  2.27  6.38 257
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RMSWT DMIN ITR NF1 NWR NWS
0.07  7.5   7   0   5   3
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STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT   INFO
LAK   7.5  47 118 P     42.09-0.11  1.78  1.89 0.00 -0.10 1.00 0.627
      S     43.65-0.11  3.34  3.29 0.00  0.05 1.00 0.874
TOM  11.7 115 105 P     42.68 0.18  2.66  2.56 0.00  0.10 1.00 0.623
      S     44.48 0.18  4.46  4.52 0.00 -0.06 1.00 0.874
ROC  12.8 150 103 S     45.32-0.83  4.29  4.29 0.00  0.00 1.00 0.999
LKM  16.9 312 100 S     2 47.36-0.02  7.14  5.97 0.00  1.17 0.00 0.000
```

1 31 MAY 80, 23:15 EVENT NO. 55

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-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 5-31 2315 29.13 37 36.93 118 49.81 11.78 0.07  0.89  1.19  92
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RMSWT DMIN ITR NF1 NWR NWS
0.09  0.2   5   0  14   8
```

```
STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT   INFO
FIS   0.2 176 179 P     31.43-0.04  2.26  2.29 0.00 -0.03 1.21 0.113
      S     2 33.16-0.04  3.99  4.04 0.00 -0.05 0.60 0.134
CON   3.5 216 162 S     32.84-0.06  3.65  3.71 0.00 -0.05 1.21 0.495
CBR   7.1   3 146 P     31.86-1.17  2.66  2.64 0.00  0.02 1.21 0.344
      S     2 33.91-0.07  4.71  4.65 0.00  0.06 0.60 0.197
MGE   7.2 147 147 P     31.49 0.08  2.44  2.40 0.00  0.04 1.21 0.141
      S     1 33.20 0.08  4.15  4.16 0.00  0.00 0.91 0.262
LAK   9.4   71 139 P     32.06-0.12  2.81  2.87 0.00 -0.06 1.21 0.259
      S     1 34.34-0.12  5.09  4.98 0.00  0.12 0.91 0.366
DAP  13.6   1 127 S     1 35.73 0.05  6.65  5.92 0.00  0.73 0.00 0.000
TWL  15.5 271 124 S     34.88 0.10  5.85  5.85 0.00  0.01 1.21 0.741
TOM  15.7 117 123 P     32.50 0.17  3.54  3.66 0.00 -0.12 1.21 0.272
      S     1 34.99 0.17  6.03  6.40 0.00 -0.37 0.40 0.044
ROC  16.5 143 122 P     33.55-0.84  3.58  3.51 0.00  0.07 1.21 0.332
      S     1 36.11-0.84  6.14  6.07 0.00  0.07 0.91 0.293
```

1 1 JUN 80, 0:57 EVENT NO. 56

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6- 1 057 36.80 37 35.59 118 54.62  3.39 0.04  1.26  4.42 165
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RMSWT DMIN ITR NF1 NWR NWS
0.04  5.1   6   0   6   4
```

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STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT   INFO
CON   5.1  93 109 P     38.03-0.06  1.17  1.18 0.00  0.00 1.41 0.562
      S     2 38.39-0.06  2.03  2.08 0.00 -0.04 0.71 0.472
TWL   8.8 237  97 S     1 39.80 0.10  3.10  3.11 0.00 -0.01 1.00 0.961
LKM  11.7 350  97 S     2 41.27-0.03  4.44  4.44 0.00  0.01 0.71 0.977
ROC  20.0 122  92 P     41.23-0.85  3.58  3.63 0.00 -0.04 1.41 0.759
      S     2 44.05-0.85  6.40  6.28 0.00  0.12 0.71 0.246
```

1 1 JUN 80, 3:17 EVENT NO. 57

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 1 317 43.18 37 33.61 118 50.14 1.91 0.10 2.31 1.02 282

RMSWT DMIN ITR NFM NWR NWS
0.14 4.3 21 0 7 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	4.3	88	113	P		43.98 0.09	0.89	0.94	0.00	-0.05	1.18	0.654
				S		44.41 0.09	1.32	1.68	0.00	-0.36	0.50	0.518
ROC	12.4	124	53	P		46.59-0.86	2.55	2.46	0.00	0.09	1.18	0.525
				S	2	48.38-0.86	4.34	4.30	0.00	0.04	0.59	0.407
LAK	13.1	46	94	P		45.93-0.12	2.63	2.66	0.00	-0.03	1.18	0.597
				S		47.97-0.12	4.67	4.62	0.00	0.06	1.18	0.775
TOM	14.4	94	43	P		45.85 0.16	2.83	2.97	0.00	-0.13	1.18	0.521
				S	2	47.72 0.16	4.70	5.22	0.00	-0.52	0.00	0.000

1 1 JUN 80, 6:47 EVENT NO. 58

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 1 647 36.08 37 26.95 118 50.50 4.14 0.22 2.05 17.68 259

RMSWT DMIN ITR NFM NWR NWS
0.30 12.0 6 0 11 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	12.0	63	99	P		39.45-0.87	2.50	2.32	0.00	0.17	1.26	0.480
				S	2	41.12-0.87	4.17	4.04	0.00	0.12	0.63	0.247
MGE	13.4	21	98	P		38.51 0.09	2.52	2.55	0.00	-0.04	1.26	0.184
				S	1	40.19 0.09	4.20	4.44	0.00	-0.24	0.95	0.445
CON	15.7	357	96	P		38.88-0.07	2.73	2.93	0.00	-0.20	1.26	0.360
				S	2	40.76-0.07	4.61	5.09	0.00	-0.48	0.63	0.242
TOM	18.7	52	97	P		39.46 0.16	3.54	3.69	0.00	-0.16	1.26	0.358
				S		42.17 0.16	6.25	6.46	0.00	-0.21	1.26	0.615
TWL	23.5	322	94	S	3	43.40 0.09	7.41	7.31	0.00	0.10	0.32	0.141
CBR	25.6	3	95	S	3	42.29-0.07	6.14	8.41	0.00	-2.27	0.00	0.000
LKM	28.8	344	94	P		37.34-0.04	1.22	5.35	0.00	-4.14	0.00	0.000
DMP	32.1	2	94	P		41.85 0.04	5.81	5.91	0.00	-0.10	1.26	0.473
				S	1	46.81 0.04	10.77	10.26	0.00	0.51	0.90	0.450

1 1 JUN 80, 12:21 EVENT NO. 59

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 1 1220 58.95 37 35.29 118 46.76 9.30 0.23 1.09 2.20 79

RMSWT DMIN ITR NFM NWR NWS
0.23 3.0 5 0 9 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	3.0	193	160	S		2.04 0.09	3.18	3.00	0.00	0.18	1.03	0.537
CON	6.5	272	142	S		2.41-0.07	3.39	3.46	0.00	-0.08	1.03	0.621
LAK	7.5	37	138	P		1.32-0.14	2.23	2.35	0.00	-0.12	1.03	0.319
				S		2.94-0.14	3.85	4.08	0.00	-0.23	1.03	0.612
TOM	10.3	113	128	P		1.85 0.15	3.05	2.70	0.00	0.35	1.02	0.294
				S		3.67 0.15	4.87	4.74	0.00	0.12	1.03	0.426
CBR	10.9	339	126	S	1	4.12-0.08	5.09	4.88	0.00	0.21	0.77	0.375
ROC	11.4	152	125	P		2.08-0.90	2.23	2.59	0.00	-0.36	1.02	0.427
				S		4.12-0.90	4.27	4.49	0.00	-0.22	1.03	0.385

1 1 JUN 80, 13: 8 EVENT NO. 60

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 1 13 8 23.97 37 36.75 118 44.01 13.86 0.06 5.27 2.01 194

RMSWT DMIN ITR NFM NWR NWS
0.06 3.3 10 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	3.3	8	166	P		26.77-0.14	2.66	2.71	0.00	-0.05	1.54	0.818
				S	2	28.90-0.14	4.79	4.70	0.00	0.09	0.77	0.755
TOM	8.7	141	145	S	2	29.22 0.15	5.40	5.40	0.00	0.00	0.77	0.999
ROC	12.9	174	135	P	1	28.22-0.90	3.35	3.28	0.00	0.07	1.15	0.674
				S	2	30.44-0.90	5.57	5.67	0.00	-0.10	0.77	0.752

1 1 JUN 80, 17:27 EVENT NO. 61

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 1 1727 24.66 37 34.51 118 45.84 5.41 0.11 0.79 2.08 101

RMSWT DMIN ITR NFM NWR NWS
0.11 2.5 5 0 8 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	2.5	233	152	P		25.66 0.10	1.10	1.09	0.00	0.01	1.10	0.454
				S	2	26.41 0.10	1.85	1.91	0.00	-0.07	0.55	0.537
LAK	8.1	23	119	P		26.72-0.15	1.91	2.01	0.00	-0.10	1.10	0.354
				S		28.43-0.15	3.62	3.50	0.00	0.12	1.10	0.702
TOM	8.6	108	115	P		26.58 0.14	2.06	2.10	0.00	-0.04	1.10	0.307
				S		28.14 0.14	3.62	3.73	0.00	-0.11	1.10	0.501
ROC	9.6	155	112	P		27.76-0.92	2.18	2.00	0.00	0.18	1.10	0.443
				S	3	29.66-0.92	4.08	3.48	0.00	0.60	0.00	0.000
TWL	21.8	282	98	S	1	31.35 0.08	6.77	6.86	0.00	-0.10	0.83	0.699

1 1 JUN 80, 22:30 EVENT NO. 62

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 1 2230 22.36 37 37.40 118 52.17 8.81 0.11 0.68 1.02 108

RMSWT DMIN ITR NFM NWR NWS
0.11 2.7 5 0 15 10

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
HCF	2.7	40	161	S		25.67 0.08	3.39	3.32	0.00	0.07	1.28	0.467
FIS	3.7	106	155	S	1	25.61-0.05	3.20	3.42	0.00	-0.22	0.96	0.264
CON	4.0	158	153	S	2	25.27-0.07	2.84	2.97	0.00	-0.13	0.64	0.181
CBR	7.3	32	136	P		24.57-0.08	2.13	2.27	0.00	-0.14	1.28	0.303
				S	2	26.45-0.08	4.01	4.02	0.00	0.00	0.64	0.137
LKM	10.0	325	127	S	2	26.96-0.05	4.55	4.59	0.00	-0.04	0.64	0.177
MGE	10.1	133	127	P		24.56 0.10	2.30	2.35	0.00	-0.05	1.28	0.203
				S	1	26.43 0.10	4.17	4.09	0.00	0.09	0.96	0.285
TWL	12.1	266	122	P		24.97 0.08	2.69	2.63	0.00	0.07	1.28	0.351
				S		26.85 0.08	4.57	4.55	0.00	0.02	1.28	0.560
LAK	12.6	80	122	P		25.37-0.15	2.86	2.95	0.00	-0.09	1.28	0.260
				S		27.82-0.15	5.31	5.11	0.00	0.20	1.28	0.325
DMP	13.3	17	119	S	1	28.37 0.02	6.03	5.38	0.00	0.65	0.00	0.000
TOM	19.2	114	110	S	2	28.95 0.14	6.73	6.91	0.00	-0.18	0.64	0.098
ROC	19.4	136	110	P		27.04-0.95	3.73	3.71	0.00	0.02	1.28	0.346
				S	3	29.91-0.95	6.60	6.43	0.00	0.17	0.32	0.037

1 1 JUN 80, 23:34 EVENT NO. 63

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	1	2334	14.91	37 29.77	118 47.44	15.94	0.01	4.47	1.98 244

RMSWT DMIN ITR NFM NWR NWS
0.01 6.3 11 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	6.3	89	157	P		18.81-0.95	2.95	2.95	0.00	-0.01	1.18	0.871
				S		20.96-0.95	5.10	5.10	0.00	0.00	1.18	0.956
CON	11.8	333	142	S		20.87-0.07	5.89	5.90	0.00	-0.01	1.18	1.000
TOM	12.1	59	140	P		18.46 0.14	3.69	3.69	0.00	-0.01	1.18	0.871
				S	3	21.25 0.14	6.48	6.45	0.00	0.02	0.29	0.300

1 2 JUN 80, 6:39 EVENT NO. 64

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	2	639	47.68	37 33.98	118 50.11	9.44	0.09	1.69	1.21 202

RMSWT DMIN ITR NFM NWR NWS
0.09 3.0 6 0 7 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	3.0	330	160	S	1	50.65-0.08	2.89	3.04	0.00	-0.14	0.91	0.644
MGE	4.3	97	153	S		50.84 0.11	3.27	3.17	0.00	0.10	1.22	0.595
LAK	12.6	48	124	P		50.91-0.16	3.07	3.01	0.00	0.06	1.22	0.737
				S	3	52.50-0.16	4.66	5.21	0.00	-0.55	0.00	0.000
ROC	12.8	127	123	P		51.43-0.98	2.77	2.79	0.00	-0.02	1.22	0.761
				S	1	53.53-0.98	4.87	4.83	0.00	0.04	0.91	0.408
TOM	14.5	96	119	S		53.20 0.13	5.65	5.77	0.00	-0.12	1.22	0.681
LKM	17.0	329	115	S	3	54.13-0.05	6.40	6.39	0.00	0.01	0.30	0.170
DMP	19.1	2	112	S	3	55.67 0.01	8.00	6.94	0.00	1.06	0.00	0.000

1 2 JUN 80, 10:22 EVENT NO. 65

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	2	1022	20.43	37 35.86	118 54.78	6.28	0.12	0.90	1.48 161

RMSWT DMIN ITR NFM NWR NWS
0.12 5.4 6 0 18 9

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	5.4	99	135	P		21.98-0.08	1.47	1.49	0.00	-0.02	1.13	0.156
				S	1	23.03-0.08	2.52	2.61	0.00	-0.08	0.84	0.358
HCF	7.4	48	124	P		22.28 0.08	1.93	2.01	0.00	-0.07	1.13	0.099
				S	1	24.06 0.08	3.71	3.57	0.00	0.15	0.84	0.261
FIS	7.6	76	123	S	1	23.83-0.07	3.33	3.60	0.00	-0.27	0.82	0.187
TWL	8.4	284	121	S	1	23.78 0.00	3.35	3.30	0.00	0.06	0.84	0.644
LKA	11.2	350	113	P		23.06-0.05	2.58	2.56	0.00	0.02	1.13	0.264
				S	2	24.89-0.05	4.41	4.52	0.00	-0.11	0.56	0.127
MGE	11.9	109	111	P		22.73 0.12	2.42	2.40	0.00	0.03	1.13	0.138
				S		24.58 0.12	4.27	4.17	0.00	0.10	1.13	0.224
CBR	11.9	40	112	P		23.06-0.09	2.54	2.67	0.00	-0.13	1.13	0.154
				S	1	26.12-0.09	5.60	4.71	0.00	0.90	0.00	0.000
LAK	17.0	73	107	P		24.05-0.16	3.46	3.44	0.00	0.02	1.13	0.118
				S		26.77-0.16	6.18	5.95	0.00	0.23	1.13	0.260
DMP	17.4	26	105	P		23.99 0.00	3.56	3.54	0.00	0.02	1.13	0.250
				S	2	27.15 0.00	6.72	6.20	0.00	0.53	0.00	0.000
ROC	20.5	123	101	P		25.26-1.00	3.83	3.77	0.00	0.06	1.13	0.278
				S	2	28.18-1.00	6.75	6.53	0.00	0.23	0.56	0.086
TOM	21.9	103	101	P		24.45 0.13	4.15	4.26	0.00	-0.11	1.13	0.181
				S		27.53 0.13	7.23	7.43	0.00	-0.20	1.13	0.204

1 2 JUN 80, 16:19 EVENT NO. 66

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6- 2 1619   3.62 37 35.81 118 54.40  8.34 0.04  1.19  2.38 185

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RMSWT DMIN ITR NFM NWR NWS
0.04 4.8 6 0 6 4

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STA DIST AZM AN P/S W SEC+CCOR (TOBS -TCAL -DLY =RES) WT INFO
CON 4.8 99 147 S 6.63-0.08 2.93 2.97 0.00 -0.03 1.00 0.747
HCF 7.1 45 135 P 5.70 0.07 2.15 2.19 0.00 -0.03 1.00 0.524
      S 7.48 0.07 3.93 3.87 0.00 0.06 1.00 0.544
TWL 9.0 284 129 S 7.41-0.01 3.78 3.77 0.00 0.02 1.00 0.921
LKM 11.4 348 121 P 6.46-0.06 2.78 2.75 0.00 0.03 1.00 0.561
      S 8.46-0.06 4.78 4.85 0.00 -0.06 1.00 0.701

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1 2 JUN 80, 20:34 EVENT NO. 67

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6- 2 2034 13.71 37 34.15 118 51.70  6.23 0.08  0.72  1.07 171

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RMSWT DMIN ITR NFM NWR NWS
0.08 2.5 5 0 16 10

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STA DIST AZM AN P/S W SEC+CCOR (TOBS -TCAL -DLY =RES) WT INFO
CON 2.5 18 156 P 15.00-0.08 1.21 1.21 0.00 0.00 1.40 0.222
      S 1 15.97-0.08 2.18 2.12 0.00 0.06 1.05 0.507
FIS 5.7 29 131 P 15.44-0.08 1.65 1.78 0.00 -0.13 1.40 0.124
      S 1 16.83-0.08 3.04 3.17 0.00 -0.13 1.05 0.270
MGE 6.7 97 128 P 15.23 0.13 1.65 1.64 0.00 0.01 1.40 0.213
      S 2 16.49 0.13 2.91 2.87 0.00 0.04 0.70 0.135
HCF 8.1 7 121 S 2 17.54 0.07 3.90 3.73 0.00 0.17 0.70 0.116
CBR 12.7 14 110 S 2 18.89-0.09 5.09 4.90 0.00 0.19 0.70 0.171
TWL 13.8 293 108 S 1 18.38-0.01 4.66 4.67 0.00 -0.01 1.05 0.593
LAK 14.3 55 110 P 16.86-0.17 2.98 3.00 0.00 -0.02 1.40 0.306
      S 2 19.15-0.17 5.27 5.21 0.00 0.07 0.70 0.174
ROC 14.9 122 106 P 17.63-1.05 2.87 2.87 0.00 0.00 1.40 0.456
      S 2 19.88-1.05 5.12 4.99 0.00 0.13 0.70 0.175
LKM 15.6 336 106 P 17.06-0.06 3.29 3.25 0.00 0.04 1.40 0.373
      S 2 19.41-0.06 5.64 5.70 0.00 -0.06 0.70 0.142
TOM 16.9 96 105 S 2 19.28 0.12 5.69 6.04 0.00 -0.35 0.23 0.015

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1 3 JUN 80, 2:35 EVENT NO. 68

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6- 3 235 44.87 37 34.51 118 51.05 10.14 0.09  0.97  1.21 163

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RMSWT DMIN ITR NFM NWR NWS
0.09 1.6 6 0 10 6

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STA DIST AZM AN P/S W SEC+CCOR (TOBS -TCAL -DLY =RES) WT INFO
CON 1.6 355 170 S 1 47.99-0.08 3.04 3.13 0.00 -0.09 1.03 0.547
MGE 5.8 105 148 P 46.74 0.13 2.00 2.05 0.00 -0.05 1.38 0.200
      S 1 48.31 0.13 3.57 3.56 0.00 0.01 1.03 0.385
LAK 13.1 55 125 P 48.06-0.18 3.01 3.14 0.00 -0.13 1.38 0.455
      S 1 50.60-0.18 5.55 5.44 0.00 0.11 1.03 0.513
TWL 14.4 289 122 P 47.98-0.02 3.09 3.07 0.00 0.02 1.38 0.489
      S 1 50.21-0.02 5.32 5.32 0.00 0.00 1.03 0.442
ROC 14.5 126 121 P 49.03-1.07 3.09 3.09 0.00 0.00 1.38 0.512
      S 2 51.53-1.07 5.59 5.35 0.00 0.24 0.68 0.198
LKM 15.4 332 119 S 2 51.22-0.07 6.23 6.10 0.00 0.18 0.69 0.255
TOM 16.0 99 118 S 2 50.53 0.11 5.77 6.24 0.00 -0.47 0.00 0.000

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1 3 JUN 80, 6:18 EVENT NO. 69

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 3 618 43.86 37 35.43 118 49.49 7.32 0.07 0.96 2.18 142

RMSWT DMIN ITR NFM NWR NWS
0.08 2.7 6 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	2.7	351	157	P		45.53-0.09	1.58	1.64	0.00	-0.06	1.85	0.632
				S	3	46.95-0.09	3.00	2.92	0.00	0.07	0.46	0.318
LAK	10.3	56	122	S	2	48.48-0.18	4.44	4.32	0.00	0.12	0.93	0.660
ROC	13.9	138	112	S	1	49.80-1.09	4.85	4.84	0.00	0.01	1.39	0.987
LKM	15.3	321	110	P	1	47.16-0.07	3.23	3.26	0.00	-0.04	1.39	0.823
				S	2	50.05-0.07	6.12	5.72	0.00	0.40	0.05	0.000
TWL	16.2	280	109	S	2	49.46-0.02	5.58	5.44	0.00	0.14	0.93	0.577

1 3 JUN 80, 7: 5 EVENT NO. 70

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 3 7 5 35.23 37 37.78 118 51.54 6.28 0.09 1.84 1.74 181

RMSWT DMIN ITR NFM NWR NWS
0.09 1.6 4 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
HCF	1.6	31	163	P	2	36.47 0.07	1.31	1.41	0.00	-0.10	0.86	0.199
				S	2	37.65 0.07	2.49	2.53	0.00	-0.05	0.86	0.819
CBR	6.2	28	129	P		37.13-0.10	1.80	1.86	0.00	-0.06	1.71	0.745
				S	2	38.79-0.10	3.46	3.30	0.00	0.15	0.86	0.541
LAK	11.6	83	115	S	2	40.01-0.18	4.60	4.51	0.00	0.08	0.86	0.836
TWL	13.1	264	109	S	2	39.83-0.02	4.58	4.49	0.00	0.09	0.86	0.857

1 3 JUN 80, 17:34 EVENT NO. 71

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 3 1734 11.92 37 32.31 118 47.97 15.01 0.09 1.16 1.25 173

RMSWT DMIN ITR NFM NWR NWS
0.09 2.8 11 0 10 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	2.8	24	169	S	1	16.29 0.15	4.52	4.56	0.00	-0.04	1.08	0.664
ROC	8.4	123	149	P		16.13-1.14	3.07	2.97	0.00	0.09	1.44	0.523
				S	2	18.23-1.14	5.17	5.14	0.00	0.03	0.72	0.298
TOM	11.3	82	141	P		15.27 0.09	3.44	3.49	0.00	-0.05	1.44	0.381
				S	2	17.66 0.09	5.83	6.10	0.00	-0.28	0.65	0.148
LAK	13.1	28	137	P		15.79-0.20	3.67	3.68	0.00	-0.01	1.44	0.516
				S	2	18.70-0.20	6.58	6.36	0.00	0.22	0.72	0.373
TWL	20.1	296	124	P		16.25-0.04	4.29	4.32	0.00	-0.03	1.44	0.659
				S	2	19.43-0.04	7.47	7.45	0.00	0.01	0.72	0.343
LKM	21.3	326	122	S	3	20.37-0.08	8.37	8.24	0.00	0.12	0.36	0.089

1 4 JUN 80, 2:38 EVENT NO. 72

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 4 238 21.49 37 36.96 118 50.81 8.03 0.05 1.34 4.09 131

RMSWT DMIN ITR NFM NWR NWS
0.05 10.8 7 0 5 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	10.8	74	123	P		24.24-0.21	2.54	2.63	0.00	-0.09	1.11	0.422
				S	1	26.31-0.21	4.61	4.56	0.00	0.05	0.83	0.860
LKM	11.9	319	119	P		24.40-0.08	2.83	2.80	0.00	0.03	1.11	0.848
				S	2	27.38-0.08	5.81	4.92	0.00	0.88	0.00	0.000
TWL	14.0	270	115	S	1	26.43-0.05	4.89	4.93	0.00	-0.04	0.83	0.942
ROC	17.4	139	110	P		26.05-1.17	3.39	3.37	0.00	0.02	1.11	0.926

1 4 JUN 80, 4: 0 EVENT NO. 73

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 4 4 0 5.21 37 32.96 118 50.41 6.08 0.00 2.50 2.24 310

RMSWT DMIN ITR NFM NWR NWS
0.00 4.7 6 0 4 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	4.7	347	138	P		6.68-0.09	1.38	1.39	0.00	-0.01	1.23	1.000
				S		7.72-0.09	2.42	2.42	0.00	0.00	1.23	1.000
LAK	14.3	43	110	S	3	13.65-0.21	8.23	5.19	0.00	3.04	0.00	0.000
TWL	16.4	297	104	S	2	10.63-0.05	5.37	5.37	0.00	0.00	0.62	1.000
LKM	18.4	333	103	S	1	11.75-0.08	6.46	6.46	0.00	0.00	0.92	1.000

1 4 JUN 80, 8:34 EVENT NO. 74

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 4 834 20.19 37 29.55 118 47.39 10.16 0.10 2.37 1.73 246

RMSWT DMIN ITR NFM NWR NWS
0.10 6.2 12 0 8 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	6.2	85	146	P		23.47-1.20	2.08	2.09	0.00	-0.01	1.14	0.625
				S		25.07-1.20	3.68	3.63	0.00	0.06	1.14	0.674
MGE	7.7	2	140	S	2	24.20-0.01	4.02	3.87	0.00	0.16	0.57	0.196
CON	12.2	333	126	S		24.93-0.10	4.64	4.80	0.00	-0.16	1.14	0.630
TOM	12.3	57	126	P		23.07-0.08	2.96	3.04	0.00	-0.08	1.14	0.375
				S	1	25.41-0.08	5.30	5.34	0.00	-0.03	0.86	0.687
LAK	17.5	18	118	P		24.17-0.21	3.77	3.76	0.00	0.01	1.14	0.419
				S	2	25.77-0.21	5.37	6.50	0.00	-1.13	0.00	0.000
LKM	26.1	331	108	S	1	29.37-0.09	9.09	8.88	0.00	0.21	0.86	0.391

1 4 JUN 80, 8:57 EVENT NO. 75

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 4 857 32.93 37 29.81 118 41.61 16.76 0.00 4.42 1.56 253

RMSWT DMIN ITR NFM NWR NWS
0.00 2.3 11 0 4 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	2.3	270	171	S	1	39.15-1.20	5.02	5.03	0.00	-0.01	0.92	1.000
TOM	6.3	17	158	P		36.17-0.08	3.32	3.32	0.00	0.00	1.23	1.000
				S		38.66-0.08	5.81	5.81	0.00	0.00	1.23	1.000
LAK	16.4	350	134	S	2	40.52-0.21	7.38	7.38	0.00	-0.01	0.62	0.999

1 4 JUN 80, 17: 9 EVENT NO. 76

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 4 17 9 43.20 37 31.76 118 54.13 3.33 0.15 10.36 79.42 267

RISWT DMIN ITR NFM NWR NWS
0.19 8.0 6 0 4 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	8.0	32	98	P		44.73-0.10	1.43	1.84	0.00	-0.21	1.14	1.000
				S	1	45.42-0.10	2.12	2.88	0.00	-0.76	0.00	0.000
TWL	13.3	317	94	S	1	47.70-0.07	4.43	4.37	0.00	0.06	0.86	0.999
LAK	19.8	50	96	P		47.34-0.23	3.91	3.79	0.00	0.12	1.14	1.000
				S	1	50.05-0.23	6.62	6.55	0.00	0.07	0.86	0.999

1 4 JUN 80, 19: 9 EVENT NO. 77

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 4 19 9 21.20 37 31.62 118 52.73 4.96 0.10 1.99 5.43 209

RISWT DMIN ITR NFM NWR NWS
0.10 9.0 12 0 10 7

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	9.0	64	110	S	1	24.54 0.02	3.36	3.28	0.00	0.08	1.11	0.732
FIS	10.6	24	107	P		23.70-0.12	2.38	2.39	0.00	-0.01	1.48	0.346
				S	1	25.44-0.12	4.12	4.23	0.00	-0.11	1.11	0.473
ROC	14.4	103	101	S	3	27.33-1.25	4.88	4.77	0.00	0.11	0.37	0.128
TWL	14.9	312	101	S	3	26.11-0.07	4.84	4.90	0.00	-0.06	0.37	0.353
LAK	18.4	46	102	P		25.12-0.23	3.69	3.61	0.00	0.08	1.48	0.336
				S	2	27.88-0.23	6.45	6.24	0.00	0.21	0.74	0.344
TOM	18.5	81	99	P		24.79 0.06	3.65	3.66	0.00	-0.01	1.48	0.533
				S	1	27.36 0.06	6.22	6.41	0.00	-0.19	1.11	0.404
LK1	19.5	346	99	S	2	27.95-0.10	6.65	6.71	0.00	-0.06	0.74	0.347

1 4 JUN 80, 21: 0 EVENT NO. 78

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 4 21 0 19.65 37 35.44 118 55.77 2.16 0.13 1.03 1.28 239

RISWT DMIN ITR NFM NWR NWS
0.13 9.1 21 0 13 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
TWL	7.3	293	106	S	2	23.10-0.07	3.38	2.72	0.00	0.66	0.00	0.000
HCF	9.1	51	91	P		21.47 0.05	1.87	2.05	0.00	-0.18	1.27	0.150
				S	1	23.14 0.05	3.54	3.66	0.00	-0.12	0.95	0.356
FIS	9.2	73	91	P		21.60-0.12	1.83	2.07	0.00	-0.24	1.27	0.139
				S	2	23.02-0.12	3.25	3.69	0.00	-0.43	0.02	0.000
LKM	11.8	358	90	P		22.19-0.10	2.44	2.51	0.00	-0.07	1.27	0.552
				S	2	24.32-0.10	4.57	4.43	0.00	0.14	0.64	0.268
AGE	13.0	104	53	P		22.16 0.03	2.54	2.53	0.00	0.02	1.27	0.257
				S	1	24.04 0.03	4.42	4.41	0.00	0.01	0.95	0.625
LAK	18.6	72	93	P		23.43-0.23	3.55	3.58	0.00	-0.03	1.27	0.155
				S		26.18-0.23	6.30	6.19	0.00	0.11	1.27	0.448
ROC	21.3	119	53	P		24.94-1.25	4.04	3.90	0.00	0.14	1.27	0.365
				S	3	27.46-1.25	6.56	6.77	0.00	-0.21	0.32	0.055
TOM	23.1	101	90	P		23.92 0.06	4.33	4.39	0.00	-0.06	1.27	0.350
				S	1	27.06 0.06	7.47	7.66	0.00	-0.19	0.95	0.274

1 4 JUN 80, 21: 3 EVENT NO. 79

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 4 21 3 36.97 37 32.32 118 52.55 4.15 0.07 1.96 7.62 277

RMSWT DMIN ITR NFM NWR NWS
0.07 8.3 8 0 9 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	8.3	72	106	P		38.69 0.03	1.75	1.71	0.00	0.04	1.42	0.443
				S	3	39.97 0.03	3.03	3.00	0.00	0.03	0.36	0.165
FIS	9.3	25	105	P		39.17-0.12	2.08	2.14	0.00	-0.06	1.42	0.524
				S	2	40.83-0.12	3.74	3.80	0.00	-0.06	0.71	0.422
ROC	14.6	108	97	P		40.96-1.26	2.73	2.74	0.00	-0.01	1.42	0.570
				S	1	43.01-1.26	4.78	4.76	0.00	0.02	1.07	0.510
LAK	17.4	48	100	P		40.72-0.23	3.52	3.41	0.00	0.11	1.42	0.496
				S	3	42.72-0.23	5.52	5.90	0.00	-0.38	0.05	0.003
TOM	18.1	85	97	P		40.40 0.06	3.49	3.58	0.00	-0.08	1.42	0.398
				S	2	43.06 0.06	6.15	6.26	0.00	-0.11	0.71	0.464

1 5 JUN 80, 1:24 EVENT NO. 80

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 5 124 10.54 37 38.47 118 51.36 6.66 0.05 1.55 1.87 185

RMSWT DMIN ITR NFM NWR NWS
0.08 0.6 4 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
HCF	0.6	83	174	P		11.87 0.05	1.33	1.44	0.00	-0.06	1.20	0.608
				S	1	13.13 0.05	2.64	2.59	0.00	0.05	0.90	0.768
CON	5.7	176	135	P		12.20-0.10	1.56	1.58	0.00	-0.01	1.20	0.679
				S	2	13.39-0.10	2.75	2.75	0.00	0.00	0.60	0.573
LKM	9.3	312	119	S	3	16.03-0.10	5.39	4.09	0.00	1.30	0.00	0.000
LAK	11.3	39	117	S	1	15.99-0.24	5.21	4.47	0.00	0.74	0.00	0.000
TWL	13.5	258	110	P		13.36-0.08	2.74	2.68	0.00	0.06	1.20	0.605
				S	1	15.20-0.08	4.58	4.65	0.00	-0.07	0.90	0.763

1 5 JUN 80, 3: 7 EVENT NO. 81

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 5 3 7 43.12 37 29.45 118 52.48 6.51 0.08 3.29 11.14 260

RMSWT DMIN ITR NFM NWR NWS
0.08 13.7 7 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	11.2	9	114	S	2	46.58-0.10	3.36	4.03	0.00	-0.67	0.00	0.000
ROC	13.7	87	109	P		47.15-1.28	2.75	2.70	0.00	0.05	1.60	0.746
				S	1	49.04-1.28	4.64	4.69	0.00	-0.05	1.20	0.821
TWL	18.1	321	104	S	3	48.08-0.08	4.88	5.89	0.00	-1.01	0.00	0.000
TOM	19.1	69	104	S	3	49.51 0.05	6.44	6.68	0.00	-0.25	0.40	0.240
LAK	21.1	37	104	P		47.43-0.24	4.07	4.12	0.00	-0.05	1.60	0.742
				S	2	50.64-0.24	7.28	7.11	0.00	0.16	0.80	0.594
LKM	23.5	347	101	S	3	51.00-0.10	7.78	7.91	0.00	-0.13	0.40	0.854

1 5 JUN 80, 8:59 EVENT NO. 82

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	R1S	ERH	ERZ	GAP
80-	6-	5	859 16.69	37 29.37	118 47.56	11.83	0.04	2.32	2.20	314

RMSWT DMIN ITR NFM NWR NWS
0.04 12.4 7 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	12.4	335	131	P		19.81-0.11	3.01	2.97	0.00	0.03	1.47	0.646
				S	1	21.89-0.11	5.09	5.15	0.00	-0.06	1.10	0.779
LAK	17.9	18	121	P		20.85-0.24	3.92	3.96	0.00	-0.04	1.47	0.697
				S	2	23.82-0.24	6.89	6.84	0.00	0.05	0.73	0.588
TWL	23.5	307	113	S		24.22-0.09	7.44	7.84	0.00	-0.41	0.04	0.001
LKM	26.3	332.111		P		22.01-0.11	5.21	5.23	0.00	-0.03	1.47	0.699
				S	2	25.93-0.11	9.13	9.10	0.00	0.03	0.73	0.586

1 5 JUN 80, 10:33 EVENT NO. 83

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	R1S	ERH	ERZ	GAP
80-	6-	5	1033 21.98	37 36.95	118 50.63	9.56	0.09	0.80	1.55	74

RMSWT DMIN ITR NFM NWR NWS
0.10 3.0 5 0 9 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	3.0	196	161	S	2	25.04-0.11	2.95	3.06	0.00	-0.11	0.82	0.647
CBR	7.2	13	139	S	2	26.36-0.13	4.25	4.16	0.00	0.10	0.82	0.373
LAK	10.6	74	129	P		24.83-0.24	2.61	2.75	0.00	-0.13	1.63	0.467
				S	1	27.04-0.24	4.82	4.76	0.00	0.06	1.23	0.463
LKM	12.1	319	124	P		25.09-0.11	3.00	2.96	0.00	0.05	1.63	0.466
				S	3	27.75-0.11	5.66	5.19	0.00	0.47	0.00	0.000
TWL	14.3	270	120	P		25.08-0.09	3.01	3.01	0.00	0.00	1.63	0.522
				S	2	27.18-0.09	5.11	5.21	0.00	-0.10	0.82	0.287
TO4	16.8	115	116	S	1	27.91 0.04	5.97	6.35	0.00	-0.38	0.20	0.013
ROC	17.2	140	115	S	1	29.32-1.31	6.03	5.95	0.00	0.09	1.23	0.752

1 5 JUN 80, 15:40 EVENT NO. 84

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	R1S	ERH	ERZ	GAP
80-	6-	5	1540 45.62	37 37.62	118 54.47	7.66	0.03	1.20	3.10	147

RMSWT DMIN ITR NFM NWR NWS
0.03 6.3 5 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	6.3	130	137	P		47.49-0.11	1.76	1.77	0.00	-0.02	1.33	0.714
				S	2	48.85-0.11	3.12	3.09	0.00	0.03	0.67	0.617
LKM	8.1	343	128	P		47.95-0.11	2.22	2.24	0.00	-0.02	1.33	0.717
				S	2	49.74-0.11	4.01	3.96	0.00	0.04	0.67	0.620
TWL	8.7	262	127	P		47.81-0.09	2.10	2.07	0.00	0.03	1.33	0.714
				S	2	49.23-0.09	3.52	3.59	0.00	-0.07	0.67	0.616

1 5 JUN 80, 17: 4 EVENT NO. 85

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	5	17 4 22.19	37 39.27	118 49.54	5.15	0.01	2.64	2.33	254

RMSWT DMIN ITR NFM NWR NWS
0.01 2.8 5 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CBR	2.8	1	146	P		23.65-0.14	1.32	1.32	0.00	-0.01	1.54	0.887
				S	2	24.72-0.14	2.39	2.38	0.00	0.00	0.77	0.846
LKM	10.8	296	108	P		24.73-0.11	2.43	2.43	0.00	0.00	1.54	0.888
				S	3	26.55-0.11	4.25	4.29	0.00	-0.04	0.38	0.378
TWL	16.5	255	100	S	2	27.63-0.10	5.34	5.34	0.00	-0.01	0.77	0.999

1 5 JUN 80, 18:54 EVENT NO. 86

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	5	1854 30.50	37 35.19	118 48.76	3.36	0.03	1.50	6.01	170

RMSWT DMIN ITR NFM NWR NWS
0.03 3.4 5 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	3.4	334	121	P		31.78-0.13	1.15	1.18	0.00	-0.04	1.25	0.717
				S	1	32.80-0.13	2.17	2.15	0.00	0.01	0.94	0.835
CON	3.5	277	121	P		31.57-0.11	0.96	0.94	0.00	0.01	1.25	0.658
				S	1	32.24-0.11	1.63	1.67	0.00	-0.05	0.94	0.788
TOM	13.0	107	96	S	2	35.27 0.03	4.80	4.80	0.00	-0.01	0.62	0.999

1 5 JUN 80, 19:24 EVENT NO. 87

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	5	1924 38.66	37 32.02	118 47.99	14.53	0.04	2.26	1.97	204

RMSWT DMIN ITR NFM NWR NWS
0.04 7.8 7 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	7.8	324	150	S		43.66-0.11	4.89	4.92	0.00	-0.03	1.33	0.839
ROC	8.2	120	149	P		42.90-1.35	2.89	2.88	0.00	0.01	1.33	0.749
				S	2	45.00-1.35	4.99	4.98	0.00	0.01	0.67	0.691
FIS	9.3	344	145	S	2	44.55-0.13	5.76	5.65	0.00	0.11	0.67	0.291
TOM	11.4	80	139	P		42.05 0.03	3.42	3.44	0.00	-0.02	1.33	0.750
				S	2	44.62 0.03	5.99	6.02	0.00	-0.03	0.67	0.676

1 5 JUN 80, 19:38 EVENT NO. 88

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	5	1938 13.84	37 37.68	118 49.16	4.13	0.04	3.09	1.42	271

RMSWT DMIN ITR NFM NWR NWS
0.04 1.8 5 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	1.8	212	150	S	1	15.97-0.13	2.00	2.00	0.00	0.00	1.06	0.971
MGE	8.0	158	106	P		15.41 0.05	1.62	1.66	0.00	-0.04	1.41	0.434
				S	2	16.64 0.05	2.85	2.92	0.00	-0.07	0.71	0.595
TOM	15.6	123	98	S	2	19.34 0.03	5.53	5.55	0.00	-0.02	0.71	0.980
ROC	17.1	148	96	P		18.37-1.35	3.18	3.15	0.00	0.03	1.41	0.598
				S	2	20.74-1.35	5.55	5.47	0.00	0.08	0.71	0.419

1 5 JUN 80, 19:41 EVENT NO. 89

 YR MO DA ORIGIN LAT N LON W DEPTH RAS ERH ERZ GAP
 80- 6- 5 1941 1.71 37 33.59 118 52.00 7.15 0.09 0.98 2.49 179

RMSWT DMIN ITR NFM NWR NWS
 0.09 6.8 4 0 14 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
FIS	6.8	28	131	P		3.76-0.13	1.92	2.03	0.00	-0.10	1.27	0.204
				S	1	4.82-0.13	2.98	3.60	0.00	-0.61	0.00	0.000
MGE	7.1	88	131	P	2	3.50 0.05	1.84	1.79	0.00	0.05	0.64	0.092
				S	2	4.76 0.05	3.10	3.12	0.00	-0.02	0.64	0.460
HCF	9.2	9	122	P		4.04 0.05	2.38	2.34	0.00	0.05	1.27	0.142
				S	2	5.96 0.05	4.30	4.13	0.00	0.17	0.64	0.212
CBR	13.8	15	112	P		4.85-0.14	3.00	3.01	0.00	-0.01	1.27	0.284
				S	2	7.28-0.14	5.43	5.29	0.00	0.14	0.64	0.179
TWL	13.8	297	112	P		4.49-0.10	2.68	2.75	0.00	-0.06	1.27	0.529
				S	2	6.58-0.10	4.77	4.77	0.00	0.01	0.64	0.304
ROC	14.8	118	110	P		6.09-1.35	3.03	2.90	0.00	0.13	1.27	0.428
				S	3	8.66-1.35	5.60	5.03	0.00	0.57	0.00	0.000
LK1	16.4	339	108	P		5.25-0.12	3.42	3.42	0.00	0.01	1.27	0.283
				S	1	7.73-0.12	5.90	5.98	0.00	-0.08	0.95	0.244
TOM	17.2	93	108	P		5.18 0.03	3.50	3.55	0.00	-0.05	1.27	0.346
				S	1	7.72 0.03	6.04	6.21	0.00	-0.17	0.95	0.286

1 5 JUN 80, 20:48 EVENT NO. 90

 YR MO DA ORIGIN LAT N LON W DEPTH RAS ERH ERZ GAP
 80- 6- 5 2048 29.96 37 36.80 118 45.99 10.70 0.08 1.34 2.27 140

RMSWT DMIN ITR NFM NWR NWS
 0.08 4.6 6 0 8 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	4.6	46	155	P		32.51-0.26	2.29	2.28	0.00	0.01	1.07	0.370
				S	1	34.31-0.26	4.09	3.97	0.00	0.12	0.80	0.639
TOM	10.9	129	131	P		32.85 0.03	2.92	2.92	0.00	0.01	1.07	0.412
				S		34.90 0.03	4.97	5.12	0.00	-0.15	1.07	0.374
ROC	13.7	162	125	P		34.39-1.36	3.07	3.03	0.00	0.05	1.07	0.342
				S		36.60-1.36	5.28	5.24	0.00	0.04	1.07	0.741
LKM	17.5	302	118	P		33.91-0.12	3.83	3.83	0.00	0.00	1.07	0.512
				S	1	36.67-0.12	6.59	6.69	0.00	-0.10	0.80	0.605
TWL	21.1	271	113	S	1	36.46-0.10	6.40	7.10	0.00	-0.69	0.00	0.000

1 5 JUN 80, 21:33 EVENT NO. 91

 YR MO DA ORIGIN LAT N LON W DEPTH RAS ERH ERZ GAP
 80- 6- 5 2133 28.82 37 33.18 118 43.04 5.53 0.02 2.75 5.07 173

RMSWT DMIN ITR NFM NWR NWS
 0.02 4.0 7 0 5 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
TOM	4.0	93	138	P		30.30 0.03	1.51	1.50	0.00	0.01	1.11	0.694
				S	1	31.46 0.03	2.67	2.69	0.00	-0.02	0.83	0.818
ROC	6.2	182	125	P		31.68-1.36	1.50	1.52	0.00	-0.02	1.11	0.679
				S	1	32.86-1.36	2.68	2.66	0.00	0.02	0.83	0.807
LAK	9.9	355	115	P		31.37-0.26	2.29	2.29	0.00	0.00	1.11	0.999
				S	2	32.56-0.26	3.48	3.98	0.00	-0.50	0.00	0.000

1 5 JUN 80, 21:57 EVENT NO. 92

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	5	2157	33.41	37 36.16	118 44.79	9.24 0.06	1.70	2.95	135

RMSWT DMIN ITR NFM NWR NWS
0.06 4.7 6 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	4.7	20	151	P		35.72-0.26	2.05	2.07	0.00	-0.02	1.20	0.661
				S	1	37.34-0.26	3.67	3.60	0.00	0.07	0.90	0.721
TOM	8.7	131	133	S	1	37.65 0.03	4.27	4.39	0.00	-0.12	0.90	0.395
ROC	12.0	168	124	P		37.48-1.36	2.71	2.66	0.00	0.05	1.20	0.646
				S	1	39.39-1.36	4.62	4.61	0.00	0.01	0.90	0.697
LKM	19.6	303	111	S	1	40.54-0.12	7.01	7.07	0.00	-0.06	0.90	0.877

1 5 JUN 80, 23: 2 EVENT NO. 93

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	5	23 1	58.21	37 34.57	118 48.63	10.21 0.05	3.60	6.24	267

RMSWT DMIN ITR NFM NWR NWS
0.05 10.3 8 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	10.3	44	132	P		1.21-0.26	2.74	2.73	0.00	-0.04	1.33	0.789
				S	2	3.39-0.26	4.92	4.82	0.00	0.10	0.67	0.721
ROC	11.9	137	127	P		2.36-1.37	2.78	2.75	0.00	0.03	1.33	0.786
				S	2	4.24-1.37	4.66	4.76	0.00	-0.11	0.67	0.701
TOM	12.5	102	125	S	1	3.59 0.03	5.41	5.40	0.00	0.00	1.00	0.999

1 6 JUN 80, 4:51 EVENT NO. 94

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	6	451	46.36	37 32.18	118 44.33	5.86 0.01	1.13	2.84	146

RMSWT DMIN ITR NFM NWR NWS
0.01 4.8 5 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	4.8	158	136	P		49.12-1.39	1.37	1.37	0.00	0.00	1.26	0.635
				S	1	50.12-1.39	2.37	2.39	0.00	-0.02	0.95	0.784
MGE	5.1	304	134	P		47.69 0.06	1.39	1.40	0.00	-0.01	1.26	0.694
				S	2	48.76 0.06	2.46	2.45	0.00	0.01	0.63	0.592
TOM	6.1	74	127	P		48.12 0.02	1.78	1.79	0.00	-0.01	1.26	0.697
				S	2	49.55 0.02	3.21	3.20	0.00	0.02	0.63	0.595

1 6 JUN 80, 8:28 EVENT NO. 95

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	6	828	27.17	37 33.60	118 51.16	8.05 0.03	3.24	1.68	215

RMSWT DMIN ITR NFM NWR NWS
0.03 3.4 6 0 6 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	3.4	0	155	S	1	29.94-0.12	2.65	2.70	0.00	-0.04	1.13	0.763
MGE	5.8	88	141	P		28.88 0.06	1.77	1.77	0.00	0.01	1.50	0.649
				S	1	30.22 0.06	3.11	3.07	0.00	0.04	1.13	0.581
ROC	13.7	120	116	S	2	33.38-1.41	4.80	4.86	0.00	-0.05	0.75	0.474
TOM	15.9	93	112	S	2	33.06 0.01	5.90	5.97	0.00	-0.06	0.75	0.725
LKM	16.9	335	111	S	2	33.51-0.13	6.21	6.21	0.00	0.01	0.75	0.804

1 6 JUN 80, 9:25 EVENT NO. 96

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6- 6 925 25.93 37 32.86 118 50.40 1.91 0.06 1.34 0.65 216

RMSWT DMIN ITR NFM NWR NWS
 0.06 4.8 6 0 11 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	4.8	347	111	P		27.10-0.12	1.05	1.04	0.00	0.01	1.29	0.412
				S		27.83-0.12	1.78	1.86	0.00	-0.08	1.29	0.541
MGE	5.0	72	111	P		26.97-0.06	1.10	1.06	0.00	0.04	1.29	0.293
				S	1	27.81-0.06	1.94	1.90	0.00	0.04	0.97	0.496
ROC	12.1	118	53	P		29.71-1.41	2.37	2.39	0.00	-0.03	1.29	0.569
				S	2	31.37-1.41	4.03	4.19	0.00	-0.16	0.65	0.215
LAK	14.4	43	93	P		29.05-0.27	2.85	2.87	0.00	-0.02	1.29	0.162
				S	2	31.18-0.27	4.98	4.97	0.00	0.01	0.65	0.250
TOM	14.8	88	43	S	3	31.05-0.01	5.13	5.32	0.00	-0.19	0.32	0.150
TWL	16.5	298	53	S	2	29.22-0.11	3.18	5.45	0.00	-2.27	0.00	0.000
LKM	18.6	334	43	P		29.78-0.13	3.72	3.65	0.00	0.07	1.29	0.462
				S	2	32.46-0.13	6.40	6.39	0.00	0.01	0.65	0.446

1 6 JUN 80, 9:52 EVENT NO. 97

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6- 6 952 36.62 37 33.05 118 50.26 3.41 0.08 1.09 2.58 213

RMSWT DMIN ITR NFM NWR NWS
 0.08 4.6 5 0 11 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	4.6	344	113	P		37.79-0.12	1.05	1.09	0.00	-0.04	1.26	0.448
				S	1	38.58-0.12	1.84	1.93	0.00	-0.09	0.94	0.442
MGE	4.7	75	112	P		37.69-0.06	1.13	1.11	0.00	0.02	1.26	0.206
				S		38.55-0.06	1.99	1.96	0.00	0.03	1.26	0.721
ROC	12.1	120	94	P		40.42-1.42	2.38	2.31	0.00	0.07	1.26	0.541
				S	2	42.07-1.42	4.03	4.03	0.00	0.00	0.63	0.176
LAK	13.9	43	100	P		39.73-0.27	2.84	2.83	0.00	0.01	1.26	0.415
				S	2	41.89-0.27	5.00	4.91	0.00	0.09	0.63	0.330
TOM	14.6	89	96	P		39.49-0.01	2.88	2.99	0.00	-0.11	1.26	0.279
				S	2	41.68-0.01	5.07	5.26	0.00	-0.19	0.63	0.142
LKM	18.4	333	94	S	2	43.23-0.13	6.48	6.32	0.00	0.15	0.63	0.296

1 6 JUN 80, 12:38 EVENT NO. 98

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6- 6 1238 37.13 37 37.16 118 51.78 9.25 0.06 1.25 2.07 160

RMSWT DMIN ITR NFM NWR NWS
 0.06 3.4 5 0 7 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	3.4	164	158	S	2	40.17-0.12	2.92	3.02	0.00	-0.10	0.70	0.654
MGE	9.3	133	131	P	1	39.43-0.07	2.37	2.31	0.00	0.06	1.05	0.534
				S	2	41.08-0.07	4.02	4.01	0.00	0.01	0.70	0.322
LKM	10.7	324	126	P		40.01-0.13	2.75	2.74	0.00	0.01	1.40	0.705
				S	2	42.10-0.13	4.84	4.83	0.00	0.01	0.70	0.471
LAK	12.1	78	124	P		40.24-0.27	2.84	2.92	0.00	-0.08	1.40	0.530
				S	1	42.51-0.27	5.11	5.06	0.00	0.05	1.05	0.730

1 6 JUN 80, 13:33 EVENT NO. 99

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 6 1333 23.10 37 34.93 118 49.08 10.43 0.05 3.28 1.45 179

RMSWT DMIN ITR NFM NWR NWS
0.05 3.2 5 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	3.2	286	162	S	2	26.40-0.12	3.18	3.31	0.00	-0.14	0.63	0.485
MGE	3.6	129	159	P		24.98 0.07	1.95	1.93	0.00	0.01	1.26	0.528
				S		26.42 0.07	3.39	3.35	0.00	0.03	1.26	0.789
ROC	12.9	137	126	P		27.43-1.43	2.90	2.90	0.00	0.00	1.26	0.718
				S	2	29.44-1.43	4.91	5.02	0.00	-0.11	0.63	0.545
TOM	13.4	105	124	S	1	28.69 0.01	5.60	5.64	0.00	-0.04	0.95	0.932

1 6 JUN 80, 14:18 EVENT NO. 100

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 6 1418 17.49 37 30.49 118 49.63 6.16 0.08 1.48 2.16 239

RMSWT DMIN ITR NFM NWR NWS
0.09 6.9 5 0 11 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	6.9	31	126	P		19.10 0.07	1.68	1.67	0.00	0.01	1.28	0.215
				S	1	20.41 0.07	2.99	2.91	0.00	0.08	0.96	0.524
CON	9.4	347	117	S	1	20.92-0.12	3.31	3.52	0.00	-0.21	0.96	0.400
ROC	9.6	97	116	P		20.99-1.43	2.07	2.05	0.00	0.02	1.28	0.610
				S	2	22.57-1.43	3.65	3.57	0.00	0.08	0.64	0.219
TOM	14.5	70	107	P		20.45 0.01	2.97	3.07	0.00	-0.10	1.28	0.310
				S	1	22.87 0.01	5.39	5.39	0.00	0.00	0.96	0.523
LAK	17.2	30	106	P		21.23-0.27	3.47	3.47	0.00	0.00	1.28	0.343
				S	1	24.13-0.27	6.37	6.00	0.00	0.37	0.13	0.015
LKM	23.1	336	100	P		22.07-0.13	4.45	4.45	0.00	0.00	1.28	0.488
				S	1	25.52-0.13	7.90	7.76	0.00	0.14	0.96	0.347

1 6 JUN 80, 15:43 EVENT NO. 101

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6- 6 1543 6.63 37 29.89 118 50.12 13.17 0.11 2.06 1.42 249

RMSWT DMIN ITR NFM NWR NWS
0.11 10.3 5 0 9 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	10.3	90	140	P		10.99-1.44	2.92	2.89	0.00	0.03	1.29	0.529
				S	1	13.14-1.44	5.07	5.00	0.00	0.07	0.96	0.523
CON	10.3	352	140	S	1	11.58-0.12	4.83	5.01	0.00	-0.18	0.96	0.692
TOM	15.6	67	127	P		10.26 0.00	3.63	3.78	0.00	-0.15	1.29	0.345
				S	2	13.25 0.00	6.62	6.61	0.00	0.01	0.64	0.274
LAK	18.6	30	123	P		11.01-0.28	4.10	4.18	0.00	-0.08	1.29	0.375
				S	2	14.32-0.28	7.41	7.22	0.00	0.19	0.64	0.417
LKM	23.8	339	116	P		11.76-0.13	5.00	4.94	0.00	0.05	1.29	0.606
				S	2	15.46-0.13	8.70	8.60	0.00	0.10	0.64	0.234

1 6 JUN 80, 16:26 EVENT NO. 102

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6- 6 1626 10.77 37 32.03 118 53.74 3.01 0.15 3.14 36.08 210

RMSWT DMIN ITR NFM NWR NWS
 0.18 7.3 5 0 9 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	7.3	31	94	P		12.21-0.12	1.32	1.52	0.00	-0.21	1.51	0.257
				S	1	13.13-0.12	2.24	2.67	0.00	-0.43	0.27	0.062
TWL	13.3	314	91	S	1	15.27-0.12	4.38	4.38	0.00	-0.01	1.13	0.840
ROC	16.1	104	91	S	2	17.65-1.44	5.44	5.18	0.00	0.25	0.76	0.605
LKM	18.5	350	93	P		14.60-0.13	3.70	3.63	0.00	0.07	1.51	0.445
				S	1	17.33-0.13	6.43	6.34	0.00	0.08	1.13	0.650
LAK	19.0	50	96	P		14.71-0.28	3.66	3.66	0.00	0.00	1.51	0.496
				S	2	17.66-0.28	6.61	6.32	0.00	0.28	0.75	0.551
TOL	19.8	84	93	S	2	17.13 0.00	6.36	6.73	0.00	-0.38	0.43	0.090

1 6 JUN 80, 17:16 EVENT NO. 103

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6- 6 1716 15.26 37 28.82 118 47.40 10.82 0.07 1.61 1.31 236

RMSWT DMIN ITR NFM NWR NWS
 0.07 6.5 5 0 10 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	6.5	73	147	P		18.91-1.45	2.20	2.21	0.00	-0.01	1.38	0.540
				S	1	20.63-1.45	3.92	3.83	0.00	0.09	1.03	0.570
TOM	13.1	52	126	P		16.41 0.00	3.15	3.21	0.00	-0.06	1.38	0.354
				S	1	20.85 0.00	5.59	5.63	0.00	-0.04	1.03	0.593
CON	13.4	336	126	P		18.28-0.12	2.90	3.00	0.00	-0.10	1.38	0.288
				S	1	20.51-0.12	5.13	5.20	0.00	-0.07	1.03	0.588
LAK	18.7	16	118	P		19.60-0.28	4.06	4.01	0.00	0.05	1.38	0.366
				S	2	22.94-0.28	7.40	6.92	0.00	0.48	0.00	0.000
TWL	24.3	309	110	S	3	23.39-0.12	8.01	7.95	0.00	0.06	0.34	0.078
LKM	27.3	332	108	P		20.79-0.13	5.40	5.33	0.00	0.07	1.38	0.409
				S	2	24.74-0.13	9.35	9.27	0.00	0.08	0.69	0.210

1 6 JUN 80, 17:41 EVENT NO. 104

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6- 6 1741 22.05 37 32.21 118 53.90 4.09 0.19 2.97 7.42 261

RMSWT DMIN ITR NFM NWR NWS
 0.23 7.2 21 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	7.2	34	108	P		23.39-0.12	1.22	1.54	0.00	-0.31	1.55	0.869
				S	1	24.23-0.12	2.06	2.69	0.00	-0.63	0.04	0.003
TWL	12.9	313	98	S	2	26.22-0.12	4.05	4.29	0.00	-0.24	0.77	0.573
LKM	18.1	350	97	P		25.76-0.13	3.58	3.58	0.00	0.01	1.55	0.629
				S	2	28.23-0.13	6.05	6.26	0.00	-0.21	0.77	0.695
LAK	19.0	52	99	P		25.95-0.28	3.62	3.68	0.00	-0.06	1.55	0.715
				S	2	28.89-0.28	6.56	6.36	0.00	0.20	0.77	0.513

1 6 JUN 80, 18:48 EVENT NO. 105

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-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6- 6 1848 39.95 37 34.05 118 43.01  8.44 0.05  2.20  2.51 171
```

```
RMSWT D1IN ITR NFM NWR NWS
0.05  4.3  4  0  6  3
```

```
STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
TOM  4.3 114 149 P    41.93 0.00  1.98  1.93 0.00  0.05 1.20 0.607
      S  1 43.32 0.00  3.37  3.42 0.00 -0.06 0.90 0.765
ROC  7.9 182 133 P    43.45-1.45  2.05  2.05 0.00  0.00 1.20 0.680
      S  2 44.94-1.45  3.54  3.56 0.00 -0.02 0.60 0.569
LAK  8.3 353 132 P    42.51-0.28  2.28  2.34 0.00 -0.07 1.20 0.610
      S  1 44.35-0.28  4.12  4.07 0.00  0.05 0.90 0.767
TWL 26.1 282 104 S    2 47.39-0.12  7.32  8.23 0.00 -0.91 0.00 0.000
```

1 7 JUN 80, 1:31 EVENT NO. 106

```
-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6- 7 131 45.50 37 37.63 118 54.00  6.24 0.11  1.04  3.04 129
```

```
RMSWT D1IN ITR NF1 NWR NWS
0.11  5.8  4  0  8  4
```

```
STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
CON  5.8 134 132 P    47.07-0.12  1.45  1.54 0.00 -0.09 1.23 0.422
      S  2 48.23-0.12  2.61  2.69 0.00 -0.08 0.62 0.527
LK1  8.4 339 120 P    47.75-0.14  2.11  2.14 0.00 -0.03 1.23 0.514
      S  2 49.27-0.14  3.63  3.79 0.00 -0.16 0.62 0.543
TWL  9.4 263 117 P    47.69-0.13  2.06  2.03 0.00  0.04 1.23 0.554
      S  1 49.26-0.13  3.63  3.53 0.00  0.10 0.92 0.475
LAK 15.2  83 109 P    48.85-0.29  3.06  3.15 0.00 -0.09 1.23 0.563
      S  1 51.49-0.29  5.70  5.46 0.00  0.24 0.92 0.398
```

1 7 JUN 80, 1:32 EVENT NO. 107

```
-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6- 7 131 57.65 37 37.26 118 54.58  4.19 0.05  4.74  9.40 280
```

```
RMSWT D1IN ITR NF1 NWR NWS
0.05  5.8 12  0  9  5
```

```
STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
RCF  5.8  66 116 P    -0.60 0.04  1.59  1.59 0.00  0.00 1.44 0.567
      S  2  0.78 0.04  2.97  2.86 0.00  0.12 0.72 0.357
FLS  7.1  96 111 P    -0.28-0.16  1.71  1.79 0.00 -0.08 1.44 0.308
      S  2  1.19-0.16  3.18  3.20 0.00 -0.01 0.72 0.364
CBR  9.9  49 104 S    1.85-0.15  3.85  3.96 0.00 -0.11 0.36 0.901
HGE 12.7 121  99 P    0.23 0.08  2.46  2.44 0.00  0.02 1.44 0.315
      S  1  2.00 0.08  4.23  4.24 0.00 -0.01 1.08 0.611
ROC 21.8 129  94 P    3.28-1.48  3.95  3.93 0.00  0.02 1.44 0.500
      S  3  6.04-1.48  6.71  6.81 0.00 -0.10 0.36 0.072
```

1 7 JUN 80, 3:14 EVENT NO. 108

```
-----
YR MO DA  ORIGIN  LAT N  LON W  DEPTH  RMS  ERH  ERZ  GAP
80- 6- 7  314  6.57 37 36.88 118 53.35  8.31 0.05  1.13  2.31 141
```

```
RMSWT DMIN ITR NFM NWR NWS
0.05  4.2  5  0  7  4
```

```
STA DIST AZM  AN P/S W  SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
CON  4.2 130 151 P      8.33-0.12 1.64  1.65 0.00 -0.01 1.27 0.531
      S  2  9.48-0.12 2.79  2.87 0.00 -0.08 0.64 0.551
LKA  10.0 337 125 P      9.26-0.14 2.55  2.56 0.00  0.00 1.27 0.524
      S  1 11.18-0.14 4.47  4.51 0.00 -0.03 0.95 0.758
TWL  10.3 271 125 S  2 10.86-0.13 4.16  4.06 0.00  0.10 0.64 0.458
LAK  14.5  78 117 P      10.00-0.29 3.14  3.18 0.00 -0.04 1.27 0.599
      S  1 12.45-0.29 5.59  5.51 0.00  0.08 0.95 0.576
ROC  19.9 131 108 S  3 15.37-1.49 7.31  6.53 0.00  0.78 0.00 0.000
```

1 7 JUN 80, 7:37 EVENT NO. 109

```
-----
YR MO DA  ORIGIN  LAT N  LON W  DEPTH  RMS  ERH  ERZ  GAP
80- 6- 7  737 13.70 37 37.18 118 53.08  6.72 0.02  1.30  2.36 129
```

```
RMSWT DMIN ITR NFM NWR NWS
0.02  4.0  3  0  6  4
```

```
STA DIST AZM  AN P/S W  SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
HCF  4.0  51 145 S  2 16.56 0.04 2.90  2.95 0.00 -0.05 0.71 0.599
CON  4.3 139 143 P      15.25-0.13 1.42  1.44 0.00 -0.02 1.41 0.719
      S  1 16.34-0.13 2.51  2.51 0.00 -0.01 1.06 0.639
LKA  9.7 333 119 P      16.20-0.14 2.36  2.37 0.00 -0.01 1.41 0.744
      S  2 18.03-0.14 4.19  4.18 0.00  0.00 0.71 0.417
TWL  10.7 268 116 S  2 17.74-0.14 3.90  3.92 0.00 -0.03 0.71 0.880
```

1 7 JUN 80, 7:38 EVENT NO. 110

```
-----
YR MO DA  ORIGIN  LAT N  LON W  DEPTH  RMS  ERH  ERZ  GAP
80- 6- 7  738 45.15 37 37.04 118 53.76  5.96 0.10  1.29  2.15 211
```

```
RMSWT DMIN ITR NFM NWR NWS
0.10  4.9  4  0  8  4
```

```
STA DIST AZM  AN P/S W  SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
CON  4.9 128 136 P      46.70-0.13 1.42  1.40 0.00  0.02 1.23 0.551
      S  1 47.74-0.13 2.46  2.44 0.00  0.02 0.92 0.616
HCF  4.9  56 134 P      46.58 0.04 1.47  1.65 0.00 -0.18 1.23 0.223
      S  2 48.01 0.04 2.90  2.96 0.00 -0.05 0.62 0.472
LKA  9.5 339 115 P      47.61-0.14 2.32  2.29 0.00  0.04 1.23 0.644
      S  2 49.43-0.14 4.14  4.04 0.00  0.10 0.62 0.370
LAK  15.0  79 108 P      48.49-0.29 3.05  3.11 0.00 -0.05 1.23 0.567
      S  1 50.97-0.29 5.53  5.38 0.00  0.15 0.92 0.553
```

1 7 JUN 80, 10:30 EVENT NO. 111

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6- 7 1030 5.81 37 30.11 118 48.47 12.95 0.05 1.58 1.72 245

RMSWT DMIN ITR NFM NWR NWS
 0.05 7.8 9 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	7.8	94	147	P		10.02-1.52	2.69	2.63	0.00	0.06	1.39	0.597
				S	2	11.79-1.52	4.46	4.55	0.00	-0.09	0.69	0.644
CON	10.6	339	139	S	1	10.93-0.13	4.99	5.01	0.00	-0.02	1.04	0.945
TOM	13.2	65	131	P		9.23-0.02	3.40	3.45	0.00	-0.05	1.39	0.395
				S	3	11.49-0.02	5.66	6.04	0.00	-0.38	0.06	0.005
LAK	17.1	24	125	P		10.05-0.30	3.94	3.95	0.00	-0.01	1.39	0.592
				S	1	12.99-0.30	6.88	6.83	0.00	0.05	1.04	0.819

1 7 JUN 80, 23:17 EVENT NO. 112

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6- 7 2317 52.56 37 37.99 118 52.11 4.28 0.10 0.75 1.32 122

RMSWT DMIN ITR NFM NWR NWS
 0.10 1.9 5 0 16 7

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
HCF	1.9	60	150	P		53.57 0.04	1.05	1.12	0.00	-0.07	1.43	0.389
				S	2	54.80 0.04	2.28	2.05	0.00	0.24	0.71	0.385
FIS	4.0	122	127	P		53.96-0.18	1.22	1.35	0.00	-0.13	1.43	0.248
				S	3	55.22-0.18	2.48	2.44	0.00	0.04	0.36	0.065
CBR	6.3	37	114	P		54.35-0.17	1.62	1.69	0.00	-0.06	1.43	0.486
				S	3	56.23-0.17	3.50	3.02	0.00	0.48	0.00	0.000
LKM	9.2	321	106	P	1	54.90-0.16	2.18	2.13	0.00	0.05	1.07	0.358
				S	3	56.35-0.16	3.63	3.79	0.00	-0.15	0.36	0.069
HGE	10.8	137	102	P		54.56 0.10	2.10	2.12	0.00	-0.02	1.43	0.210
				S	2	56.39 0.10	3.93	3.70	0.00	0.23	0.71	0.130
TWL	12.3	261	100	P	1	55.11-0.16	2.39	2.37	0.00	0.03	1.07	0.535
				S	3	57.14-0.16	4.42	4.12	0.00	0.30	0.30	0.087
LAK	12.4	85	105	P		55.63-0.31	2.76	2.61	0.00	0.15	1.43	0.304
				S	1	58.07-0.31	5.20	4.53	0.00	0.67	0.00	0.000
TOM	19.6	117	97	P		56.34-0.04	3.74	3.84	0.00	-0.09	1.43	0.213
				S	1	59.28-0.04	6.68	6.71	0.00	-0.02	1.07	0.230
ROC	20.1	139	95	P		57.81-1.58	3.67	3.66	0.00	0.01	1.43	0.255
				S	3	60.75-1.58	6.61	6.34	0.00	0.27	0.34	0.028

1 8 JUN 80, 6:25 EVENT NO. 113

YR	MO	DA	ORIGIN	LAT N	LN W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	8	625 27.15	37 32.55	118 51.09	9.65	0.09	0.86	1.41	183

RMSWT DMIN ITR NFM NWR NWS
0.09 6.1 4 0 16 8

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	6.1	69	145	P		29.08 0.11	2.04	2.01	0.00	0.03	1.32	0.173
				S	1	30.54 0.11	3.50	3.48	0.00	0.02	0.99	0.428
FIS	8.2	13	136	P		29.69-0.18	2.36	2.47	0.00	-0.11	1.32	0.104
				S	1	31.59-0.18	4.26	4.36	0.00	-0.10	0.99	0.296
HCF	11.0	0	127	S	1	32.15 0.04	5.04	4.96	0.00	0.08	0.99	0.244
ROC	12.8	113	123	P		31.66-1.61	2.90	2.80	0.00	0.10	1.32	0.352
				S	2	33.69-1.61	4.93	4.85	0.00	0.08	0.66	0.163
CBR	15.4	8	118	P		30.76-0.17	3.44	3.43	0.00	0.01	1.32	0.226
				S	2	33.44-0.17	6.12	6.01	0.00	0.11	0.66	0.135
LAK	15.4	44	119	P		30.90-0.32	3.43	3.43	0.00	0.00	1.32	0.267
				S	2	33.70-0.32	6.23	5.93	0.00	0.30	0.47	0.086
TOM	15.9	86	117	P		30.64-0.05	3.44	3.51	0.00	-0.06	1.32	0.281
				S	1	33.13-0.05	5.93	6.14	0.00	-0.20	0.99	0.265
TWL	15.9	301	117	P		30.48-0.16	3.17	3.24	0.00	-0.07	1.32	0.598
				S	2	32.44-0.16	5.13	5.61	0.00	-0.48	0.00	0.000
LKM	18.6	337	113	P		31.28-0.16	3.97	3.93	0.00	0.05	1.32	0.266
				S	2	34.06-0.16	6.75	6.86	0.00	-0.11	0.66	0.109

1 8 JUN 80, 16:40 EVENT NO. 114

YR	MO	DA	ORIGIN	LAT N	LN W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	8	1640 30.00	37 37.13	118 53.74	6.66	0.01	0.95	2.74	138

RMSWT DMIN ITR NFM NWR NWS
0.03 4.8 10 0 5 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
HCF	4.8	57	139	S	2	33.03 0.04	3.07	3.08	0.00	-0.02	0.84	0.566
CON	5.0	130	139	S	1	32.74-0.14	2.60	2.60	0.00	-0.01	1.27	0.882
LKM	9.4	339	119	P		32.48-0.17	2.31	2.32	0.00	-0.01	1.69	0.986
				S	2	34.27-0.17	4.10	4.10	0.00	0.00	0.84	0.598
TWL	9.7	268	119	S	1	33.85-0.18	3.67	3.66	0.00	0.00	1.27	0.952
LAK	14.9	80	111	S	3	36.13-0.33	5.80	5.44	0.00	0.36	0.09	0.014

1 8 JUN 80, 23:22 EVENT NO. 115

YR	MO	DA	ORIGIN	LAT N	LN W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	8	2322 20.59	37 28.56	118 50.14	13.36	0.08	1.32	1.05	239

RMSWT DMIN ITR NFM NWR NWS
0.09 10.4 9 0 10 7

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	10.4	24	140	S		25.54 0.13	5.08	5.08	0.00	0.00	1.34	0.363
ROC	10.5	77	140	P		25.31-1.63	3.04	2.94	0.00	0.10	1.34	0.445
				S		27.35-1.68	5.08	5.09	0.00	-0.01	1.34	0.628
CON	12.8	354	134	S		26.17-0.14	5.44	5.53	0.00	-0.08	1.34	0.461
TOM	15.7	59	126	P		24.49-0.06	3.84	3.95	0.00	-0.11	1.34	0.359
				S	1	27.18-0.06	6.53	6.90	0.00	-0.37	0.21	0.014
LAK	20.7	27	121	P		25.39-0.33	4.47	4.50	0.00	-0.02	1.34	0.386
				S		28.77-0.33	7.85	7.76	0.00	0.09	1.34	0.691
TWL	21.6	316	119	S	2	28.44-0.18	7.67	7.57	0.00	0.11	0.67	0.449
CBR	22.6	2	118	S	3	29.45-0.18	8.68	8.34	0.00	0.35	0.10	0.003
LKM	26.1	341	114	S	2	29.98-0.18	9.21	9.22	0.00	-0.01	0.67	0.195

1 9 JUN 80, 8: 5 EVENT NO. 116

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	9	8 5 48.93	37 29.44	118 48.21	12.59	0.05	3.66	3.05	297

RMSWT DMIN ITR NFM NWR NWS
0.05 7.5 6 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	7.5	84	147	P		53.24-1.72	2.59	2.54	0.00	0.05	1.09	0.573
				S	1	54.99-1.72	4.34	4.40	0.00	-0.06	0.82	0.738
TO1	13.4	59	130	P		52.47-0.07	3.47	3.44	0.00	0.02	1.09	0.570
				S	1	55.00-0.07	6.00	6.03	0.00	-0.03	0.82	0.741
LAK	18.1	21	123	P		53.24-0.34	3.97	4.06	0.00	-0.09	1.09	0.532
				S		56.32-0.34	7.05	7.01	0.00	0.04	1.09	0.842

1 9 JUN 80, 13:16 EVENT NO. 117

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	9	1316 7.45	37 33.86	118 53.91	0.72	0.05	2.67	0.33	242

RMSWT DMIN ITR NFM NWR NWS
0.05 5.0 17 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	5.0	54	98	P		8.65-0.15	1.05	1.00	0.00	0.05	1.11	0.655
				S		9.34-0.15	1.74	1.79	0.00	-0.04	1.11	0.902
TWL	11.1	302	93	S	1	11.59-0.20	3.94	3.95	0.00	-0.01	0.83	0.999
LAK	17.3	60	18	P		11.20-0.35	3.40	3.48	0.00	-0.07	1.11	0.636
				S	1	13.89-0.35	6.09	6.03	0.00	0.06	0.83	0.805

1 9 JUN 80, 15:33 EVENT NO. 118

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	9	1533 9.71	37 34.58	118 51.69	9.08	0.05	0.91	1.02	164

RMSWT DMIN ITR NFM NWR NWS
0.07 1.7 7 0 7 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	1.7	27	168	S		12.54 0.00	2.83	2.84	0.00	-0.01	1.30	0.923
TWL	13.4	289	120	S		14.84-0.20	4.93	4.94	0.00	0.00	1.30	0.937
LAK	13.8	58	120	P		13.16-0.35	3.10	3.14	0.00	-0.04	1.30	0.692
				S	2	15.60-0.35	5.54	5.44	0.00	0.10	0.65	0.350
ROC	15.4	125	116	P		14.63-1.75	3.17	3.12	0.00	0.05	1.30	0.553
				S	1	16.83-1.75	5.37	5.41	0.00	-0.04	0.97	0.529
TO1	17.0	99	114	S	1	15.76-0.08	5.97	6.35	0.00	-0.38	0.19	0.012

1 9 JUN 80, 16: 9 EVENT NO. 119

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	9	16 9 35.78	37 33.15	118 51.26	9.29	0.09	1.40	1.59	220

RMSWT DMIN ITR NFM NWR NWS
0.09 4.2 5 0 6 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	4.2	2	154	P		37.70-0.15	1.77	1.79	0.00	-0.03	1.20	0.532
				S		39.01-0.15	3.08	3.12	0.00	-0.04	1.20	0.880
ROC	13.4	117	121	S	1	42.58-1.75	5.05	4.97	0.00	0.08	0.90	0.831
LAK	14.9	48	119	P		39.35-0.35	3.22	3.32	0.00	-0.10	1.20	0.573
				S	1	41.92-0.35	5.79	5.75	0.00	0.04	0.90	0.792
LKM	17.6	337	114	S	2	42.75-0.19	6.78	6.53	0.00	0.25	0.59	0.389

1 9 JUN 80, 18: 0 EVENT NO. 120

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	9	18 0	7.48	37 32.76	118 53.81	6.08	0.00	2.65	9.68 255

RMSWT DMIN ITR NFM NWR NWS
0.00 12.4 8 0 4 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
TWL	12.4	309	110	S	1	11.96-0.20	4.28	4.28	0.00	-0.01	0.86	1.000
LKM	17.1	349	104	P		11.15-0.19	3.48	3.48	0.00	-0.01	1.14	1.000
				S	1	13.77-0.19	6.10	6.10	0.00	0.00	0.86	1.000
LAK	18.3	54	105	P		11.46-0.35	3.63	3.63	0.00	0.00	1.14	1.000
				S	2	12.71-0.35	4.88	6.28	0.00	-1.40	0.00	0.000

1 9 JUN 80, 20:30 EVENT NO. 121

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	9	2030	20.18	37 36.66	118 47.28	11.11	0.07	2.59	2.71 184

RMSWT DMIN ITR NFM NWR NWS
0.07 6.2 6 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	6.2	56	148	P		22.90-0.35	2.37	2.47	0.00	-0.10	1.21	0.518
				S		24.87-0.35	4.34	4.29	0.00	0.05	1.21	0.836
TOM	12.2	123	129	P		23.48-0.08	3.22	3.13	0.00	0.09	1.21	0.515
				S		25.69-0.08	5.43	5.49	0.00	-0.06	1.21	0.834
LKM	16.1	307	121	P		24.02-0.19	3.65	3.66	0.00	-0.01	1.21	0.559
				S	1	26.76-0.19	6.39	6.40	0.00	-0.01	0.91	0.733
TWL	19.2	272	117	S	1	26.61-0.20	6.23	6.66	0.00	-0.43	0.02	0.002

1 9 JUN 80, 22:34 EVENT NO. 122

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	9	2234	43.40	37 37.43	118 44.95	10.71	0.04	3.88	2.10 233

RMSWT DMIN ITR NFM NWR NWS
0.04 2.7 5 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	2.7	42	164	P		45.88-0.36	2.12	2.18	0.00	-0.05	1.11	0.660
				S		47.57-0.36	3.81	3.79	0.00	0.03	1.11	0.885
TOM	10.6	139	132	P		46.41-0.08	2.93	2.88	0.00	0.05	1.11	0.658
				S	1	48.48-0.08	5.00	5.06	0.00	-0.06	0.83	0.795
ROC	14.4	169	123	S	1	50.58-1.78	5.40	5.40	0.00	0.00	0.83	0.999

1 10 JUN 80, 1:36 EVENT NO. 123

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	10	136	22.52	37 34.56	118 45.17	2.28	0.02	5.01	5.24 189

RMSWT DMIN ITR NFM NWR NWS
0.02 7.7 9 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
TOM	7.7	111	92	P		24.45-0.09	1.84	1.82	0.00	0.02	1.11	0.556
				S		25.83-0.09	3.22	3.25	0.00	-0.03	1.11	0.809
ROC	9.3	161	53	P		26.19-1.79	1.88	1.89	0.00	-0.02	1.11	0.779
				S	1	27.65-1.79	3.34	3.32	0.00	0.01	0.83	0.857
TWL	22.8	282	53	S	1	29.88-0.21	7.15	7.17	0.00	-0.02	0.83	0.995

1 10 JUN 80, 3:28 EVENT NO. 124

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	10	328 46.02	37 27.66	118 48.26	12.12	0.06	2.08	1.86	253

RMSWT DMIN ITR NFM NWR NWS
0.06 8.5 6 0 7 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	8.5	62	143	P		50.45-1.80	2.63	2.57	0.00	0.06	1.17	0.522
				S		52.26-1.80	4.44	4.46	0.00	-0.01	1.17	0.796
TOM	15.4	49	125	P		49.70-0.09	3.59	3.66	0.00	-0.06	1.17	0.508
				S	1	52.47-0.09	6.36	6.39	0.00	-0.03	0.87	0.645
LAK	21.2	18	117	S	2	55.23-0.36	8.85	7.71	0.00	1.14	0.00	0.000
TWL	24.8	315	113	S	2	54.26-0.21	8.03	8.22	0.00	-0.18	0.58	0.421
LKM	28.6	337	110	P		51.84-0.20	5.62	5.62	0.00	0.00	1.17	0.498
				S	1	56.06-0.20	9.84	9.77	0.00	0.07	0.87	0.607

1 10 JUN 80, 6:49 EVENT NO. 125

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	10	649 1.83	37 35.61	118 45.87	6.44	0.10	1.61	4.37	118

RMSWT DMIN ITR NFM NWR NWS
0.10 6.2 6 0 7 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	6.2	30	132	P		3.98-0.36	1.79	1.86	0.00	-0.08	1.19	0.616
				S		5.52-0.36	3.33	3.25	0.00	0.08	1.19	0.822
TOM	9.4	120	118	P		4.23-0.09	2.31	2.31	0.00	0.00	1.19	0.488
				S		5.89-0.09	3.97	4.08	0.00	-0.11	1.19	0.702
ROC	11.4	159	113	P		6.14-1.81	2.50	2.35	0.00	0.15	1.19	0.419
				S	2	7.37-1.81	3.73	4.08	0.00	-0.36	0.17	0.049
TWL	21.4	277	101	S	1	8.76-0.21	6.72	6.80	0.00	-0.09	0.89	0.900

1 10 JUN 80, 9:28 EVENT NO. 126

YR	MO	DA	ORIGIN	LAT N	LOE W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	10	928 26.20	37 34.56	118 50.94	9.66	0.12	1.12	1.34	161

RMSWT DMIN ITR NFM NWR NWS
0.12 1.6 6 0 10 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	1.6	349	170	S		29.26-0.15	2.91	2.99	0.00	-0.08	1.08	0.645
AGE	5.8	106	147	P		28.08 0.16	2.04	1.98	0.00	0.07	1.08	0.144
				S	1	29.58 0.16	3.54	3.43	0.00	0.11	0.81	0.301
LAK	12.9	55	124	P		29.59-0.37	3.02	3.07	0.00	-0.05	1.08	0.352
				S		32.03-0.37	5.46	5.32	0.00	0.14	1.08	0.655
ROC	14.4	127	120	P		31.19-1.82	3.17	3.04	0.00	0.13	1.08	0.376
				S	2	33.44-1.82	5.42	5.26	0.00	0.16	0.54	0.166
TWL	14.5	288	120	S		31.66-0.22	5.24	5.28	0.00	-0.04	1.08	0.813
TOM	15.9	100	117	P		29.72-0.09	3.43	3.51	0.00	-0.08	1.08	0.256
				S		32.17-0.09	5.88	6.14	0.00	-0.26	1.07	0.286

1 10 JUN 80, 11:23 EVENT NO. 127

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6-10 1123 22.78 37 34.48 118 49.77 5.18 0.07 1.53 1.78 187

RMSWT DMIN ITR NFI NWR NWS
 0.07 2.7 6 0 5 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	2.7	311	149	S	1	24.78-0.15	1.85	1.88	0.00	-0.03	0.88	0.982
LAK	11.6	50	110	P		25.58-0.37	2.43	2.53	0.00	-0.10	1.18	0.463
				S	1	27.65-0.37	4.50	4.39	0.00	0.11	0.88	0.677
TOM	14.2	100	104	S		28.11-0.09	5.24	5.22	0.00	0.02	1.18	0.966
TWL	16.2	287	100	S	1	28.33-0.22	5.33	5.28	0.00	0.05	0.88	0.910

1 10 JUN 80, 14:49 EVENT NO. 128

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6-10 1449 21.51 37 35.99 118 46.72 8.15 0.13 0.95 2.46 127

RMSWT DMIN ITR NFI NWR NWS
 0.13 6.5 4 0 7 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	6.5	43	138	P		23.92-0.37	2.04	2.09	0.00	-0.05	1.23	0.546
				S		25.59-0.37	3.71	3.64	0.00	0.07	1.23	0.818
CON	6.6	261	138	S	1	24.76-0.15	3.10	3.24	0.00	-0.13	0.92	0.869
TOM	10.9	119	122	P		24.23-0.10	2.62	2.66	0.00	-0.04	1.23	0.549
				S		26.11-0.10	4.50	4.68	0.00	-0.18	1.23	0.587
ROC	12.6	155	118	S	1	28.21-1.84	4.86	4.59	0.00	0.27	0.85	0.423
TWL	20.1	276	107	S	3	28.51-0.22	6.73	6.57	0.00	0.21	0.31	0.203

1 10 JUN 80, 15:13 EVENT NO. 129

 YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
 80- 6-10 1513 46.09 37 34.50 118 49.80 2.38 0.06 2.23 0.77 279

RMSWT DMIN ITR NFI NWR NWS
 0.06 4.1 9 0 6 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	4.1	111	120	P		46.91 0.17	0.99	0.95	0.00	0.04	1.20	0.603
				S	1	47.58 0.17	1.66	1.69	0.00	-0.03	0.90	0.792
LAK	11.7	50	96	P		48.80-0.37	2.34	2.43	0.00	-0.09	1.20	0.594
				S	1	50.74-0.37	4.28	4.22	0.00	0.06	0.90	0.749
ROC	13.1	131	53	P		50.48-1.84	2.55	2.52	0.00	0.03	1.20	0.662
				S	2	52.23-1.84	4.30	4.39	0.00	-0.09	0.60	0.597

1 10 JUN 80, 15:21 EVENT NO. 130

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6-10 1521 35.41 37 35.35 118 46.96 2.33 0.04 1.30 0.55 207
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RMSWT DMIN ITR NFM NWR NWS
0.04 3.1 8 0 8 5

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STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
MGE  3.1 187 126 P      35.98 0.17 0.74 0.78 0.00 -0.03 1.10 0.288
      S      36.62 0.17 1.38 1.38 0.00 0.00 1.10 0.681
FIS  5.0 304  95 P      36.97-0.22 1.34 1.38 0.00 -0.04 1.10 0.536
      S  1 38.19-0.22 2.56 2.50 0.00 0.07 0.83 0.354
CON  6.2 271 110 S  1 37.95-0.15 2.39 2.35 0.00 0.04 0.83 0.394
CBR 10.7 340  92 S  3 45.04-0.21 9.42 4.11 0.00 5.31 0.00 0.000
ROC 11.7 151  53 P      39.53-1.84 2.28 2.29 0.00 -0.01 1.10 0.442
      S  1 41.29-1.84 4.04 4.00 0.00 0.04 0.83 0.476
TWL 19.9 279  53 S      41.94-0.22 6.31 6.34 0.00 -0.03 1.10 0.826
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1 10 JUN 80, 22:15 EVENT NO. 131

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6-10 2215 31.60 37 31.23 118 45.54 7.22 0.10 1.12 2.11 169
```

RMSWT DMIN ITR NFM NWR NWS
0.10 4.4 5 0 8 5

```
STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
ROC  4.4 127 145 P      35.03-1.87 1.56 1.51 0.00 0.04 1.07 0.353
      S      36.15-1.87 2.68 2.64 0.00 0.04 1.07 0.765
TOM  8.4  66 125 P      33.81-0.10 2.11 2.23 0.00 -0.13 1.07 0.459
      S  1 35.53-0.10 3.83 3.95 0.00 -0.13 0.80 0.340
CON 11.3 314 117 S      35.78-0.15 4.03 4.14 0.00 -0.11 1.07 0.609
LAK 13.8  11 114 S  1 37.41-0.38 5.43 5.18 0.00 0.24 0.80 0.517
TWL 24.2 296 102 P      36.31-0.23 4.48 4.41 0.00 0.06 1.07 0.495
      S      39.45-0.23 7.62 7.63 0.00 -0.02 1.07 0.458
```

1 10 JUN 80, 22:55 EVENT NO. 132

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-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6-10 2255 50.76 37 36.28 118 51.48 6.91 0.03 2.51 1.17 193
```

RMSWT DMIN ITR NFM NWR NWS
0.10 1.7 4 0 7 4

```
STA DIST AZM  AN P/S W   SEC+CCOR (TOBS -TCAL -DLY  =RES) WT  INFO
CON  1.7 163 164 P      52.21-0.15 1.30 1.28 0.00 0.02 1.33 0.313
      S  1 53.11-0.15 2.20 2.23 0.00 -0.03 1.00 0.731
LAK 12.2  70 116 S  2 54.44-0.38 3.30 4.73 0.00 -1.43 0.00 0.000
LKM 12.3 327 114 S  2 56.32-0.21 5.35 4.88 0.00 0.47 0.00 0.000
TWL 13.1 276 112 P      53.64-0.23 2.65 2.63 0.00 0.02 1.33 0.537
      S  1 55.50-0.23 4.51 4.57 0.00 -0.06 1.00 0.459
ROC 17.1 134 106 S  1 58.29-1.88 5.65 5.66 0.00 -0.01 1.00 0.996
TOM 17.5 109 107 P      54.41-0.10 3.55 3.58 0.00 -0.03 1.33 0.553
      S  1 57.11-0.10 6.25 6.26 0.00 -0.01 1.00 0.407
```

1 11 JUN 80, 3: 4 EVENT NO. 133

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-11	3 4	46.40	37 39.39	118 47.50	3.93	0.53	1.94	6.40	176

RMSWT DMIN ITR NFM NWR NWS
0.54 5.8 7 0 10 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CBR	3.9	311	125	S	2	50.84-0.21	4.23	2.35	0.00	1.88	0.00	0.000
LAK	5.8	106	117	P		47.84-0.38	1.06	1.56	0.00	-0.50	1.30	0.406
				S	1	50.05-0.38	3.27	2.73	0.00	0.54	0.98	0.637
CON	9.2	216	101	S	1	49.81-0.16	3.25	3.23	0.00	0.01	0.98	0.814
LKM	13.4	290	99	P		49.72-0.21	3.11	2.81	0.00	0.30	1.30	0.485
				S	2	51.91-0.21	5.30	4.94	0.00	0.36	0.65	0.211
TOI	15.8	138	97	S	1	51.19-0.11	4.68	5.62	0.00	-0.94	0.92	0.308
ROC	18.9	160	94	P		52.34-1.89	4.05	3.46	0.00	0.59	1.30	0.473
				S	2	55.07-1.89	6.78	5.99	0.00	0.78	0.65	0.192
TWL	19.4	257	94	P		49.85-0.23	3.22	3.54	0.00	-0.32	1.30	0.319
				S	2	51.87-0.23	5.24	6.14	0.00	-0.90	0.63	0.150

1 11 JUN 80, 4:41 EVENT NO. 134

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-11	440	58.44	37 32.84	118 52.75	6.77	0.06	1.16	2.07	194

RMSWT DMIN ITR NFM NWR NWS
0.06 5.3 4 0 12 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	5.3	26	138	P		0.14-0.16	1.54	1.54	0.00	-0.01	1.33	0.253
				S	1	1.24-0.16	2.64	2.69	0.00	-0.05	1.00	0.665
FIS	8.6	30	122	P		0.81-0.23	2.14	2.22	0.00	-0.08	1.33	0.211
				S	2	2.67-0.23	4.00	3.93	0.00	0.07	0.67	0.174
HCF	10.8	13	116	P		0.99 0.03	2.58	2.54	0.00	0.04	1.33	0.376
				S	2	3.04 0.03	4.63	4.48	0.00	0.15	0.67	0.225
TWL	13.5	305	111	P		1.35-0.23	2.68	2.68	0.00	0.00	1.33	0.747
				S	3	3.22-0.23	4.55	4.66	0.00	-0.11	0.33	0.083
ROC	15.2	111	108	P		3.34-1.90	3.00	2.95	0.00	0.05	1.33	0.465
				S	2	5.54-1.90	5.20	5.12	0.00	0.08	0.67	0.254
TOI	18.3	88	105	P		2.17-0.11	3.62	3.70	0.00	-0.08	1.33	0.367
				S	2	4.97-0.11	6.42	6.47	0.00	-0.05	0.67	0.174

1 11 JUN 80, 4:42 EVENT NO. 135

YR	MO	DA	ORIGIN	LAT N	LON W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-11	442	23.44	37 32.59	118 52.84	7.40	0.08	0.89	1.58	198

RMSWT DMIN ITR NFM NWR NWS
0.08 5.8 5 0 13 7

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	5.8	25	138	P	1	25.30-0.16	1.70	1.67	0.00	0.02	1.27	0.165
				S	1	26.48-0.16	2.88	2.91	0.00	-0.04	1.27	0.662
AGE	8.6	76	126	P	1	25.31 0.19	2.06	2.01	0.00	0.04	1.27	0.153
				S	3	26.71 0.19	3.46	3.50	0.00	-0.04	0.42	0.065
FIS	9.1	29	124	S	2	27.75-0.23	4.08	4.14	0.00	-0.06	0.84	0.223
TWL	13.7	307	113	P	2	26.46-0.23	2.79	2.75	0.00	0.04	0.84	0.336
				S	2	28.42-0.23	4.75	4.77	0.00	-0.02	0.84	0.509
ROC	15.2	109	111	P	1	28.36-1.90	3.02	2.98	0.00	0.04	1.27	0.379
				S	2	30.57-1.90	5.23	5.16	0.00	0.06	0.84	0.354
LAK	17.3	50	110	P		27.37-0.38	3.55	3.55	0.00	0.00	1.69	0.561
				S	2	30.14-0.38	6.32	6.14	0.00	0.18	0.84	0.321
TOI	18.4	87	107	P	1	27.16-0.11	3.61	3.75	0.00	-0.15	1.27	0.237
				S	3	29.82-0.11	6.27	6.56	0.00	-0.30	0.33	0.028

1 11 JUN 80, 4:47 EVENT NO. 136

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6-11 447 35.06 37 31.21 116 53.75 3.40 0.19 7.18 63.70 219

RMSWT DMIN ITR NFM NWR NWS
0.20 8.7 9 0 10 5

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	8.7	26	97	P	1	36.89-0.16	1.67	1.75	0.00	-0.08	1.03	0.327
				S	1	37.67-0.16	2.45	3.06	0.00	-0.61	0.00	0.000
MGE	10.7	64	95	S	3	38.63 0.19	3.76	3.63	0.00	0.13	0.34	0.062
TWL	14.4	318	93	P		38.14-0.23	2.85	2.70	0.00	0.15	1.38	0.552
				S	1	39.76-0.23	4.47	4.70	0.00	-0.23	1.03	0.519
ROC	15.8	99	93	P		39.64-1.90	2.68	2.94	0.00	-0.25	1.38	0.604
				S	2	41.87-1.90	4.91	5.10	0.00	-0.19	0.69	0.464
LAK	20.0	47	96	P		39.28-0.39	3.83	3.83	0.00	0.00	1.38	0.369
				S	2	41.92-0.39	6.47	6.62	0.00	-0.15	0.69	0.399
TOM	20.1	80	94	P		39.35-0.11	4.18	3.90	0.00	0.29	1.38	0.549
				S	2	42.00-0.11	6.83	6.81	0.00	0.03	0.69	0.149

1 11 JUN 80, 5: 2 EVENT NO. 137

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6-11 5 2 21.02 37 35.88 116 52.47 5.67 0.11 54.11 2.33 186

RMSWT DMIN ITR NFM NWR NWS
0.11 2.1 4 0 4 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	2.1	114	157	P		22.38-0.16	1.20	1.10	0.00	0.09	1.45	1.000
				S	2	22.94-0.16	1.75	1.93	0.00	-0.17	0.73	1.000
TWL	11.8	280	109	S	1	25.28-0.23	4.03	4.08	0.00	-0.05	1.09	1.000
ROC	17.7	129	101	S	2	24.36-1.90	1.44	5.72	0.00	-4.28	0.00	0.000
TOM	18.6	106	102	S	2	27.49-0.11	6.36	6.49	0.00	-0.13	0.73	1.000

1 11 JUN 80, 10:13 EVENT NO. 138

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6-11 1013 23.52 37 33.63 118 50.88 9.78 0.01 6.61 3.82 172

RMSWT DMIN ITR NFM NWR NWS
0.03 3.3 7 0 4 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	3.3	353	160	S	1	26.82-0.16	3.14	3.15	0.00	-0.01	1.24	0.998
ROC	13.4	122	122	P		28.33-1.92	2.89	2.90	0.00	-0.01	1.65	0.996
				S	2	30.45-1.92	5.01	5.03	0.00	-0.01	0.83	0.995
TWL	15.2	294	119	S	1	29.22-0.24	5.46	5.47	0.00	0.00	1.24	0.996
TOM	15.6	93	118	S	2	29.29-0.11	5.66	6.08	0.00	-0.41	0.04	0.009

1 11 JUN 80, 17:10 EVENT NO. 139

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6-11 1710 22.74 37 37.80 118 51.28 6.81 0.10 1.24 0.88 123

RMSWT DMIN ITR NFM NWR NWS
0.10 1.4 6 0 14 7

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
HCF	1.4	18	167	P		24.07 0.03	1.36	1.49	0.00	-0.13	1.24	0.212
				S	1	25.42 0.03	2.71	2.67	0.00	0.04	0.93	0.462
FIS	2.8	129	154	P		24.42-0.24	1.44	1.57	0.00	-0.13	1.24	0.155
				S	2	25.90-0.24	2.92	2.80	0.00	0.11	0.62	0.201
MGE	9.7	141	120	P		24.70 0.20	2.16	2.12	0.00	0.04	1.24	0.170
				S	1	26.34 0.20	3.80	3.68	0.00	0.11	0.93	0.277
LKM	10.3	317	118	P		25.43-0.22	2.47	2.46	0.00	0.01	1.24	0.406
				S	1	27.53-0.22	4.57	4.34	0.00	0.22	0.93	0.332
TWL	13.4	264	111	P		25.63-0.24	2.65	2.67	0.00	-0.02	1.24	0.516
				S	2	27.45-0.24	4.47	4.64	0.00	-0.17	0.62	0.360
TOM	18.4	118	105	P		26.50-0.12	3.64	3.72	0.00	-0.08	1.24	0.393
				S	2	29.26-0.12	6.40	6.50	0.00	-0.10	0.62	0.134
ROC	19.1	141	104	P		28.34-1.95	3.65	3.56	0.00	0.08	1.24	0.264
				S	2	30.92-1.95	6.23	6.17	0.00	0.05	0.62	0.111

1 11 JUN 80, 22:39 EVENT NO. 140

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6-11 2239 31.20 37 30.49 118 47.12 11.24 0.11 1.42 1.12 225

RMSWT DMIN ITR NFM NWR NWS
0.11 5.9 5 0 9 6

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	5.9	359	150	S	2	34.93 0.20	3.93	3.84	0.00	0.09	0.80	0.287
ROC	6.0	102	150	P		35.45-1.97	2.28	2.22	0.00	0.06	1.60	0.609
				S	2	37.12-1.97	3.95	3.85	0.00	0.10	0.80	0.329
CON	10.9	327	133	S	1	35.91-0.16	4.55	4.72	0.00	-0.17	1.20	0.571
TOM	11.1	64	132	P		34.24-0.12	2.92	3.00	0.00	-0.08	1.60	0.494
				S	2	36.46-0.12	5.14	5.27	0.00	-0.13	0.80	0.330
LAK	15.7	18	123	S	2	38.00-0.40	6.40	6.22	0.00	0.18	0.80	0.472
TWL	22.9	302	113	S	3	38.61-0.25	7.16	7.62	0.00	-0.46	0.00	0.000
LKM	24.8	328	111	P		36.38-0.22	4.96	4.97	0.00	-0.01	1.60	0.684
				S	2	40.28-0.22	8.86	8.64	0.00	0.22	0.80	0.221

1 12 JUN 80, 0:26 EVENT NO. 141

YR MO DA ORIGIN LAT N LON W DEPTH RMS ERH ERZ GAP
80- 6-12 026 38.80 37 34.96 118 49.72 3.80 0.05 2.15 2.98 279

RMSWT DMIN ITR NFM NWR NWS
0.05 4.4 5 0 7 4

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
MGE	4.4	122	120	P		39.71 0.21	1.12	1.10	0.00	0.01	1.47	0.866
				S	3	40.41 0.21	1.82	1.94	0.00	-0.13	0.37	0.243
LAK	11.0	53	104	P		41.52-0.40	2.32	2.37	0.00	-0.05	1.47	0.687
				S	1	43.34-0.40	4.14	4.11	0.00	0.03	1.11	0.752
ROC	13.6	134	96	P		43.39-1.98	2.61	2.58	0.00	0.03	1.47	0.720
				S	2	45.15-1.98	4.37	4.48	0.00	-0.12	0.74	0.514
TOM	14.3	104	98	S	3	44.28-0.13	5.35	5.17	0.00	0.17	0.37	0.214

1 12 JUN 80, 5:29 EVENT NO. 142

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-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6-12   529 32.90 37 37.36 118 49.86 0.25 0.05 0.67 0.26 150
```

```
RMSWT DMIN ITR NFM NWR NWS
0.05 0.9 7 0 11 6
```

```
STA DIST AZM AN P/S W SEC+CCOR (TOBS -TCAL -DLY =RES) WT INFO
FIS 0.9 174 104 P 1 33.68-0.25 0.53 0.61 0.00 -0.09 1.47 0.306
S 1 34.44-0.25 1.29 1.23 0.00 0.06 1.10 0.770
HCF 2.7 323 19 S 2 34.77 0.03 1.90 2.01 0.00 -0.11 0.73 0.413
CON 4.1 208 93 P 1 33.90-0.17 0.83 0.82 0.00 0.01 1.47 0.421
S 1 34.51-0.17 1.44 1.47 0.00 -0.03 1.10 0.333
LKM 12.4 312 13 P 3 36.16-0.23 3.03 3.00 0.00 0.03 1.47 0.398
S 3 38.53-0.23 5.40 5.35 0.00 0.05 0.37 0.122
TOM 16.4 119 13 P 1 36.63-0.13 3.60 3.62 0.00 -0.02 1.10 0.443
S 3 39.43-0.13 6.40 6.42 0.00 -0.02 0.37 0.202
ROC 17.1 144 53 P 3 38.35-2.00 3.45 3.42 0.00 0.03 1.47 0.549
S 3 40.69-2.00 5.79 5.99 0.00 -0.20 0.37 0.039
```

1 12 JUN 80, 10:22 EVENT NO. 143

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-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6-12   1022 41.28 37 37.49 118 53.29 7.25 0.08 0.89 1.29 124
```

```
RMSWT DMIN ITR NFM NWR NWS
0.08 3.9 4 0 10 6
```

```
STA DIST AZM AN P/S W SEC+CCOR (TOBS -TCAL -DLY =RES) WT INFO
HCF 3.9 61 148 P 1 42.88 0.03 1.63 1.71 0.00 -0.09 1.07 0.166
S 1 44.45 0.03 3.20 3.06 0.00 0.14 1.07 0.641
CON 5.0 141 142 P 1 43.04-0.17 1.59 1.58 0.00 0.01 1.43 0.323
S 2 43.97-0.17 2.52 2.75 0.00 -0.23 0.71 0.346
LKM 9.0 333 123 P 1 43.81-0.23 2.30 2.32 0.00 -0.02 1.43 0.523
S 1 45.55-0.23 4.04 4.10 0.00 -0.06 1.07 0.423
TWL 10.4 265 120 S 2 45.56-0.26 4.02 3.92 0.00 0.10 0.71 0.704
ROC 20.6 133 104 P 1 47.17-2.02 3.87 3.83 0.00 0.03 1.43 0.607
S 2 49.92-2.02 6.62 6.63 0.00 -0.02 0.71 0.194
TOM 20.8 113 105 S 3 48.41-0.14 6.99 7.19 0.00 -0.21 0.36 0.069
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1 12 JUN 80, 12:35 EVENT NO. 144

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6-12   1235 41.09 37 31.16 118 42.55 6.96 0.03 98.43 10.64 202
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```
RMSWT DMIN ITR NFM NWR NWS
0.03 2.7 3 0 4 2
```

```
STA DIST AZM AN P/S W SEC+CCOR (TOBS -TCAL -DLY =RES) WT INFO
ROC 2.7 200 156 P 1 44.48-2.03 1.36 1.34 0.00 0.02 1.14 0.999
S 2 45.39-2.03 2.27 2.34 0.00 -0.07 0.57 1.000
TOM 4.8 42 140 P 1 42.97-0.14 1.74 1.77 0.00 -0.03 1.14 1.000
S 1 44.39-0.14 3.16 3.15 0.00 0.01 1.14 0.999
LKM 28.1 315 100 S 3 47.45-0.23 6.13 9.21 0.00 -3.08 0.00 0.000
```


1 12 JUN 80, 17:15 EVENT NO. 145

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	12	1715 33.50	37 38.30	118 41.26	6.37	0.18	5.32	1.93	338

RMSWT DMIN ITR NFM NWR NWS
0.66 3.6 8 0 5 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
LAK	3.6	276	147	P	1	35.35-0.42	1.43	1.57	0.00	-0.14	1.25	0.870
				S	3	37.35-0.42	3.43	2.74	0.00	0.69	0.42	0.602
TOM	9.8	171	117	S	2	34.44-0.14	0.80	4.17	0.00	-3.37	0.00	0.000
LK4	22.8	287	101	P		38.22-0.24	4.48	4.41	0.00	0.07	1.67	0.926
				S	3	40.73-0.24	6.99	7.69	0.00	-0.70	0.42	0.600
TWL	28.1	265	98	P	1	38.79-0.26	5.03	5.04	0.00	0.00	1.25	1.000
				S	2	39.62-0.26	5.86	8.70	0.00	-2.84	0.00	0.000

1 12 JUN 80, 20:28 EVENT NO. 146

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	12	2028 3.90	37 32.08	118 37.18	5.70	0.00	4.47	3.91	283

RMSWT DMIN ITR NFM NWR NWS
0.04 5.0 6 0 4 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
TOM	5.0	292	132	P		5.67-0.15	1.62	1.63	0.00	-0.01	1.78	1.000
				S	2	6.96-0.15	2.91	2.91	0.00	0.00	0.89	1.000
ROC	9.8	245	113	P	2	7.99-2.06	2.03	2.04	0.00	0.00	0.89	1.000
				S	2	8.41-2.06	2.45	3.55	0.00	-1.10	0.00	0.000
LAK	15.3	322	107	S	3	9.74-0.42	5.42	5.43	0.00	0.00	0.44	1.000

1 13 JUN 80, 0:17 EVENT NO. 147

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	13	017 57.92	37 34.24	118 53.22	4.97	0.02	1.65	2.03	236

RMSWT DMIN ITR NFM NWR NWS
0.06 3.7 12 0 5 3

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	3.7	54	138	S	2	60.11-0.17	2.02	2.00	0.00	0.01	0.74	0.964
TWL	11.6	296	105	S	1	62.17-0.27	3.98	3.98	0.00	-0.01	1.12	0.922
LK4	14.7	344	102	P		61.23-0.24	3.07	3.04	0.00	0.02	1.49	0.398
				S	1	63.50-0.24	5.34	5.35	0.00	-0.01	1.12	0.854
LAK	16.1	60	104	P		61.56-0.42	3.22	3.23	0.00	-0.01	1.49	0.853
				S	2	62.73-0.42	4.39	5.59	0.00	-1.20	0.00	0.000
ROC	16.9	119	99	S	3	65.88-2.07	5.89	5.46	0.00	0.42	0.05	0.005

1 13 JUN 80, 3:18 EVENT NO. 148

YR	MO	DA	ORIGIN	LAT N	LOX W	DEPTH	RMS	ERH	ERZ	GAP
80-	6-	13	318 21.67	37 32.84	118 44.72	17.62	0.04	98.28	11.93	211

RMSWT DMIN ITR NFM NWR NWS
0.04 6.1 6 0 4 2

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
ROC	6.1	157	160	P	1	26.97-2.08	3.22	3.20	0.00	0.02	1.09	1.000
				S	2	29.21-2.08	5.46	5.52	0.00	-0.07	0.73	1.000
CON	10.6	297	147	S	2	24.34-0.17	2.50	6.09	0.00	-3.60	0.00	0.000
LAK	10.6	8	147	P		25.84-0.43	3.74	3.78	0.00	-0.04	1.45	0.999
				S	2	28.66-0.43	6.56	6.53	0.00	0.03	0.73	0.999

1 13 JUN 80, 12:13 EVENT NO. 149

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YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6-13 1213 15.11 37 36.61 118 53.03  6.08 0.08  0.85  1.02 143
```

```
RMSWT DMIN ITR NFM NWR NWS
0.09  3.5   4   0  11   5
```

STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
CON	3.5	129	146	P		16.58-0.18	1.29	1.28	0.00	0.02	1.33	0.254
				S	1	17.53-0.18	2.24	2.23	0.00	0.01	1.00	0.621
HCF	4.6	40	137	P		16.63 0.02	1.54	1.63	0.00	-0.09	1.33	0.411
				S	2	18.26 0.02	3.17	2.92	0.00	0.25	0.66	0.293
FIS	4.8	84	136	S	2	18.10-0.26	2.71	2.95	0.00	-0.24	0.66	0.167
TWL	10.8	274	113	P		17.58-0.28	2.19	2.22	0.00	-0.03	1.33	0.480
				S	1	19.25-0.28	3.86	3.87	0.00	-0.01	1.00	0.489
LAK	14.2	75	110	P		18.58-0.43	3.04	2.98	0.00	0.06	1.33	0.390
				S	2	21.10-0.43	5.56	5.16	0.00	0.40	0.04	0.000
ROC	19.3	131	102	P		20.86-2.12	3.63	3.57	0.00	0.06	1.33	0.440
				S	3	22.81-2.12	5.58	6.18	0.00	-0.60	0.00	0.000
TOM	19.8	109	102	P		19.12-0.16	3.85	3.92	0.00	-0.07	1.33	0.321
				S	2	22.00-0.15	6.73	6.85	0.00	-0.12	0.66	0.128

1 13 JUN 80, 14:56 EVENT NO. 150

```
-----
YR MO DA   ORIGIN   LAT N   LON W   DEPTH  RMS   ERH   ERZ GAP
80- 6-13 1456 58.69 37 37.15 118 53.50  8.11 0.11  1.27  1.21 282
```

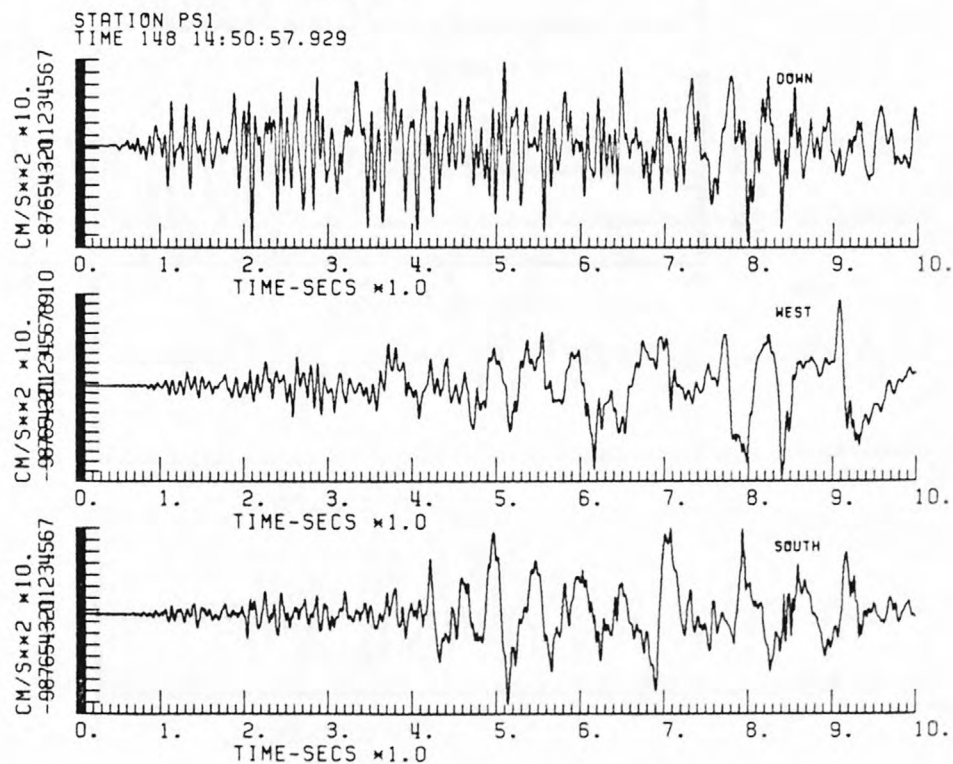
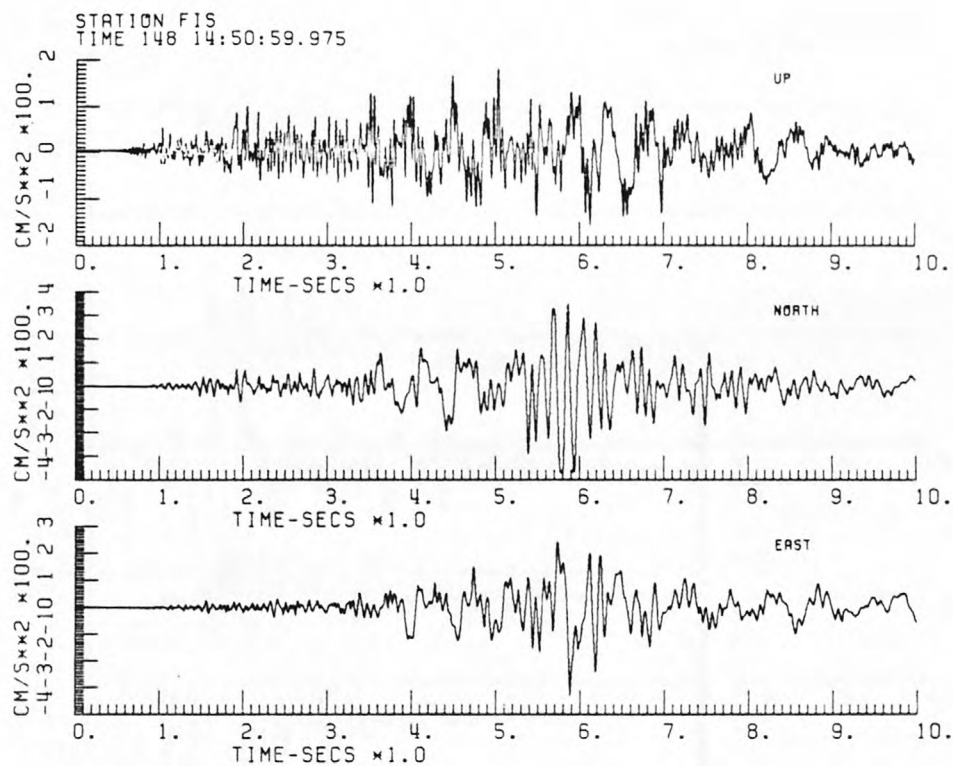
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RMSWT DMIN ITR NFM NWR NWS
0.11  4.5   5   0  11   6
```

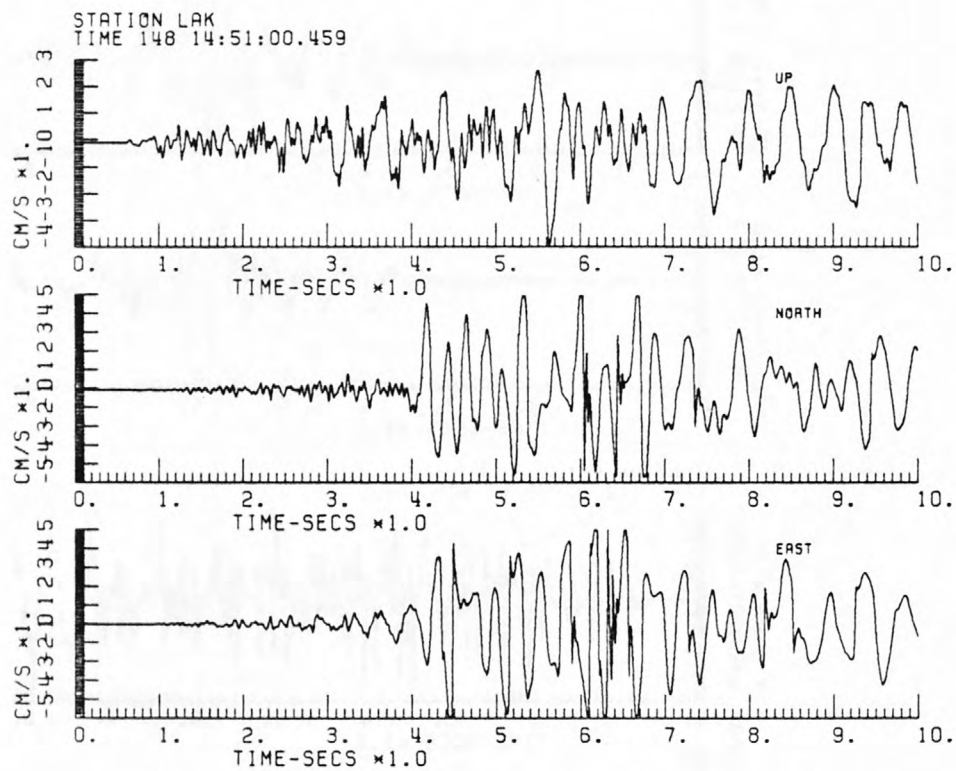
STA	DIST	AZM	AN	P/S	W	SEC+CCOR	(TOBS	-TCAL	-DLY	=RES)	WT	INFO
HCF	4.5	55	148	S	2	62.02 0.02	3.35	3.36	0.00	-0.01	0.67	0.417
CON	4.7	133	147	P		60.55-0.18	1.68	1.66	0.00	0.01	1.33	0.510
				S	2	61.64-0.18	2.77	2.90	0.00	-0.13	0.67	0.385
MGE	11.3	124	121	P		60.94 0.25	2.50	2.45	0.00	0.05	1.33	0.200
				S	2	62.67 0.25	4.23	4.25	0.00	-0.03	0.67	0.259
LAK	14.6	80	116	P		62.21-0.44	3.08	3.18	0.00	-0.11	1.33	0.474
				S	1	64.84-0.44	5.71	5.51	0.00	0.19	1.00	0.577
ROC	20.4	131	107	P		64.81-2.13	3.99	3.84	0.00	0.14	1.33	0.356
				S	2	67.41-2.13	6.59	6.65	0.00	-0.06	0.67	0.286
TOM	20.8	111	107	P		62.91-0.17	4.05	4.17	0.00	-0.12	1.33	0.280
				S	2	65.95-0.17	7.09	7.28	0.00	-0.19	0.67	0.250

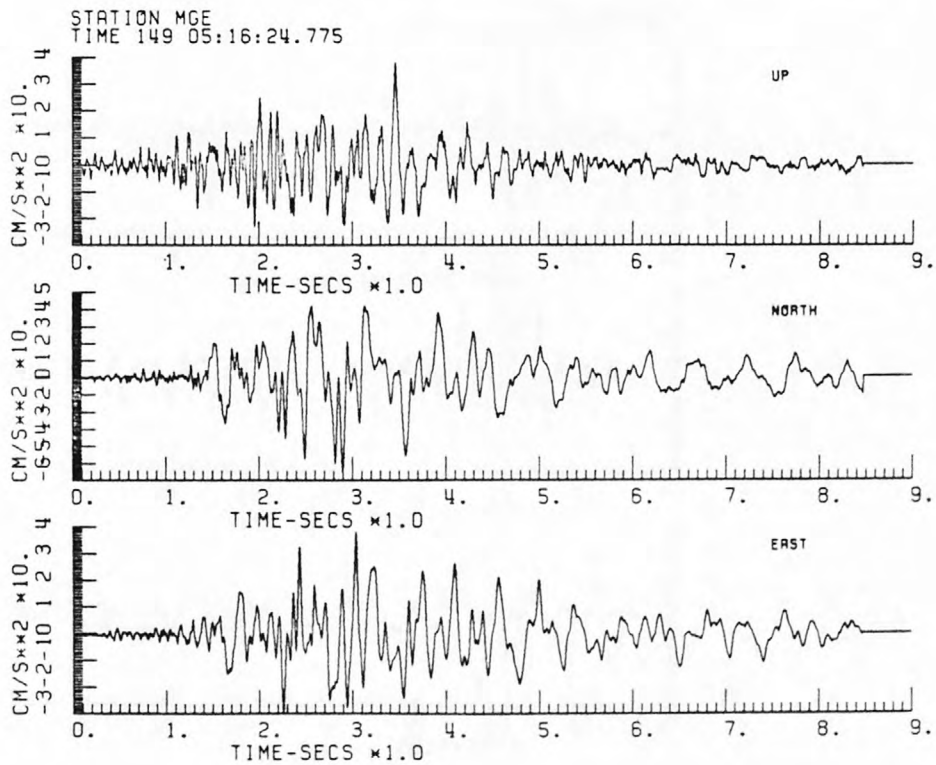
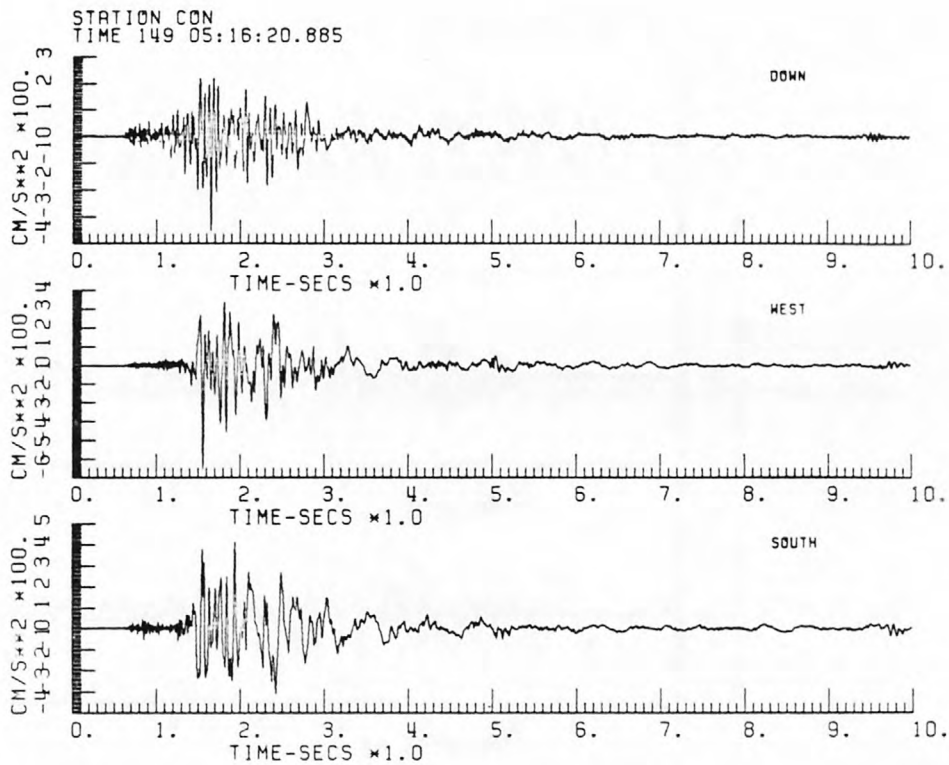
Appendix B

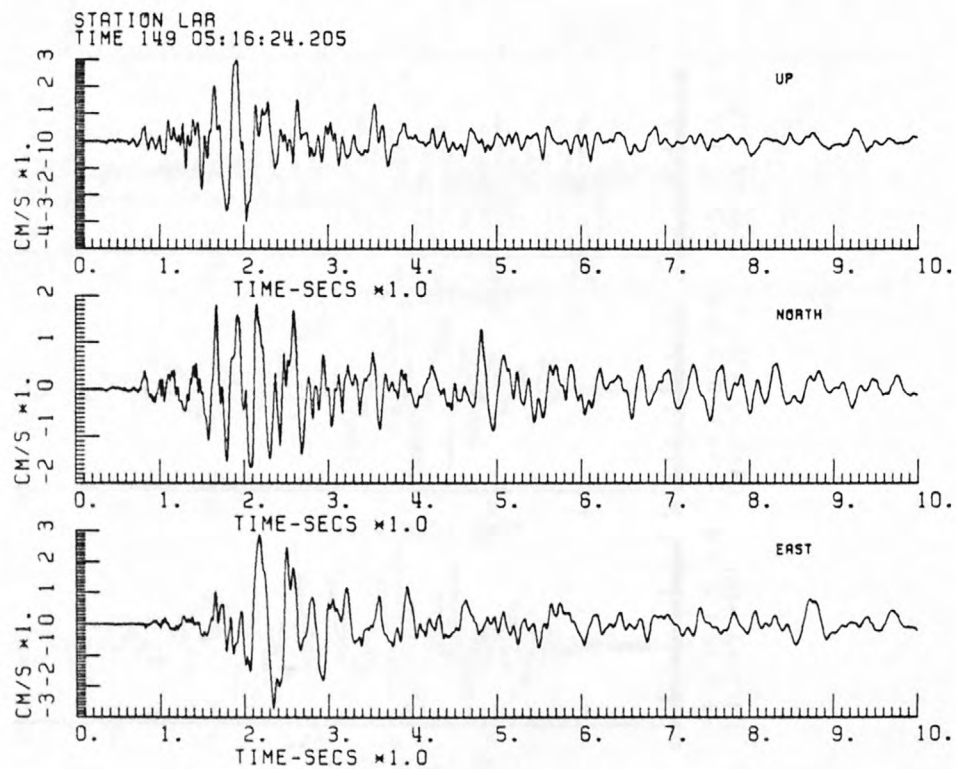
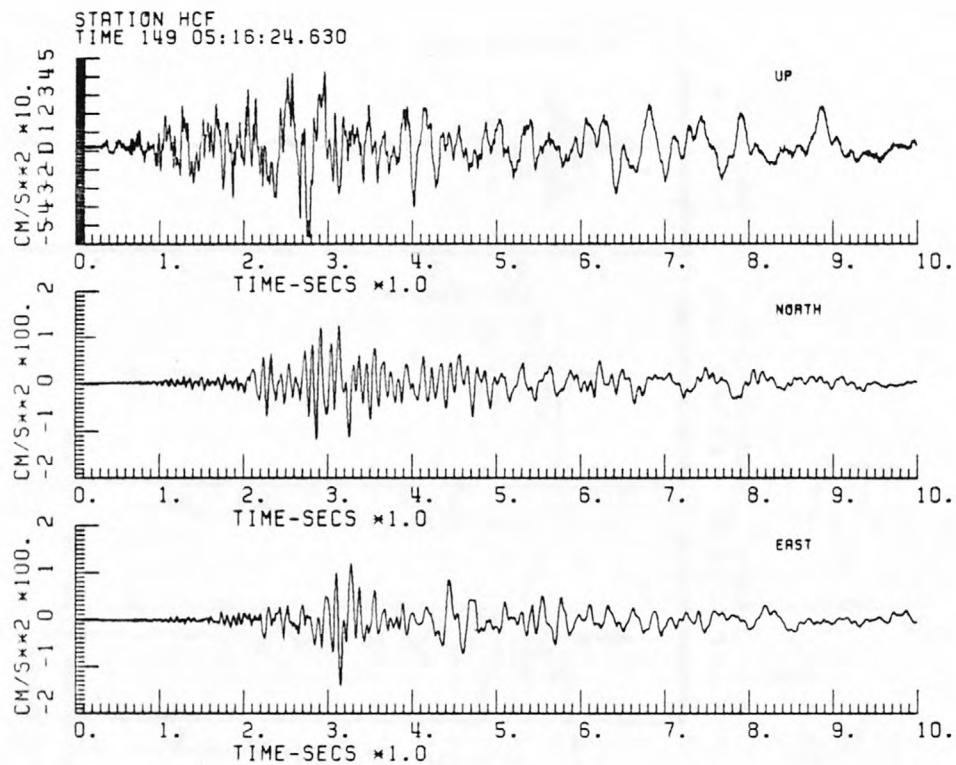
Seismograms of selected earthquakes

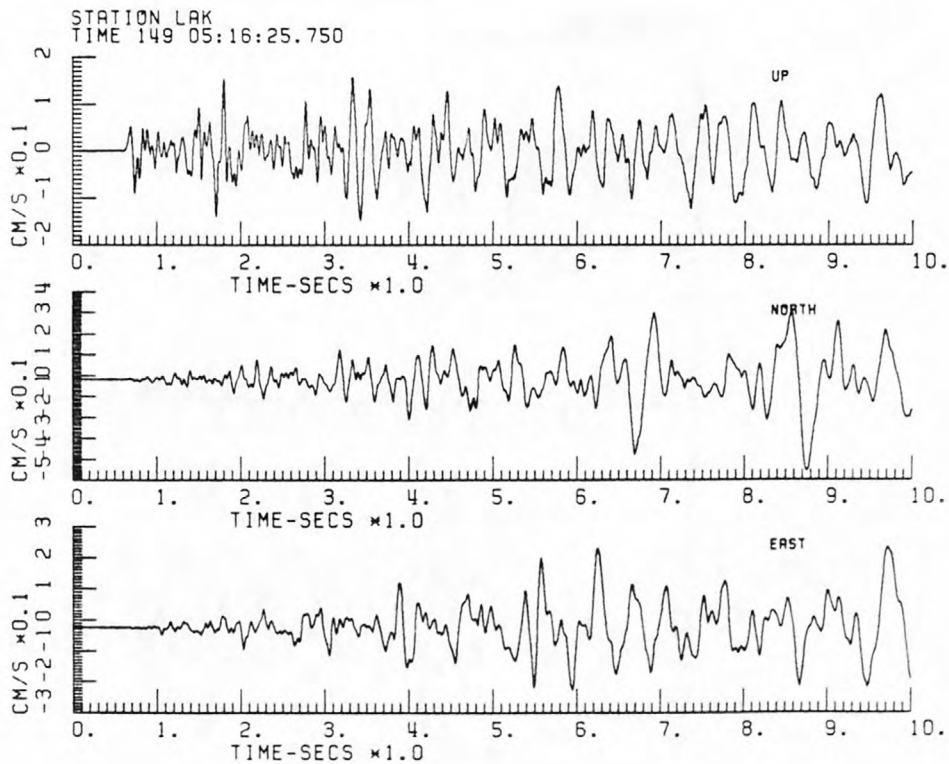
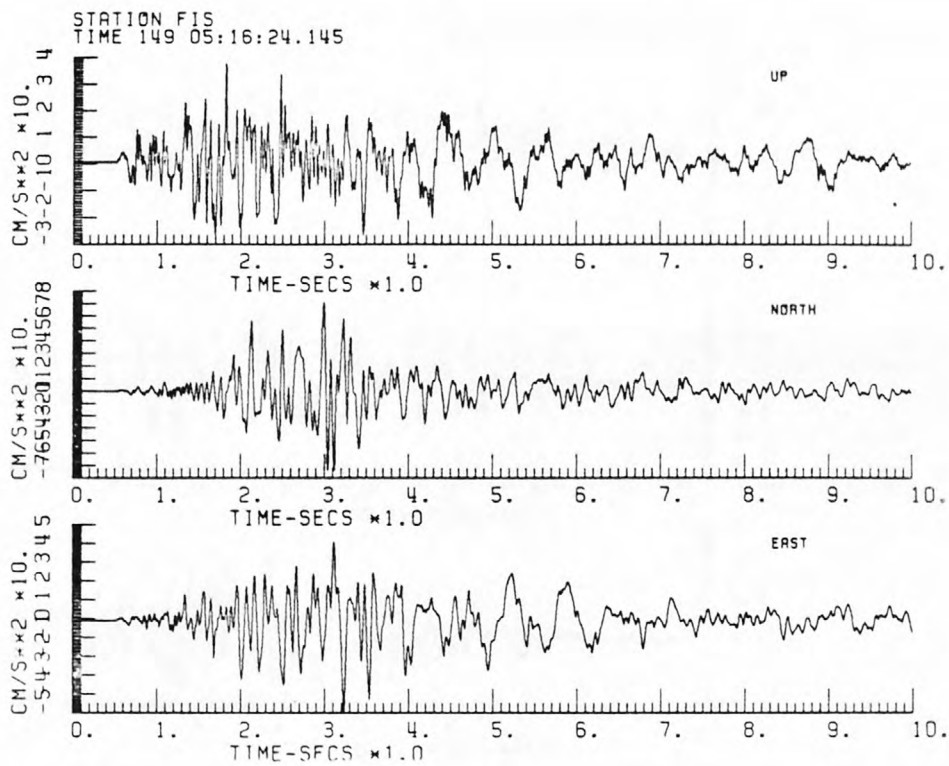


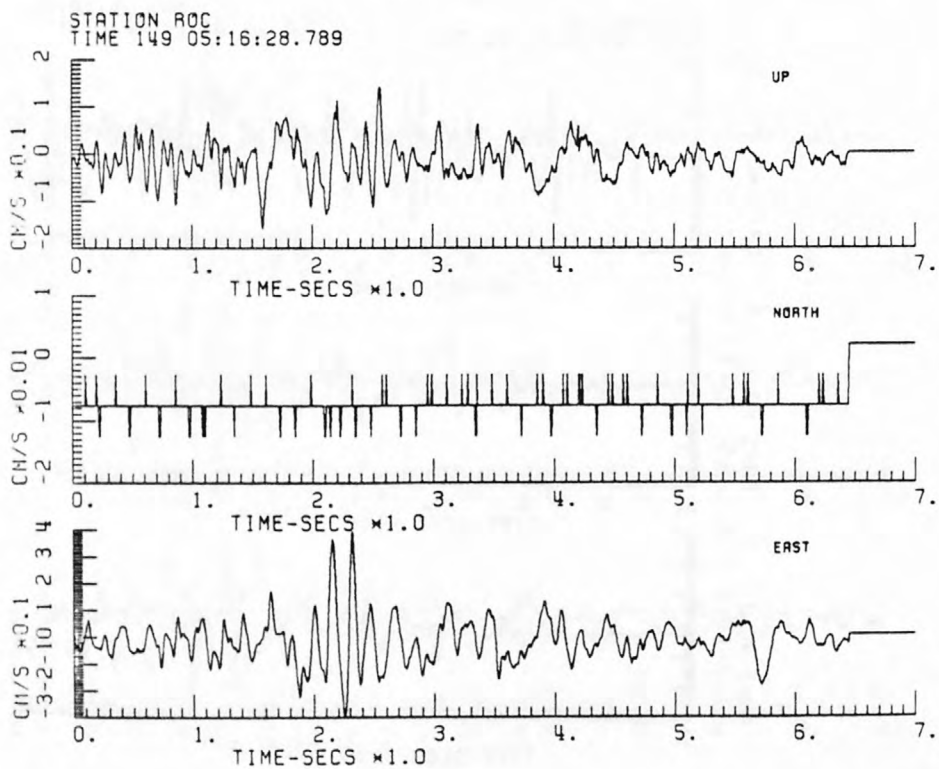
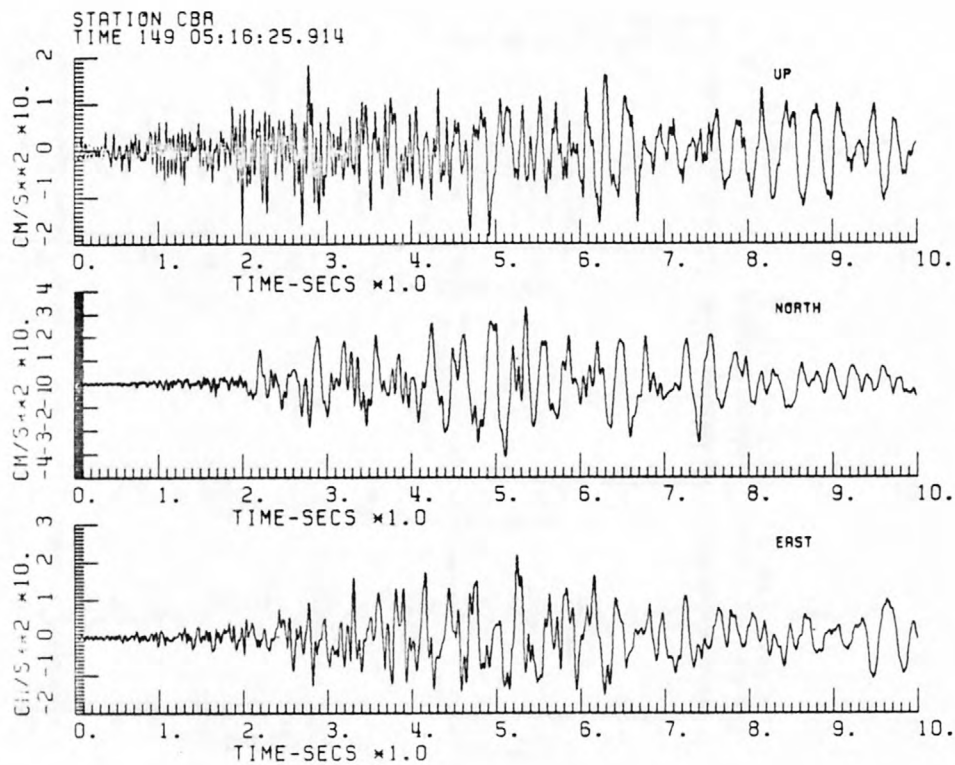


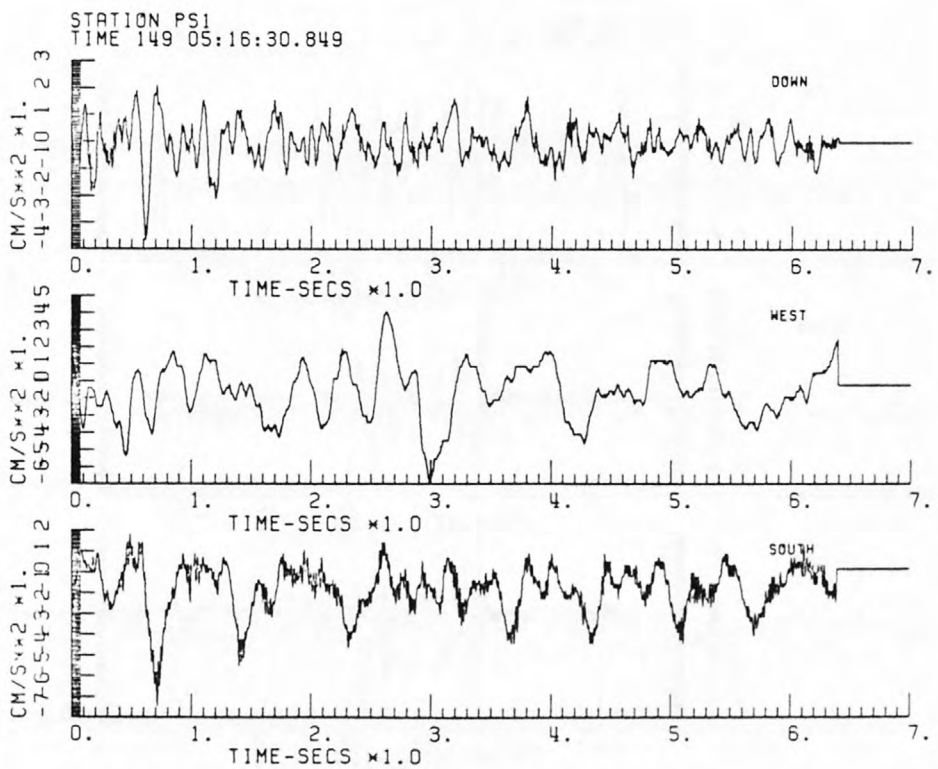
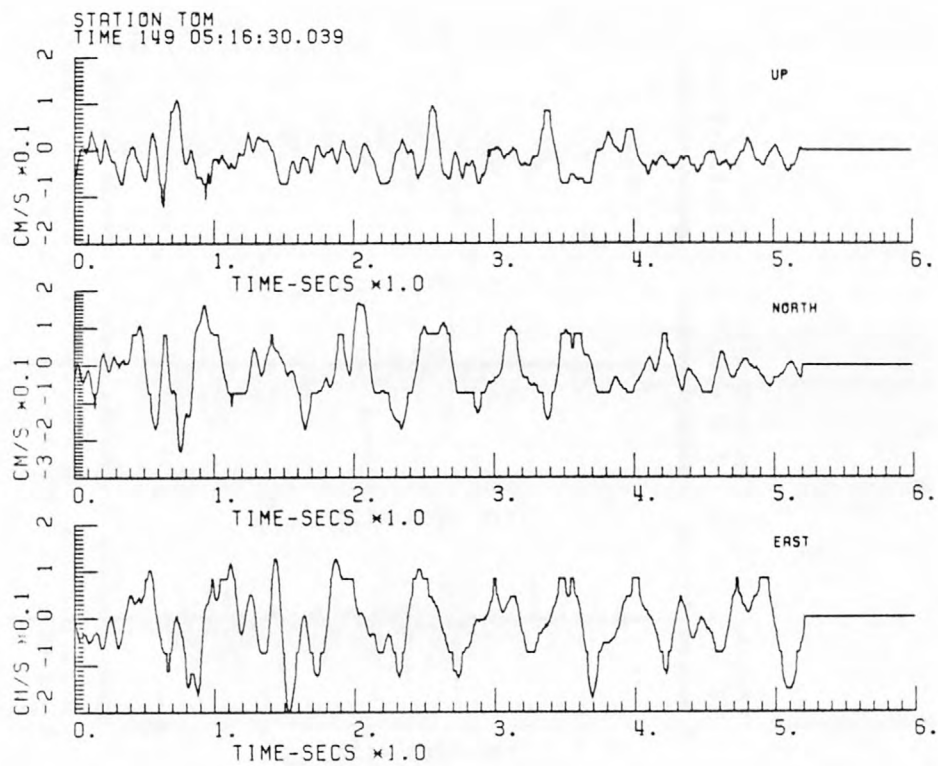


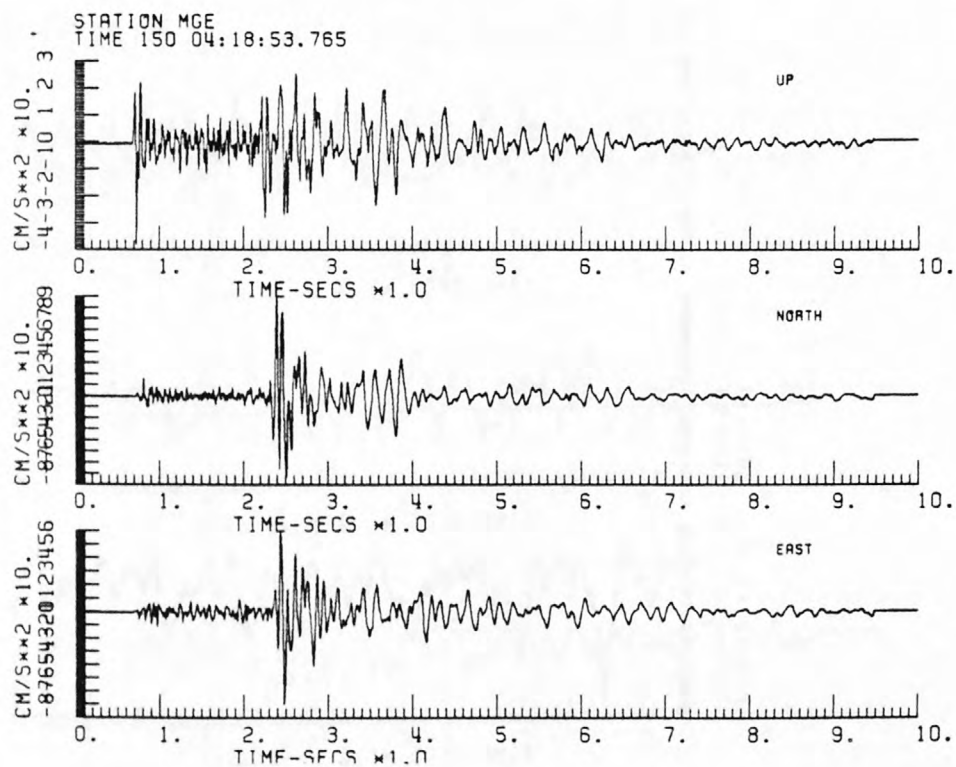
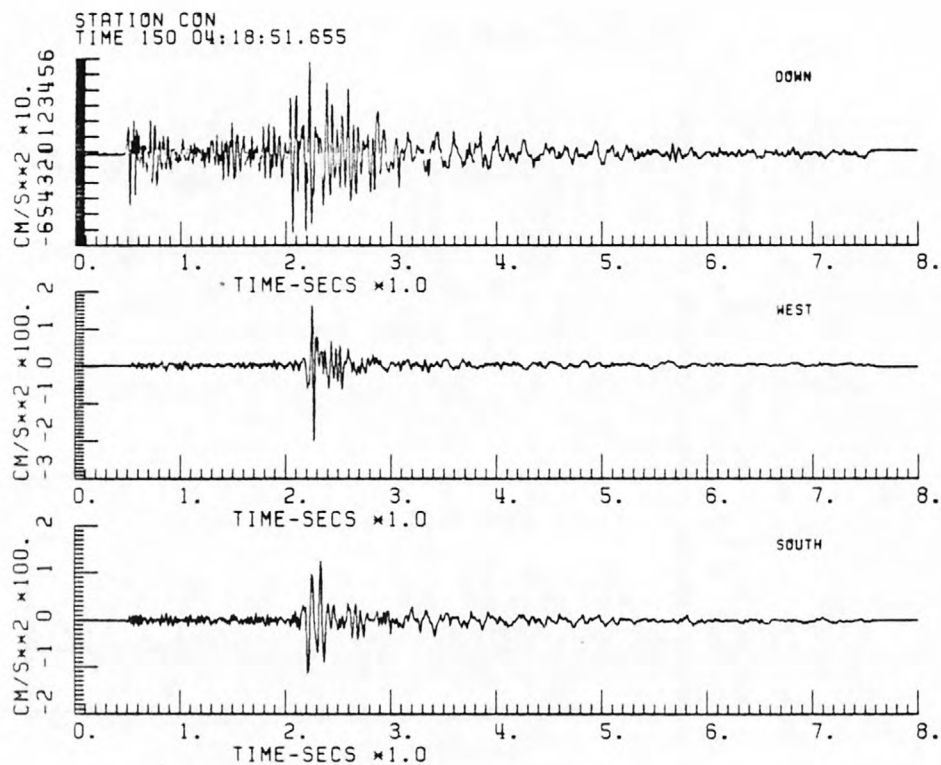


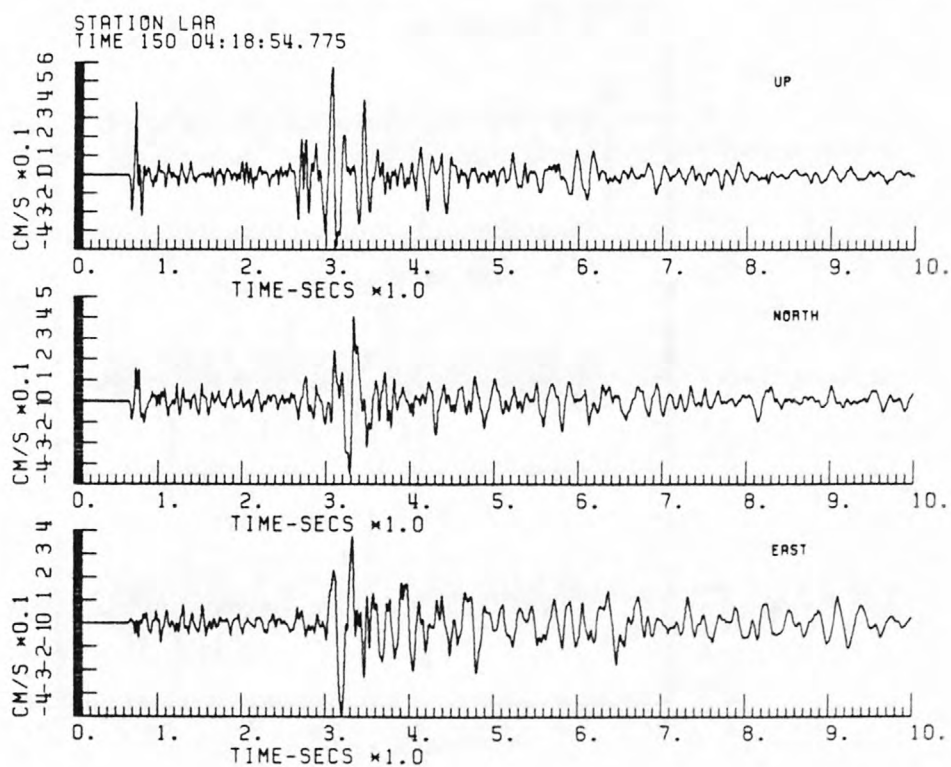
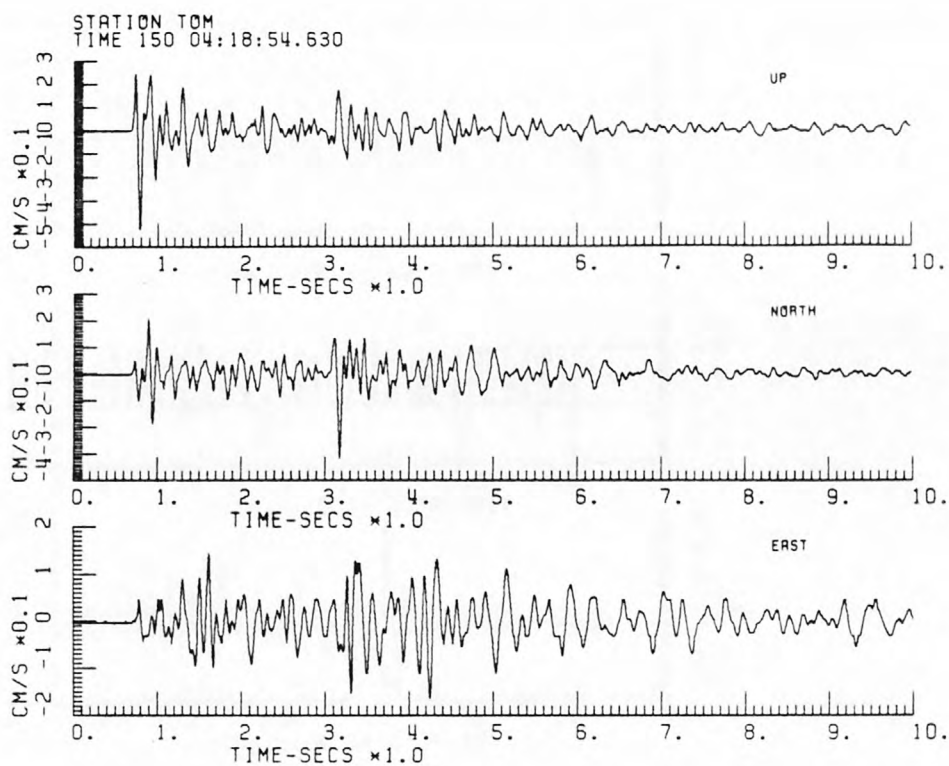


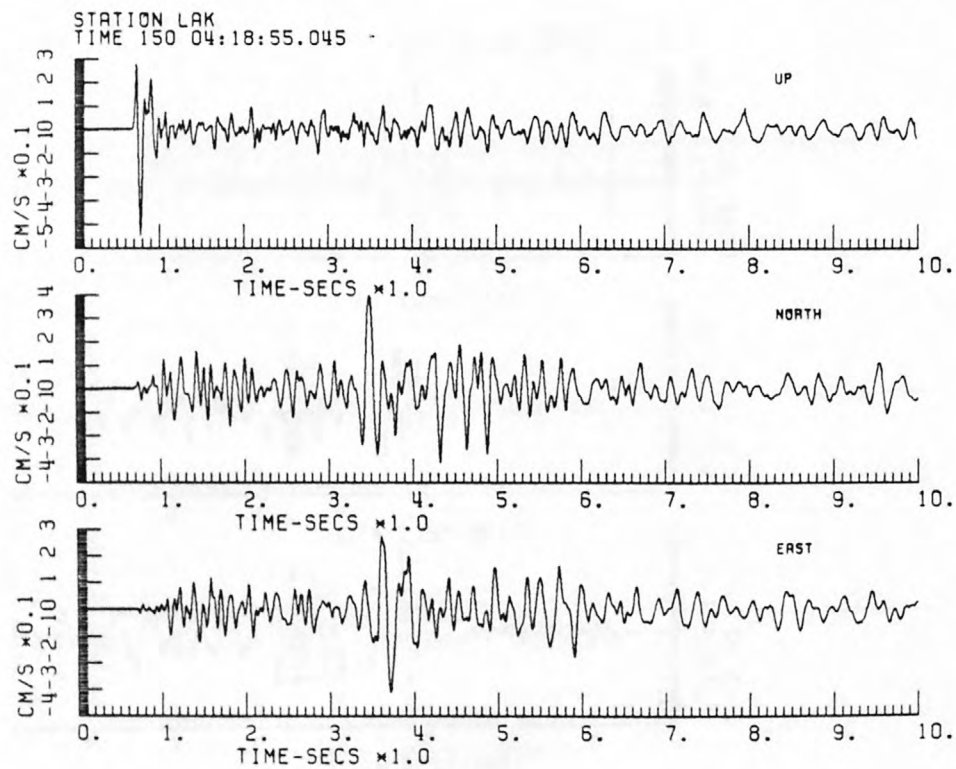
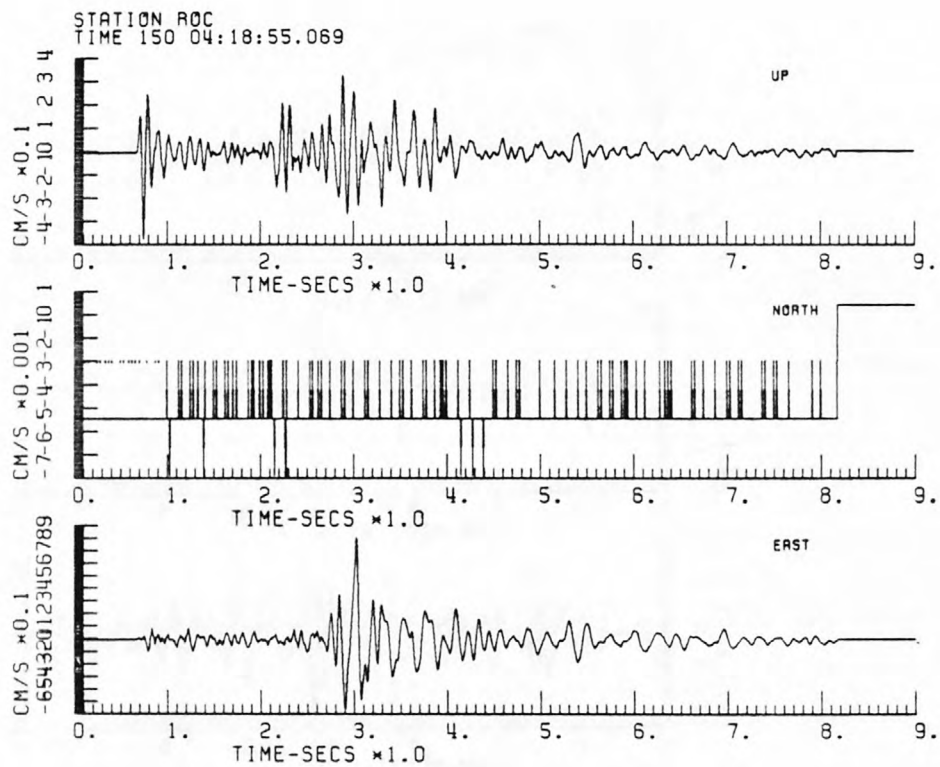


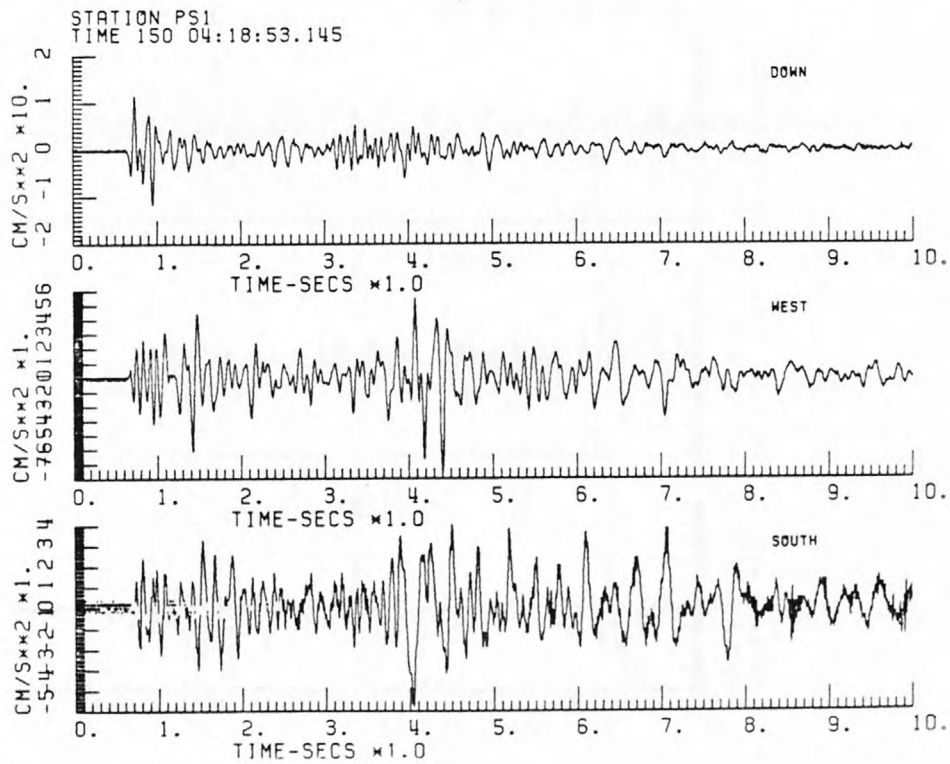
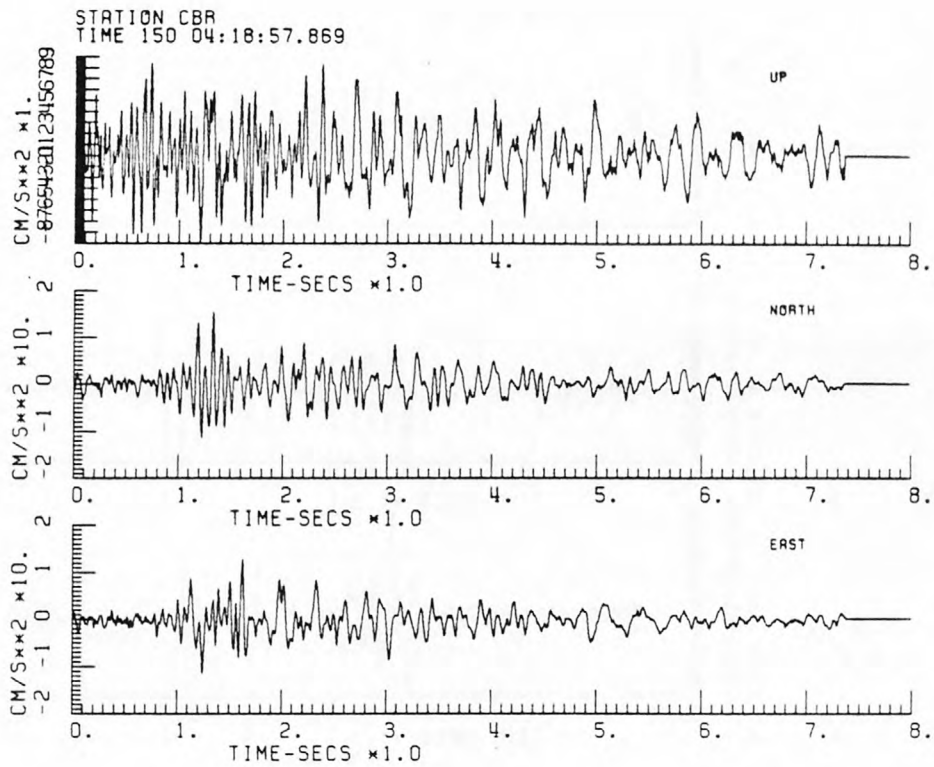


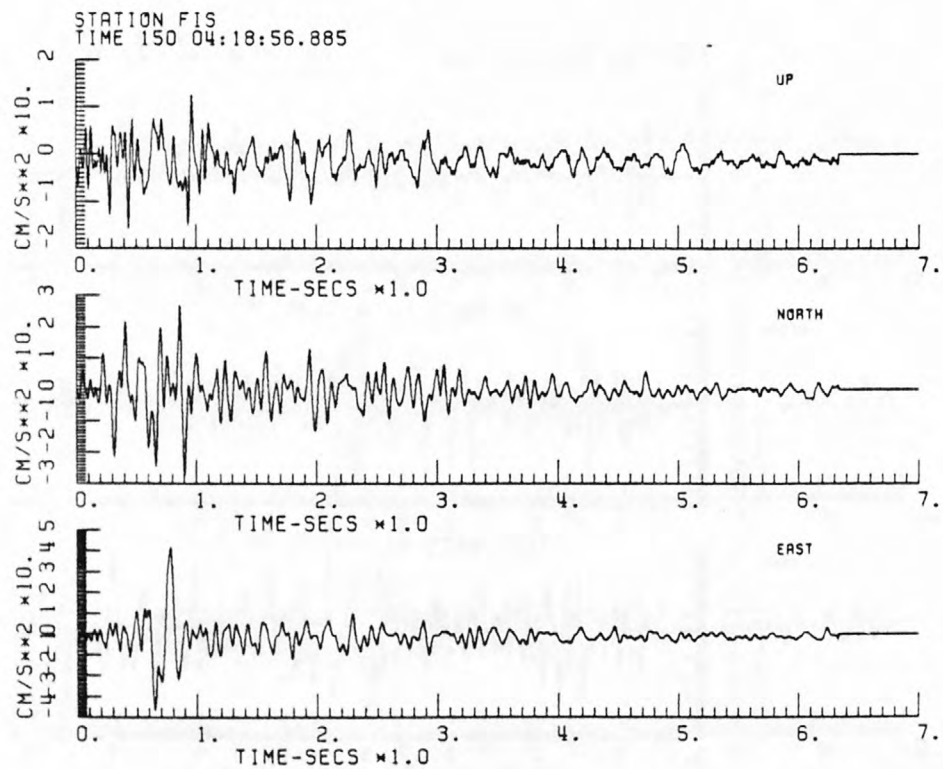
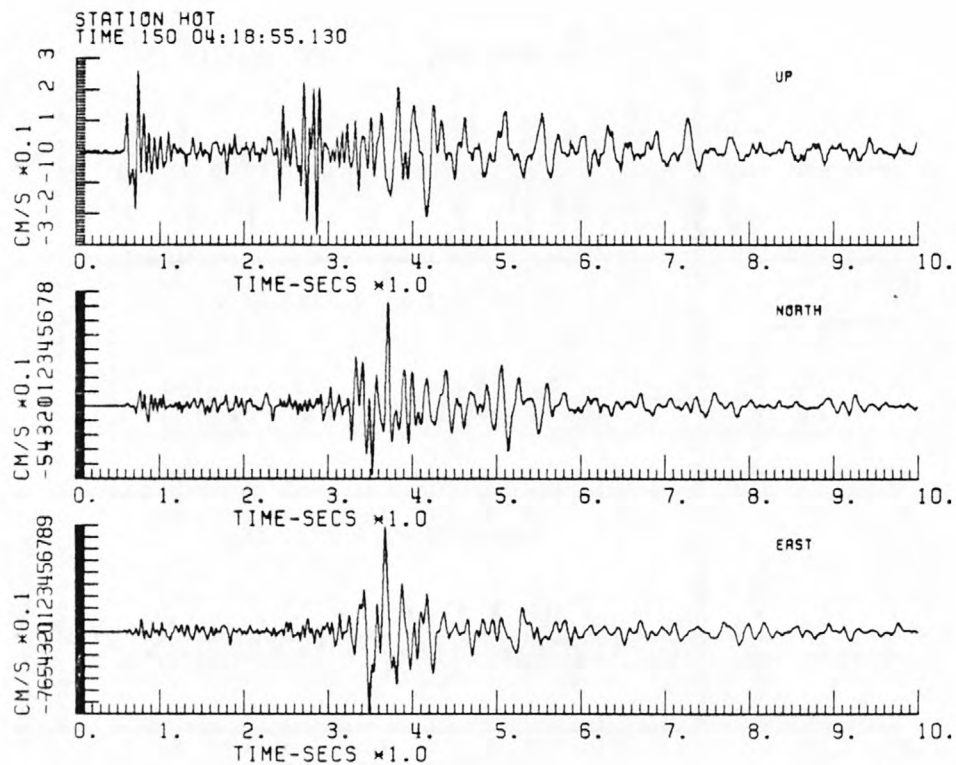


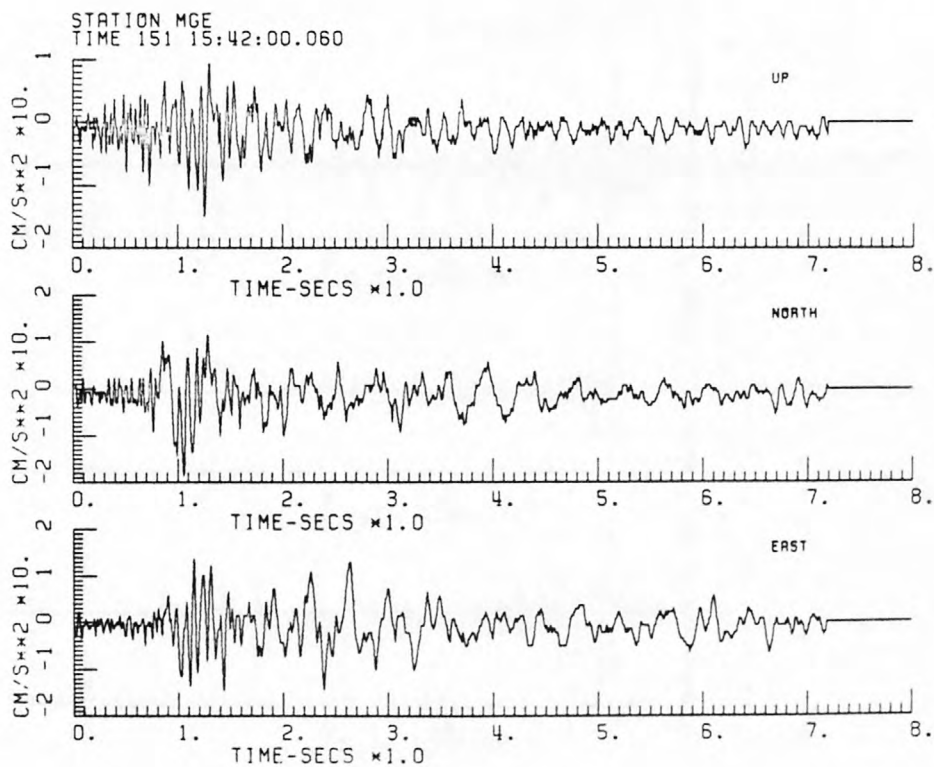
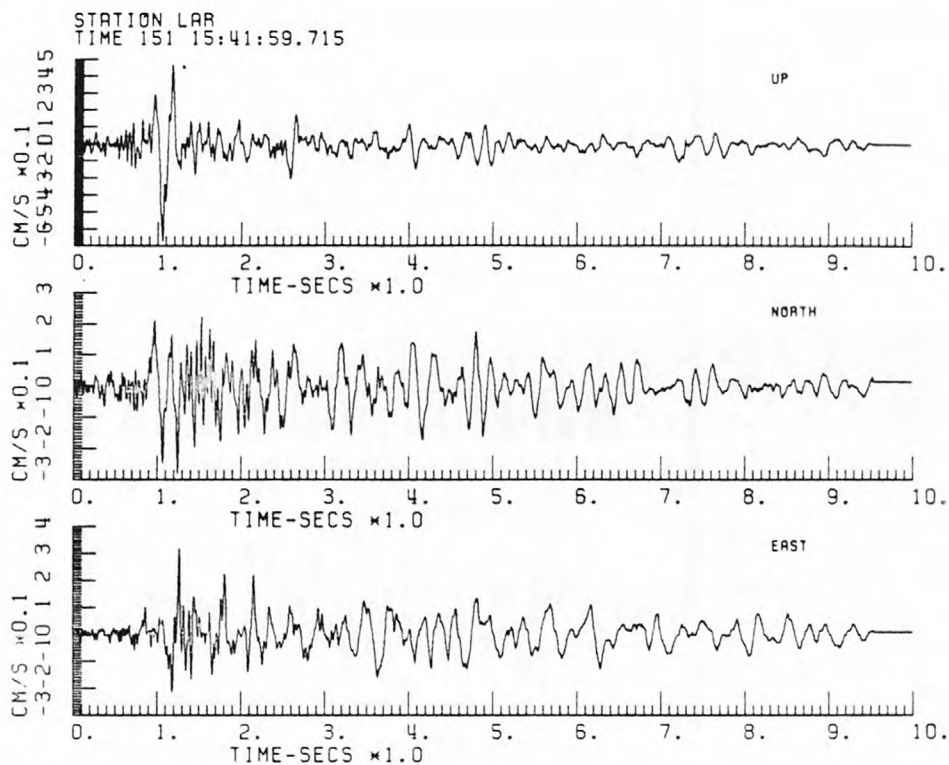


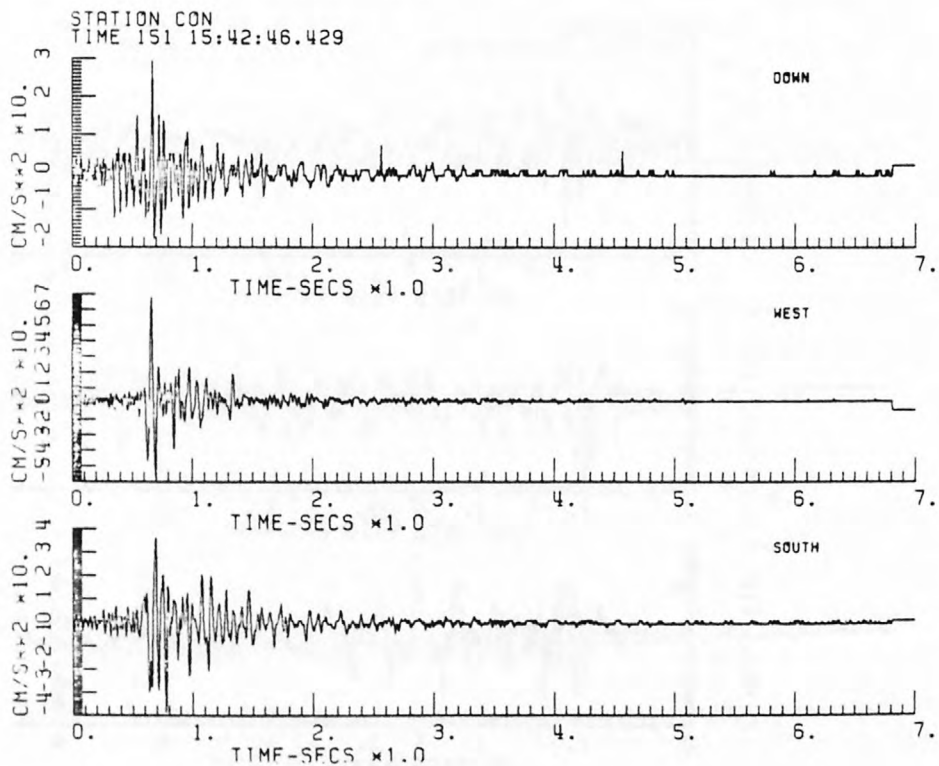
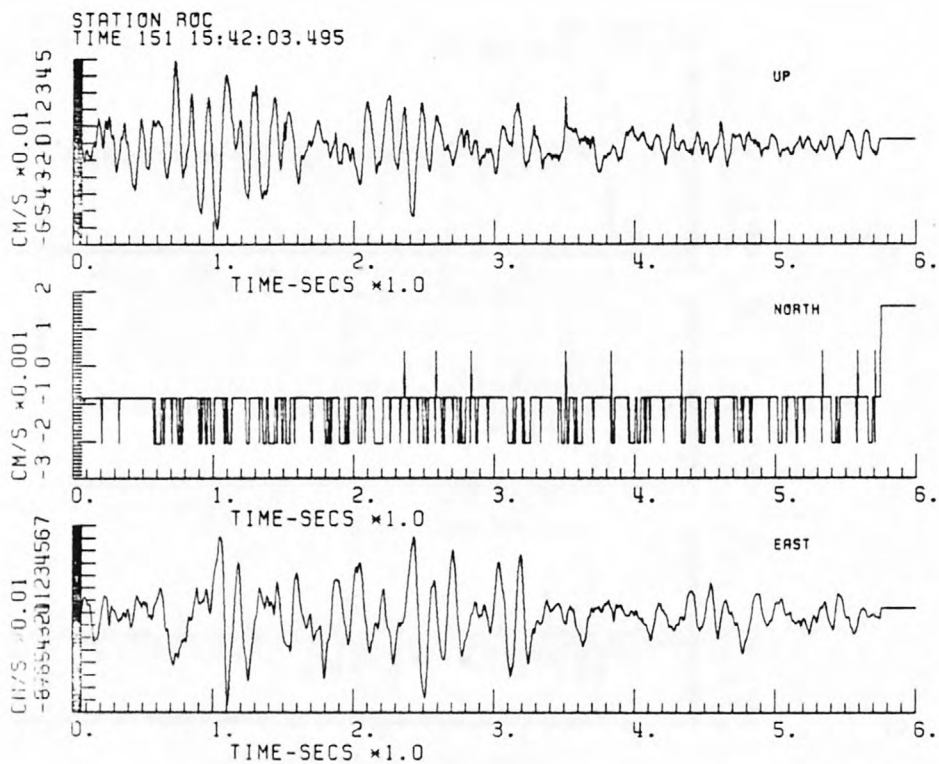


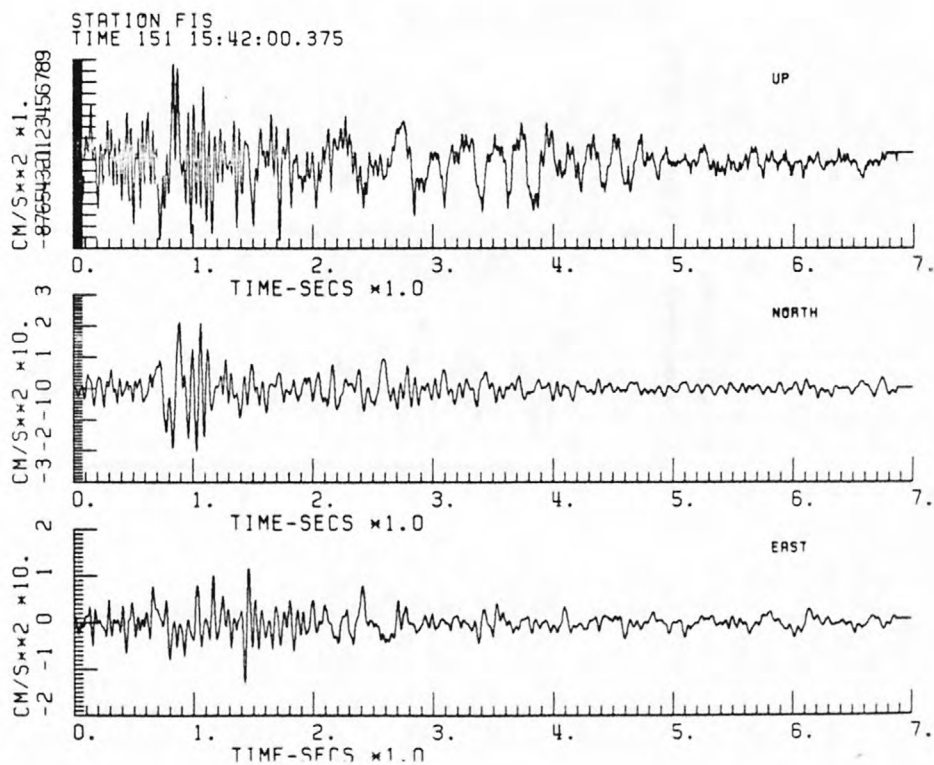
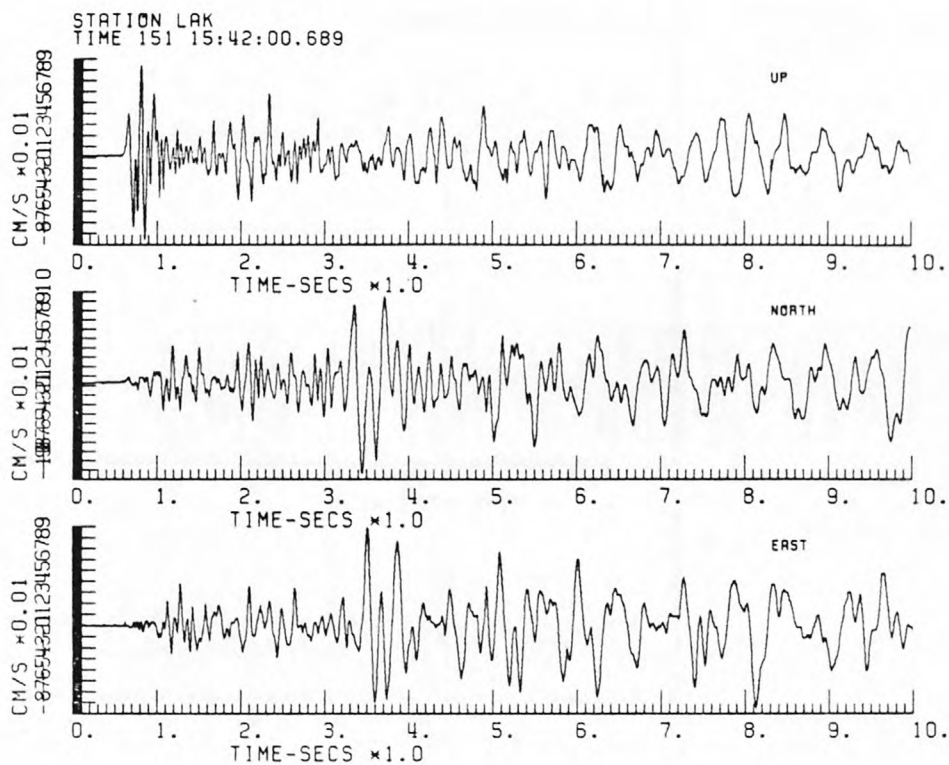


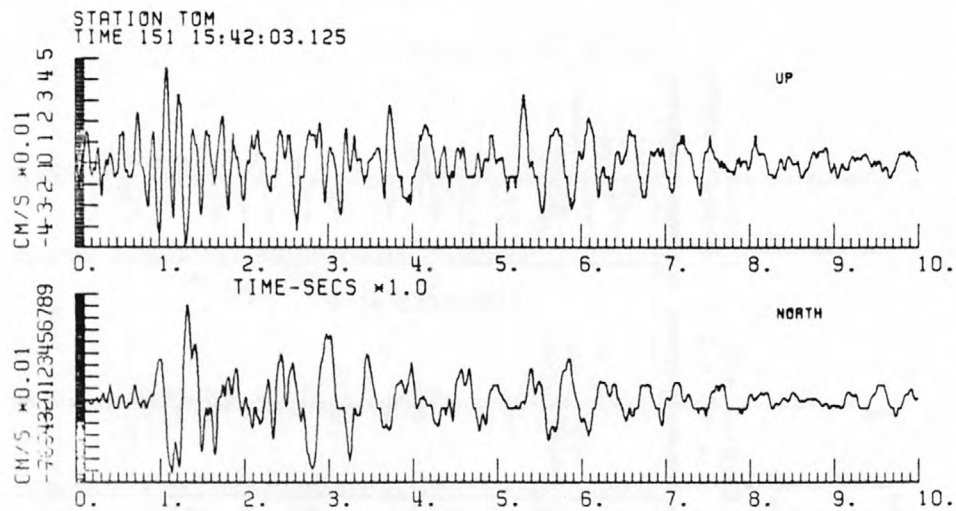
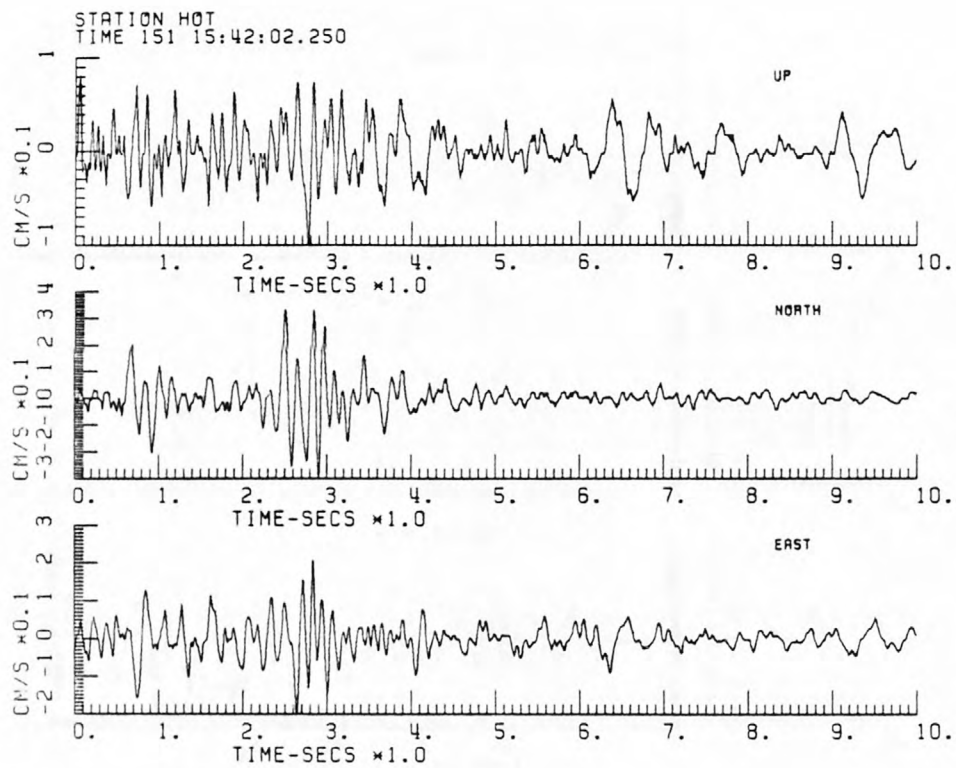


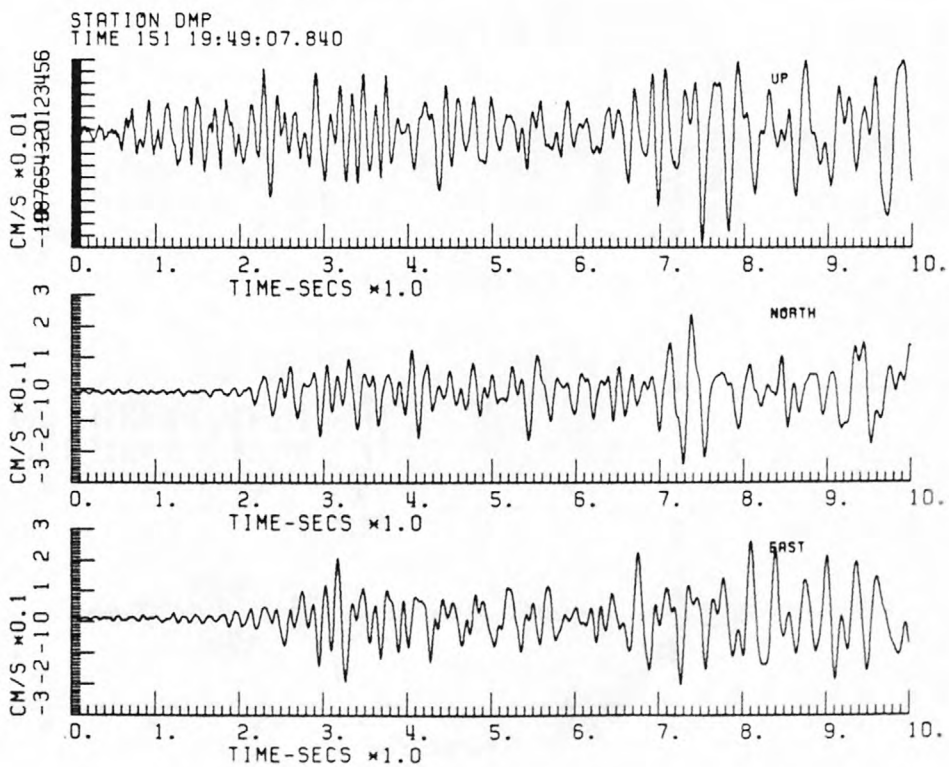
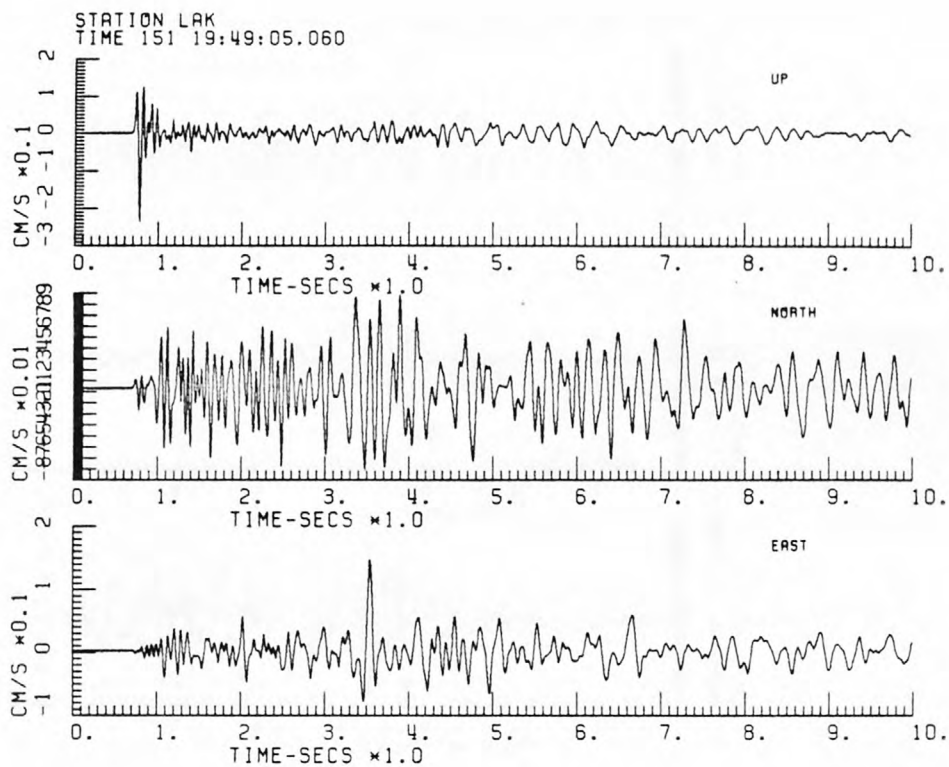


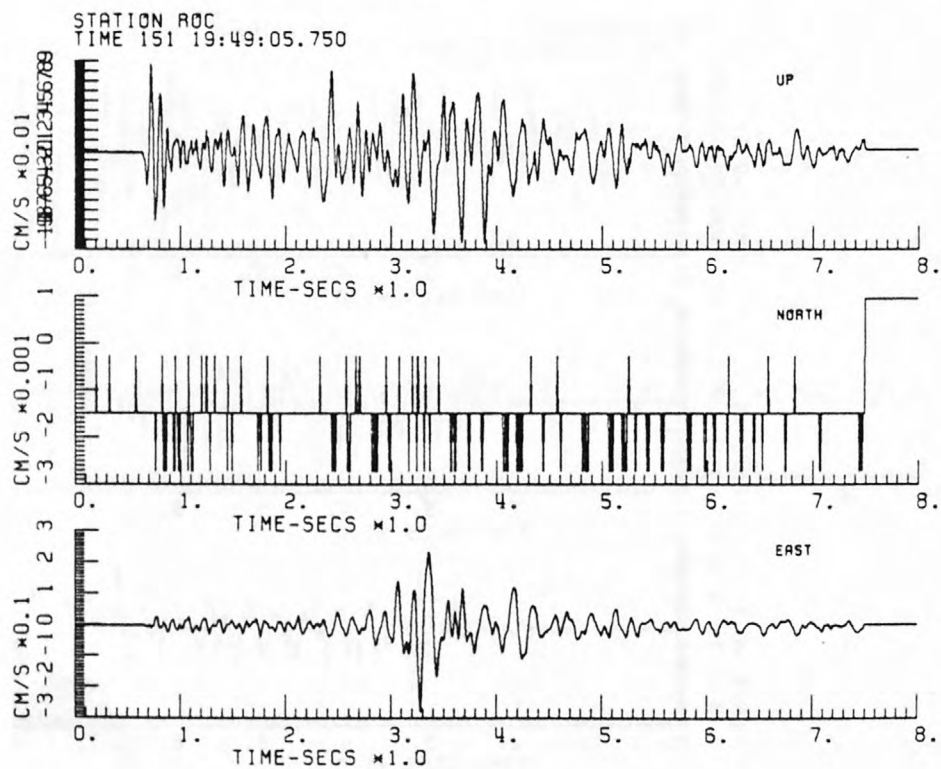
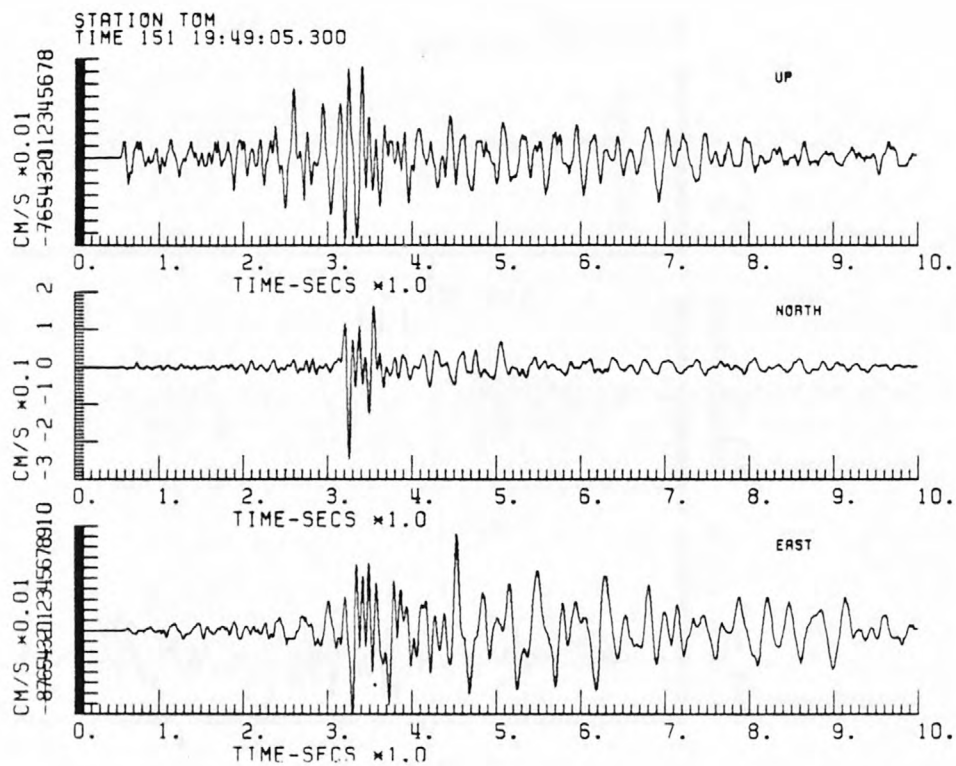


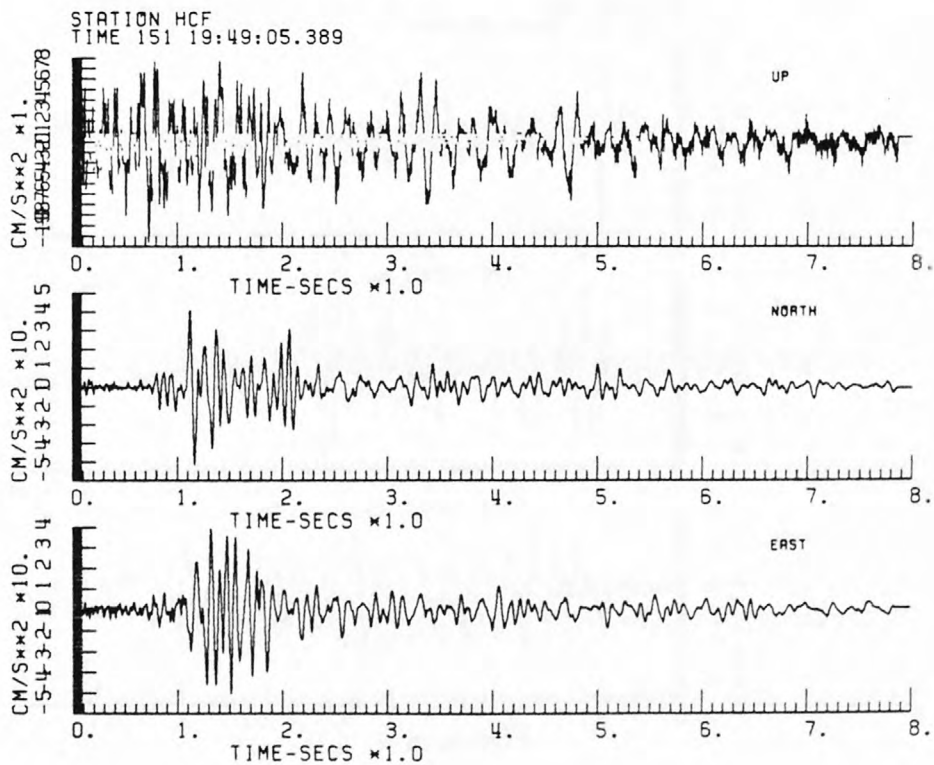
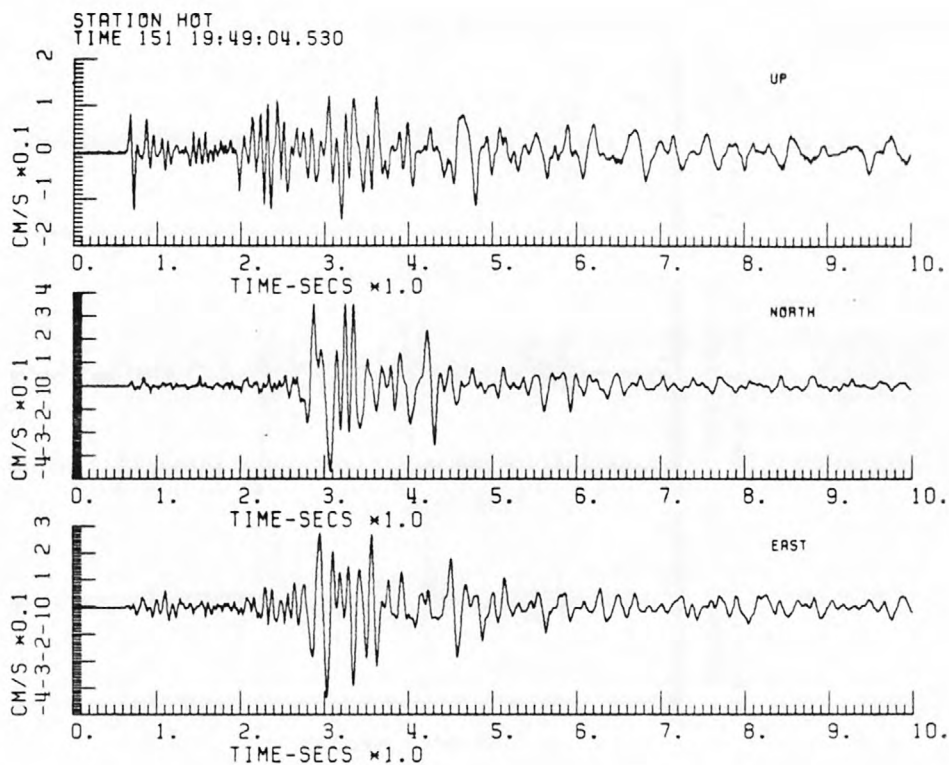


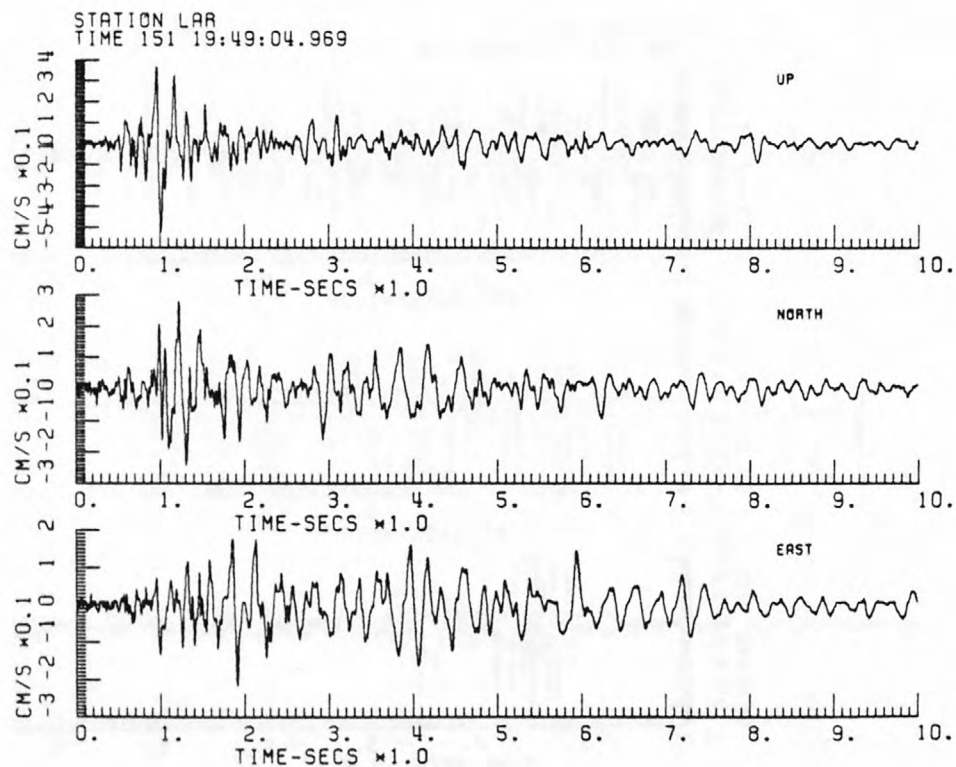
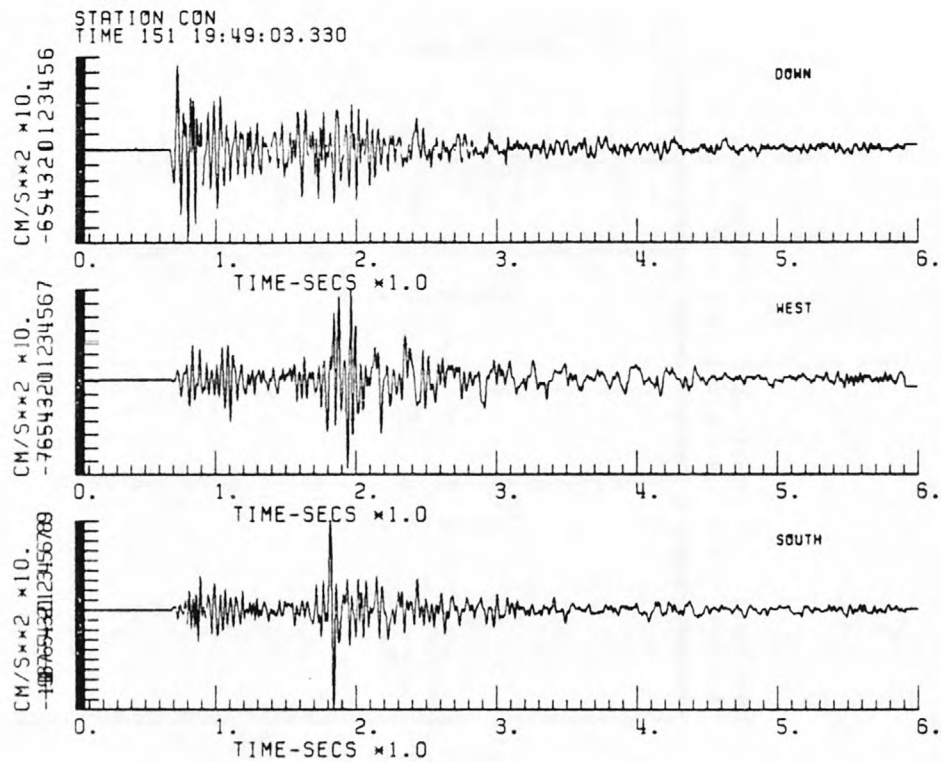


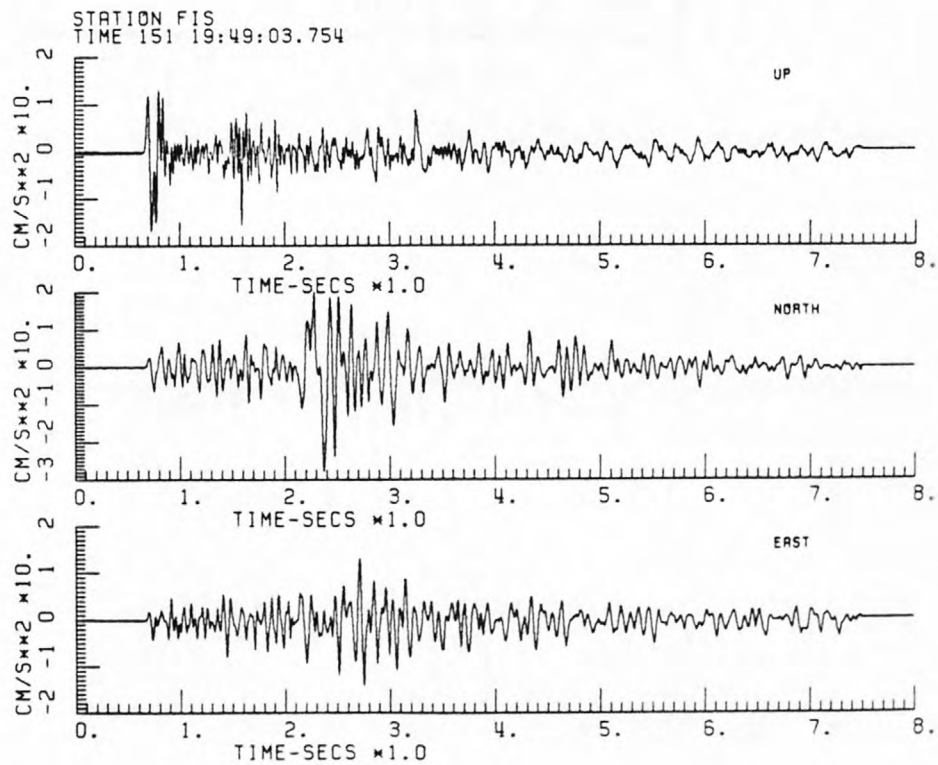
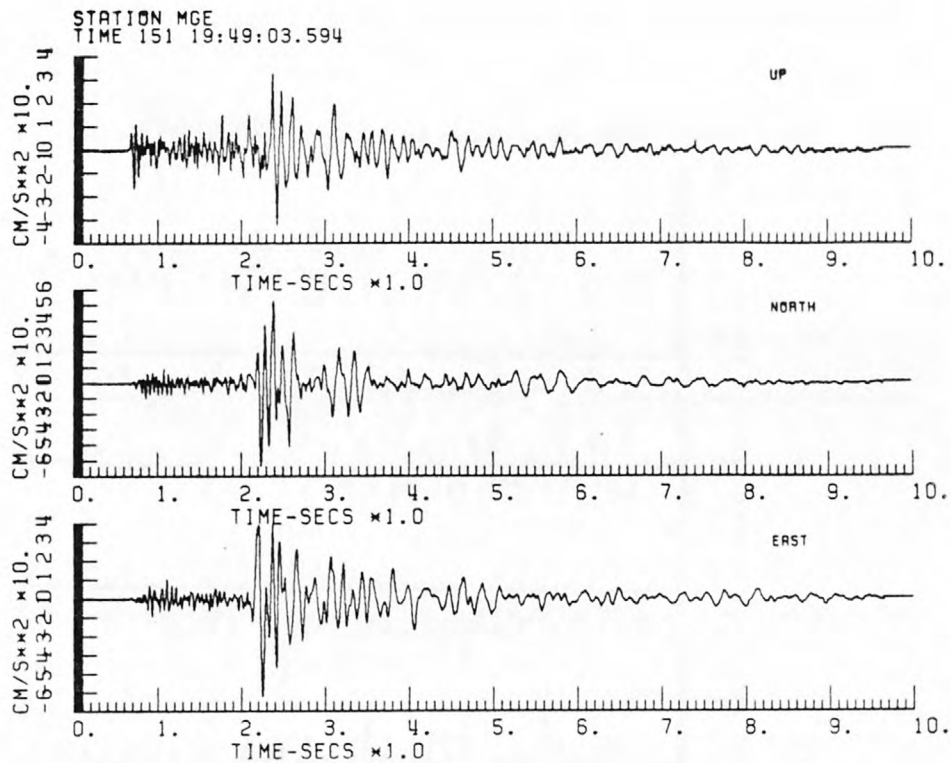


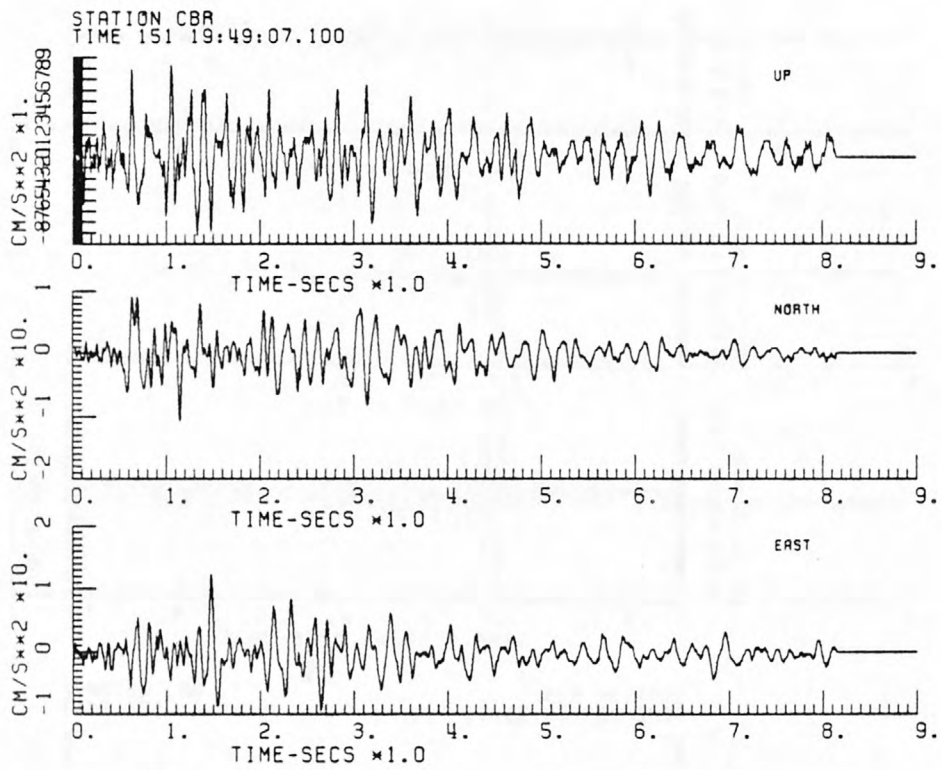


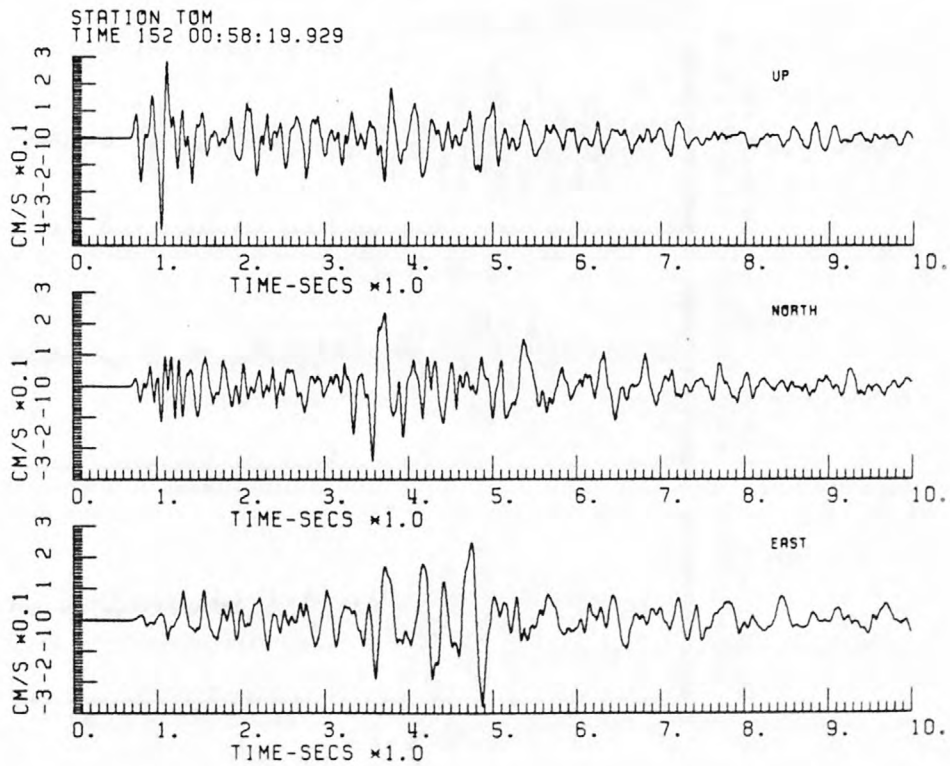
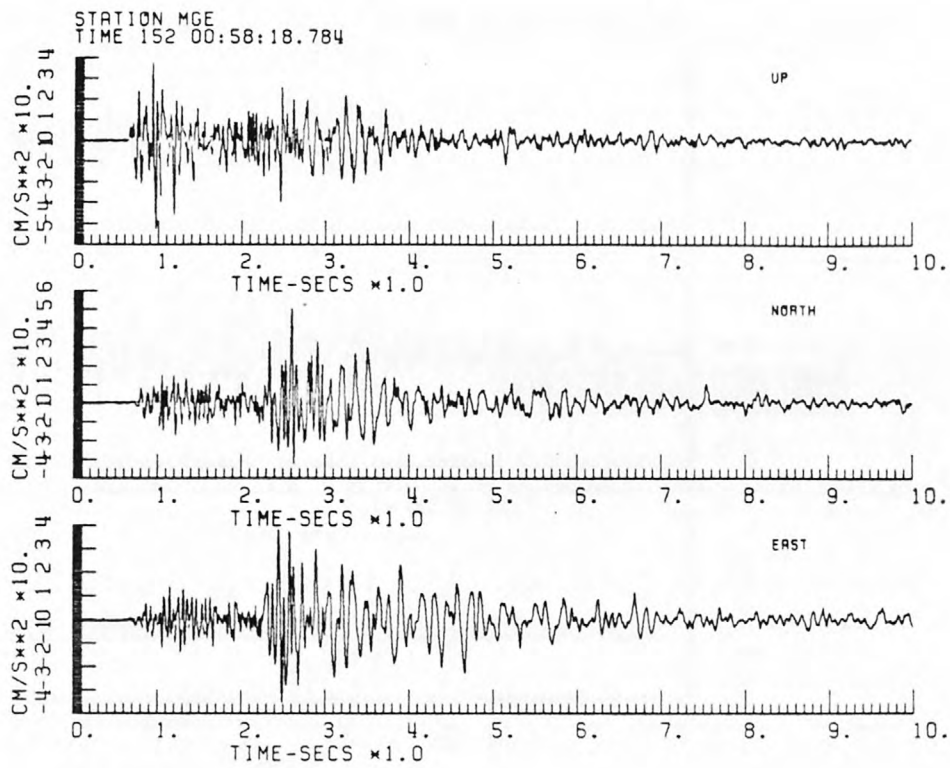


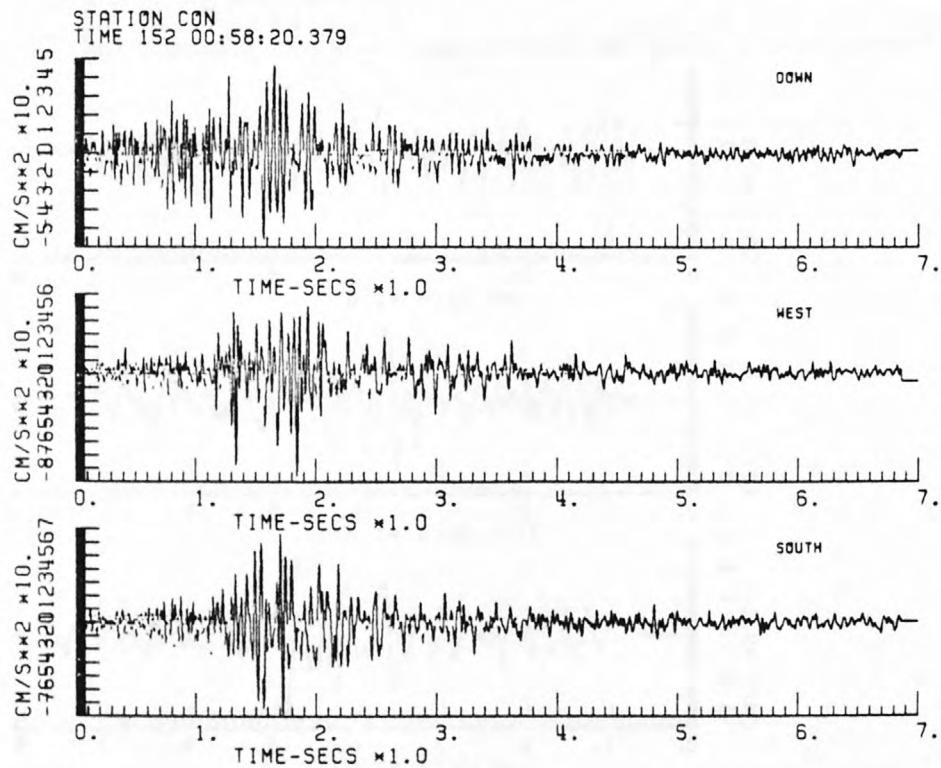
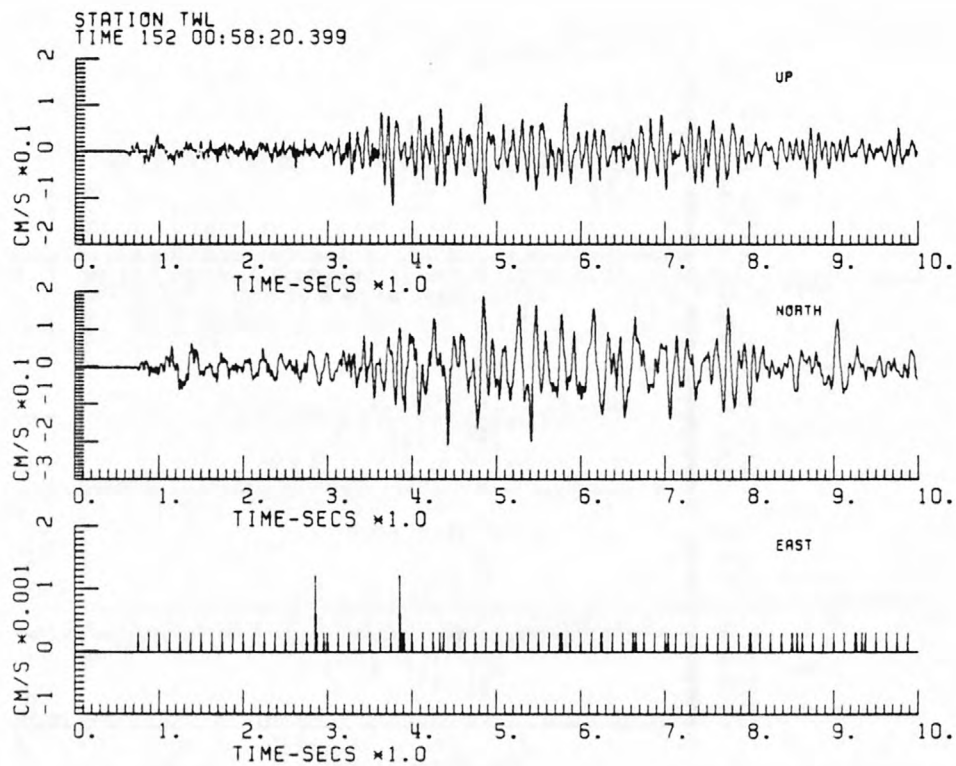


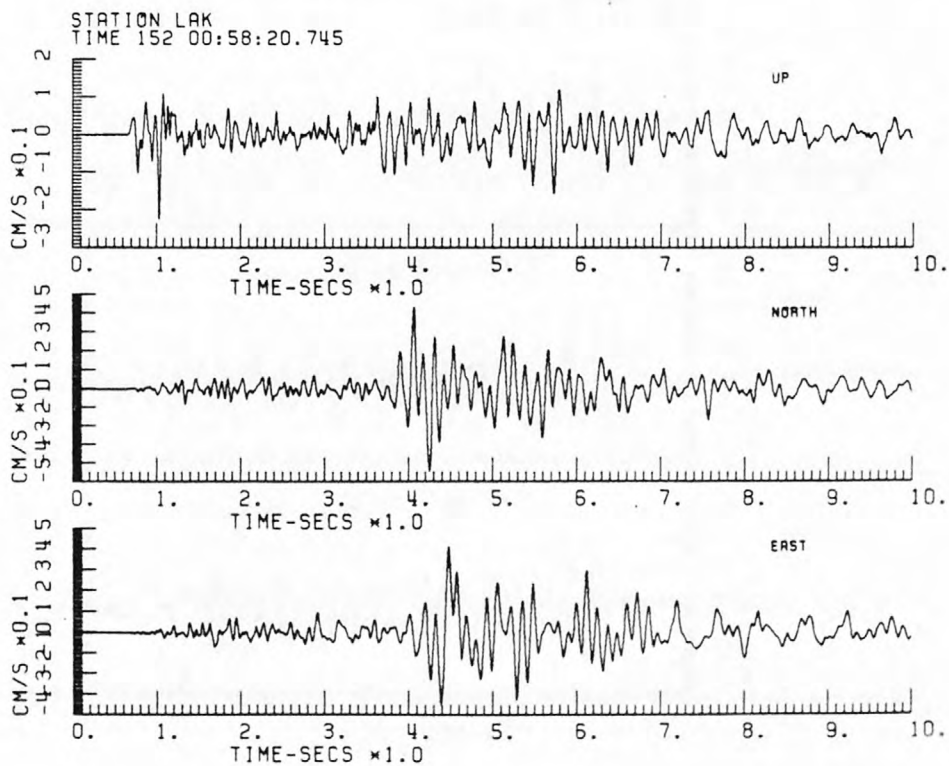
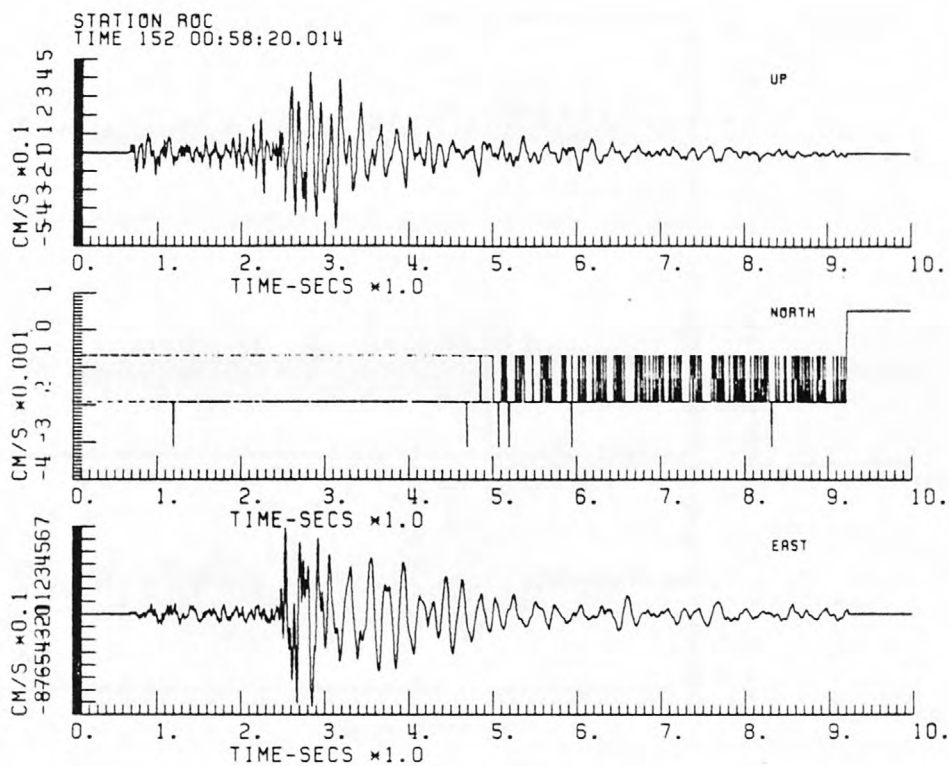


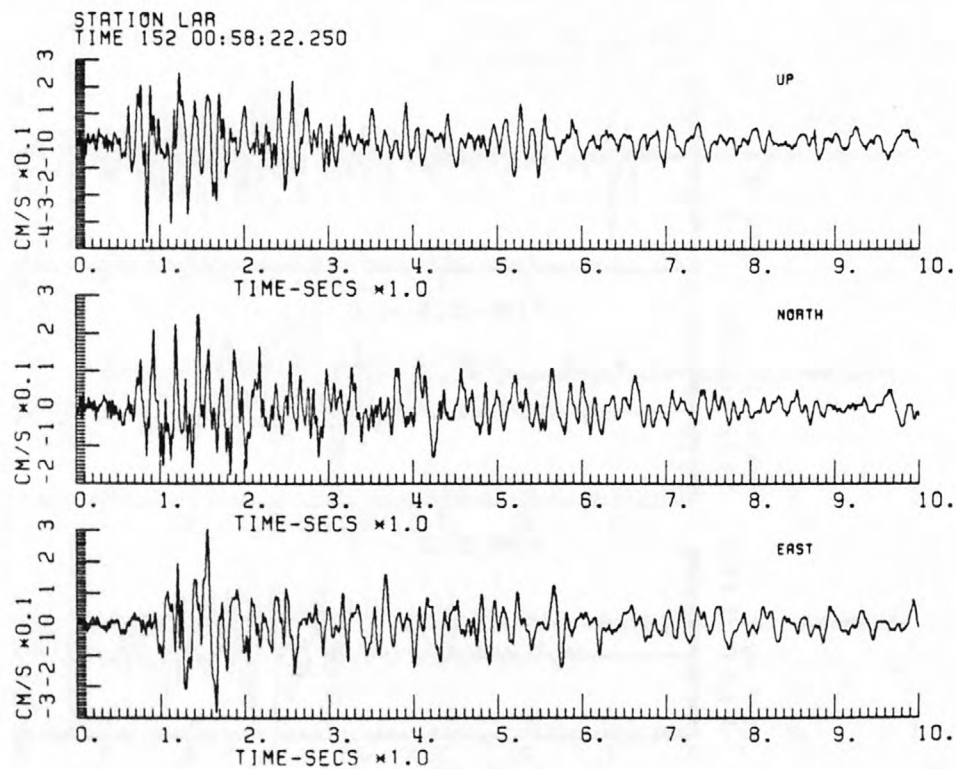
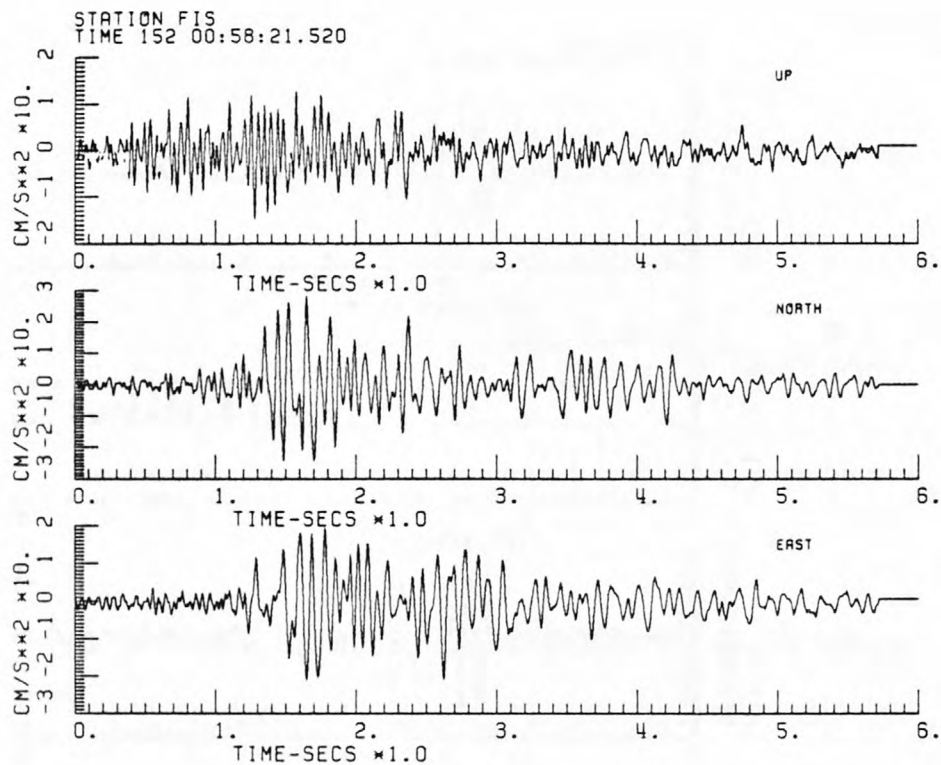


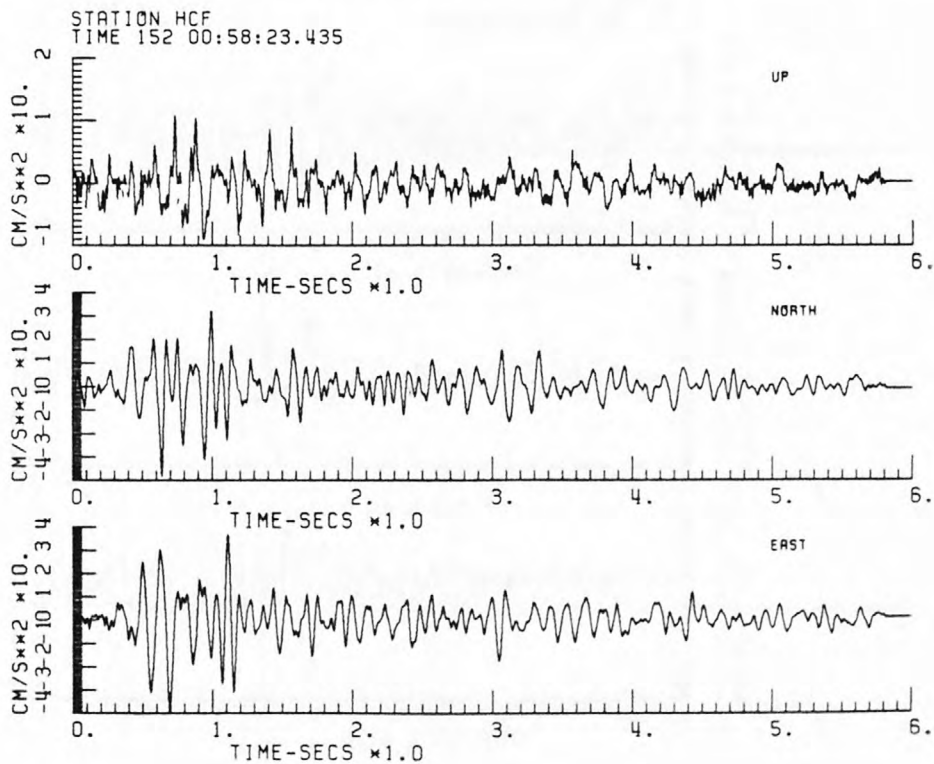
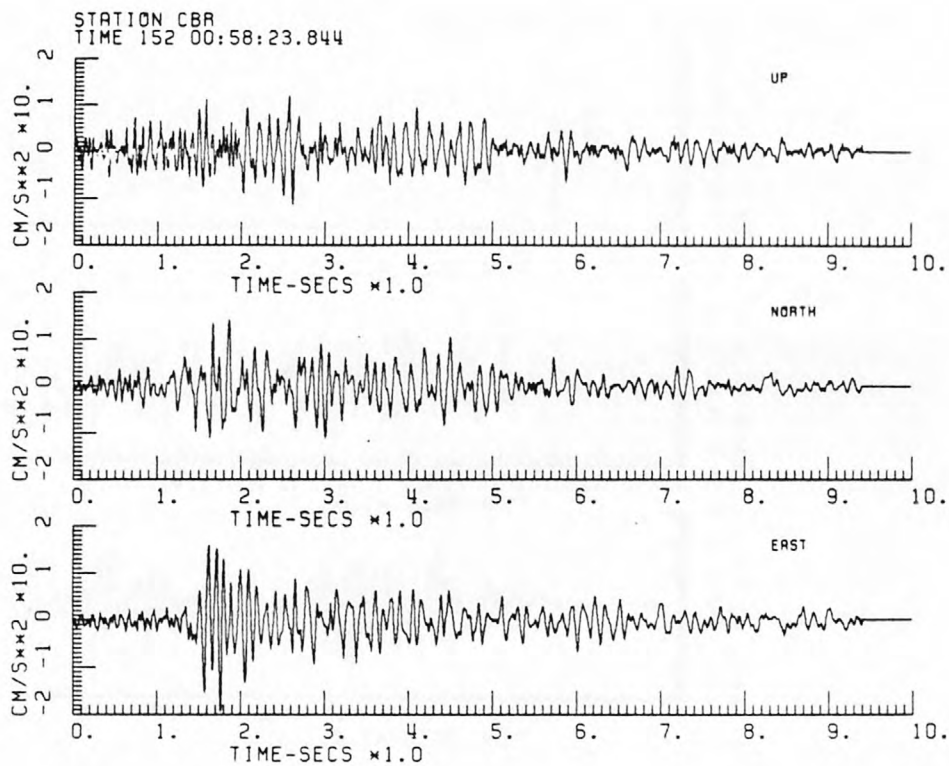


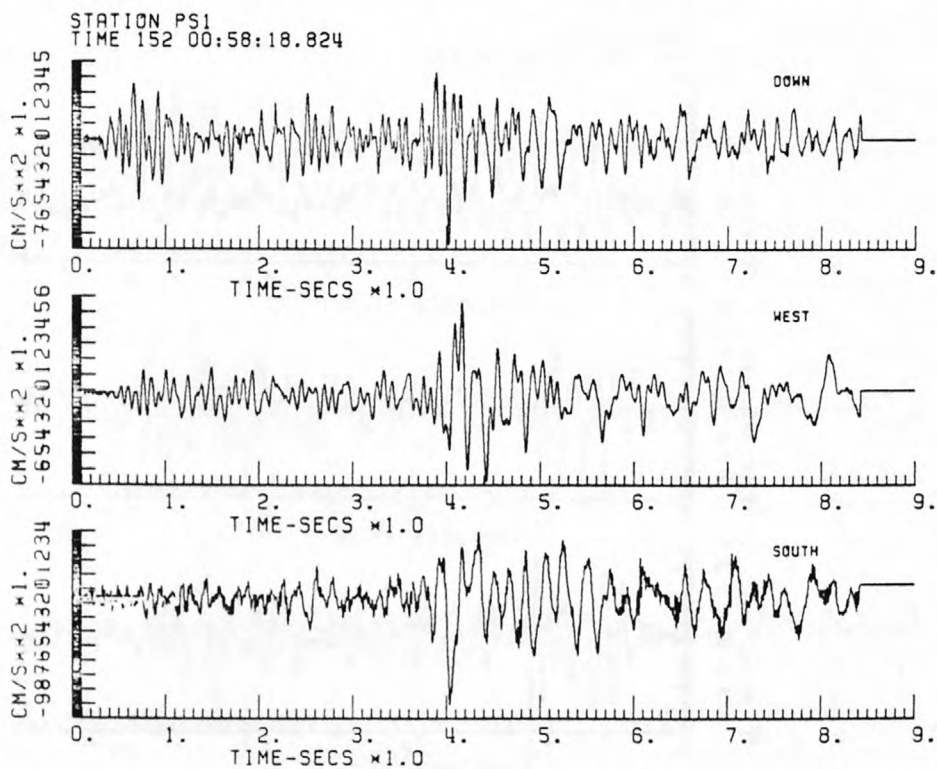
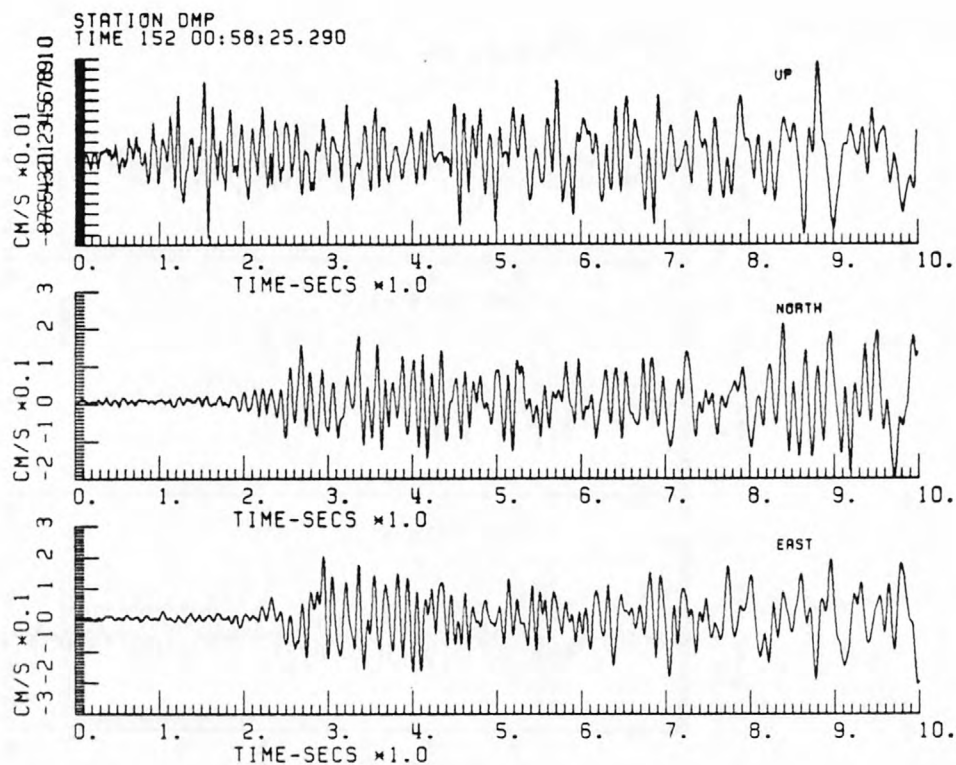


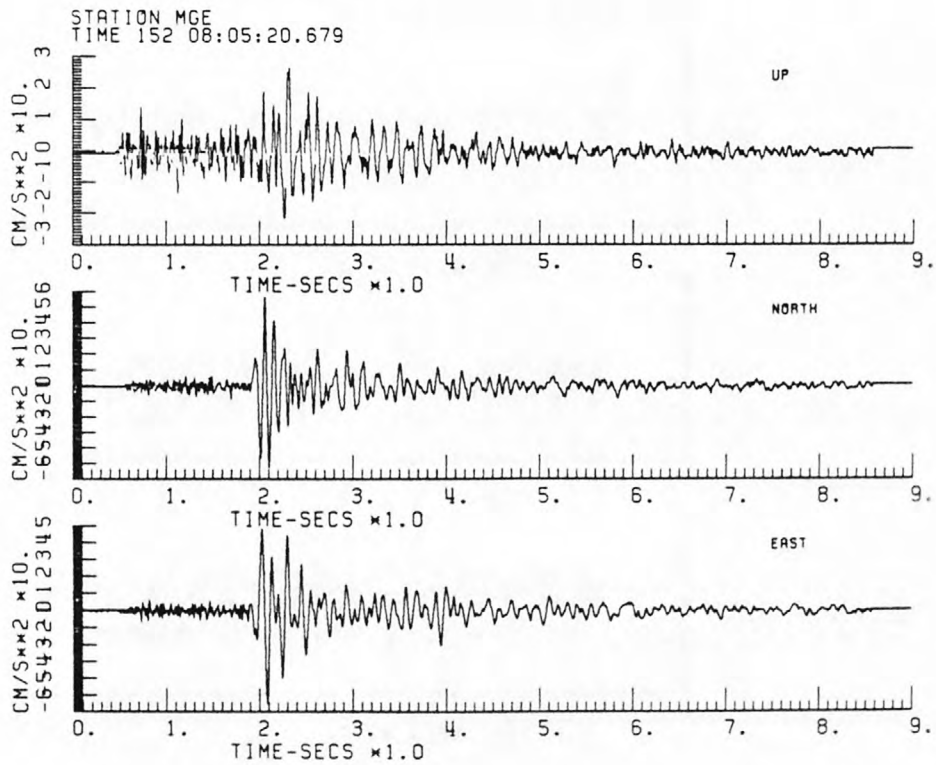
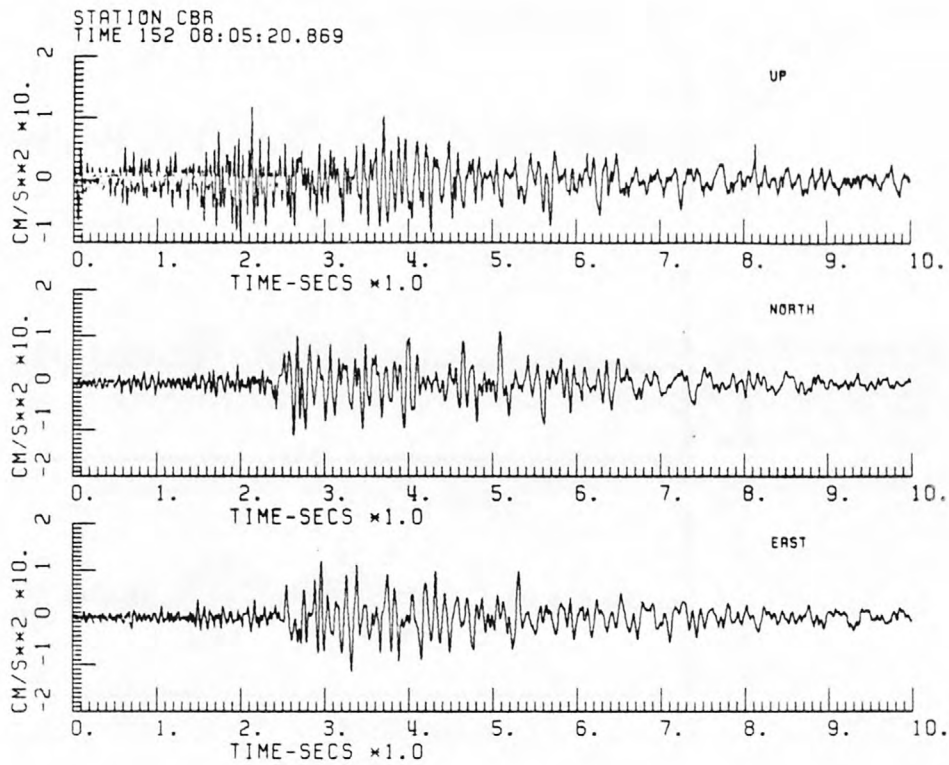


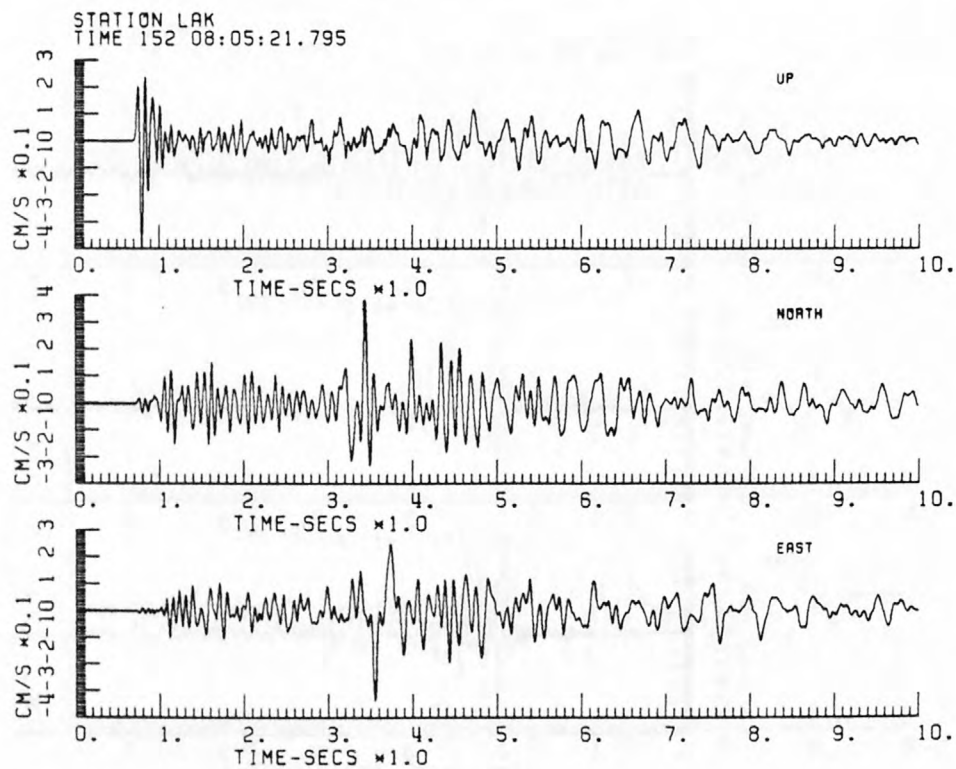
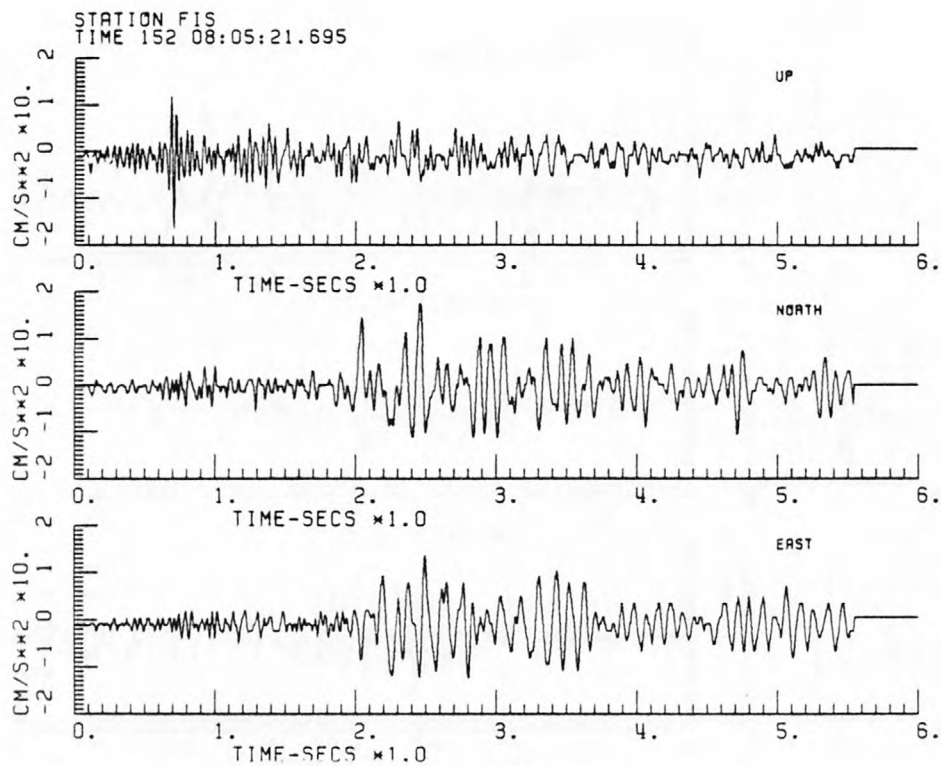


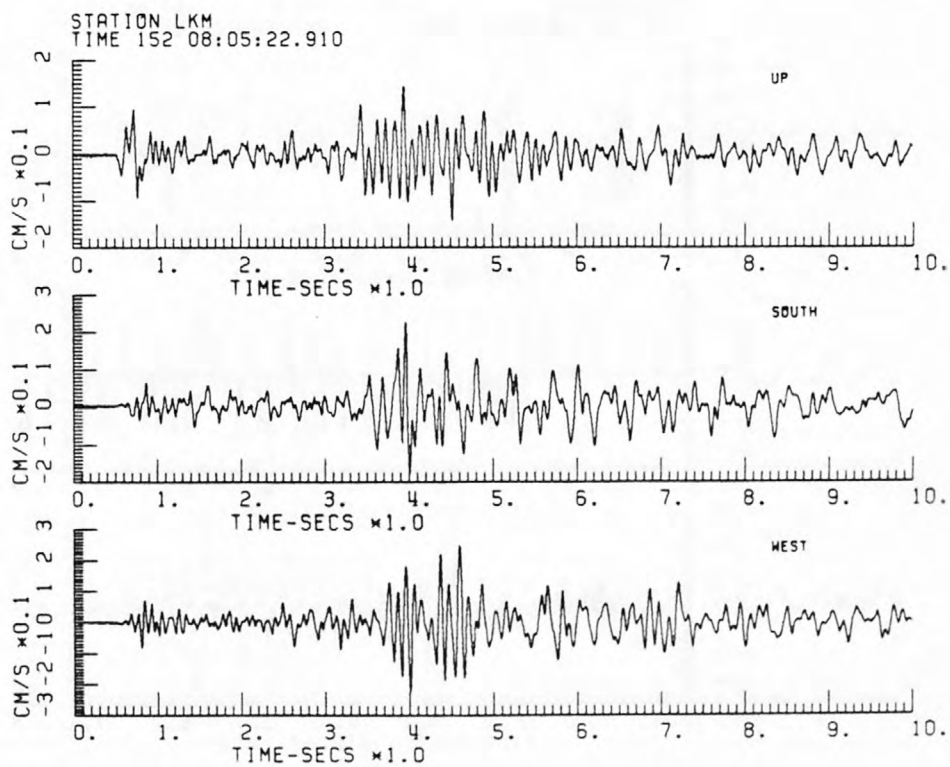
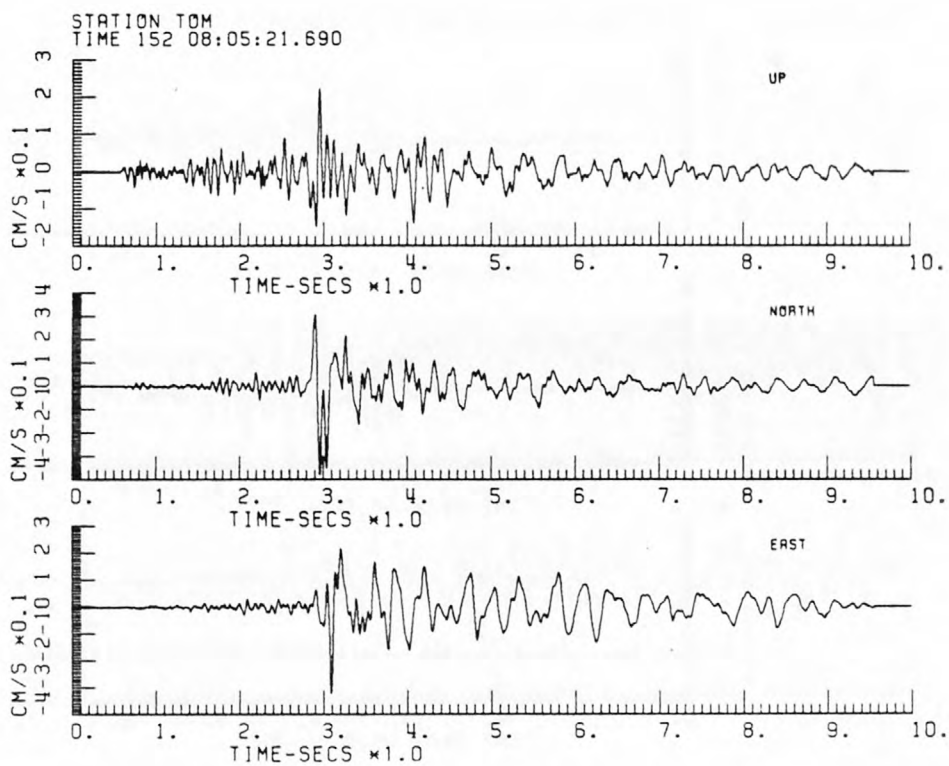


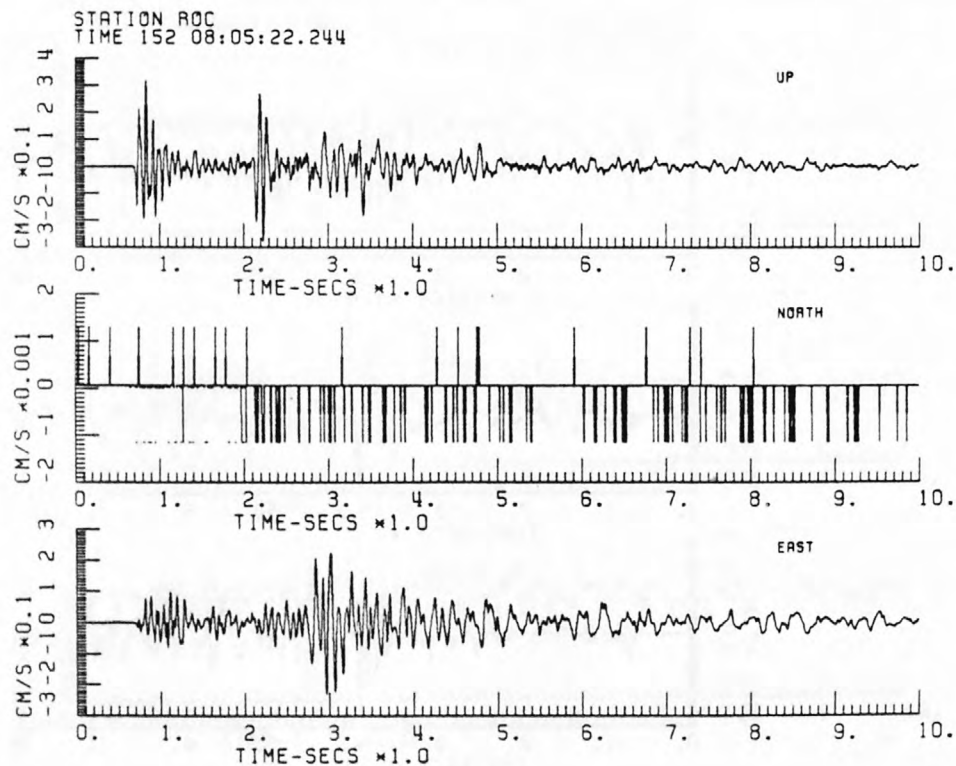
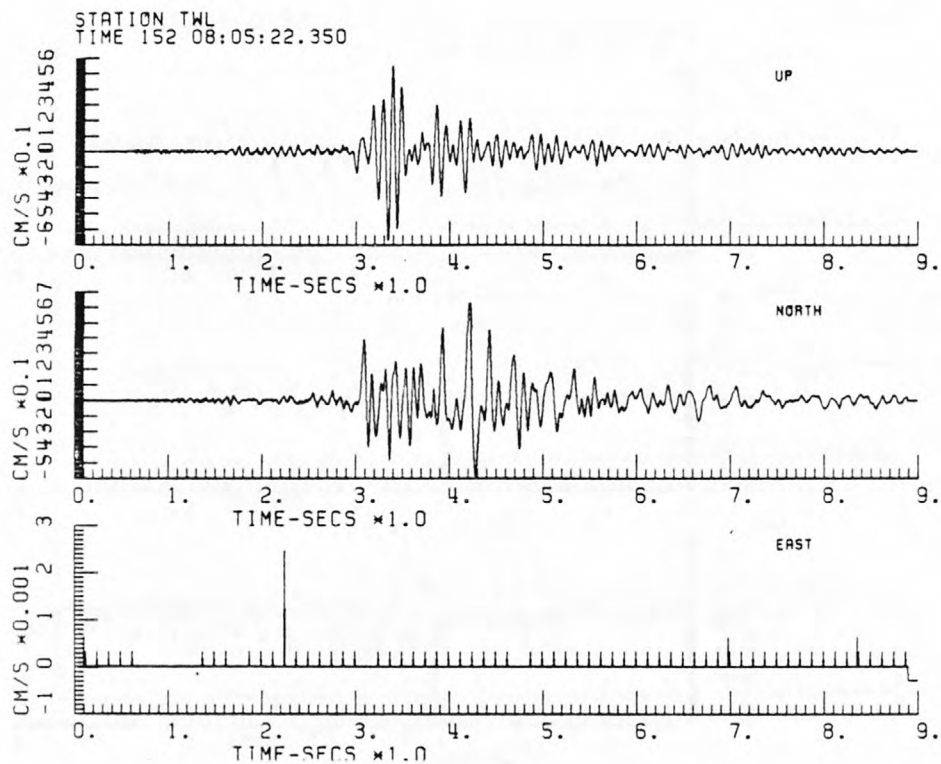


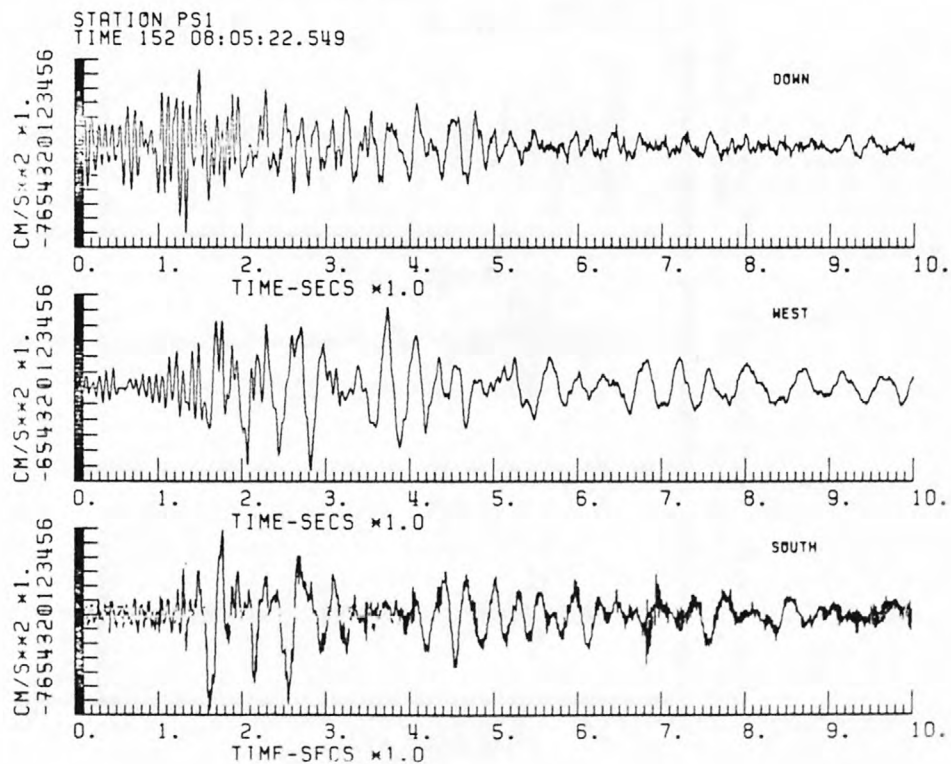
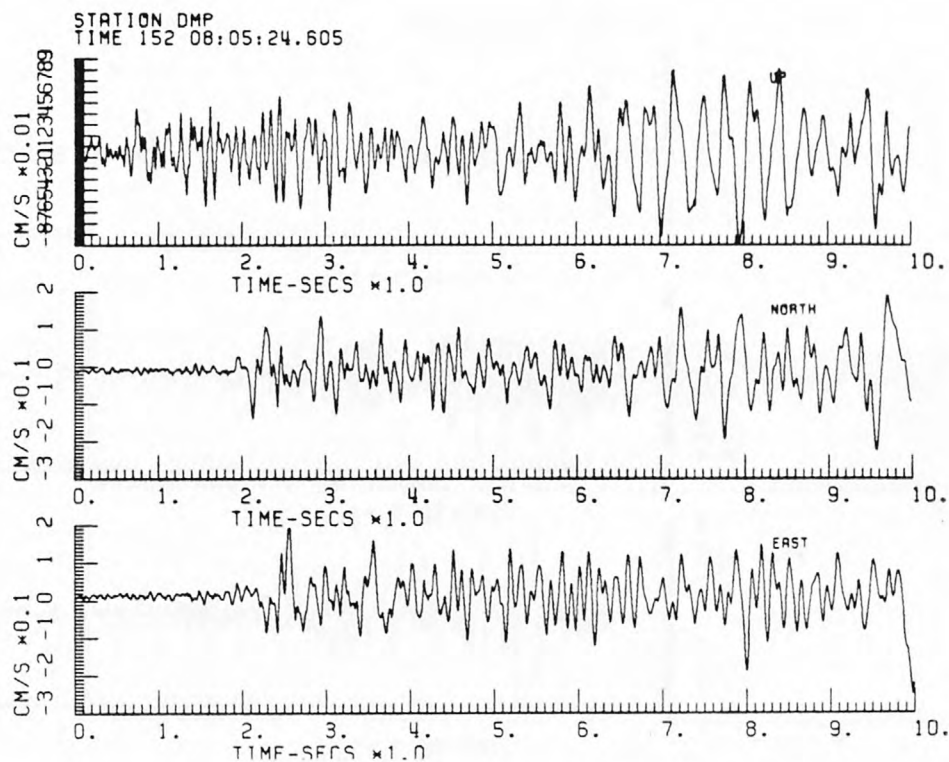


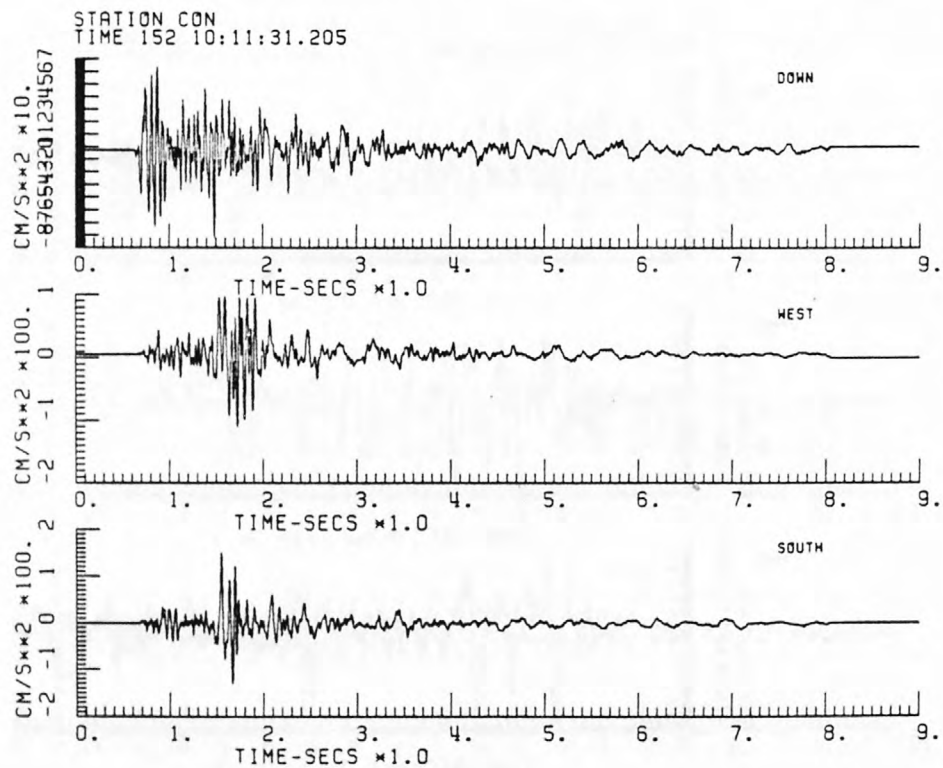
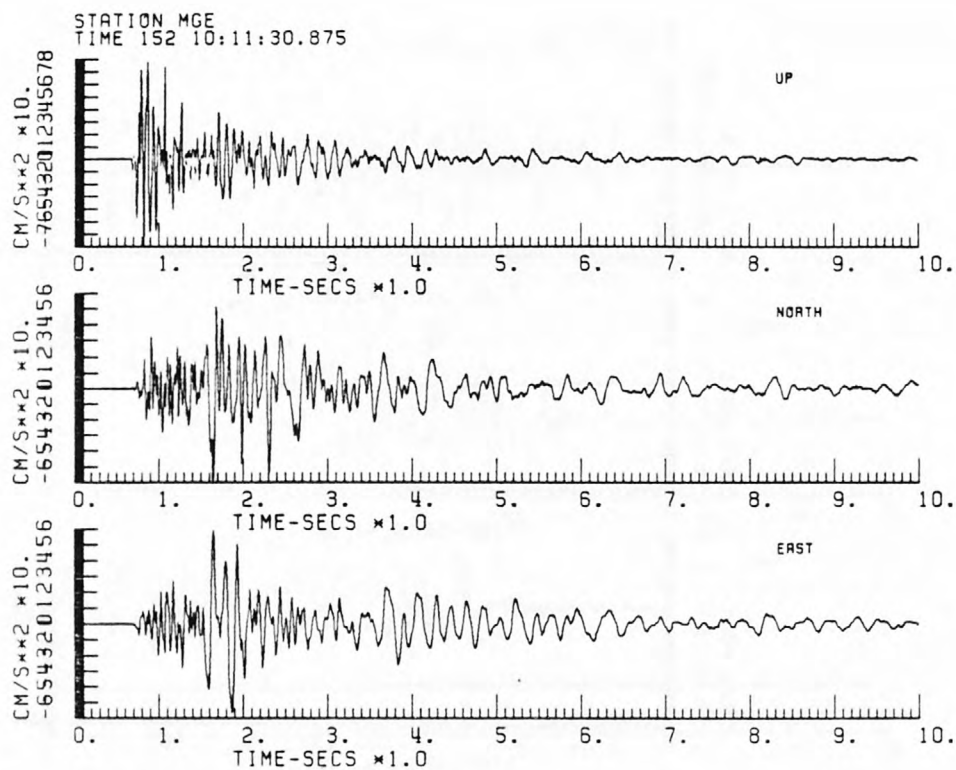


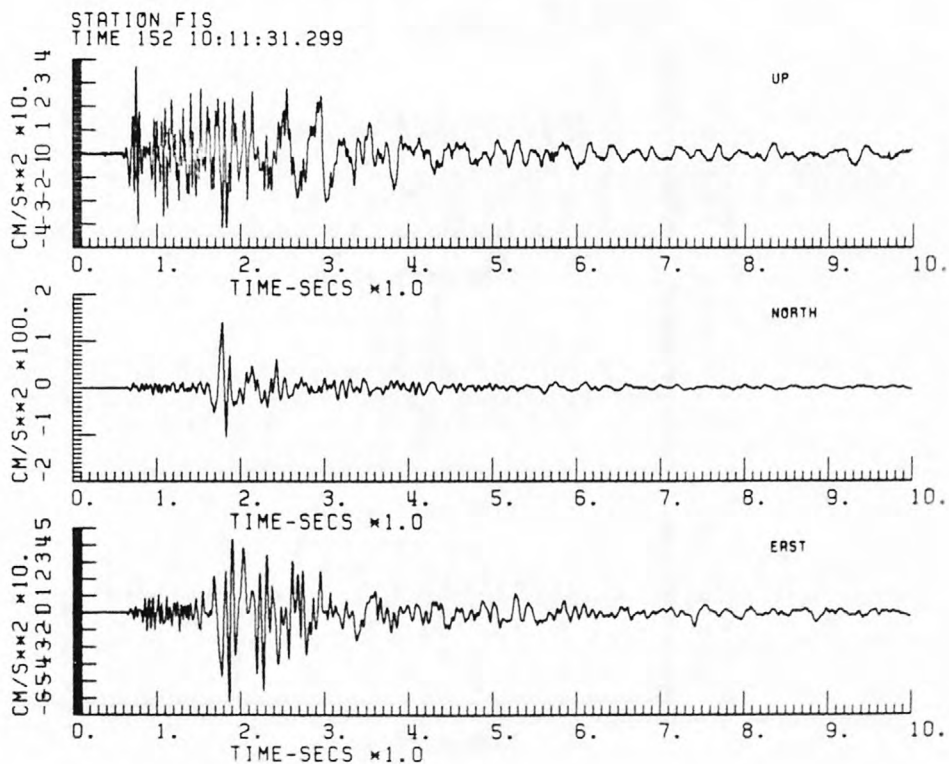
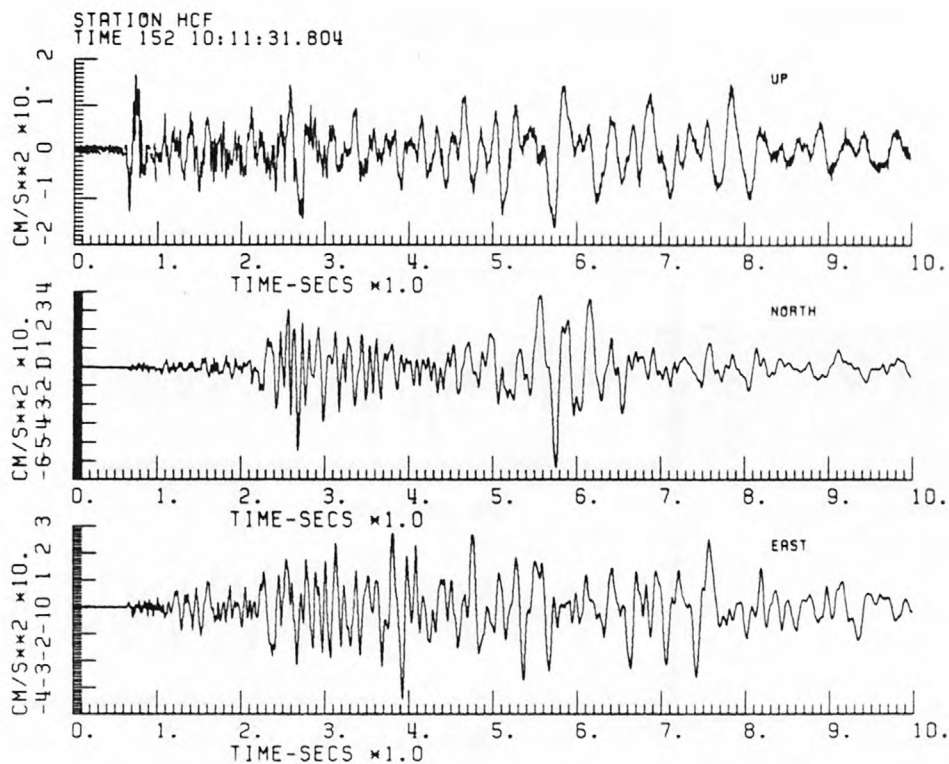


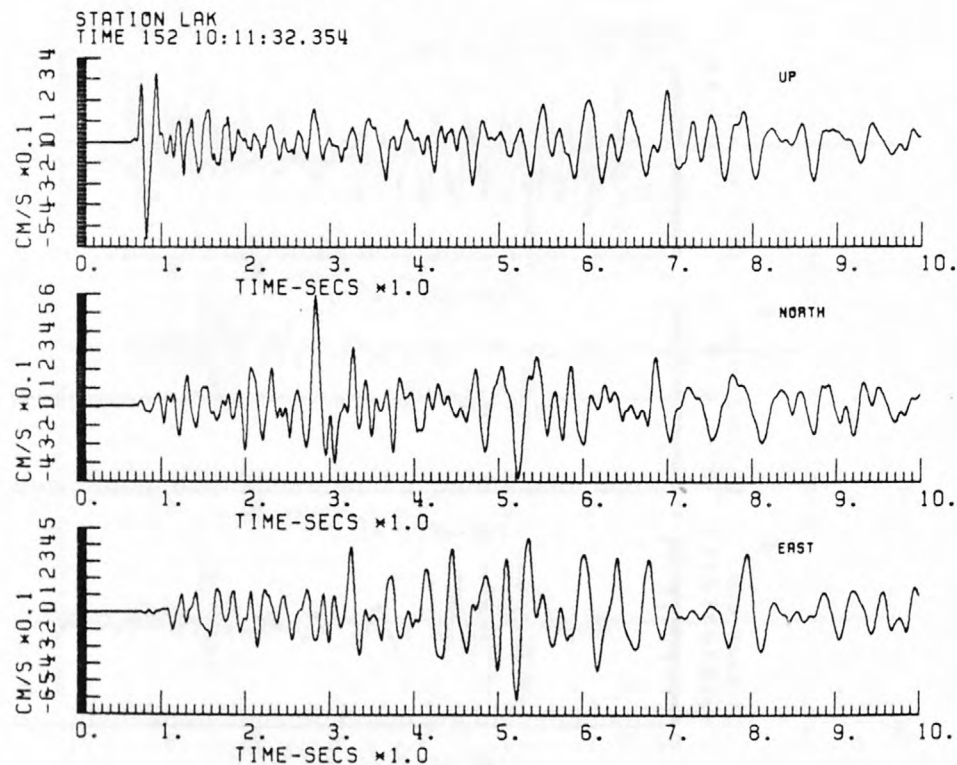
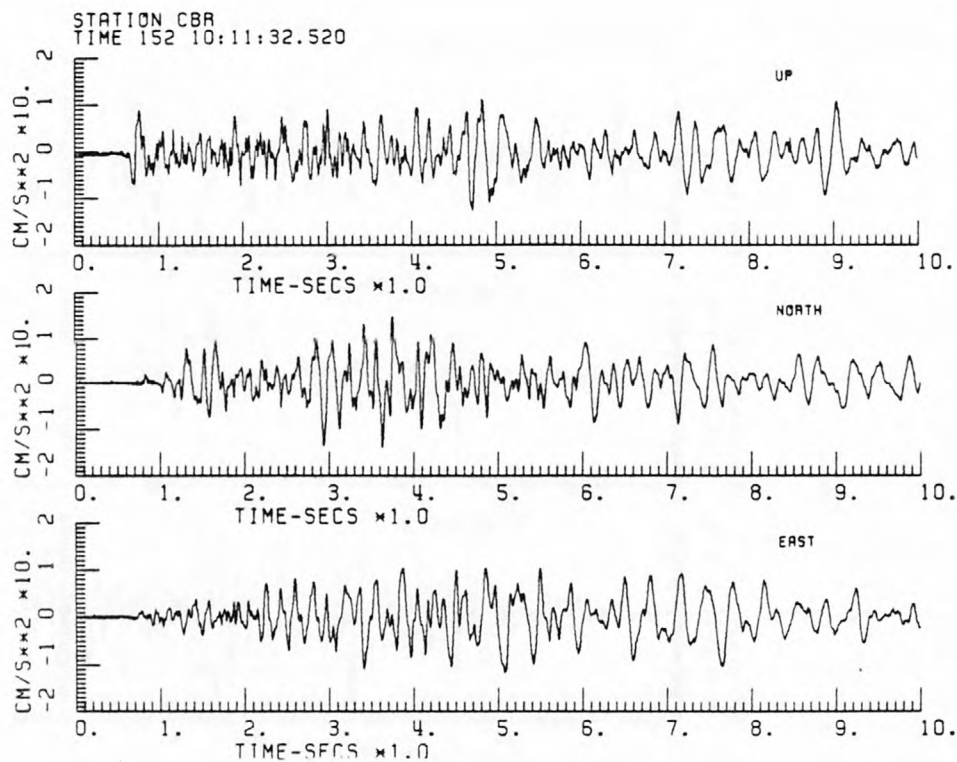


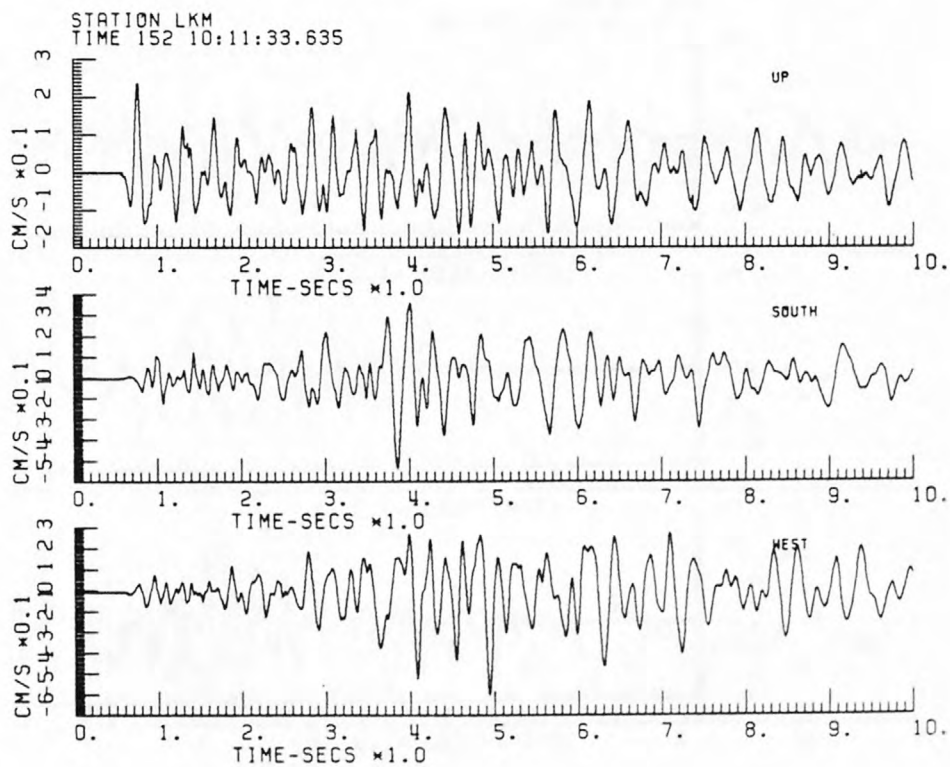
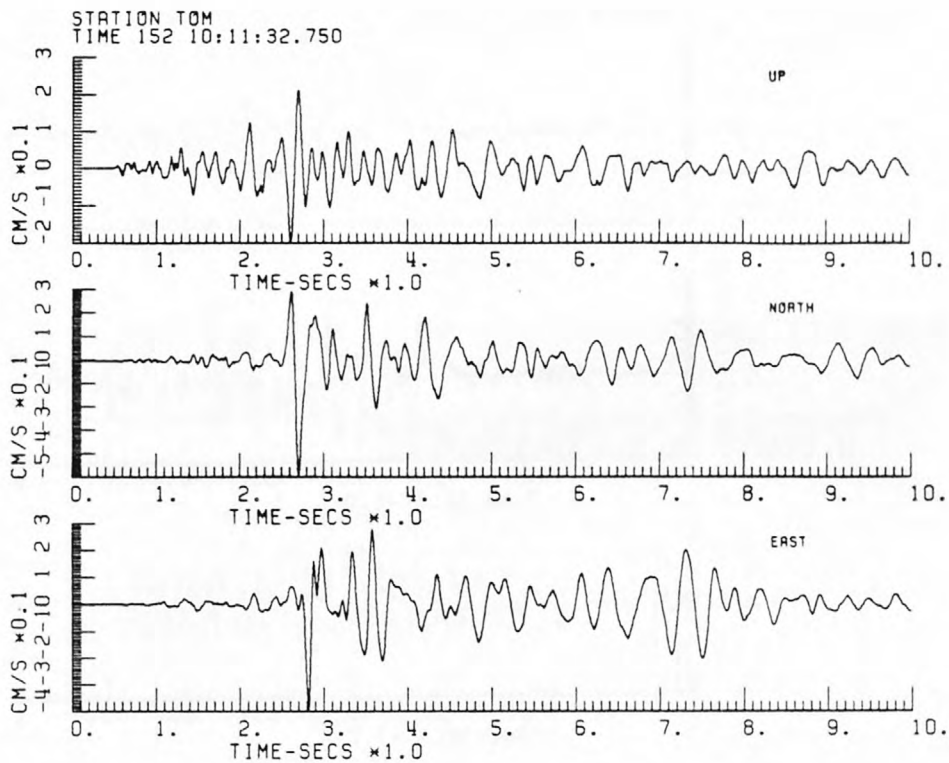


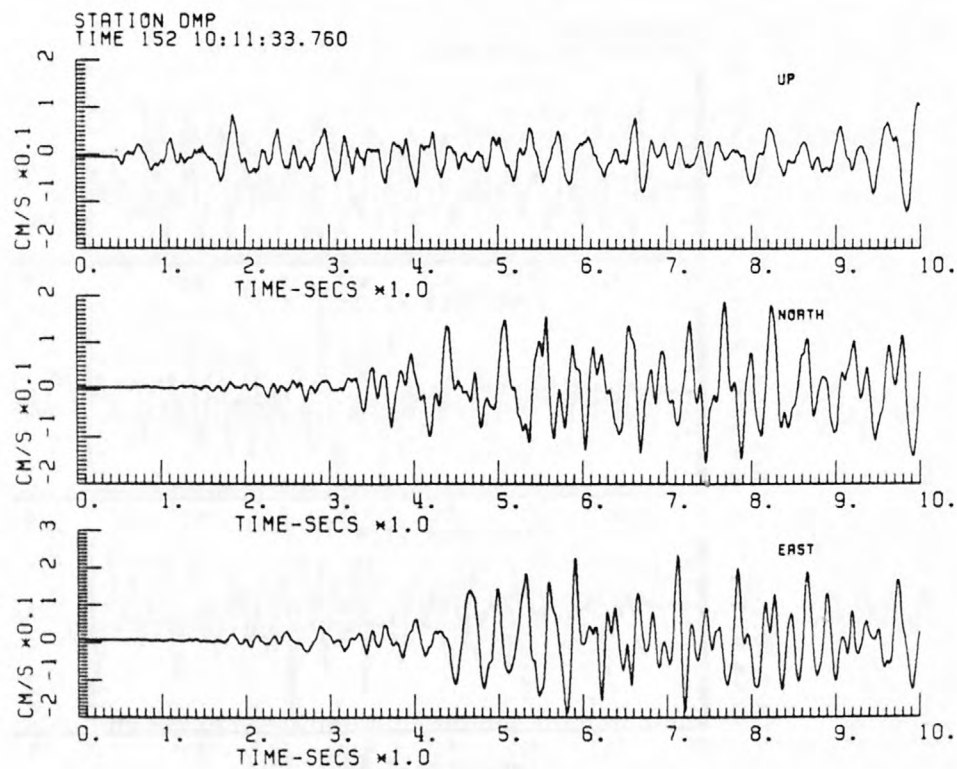
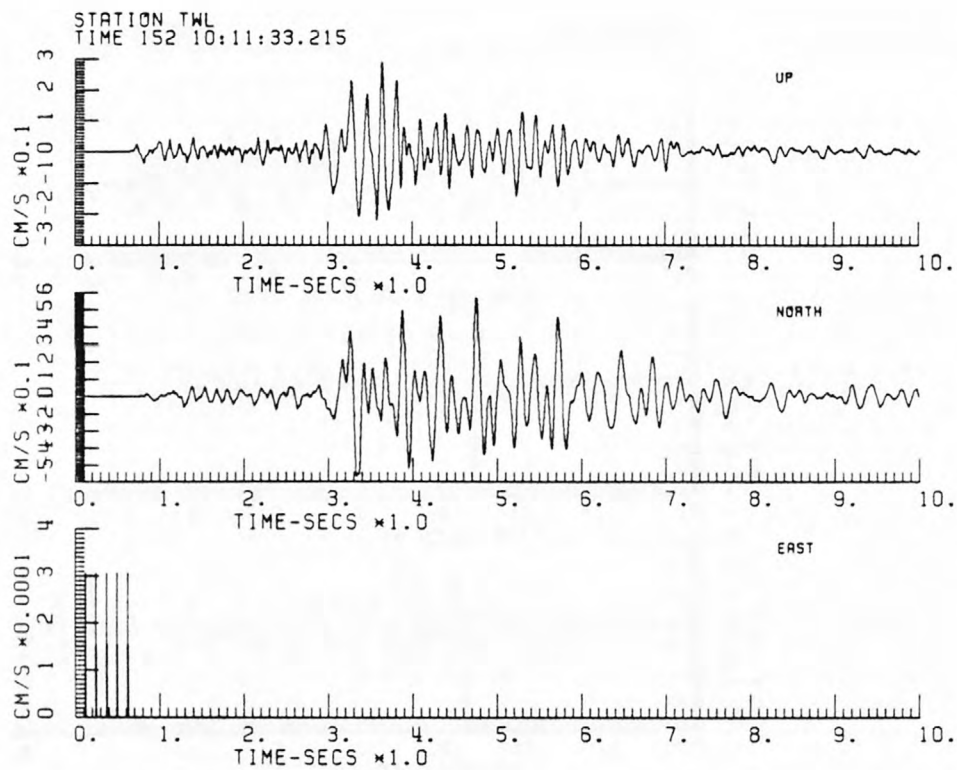


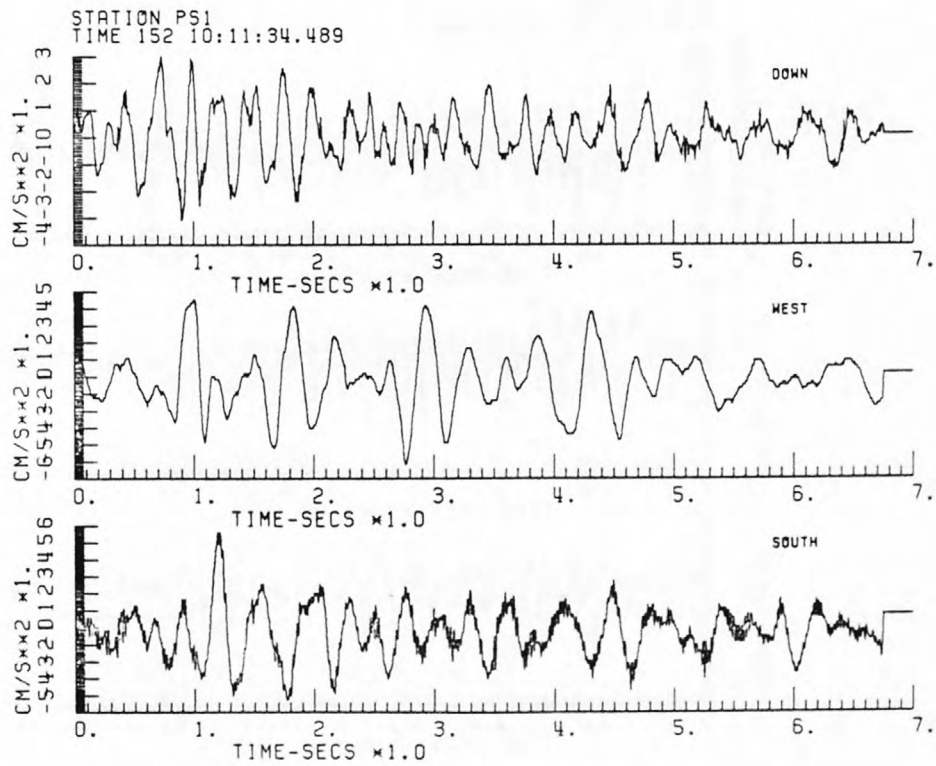
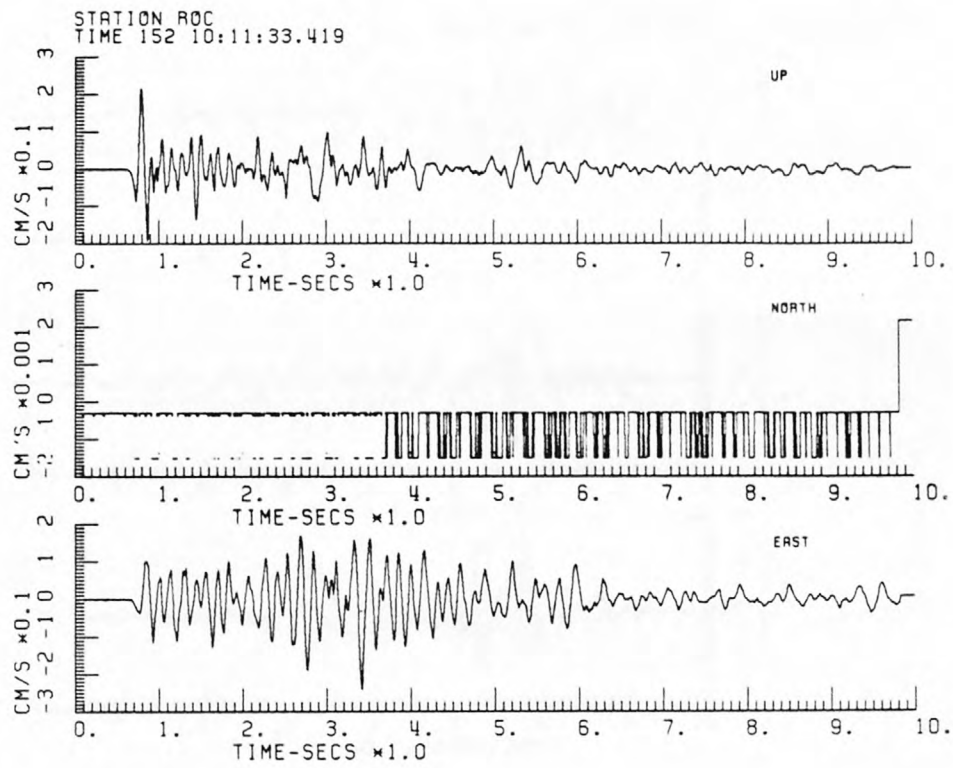


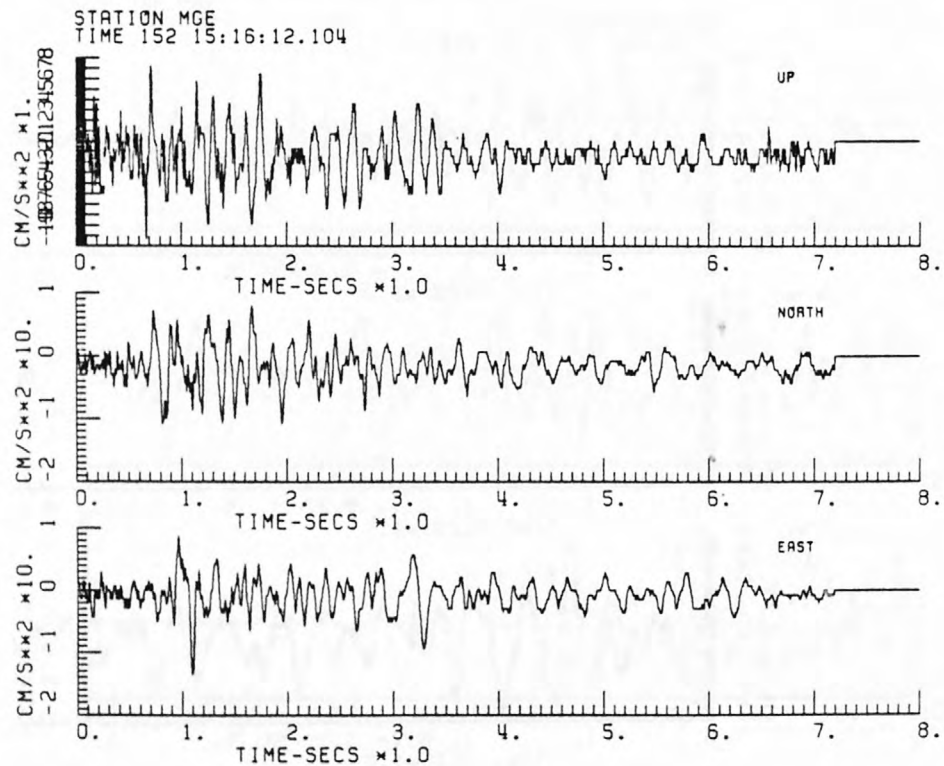
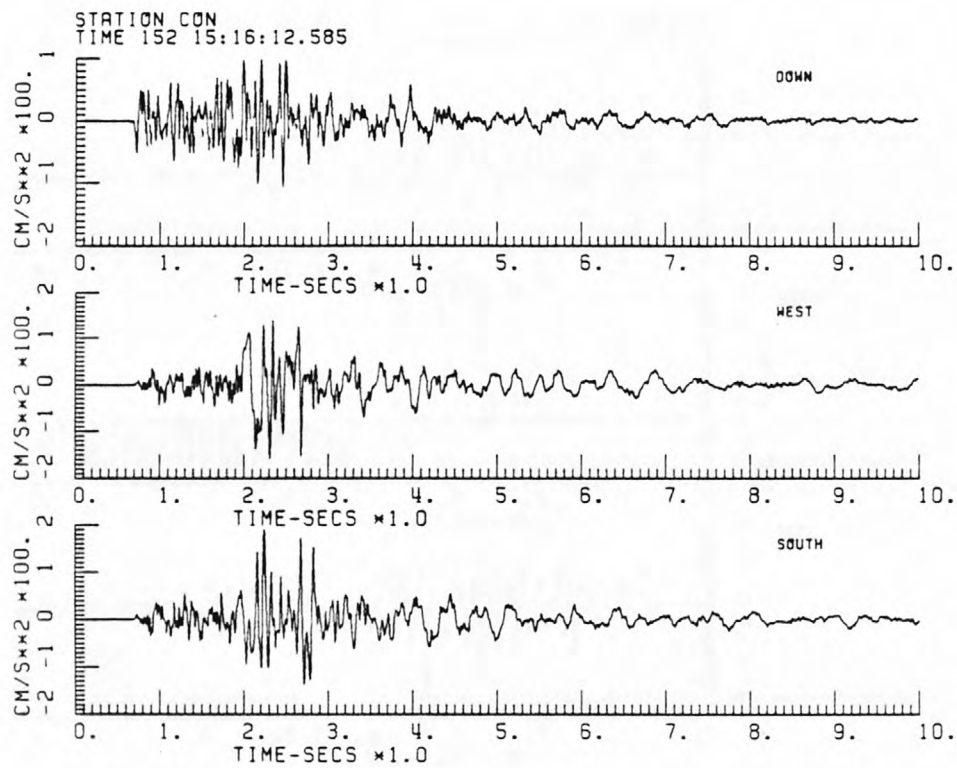


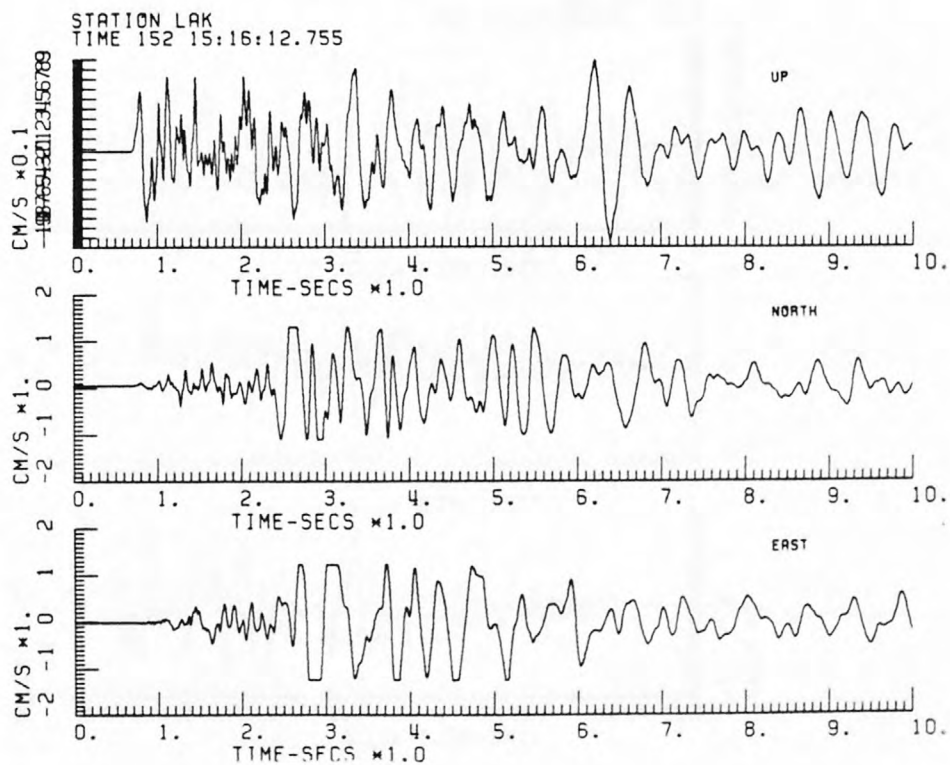
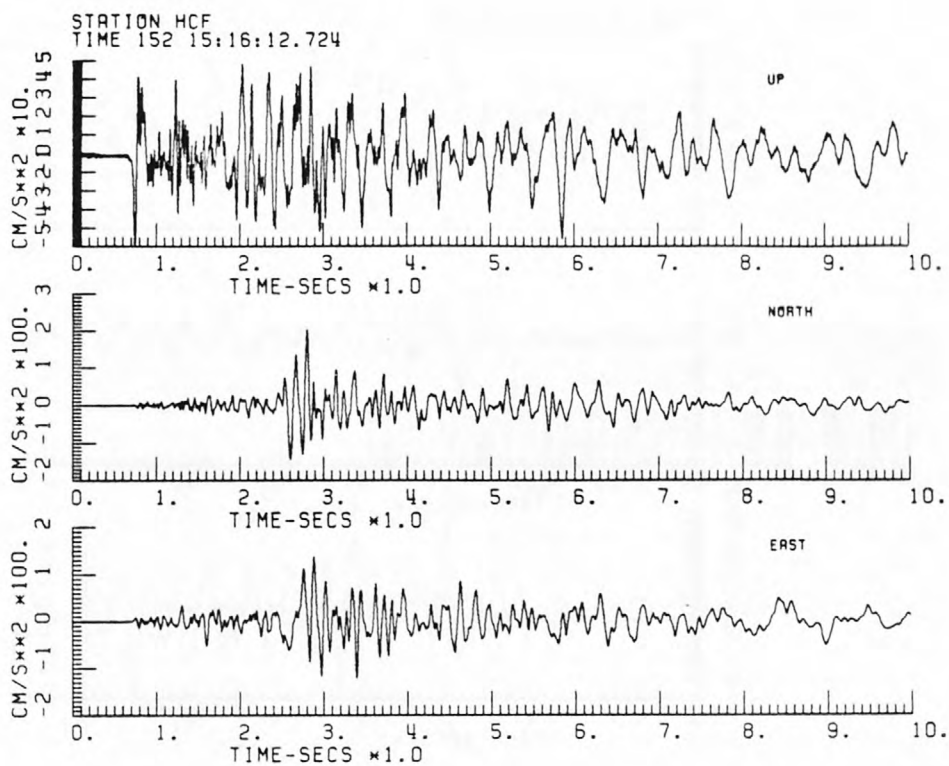


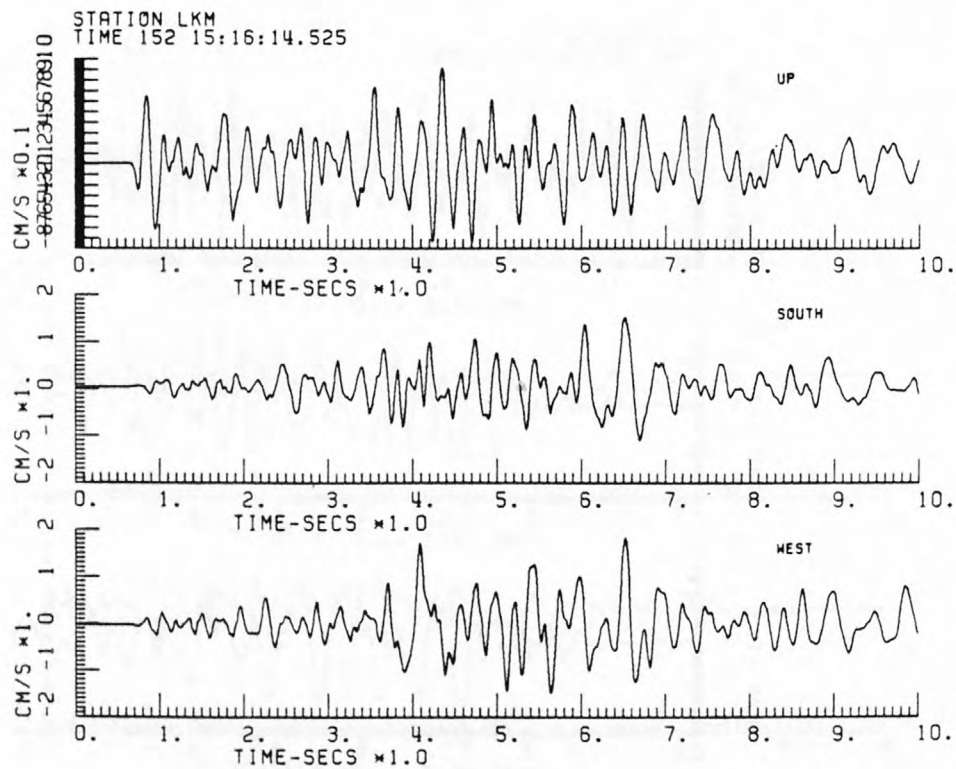
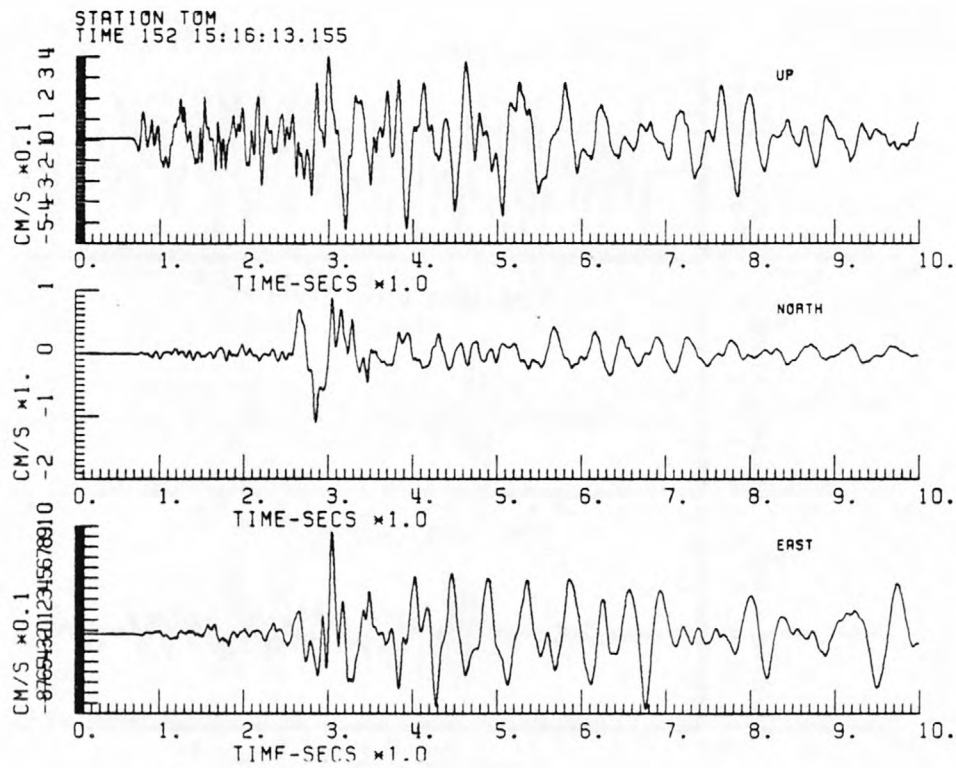


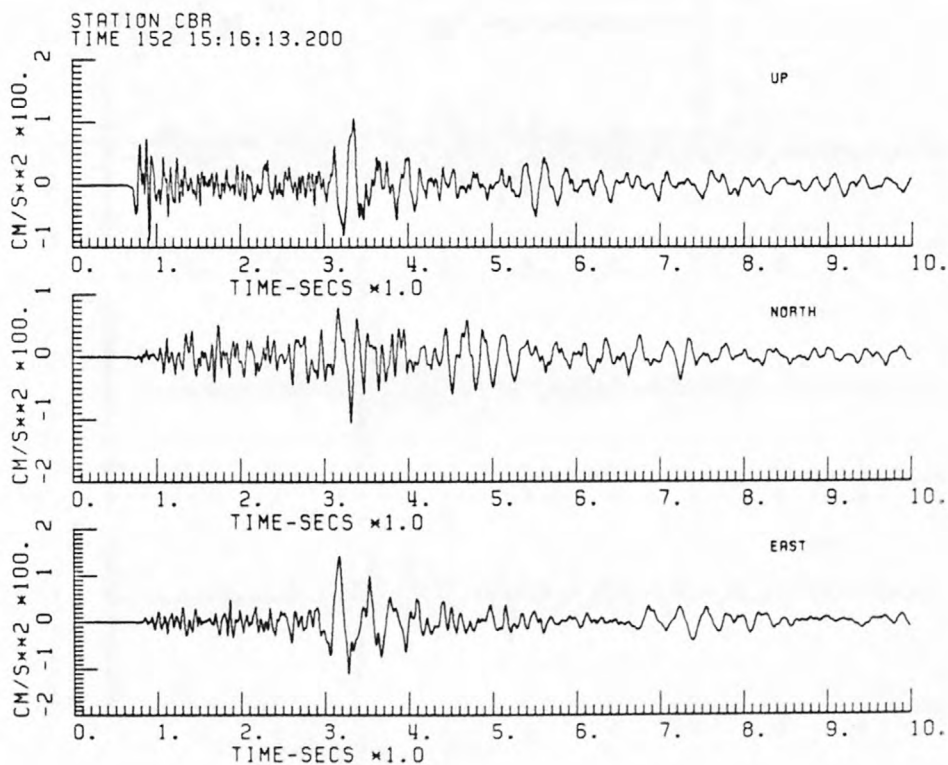
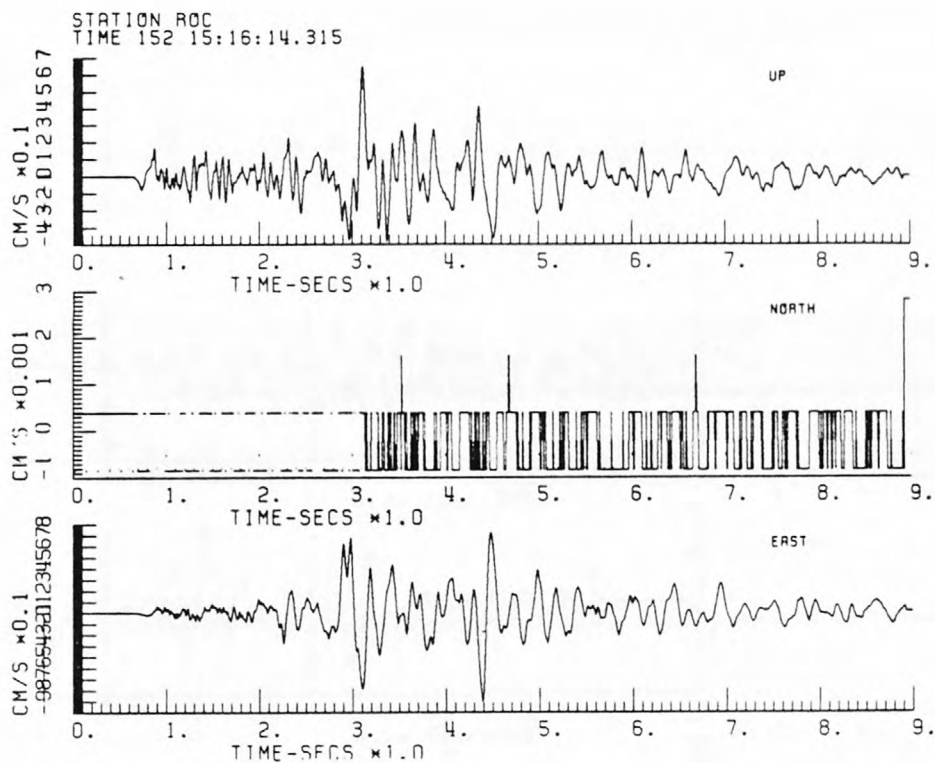


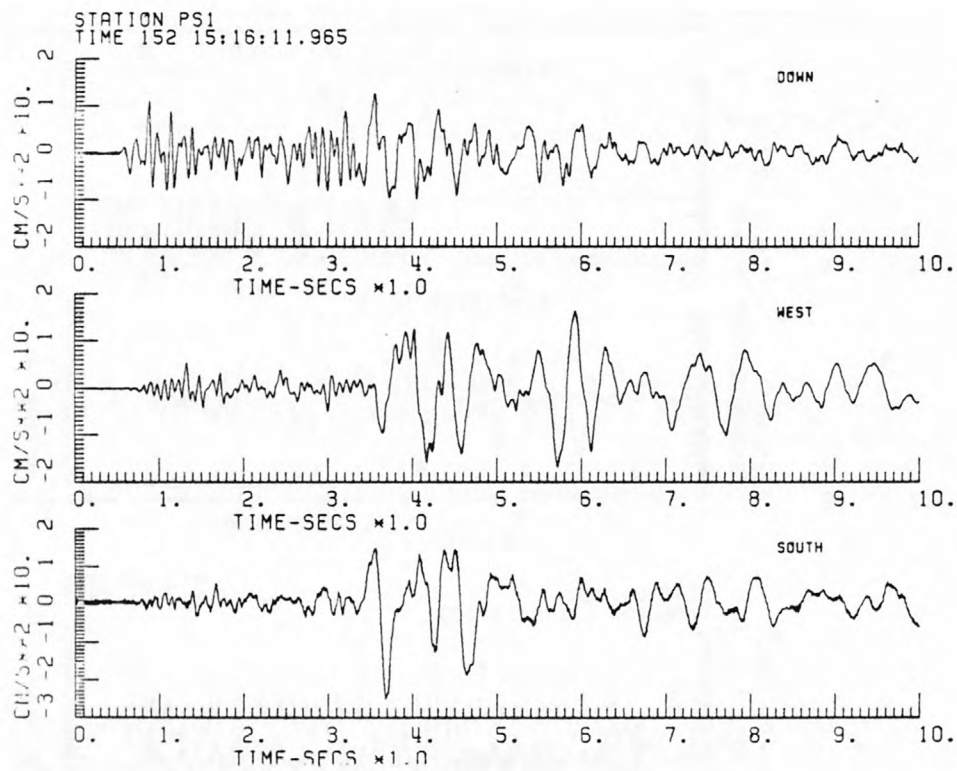


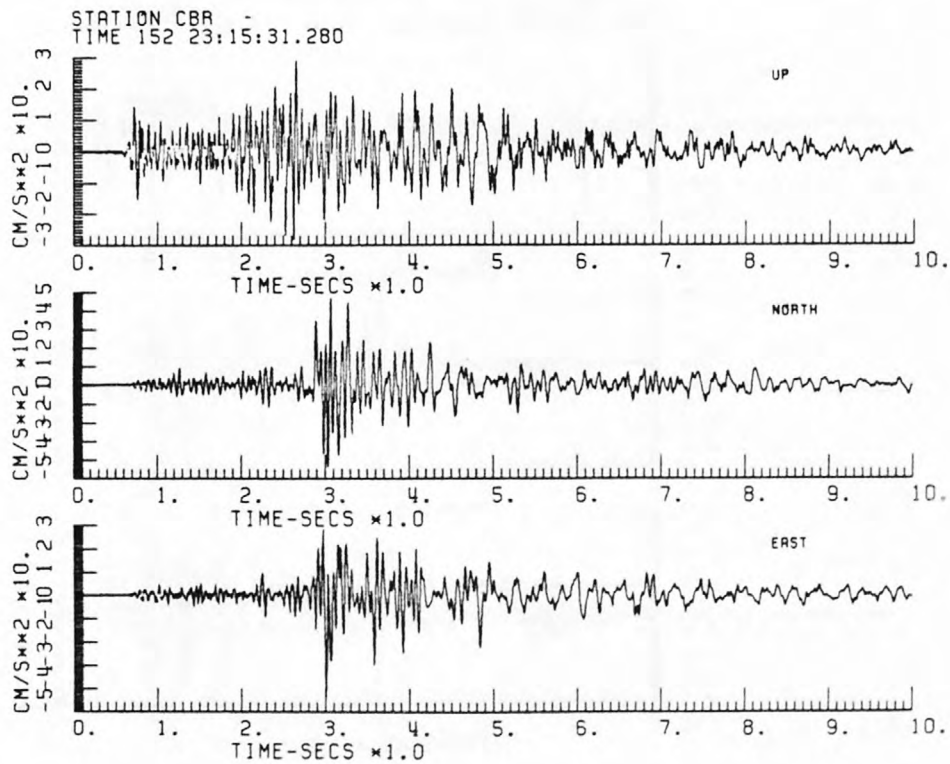
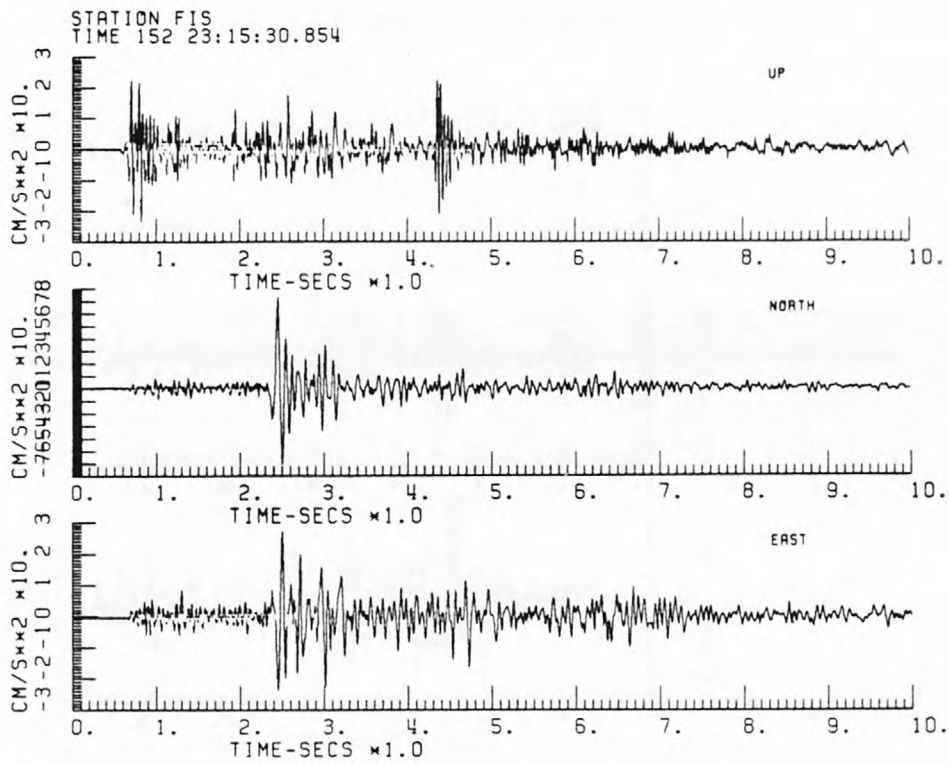


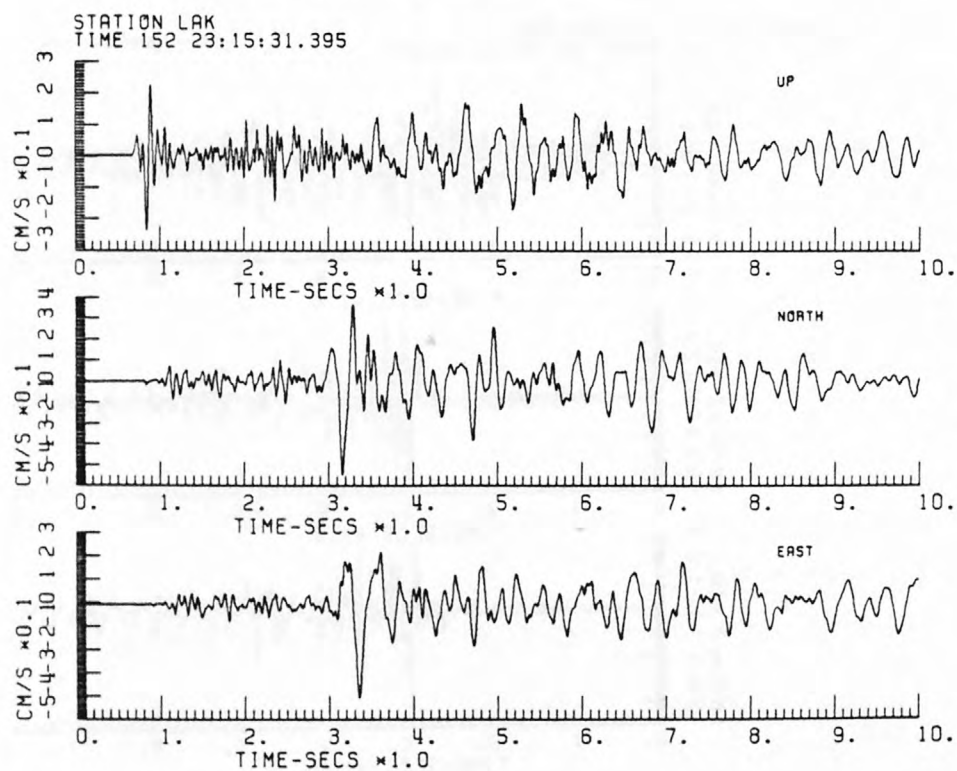
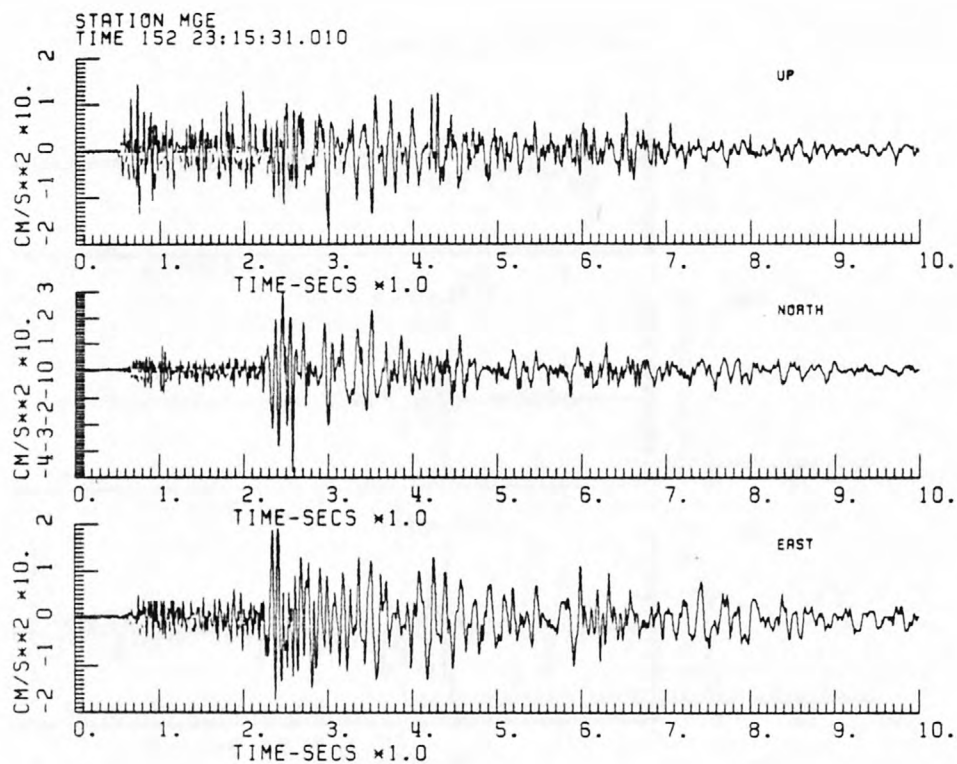


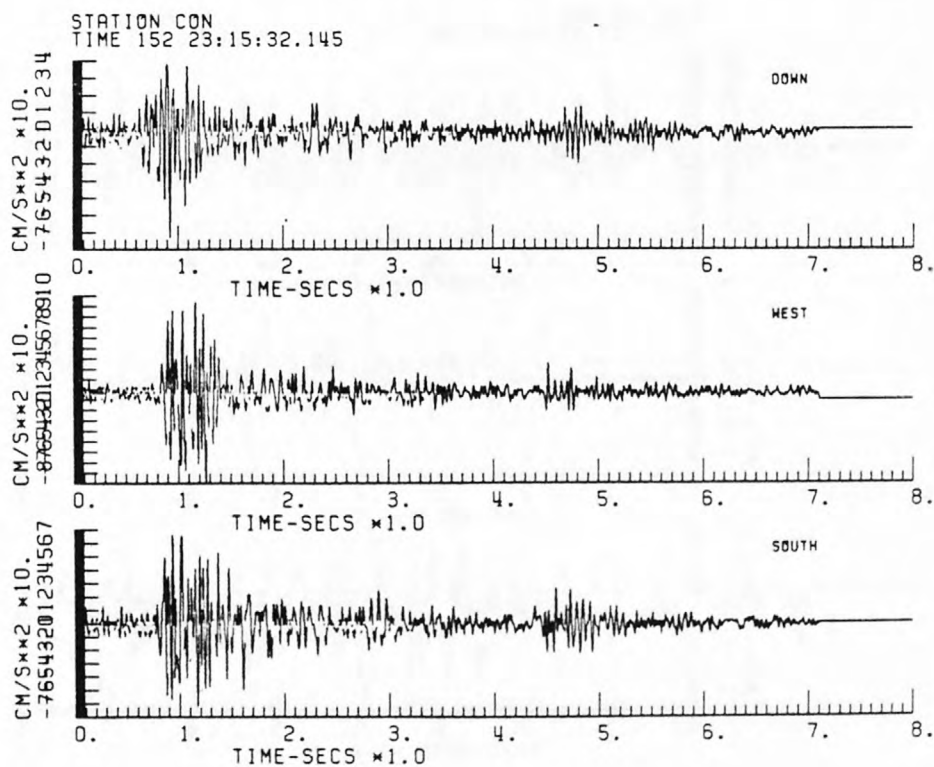
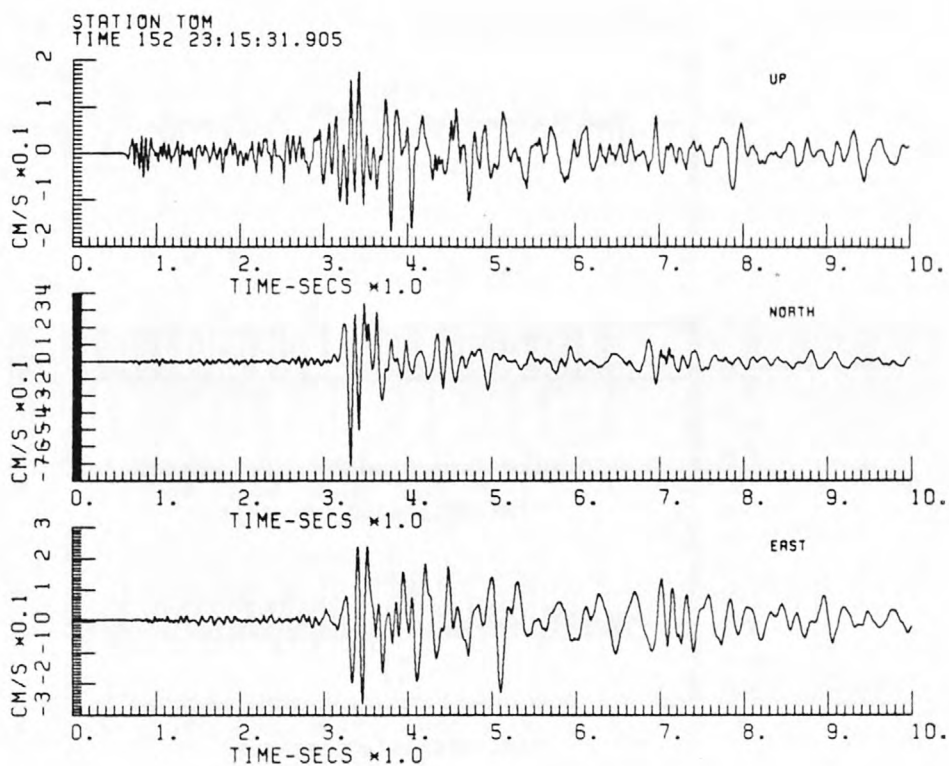


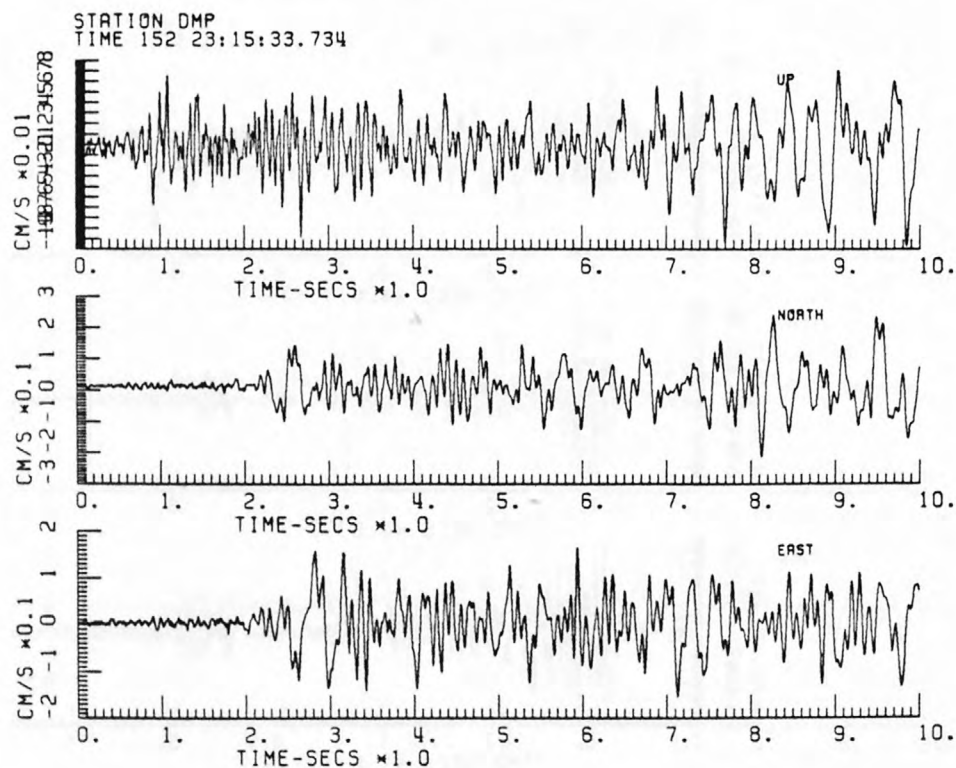
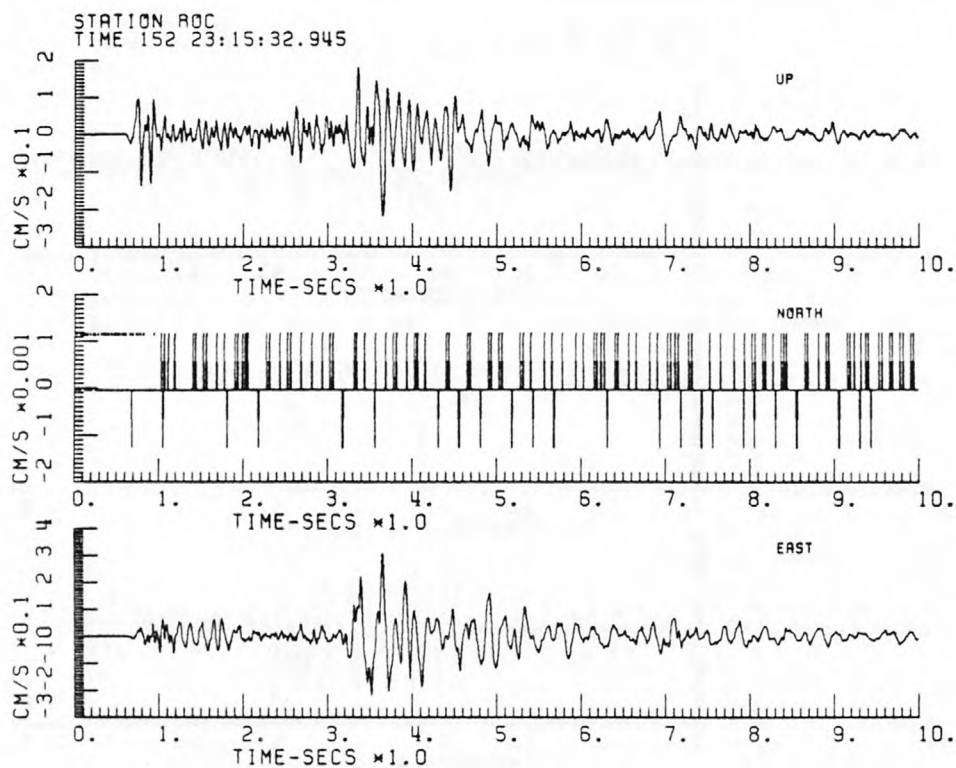


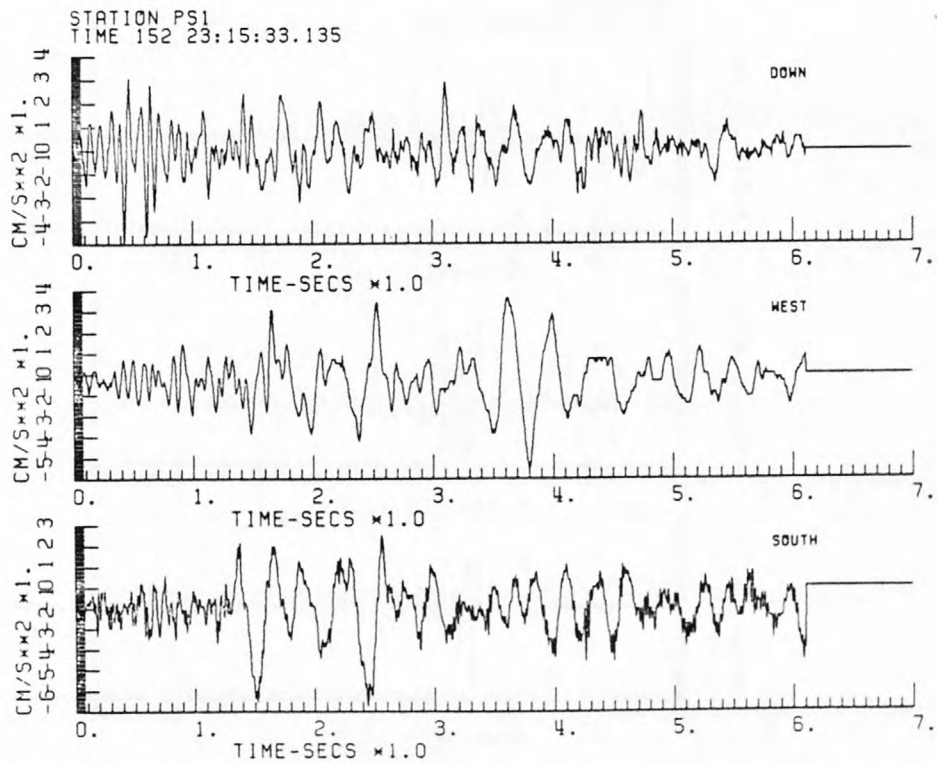
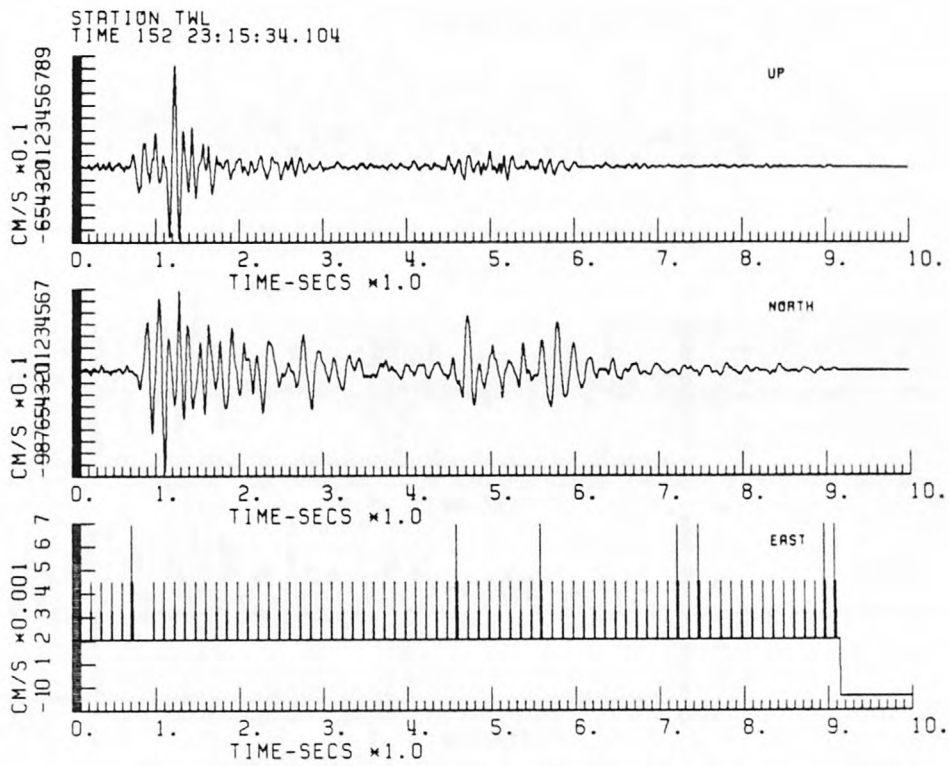


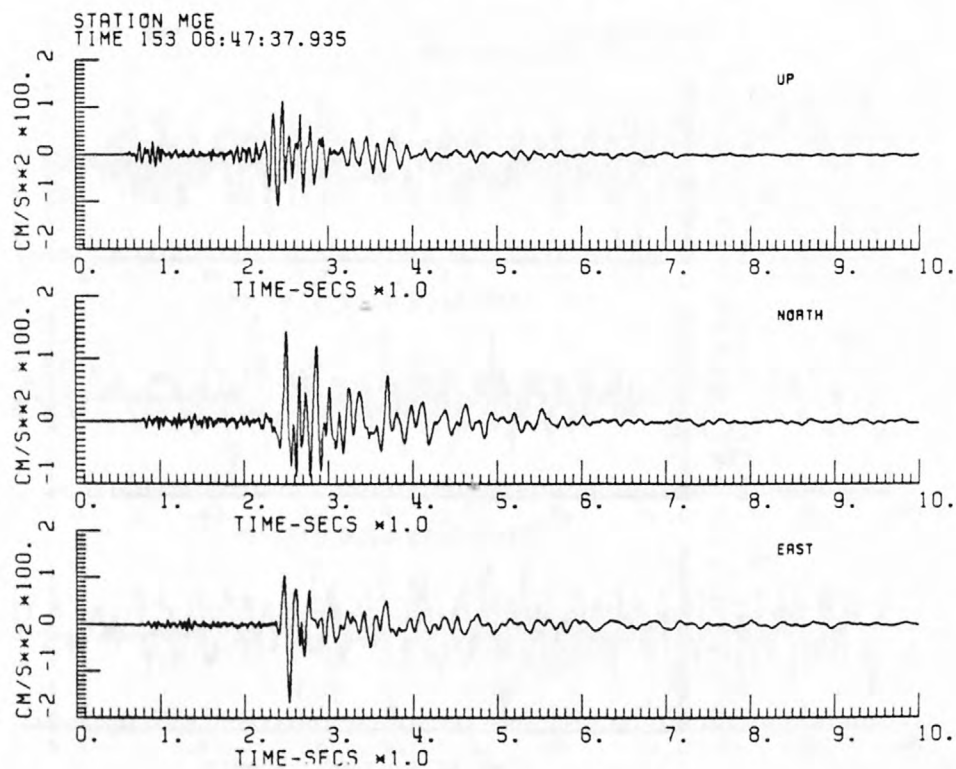
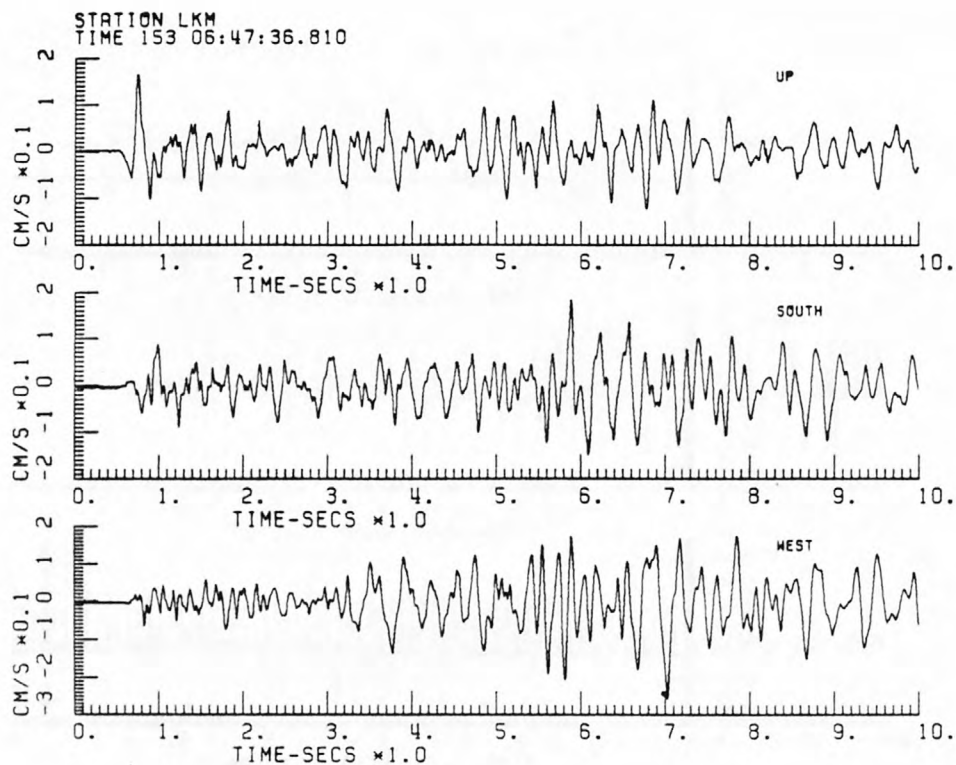


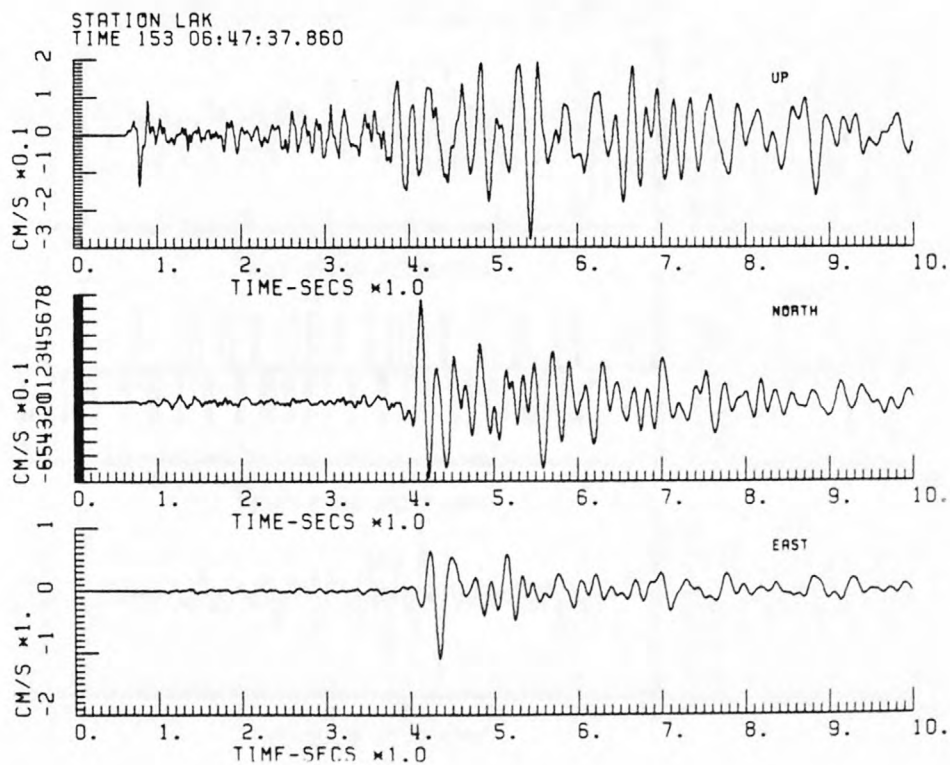
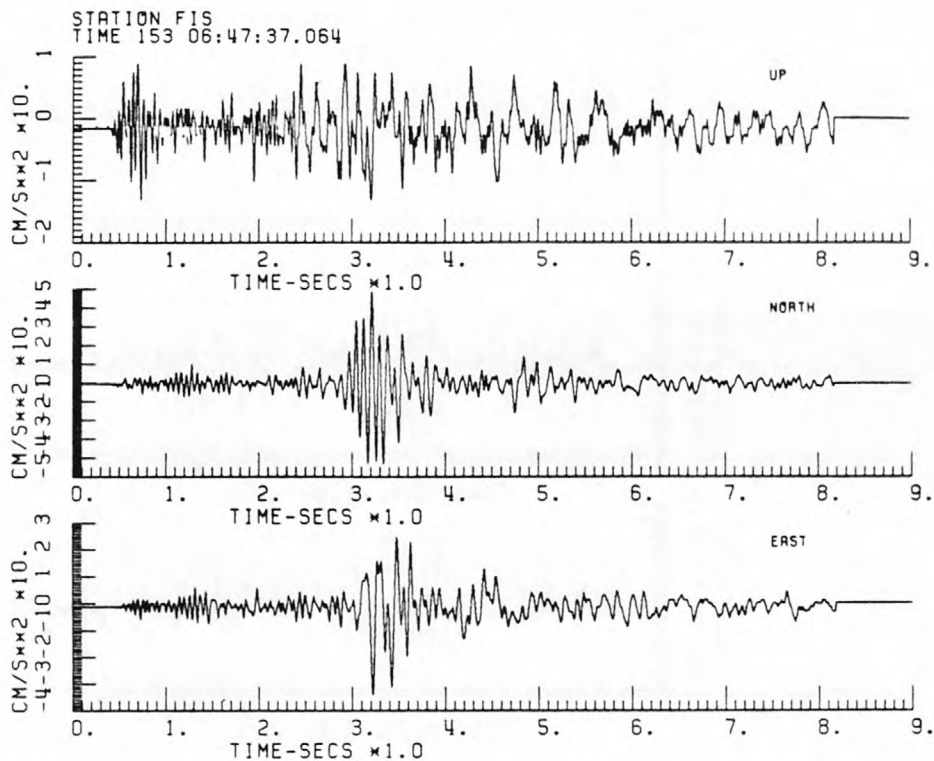


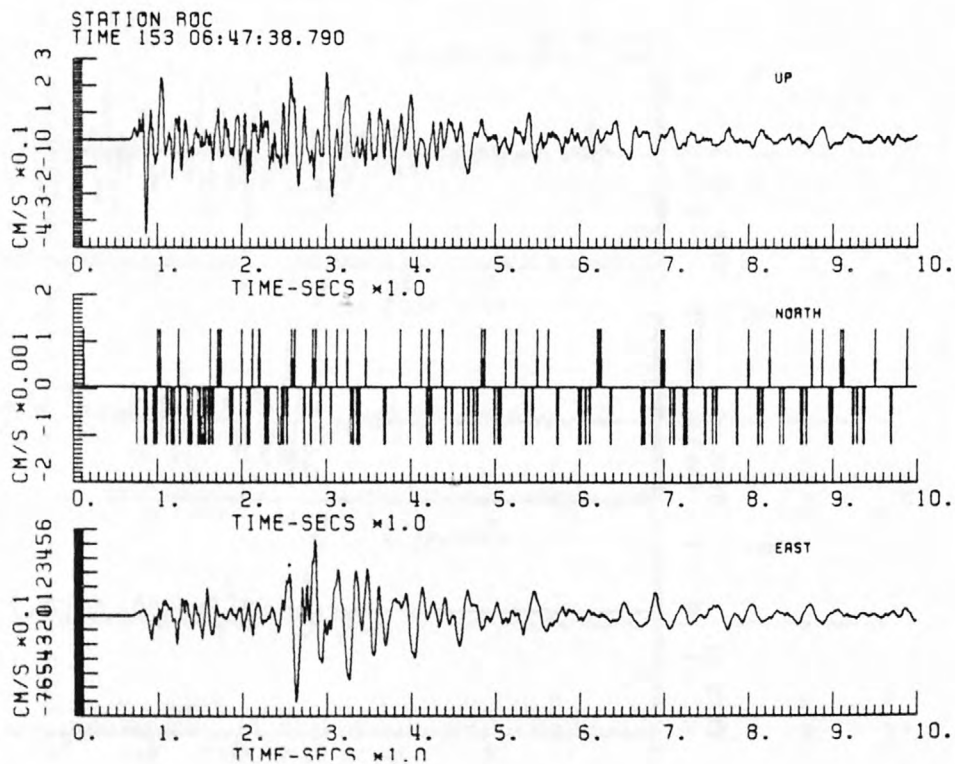
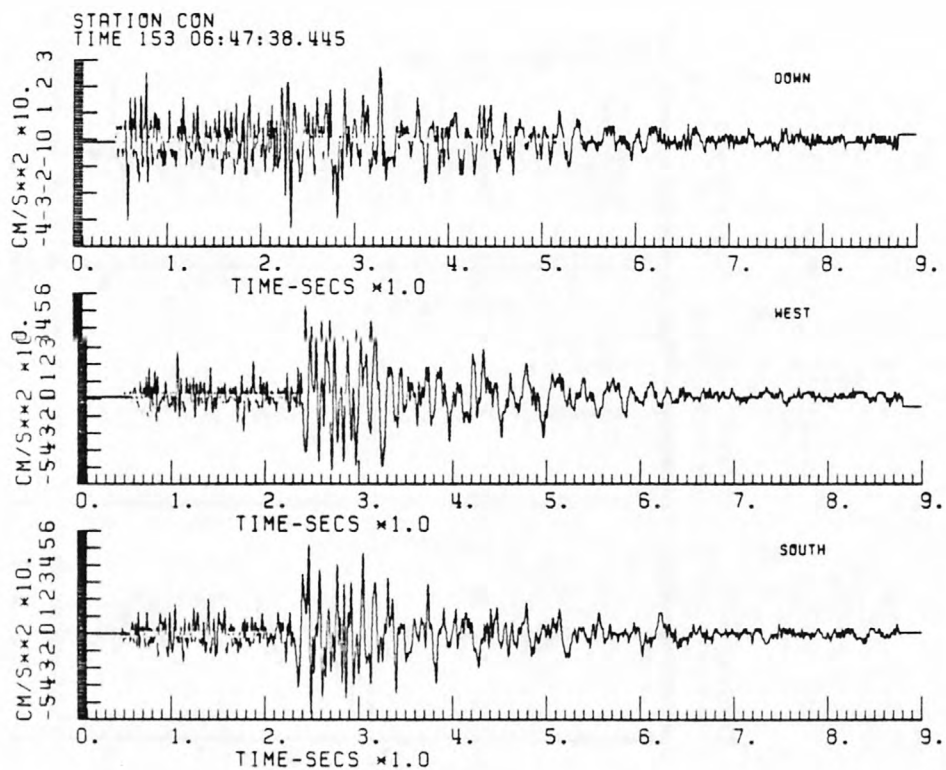


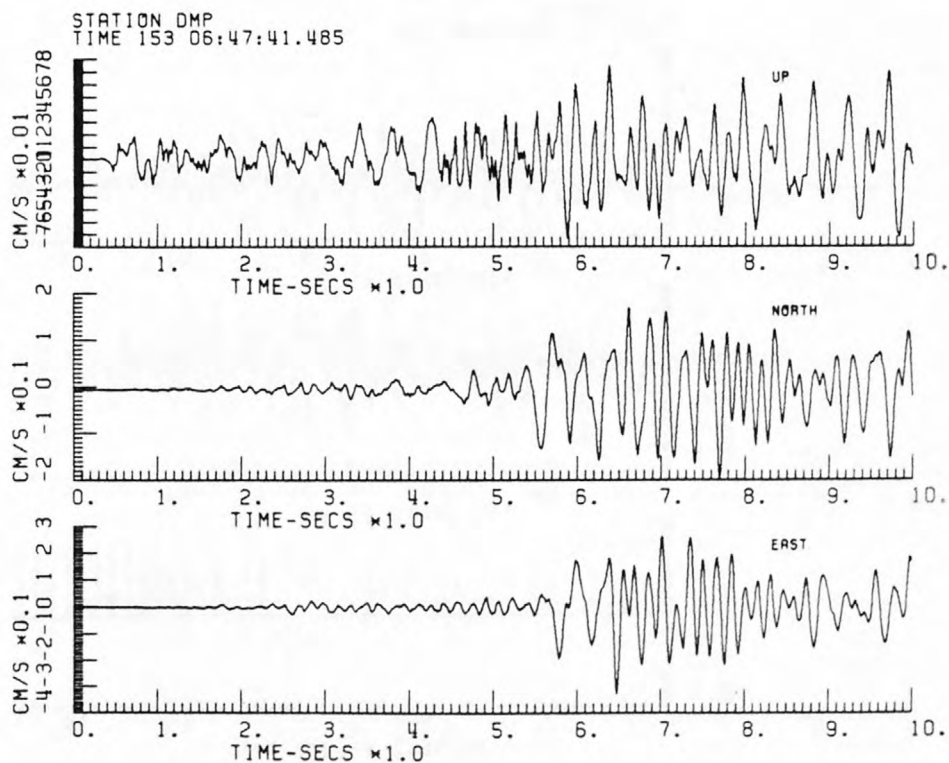
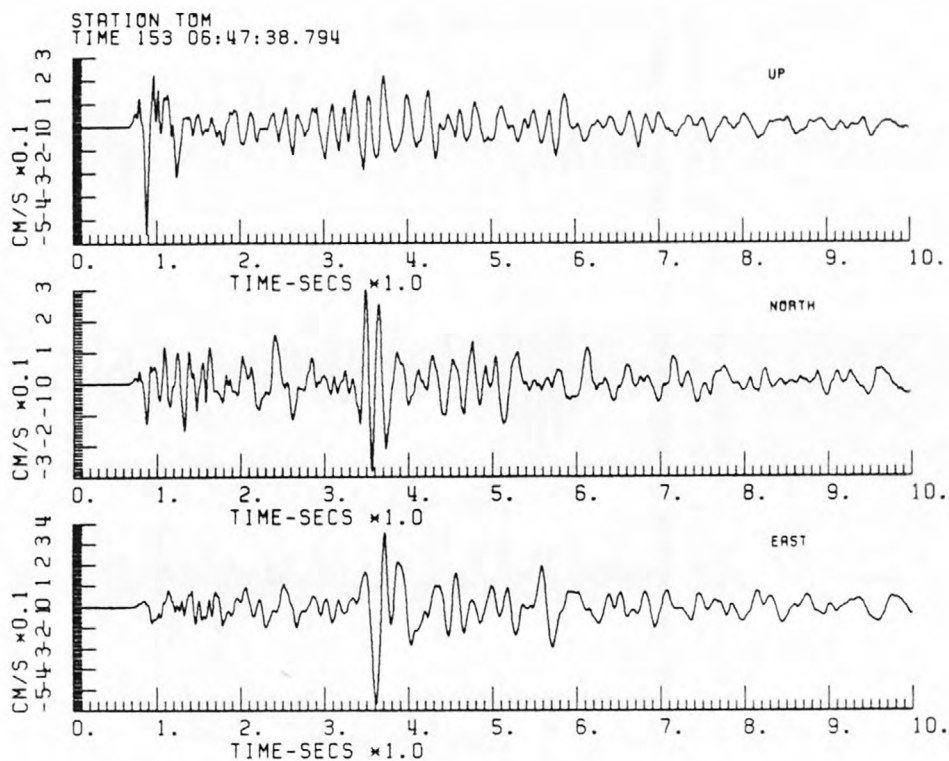


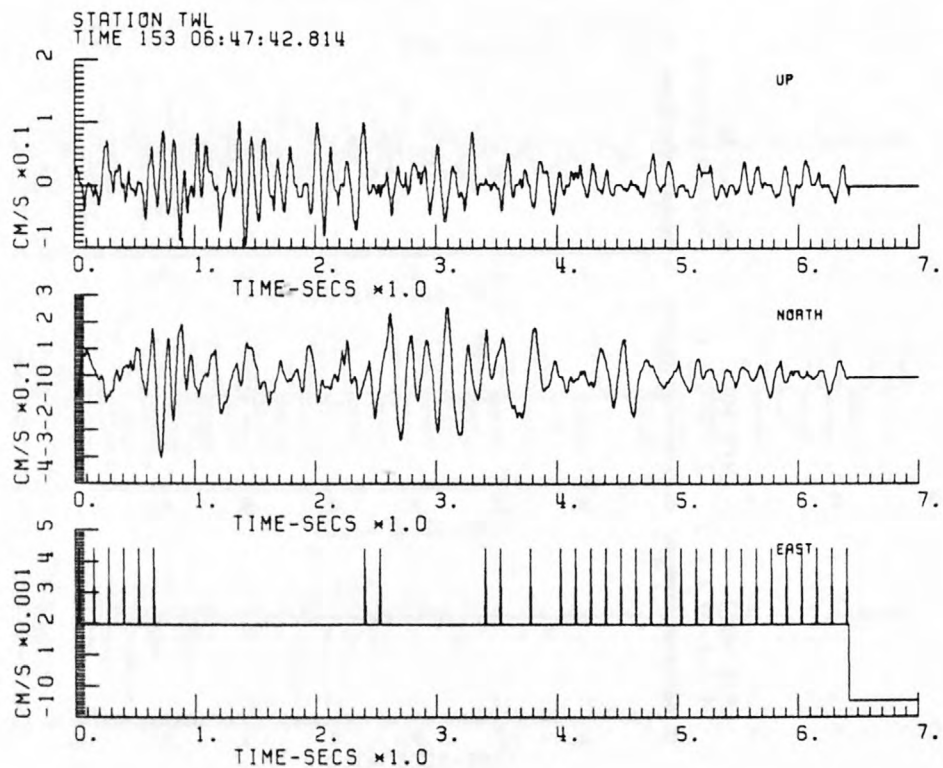
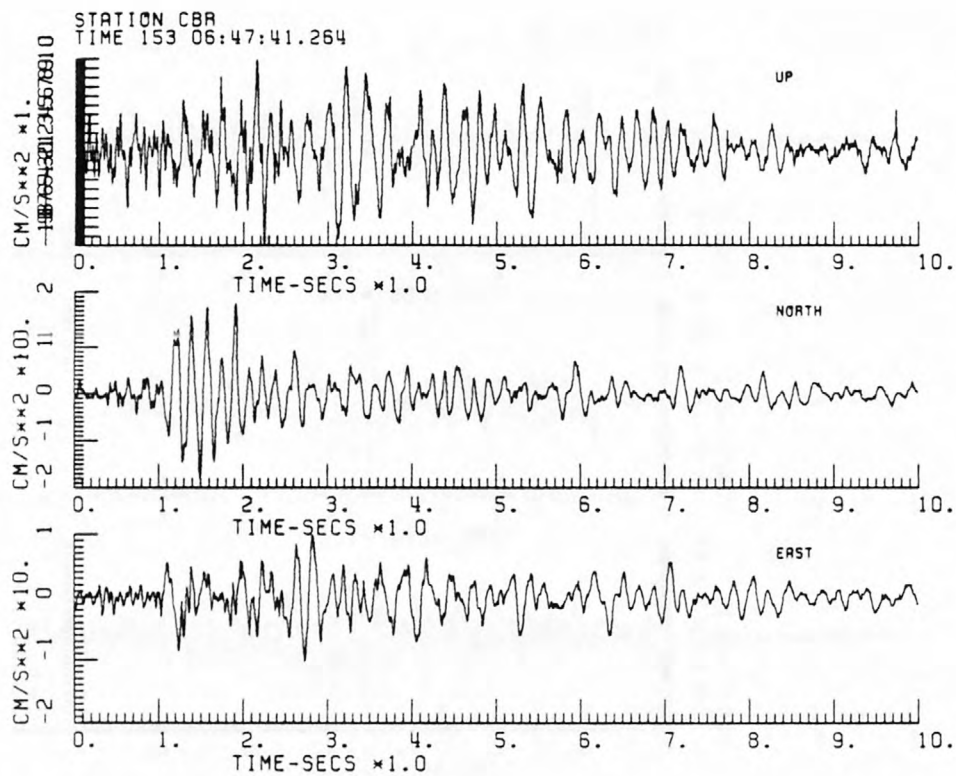


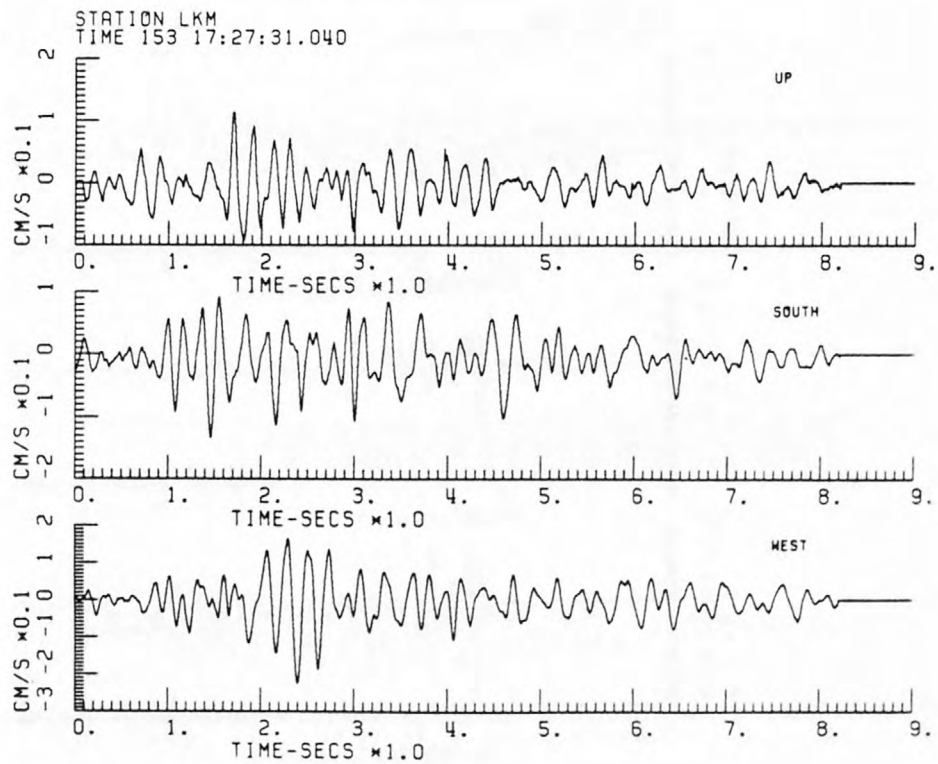
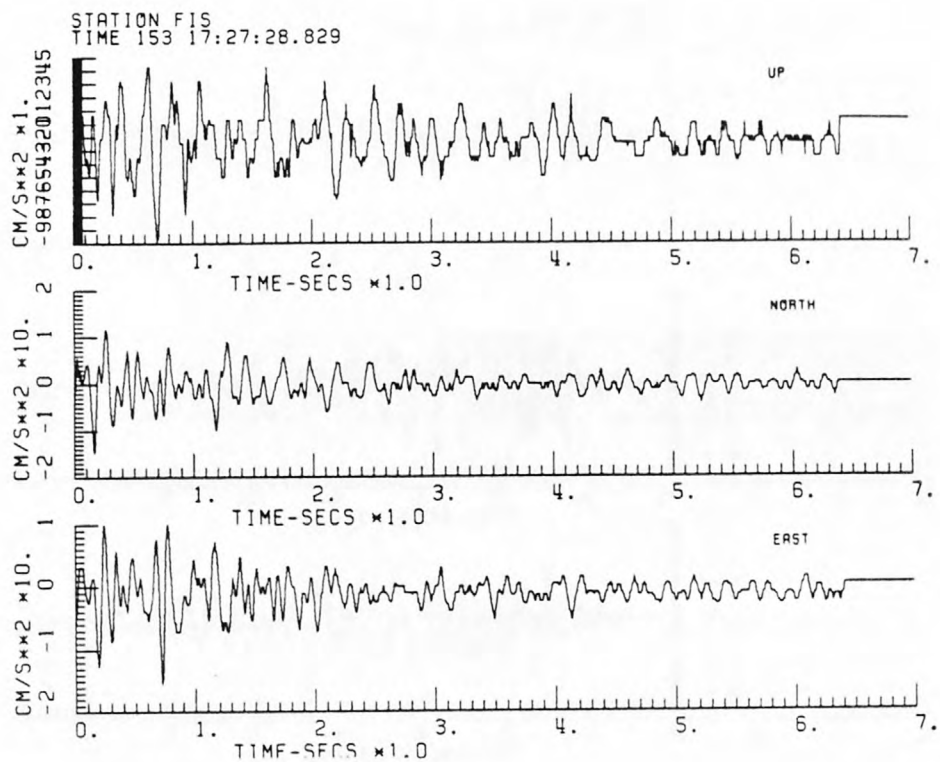


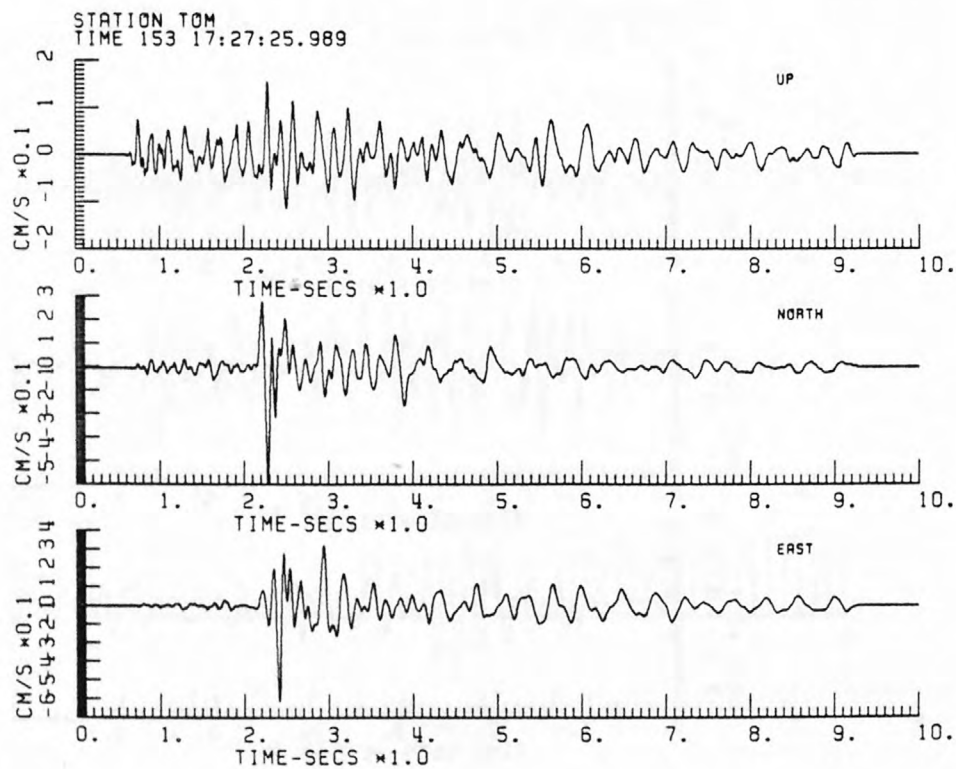
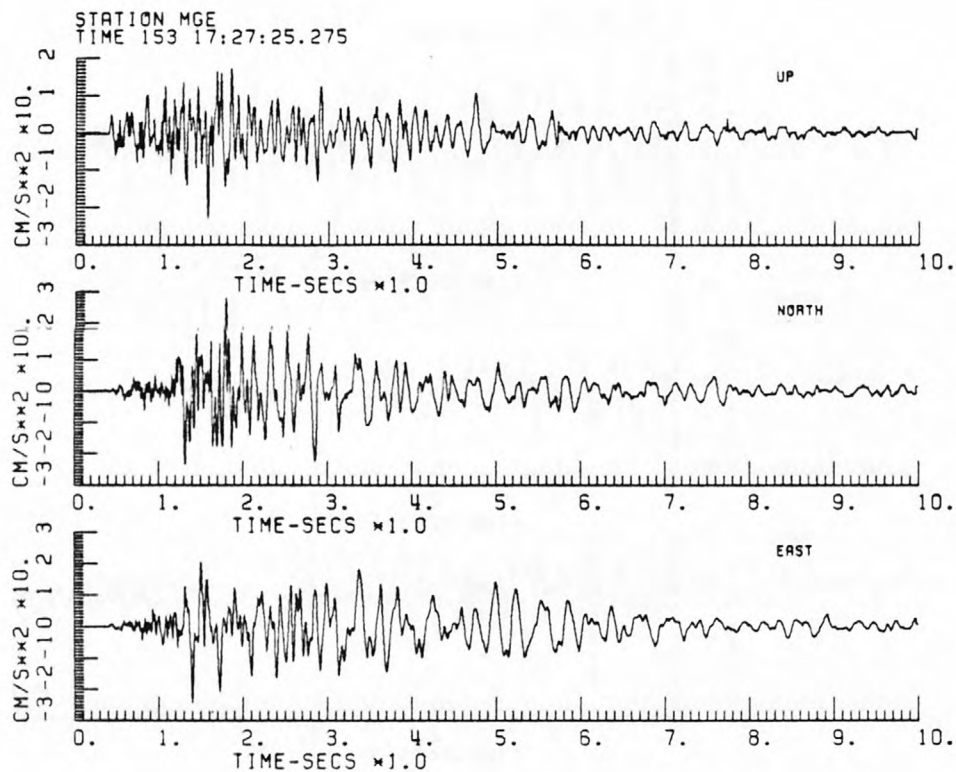


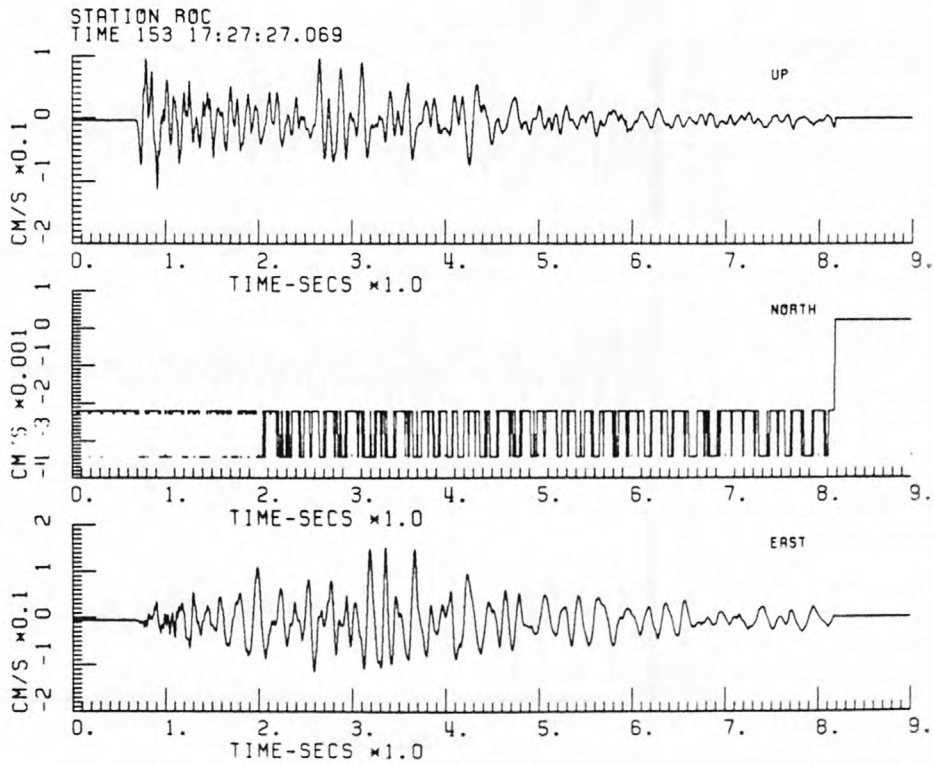
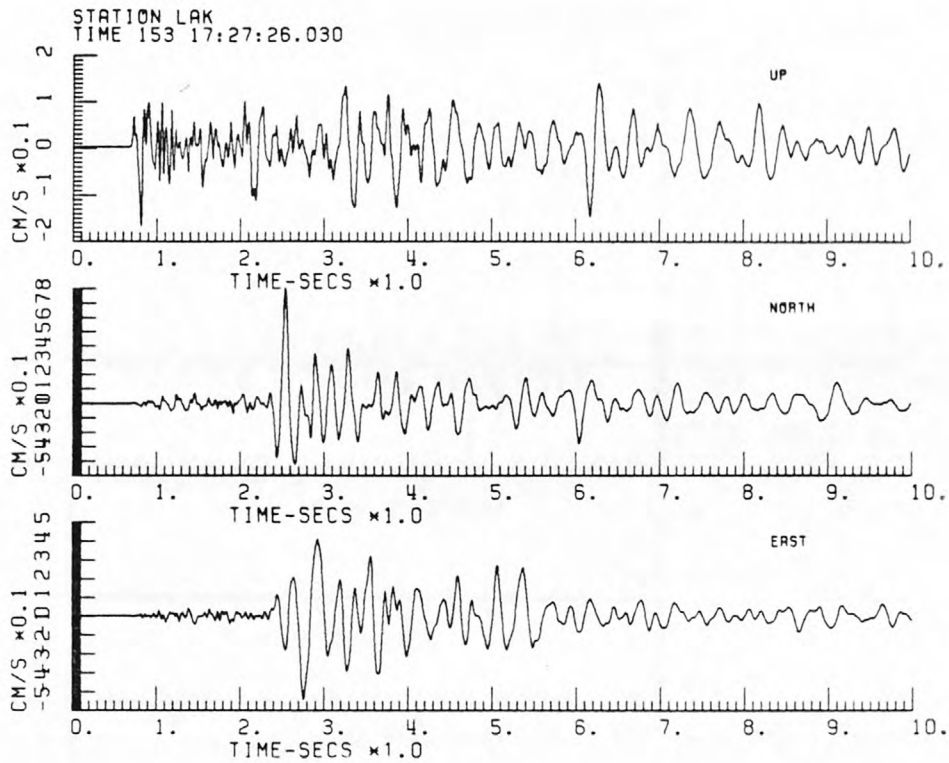


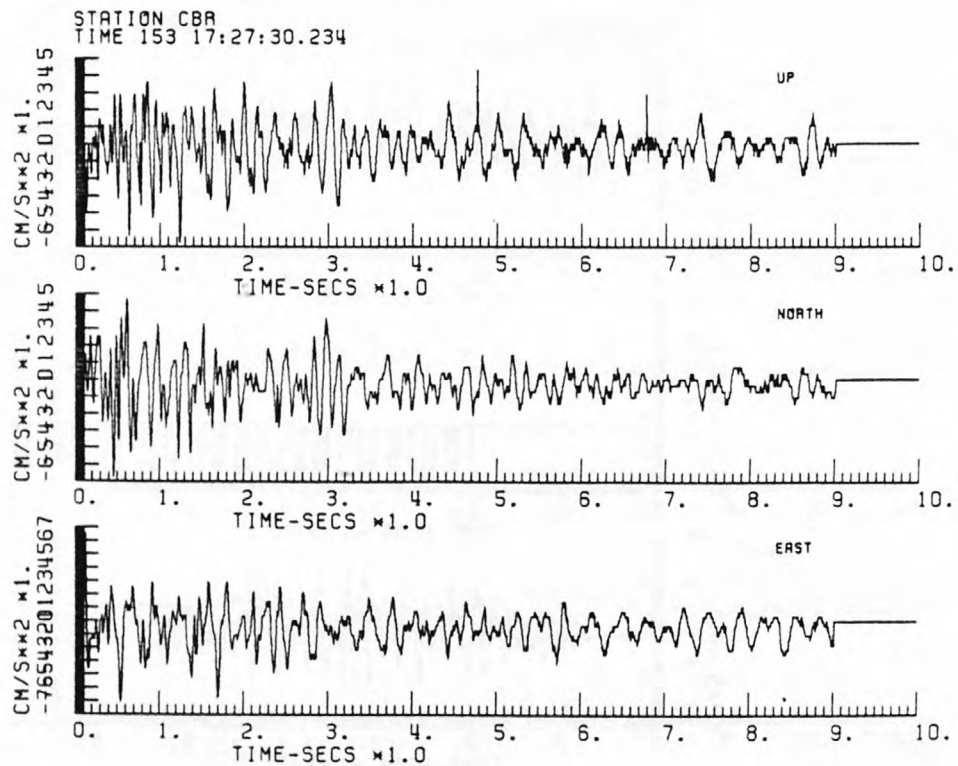
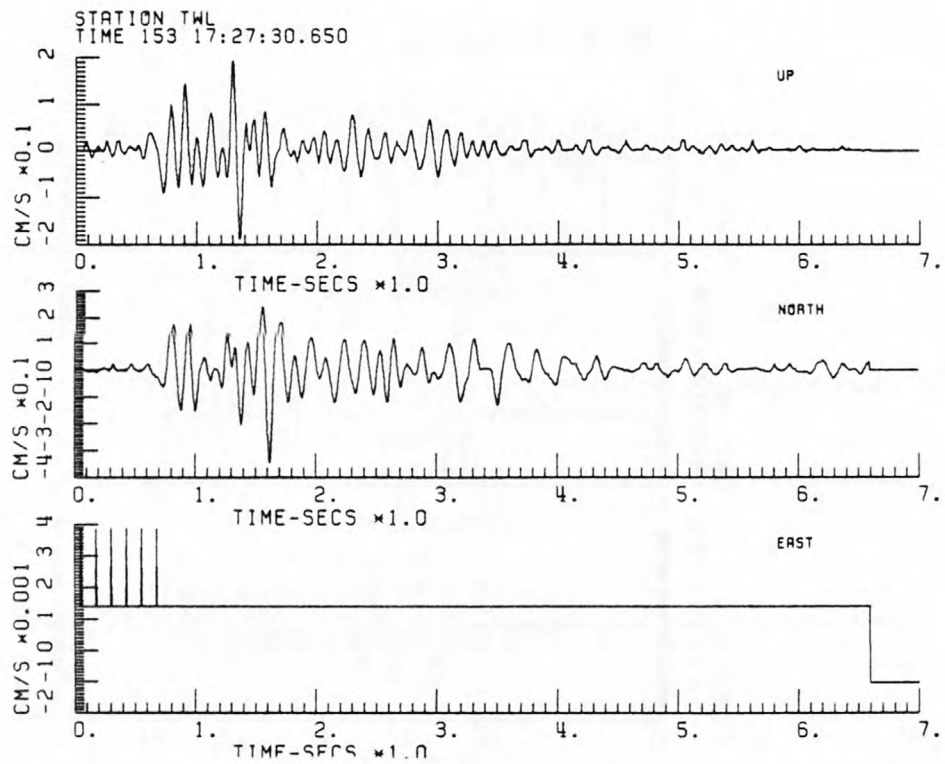


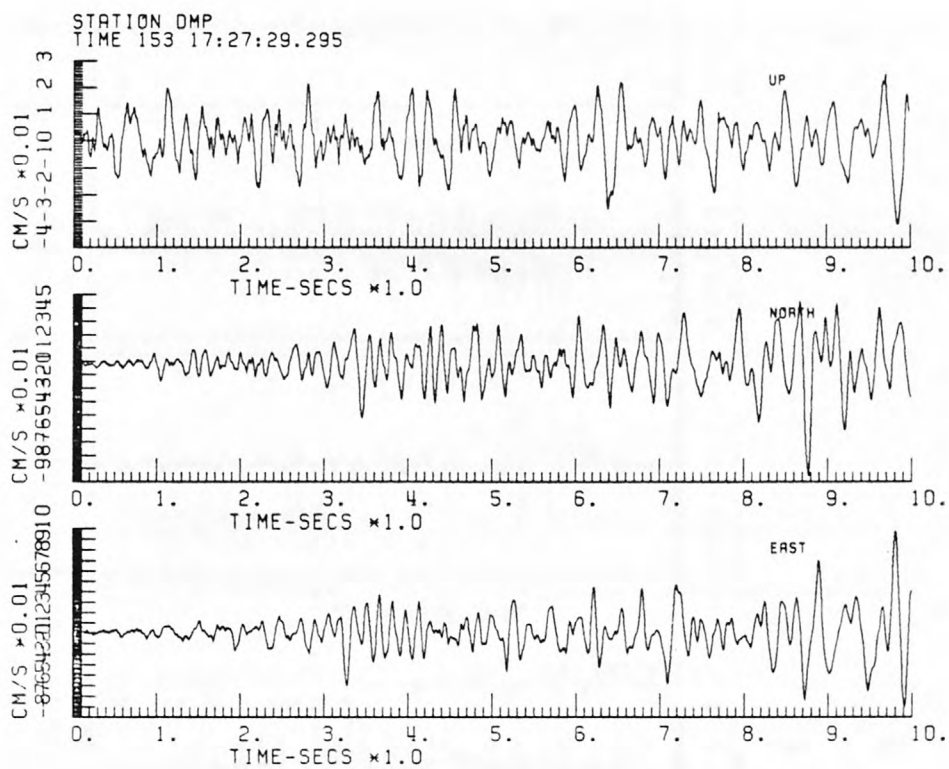


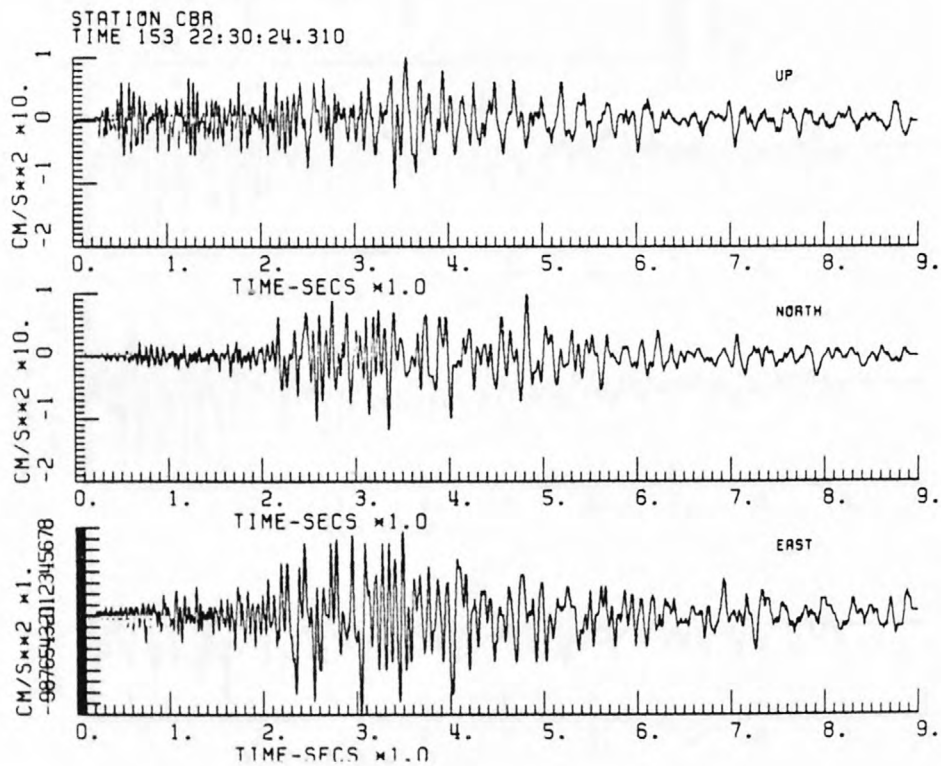
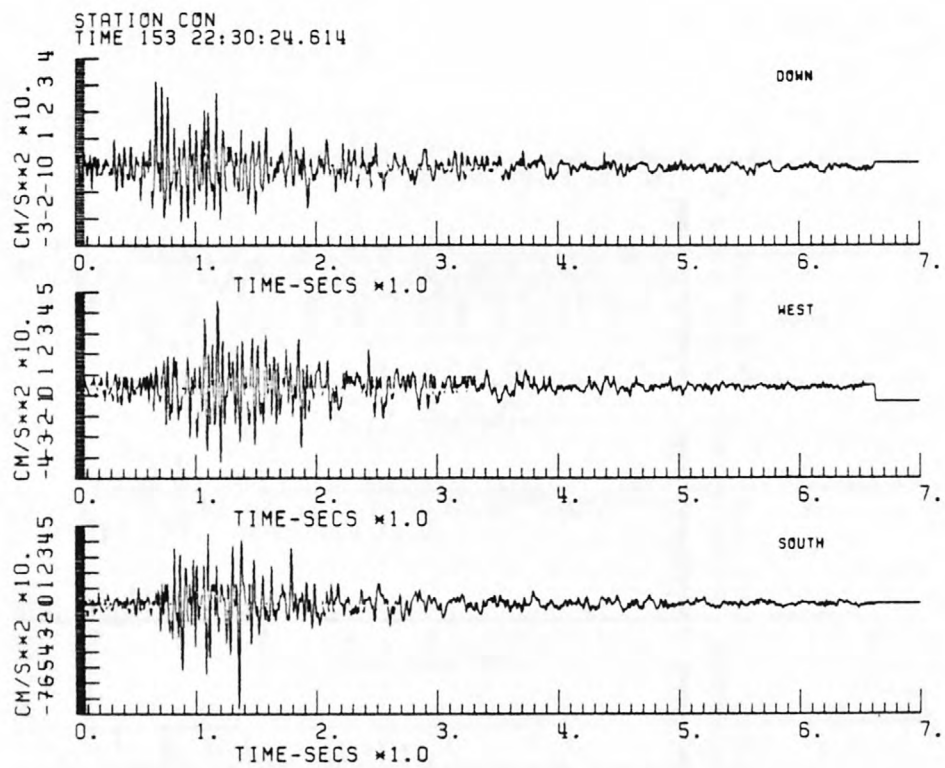


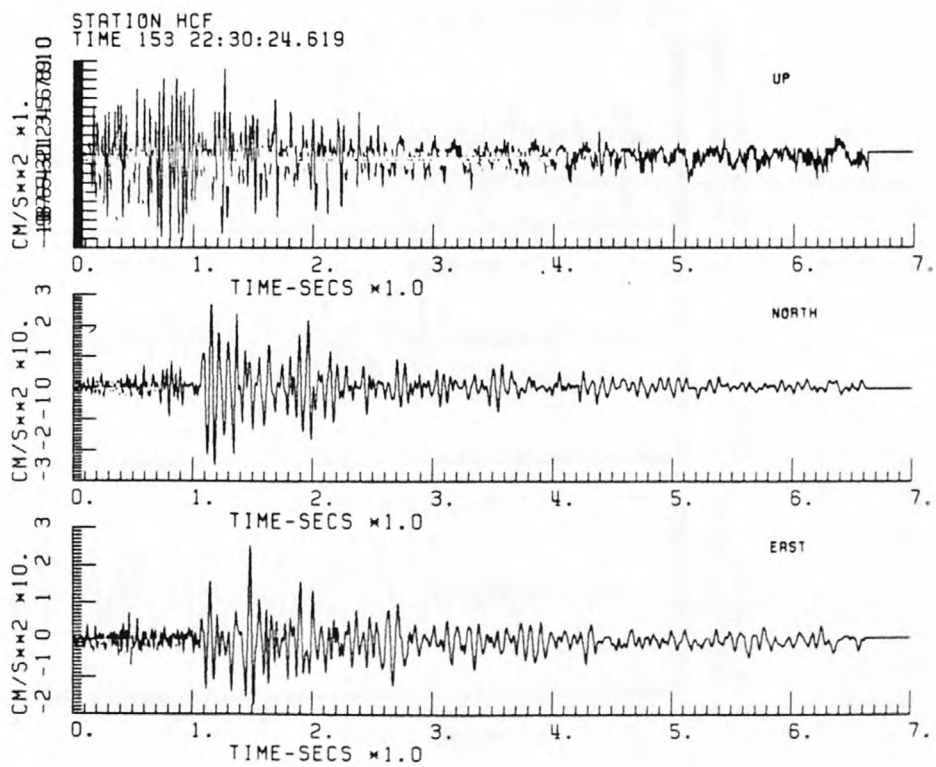
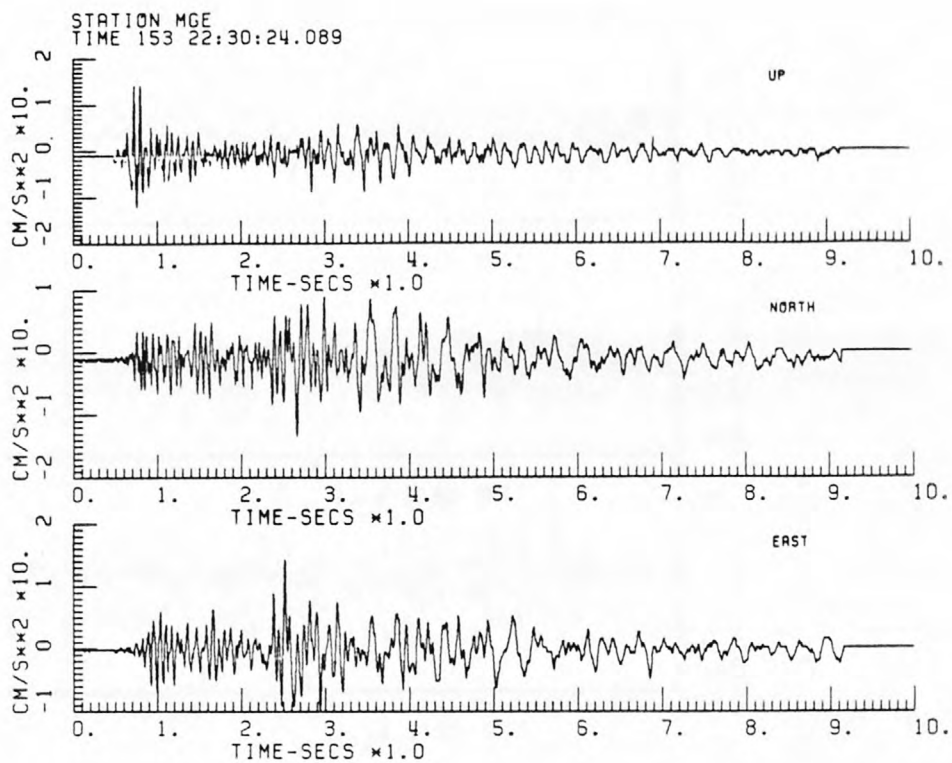


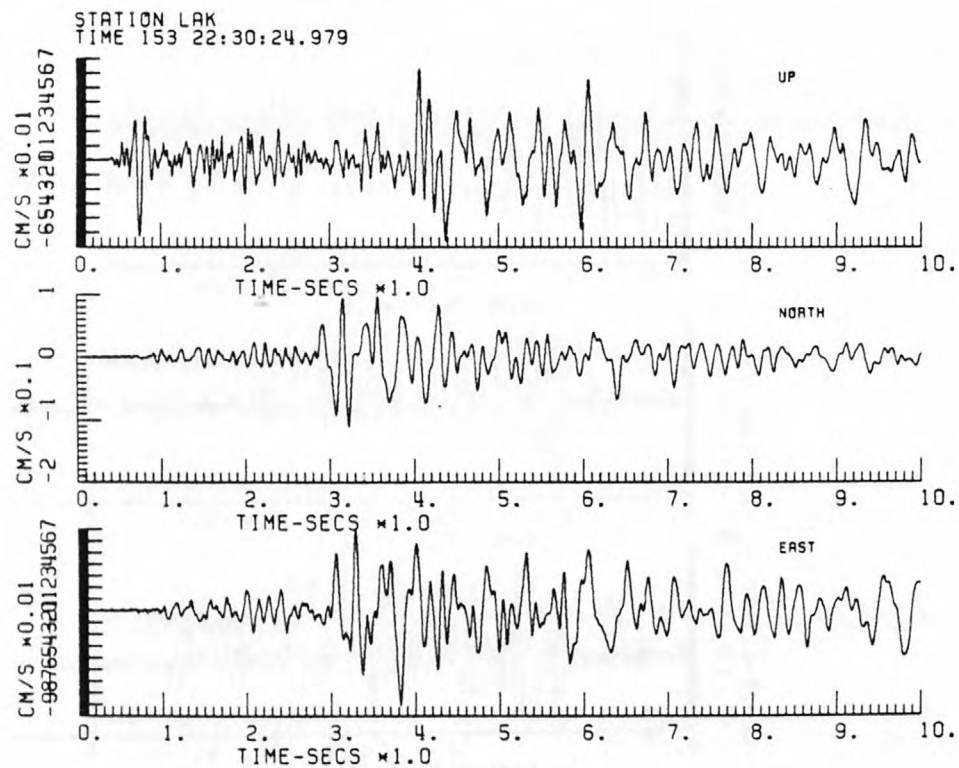
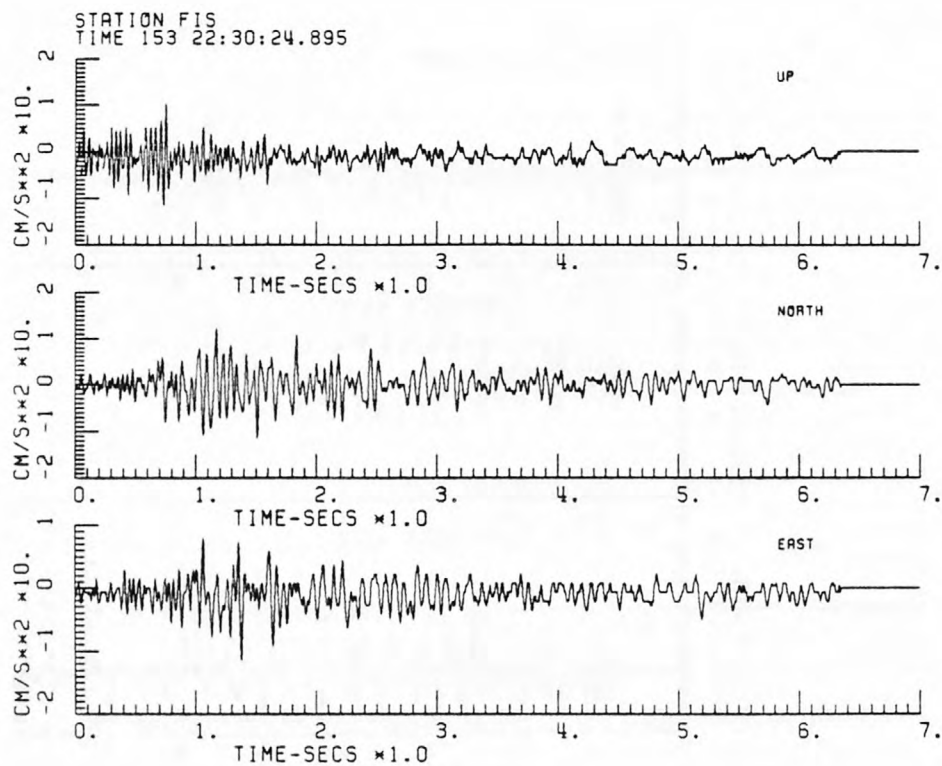


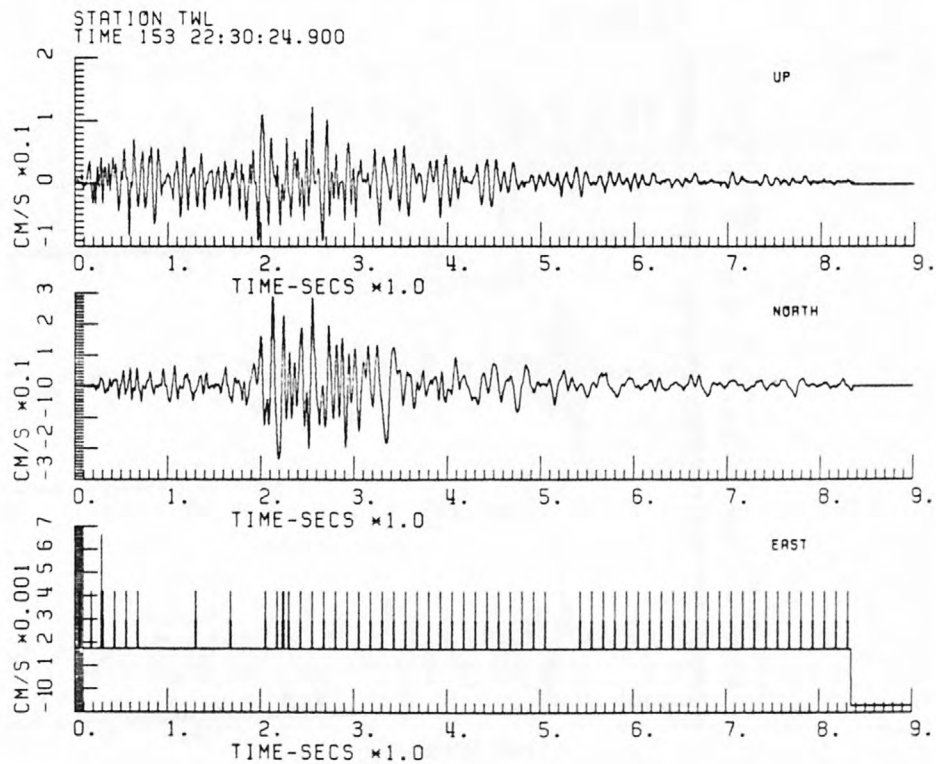
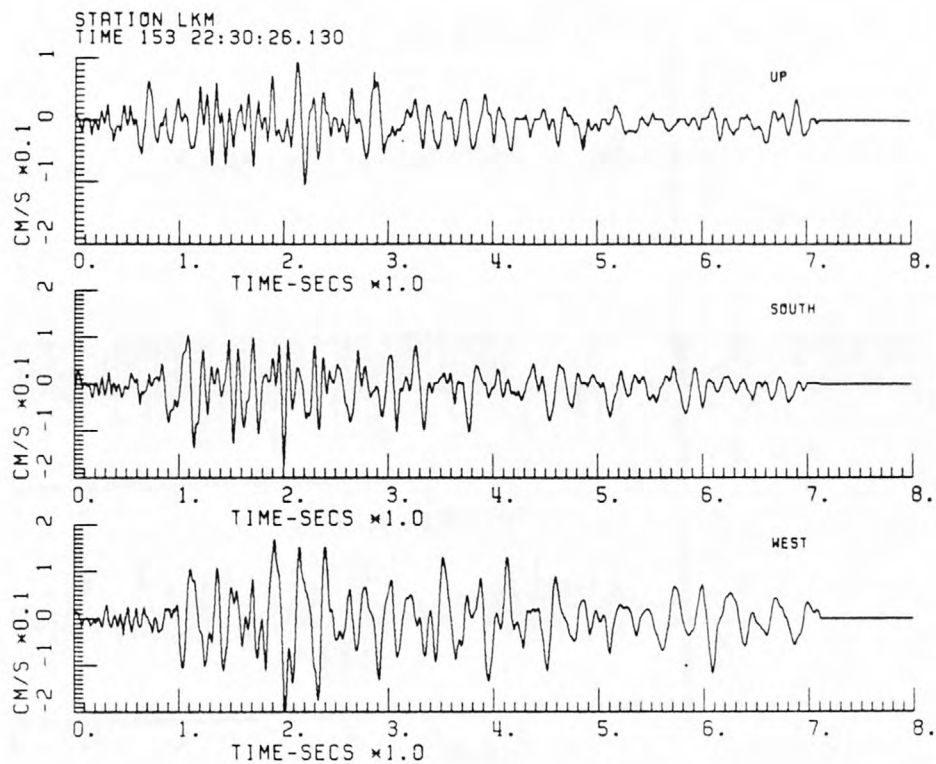


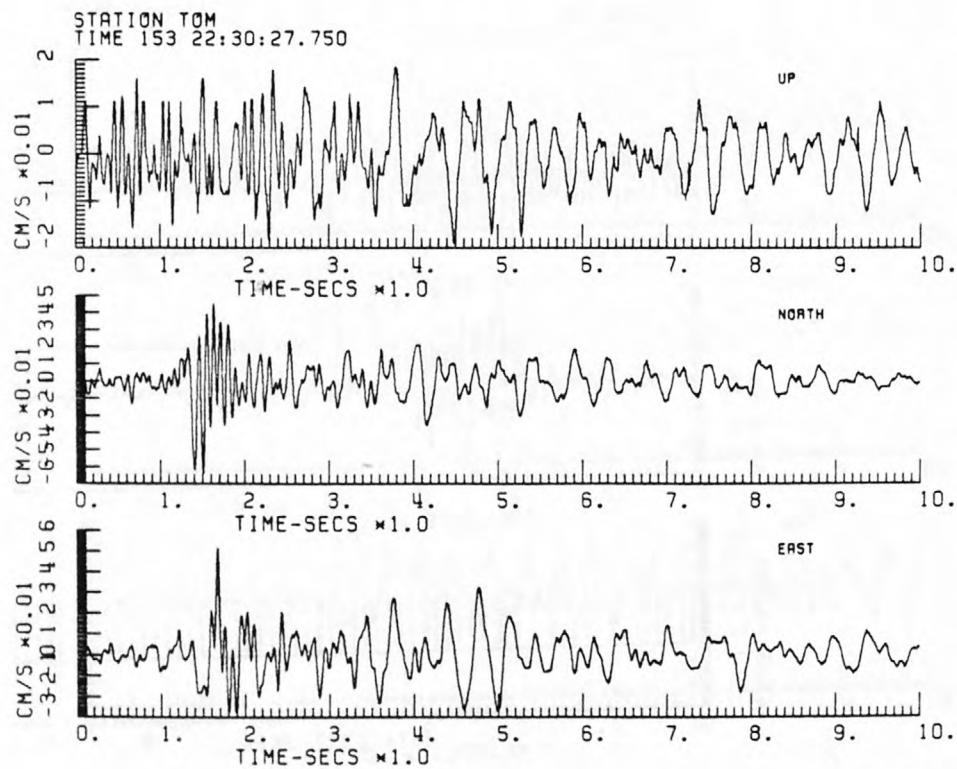
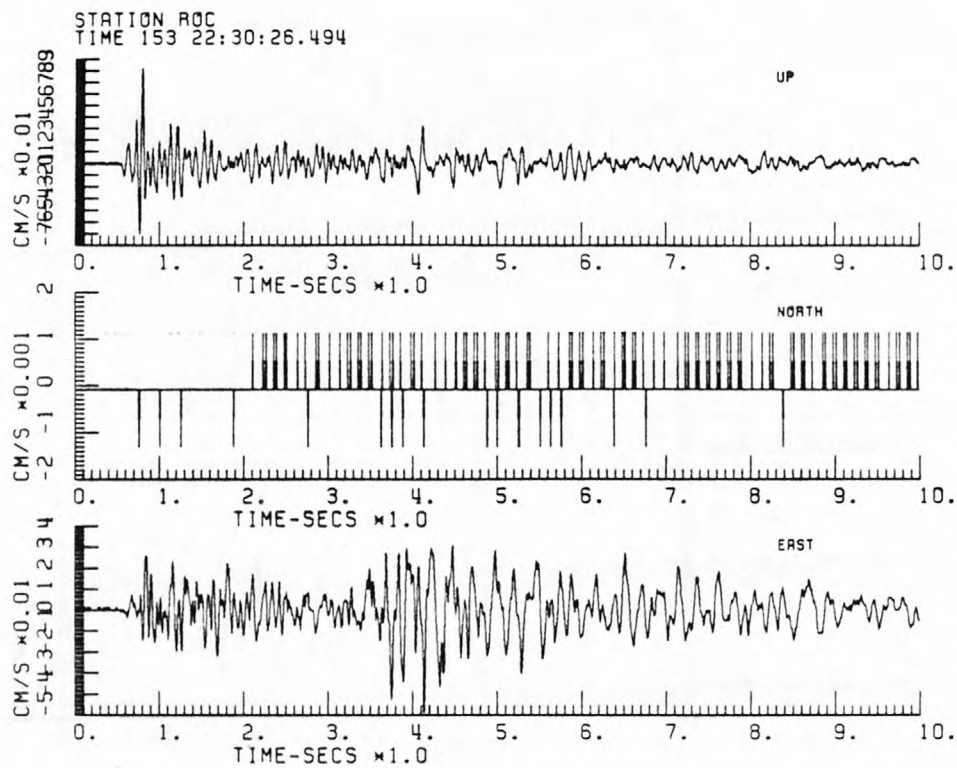


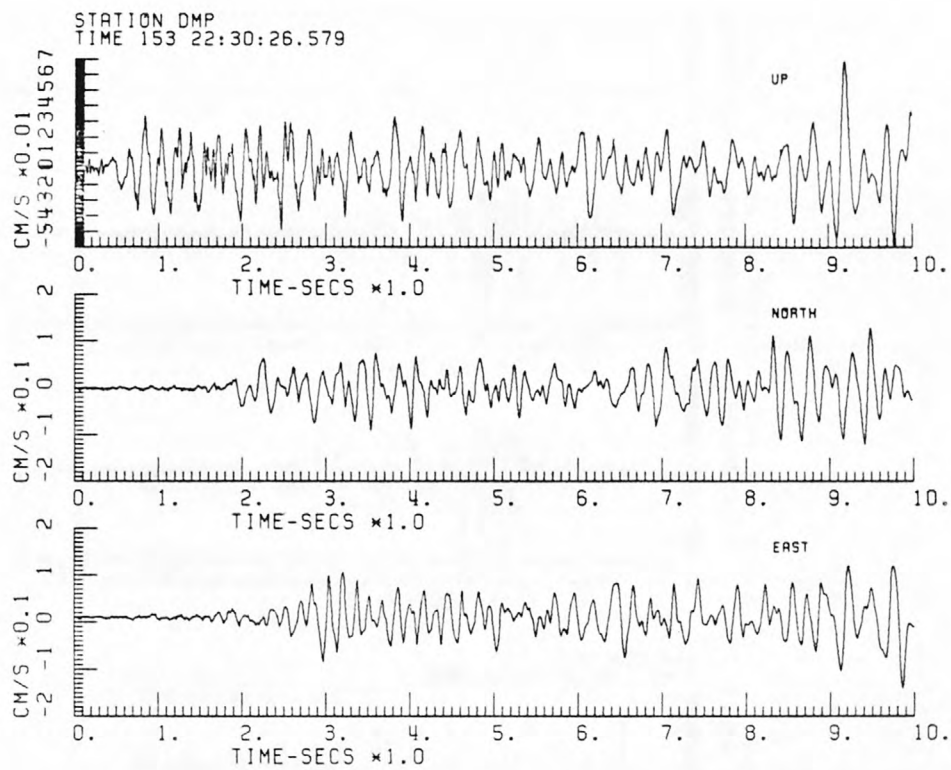


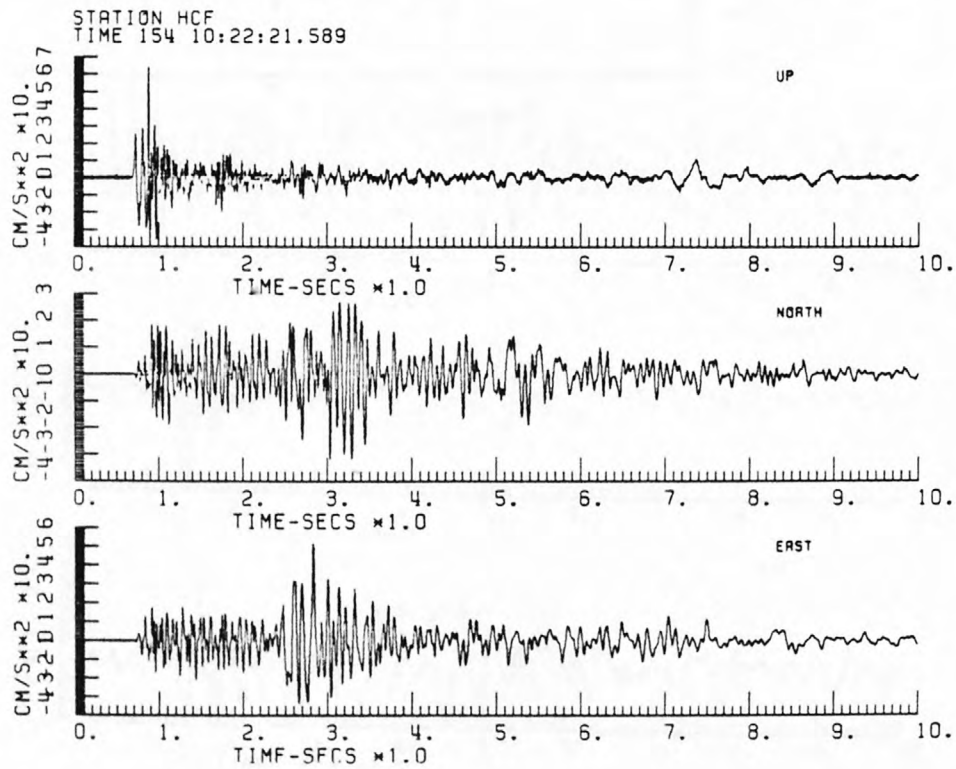
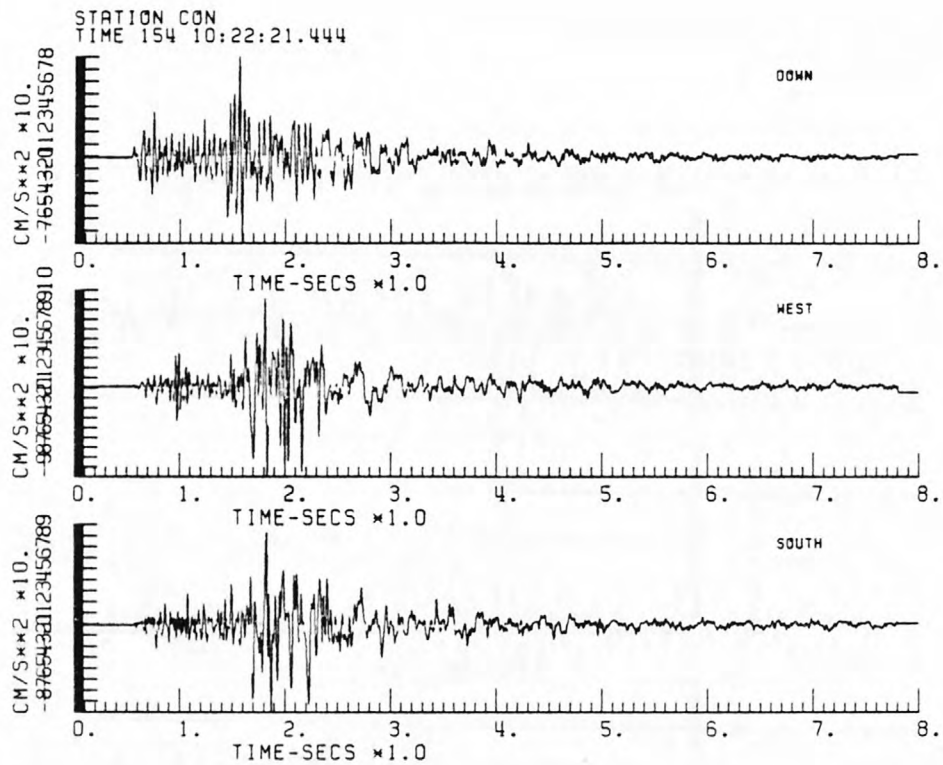


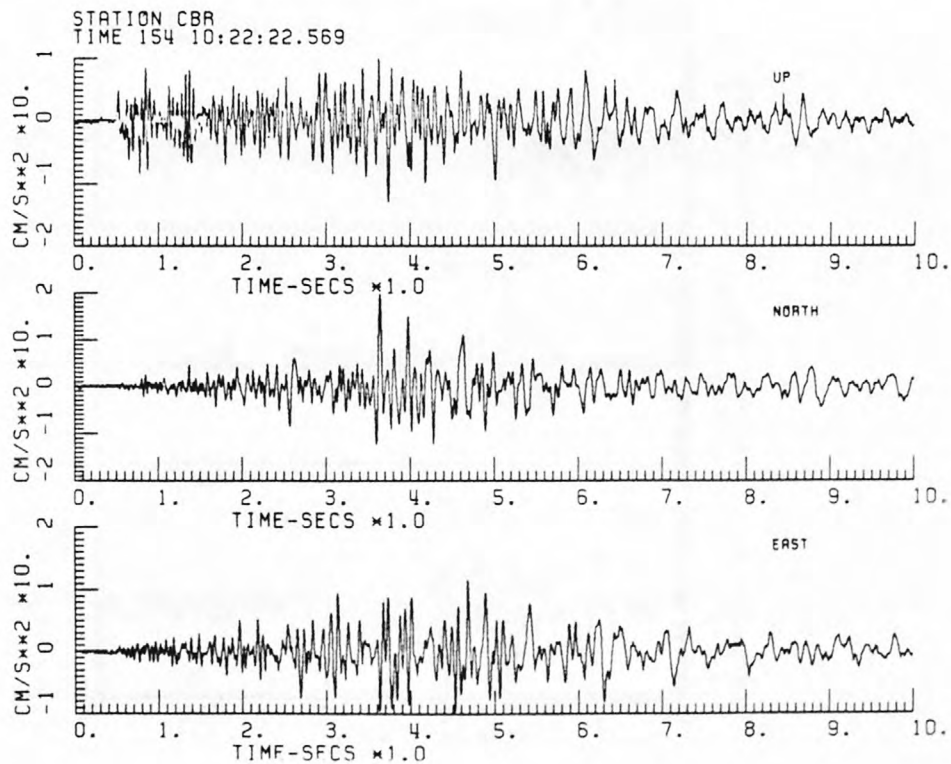
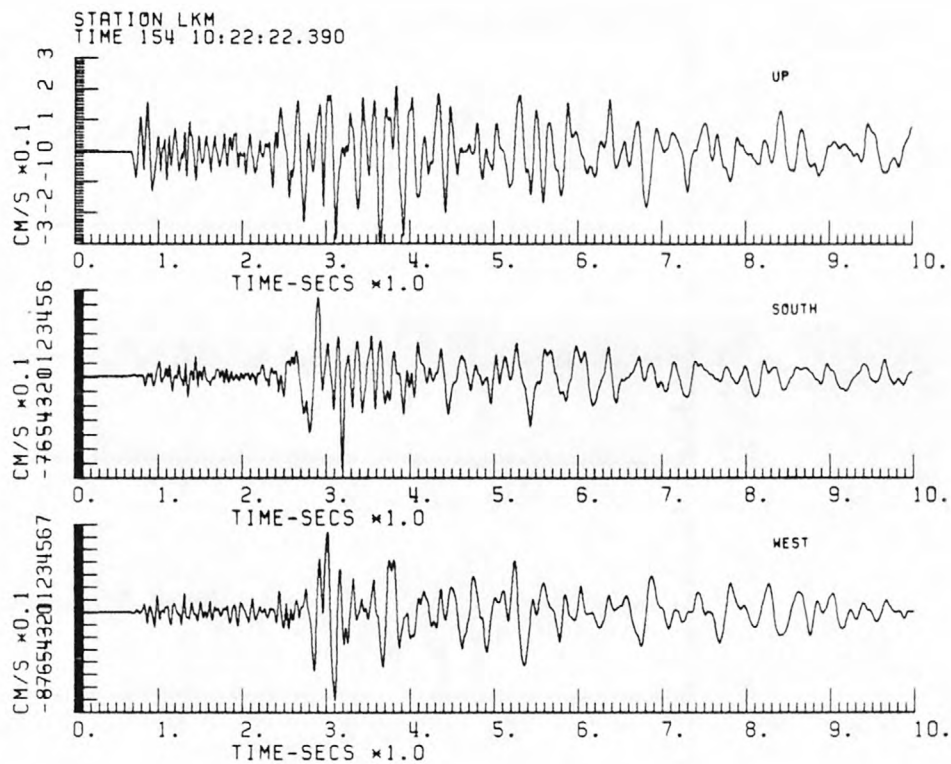


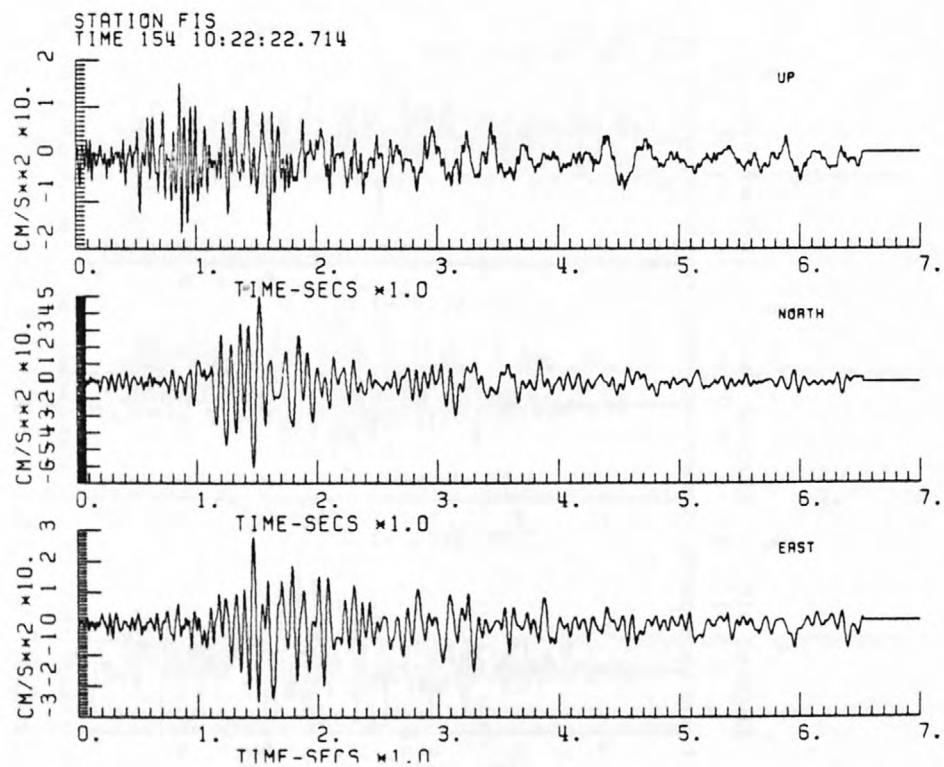
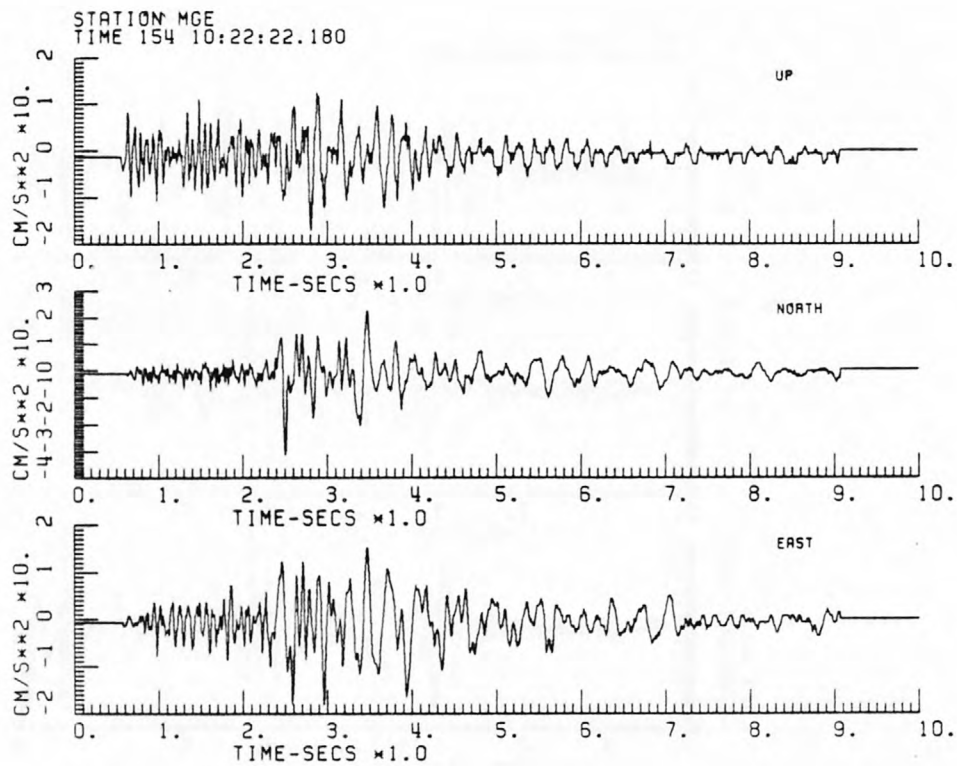


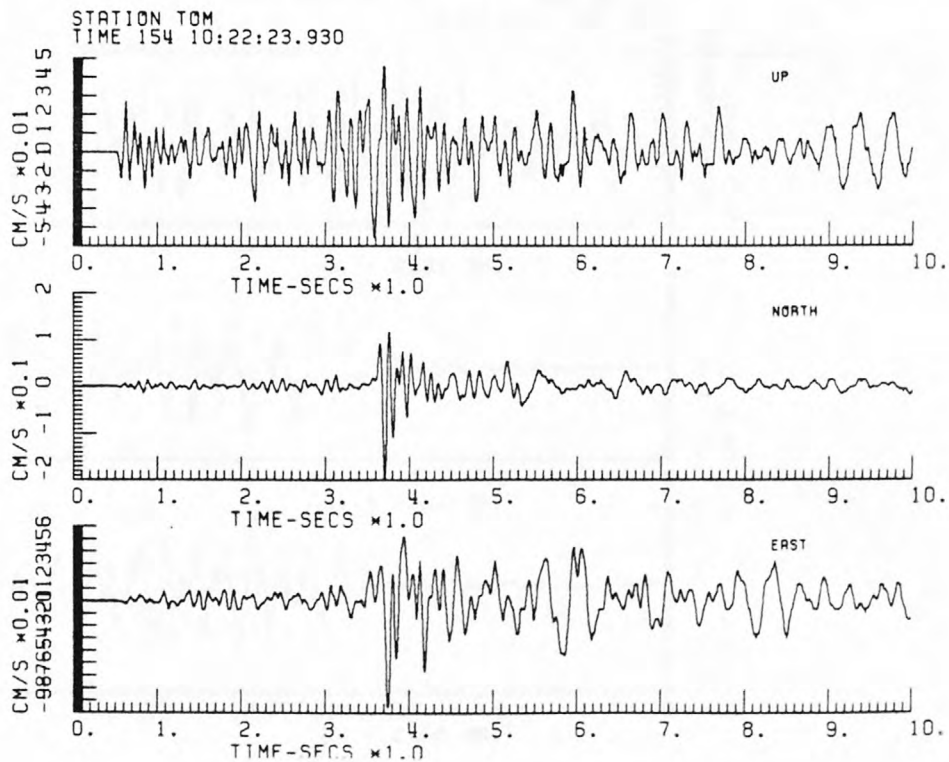
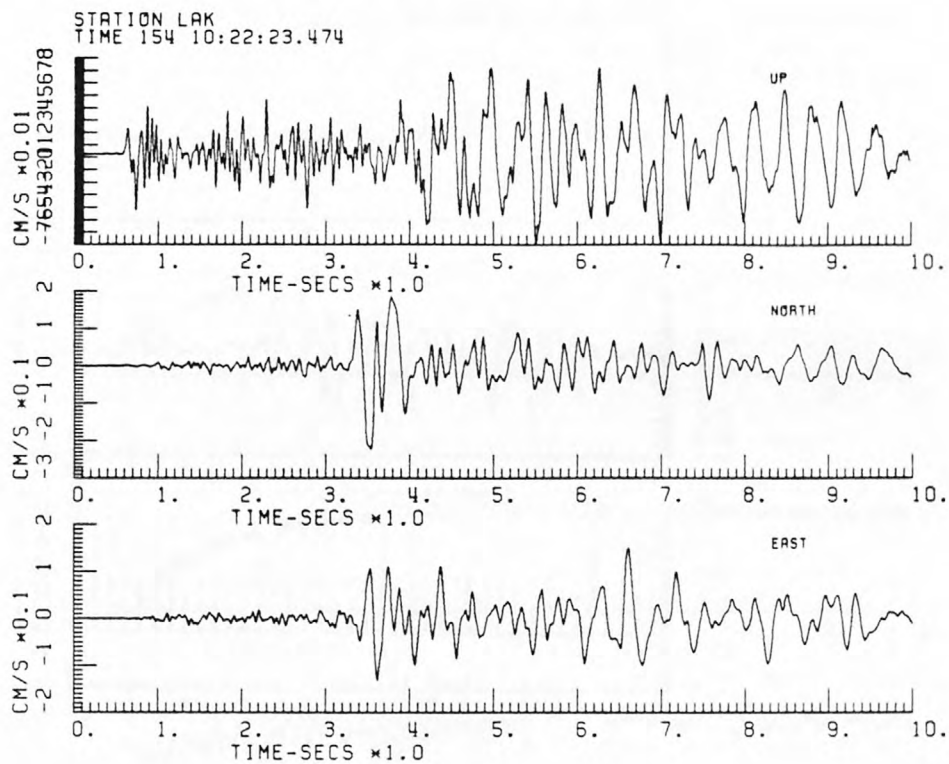


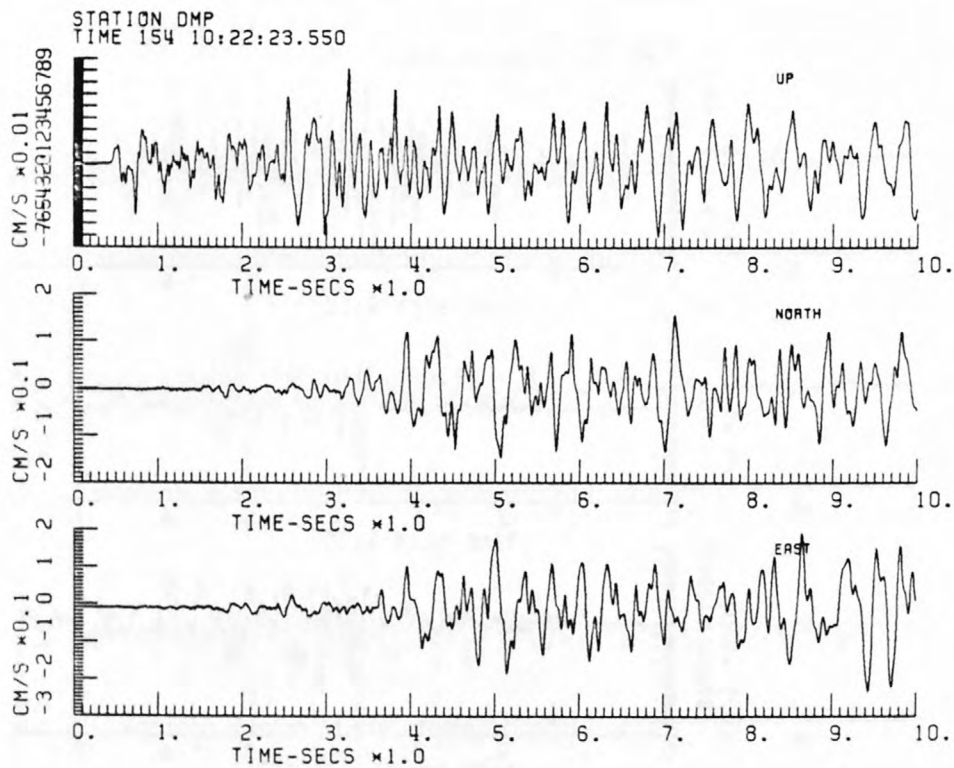
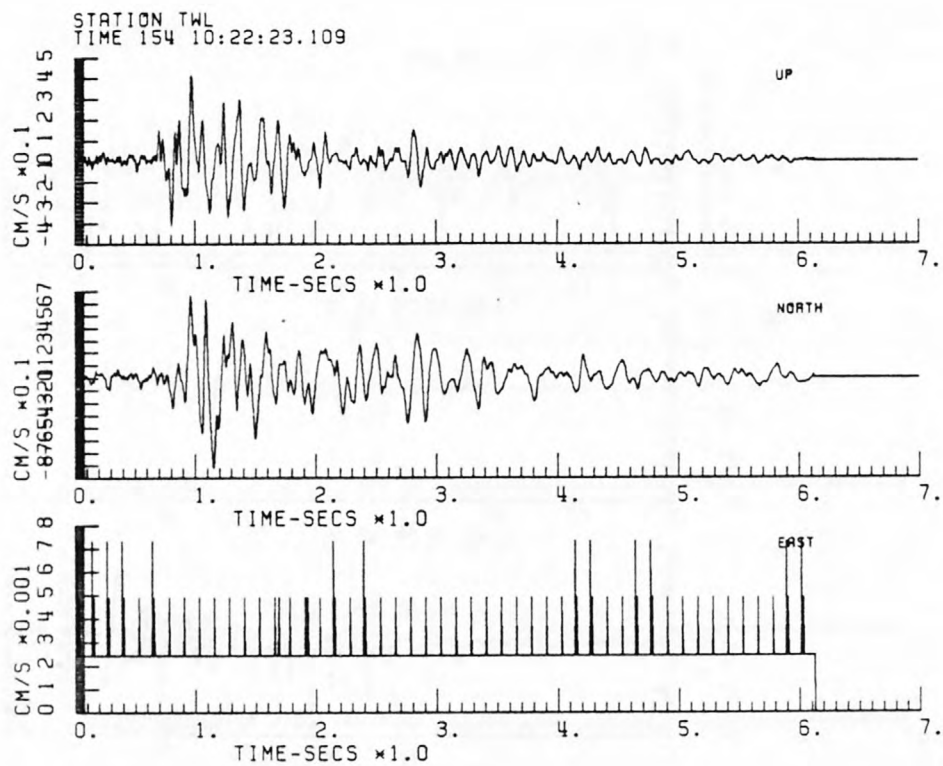


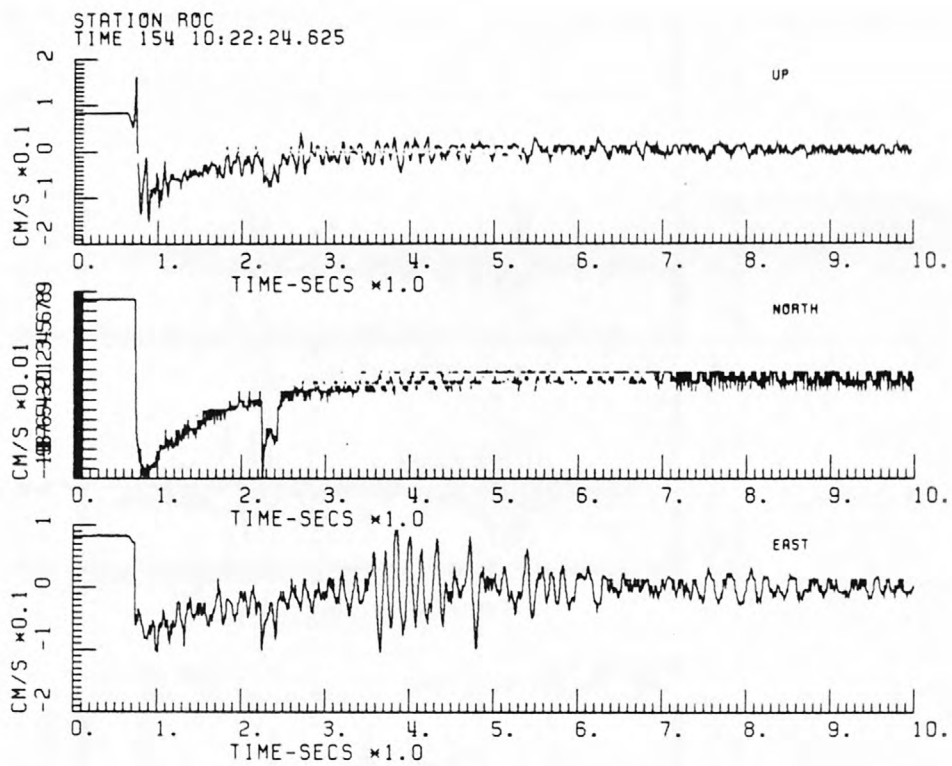


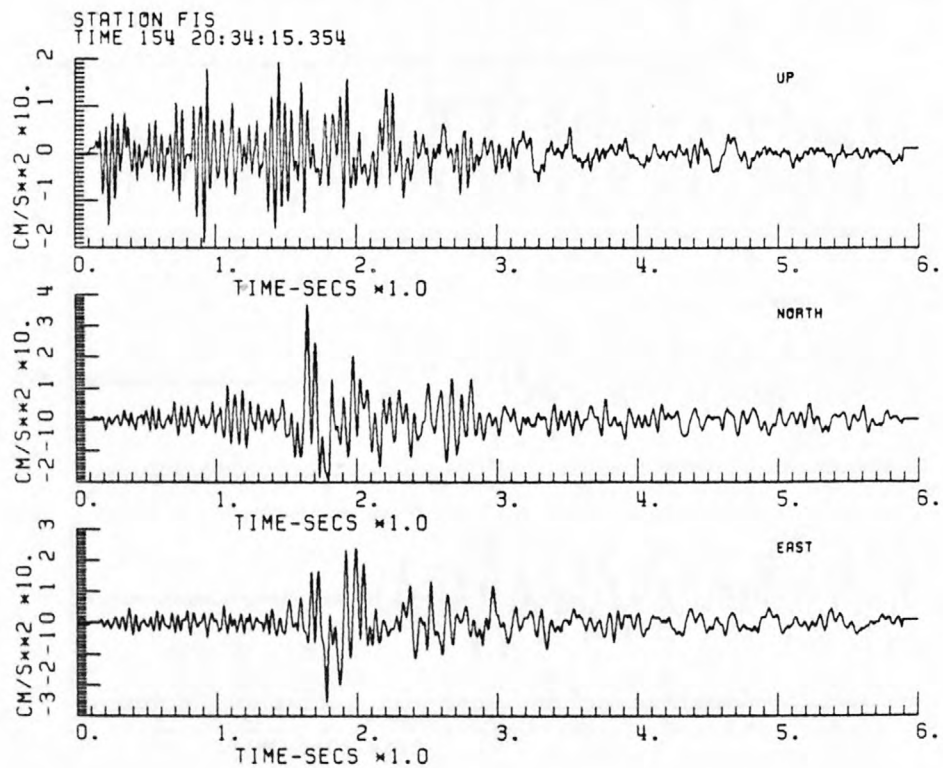
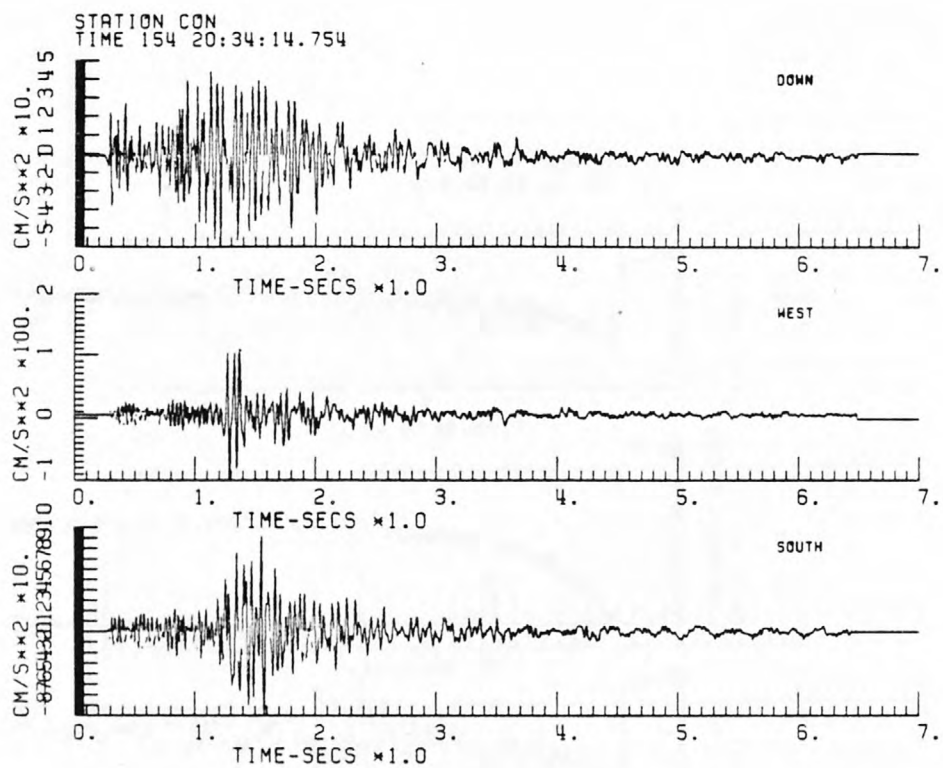


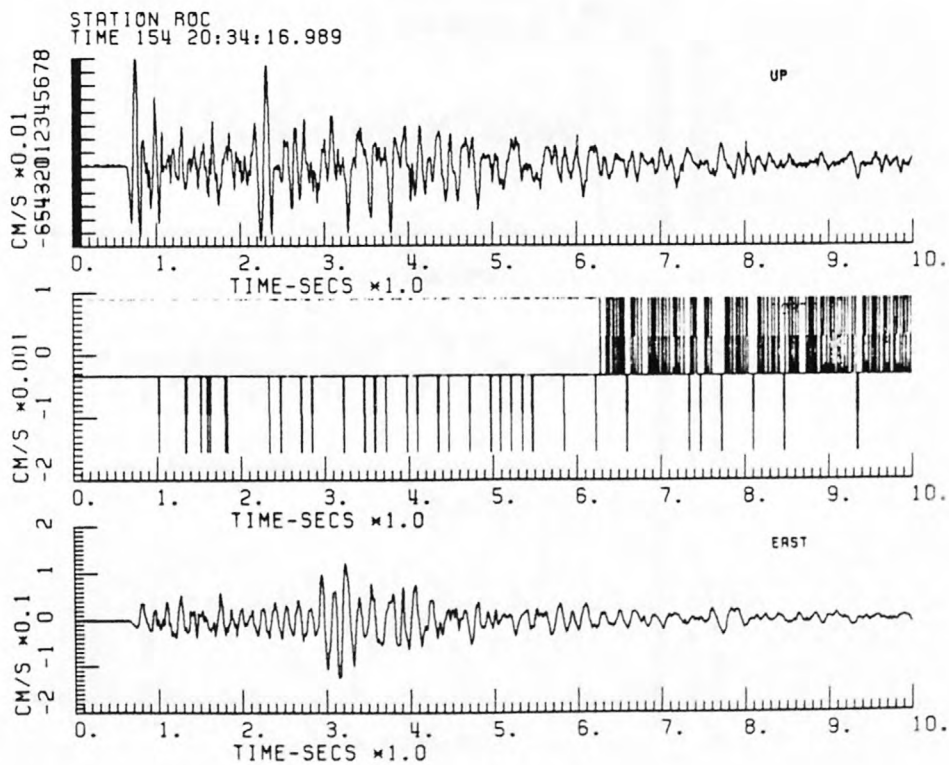
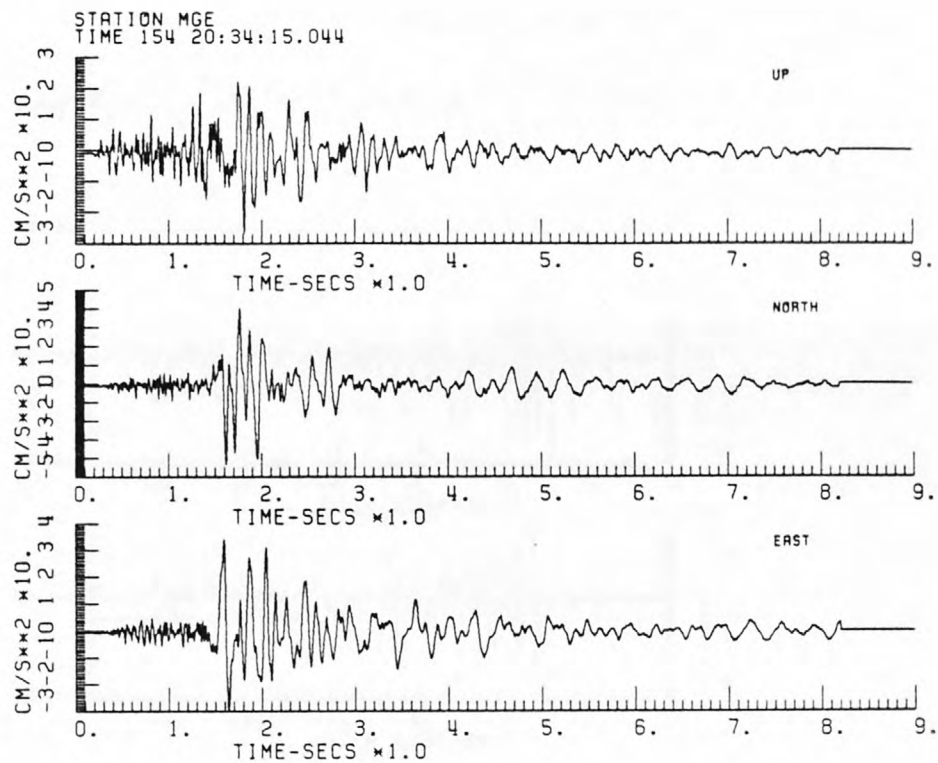












UP

CM/Sec $\times 10$

TIME-SECS $\times 1.0$

NORTH

CM/Sec $\times 10$

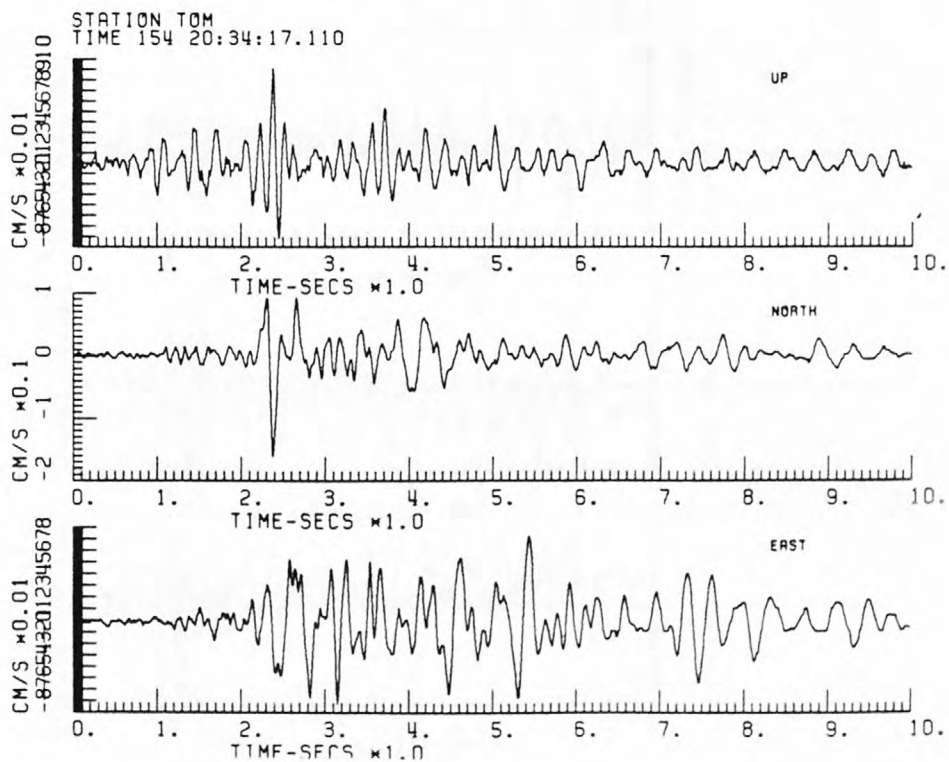
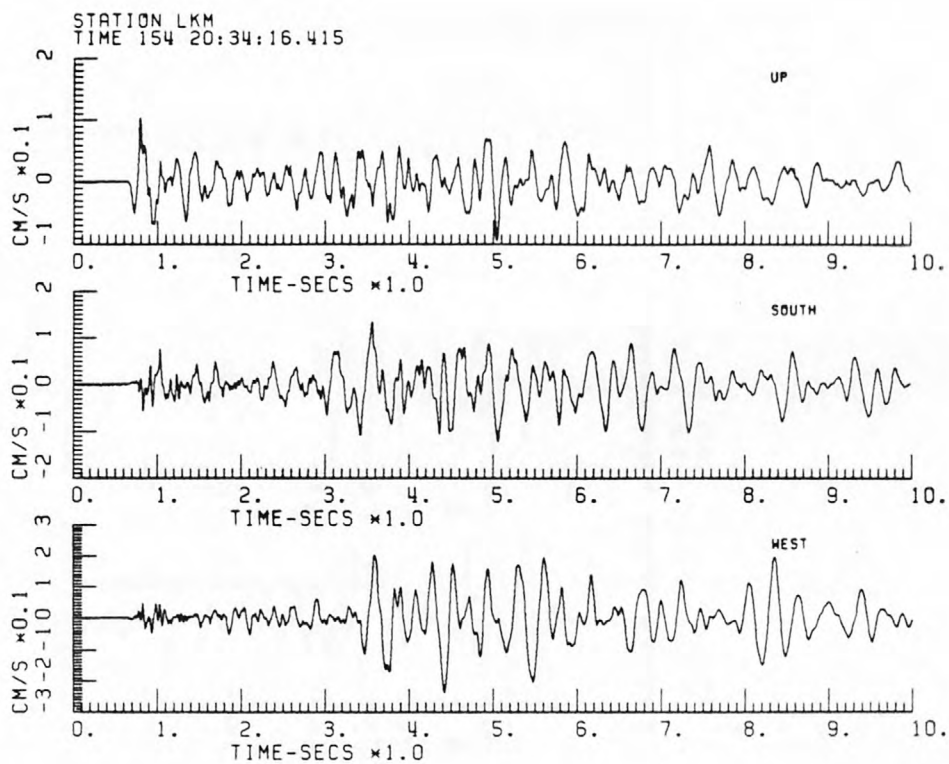
TIME-SECS $\times 1.0$

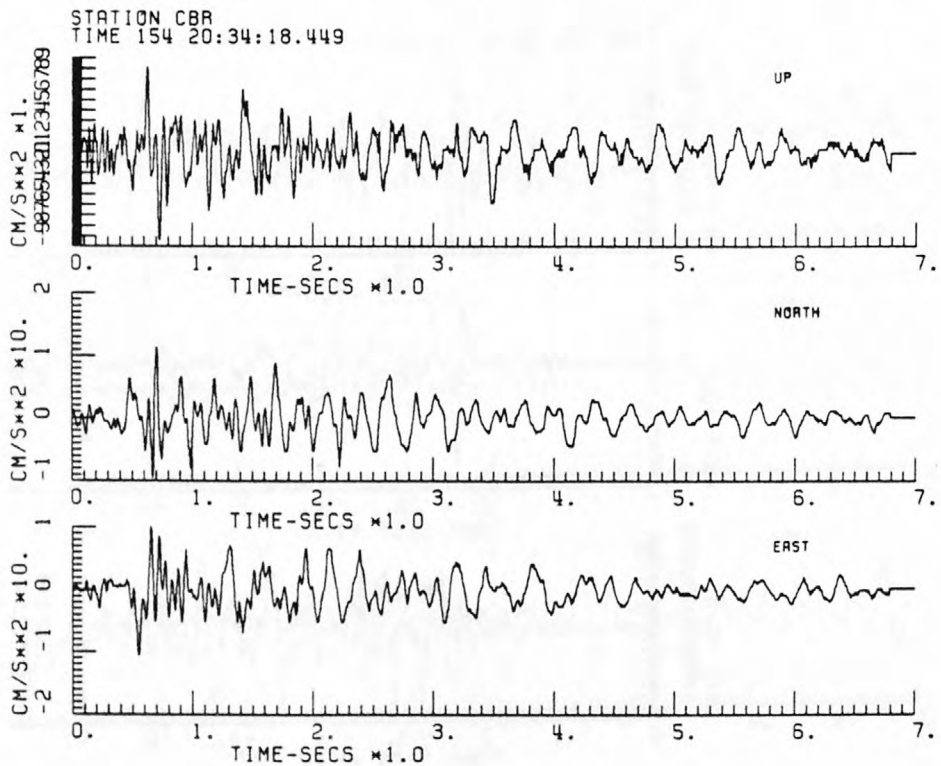
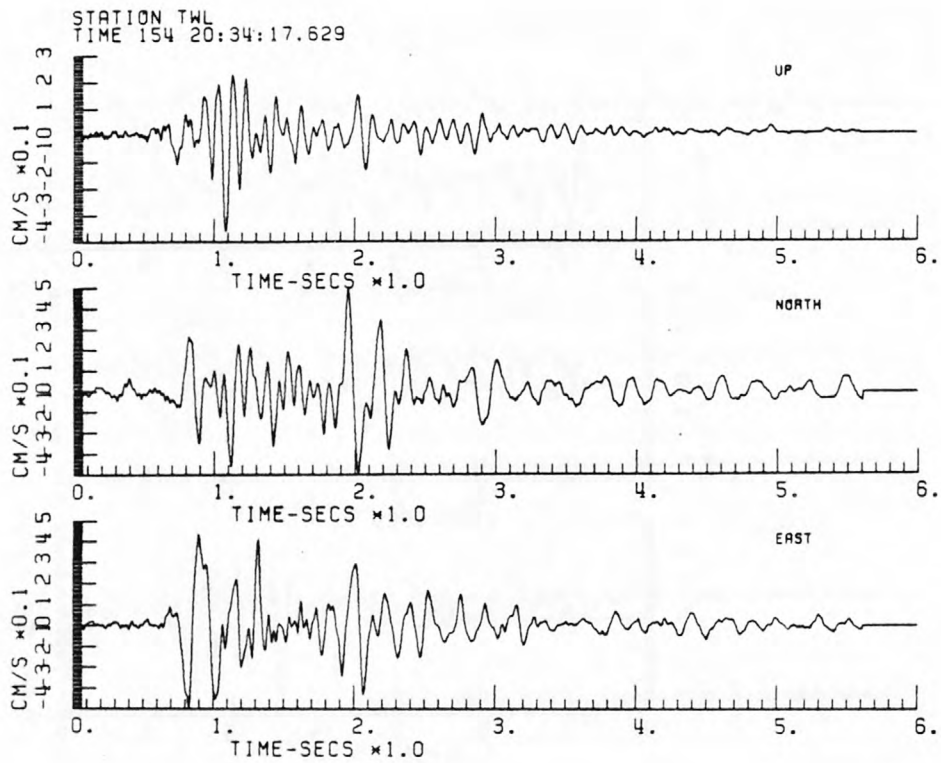
EAST

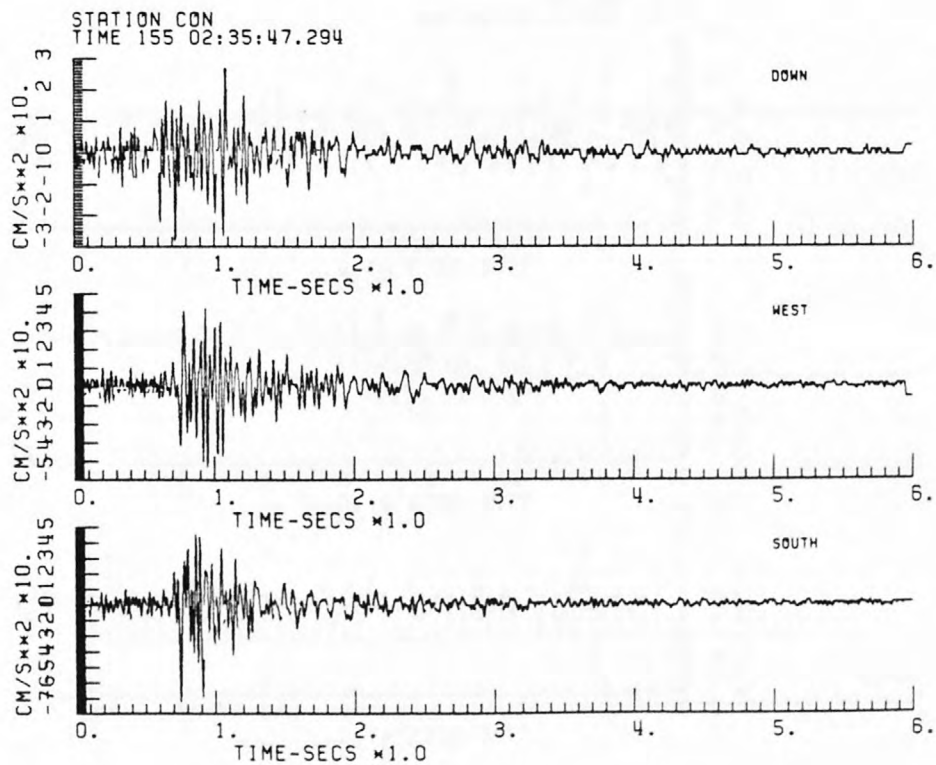
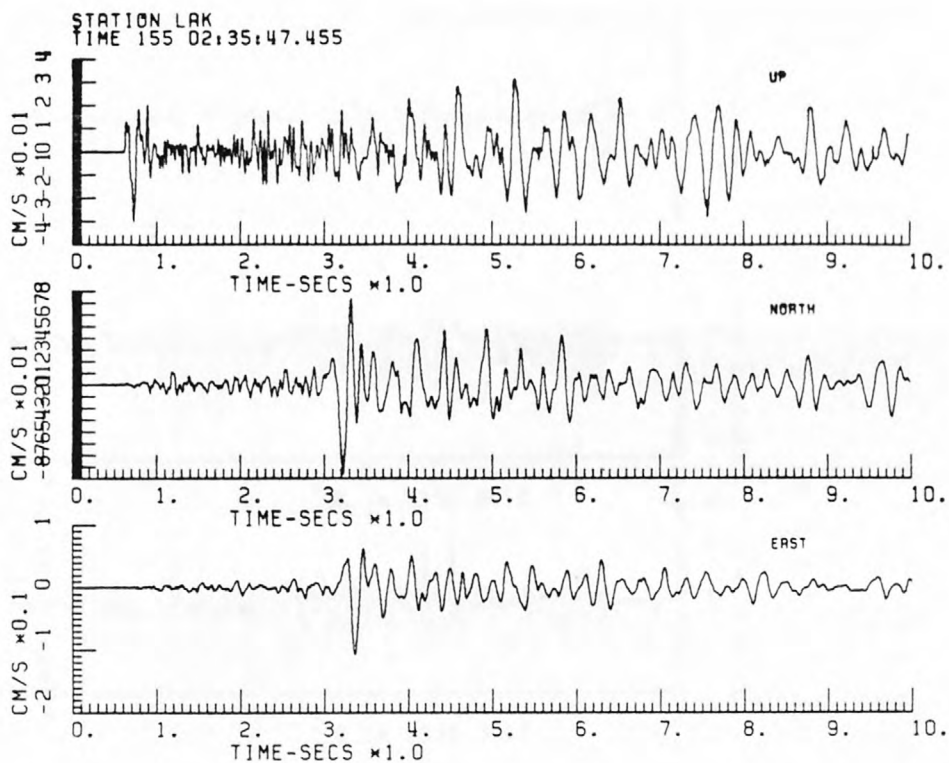
CM/Sec $\times 10$

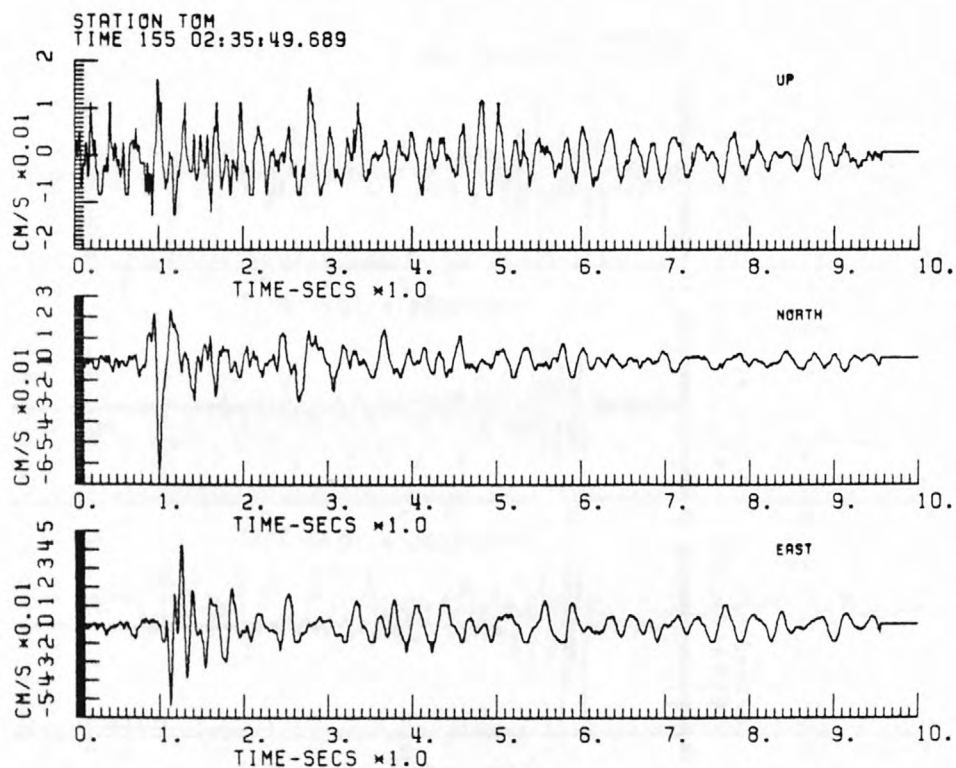
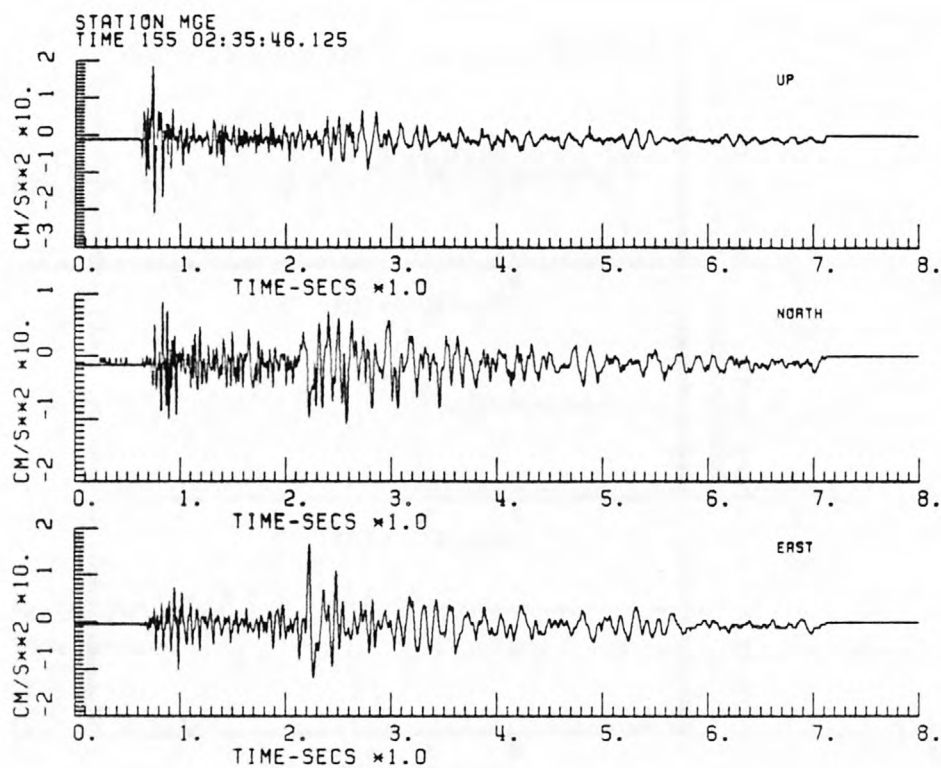
TIME-SECS $\times 1.0$

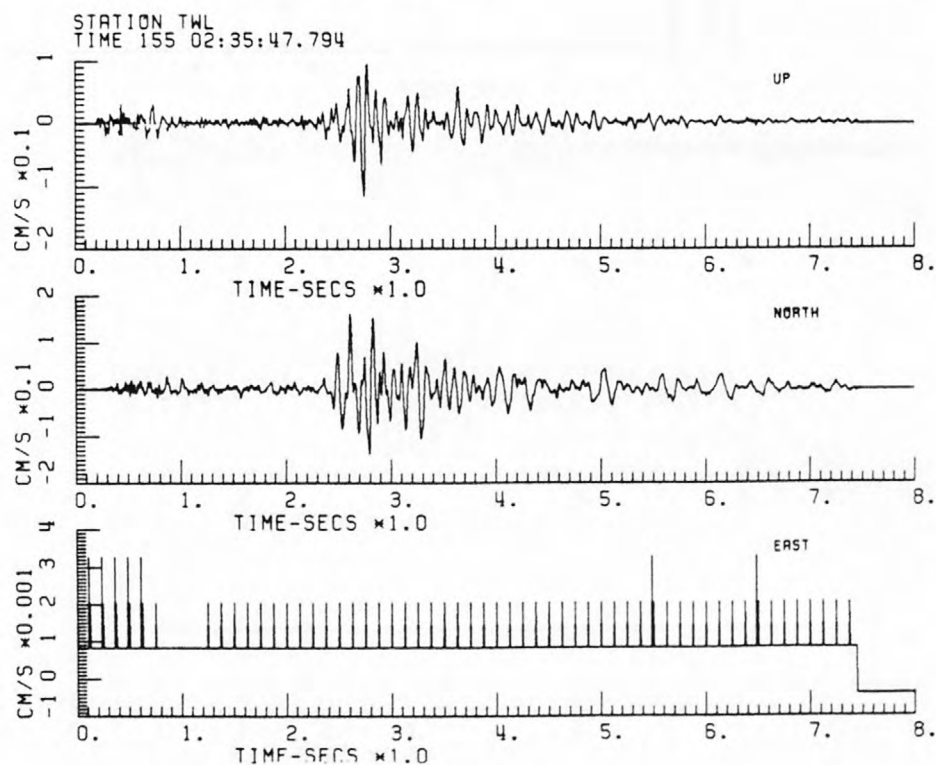
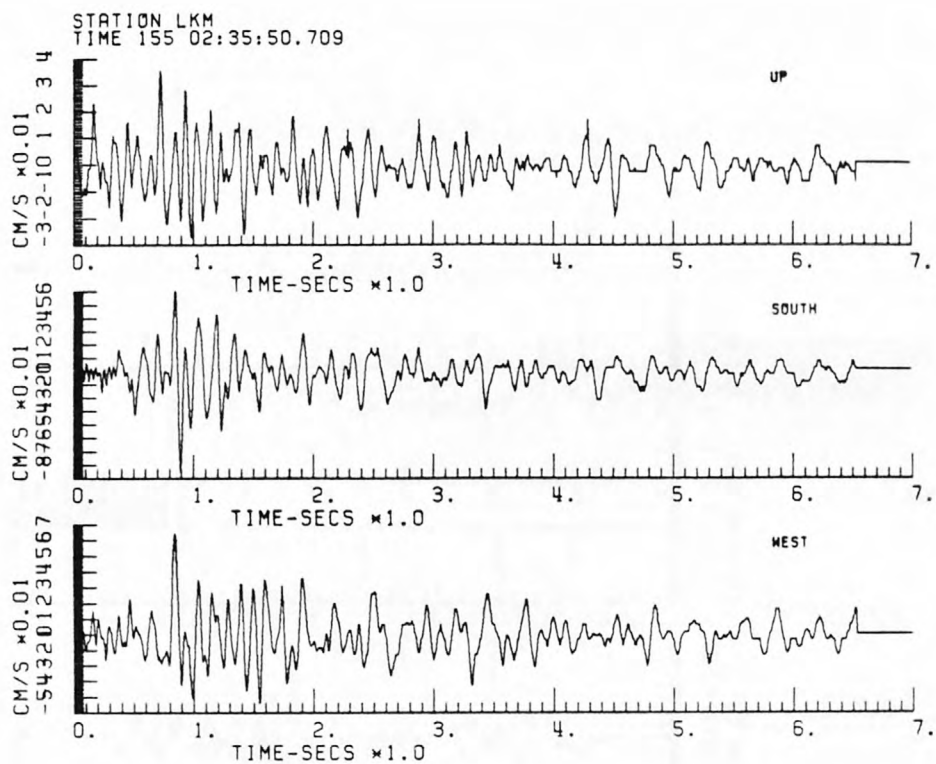
The figure displays three stacked seismograms, labeled UP, NORTH, and EAST, showing ground motion over a 10-second interval. The vertical axis for each plot is labeled CM/S x 0.1, and the horizontal axis is labeled TIME-SECS x 1.0. The UP component shows a significant peak around 6 seconds. The NORTH component shows a significant peak around 3.5 seconds. The EAST component shows a significant peak around 3.5 seconds.

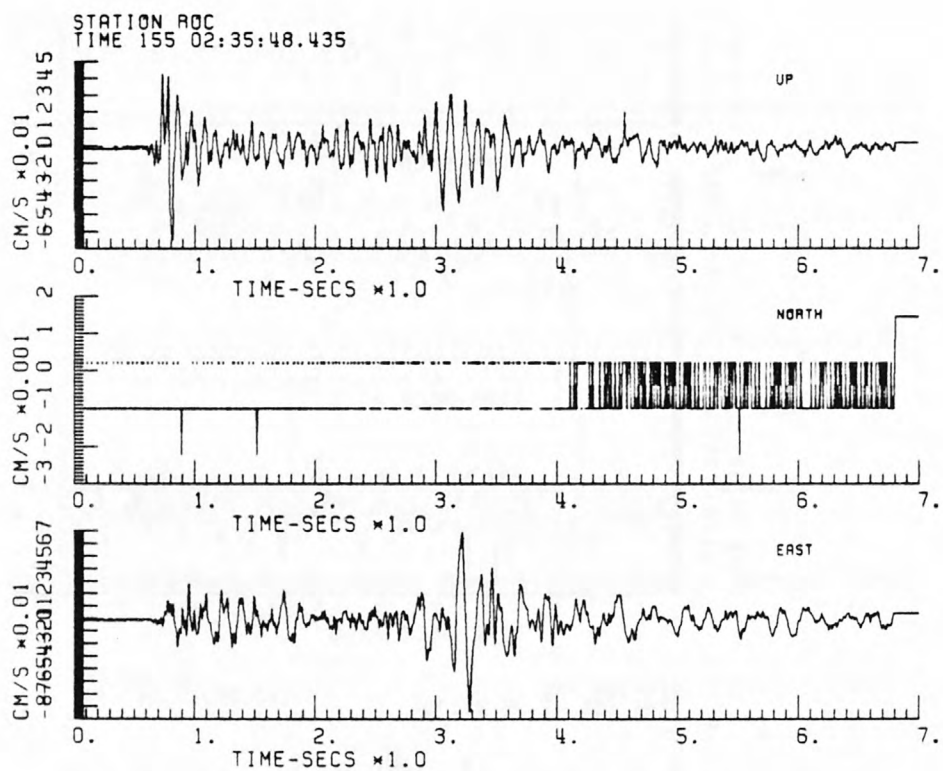


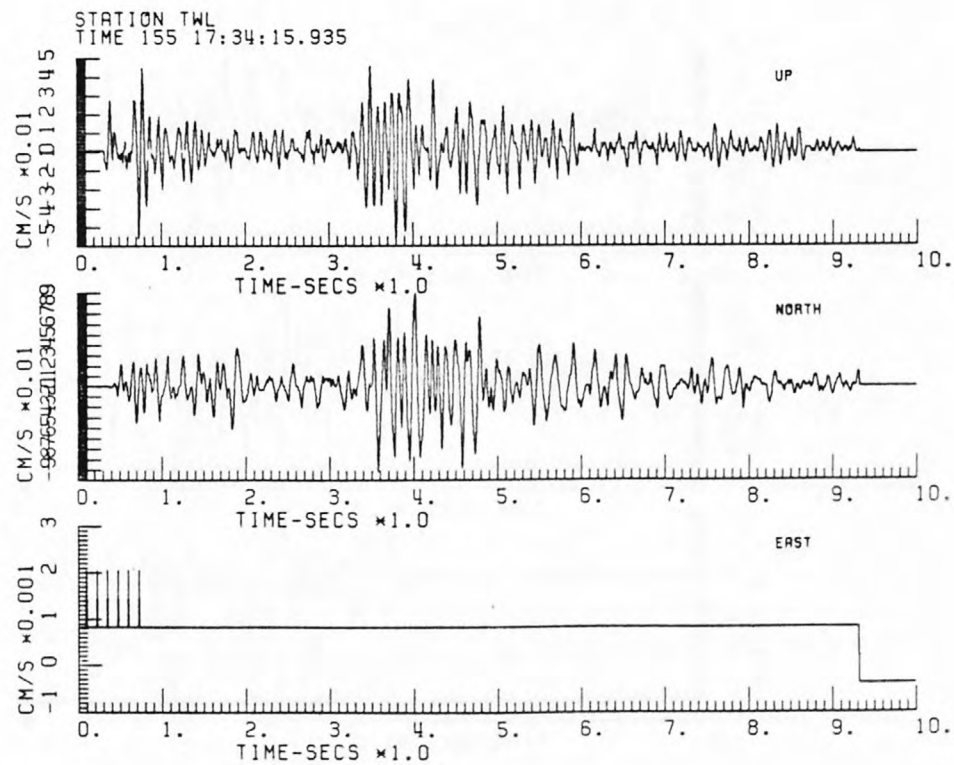
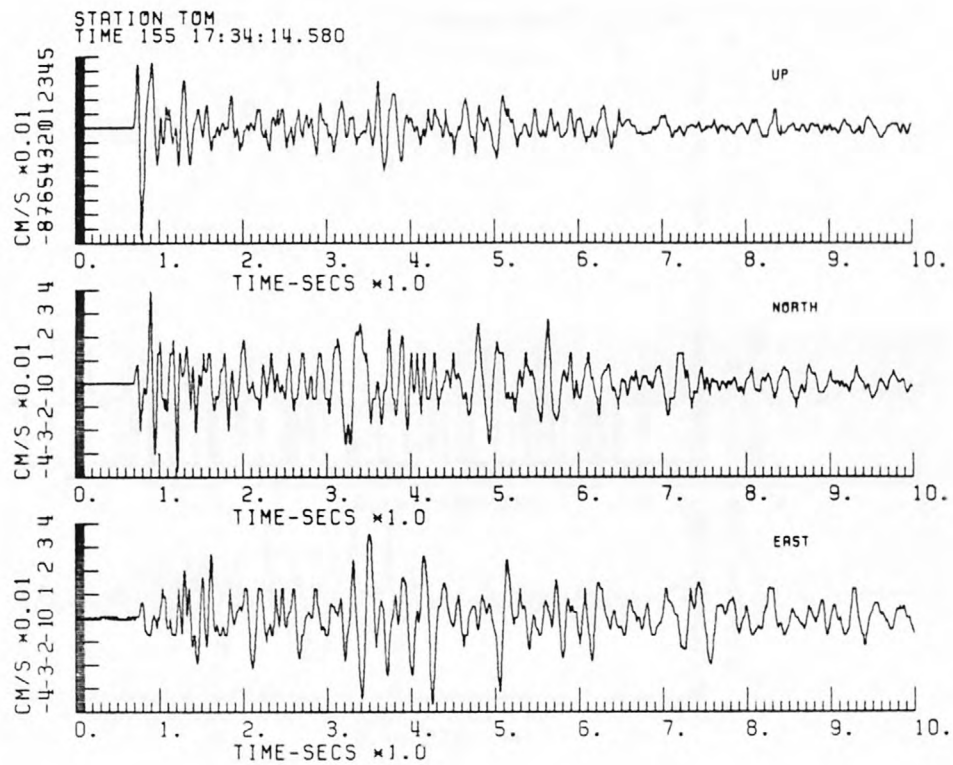


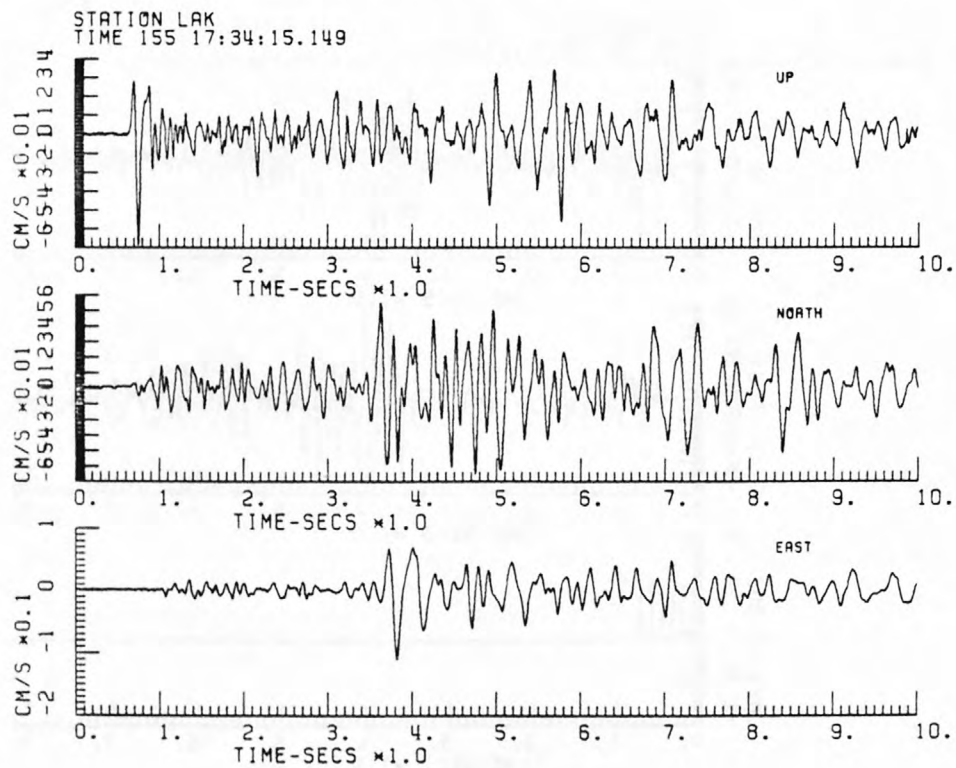
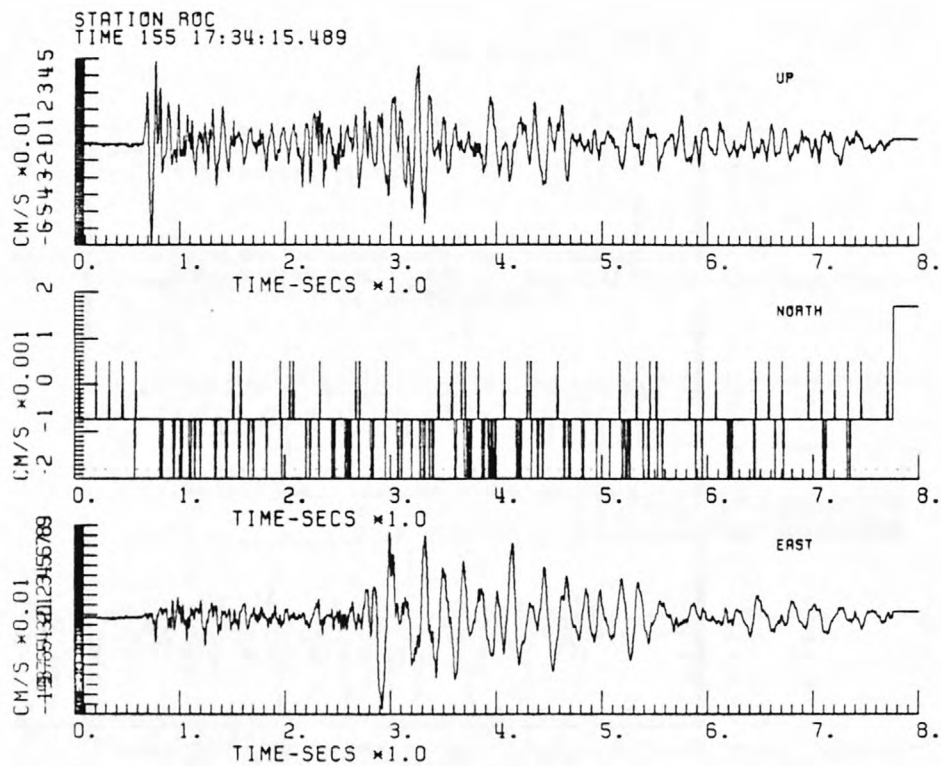


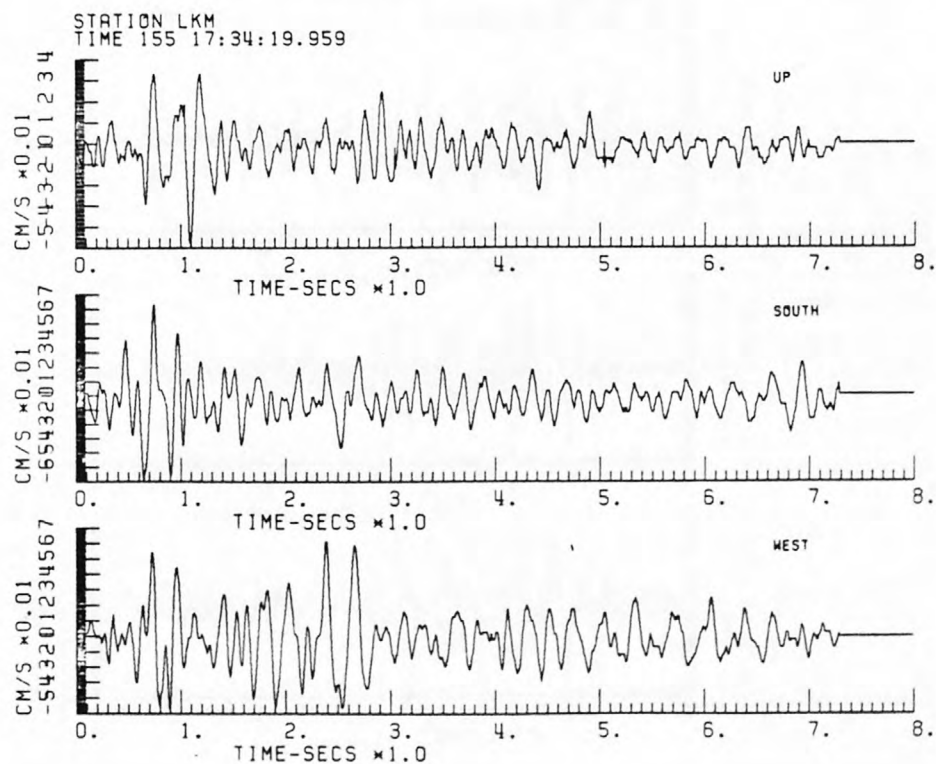
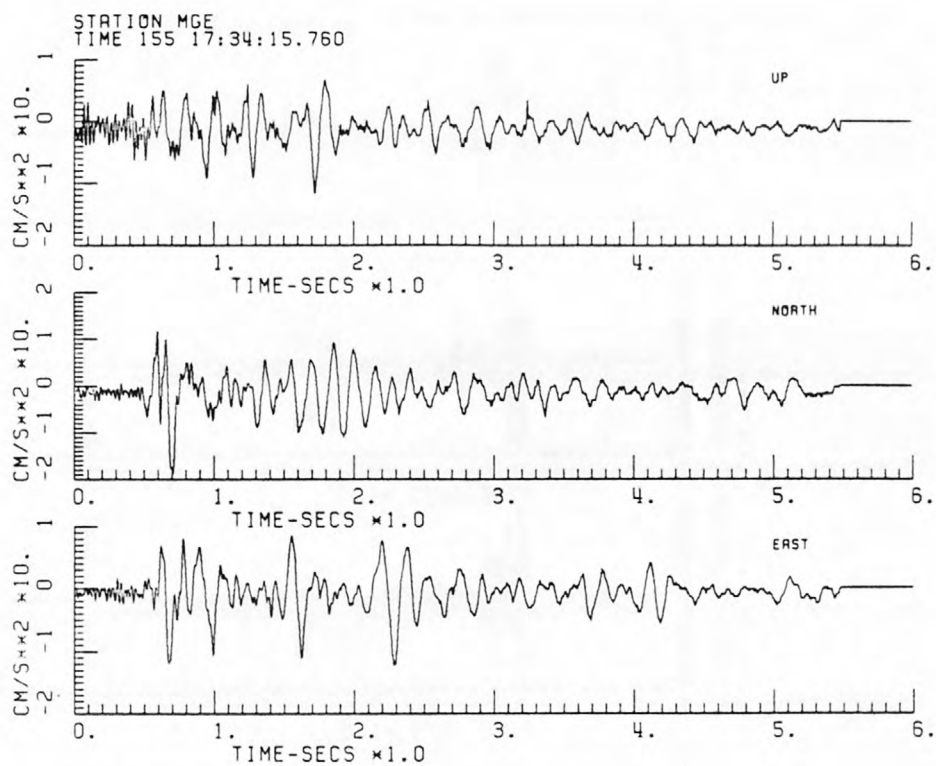


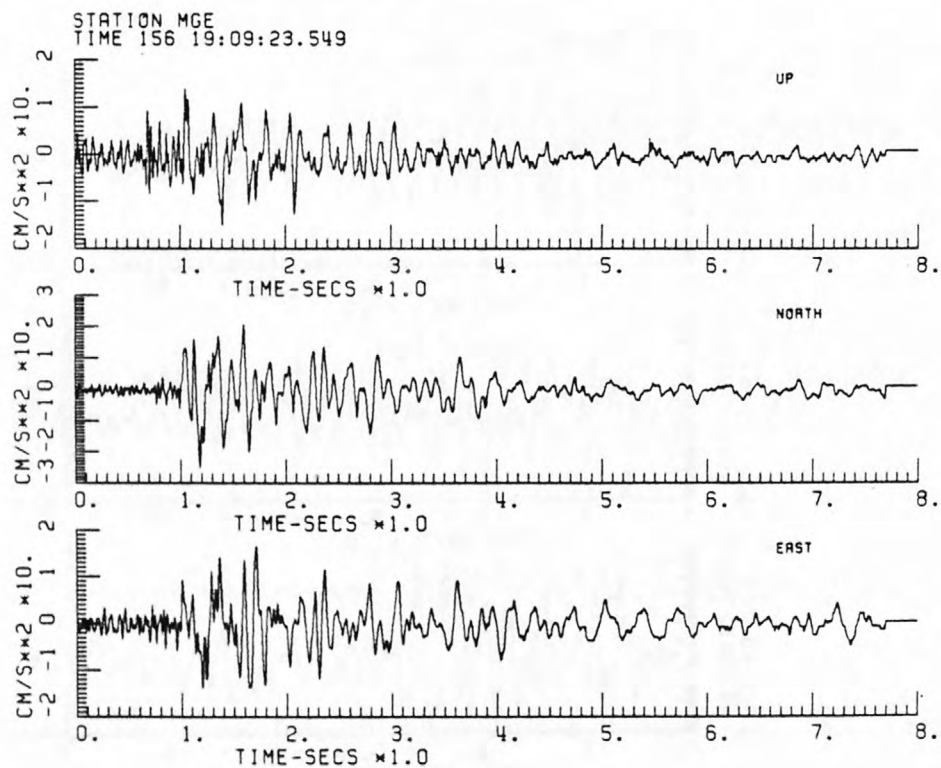
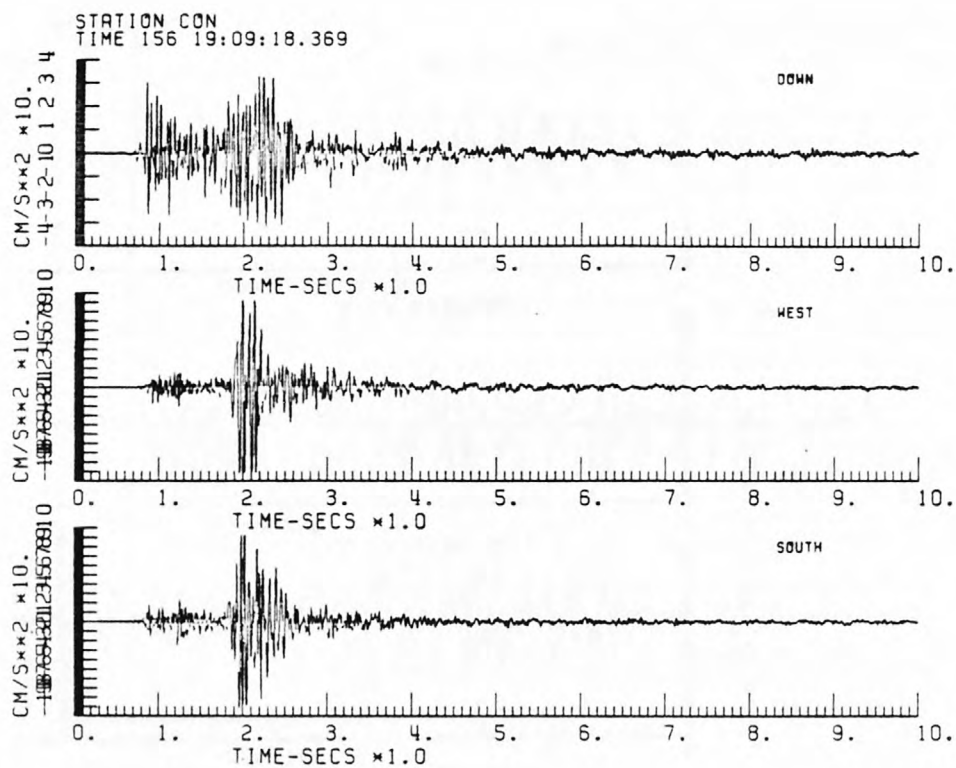


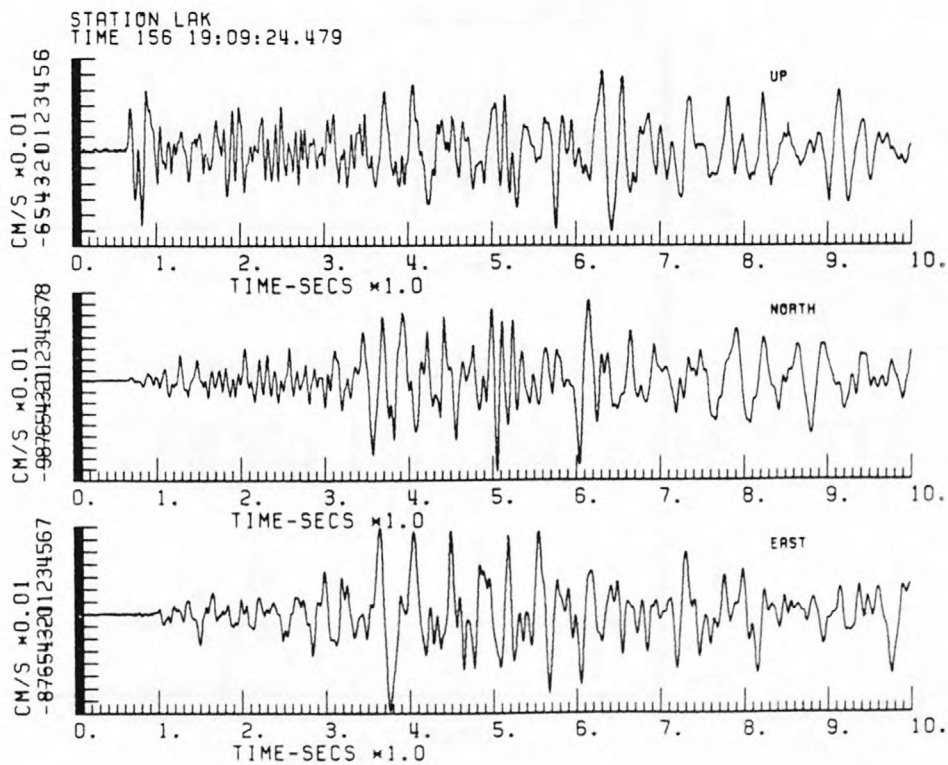
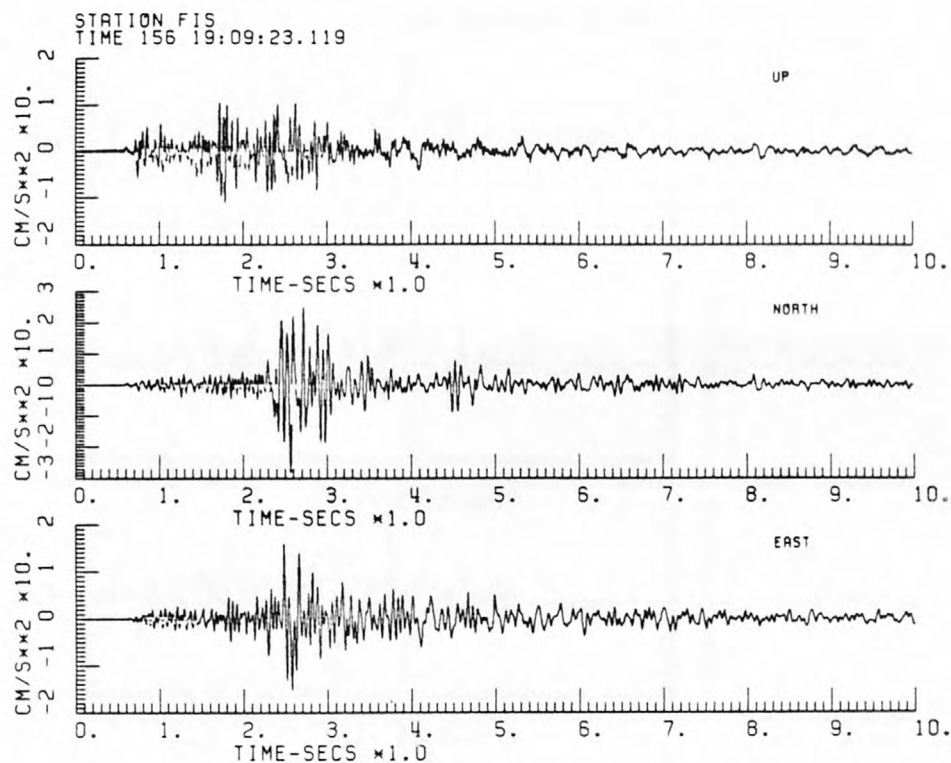


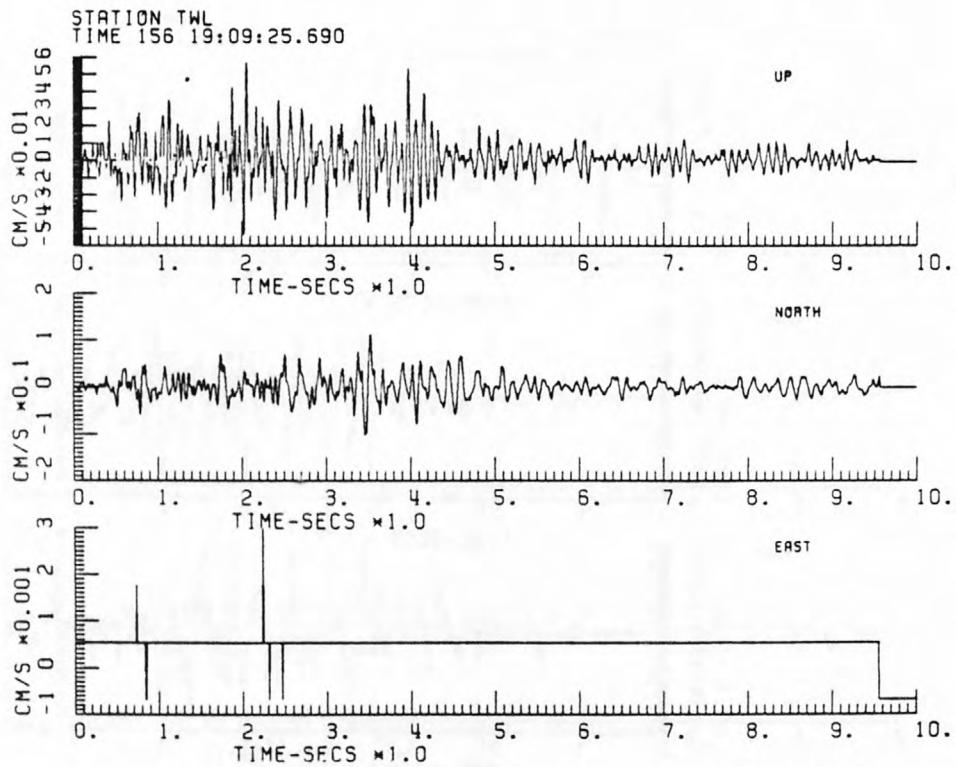
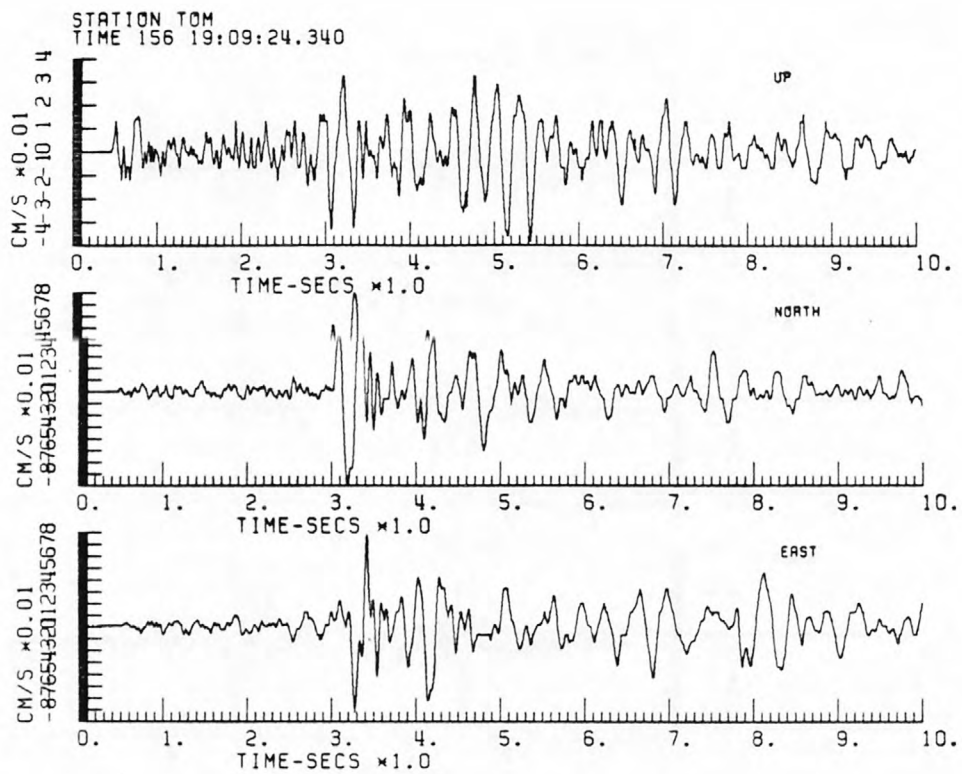


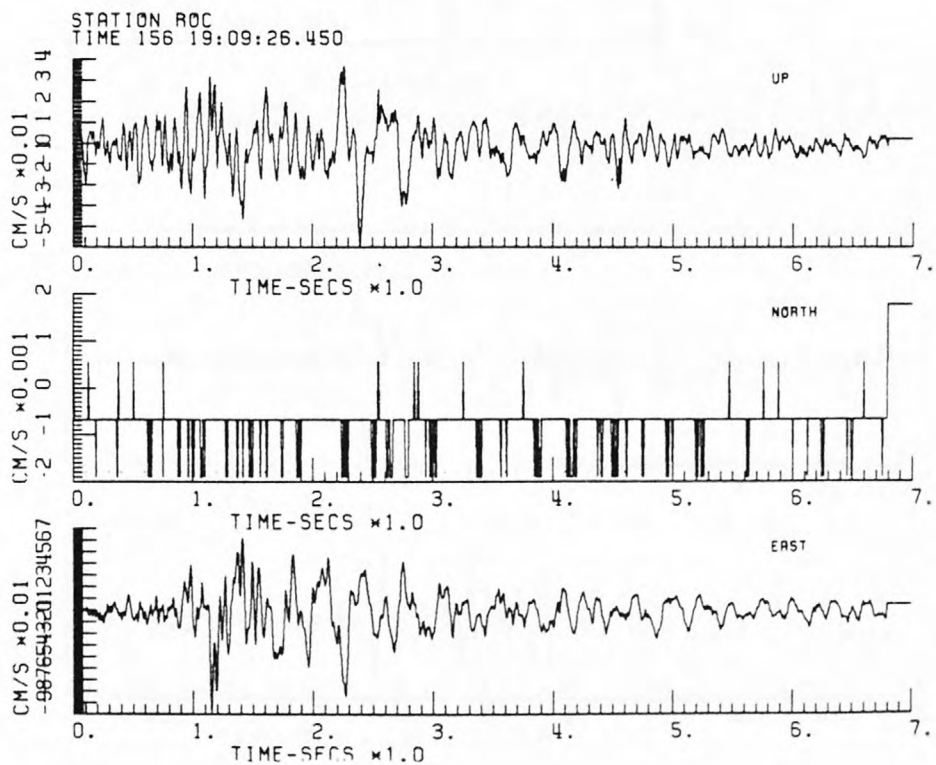
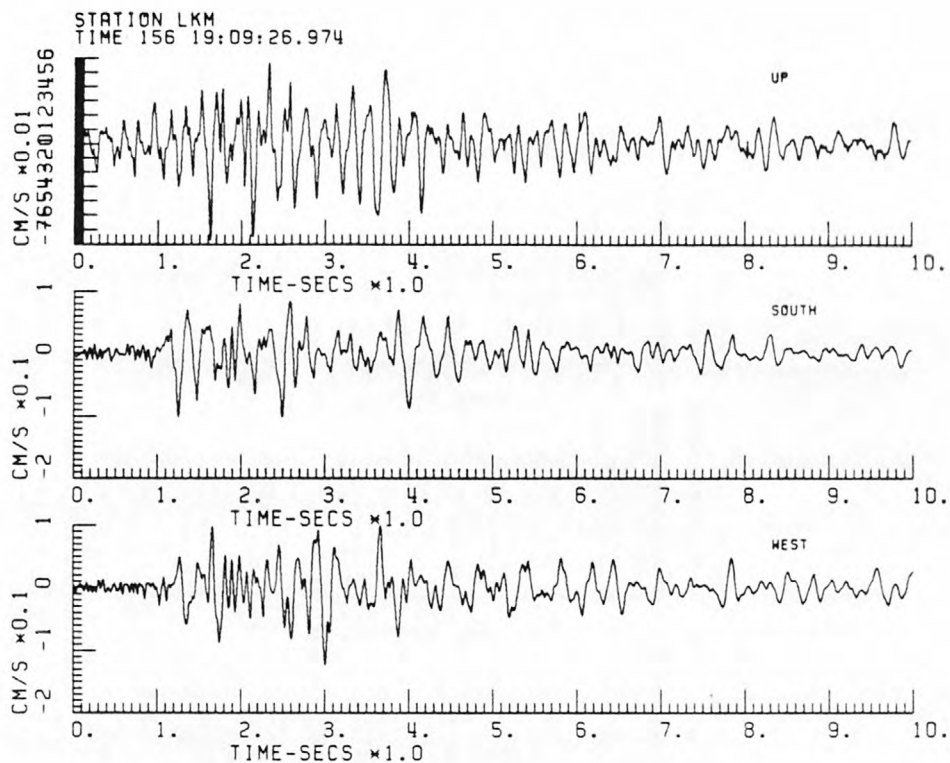


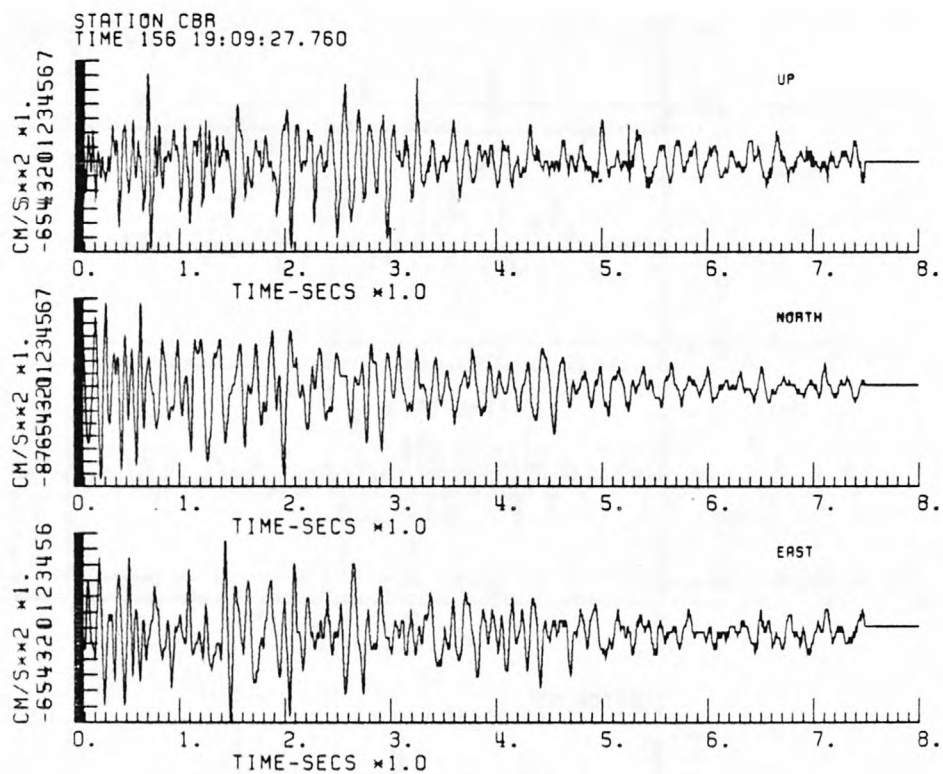


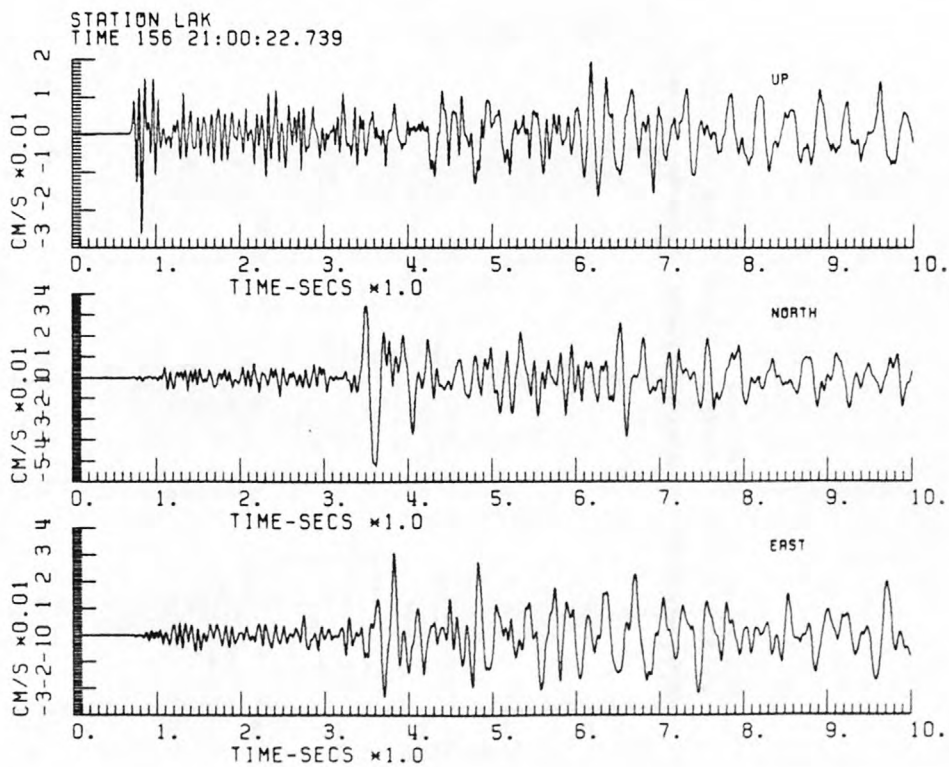
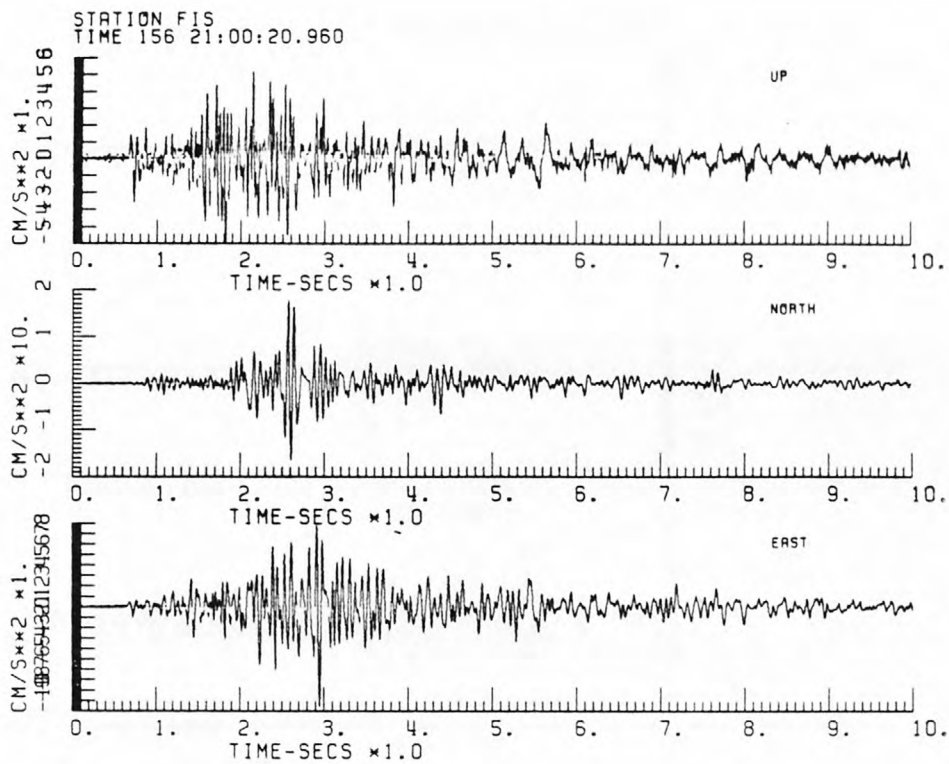


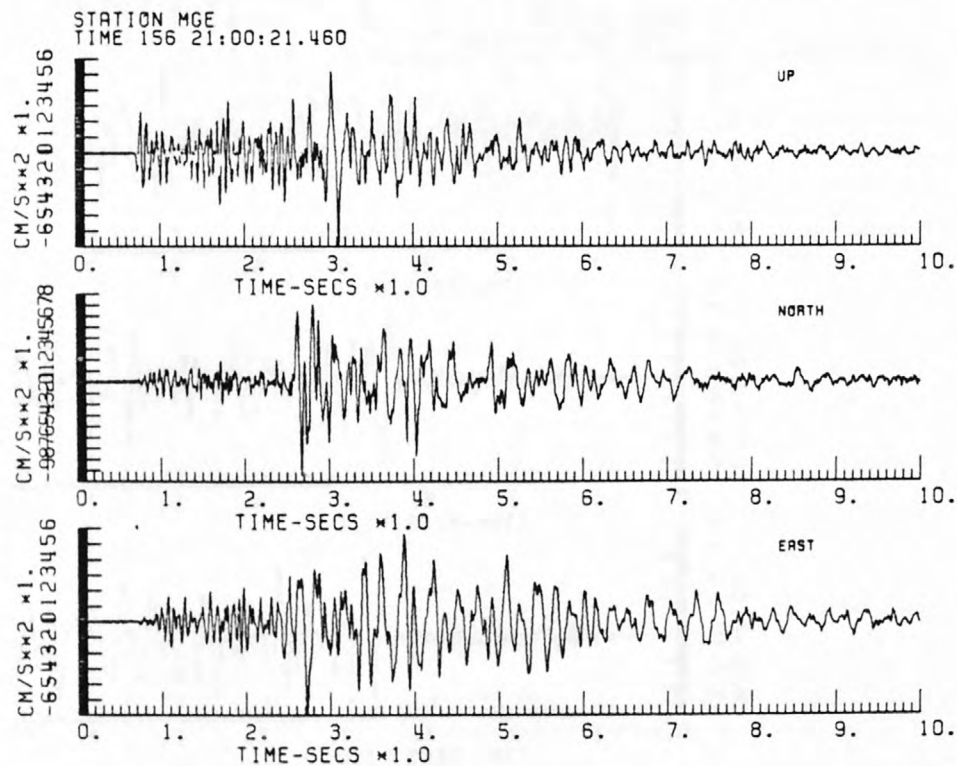
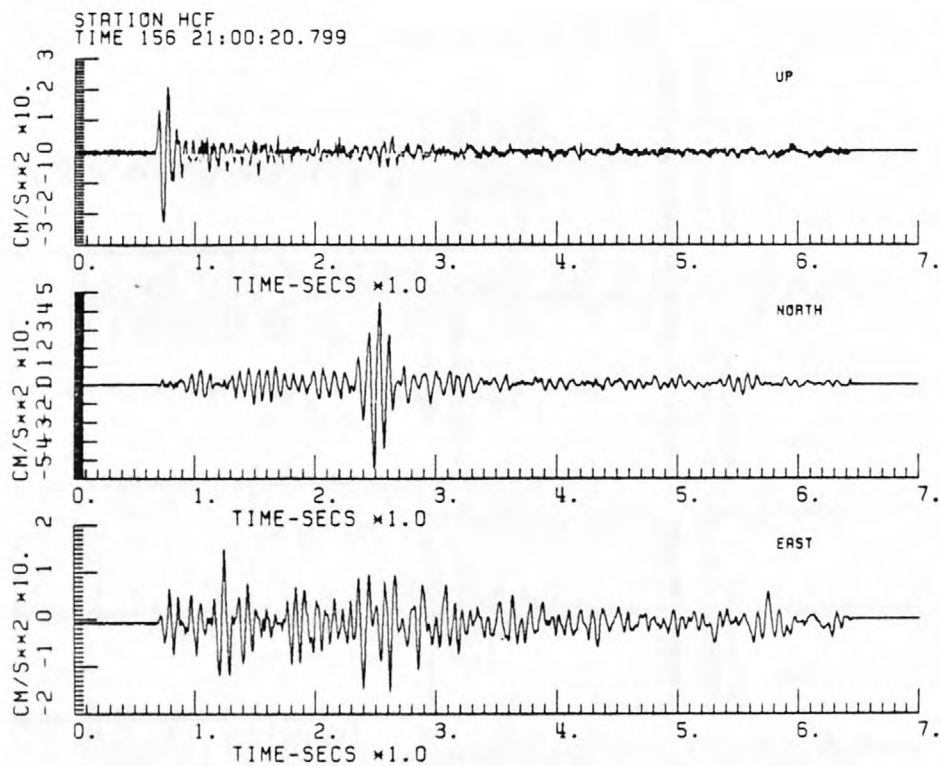


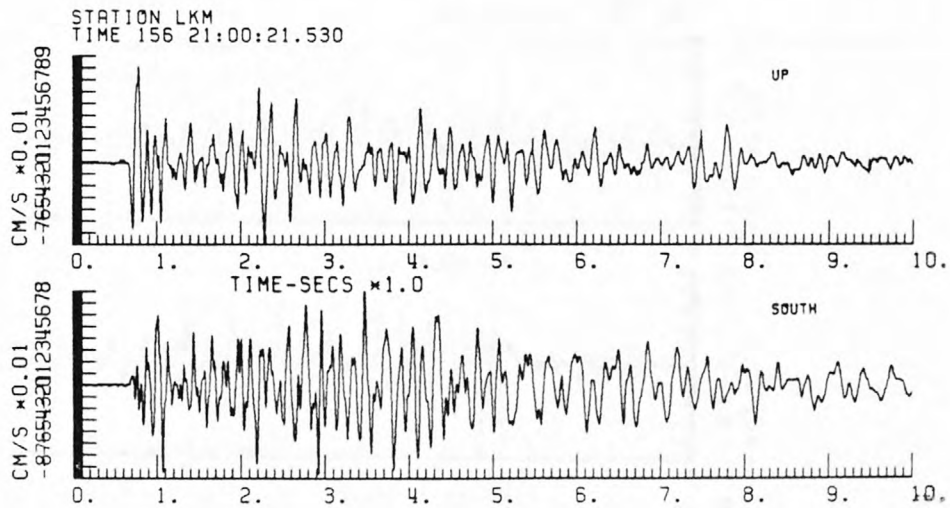
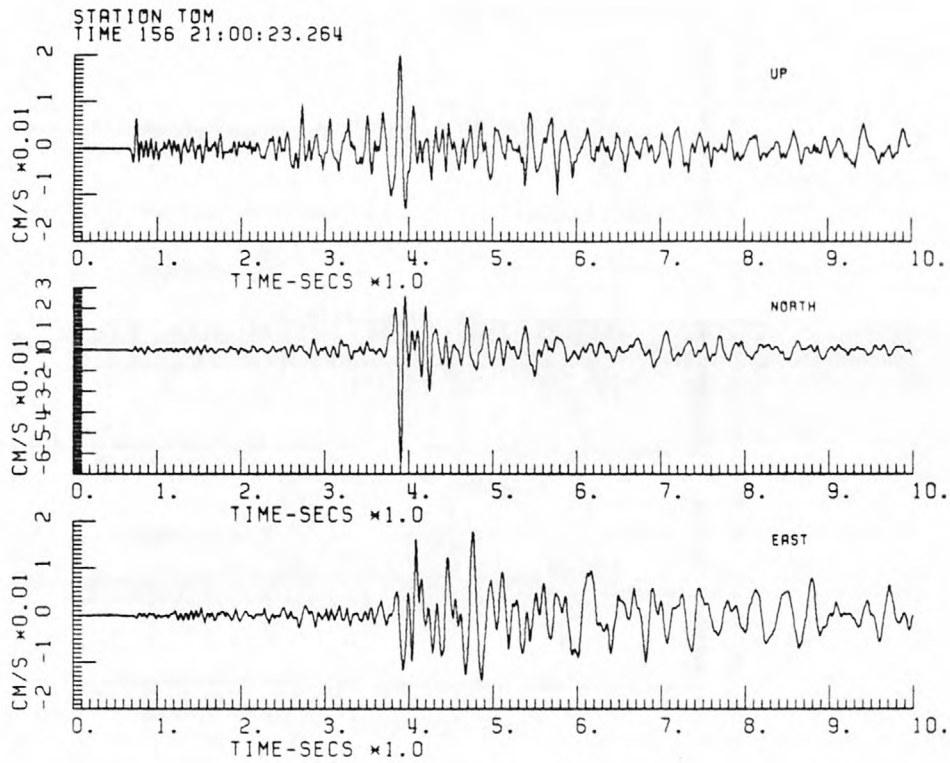


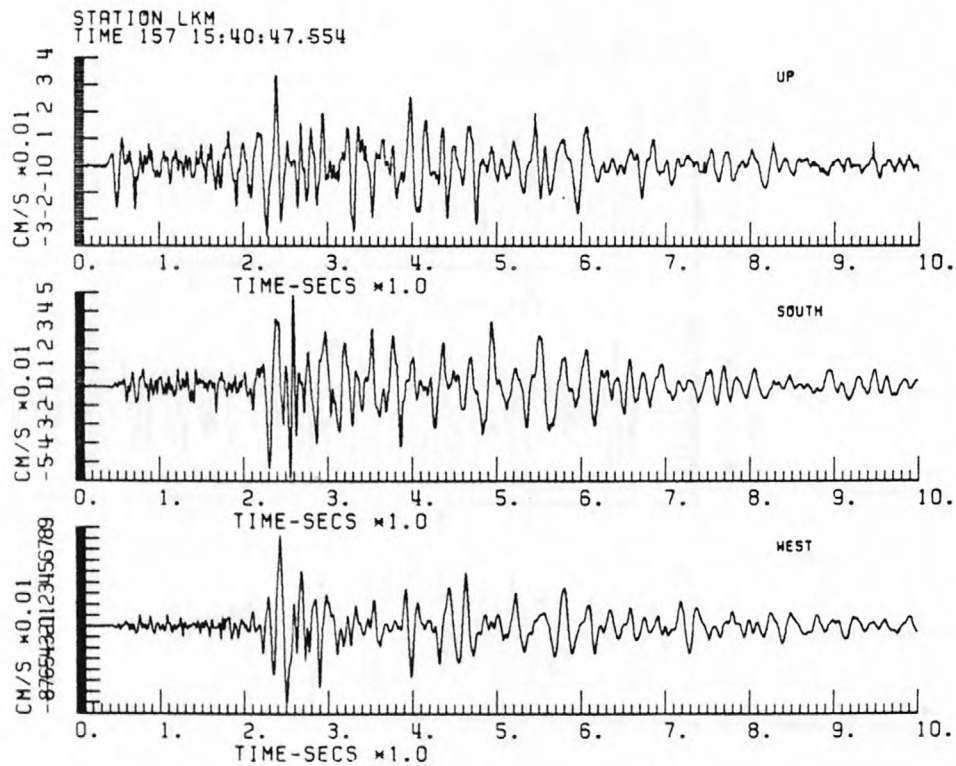
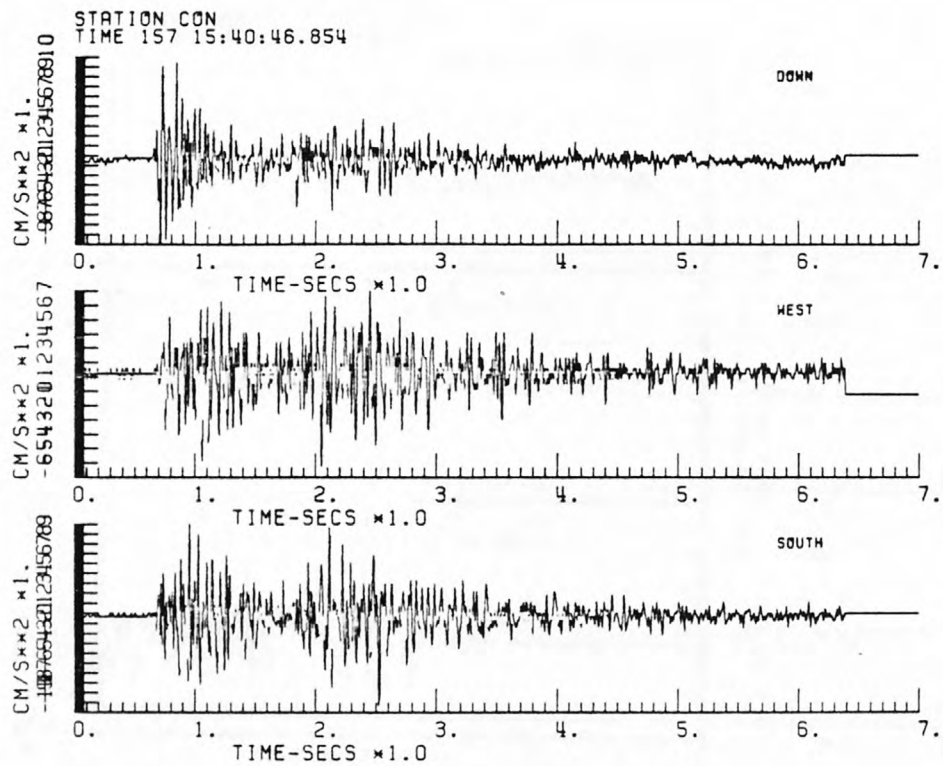


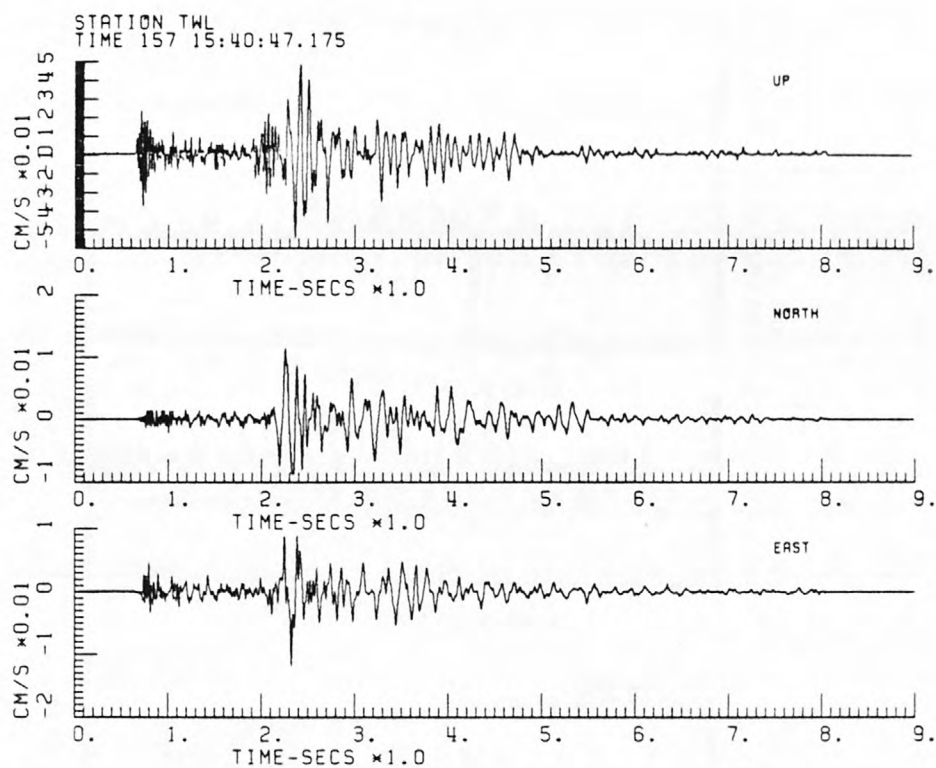


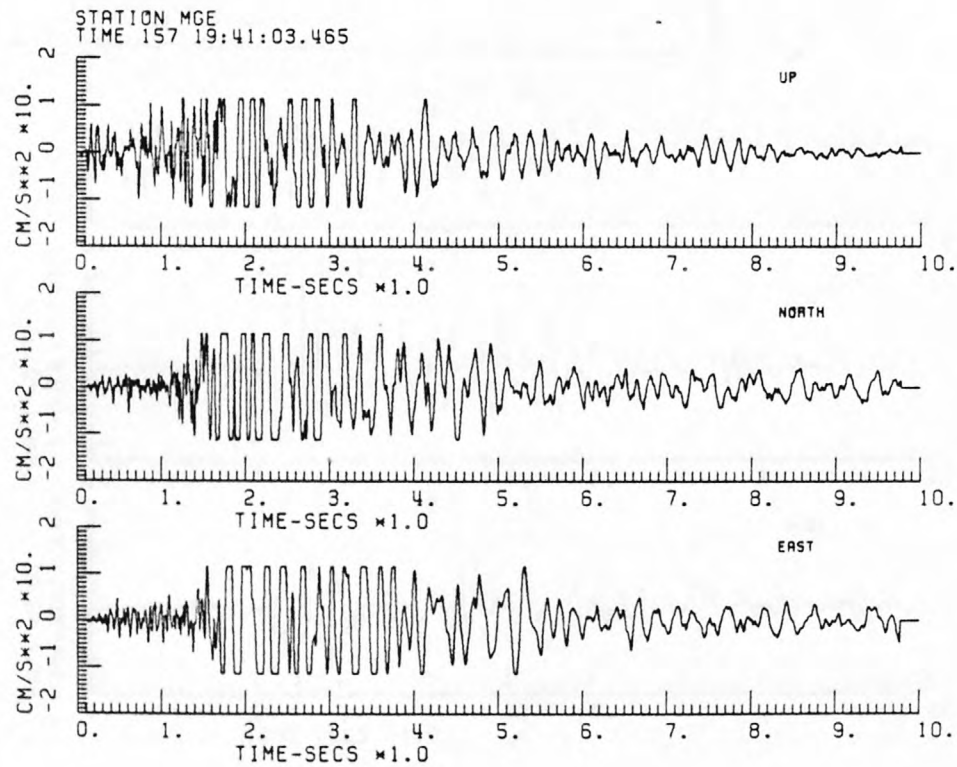
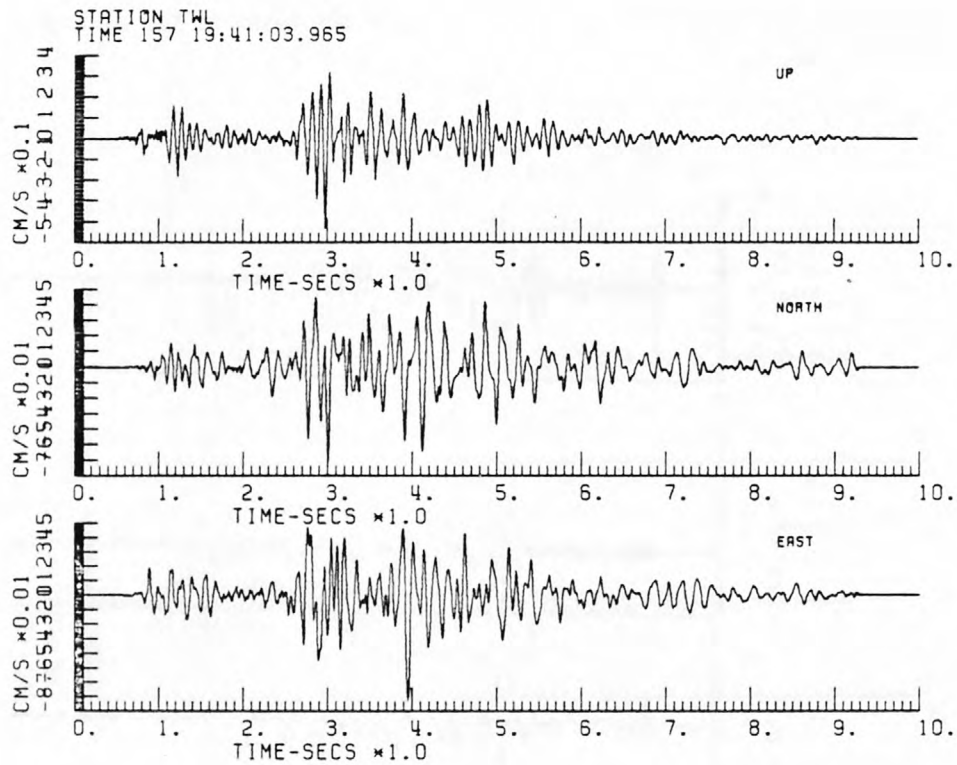


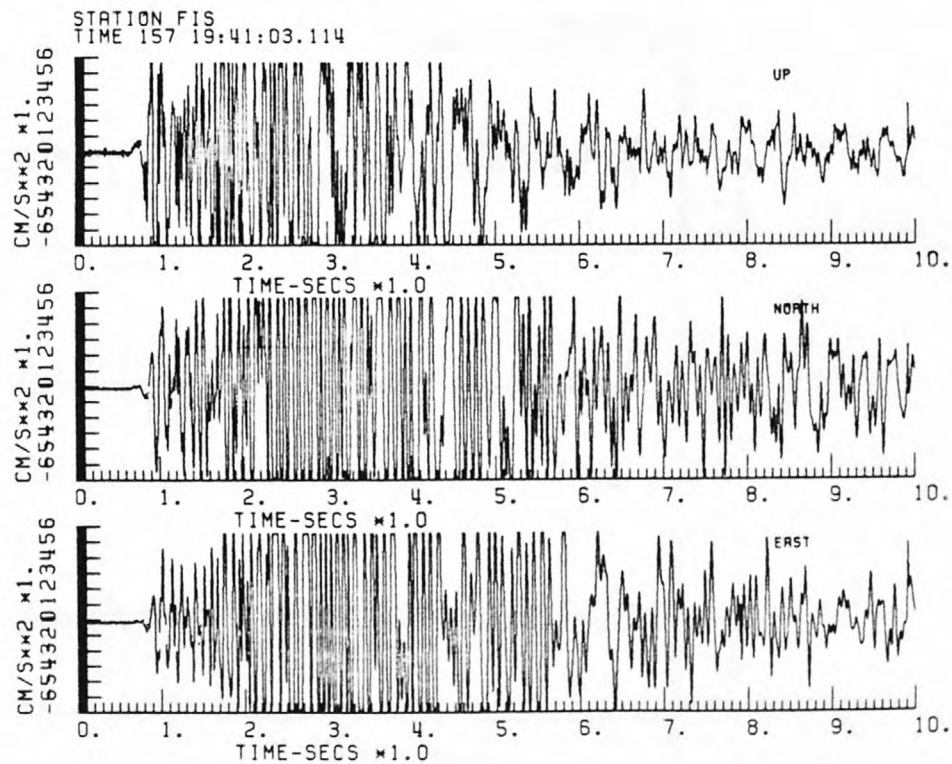
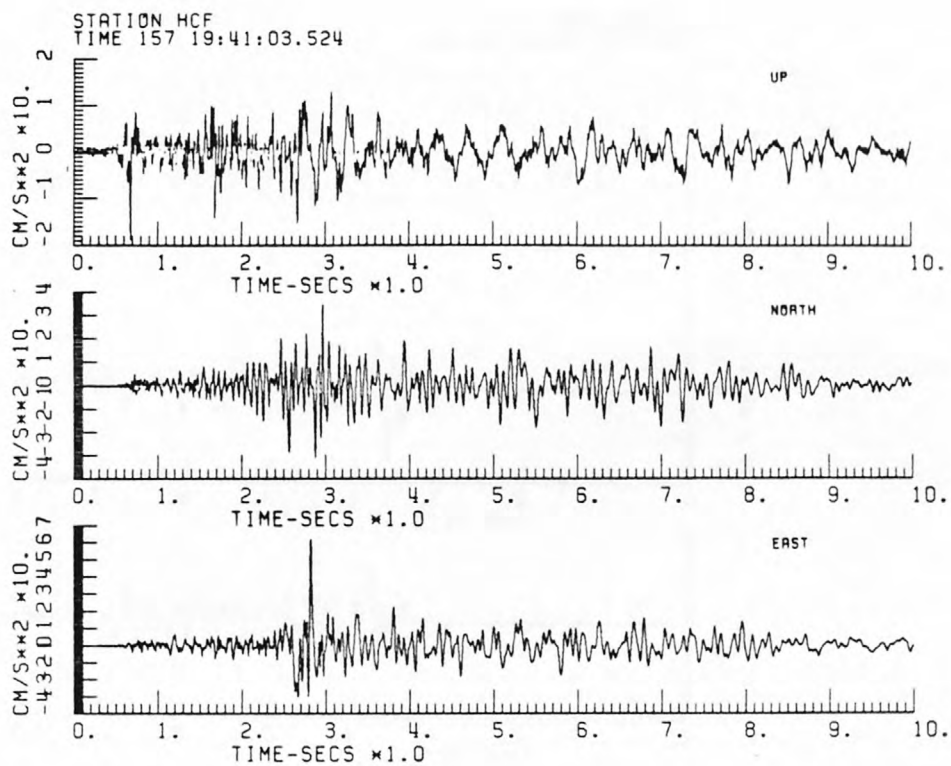


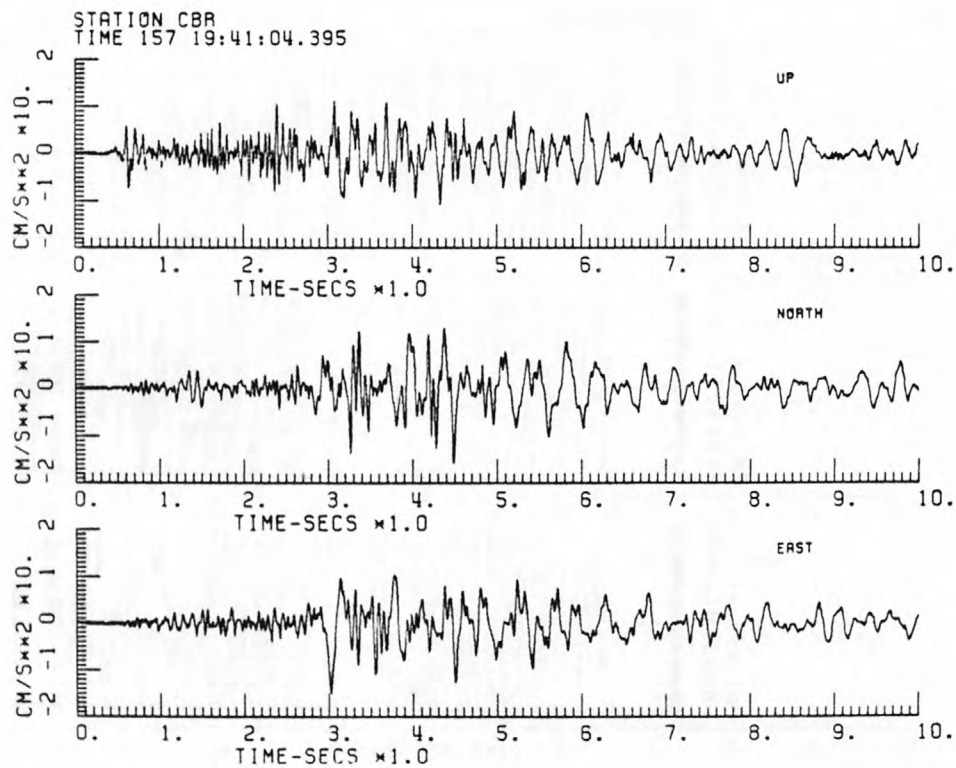
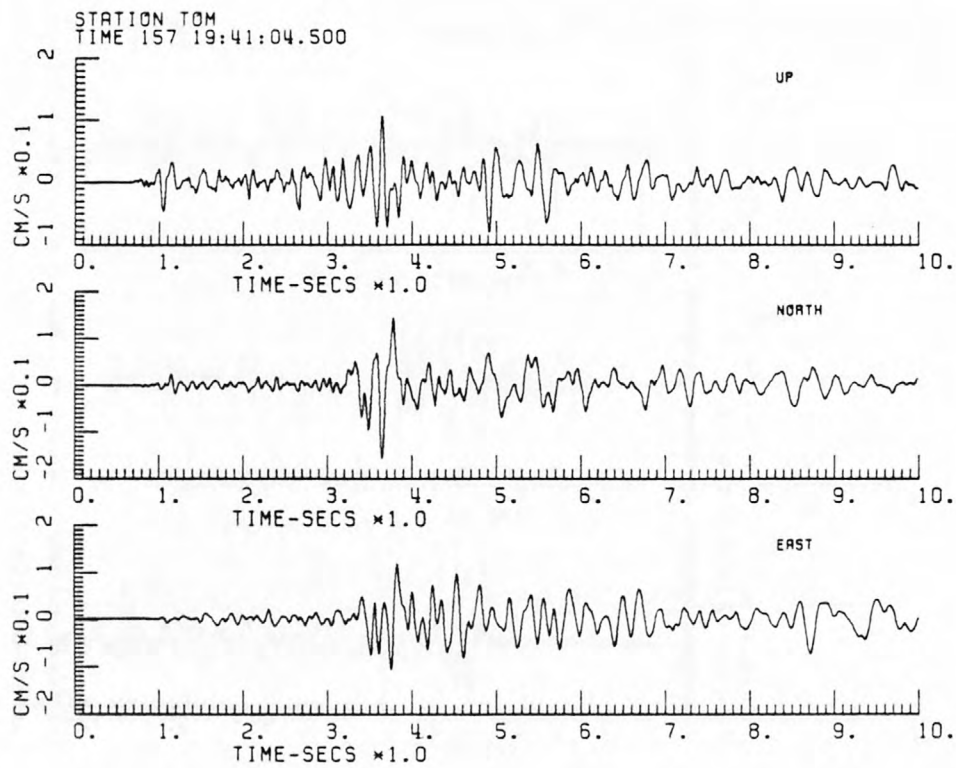


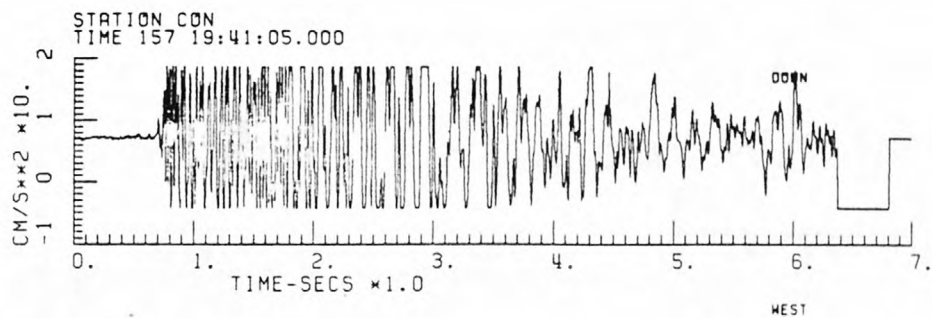




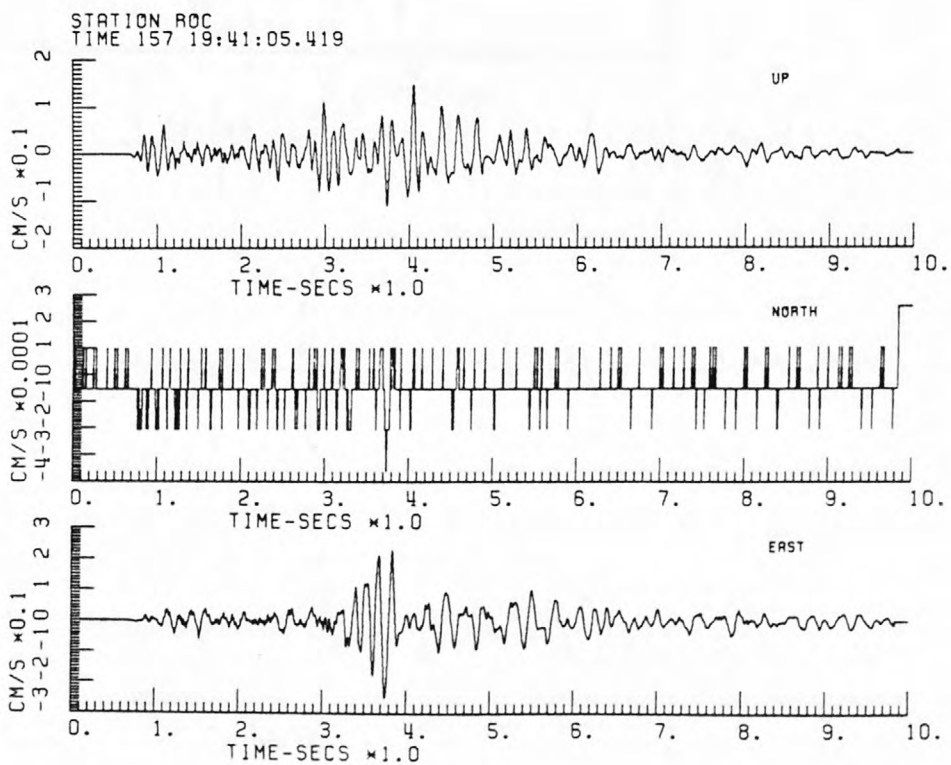


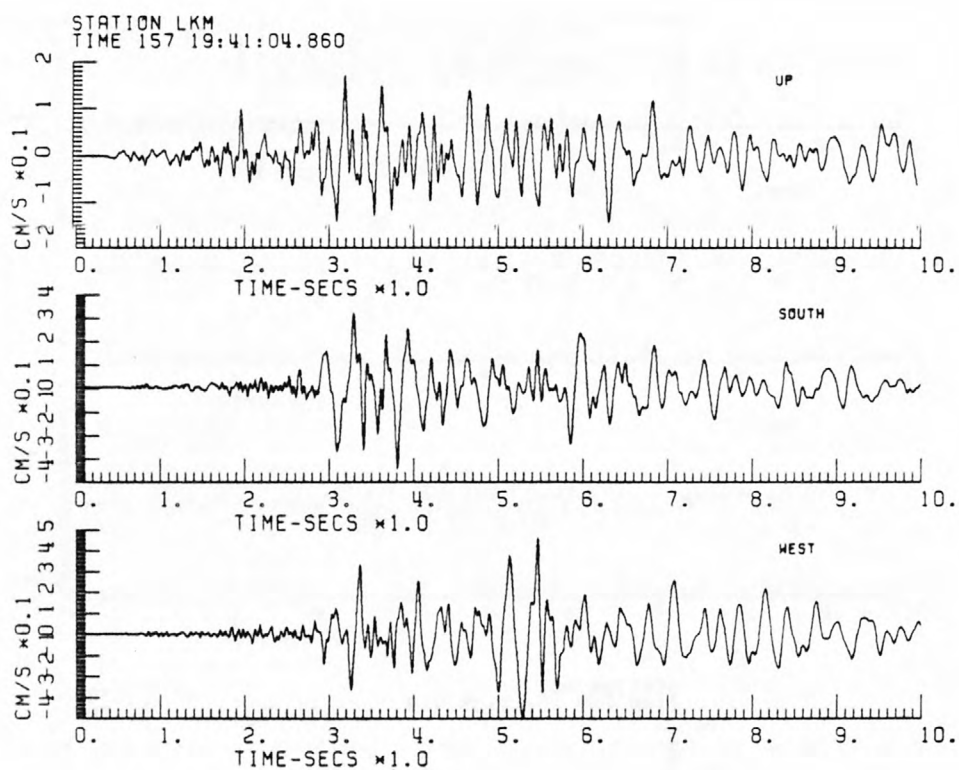


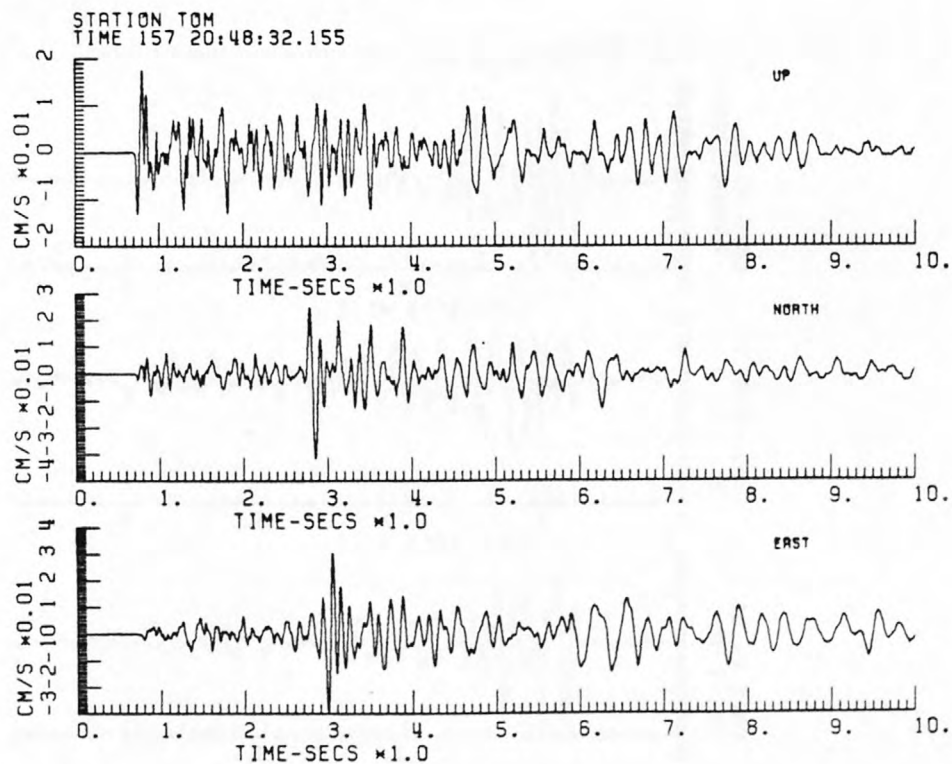
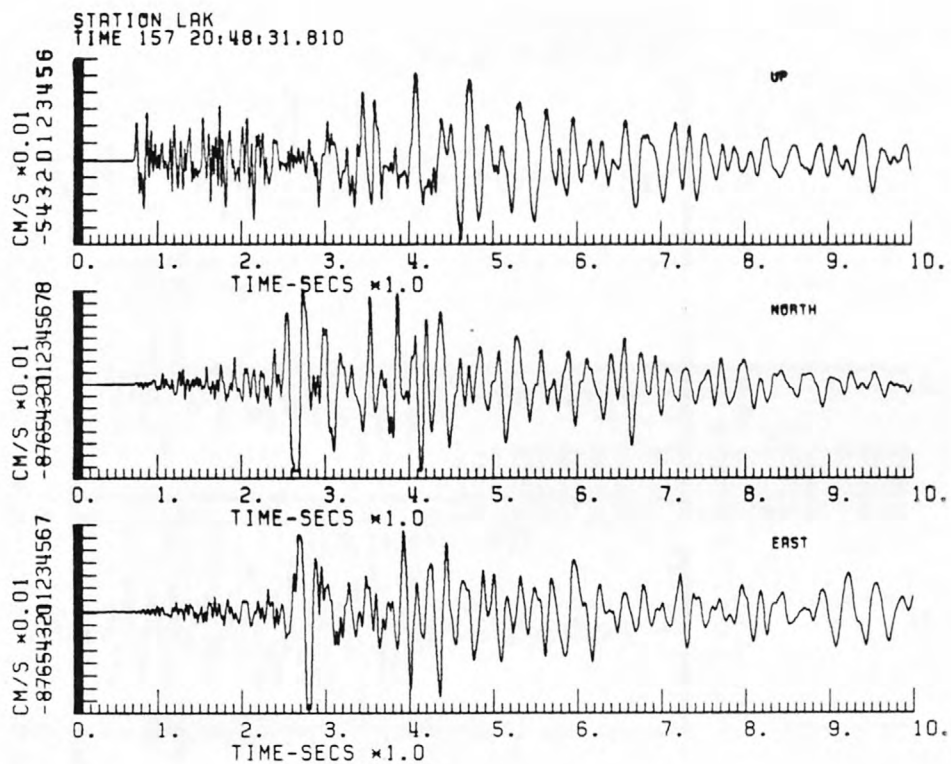


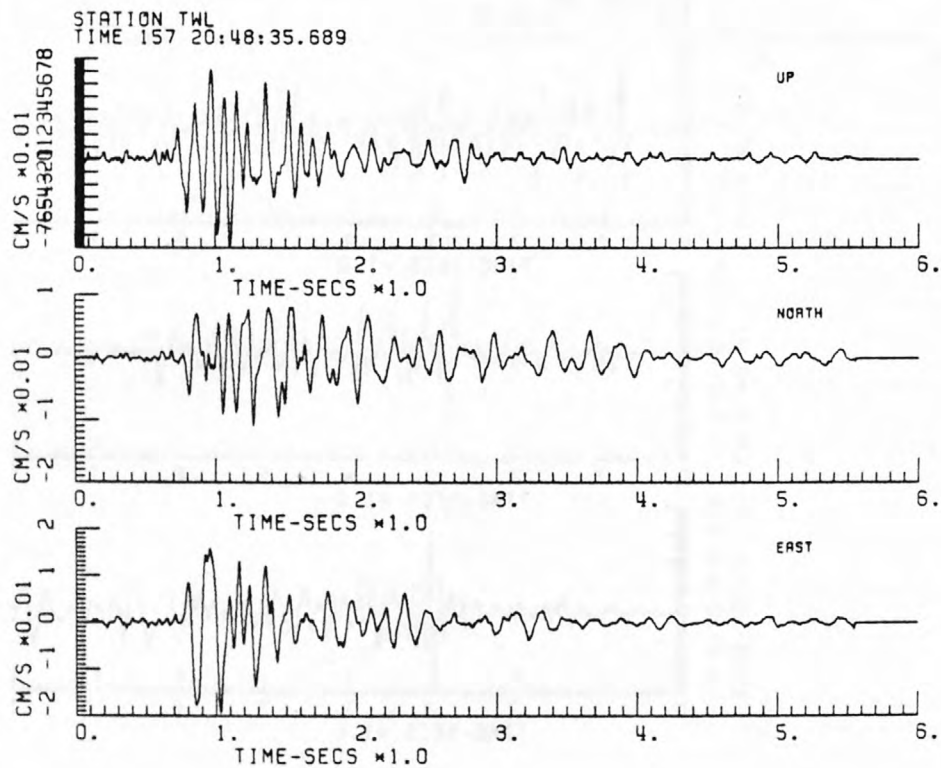
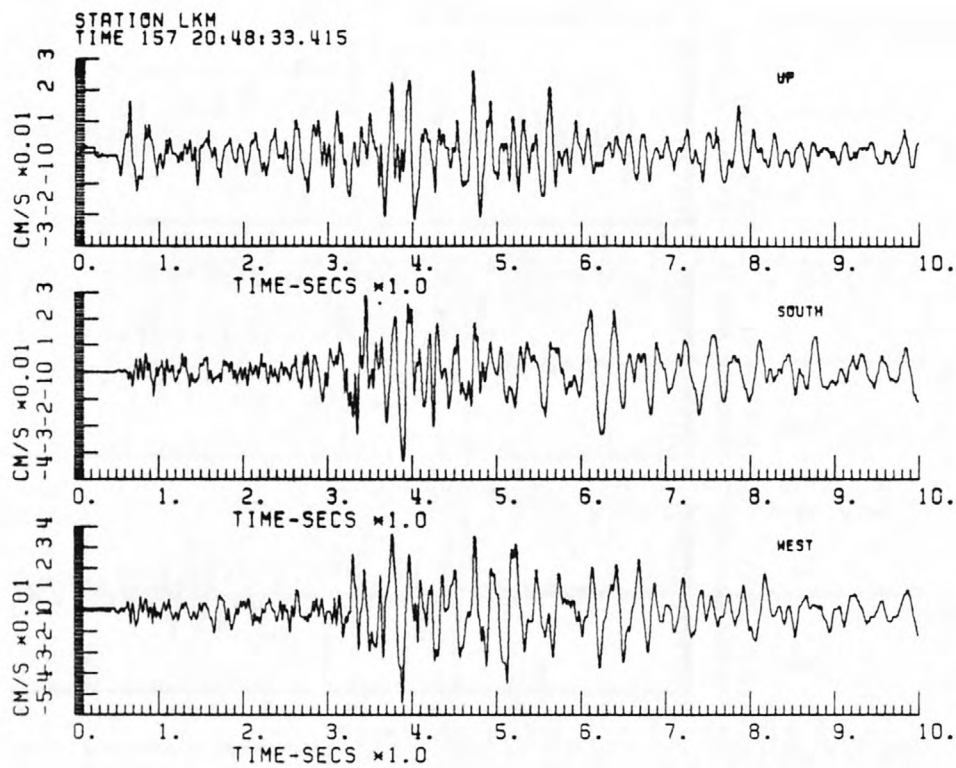


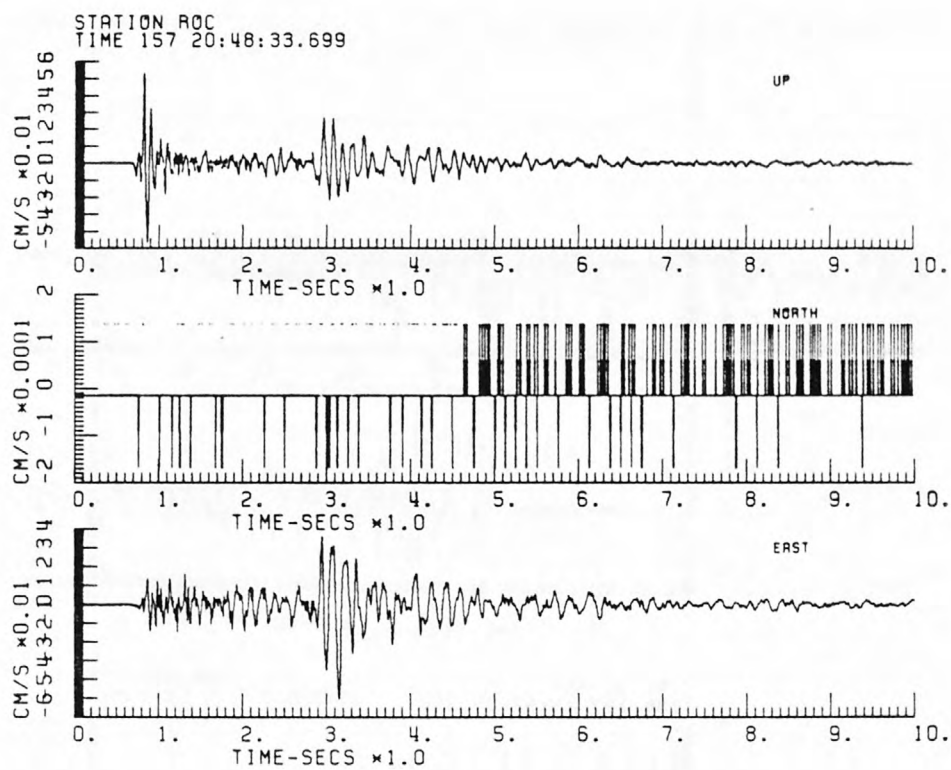
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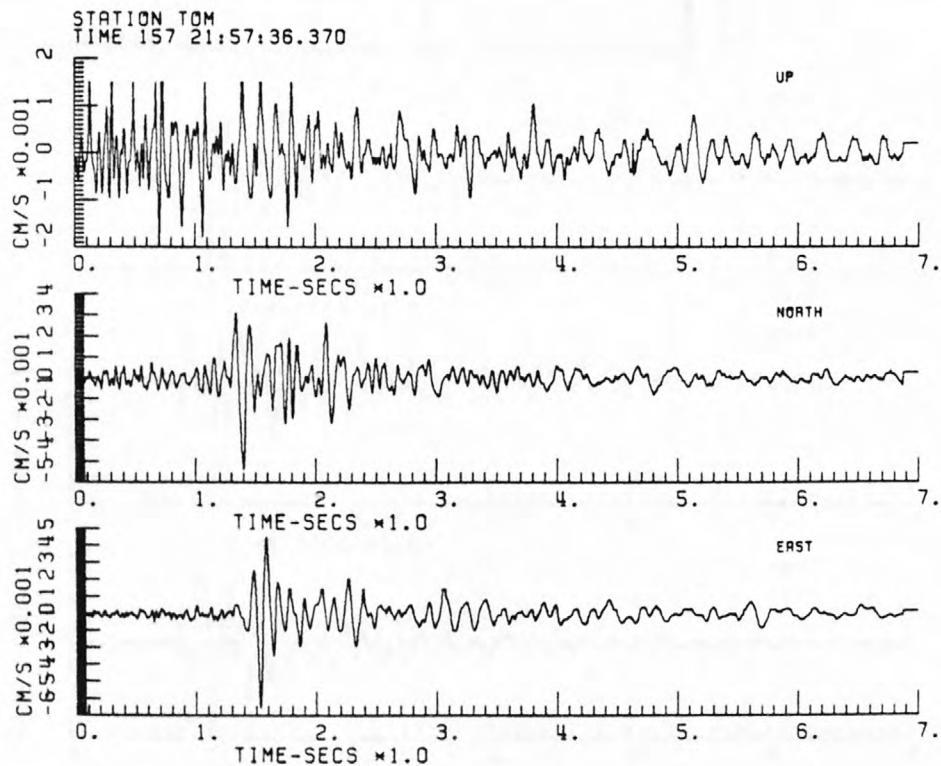
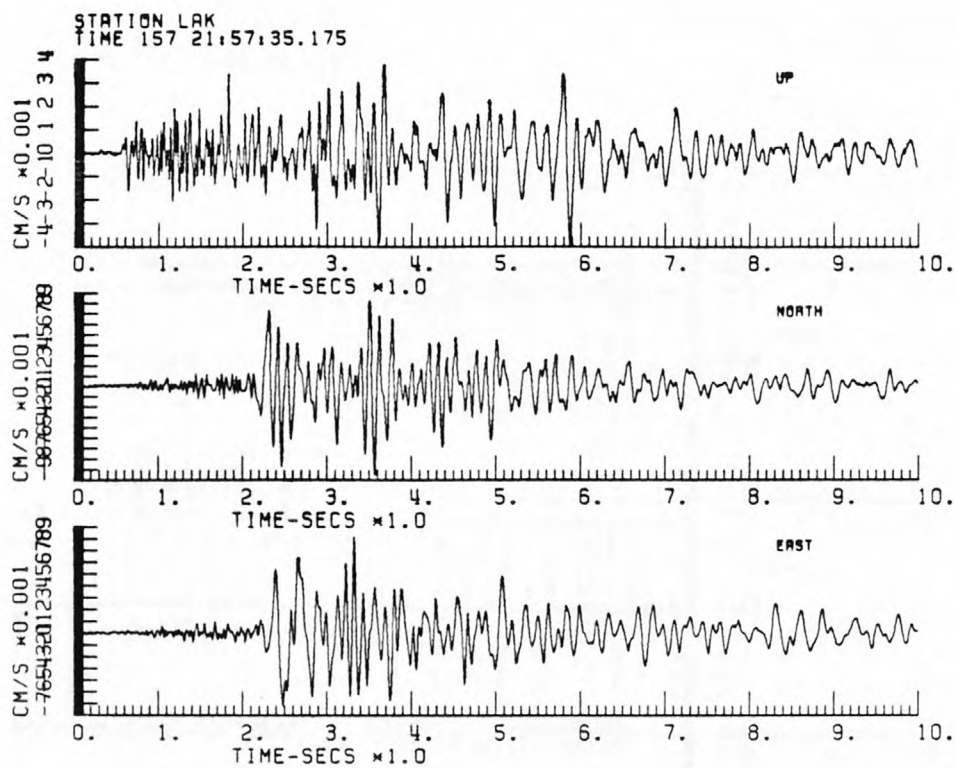


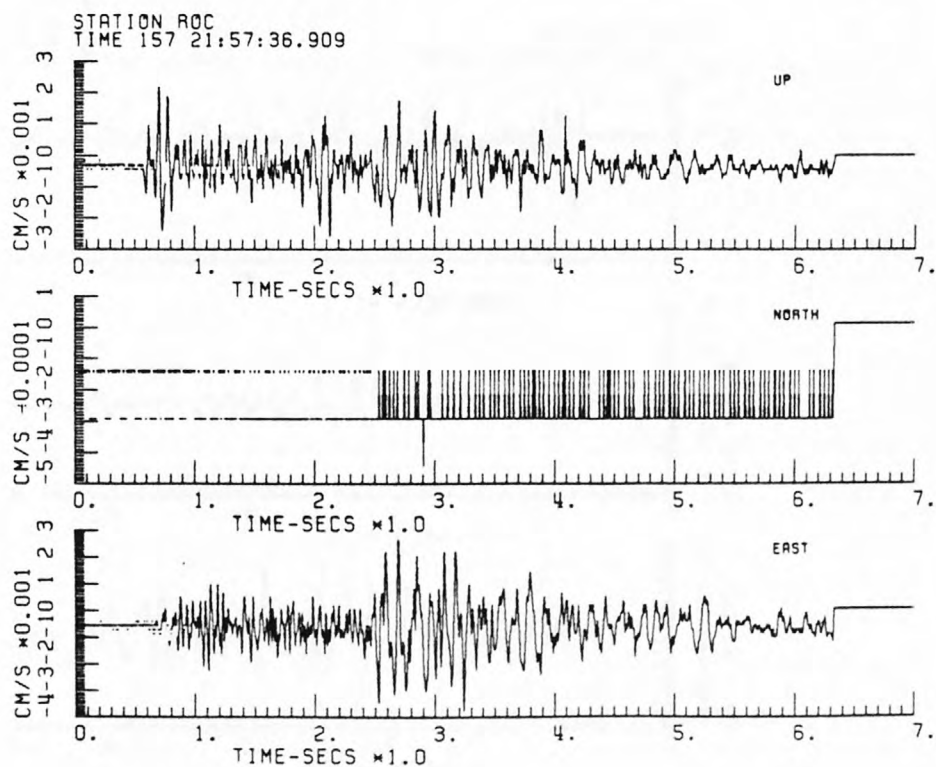
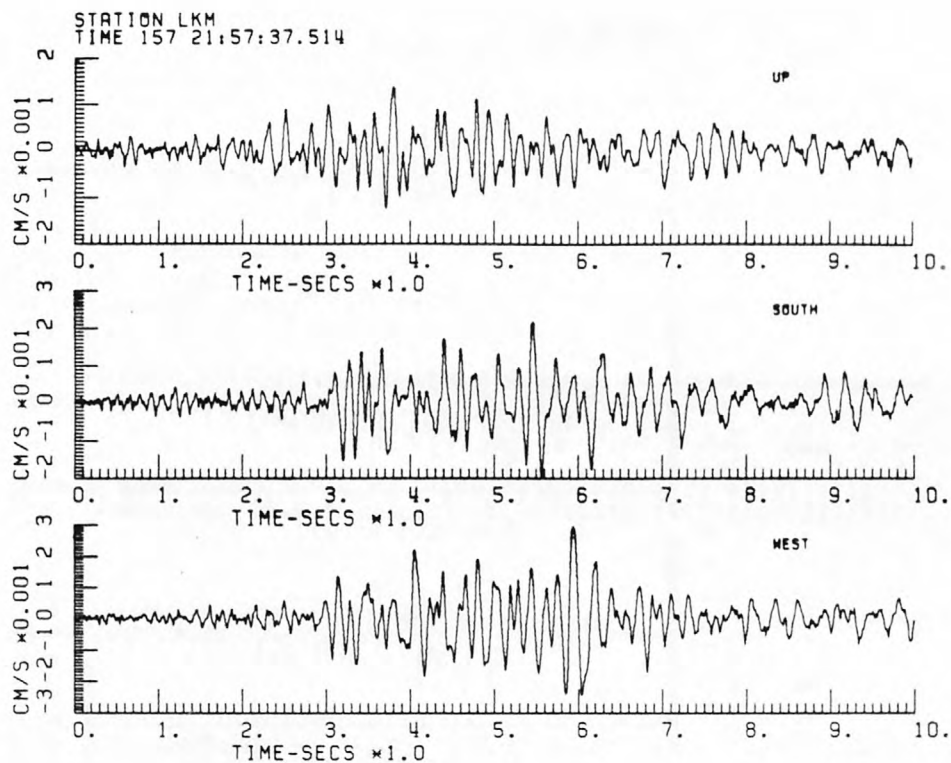


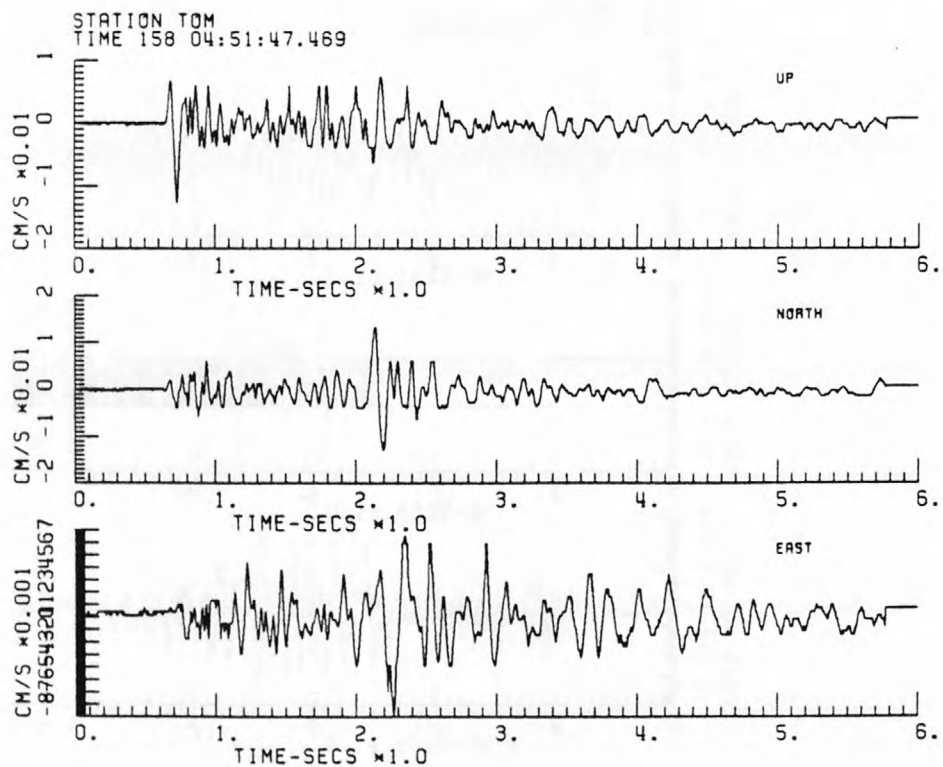
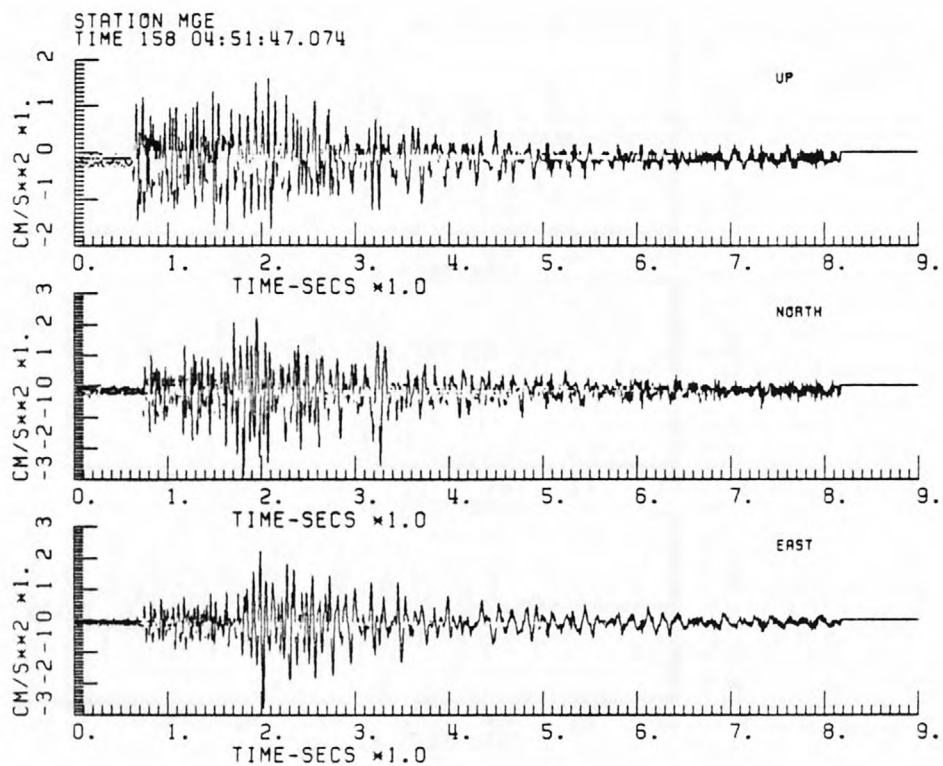


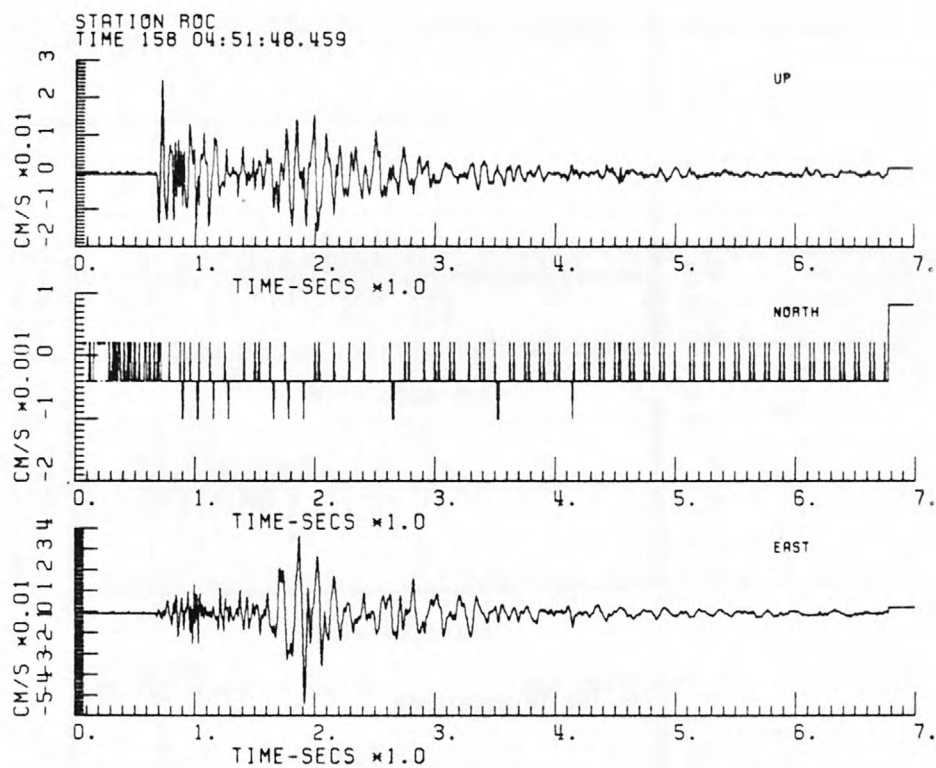


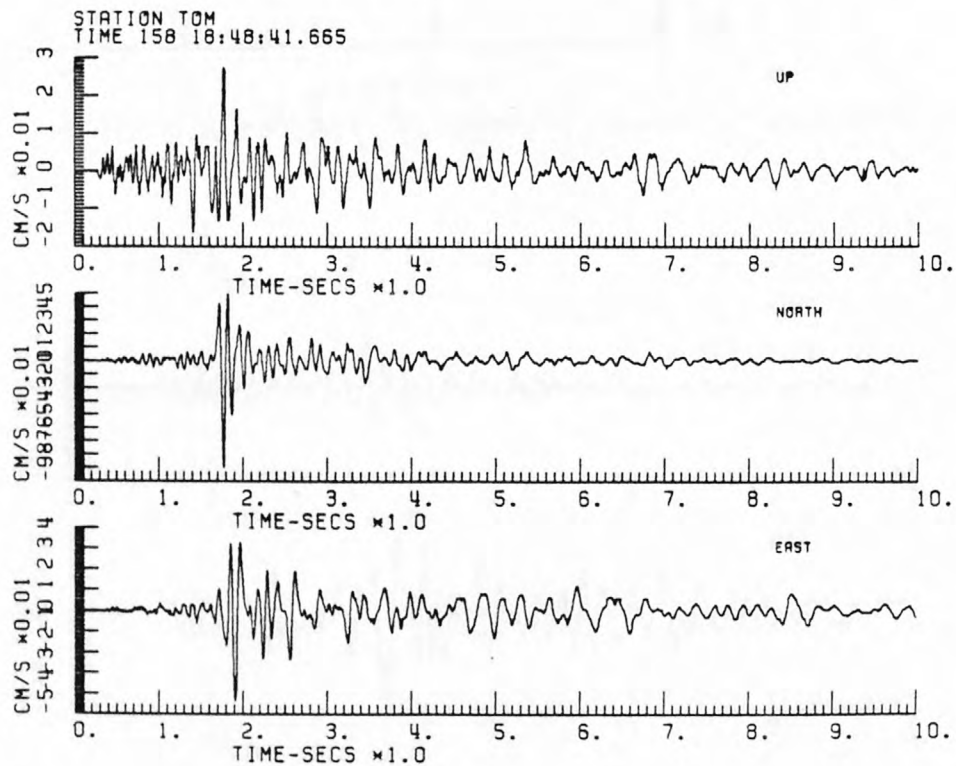
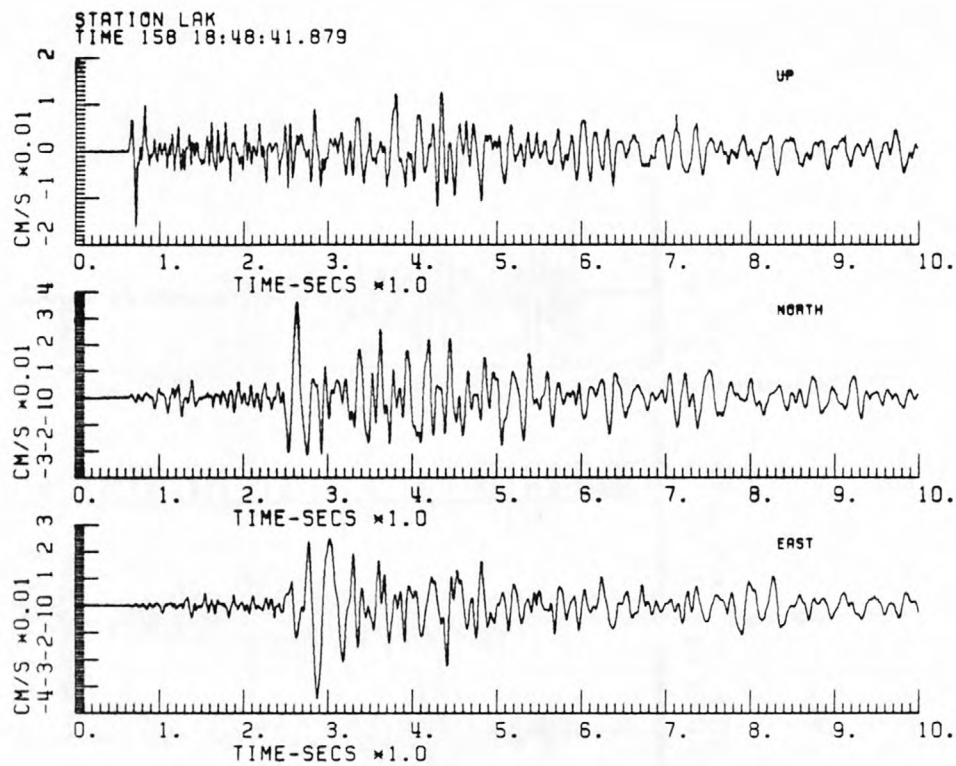


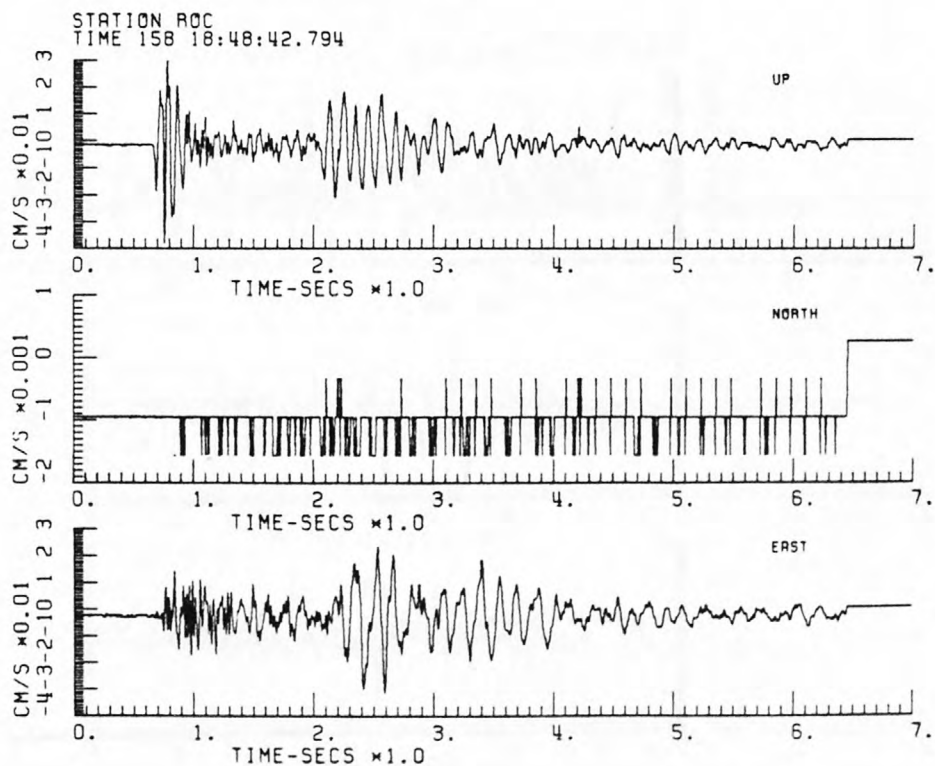
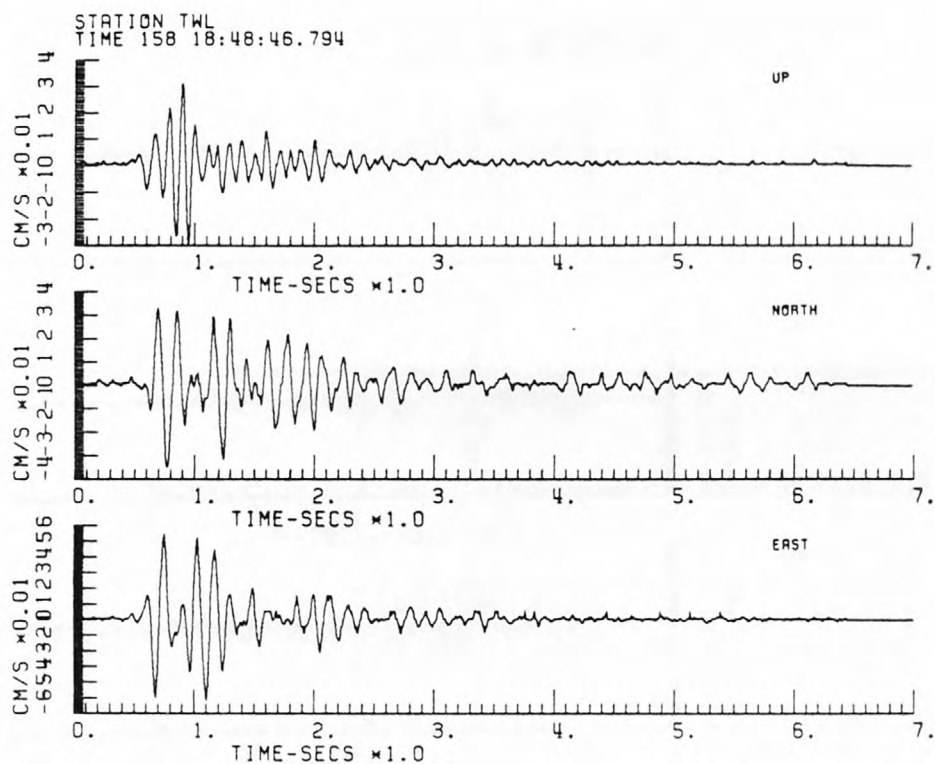


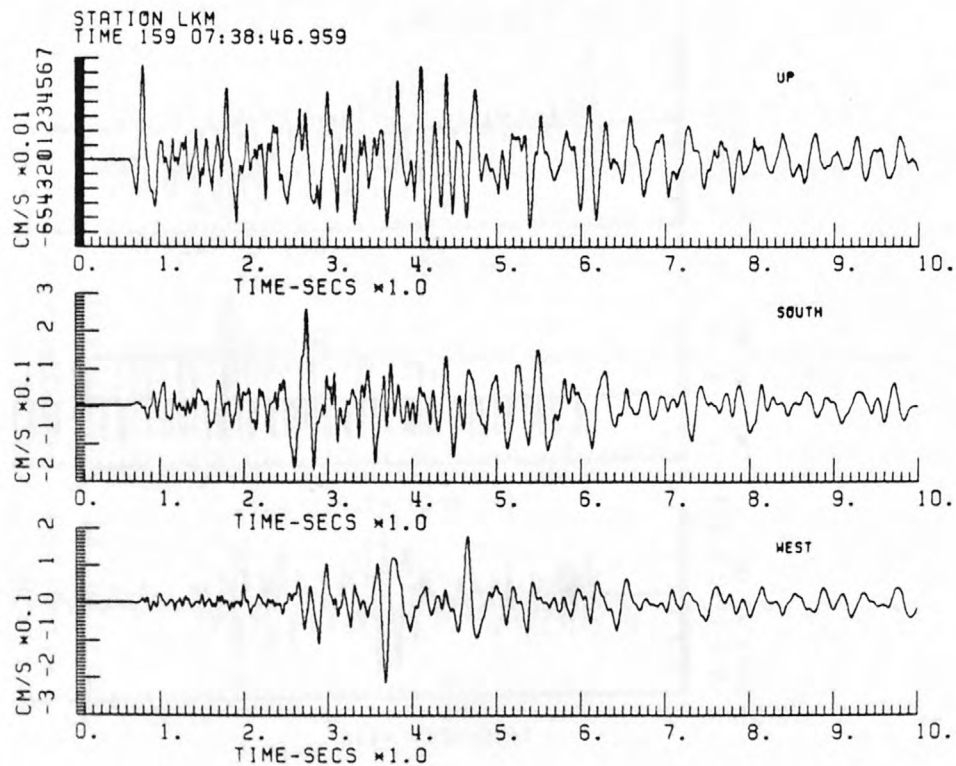
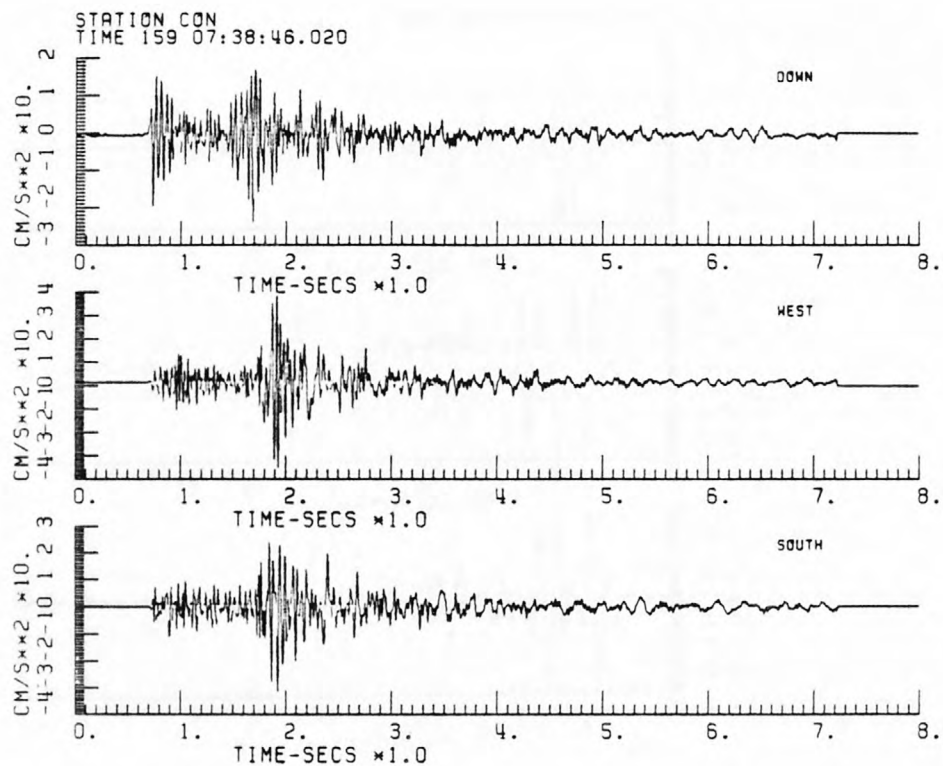


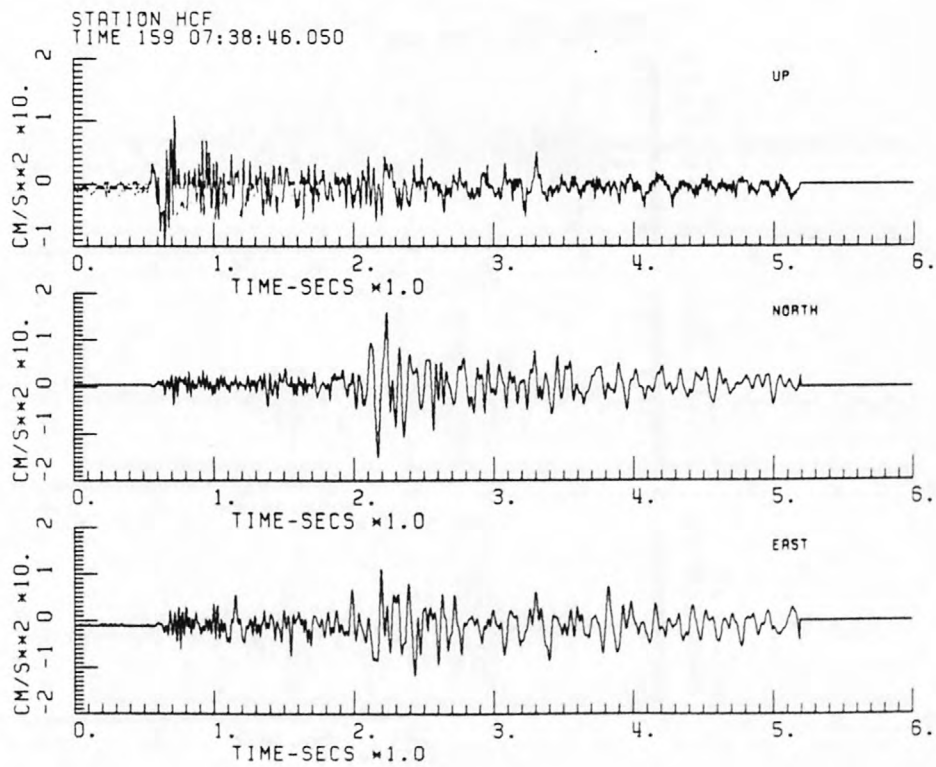
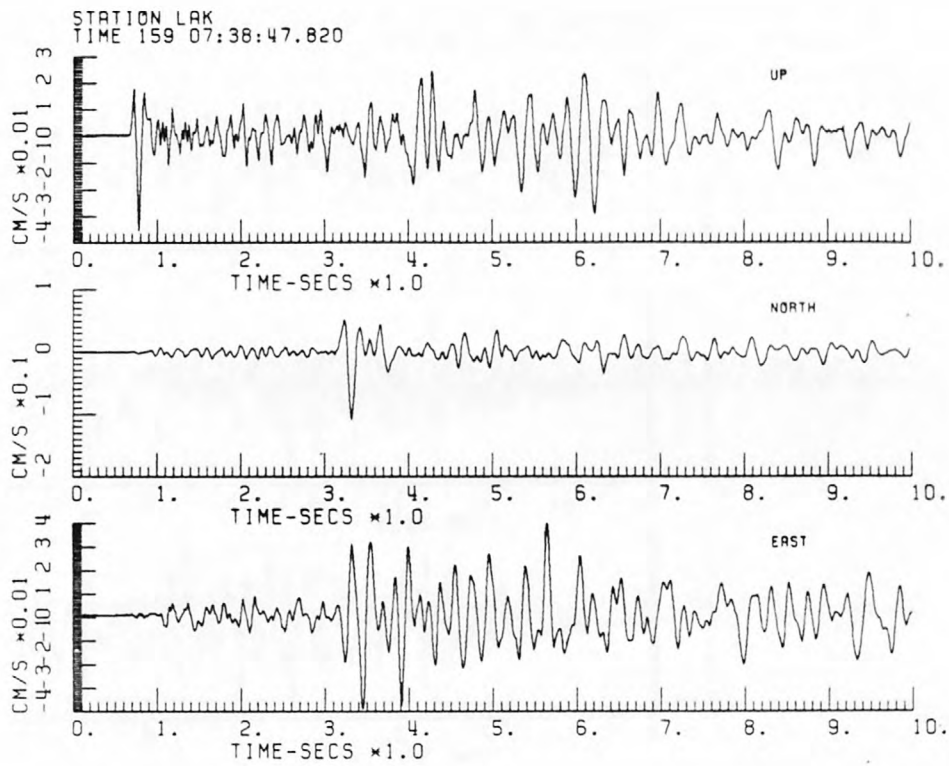


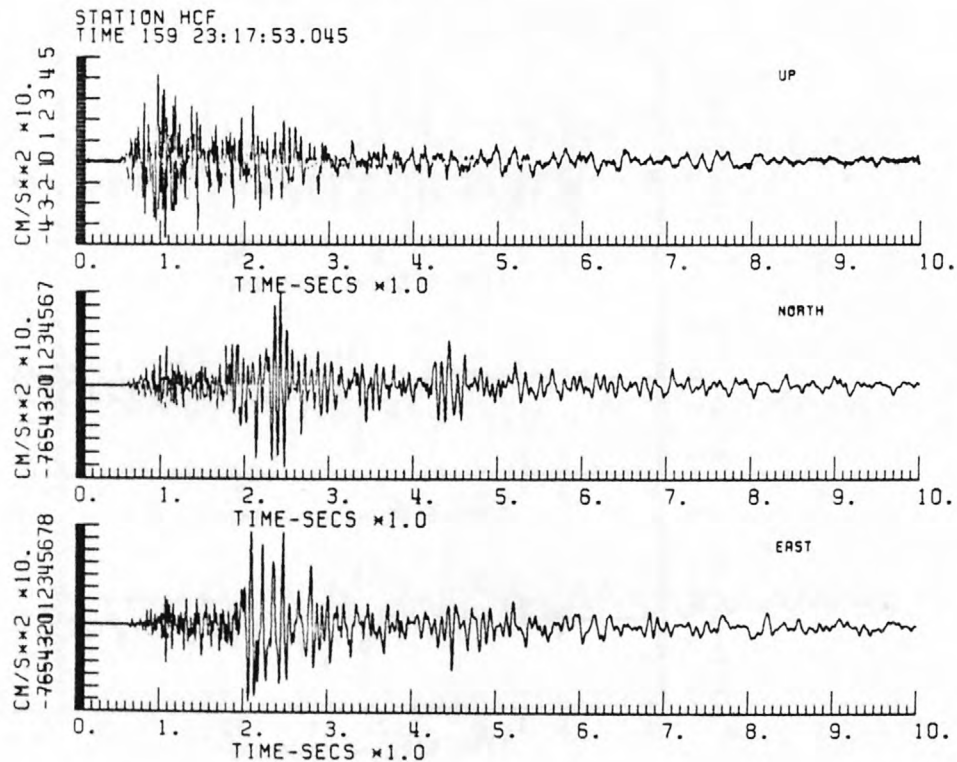
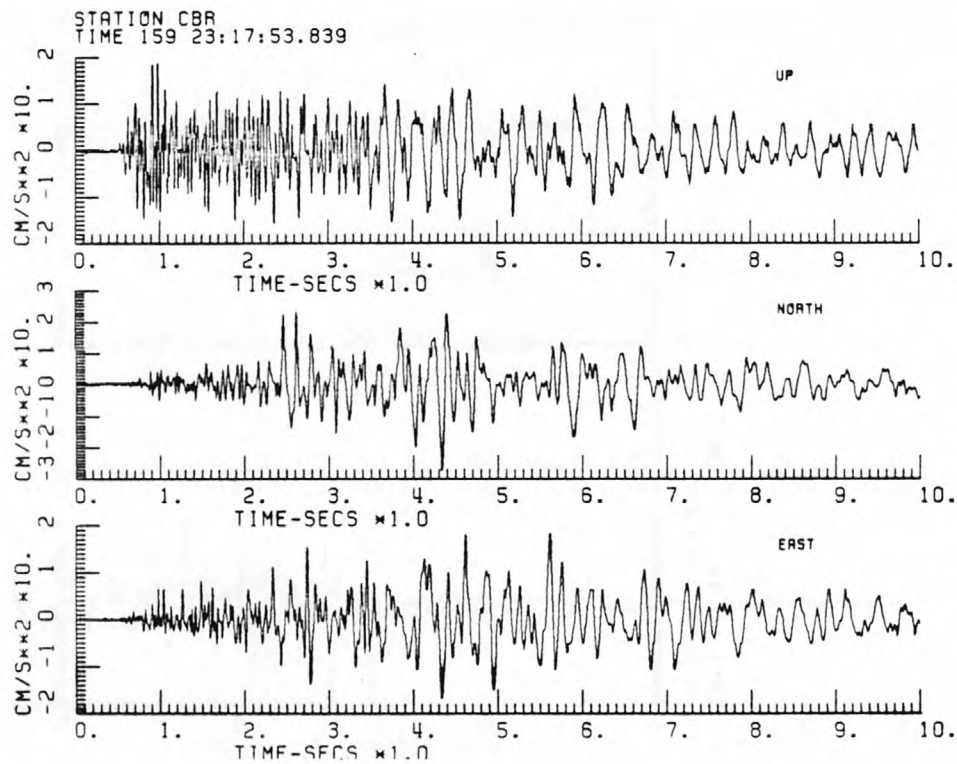


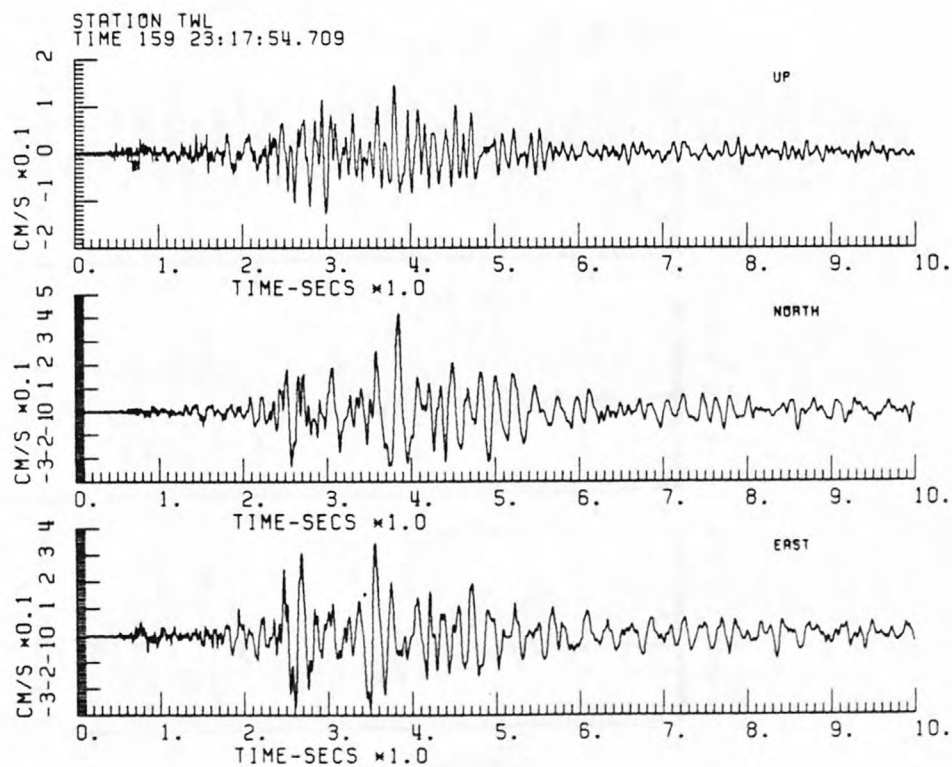
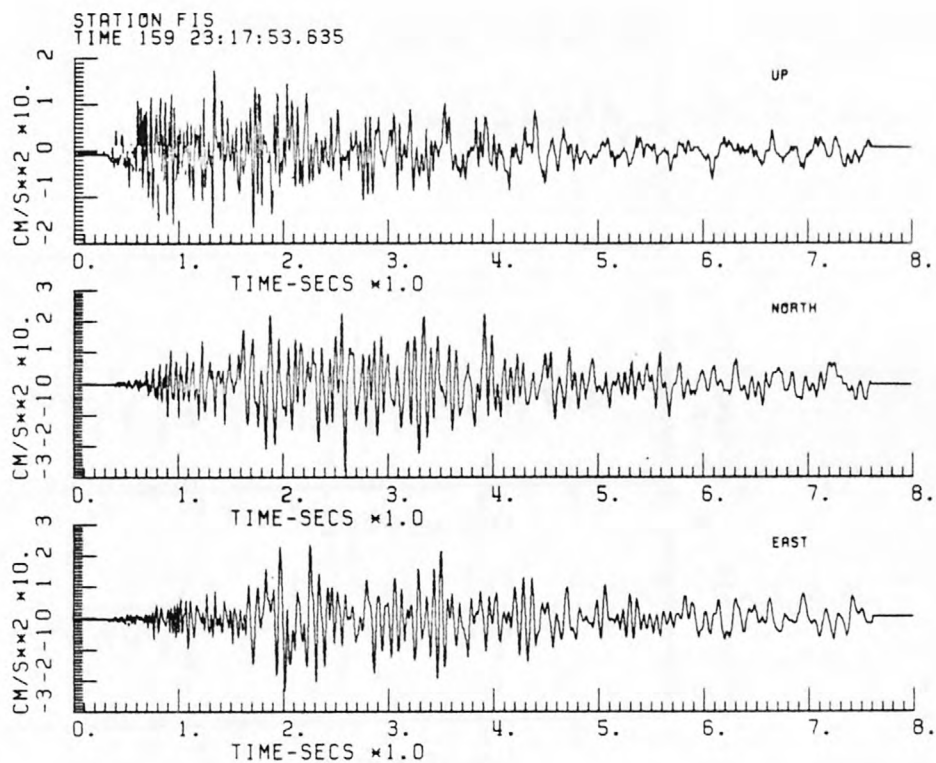


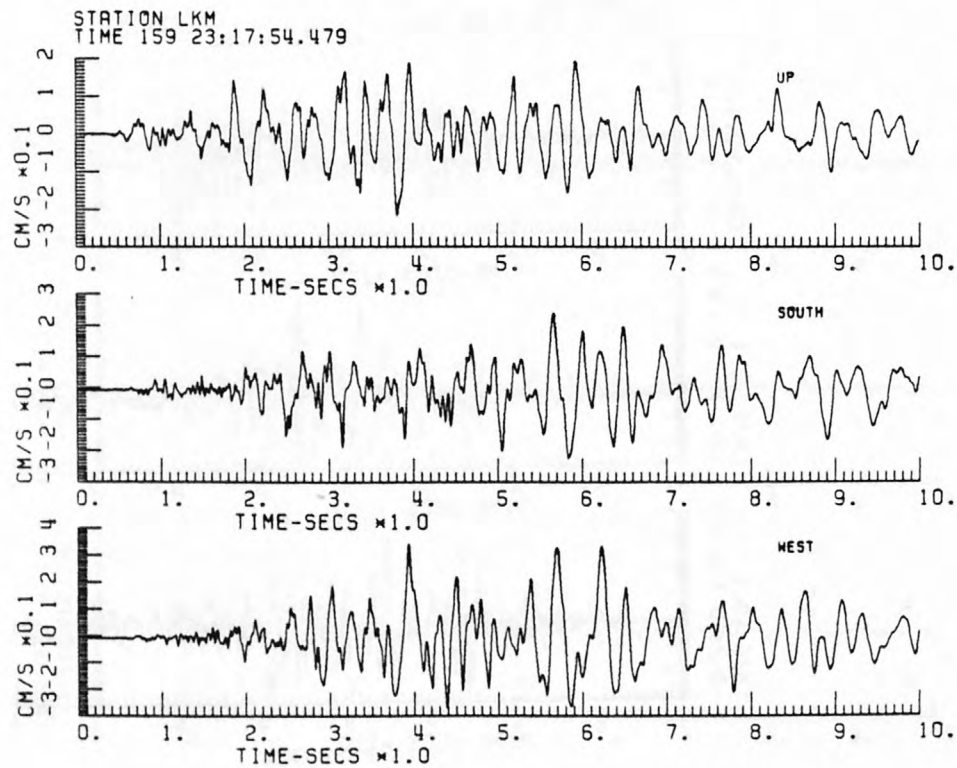
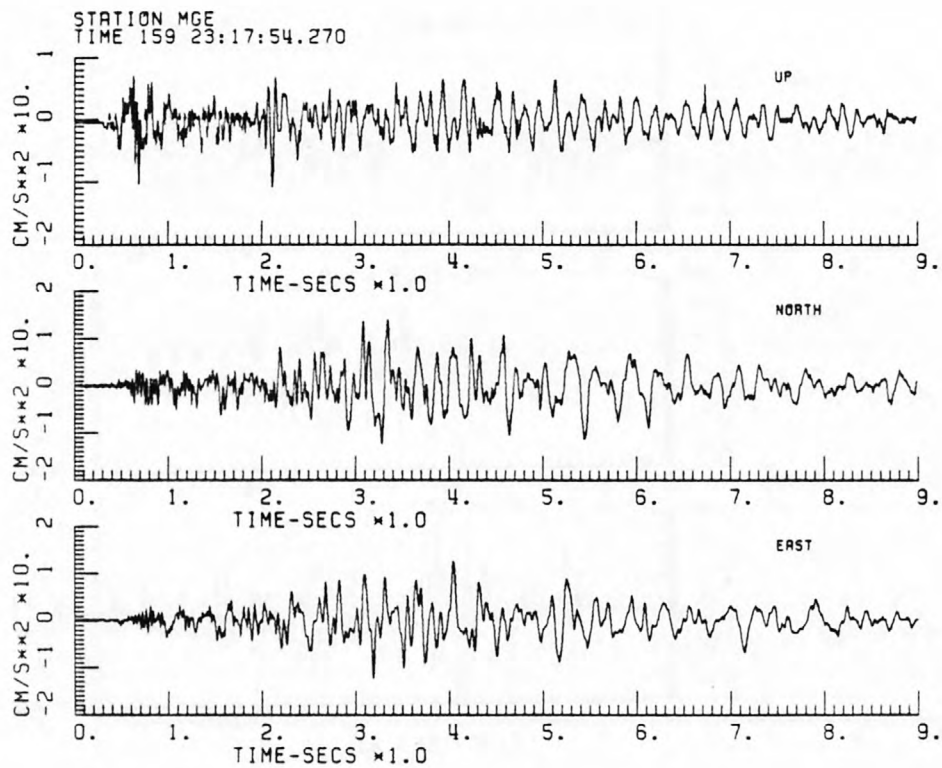


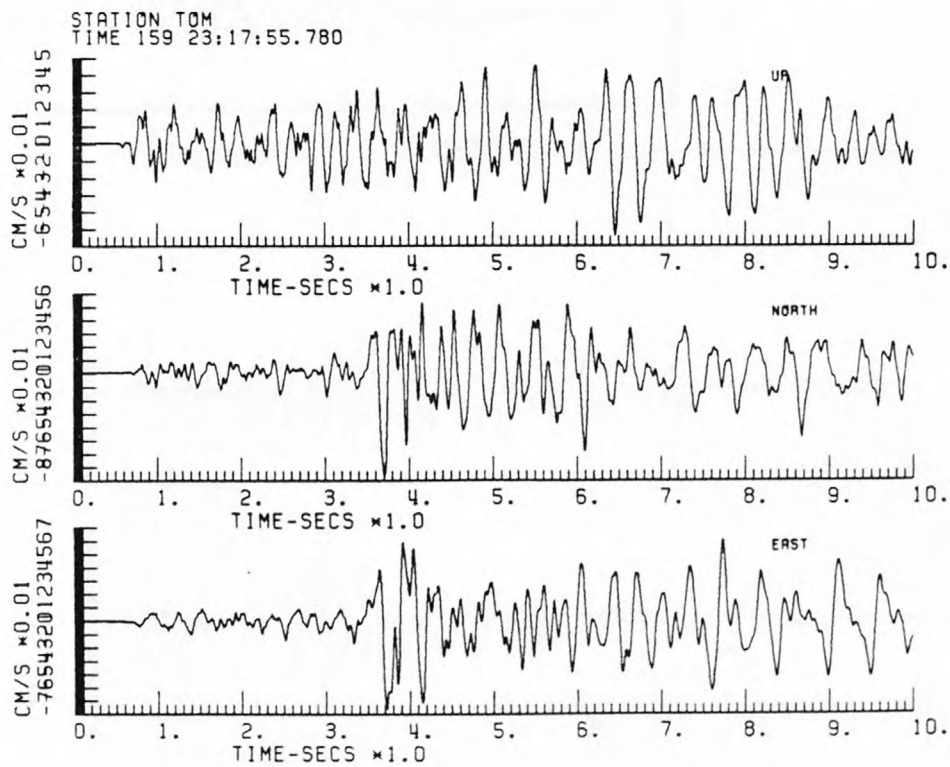
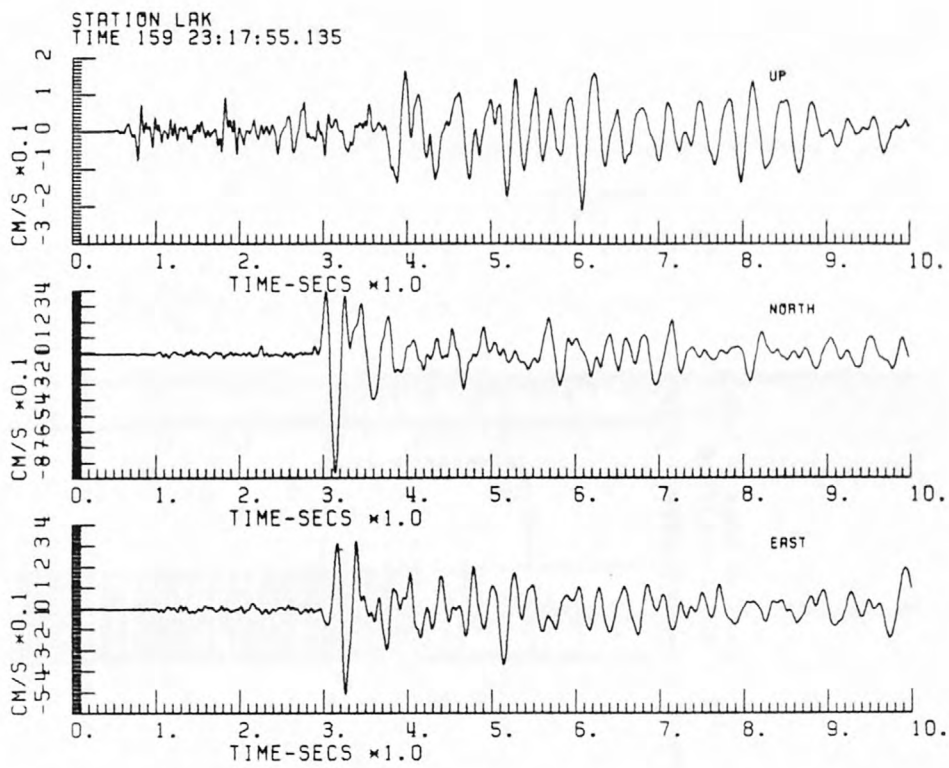


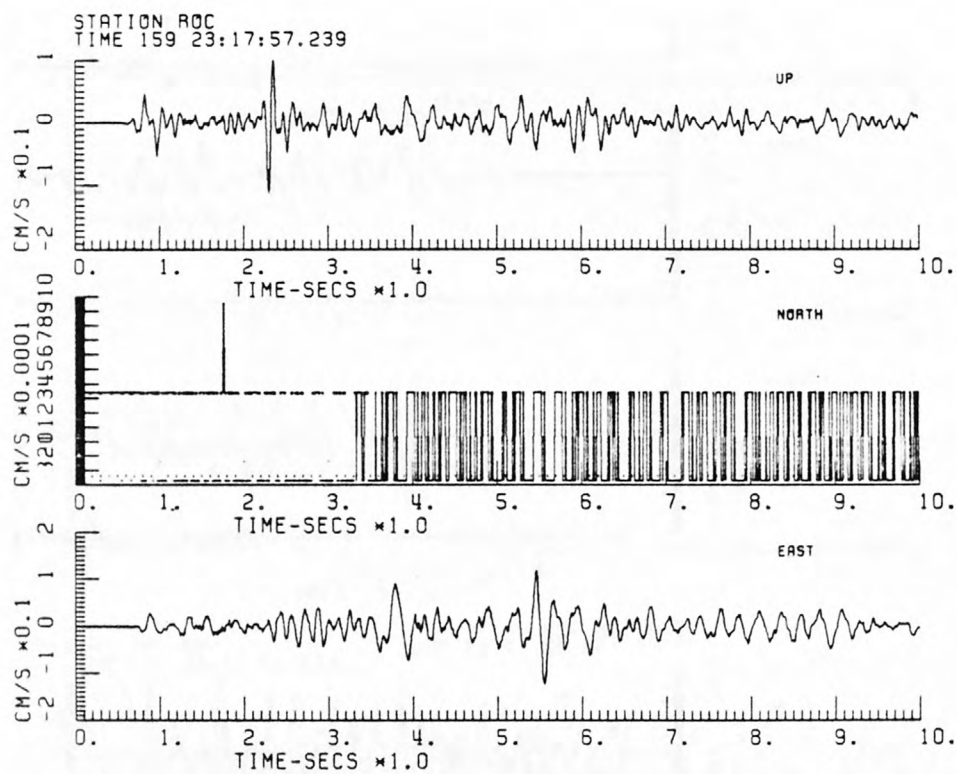


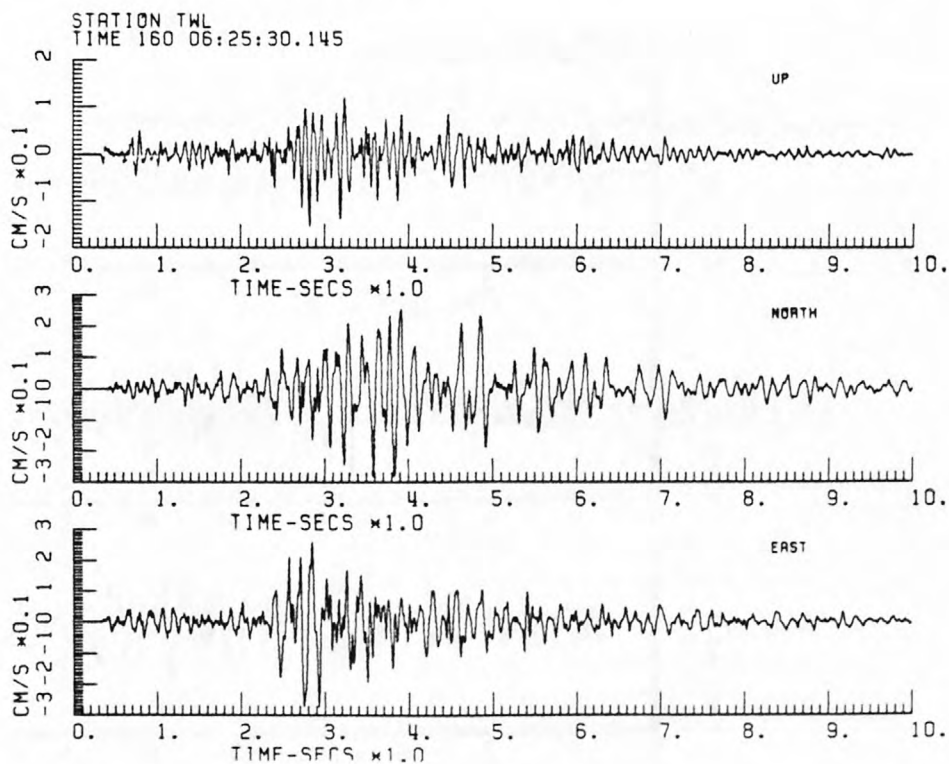
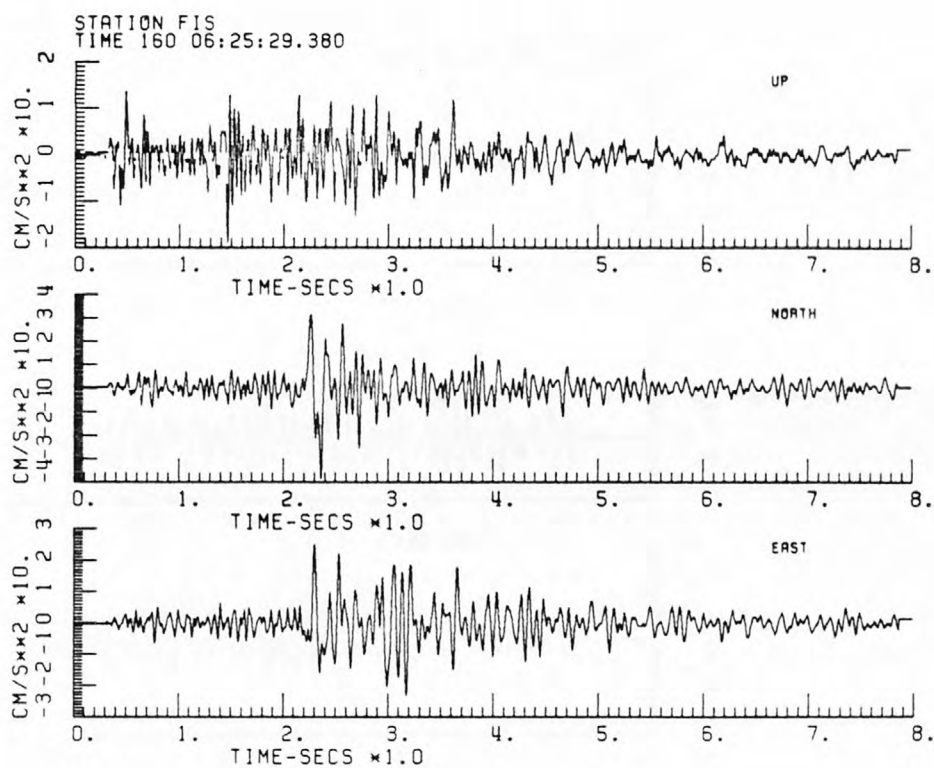


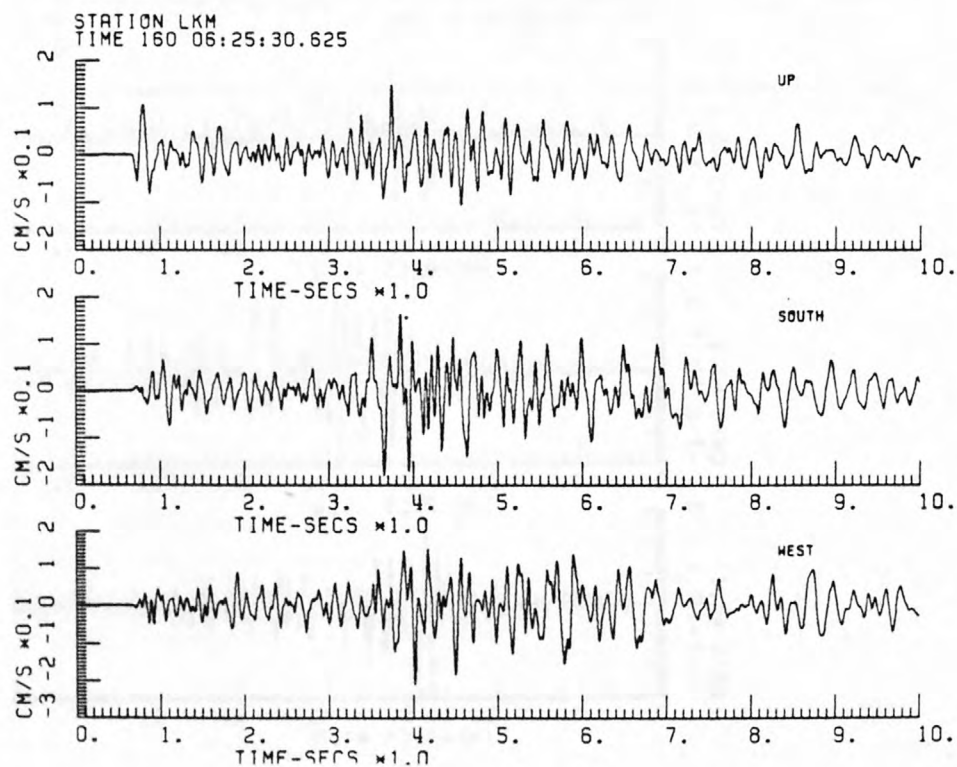
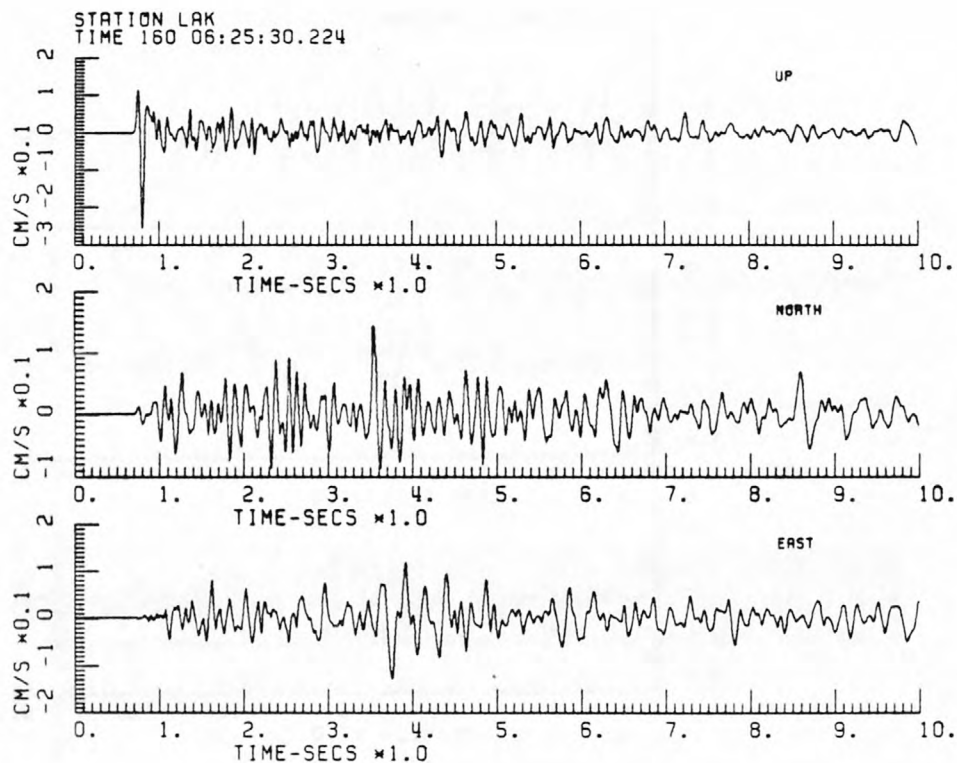


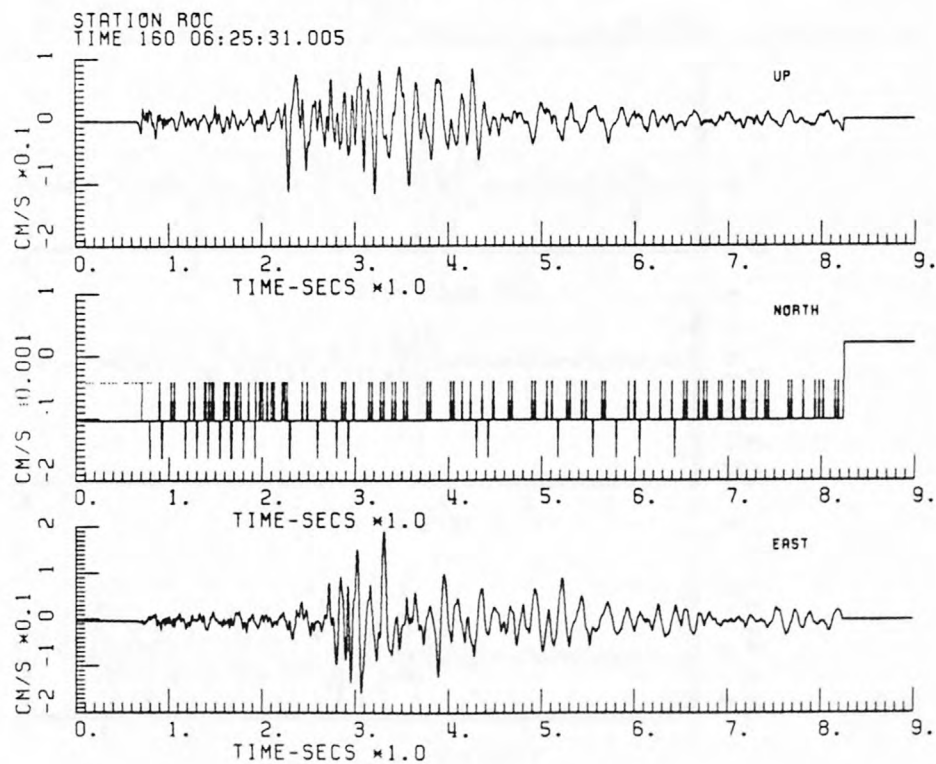
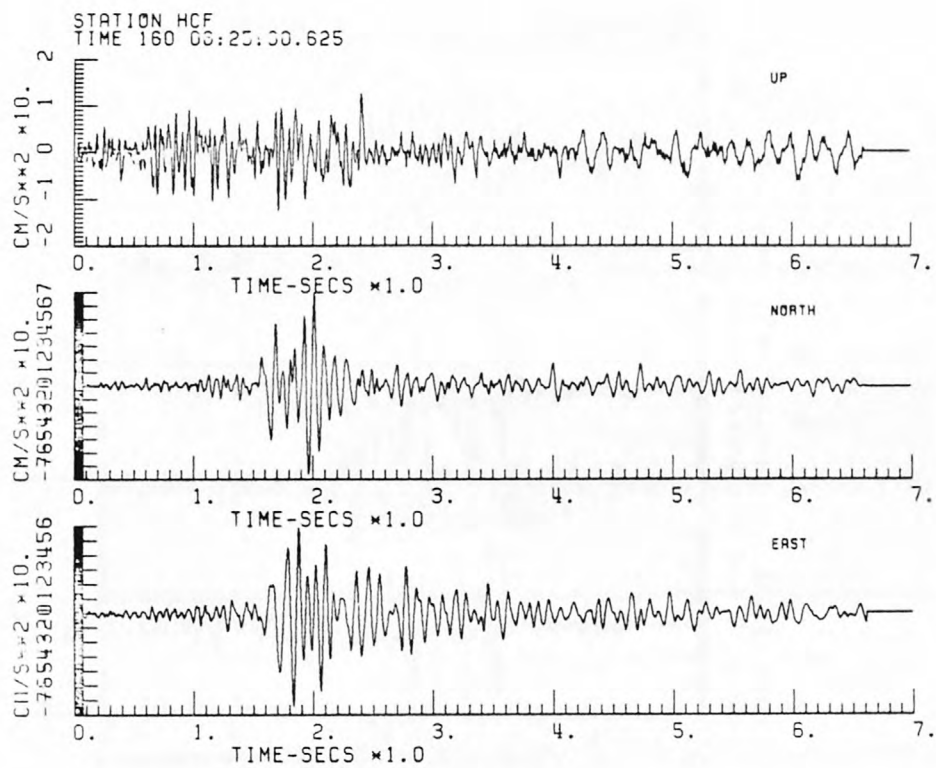


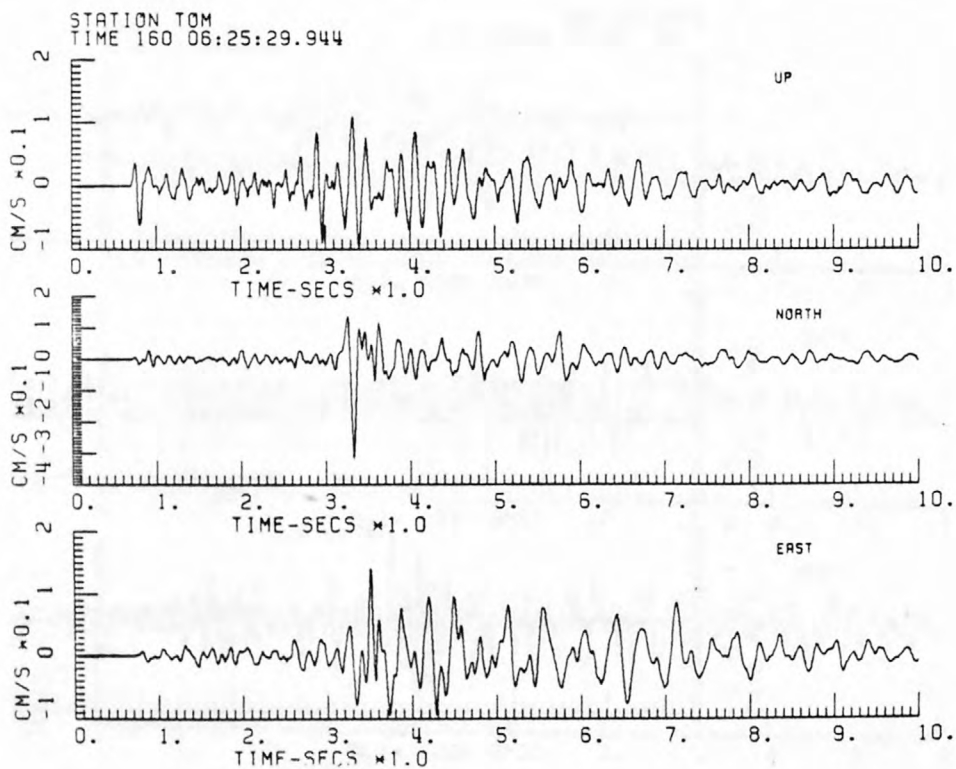
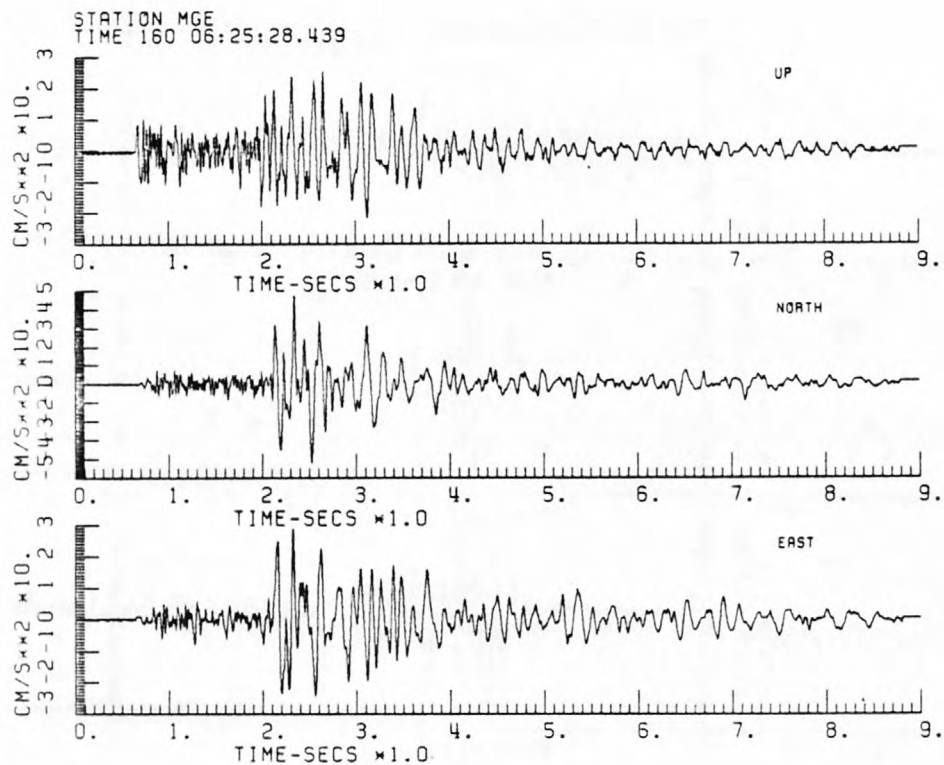


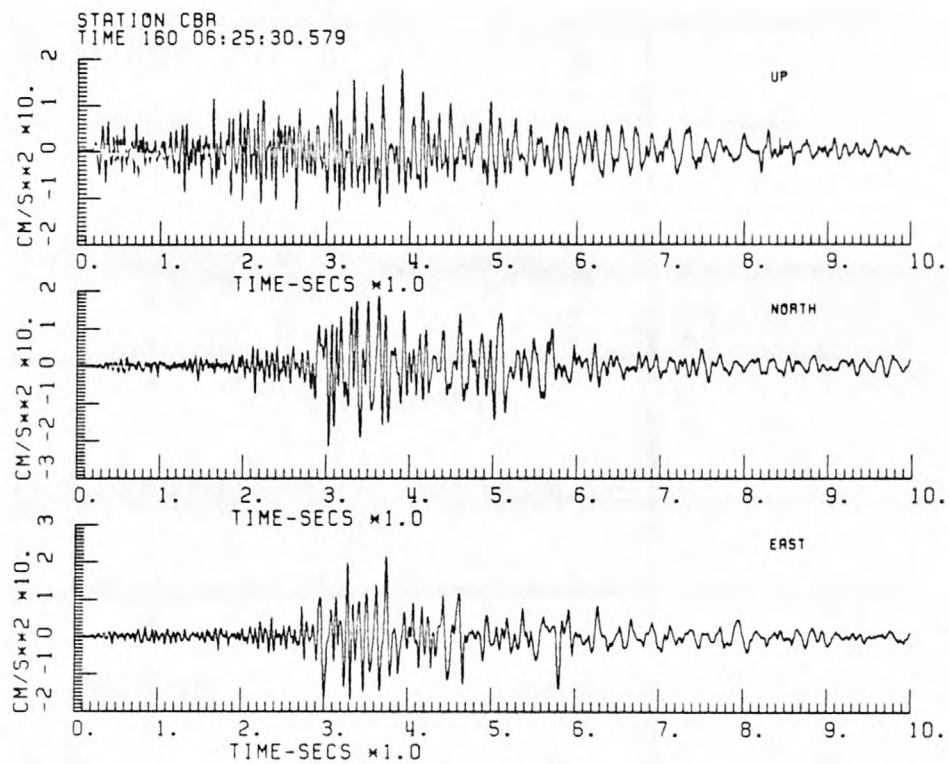


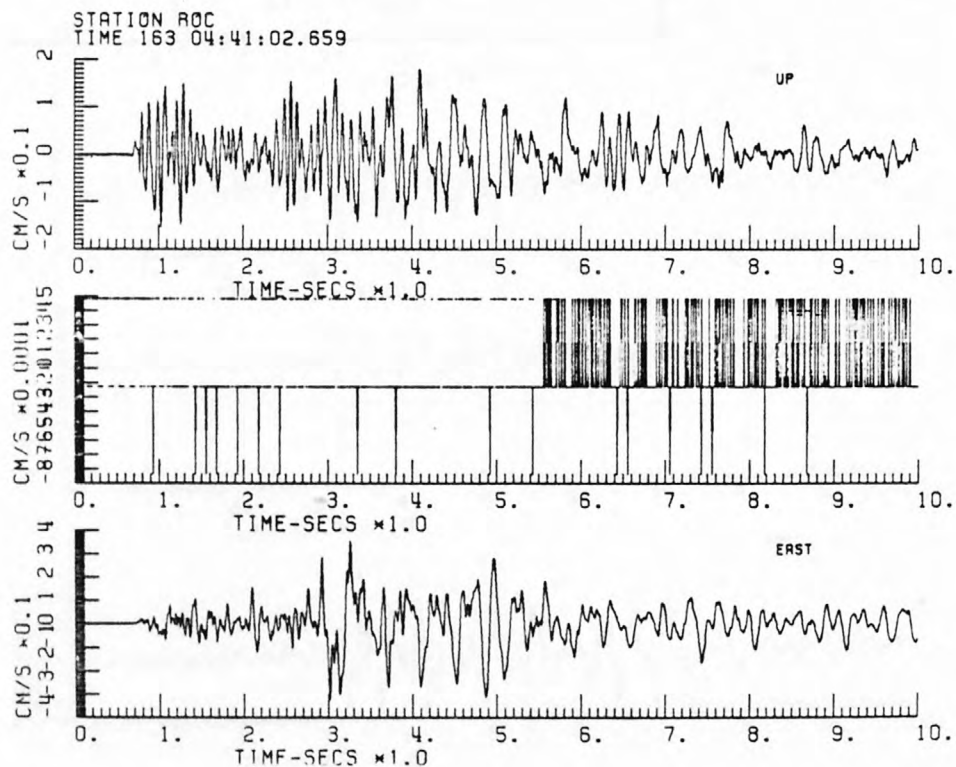
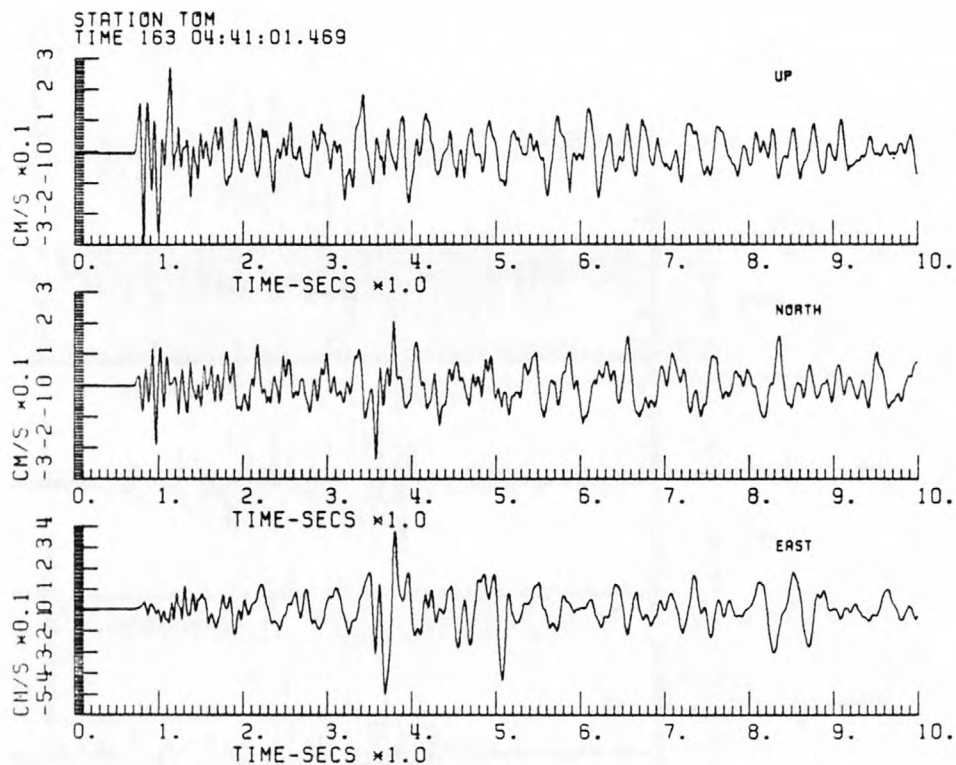


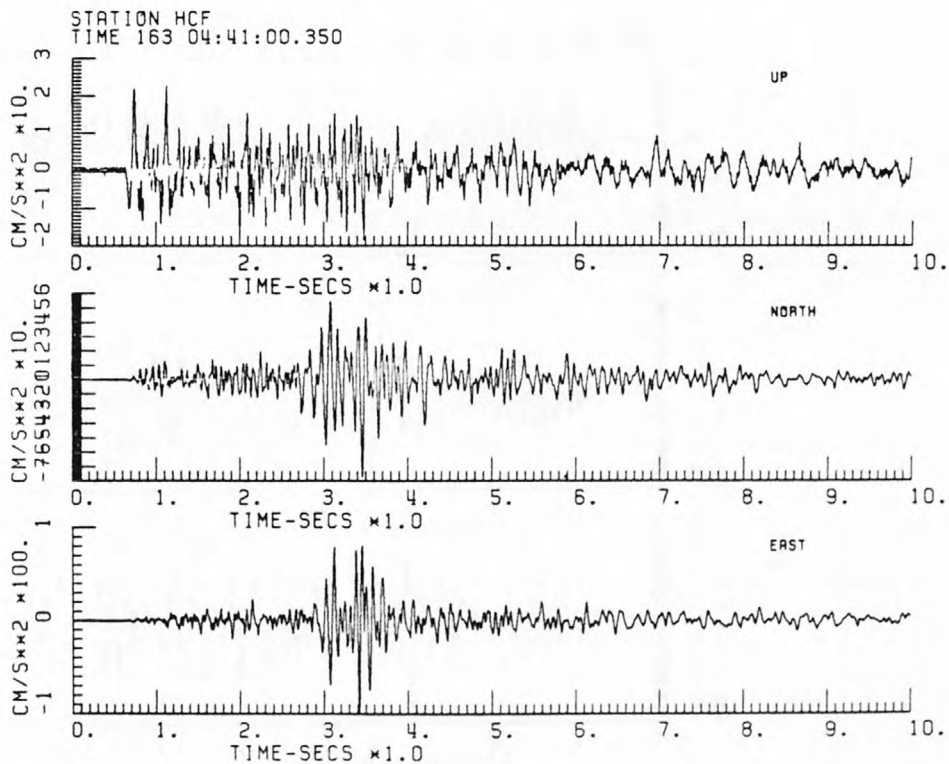
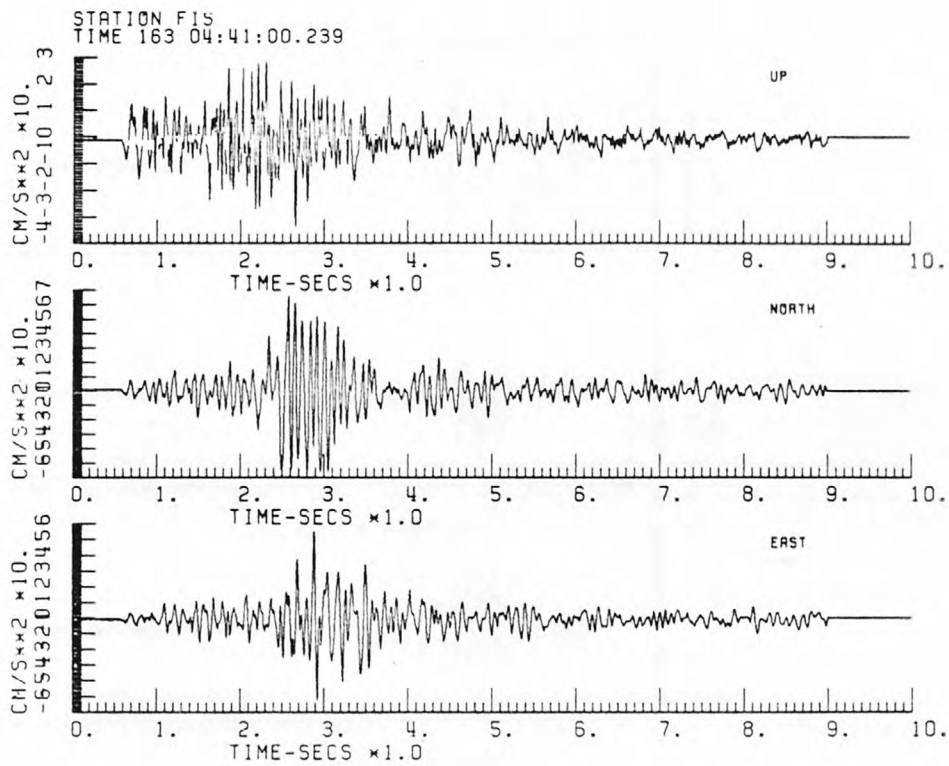


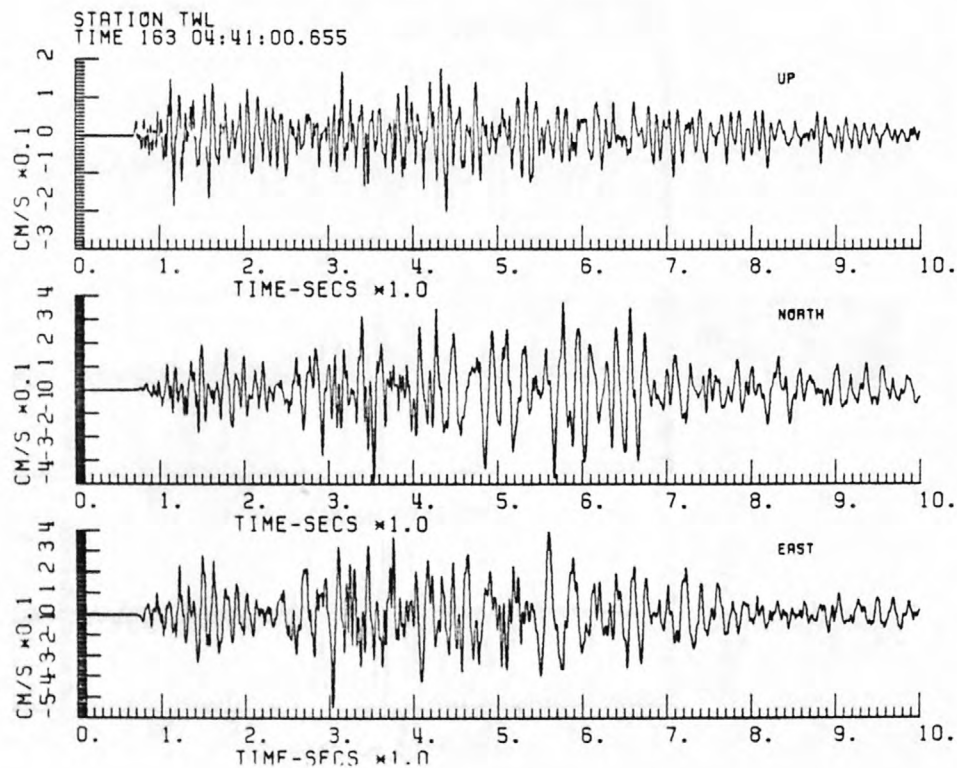
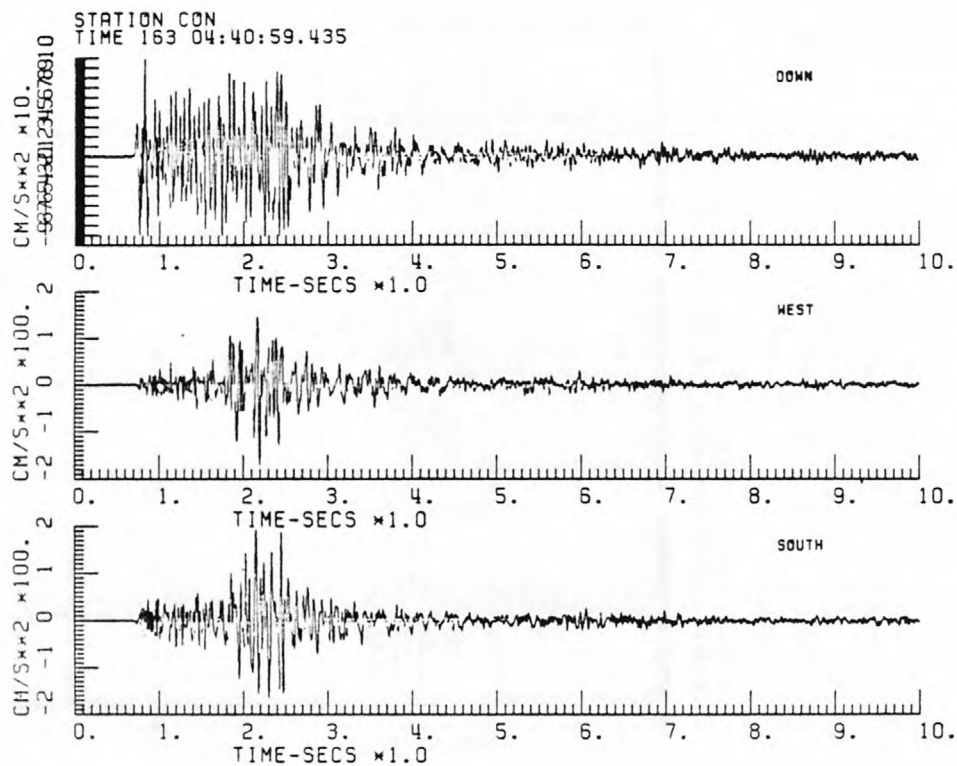


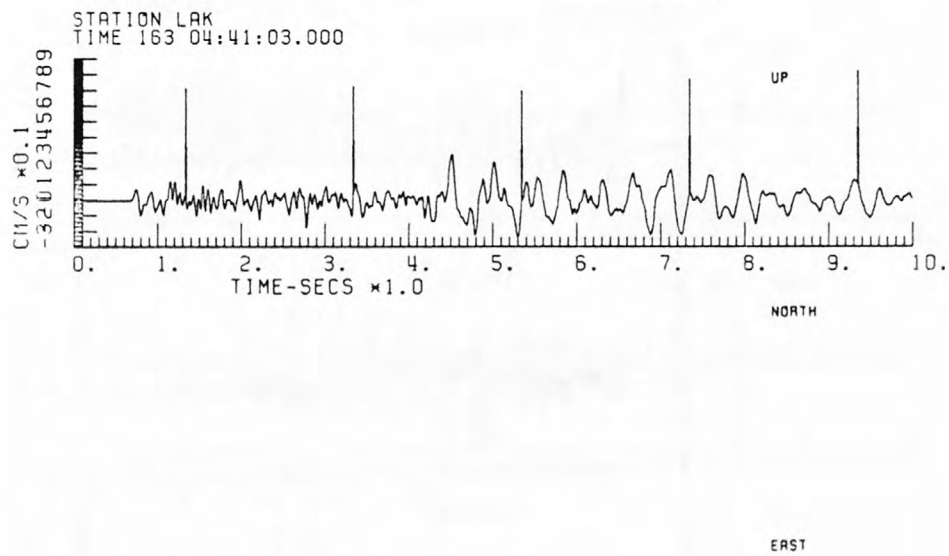
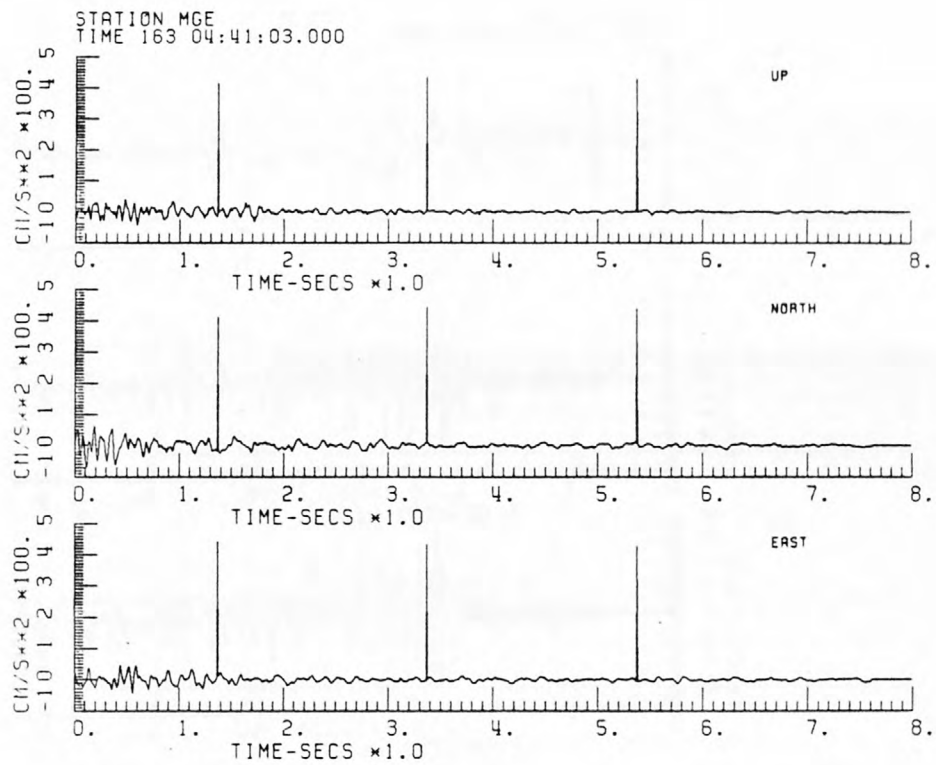


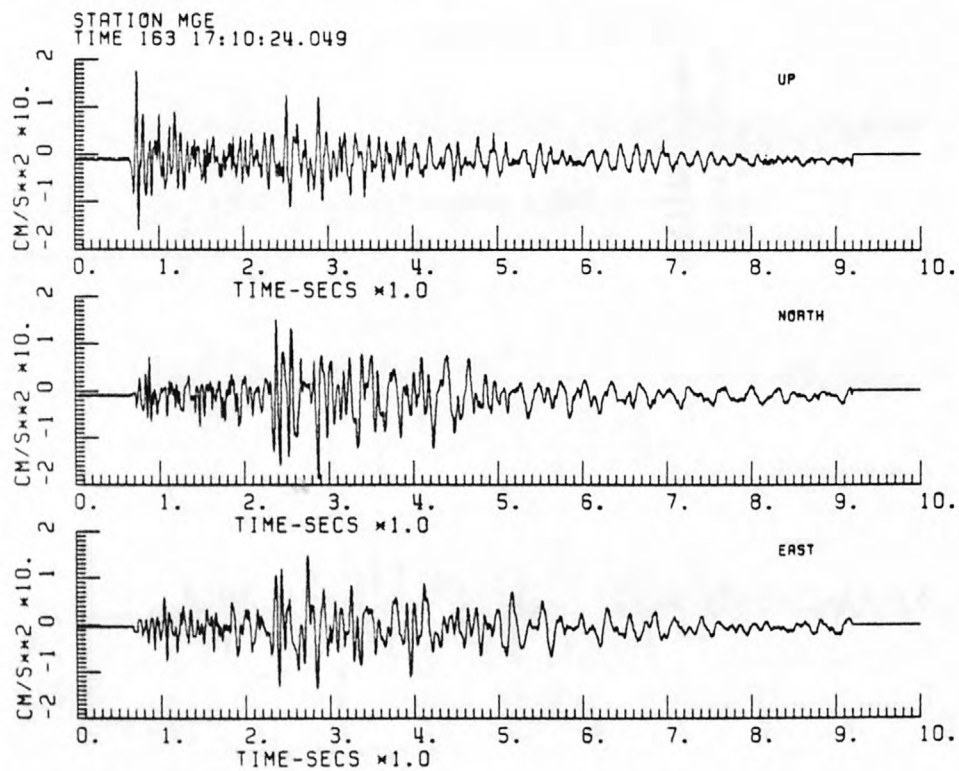
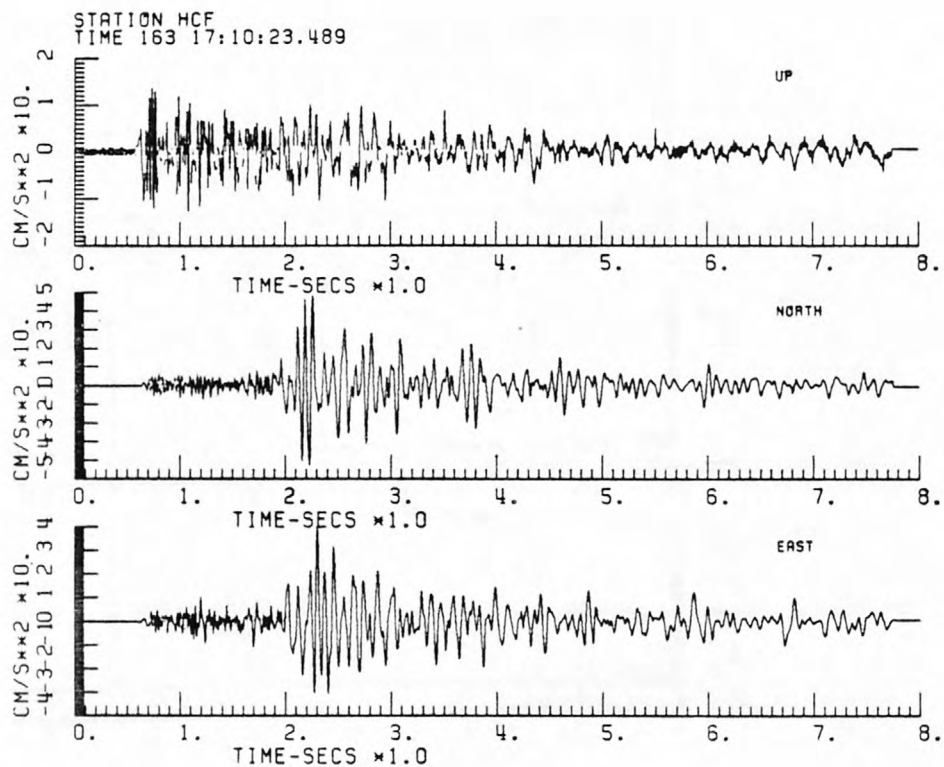


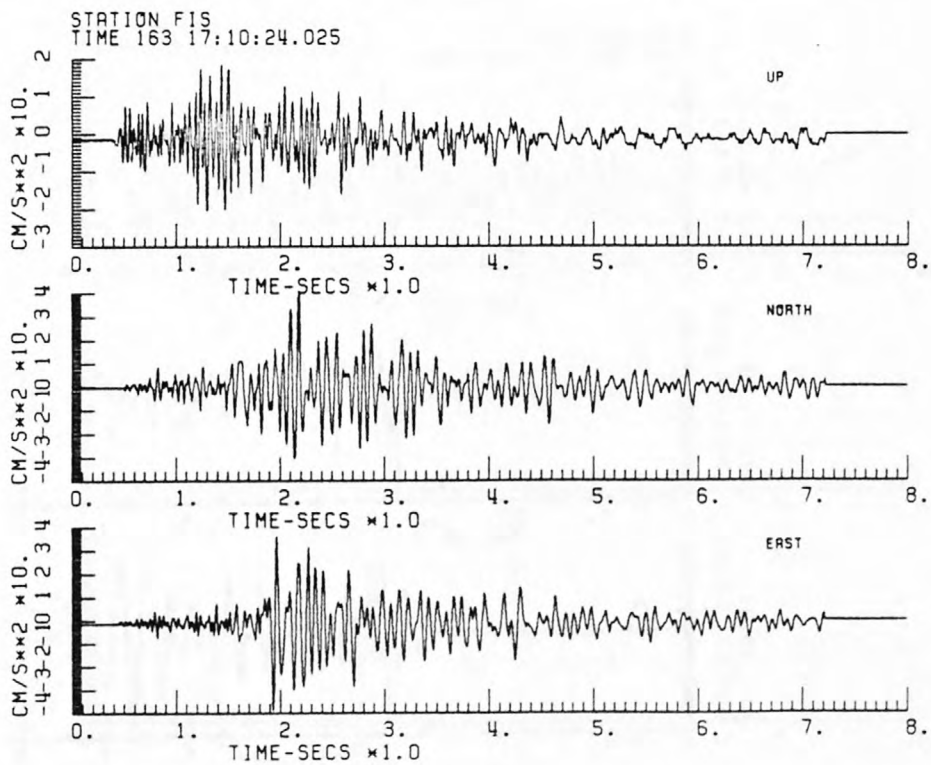
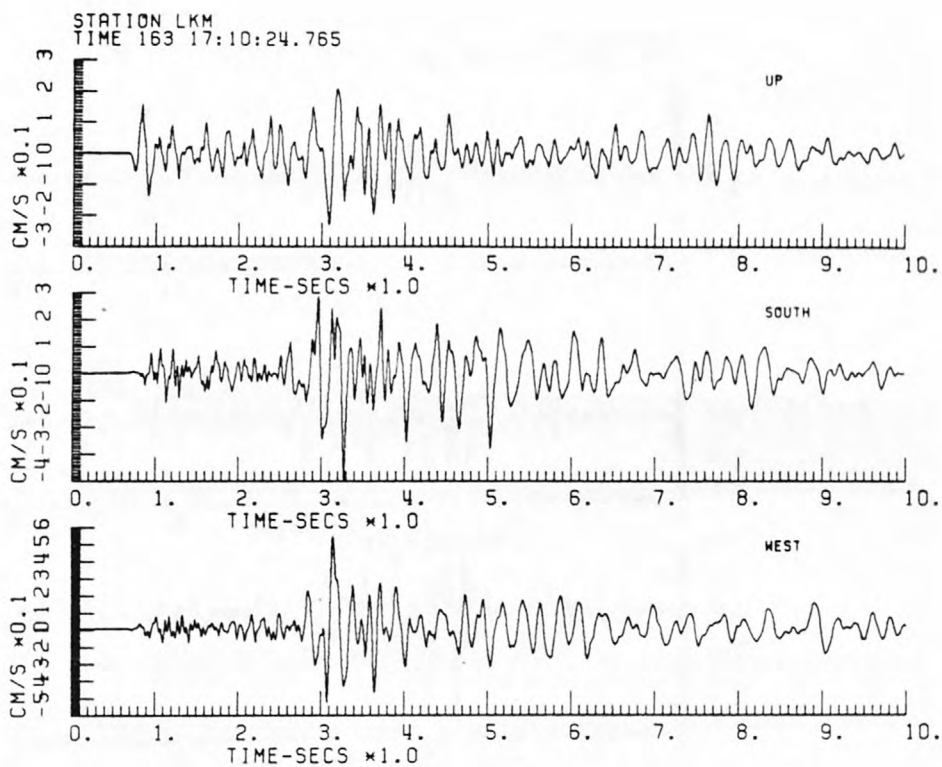


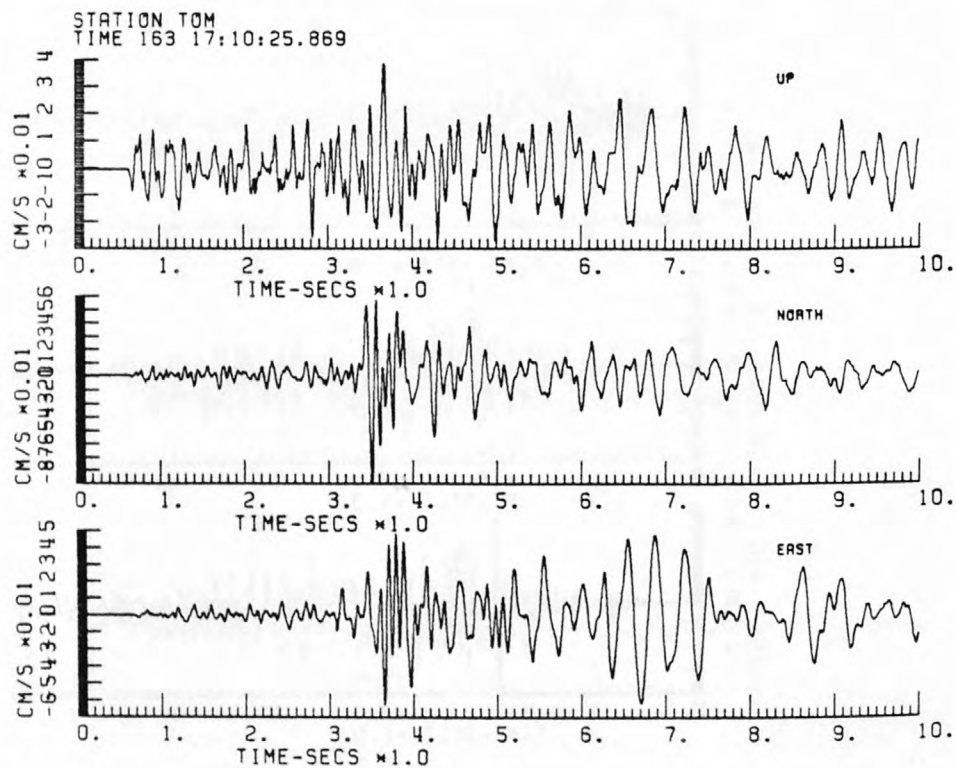
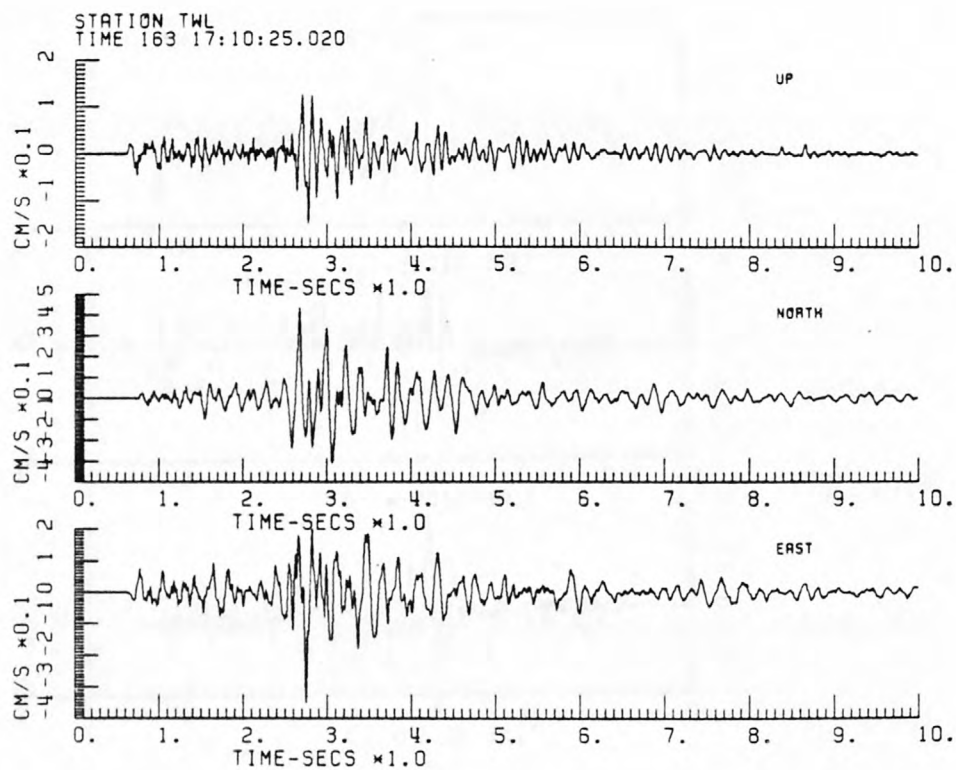


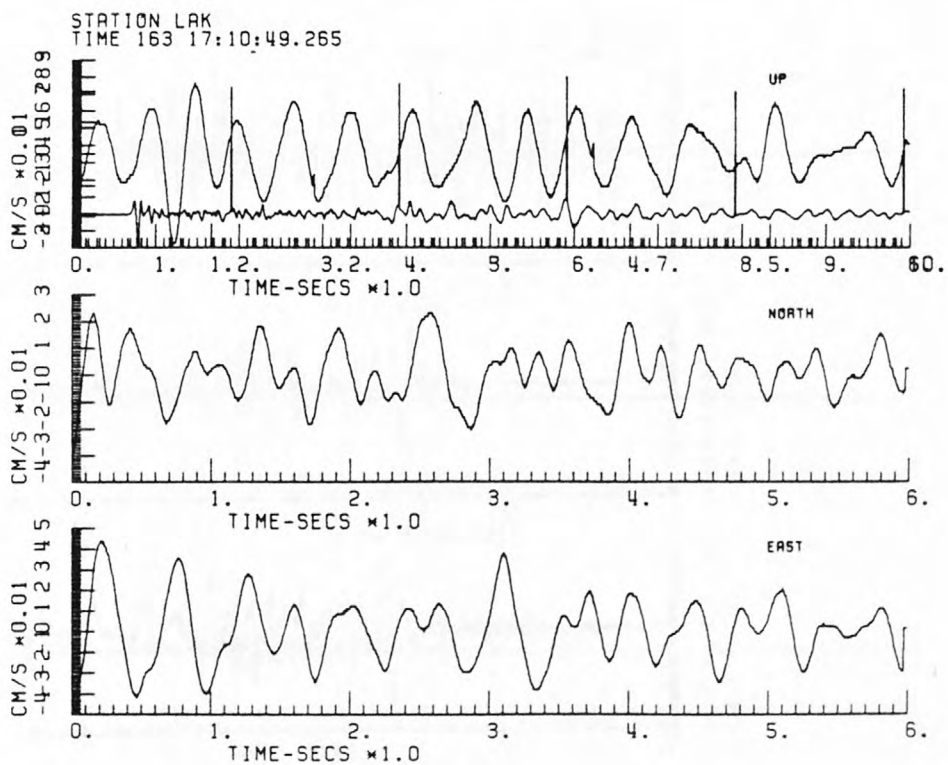
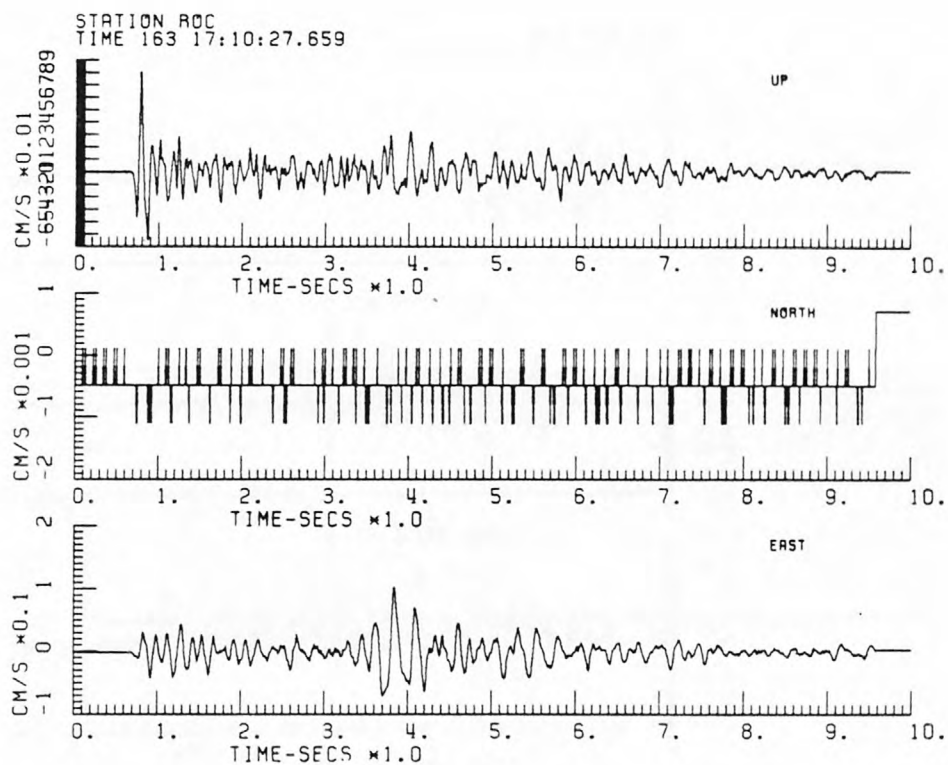


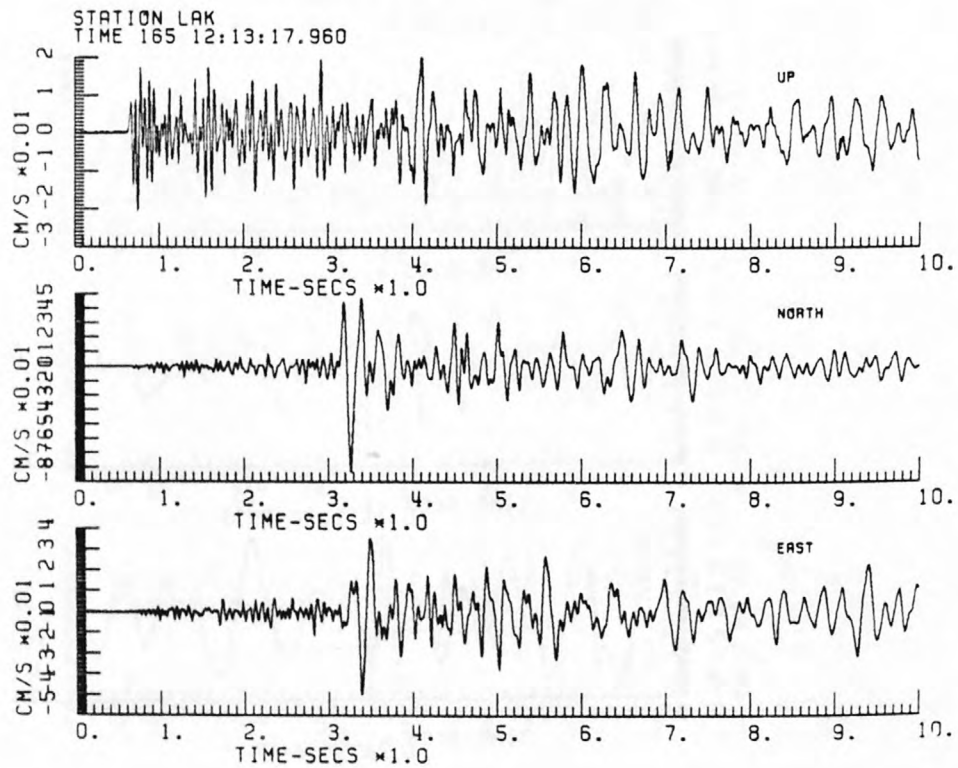
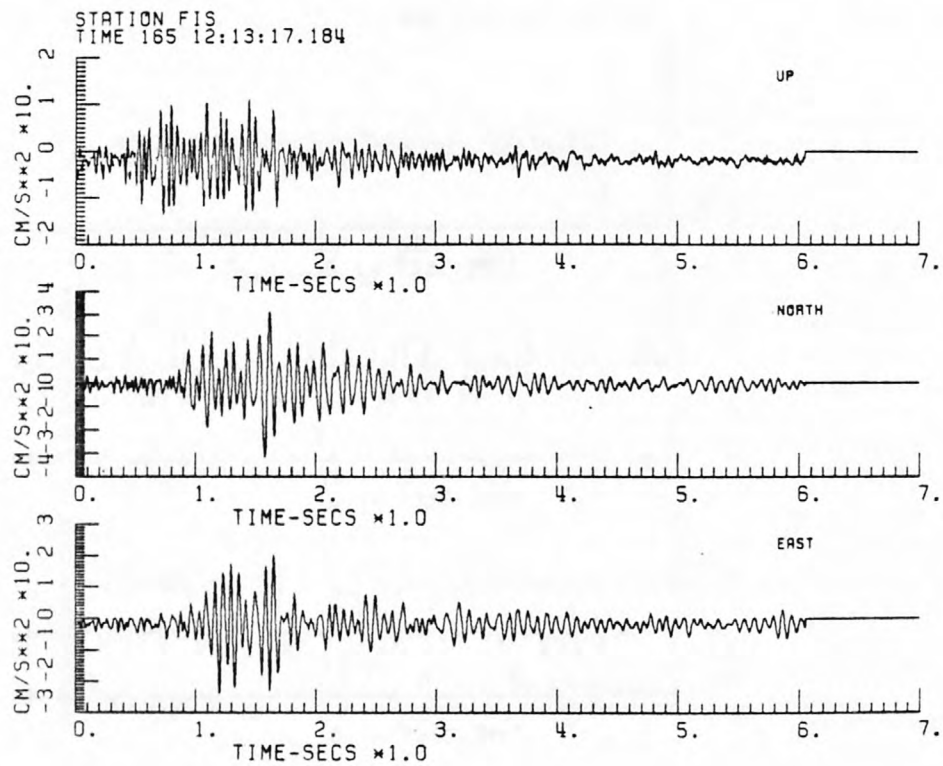


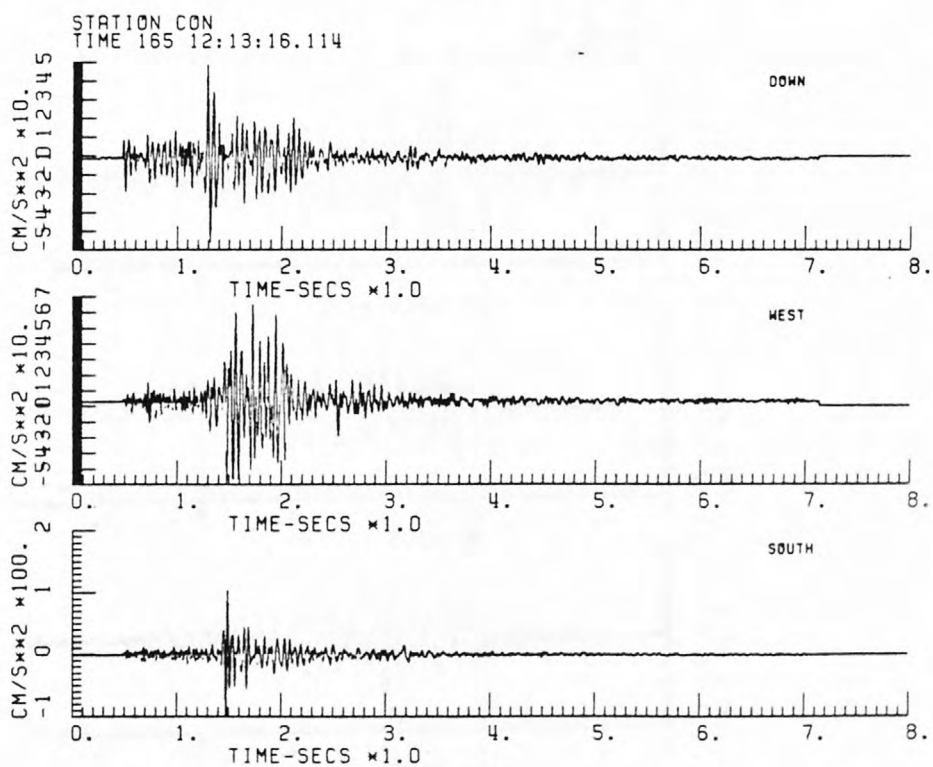
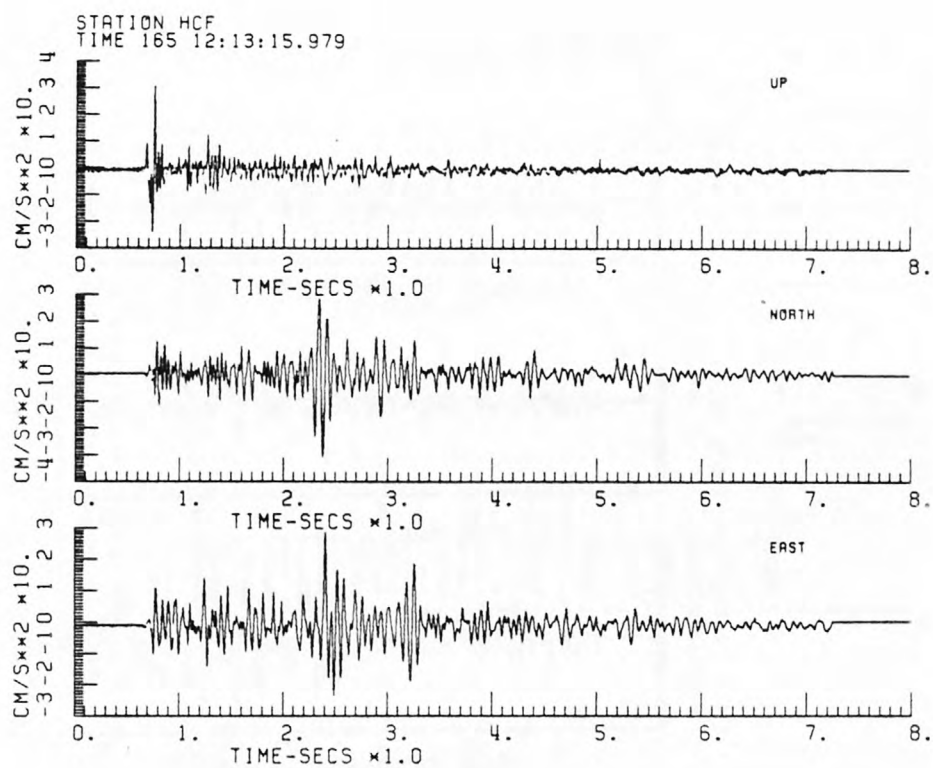


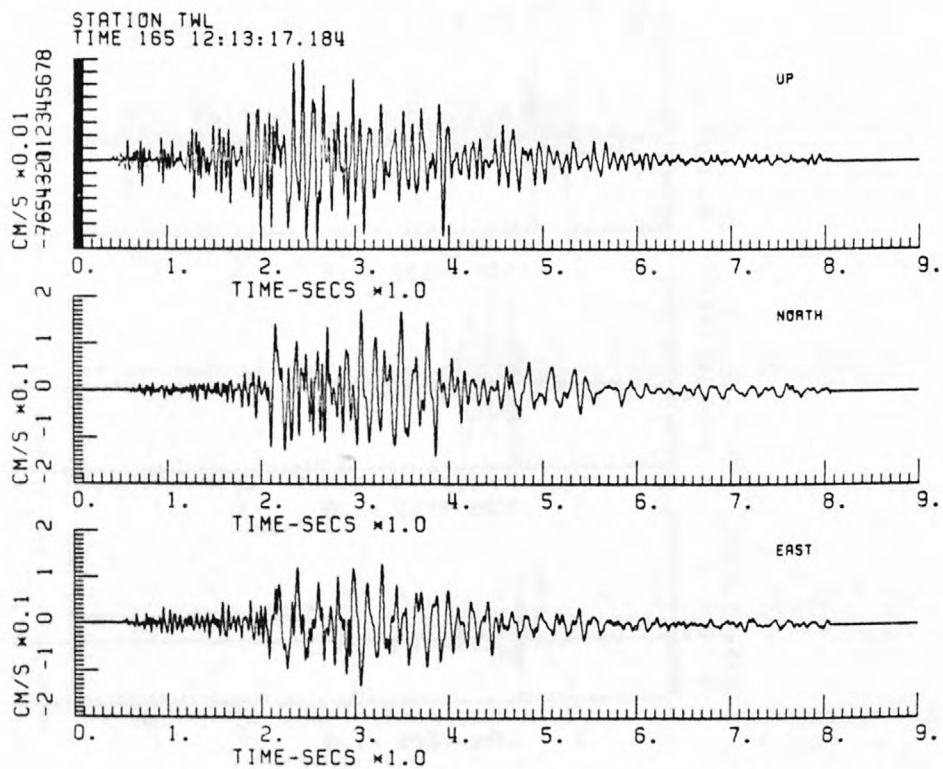
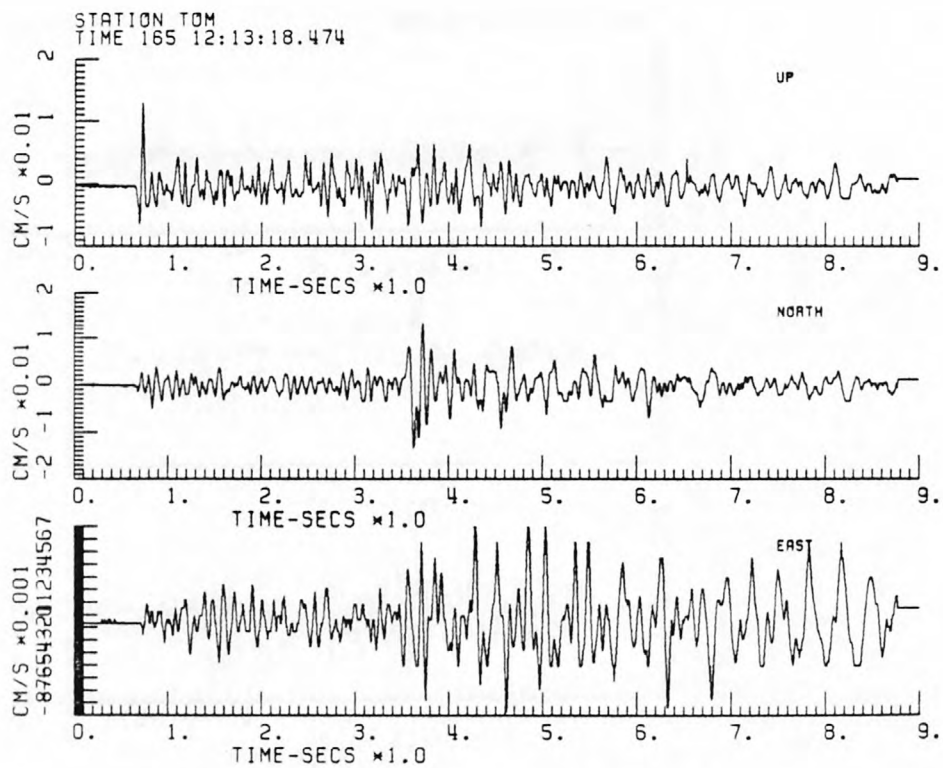


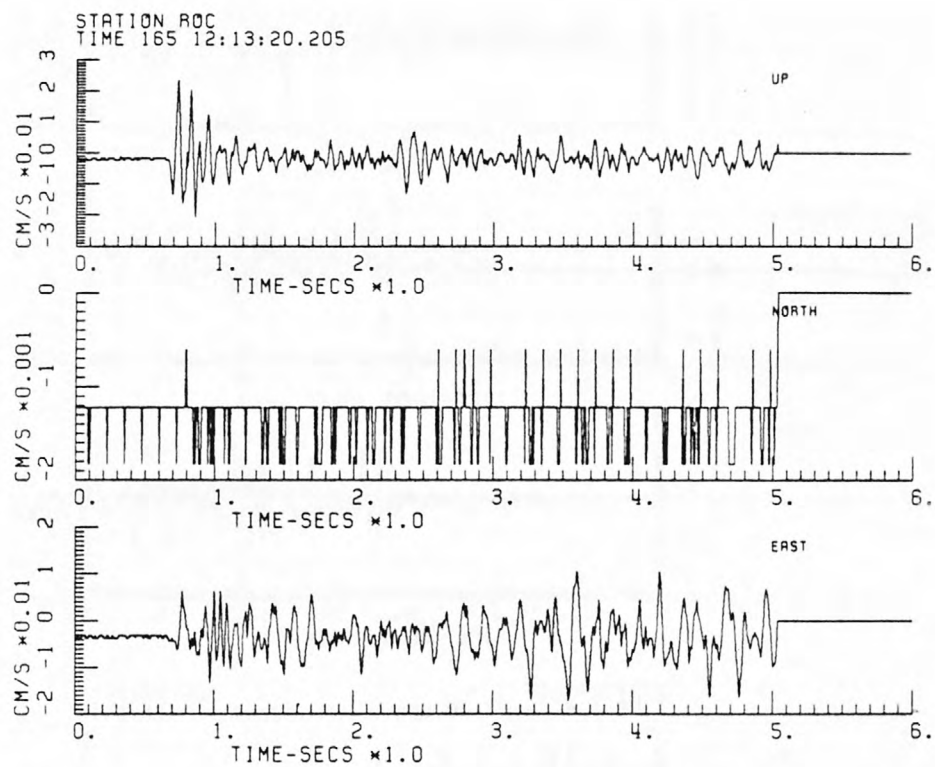


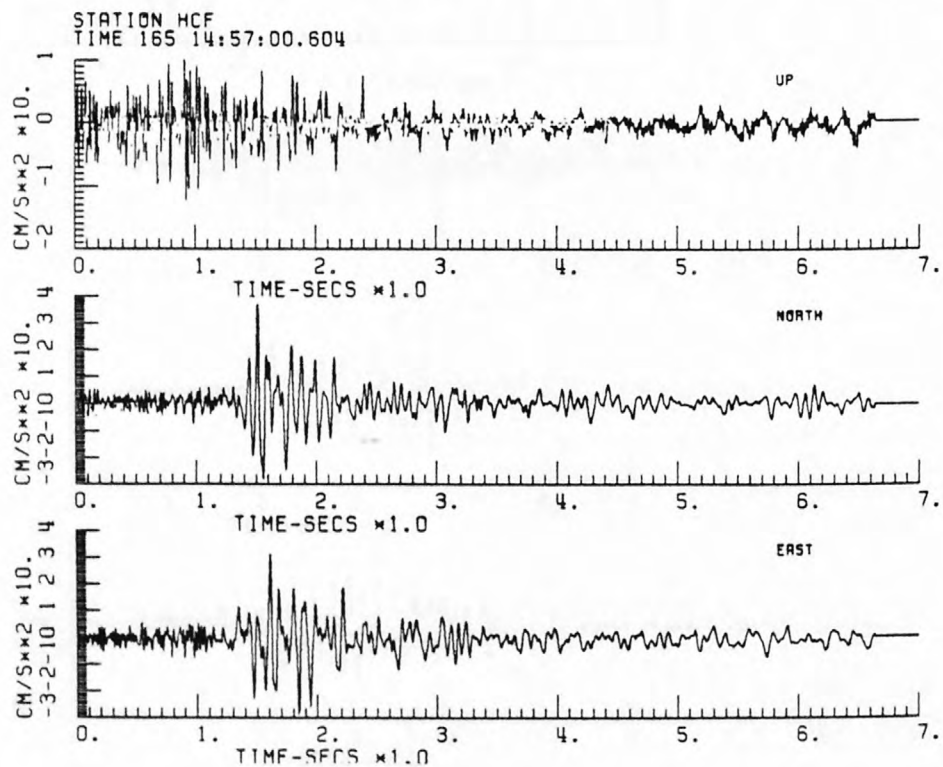
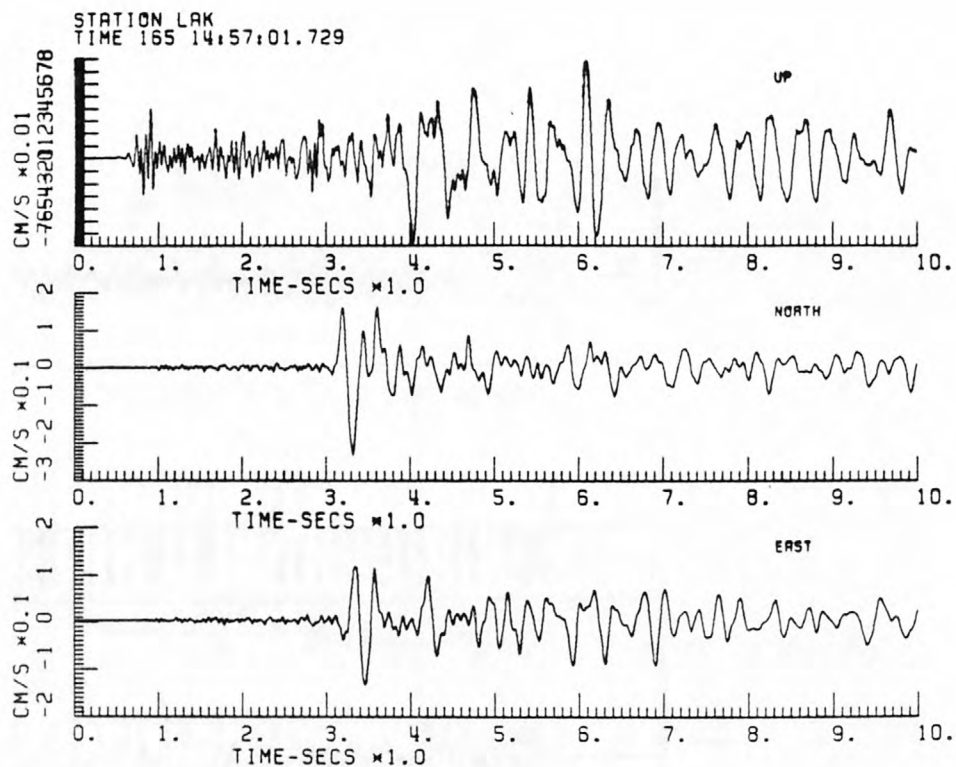


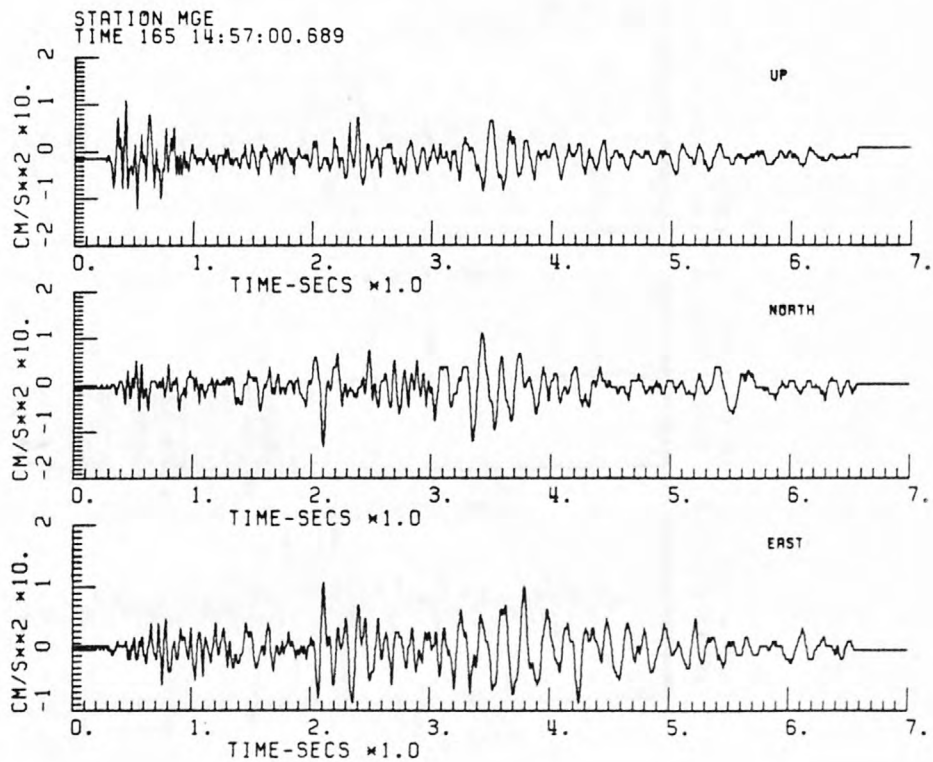
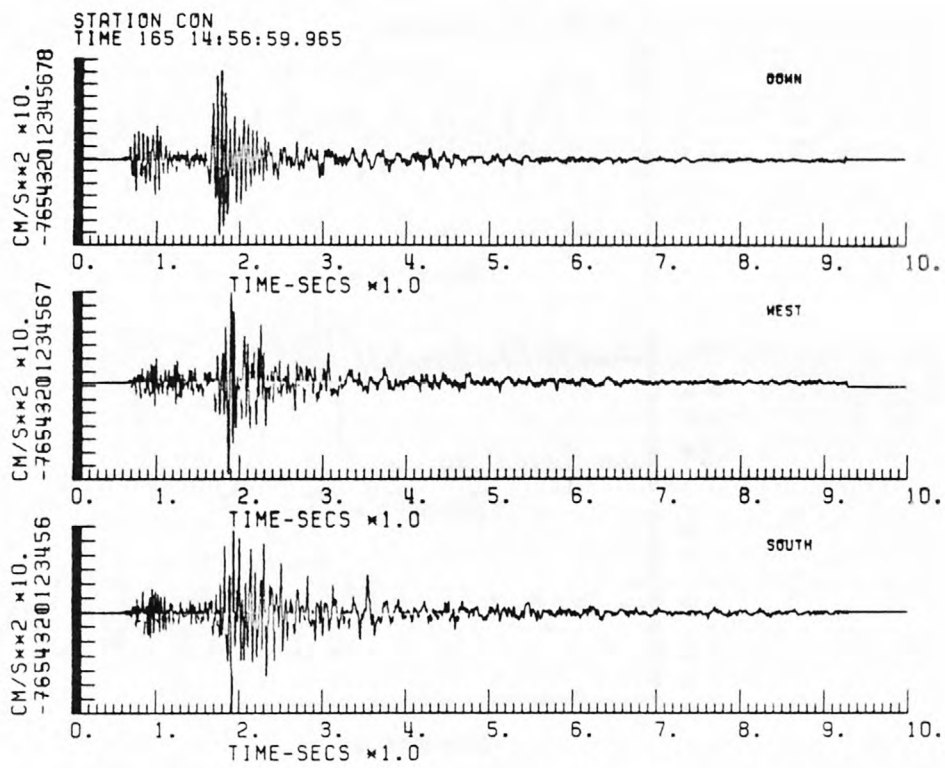


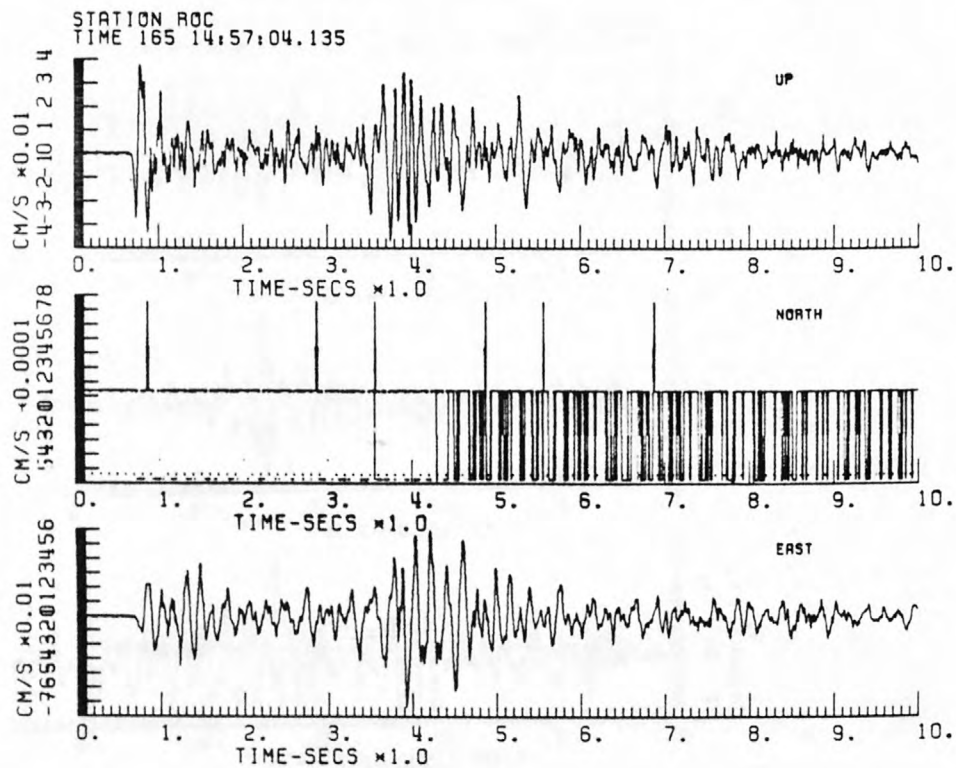
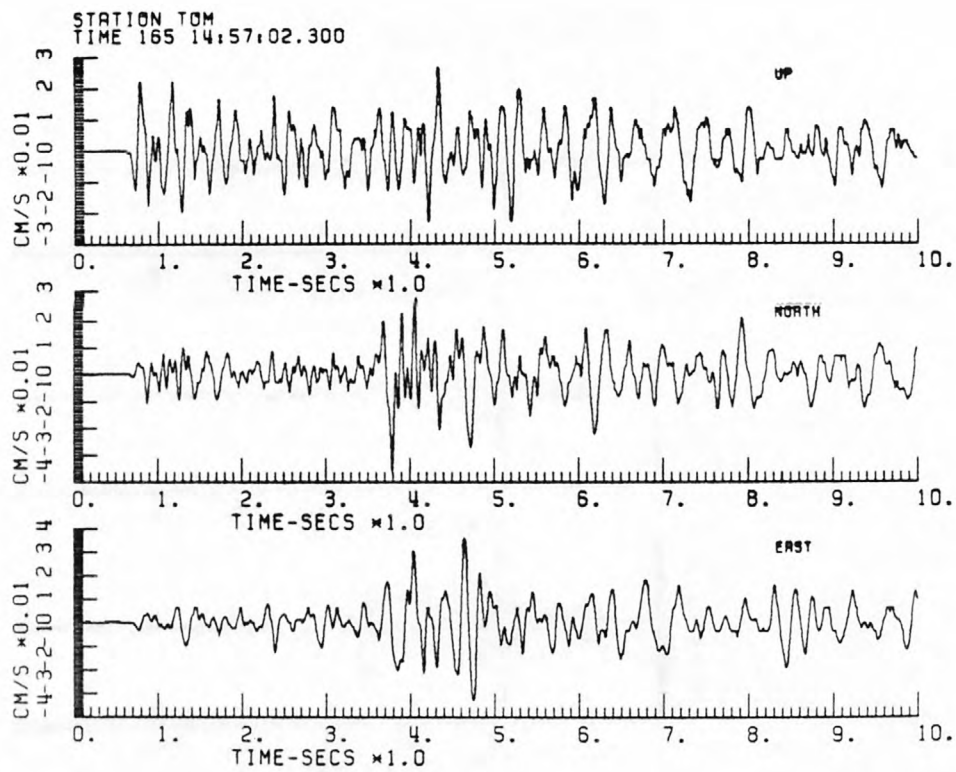












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