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Catalog Of First Motion Focal Mechanisms

1981 - 1983

Volume 1

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by

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VOLUME 1

CONTENTS

ILLUSTRATIONS

TABLES

ABSTRACT :

Beginning 1 January 1981, first motion focal mechanisms for large earthquakes were computed on a routine basis and reported in the *U.S.G.S Preliminary Determination of Epicenters Monthly Listing* (PDE Monthly Listing).

Between 1 January 1981 and 1 August 1982, an attempt was made to compute these first motion focal mechanisms routinely, with the criterion of selection being magnitude equal to or greater than 6.5.

After 1 August 1982, the magnitude criterion was lowered to m_b magnitude equal to or greater than 5.8. However for earthquakes with a depth greater than 70 km. the magnitude criterion was m_b equal to or greater than 5.7.

The magnitudes and depths used to select the earthquakes are taken from the *U.S.G.S Preliminary Determination of Epicenters listing* (PDE)

A total of 241 focal mechanisms computed for the time period of 1981 through 1983 are reported in this catalog. Of these 241 focal mechanisms, 58 were computed for earthquakes meeting the criterion that the magnitude be equal to or greater than 6.5; 181 focal mechanisms were for earthquakes which met the criterion that the mb magnitude be equal to or greater than 5.8; and two were computed for events of special interest for which the seismological community requested focal mechanisms even though the magnitudes of these events were below the threshold of the selection criteria.

To simplify the use of this catalog, it is being presented in three volumes. These volumes are divided into broad geographic areas to equalize the size of each volume and without particular regard for any tectonic regionalization. Volume 1 encompasses the geographic areas of North America. South America. Hawaii, Atlantic Ocean, Europe.Turkey and western Africa. Volume 2 presents data for the geographic areas of continental Asia, Indian Ocean and the eastern Asian islands from the Northern Philippine Islands to Kamchatka. Volume 3 encompasses the islands of the south and southwestern Pacific Ocean including Indonesia and the southern Philippine islands.

The geographic areas for volumes 1, 2, and 3 are divided into 23 geographic subdivisions.The boundaries of these subdivisions are determined by the earthquake locations which could be coherently presented on a map rather than by any particular tectonic boundaries. Volume 1 is divided into 10 of these geographic subdivisions. Volume 2 is divided into 7 of these subdivisions and volume 3 into 6.

The contents of each volume of this catalog is presented in the following order:

(1) A Mollweide map projection of the world in which the areas encompassed by each volume is outlined.

(2) A chronological listing. for each of the geographic sub- divisions, of hypocenter parameters for earthquakes reported in this catalog including event numbers that will be used throughout this catalog.

(3) A chronological listing. for each of the geographic sub- divisions, of hypocenter parameters of earthquakes which met the magnitude criteria on the Monthly Listing but are not reported in this catalog.

(4) A table showing the station code abbreviations and locations of the seismograph stations used in this catalog.

(5) An equal area projection map for each of the geographic subdivisions with lower hemisphere focal sphere projections associated to each event by event number.
(6) A table of focal mechanism parameters, listed by event number, for each of the geographic subdivisions.
(7) Lower hemisphere focal sphere projections for each event including the first motions used for the focal mechanism to compute the focal mechanism for each event.
(8) Individual seismograph station data used to compute the focal mechanism for each event.

INTRODUCTION (VOLUME 1):

This is the first of a 3 volume set that present the first motion focal mechanisms computed by the U.S. Geological Survey for earthquakes occurring in the time period of 1 January 1981 through 31 December 1983. The geographic area encompassed by this volume includes North America, Hawaii, South America , Atlantic Ocean, Europe, and Western Africa (figure 1). This geographic area of volume 1 was divided into 10 smaller subdivisions. The boundaries of these subdivisions are determined by the earthquake locations which could be coherently presented on a map rather than by any tectonic boundaries. These subdivisions are presented on azimuthal equa-distant projections, as figures 2,5,7,9,11,16,23,25 and 28 with the earthquake hypocenters and focal mechanisms plotted. The symbol $\times$ denotes hypocenters with shallow depths (0-70 km.), + intermediate depths (71-300 km), and $\diamond$ deep depths (301-700km.). Table 1 shows the map name, latitude, and longitude of the center and the radius for each azimuthal equadistant projection.

Table 1. Azimuthal equidistant projections coordinates and map radius for Volume 1

MAP NAME	LATITUDE OF CENTER (DEGREES)	LONGITUDE OF CENTER (DEGREES)	RADIUS OF MAP (DEGREES)
ALASKA	60.0 N	170.0 W	15
N.E. US-S.E. CANADA	44.0 N	69.0 W	5
WESTERN US	40.0 N	115.0 W	15
HAWAII	15.0 N	155.0 W	10
MIDDLE AMERICA	25.0 N	81.0 W	25
SOUTH AMERICA	25.0 S	65.0 W	40
NORTH ATLANTIC OCEAN	35.0 N	10.0 W	10
MID-ATLANTIC OCEAN	15.0 S	20.0 W	30
SOUTH ATLANTIC OCEAN	65.0 S	40.0 W	25
GREECE-TURKEY	40.0 N	30.0 E	11

The Flinn-Engdahl region numbers, Flinn and Engdahl (1965), associated to the earthquakes within the confines of these azimuthal equidistant projections are shown on table 2.

Table 2. Flinn-Engdahl region numbers for earthquakes within Volume 1 geographic subdivisions.

GEOGRAPHIC SUBDIVISION	REGION NUMBER
ALASKA	2,4,6,7,17,19
N.E. US-S.E. CANADA	451
WESTERN US	30,39,451
HAWAII	612
MIDDLE AMERICA	57,58,60,61,69,70,73,76,78,83,95,97
SOUTH AMERICA	105,107,110,112,115,116,118,122,123 127,132,134,135,143
NORTH ATLANTIC OCEAN	402
MID-ATLANTIC OCEAN	406,410,550
SOUTH ATLANTIC OCEAN	153,154,410,414
GREECE-TURKEY	364,365,366,400

EARTHQUAKE SELECTION:

The selection of earthquakes for which focal mechanisms were routinely computed were based on the magnitudes and depths reported on the USGS PDE listing. Between 1 January 1981 and 1 August 1983, the criterion for earthquake selection was magnitude greater than or equal to 6.5. After 1 August, the criteria was lowered to either m_b greater than or equal to 5.8 or 5.7 with depth greater than 70 km. Events of special interest, for which the seismological community requested mechanisms, may be included even though the selection criteria were not met. Volume 1 has one of these special events, the New Brunswick earthquake of 9 January 1982.

Table 3 lists the hypocenter parameters for the earthquakes in this volume chronologically and by event number for each geographic subdivision. This listing contains a total of 72 earthquakes for which focal mechanisms were computed. Of these, 18 were selected using the criterion of magnitude greater than or equal to 6.5; 53 were selected using the criteria of m_b greater than or equal to 5.8 or 5.7 for depths greater than 70 km.; and one was selected as a special event. Some of the earthquakes of this listing have smaller magnitudes than the above values because the selection criteria were applied to events listed in the USGS PDE listing rather than to events in the PDE Monthly Listing where focal mechanism parameters are published.

Five earthquakes appearing in the Monthly Listing have magnitudes that exceed the magnitude selection criteria but are not reported in this volume. These events are listed on table 4. Two of these unreported events had magnitudes less than the selection criteria

on the PDE and were therefore not selected. The three other events were not reported because either the quality and/or quantity of first motions was not sufficient to control the nodal planes of the focal mechanism.

COMPUTATIONS:

The focal mechanism solutions for this catalog were computed interactively rather than by a program that produces automatic solutions.

Tables 6, 15, 17, 22, 24, 39, 61, 64, 69, and 77 shows the focal mechanism parameters for each of the geographic subdivisions of volume 1. The focal angles which are listed in this catalog and plotted on a lower hemi- sphere focal sphere projections in figures 3-4, 6,8, 10, 12-15, 17-22, 24, . 26, 28-29 and 31-33, were derived from the earth model of Jeffreys and Bullen (1958). The figures, ordered by event number (table 3), show the nodal plane configuration: the P,T and B axes of the focal mechanism; and the station data used. The size of the symbols on these focal sphere solutions depend on the source of the first motions. The large symbols denote long-period P phase first motions and the small symbols denote the short-period P phase first motions.

DATA SOURCES:

The first motion data were obtained from the following three sources: (1) the first motions reported by station analysts to the National Earthquake Information Center (NEIC); (2) First motions determined by USGS personnel from seismograms of the World-Wide Standardized Network (WWSSN); and (3) the first motions obtained from the waveform data of the Global Digital Seismograph Network (GDSN)

Individual station data, ordered by distance from the event, are shown as tables 7-14, 16, 18-21, 23, 25-38, 40-60, 62-63, 65-68, 70-76, and 78-87. The codes and locations for stations used in these tables are listed in the abbreviation table (table 5), Presgrave, Needham and Minsch (1985). These station data tables also show: distance in degrees; azimuth in degrees from the event to the station; $dt/d\Delta$ in seconds/degree; focal angles in degrees; and the quality, direction, and source of the first motions.

AKNOWLEDGMENT:

The author is grateful to Madeleine Zirbes for her computer programming assistance in compiling this catalog.

REFERENCES:

Jeffreys, H., and Bullen, K. E., 1958, Seismological tables: British Association for Advancement of Science, Gray Milne Trust, London.

Flinn, E. A., and Engdahl, E. R., 1965, A proposed basis for geographic and seismic regionalization: Revised Geophysics, v. 3, p. 123-149.

Presgrave, B. W., Needham, R.E. and Minsch, J. H., 1985, Seismograph station codes and coordinates, 1985 edition: U.S.G.S. Open-file Report 85-714.

Figure 1. Mollweide projection showing geographical regions for volumes 1, 2, and 3.

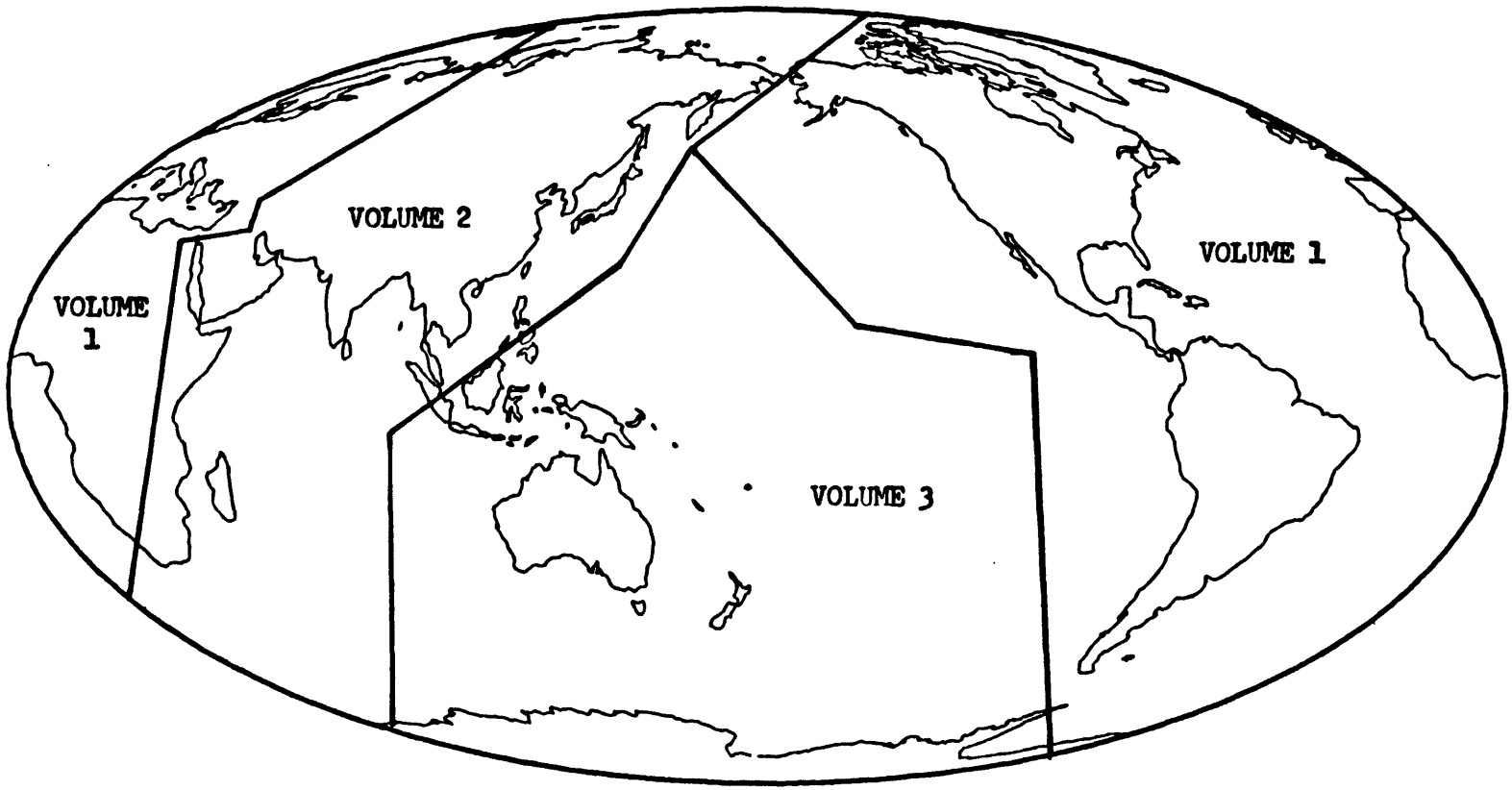

Table 3. Hypocenter parameters for events in volume 1 with focal mechanisms computed.

EVT. NO.	DATE UTC.	ORIGIN TIME UTC. HR MN SEC	GEOGRAPHIC COORDINATES LAT.	LONG.	DEPTH km.	MAG. MB	MS	SD	NO. STA.	REGION
ALASKA										
005	01/30/81	08 52 44.1	51.744 N	176.274 E	33	6.3	7.0	1.0	309	RAT ISLANDS, ALEUTIAN ISLANDS
050	05/31/82	10 21 15.0	55.138 N	165.401 E	33N	6.0	6.4	1.1	293	KOMANDORSKY ISLANDS REGION
109	02/14/83	03 20 04.4	54.932 N	159.189 W	47D	5.9	6.3	1.3	318	SOUTH OF ALASKA
110	02/14/83	08 10 03.6	54.969 N	159.236 W	33N	6.0	5.6	1.1	281	SOUTH OF ALASKA
159	06/09/83	18 46 00.9	51.414 N	174.111 W	21	6.2	5.8	1.0	357	ANDREANOF ISLANDS, ALEUTIAN ISLES.
165	06/28/83	03 25 17.0	60.219 N	141.287 W	19	6.0	5.4	1.0	327	SOUTHEASTERN ALASKA
172	07/12/83	15 10 03.4	61.031 N	147.286 W	37	6.1	6.4	0.9	300	SOUTHERN ALASKA
189	09/07/83	19 22 05.1	60.976 N	147.500 W	45	6.2	6.2	0.9	377	SOUTHERN ALASKA
N.E. UNITED STATES-S.E. CANADA										
037	01/09/82	12 53 51.8	46.984 N	66.656 W	10G	5.7	6.2		276	NEW BRUNSWICK
WESTERN UNITED STATES										
024	11/03/81	13 47 34.1	43.542 N	127.706 W	10G	6.0	6.2	1.2	232	OFF COAST OF OREGON
145	05/02/83	23 42 37.7	36.219 N	120.317 W	10G	6.2	6.5		471	CENTRAL CALIFORNIA
174	07/22/83	02 39 53.7	36.228 N	120.416 W	9G	6.0	5.7		238	CENTRAL CALIFORNIA
211	10/28/83	14 06 06.6	44.058 N	113.857 W	10G	6.2	7.3	1.1	377	EASTERN IDAHO
HAWAII										
218	11/16/83	16 13 00.0	19.430 N	155.454 W	12G	6.4	6.7		394	HAWAII
MIDDLE AMERICA										
009	03/06/81	19 42 59.5	3.893 N	85.915 W	33N	6.1	6.4	0.8	188	OFF COAST OF CENTRAL AMERICA
023	10/25/81	03 22 15.5	18.048 N	102.084 W	33N	6.2	7.3	1.2	191	MICHOACAN, MEXICO
047	04/06/82	19 56 53.4	14.315 N	92.082 W	65	6.0	6.5	1.0	281	NEAR COAST OF CHIAPAS, MEXICO
053	06/07/82	06 52 37.3	16.607 N	98.149 W	41	6.0	6.9	1.1	272	NEAR COAST OF GUERRERO, MEXICO
054	06/07/82	10 59 40.1	16.558 N	98.358 W	34	6.3	7.0	1.1	307	NEAR COAST OF GUERRERO, MEXICO
055	06/19/82	06 21 58.0	13.313 N	89.339 W	82	6.2		1.2	367	EL SALVADOR
067	08/19/82	15 59 01.5	6.718 N	82.680 W	10G	6.2	6.5	1.2	199	SOUTH OF PANAMA
101	01/24/83	08 17 39.6	16.147 N	95.232 W	57	6.3	6.7	1.2	351	OAXACA, MEXICO
118	03.08.83	17 06 36.5	11.007 N	62.364 W	82	5.9		0.9	307	WINDWARD ISLANDS
129	04/03/83	02 50 01.1	8.717 N	83.123 W	37D	6.5	7.3	1.0	318	COSTA RICA
134	04/11/83	08 18 10.1	10.419 N	62.764 W	40	6.0	5.9	1.1	350	NEAR COAST OF VENEZUELA
168	07/03/83	17 14 23.1	9.652 N	83.688 W	33N	5.9	6.2	1.0	180	COSTA RICA
192	09/15/83	10 39 02.3	16.103 N	93.153 W	115D	5.6		1.1	287	CHIAPAS, MEXICO
229	12/02/83	03 09 05.6	14.066 N	91.924 W	67	5.9		1.1	312	GUATEMALA
SOUTH AMERICA										
022	10/16/81	03 25 42.2	33.134 S	73.074 W	33N	6.2	7.2	0.8	161	OFF COAST OF CENTRAL CHILE
026	11/07/81	03 29 51.0	32.199 S	71.336 W	65	6.2	6.8	1.0	238	NEAR COAST OF CENTRAL CHILE
046	03/28/82	23 24 51.1	12.690 S	76.065 W	95D	6.1		1.0	270	NEAR COAST OF PERU
070	08/26/82	05 22 59.6	2.692 S	79.871 W	70D	5.8		0.9	233	NEAR COAST OF ECUADOR
075	09/15/82	20 22 55.2	14.493 S	70.785 W	128	6.0		1.0	343	PERU
084	11/18/82	14 57 52.4	1.719 S	76.703 W	195D	6.0		1.1	285	ECUADOR
085	11/19/82	04 27 13.8	10.599 S	74.699 W	14D	6.3	6.3	1.1	274	PERU
095	01/01/83	05 31 56.1	16.943 S	69.114 W	172D	5.7		1.0	250	PERU-BOLIVIA BORDER REGION
097	01/10/83	12 32 21.6	27.237 S	63.301 W	558	5.7		0.9	246	SANTIAGO DEL ESTERO PROV. ARG.
114	02/25/83	22 49 54.7	18.268 S	69.438 W	146D	5.9		1.1	281	NORTHERN CHILE
136	04/12/83	12 07 54.5	4.843 S	78.103 W	104	6.5		1.2	382	PERU-ECUADOR BORDER REGION
147	05/09/83	10 58 25.4	40.930 S	74.909 W	23	5.9	5.8	1.1	190	OFF COAST OF SOUTHERN CHILE
157	06/02/83	20 12 50.7	9.512 S	71.249 W	599	5.9		1.0	343	PERU-BRAZIL BORDER REGION
188	09/01/83	20 01 47.0	17.330 S	69.932 W	105D	6.0		1.0	247	PERU-BOLIVIA BORDER REGION
197	10/04/83	18 52 13.3	26.535 S	70.563 W	15	6.4	7.3	1.2	285	NEAR COAST OF NORTHERN CHILE
200	10.09.83	11 25 40.5	26.135 S	70.518 W	16	5.9	6.2	1.1	249	NEAR COAST OF NORTHERN CHILE
203	10/16/83	09 59 46.5	23.681 S	70.129 W	66D	5.7		1.1	171	NEAR COAST OF NORTHERN CHILE
214	11/03/83	07 41 11.4	4.014 S	79.418 W	93D	5.9		1.0	284	PERU-ECUADOR BORDER REGION
222	11/22/83	14 21 03.0	0.482 N	79.877 W	55D	6.3		1.2	290	NEAR COAST OF ECUADOR
234	12/15/83	04 22 33.4	33.099 S	70.120 W	100	5.9		0.9	216	CHILE-ARGENTINA BORDER REGION
237	12/21/83	12 05 06.3	28.190 S	63.172 W	602D	6.2		1.0	346	SANTIAGO DEL ESTERO PROV. ARG.
NORTH ATLANTIC OCEAN										
102	01/24/83	16 34 08.4	39.740 N	14.484 W	33N	5.8	5.5	1.3	247	NORTH ATLANTIC OCEAN
205	10/17/83	19 36 21.4	37.588 N	17.520 W	10G	6.0	6.3	1.1	279	NORTH ATLANTIC OCEAN

Table 3. Hypocenter parameters for events in volume 1 with focal mechanisms computed .... continued.

MID-ATLANTIC OCEAN											
013	06/03/81	05 47 44.4	35.560 S	17.040 W	10G	5.8	6.4	1.1	42	SOUTH ATLANTIC RIDGE
016	07/07/81	21 10 57.7	0.166 S	18.837 W	10G	5.7	6.4	1.1	153	CENTRAL MID-ATLANTIC RIDGE
035	01/03/82	14 09 50.4	0.972 S	21.870 W	10G	5.8	6.5	1.0	219	CENTRAL MID-ATLANTIC RIDGE
240	12/22/83	04 11 29.2	11.866 N	13.529 W	11	6.4	6.2	1.0	343	NORTHWEST AFRICA
SOUTH ATLANTIC OCEAN											
049	05/07/82	05 38 34.8	60.597 S	20.877 W	10G	6.3	6.7	1.4	90	SOUTHWESTERN ATLANTIC OCEAN
079	10/05/82	21 39 12.5	53.451 S	3.467 W	10G	5.8	5.3	0.9	43	SOUTH ATLANTIC RIDGE
100	01/18/83	15 23 36.8	57.966 S	24.311 W	56D	5.9	6.5	1.2	108	SOUTH SANDWICH ISLANDS REGION
170	07/11/83	12 56 28.3	60.889 S	53.020 W	10G	6.1	6.9	1.2	202	SOUTH SHETLAND ISLANDS
206	10/22/83	04 21 35.0	60.665 S	25.451 W	24D	6.5	6.8	1.3	132	SOUTH SANDWICH ISLANDS REGION
207	10/22/84	05 53 23.7	60.404 S	24.865 W	33N	6.3	6.2	1.3	153	SOUTH SANDWICH ISLANDS REGION
208	10/22/83	13 07 39.1	60.620 S	25.392 W	33N	6.2	6.1	1.1	181	SOUTH SANDWICH ISLANDS REGION
EUROPE											
007	02/24/81	20 53 38.4	38.222 N	22.934 E	33N	5.9	6.7	1.2	248	GREECE
008	03/04/81	21 58 05.9	38.209 N	23.288 E	29	6.0	6.4	1.1	210	GREECE
030	12/19/81	14 10 50.7	39.243 N	25.277 E	10G	6.2	7.2	1.2	218	AEGEAN SEA
033	12/27/81	17 39 13.6	38.938 N	24.905 E	13	5.5	6.5	1.3	212	AEGEAN SEA
039	01/18/82	19 27 24.4	40.004 N	24.319 E	10G	5.8	6.8	1.3	188	AEGEAN SEA
066	08/17/82	22 22 24.4	33.772 N	22.961 E	31D	6.0	6.4	1.1	299	MEDITERRANEAN SEA
099	01/17/83	12 41 29.7	38.026 N	20.228 E	14	6.1	7.0	1.3	329	GREECE
128	03/23/83	23 51 06.5	38.294 N	20.262 E	19	5.8	6.2	1.3	258	GREECE
178	08/06/83	15 43 51.2	40.142 N	24.766 E	2	6.2	7.0	1.2	301	AEGEAN SEA
212	10/30/83	04 12 27.1	40.330 N	42.187 E	12	6.1	6.9	1.1	357	TURKEY

Table 4. Hypocenter parameters for events in volume 1 that met magnitude criteria but are not in this catalog.

EVT. NO.	DATE UTC.	ORIGIN TIME UTC. HR MN SEC	GEOGRAPHIC COORDINATES LAT.	LONG	DEPTH km.	MAG. MB	MS	SD	NO. STA.	REGION
MIDDLE AMERICA										
	08/06/83	02 26 49.3	16.125 N	93.885 W	87D	5.7		1.0	215	CHIAPAS, MEXICO
SOUTH AMERICA										
	12/21/83	12 15 06.9	28.042 S	63.008 W	609D	5.8		1.1	188	SANTIAGO DEL ESTERO PROV, ARGENTINA
SOUTH ATLANTIC OCEAN										
	12/13/82	02 50 52.7	63.091 S	61.161 W	33N	5.8	5.6	1.1	98	SOUTH SHETLAND ISLANDS
	12/20/82	00 33 06.0	57.430 S	25.737 W	72	5.9		1.0	123	SOUTH SANDWICH ISLANDS
	11/30/83	10 16 13.3	56.494 S	26.383 W	85D	5.8		1.1	70	SOUTH SANDWICH ISLANDS REGION

Table 5. Station code abbreviations and locations.

Code	Station Name and Geographic Region
AAE	Addis Ababa, Ethiopia
AAI	Ambon, Moluku, Indonesia
AAM	Ann Arbor, Michigan, U.S.A.
ABJ	Abashiri, Hokkaido, Japan
ACM	Allegan, Michigan, U.S.A.
ACO	Alabaster Cavern State Park, Oklahoma, U.S.A.
ACX	Acapulco, Guerrero, Mexico
ADE	Adelaide (Mount Bonython), South Australia, Australia
ADH	Angra do Heroismo, Azores, Portugal
ADK	Adak, Alaska, U.S.A.
AFI	Afiamalu, Samoa Islands
AHA	Ahua, Hawaii, U.S.A.
AIN	Ainapo, Hawaii, U.S.A.
AJI	Ajiro, Honshu, Japan
AKU	Akureyri, Iceland
ALE	Alert, Northwest Territories, Canada
ALI	Alicante, Spain
ALM	Almeria, Spain
ALP	Ascoli Piceno, Marche, Italy
ALQ	Albuquerque, New Mexico, U.S.A.
ALT	Altintas, Turkey
AMM	Anaconda, Montana, U.S.A.
AN10	Anna, Ohio, U.S.A.
AN11	Anna, Ohio, U.S.A.
AN12	Anna, Ohio, U.S.A.
AN3	Anna, Ohio, U.S.A.
AN4	Anna, Ohio, U.S.A.
AN7	Anna, Ohio, U.S.A.
AN8	Anna, Ohio, U.S.A.
AN9	Anna, Ohio, U.S.A.
ANM	Nome—Anvil Mountain, Alaska, U.S.A.
ANMO	Albuquerque, New Mexico, U.S.A.
ANP	Anpu, China (Taiwan)
ANR	Andizhan, Uzbek S.S.R., U.S.S.R.
ANT	Antofagasta, Antofagasta, Chile
ANTO	Ankara, Turkey
AQU	L'Aquila, Abruzzo, Italy
ARE	Arequipa (Characata), Peru
ARN	Arnold Ranch, California, U.S.A.
ARO	Arta Observatory, Djibouti
ARU	Arti, R.S.F.S.R., U.S.S.R.
ASA	Asahikawa, Hokkaido, Japan
ASP	Alice Springs, Northern Territory, Australia
ASPA	Alice Springs, Northern Territory, Australia
ATA	Ator, Djibouti
ATH	Athens Observatory, Greece
ATO	Altona, Oklahoma, U.S.A.
ATX	Austin, Texas, U.S.A.
AVE	Averroes, Morocco
AVF	Avril sur Loire, Nivernais, France
AVY	Angavokely, Madagascar
BAA	Buenos Aires, Buenos Aires, Argentina
BAF	Belocker, Alsace, France
BAG	Baguio City, Luzon, Philippines
BAL	Ballidu, Western Australia, Australia
BBI	Big Bend, Idaho, U.S.A.
BCAO	Bangui, Central African Republic
BCK	Bucak, Turkey
BDF	Brasilia, Distrito Federal, Brazil
BDT	Bhumibol Dam, Thailand
BDW	Boulder, Wyoming, U.S.A.
BEC	Bermuda—Columbia, Bermuda
BER	Bergen, Norway
BFD	Bellfield, Victoria, Australia
BFS	Buffelsfontein, Transvaal, South Africa
BGF	Bois d'Agland, Bourbonnais, France
BGG	Burg Eltz, Rheinland-Pfalz, Fed. Rep. of Germany
BHD	Baghdad, Iraq
BHG	Bad Reichenhall, Bayern, Fed. Rep. of Germany
BHO	Bethel, Oklahoma, U.S.A.
BIM	Bigot, Martinique
BJI	Beijing (Peking), Beijing, China (Mainland)
BKB	Bolikpapan, Kalimantan, Indonesia
BKR	Bakurioni, Georgian S.S.R., U.S.S.R.
BKS	Berkeley—Byerly, California, U.S.A.
BLA	Blacksburg, Virginia, U.S.A.
BLF	Bloemfontein, Orange Free State, South Africa
BMA	Borro Manso, Rio de Janeiro, Brazil
BMN	Bottle Mountain, Nevada, U.S.A.
BMR	Baia Mare, Romania
BNG	Bangui, Central African Republic
BNH	Berlin, New Hampshire, U.S.A.
BNS	Bensberg, Nordrhein-Westfalen, Fed. Rep. of Germany
BOCO	Bogota, Colombia
BOG	Bogota, Colombia
BPI	Bernard Price Institute, Johannesburg Transvaal, South Africa
BPIL	Belle Prairie, Illinois, U.S.A.
BQA	Mbenggo, Fiji
BRG	Berggiesshubel, German Dem. Rep.
BRK	Berkeley—Haviland, California, U.S.A.
BRL	Berlin—Free University Berlin (West), Fed. Rep. of Germany
BRN	Berlin, Berlin (West), Fed. Rep. of Germany
BRT	Bari-Castellana, Puglia, Italy
BRY	Bretegas, Yugoslavia
BSF	Ballon de Servance, Franche Comte, France
BSI	Bando Aceh, Sumatera, Indonesia
BTO	Baotou (Paotou), Inner Mongolia, China (Mainland)
BUC	Bucharest, Romania
BUC1	Bucharest, Romania
BUD	Budapest, Hungary
BUH	Buehlerhoehe, Baden-Wurttemberg, Fed. Rep. of Germany
BUL	Bulawayo, Zimbabwe
BUT	Butte, Montana, U.S.A.
CAF	Calviac, Auvergne, France
CAI	Caico, Rio Grande do Norte, Brazil
CAN	Canberra, Australian Cap. Terr., Australia
CAR	Caracas, Venezuela
CAW	Cannon Point, North Island, New Zealand
CBI	Chichi-shima (Chichijima), Bonin Islands, Japan
CBZ	Campbell Island, Campbell Island, New Zealand
CC4	Carocol Dam No. 4, Guerrero, Mexico
CCP	Cebu City (Lahug), Cebu, Philippines
CD2	Chengdu (Chengtu), Sichuan, China (Mainland)
CDF	Champ du Feu, Alsace, France
CDR	Caderache, Provence, France
CDY	Cape Dorby, Alaska, U.S.A.
CEA	Ceahlau, Romania
CEN	Cerro Negro, San Juan, Argentina
CER	Ceres, Cape Province, South Africa
CEY	Cerknica, Yugoslavia
CFA	Coronel Fontana, San Juan, Argentina
CFI	College Fiord, Alaska, U.S.A.
CFR	Carcaliu, Romania
CGN	Calugareni, Romania
CGP	Cagayan de Oro, Mindanao, Philippines
CHCH	Chodos Angostura, Santiago, Chile
CHG	Chiang Mai, Thailand
CHO	Choshi, Honshu, Japan
CHTO	Chiang Mai, Thailand
CIN	Cine, Turkey
CIR	Chiredzi, Zimbabwe
CLI	Colonesti, Romania
CLK	Chileka, Malawi
CLL	Collmberg, German Dem. Rep.
CLO	Clasani, Romania
CLX	Colx Mountain, Montana, U.S.A.
CMP	Campulung, Romania
CMS	Cobar Meteorology Station, New South Wales, Australia
CN2	Changchun, Jilin, China (Mainland)
CNG	Changalane, Mozambique
CNP	Catarman, Samar, Philippines
COI	Coimbra, Portugal
COL	College Outpost, Alaska, U.S.A.
CON	Concepcion, Concepcion, Chile
COO	Cooney (Armidale), New South Wales, Australia
COP	Copenhagen, Denmark
COR	Corvallis, Oregon, U.S.A.
COZ	Cozia, Romania
CPK	Cone Peak, Hawaii, U.S.A.
CR1	Chicoasen Reservoir No. 1, Chiapas, Mexico
CR4	Chicoasen Reservoir No. 4, Chiapas, Mexico
CR5	Chicoasen Reservoir No. 5, Chiapas, Mexico
CR6	Chicoasen Reservoir No. 6, Chiapas, Mexico
CRM	Carevelle, Martinique
CRT	Cartuja (Granada), Spain
CRX	Carrillo, Mexico, Mexico
CSIL	Creal Springs, Illinois, U.S.A.
CSN	Chicoasen, Chiapas, Mexico

Table 5. Station code abbreviations and locations .... continued

Code	Station Name and Geographic Region
CTA	Charters Towers, Queensland, Australia
CTAO	Charters Towers, Queensland, Australia
CTI	Castello Tesino, Trentino-Alto Adige, Italy
CTT	Cotaica, Turkey
CUM	Cumana, Venezuela
CVF	Calvi, Corsica, France
CVO	Covasna, Romania
CVP	Calloo Caves, Luzon, Philippines
CYA	Chayo, Santiago del Estero, Argentina
DAF	Dafore, Djibouti
DAG	Danmarkshavn, Greenland
DAV	Davao, Mindanao, Philippines
DBN	De Bilt, Netherlands
DCI	Dry Creek, Idaho, U.S.A.
DCN	Croghan, Eire
DDK	Dunsink Observatory, Eire
DDR	Dodaira, Honshu, Japan
DES	Desert, Hawaii, U.S.A.
DEV	Devo, Romania
DIM	Dimitrovgrad, Bulgaria
DIX	Grand Dixence, Switzerland
DKM	Kilmoshogue, Eire
DL2	Dalian (Ludo), Liaoning, China (Mainland)
DLE	Lyons Estate, Eire
DMK	Demirkoy, Turkey
DMN	Daman, Nepal
DMU	Kingscourt, Eire
DON	Dongola, Missouri, U.S.A.
DOU	Dourbes, Belgium
DRV	Dumont d'Urville (Pointe Geologie, Adelie) Greater Antarctica, Antarctica
DSH	Dushanbe (Stalinabad), Tajik S.S.R., U.S.S.R.
DST	Dursunbey, Turkey
DUG	Dugway, Utah, U.S.A.
DUI	Duronia, Molise, Italy
EAB	Aberfoyle, Scotland, United Kingdom
EAU	Auchinoon, Scotland, United Kingdom
EBH	Black Hill, Scotland, United Kingdom
EBL	Broadlaw, Scotland, United Kingdom
ECA	El Cajon, California, U.S.A.
ECB	Carrickbyrne Hill, Eire
ECH	Echery (Ste.-Marie-aux-Mines), Lorraine, France
ECK	Cauldkine Hill, Scotland, United Kingdom
ECP	Carnsore Point, Eire
EDC	Edincik, Turkey
EDI	Edinburgh, Scotland, United Kingdom
EDM	Edmonton, Alberta, Canada
EDU	Dundee, Scotland, United Kingdom
ELL	Elmali, Turkey
ELO	Logiealmond, Scotland, United Kingdom
ELT	Yeltsovka, R.S.F.S.R., U.S.S.R.
ENN	Epen, Netherlands
EPF	Esparros, Gascogne, France
EPT	El Paso, Texas, U.S.A.
ERC	Erice, Sicily, Italy
ESA	Eso Ala, D'Entrecasteaux Islands, Papua New Guinea
ESK	Eskdalemuir, Scotland, United Kingdom
ESR	Escape Road, Hawaii, U.S.A.
ESY	Stoneypath, Scotland, United Kingdom
ETA	Toro, Eire
EUR	Eureka, Nevada, U.S.A.
EVA	Evander, Transvaal, South Africa
EZN	Ezine, Turkey
FBA	Fairbanks, Alaska, U.S.A.
FCC	Fort Churchill, Manitoba, Canada
FCH	Forellones, Santiago, Chile
FDF	Fort de France (Morne des Cadets), Martinique
FFC	Flin Flon, Manitoba, Canada
FHC	Fickle Hill, California, U.S.A.
FIR	Firenze Ximeniano (Florence), Toscana, Italy
FKJ	Fukue, Kyushu, Japan
FKK	Fukuoka, Kyushu, Japan
FKS	Fukushima, Honshu, Japan
FLN	La Faliniere, Normandie, France
FOC	Focsani, Romania
FRB	Frobisher, Northwest Territories, Canada
FRF	La Foret Royale, Provence, France
FRI	Friant, California, U.S.A.
FUK	Fukui, Honshu, Japan
FUR	Fuerstenfeldbruck, Bayern, Fed. Rep. of Germany
FVM	French Village, Missouri, U.S.A.

Code	Station Name and Geographic Region
GAC	Glen Almond, Quebec, Canada
GAP	Garmisch-Partenkirchen, Bayern, Fed. Rep. of Germany
GBA	Gauribidanur Array, Karnataka, India
GBO	Fort Gibson, Oklahoma, U.S.A.
GBR	Grand-Bara, Djibouti
GCC	Granite Creek, California, U.S.A.
GDH	Godhavn, Greenland
GEO	Georgetown, District of Columbia, U.S.A.
GIB	Gibilmanna, Sicily, Italy
GLA	Glamis, California, U.S.A.
GLD	Golden, Colorado, U.S.A.
GMTN	Garret Mountain, New Jersey, U.S.A.
GNZ	Gisborne, North Island, New Zealand
GOL	Golden (Bergen Park), Colorado, U.S.A.
GPA	Golpazari, Turkey
GRB1	Graefenberg Array (Bruennthal) Bayern, Fed. Rep. of Germany
GRC	Garchy, Nivernais, France
GRC1	Graefenberg Array (Eglofsdorf) Bayern, Fed. Rep. of Germany
GRF	Grafenberg Array (Erlangen) Bayern, Fed. Rep. of Germany
GRFO	Graefenberg, Bayern, Fed. Rep. of Germany
GRG	Grivo, Greece
GRM	Grahamstown, Cape Province, South Africa
GRR	Garron, Normandie, France
GRS	Garis, Armenian S.S.R., U.S.S.R.
GSC	Goldstone, California, U.S.A.
GTA	Gaotai, Gansu, China (Mainland)
GUA	Guam (Santa Rosa), Guam, Mariana Islands
GUMO	Guam, Guam, Mariana Islands
GUV	Guri, Venezuela
GWF	Grand Wintersberg, Alsace, France
GYA	Guiyang (Kweiyang), Guizhou, China (Mainland)
GZH	Guangzhou (Canton), Guangdong, China (Mainland)
GZR	Guro Zlata, Romania
HAC	Hachinohe, Honshu, Japan
HAM	Hamburg, Hamburg, Fed. Rep. of Germany
HAU	Haudompre, Franche Comte, France
HCY	Herceg Novi, Yugoslavia
HHC	Hohhot, Inner Mongolia, China (Mainland)
HIM	Himeji, Honshu, Japan
HIR	Hiroshima, Honshu, Japan
HJJ	Hachijo-jima (Hatidyozima), Bonin Islands, Japan
HKC	Hong Kong, Hong Kong
HKT	Hockley, Texas, U.S.A.
HLD	Holoksilon, Djibouti
HLP	Hilino Poli, Hawaii, U.S.A.
HLW	Helwan, Egypt
HMM	Hamamatsu (Hamamotu), Honshu, Japan
HNR	Honiara, Solomon Islands
HOF	Hof, Bayern, Fed. Rep. of Germany
HON	Honolulu, Hawaii, U.S.A.
HPU	Hole Pahoku, Hawaii, U.S.A.
HRT	Hereke, Turkey
HRY	Holter Research Foundation—York Bridge Montana, U.S.A.
HUA	Huancayo, Peru
HVD	Hendrik Verwoerd Dam, Cape Province, South Africa
HYB	Hyderabad—Nat. Geophysical Research Inst. Andhra Pradesh, India
IFR	Ifrane, Morocco
IIC	Santa Rita Coyotepec, Mexico, Mexico
IID	Iida, Honshu, Japan
III	Iguala—Cerro de Tuxpan, Guerrero, Mexico
IIM	Instituto de Inginieria, UNAM Distrito Federal, Mexico
IIP	El Pino, Mexico, Mexico
IIT	Tenantzintla, Puebla, Mexico
ILT	Iultin, R.S.F.S.R., U.S.S.R.
IMA	Indian Mountain, Alaska, U.S.A.
IN1	Indiana Array, Indiana, U.S.A.
IN2	Indiana Array, Indiana, U.S.A.
IN3	Indiana Array, Indiana, U.S.A.
IN4	Indiana Array, Indiana, U.S.A.
INK	Inuvik, Northwest Territories, Canada
INY	Ithaca, New York, U.S.A.
IPM	Ipoh, Peninsular Malaysia, Malaysia
IR2	Iran Long-Period Array, Iran
IR4	Iran Long-Period Array, Iran
IR7	Iran Long-Period Array, Iran

Table 5. Station code abbreviations and locations .... continued.

Code	Station Name and Geographic Region
ISA	Isabella, California, U.S.A.
ISI	Ishigaki-shima, Ryukyu Islands, Japan
ISN	Ishinomaki, Honshu, Japan
ISO	Mount Iso, Queensland, Australia
ISR	Istrita, Romania
ISSF	Issarbe, Bearn, France
IST	Istanbul, Turkey
IZM	Izmir, Turkey
IZU	Izuhara, Kyushu, Japan
JACH	Jahuel, Aconcagua, Chile
JAS	Jamestown, California, U.S.A.
JAU	Jaout, Bearn, France
JAY	Jayapura, Irian Jaya, Indonesia
JCT	Junction, Texas, U.S.A.
JER	Jerusalem, Israel
JHP	Judd Hill Plantation, Arkansas, U.S.A.
JMB	Yambol, Bulgaria
JOS	Jasvafo, Hungary
JOZ	Jozini, Natal, South Africa
KAAO	Kabul, Afghanistan
KAE	Kaena, Hawaii, U.S.A.
KAG	Kagoshima, Kyushu, Japan
KAS	Kastamonu, Turkey
KBA	Barrage Koslnbrein, Austria
KBL	Kabul, Afghanistan
KBS	Kingsbay, Svalbard, Norway
KDC	Kodiak, Alaska, U.S.A.
KDZ	Kurdzhali, Bulgaria
KEV	Kevo, Finland
KGM	Kluang, Peninsular Malaysia, Malaysia
KHC	Kasperske Hory, Czechoslovakia
KHE	Kheis, R.S.F.S.R., U.S.S.R.
KHI	Kakhk, Iran
KHU	Kahuku, Hawaii, U.S.A.
KIC	Kosan Boko, Ivory Coast
KIP	Kipapa, Hawaii, U.S.A.
KIS	Kishinev, Moldavian S.S.R., U.S.S.R.
KJF	Kajaani, Finland
KKM	Kota Kinabalu, Sabah, Malaysia
KKN	Kakani, Nepal
KLB	Kellerberrin, Western Australia, Australia
KLG	Kalgoorlie, Western Australia, Australia
KLL	Kalltalsperre Nordrhein-Westfalen, Fed. Rep. of Germany
KMG	Kumagaya, Honshu, Japan
KMI	Kunming, Yunnan, China (Mainland)
KMR	Kremsmuenster, Austria
KNA	Kununurra, Western Australia, Australia
KNH	Kipuka Nene, Hawaii, U.S.A.
KNK	Knik Glacier, Alaska, U.S.A.
KNT	Kendrikon, Greece
KOB	Kobe, Honshu, Japan
KOC	Kochi, Shikoku, Japan
KOD	Kodaikanal, Tamil Nadu, India
KOF	Kofu, Honshu, Japan
KON	Kongsberg, Norway
KONO	Kongsberg, Norway
KOU	Koumac, New Caledonia
KRA	Krakow, Poland
KRI	Karoi, Zimbabwe
KRO	Karo, Fiji
KRP	Karapiro, North Island, New Zealand
KSH	Kashi (Kashgar), Xinjiang, China (Mainland)
KSP	Ksiaz, Poland
KSR	Koster, Transvaal, South Africa
KSU	Kousaur, Djibouti
KUM	Kumamoto, Kyushu, Japan
KUS	Kushiro, Hokkaido, Japan
KVG	Kavieng, New Ireland, Papua New Guinea
KVT	Kavak, Turkey
KYS	Kiyosumi, Honshu, Japan
KZN	Kozani, Greece
LAT	Lae, New Guinea, Papua New Guinea
LAV	Laguna Verde, Valparaiso, Chile
LBF	Les Buteaux, Nivernais, France
LCCM	Lewis and Clark Caverns, Montana, U.S.A.
LCI	Lecce, Puglia, Italy
LCR	La Lucha, Costa Rica
LD3	LASA D Ring, Montana, U.S.A.
LDF	La Druitiere, Normandie, France
LDM	Libby Dam, Montana, U.S.A.
LEM	Lembang, Jawa, Indonesia
LFF	La Frestal, Guyenne, France
LGBM	Gray Butte, California, U.S.A.
LGN	Lagunillas, Venezuela
LGR	Logrono, Spain
LHC	Lakehead University (Thunder Bay), Ontario, Canada
LHD	Little Hoodo Mountain, Montana, U.S.A.
LIS	Lisbon, Portugal
LIT	Litokharon, Greece
LJU	Ljubljana (Laibach), Yugoslavia
LLA	Lianada, California, U.S.A.
LLS	Linthal—Limmern, Switzerland
LM2	Lima (Magdalena), Peru
LMG	Lamington, New Guinea, Papua New Guinea
LMR	La Mourre, Provence, France
LNV	Longovilo, Valparaiso, Chile
LON	Longmire, Washington, U.S.A.
LOR	Larmes (Semee), Nivernais, France
LPA	La Plata, Buenos Aires, Argentina
LPB	La Paz, Bolivia
LPF	Le Pertre, Orleanais, France
LPO	Le Pouchau, Guyenne, France
LPS	La Palma, El Salvador
LOT	Las Oueltehues, Santiago, Chile
LRG	Largues, Provence, France
LRM	Limekiln Ridge, Montana, U.S.A.
LSA	Lhasa, Tibet, China (Mainland)
LSF	La Souterraine, Marche, France
LST	Lone Star, Missouri, U.S.A.
LZH	Lanzhou (Lanchou), Gansu, China (Mainland)
MAJO	Matsushiro, Honshu, Japan
MAL	Malaga, Spain
MAN	Manila (Dilliman), Luzan, Philippines
MAT	Matsushiro, Honshu, Japan
MAW	Mawson, Greater Antarctica, Antarctica
MBC	Mould Bay, Northwest Territories, Canada
MBL	Marble Bar, Western Australia, Australia
MBO	Mbour, Senegal
MBU	Mbua, Fiji
MCQ	Macquarie Island, Macquarie Island, Australia
MDJ	Mudanjiang, Heilangjiang, China (Mainland)
MDN	Morne Daniel, Dominica
MEI	Melilli, Basilicata, Italy
MEK	Meekatharra, Western Australia, Australia
MEM	Membach, Belgium
MEX	Mexico City, Distrito Federal, Mexico
MFF	Saint Martin du Fouilloux, Poitou, France
MGD	Magadan 1, R.S.F.S.R., U.S.S.R.
MHC	Mount Hamilton (Lick Observatory), California, U.S.A.
MHI	Moshhad, Iran
MIM	Milo, Maine, U.S.A.
MIN	Mineral, California, U.S.A.
MIS	Mishima, Honshu, Japan
MIT	Mito, Honshu, Japan
MIY	Miyako, Honshu, Japan
MKA	Mokaapuhi, Hawaii, U.S.A.
MKL	Maskali, Djibouti
MKS	Ujungpandong (Makassar), Sulawesi, Indonesia
MLH	Mauna Loa, Hawaii, U.S.A.
MLR	Muntele Rosu, Romania
MLS	Moulis, Gascogne, France
MLX	Mauna Loa 2, Hawaii, U.S.A.
MMB	Musomishio, Bulgaria
MMK	Mottmark, Switzerland
MMN	Mormanno, Calabria, Italy
MNA	Mina, Nevada, U.S.A.
MNG	Mangahao, North Island, New Zealand
MNI	Manado, Sulawesi, Indonesia
MNS	Mont Asola, Lazio, Italy
MNT	Montreal, Quebec, Canada
MNV	Mina, Nevada, U.S.A.
MOM	Momote, Admiralty Islands, Papua New Guinea
MOT	McDonald Observatory, Texas, U.S.A.
MOX	Moxa, German Dem. Rep.
MRG	Morgantown, West Virginia, U.S.A.
MRK	Morioka, Honshu, Japan
MRL	Marmol, Guatemala
MRT	Muratamisaki, Shikoku, Japan
MSI	Messina I.N.G., Sicily, Italy

Table 5. Station code abbreviations and locations .... continued.

Code	Station Name and Geographic Region
MSL	Mosul, Iraq
MSO	Missoula, Montana, U.S.A.
MSZ	Milford Sound, South Island, New Zealand
MTD	Mount Darwin, Zimbabwe
MTN	Manton, Northern Territory, Australia
MTS	Matsue, Honshu, Japan
MTY	Matsuyama (Matuyama), Shikoku, Japan
MUD	Mansted Underground, Denmark
MUN	Mundaring, Western Australia, Australia
MVH	Mountain View, Hawaii, U.S.A.
MVI	Minami-daito-jima, Ryukyu Islands, Japan
MVM	Montagne du Vauclin, Martinique
MWC	Mount Wilson, California, U.S.A.
MWH	Mokuoweoweo, Hawaii, U.S.A.
MYK	Miyako-jima, Ryukyu Islands, Japan
MZF	Mazirot, Marche, France
MZX	Mazatlan, Sinaloa, Mexico
NAG	Nagoya, Honshu, Japan
NAH	Naha, Ryukyu Islands, Japan
NAI	Nairobi, Kenya
NAU	Nanutarra, Western Australia, Australia
NAV	Narrows, Virginia, U.S.A.
NC3	Norsar Array Site 03C00, Norway
NDI	New Delhi (Delhi), Delhi, India
NED	Newark, Delaware, U.S.A.
NEM	Nemuro, Hokkaido, Japan
NEW	Newport, Washington, U.S.A.
NGN	Nagano, Honshu, Japan
NGO	Nago, Ryukyu Islands, Japan
NGS	Nagasaki, Kyushu, Japan
NHIL	New Haven, Illinois, U.S.A.
NII	Niigata, Honshu, Japan
NJ2	Nanjing, Jiangsu, China (Mainland)
NKI	Nikolski, Alaska, U.S.A.
NNA	Nana, Peru
NNT	Nong Plab, Thailand
NOP	Napah Range, California, U.S.A.
NOU	Noumea, New Caledonia
NPA	Nampula, Mozambique
NPH	North Pit, Hawaii, U.S.A.
NRN	Naryn, Kirghiz S.S.R., U.S.S.R.
NST	Nakhon Sawan, Thailand
NUR	Nurmijarvi, Finland
NWAO	Narrogin, Western Australia, Australia
OBN	Obninsk, R.S.F.S.R., U.S.S.R.
OBO	Obock, Djibouti
OCN	Over Castle Rock, New York, U.S.A.
OCO	Oklahoma City, Oklahoma, U.S.A.
OFU	Ofunato, Honshu, Japan
OGA	Obergurgl, Austria
OHR	Ohrid, Yugoslavia
OIT	Oita, Kyushu, Japan
OKA	Okayama, Honshu, Japan
ONA	Onahama, Honshu, Japan
ORI	Oriolo, Calabria, Italy
ORO	Oropa, Piemonte, Italy
ORT	Oak Ridge, Tennessee, U.S.A.
ORV	Oroville, California, U.S.A.
OSA	Osaka, Honshu, Japan
OSH	Oshima, Bonin Islands, Japan
OSK	Osaka (Takayasuyama), Honshu, Japan
OSS	Ova Spin, Switzerland
OTT	Ottawa, Ontario, Canada
OUR	Ouranopolis, Greece
OUT	Outlet, Hawaii, U.S.A.
OWA	Owase, Honshu, Japan
OYM	Oyama, Honshu, Japan
OZB	Mount Ozzard, British Columbia, Canada
OZC	Ocozocuautla, Chiapas, Mexico
PAA	Penguna, Bougainville Island, Papua New Guinea
PAD	Padova, Veneto, Italy
PAL	Palisades, New York, U.S.A.
PAP	Pandan, Panay, Philippines
PARM	Anticline Ridge, California, U.S.A.
PAS	Pasadena, California, U.S.A.
PCA	Pinnacle, Alaska, U.S.A.
PCH	Pirque, Santiago, Chile
PCO	Ponca City, Oklahoma, U.S.A.
PCR	La Plaine des Cafres, Reunion
PCRM	Curry Mountain, California, U.S.A.
PCT	Pak Chong, Thailand
PDA	Ponta Delgada, Azores, Portugal
PDI	Porto d'Ischia, Campania, Italy
PEL	Peldehue, Santiago, Chile
PET	Petropavlovsk-Kamchatskiy, R.S.F.S.R., U.S.S.R.
PGC	Pacific Geoscience Centre, Sidney British Columbia, Canada
PGP	Puerto Galera, Mindoro, Philippines
PHAM	Harlan Ranch, California, U.S.A.
PHC	Port Hardy, British Columbia, Canada
PIP	Pasuquin, Luzon, Philippines
PJG	Potts Junction, Guam, Mariana Islands
PKI	Phulchoki, Nepal
PKR	P.K. Le Roux Dam, Orange Free State, South Africa
PLD	Plovdiv, Bulgaria
PLM	Palomar, California, U.S.A.
PLP	Palo, Leyte, Philippines
PME	Palmer East, Alaska, U.S.A.
PMG	Port Moresby, New Guinea, Papua New Guinea
PMP	Pompeii, Campania, Italy
PMR	Palmer, Alaska, U.S.A.
PMS	Palmer South (Arctic Valley), Alaska, U.S.A.
PNT	Penticton, British Columbia, Canada
PNY	Plattsburgh, New York, U.S.A.
POI	Palina, Lazio, Italy
POO	Poona, Maharashtra, India
PPE	Popeni, Romania
PPI	Padangpanjang, Sumatera, Indonesia
PPL	Puu Pili, Hawaii, U.S.A.
PPR	Puerto Princesa, Palawan, Philippines
PPT	Papeete (Pamitai), Society Islands, French Polynesia
PRCM	Roach Canyon, California, U.S.A.
PRE	Pretoria, Transvaal, South Africa
PRI	Priest, California, U.S.A.
PRM	Parsons Mountain, South Carolina, U.S.A.
PRS	Paraiso, California, U.S.A.
PRU	Pruhonice, Czechoslovakia
PRY	Parys, Orange Free State, South Africa
PSI	Prapat, Sumatera, Indonesia
PSN	Preselentsi, Bulgaria
PSZ	Piszkesteto, Hungary
PT02	Quilmana, Peru
PT03	Guadalupe, Peru
PT06	Pisco, Peru
PTO	Porto (Serro do Pilar), Portugal
PUH	Pauahi, Hawaii, U.S.A.
PUL	Pulkova, R.S.F.S.R., U.S.S.R.
PV06	Paradox Valley (Coal Canyon), Colorado, U.S.A.
PV07	Paradox Valley (Long Mesa), Colorado, U.S.A.
PV10	Paradox Valley (South La Sal), Colorado, U.S.A.
PVC	Port Vila, Vanuatu Islands
PVL	Pavlikeni, Bulgaria
PWA	Palmer West (Houston), Alaska, U.S.A.
PWH	Poliokeawe Pali, Hawaii, U.S.A.
PWL	Port Wells, Alaska, U.S.A.
PWLA	Pickwick Lake, Alabama, U.S.A.
PYA	Pyatigorsk, R.S.F.S.R., U.S.S.R.
QUE	Quetta, Pakistan
QZG	Quezaltepeque, Guatemala
QZH	Quanzhou, Fujian, China (Mainland)
QZO	Quartz Mountain State Park, Oklahoma, U.S.A.
RAB	Rabaul, New Britain, Papua New Guinea
RAR	Rarotonga, Cook Islands
RBL	Raibl, Friuli-Venezia Giulia, Italy
RCD	Rapid City, South Dakota, U.S.A.
RDJ	Rio de Janeiro, Rio de Janeiro, Brazil
RDP	Rocca di Papa, Lazio, Italy
RES	Resolute, Northwest Territories, Canada
REY	Reykjavik, Iceland
RFA	San Rafael, Mendoza, Argentina
RHP	Rhobaro Hills, South Island, New Zealand
RIM	Rim, Hawaii, U.S.A.
RIV	Riverview, New South Wales, Australia
RJF	Les Rejoudoux, Limousin, France
RKG	Rocky Gully, Western Australia, Australia
RKT	Rikitea, Tuamotu Archipelago, French Polynesia
RLO	Rose Lookout Tower, Oklahoma, U.S.A.
RMJ	Rumoi, Hokkaido, Japan
RMP	Rome (Monte Porzio Catone), Lazio, Italy
RMT	Round Mountain, California, U.S.A.

Table 5. Station code abbreviations and locations .... continued.

Code	Station Name and Geographic Region
RMU	Rainbow Monument, Utah, U.S.A.
ROCH	El Roble, Santiago, Chile
ROF	Roppe, Alsace, France
RDG	Rognes, Provence, France
RRD	Red Rock Canyon, Oklahoma, U.S.A.
RSCP	Cumberland Plateau, Tennessee, U.S.A.
RSNT	Yellowknife, Northwest Territories, Canada
RSNY	Adirondack, New York, U.S.A.
RSSD	Black Hills, South Dakota, U.S.A.
RVR	Riverside, California, U.S.A.
RXF	Rexford, Montana, U.S.A.
SAG	Sago, Kyushu, Japan
SAL	Sale, Lombardia, Italy
SAM	Samarkand, Uzbek S.S.R., U.S.S.R.
SAN	Santiago, Santiago, Chile
SAO	San Andreas Geological Observatory California, U.S.A.
SAP	Sapporo, Hokkaido, Japan
SAX	Saentis, Switzerland
SBA	Scott Base, Greater Antarctica, Antarctica
SBB	Saddle Back Butte, California, U.S.A.
SCE	Schlegeis, Austria
SCH	Schefferville, Quebec, Canada
SCM	Sheep Creek Mountain, Alaska, U.S.A.
SCP	State College, Pennsylvania, U.S.A.
SDN	Sand Point, Alaska, U.S.A.
SDV	Santo Domingo, Venezuela
SDW	Sidewinder Mine, California, U.S.A.
SEK	Senekal, Orange Free State, South Africa
SEM	Semipalatinsk, Kazakh S.S.R., U.S.S.R.
SEN	Sendai (Mukaiyama), Honshu, Japan
SEO	Seoul (Keizyo), South Korea
SES	Suffield, Alberta, Canada
SEY	Seymchan, R.S.F.S.R., U.S.S.R.
SFS	San Fernando, Spain
SGH	Sud-Ghoubbet, Djibouti
SGO	Sicignano, Campania, Italy
SHA	Spring Hill, Alabama, U.S.A.
SHE	Shemakha, Azerbaijan S.S.R., U.S.S.R.
SHI	Shiraz, Iran
SHIO	Shillong, Meghalaya, India
SHJ	Shinomisaki (Simisaki), Honshu, Japan
SHK	Shiraki, Honshu, Japan
SHL	Shillong, Meghalaya, India
SHN	Shimonoseki 3 (Shimanoseki), Honshu, Japan
SHZ	Shizuoka, Honshu, Japan
SIO	Slick, Oklahoma, U.S.A.
SIT	Sitka, Alaska, U.S.A.
SJG	San Juan, Puerto Rico
SJS	San Jose, Costa Rica
SKO	Skopje, Yugoslavia
SKR	Severo-Kurilsk, R.S.F.S.R., U.S.S.R.
SLA	San Lorenzo, Salta, Argentina
SLE	Schleitheim, Switzerland
SLM	Saint Louis, Missouri, U.S.A.
SLR	Silverton, Transvaal, South Africa
SMF	Signal de Mont, Bourbonnais, France
SMY	Shemya, Alaska, U.S.A.
SNA	Sanae, Greater Antarctica, Antarctica
SNG	Sangkhla, Thailand
SNY	Shenyang, Liaoning, China (Mainland)
SNZO	South Karori, North Island, New Zealand
SOB1	Sobradinho (Serra), Bahia, Brazil
SOD	Sodankyla, Finland
SOF	Sofia, Bulgaria
SOH	Sokhos, Greece
SOP	Sopron, Hungary
SOR	Soroa, Cuba
SPA	South Pole, Greater Antarctica, Antarctica
SPC	Skalnate-Pleso, Czechoslovakia
SRA	San Ramon, Costa Rica
SRO	Sroborova, Czechoslovakia
SRS	Serroi, Greece
SRY	Shiroyama, Honshu, Japan
SSB	Saint Sauveur en Rue, Languedoc, France
SSC	Saint Sauveur de Carouges, Normandie, France
SSE	Sheshan, Shanghai, China (Mainland)
SSF	Saint Saulge, Nivernais, France
SSR	Susaro, Romania
SSS	San Salvador, El Salvador
STB	Steinbach, Nordrhein-Westfalen, Fed. Rep. of Germany
STE	Stepanavan, Armenian S.S.R., U.S.S.R.
STJ	Saint John's, Newfoundland, Canada
STK	Stephens Creek, New South Wales, Australia
STR	Strasbourg, Alsace, France
STS	Santiago de Compostela, Spain
STU	Stuttgart, Baden-Wurttemberg, Fed. Rep. of Germany
SUF	Sumiainen, Finland
SUR	Sutherland, Cape Province, South Africa
SUT	Suttsu, Hokkaido, Japan
SVA	Suva, Fiji
SVO	Savo, Solomon Islands
SVW	Sparrevohn, Alaska, U.S.A.
SWZ	Schweizer-Reneke, Transvaal, South Africa
SZP	Santa, Luzon, Philippines
TAB	Tabriz, Iran
TACH	Talagante, Santiago, Chile
TAT	Tateyama, Honshu, Japan
TATO	Taipei, China (Taiwan)
TAU	Tasmania University, Tasmania, Australia
TBI	Tubuai, Tubuai Islands, French Polynesia
TBL	Tabale, New Guinea, Papua New Guinea
TCA	Tanti, Cordoba, Argentina
TCF	Toulx Ste. Croix, Marche, France
TCW	Tory Channel, South Island, New Zealand
TCX	Tacpatan, Chiapas, Mexico
TDD	Tadjoura, Djibouti
TEH	Tehran, Iran
TEN	Tenerife, Canary Islands, Spain
TEP	Tecpan, Guatemala
TER	Terranova, Guatemala
TET	Tete, Mozambique
TGI	Taghi Chambar, Iran
THE	Thessaloniki, Greece
TIA	Taian, Shandong, China (Mainland)
TIK	Tiksi, R.S.F.S.R., U.S.S.R.
TIM	Timisoara, Romania
TIY	Taiyuan, Shanxi, China (Mainland)
TKL	Tuckaleechee Caverns, Tennessee, U.S.A.
TKS	Tokushima, Shikoku, Japan
TLB	Tapalu, Romania
TLL	Talala Astronomical Observatory, Coquimbo, Chile
TLO	Toledo, Spain
TLX	Tulancingo, Hidalgo, Mexico
TMA	Tamaro, Switzerland
TMU	Temuco, Cautin, Chile
TNS	Taunus, Hessen, Fed. Rep. of Germany
TOA	Talsana, Alaska, U.S.A.
TOL	Toledo, Spain
TOO	Taalangi, Victoria, Australia
TOT	Tottori, Honshu, Japan
TOV	El Tocuyo, Venezuela
TP2	Tecpan 2, Guatemala
TPT	Tiputa, Tuamotu Archipelago, French Polynesia
TRI	Trieste (Grotta Gigante) Friuli-Venezia Giulia, Italy
TRN	Trinidad (Saint Augustine) Trinidad, Trinidad and Tobago
TRO	Tromso, Norway
TRT	Tretes, Jawa, Indonesia
TSI	Tuntungan, Sumatera, Indonesia
TSK	Tsukuba, Honshu, Japan
TTA	Tatalina, Alaska, U.S.A.
TTG	Titograd, Yugoslavia
TUC	Tucson, Arizona, U.S.A.
TUH	Tulbagh, Cape Province, South Africa
TUL	Tulsa (Oklahoma Geophysical Observatory) Oklahoma, U.S.A.
TVI	Taveuni, Fiji
TWC	Su-ao, China (Taiwan)
TWD	Chia-wan, China (Taiwan)
TWF1	Yu-li, China (Taiwan)
TWG	Pin-tang, China (Taiwan)
TWK	Hsin-ying, China (Taiwan)
TWM1	Shou Shan, China (Taiwan)
TWO	Mei-shan, China (Taiwan)
TWO	Tung-shih, China (Taiwan)
TWZ	Nei-hu (Neifu), China (Taiwan)
TYS	Tyson Valley, Missouri, U.S.A.
TZZ	Tabubil, New Guinea, Papua New Guinea

Table 5. Station code abbreviations and locations .... continued.

Code	Station Name and Geographic Region	Code	Station Name and Geographic Region
UAV	Universidad de los Andes (Merida), Venezuela		
UCC	Uccle, Belgium		
UDU	Undu Point, Fiji		
ULC	Ulcinj, Yugoslavia		
UPA	Universidad de Panama, Panama		
UPP	Uppsala, Sweden		
UTO	University of Toledo, Ohio, U.S.A.		
UTS	Utsunomiya, Honshu, Japan		
VAL	Valentia, Eire		
VAO	Votinhos, Sao Poulo, Brazil		
VAY	Votandovo, Yugoslavia		
VBA	Sierra de lo Ventana, Buenos Aires, Argentina		
VCA	Vinchina, La Pampa, Argentina		
VDL	Val di Lei, Switzerland		
VDM	Villiers-Adam, Ile de France, France		
VDW	Vunindawa, Fiji		
VG1	Voghera, Lombardia, Italy		
VIE	Vienna—Hohe Warte (Wien—Hohe Warte), Austria		
VIR	Virginia, Orange Free State, South Africa		
VIS	Vishakhapatnam (Andhra, Waltair) Andhra Pradesh, India		
VKA	Vienna—Kobenzl (Wien—Kobenzl), Austria		
VLS	Votsamoto (Kephallenia), Greece		
VLZ	Valdez, Alaska, U.S.A.		
VRI	Vrincioaia, Romania		
VTS	Vitosha, Bulgaria		
VUN	Vunikawai, Fiji		
WAB	Wabag, New Guinea, Papua New Guinea		
WAJ	Wajima (Wazima), Honshu, Japan		
WAM	Wambrook, New South Wales, Australia		
WAR	Warsaw (Warszawa), Poland		
WB2	Warramunga Array, Northern Territory, Australia		
WBN	Warburton, Western Australia, Australia		
WDC	Whiskeytown Dam, California, U.S.A.		
WEL	Wellington, North Island, New Zealand		
WES	Weston, Massachusetts, U.S.A.		
WET	Wettzell, Bayern, Fed. Rep. of Germany		
WHA	Wahaula, Hawaii, U.S.A.		
WHN	Wuhan, Hubei, China (Mainland)		
WIN	Windhoek, Namibia		
WIT	Witteveen, Netherlands		
WKY	Wakayama, Honshu, Japan		
WLF	Wolferdange, Luxembourg		
WLO	Wilson, Oklahoma, U.S.A.		
WMD	Urumqi (Wulumuchi), Xinjiang, China (Mainland)		
WRA	Warramunga Array, Northern Territory, Australia		
WSIL	West Salem, Illinois, U.S.A.		
WTS	Winterswijk, Netherlands		
WWW	Wewak, New Guinea, Papua New Guinea		
XAN	Xian (Hsian), Shaanxi, China (Mainland)		
YAK	Yakutsk, R.S.F.S.R., U.S.S.R.		
YAM	Yamagata, Honshu, Japan		
YER	Yerkesik, Turkey		
YJA	Yavi, Jujuy, Argentina		
YKC	Yellowknife, Northwest Territoriss, Canada		
YKM	Yakk, Montana, U.S.A.		
YLV	Yalova, Turkey		
YOK	Yokohama, Honshu, Japan		
YOU	Young, New South Wales, Australia		
YSS	Yuzhno-Sakhalinsk, R.S.F.S.R., U.S.S.R.		
ZAK	Zakamensk, R.S.F.S.R., U.S.S.R.		
ZIH	Zihuatanejo, Guerrero, Mexico		
ZOBO	Zongo (La Paz), Bolivia		
ZST	Bratislava—Zelezna Studnicka, Czechoslovakia		
ZUL	Zurich—Lageren, Switzerland		

Figure 2. Azimuthal equidistant map for geographic subdivision Alaska

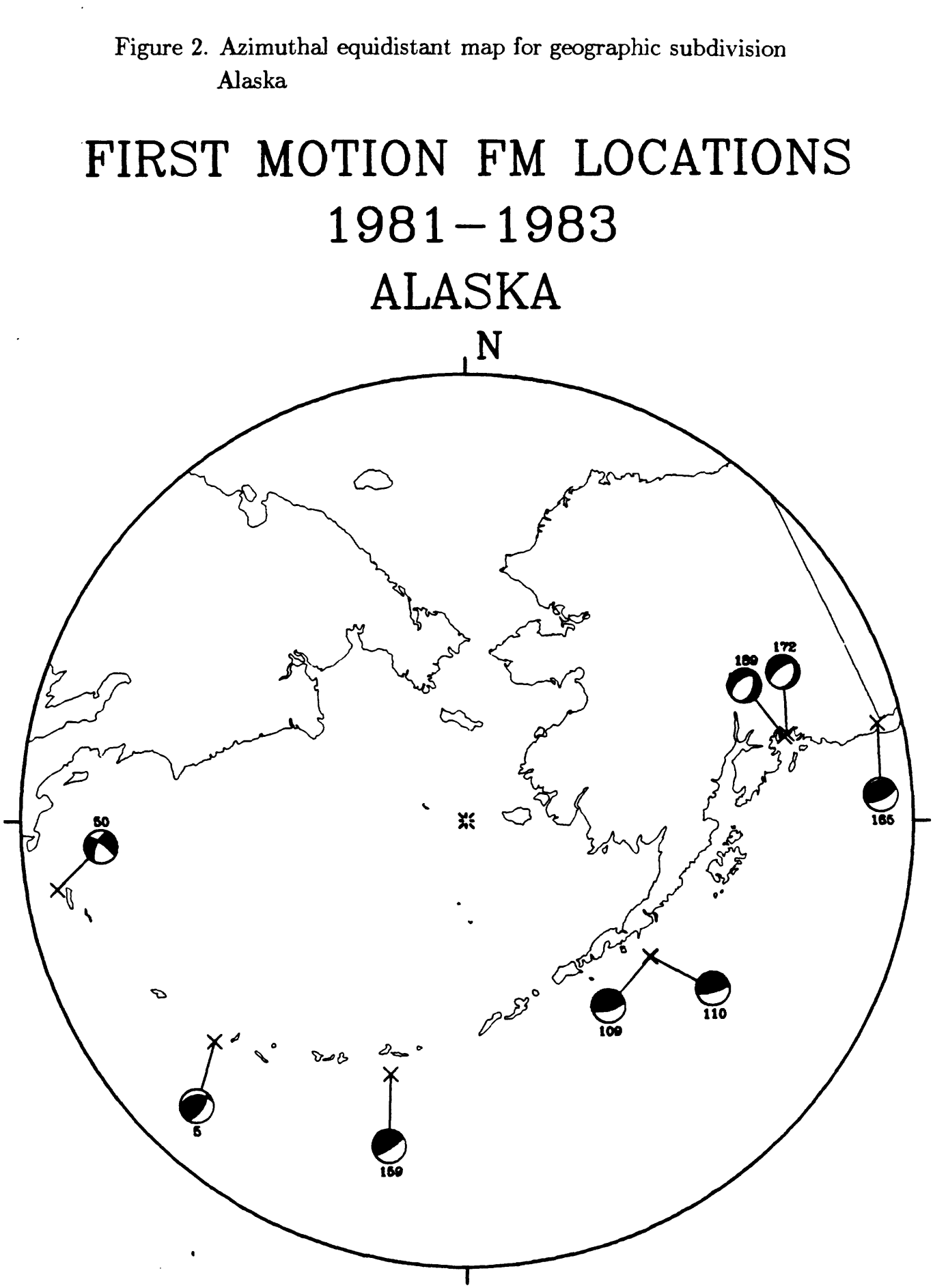

Table 6. Focal mechanism parameters for subdivision, Alaska

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
5	35	60	65	258	38	126	65	259	12	143	22	48
50	304	73	-153	206	64	-19	6	73	31	167	58	334
109	75	70	90	255	20	90	65	345	25	165	0	75
110	75	73	84	275	18	109	62	336	23	170	6	77
159	58	78	90	238	12	90	57	328	33	148	0	58
165	65	68	90	245	22	90	67	335	23	155	0	65
172	233	65	-70	12	32	-126	18	308	64	177	18	44
189	15	45	-120	234	52	-63	4	306	69	206	21	37

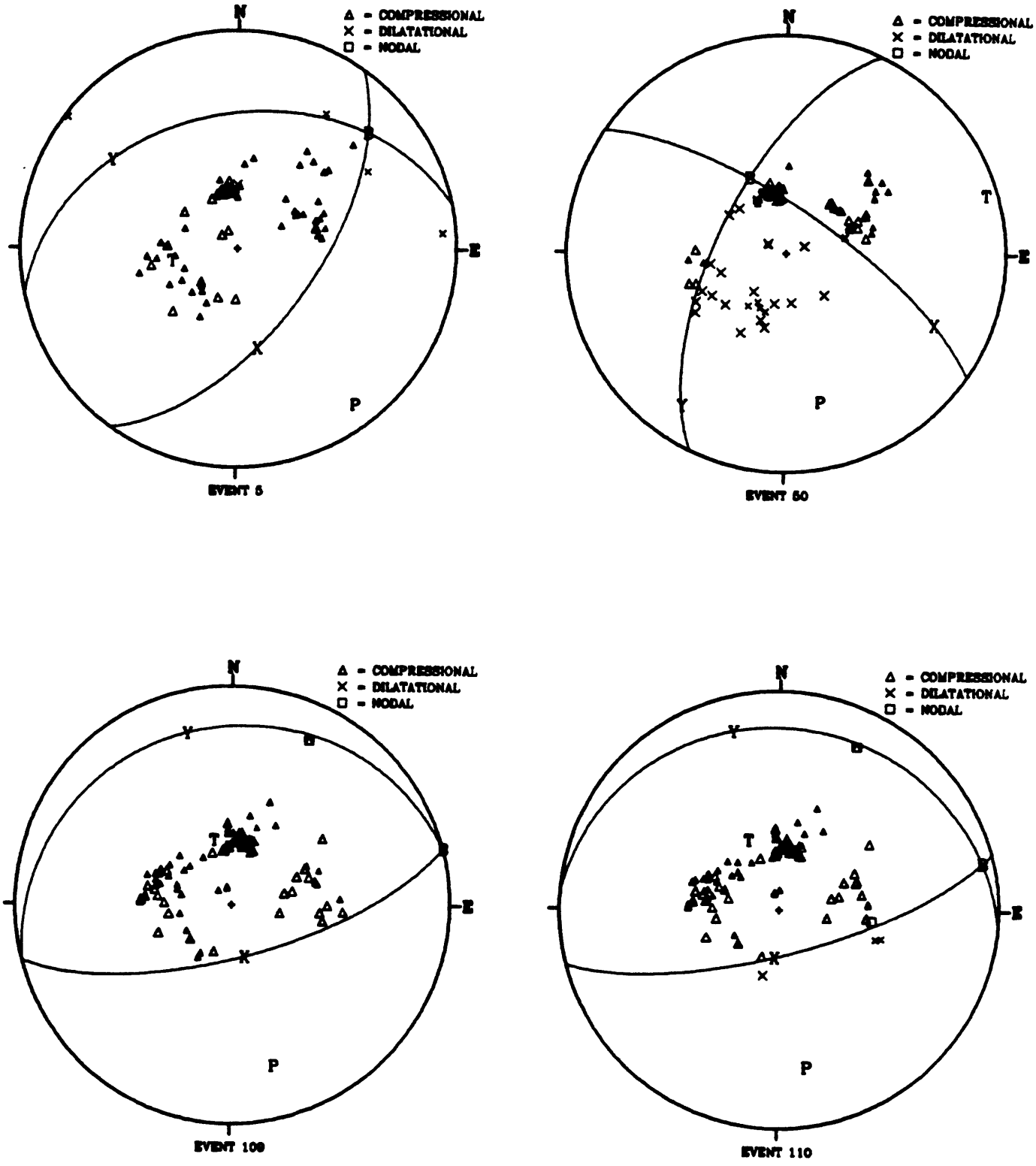

Figure 3. Lower hemisphere focal sphere projection for events 5, 50, 109, and 110.

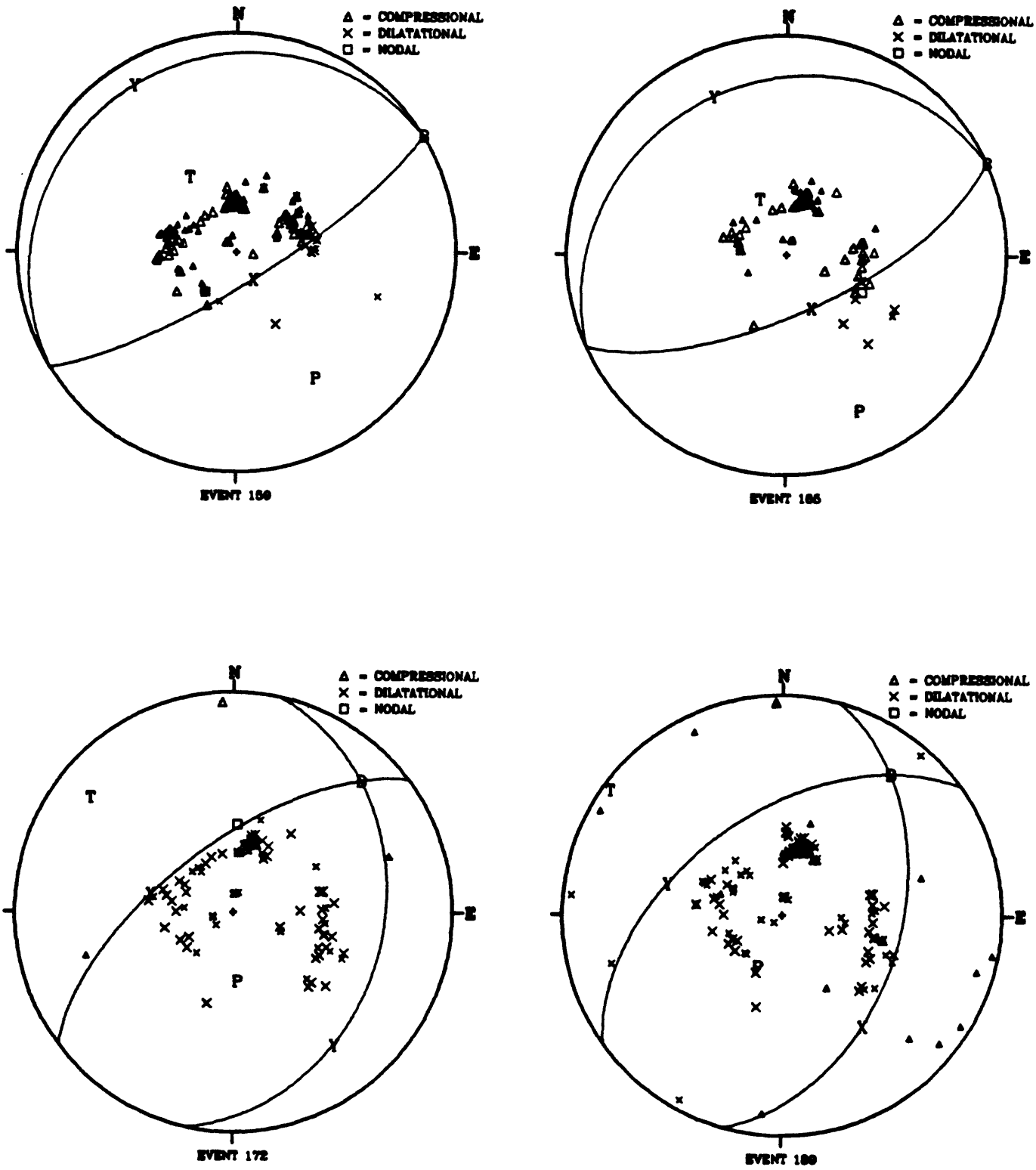

Figure 4. Lower hemisphere focal sphere projection for events 159, 165, 172, and 189.

Table 7. Station data for event 5.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SMY	1.661	307.37	14.26	88.44	I	D	SP	P
ADK	4.372	85.41	14.17	83.37	I	D	SP	P
CDY	16.689	32.81	12.67	62.64	I	D	SP	P
SVW	18.012	47.73	12.37	60.13	I	C	SP	P
KDC	18.888	59.21	12.16	58.48	I	D	SP	P
IMA	20.833	35.06	10.17	45.47	I	C	SP	P
PMR	21.156	48.80	10.17	45.47	I	C	SP	P
FBA	22.614	40.62	9.85	43.67	I	C	SP	P
TOA	22.632	48.16	9.85	43.67	I	C	SP	P
INK	28.960	36.20	9.03	39.27	I	C	SP	P
MAT	30.851	255.54	8.82	38.19	I	C	SP	P
EDM	41.296	59.13	8.18	34.99	I	C	SP	P
NEW	41.617	67.44	8.18	34.99	I	C	SP	P
ALE	42.797	9.53	8.10	34.60	I	C	SP	P
SSE	44.949	264.72	7.99	34.06	I	C	SP	P
GUMO	45.666	225.11	7.96	33.92	I	C	LP	P
BMN	45.963	76.87	7.93	33.77	I	C	SP	P
BDW	49.089	69.61	7.74	32.86	I	C	SP	P
TATO	49.139	258.65	7.74	32.86	I	C	LP	P
DAG	51.408	4.39	7.54	31.91	I	C	SP	P
GLA	52.187	82.68	7.50	31.72	I	C	SP	P
GOL	53.483	70.10	7.38	31.15	I	C	SP	P
GLD	53.538	69.96	7.38	31.15	I	C	SP	P
TUC	55.181	80.45	7.26	30.59	I	C	SP	P
HKC	55.604	262.71	7.22	30.41	I	C	SP	P
ANMO	56.007	75.13	7.18	30.22	I	C	LP	P
ALQ	56.009	75.14	7.18	30.22	I	C	SP	P
RAB	59.386	208.25	6.92	29.02	I	C	SP	P
KMI	60.633	274.03	6.84	28.65	I	C	SP	P
DAV	60.866	241.55	6.80	28.47	I	C	SP	P
FVM	63.151	62.16	6.64	27.74	I	C	SP	P
NUR	65.807	345.06	6.39	26.61	I	C	SP	P
CHG	67.653	272.27	6.26	26.03	I	C	SP	P
CHTO	67.653	272.27	6.26	26.03	I	C	LP	P
ORT	67.999	59.75	6.22	25.85	I	C	SP	P
MIM	68.239	43.73	6.22	25.85	I	C	SP	P
KONO	68.450	352.77	6.18	25.67	I	C	LP	P
BDT	68.799	271.12	6.14	25.49	I	C	SP	P
BLA	69.066	56.29	6.14	25.49	I	C	SP	P
PRM	70.420	59.73	6.03	25.01	I	C	SP	P
COP	72.114	350.47	5.92	24.52	I	C	SP	P
KAAO	73.147	304.53	5.85	24.21	I	C	LP	P
ESK	73.316	359.69	5.82	24.08	I	D	LP	P
MKS	74.436	239.89	5.75	23.77	I	C	SP	P
DMU	74.704	1.95	5.75	23.77	I	C	SP	P
DDK	75.228	1.62	5.71	23.60	I	C	SP	P
BRN	75.245	349.37	5.71	23.60	I	C	SP	P
MTN	75.241	225.64	5.71	23.60	I	C	SP	P
DCN	75.252	2.20	5.68	23.46	I	C	SP	P
DKM	75.361	1.58	5.68	23.46	I	C	SP	P

Table 7. Station data for event 5 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
WIT	75.460	353.50	5.68	23.46	I	C	SP	P
SNG	75.521	263.16	5.68	23.46	I	C	SP	P
CTA	76.190	208.96	5.64	23.29	I	C	SP	P
DBN	76.266	354.36	5.61	23.16	I	C	SP	P
WTS	76.263	353.32	5.61	23.16	I	C	SP	P
CLL	76.360	349.28	5.61	23.16	I	C	SP	P
KSP	76.399	347.10	5.61	23.16	I	C	SP	P
ECP	76.436	1.67	5.61	23.16	I	C	SP	P
KRA	76.610	344.57	5.61	23.16	I	C	SP	P
BRG	76.676	348.60	5.61	23.16	I	C	SP	P
MOX	77.169	350.05	5.58	23.03	I	C	SP	P
SPC	77.397	344.15	5.55	22.90	I	C	SP	P
HOF	77.468	349.82	5.55	22.90	I	C	SP	P
PRU	77.470	348.04	5.55	22.90	I	C	SP	P
GRF	78.153	350.14	5.52	22.77	I	C	SP	P
GRFO	78.153	350.15	5.52	22.77	I	C	LP	P
KHC	78.434	348.50	5.48	22.59	I	C	SP	P
WET	78.505	348.96	5.48	22.59	I	C	SP	P
VKA	78.914	346.50	5.45	22.46	I	C	SP	P
VIE	78.924	346.47	5.45	22.46	I	C	SP	P
SRO	79.050	345.07	5.45	22.46	I	C	SP	P
BUD	79.254	344.51	5.41	22.29	I	C	SP	P
STU	79.266	351.34	5.41	22.29	I	C	SP	P
BUH	79.449	351.97	5.41	22.29	I	C	SP	P
FUR	79.654	349.85	5.41	22.29	I	C	SP	P
CDF	79.790	352.58	5.36	22.07	I	C	SP	P
FLN	79.844	357.82	5.36	22.07	I	C	SP	P
BHG	79.907	348.70	5.36	22.07	I	C	SP	P
SSC	80.013	357.56	5.36	22.07	I	C	SP	P
GRR	80.227	358.06	5.36	22.07	I	C	SP	P
CMP	80.241	339.83	5.36	22.07	I	C	SP	P
HAU	80.266	353.15	5.31	21.85	I	C	SP	P
BSF	80.405	352.83	5.31	21.85	I	C	SP	P
LPF	80.587	358.17	5.31	21.85	I	C	SP	P
OGA	80.963	349.81	5.26	21.64	I	C	SP	P
LOR	81.163	354.78	5.26	21.64	I	C	SP	P
SSF	81.388	355.01	5.22	21.46	I	C	SP	P
LBF	81.439	354.67	5.22	21.46	I	C	SP	P
SMF	81.785	354.74	5.17	21.25	I	C	SP	P
MFF	81.995	357.51	5.17	21.25	I	C	SP	P
TCF	82.224	355.85	5.17	21.25	I	C	SP	P
MZF	82.279	355.58	5.14	21.12	I	C	SP	P
LSF	82.291	356.32	5.14	21.12	I	C	SP	P
LEM	82.399	248.92	5.14	21.12	I	C	SP	P
SOF	83.071	340.25	5.11	20.99	I	C	SP	P
POO	83.081	291.03	5.11	20.99	I	C	SP	P
SSB	83.104	354.13	5.11	20.99	I	C	SP	P
RJF	83.236	356.28	5.11	20.99	I	C	SP	P
ANTO	83.375	332.54	5.08	20.86	I	C	LP	P
CAF	83.591	355.86	5.08	20.86	I	C	SP	P

Table 7. Station data for event 5 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KDZ	83.626	338.50	5.08	20.86	I	C	SP	P
LFF	83.633	356.81	5.08	20.86	I	C	SP	P
ASP	83.779	218.43	5.05	20.73	I	C	SP	P
LPO	83.869	356.48	5.05	20.73	I	C	SP	P
LRG	84.789	352.64	4.99	20.48	I	C	SP	P
AQU	85.117	347.34	4.99	20.48	I	C	SP	P
MNS	85.181	347.88	4.99	20.48	I	C	SP	P
EPF	85.549	357.01	4.96	20.35	I	C	SP	P
MLS	85.595	356.46	4.96	20.35	I	C	SP	P
DUI	85.648	346.44	4.96	20.35	I	C	SP	P
RMP	85.744	347.76	4.96	20.35	I	C	SP	P
LGR	86.182	359.09	4.90	20.09	I	C	SP	P
RIV	88.007	200.70	4.77	19.53	I	C	LP	P
WBN	88.943	223.29	4.73	19.36	I	C	SP	P
CRT	91.449	359.90	4.68	19.15	I	C	SP	P
SNZO	92.676	181.18	4.66	19.07	I	C	LP	P
CAR	97.692	62.35	4.52	18.47	I	C	SP	P
NWAO	98.893	226.89	4.48	18.30	I	C	LP	P
NAI	119.327	311.82	1.88	7.55	I	C	LP	PKP
BCAO	120.907	333.88	1.87	7.54	I	C	LP	PKP

Table 8. Station data for event 50.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TTA	21.035	52.65	10.17	45.47	I	C	SP	P
SVW	21.180	57.74	10.17	45.47	I	C	SP	P
IMA	22.411	44.50	9.85	43.67	I	C	SP	P
COL	24.753	47.97	9.47	41.59	I	C	LP	P
COL	24.753	47.97	9.47	41.59	I	C	SP	P
FBA	24.753	47.97	9.47	41.59	I	C	SP	P
TOA	25.618	54.48	9.42	41.33	I	C	SP	P
MAT	26.278	236.23	9.33	40.85	I	D	LP	P
PCA	28.811	57.66	9.03	39.27	I	C	SP	P
SHK	30.595	241.27	8.86	38.40	I	D	LP	P
SEO	31.303	251.95	8.79	38.04	E	C	LP	P
BJI	35.661	265.81	8.53	36.72	I	C	SP	P
SSE	39.306	250.80	8.29	35.53	I	C	LP	P
ANP	43.829	245.09	8.05	34.35	I	D	LP	P
TATO	44.013	244.95	8.05	34.35	I	D	LP	P
GUMO	44.439	209.15	8.02	34.21	E	D	LP	P
COR	45.229	72.45	7.99	34.06	I	C	SP	P
LZH	45.445	271.68	7.96	33.92	I	C	LP	P
YKM	46.542	63.23	7.91	33.68	I	C	SP	P
RXF	46.841	62.89	7.88	33.53	I	C	SP	P
LDM	47.003	63.43	7.88	33.53	I	C	SP	P
WDC	48.305	76.05	7.78	33.05	I	C	SP	P
DAG	48.339	1.29	7.78	33.05	I	C	SP	P
MSO	48.765	64.29	7.74	32.86	I	C	LP	P
AMM	49.765	64.42	7.66	32.48	I	C	SP	P
BUT	50.020	64.26	7.66	32.48	I	C	SP	P
LRM	50.206	64.38	7.66	32.48	I	C	SP	P
BAG	51.627	239.65	7.54	31.91	I	D	LP	P
KMI	54.219	263.03	7.34	30.97	I	C	SP	P
PAS	55.309	78.67	7.22	30.41	I	C	LP	P
DAV	57.450	228.95	7.07	29.71	I	D	LP	P
GOL	58.212	65.18	7.03	29.53	E	C	LP	P
RAB	60.125	195.26	6.88	28.84	I	D	LP	P
ANMO	61.180	69.59	6.80	28.47	I	C	LP	P
CHTO	61.336	261.76	6.76	28.29	I	D	SP	P
CHG	61.336	261.76	6.76	28.29	E	D	LP	P
KON	63.948	346.60	6.56	27.38	I	C	LP	P
TUL	66.007	61.42	6.39	26.61	I	C	LP	P
PMG	66.096	199.75	6.39	26.61	I	D	LP	P
IN1	67.067	51.61	6.31	26.25	I	C	SP	P
IN2	67.149	52.60	6.31	26.25	I	C	SP	P
COP	67.360	343.80	6.26	26.03	I	C	SP	P
COP	67.360	343.80	6.26	26.03	I	C	LP	P
MNT	68.032	40.56	6.22	25.85	I	C	SP	P
JCT	68.181	67.93	6.22	25.85	I	C	LP	P
JCT	68.181	67.93	6.22	25.85	I	C	SP	P
AN4	68.218	50.48	6.22	25.85	I	C	SP	P
IN4	68.299	51.56	6.18	25.67	I	C	SP	P
ELO	68.407	353.53	6.18	25.67	I	C	SP	P
EBH	68.615	353.38	6.18	25.67	I	C	SP	P

Table 8. Station data for event 50 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
EAB	68.728	353.87	6.18	25.67	I	C	SP	P
ESY	68.882	352.80	6.14	25.49	I	C	SP	P
MHI	69.186	303.78	6.14	25.49	I	D	LP	P
ATX	69.337	66.62	6.10	25.32	I	C	SP	P
SNG	69.858	252.98	6.07	25.18	I	D	LP	P
SCP	70.329	46.07	6.03	25.01	E	C	LP	P
MRG	70.420	48.16	6.03	25.01	I	C	SP	P
DMU	71.153	355.20	5.99	24.83	I	C	SP	P
WES	71.559	40.77	5.96	24.70	E	C	LP	P
DDK	71.635	354.80	5.96	24.70	I	C	SP	P
DCN	71.724	355.38	5.96	24.70	I	C	SP	P
DLE	71.745	354.92	5.96	24.70	I	C	SP	P
DKM	71.763	354.74	5.92	24.52	I	C	SP	P
DBN	71.883	347.31	5.92	24.52	I	C	LP	P
VAL	73.239	357.19	5.85	24.21	E	C	LP	P
UCC	73.264	347.57	5.82	24.08	E	C	LP	P
GRF	73.336	342.82	5.82	24.08	I	C	SP	P
GRFO	73.337	342.83	5.82	24.08	I	C	LP	P
WET	73.572	341.58	5.82	24.08	I	C	SP	P
TAB	73.599	314.02	5.82	24.08	I	D	LP	P
MTN	73.620	214.92	5.82	24.08	I	D	SP	P
VIE	73.757	339.01	5.78	23.90	E	D	LP	P
BUD	73.910	336.99	5.78	23.90	I	D	SP	P
WLF	74.142	346.15	5.78	23.90	E	C	LP	P
KMR	74.384	340.43	5.75	23.77	E	D	LP	P
STU	74.561	343.92	5.75	23.77	E	D	LP	P
GWF	74.603	345.02	5.75	23.77	I	C	SP	P
FLN	75.804	350.42	5.64	23.29	I	C	SP	P
SSC	75.945	350.14	5.64	23.29	I	C	SP	P
GRR	76.211	350.62	5.64	23.29	I	C	SP	P
PVL	76.424	331.20	5.61	23.16	I	D	SP	P
LPF	76.581	350.69	5.61	23.16	I	C	SP	P
CTAO	76.678	198.47	5.61	23.16	I	D	SP	P
CTA	76.678	198.47	5.61	23.16	I	D	SP	P
CTI	76.781	341.55	5.58	23.03	I	C	SP	P
LOR	76.795	347.20	5.58	23.03	I	C	SP	P
IIC	77.007	74.23	5.58	23.03	I	D	SP	P
SSF	77.043	347.41	5.58	23.03	I	C	SP	P
LBF	77.059	347.07	5.58	23.03	I	C	SP	P
AVF	77.329	347.46	5.55	22.90	I	C	SP	P
IIM	77.404	74.44	5.55	22.90	I	D	SP	P
SMF	77.410	347.10	5.55	22.90	I	C	SP	P
IIP	77.534	74.22	5.55	22.90	I	D	SP	P
KDZ	77.768	330.49	5.52	22.77	I	D	SP	P
MFF	77.910	349.86	5.52	22.77	I	C	SP	P
TCF	77.962	348.17	5.52	22.77	I	C	SP	P
MZF	77.989	347.89	5.52	22.77	I	C	SP	P
LSF	78.078	348.64	5.52	22.77	I	C	SP	P
SKO	78.515	333.40	5.48	22.59	I	C	SP	P
ISQ	78.698	204.60	5.48	22.59	I	D	SP	P

Table 8. Station data for event 50 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
FIR	79.047	341.23	5.45	22.46	I	C	SP	P
CAF	79.322	348.04	5.41	22.29	I	C	SP	P
LFF	79.464	348.98	5.41	22.29	I	C	SP	P
LPO	79.664	348.62	5.41	22.29	I	C	SP	P
LRG	80.185	344.67	5.36	22.07	I	C	SP	P
CVF	80.645	342.65	5.31	21.85	I	C	SP	P
MLS	81.379	348.42	5.22	21.46	I	C	SP	P
EPF	81.390	348.98	5.22	21.46	I	C	SP	P
ATH	81.637	330.31	5.22	21.46	I	C	SP	P
PPT	81.858	137.02	5.17	21.25	I	D	LP	P
ASPA	82.980	208.86	5.11	20.99	I	D	SP	P
PTO	83.968	355.45	5.05	20.73	E	C	LP	P
ALI	86.103	348.92	4.90	20.09	I	D	LP	P
LIS	86.408	355.73	4.86	19.92	I	C	SP	P
ALM	87.795	350.28	4.77	19.53	I	C	SP	P
MAL	88.093	351.83	4.77	19.53	I	C	SP	P
SFS	88.491	353.24	4.75	19.45	I	C	SP	P
RIV	89.441	191.82	4.71	19.28	E	D	LP	P
SNZO	96.394	172.96	4.54	18.56	I	D	LP	P
NWAO	96.933	219.15	4.53	18.52	I	D	LP	P
ZOBO	123.765	68.29	1.87	7.52	E	D	LP	PKP
BUL	132.335	299.51	1.84	7.41	I	D	LP	PKP
BPI	137.631	295.43	1.79	7.22	I	D	SP	PKP

Table 9. Station data for event 109.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COL	11.494	25.02	13.45	71.71	I	N	LP	P
RSNT	23.927	53.54	9.59	42.61	E	C	LP	P
LON	24.732	93.72	9.52	42.23	E	C	LP	P
MBC	25.978	20.49	9.37	41.41	I	C	SP	P
NEW	26.642	86.89	9.32	41.14	I	C	SP	P
GOL	38.519	90.44	8.35	36.12	E	C	LP	P
LHC	42.186	68.73	8.15	35.12	I	C	SP	P
EPT	43.458	99.98	8.07	34.73	I	C	LP	P
TSK	44.871	271.32	7.99	34.34	I	C	SP	P
GDH	44.973	29.05	7.99	34.34	I	C	SP	P
DDR	45.549	271.84	7.96	34.19	I	C	SP	P
MAT	45.736	273.16	7.96	34.19	I	C	SP	P
MAJO	45.736	273.16	7.96	34.19	I	C	LP	P
DAG	46.200	11.73	7.93	34.04	I	C	SP	P
CN2	48.026	289.54	7.81	33.46	I	C	SP	P
JCT	48.253	95.21	7.78	33.31	E	C	LP	P
IN2	48.985	76.26	7.73	33.07	I	C	SP	P
AN12	49.764	73.52	7.65	32.69	I	C	SP	P
IN4	50.291	75.30	7.61	32.50	I	C	SP	P
SHK	50.340	275.56	7.61	32.50	I	C	SP	P
SHK	50.340	275.56	7.61	32.50	I	C	LP	P
SEO	51.440	282.54	7.53	32.11	E	C	LP	P
MNT	52.276	62.44	7.45	31.73	I	C	SP	P
GEO	55.084	70.51	7.25	30.78	I	C	LP	P
KEV	55.547	357.39	7.21	30.60	I	C	SP	P
KEV	55.547	357.39	7.21	30.60	I	C	LP	P
BJI	55.623	292.15	7.21	30.60	I	C	SP	P
WES	55.646	63.75	7.21	30.60	E	C	LP	P
AKU	56.130	18.26	7.17	30.41	I	C	SP	P
TIA	57.888	288.36	7.03	29.75	I	C	SP	P
BTO	58.453	296.69	6.99	29.57	I	C	SP	P
TIY	59.315	292.80	6.91	29.20	I	C	SP	P
SSE	59.417	281.42	6.91	29.20	E	C	LP	P
GUMO	59.675	248.96	6.91	29.20	I	C	LP	P
GUA	59.691	248.88	6.91	29.20	E	C	LP	P
NJ2	60.014	283.88	6.87	29.01	I	C	SP	P
SUF	62.623	357.23	6.67	28.09	I	C	SP	P
WHN	63.666	286.09	6.59	27.72	I	C	SP	P
ANP	63.726	276.84	6.59	27.72	I	C	LP	P
BER	64.379	8.46	6.51	27.36	I	C	LP	P
GTA	64.470	302.56	6.51	27.36	I	C	SP	P
NUR	64.876	357.90	6.47	27.18	I	C	SP	P
NUR	64.876	357.90	6.47	27.18	I	C	LP	P
LZH	65.033	297.51	6.47	27.18	I	C	LP	P
KON	65.427	6.23	6.43	27.00	I	C	LP	P
KONO	65.427	6.23	6.43	27.00	I	C	LP	P
UPP	65.541	1.77	6.43	27.00	I	C	SP	P
WMQ	66.463	313.43	6.34	26.59	I	C	SP	P
BEC	66.624	66.78	6.34	26.59	I	C	LP	P
ESK	68.374	14.49	6.18	25.87	I	C	SP	P

Table 9. Station data for event 109 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CD2	69.119	294.08	6.14	25.69	I	C	SP	P
DMU	69.159	17.13	6.14	25.69	I	C	SP	P
COP	69.543	5.05	6.10	25.51	I	C	SP	P
COP	69.543	5.05	6.10	25.51	I	C	LP	P
DCN	69.629	17.53	6.10	25.51	I	C	SP	P
DDK	69.748	16.94	6.10	25.51	I	C	SP	P
DLE	69.809	17.10	6.06	25.33	I	C	SP	P
VAL	70.421	19.82	6.03	25.19	I	C	LP	P
BAG	71.141	271.76	5.99	25.02	E	C	LP	P
HAM	71.605	6.84	5.95	24.84	I	C	SP	P
WIT	71.994	8.97	5.92	24.70	I	C	SP	P
DBN	72.556	10.04	5.88	24.53	I	C	LP	P
WTS	72.817	9.01	5.85	24.39	I	C	SP	P
UCC	73.758	10.79	5.78	24.08	E	C	LP	P
CLL	73.938	5.09	5.78	24.08	I	C	SP	P
ENN	73.950	9.78	5.78	24.08	I	C	SP	P
STB	74.207	9.20	5.78	24.08	I	C	SP	P
BRG	74.419	4.51	5.74	23.90	I	C	SP	P
MOX	74.523	6.06	5.74	23.90	I	C	LP	P
KSP	74.538	2.97	5.74	23.90	I	C	SP	P
HOF	74.870	5.92	5.71	23.77	I	C	SP	P
FLN	75.149	14.40	5.71	23.77	I	C	SP	P
PRU	75.330	4.18	5.67	23.60	I	C	SP	P
LDF	75.365	14.19	5.67	23.60	I	C	SP	P
KRA	75.392	0.58	5.67	23.60	I	C	SP	P
GRFO	75.448	6.42	5.67	23.60	I	C	LP	P
GRF	75.449	6.42	5.67	23.60	I	C	SP	P
GRR	75.459	14.73	5.67	23.60	I	C	SP	P
DAV	75.755	261.95	5.64	23.46	E	C	LP	P
LPF	75.781	14.94	5.64	23.46	I	C	SP	P
GWF	75.882	8.92	5.64	23.46	I	C	SP	P
WET	76.092	5.36	5.64	23.46	I	C	SP	P
KHC	76.142	4.89	5.64	23.46	I	C	SP	P
STU	76.219	7.88	5.64	23.46	I	C	LP	P
SPC	76.261	0.38	5.61	23.33	I	C	SP	P
CDF	76.411	9.23	5.61	23.33	I	C	SP	P
HAU	76.724	9.92	5.61	23.33	I	C	SP	P
BSF	76.940	9.65	5.58	23.20	I	C	SP	P
JOS	76.956	0.19	5.58	23.20	I	C	SP	P
FUR	76.973	6.54	5.58	23.20	I	C	SP	P
SJG	77.105	76.99	5.58	23.20	E	C	LP	P
LOR	77.182	11.75	5.58	23.20	I	C	SP	P
MFF	77.309	14.64	5.55	23.07	I	C	SP	P
SSF	77.344	12.03	5.55	23.07	I	C	SP	P
ZUL	77.434	8.60	5.55	23.07	E	C	LP	P
LBF	77.476	11.72	5.55	23.07	I	C	SP	P
PVC	77.484	211.64	5.55	23.07	I	C	SP	P
BHG	77.512	5.48	5.55	23.07	I	C	SP	P
PSZ	77.530	0.63	5.55	23.07	I	C	SP	P
AVF	77.592	12.19	5.55	23.07	I	C	SP	P

Table 9. Station data for event 109 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SMF	77.794	11.87	5.51	22.89	I	C	SP	P
LSF	77.889	13.56	5.51	22.89	I	C	SP	P
TCF	77.942	13.07	5.51	22.89	I	C	SP	P
MZF	78.062	12.83	5.51	22.89	I	C	SP	P
KBA	78.179	5.21	5.51	22.89	I	C	SP	P
OGA	78.248	6.84	5.51	22.89	I	C	SP	P
DIX	78.734	9.47	5.48	22.76	E	C	LP	P
CLI	78.755	355.45	5.45	22.63	I	C	SP	P
RJF	78.815	13.75	5.45	22.63	I	C	SP	P
LFF	79.066	14.38	5.45	22.63	I	C	SP	P
CAF	79.261	13.44	5.41	22.45	I	C	SP	P
LPO	79.379	14.11	5.41	22.45	I	C	SP	P
COZ	80.088	357.47	5.35	22.19	I	C	SP	P
CLO	80.365	358.57	5.30	21.97	I	C	SP	P
EPF	80.874	15.06	5.25	21.75	I	C	SP	P
KKN	80.895	305.94	5.25	21.75	I	C	SP	P
LGR	80.976	17.25	5.25	21.75	I	C	SP	P
PKI	81.020	305.72	5.25	21.75	I	C	SP	P
PTO	81.066	22.06	5.25	21.75	I	C	LP	P
DMN	81.129	305.97	5.25	21.75	I	C	SP	P
FRF	81.153	10.37	5.25	21.75	I	C	SP	P
LMR	81.363	10.51	5.21	21.58	I	C	SP	P
CHG	81.414	290.36	5.21	21.58	I	C	SP	P
PVL	82.235	356.78	5.17	21.41	I	C	SP	P
CVF	82.352	8.87	5.14	21.28	I	C	SP	P
NOU	82.351	211.83	5.14	21.28	I	C	SP	P
BDT	82.665	289.42	5.14	21.28	I	C	SP	P
TOL	83.199	19.01	5.11	21.15	I	C	SP	P
LIS	83.261	23.17	5.08	21.02	I	C	SP	P
PCT	83.432	286.04	5.08	21.02	I	C	SP	P
SKO	83.478	359.53	5.08	21.02	I	C	SP	P
NDI	83.729	312.58	5.08	21.02	I	C	SP	P
KDZ	83.732	356.58	5.08	21.02	I	C	SP	P
VAY	84.119	358.67	5.05	20.89	I	C	SP	P
TAB	84.827	340.04	4.99	20.63	I	C	LP	P
EDC	84.912	354.59	4.99	20.63	I	C	SP	P
ANTO	85.024	350.77	4.99	20.63	I	C	LP	P
KHI	85.526	329.32	4.96	20.50	I	C	SP	P
DST	85.606	353.95	4.96	20.50	I	C	SP	P
TRN	85.813	77.57	4.90	20.24	I	C	LP	P
CRT	85.892	19.32	4.90	20.24	I	C	SP	P
ALT	86.054	352.75	4.90	20.24	I	C	SP	P
MAL	86.181	20.07	4.90	20.24	I	C	SP	P
ALM	86.432	18.51	4.86	20.07	I	C	SP	P
BCK	87.603	352.23	4.80	19.81	I	C	SP	P
CTA	87.945	230.02	4.77	19.68	I	C	SP	P
CTAO	87.945	230.02	4.77	19.68	I	C	LP	P
YER	88.086	354.03	4.77	19.68	I	C	SP	P
MKS	89.267	259.95	4.71	19.42	I	C	SP	P
WB2	93.437	239.77	4.63	19.08	I	C	SP	P

Table 9. Station data for event 109 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PSI	94.625	281.28	4.59	18.91	I	C	SP	P
SNZO	98.421	199.58	4.49	18.48	E	C	LP	P
LPB	103.971	98.79	4.45	18.31	E	C	LP	Pdf
AVY	138.622	319.58	1.78	7.22	I	C	SP	PKP
BUL	144.769	347.23	1.68	6.83	I	C	SP	PKP
SLR	150.321	346.30	1.56	6.32	I	C	SP	PKP

Table 10. Station data for event 110.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COL	11.471	25.19	13.50	71.15	I	N	LP	P
RSNT	23.926	53.61	9.60	42.30	I	C	LP	P
MBC	25.952	20.53	9.38	41.11	I	C	SP	P
WDC	28.172	105.39	9.18	40.05	I	D	SP	P
JAS	31.178	106.88	8.82	38.19	I	D	SP	P
ANMO	41.204	96.73	8.21	35.14	E	N	LP	P
TSK	44.843	271.25	7.99	34.06	I	C	SP	P
GDH	44.953	29.06	7.99	34.06	I	C	SP	P
MDJ	45.193	287.67	7.99	34.06	I	C	SP	P
DDR	45.520	271.77	7.96	33.92	I	C	SP	P
MAT	45.707	273.09	7.96	33.92	I	C	SP	P
SRY	45.748	271.32	7.96	33.92	I	C	SP	P
OYM	45.899	271.16	7.93	33.77	I	C	SP	P
DAG	46.168	11.73	7.93	33.77	I	C	SP	P
TUL	46.661	86.83	7.91	33.68	I	C	SP	P
RLO	46.922	85.98	7.88	33.53	I	C	SP	P
CN2	47.987	289.48	7.81	33.19	I	C	SP	P
JCT	48.283	95.20	7.78	33.05	E	C	LP	P
SHK	50.310	275.49	7.62	32.29	I	C	SP	P
SHK	50.310	275.49	7.62	32.29	I	C	LP	P
SEO	51.405	282.48	7.54	31.91	E	C	LP	P
RSNY	52.472	63.87	7.46	31.53	I	C	LP	P
RSCP	52.720	79.37	7.46	31.53	E	C	LP	P
SCP	53.320	69.40	7.38	31.15	I	C	LP	P
GEO	55.097	70.50	7.26	30.59	E	C	LP	P
KEV	55.508	357.37	7.22	30.41	I	C	SP	P
KEV	55.508	357.37	7.22	30.41	I	C	LP	P
BJI	55.584	292.10	7.22	30.41	I	C	SP	P
AKU	56.102	18.25	7.18	30.22	I	C	SP	P
HHC	57.428	295.82	7.07	29.71	I	C	SP	P
SOD	57.908	357.32	7.03	29.53	I	C	SP	P
BTO	58.412	296.63	7.00	29.39	I	C	SP	P
TIY	59.275	292.74	6.92	29.02	I	C	SP	P
SSE	59.383	281.36	6.92	29.02	I	C	LP	P
GUMO	59.663	248.89	6.92	29.02	I	C	LP	P
NJ2	59.978	283.82	6.88	28.84	I	C	SP	P
KJF	61.052	356.53	6.80	28.47	I	C	SP	P
SUF	62.584	357.21	6.68	27.92	I	C	SP	P
WHN	63.629	286.03	6.60	27.56	I	C	SP	P
ANP	63.695	276.78	6.60	27.56	I	C	LP	P
GTA	64.427	302.51	6.51	27.15	I	C	SP	P
NUR	64.837	357.88	6.47	26.97	I	C	LP	P
LZH	64.991	297.46	6.47	26.97	I	C	LP	P
KONO	65.392	6.21	6.43	26.79	I	C	LP	P
KON	65.392	6.21	6.43	26.79	I	C	LP	P
QZH	65.551	278.90	6.43	26.79	I	C	SP	P
WMQ	66.418	313.39	6.35	26.43	I	C	SP	P
BEC	66.634	66.76	6.35	26.43	E	C	LP	P
CD2	69.079	294.03	6.14	25.49	I	C	SP	P
DMU	69.131	17.11	6.14	25.49	I	C	SP	P

Table 10. Station data for event 110 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AFI	69.420	193.02	6.10	25.32	E	D	LP	P
COP	69.508	5.03	6.10	25.32	I	C	LP	P
DCN	69.600	17.50	6.10	25.32	I	C	SP	P
DDK	69.719	16.92	6.10	25.32	I	C	SP	P
DLE	69.781	17.07	6.07	25.18	I	C	SP	P
GZH	69.977	281.73	6.07	25.18	I	C	SP	P
VAL	70.395	19.79	6.03	25.01	E	C	LP	P
BAG	71.113	271.71	5.99	24.83	I	C	LP	P
HAM	71.570	6.81	5.96	24.70	I	C	SP	P
DBN	72.523	10.01	5.89	24.39	I	C	LP	P
WTS	72.784	8.98	5.85	24.21	I	C	SP	P
CLL	73.903	5.06	5.78	23.90	I	C	SP	P
ENN	73.917	9.75	5.78	23.90	I	C	SP	P
STB	74.174	9.17	5.78	23.90	I	C	SP	P
KMI	74.221	291.13	5.78	23.90	I	C	LP	P
BRG	74.383	4.48	5.75	23.77	I	C	SP	P
MOX	74.488	6.03	5.75	23.77	I	C	LP	P
KSP	74.502	2.94	5.75	23.77	I	C	SP	P
TNS	74.682	8.17	5.75	23.77	I	C	SP	P
KSH	74.793	318.78	5.71	23.60	I	C	SP	P
HOF	74.835	5.89	5.71	23.60	I	C	SP	P
FLN	75.119	14.37	5.71	23.60	I	C	SP	P
PRU	75.294	4.15	5.68	23.46	I	C	SP	P
LDF	75.335	14.16	5.68	23.46	I	C	SP	P
KRA	75.354	0.55	5.68	23.46	I	C	SP	P
GRFO	75.413	6.39	5.68	23.46	I	C	LP	P
GRF	75.414	6.39	5.68	23.46	I	C	SP	P
GRR	75.430	14.70	5.68	23.46	I	C	SP	P
DAV	75.734	261.90	5.68	23.46	E	C	LP	P
LPF	75.751	14.91	5.64	23.29	I	C	SP	P
GWF	75.848	8.89	5.64	23.29	I	C	SP	P
WET	76.057	5.33	5.64	23.29	I	C	SP	P
KHC	76.107	4.86	5.64	23.29	I	C	SP	P
STU	76.185	7.85	5.64	23.29	I	C	LP	P
SPC	76.223	0.35	5.64	23.29	I	C	SP	P
CDF	76.378	9.20	5.61	23.16	I	C	SP	P
HAU	76.692	9.89	5.61	23.16	I	C	SP	P
BSF	76.907	9.62	5.58	23.03	I	C	SP	P
JOS	76.918	0.15	5.58	23.03	I	C	SP	P
FUR	76.938	6.51	5.58	23.03	I	C	SP	P
VIE	77.099	3.02	5.58	23.03	E	C	LP	P
SJG	77.123	76.96	5.58	23.03	E	C	LP	P
LOR	77.151	11.72	5.58	23.03	I	C	SP	P
MFF	77.279	14.61	5.55	22.90	I	C	SP	P
SSF	77.313	12.00	5.55	22.90	I	C	SP	P
ZUL	77.400	8.57	5.55	22.90	I	C	LP	P
LBF	77.444	11.69	5.55	22.90	I	C	SP	P
BHG	77.477	5.45	5.55	22.90	I	C	SP	P
PSZ	77.492	0.60	5.55	22.90	I	C	SP	P
AVF	77.561	12.16	5.55	22.90	I	C	SP	P

Table 10. Station data for event 110 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SMF	77.763	11.84	5.52	22.77	I	C	SP	P
LSF	77.859	13.52	5.52	22.77	I	C	SP	P
TCF	77.911	13.04	5.52	22.77	I	C	SP	P
BUD	77.920	1.21	5.52	22.77	I	C	SP	P
MZF	78.031	12.80	5.52	22.77	I	C	SP	P
OGA	78.213	6.81	5.52	22.77	I	C	SP	P
RJF	78.785	13.72	5.45	22.46	I	C	SP	P
LFF	79.036	14.35	5.45	22.46	I	C	SP	P
LJU	79.233	4.41	5.45	22.46	I	C	SP	P
CAF	79.230	13.41	5.45	22.46	I	C	SP	P
LPO	79.348	14.08	5.41	22.29	I	C	SP	P
CVO	79.488	356.15	5.41	22.29	I	C	SP	P
TRI	79.531	4.98	5.41	22.29	I	C	SP	P
MLR	79.827	356.30	5.36	22.07	I	C	SP	P
GZR	80.007	358.56	5.36	22.07	I	C	SP	P
COZ	80.048	357.44	5.36	22.07	I	C	SP	P
CMP	80.081	356.94	5.36	22.07	I	C	SP	P
CLO	80.326	358.54	5.31	21.85	I	C	SP	P
EPF	80.844	15.02	5.26	21.64	I	C	SP	P
KKN	80.850	305.90	5.26	21.64	I	C	SP	P
PKI	80.975	305.68	5.26	21.64	I	C	SP	P
PTO	81.041	22.02	5.26	21.64	I	C	SP	P
PTO	81.041	22.02	5.26	21.64	I	C	LP	P
DMN	81.085	305.93	5.26	21.64	I	C	SP	P
LMR	81.331	10.47	5.22	21.46	I	C	SP	P
CHG	81.375	290.32	5.22	21.46	I	C	SP	P
CHG	81.375	290.32	5.22	21.46	I	C	LP	P
PVL	82.196	356.75	5.17	21.25	I	C	SP	P
CVF	82.318	8.84	5.14	21.12	I	C	SP	P
BDT	82.626	289.38	5.14	21.12	I	C	SP	P
VTS	82.792	358.19	5.11	20.99	I	C	SP	P
TOL	83.172	18.98	5.11	20.99	I	C	SP	P
LIS	83.236	23.13	5.11	20.99	I	C	SP	P
SKO	83.440	359.49	5.08	20.86	I	C	SP	P
NDI	83.684	312.54	5.08	20.86	I	C	SP	P
KDZ	83.693	356.54	5.08	20.86	I	C	SP	P
VAY	84.080	358.63	5.05	20.73	I	C	SP	P
TAB	84.782	340.00	4.99	20.48	I	C	LP	P
KHI	85.479	329.28	4.96	20.35	I	C	SP	P
DST	85.565	353.91	4.96	20.35	I	C	SP	P
TRN	85.831	77.53	4.90	20.09	E	C	LP	P
ATH	87.402	357.66	4.80	19.66	I	C	SP	P
BCK	87.561	352.19	4.80	19.66	I	C	SP	P
CTA	87.949	229.98	4.77	19.53	I	C	SP	P
CTAO	87.949	229.98	4.77	19.53	E	C	LP	P
SNG	89.968	282.38	4.71	19.28	E	C	LP	P
WB2	93.433	239.74	4.63	18.94	I	C	SP	P
POO	94.046	310.49	4.61	18.85	I	C	SP	P
SNZO	98.448	199.55	4.49	18.35	E	C	LP	P
ZOBO	103.779	98.60	4.45	18.18	E	C	LP	Pdf

Table 10. Station data for event 110 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BNG	120.784	2.57	1.87	7.54	I	C	SP	PKP
BUL	144.726	347.16	1.68	6.78	I	C	SP	PKP
SLR	150.277	346.23	1.56	6.28	I	C	SP	PKP
BPI	150.744	346.55	1.53	6.15	I	C	SP	PKP

Table 11. Station data for event 159.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ADK	1.671	287.35	14.27	123.18	I	D	SP	P
MBC	32.496	21.34	8.72	30.76	I	C	SP	P
HON	32.560	151.28	8.72	30.76	I	D	LP	P
RSNT	33.078	47.19	8.69	30.64	I	D	SP	P
RSNT	33.078	47.19	8.69	30.64	I	C	LP	P
LON	33.967	76.87	8.62	30.37	I	C	LP	P
COR	34.090	81.17	8.62	30.37	E	D	LP	P
COR	34.090	81.17	8.62	30.37	I	C	SP	P
TSK	35.733	262.98	8.53	30.02	I	C	SP	P
EDM	36.213	62.65	8.50	29.90	I	C	SP	P
DDR	36.438	263.51	8.47	29.79	I	C	SP	P
SRY	36.639	262.94	8.47	29.79	I	C	SP	P
MAT	36.707	265.06	8.47	29.79	I	C	LP	P
MAJO	36.707	265.06	8.47	29.79	I	C	LP	P
OYM	36.780	262.73	8.45	29.71	I	C	SP	P
RXF	37.013	70.09	8.45	29.71	I	C	SP	P
LHD	37.034	71.20	8.45	29.71	I	C	SP	P
LDM	37.087	70.79	8.45	29.71	I	D	LP	P
CLX	37.309	71.06	8.42	29.59	I	C	SP	P
MDJ	37.454	282.29	8.42	29.59	I	C	SP	P
ORV	37.959	87.09	8.38	29.44	I	C	SP	P
SES	38.692	65.91	8.35	29.32	I	C	SP	P
JAS	39.586	88.35	8.30	29.13	I	D	LP	P
CN2	40.414	283.69	8.24	28.90	I	C	SP	P
SHK	41.451	267.22	8.19	28.71	I	C	SP	P
SHK	41.451	267.22	8.19	28.71	I	C	LP	P
FFC	41.717	56.08	8.19	28.71	I	C	SP	P
PAS	43.409	91.02	8.08	28.29	I	D	SP	P
BDW	43.473	75.09	8.08	28.29	I	C	SP	P
FCC	43.792	47.88	8.05	28.17	I	C	SP	P
RSSD	46.011	70.25	7.94	27.75	I	C	LP	P
GLA	46.227	89.56	7.94	27.75	I	D	SP	P
GOL	47.844	75.92	7.82	27.30	I	C	SP	P
GOL	47.844	75.92	7.82	27.30	I	C	LP	P
RSON	48.002	57.24	7.82	27.30	I	C	LP	P
RSON	48.002	57.24	7.82	27.30	I	D	SP	P
BJI	48.225	285.06	7.82	27.30	I	C	SP	P
TIA	50.063	280.52	7.66	26.70	I	C	SP	P
GUMO	50.101	236.30	7.66	26.70	I	C	LP	P
GUA	50.119	236.21	7.66	26.70	E	C	LP	P
HHC	50.487	288.77	7.62	26.55	I	C	SP	P
SSE	50.936	272.66	7.58	26.40	E	C	LP	P
DAG	51.136	7.09	7.58	26.40	I	C	SP	P
BTO	51.559	289.47	7.54	26.25	I	C	SP	P
NJ2	51.744	275.29	7.54	26.25	I	C	SP	P
LHC	51.769	57.65	7.50	26.10	I	C	SP	P
TIY	51.956	285.12	7.50	26.10	I	C	SP	P
GDH	52.063	22.90	7.50	26.10	I	C	LP	P
GDH	52.063	22.90	7.50	26.10	I	D	SP	P
EPT	52.290	84.55	7.46	25.95	E	D	LP	P

Table 11. Station data for event 159 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TATO	55.047	267.01	7.26	25.20	I	C	LP	P
WHN	55.580	277.22	7.22	25.05	I	C	SP	P
SIO	55.876	73.85	7.18	24.90	I	C	SP	P
TUL	56.075	73.36	7.18	24.90	I	C	LP	P
RLO	56.362	72.63	7.15	24.79	I	C	SP	P
XAN	56.524	284.08	7.15	24.79	I	C	SP	P
QZH	56.884	269.28	7.11	24.64	I	C	SP	P
JCT	57.341	80.84	7.07	24.50	E	C	LP	P
KEV	58.170	351.51	7.04	24.39	I	C	LP	P
LZH	58.175	289.23	7.04	24.39	I	C	SP	P
GTA	58.257	294.65	7.00	24.24	I	C	SP	P
IN2	58.609	64.13	7.00	24.24	I	C	SP	P
IN1	58.698	63.07	7.00	24.24	I	C	SP	P
AAM	58.736	60.22	7.00	24.24	I	C	LP	P
UTO	59.216	60.72	6.96	24.09	I	C	SP	P
IN4	59.917	63.28	6.88	23.80	I	C	SP	P
OTT	60.746	53.04	6.84	23.65	I	C	SP	P
HKC	61.571	270.64	6.76	23.36	I	C	LP	P
MNT	61.707	51.76	6.76	23.36	I	C	SP	P
WMQ	61.757	305.58	6.72	23.21	I	C	SP	P
CD2	61.828	285.01	6.72	23.21	I	C	SP	P
RSNY	61.939	53.04	6.72	23.21	I	C	LP	P
RSNY	61.939	53.04	6.72	23.21	I	C	SP	P
RSCP	62.298	66.96	6.68	23.06	I	C	LP	P
SCP	62.898	57.98	6.64	22.92	I	C	LP	P
GYA	63.232	279.47	6.64	22.92	I	C	SP	P
PLP	63.335	253.66	6.60	22.77	I	C	SP	P
BLA	64.075	62.36	6.56	22.63	I	C	LP	P
SHA	64.288	72.50	6.52	22.48	I	C	LP	P
HNR	64.609	208.54	6.52	22.48	E	C	LP	P
WES	65.115	52.80	6.48	22.34	I	C	LP	P
CGP	65.645	252.09	6.44	22.19	I	C	SP	P
DAV	66.210	250.44	6.39	22.01	I	C	LP	P
KMI	66.619	281.32	6.35	21.86	I	C	LP	P
NUR	67.422	350.07	6.27	21.58	I	C	LP	P
BER	68.561	0.30	6.19	21.29	I	C	LP	P
UPP	68.687	353.67	6.19	21.29	I	C	SP	P
KON	69.262	357.99	6.11	21.00	I	C	LP	P
KONO	69.262	357.99	6.11	21.00	I	C	LP	P
LSA	70.171	292.81	6.07	20.85	I	C	SP	P
MUD	72.467	358.09	5.89	20.21	I	C	SP	P
COP	73.142	356.13	5.85	20.07	I	C	LP	P
CHG	73.651	279.68	5.82	19.96	I	C	LP	P
DMU	74.522	7.82	5.75	19.71	I	C	SP	P
DCN	75.040	8.13	5.71	19.57	I	C	SP	P
PKI	75.065	295.38	5.71	19.57	I	C	SP	P
DDK	75.078	7.55	5.71	19.57	I	C	SP	P
DLE	75.160	7.69	5.71	19.57	I	C	SP	P
DMN	75.207	295.62	5.71	19.57	I	C	SP	P
NOU	75.359	198.57	5.68	19.46	I	D	SP	P

Table 11. Station data for event 159 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HAM	75.448	357.51	5.68	19.46	I	C	SP	P
ETA	75.774	7.56	5.65	19.35	I	C	SP	P
ECB	76.053	7.97	5.65	19.35	I	C	SP	P
WIT	76.154	359.51	5.65	19.35	I	C	SP	P
BEC	76.165	55.27	5.65	19.35	E	C	LP	P
ECP	76.273	7.74	5.61	19.21	I	C	SP	P
BRL	76.311	355.35	5.61	19.21	I	C	SP	P
BRN	76.368	355.40	5.61	19.21	I	C	SP	P
DBN	76.868	0.45	5.58	19.10	I	C	LP	P
WTS	76.973	359.42	5.58	19.10	I	C	SP	P
CLL	77.485	355.43	5.55	19.00	I	C	SP	P
KSP	77.747	353.27	5.55	19.00	I	C	SP	P
BRG	77.870	354.79	5.52	18.89	I	C	LP	P
ENN	78.206	359.98	5.52	18.89	I	C	SP	P
KRA	78.212	350.80	5.52	18.89	I	C	SP	P
MOX	78.211	356.28	5.52	18.89	I	C	SP	P
HOF	78.532	356.09	5.49	18.78	I	C	SP	P
NDI	78.697	301.91	5.49	18.78	I	C	SP	P
PRU	78.717	354.32	5.49	18.78	I	C	SP	P
DOU	78.872	0.85	5.45	18.64	E	C	LP	P
SPC	79.038	350.46	5.45	18.64	I	C	SP	P
GRF	79.180	356.48	5.45	18.64	I	C	SP	P
CTA	79.208	217.62	5.45	18.64	I	C	SP	P
CTAO	79.208	217.62	5.45	18.64	E	N	LP	P
WLF	79.310	359.83	5.41	18.50	E	C	LP	P
KHC	79.629	354.87	5.41	18.50	I	C	SP	P
WET	79.652	355.34	5.41	18.50	I	C	SP	P
JOS	79.692	350.15	5.41	18.50	I	C	SP	P
GWF	79.987	358.84	5.37	18.36	I	C	SP	P
FLN	80.064	4.28	5.37	18.36	I	C	SP	P
STU	80.163	357.78	5.37	18.36	I	C	LP	P
LDF	80.249	4.05	5.37	18.36	I	C	SP	P
BUH	80.280	358.43	5.31	18.15	I	C	SP	P
VKA	80.309	352.95	5.31	18.15	I	C	SP	P
PSZ	80.329	350.49	5.31	18.15	I	C	SP	P
GRR	80.419	4.56	5.31	18.15	I	C	SP	P
CDF	80.556	359.06	5.31	18.15	I	C	SP	P
SRO	80.589	351.55	5.31	18.15	I	C	SP	P
KMR	80.667	354.41	5.31	18.15	I	C	LP	P
FUR	80.703	356.35	5.31	18.15	I	C	SP	P
ECH	80.754	359.14	5.26	17.97	I	C	SP	P
LPF	80.766	4.71	5.26	17.97	I	C	SP	P
MHI	80.838	318.80	5.26	17.97	I	C	LP	P
BUD	80.848	351.02	5.26	17.97	I	C	SP	P
HAU	80.970	359.69	5.26	17.97	I	C	SP	P
BHG	81.072	355.23	5.26	17.97	I	C	SP	P
BAF	81.137	359.25	5.26	17.97	I	C	SP	P
BSF	81.141	359.38	5.26	17.97	I	C	SP	P
GAP	81.399	356.45	5.22	17.83	I	C	SP	P
ZUL	81.471	358.28	5.22	17.83	I	C	LP	P

Table 11. Station data for event 159 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KBA	81.689	354.86	5.22	17.83	I	C	SP	P
LOR	81.693	1.40	5.22	17.83	I	C	SP	P
SSF	81.893	1.65	5.18	17.69	I	C	SP	P
OGA	82.009	356.44	5.18	17.69	I	C	SP	P
LLS	82.071	357.85	5.18	17.69	I	C	LP	P
AVF	82.162	1.76	5.18	17.69	I	C	SP	P
MFF	82.236	4.20	5.18	17.69	I	C	SP	P
CMP	82.296	346.48	5.14	17.55	I	C	SP	P
SMF	82.315	1.42	5.14	17.55	I	C	SP	P
BGF	82.384	2.12	5.14	17.55	I	C	SP	P
TCF	82.637	2.57	5.14	17.55	I	C	SP	P
LSF	82.654	3.05	5.14	17.55	I	C	SP	P
QUE	82.671	310.18	5.14	17.55	I	C	LP	P
MZF	82.719	2.31	5.14	17.55	I	C	SP	P
TMA	82.837	357.91	5.12	17.47	I	C	LP	P
DIX	82.887	358.93	5.12	17.47	I	C	LP	P
MMK	82.909	358.54	5.12	17.47	I	C	LP	P
CEY	82.957	353.99	5.12	17.47	I	C	LP	P
BUC1	83.046	345.59	5.12	17.47	I	C	SP	P
SAL	83.286	356.72	5.09	17.37	I	C	SP	P
RJF	83.598	3.10	5.09	17.37	I	C	SP	P
LFF	83.937	3.68	5.05	17.23	I	C	SP	P
CAF	83.994	2.73	5.05	17.23	I	C	SP	P
TAB	84.126	329.02	5.05	17.23	E	C	LP	P
WB2	84.134	227.77	5.05	17.23	I	C	SP	P
LPO	84.207	3.37	5.05	17.23	I	C	SP	P
VTS	85.173	347.26	4.99	17.02	I	C	SP	P
DIM	85.362	345.41	4.96	16.91	I	C	SP	P
FRF	85.414	359.45	4.96	16.91	I	C	SP	P
LRG	85.521	359.66	4.96	16.91	I	C	SP	P
LMR	85.641	359.55	4.96	16.91	I	C	SP	P
TRT	85.696	252.13	4.96	16.91	I	C	SP	P
KDZ	85.795	345.50	4.91	16.74	I	C	SP	P
EPF	85.822	4.08	4.91	16.74	I	C	SP	P
SKO	86.022	348.44	4.91	16.74	I	C	SP	P
LGR	86.233	6.21	4.91	16.74	I	C	SP	P
CVF	86.373	357.79	4.86	16.56	I	C	SP	P
VAY	86.515	347.49	4.86	16.56	I	C	SP	P
SJG	86.724	64.99	4.86	16.56	E	C	LP	P
OHR	86.950	348.77	4.83	16.46	I	C	SP	P
PTO	86.973	10.91	4.83	16.46	I	C	LP	P
RMP	86.975	354.90	4.83	16.46	I	C	SP	P
DST	87.212	342.60	4.83	16.46	I	C	SP	P
EZN	87.407	344.38	4.80	16.35	I	C	SP	P
SGO	88.047	352.83	4.77	16.25	I	C	SP	P
POO	88.667	298.39	4.75	16.18	I	C	SP	P
TOL	88.678	7.63	4.75	16.18	I	C	LP	P
CAR	92.336	70.11	4.66	15.86	I	C	SP	P
BNG	123.327	344.84	1.87	6.29	I	C	SP	PKP
LPA	132.157	95.74	1.84	6.20	E	C	LP	PKP

Table 11. Station data for event 159 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
JOZ	148.964	310.47	1.59	5.35	I	C	SP	PKP
SLR	149.197	317.86	1.59	5.35	I	C	SP	PKP
EVA	149.531	315.91	1.56	5.25	I	C	SP	PKP
PRY	150.586	318.03	1.53	5.15	I	C	SP	PKP
SWZ	151.682	321.33	1.50	5.04	I	C	SP	PKP
BLF	153.037	317.96	1.46	4.92	I	C	SP	PKP
SUR	158.053	324.34	1.26	4.24	I	C	SP	PKP

Table 12. Station data for event 165.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NEW	18.382	119.83	12.30	46.15	I	D	SP	P
COR	19.012	137.37	12.19	45.62	E	D	LP	P
LDM	19.032	116.61	12.19	45.62	I	D	LP	P
FCC	23.616	72.68	9.69	34.62	I	C	SP	P
JAS	25.920	139.93	9.38	33.36	I	D	SP	P
JAS	25.920	139.93	9.38	33.36	E	D	LP	P
RSSD	27.465	109.04	9.24	32.80	I	C	LP	P
RSON	27.919	88.07	9.19	32.60	I	C	LP	P
GOL	30.325	116.31	8.86	31.30	E	N	LP	P
ANMO	33.830	122.56	8.62	30.36	I	D	LP	P
GDH	35.263	38.09	8.53	30.01	I	C	LP	P
TUL	37.813	109.20	8.38	29.43	E	D	LP	P
GBO	38.147	108.60	8.38	29.43	I	C	SP	P
DAG	38.619	18.13	8.35	29.31	I	C	SP	P
AAM	38.809	90.86	8.33	29.23	E	C	LP	P
GAC	40.409	80.47	8.24	28.89	I	C	LP	P
JCT	40.524	118.34	8.24	28.89	E	C	LP	P
HON	40.624	204.33	8.24	28.89	E	C	LP	P
ATX	41.523	116.28	8.19	28.70	I	C	SP	P
RSNY	41.705	80.96	8.19	28.70	I	C	LP	P
HKT	42.751	114.32	8.11	28.39	I	C	SP	P
SCP	42.823	87.42	8.11	28.39	I	C	LP	P
RSCP	42.999	99.16	8.11	28.39	I	C	LP	P
BLA	44.294	92.97	8.02	28.05	E	C	LP	P
WES	44.878	80.59	8.00	27.97	I	C	LP	P
SHA	45.733	105.73	7.97	27.86	I	C	LP	P
AKU	47.505	28.04	7.85	27.40	I	C	SP	P
KEV	50.056	5.29	7.66	26.69	I	C	LP	P
BEC	55.973	83.33	7.18	24.90	E	C	LP	P
BER	56.981	19.03	7.11	24.64	I	C	LP	P
SUF	57.019	6.86	7.11	24.64	I	C	SP	P
KONO	58.343	16.88	7.00	24.23	I	C	LP	P
KON	58.343	16.88	7.00	24.23	I	C	LP	P
SHK	58.845	285.75	6.96	24.08	E	C	LP	P
NUR	59.120	8.05	6.96	24.08	I	C	SP	P
UPP	59.146	12.21	6.96	24.08	I	C	SP	P
DMU	60.546	29.07	6.84	23.64	I	C	SP	P
DCN	60.964	29.56	6.80	23.50	I	C	SP	P
DDK	61.153	28.95	6.80	23.50	I	C	SP	P
DLE	61.195	29.12	6.80	23.50	I	C	SP	P
MUD	61.347	18.18	6.76	23.35	I	C	SP	P
BJI	61.840	301.78	6.72	23.20	I	C	SP	P
COP	62.582	16.41	6.68	23.06	I	C	LP	P
COP	62.582	16.41	6.68	23.06	I	C	SP	P
HAM	64.353	18.63	6.52	22.47	I	C	SP	P
BRN	65.866	16.80	6.40	22.04	I	C	SP	P
UCC	65.923	23.10	6.40	22.04	E	C	LP	P
ENN	66.252	22.07	6.35	21.86	I	C	SP	P
DOU	66.638	23.18	6.35	21.86	E	C	LP	P
CLL	66.916	17.22	6.31	21.71	I	C	SP	P

Table 12. Station data for event 165 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SJG	67.078	93.56	6.31	21.71	I	C	LP	P
SSE	67.100	292.59	6.31	21.71	E	C	LP	P
MOX	67.350	18.32	6.27	21.57	I	C	LP	P
BRG	67.478	16.70	6.27	21.57	I	C	LP	P
HOF	67.714	18.23	6.27	21.57	I	C	SP	P
KSP	67.830	15.14	6.23	21.42	I	C	SP	P
GRFO	68.212	18.84	6.23	21.42	I	C	LP	P
GWF	68.284	21.49	6.19	21.28	I	C	SP	P
PRU	68.428	16.51	6.19	21.28	I	C	SP	P
BUH	68.684	21.16	6.19	21.28	I	C	SP	P
STU	68.763	20.47	6.15	21.14	E	C	LP	P
ECH	68.930	22.03	6.15	21.14	I	C	SP	P
WET	69.005	17.85	6.15	21.14	I	C	SP	P
KRA	69.044	12.84	6.15	21.14	I	C	SP	P
KHC	69.124	17.38	6.15	21.14	I	C	SP	P
BAF	69.265	22.26	6.11	20.99	I	C	SP	P
SLE	69.608	21.24	6.11	20.99	E	C	LP	P
FUR	69.702	19.20	6.11	20.99	I	C	SP	P
ZUL	69.864	21.39	6.07	20.85	E	C	LP	P
SPC	69.933	12.78	6.07	20.85	I	C	SP	P
LZH	70.247	308.66	6.07	20.85	I	C	SP	P
KMR	70.254	17.25	6.03	20.70	I	C	LP	P
VKA	70.360	15.68	6.03	20.70	I	C	SP	P
BHG	70.391	18.20	6.03	20.70	I	C	SP	P
JOS	70.649	12.70	6.03	20.70	I	C	SP	P
OGA	70.919	19.72	6.00	20.60	I	C	SP	P
DIX	71.030	22.49	6.00	20.60	E	C	LP	P
SRO	71.062	14.38	6.00	20.60	I	C	SP	P
PSZ	71.146	13.26	6.00	20.60	I	C	SP	P
MMK	71.163	22.10	6.00	20.60	E	C	LP	P
TMA	71.279	21.44	5.96	20.45	E	C	LP	P
PTO	71.814	35.76	5.92	20.31	I	C	LP	P
SAL	72.056	20.40	5.92	20.31	I	C	SP	P
TATO	72.135	288.91	5.92	20.31	I	C	LP	P
LGR	72.258	30.80	5.89	20.20	I	C	SP	P
TRI	72.489	18.06	5.89	20.20	I	C	SP	P
LIS	73.884	37.15	5.78	19.81	I	C	SP	P
CLO	74.271	11.64	5.75	19.70	I	C	SP	P
MNS	75.552	19.62	5.68	19.45	I	C	SP	P
AQU	75.704	19.09	5.68	19.45	I	C	SP	P
RMP	76.116	19.74	5.65	19.35	I	C	SP	P
PVL	76.405	10.16	5.61	19.20	I	C	SP	P
CRT	76.905	33.50	5.58	19.10	I	C	SP	P
SKO	77.192	13.13	5.58	19.10	I	C	SP	P
SGO	77.760	18.04	5.52	18.88	I	C	SP	P
HKC	77.831	293.50	5.52	18.88	E	C	LP	P
OHR	77.967	13.75	5.52	18.88	I	C	SP	P
EDC	79.403	8.42	5.41	18.49	I	C	SP	P
EZN	79.800	9.66	5.37	18.35	I	C	SP	P
BAG	79.895	285.18	5.37	18.35	E	C	LP	P

Table 12. Station data for event 165 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KMI	80.353	304.24	5.31	18.14	I	C	LP	P
IZM	81.294	9.08	5.22	17.82	I	C	SP	P
ATH	81.393	11.94	5.22	17.82	I	C	SP	P
TAB	81.875	353.94	5.18	17.68	E	C	LP	P
PGP	82.218	283.40	5.18	17.68	I	C	SP	P
PLP	82.256	278.79	5.14	17.54	I	C	SP	P
MHI	82.326	343.19	5.14	17.54	I	C	LP	P
BCK	82.452	6.51	5.14	17.54	I	C	SP	P
ELL	83.120	7.11	5.12	17.47	I	C	SP	P
KKN	84.395	319.72	5.02	17.12	I	C	SP	P
PKI	84.557	319.54	5.02	17.12	I	C	SP	P
DMN	84.619	319.80	5.02	17.12	I	C	SP	P
DAV	85.466	276.23	4.96	16.91	I	C	LP	P
ZOBO	95.872	112.46	4.55	15.47	I	C	LP	P
CTA	98.879	245.11	4.48	15.23	I	C	SP	P
BNG	113.624	22.03	1.88	6.34	I	C	SP	PKP
AVY	138.246	347.13	1.79	6.03	I	C	SP	PKP
SLR	144.786	16.45	1.68	5.67	I	C	SP	PKP
BPI	145.182	16.96	1.68	5.67	I	C	SP	PKP
EVA	145.653	15.42	1.66	5.60	I	C	SP	PKP
SWZ	145.723	21.48	1.66	5.60	I	C	SP	PKP
PRY	145.838	18.05	1.66	5.60	I	C	SP	PKP

Table 13. Station data for event 172.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COL	3.892	356.81	14.19	85.08	I	C	LP	P
RSNT	15.455	70.34	12.85	64.45	I	C	SP	P
ADK	18.496	253.58	12.26	59.41	I	C	SP	P
NEW	21.393	112.98	10.04	44.82	I	D	SP	P
YKM	21.593	110.00	10.04	44.82	I	D	LP	P
COR	21.735	128.34	10.04	44.82	I	D	SP	P
COR	21.735	128.34	10.04	44.82	I	D	LP	P
BKS	27.989	134.44	9.18	40.13	I	D	LP	P
JAS	28.565	131.69	9.10	39.71	I	D	SP	P
JAS	28.565	131.69	9.10	39.71	E	D	LP	P
BDW	29.003	111.71	9.03	39.35	I	D	SP	P
RSSD	30.532	103.72	8.86	38.47	I	D	LP	P
RSON	30.819	84.63	8.82	38.26	I	D	LP	P
PAS	32.777	131.81	8.68	37.55	I	D	SP	P
GOL	33.362	110.41	8.65	37.40	I	D	LP	P
GDH	36.416	36.81	8.47	36.49	I	D	LP	P
ANMO	36.806	116.29	8.44	36.34	E	D	LP	P
ALQ	36.808	116.30	8.44	36.34	E	D	LP	P
DAG	38.729	16.74	8.35	35.89	I	D	SP	P
EPT	39.497	118.99	8.29	35.60	I	D	LP	P
HON	40.381	195.53	8.24	35.35	I	D	LP	P
SCH	40.646	61.22	8.24	35.35	I	D	SP	P
TUL	40.879	103.90	8.21	35.20	I	D	LP	P
GBO	41.214	103.34	8.21	35.20	I	D	SP	P
FVM	41.789	96.81	8.15	34.91	I	D	SP	P
UTO	42.271	87.23	8.13	34.81	I	D	SP	P
GAC	43.148	76.80	8.10	34.66	I	D	LP	P
JCT	43.544	112.52	8.07	34.51	I	D	SP	P
RSNY	44.455	77.20	8.02	34.27	I	D	LP	P
RSCP	46.031	94.41	7.93	33.83	I	D	LP	P
RSCP	46.031	94.41	7.93	33.83	I	D	SP	P
BLA	47.261	88.50	7.84	33.40	I	D	LP	P
WES	47.617	76.69	7.84	33.40	I	D	LP	P
SHA	48.798	100.62	7.74	32.92	I	D	LP	P
KEV	49.447	2.61	7.70	32.73	E	N	LP	P
MAJO	51.501	277.39	7.54	31.96	I	D	LP	P
MAT	51.501	277.39	7.54	31.96	I	D	SP	P
SHK	55.780	280.45	7.18	30.27	I	D	SP	P
BER	57.089	15.79	7.11	29.95	I	D	LP	P
KONO	58.334	13.55	6.99	29.39	I	D	LP	P
ESK	60.580	22.65	6.84	28.70	I	D	LP	P
VAL	62.271	28.47	6.68	27.97	I	D	LP	P
COP	62.540	12.78	6.68	27.97	E	D	SP	P
SSE	64.043	287.49	6.55	27.38	E	D	LP	P
HAM	64.426	14.88	6.51	27.20	I	D	SP	P
DBN	65.096	18.33	6.47	27.02	I	D	LP	P
WTS	65.442	17.28	6.43	26.84	I	D	SP	P
UCC	66.231	19.23	6.39	26.66	I	D	LP	P
CLL	66.909	13.31	6.30	26.25	I	D	SP	P
DOU	66.950	19.26	6.30	26.25	E	D	LP	P

Table 13. Station data for event 172 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MOX	67.401	14.37	6.26	26.07	I	D	SP	P
BRG	67.443	12.75	6.26	26.07	I	D	SP	P
GUMO	67.518	257.08	6.26	26.07	E	D	LP	P
GUA	67.539	257.01	6.26	26.07	E	D	LP	P
WLF	67.613	18.32	6.26	26.07	E	D	LP	P
KSP	67.710	11.17	6.26	26.07	I	D	SP	P
GRFO	68.289	14.84	6.18	25.72	I	D	LP	P
PRU	68.381	12.51	6.18	25.72	I	D	SP	P
GWF	68.502	17.48	6.18	25.72	I	D	SP	P
KRA	68.799	8.79	6.14	25.54	I	D	SP	P
ANP	68.878	283.80	6.14	25.54	I	D	LP	P
TATO	69.068	283.71	6.14	25.54	I	D	LP	P
KHC	69.122	13.32	6.14	25.54	I	D	SP	P
SJG	70.050	88.63	6.07	25.23	E	D	LP	P
KMR	70.244	13.13	6.07	25.23	I	D	LP	P
VIE	70.286	11.53	6.03	25.05	I	D	LP	P
BHG	70.431	14.07	6.03	25.05	I	D	SP	P
KBA	71.119	13.86	5.99	24.87	I	D	SP	P
PTO	72.774	31.47	5.85	24.25	I	D	SP	P
PTO	72.774	31.47	5.85	24.25	I	D	LP	P
LGR	72.962	26.51	5.85	24.25	I	D	SP	P
TOL	75.072	28.47	5.71	23.64	I	D	SP	P
MNS	75.660	15.19	5.68	23.50	I	D	SP	P
DUI	76.593	13.96	5.61	23.20	I	D	SP	P
BAG	76.832	279.93	5.58	23.07	E	D	LP	P
KMI	77.410	299.19	5.55	22.93	E	D	LP	P
CRT	77.742	28.95	5.55	22.93	I	D	SP	P
MAL	77.989	29.72	5.52	22.80	I	D	LP	P
THE	78.387	7.56	5.48	22.63	I	D	SP	P
LIT	78.885	7.98	5.45	22.50	I	D	SP	P
EDC	78.907	3.78	5.45	22.50	I	D	SP	P
RAB	79.898	241.90	5.36	22.11	I	D	LP	P
MHI	80.583	338.35	5.30	21.85	I	D	LP	P
TAB	80.635	349.15	5.30	21.85	I	D	LP	P
IZM	80.831	4.34	5.26	21.67	I	D	SP	P
ATH	81.082	7.19	5.26	21.67	I	D	SP	P
HNR	81.461	232.60	5.21	21.46	E	D	LP	P
KKN	81.789	314.70	5.17	21.28	I	D	SP	P
PKI	81.945	314.51	5.17	21.28	I	D	SP	P
DMN	82.015	314.77	5.17	21.28	I	D	SP	P
DAV	82.463	270.95	5.14	21.15	E	D	LP	P
NDI	83.577	321.70	5.08	20.90	I	D	SP	P
CHG	84.603	299.45	5.02	20.64	I	D	SP	P
CHG	84.603	299.45	5.02	20.64	I	D	LP	P
QUE	84.928	330.72	4.99	20.51	I	D	LP	P
PVC	86.155	221.94	4.90	20.12	I	D	SP	P
HUA	91.919	111.45	4.67	19.14	I	D	SP	P
POO	94.130	321.26	4.61	18.89	I	D	SP	P
SNG	94.207	292.80	4.61	18.89	I	D	LP	P
CTAO	96.627	240.17	4.54	18.59	I	D	LP	P

Table 13. Station data for event 172 ... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CTA	96.627	240.17	4.54	18.59	I	D	LP	P
ZOBO	98.929	107.27	4.48	18.33	I	D	LP	P
TRT	101.581	275.08	4.45	18.21	I	D	SP	Pdf
TOO	112.364	232.40	1.89	7.63	I	D	SP	PKP
BNG	113.804	15.47	1.88	7.60	I	D	SP	PKP
KLG	116.997	254.94	1.88	7.58	I	D	SP	PKP
BAL	119.102	258.93	1.88	7.56	I	D	SP	PKP
KLB	119.418	257.44	1.88	7.56	I	D	SP	PKP
NWAO	120.769	257.00	1.87	7.55	I	D	SP	PKP
BUL	139.050	5.88	1.78	7.18	I	D	SP	PKP
SLR	144.588	6.91	1.68	6.79	I	D	SP	PKP
KSR	144.623	9.08	1.68	6.79	I	D	SP	PKP
BPI	145.009	7.35	1.68	6.79	I	D	SP	PKP
EVA	145.396	5.74	1.68	6.79	I	D	SP	PKP
PRY	145.721	8.33	1.66	6.71	I	D	SP	PKP
JOZ	146.418	1.02	1.66	6.71	I	D	SP	PKP

Table 14. Station data for event 189.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CFI	0.245	328.13	7.45	148.31	I	C	SP	P
PWL	0.424	254.35	11.60	125.11	I	C	SP	P
VLZ	0.589	74.13	13.26	110.76	I	D	SP	P
KNK	0.637	313.84	13.26	110.76	I	C	SP	P
SCM	0.865	5.43	13.95	100.35	I	C	SP	P
PMR	1.001	308.85	14.02	98.64	I	C	SP	P
PMS	1.036	285.98	14.02	98.64	I	C	SP	P
TOA	1.299	28.73	14.13	94.85	I	D	SP	P
PWA	1.333	301.58	14.13	94.85	I	C	SP	P
PCA	3.686	100.67	14.16	86.90	I	C	SP	P
COL	3.942	358.18	14.15	86.22	I	C	LP	P
FBA	3.942	358.18	14.15	86.22	I	C	SP	P
COL	3.942	358.18	14.15	86.22	I	C	SP	P
SVW	3.953	275.47	14.14	85.65	I	D	SP	P
KDC	4.124	220.45	14.14	94.35	I	D	SP	P
TTA	4.476	299.68	14.12	84.69	I	C	SP	P
IMA	5.809	334.29	14.03	81.64	I	C	SP	P
NEW	21.468	112.57	10.03	45.02	I	D	SP	P
COR	21.783	127.88	9.92	44.39	I	D	SP	P
RXF	21.941	108.84	9.92	44.39	I	D	LP	P
LRM	25.413	110.63	9.41	41.57	I	D	SP	P
WDC	25.519	131.75	9.41	41.57	I	D	SP	P
BKS	28.025	134.04	9.17	40.29	I	D	LP	P
JAS	28.607	131.30	9.09	39.87	I	D	SP	P
JAS	28.607	131.30	9.09	39.87	I	D	LP	P
RSSD	30.620	103.40	8.85	38.61	I	D	LP	P
RSON	30.928	84.37	8.82	38.46	I	D	LP	P
ALQ	36.878	115.98	8.44	36.52	I	D	SP	P
ANMO	36.875	115.98	8.44	36.52	I	D	LP	P
DAG	38.811	16.66	8.32	35.92	I	C	SP	P
EPT	39.562	118.68	8.29	35.77	I	D	LP	P
HON	40.300	195.24	8.23	35.48	E	D	LP	P
TUL	40.967	103.62	8.21	35.38	I	D	LP	P
RLO	41.125	102.63	8.21	35.38	I	D	SP	P
UTO	42.378	86.99	8.12	34.93	I	D	SP	P
BHO	42.651	104.02	8.12	34.93	I	D	SP	P
GAC	43.262	76.58	8.07	34.69	I	D	LP	P
JCT	43.619	112.24	8.07	34.69	I	D	LP	P
MNT	44.288	75.38	8.02	34.44	I	D	SP	P
MRG	45.698	85.81	7.96	34.15	I	C	SP	P
SCP	45.814	83.05	7.93	34.00	I	D	LP	P
RSCP	46.131	94.16	7.93	34.00	I	D	LP	P
BLA	47.367	88.27	7.84	33.56	I	D	SP	P
WES	47.732	76.48	7.84	33.56	E	D	LP	P
SHA	48.891	100.37	7.73	33.03	I	D	LP	P
KEV	49.507	2.51	7.69	32.84	I	D	LP	P
MAT	51.404	277.26	7.53	32.07	I	C	SP	P
MAJO	51.404	277.26	7.53	32.07	I	D	LP	P
CN2	51.667	292.79	7.53	32.07	I	D	SP	P
SNY	54.069	292.64	7.33	31.12	I	D	SP	P

Table 14. Station data for event 189 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KJF	55.096	2.55	7.25	30.75	I	D	LP	P
SUF	56.540	3.50	7.14	30.23	I	D	SP	P
BER	57.170	15.66	7.10	30.04	I	D	LP	P
DL2	57.303	292.01	7.07	29.90	I	D	SP	P
KONO	58.412	13.42	6.99	29.53	I	D	LP	P
KON	58.412	13.42	6.99	29.53	E	D	LP	P
NUR	58.702	4.54	6.99	29.53	I	D	LP	P
BJI	58.796	296.85	6.95	29.35	I	D	LP	P
ESK	60.671	22.50	6.84	28.84	E	D	LP	P
MUD	61.481	14.49	6.75	28.42	I	C	SP	P
DCN	61.717	25.83	6.75	28.42	I	D	SP	P
DLE	61.925	25.38	6.71	28.24	I	D	SP	P
ETA	62.550	25.40	6.67	28.06	I	D	SP	P
COP	62.616	12.64	6.67	28.06	I	D	LP	P
COP	62.616	12.64	6.67	28.06	I	D	SP	P
ECB	62.740	25.90	6.67	28.06	I	D	SP	P
ECP	63.002	25.70	6.63	27.87	I	D	SP	P
HAM	64.506	14.73	6.51	27.33	I	D	SP	P
DBN	65.181	18.18	6.47	27.15	I	D	LP	P
WTS	65.525	17.13	6.43	26.96	I	D	SP	P
BRN	65.916	12.81	6.39	26.78	I	D	SP	P
GTA	66.033	308.53	6.39	26.78	I	D	SP	P
UCC	66.318	19.08	6.34	26.56	E	D	LP	P
WMQ	66.374	319.55	6.34	26.56	I	D	SP	P
BNS	66.584	17.15	6.34	26.56	I	D	SP	P
ENN	66.591	18.04	6.34	26.56	I	D	SP	P
KLL	66.767	17.81	6.30	26.38	I	D	SP	P
STB	66.894	17.46	6.30	26.38	I	D	SP	P
CLL	66.987	13.16	6.30	26.38	I	D	SP	P
DOU	67.036	19.11	6.30	26.38	E	D	LP	P
BGG	67.346	17.22	6.26	26.20	I	D	SP	P
GUMO	67.404	256.90	6.26	26.20	E	D	LP	P
GUA	67.425	256.84	6.26	26.20	I	D	LP	P
FLN	67.434	22.96	6.26	26.20	I	D	SP	P
MOX	67.480	14.22	6.26	26.20	I	D	LP	P
BRG	67.520	12.60	6.26	26.20	I	D	SP	P
LDF	67.664	22.77	6.26	26.20	I	D	SP	P
WLF	67.698	18.16	6.26	26.20	E	D	LP	P
GRR	67.720	23.34	6.26	26.20	I	D	SP	P
KSP	67.784	11.02	6.22	26.02	I	D	SP	P
HOF	67.839	14.11	6.22	26.02	I	D	SP	P
LPF	68.026	23.58	6.22	26.02	I	D	SP	P
GRF	68.371	14.69	6.18	25.84	I	D	SP	P
GWF	68.586	17.32	6.18	25.84	I	D	SP	P
ANP	68.790	283.65	6.14	25.66	I	D	LP	P
KRA	68.869	8.64	6.14	25.66	I	D	SP	P
TATO	68.980	283.55	6.14	25.66	I	D	LP	P
STU	69.009	16.28	6.14	25.66	I	D	LP	P
WET	69.106	13.65	6.14	25.66	I	D	SP	P
KHC	69.200	13.17	6.14	25.66	I	D	SP	P

Table 14. Station data for event 189 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ECH	69.261	17.83	6.10	25.48	I	D	SP	P
GRC	69.495	20.92	6.10	25.48	I	D	SP	P
MFF	69.571	23.39	6.10	25.48	I	D	SP	P
BAF	69.609	18.03	6.10	25.48	I	D	SP	P
LOR	69.656	20.38	6.10	25.48	I	D	SP	P
ROF	69.745	18.13	6.10	25.48	I	D	SP	P
SSF	69.796	20.68	6.06	25.30	I	D	SP	P
FUR	69.878	14.96	6.06	25.30	I	D	SP	P
LBF	69.951	20.37	6.06	25.30	I	D	SP	P
AVF	70.032	20.86	6.06	25.30	I	D	SP	P
SMF	70.257	20.55	6.03	25.16	I	D	SP	P
TCF	70.315	21.81	6.03	25.16	I	D	SP	P
KMR	70.321	12.98	6.03	25.16	I	D	LP	P
VKA	70.340	11.41	6.03	25.16	I	D	SP	P
QZH	70.373	285.93	6.03	25.16	I	D	SP	P
MZF	70.452	21.56	6.03	25.16	I	D	SP	P
JOS	70.465	8.41	6.03	25.16	I	D	SP	P
BHG	70.510	13.92	6.03	25.16	I	D	SP	P
PSZ	70.991	8.93	5.99	24.99	I	D	SP	P
OGA	71.121	15.40	5.99	24.99	I	D	SP	P
RJF	71.136	22.58	5.99	24.99	I	D	SP	P
KBA	71.198	13.71	5.99	24.99	I	D	SP	P
LFF	71.342	23.25	5.95	24.81	I	D	SP	P
CAF	71.604	22.29	5.95	24.81	I	D	SP	P
LPO	71.673	22.99	5.95	24.81	I	D	SP	P
TRI	72.597	13.64	5.88	24.50	I	D	SP	P
PTO	72.875	31.31	5.85	24.36	I	D	LP	P
PTO	72.875	31.31	5.85	24.36	I	D	SP	P
EPF	73.099	24.08	5.85	24.36	I	D	SP	P
FRF	73.722	19.29	5.81	24.19	I	D	SP	P
LRG	73.778	19.52	5.78	24.05	I	D	SP	P
LMR	73.920	19.44	5.78	24.05	I	D	SP	P
CMP	73.948	5.48	5.78	24.05	I	D	SP	P
GZH	74.404	289.28	5.74	23.88	I	C	SP	P
LIS	75.013	32.56	5.71	23.74	I	D	SP	P
CVF	75.037	17.85	5.71	23.74	I	D	SP	P
TOL	75.170	28.30	5.71	23.74	I	D	LP	P
TOV	75.537	95.98	5.67	23.57	I	D	SP	P
PVL	76.071	5.52	5.64	23.44	I	D	SP	P
RMP	76.310	15.11	5.61	23.30	I	D	SP	P
BAG	76.739	279.76	5.61	23.30	I	D	LP	P
SKO	77.020	8.44	5.58	23.17	I	D	SP	P
AFI	77.100	204.18	5.58	23.17	I	D	LP	P
KMI	77.346	299.03	5.55	23.04	I	D	LP	P
MMB	77.549	6.73	5.55	23.04	I	D	SP	P
KDZ	77.581	5.48	5.55	23.04	I	D	SP	P
VAY	77.745	7.64	5.55	23.04	I	D	SP	P
SGO	77.858	13.32	5.52	22.91	I	D	SP	P
BOCO	78.008	102.34	5.52	22.91	I	D	LP	P
MAL	78.088	29.55	5.52	22.91	I	D	SP	P

Table 14. Station data for event 189 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
IST	78.302	2.71	5.48	22.73	I	D	SP	P
DST	79.731	3.04	5.41	22.43	I	D	SP	P
RAB	79.780	241.71	5.35	22.16	I	D	LP	P
ALT	80.311	1.89	5.30	21.95	I	D	SP	P
GUV	80.506	91.08	5.30	21.95	I	D	SP	P
ATH	81.150	7.02	5.26	21.77	I	D	SP	P
HNR	81.344	232.41	5.21	21.56	I	D	LP	P
KKN	81.753	314.53	5.17	21.38	I	D	SP	P
PKI	81.909	314.34	5.17	21.38	I	D	SP	P
BCK	81.910	1.54	5.17	21.38	I	D	SP	P
DMN	81.980	314.60	5.17	21.38	I	D	SP	P
DAV	82.360	270.77	5.14	21.25	I	D	LP	P
ELL	82.610	2.10	5.14	21.25	I	D	SP	P
NDI	83.555	321.53	5.08	20.99	I	D	SP	P
CHG	84.539	299.28	5.02	20.73	I	D	SP	P
TZZ	85.625	251.07	4.96	20.47	I	D	SP	P
BDT	85.909	298.52	4.90	20.21	I	D	SP	P
PMG	86.618	243.94	4.86	20.04	E	D	LP	P
PCT	87.135	295.30	4.83	19.91	I	D	SP	P
HLW	89.499	1.01	4.71	19.40	I	D	LP	P
KOU	90.013	224.33	4.71	19.40	I	D	SP	P
NOU	90.915	221.82	4.69	19.31	I	D	SP	P
POO	94.107	321.06	4.61	18.97	I	D	SP	P
CTA	96.509	239.98	4.54	18.67	I	D	LP	P
CTAO	96.509	239.98	4.54	18.67	I	D	LP	P
ZOBO	99.013	107.10	4.48	18.42	I	D	LP	P
BAL	118.989	258.72	1.88	7.60	I	D	SP	PKP
BUL	139.116	5.58	1.78	7.21	I	D	SP	PKP
SLR	144.655	6.59	1.68	6.82	I	D	LP	PKP
KSR	144.693	8.76	1.68	6.82	I	D	SP	PKP
BPI	145.077	7.03	1.68	6.82	I	D	SP	PKP
CNG	145.326	0.49	1.68	6.82	I	D	SP	PKP
EVA	145.461	5.42	1.68	6.82	I	D	SP	PKP
JOZ	146.474	0.68	1.66	6.73	I	D	SP	PKP
VIR	146.889	9.14	1.64	6.64	I	D	SP	PKP
SEK	147.186	7.95	1.64	6.64	I	D	SP	PKP
SUR	150.386	20.30	1.56	6.31	I	D	SP	PKP
MAW	165.377	230.13	0.91	3.68	I	D	SP	PKP

Figure 5. Azimuthal equidistant map for geographic subdivision Northeast United States and Southeastern Canada.

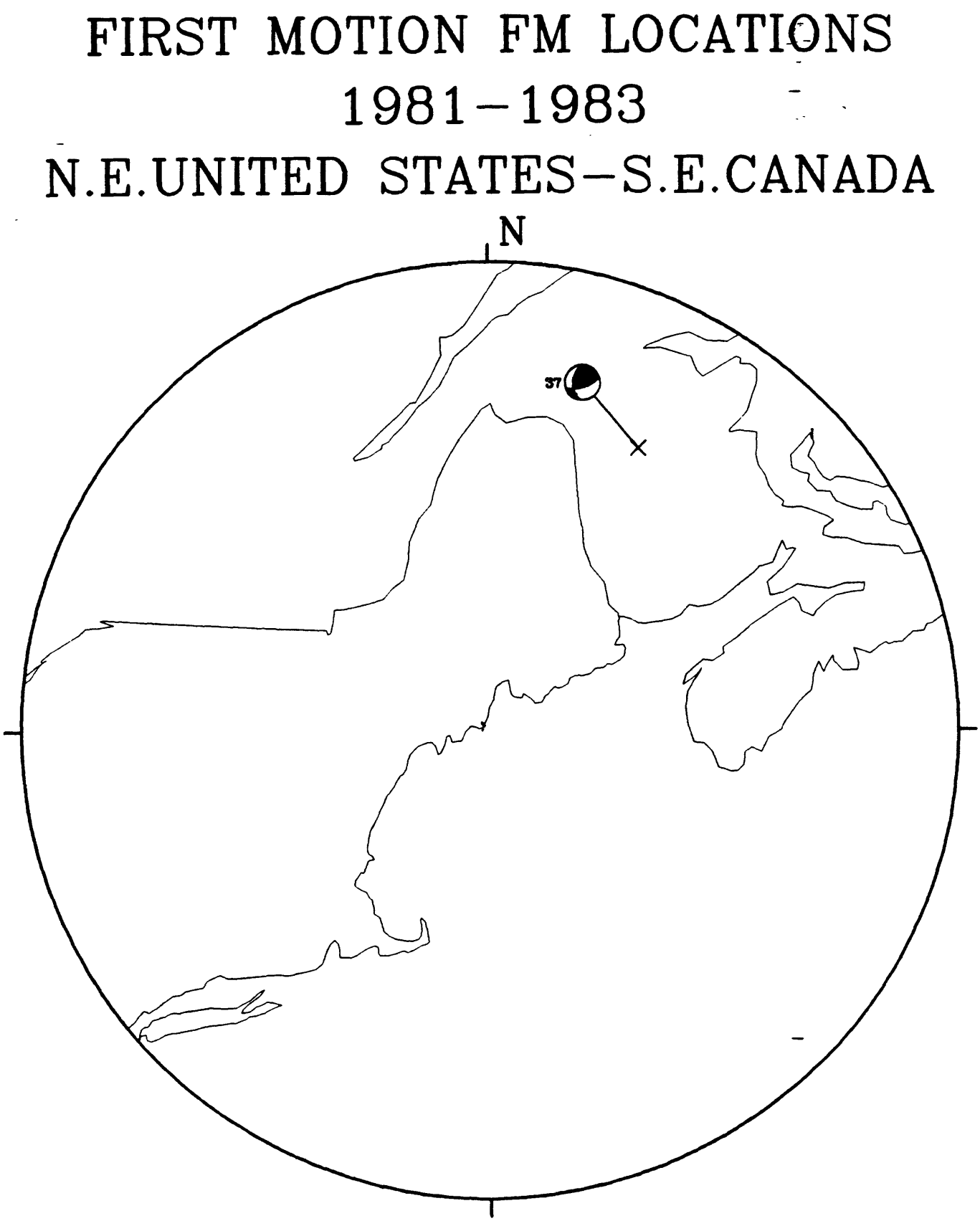

Table 15. Focal mechanism parameters for subdivision, Northeastern United States and Southeastern Canada.

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
037	72	68	130	186	45	32	50	27	14	134	37	235

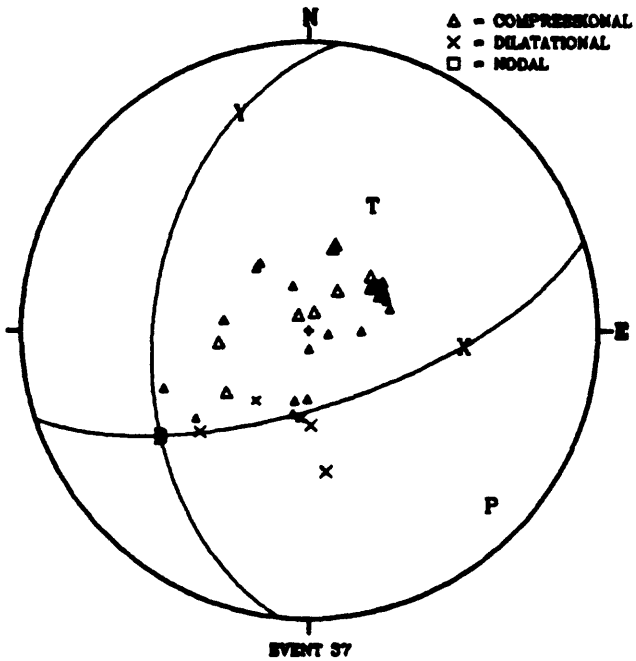

Figure 6. Lower hemisphere focal sphere projection for event 37.

Table 16. Station data for event 37.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PNY	5.273	248.44	14.13	45.15	I	C	SP	P
GEO	11.105	227.07	13.61	43.06	E	D	LP	P
NAV	14.237	232.35	13.16	41.32	I	C	SP	P
BEC	14.664	173.39	13.08	41.01	E	D	LP	P
SHA	23.223	233.15	9.78	29.38	E	C	LP	P
SJG	28.795	179.00	9.05	27.00	E	D	LP	P
ANMO	32.037	262.46	8.76	26.07	E	C	LP	P
DAG	35.414	17.15	8.53	25.34	E	C	LP	P
TOV	37.162	185.12	8.45	25.08	I	D	SP	P
DCN	37.592	57.77	8.42	24.99	I	C	SP	P
LPS	37.627	217.43	8.42	24.99	I	D	SP	P
DMU	37.662	56.80	8.42	24.99	I	C	SP	P
DLE	38.032	57.67	8.39	24.89	I	C	SP	P
SDV	38.112	186.38	8.39	24.89	I	D	SP	P
DDK	38.123	57.46	8.39	24.89	I	C	SP	P
DKM	38.202	57.65	8.39	24.89	I	C	SP	P
JAS	39.995	277.04	8.27	24.51	I	C	SP	P
KBS	42.160	16.41	8.16	24.17	E	C	LP	P
BOCO	42.712	190.89	8.13	24.07	I	C	SP	P
GRR	43.083	62.90	8.11	24.01	I	C	SP	P
FLN	43.160	62.25	8.11	24.01	I	C	SP	P
SSC	43.459	62.34	8.08	23.91	I	C	SP	P
MFF	44.273	64.95	8.03	23.76	I	C	SP	P
TOL	44.941	75.30	8.00	23.66	I	C	SP	P
COL	45.238	323.58	8.00	23.66	I	C	SP	P
FBA	45.238	323.58	8.00	23.66	I	C	SP	P
LSF	45.468	64.67	7.97	23.57	I	C	SP	P
LFF	45.576	66.66	7.97	23.57	I	C	SP	P
DOU	45.633	58.56	7.97	23.57	I	C	LP	P
TCF	45.871	64.32	7.94	23.48	I	C	SP	P
RJF	45.894	65.85	7.94	23.48	I	C	SP	P
ENN	46.120	57.21	7.94	23.48	I	C	SP	P
MZF	46.135	64.24	7.94	23.48	I	C	SP	P
EPF	46.233	69.18	7.94	23.48	I	C	SP	P
SSF	46.313	62.80	7.91	23.38	I	C	SP	P
AVF	46.343	63.20	7.91	23.38	I	C	SP	P
CAF	46.414	66.06	7.91	23.38	I	C	SP	P
LOR	46.434	62.39	7.91	23.38	E	C	LP	P
LOR	46.434	62.39	7.91	23.38	I	C	SP	P
LBF	46.635	62.69	7.91	23.38	I	C	SP	P
SMF	46.709	63.16	7.91	23.38	I	C	SP	P
PMR	46.927	319.52	7.88	23.29	I	C	SP	P
HAU	47.593	60.44	7.85	23.19	I	C	SP	P
COP	47.621	48.84	7.85	23.19	E	C	LP	P
CDF	47.955	59.57	7.82	23.10	I	C	SP	P
STU	48.912	58.34	7.75	22.88	E	C	LP	P
MOX	49.413	55.18	7.71	22.76	I	C	LP	P
GRFO	49.639	56.44	7.71	22.76	I	C	LP	P
GRF	49.643	56.44	7.71	22.76	I	C	SP	P
LRG	49.827	65.72	7.67	22.63	I	C	SP	P

Table 16. Station data for event 37 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
FRF	49.951	65.46	7.67	22.63	I	C	SP	P
LMR	49.983	65.78	7.67	22.63	I	C	SP	P
FUR	50.417	58.16	7.63	22.51	I	C	SP	P
BRG	50.605	53.99	7.63	22.51	I	C	LP	P
BRG	50.605	53.99	7.63	22.51	I	C	SP	P
WET	50.855	56.38	7.59	22.38	I	C	SP	P
KHC	51.260	56.10	7.55	22.26	I	C	SP	P
KMR	52.124	57.04	7.50	22.10	I	C	LP	P
VIE	53.295	55.85	7.38	21.73	I	C	LP	P
RMP	54.652	64.27	7.30	21.48	I	C	SP	P
GZR	58.542	55.70	7.00	20.56	I	C	SP	P
NNA	59.400	191.60	6.93	20.35	I	C	SP	P
LPB	63.225	181.55	6.64	19.46	I	C	SP	P
BNG	83.508	90.47	5.09	14.80	I	C	SP	P
KAAO	89.614	35.21	4.72	13.70	E	C	LP	P
KBL	89.614	35.21	4.72	13.70	E	C	LP	P
MAT	93.919	340.16	4.62	13.40	I	C	SP	P
BUL	107.971	100.39	1.89	5.44	I	C	SP	PKP
CHTO	113.243	14.85	1.89	5.43	E	C	LP	PKP
GUMO	113.419	326.36	1.89	5.43	E	C	LP	PKP
SPA	136.787	180.00	1.80	5.19	I	C	SP	PKP

Figure 7. Azimuthal equidistant map for geographic subdivision Western United States.

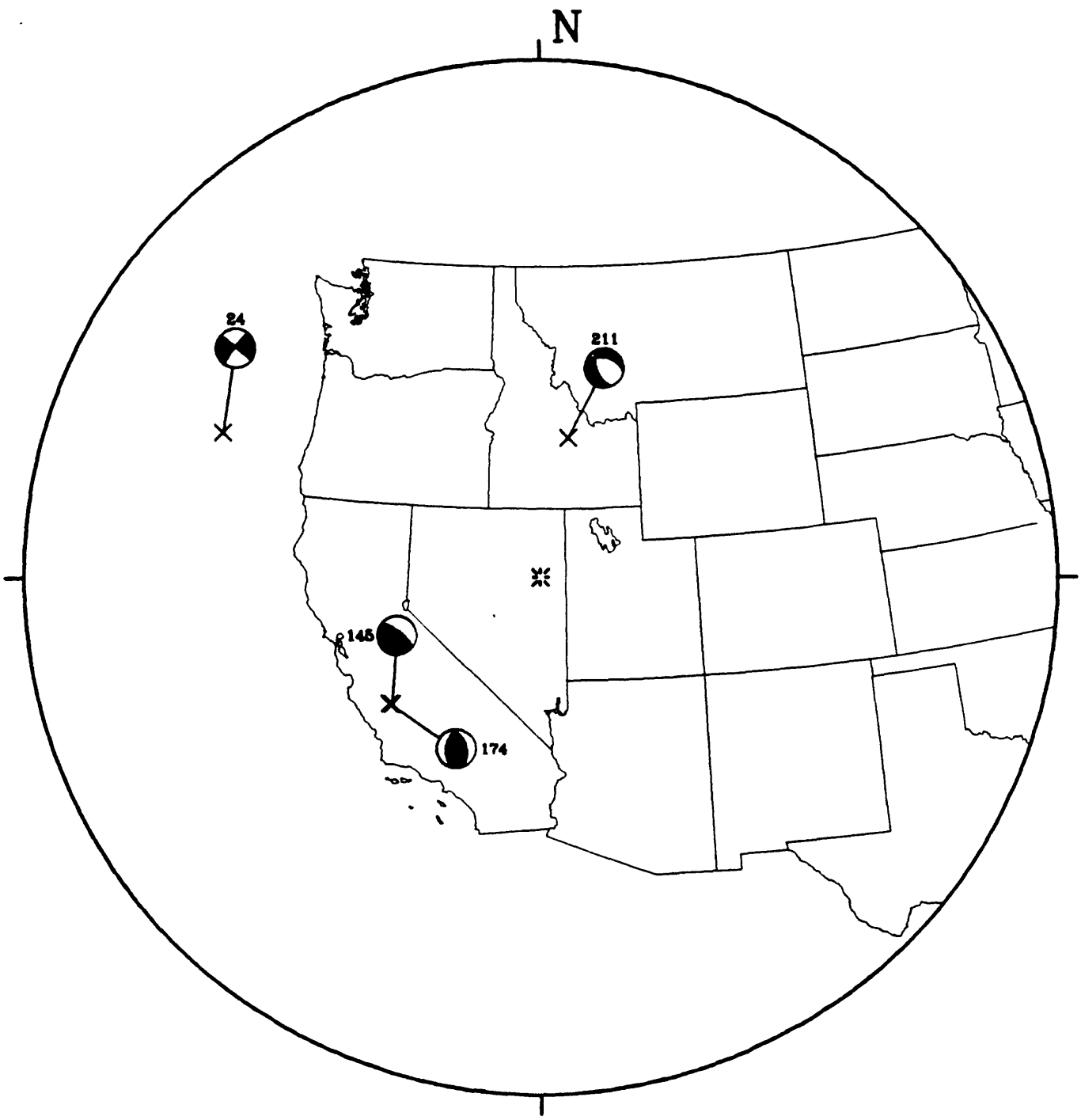

Table 17. Focal mechanism parameters for subdivision, Western United States.

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
24	218	85	356	308	82	185	1	83	6	173	84	247
145	307	70	90	127	20	90	65	217	25	37	0	127
174	345	45	75	186	47	105	79	170	1	266	11	356
211	158	59	-59	284	45	-134	8	224	59	121	29	318

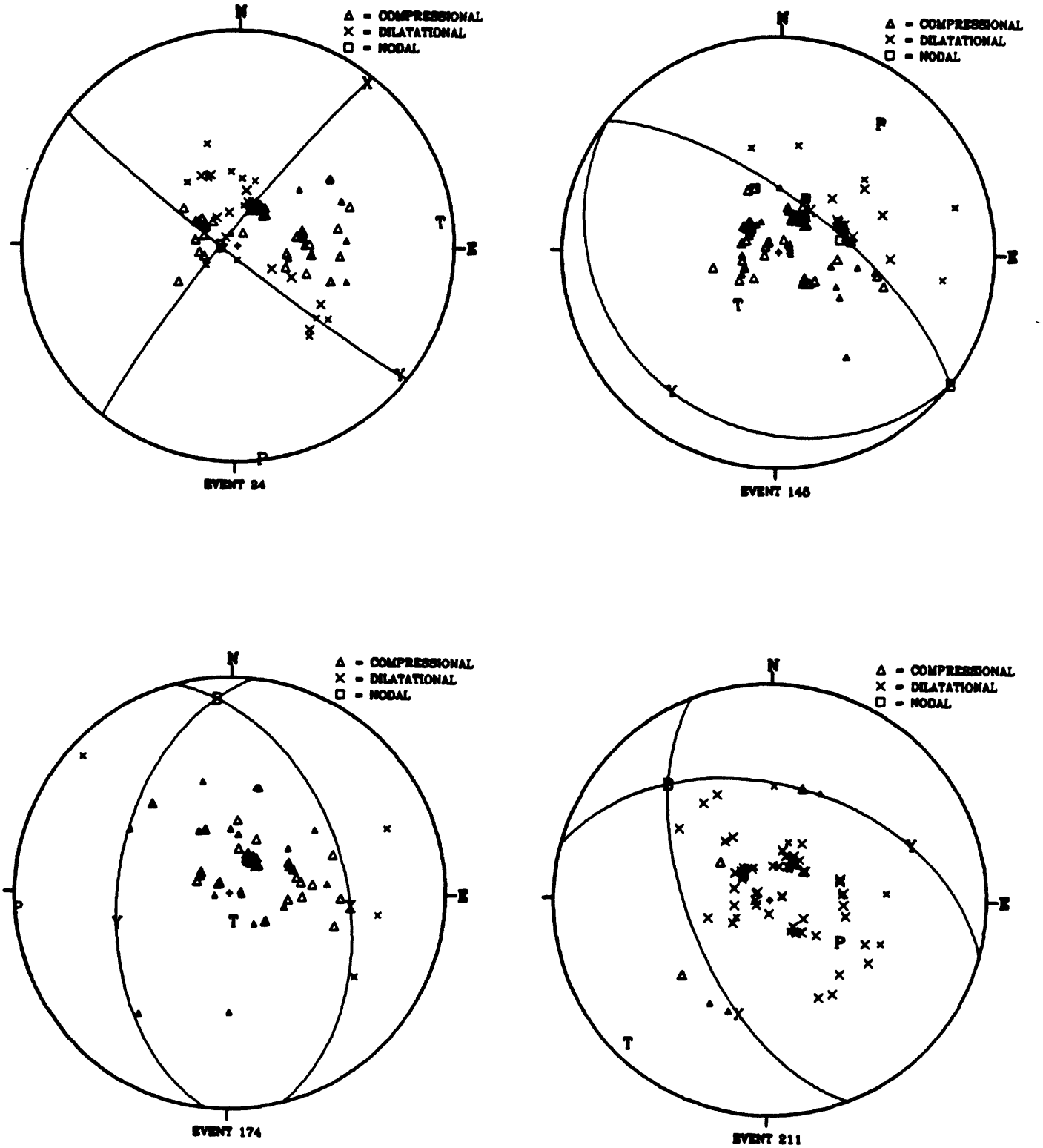

Figure 8. Lower hemisphere focal sphere projection for events 24, 145, 174, and 211.

Table 18. Station data for event 24.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COR	3.341	70.29	14.24	45.60	I	C	LP	P
ORV	6.126	128.44	14.10	45.02	I	D	SP	P
ARN	7.771	140.67	13.94	44.38	I	D	SP	P
BMN	8.405	108.13	13.89	44.18	I	C	SP	P
NEW	8.760	53.72	13.84	43.98	I	C	SP	P
YKM	9.868	53.21	13.73	43.54	I	C	SP	P
RXF	10.214	54.22	13.73	43.54	I	C	SP	P
MSO	10.259	66.55	13.67	43.30	I	C	SP	P
PAS	11.958	138.47	13.47	42.52	I	D	LP	P
BDW	13.269	87.06	13.25	41.66	I	C	SP	P
SIT	14.365	343.02	13.08	41.01	I	D	SP	P
GLA	14.539	131.78	13.08	41.01	I	D	SP	P
GOL	17.126	95.30	12.62	39.28	I	C	LP	P
GLD	17.217	95.01	12.62	39.28	I	C	LP	P
TUC	17.400	124.48	12.52	38.91	I	D	LP	P
RCD	17.680	79.79	12.52	38.91	I	C	LP	P
ALQ	18.528	110.44	12.32	38.18	I	C	LP	P
ANMO	18.526	110.43	12.32	38.18	I	C	LP	P
FFC	20.091	47.15	10.48	31.72	I	C	SP	P
KDC	21.027	321.20	10.21	30.81	I	D	SP	P
PMR	22.092	332.32	9.97	30.01	I	D	LP	P
FBA	24.194	339.05	9.62	28.86	I	D	SP	P
COL	24.194	339.05	9.62	28.86	I	D	LP	P
INK	24.999	354.90	9.49	28.43	I	D	SP	P
SIO	25.292	97.22	9.43	28.24	I	C	SP	P
TUL	25.588	96.43	9.43	28.24	I	C	LP	P
JCT	25.681	111.20	9.43	28.24	E	C	LP	P
RLO	26.028	95.27	9.39	28.11	I	C	SP	P
IMA	26.697	336.57	9.34	27.94	I	D	SP	P
FVM	28.611	88.32	9.14	27.29	E	C	LP	P
MBC	33.000	3.66	8.69	25.85	I	D	SP	P
KIP	33.467	238.51	8.66	25.75	E	C	LP	P
RES	34.496	14.73	8.59	25.53	I	D	SP	P
BLA	36.181	83.57	8.51	25.27	I	C	SP	P
PRM	36.188	89.50	8.51	25.27	I	C	SP	P
SCP	36.604	76.70	8.48	25.18	I	C	LP	P
GEO	37.896	79.20	8.39	24.89	I	C	LP	P
SMY	38.925	304.65	8.33	24.70	E	C	LP	P
LPS	43.964	119.52	8.05	23.82	E	D	LP	P
BEC	49.842	80.66	7.67	22.63	E	C	LP	P
KBS	55.515	8.75	7.22	21.24	E	D	LP	P
BOG	61.007	113.40	6.81	19.98	E	C	LP	P
BOCO	61.048	113.41	6.81	19.98	E	C	LP	P
CAR	61.739	102.98	6.77	19.86	I	C	SP	P
TRN	65.588	98.70	6.44	18.85	I	C	LP	P
MAT	68.584	300.35	6.19	18.09	I	C	LP	P
NC3	70.422	19.62	6.04	17.64	I	D	LP	P
VAL	70.648	35.61	6.04	17.64	E	C	LP	P
ESK	70.873	29.91	6.00	17.52	E	C	LP	P
SHK	73.324	301.81	5.82	16.98	E	C	LP	P

Table 18. Station data for event 24 ... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NUR	73.881	13.83	5.79	16.89	E	D	LP	P
SEO	74.699	307.38	5.75	16.77	I	C	LP	P
COP	75.554	22.02	5.68	16.56	E	D	LP	P
COP	75.554	22.02	5.68	16.56	I	D	SP	P
UCC	77.221	28.89	5.59	16.29	I	D	SP	P
GUA	78.934	278.12	5.45	15.87	E	C	LP	P
GUMO	78.934	278.19	5.45	15.87	I	C	LP	P
PTO	79.479	42.17	5.42	15.78	I	C	LP	P
LOR	79.983	31.16	5.37	15.63	E	C	LP	P
GRFO	80.453	25.64	5.31	15.45	I	C	LP	P
STU	80.599	27.27	5.31	15.45	I	D	SP	P
ZOBO	80.643	122.92	5.31	15.45	I	D	LP	P
OBN	80.773	9.05	5.27	15.33	I	D	SP	P
LIS	81.053	44.08	5.27	15.33	I	C	SP	P
FUR	81.810	26.36	5.18	15.06	I	C	SP	P
KRA	82.606	20.36	5.15	14.97	I	D	SP	P
SSE	82.644	306.20	5.15	14.97	I	C	SP	P
TLO	82.670	40.22	5.15	14.97	E	C	LP	P
KMR	82.802	24.70	5.12	14.88	E	C	LP	P
VIE	83.288	23.26	5.09	14.80	E	C	LP	P
MAL	84.958	42.39	4.99	14.50	I	D	SP	P
CRT	84.987	41.59	4.99	14.50	I	C	SP	P
RAB	85.723	260.17	4.96	14.41	I	C	LP	P
ALM	85.803	41.06	4.91	14.26	I	C	SP	P
ANP	86.751	301.95	4.83	14.02	E	C	LP	P
TATO	86.921	301.83	4.83	14.02	E	C	LP	P
NOU	89.050	237.68	4.73	13.73	I	D	SP	P
KDZ	91.814	19.87	4.67	13.55	I	D	SP	P
PIP	92.332	297.93	4.66	13.52	I	C	SP	P
DAV	97.095	286.70	4.53	13.14	I	C	LP	P
CTAO	100.784	252.66	4.45	12.90	I	C	LP	Pdf
CTA	100.784	252.66	4.45	12.90	E	C	LP	Pdf
KBL	100.810	345.98	4.45	12.90	E	D	LP	Pdf
SHIO	102.219	323.92	4.45	12.90	I	D	LP	Pdf
CHTO	104.648	314.61	4.45	12.90	I	C	LP	pdf
CHG	104.648	314.61	4.45	12.90	E	C	LP	Pdf
SNG	113.245	306.23	1.89	5.43	E	D	LP	Pdf
GBA	118.667	331.91	1.88	5.40	I	C	SP	PKP
NWAO	129.077	258.94	1.86	5.34	E	D	LP	PKP
SPA	133.344	180.00	1.84	5.29	I	D	SP	PKP
SPA	133.344	180.00	1.84	5.29	I	D	SP	PKP
NAI	135.709	22.48	1.81	5.22	E	C	LP	PKP

Table 19. Station data for event 145.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PARM	0.036	326.15	14.83	131.92	I	C	SP	P
PCRM	0.157	217.36	18.19	114.13	I	D	SP	P
PRCM	0.248	278.70	18.19	114.13	I	D	SP	P
PRI	0.292	254.77	19.11	106.51	I	D	SP	P
BDW	10.571	48.47	13.67	43.30	I	D	SP	P
ALQ	11.360	92.37	13.54	42.79	I	D	LP	P
ANMO	11.360	92.35	13.54	42.79	I	D	LP	P
NEW	12.265	10.10	13.40	42.24	I	D	SP	P
EPT	12.288	107.18	13.40	42.24	I	C	LP	P
GOL	12.298	69.10	13.40	42.24	I	D	LP	P
OZB	13.287	345.01	13.25	41.66	I	D	SP	P
RSSD	14.722	52.62	13.08	41.01	I	D	LP	P
RSSD	14.722	52.62	13.08	41.01	I	D	SP	P
JCT	18.059	102.58	12.42	38.54	I	C	LP	P
ATX	19.657	100.97	12.10	37.38	I	C	SP	P
HKT	21.419	99.93	10.08	30.38	I	C	SP	P
FVM	23.863	76.77	9.62	28.86	I	D	LP	P
RSON	24.043	44.18	9.62	28.86	I	D	LP	P
HC	24.701	125.92	9.55	28.63	E	C	SP	P
RSCP	28.053	80.87	9.20	27.49	I	D	SP	P
RSCP	28.053	80.87	9.20	27.49	E	N	LP	P
AAM	28.872	66.56	9.05	27.00	I	D	LP	P
PMR	31.187	333.57	8.83	26.30	I	C	LP	P
BLA	31.838	76.11	8.76	26.07	I	C	LP	P
MRG	31.836	71.48	8.76	26.07	I	C	SP	P
COL	33.061	338.85	8.69	25.85	E	N	LP	P
SCP	33.296	69.00	8.66	25.75	E	N	LP	P
SCP	33.296	69.00	8.66	25.75	E	N	LP	P
INY	34.176	65.87	8.63	25.66	I	D	LP	P
GAC	34.767	60.07	8.56	25.43	I	D	LP	P
LPS	35.393	120.01	8.53	25.34	I	C	SP	P
RSNY	35.468	62.04	8.53	25.34	I	D	LP	P
HON	35.975	256.04	8.51	25.27	I	C	LP	P
MNT	36.073	60.37	8.51	25.27	I	D	SP	P
PAL	36.247	68.00	8.51	25.27	E	C	SP	P
WES	37.984	65.30	8.39	24.89	E	N	LP	P
MBC	40.122	0.36	8.27	24.51	I	C	SP	P
BEC	45.596	77.88	7.97	23.57	E	N	LP	P
GDH	48.455	25.96	7.79	23.01	E	N	LP	P
SJG	50.802	95.75	7.59	22.38	I	C	LP	P
GUV	59.121	103.92	6.97	20.47	I	C	SP	P
AKU	62.316	27.20	6.69	19.61	I	C	LP	P
AFI	69.586	234.14	6.11	17.85	I	C	LP	P
KEV	71.673	11.42	5.96	17.40	E	C	LP	P
ZOBO	71.796	126.98	5.93	17.31	I	C	LP	P
LPB	72.007	127.15	5.93	17.31	E	C	LP	P
VAL	73.138	37.42	5.86	17.10	E	C	LP	P
EAB	73.164	31.68	5.86	17.10	I	C	SP	P
ELO	73.244	31.22	5.86	17.10	I	C	SP	P
DMU	73.502	34.51	5.82	16.98	I	C	SP	P

Table 19. Station data for event 145 .... continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DCN	73.685	35.10	5.82	16.98	I	C	SP	P
EAU	73.766	31.61	5.79	16.89	I	C	SP	P
DLE	74.061	34.85	5.79	16.89	I	C	SP	P
ESK	74.222	31.92	5.79	16.89	I	C	SP	P
ESK	74.222	31.92	5.79	16.89	E	N	LP	P
ECB	74.539	35.69	5.75	16.77	I	C	SP	P
ETA	74.595	35.19	5.75	16.77	I	C	SP	P
ECP	74.853	35.67	5.72	16.68	I	C	SP	P
ANT	75.974	133.72	5.65	16.47	E	C	LP	P
KJF	76.785	13.77	5.59	16.29	I	C	LP	P
MAJO	77.344	306.01	5.56	16.20	I	C	LP	P
MAT	77.344	306.01	5.56	16.20	I	C	SP	P
MDJ	77.686	316.64	5.56	16.20	I	C	SP	P
UPP	78.187	20.21	5.52	16.08	I	C	SP	P
VUN	79.058	238.16	5.45	15.87	I	C	SP	P
FLN	79.936	35.66	5.37	15.63	I	C	SP	P
COP	79.990	24.98	5.37	15.63	I	C	SP	P
COP	79.990	24.98	5.37	15.63	I	C	LP	P
DBN	80.021	30.66	5.37	15.63	I	C	LP	P
GRR	80.020	36.11	5.37	15.63	I	C	SP	P
LPF	80.182	36.46	5.37	15.63	I	C	SP	P
LDF	80.224	35.61	5.37	15.63	I	C	SP	P
CN2	80.485	317.97	5.31	15.45	I	C	SP	P
UCC	80.645	31.94	5.31	15.45	E	D	LP	P
WTS	80.767	29.97	5.27	15.33	I	C	SP	P
HAM	80.847	27.54	5.27	15.33	I	C	SP	P
DOU	81.267	32.30	5.22	15.18	E	C	LP	P
ENN	81.331	31.21	5.22	15.18	I	C	SP	P
MFF	81.620	37.05	5.22	15.18	I	C	SP	P
LIS	82.074	47.44	5.18	15.06	I	C	SP	P
SHK	82.149	307.16	5.18	15.06	I	C	LP	P
LSF	82.683	36.47	5.15	14.97	I	C	SP	P
JACH	82.828	139.57	5.12	14.88	I	C	SP	P
BRN	82.886	26.59	5.12	14.88	I	C	SP	P
TCF	82.981	36.10	5.12	14.88	I	C	SP	P
SSF	83.023	34.91	5.12	14.88	I	C	SP	P
LOR	83.034	34.59	5.12	14.88	I	C	LP	P
LOR	83.034	34.59	5.12	14.88	I	C	SP	P
BGF	83.085	35.59	5.12	14.88	I	C	SP	P
PEL	83.141	139.92	5.12	14.88	I	C	LP	P
AVF	83.152	35.17	5.12	14.88	I	C	SP	P
MZF	83.211	35.96	5.12	14.88	I	C	SP	P
LFF	83.240	37.79	5.12	14.88	I	C	SP	P
LGR	83.321	41.23	5.09	14.80	I	C	SP	P
RJF	83.359	37.13	5.09	14.80	I	C	SP	P
LNV	83.404	140.90	5.09	14.80	I	C	SP	P
GWF	83.406	31.54	5.09	14.80	I	C	SP	P
SMF	83.486	35.02	5.09	14.80	I	C	SP	P
FCH	83.490	139.77	5.09	14.80	I	C	SP	P
HAU	83.599	32.83	5.09	14.80	I	C	SP	P

Table 19. Station data for event 145 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPO	83.645	37.74	5.09	14.80	I	C	SP	P
CDF	83.692	32.09	5.09	14.80	I	C	SP	P
CLL	83.708	27.35	5.09	14.80	I	C	SP	P
MOX	83.715	28.46	5.09	14.80	I	C	LP	P
ECH	83.791	32.27	5.06	14.71	I	C	SP	P
CAF	83.901	37.11	5.06	14.71	I	C	SP	P
BSF	83.925	32.71	5.06	14.71	I	C	SP	P
BAF	84.012	32.61	5.06	14.71	I	C	SP	P
HOF	84.082	28.53	5.06	14.71	I	C	SP	P
STU	84.224	30.87	5.06	14.71	I	C	LP	P
TOL	84.249	43.91	5.06	14.71	I	C	LP	P
GRF	84.321	29.25	5.03	14.62	I	C	SP	P
EPF	84.404	39.34	5.03	14.62	I	C	SP	P
BRG	84.410	27.13	5.03	14.62	I	C	SP	P
SLE	84.711	31.87	5.03	14.62	E	C	LP	P
ZUL	84.887	32.11	4.99	14.50	E	C	LP	P
SFS	85.316	47.59	4.96	14.41	I	C	SP	P
PRU	85.354	27.33	4.96	14.41	I	C	SP	P
DIX	85.537	33.52	4.96	14.41	E	C	LP	P
LLS	85.624	32.17	4.96	14.41	E	C	LP	P
MMK	85.806	33.24	4.91	14.26	E	C	LP	P
GUA	85.907	283.67	4.91	14.26	I	C	LP	P
PVC	86.095	244.85	4.91	14.26	I	C	SP	P
TMA	86.164	32.72	4.91	14.26	E	C	LP	P
MAL	86.197	46.41	4.91	14.26	I	C	SP	P
KMR	86.778	28.67	4.83	14.02	E	C	LP	P
FRF	87.114	35.57	4.83	14.02	I	C	SP	P
LMR	87.222	35.79	4.83	14.02	I	C	SP	P
ALI	87.296	43.07	4.80	13.93	I	D	LP	P
HNR	87.339	256.39	4.80	13.93	I	C	LP	P
CTI	87.398	31.23	4.80	13.93	I	D	SP	P
ZST	87.784	26.94	4.78	13.88	I	D	SP	P
SRO	88.546	26.47	4.75	13.79	I	C	SP	P
JOS	88.743	24.84	4.75	13.79	I	C	SP	P
CVF	88.917	34.94	4.73	13.73	I	C	SP	P
NOU	90.340	242.46	4.70	13.64	I	C	SP	P
RAB	90.441	265.17	4.70	13.64	I	C	SP	P
TIM	91.359	25.83	4.69	13.61	I	D	SP	P
LPA	91.545	133.24	4.69	13.61	I	C	LP	P
SSE	91.647	311.04	4.69	13.61	E	C	LP	P
NJ2	92.369	313.13	4.66	13.52	I	C	SP	P
COZ	92.788	24.12	4.65	13.49	I	D	SP	P
SGO	93.411	32.26	4.63	13.43	I	D	SP	P
VTS	94.789	26.14	4.58	13.28	I	D	SP	P
PVL	94.990	24.60	4.58	13.28	I	D	SP	P
VAY	95.677	27.18	4.56	13.23	I	C	SP	P
TATO	95.729	306.49	4.56	13.23	I	C	LP	P
GTA	96.150	329.85	4.55	13.20	I	C	SP	P
XAN	96.360	320.74	4.54	13.17	I	C	SP	P
SNZO	97.417	223.51	4.52	13.11	I	C	LP	P

Table 19. Station data for event 145 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
QZH	97.612	308.34	4.52	13.11	I	C	SP	P
EDC	98.392	24.04	4.50	13.05	I	D	SP	P
ATH	99.030	28.04	4.48	12.99	I	D	SP	P
ANTO	100.348	20.72	4.45	12.90	I	C	LP	P
BAG	102.263	300.89	4.45	12.90	I	C	LP	Pdf
DAV	104.818	290.44	4.45	12.90	I	C	LP	Pdf
CHG	113.865	319.04	1.88	5.42	E	C	LP	PKP
SNG	122.225	309.78	1.87	5.39	I	C	LP	PKP
BNG	124.201	52.47	1.87	5.38	I	C	SP	PKP
PSI	126.740	307.95	1.86	5.36	I	C	SP	PKP
LEM	127.407	291.87	1.86	5.36	I	C	LP	PKP
ARO	129.930	21.73	1.85	5.33	I	C	LP	PKP
MUN	133.556	258.02	1.83	5.26	E	C	LP	PKP
SUR	147.804	94.68	1.62	4.65	I	C	SP	PKP
MTD	148.445	59.57	1.62	4.65	I	C	SP	PKP
BUL	148.450	67.93	1.62	4.65	I	C	SP	PKP
SWZ	149.538	82.61	1.56	4.49	I	C	SP	PKP
KSR	150.198	79.01	1.56	4.49	I	C	SP	PKP
SLR	151.233	77.56	1.53	4.40	I	C	SP	PKP
SEK	151.867	82.95	1.50	4.31	I	C	SP	PKP
NPA	152.151	46.20	1.50	4.31	I	C	SP	PKP

Table 20. Station data for event 174.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PRI	0.219	246.92	18.49	111.95	I	D	SP	P
LLA	0.576	312.52	19.77	82.62	I	D	SP	P
PRS	0.778	277.92	17.07	121.10	I	D	SP	P
FRI	0.951	36.56	17.07	121.10	I	C	SP	P
SAO	0.987	303.18	17.07	121.10	I	D	SP	P
MHC	1.484	318.84	14.27	45.71	I	C	SP	P
GCC	1.503	302.65	14.27	45.71	I	C	SP	P
JAS	1.715	359.41	14.27	134.29	I	C	SP	P
BKS	2.197	319.05	14.26	45.67	I	C	LP	P
COR	8.633	346.13	13.89	44.17	I	C	SP	P
ALQ	11.440	92.34	13.54	42.78	E	C	LP	P
EPT	12.367	107.05	13.40	42.24	E	C	LP	P
GOL	12.370	69.21	13.40	42.24	I	C	LP	P
LHD	12.544	15.10	13.40	42.24	I	C	SP	P
YKM	13.090	13.84	13.32	41.93	I	C	SP	P
RXF	13.212	15.46	13.32	41.93	I	C	SP	P
RSSD	14.780	52.77	13.00	40.70	I	C	SP	P
SIO	19.510	84.27	12.10	37.37	I	C	SP	P
TUL	19.900	83.61	10.48	31.72	I	C	LP	P
LHC	25.867	52.18	9.39	28.10	I	C	SP	P
RSNT	26.528	6.06	9.34	27.94	I	C	LP	P
SHA	27.408	92.22	9.25	27.65	I	C	LP	P
RSCP	28.131	80.85	9.20	27.48	I	C	LP	P
PMR	31.144	333.62	8.83	26.29	I	C	SP	P
BLA	31.914	76.10	8.76	26.07	I	C	LP	P
COL	33.024	338.90	8.69	25.84	I	C	LP	P
COL	33.024	338.90	8.69	25.84	I	C	SP	P
SCP	33.367	69.00	8.66	25.75	I	C	SP	P
SCP	33.367	69.00	8.66	25.75	I	C	LP	P
RSNY	35.534	62.05	8.53	25.33	I	C	LP	P
WES	38.053	65.30	8.39	24.89	I	C	LP	P
MBC	40.113	0.39	8.27	24.51	I	C	SP	P
GDH	48.482	25.96	7.79	23.00	I	C	LP	P
ALE	50.236	8.36	7.67	22.63	I	C	SP	P
SJG	50.883	95.69	7.59	22.38	E	C	LP	P
CAR	54.569	104.05	7.30	21.48	I	C	SP	P
ARE	69.871	129.61	6.07	17.73	I	C	SP	P
KEV	71.680	11.39	5.96	17.40	I	C	LP	P
ZOBO	71.866	126.91	5.93	17.31	I	C	LP	P
VAL	73.179	37.38	5.86	17.09	E	C	LP	P
BER	73.978	24.80	5.79	16.88	I	C	LP	P
ESK	74.257	31.89	5.75	16.76	E	C	LP	P
ETA	74.634	35.15	5.75	16.76	I	C	SP	P
KONO	75.951	23.64	5.65	16.46	I	C	LP	P
FLN	79.975	35.62	5.37	15.63	I	C	SP	P
COP	80.016	24.94	5.37	15.63	I	C	LP	P
GRR	80.059	36.07	5.37	15.63	I	C	SP	P
DBN	80.054	30.62	5.37	15.63	I	C	LP	P
LPF	80.222	36.41	5.37	15.63	I	C	SP	P
LDF	80.263	35.57	5.31	15.45	I	C	SP	P

Table 20. Station data for event 174 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
UCC	80.680	31.89	5.31	15.45	E	C	LP	P
WTS	80.800	29.92	5.27	15.33	I	C	SP	P
PTO	80.876	45.26	5.27	15.33	I	C	LP	P
DOU	81.302	32.26	5.22	15.18	E	C	LP	P
MFF	81.661	37.01	5.22	15.18	I	C	SP	P
LIS	82.127	47.39	5.18	15.06	I	C	SP	P
WLF	82.293	31.78	5.15	14.97	E	C	LP	P
LSF	82.723	36.42	5.15	14.97	I	C	SP	P
TCF	83.021	36.05	5.12	14.88	I	C	SP	P
SSF	83.062	34.86	5.12	14.88	I	C	SP	P
LOR	83.072	34.54	5.12	14.88	I	C	SP	P
PEL	83.199	139.85	5.12	14.88	I	C	SP	P
AVF	83.190	35.12	5.12	14.88	I	C	SP	P
MZF	83.251	35.91	5.09	14.79	I	C	SP	P
LFF	83.282	37.74	5.09	14.79	I	C	SP	P
LBF	83.336	34.67	5.09	14.79	I	C	SP	P
RJF	83.400	37.08	5.09	14.79	I	C	SP	P
SMF	83.525	34.97	5.09	14.79	I	C	SP	P
HAU	83.635	32.78	5.09	14.79	I	C	SP	P
LPO	83.687	37.69	5.09	14.79	I	C	SP	P
CDF	83.727	32.04	5.09	14.79	I	C	SP	P
CLL	83.737	27.30	5.09	14.79	I	C	SP	P
MOX	83.746	28.41	5.09	14.79	I	C	SP	P
BUH	83.929	31.38	5.06	14.70	I	C	SP	P
CAF	83.942	37.06	5.06	14.70	I	C	SP	P
BSF	83.961	32.66	5.06	14.70	I	C	SP	P
BAF	84.047	32.56	5.06	14.70	I	C	SP	P
HOF	84.112	28.48	5.06	14.70	I	C	SP	P
TOL	84.298	43.86	5.03	14.61	I	C	LP	P
GRFO	84.349	29.20	5.03	14.61	E	C	LP	P
GRF	84.352	29.19	5.03	14.61	I	C	SP	P
BRG	84.439	27.08	5.03	14.61	I	C	SP	P
EPF	84.448	39.28	5.03	14.61	I	C	SP	P
SLE	84.745	31.82	5.03	14.61	E	C	LP	P
ZUL	84.922	32.05	4.99	14.50	E	C	LP	P
KSP	85.310	25.86	4.96	14.41	I	C	SP	P
PRU	85.383	27.28	4.96	14.41	I	C	SP	P
WET	85.439	28.65	4.96	14.41	I	C	SP	P
SAX	85.509	31.69	4.96	14.41	E	C	LP	P
DIX	85.574	33.47	4.96	14.41	E	C	LP	P
LLS	85.659	32.12	4.96	14.41	E	C	LP	P
TMA	86.199	32.66	4.91	14.26	E	C	LP	P
MAL	86.249	46.36	4.91	14.26	I	C	SP	P
KMR	86.809	28.61	4.83	14.02	I	C	LP	P
LRG	87.099	35.74	4.83	14.02	I	C	SP	P
FRF	87.153	35.51	4.83	14.02	I	C	SP	P
KRA	87.226	24.32	4.83	14.02	I	D	SP	P
LMR	87.261	35.73	4.80	13.93	I	C	SP	P
ALM	87.293	45.18	4.80	13.93	I	D	SP	P
ALI	87.344	43.01	4.80	13.93	I	D	LP	P

Table 20. Station data for event 174 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CVF	88.955	34.88	4.73	13.73	I	C	SP	P
ANP	95.497	306.56	4.56	13.22	E	C	LP	P
BAG	102.189	300.82	4.45	12.90	I	C	LP	Pdf
DAV	104.740	290.37	4.45	12.90	E	C	LP	Pdf
WRA	113.545	261.93	1.88	5.42	I	C	SP	PKP
CHG	113.806	318.96	1.88	5.42	E	C	LP	PKP
SNG	122.157	309.70	1.87	5.39	E	C	LP	PKP
KGM	124.288	303.26	1.87	5.38	I	C	SP	PKP
SUR	147.885	94.61	1.62	4.65	I	C	SP	PKP
SLR	151.309	77.45	1.53	4.40	I	C	SP	PKP
EVA	152.303	78.16	1.50	4.31	I	C	SP	PKP

Table 21. Station data for event 211.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LRM	2.027	29.02	14.27	134.28	I	C	SP	PN
BUT	2.160	24.68	14.26	45.68	I	C	SP	PN
BDW	3.377	110.81	14.23	45.56	I	D	SP	P
NEW	4.778	332.83	14.17	45.31	I	D	LP	P
EUR	4.836	199.78	14.17	45.31	I	C	SP	P
PNT	6.584	325.05	14.06	44.86	I	D	LP	P
SES	6.624	15.82	14.06	44.86	I	C	LP	P
RSSD	7.074	86.09	14.03	44.74	I	D	SP	P
GOL	7.683	121.61	13.98	44.54	I	D	LP	P
PGC	8.069	308.05	13.94	44.38	I	D	LP	P
BRK	8.861	228.66	13.84	43.98	I	C	LP	P
EDM	9.178	1.91	13.84	43.98	I	D	SP	P
ALQ	10.744	145.42	13.67	43.30	I	D	LP	P
EPT	13.560	152.30	13.25	41.66	I	D	LP	P
TUL	16.038	114.33	12.81	39.99	E	D	LP	P
JCT	17.538	135.91	12.52	38.91	E	D	LP	P
RSCP	23.212	101.64	9.78	29.38	I	D	LP	P
BLA	26.154	93.58	9.39	28.11	I	D	LP	P
SCP	26.636	84.43	9.34	27.94	I	D	LP	P
GAC	27.077	72.93	9.29	27.78	I	D	LP	P
PMR	27.120	322.71	9.29	27.78	I	D	LP	P
RSNY	27.969	75.08	9.20	27.49	I	D	LP	P
COL	28.129	329.66	9.20	27.49	I	D	LP	P
COL	28.129	329.66	9.20	27.49	I	D	LP	P
NED	28.562	85.40	9.14	27.29	I	D	SP	P
GDH	39.228	29.32	8.33	24.70	I	D	LP	P
GDH	39.228	29.32	8.33	24.70	I	D	SP	P
HON	42.878	252.65	8.11	24.01	I	D	LP	P
SMY	46.746	307.40	7.91	23.38	E	C	LP	P
DAG	48.735	17.77	7.79	23.01	I	D	SP	P
BOCO	52.618	126.56	7.46	21.98	I	D	LP	P
KEV	62.944	14.28	6.64	19.46	I	D	LP	P
BER	64.739	28.65	6.52	19.09	I	D	LP	P
ESK	64.968	36.19	6.48	18.97	E	D	LP	P
KONO	66.734	27.47	6.36	18.61	I	D	LP	P
KON	66.734	27.47	6.36	18.61	I	D	LP	P
NUR	70.437	20.36	6.04	17.64	I	D	LP	P
DBN	70.764	34.84	6.00	17.52	I	D	LP	P
COP	70.774	28.92	6.00	17.52	I	D	LP	P
UCC	71.392	36.16	5.96	17.40	E	D	LP	P
HAM	71.600	31.59	5.96	17.40	I	D	SP	P
PTO	71.895	50.06	5.93	17.31	I	D	LP	P
DOU	72.015	36.54	5.93	17.31	E	D	LP	P
BNS	72.443	34.64	5.89	17.19	I	D	SP	P
WLF	73.005	36.05	5.86	17.10	E	D	LP	P
ZOBO	73.112	134.05	5.86	17.10	I	D	LP	P
LPB	73.346	134.17	5.82	16.98	I	D	LP	P
STU	74.967	35.04	5.72	16.68	I	D	LP	P
GRFO	75.062	33.38	5.72	16.68	I	D	LP	P
TOL	75.259	48.47	5.68	16.56	I	D	LP	P

Table 21. Station data for event 211 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TOL	75.259	48.47	5.68	16.56	I	D	SP	P
SFS	76.487	52.20	5.62	16.38	I	D	SP	P
MAJO	76.591	308.03	5.62	16.38	I	D	LP	P
BHG	77.301	33.69	5.56	16.20	I	D	SP	P
KMR	77.525	32.79	5.56	16.20	I	D	LP	P
CN2	77.799	320.43	5.52	16.08	I	D	SP	P
AFI	78.090	237.23	5.52	16.08	I	D	LP	P
ANT	78.292	139.93	5.49	15.99	I	D	LP	P
TRI	79.288	34.40	5.42	15.78	I	D	SP	P
SNY	80.198	320.26	5.37	15.63	I	D	SP	P
SEO	81.878	315.50	5.18	15.06	I	D	LP	P
TIM	82.129	29.95	5.18	15.06	I	D	SP	P
BDF	84.425	117.88	5.03	14.62	I	D	LP	P
BJI	84.931	323.79	4.99	14.50	I	D	SP	P
BUC1	85.011	27.65	4.99	14.50	I	D	SP	P
SKO	85.444	31.75	4.96	14.41	I	D	SP	P
VTS	85.555	30.30	4.96	14.41	I	D	SP	P
LAV	85.834	145.63	4.91	14.26	I	D	SP	P
ROCH	86.035	145.04	4.91	14.26	I	D	SP	P
PEL	86.319	144.88	4.87	14.14	I	D	SP	P
KDZ	87.166	29.36	4.83	14.02	I	D	SP	P
VUN	87.264	241.80	4.80	13.93	I	D	SP	P
GUMO	88.589	287.47	4.75	13.79	I	D	LP	P
GUA	88.592	287.40	4.75	13.79	I	D	LP	P
GUA	88.592	287.40	4.75	13.79	I	D	LP	P
ATH	89.780	32.22	4.71	13.67	I	D	SP	P
SSE	89.906	315.32	4.71	13.67	I	D	LP	P
NJ2	90.290	317.50	4.70	13.64	I	D	SP	P
GTA	91.537	334.55	4.69	13.61	I	D	SP	P
LZH	93.201	330.25	4.65	13.49	I	D	LP	P
LPA	93.592	136.99	4.63	13.43	I	D	LP	P
HNR	93.761	260.61	4.62	13.40	I	D	LP	P
HNR	93.761	260.61	4.62	13.40	E	D	LP	P
ANP	94.476	311.59	4.60	13.34	I	D	LP	P
TATO	94.658	311.49	4.60	13.34	I	D	LP	P
TAB	96.317	15.62	4.54	13.17	I	D	LP	P
MHI	99.800	5.45	4.47	12.96	I	D	LP	P
BAG	102.003	307.04	4.45	12.90	E	D	LP	Pdf
DAV	106.201	297.14	1.89	5.44	E	D	LP	Pdf
BFD	123.523	248.64	1.87	5.38	I	D	LP	PKP
TRT	125.749	297.66	1.86	5.37	I	D	SP	PKP
LEM	128.189	303.20	1.86	5.35	E	D	LP	PKP
SPA	133.860	180.00	1.83	5.26	E	D	LP	PKP
MUN	139.332	269.83	1.78	5.13	E	D	LP	PKP
KSR	143.485	73.33	1.72	4.96	I	D	SP	PKP
SLR	144.355	71.79	1.70	4.90	I	D	LP	PKP
VIR	144.843	76.30	1.68	4.85	I	D	SP	PKP
EVA	145.396	72.00	1.68	4.85	I	D	SP	PKP

Figure 9. Azimuthal equidistant map for subdivision, Hawaii.

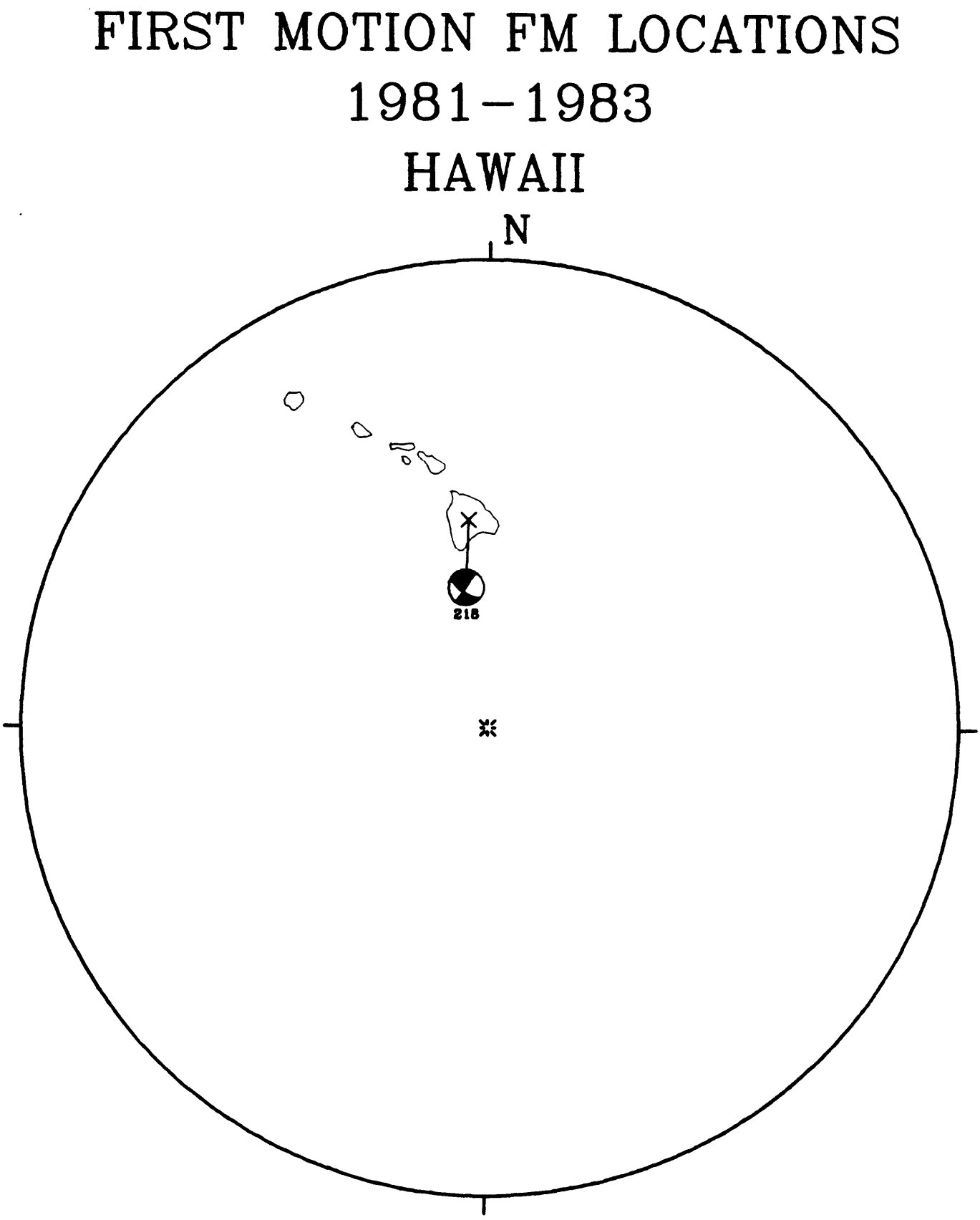

Table 22. Focal mechanism parameters for subdivision, Hawaii.

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
218	35	90	155	125	65	360	17	347	17	83	65	215

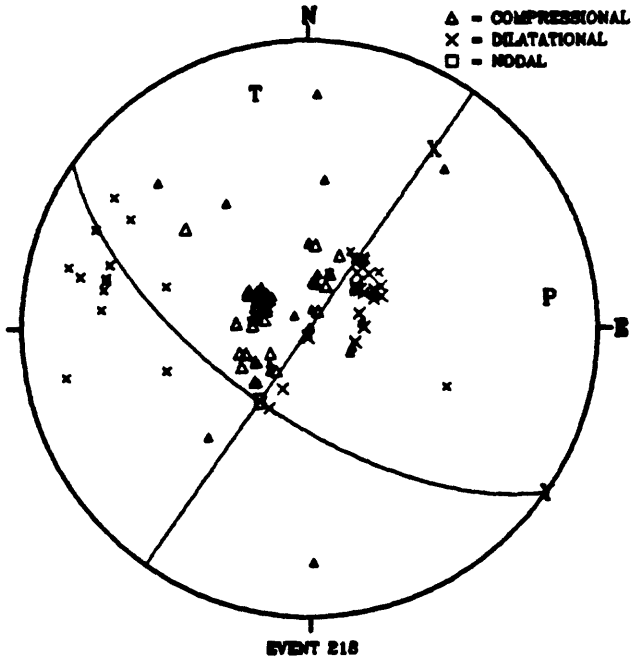

Figure 10. Lower hemisphere focal sphere projection for event 218.

Table 23. Station data for event 218.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AIN	0.055	186.24	13.55	137.15	I	C	SP	P
MLH	0.091	43.05	13.55	137.15	I	C	SP	P
MLX	0.107	73.81	13.55	137.15	I	D	SP	P
DES	0.112	146.26	13.55	137.15	I	C	SP	P
CPK	0.124	106.34	13.55	137.15	I	D	SP	P
MWH	0.149	292.79	13.55	137.15	I	D	SP	P
NPH	0.162	95.26	17.55	118.26	I	D	SP	P
OUT	0.167	103.88	17.55	118.26	I	D	SP	P
RIM	0.170	100.63	17.55	118.26	I	D	SP	P
KNH	0.181	121.37	17.55	118.26	I	D	SP	P
HLP	0.188	133.79	17.55	118.26	I	C	SP	P
AHA	0.187	107.50	17.55	118.26	I	D	SP	P
ESR	0.204	95.19	17.55	118.26	I	D	SP	P
PUH	0.229	103.29	17.55	118.26	I	D	SP	P
KHU	0.238	220.68	17.55	118.26	I	C	SP	P
PWH	0.261	123.85	18.76	109.70	I	D	SP	P
PPL	0.270	182.10	18.76	109.70	I	C	SP	P
MKA	0.280	102.69	18.76	109.70	I	D	SP	P
KAE	0.334	114.72	18.76	109.70	I	D	SP	P
HPU	0.349	359.33	18.76	109.70	I	C	SP	P
MVH	0.377	78.64	19.25	104.96	I	D	SP	P
WHA	0.395	104.27	19.25	104.96	I	D	SP	P
HON	3.047	308.58	14.24	45.62	I	C	LP	P
JAS	35.556	51.28	8.53	25.35	I	D	SP	P
COR	36.652	39.57	8.48	25.19	I	D	SP	P
AFI	36.817	207.09	8.45	25.09	I	D	LP	P
PHC	38.284	28.83	8.36	24.81	I	D	SP	P
LON	38.709	37.54	8.36	24.81	E	D	LP	P
SVW	41.634	359.88	8.19	24.27	I	C	SP	P
CLX	43.355	39.09	8.08	23.92	I	C	SP	P
LDM	43.359	38.69	8.08	23.92	I	C	SP	P
TTA	43.465	359.62	8.08	23.92	I	C	SP	P
COL	45.730	4.56	7.97	23.58	I	C	LP	P
ANMO	45.797	59.87	7.94	23.48	I	D	LP	P
EDM	46.746	33.62	7.91	23.39	I	D	SP	P
RSSD	49.211	48.05	7.75	22.89	I	D	LP	P
JCT	51.203	66.14	7.58	22.36	I	D	LP	P
PVC	51.288	226.22	7.54	22.24	I	C	SP	P
RSNT	51.364	22.90	7.54	22.24	I	C	LP	P
HNR	52.467	240.88	7.46	21.99	I	C	LP	P
TUL	54.546	59.33	7.30	21.49	I	D	LP	P
BHO	55.307	61.20	7.22	21.24	I	D	SP	P
NOU	55.733	223.74	7.22	21.24	I	C	SP	P
KOU	55.984	226.94	7.19	21.15	I	C	SP	P
RAB	56.590	251.14	7.15	21.03	I	C	LP	P
GUA	57.255	273.88	7.08	20.81	I	C	LP	P
GUMO	57.286	273.95	7.08	20.81	E	C	LP	P
RSON	57.395	41.52	7.08	20.81	I	D	LP	P
MAT	59.931	301.53	6.89	20.23	I	C	LP	P
MAJO	59.931	301.53	6.89	20.23	I	C	LP	P

Table 23. Station data for event 218 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SHA	61.217	65.07	6.81	19.98	I	D	LP	P
OSK	62.138	299.50	6.73	19.74	E	C	LP	P
PMG	63.375	248.40	6.60	19.34	E	C	LP	P
SNZO	66.462	204.14	6.36	18.61	I	D	LP	P
BLA	66.817	57.04	6.31	18.46	I	D	LP	P
SCP	68.336	52.93	6.19	18.10	I	D	LP	P
SEO	68.776	303.64	6.15	17.98	I	C	LP	P
CN2	69.067	310.42	6.15	17.98	I	C	SP	P
CTA	69.306	238.73	6.11	17.86	I	C	SP	P
CTAO	69.306	238.73	6.11	17.86	I	C	LP	P
GAC	69.454	47.48	6.11	17.86	I	D	LP	P
RSNY	70.271	48.60	6.04	17.65	I	D	LP	P
DL2	72.688	305.80	5.89	17.19	I	C	SP	P
WES	72.931	50.45	5.86	17.10	I	D	LP	P
SSE	74.721	297.95	5.75	16.77	I	C	LP	P
CAN	75.737	224.09	5.68	16.56	I	C	SP	P
ANP	75.897	291.98	5.65	16.47	I	C	LP	P
TATO	75.976	291.78	5.65	16.47	I	C	LP	P
GDH	76.148	21.05	5.65	16.47	I	C	LP	P
GDH	76.148	21.05	5.65	16.47	I	D	SP	P
NJ2	76.421	299.41	5.62	16.38	I	C	SP	P
CNP	76.523	278.66	5.62	16.38	I	C	SP	P
BJI	76.560	307.90	5.62	16.38	I	C	SP	P
PLP	76.626	277.25	5.62	16.38	I	D	SP	P
TIA	76.775	303.90	5.59	16.29	I	C	SP	P
DAV	77.309	273.11	5.55	16.17	I	C	LP	P
BAG	79.162	283.64	5.45	15.87	I	C	LP	P
HHC	79.739	309.65	5.42	15.78	I	C	SP	P
TIY	79.992	306.41	5.37	15.63	I	C	SP	P
BOG	80.368	88.48	5.31	15.46	I	D	LP	P
BOCO	80.400	88.50	5.31	15.46	I	D	LP	P
WHN	80.539	298.99	5.31	15.46	I	C	SP	P
DAG	80.587	9.22	5.31	15.46	I	C	SP	P
BTO	80.935	309.76	5.26	15.31	I	C	SP	P
TAU	81.308	218.68	5.22	15.19	E	C	LP	P
SDV	82.246	83.32	5.18	15.07	I	C	SP	P
ADE	82.606	229.08	5.15	14.98	I	C	SP	P
SJG	83.509	73.17	5.09	14.80	I	D	LP	P
LZH	87.025	307.15	4.83	14.03	I	C	LP	P
GTA	88.676	311.45	4.75	13.79	I	C	SP	P
CD2	89.018	302.39	4.73	13.73	I	C	SP	P
KMI	92.032	297.39	4.67	13.55	E	C	LP	P
ZOBO	92.855	106.13	4.65	13.50	I	D	LP	P
LPB	92.965	106.37	4.65	13.50	I	D	LP	P
TLL	95.110	120.03	4.58	13.29	I	C	SP	P
CHG	97.727	292.97	4.52	13.11	I	C	LP	P
CHG	97.727	292.97	4.52	13.11	I	D	SP	P
SLA	97.869	113.36	4.51	13.08	I	C	SP	P
NWAO	98.141	238.07	4.51	13.08	E	C	LP	P
KON	100.272	7.65	4.45	12.90	E	C	LP	P

Table 23. Station data for event 218 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SNG	100.627	281.51	4.45	12.90	I	C	LP	P
UPP	100.805	3.55	4.45	12.90	I	C	SP	Pdf
VAL	102.723	21.23	4.45	12.90	E	C	LP	P
MUD	103.309	8.70	4.45	12.90	I	C	SP	Pdf
COP	104.490	7.05	4.45	12.90	I	C	LP	Pdf
COP	104.490	7.05	4.45	12.90	E	C	LP	P
BRG	109.393	7.10	1.89	5.44	I	C	SP	Pdf
NDI	110.183	311.89	1.89	5.44	I	C	SP	Pdf
PTO	112.347	26.52	1.89	5.44	E	C	LP	P
GRM	166.056	187.06	0.85	2.46	I	D	LP	PKP
VIR	171.133	193.40	0.56	1.62	I	D	SP	PKP

Figure 11. Azimuthal equidistant map for subdivision, Middle America.

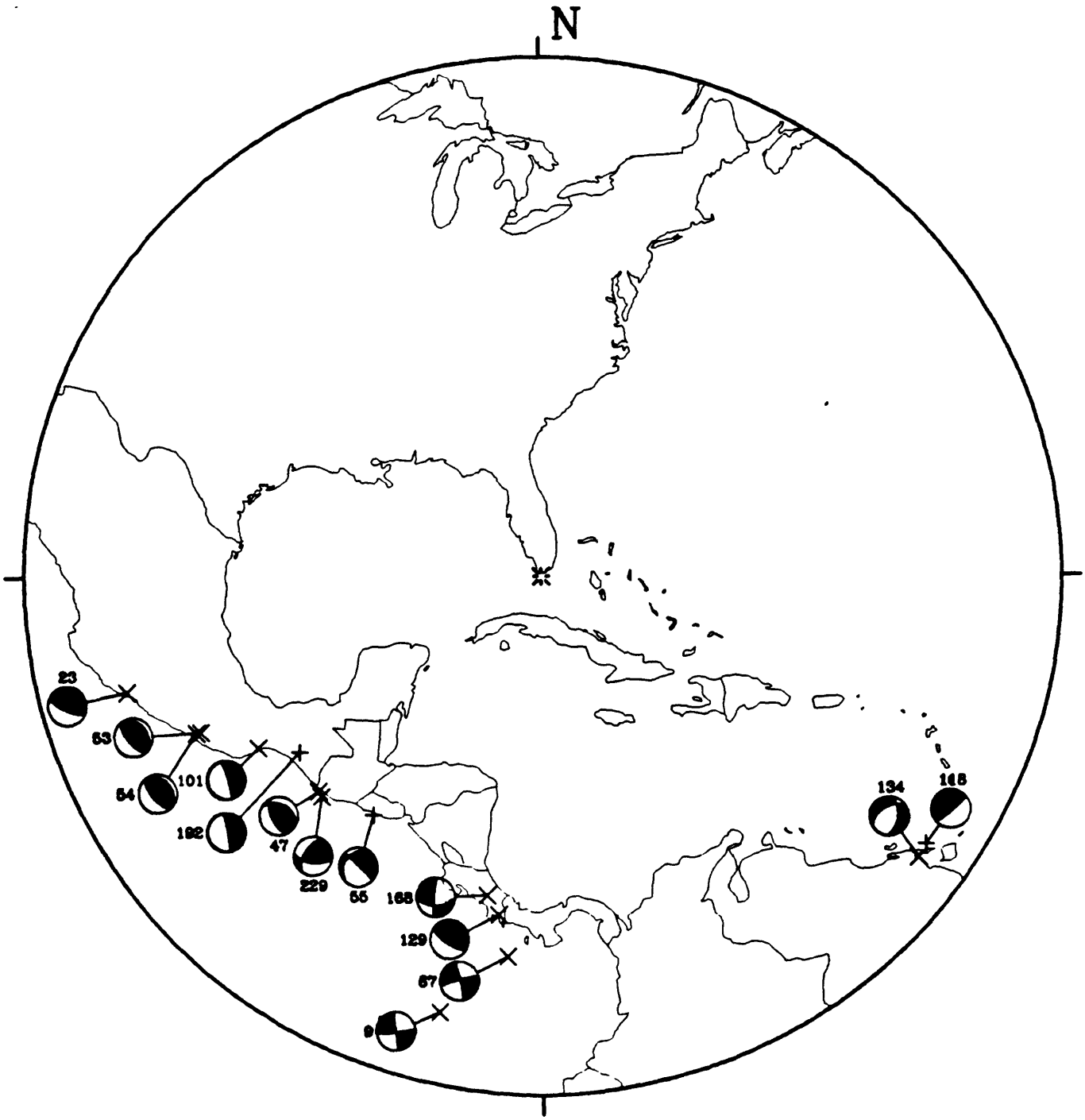

Table 24. Focal mechanism parameters for subdivision, Middle America.

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
9	353	90	175	83	85	360	4	308	4	38	85	173
23	115	72	90	295	18	90	63	25	27	205	0	115
47	155	60	112	296	37	57	67	108	12	229	19	324
53	140	65	90	320	25	90	70	50	20	230	0	140
54	140	65	90	320	25	90	70	50	20	230	0	140
55	315	85	-120	216	30	-10	33	70	42	196	30	318
67	255	83	-6	346	84	-173	1	120	9	210	81	26
101	344	81	-90	164	9	-90	36	74	54	254	0	164
118	50	80	90	230	10	90	55	320	35	140	0	50
129	125	72	90	305	18	90	63	35	27	215	0	125
134	239	50	-50	6	54	-127	2	122	60	218	29	31
168	185	83	-145	90	55	-9	18	313	29	53	54	195
192	350	83	-90	170	7	-90	38	80	52	260	0	170
229	98	61	135	214	52	38	51	61	5	158	38	252

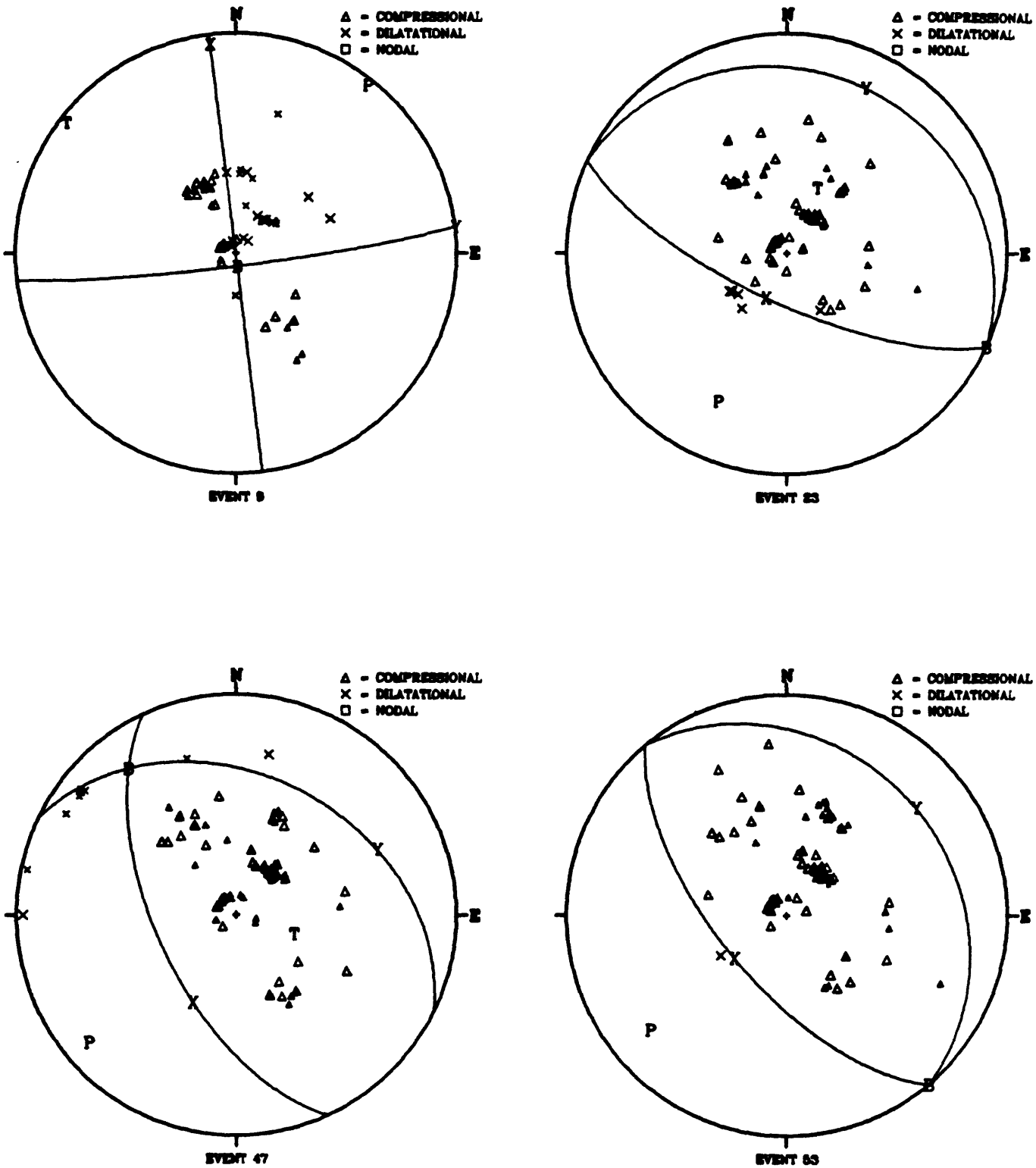

Figure 12. Lower hemisphere focal sphere projection for events 9, 23, 47, and 53.

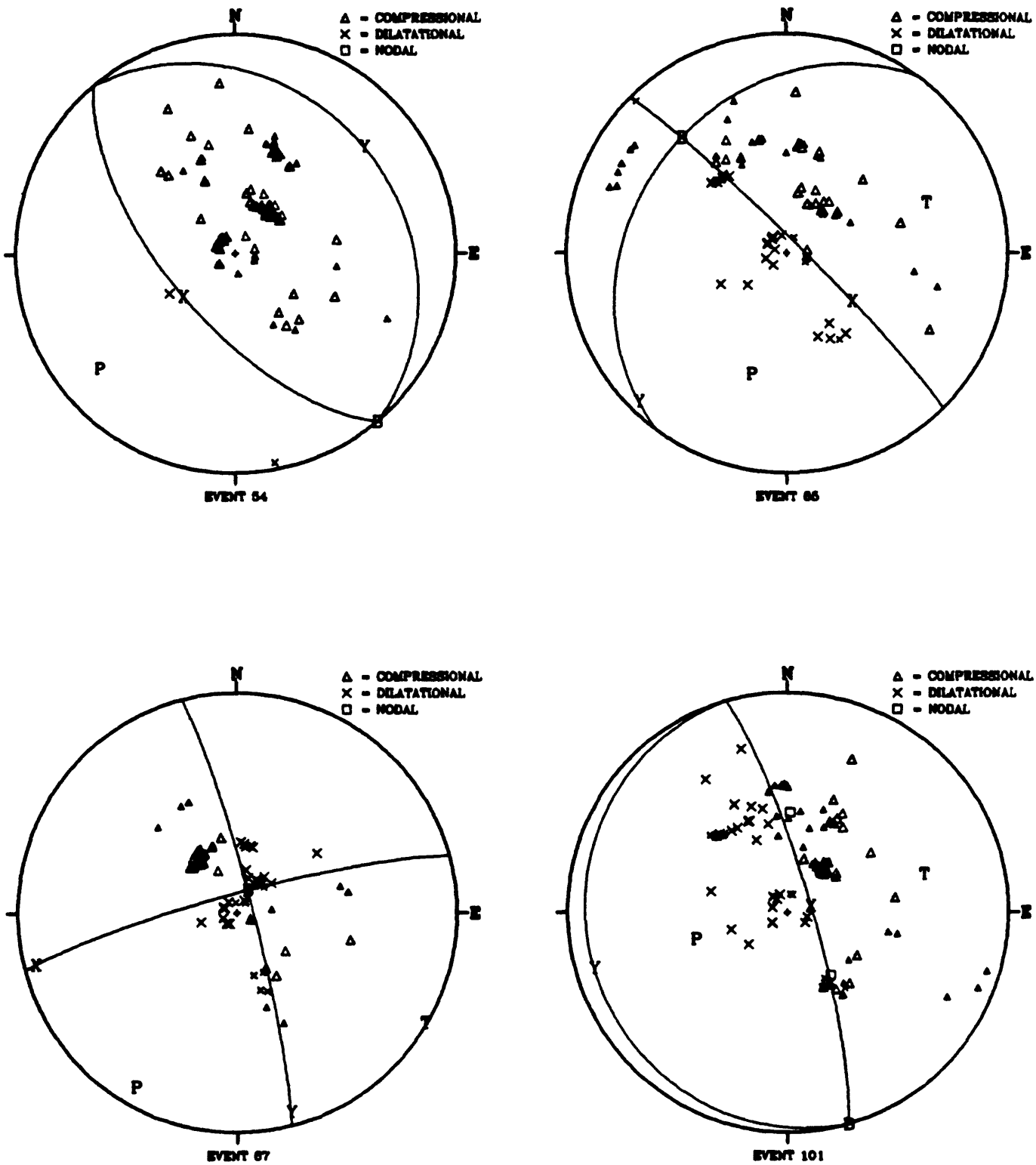

Figure 13. Lower hemisphere focal sphere projection for events 54, 55, 67, and 101.

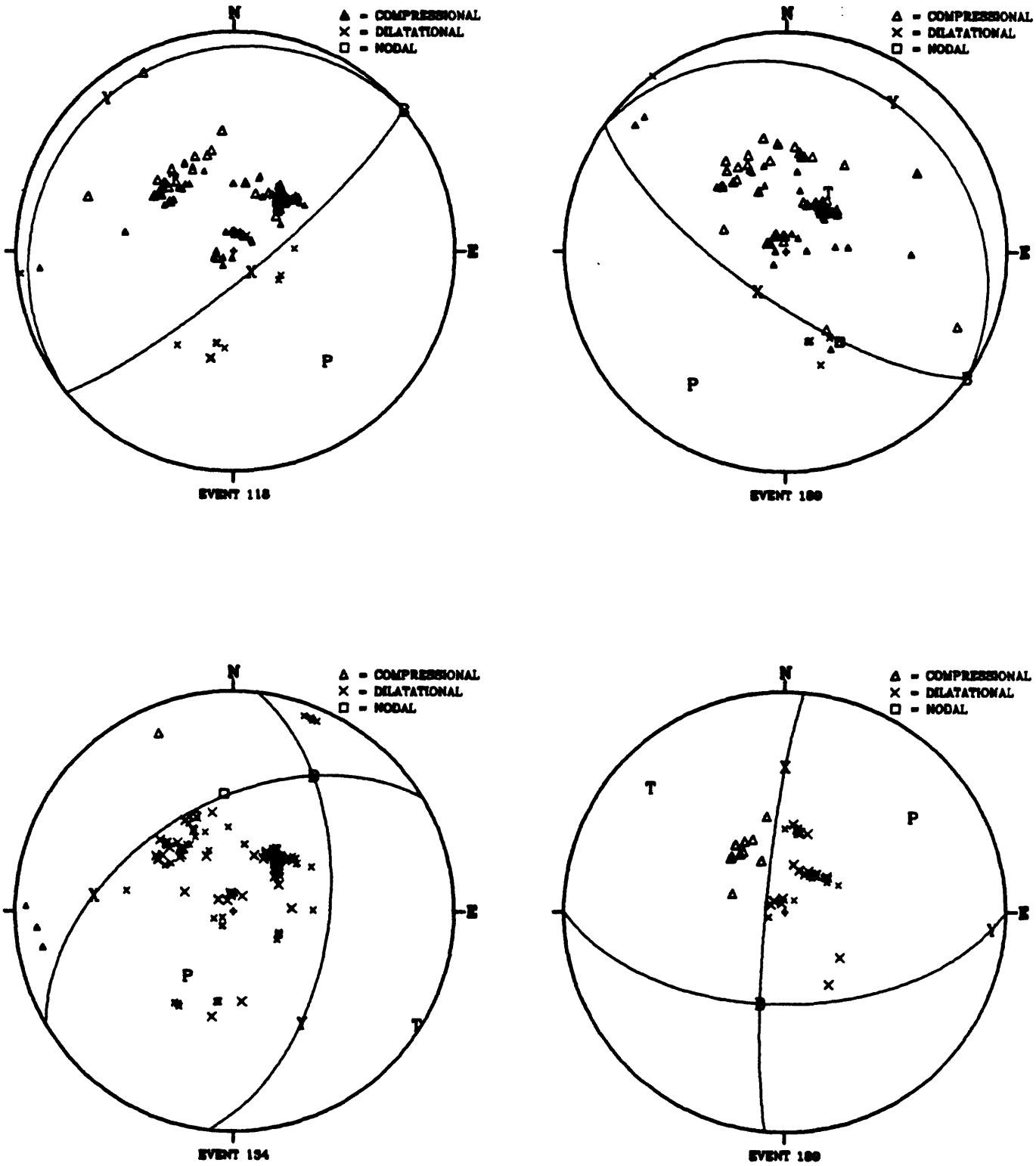

Figure 14. Lower hemisphere focal sphere projection for events 118, 129, 134, and 168.

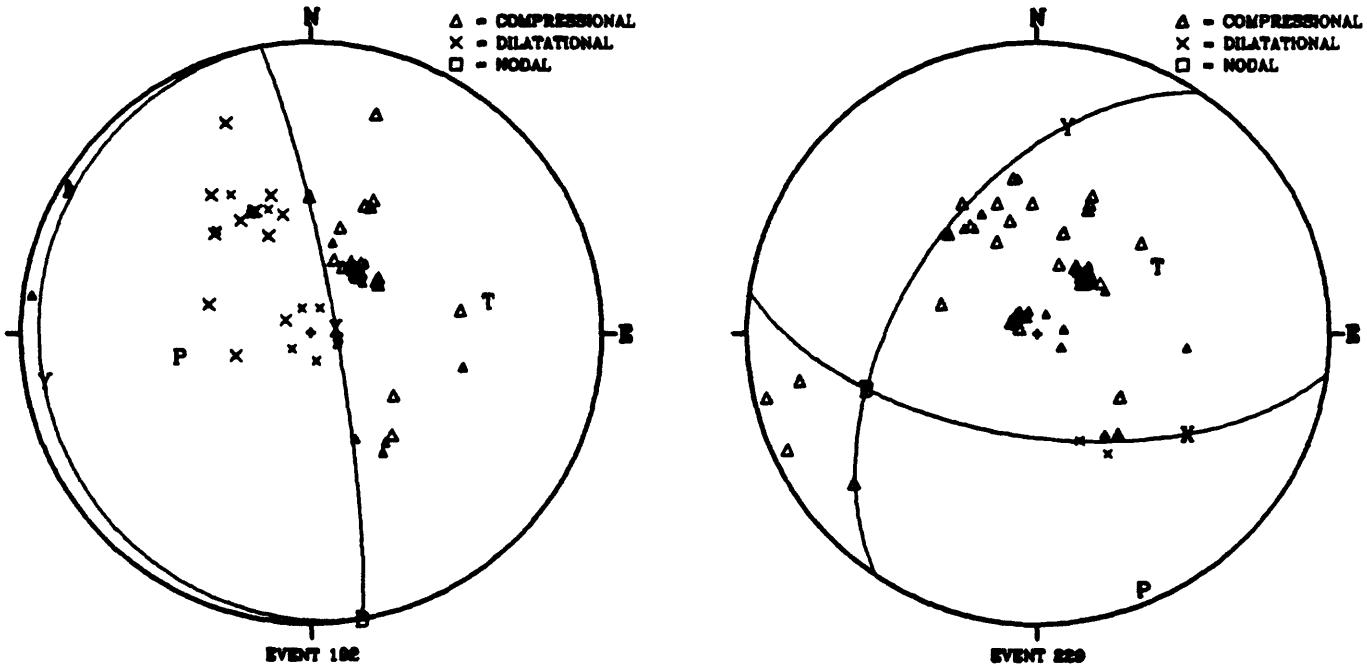

Figure 15. lower hemisphere focal sphere projection foe events 192 and 229.

Table 25. Station data for event 9.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SJS	6.283	17.00	14.04	55.59	I	D	SP	P
NNA	18.171	150.35	12.38	46.67	I	C	SP	P
HUA	19.008	146.49	12.17	45.65	I	C	SP	P
CAR	19.941	69.75	10.44	37.84	I	D	LP	P
SJG	23.958	52.38	9.60	34.34	I	D	LP	P
ARE	24.744	145.18	9.53	34.05	I	C	SP	P
ZOBO	26.660	139.15	9.33	33.25	I	C	LP	P
LPB	26.869	139.51	9.28	33.04	I	C	SP	P
TKL	31.667	3.32	8.79	31.10	I	D	SP	P
TUL	33.137	345.24	8.68	30.67	I	C	LP	P
BLA	33.536	7.95	8.65	30.55	I	D	SP	P
BLA	33.536	7.95	8.65	30.55	I	D	LP	P
FVM	34.176	353.65	8.62	30.43	I	D	LP	P
ANMO	36.293	330.86	8.47	29.85	I	C	LP	P
ALQ	36.291	330.85	8.47	29.85	I	C	LP	P
TUC	36.637	323.36	8.47	29.85	I	C	SP	P
TLL	36.821	157.87	8.44	29.73	I	C	LP	P
UTO	37.658	2.87	8.41	29.62	I	D	SP	P
GLA	39.634	320.46	8.29	29.15	I	C	SP	P
GLD	39.742	336.50	8.29	29.15	I	C	LP	P
MNT	42.813	12.73	8.10	28.42	I	D	SP	P
RCD	42.827	341.63	8.10	28.42	I	C	LP	P
BDW	44.063	334.86	8.05	28.23	I	C	SP	P
BMN	46.028	326.55	7.94	27.81	I	C	SP	P
ARN	46.597	320.30	7.91	27.70	I	C	SP	P
LPA	46.705	148.00	7.91	27.70	I	C	LP	P
HRY	48.204	336.21	7.81	27.32	I	C	SP	P
MSO	49.171	334.76	7.74	27.05	I	C	SP	P
RDJ	49.444	124.61	7.70	26.90	I	C	LP	P
LDM	51.022	335.14	7.58	26.45	I	C	SP	P
RXF	51.262	335.60	7.54	26.30	I	C	SP	P
YKM	51.504	335.21	7.54	26.30	I	C	SP	P
NEW	51.652	333.80	7.54	26.30	I	C	SP	P
COR	52.145	326.66	7.50	26.15	E	C	LP	P
EDM	54.098	340.00	7.34	25.55	I	C	SP	P
PMR	74.082	333.64	5.78	19.85	I	C	SP	P
COL	74.835	337.06	5.71	19.60	I	C	LP	P
LIS	77.250	51.34	5.55	19.03	I	C	SP	P
SFS	79.421	53.80	5.41	18.54	I	D	SP	P
DAG	81.090	12.41	5.26	18.00	I	D	SP	P
TOL	81.275	50.42	5.22	17.86	I	D	LP	P
LOR	87.016	43.00	4.83	16.49	I	D	LP	P
BNS	88.957	39.17	4.73	16.14	I	D	SP	P
KONO	89.461	30.37	4.71	16.07	I	D	LP	P
GRFO	91.671	40.15	4.68	15.96	I	D	LP	P
SPA	93.866	180.00	4.61	15.72	I	D	SP	P
KSP	94.683	38.45	4.60	15.68	I	C	SP	P
ANTO	109.016	45.56	1.89	6.38	I	D	LP	PKP
RIV	119.264	233.22	1.88	6.33	E	C	LP	PKP
GUMO	126.704	290.01	1.86	6.28	E	C	LP	PKP

Table 25. Station data for event 9 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KAAO	135.088	29.67	1.82	6.14	E	D	LP	PKP
WRA	137.663	244.51	1.79	6.05	I	C	SP	PKP
DAV	146.732	289.08	1.64	5.53	E	C	LP	PKP
BAG	146.940	308.29	1.64	5.53	E	C	LP	PKP
SHIO	150.643	4.06	1.53	5.15	I	C	LP	PKP
PPR	151.942	299.09	1.50	5.05	I	C	SP	PKP
CHTO	156.938	348.18	1.30	4.40	E	C	LP	PKP
CHG	156.938	348.18	1.30	4.40	I	D	LP	PKP
SNG	167.218	329.32	0.80	2.68	E	D	LP	PKP

Table 26. Station data for event 23.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
JCT	12.548	9.10	13.36	51.72	I	C	LP	P
LPS	12.962	104.87	13.29	51.34	I	C	SP	P
TUC	16.223	332.72	12.77	48.62	I	C	LP	P
TUC	16.223	332.72	12.77	48.62	I	C	SP	P
ANMO	17.273	347.82	12.48	47.17	I	C	LP	P
ALQ	17.270	347.82	12.48	47.17	E	C	LP	P
SHA	17.859	42.59	12.38	46.67	I	C	LP	P
TUL	18.644	16.16	12.27	46.14	I	C	LP	P
PAS	21.534	321.23	10.05	36.20	I	C	LP	P
GOL	21.762	353.15	9.95	35.78	I	C	LP	P
FVM	22.330	24.85	9.85	35.37	I	C	SP	P
PRI	24.385	321.34	9.53	34.05	I	C	SP	P
FRI	24.426	324.11	9.53	34.05	I	C	SP	P
BDW	25.455	347.11	9.42	33.61	I	C	SP	P
JAS	25.515	324.69	9.42	33.61	I	C	SP	P
BMN	25.845	332.79	9.38	33.45	I	C	SP	P
BKS	26.483	322.31	9.33	33.25	I	C	LP	P
BLA	26.955	40.56	9.28	33.04	I	C	LP	P
UTO	28.364	30.05	9.11	32.36	I	C	SP	P
WDC	28.539	326.14	9.11	32.36	I	C	SP	P
FHC	29.474	324.86	8.97	31.81	E	C	SP	P
GEO	30.080	41.18	8.91	31.57	I	C	LP	P
MSO	30.321	343.77	8.86	31.37	I	C	SP	P
BOG	30.474	112.58	8.86	31.37	I	C	LP	P
BOCO	30.510	112.63	8.86	31.37	I	C	LP	P
COR	31.877	330.67	8.75	30.94	I	C	SP	P
LDM	32.183	343.37	8.75	30.94	I	C	SP	P
RXF	32.508	343.90	8.72	30.82	I	C	SP	P
YKM	32.663	343.24	8.72	30.82	I	C	SP	P
SJG	34.127	84.19	8.62	30.43	I	C	LP	P
CAR	34.838	97.57	8.56	30.20	I	C	SP	P
WES	35.656	40.55	8.53	30.08	I	C	LP	P
ZOBO	47.760	133.55	7.81	27.32	I	C	LP	P
LPB	47.960	133.78	7.81	27.32	I	C	LP	P
ANT	51.743	142.20	7.54	26.30	I	C	LP	P
RKT	52.022	219.36	7.50	26.15	I	D	LP	P
KIP	52.527	283.46	7.46	26.00	E	C	LP	P
TPT	55.599	236.71	7.22	25.10	I	D	LP	P
TTA	57.992	334.14	7.03	24.40	E	C	SP	P
PPT	58.606	235.47	7.00	24.29	I	D	LP	P
PEL	59.079	149.37	6.96	24.14	I	D	LP	P
TBI	61.911	230.05	6.72	23.26	I	D	LP	P
LPA	67.313	141.65	6.26	21.58	I	C	LP	P
KBS	76.870	10.46	5.58	19.14	I	C	LP	P
VAL	77.123	39.40	5.58	19.14	I	C	LP	P
ECB	79.090	38.45	5.45	18.68	I	C	SP	P
ESK	80.290	34.96	5.31	18.18	I	C	LP	P
PTO	80.903	49.78	5.26	18.00	I	C	LP	P
KONO	85.027	28.28	4.99	17.05	I	C	LP	P
MAL	85.340	53.03	4.96	16.94	I	C	SP	P

Table 26. Station data for event 23 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KEV	85.425	15.73	4.96	16.94	I	C	LP	P
DBN	86.092	36.19	4.90	16.73	I	C	LP	P
UCC	86.158	37.60	4.90	16.73	I	C	LP	P
DOU	86.581	38.18	4.86	16.59	I	C	LP	P
LOR	87.281	40.97	4.80	16.38	I	C	LP	P
WLF	87.678	38.15	4.80	16.38	I	C	LP	P
BNS	87.707	36.69	4.80	16.38	I	C	SP	P
COP	88.275	31.04	4.75	16.21	I	C	LP	P
STU	89.862	38.06	4.71	16.07	E	C	LP	P
MOX	90.349	35.66	4.70	16.03	I	C	LP	P
GRFO	90.591	36.62	4.70	16.03	I	C	LP	P
NUR	90.806	23.37	4.70	16.03	I	C	LP	P
BRG	91.512	34.72	4.68	15.96	I	C	LP	P
KMR	93.078	37.07	4.64	15.82	E	C	LP	P
VIE	94.241	36.11	4.61	15.72	E	C	LP	P
WAR	94.405	31.11	4.60	15.68	E	C	LP	P
SRO	95.572	35.75	4.56	15.54	I	C	SP	P
SNZO	96.761	228.88	4.53	15.44	I	C	LP	P
HNR	100.385	263.42	4.45	15.16	E	C	LP	Pdf
MLR	101.157	34.39	4.45	15.16	I	C	SP	Pdf
KDZ	103.280	37.70	4.45	15.16	I	C	SP	Pdf
SHK	106.232	315.39	1.89	6.38	I	C	LP	PKP
GUA	106.859	290.70	1.89	6.38	I	C	LP	PKP
GUMO	106.879	290.77	1.89	6.38	I	C	LP	PKP
SPA	107.932	180.00	1.89	6.38	E	C	LP	PKP
SEO	107.976	320.88	1.89	6.38	I	C	LP	PKP
CTA	115.798	255.99	1.88	6.34	I	C	LP	PKP
ANP	119.604	314.06	1.87	6.32	I	C	LP	PKP
BAG	125.807	306.68	1.86	6.29	I	C	LP	PKP
DAV	126.746	293.73	1.86	6.28	E	C	LP	PKP
KBL	127.034	9.18	1.86	6.28	I	C	LP	PKP
KAAO	127.034	9.18	1.86	6.28	I	C	LP	PKP
SHIO	134.574	342.18	1.82	6.14	I	C	LP	PKP
NAI	136.340	72.21	1.81	6.12	I	C	SP	PKP
NAI	136.340	72.21	1.81	6.12	I	C	LP	PKP
CHTO	137.948	329.50	1.79	6.05	E	C	LP	PKP
CHG	137.948	329.50	1.79	6.05	I	C	LP	PKP
NWAO	141.778	239.47	1.74	5.86	E	C	LP	PKP
MUN	142.833	240.66	1.72	5.81	I	C	LP	PKP
SNG	146.381	316.24	1.66	5.61	I	C	LP	PKP
PSI	150.790	312.79	1.53	5.15	I	C	SP	PKP

Table 27. Station data for event 47.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPS	2.831	90.10	14.02	93.32	I	D	LP	P
SSS	2.869	102.33	14.02	93.13	I	D	SP	P
IIT	7.582	308.95	13.82	79.76	I	D	SP	P
III	8.158	300.65	13.77	78.71	I	D	SP	P
IIP	8.236	308.33	13.76	78.55	I	D	SP	P
IIM	8.427	307.21	13.74	78.12	I	D	SP	P
IIC	8.744	309.30	13.71	77.50	I	D	SP	P
SHA	16.698	11.89	12.53	63.15	I	D	LP	P
ATX	16.790	342.44	12.51	63.01	I	D	SP	P
MOT	19.636	328.01	10.41	47.85	I	C	SP	P
BOCO	20.230	116.79	10.29	47.15	I	C	LP	P
TUL	21.759	351.85	9.94	45.04	I	C	LP	P
ALQ	24.285	330.27	9.53	42.73	I	C	SP	P
ANMO	24.287	330.27	9.53	42.73	I	C	LP	P
BLA	25.057	22.40	9.43	42.21	I	C	SP	P
SJG	25.176	77.87	9.42	42.15	I	C	LP	P
MRG	27.379	20.66	9.22	41.04	I	C	SP	P
GEO	27.843	25.65	9.18	40.82	I	C	LP	P
GOL	27.851	337.69	9.18	40.82	I	C	LP	P
SCP	29.152	22.51	8.98	39.76	I	C	LP	P
FDF	29.936	85.28	8.88	39.24	I	C	SP	P
NNA	30.179	149.23	8.86	39.13	I	C	SP	P
PAS	30.763	314.51	8.82	38.93	I	C	LP	P
BEC	30.780	49.55	8.82	38.92	I	C	LP	P
WES	33.219	28.65	8.65	38.03	I	C	LP	P
OTT	33.931	20.84	8.61	37.81	I	C	SP	P
MNT	34.782	22.98	8.56	37.55	I	C	SP	P
BKS	35.560	316.88	8.51	37.31	I	C	LP	P
ARE	36.723	145.64	8.44	36.96	I	C	SP	P
MSO	37.215	334.99	8.42	36.84	I	C	SP	P
MSO	37.215	334.99	8.42	36.84	I	C	LP	P
ZOBO	38.515	141.22	8.33	36.40	I	C	SP	P
LPB	38.734	141.46	8.32	36.35	I	C	LP	P
LDM	39.074	335.37	8.31	36.29	I	C	SP	P
RXF	39.325	335.93	8.29	36.21	I	C	SP	P
YKM	39.557	335.44	8.28	36.14	I	C	SP	P
COR	40.161	324.95	8.24	35.95	I	C	LP	P
EDM	42.310	341.09	8.12	35.34	I	C	SP	P
ANT	43.315	150.44	8.08	35.10	I	C	LP	P
PEL	51.420	156.95	7.53	32.43	I	C	LP	P
SAN	51.705	157.10	7.51	32.32	I	C	SP	P
LPA	58.707	147.32	6.97	29.75	I	C	LP	P
RDJ	60.454	127.03	6.83	29.09	I	C	LP	P
COL	62.926	336.68	6.63	28.17	I	C	LP	P
MBC	63.592	352.96	6.58	27.93	I	C	SP	P
DAG	72.352	13.39	5.88	24.77	I	C	LP	P
DAG	72.352	13.39	5.88	24.77	I	C	SP	P
VAL	73.852	39.65	5.78	24.32	I	C	LP	P
ADK	75.565	320.41	5.67	23.80	I	C	SP	P
DCN	75.569	38.07	5.67	23.80	I	C	SP	P

Table 27. Station data for event 47 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DMU	75.741	37.48	5.65	23.74	I	C	SP	P
PTO	75.870	50.70	5.64	23.69	I	C	SP	P
DLE	76.012	38.09	5.63	23.65	I	C	SP	P
DDK	76.125	37.98	5.62	23.61	I	C	SP	P
DKM	76.182	38.11	5.62	23.60	I	C	SP	P
ECP	76.221	39.22	5.62	23.59	I	C	SP	P
ETA	76.268	38.68	5.62	23.58	I	C	SP	P
SFS	78.374	55.18	5.48	22.98	I	C	SP	P
TOL	79.486	51.46	5.41	22.64	I	C	SP	P
MAL	79.752	54.67	5.37	22.49	I	C	SP	P
CRT	80.310	54.09	5.31	22.23	I	C	SP	P
FLN	80.430	42.13	5.30	22.18	I	C	SP	P
SSC	80.707	42.26	5.28	22.07	I	C	SP	P
MFF	81.064	44.24	5.25	21.93	I	C	SP	P
ALM	81.268	54.25	5.22	21.84	I	C	SP	P
LFF	82.007	45.76	5.16	21.57	I	C	SP	P
EPF	82.127	47.70	5.15	21.53	I	C	SP	P
LPO	82.374	45.94	5.14	21.47	I	C	SP	P
RJF	82.468	45.28	5.13	21.45	I	C	SP	P
CAF	82.930	45.56	5.12	21.36	I	C	SP	P
UCC	83.061	39.44	5.11	21.33	E	C	LP	P
DBN	83.236	38.04	5.10	21.28	I	C	LP	P
AVF	83.375	43.53	5.08	21.22	I	C	SP	P
DOU	83.378	40.09	5.08	21.22	I	C	LP	P
KON	83.573	30.03	5.07	21.16	I	C	LP	P
LOR	83.596	42.98	5.07	21.15	I	C	LP	P
SMF	83.736	43.59	5.06	21.11	I	C	SP	P
LBF	83.744	43.23	5.06	21.11	I	C	SP	P
ENN	84.030	39.22	5.04	21.04	I	C	SP	P
WTS	84.237	37.88	5.03	20.98	I	C	SP	P
WLF	84.463	40.25	5.01	20.92	I	C	LP	P
HAU	85.034	41.82	4.98	20.78	I	C	SP	P
BSF	85.369	41.91	4.96	20.71	I	C	SP	P
BAF	85.500	41.87	4.95	20.66	I	C	SP	P
CDF	85.518	41.26	4.95	20.65	I	C	SP	P
GWF	85.577	40.65	4.95	20.63	I	C	SP	P
HAM	85.623	35.92	4.94	20.61	I	C	SP	P
TNS	85.730	39.30	4.93	20.55	I	C	SP	P
BUH	86.048	40.82	4.89	20.38	I	C	SP	P
KEV	86.203	17.75	4.88	20.31	I	C	LP	P
COP	86.283	33.33	4.87	20.29	I	C	SP	P
COP	86.283	33.33	4.87	20.29	I	C	LP	P
LRG	86.291	46.21	4.87	20.29	I	C	SP	P
LMR	86.428	46.30	4.86	20.24	I	C	SP	P
FRF	86.461	46.05	4.86	20.23	I	C	SP	P
STU	86.630	40.54	4.84	20.18	I	C	LP	P
MOX	87.521	38.26	4.79	19.95	I	C	LP	P
GRFO	87.594	39.24	4.79	19.94	I	C	LP	P
HOF	87.790	38.52	4.78	19.91	I	C	SP	P
CLL	88.117	37.33	4.77	19.84	I	C	SP	P

Table 27. Station data for event 47 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
GAP	88.229	41.37	4.76	19.81	I	C	SP	P
CVF	88.310	46.52	4.75	19.78	I	C	SP	P
OGA	88.404	41.96	4.75	19.76	I	C	SP	P
WET	88.803	39.39	4.73	19.68	I	C	SP	P
BRG	88.828	37.53	4.73	19.68	I	C	LP	P
KHC	89.236	39.24	4.72	19.62	I	C	SP	P
BHG	89.301	40.73	4.71	19.61	I	C	SP	P
KJF	89.425	22.32	4.71	19.60	I	C	LP	P
KMR	89.969	40.11	4.71	19.60	I	C	LP	P
CEY	91.008	42.19	4.69	19.51	I	C	SP	P
MNS	91.033	45.77	4.69	19.51	I	C	SP	P
RMP	91.249	46.31	4.69	19.49	I	C	SP	P
SOP	91.622	39.83	4.68	19.46	I	C	SP	P
SRO	92.652	39.24	4.65	19.33	I	C	SP	P
JOS	93.705	37.98	4.62	19.23	I	C	SP	P
TIM	95.352	40.25	4.57	18.97	I	C	SP	P
SKO	97.172	43.57	4.53	18.81	I	C	SP	P
ATH	100.541	46.37	4.45	18.48	I	C	SP	Pdf
SHK	115.448	319.92	1.88	7.69	I	C	LP	PKP
SEO	116.687	325.92	1.88	7.69	E	C	LP	PKP
GUA	117.157	293.56	1.88	7.68	E	C	LP	PKP
GUMO	117.177	293.63	1.88	7.68	I	C	LP	PKP
EVA	123.951	112.42	1.87	7.64	I	C	SP	PKP
CTA	124.204	255.31	1.87	7.64	I	C	SP	PKP
SSE	124.685	325.09	1.87	7.64	I	C	LP	PKP
MTD	125.820	100.49	1.86	7.63	I	C	SP	PKP
LZH	127.666	343.69	1.86	7.61	I	C	SP	PKP
ANP	128.876	319.91	1.86	7.59	E	C	LP	PKP
TATO	129.044	319.75	1.85	7.59	I	C	LP	PKP
BAG	135.585	312.26	1.82	7.43	E	C	LP	PKP
NDI	136.026	13.59	1.81	7.41	I	C	SP	PKP
DAV	137.015	297.22	1.80	7.38	E	C	LP	PKP
POO	144.542	23.43	1.69	6.92	I	C	SP	PKP
CHG	145.339	341.42	1.68	6.86	I	C	LP	PKP
CHTO	145.339	341.42	1.68	6.86	I	C	LP	PKP
NWAO	147.540	230.11	1.63	6.65	I	C	LP	PKP
MUN	148.748	230.93	1.59	6.52	I	C	LP	PKP

Table 28. Station data for event 53.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
JCT	13.890	354.04	13.10	67.12	I	C	LP	P
SJS	15.230	114.03	12.93	65.42	I	C	SP	P
EPT	16.899	334.79	12.55	61.96	I	C	LP	P
TUL	19.338	5.79	10.56	47.96	I	C	LP	P
ALQ	19.714	339.39	10.56	47.96	I	C	LP	P
ANMO	19.717	339.40	10.56	47.96	I	C	LP	P
LST	21.196	19.04	10.15	45.55	I	C	SP	P
DON	21.737	17.95	10.04	44.92	I	C	SP	P
NHIL	22.982	20.55	9.75	43.29	I	C	SP	P
SLM	23.016	16.01	9.75	43.29	I	C	SP	P
GOL	23.853	346.12	9.59	42.41	I	C	LP	P
GLD	23.867	346.43	9.59	42.41	I	C	SP	P
IN3	25.024	23.14	9.46	41.71	I	C	SP	P
PAS	25.065	317.91	9.46	41.71	I	C	LP	P
BLA	25.818	33.93	9.37	41.22	I	C	SP	P
AN8	26.449	24.32	9.32	40.96	I	C	SP	P
BOCO	26.492	114.12	9.32	40.96	E	C	LP	P
AN4	26.585	24.91	9.32	40.96	I	C	SP	P
UTO	27.941	23.73	9.18	40.21	I	C	SP	P
ACM	28.002	19.56	9.18	40.21	I	C	SP	P
AAM	28.458	22.93	9.10	39.79	I	C	LP	P
SCP	29.809	31.97	8.90	38.75	I	C	SP	P
SCP	29.809	31.97	8.90	38.75	I	C	LP	P
BKS	29.963	319.71	8.90	38.75	I	C	LP	P
SJG	30.560	82.41	8.85	38.49	I	C	LP	P
CAR	30.925	97.29	8.82	38.34	I	C	SP	P
INY	31.726	31.31	8.78	38.13	I	C	SP	P
LHC	32.546	11.02	8.71	37.78	I	C	SP	P
MSO	32.858	339.85	8.68	37.62	I	C	LP	P
COR	35.028	328.05	8.55	36.96	I	C	LP	P
FDF	35.642	87.76	8.52	36.81	I	C	SP	P
ZOBO	44.087	136.31	8.04	34.43	I	C	LP	P
LPB	44.294	136.54	8.02	34.34	I	C	LP	P
ANT	48.362	145.20	7.78	33.17	E	C	LP	P
CFA	55.870	149.07	7.18	30.33	I	C	SP	P
PEL	55.993	152.17	7.18	30.33	I	C	SP	P
KIP	56.522	284.96	7.14	30.14	I	C	LP	P
COL	58.552	337.60	6.99	29.45	I	C	SP	P
PPT	60.979	238.53	6.80	28.57	I	D	LP	P
LPA	63.896	143.77	6.55	27.43	I	C	LP	P
RDJ	66.531	124.64	6.35	26.53	I	C	LP	P
RDJ	66.531	124.64	6.35	26.53	I	C	SP	P
AKU	70.903	25.57	5.99	24.91	I	C	LP	P
DAG	71.514	13.81	5.96	24.78	E	C	LP	P
DAG	71.514	13.81	5.96	24.78	I	C	SP	P
VAL	75.835	39.65	5.64	23.37	I	C	LP	P
KBS	77.587	10.73	5.55	22.97	I	C	LP	P
PTO	78.940	50.32	5.45	22.54	I	C	LP	P
EDU	79.110	34.18	5.45	22.54	I	C	SP	P
ESK	79.294	35.43	5.41	22.36	I	C	LP	P

Table 28. Station data for event 53 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPF	82.481	42.21	5.14	21.19	I	C	SP	P
GRR	82.497	41.83	5.14	21.19	I	C	SP	P
TOL	82.611	50.71	5.14	21.19	I	C	LP	P
FLN	82.631	41.40	5.14	21.19	I	C	SP	P
TLO	82.642	50.73	5.14	21.19	E	C	LP	P
SSC	82.920	41.50	5.11	21.06	I	C	SP	P
KON	84.480	29.08	5.02	20.67	I	C	LP	P
LFF	84.566	44.83	5.02	20.67	I	C	SP	P
LSF	84.687	43.40	5.02	20.67	I	C	SP	P
LPO	84.949	44.97	4.99	20.54	I	C	SP	P
RJF	84.976	44.30	4.99	20.54	I	C	SP	P
UCC	84.970	38.46	4.99	20.54	E	C	LP	P
DBN	84.998	37.06	4.99	20.54	I	C	LP	P
TCF	85.122	43.21	4.99	20.54	I	C	SP	P
DOU	85.353	39.07	4.96	20.42	E	C	LP	P
MZF	85.391	43.20	4.96	20.42	I	C	SP	P
CAF	85.465	44.54	4.96	20.42	I	C	SP	P
AVF	85.702	42.48	4.96	20.42	I	C	SP	P
SSF	85.710	42.18	4.96	20.42	I	C	SP	P
KEV	85.755	16.58	4.90	20.16	I	C	LP	P
LOR	85.867	41.91	4.90	20.16	I	C	SP	P
LBF	86.039	42.15	4.90	20.16	I	C	SP	P
SMF	86.067	42.50	4.90	20.16	I	C	SP	P
BNS	86.576	37.66	4.86	19.99	I	C	SP	P
COP	87.529	32.06	4.80	19.73	I	C	LP	P
MOX	89.282	36.82	4.71	19.34	E	C	LP	P
GRFO	89.458	37.79	4.71	19.34	I	C	LP	P
GRF	89.462	37.79	4.71	19.34	I	C	SP	P
NUR	90.587	24.58	4.70	19.30	E	C	LP	P
KHC	91.091	37.62	4.69	19.26	I	C	SP	P
KMR	91.910	38.40	4.67	19.17	E	C	LP	P
FIR	92.006	43.13	4.67	19.17	I	C	SP	P
TRI	92.760	40.61	4.64	19.05	I	C	SP	P
VIE	93.134	37.53	4.64	19.05	E	C	LP	P
RMP	93.816	44.44	4.61	18.92	I	C	SP	P
SKO	99.432	41.10	4.47	18.32	I	C	SP	P
ATH	103.067	43.56	4.45	18.24	I	C	SP	Pdf
IST	104.607	38.54	4.45	18.24	I	C	LP	Pdf
MAT	105.039	316.03	1.89	7.64	E	C	LP	PKP
SHK	109.866	317.11	1.89	7.64	I	C	LP	PKP
GUA	110.881	291.88	1.89	7.64	E	C	LP	PKP
GUMO	110.902	291.94	1.89	7.64	I	C	LP	PKP
SEO	111.426	322.78	1.89	7.64	E	C	LP	PKP
TAB	116.207	30.74	1.88	7.59	E	C	LP	PKP
ANP	123.271	316.23	1.87	7.55	E	C	LP	PKP
TATO	123.431	316.07	1.87	7.55	E	C	LP	PKP
BAG	129.657	308.74	1.85	7.48	E	C	LP	PKP
DAV	130.760	295.09	1.85	7.46	E	C	LP	PKP
NAI	133.121	75.77	1.84	7.41	E	C	LP	PKP
CHG	140.996	333.74	1.75	7.09	I	C	SP	PKP

Table 28. Station data for event 53 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CHG	140.996	333.74	1.75	7.09	I	C	LP	PKP
NWAO	144.205	236.37	1.70	6.88	E	C	LP	PKP
HYB	146.041	5.64	1.66	6.72	I	C	SP	PKP
SNG	149.951	320.40	1.56	6.30	I	C	LP	PKP
LEM	152.997	288.06	1.46	5.90	I	C	LP	PKP

Table 29. Station data for event 54.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
IIP	2.824	349.22	14.24	93.41	I	D	SP	P
JCT	13.919	354.81	13.12	66.88	I	C	LP	P
SJS	15.394	113.51	12.86	64.35	I	C	SP	P
EPT	16.859	335.40	12.58	61.87	I	C	LP	P
TUL	19.408	6.28	10.58	47.87	I	C	LP	P
ANMO	19.693	339.91	10.58	47.87	I	C	LP	P
ALQ	19.690	339.91	10.58	47.87	I	C	LP	P
JHP	20.218	18.78	10.44	47.04	I	C	SP	P
LST	21.308	19.42	10.05	44.79	I	C	SP	P
CSIL	22.624	20.06	9.85	43.67	I	C	SP	P
TYS	22.927	15.84	9.76	43.17	I	C	SP	P
NHIL	23.099	20.89	9.76	43.17	I	C	SP	P
SLM	23.118	16.37	9.76	43.17	I	C	SP	P
BPIL	23.207	19.83	9.76	43.17	I	C	SP	P
WSIL	23.646	20.44	9.68	42.73	I	C	SP	P
GOL	23.853	346.53	9.60	42.30	I	C	LP	P
PAS	24.967	318.24	9.47	41.59	I	C	LP	P
IN3	25.148	23.43	9.47	41.59	I	C	SP	P
IN2	25.379	21.10	9.42	41.33	I	C	SP	P
IN4	25.754	24.45	9.38	41.11	I	C	SP	P
BLA	25.970	34.16	9.38	41.11	I	C	SP	P
AN8	26.576	24.58	9.33	40.85	I	C	SP	P
BOCO	26.655	113.81	9.33	40.85	E	C	LP	P
AN10	26.699	24.05	9.33	40.85	I	C	SP	P
AN11	26.696	23.64	9.33	40.85	I	C	SP	P
AN4	26.714	25.17	9.33	40.85	I	C	SP	P
AN7	27.239	24.53	9.28	40.58	I	C	SP	P
ACM	28.115	19.82	9.18	40.05	I	C	SP	P
AAM	28.581	23.18	9.11	39.69	I	C	LP	P
BKS	29.871	319.97	8.91	38.65	I	C	LP	P
SCP	29.957	32.16	8.91	38.65	I	C	LP	P
SCP	29.957	32.16	8.91	38.65	I	C	SP	P
SJG	30.765	82.31	8.82	38.19	I	C	LP	P
CAR	31.118	97.10	8.82	38.19	I	C	SP	P
LRM	31.466	340.96	8.79	38.04	I	C	SP	P
BUT	31.672	340.99	8.79	38.04	I	C	SP	P
INY	31.872	31.49	8.75	37.83	I	C	SP	P
MSO	32.835	340.11	8.68	37.48	I	C	LP	P
COR	34.963	328.27	8.56	36.87	I	C	SP	P
PT02	36.448	142.22	8.47	36.42	I	C	SP	P
ZOBO	44.190	136.07	8.05	34.35	I	C	LP	P
LPB	44.397	136.30	8.02	34.21	I	C	LP	P
ANT	48.437	144.97	7.78	33.05	E	C	LP	P
PEL	56.044	151.98	7.18	30.22	I	C	SP	P
COL	58.521	337.67	7.00	29.39	I	C	LP	P
COL	58.521	337.67	7.00	29.39	I	C	SP	P
PPT	60.783	238.43	6.80	28.47	E	D	LP	P
LPA	63.975	143.62	6.56	27.38	I	C	LP	P
RDJ	66.668	124.51	6.35	26.43	I	C	LP	P
AKU	71.034	25.57	5.99	24.83	I	C	LP	P

Table 29. Station data for event 54 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAG	71.609	13.81	5.96	24.70	E	C	LP	P
VAL	76.000	39.62	5.64	23.29	I	C	LP	P
KBS	77.673	10.71	5.55	22.90	I	C	LP	P
EAB	78.626	34.68	5.48	22.59	I	C	SP	P
EBH	79.066	34.51	5.45	22.46	I	C	SP	P
PTO	79.126	50.28	5.45	22.46	I	C	LP	P
EDI	79.263	34.15	5.41	22.29	I	C	SP	P
EBL	79.431	34.92	5.41	22.29	I	C	SP	P
ESK	79.450	35.39	5.41	22.29	I	C	LP	P
ESY	79.631	34.72	5.41	22.29	I	C	SP	P
LPF	82.652	42.17	5.14	21.12	I	C	SP	P
GRR	82.667	41.79	5.14	21.12	I	C	SP	P
TOL	82.797	50.67	5.11	20.99	I	C	LP	P
FLN	82.800	41.35	5.11	20.99	I	C	SP	P
TLO	82.828	50.68	5.11	20.99	E	C	LP	P
SSC	83.089	41.45	5.11	20.99	I	C	SP	P
LGR	83.221	47.85	5.11	20.99	I	C	SP	P
MAL	83.364	53.80	5.08	20.86	I	C	LP	P
MFF	83.649	43.37	5.08	20.86	I	C	SP	P
CRT	83.866	53.17	5.05	20.73	I	C	SP	P
KON	84.620	29.03	5.02	20.60	I	C	LP	P
LFF	84.741	44.78	5.02	20.60	I	C	SP	P
ALM	84.835	53.24	4.99	20.48	I	C	SP	P
LSF	84.860	43.35	4.99	20.48	I	C	SP	P
EPF	85.057	46.69	4.99	20.48	I	C	SP	P
LPO	85.125	44.92	4.99	20.48	I	C	SP	P
UCC	85.133	38.41	4.99	20.48	I	C	LP	P
RJF	85.151	44.25	4.99	20.48	I	C	SP	P
DBN	85.158	37.01	4.99	20.48	I	C	LP	P
TCF	85.295	43.16	4.96	20.35	I	C	SP	P
DOU	85.517	39.02	4.96	20.35	I	C	LP	P
MZF	85.564	43.15	4.96	20.35	I	C	SP	P
CAF	85.640	44.49	4.96	20.35	I	C	SP	P
KEV	85.858	16.54	4.90	20.09	I	C	LP	P
SSF	85.881	42.13	4.90	20.09	I	C	SP	P
LOR	86.037	41.86	4.90	20.09	I	C	SP	P
LBF	86.210	42.10	4.90	20.09	I	C	SP	P
BNS	86.737	37.61	4.86	19.92	I	C	SP	P
COP	87.676	32.00	4.80	19.66	I	C	LP	P
STU	88.799	39.12	4.73	19.36	I	C	LP	P
MOX	89.441	36.76	4.71	19.28	E	C	LP	P
KJF	89.573	20.72	4.71	19.28	I	C	LP	P
GRFO	89.619	37.73	4.71	19.28	I	C	LP	P
GRF	89.623	37.73	4.71	19.28	I	C	SP	P
CLL	89.934	35.78	4.71	19.28	I	C	SP	P
BRG	90.662	35.89	4.70	19.24	I	C	SP	P
NUR	90.715	24.52	4.70	19.24	I	C	LP	P
OGA	90.712	40.34	4.70	19.24	I	C	SP	P
KHC	91.252	37.55	4.68	19.15	I	C	SP	P
BHG	91.474	39.02	4.68	19.15	I	C	SP	P

Table 29. Station data for event 54 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KMR	92.073	38.34	4.67	19.11	E	C	LP	P
VIE	93.295	37.46	4.63	18.94	E	C	LP	P
RMP	93.991	44.38	4.61	18.85	I	C	SP	P
SKO	99.600	41.02	4.47	18.26	I	C	SP	P
ATH	103.240	43.47	4.45	18.18	I	C	SP	Pdf
IST	104.770	38.45	4.45	18.18	I	C	LP	Pdf
MAT	104.935	315.92	4.45	18.18	E	C	LP	Pdf
SHK	109.765	316.99	1.89	7.61	I	C	LP	PKP
GUA	110.713	291.77	1.89	7.61	E	C	LP	PKP
GUMO	110.734	291.84	1.89	7.61	I	C	LP	PKP
SEO	111.343	322.65	1.89	7.61	E	C	LP	PKP
TAB	116.351	30.61	1.88	7.57	E	C	LP	PKP
ANP	123.167	316.06	1.87	7.53	E	C	LP	PKP
TATO	123.327	315.89	1.87	7.53	I	C	LP	PKP
ADE	126.142	238.61	1.86	7.51	I	C	SP	PKP
MAW	127.559	171.05	1.86	7.48	I	C	SP	PKP
KSR	128.435	110.07	1.86	7.48	I	C	SP	PKP
BAG	129.531	308.55	1.85	7.46	E	C	LP	PKp
SLR	129.682	109.88	1.85	7.46	I	C	SP	PKP
KRI	130.287	98.22	1.85	7.46	I	C	SP	PKP
DAV	130.599	294.92	1.85	7.44	E	C	LP	PKP
NAI	133.327	75.71	1.84	7.39	E	C	LP	PKP
CLK	135.238	95.73	1.82	7.33	I	C	SP	PKP
CHG	140.950	333.44	1.75	7.06	I	C	LP	PKP
NWAO	144.011	236.41	1.70	6.86	E	C	LP	PKP
SNG	149.860	320.02	1.56	6.28	I	C	LP	PKP
LEM	152.821	287.79	1.46	5.88	I	C	LP	PKP

Table 30. Station data for event 55.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TCX	5.385	315.34	13.88	86.61	I	D	SP	P
ACX	10.756	290.50	13.41	74.64	I	C	SP	P
IBI	10.967	298.62	13.39	74.25	I	C	SP	P
IBM	11.178	303.62	13.36	73.86	I	C	SP	P
CCA	11.257	295.80	13.35	73.73	I	C	SP	P
IBC	11.470	305.33	13.33	73.35	I	C	SP	P
ZBH	12.442	291.61	13.19	71.53	I	C	SP	P
SHA	17.332	3.46	12.35	62.61	I	C	LP	P
BOCO	17.408	118.48	12.33	62.48	E	C	LP	P
HKT	17.612	341.07	12.29	62.11	I	C	SP	P
UAV	18.460	102.80	11.94	59.14	I	C	SP	P
ATX	18.663	336.38	11.53	55.96	I	C	SP	P
TOV	19.467	98.30	10.44	48.67	I	C	SP	P
JCT	19.625	332.17	10.42	48.52	I	C	LP	P
MOT	21.949	324.29	9.87	45.19	I	C	SP	P
SJG	22.819	74.94	9.72	44.34	I	C	LP	P
GBO	23.050	347.80	9.68	44.13	I	C	SP	P
TUL	23.237	346.63	9.65	43.96	I	C	LP	P
OCO	23.299	343.03	9.64	43.89	I	C	SP	P
RLO	23.322	348.32	9.64	43.86	I	C	SP	P
EPT	24.203	322.18	9.52	43.18	I	C	LP	P
IN3	26.037	6.29	9.33	42.15	I	C	SP	P
IN4	26.443	7.72	9.30	41.96	I	C	SP	P
ANMO	26.522	327.21	9.29	41.92	I	C	LP	P
ALQ	26.520	327.21	9.29	41.92	E	C	LP	P
AN4	27.226	9.13	9.22	41.53	I	C	SP	P
AN10	27.389	8.09	9.21	41.44	I	C	SP	P
AN11	27.450	7.71	9.20	41.41	I	C	SP	P
AN7	27.820	8.93	9.16	41.22	I	C	SP	P
SCP	29.162	18.06	8.96	40.12	I	C	LP	P
AAM	29.297	8.64	8.95	40.04	I	C	LP	P
ACM	29.381	5.25	8.94	39.99	I	C	SP	P
BEC	29.478	45.84	8.93	39.93	I	C	LP	P
GOL	29.840	334.64	8.88	39.69	I	C	SP	P
GOL	29.840	334.64	8.88	39.69	I	C	LP	P
PAS	33.373	313.36	8.63	38.38	I	D	LP	P
OTT	34.003	17.27	8.60	38.18	I	C	SP	P
ARE	34.440	148.67	8.57	38.04	I	D	SP	P
MNT	34.744	19.53	8.55	37.95	I	C	SP	P
LHC	34.996	0.08	8.54	37.87	I	C	SP	P
MNV	35.755	319.62	8.49	37.63	I	D	SP	P
FRI	35.946	316.40	8.48	37.57	I	D	SP	P
ZOBO	36.104	143.85	8.47	37.52	E	D	LP	P
PRI	36.151	314.49	8.47	37.51	I	D	SP	P
LPB	36.328	144.08	8.46	37.45	I	D	LP	P
BMN	36.424	323.04	8.45	37.43	I	C	SP	P
JAS	36.954	317.21	8.43	37.30	I	D	SP	P
LRM	37.844	333.42	8.37	36.98	I	C	SP	P
BKS	38.120	315.87	8.35	36.90	I	D	LP	P
MIN	39.041	319.62	8.31	36.66	I	D	SP	P

Table 30. Station data for event 55 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
WDC	39.764	319.30	8.26	36.44	I	C	SP	P
FHC	40.807	318.67	8.21	36.16	I	D	SP	P
ANT	41.178	153.16	8.19	36.07	I	D	LP	P
COR	42.523	323.79	8.11	35.66	I	D	LP	P
PEL	49.504	159.34	7.68	33.50	I	D	LP	P
LPA	56.456	149.08	7.13	30.84	I	D	LP	P
PPT	66.897	244.20	6.30	26.91	I	D	LP	P
TEN	69.040	64.44	6.12	26.12	I	C	SP	P
AKU	70.249	24.62	6.03	25.71	I	C	LP	P
DAG	72.709	13.15	5.85	24.90	E	C	LP	P
VAL	72.922	39.49	5.84	24.84	E	C	LP	P
PTO	74.438	50.70	5.73	24.34	I	C	LP	P
ESK	76.984	35.83	5.57	23.61	I	C	LP	P
TLO	78.047	51.65	5.50	23.32	I	C	LP	P
KBS	79.184	11.14	5.42	22.95	I	C	LP	P
KON	83.093	30.36	5.10	21.52	I	C	LP	P
STU	85.644	41.01	4.93	20.77	I	C	LP	P
MOX	86.640	38.77	4.84	20.36	I	C	LP	P
KJF	89.318	22.94	4.71	19.80	I	C	LP	P
TRI	89.510	43.04	4.71	19.79	I	C	SP	P
NUR	89.832	26.88	4.71	19.79	I	C	SP	P
SNZO	103.093	230.29	4.45	18.66	I	D	LP	Pdf
SHK	117.909	321.29	1.88	7.75	I	D	LP	PKP
BLF	118.543	115.98	1.88	7.75	I	D	SP	PKP
GUMO	120.016	294.37	1.87	7.74	I	D	LP	PKP
BUL	120.467	105.65	1.87	7.74	I	D	SP	PKP
KRI	121.142	101.73	1.87	7.73	I	D	SP	PKP
CIR	123.291	106.48	1.87	7.72	I	D	SP	PKP
NAI	125.385	82.00	1.87	7.71	I	C	LP	PKP
CLK	126.162	99.78	1.86	7.70	I	D	SP	PKP
CTAO	126.522	254.79	1.86	7.70	E	D	LP	PKP
TATO	131.503	321.61	1.84	7.62	I	D	LP	PKP
BAG	138.210	314.08	1.79	7.39	E	D	LP	PKP
DAV	139.837	298.27	1.77	7.31	I	D	LP	PKP
CHTO	147.054	345.47	1.64	6.76	E	D	LP	PKP
NWAO	148.873	226.70	1.59	6.57	E	D	LP	PKP
GBA	150.223	26.61	1.55	6.41	I	D	SP	PKP
LEM	162.111	289.47	1.06	4.37	I	D	LP	PKP

Table 31. Station data for event 67.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LCR	3.273	336.53	14.24	45.60	I	C	SP	P
SJS	3.477	337.07	14.23	134.44	I	C	SP	P
SRA	3.772	332.49	14.22	45.51	I	C	SP	P
BOCO	8.852	103.39	13.84	43.98	E	C	LP	P
SSS	9.433	317.68	13.79	43.78	I	C	SP	P
SDV	12.128	78.99	13.47	42.52	I	C	SP	P
CAR	16.021	75.32	12.81	39.99	I	C	SP	P
NNA	19.466	162.62	12.10	37.38	I	C	SP	P
SJG	19.696	53.41	12.10	37.38	I	D	LP	P
HUA	20.015	158.53	10.48	31.72	I	D	SP	P
PT06	21.361	162.85	10.08	30.38	I	D	SP	P
SHA	24.394	348.55	9.55	28.63	I	C	LP	P
ZOBO	27.000	147.88	9.29	27.78	I	C	LP	P
LPB	27.233	148.15	9.29	27.78	I	C	LP	P
ATX	27.468	330.58	9.25	27.65	I	C	SP	P
JCT	28.584	327.91	9.14	27.29	I	C	LP	P
BLA	30.419	3.56	8.87	26.42	I	D	LP	P
BLA	30.419	3.56	8.87	26.42	I	D	SP	P
RLO	31.413	340.61	8.79	26.17	I	C	SP	P
TUL	31.442	339.32	8.79	26.17	I	C	LP	P
EPT	33.407	321.32	8.66	25.75	I	C	LP	P
SCP	34.199	6.51	8.63	25.66	I	D	LP	P
PAL	35.024	11.60	8.56	25.43	I	D	LP	P
ANMO	35.613	325.33	8.53	25.34	E	C	LP	P
WES	36.913	14.06	8.45	25.08	I	D	LP	P
GOL	38.654	331.54	8.36	24.80	I	C	LP	P
GAC	39.332	7.97	8.30	24.61	E	D	LP	P
PEL	41.242	164.66	8.22	24.36	I	D	SP	P
TCA	41.602	156.41	8.19	24.26	I	D	SP	P
PCH	41.739	164.68	8.19	24.26	I	D	SP	P
CHCH	41.999	164.99	8.16	24.17	I	D	SP	P
PAS	42.640	314.70	8.13	24.07	I	C	LP	P
DUG	42.885	325.59	8.11	24.01	I	C	LP	P
BDW	43.038	330.79	8.11	24.01	I	C	SP	P
MNV	44.991	319.86	8.00	23.66	I	C	SP	P
FRI	45.210	317.20	8.00	23.66	I	C	SP	P
PRI	45.419	315.61	7.97	23.57	I	C	SP	P
JAS	46.213	317.88	7.94	23.48	I	C	LP	P
JAS	46.213	317.88	7.94	23.48	I	C	SP	P
BAA	47.015	152.47	7.88	23.29	E	C	LP	P
BKS	47.385	316.78	7.85	23.19	I	C	LP	P
RDJ	48.528	128.54	7.79	23.01	I	C	LP	P
WDC	49.003	319.70	7.75	22.88	I	C	SP	P
COR	51.684	323.63	7.55	22.26	I	C	LP	P
LON	52.107	326.64	7.50	22.10	I	C	LP	P
COL	73.537	336.20	5.82	16.98	I	C	LP	P
PTO	73.623	49.21	5.82	16.98	I	D	LP	P
VAL	73.930	37.90	5.79	16.89	E	D	LP	P
DAG	77.661	12.23	5.56	16.20	E	D	LP	P
BNS	84.745	39.43	5.03	14.62	I	D	SP	P

Table 31. Station data for event 67 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
GWF	85.184	41.40	4.99	14.50	I	D	SP	P
KONO	85.409	30.61	4.96	14.41	I	D	LP	P
MUD	85.478	33.82	4.96	14.41	I	D	SP	P
HAM	86.208	36.77	4.91	14.26	I	D	SP	P
STU	86.238	41.51	4.91	14.26	I	D	LP	P
COP	87.386	34.39	4.80	13.93	I	D	LP	P
FIR	88.241	46.31	4.78	13.88	I	D	SP	P
KMR	89.593	41.78	4.72	13.70	I	D	LP	P
KEV	90.433	19.14	4.70	13.64	I	D	LP	P
AFI	90.719	256.17	4.70	13.64	E	D	LP	P
BNG	100.596	84.23	4.45	12.90	I	C	SP	Pdf
SLR	111.757	114.92	1.89	5.44	I	C	SP	PKP
SLR	111.757	114.92	1.89	5.44	E	C	LP	PKP
TAU	123.224	222.29	1.87	5.38	E	D	LP	PKp
GUMO	128.666	293.24	1.86	5.34	E	D	LP	PKP
CTAO	130.764	249.33	1.85	5.32	E	D	LP	PKP
KBL	131.036	31.23	1.85	5.32	E	D	LP	PKP
ANP	140.508	324.27	1.75	5.05	E	D	LP	PKP
TATO	140.684	324.09	1.75	5.05	E	D	LP	PKP
POO	145.864	42.33	1.66	4.79	I	D	SP	PKP
NWAO	148.024	212.75	1.62	4.65	E	D	LP	PKP
DAV	148.655	295.42	1.59	4.57	E	D	LP	PKP
BDT	156.137	356.02	1.35	3.88	I	D	SP	PKP

Table 32. Station data for event 101.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPS	6.143	106.66	14.01	83.41	I	C	SP	P
SSS	6.327	112.00	13.97	82.12	I	C	SP	P
SJS	12.513	118.18	13.30	70.57	E	C	SP	P
JCT	14.866	344.45	12.89	66.06	I	D	SP	P
JCT	14.866	344.45	12.89	66.06	I	D	LP	P
SHA	15.865	22.89	12.71	64.32	I	C	LP	P
EPT	18.633	328.59	12.22	60.05	I	D	LP	P
OCO	19.399	354.49	10.53	48.30	I	C	SP	P
SIO	19.541	357.38	10.53	48.30	I	C	SP	P
GBO	19.623	0.12	10.53	48.30	I	C	SP	P
TUL	19.688	358.65	10.53	48.30	I	C	LP	P
RLO	19.938	0.49	10.39	47.45	I	C	SP	P
ACO	20.761	351.10	10.13	45.91	I	C	SP	P
RSCP	21.202	22.19	10.13	45.91	I	C	LP	P
ANMO	21.251	333.82	10.02	45.27	I	D	LP	P
BLA	24.740	29.19	9.52	42.46	I	C	LP	P
GOL	25.078	341.31	9.46	42.13	I	D	LP	P
TOV	25.568	101.18	9.41	41.85	I	C	SP	P
PAS	27.323	315.23	9.22	40.83	I	D	SP	P
UTO	27.340	19.25	9.22	40.83	I	C	SP	P
SJG	27.849	81.73	9.17	40.56	I	C	LP	P
SCP	28.804	28.06	9.02	39.76	I	C	LP	P
RSSD	28.865	346.80	9.02	39.76	I	D	LP	P
FRI	30.012	318.45	8.89	39.08	I	D	SP	P
PRI	30.137	316.18	8.89	39.08	E	D	SP	P
JAS	31.053	319.25	8.81	38.66	I	D	LP	P
JAS	31.053	319.25	8.81	38.66	I	D	SP	P
MHC	31.466	317.22	8.78	38.50	I	D	SP	P
BEC	32.049	54.15	8.74	38.30	E	C	LP	P
BKS	32.158	317.54	8.74	38.30	I	D	SP	P
GUV	32.470	100.97	8.71	38.14	I	C	SP	P
LHC	32.550	7.39	8.71	38.14	I	C	SP	P
WES	33.221	33.24	8.67	37.93	I	C	LP	P
RSNY	33.277	27.43	8.64	37.78	I	C	LP	P
OTT	33.447	25.29	8.64	37.78	E	C	SP	P
GAC	33.795	25.20	8.61	37.63	I	C	LP	P
WDC	33.951	321.27	8.61	37.63	I	D	SP	P
MSO	34.314	337.00	8.58	37.47	I	D	SP	P
PT02	34.360	146.18	8.58	37.47	I	C	SP	P
RSON	34.645	1.71	8.58	37.47	E	N	LP	P
FHC	34.962	320.41	8.55	37.32	I	D	SP	P
PT06	35.154	146.87	8.55	37.32	I	C	SP	P
LHD	36.112	336.80	8.49	37.01	I	D	LP	P
LDM	36.183	337.21	8.49	37.01	I	D	LP	P
RXF	36.455	337.78	8.46	36.86	I	D	LP	P
COR	36.937	325.97	8.44	36.76	E	D	LP	P
LON	37.656	329.76	8.40	36.56	E	D	LP	P
FFC	38.851	353.76	8.32	36.15	I	C	SP	P
ARE	39.975	143.04	8.26	35.85	I	D	SP	P
ZOBO	41.863	139.02	8.15	35.30	I	C	LP	P

Table 32. Station data for event 101 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPB	42.076	139.25	8.15	35.30	I	C	LP	P
FCC	42.553	0.88	8.12	35.15	I	C	SP	P
SCH	44.400	23.21	8.01	34.61	E	C	SP	P
ANT	46.437	147.93	7.90	34.07	E	C	LP	P
YJA	47.936	141.74	7.81	33.63	I	C	SP	P
RSNT	48.245	348.09	7.81	33.63	I	D	LP	P
FRB	50.991	14.90	7.57	32.46	E	C	SP	P
CFA	54.083	151.43	7.33	31.31	E	C	SP	P
PEL	54.329	154.59	7.29	31.12	I	C	SP	P
PEL	54.329	154.59	7.29	31.12	I	C	LP	P
FCH	54.652	154.35	7.29	31.12	I	D	SP	P
PCH	54.814	154.73	7.25	30.94	I	D	SP	P
CHCH	55.029	155.04	7.25	30.94	I	D	SP	P
LQT	55.107	154.58	7.25	30.94	I	D	SP	P
TCA	55.628	148.10	7.21	30.75	E	D	SP	P
BDF	56.400	121.75	7.14	30.42	I	C	LP	P
RFA	56.661	153.65	7.14	30.42	E	C	SP	P
HON	59.349	285.47	6.91	29.34	E	D	LP	P
COL	60.055	336.99	6.87	29.15	I	D	LP	P
VAO	61.172	128.29	6.79	28.78	I	C	SP	P
MBC	61.428	353.60	6.75	28.60	I	C	SP	P
LPA	61.904	145.63	6.71	28.41	E	N	LP	P
VBA	62.297	150.73	6.67	28.23	I	D	SP	P
DAG	71.293	13.68	5.95	24.95	I	C	SP	P
VAL	74.396	39.82	5.74	24.02	E	C	LP	P
DCN	76.013	38.14	5.64	23.57	I	C	SP	P
DMU	76.149	37.54	5.64	23.57	I	C	SP	P
DLE	76.457	38.13	5.61	23.44	I	C	SP	P
DDK	76.562	38.01	5.61	23.44	I	C	SP	P
ECP	76.735	39.24	5.61	23.44	I	C	SP	P
ETA	76.748	38.70	5.61	23.44	I	C	SP	P
PTO	77.070	50.69	5.58	23.31	I	C	LP	P
LIS	77.087	53.20	5.58	23.31	I	C	SP	P
ESK	78.036	35.73	5.51	23.00	E	C	LP	P
SFS	79.825	54.98	5.35	22.29	I	C	SP	P
LPF	80.928	42.68	5.25	21.85	I	C	SP	P
GRR	80.960	42.30	5.25	21.85	I	C	SP	P
FLN	81.112	41.87	5.25	21.85	I	C	SP	P
MAL	81.173	54.39	5.25	21.85	I	C	SP	P
AFI	81.306	252.82	5.21	21.68	E	D	LP	P
LDF	81.385	41.98	5.21	21.68	I	C	SP	P
MFF	81.872	43.93	5.17	21.51	I	C	SP	P
ALM	82.662	53.89	5.14	21.37	I	C	SP	P
LFF	82.904	45.39	5.11	21.24	I	C	SP	P
LSF	83.083	43.97	5.11	21.24	I	C	SP	P
EPF	83.140	47.32	5.11	21.24	I	C	SP	P
LPO	83.282	45.55	5.08	21.11	I	C	SP	P
RJF	83.336	44.88	5.08	21.11	I	C	SP	P
KONO	83.506	29.61	5.08	21.11	I	C	LP	P
TCF	83.526	43.80	5.08	21.11	I	C	SP	P

Table 32. Station data for event 101 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
UCC	83.574	39.03	5.08	21.11	E	C	LP	P
DBN	83.663	37.62	5.08	21.11	I	C	LP	P
CAF	83.814	45.14	5.05	20.98	I	C	SP	P
BGF	83.870	43.41	5.05	20.98	I	C	SP	P
DOU	83.930	39.66	5.05	20.98	E	C	LP	P
AVF	84.136	43.08	5.05	20.98	I	C	SP	P
SSF	84.156	42.79	5.05	20.98	I	C	SP	P
WIT	84.302	36.65	5.02	20.85	I	C	SP	P
LOR	84.324	42.52	5.02	20.85	I	C	SP	P
MUD	84.426	32.70	5.02	20.85	I	C	SP	P
LBF	84.486	42.77	5.02	20.85	I	C	SP	P
SMF	84.500	43.12	5.02	20.85	I	C	SP	P
ENN	84.528	38.75	5.02	20.85	I	C	SP	P
WTS	84.653	37.40	5.02	20.85	I	C	SP	P
KLL	84.800	38.79	4.99	20.72	I	C	SP	P
WLF	85.023	39.75	4.99	20.72	E	C	LP	P
BNS	85.213	38.30	4.99	20.72	I	C	SP	P
KEV	85.379	17.18	4.96	20.59	E	C	LP	P
SSB	85.384	44.28	4.96	20.59	I	C	SP	P
BGG	85.566	38.99	4.96	20.59	I	C	SP	P
HAU	85.689	41.28	4.96	20.59	I	C	SP	P
BSF	86.028	41.35	4.90	20.33	I	C	SP	P
ECH	86.130	40.90	4.90	20.33	I	C	SP	P
CDF	86.138	40.69	4.90	20.33	I	C	SP	P
BAF	86.156	41.30	4.90	20.33	I	C	SP	P
COP	86.414	32.74	4.86	20.16	E	C	LP	P
BUH	86.640	40.23	4.86	20.16	I	C	SP	P
DIX	87.022	42.86	4.82	19.98	E	C	LP	P
UPP	87.127	27.75	4.82	19.98	I	C	SP	P
ZUL	87.164	41.31	4.82	19.98	I	C	SP	P
LRG	87.208	45.58	4.82	19.98	I	C	SP	P
STU	87.204	39.91	4.82	19.98	I	C	LP	P
LMR	87.350	45.66	4.80	19.90	I	C	SP	P
MOX	87.953	37.57	4.77	19.77	I	C	LP	P
GRFO	88.087	38.55	4.77	19.77	I	C	LP	P
HOF	88.237	37.81	4.77	19.77	I	C	SP	P
CLL	88.492	36.61	4.75	19.68	I	C	SP	P
OGA	89.061	41.21	4.73	19.60	I	C	SP	P
BRG	89.213	36.77	4.73	19.60	I	C	SP	P
CVF	89.242	45.77	4.73	19.60	I	C	SP	P
WET	89.302	38.63	4.71	19.51	I	C	SP	P
KHC	89.726	38.45	4.71	19.51	I	C	SP	P
BHG	89.881	39.93	4.71	19.51	I	C	SP	P
PRU	89.934	37.41	4.71	19.51	I	C	SP	P
KBA	90.433	40.39	4.70	19.47	I	C	SP	P
KMR	90.510	39.27	4.70	19.47	E	C	LP	P
KSP	90.567	36.15	4.70	19.47	I	C	SP	P
TRI	91.266	41.51	4.68	19.38	I	C	SP	P
VKA	91.738	38.45	4.68	19.38	I	C	SP	P
BUD	93.714	38.30	4.63	19.17	I	C	SP	P

Table 32. Station data for event 101 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
JOS	94.109	36.91	4.61	19.08	I	C	SP	P
TIM	95.891	39.08	4.55	18.82	I	C	SP	P
GZR	97.006	38.82	4.53	18.74	I	C	SP	P
CLO	97.187	39.08	4.53	18.74	I	C	SP	P
SKO	97.910	42.28	4.51	18.65	I	C	SP	P
PVL	99.656	39.82	4.46	18.44	I	C	SP	P
SNZO	100.516	230.02	4.45	18.39	E	D	LP	Pdf
SHK	112.084	318.61	1.89	7.70	I	D	LP	PKP
GRM	125.113	119.54	1.87	7.60	I	D	LP	PKP
BUL	126.692	103.29	1.86	7.58	I	D	LP	PKP
CHG	142.567	337.56	1.72	7.01	I	D	LP	PKP
POO	143.906	17.76	1.70	6.94	I	D	SP	PKP
HYB	146.096	10.68	1.66	6.77	I	D	SP	PKP
NWAO	146.250	234.35	1.66	6.77	I	D	SP	PKP
NWAO	146.250	234.35	1.66	6.77	E	D	LP	PKP
MUN	147.404	235.38	1.64	6.67	I	D	LP	PKP
SNG	152.018	324.72	1.50	6.09	I	D	LP	PKP
LEM	155.794	289.88	1.35	5.48	I	D	LP	PKP

Table 33. Station data for event 118.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TRN	1.009	110.61	12.11	119.49	I	C	LP	P
CAR	4.512	264.10	13.90	88.29	I	D	SP	P
SJG	7.956	333.02	13.71	80.34	E	C	LP	P
LGN	8.798	265.24	13.63	78.50	I	C	SP	P
BEC	21.375	354.61	9.98	45.87	I	C	LP	P
LPS	26.344	279.95	9.31	42.01	I	C	SP	P
PT02	27.588	210.79	9.19	41.33	I	D	SP	P
ZOBO	27.689	191.97	9.17	41.27	I	D	LP	P
LPB	27.940	191.80	9.15	41.13	I	D	SP	P
SHA	30.912	313.18	8.80	39.27	I	C	LP	P
WES	32.221	347.50	8.71	38.78	E	C	LP	P
RSCP	32.298	323.03	8.70	38.73	I	C	LP	P
SCP	32.669	337.92	8.68	38.59	I	C	LP	P
AN10	35.252	330.17	8.52	37.79	I	C	SP	P
AN12	35.459	330.95	8.51	37.72	I	C	SP	P
GAC	36.345	344.44	8.46	37.45	I	C	LP	P
GBO	38.653	315.17	8.32	36.74	I	C	SP	P
RLO	38.709	315.71	8.32	36.73	I	C	SP	P
TUL	39.105	314.84	8.30	36.65	I	C	LP	P
CYA	39.352	184.77	8.29	36.57	I	D	SP	P
JCT	39.757	304.85	8.26	36.44	I	C	SP	P
JCT	39.757	304.85	8.26	36.44	E	C	LP	P
OCO	40.100	313.25	8.24	36.34	I	C	SP	P
LUB	42.534	308.23	8.11	35.66	E	C	LP	P
LHC	43.547	334.05	8.05	35.39	I	C	SP	P
ROCH	44.497	190.39	8.01	35.16	I	D	SP	P
PEL	44.608	189.96	8.00	35.13	I	D	SP	P
ANMO	46.570	308.08	7.88	34.53	I	C	LP	P
RSON	47.293	333.34	7.84	34.31	I	C	LP	P
GOL	47.574	314.52	7.82	34.23	E	C	LP	P
RSSD	48.714	320.41	7.74	33.81	I	C	LP	P
FCC	53.333	340.02	7.37	32.00	I	C	SP	P
LIS	54.682	50.17	7.26	31.48	I	C	SP	P
LRM	54.820	318.98	7.25	31.43	I	C	SP	P
AVE	54.838	57.00	7.25	31.42	I	C	SP	P
AMM	55.247	319.12	7.22	31.26	I	C	SP	P
PAS	55.695	303.85	7.18	31.09	I	C	SP	P
PTO	55.756	47.48	7.18	31.06	I	C	SP	P
SES	55.896	324.51	7.16	31.01	I	C	SP	P
FRI	57.464	306.90	7.05	30.46	I	C	SP	P
MAL	57.893	53.51	7.02	30.33	I	C	SP	P
JAS	58.221	307.87	7.00	30.22	I	C	LP	P
JAS	58.221	307.87	7.00	30.22	I	C	SP	P
EDM	58.451	326.75	6.98	30.13	I	C	SP	P
VAL	58.520	34.96	6.98	30.10	E	C	LP	P
NEW	58.686	320.30	6.96	30.04	I	C	SP	P
TOL	58.803	49.96	6.95	29.99	I	C	LP	P
TOL	58.803	49.96	6.95	29.99	I	C	SP	P
MIN	59.595	310.40	6.89	29.69	I	C	SP	P
REY	60.123	19.16	6.85	29.49	I	C	SP	P

Table 33. Station data for event 118 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
WDC	60.341	310.50	6.83	29.41	I	C	SP	P
LGR	60.501	47.34	6.82	29.35	I	C	SP	P
DCN	60.741	34.31	6.80	29.26	I	C	SP	P
ECP	60.818	35.78	6.79	29.23	I	C	SP	P
ETA	61.096	35.27	6.77	29.13	I	C	SP	P
DLE	61.127	34.56	6.77	29.11	I	C	SP	P
DMU	61.157	33.82	6.76	29.10	I	C	SP	P
DDK	61.278	34.51	6.75	29.06	I	C	SP	P
AKU	62.365	19.04	6.67	28.65	I	C	SP	P
EPF	62.668	47.19	6.64	28.53	I	C	SP	P
LPF	62.816	41.46	6.63	28.48	I	C	SP	P
GRR	63.023	41.10	6.62	28.40	I	C	SP	P
MFF	63.068	43.18	6.61	28.38	I	C	SP	P
MLS	63.191	47.38	6.60	28.34	I	C	SP	P
LFF	63.318	45.15	6.59	28.29	I	C	SP	P
FLN	63.358	40.77	6.59	28.28	I	C	SP	P
LDF	63.548	41.02	6.57	28.20	I	C	SP	P
LPO	63.583	45.50	6.57	28.19	I	C	SP	P
RJF	63.932	44.87	6.54	28.06	I	C	SP	P
LSF	64.126	43.84	6.53	27.99	I	C	SP	P
CAF	64.242	45.36	6.52	27.95	I	C	SP	P
TCF	64.596	43.90	6.49	27.81	I	C	SP	P
MZF	64.837	44.03	6.47	27.72	I	C	SP	P
AVF	65.464	43.52	6.42	27.49	I	C	SP	P
SSF	65.616	43.24	6.41	27.43	I	C	SP	P
SMF	65.770	43.74	6.40	27.39	I	C	SP	P
LOR	65.890	43.07	6.39	27.34	I	C	SP	P
LBF	65.920	43.39	6.39	27.33	I	C	SP	P
SSB	66.031	45.30	6.38	27.28	I	C	SP	P
CDR	66.679	47.17	6.31	26.99	I	C	SP	P
UCC	66.870	39.34	6.30	26.92	E	C	LP	P
LRG	67.081	47.46	6.28	26.85	I	C	SP	P
LMR	67.175	47.60	6.27	26.81	I	C	SP	P
FRF	67.300	47.37	6.26	26.76	I	C	SP	P
DBN	67.625	38.06	6.24	26.64	I	C	LP	P
HAU	67.671	42.57	6.23	26.63	I	C	SP	P
ENN	67.840	39.58	6.22	26.56	I	C	SP	P
BSF	67.941	42.80	6.21	26.53	I	C	SP	P
BAF	68.077	42.82	6.20	26.48	I	C	SP	P
DIX	68.133	44.74	6.20	26.46	I	C	LP	P
ECH	68.238	42.43	6.19	26.42	I	D	SP	P
CDF	68.343	42.23	6.18	26.38	I	C	SP	P
GWF	68.648	41.66	6.16	26.27	I	C	SP	P
BNS	68.655	39.51	6.15	26.26	I	C	SP	P
CVF	68.827	48.60	6.14	26.20	I	C	SP	P
ZUL	68.968	43.33	6.13	26.15	I	C	LP	P
BUH	69.006	42.04	6.13	26.14	I	C	SP	P
TNS	69.351	40.42	6.10	26.01	I	C	SP	P
DAG	69.612	9.76	6.08	25.91	E	C	LP	P
DAG	69.612	9.76	6.08	25.91	I	C	SP	P

Table 33. Station data for event 118 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
STU	69.653	42.02	6.08	25.90	I	C	SP	P
OGA	70.697	44.17	6.00	25.57	I	C	SP	P
MUD	70.707	33.91	6.00	25.57	I	C	SP	P
FUR	70.971	42.81	5.98	25.46	I	C	SP	P
GRFO	71.066	41.20	5.97	25.43	E	C	LP	P
MOX	71.411	40.22	5.95	25.31	I	C	SP	P
KONO	71.471	30.62	5.94	25.29	I	C	LP	P
ALE	71.499	359.99	5.94	25.28	I	C	SP	P
HOF	71.547	40.58	5.94	25.26	I	C	SP	P
BHG	72.015	43.36	5.91	25.13	I	C	SP	P
WET	72.106	41.86	5.90	25.10	I	C	SP	P
KBA	72.296	44.05	5.88	25.03	I	C	SP	P
CLL	72.342	39.60	5.88	25.01	I	C	SP	P
COP	72.414	34.99	5.88	24.99	I	D	SP	P
TRI	72.527	45.50	5.87	24.95	I	C	SP	P
BRN	72.553	38.45	5.87	24.94	I	C	SP	P
KHC	72.562	41.91	5.86	24.94	I	C	SP	P
BRG	72.904	40.10	5.84	24.84	I	C	SP	P
CEY	72.991	45.48	5.84	24.82	I	C	SP	P
LJU	73.075	45.17	5.83	24.79	I	D	SP	P
KSP	74.389	40.20	5.74	24.36	I	C	SP	P
BUD	76.167	43.69	5.62	23.82	I	C	SP	P
KRA	76.717	41.03	5.59	23.68	I	C	SP	P
PSZ	76.744	43.22	5.58	23.67	I	C	SP	P
JOS	77.156	42.62	5.56	23.56	I	C	SP	P
SKO	78.148	49.25	5.50	23.28	I	C	SP	P
GZR	78.862	45.70	5.45	23.06	I	C	SP	P
CLO	78.904	46.02	5.44	23.05	I	C	SP	P
KEV	79.540	20.73	5.39	22.82	I	C	LP	P
SUF	79.627	27.93	5.38	22.77	I	C	SP	P
COZ	79.968	45.67	5.34	22.58	I	C	SP	P
BNG	80.258	87.35	5.31	22.44	I	D	SP	P
PVL	80.786	47.80	5.27	22.25	I	D	SP	P
KDZ	81.089	49.30	5.24	22.13	I	C	SP	P
CVO	81.194	45.03	5.23	22.09	I	C	SP	P
DIM	81.215	48.87	5.23	22.08	I	C	SP	P
ANTO	86.953	50.14	4.82	20.28	I	C	LP	P
HLW	87.776	60.18	4.78	20.09	I	C	SP	P
SUR	90.134	122.84	4.71	19.78	I	D	SP	P
SWZ	92.917	116.97	4.64	19.50	I	D	SP	P
GTA	127.177	17.31	1.86	7.69	I	C	SP	PKP
POO	127.779	56.17	1.86	7.68	I	C	SP	PKP
MAT	128.896	338.68	1.86	7.67	I	C	SP	PKP
BJI	129.203	1.45	1.85	7.66	I	C	SP	PKP
DMN	130.331	38.76	1.85	7.64	I	D	SP	PKP
PKI	130.545	38.53	1.85	7.64	I	D	SP	PKP
NOU	132.091	249.91	1.84	7.60	I	C	SP	PKP
KOU	134.255	252.05	1.83	7.54	I	C	SP	PKP
KOD	134.832	63.55	1.82	7.53	I	C	SP	PKP
SSE	138.007	355.45	1.79	7.40	I	C	SP	PKP

Table 33. Station data for event 118 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CHG	145.106	32.05	1.68	6.94	I	C	LP	PKP
CHG	145.106	32.05	1.68	6.94	I	C	SP	PKP
GZH	145.863	7.05	1.66	6.87	I	C	SP	PKP
BDT	146.432	33.52	1.65	6.82	I	C	SP	PKP
HKC	146.728	5.85	1.65	6.79	E	C	LP	PKP
ADE	149.394	215.45	1.58	6.51	I	C	SP	PKP
PMG	150.911	270.40	1.53	6.32	I	C	SP	PKP
CTA	151.029	248.35	1.53	6.30	I	C	LP	PKP
WB2	161.616	239.09	1.09	4.48	I	C	SP	PKP
MBL	169.688	191.53	0.64	2.63	I	C	SP	PKP

Table 34. Station data for event 129.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SJS	1.523	322.95	14.25	90.00	I	D	SP	P
SSS	7.735	310.16	13.95	78.37	I	C	SP	P
LPS	8.105	313.67	13.90	77.41	I	C	SP	P
BOG	9.872	113.75	13.68	73.84	I	C	LP	P
SJG	18.951	58.75	12.15	58.55	I	C	SP	P
SJG	18.951	58.75	12.15	58.55	I	C	LP	P
GUV	19.839	91.14	10.43	47.08	I	C	SP	P
NNA	21.492	163.01	10.04	44.82	I	D	SP	P
SHA	22.360	348.57	9.84	43.70	I	C	LP	P
JCT	26.677	326.50	9.33	40.93	I	C	LP	P
RSCP	26.850	355.55	9.28	40.66	I	C	LP	P
ARE	27.534	155.26	9.23	40.40	I	C	SP	P
BLA	28.469	4.53	9.10	39.71	I	C	LP	P
ZOBO	28.923	149.07	9.03	39.35	I	N	LP	P
BEC	29.097	33.40	9.03	39.35	I	C	LP	P
LPB	29.158	149.31	9.03	39.35	E	C	LP	P
TUL	29.431	338.75	8.96	38.98	I	C	LP	P
SCP	32.282	7.49	8.71	37.70	I	C	LP	P
ANMO	33.738	324.13	8.65	37.40	I	C	LP	P
WES	35.103	15.28	8.56	36.94	I	C	LP	P
RSNY	36.465	10.36	8.47	36.49	I	C	LP	P
GOL	36.703	330.74	8.47	36.49	E	C	LP	P
OTT	37.094	8.66	8.44	36.34	I	C	SP	P
SLA	37.420	153.05	8.41	36.19	I	D	SP	P
GAC	37.432	8.82	8.41	36.19	I	C	LP	P
MNT	37.553	10.98	8.41	36.19	I	C	SP	P
RSSD	39.684	336.26	8.29	35.60	I	C	LP	P
PAS	40.944	313.38	8.21	35.20	I	C	SP	P
RSON	42.911	350.16	8.10	34.66	I	C	LP	P
LAV	42.954	165.93	8.10	34.66	I	D	SP	P
ROCH	43.026	165.02	8.10	34.66	I	D	SP	P
PEL	43.273	164.71	8.07	34.51	I	D	SP	P
FRI	43.465	316.07	8.07	34.51	I	C	SP	P
PCH	43.770	164.73	8.05	34.42	I	D	SP	P
LNV	43.864	165.91	8.05	34.42	I	C	SP	P
JAS	44.454	316.81	8.02	34.27	I	C	SP	P
BKS	45.647	315.72	7.96	33.98	I	C	LP	P
SES	47.561	336.04	7.84	33.40	I	C	SP	P
FFC	48.288	345.45	7.78	33.11	I	C	SP	P
LPA	49.495	152.61	7.70	32.73	I	C	LP	P
COR	49.830	322.89	7.66	32.54	I	C	LP	P
COR	49.830	322.89	7.66	32.54	I	C	SP	P
LON	50.211	325.99	7.66	32.54	I	C	LP	P
EDM	50.657	336.95	7.62	32.35	I	C	SP	P
FRB	55.916	7.77	7.18	30.27	I	C	SP	P
INK	68.018	342.00	6.22	25.89	I	C	SP	P
COL	71.544	336.01	5.96	24.74	I	C	SP	P
COL	71.544	336.01	5.96	24.74	I	C	LP	P
LIS	72.104	52.20	5.92	24.56	I	C	SP	P
VAL	72.638	38.31	5.88	24.38	I	C	LP	P

Table 34. Station data for event 129 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PTO	72.666	49.69	5.88	24.38	I	C	SP	P
PTO	72.666	49.69	5.88	24.38	I	C	LP	P
HON	72.857	289.61	5.85	24.25	I	C	LP	P
SFS	74.367	54.63	5.74	23.77	I	C	SP	P
MAL	75.812	54.36	5.64	23.33	I	C	SP	P
DAG	75.815	12.37	5.64	23.33	I	C	SP	P
TOL	76.094	51.12	5.64	23.33	I	C	LP	P
ESK	77.147	35.26	5.58	23.07	I	C	LP	P
LGR	77.262	48.47	5.55	22.93	I	C	SP	P
ALM	77.377	54.21	5.55	22.93	I	C	SP	P
KIC	77.617	85.38	5.55	22.93	I	C	SP	P
GRR	78.410	42.40	5.48	22.63	I	C	SP	P
FLN	78.659	42.02	5.48	22.63	I	C	SP	P
LDF	78.898	42.19	5.45	22.50	I	C	SP	P
MFF	78.909	44.22	5.45	22.50	I	C	SP	P
EPF	79.346	47.85	5.41	22.32	I	C	SP	P
LFF	79.567	45.90	5.41	22.32	I	C	SP	P
LPO	79.897	46.15	5.36	22.11	I	C	SP	P
LSF	80.077	44.55	5.36	22.11	I	C	SP	P
RJF	80.106	45.51	5.36	22.11	I	C	SP	P
CAF	80.511	45.87	5.30	21.85	I	C	SP	P
TCF	80.547	44.49	5.30	21.85	I	C	SP	P
MZF	80.810	44.55	5.26	21.67	I	C	SP	P
AVF	81.308	43.94	5.21	21.46	I	C	SP	P
SSF	81.396	43.66	5.21	21.46	I	C	SP	P
LOR	81.624	43.43	5.21	21.46	I	C	SP	P
SMF	81.653	44.06	5.21	21.46	I	C	SP	P
BER	81.724	30.12	5.21	21.46	I	C	LP	P
UCC	81.727	39.85	5.21	21.46	E	C	LP	P
LBF	81.723	43.71	5.21	21.46	I	C	SP	P
DOU	81.922	40.55	5.17	21.28	E	C	LP	P
DBN	82.150	38.50	5.17	21.28	I	C	LP	P
SSB	82.239	45.40	5.17	21.28	I	C	SP	P
WLF	82.961	40.90	5.11	21.03	E	C	LP	P
WTS	83.164	38.52	5.11	21.03	I	C	SP	P
BAF	83.693	42.68	5.08	20.90	I	C	SP	P
ECH	83.762	42.29	5.05	20.77	I	C	SP	P
FRF	83.901	46.98	5.05	20.77	I	C	SP	P
KONO	83.925	30.68	5.05	20.77	I	C	LP	P
KON	83.925	30.68	5.05	20.77	I	C	LP	P
GWF	83.986	41.49	5.05	20.77	I	C	SP	P
DIX	84.165	44.40	5.05	20.77	E	C	LP	P
MMK	84.552	44.39	5.02	20.64	E	C	LP	P
ZUL	84.670	42.93	5.02	20.64	E	C	LP	P
SLE	84.704	42.63	5.02	20.64	E	C	LP	P
HAM	84.881	36.83	4.99	20.51	I	C	SP	P
STU	85.042	41.57	4.99	20.51	I	C	LP	P
LLS	85.158	43.49	4.99	20.51	E	C	LP	P
TMA	85.172	44.26	4.99	20.51	E	C	LP	P
CVF	85.638	47.77	4.96	20.38	I	C	SP	P

Table 34. Station data for event 129 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COP	85.995	34.41	4.90	20.12	I	C	SP	P
GRF	86.226	40.47	4.90	20.12	I	C	SP	P
MOX	86.327	39.48	4.86	19.95	I	C	SP	P
OGA	86.536	43.29	4.86	19.95	I	C	SP	P
HOF	86.545	39.79	4.86	19.95	I	C	SP	P
BRN	87.004	37.56	4.83	19.82	I	C	SP	P
CLL	87.079	38.68	4.83	19.82	I	C	SP	P
WET	87.385	40.83	4.80	19.70	I	C	SP	P
BHG	87.637	42.23	4.80	19.70	I	C	SP	P
BRG	87.744	39.00	4.80	19.70	I	C	SP	P
KHC	87.839	40.76	4.77	19.57	I	C	SP	P
KMR	88.404	41.75	4.75	19.48	I	C	LP	P
KEV	88.701	19.08	4.75	19.48	I	C	LP	P
LJU	89.069	43.67	4.73	19.40	I	C	SP	P
KSP	89.206	38.72	4.73	19.40	I	C	SP	P
KJF	91.064	24.15	4.69	19.23	I	C	LP	P
KRA	91.659	38.92	4.68	19.18	I	C	SP	P
BUD	91.748	41.56	4.68	19.18	I	C	SP	P
JOS	92.461	40.32	4.66	19.10	I	C	SP	P
TIM	93.676	42.84	4.63	18.97	I	C	SP	P
SKO	94.881	46.42	4.58	18.76	I	C	SP	P
CLO	94.934	43.15	4.58	18.76	I	D	SP	P
ATH	97.708	49.76	4.52	18.50	I	C	SP	P
BNG	100.825	83.79	4.45	18.21	I	C	SP	Pdf
NAI	119.763	86.48	1.87	7.56	I	C	SP	PKP
SEO	126.041	330.48	1.86	7.52	E	C	LP	PKP
GUA	127.440	294.39	1.86	7.51	I	C	LP	PKP
ANP	138.634	325.14	1.78	7.18	I	C	LP	PKP
KKN	142.018	16.82	1.74	7.01	I	C	SP	PKP
DMN	142.138	17.16	1.74	7.01	I	C	SP	PKP
PKI	142.261	16.76	1.74	7.01	I	C	SP	PKP
POO	144.656	39.91	1.68	6.79	I	C	SP	PKP
KMI	145.889	350.50	1.66	6.71	I	C	SP	PKP
DAV	147.372	297.89	1.64	6.61	E	C	LP	PKP
KLG	148.254	222.88	1.62	6.51	I	C	SP	PKP
CHG	152.573	355.74	1.46	5.89	I	C	SP	PKP
CHG	152.573	355.74	1.46	5.89	I	C	LP	PKP
BDT	154.124	355.34	1.43	5.75	I	C	SP	PKP
SNG	163.780	346.60	0.96	3.88	I	C	LP	PKP
TRT	164.370	272.54	0.96	3.88	I	C	SP	PKP

Table 35. Station data for event 134.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CAR	4.096	271.59	14.16	84.53	I	C	SP	PN
BIM	4.395	21.93	14.15	84.12	I	D	SP	P
MVM	4.496	23.75	14.14	83.74	I	D	SP	P
FDF	4.568	20.01	14.14	83.74	I	D	SP	P
CRM	4.670	22.54	14.13	83.38	I	D	SP	P
TOV	6.949	265.44	13.98	79.36	I	C	SP	P
SDV	7.907	259.57	13.89	77.54	I	C	SP	P
SJG	8.320	337.16	13.84	76.64	E	C	LP	P
BEC	21.924	355.65	9.93	44.27	E	N	LP	P
HUA	25.559	209.54	9.42	41.47	I	D	SP	P
LPS	26.064	281.19	9.37	41.20	I	D	SP	P
NNA	26.287	212.51	9.32	40.93	I	D	SP	P
PT02	26.885	210.64	9.28	40.72	I	D	SP	P
LPB	27.289	191.22	9.23	40.46	E	D	LP	P
SHA	31.032	314.26	8.82	38.32	I	D	LP	P
BLA	31.064	332.01	8.82	38.32	I	D	LP	P
GEO	31.107	338.09	8.82	38.32	E	N	LP	P
WES	32.710	348.23	8.71	37.76	I	D	LP	P
SCP	33.066	338.74	8.68	37.60	I	D	LP	P
UTO	36.097	333.14	8.50	36.69	I	D	SP	P
GBO	38.795	315.96	8.32	35.80	I	D	SP	P
RLO	38.857	316.49	8.32	35.80	I	D	SP	P
TUL	39.243	315.61	8.32	35.80	I	D	LP	P
SIO	39.513	315.05	8.29	35.65	I	D	SP	P
JCT	39.773	305.62	8.26	35.50	I	D	SP	P
JCT	39.773	305.62	8.26	35.50	I	D	LP	P
ACO	41.974	314.53	8.15	34.96	I	D	SP	P
JACH	43.499	189.61	8.07	34.56	I	D	SP	P
ROCH	43.852	190.02	8.04	34.42	I	D	SP	P
LHC	43.903	334.61	8.04	34.42	I	D	SP	P
PEL	43.965	189.59	8.04	34.42	I	D	SP	P
FCH	44.083	189.07	8.04	34.42	I	D	SP	P
PCH	44.405	189.25	8.02	34.32	I	C	SP	P
TACH	44.505	189.74	8.02	34.32	I	C	SP	P
CHCH	44.733	189.33	8.02	34.32	I	D	SP	P
LPA	45.304	174.41	7.96	34.03	I	D	LP	P
EPT	45.615	304.51	7.96	34.03	I	D	LP	P
ANMO	46.624	308.67	7.90	33.74	E	D	LP	P
ALQ	46.624	308.66	7.90	33.74	I	D	LP	P
TEN	47.064	60.77	7.87	33.59	I	D	SP	P
RSON	47.641	333.83	7.84	33.45	I	D	LP	P
GOL	47.707	315.08	7.84	33.45	I	D	LP	P
RSSD	48.917	320.92	7.73	32.92	I	D	LP	P
FRB	53.400	356.80	7.37	31.21	I	D	SP	P
FCC	53.749	340.37	7.37	31.21	I	D	SP	P
FFC	53.949	333.02	7.33	31.02	I	D	SP	P
LCCM	54.646	319.60	7.29	30.83	I	D	SP	P
BUT	55.154	319.56	7.25	30.64	I	D	SP	P
LIS	55.359	49.96	7.21	30.46	I	D	SP	P
PAS	55.697	304.26	7.21	30.46	I	D	SP	P

Table 35. Station data for event 134 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SES	56.146	324.88	7.18	30.31	I	D	SP	P
PTO	56.441	47.29	7.14	30.13	I	D	SP	P
SFS	57.089	53.26	7.10	29.94	I	D	SP	P
KIC	57.482	89.07	7.07	29.80	I	D	SP	P
CLX	57.633	321.15	7.07	29.80	I	D	LP	P
LDM	57.841	321.36	7.03	29.62	I	D	LP	P
RXF	57.883	321.87	7.03	29.62	I	D	LP	P
LHD	57.915	321.08	7.03	29.62	I	D	LP	P
MAL	58.556	53.29	6.99	29.43	I	D	SP	P
EDM	58.725	327.07	6.99	29.43	I	D	SP	P
NEW	58.887	320.63	6.96	29.29	I	D	SP	P
CRT	59.283	52.91	6.92	29.11	I	D	SP	P
TOL	59.480	49.77	6.92	29.11	I	D	LP	P
TOL	59.480	49.77	6.92	29.11	I	D	SP	P
BKS	59.650	307.82	6.92	29.11	I	D	SP	P
ECB	61.354	35.39	6.76	28.37	I	D	SP	P
LON	61.420	317.81	6.76	28.37	I	D	LP	P
DCN	61.446	34.23	6.76	28.37	I	D	SP	P
ECP	61.522	35.70	6.76	28.37	I	D	SP	P
ETA	61.800	35.19	6.72	28.19	I	D	SP	P
DLE	61.831	34.48	6.72	28.19	I	D	SP	P
DMU	61.861	33.74	6.72	28.19	I	D	SP	P
COR	61.874	315.13	6.72	28.19	I	D	SP	P
COR	61.874	315.13	6.72	28.19	I	D	LP	P
DDK	61.982	34.43	6.72	28.19	I	D	SP	P
EPF	63.354	47.03	6.59	27.60	I	D	SP	P
LPF	63.514	41.34	6.59	27.60	I	D	SP	P
GRR	63.722	40.99	6.59	27.60	I	D	SP	P
MFF	63.763	43.05	6.55	27.42	I	D	SP	P
FLN	64.058	40.65	6.55	27.42	I	D	SP	P
LDF	64.247	40.90	6.55	27.42	I	D	SP	P
LPO	64.273	45.36	6.51	27.24	I	D	SP	P
ESK	64.385	33.13	6.51	27.24	E	D	LP	P
LSF	64.820	43.71	6.47	27.05	I	D	SP	P
CAF	64.933	45.22	6.47	27.05	I	D	SP	P
TCF	65.290	43.77	6.43	26.87	I	D	SP	P
MZF	65.531	43.90	6.43	26.87	I	D	SP	P
VDM	65.871	40.77	6.39	26.69	I	D	LP	P
AVF	66.159	43.39	6.39	26.69	I	D	SP	P
SSF	66.311	43.12	6.35	26.51	I	D	SP	P
SMF	66.464	43.61	6.35	26.51	I	D	SP	P
LOR	66.585	42.94	6.35	26.51	I	D	SP	P
LBF	66.615	43.26	6.35	26.51	I	D	SP	P
UCC	67.571	39.24	6.26	26.11	I	D	LP	P
DOU	67.583	40.02	6.26	26.11	E	C	LP	P
DBN	68.327	37.97	6.18	25.75	I	D	LP	P
HAU	68.367	42.46	6.18	25.75	I	D	SP	P
WLF	68.500	40.67	6.18	25.75	E	D	LP	P
ENN	68.541	39.47	6.18	25.75	I	C	SP	P
BSF	68.637	42.69	6.18	25.75	I	D	SP	P

Table 35. Station data for event 134 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BAF	68.773	42.70	6.14	25.57	I	D	SP	P
DIX	68.825	44.61	6.14	25.57	I	D	SP	P
CDF	69.040	42.12	6.14	25.57	I	D	SP	P
STB	69.087	39.76	6.14	25.57	I	D	SP	P
MMK	69.205	44.69	6.14	25.57	I	D	SP	P
WTS	69.300	38.28	6.10	25.39	I	C	SP	P
GWF	69.346	41.55	6.10	25.39	I	D	SP	P
BNS	69.356	39.41	6.10	25.39	I	D	SP	P
ZUL	69.663	43.21	6.10	25.39	I	D	SP	P
SLE	69.766	42.92	6.06	25.22	I	D	SP	P
TMA	69.839	44.71	6.06	25.22	I	D	SP	P
LLS	70.005	43.91	6.06	25.22	I	D	SP	P
TNS	70.050	40.32	6.06	25.22	I	C	SP	P
BER	70.230	29.32	6.06	25.22	I	D	LP	P
DAG	70.255	9.79	6.03	25.08	I	D	SP	P
STU	70.350	41.91	6.03	25.08	I	D	LP	P
OGA	71.390	44.05	5.96	24.77	I	D	SP	P
HAM	71.396	37.04	5.96	24.77	I	D	SP	P
MUD	71.411	33.84	5.96	24.77	I	D	SP	P
FUR	71.667	42.70	5.96	24.77	I	D	SP	P
GRFO	71.764	41.09	5.92	24.59	I	D	LP	P
GRF	71.768	41.09	5.92	24.59	I	D	SP	P
MOX	72.111	40.12	5.92	24.59	I	D	LP	P
KON	72.174	30.56	5.92	24.59	E	D	LP	P
KONO	72.174	30.56	5.92	24.59	I	D	LP	P
WET	72.803	41.76	5.85	24.28	I	D	SP	P
KBA	72.989	43.94	5.85	24.28	I	D	SP	P
COP	73.118	34.91	5.85	24.28	I	D	SP	P
COP	73.118	34.91	5.85	24.28	I	D	LP	P
BRN	73.255	38.36	5.81	24.11	I	D	SP	P
KHC	73.260	41.80	5.81	24.11	I	D	SP	P
INK	73.291	338.49	5.81	24.11	I	D	SP	P
KMR	73.570	42.95	5.81	24.11	I	D	LP	P
BRG	73.604	40.00	5.81	24.11	I	D	SP	P
CEY	73.682	45.37	5.81	24.11	I	D	SP	P
LJU	73.765	45.05	5.78	23.97	I	D	SP	P
PRU	73.934	40.95	5.78	23.97	I	D	SP	P
KSP	75.089	40.11	5.71	23.67	I	D	SP	P
UPP	76.234	30.82	5.64	23.36	I	D	SP	P
SRO	76.376	43.25	5.61	23.23	I	D	SP	P
KRA	77.416	40.93	5.55	22.96	I	D	SP	P
SPC	77.636	41.82	5.55	22.96	I	D	SP	P
JOS	77.852	42.52	5.52	22.83	I	D	SP	P
OHR	78.405	50.05	5.48	22.66	I	D	SP	P
COL	78.531	334.30	5.48	22.66	I	D	SP	P
COL	78.531	334.30	5.48	22.66	I	D	LP	P
SKO	78.827	49.14	5.45	22.53	I	D	SP	P
VAY	79.722	49.73	5.41	22.35	I	D	SP	P
NUR	79.743	30.16	5.41	22.35	I	D	LP	P
VTS	80.080	48.40	5.36	22.14	I	D	SP	P

Table 35. Station data for event 134 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KEV	80.225	20.69	5.36	22.14	I	D	LP	P
COZ	80.658	45.57	5.30	21.88	I	D	SP	P
BCAO	80.667	87.19	5.30	21.88	I	D	LP	P
BNG	80.678	87.18	5.30	21.88	I	D	SP	P
ATH	80.922	53.02	5.26	21.70	I	D	SP	P
CMP	81.151	45.58	5.26	21.70	I	D	SP	P
KDZ	81.769	49.20	5.17	21.31	I	D	SP	P
MLR	81.762	45.29	5.17	21.31	I	D	SP	P
CVO	81.885	44.94	5.17	21.31	I	D	SP	P
ANTO	87.630	50.06	4.80	19.72	I	D	LP	P
HLW	88.408	60.09	4.75	19.51	I	D	LP	P
SUR	90.148	122.77	4.71	19.34	I	D	SP	P
HON	91.084	291.77	4.69	19.25	I	D	LP	P
SWZ	93.003	116.93	4.64	19.04	I	D	SP	P
VIR	94.499	117.58	4.60	18.87	I	D	SP	P
BPI	95.224	115.54	4.58	18.78	I	D	SP	P
SLR	95.380	115.07	4.56	18.70	I	D	SP	P
NOU	131.520	249.47	1.84	7.44	I	D	SP	PKP
GUA	143.660	310.33	1.70	6.88	E	D	LP	PKP
ANP	144.375	353.33	1.70	6.88	E	D	LP	PKP
QZH	144.834	357.86	1.68	6.80	I	D	SP	PKP
BFD	144.929	216.46	1.68	6.80	I	D	SP	PKP
CHG	145.810	31.94	1.66	6.71	I	D	LP	PKP
GZH	146.489	6.50	1.66	6.71	I	D	SP	PKP
ADE	148.690	215.35	1.59	6.41	I	D	SP	PKP
BAG	153.143	352.88	1.46	5.90	I	D	LP	PKP
DAV	160.731	334.14	1.12	4.51	I	D	LP	PKP
WB2	160.976	238.15	1.12	4.51	I	D	SP	PKP

Table 36. Station data for event 168.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SHA	21.342	349.41	10.05	36.20	I	C	LP	P
BLA	27.593	5.64	9.23	32.84	I	D	LP	P
ZOBO	30.006	148.98	8.91	31.57	I	D	LP	P
SCP	31.440	8.49	8.79	31.10	I	C	LP	P
UTO	31.879	0.16	8.75	30.94	I	D	SP	P
ANMO	32.659	323.90	8.72	30.82	I	C	LP	P
WES	34.361	16.33	8.59	30.31	I	D	LP	P
GOL	35.620	330.69	8.53	30.08	I	C	LP	P
RSNY	35.657	11.26	8.53	30.08	I	D	LP	P
GAC	36.605	9.66	8.47	29.85	I	D	LP	P
RSSD	38.609	336.34	8.35	29.38	I	C	LP	P
JAS	43.396	316.48	8.07	28.31	I	C	LP	P
BKS	44.594	315.38	8.02	28.12	E	C	LP	P
COR	48.752	322.70	7.74	27.05	E	C	LP	P
LON	49.129	325.85	7.74	27.05	I	C	LP	P
RDJ	51.142	129.78	7.58	26.45	I	D	LP	P
TEN	65.670	63.17	6.43	22.20	I	D	SP	P
COL	70.468	335.97	6.03	20.75	I	C	LP	P
LIS	71.978	52.46	5.92	20.36	I	D	SP	P
HON	72.021	289.30	5.92	20.36	I	C	LP	P
PTO	72.492	49.94	5.89	20.25	I	D	LP	P
PTO	72.492	49.94	5.89	20.25	I	D	SP	P
CRT	76.364	54.05	5.61	19.25	I	D	SP	P
LGR	77.066	48.62	5.58	19.14	I	D	SP	P
ALM	77.287	54.36	5.55	19.03	I	D	SP	P
UCC	81.372	39.91	5.22	17.86	E	D	LP	P
KBS	81.678	11.22	5.22	17.86	I	D	LP	P
DBN	81.771	38.55	5.18	17.72	I	D	LP	P
KONO	83.411	30.69	5.08	17.37	E	D	LP	P
GWF	83.660	41.51	5.08	17.37	I	D	SP	P
HAM	84.472	36.84	5.02	17.16	I	D	SP	P
COP	85.544	34.40	4.96	16.94	E	D	LP	P
KEV	88.005	19.02	4.77	16.28	I	D	LP	P
KSP	88.830	38.65	4.73	16.14	I	D	SP	P
NUR	90.505	28.02	4.70	16.03	E	D	LP	P
CTA	130.791	251.85	1.85	6.23	I	D	SP	PKP
POO	144.288	38.39	1.70	5.75	I	D	SP	PKP
BAG	144.686	316.97	1.68	5.68	E	D	LP	PKP
DAV	146.440	298.65	1.66	5.61	I	D	LP	PKP
CHG	151.601	354.75	1.50	5.05	I	D	LP	PKP
SNG	162.744	345.46	1.02	3.43	I	D	LP	PKP

Table 37. Station data for event 192.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SSS	4.518	121.68	13.64	92.47	I	C	SP	P
ACX	6.478	277.69	13.63	86.73	I	C	SP	P
MEX	6.584	300.04	13.63	86.42	I	C	SP	P
SHA	15.229	16.64	12.62	67.51	I	C	LP	P
JCT	15.550	338.11	12.56	66.89	I	D	LP	P
EPT	19.773	324.44	10.28	48.81	I	D	LP	P
ALQ	22.228	330.01	9.77	45.66	I	D	SP	P
TOV	23.603	102.56	9.56	44.43	I	C	SP	P
SJG	25.878	81.64	9.33	43.09	I	C	LP	P
SCP	27.945	25.29	9.10	41.79	I	C	LP	P
RSSD	29.412	343.92	8.90	40.67	I	D	LP	P
NNA	32.235	148.99	8.69	39.53	I	C	SP	P
JAS	32.414	317.46	8.68	39.46	I	D	SP	P
RSNY	32.430	25.20	8.68	39.46	I	C	LP	P
GAC	33.019	22.98	8.64	39.27	I	C	LP	P
BKS	33.560	315.91	8.61	39.09	I	D	LP	P
MNT	33.580	25.16	8.61	39.08	I	C	SP	P
RSON	34.670	359.39	8.54	38.73	I	C	LP	P
CLX	36.757	335.27	8.42	38.07	I	D	LP	P
LHD	36.969	334.94	8.41	37.99	I	D	LP	P
LDM	37.027	335.35	8.40	37.97	I	D	LP	P
RXF	37.281	335.93	8.39	37.89	I	D	LP	P
NEW	37.625	333.60	8.37	37.78	I	D	SP	P
LON	38.724	328.18	8.30	37.45	I	D	LP	P
ARE	38.773	145.56	8.30	37.45	I	C	SP	P
EDM	40.294	341.27	8.22	36.98	I	D	SP	P
LPB	40.769	141.53	8.19	36.88	E	C	LP	P
RSNT	48.720	346.94	7.72	34.42	I	D	LP	P
TACH	53.819	157.00	7.31	32.37	I	C	SP	P
GDH	58.572	15.45	6.96	30.63	E	C	LP	P
GDH	58.572	15.45	6.96	30.63	I	C	LP	P
COL	60.884	336.53	6.77	29.74	I	D	LP	P
HON	61.285	285.76	6.74	29.58	I	D	LP	P
RDJ	62.351	127.19	6.66	29.17	I	C	LP	P
DAG	70.865	13.58	5.97	25.94	I	C	SP	P
DCN	74.811	38.30	5.70	24.69	I	C	SP	P
DLE	75.255	38.30	5.67	24.53	I	C	SP	P
PTO	75.549	50.94	5.65	24.44	I	C	LP	P
ESK	76.902	35.94	5.57	24.07	E	C	LP	P
TOL	79.190	51.57	5.41	23.33	I	C	LP	P
MAL	79.570	54.76	5.38	23.19	I	C	LP	P
BER	80.282	29.90	5.29	22.81	I	C	LP	P
DBN	82.473	38.00	5.12	22.04	I	C	LP	P
KON	82.551	29.97	5.12	22.02	I	C	LP	P
KONO	82.551	29.97	5.12	22.02	I	C	LP	P
DOU	82.683	40.05	5.11	21.98	E	C	LP	P
AFI	83.206	253.48	5.08	21.84	I	D	LP	P
MUD	83.377	33.09	5.07	21.80	I	D	SP	P
STB	83.913	39.15	5.04	21.65	I	C	SP	P
BNS	84.002	38.73	5.03	21.63	I	D	SP	P

Table 37. Station data for event 192 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HAM	84.788	35.79	4.99	21.41	I	C	SP	P
KEV	84.823	17.59	4.98	21.40	I	C	LP	P
COP	85.364	33.19	4.95	21.23	I	C	LP	P
STU	85.949	40.39	4.89	20.96	I	C	LP	P
MOX	86.762	38.07	4.83	20.70	I	C	LP	P
GRF	86.872	39.06	4.82	20.67	I	C	SP	P
OGA	87.770	41.74	4.77	20.45	I	C	SP	P
BRG	88.045	37.30	4.76	20.40	I	C	LP	P
NUR	88.992	25.96	4.72	20.22	I	C	LP	P
KBA	89.164	40.95	4.72	20.20	I	C	SP	P
KMR	89.271	39.84	4.71	20.20	E	C	LP	P
KSP	89.416	36.72	4.71	20.18	I	C	SP	P
RMP	90.763	45.99	4.69	20.11	I	C	SP	P
KRA	91.854	36.39	4.67	19.99	I	C	SP	P
SWZ	122.244	112.21	1.87	7.87	I	C	SP	PKP
BPI	124.623	110.89	1.87	7.86	I	D	SP	PKP
BUL	124.739	103.56	1.87	7.86	I	D	SP	PKP
KRI	125.280	99.43	1.87	7.85	I	D	SP	PKP
MAW	126.241	168.87	1.86	7.84	I	D	SP	PKP
DAV	135.274	298.08	1.82	7.65	I	D	LP	PKP
POO	143.286	20.91	1.72	7.22	I	D	SP	PKP
BDT	144.769	339.58	1.69	7.10	I	D	SP	PKP
RKG	147.523	230.97	1.63	6.84	I	D	SP	PKP

Table 38. Station data for event 229.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TP2	1.126	50.71	13.20	109.79	E	C	LP	P
TER	1.226	78.80	13.36	107.76	I	C	LP	P
MRL	2.379	65.04	13.96	95.75	E	C	LP	P
QZG	2.526	76.72	13.98	94.88	I	C	LP	P
TUL	22.026	351.60	9.88	44.78	E	C	LP	P
RLO	22.181	353.34	9.85	44.61	I	C	SP	P
ALQ	24.576	330.28	9.49	42.58	I	C	LP	P
CAR	24.673	95.42	9.48	42.51	I	C	SP	P
BLA	25.228	21.94	9.42	42.17	I	C	LP	P
SCP	29.322	22.13	8.96	39.69	I	C	LP	P
NNA	29.888	149.27	8.89	39.31	I	D	SP	P
BEC	30.825	49.11	8.82	38.95	I	C	LP	P
RSSD	31.690	343.28	8.75	38.61	I	C	LP	P
RSNY	33.800	22.60	8.62	37.89	I	C	LP	P
JAS	34.713	318.49	8.56	37.61	I	C	SP	P
JAS	34.713	318.49	8.56	37.61	I	C	LP	P
MNT	34.950	22.68	8.55	37.54	I	C	SP	P
LRM	36.083	335.39	8.48	37.19	I	C	SP	P
RSON	36.720	358.11	8.44	37.00	I	C	LP	P
ZOBO	38.226	141.22	8.35	36.53	I	C	LP	P
LPB	38.445	141.45	8.34	36.46	I	C	SP	P
LPB	38.445	141.45	8.34	36.46	E	C	LP	P
COR	40.452	325.00	8.23	35.90	I	C	SP	P
LON	41.071	328.56	8.20	35.76	I	C	LP	P
SLA	46.385	146.01	7.90	34.28	I	C	SP	P
PHC	46.474	329.38	7.89	34.25	I	C	SP	P
RSNT	50.962	346.67	7.57	32.64	I	C	LP	P
LNV	51.591	158.18	7.52	32.40	I	D	SP	P
RDJ	60.183	127.01	6.85	29.23	I	C	LP	P
GDH	60.217	14.78	6.85	29.21	I	C	LP	P
HON	62.995	286.93	6.62	28.18	I	C	LP	P
COL	63.213	336.70	6.61	28.10	I	C	LP	P
DMU	75.845	37.45	5.64	23.72	I	C	SP	P
DLE	76.112	38.06	5.62	23.64	I	C	SP	P
TOL	79.521	51.45	5.40	22.65	I	C	LP	P
IFR	79.747	57.96	5.38	22.54	I	C	SP	P
LPF	80.274	42.92	5.31	22.27	I	C	SP	P
GRR	80.331	42.54	5.31	22.24	I	C	SP	P
FLN	80.510	42.12	5.29	22.17	I	C	SP	P
LDF	80.776	42.25	5.27	22.07	I	C	SP	P
MFF	81.135	44.23	5.24	21.93	I	C	SP	P
BER	81.446	29.89	5.21	21.79	I	C	LP	P
LFF	82.070	45.76	5.16	21.57	I	C	SP	P
EPF	82.181	47.70	5.15	21.54	I	C	SP	P
LSF	82.341	44.34	5.14	21.50	I	C	SP	P
TCF	82.794	44.20	5.12	21.42	I	C	SP	P
CAF	82.994	45.57	5.11	21.37	I	C	SP	P
MZF	83.063	44.22	5.11	21.35	I	C	SP	P
UCC	83.155	39.45	5.10	21.32	E	C	LP	P
DBN	83.336	38.05	5.08	21.25	I	C	LP	P

Table 38. Station data for event 229 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AVF	83.449	43.53	5.08	21.21	I	C	SP	P
DOU	83.468	40.10	5.07	21.21	E	C	LP	P
SSF	83.488	43.24	5.07	21.20	I	C	SP	P
LOR	83.673	42.98	5.06	21.15	I	C	SP	P
KONO	83.710	30.04	5.06	21.14	I	C	LP	P
KON	83.710	30.04	5.06	21.14	I	C	LP	P
SMF	83.809	43.59	5.05	21.12	I	C	SP	P
LBF	83.819	43.24	5.05	21.11	I	C	SP	P
MUD	84.424	33.19	5.02	20.96	I	C	SP	P
WLF	84.553	40.27	5.01	20.92	E	C	LP	P
HAU	85.116	41.84	4.98	20.78	I	C	SP	P
BSF	85.451	41.93	4.96	20.70	I	C	SP	P
CDF	85.603	41.28	4.94	20.64	I	C	SP	P
GWF	85.665	40.67	4.94	20.61	I	D	SP	P
HAM	85.734	35.93	4.93	20.57	I	C	SP	P
DIX	86.343	43.50	4.86	20.29	E	C	LP	P
LRG	86.351	46.23	4.86	20.29	I	C	SP	P
KEV	86.392	17.78	4.86	20.27	I	C	LP	P
COP	86.405	33.35	4.86	20.27	I	C	SP	P
FRF	86.523	46.07	4.85	20.23	I	C	SP	P
SLE	86.570	41.66	4.85	20.22	E	C	LP	P
ZUL	86.586	41.96	4.85	20.21	E	C	LP	P
MMK	86.721	43.41	4.84	20.17	E	C	LP	P
SAX	87.275	41.99	4.80	20.03	E	C	LP	P
TMA	87.310	43.18	4.80	20.02	E	C	LP	P
VDL	87.589	42.69	4.79	19.96	E	C	LP	P
MOX	87.620	38.28	4.79	19.95	I	C	LP	P
GRFO	87.689	39.27	4.78	19.94	I	C	LP	P
GRF	87.693	39.27	4.78	19.94	I	C	SP	P
HOF	87.888	38.54	4.78	19.91	I	C	SP	P
OSS	87.969	42.35	4.77	19.89	E	C	LP	P
CLL	88.221	37.36	4.76	19.83	I	C	SP	P
OGA	88.486	41.99	4.74	19.76	I	C	SP	P
WET	88.896	39.42	4.73	19.69	I	C	SP	P
BRG	88.931	37.56	4.72	19.68	I	C	SP	P
KHC	89.331	39.28	4.71	19.63	I	C	SP	P
BHG	89.389	40.76	4.71	19.63	I	C	SP	P
KBA	89.910	41.25	4.71	19.63	I	C	SP	P
RMP	91.309	46.35	4.68	19.51	I	C	SP	P
SKO	97.246	43.64	4.53	18.83	I	C	SP	Pdf
IST	102.665	41.69	4.45	18.50	I	C	LP	Pdf
SUR	116.489	119.31	1.88	7.70	I	C	SP	PKP
GUA	117.396	293.51	1.88	7.69	E	C	LP	PKP
NAI	127.755	80.57	1.86	7.61	I	C	SP	PKP
ANP	129.164	319.91	1.85	7.60	E	C	LP	PKP
BAG	135.865	312.21	1.81	7.43	E	C	LP	PKP
DAV	137.265	297.09	1.80	7.37	E	C	LP	PKP
BDT	147.077	340.53	1.64	6.70	I	C	SP	PKP
BKB	148.858	291.56	1.59	6.51	I	C	SP	PKP
KHT	149.509	339.64	1.57	6.44	I	C	SP	PKP

Table 38. Station data for event 229 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KOD	153.668	24.11	1.44	5.88	I	C	SP	PKP
SNG	155.502	328.70	1.37	5.59	I	C	LP	PKP
IPM	157.459	324.36	1.28	5.25	I	C	SP	PKP
LEM	159.492	288.54	1.19	4.87	I	C	LP	PKP

Figure 16. Azimuthal equidistant map for geographic subdivision, South America.

Table 39. Focal mechanism parameters for subdivision, South America.

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
22	10	32	90	190	58	90	77	100	13	280	0	10
26	187	73	90	7	17	90	62	97	28	277	0	7
46	93	88	-143	1	53	-3	24	221	27	324	53	96
70	30	79	140	129	51	14	36	342	19	85	49	197
75	270	50	-155	163	71	-43	13	221	43	119	44	324
84	321	69	-135	211	49	-28	12	82	46	185	41	341
85	15	63	127	136	45	40	56	334	10	79	32	176
95	325	85	-100	209	11	-27	39	64	49	224	10	326
97	155	72	-82	311	20	-113	27	239	62	77	8	333
114	358	88	-110	263	20	-6	40	106	44	249	20	359
136	340	60	-100	179	31	-113	14	77	73	225	9	345
147	5	69	-90	185	21	-90	24	95	66	275	0	5
157	150	45	-100	344	46	-80	0	67	63	334	7	157
188	320	82	-90	140	80	-90	37	50	53	230	0	140
197	160	74	90	340	16	90	61	70	29	250	0	160
200	172	74	90	352	16	90	61	82	29	262	0	172
203	345	77	-90	165	13	-90	32	75	58	255	0	165
214	335	48	-90	155	42	-90	3	65	87	245	0	155
222	185	69	65	57	32	138	58	60	20	294	23	194
234	308	87	130	42	40	5	35	252	30	6	40	125
237	358	72	70	228	27	136	58	241	24	103	19	4

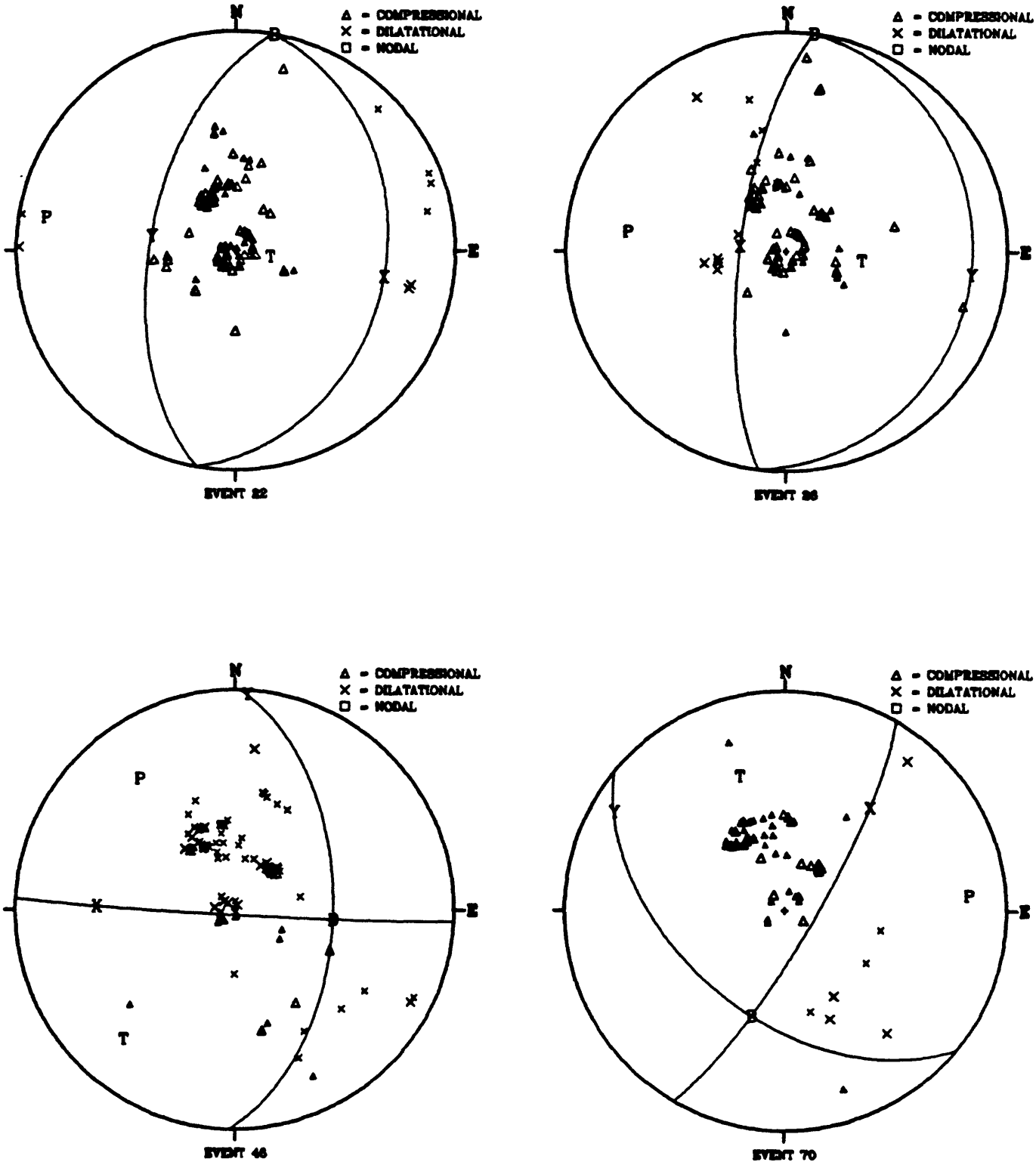

Figure 17. Lower hemisphere focal sphere projection for events 22, 26, 48, and 70.

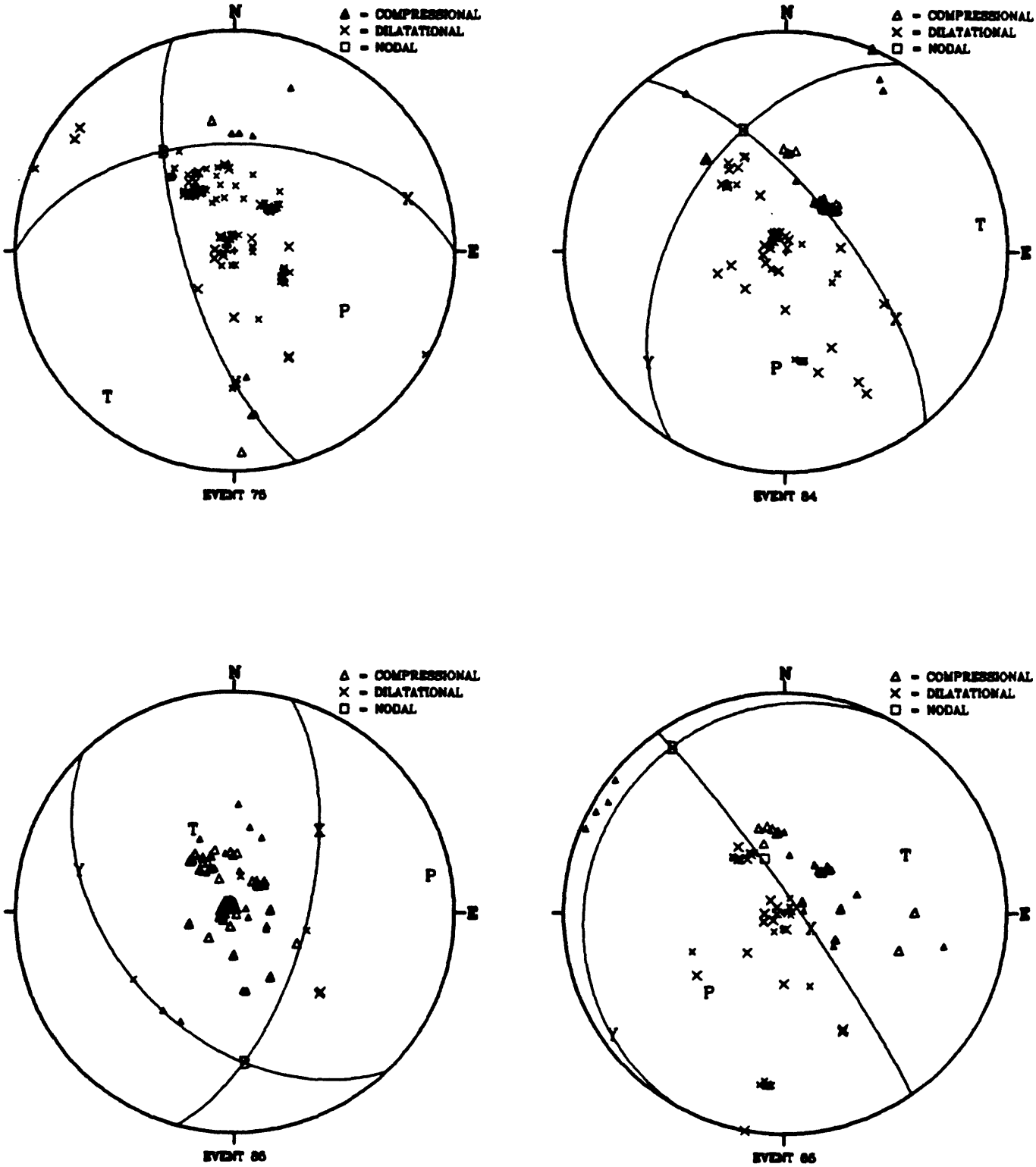

Figure 18. Lower hemisphere focal sphere projection for events 75, 84, 85, and 95.

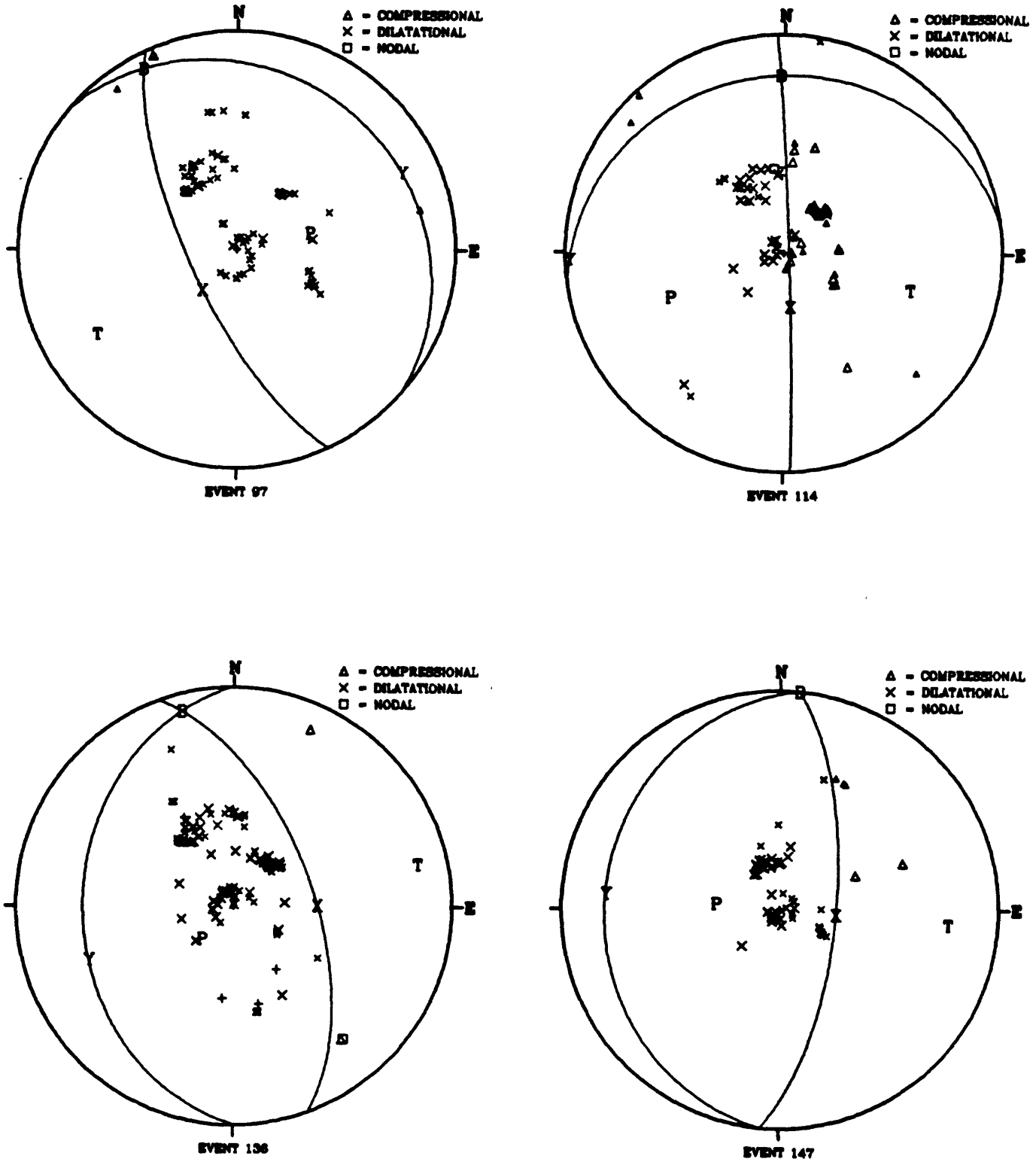

Figure 19. Lower hemisphere focal sphere projection for events 97, 114, 136, and 147.

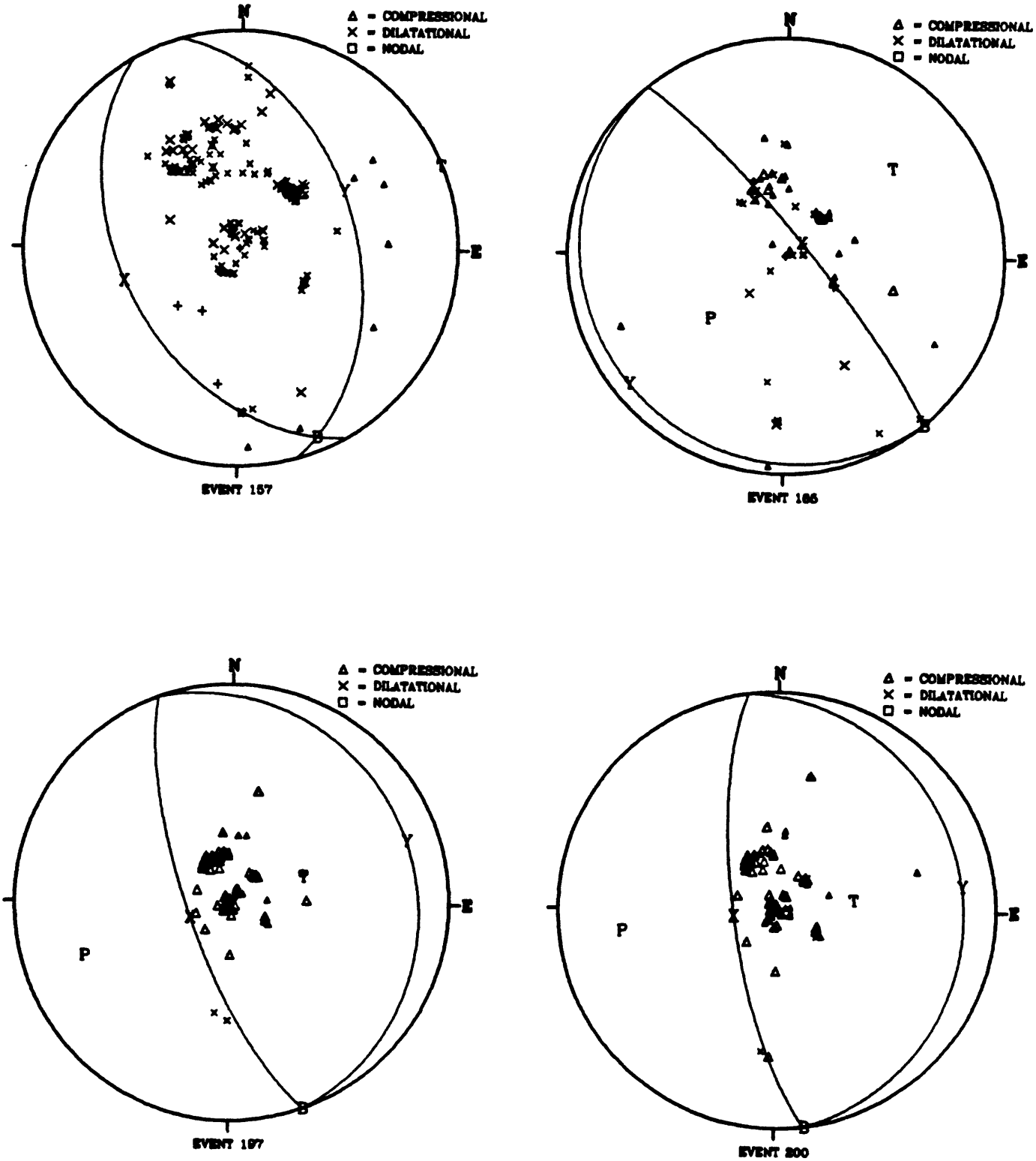

Figure 20. Lower hemisphere focal sphere projection for events 157, 188, 197, and 200.

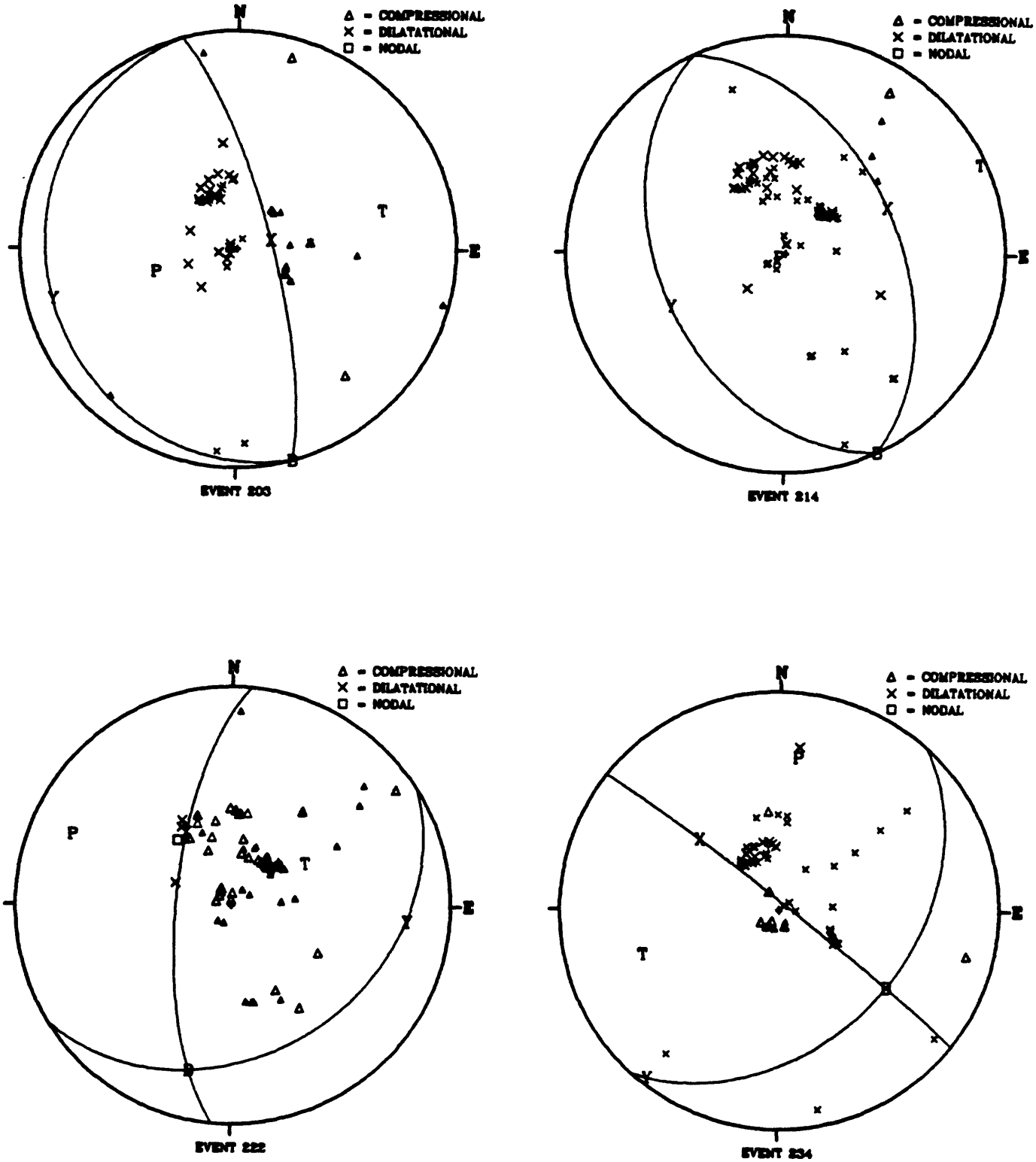

Figure 21. Lower hemisphere focal sphere projection for events 203, 214, 222, and 234.

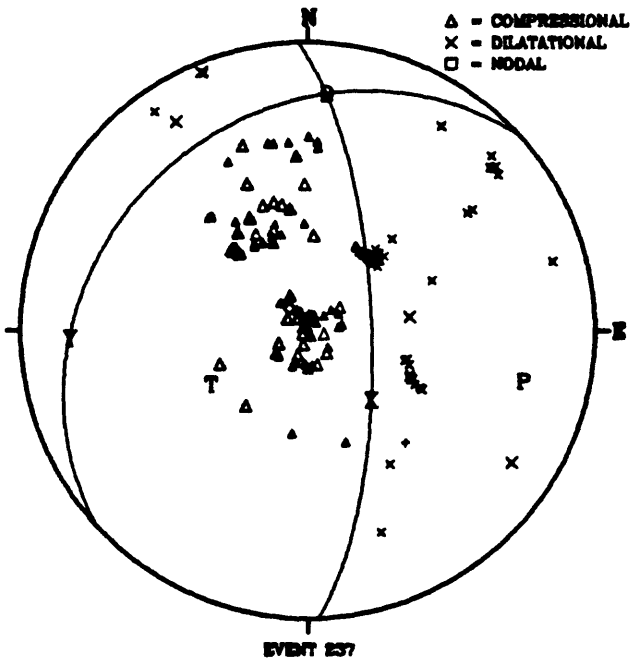

Figure 22. Lower hemisphere focal sphere projection for event 237.

Table 40. Station data for event 22.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PEL	2.004	90.95	14.26	91.56	I	D	LP	P
SAN	2.046	99.63	14.26	91.56	I	D	SP	P
CEN	3.972	68.15	14.19	84.11	I	D	SP	P
CFA	4.365	70.90	14.17	83.37	I	D	SP	P
VCA	6.056	44.99	14.08	80.76	I	D	SP	P
TCA	7.406	78.31	13.96	78.13	I	D	SP	P
ANT	9.679	14.65	13.75	74.55	I	C	LP	P
BAA	12.218	100.86	13.43	70.30	I	D	LP	P
LPA	12.689	102.20	13.36	69.48	I	D	LP	P
PT06	19.442	350.46	10.58	47.87	I	C	SP	P
HUA	21.095	353.88	10.17	45.47	I	C	SP	P
LM2	21.264	349.20	10.05	44.79	I	C	SP	P
NNA	21.326	349.82	10.05	44.79	I	C	SP	P
BOCO	37.519	358.41	8.41	36.12	I	C	LP	P
BOG	37.555	358.38	8.41	36.12	I	C	LP	P
TOV	42.788	4.76	8.10	34.60	I	C	SP	P
CAR	43.782	8.75	8.05	34.35	I	C	SP	P
TRN	44.929	16.35	7.99	34.06	I	C	LP	P
TRN	44.929	16.35	7.99	34.06	I	C	SP	P
LPS	49.592	339.34	7.70	32.67	I	C	SP	P
SJG	51.375	8.44	7.54	31.91	I	C	LP	P
RKT	54.815	263.56	7.26	30.59	I	C	LP	P
SPA	57.048	180.00	7.11	29.90	I	C	LP	P
SPA	57.048	180.00	7.11	29.90	I	C	SP	P
SHA	65.054	345.70	6.47	26.97	I	C	LP	P
BEC	65.632	7.79	6.43	26.79	E	C	LP	P
TBI	66.681	256.59	6.35	26.43	I	C	LP	P
TPT	69.156	265.37	6.14	25.49	I	C	LP	P
PPT	69.512	261.99	6.10	25.32	I	C	LP	P
BHO	70.200	340.95	6.07	25.18	I	C	SP	P
BLA	70.308	353.77	6.03	25.01	I	C	SP	P
BLA	70.308	353.77	6.03	25.01	I	C	LP	P
GEO	71.755	356.72	5.92	24.52	I	C	LP	P
SIO	71.883	340.27	5.92	24.52	I	C	SP	P
TUL	71.892	340.74	5.92	24.52	I	C	LP	P
RLO	71.925	341.45	5.92	24.52	I	C	SP	P
FVM	72.566	345.70	5.89	24.39	I	C	SP	P
TUC	74.164	327.43	5.78	23.90	I	C	SP	P
TUC	74.164	327.43	5.78	23.90	I	C	LP	P
ANMO	74.603	332.04	5.75	23.77	I	C	LP	P
ALQ	74.600	332.04	5.75	23.77	I	C	LP	P
UTO	75.043	351.87	5.71	23.60	I	C	SP	P
WES	75.157	1.34	5.71	23.60	I	C	LP	P
WIN	78.161	109.19	5.52	22.77	I	C	SP	P
GOL	78.391	335.11	5.48	22.59	I	C	LP	P
PAS	79.200	323.27	5.45	22.46	I	C	LP	P
RCD	81.599	338.54	5.22	21.46	I	C	LP	P
LHC	82.456	349.20	5.14	21.12	I	C	SP	P
BDW	82.606	333.79	5.14	21.12	I	C	SP	P
MNG	83.156	225.53	5.11	20.99	E	C	LP	P

Table 40. Station data for event 22 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
WEL	83.167	224.67	5.11	20.99	I	C	LP	P
SNZO	83.190	224.62	5.11	20.99	I	C	LP	P
JAS	83.320	324.15	5.08	20.86	I	C	SP	P
BMN	83.783	327.67	5.05	20.73	I	C	SP	P
BKS	84.161	323.00	5.05	20.73	I	C	LP	P
WDC	86.389	324.54	4.86	19.92	I	C	SP	P
BUT	86.486	333.64	4.86	19.92	I	C	SP	P
BUL	88.484	113.01	4.75	19.45	I	C	LP	P
LDM	89.557	333.41	4.71	19.28	I	C	SP	P
RXF	89.825	333.75	4.71	19.28	I	C	SP	P
COR	89.821	326.68	4.71	19.28	I	C	LP	P
YKM	90.042	333.43	4.71	19.28	I	C	SP	P
CIR	90.256	115.32	4.70	19.24	I	C	SP	P
KRI	91.148	110.85	4.69	19.19	I	C	SP	P
EDM	92.842	337.09	4.64	18.98	I	C	SP	P
PTO	94.777	43.16	4.58	18.73	I	C	LP	P
KIP	97.385	290.63	4.52	18.47	I	C	LP	P
NOU	100.885	234.36	4.45	18.18	I	C	SP	P
VAL	100.948	34.13	4.45	18.18	I	C	LP	P
LOR	105.608	43.54	1.89	7.61	I	C	LP	Pdf
NAI	105.857	102.21	1.89	7.61	I	C	LP	Pdf
ESK	106.330	34.01	1.89	7.61	I	C	LP	Pdf
DOU	107.496	41.28	1.89	7.61	I	C	LP	Pdf
RMP	108.363	51.78	1.89	7.61	I	C	SP	Pdf
DBN	108.826	39.65	1.89	7.61	I	C	LP	Pdf
BNS	109.358	41.35	1.89	7.61	I	C	SP	Pdf
STU	109.462	44.05	1.89	7.61	I	C	LP	Pdf
TRI	110.830	48.47	1.89	7.61	I	C	SP	Pdf
GRFO	111.061	43.83	1.89	7.61	I	C	LP	Pdf
NWAO	113.587	189.45	1.88	7.59	I	C	LP	Pdf
HNR	114.172	239.76	1.88	7.59	E	C	LP	Pdf
ATH	114.309	59.45	1.88	7.59	I	C	SP	Pdf
SKO	114.307	54.66	1.88	7.59	I	C	SP	Pdf
KONO	114.469	33.60	1.88	7.59	I	C	LP	Pdf
KON	114.469	33.60	1.88	7.59	I	C	LP	Pdf
MUN	114.657	188.68	1.88	7.58	I	C	LP	Pdf
CTA	115.113	221.14	1.88	7.58	I	C	LP	Pdf
CTAO	115.113	221.14	1.88	7.58	I	C	LP	Pdf
KRA	116.377	45.94	1.88	7.57	E	C	LP	Pdf
WB2	121.083	210.40	1.87	7.54	I	C	SP	PKP
WRA	121.088	210.39	1.87	7.54	I	C	SP	PKP
KBS	121.299	13.04	1.87	7.54	I	C	LP	PKP
NUR	121.903	35.28	1.87	7.54	I	C	LP	PKP
KEV	124.128	24.46	1.87	7.52	I	C	LP	PKP
GUA	140.330	249.67	1.77	7.12	I	C	LP	PKP
GUMO	140.395	249.69	1.77	7.12	I	C	LP	PKP
POO	147.031	107.91	1.64	6.60	I	C	SP	PKP
KAAO	148.618	76.77	1.59	6.39	E	C	LP	PKP
KBL	148.618	76.77	1.59	6.39	I	C	SP	PKP
DAV	148.841	217.83	1.59	6.39	I	C	LP	PKP

Table 40. Station data for event 22 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
IPM	151.067	167.77	1.53	6.15	I	C	SP	PKP
SNG	153.520	165.84	1.43	5.74	I	C	LP	PKP
MAT	154.156	286.39	1.43	5.74	I	C	SP	PKP
NDI	154.169	91.91	1.43	5.74	I	C	SP	PKP
SHK	158.575	280.88	1.22	4.89	I	C	LP	PKP
BAG	159.280	219.82	1.22	4.89	I	C	LP	PKP
WMQ	161.588	49.02	1.07	4.30	I	C	SP	PKP
SEO	163.067	290.77	1.02	4.09	I	C	LP	PKP
CHG	164.049	151.41	0.96	3.87	I	C	LP	PKP
CHTO	164.049	151.41	0.96	3.87	E	C	LP	PKP
SHIO	164.880	116.01	0.91	3.65	I	C	LP	PKP
ANP	165.003	241.89	0.91	3.65	I	C	LP	PKP
QZH	166.942	234.33	0.80	3.20	I	C	SP	PKP
BJI	169.865	315.47	0.62	2.50	I	C	SP	PKP
KMI	171.222	154.30	0.56	2.25	I	C	SP	PKP
LZH	176.109	39.92	0.25	1.01	I	C	SP	PKP

Table 41. Station data for event 26.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PEL	1.090	149.94	13.22	109.67	I	D	LP	P
ANT	8.500	5.72	13.73	77.98	I	C	LP	P
LPA	11.506	107.21	13.39	72.44	I	C	LP	P
LPB	15.870	11.43	12.69	64.63	I	C	LP	P
ZOBO	16.124	11.17	12.64	64.17	I	C	LP	P
PT03	18.575	346.29	12.23	60.55	I	D	SP	P
HUA	20.396	348.75	10.25	46.89	I	D	SP	P
NNA	20.742	344.63	10.16	46.37	I	C	SP	P
RDJ	26.529	76.62	9.31	41.50	I	C	LP	P
BOCO	36.667	355.48	8.45	36.97	I	C	LP	P
BOG	36.704	355.45	8.44	36.97	I	C	LP	P
GUV	40.547	12.62	8.22	35.84	I	C	SP	P
TOV	41.768	2.28	8.16	35.52	I	C	SP	P
SJS	43.622	341.68	8.06	35.01	I	D	SP	P
TRN	43.644	14.22	8.06	35.01	I	C	LP	P
LPS	49.274	336.95	7.70	33.26	E	C	LP	P
RKT	56.385	262.12	7.14	30.57	I	D	LP	P
SPA	57.979	180.00	7.03	30.02	I	C	SP	P
BEC	64.529	6.24	6.50	27.58	E	C	LP	P
SHA	64.539	343.99	6.50	27.58	I	C	LP	P
JCT	67.919	333.64	6.22	26.29	E	C	LP	P
TBI	68.329	255.43	6.19	26.15	I	D	LP	P
BLA	69.562	352.27	6.09	25.70	I	C	LP	P
BLA	69.562	352.27	6.09	25.70	I	D	SP	P
BHO	69.821	339.40	6.07	25.60	I	C	SP	P
TPT	70.701	264.14	6.01	25.33	I	D	LP	P
GEO	70.928	355.27	5.99	25.25	I	C	LP	P
PPT	71.101	260.80	5.98	25.19	I	D	LP	P
TUL	71.519	339.24	5.94	25.03	I	C	LP	P
RLO	71.530	339.95	5.94	25.03	I	C	SP	P
MRG	71.906	353.01	5.92	24.94	I	C	SP	P
CER	73.597	119.26	5.80	24.38	I	C	SP	P
TUC	74.190	326.00	5.76	24.22	E	C	LP	P
WES	74.209	0.01	5.76	24.21	I	C	LP	P
UTO	74.347	350.50	5.74	24.15	I	C	SP	P
ANMO	74.489	330.63	5.73	24.10	E	C	LP	P
ALQ	74.486	330.62	5.73	24.10	E	C	LP	P
MNT	77.353	358.35	5.55	23.29	I	C	SP	P
GOL	78.182	333.82	5.50	23.05	I	C	LP	P
TEN	79.871	47.18	5.36	22.43	I	C	SP	P
STJ	81.139	12.63	5.24	21.90	E	C	SP	P
JAS	83.441	323.02	5.08	21.20	I	C	SP	P
SLR	84.193	116.63	5.03	21.00	I	C	SP	P
BKS	84.316	321.89	5.02	20.96	I	D	SP	P
BKS	84.316	321.89	5.02	20.96	E	D	LP	P
SNZO	84.879	223.73	4.99	20.82	I	C	LP	P
LRM	86.116	332.55	4.88	20.35	I	C	SP	P
BUT	86.318	332.59	4.87	20.28	I	C	SP	P
WDC	86.497	323.50	4.85	20.22	I	C	SP	P
BUL	87.487	112.13	4.79	19.96	I	C	LP	P

Table 41. Station data for event 26 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LDM	89.395	332.46	4.71	19.60	I	C	SP	P
RXF	89.652	332.81	4.71	19.59	I	C	SP	P
COR	89.863	325.74	4.71	19.61	E	C	LP	P
YKM	89.879	332.49	4.71	19.61	I	C	SP	P
KRI	90.098	109.90	4.71	19.60	I	C	SP	P
IFR	90.322	49.86	4.70	19.57	I	C	SP	P
LIS	91.189	43.80	4.69	19.50	I	C	SP	P
SFS	91.503	47.03	4.68	19.47	I	C	SP	P
BNG	92.235	86.20	4.66	19.39	I	C	SP	P
MAL	92.790	47.74	4.64	19.32	I	C	SP	P
PTO	93.099	42.25	4.64	19.29	I	C	LP	P
ALM	94.100	48.61	4.61	19.15	I	C	SP	P
LGR	97.470	44.11	4.52	18.79	I	C	SP	P
KIP	98.439	289.89	4.49	18.65	E	D	LP	P
VAL	99.359	33.32	4.46	18.54	I	C	LP	P
MLS	99.902	45.27	4.45	18.48	I	C	SP	P
LOR	103.926	42.72	4.45	18.48	I	C	LP	Pdf
NAI	104.607	100.95	4.45	18.48	I	C	LP	Pdf
ESK	104.743	33.27	4.45	18.48	E	C	LP	Pdf
DOU	105.833	40.50	1.89	7.74	I	C	LP	PKP
UCC	106.069	39.79	1.89	7.74	I	C	SP	PKP
ADE	107.478	205.54	1.89	7.74	E	C	LP	PKP
STU	107.776	43.26	1.89	7.74	E	C	LP	PKP
GRFO	109.377	43.05	1.89	7.74	I	C	LP	PKP
GRF	109.381	43.06	1.89	7.74	I	C	SP	PKP
ATH	112.573	58.50	1.89	7.73	I	C	SP	PKP
COP	112.634	37.59	1.89	7.73	E	C	LP	PKP
KONO	112.886	32.98	1.89	7.72	I	C	LP	PKP
KON	112.886	32.98	1.89	7.72	E	C	LP	PKP
COL	113.257	333.16	1.89	7.72	E	C	LP	PKP
NWAO	114.729	187.93	1.88	7.70	E	C	LP	PKP
MUN	115.781	187.12	1.88	7.69	E	C	LP	PKP
CTA	116.773	219.96	1.88	7.69	E	C	LP	PKP
CTAO	116.773	219.96	1.88	7.69	E	C	LP	PKP
KBS	120.063	12.83	1.87	7.66	E	C	LP	PKP
NUR	120.299	34.75	1.87	7.66	E	C	LP	PKP
KEV	122.676	24.16	1.87	7.65	E	C	LP	PKP
MHI	139.494	70.24	1.77	7.26	I	C	LP	PKP
GUA	142.030	249.18	1.74	7.11	E	C	LP	PKP
GUMO	142.095	249.20	1.74	7.10	E	C	LP	PKP
KOD	143.846	120.21	1.71	6.98	I	C	SP	PKP
POO	145.888	105.01	1.66	6.81	I	C	SP	PKP
KBL	146.969	74.98	1.64	6.71	I	C	LP	PKP
KAAO	146.969	74.98	1.64	6.71	E	C	LP	PKP
DAV	150.466	215.85	1.55	6.32	I	C	LP	PKP
IPM	151.610	163.82	1.51	6.17	I	C	SP	PKP
NDI	152.711	89.09	1.47	6.02	I	C	SP	PKP
SNG	154.002	161.52	1.42	5.82	I	C	LP	PKP
SHK	159.816	283.15	1.18	4.80	I	C	LP	PKP
BAG	160.922	217.32	1.12	4.58	I	C	LP	PKP

Table 41. Station data for event 26 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BDT	162.734	147.29	1.03	4.20	I	C	SP	PKP
CHTO	164.058	144.39	0.96	3.92	I	C	LP	PKP
CHG	164.058	144.39	0.96	3.92	I	C	LP	PKP
SEO	164.060	294.67	0.96	3.92	E	C	LP	PKP
ANP	166.735	241.45	0.81	3.31	E	C	LP	PKP

Table 42. Station data for event 46.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HUA	0.972	48.32	11.17	126.09	I	C	SP	P
NNA	1.032	312.51	11.43	124.22	I	D	SP	P
LM2	1.142	301.67	11.83	121.07	I	D	SP	P
ZOBO	8.473	115.77	13.61	79.98	I	D	SP	P
LPB	8.604	117.31	13.59	79.70	I	D	LP	P
LPB	8.604	117.31	13.59	79.70	I	D	SP	P
ANT	12.195	154.71	13.17	72.47	I	C	SP	P
BOCO	17.278	6.80	12.31	63.02	I	D	LP	P
VCA	17.569	156.55	12.25	62.49	E	D	SP	P
CYA	18.369	150.11	11.12	53.57	E	D	SP	P
PEL	20.943	167.29	10.04	46.63	I	C	LP	P
SAN	21.247	167.45	9.98	46.24	I	C	SP	P
UAV	21.715	13.25	9.89	45.70	I	D	SP	P
SDV	22.100	14.40	9.82	45.29	I	D	SP	P
RFA	23.036	163.85	9.67	44.43	E	C	SP	P
TOV	23.179	15.88	9.65	44.30	E	D	SP	P
SJS	23.837	340.20	9.56	43.76	I	D	SP	P
CAR	24.764	21.89	9.44	43.12	I	D	SP	P
CUM	25.856	27.70	9.35	42.56	I	D	SP	P
LPA	27.554	146.43	9.18	41.62	E	C	LP	P
LPS	29.779	333.75	8.88	40.02	I	D	SP	P
RDJ	32.805	112.62	8.66	38.83	I	C	LP	P
ATX	47.625	334.23	7.81	34.44	I	D	SP	P
BLA	49.795	355.45	7.65	33.62	I	D	SP	P
WLO	50.717	337.06	7.58	33.25	I	D	SP	P
MOT	50.803	328.60	7.57	33.22	I	D	SP	P
GBO	51.546	340.14	7.51	32.92	I	D	SP	P
RLO	51.781	340.45	7.49	32.83	I	D	SP	P
TUL	51.803	339.59	7.49	32.82	I	D	LP	P
SIO	51.832	339.02	7.49	32.81	I	D	SP	P
QZO	52.211	335.77	7.46	32.66	I	D	SP	P
RRO	52.325	336.96	7.45	32.61	I	D	SP	P
IN3	52.467	350.49	7.44	32.56	I	D	SP	P
PCO	52.920	338.92	7.40	32.38	I	D	SP	P
AN4	53.133	352.50	7.38	32.30	I	D	SP	P
AN8	53.206	352.14	7.38	32.27	I	D	SP	P
IN2	53.291	349.72	7.37	32.23	I	D	SP	P
AN3	53.444	352.65	7.36	32.17	I	D	SP	P
AN10	53.455	352.02	7.36	32.17	I	D	SP	P
AN11	53.574	351.85	7.35	32.12	I	D	SP	P
AN9	53.693	352.05	7.34	32.08	I	D	SP	P
AN7	53.721	352.66	7.34	32.07	I	D	SP	P
IN1	53.732	350.71	7.33	32.06	I	D	SP	P
AN12	53.859	352.39	7.32	32.01	I	D	SP	P
UTO	54.514	353.09	7.27	31.75	I	D	SP	P
AAM	55.152	353.14	7.22	31.50	I	D	SP	P
ANMO	55.449	329.69	7.20	31.39	I	D	LP	P
PAS	61.409	320.70	6.74	29.19	I	D	LP	P
LHC	61.947	350.07	6.70	28.99	I	D	SP	P
BDW	63.157	332.90	6.60	28.53	I	D	SP	P

Table 42. Station data for event 46 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MNV	64.295	324.25	6.51	28.10	I	D	SP	P
BMN	65.169	326.39	6.44	27.77	I	D	SP	P
JAS	65.298	322.51	6.43	27.73	I	D	SP	P
MHC	65.628	321.32	6.40	27.60	I	D	SP	P
BKS	66.333	321.44	6.34	27.30	I	D	SP	P
LRM	66.831	333.17	6.30	27.11	I	D	SP	P
BUT	67.028	333.24	6.28	27.03	I	D	SP	P
AMM	67.262	333.07	6.26	26.95	I	D	SP	P
SCH	67.694	5.79	6.23	26.79	I	D	SP	P
WDC	68.252	323.51	6.18	26.58	I	D	SP	P
MSO	68.265	333.01	6.18	26.57	I	D	SP	P
SES	69.869	337.00	6.06	26.01	I	D	SP	P
LDM	70.105	333.38	6.04	25.94	I	D	LP	P
RXF	70.332	333.77	6.03	25.85	I	D	LP	P
YKM	70.584	333.46	6.01	25.76	I	D	LP	P
FFC	70.640	344.41	6.00	25.74	I	D	SP	P
NEW	70.766	332.30	5.99	25.69	I	D	SP	P
PNT	72.669	331.81	5.86	25.09	I	D	SP	P
FCC	72.695	350.28	5.86	25.08	I	D	SP	P
EDM	72.988	337.61	5.83	24.97	I	D	SP	P
KIC	73.346	79.36	5.81	24.87	I	D	SP	P
FRB	76.415	3.43	5.61	23.94	I	D	SP	P
SPA	77.395	180.00	5.54	23.63	I	D	SP	P
LIS	80.594	46.85	5.27	22.44	I	D	SP	P
YKC	80.675	342.99	5.27	22.41	I	D	SP	P
SFS	81.849	49.87	5.17	21.98	I	D	SP	P
PTO	81.979	44.79	5.16	21.94	I	D	SP	P
PTO	81.979	44.79	5.16	21.94	E	D	LP	P
TOL	84.692	47.32	5.00	21.20	I	D	SP	P
VAL	85.636	34.50	4.93	20.90	E	D	LP	P
LGR	86.697	45.32	4.84	20.49	I	D	SP	P
ALI	86.775	49.70	4.83	20.45	I	C	LP	P
ECB	87.746	35.03	4.78	20.23	I	C	SP	P
ECP	87.903	35.31	4.77	20.18	I	C	SP	P
ETA	88.199	34.87	4.75	20.12	I	C	SP	P
EPF	88.863	45.47	4.72	20.00	I	D	SP	P
SUR	89.002	122.84	4.72	19.98	I	C	SP	P
AKU	89.098	20.55	4.72	19.96	I	D	SP	P
LPF	89.569	40.43	4.71	19.93	I	D	SP	P
MFF	89.675	41.98	4.71	19.92	I	D	SP	P
LFF	89.732	43.75	4.71	19.91	I	D	SP	P
GRR	89.803	40.13	4.70	19.90	I	D	SP	P
LPO	89.959	44.09	4.70	19.89	I	D	SP	P
FLN	90.162	39.86	4.70	19.89	I	D	SP	P
SSC	90.339	40.11	4.70	19.89	I	D	SP	P
RJF	90.371	43.57	4.70	19.89	I	D	SP	P
INK	90.408	341.72	4.70	19.89	I	D	SP	P
CAF	90.628	44.05	4.70	19.88	I	D	SP	P
LSF	90.666	42.68	4.70	19.88	I	D	SP	P
TCF	91.128	42.78	4.69	19.83	I	D	SP	P

Table 42. Station data for event 46 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MZF	91.355	42.93	4.68	19.81	I	D	SP	P
VDM	91.961	40.12	4.67	19.76	E	D	LP	P
SMF	92.311	42.76	4.66	19.70	I	D	SP	P
MBC	92.399	350.54	4.65	19.68	I	D	SP	P
SSB	92.411	44.21	4.65	19.68	I	D	SP	P
LOR	92.493	42.16	4.65	19.67	I	D	SP	P
DOU	93.722	39.56	4.62	19.52	I	D	SP	P
DBN	94.594	37.71	4.59	19.39	E	D	LP	P
ENN	94.715	39.13	4.58	19.36	I	D	SP	P
DAG	95.215	11.22	4.56	19.28	I	D	SP	P
WTS	95.547	38.06	4.55	19.23	I	D	SP	P
TNS	96.160	40.03	4.54	19.17	I	D	SP	P
OGA	97.167	43.69	4.52	19.09	I	D	SP	P
RMP	97.426	48.92	4.51	19.06	I	D	SP	P
CTI	97.440	44.58	4.51	19.06	I	D	SP	P
PAD	97.487	45.24	4.51	19.06	I	D	LP	P
MNS	97.512	48.34	4.51	19.06	I	D	SP	P
BHG	98.558	43.06	4.49	18.96	I	D	SP	P
KON	98.657	30.82	4.49	18.94	E	D	LP	P
BUL	99.071	113.01	4.47	18.87	I	C	SP	P
CLL	99.202	39.48	4.47	18.86	I	D	SP	P
KHC	99.239	41.72	4.46	18.85	I	D	SP	P
BRG	99.727	40.01	4.46	18.81	I	D	SP	P
SOP	101.014	43.45	4.45	18.79	I	D	SP	Pdf
JOS	103.745	42.87	4.45	18.79	I	D	SP	Pdf
CTAO	127.137	232.54	1.86	7.74	I	C	SP	PKP
CTA	127.137	232.54	1.86	7.74	I	C	SP	PKP
GUMO	140.162	276.04	1.76	7.34	E	D	LP	PKP
SHK	146.056	314.68	1.66	6.90	I	D	SP	PKP
AAI	150.923	237.53	1.53	6.36	I	D	SP	PKP
MKS	156.447	221.87	1.33	5.51	I	C	SP	PKP
CGP	159.168	260.39	1.21	5.00	I	D	SP	PKP
TATO	159.407	308.90	1.19	4.96	I	D	LP	PKP
HKC	166.343	315.81	0.83	3.45	E	D	LP	PKP
KMI	167.583	5.04	0.76	3.16	I	D	SP	PKP
KGM	169.379	176.66	0.66	2.73	I	C	SP	PKP
IPM	171.445	160.11	0.53	2.21	I	C	SP	PKP
CHG	172.246	37.64	0.48	2.01	I	D	LP	PKP
CHTO	172.246	37.64	0.48	2.01	E	D	LP	PKP

Table 43. Station data for event 70.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BOCO	9.283	38.87	13.63	76.89	E	D	LP	P
PT02	10.736	161.73	13.46	74.08	I	C	SP	P
LCR	13.014	341.62	13.15	69.90	I	C	SP	P
ZOBO	17.765	140.14	12.29	61.40	I	D	LP	P
ANT	22.802	157.13	9.74	44.08	I	D	LP	P
SJG	24.698	32.68	9.47	42.58	I	C	SP	P
PEL	31.489	165.14	8.76	38.76	I	D	SP	P
HKT	35.864	335.96	8.49	37.34	I	C	SP	P
ATX	37.045	333.67	8.43	37.03	I	C	SP	P
LPA	37.989	150.07	8.36	36.68	I	D	LP	P
RSCP	38.461	352.50	8.33	36.54	I	C	SP	P
SOB1	39.276	101.20	8.30	36.34	I	D	SP	P
BLA	39.698	359.31	8.27	36.21	I	C	LP	P
MOT	40.385	327.06	8.23	36.00	I	C	SP	P
RDJ	40.789	122.59	8.21	35.91	I	D	SP	P
RLO	41.163	341.25	8.19	35.82	I	C	SP	P
SIO	41.210	339.55	8.19	35.80	I	C	SP	P
OCO	41.432	338.11	8.18	35.74	I	C	SP	P
FVM	41.631	347.41	8.16	35.68	I	C	SP	P
SCP	43.312	2.22	8.07	35.22	I	C	LP	P
ANMO	44.986	328.66	7.98	34.77	I	C	LP	P
ALQ	44.983	328.66	7.98	34.77	I	C	SP	P
GOL	48.244	333.56	7.78	33.78	I	C	SP	P
MNT	48.299	5.88	7.78	33.75	I	C	SP	P
GAC	48.337	4.12	7.78	33.74	I	C	LP	P
GLA	48.524	320.04	7.76	33.66	I	C	SP	P
PAS	51.383	318.86	7.53	32.55	I	C	LP	P
LHC	51.550	352.02	7.52	32.48	I	C	SP	P
FRI	54.110	320.72	7.31	31.49	I	C	SP	P
BMN	54.826	325.49	7.26	31.22	I	C	SP	P
JAS	55.153	321.21	7.23	31.09	I	C	LP	P
JAS	55.153	321.21	7.23	31.09	I	C	SP	P
ARN	55.488	319.99	7.20	30.97	I	C	SP	P
BKS	56.249	320.11	7.15	30.69	I	C	SP	P
LRM	56.267	333.07	7.15	30.70	I	C	SP	P
BUT	56.463	333.15	7.13	30.64	I	C	SP	P
HRY	56.675	334.15	7.12	30.57	I	C	SP	P
AMM	56.700	332.97	7.12	30.56	I	C	SP	P
MIN	57.337	322.81	7.06	30.31	I	C	SP	P
MSO	57.704	332.93	7.04	30.19	I	C	LP	P
WDC	58.046	322.52	7.02	30.09	I	C	SP	P
SES	59.253	337.33	6.92	29.63	I	C	SP	P
CLX	59.272	333.30	6.92	29.63	I	C	SP	P
LDM	59.536	333.39	6.90	29.53	I	C	SP	P
FFC	60.071	345.41	6.86	29.33	I	C	SP	P
NEW	60.220	332.22	6.84	29.27	I	C	SP	P
COR	60.938	325.80	6.79	29.00	I	C	SP	P
LON	61.502	328.47	6.74	28.79	I	C	LP	P
PNT	62.135	331.75	6.69	28.55	I	C	SP	P
FCC	62.296	351.69	6.68	28.49	I	C	SP	P

Table 43. Station data for event 70 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
EDM	62.368	338.01	6.67	28.47	I	C	SP	P
YKC	70.081	343.70	6.05	25.59	I	C	SP	P
DCN	81.845	35.31	5.17	21.68	I	C	SP	P
ECB	81.875	36.35	5.17	21.67	I	C	SP	P
MBC	81.995	351.16	5.16	21.64	I	C	SP	P
ECP	82.071	36.60	5.16	21.61	I	C	SP	P
DMU	82.204	34.83	5.15	21.58	I	C	SP	P
DLE	82.254	35.49	5.14	21.56	I	C	SP	P
DDK	82.398	35.42	5.14	21.53	I	C	SP	P
DKM	82.408	35.56	5.14	21.52	I	C	SP	P
COL	83.224	336.54	5.10	21.35	I	C	SP	P
COL	83.224	336.54	5.10	21.35	I	C	LP	P
MFF	84.889	42.94	4.99	20.88	I	C	SP	P
ALE	85.454	2.27	4.96	20.73	I	C	SP	P
UCC	88.413	39.18	4.75	19.82	I	C	SP	P
DOU	88.489	39.89	4.74	19.80	I	C	SP	P
ENN	89.399	39.30	4.71	19.67	I	C	SP	P
ECH	90.003	41.91	4.71	19.66	I	C	SP	P
WTS	90.051	38.12	4.71	19.66	I	C	SP	P
KONO	92.033	30.54	4.67	19.48	E	C	LP	P
OGA	92.559	43.38	4.65	19.40	I	C	SP	P
MOX	93.008	39.60	4.64	19.36	I	C	SP	P
WET	93.822	41.10	4.62	19.26	I	C	SP	P
CLL	93.885	38.93	4.61	19.25	I	C	SP	P
KHC	94.281	41.11	4.60	19.18	I	C	SP	P
BRG	94.486	39.36	4.59	19.14	I	C	SP	P
PRU	94.890	40.24	4.57	19.07	I	C	SP	P
KSP	95.974	39.33	4.54	18.93	I	C	SP	P
KEV	98.319	19.68	4.49	18.72	E	C	LP	P
JOS	98.911	41.47	4.48	18.68	I	C	SP	P
SLR	105.104	117.41	1.89	7.76	E	C	LP	PKP
TEH	124.267	47.74	1.87	7.67	I	C	SP	PKP
MHI	129.784	43.21	1.85	7.60	I	C	SP	PKP
WMQ	137.589	13.36	1.80	7.37	I	C	SP	PKP
WRA	139.581	234.67	1.77	7.27	I	C	SP	PKP
SSE	145.455	327.07	1.67	6.87	I	C	LP	PKP
MTN	145.565	242.67	1.67	6.86	I	C	SP	PKP
NDI	146.175	37.92	1.66	6.80	I	C	SP	PKP
POO	149.831	56.71	1.56	6.41	I	C	SP	PKP
CVP	154.009	306.48	1.42	5.84	I	C	SP	PKP

Table 44. Station data for event 75.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ARE	2.073	199.09	12.51	112.75	I	C	SP	P
ZOBO	3.115	124.87	13.25	102.34	E	D	LP	P
LPB	3.289	128.41	13.30	101.20	I	D	LP	P
HUA	5.047	298.37	13.56	91.62	I	D	SP	P
NNA	6.402	292.18	13.55	87.85	I	D	SP	P
ANT	9.169	177.87	13.38	80.57	I	C	LP	P
CEN	17.104	174.10	12.23	64.38	I	C	SP	P
CFA	17.192	172.63	12.21	64.21	I	C	SP	P
ROCH	18.395	180.60	10.77	52.55	I	D	SP	P
FCH	18.754	178.71	10.51	50.78	I	D	SP	P
SAN	18.874	179.68	10.47	50.56	I	D	SP	P
PCH	19.043	179.31	10.43	50.27	I	D	SP	P
BOCO	19.226	350.09	10.38	49.97	E	C	LP	P
RFA	20.296	174.49	10.12	48.24	I	C	SP	P
BAA	22.885	153.13	9.64	45.32	I	D	LP	P
LPA	23.396	152.58	9.57	44.88	I	D	LP	P
TOV	24.138	2.39	9.48	44.35	I	C	SP	P
LGN	24.479	358.85	9.44	44.11	I	C	SP	P
CAR	25.126	8.96	9.39	43.79	I	C	SP	P
LCR	27.407	330.68	9.17	42.53	I	D	SP	P
SJS	27.607	330.79	9.14	42.38	I	D	SP	P
CR5	38.128	323.88	8.33	37.90	I	D	SP	P
CR6	38.302	323.88	8.32	37.84	I	D	SP	P
HIM	43.709	319.46	8.03	36.29	I	D	SP	P
TLX	43.779	320.90	8.02	36.26	I	C	SP	P
HC	44.084	319.81	8.01	36.17	I	C	SP	P
CRX	44.083	319.04	8.01	36.18	I	C	SP	P
JCT	52.715	328.24	7.39	33.02	I	D	SP	P
WLO	54.515	332.85	7.26	32.35	I	D	SP	P
FVM	55.353	341.16	7.19	32.02	I	D	SP	P
SCP	55.388	353.47	7.19	32.00	E	D	LP	P
TUL	55.427	335.37	7.18	31.99	I	D	LP	P
OCO	55.796	333.70	7.15	31.83	I	D	SP	P
PCO	56.586	334.84	7.10	31.58	I	D	SP	P
INY	56.887	354.97	7.08	31.46	I	D	SP	P
UTO	57.100	348.61	7.06	31.37	I	D	SP	P
ACO	57.511	333.09	7.03	31.21	I	D	SP	P
OCN	58.185	356.81	6.99	31.00	I	D	SP	P
ANMO	59.690	326.29	6.86	30.40	I	D	LP	P
GAC	60.054	356.21	6.83	30.26	I	D	LP	P
GOL	62.801	330.50	6.61	29.19	I	D	SP	P
GLA	63.268	319.18	6.58	29.01	I	D	SP	P
STJ	63.852	13.52	6.53	28.78	I	D	SP	P
LHC	64.745	346.50	6.46	28.44	I	D	SP	P
PAS	66.110	318.12	6.35	27.91	I	D	LP	P
DUG	66.963	326.13	6.27	27.54	I	D	SP	P
PDA	67.030	37.60	6.27	27.52	I	D	SP	P
SNA	69.240	160.30	6.09	26.68	I	D	SP	P
BMN	69.576	323.82	6.06	26.56	I	D	SP	P
JAS	69.907	320.09	6.05	26.47	E	D	LP	P

Table 44. Station data for event 75 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
JAS	69.907	320.09	6.05	26.47	I	D	SP	P
LRM	70.834	330.51	5.97	26.12	I	D	SP	P
HRY	71.197	331.49	5.95	26.00	I	D	SP	P
AMM	71.271	330.44	5.94	25.99	I	D	SP	P
MIN	72.097	321.49	5.88	25.71	I	D	SP	P
MSO	72.275	330.46	5.87	25.66	I	D	LP	P
WDC	72.806	321.23	5.83	25.48	I	D	SP	P
SES	73.614	334.46	5.78	25.23	I	D	SP	P
CLX	73.826	330.86	5.76	25.14	I	D	LP	P
LHD	74.062	330.69	5.75	25.06	I	D	LP	P
LDM	74.087	330.95	5.74	25.05	I	D	LP	P
RXF	74.289	331.35	5.73	25.00	I	D	LP	P
NEW	74.815	329.94	5.70	24.86	I	D	SP	P
FCC	75.435	347.70	5.65	24.64	I	D	SP	P
SPA	75.603	180.00	5.64	24.58	I	D	LP	P
COR	75.684	324.18	5.64	24.56	I	D	SP	P
EDM	76.683	335.29	5.58	24.28	I	D	SP	P
PNT	76.745	329.59	5.57	24.27	I	D	SP	P
FRB	78.006	1.02	5.49	23.87	I	D	SP	P
LIS	78.163	44.70	5.48	23.82	I	D	SP	P
PTO	79.718	42.76	5.35	23.26	I	D	SP	P
TUH	82.139	122.27	5.14	22.27	I	D	SP	P
TOL	82.206	45.53	5.14	22.25	I	D	SP	P
WIN	82.652	111.35	5.11	22.14	I	D	SP	P
SUR	83.704	121.68	5.05	21.85	I	D	SP	P
LGR	84.373	43.70	5.01	21.66	I	D	SP	P
EPF	86.518	44.04	4.84	20.90	I	D	SP	P
DLE	86.909	32.79	4.81	20.79	I	D	SP	P
LFF	87.532	42.40	4.78	20.63	I	D	SP	P
GRR	87.921	38.80	4.76	20.56	I	D	SP	P
GRM	88.165	123.80	4.75	20.51	I	D	SP	P
SSC	88.457	38.82	4.74	20.46	I	D	SP	P
BLF	89.002	119.68	4.72	20.37	I	D	SP	P
SSF	90.122	41.16	4.70	20.27	I	D	SP	P
LOR	90.422	41.06	4.70	20.28	I	D	SP	P
BCAO	90.437	85.57	4.70	20.28	E	D	LP	P
BNG	90.449	85.57	4.70	20.28	I	D	SP	P
BPI	91.393	117.34	4.68	20.20	I	D	SP	P
SLR	91.737	116.99	4.67	20.15	I	D	SP	P
UCC	91.979	37.87	4.66	20.10	I	D	LP	P
BUL	93.641	111.74	4.61	19.89	I	D	SP	P
INK	93.760	340.65	4.61	19.86	I	D	SP	P
WTS	93.827	37.25	4.61	19.85	I	D	SP	P
JOZ	94.455	119.65	4.59	19.78	I	D	SP	P
CNG	94.916	118.59	4.57	19.71	I	D	SP	P
OGA	94.944	42.98	4.57	19.70	I	D	SP	P
MBC	95.049	349.62	4.57	19.68	I	D	SP	P
KRI	95.504	108.85	4.55	19.60	I	D	SP	P
GRF	95.830	40.28	4.54	19.57	I	D	SP	P
DAG	96.006	10.52	4.54	19.56	I	D	SP	P

Table 44. Station data for event 75 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CIR	96.037	113.40	4.54	19.55	I	D	SP	P
BHG	96.385	42.48	4.53	19.52	I	D	SP	P
MUD	96.489	33.38	4.53	19.51	I	D	SP	P
KBA	96.533	43.19	4.53	19.51	I	D	SP	P
WET	96.738	41.09	4.53	19.49	I	D	SP	P
MTD	97.320	109.37	4.51	19.44	I	D	SP	P
CLL	97.340	38.99	4.51	19.44	I	D	SP	P
COL	97.585	335.21	4.51	19.41	I	D	SP	P
KONO	97.585	30.34	4.51	19.41	E	D	LP	P
BRG	97.816	39.56	4.50	19.39	I	D	SP	P
SNZO	98.004	223.81	4.50	19.38	I	D	LP	P
MHI	130.726	54.42	1.85	7.83	I	D	LP	PKP
RAB	133.550	249.67	1.83	7.76	I	D	LP	PKP
TSK	144.931	313.72	1.68	7.13	I	D	SP	PKP
MTN	145.234	219.67	1.68	7.10	I	D	SP	PKP
GUMO	145.422	272.99	1.67	7.09	I	D	LP	PKP
DDR	145.678	314.06	1.67	7.06	I	D	SP	PKP
SRY	145.820	313.40	1.66	7.05	I	D	SP	PKP
POO	145.891	78.31	1.66	7.04	I	D	SP	PKP
OYM	145.936	313.13	1.66	7.04	I	D	SP	PKP
MAT	146.069	315.62	1.66	7.03	I	D	LP	PKP
KOD	148.717	94.11	1.59	6.75	I	D	SP	PKP
HYB	150.392	80.22	1.54	6.54	I	D	SP	PKP
SHK	150.912	317.46	1.53	6.47	I	D	SP	PKP
HHC	153.664	355.98	1.44	6.07	I	D	SP	PKP
GTA	153.839	16.68	1.43	6.05	I	D	SP	PKP
BJI	153.831	347.82	1.43	6.05	I	D	SP	PKP
TIY	156.699	353.53	1.31	5.56	I	D	SP	PKP
TRT	157.691	188.96	1.27	5.38	I	D	SP	PKP
LEM	158.764	175.62	1.22	5.17	I	D	SP	PKP
SSE	160.158	328.38	1.16	4.89	I	D	SP	PKP
XAN	160.539	0.73	1.14	4.82	I	D	SP	PKP
DAV	162.335	247.10	1.05	4.43	E	D	LP	PKP
WHN	163.343	344.37	1.00	4.21	I	D	SP	PKP
PLP	164.278	259.69	0.94	4.00	I	D	SP	PKP
TATO	164.450	313.97	0.94	3.96	I	D	LP	PKP
QZH	166.370	321.12	0.83	3.51	I	D	SP	PKP
BAG	168.878	281.35	0.69	2.90	E	D	LP	PKP

Table 45. Station data for event 84.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BOCO	6.803	22.99	13.07	90.00	I	C	LP	P
UAV	11.660	28.29	12.79	78.03	I	C	SP	P
TOV	13.340	30.93	12.58	74.28	I	C	SP	P
SJS	13.699	327.84	12.54	73.53	I	C	SP	P
ZOBO	16.745	150.18	11.66	63.13	I	D	LP	P
LPB	16.982	150.57	10.97	57.06	I	D	LP	P
ANT	22.686	164.91	9.58	47.13	I	D	LP	P
CR4	24.425	319.22	9.39	45.92	I	C	LP	P
CSN	24.631	319.57	9.37	45.81	E	C	LP	P
OZC	24.670	318.82	9.37	45.79	E	C	LP	P
CR6	24.699	319.35	9.37	45.78	I	C	LP	P
CR1	24.691	319.68	9.37	45.78	I	C	LP	P
ROCH	31.541	170.83	8.70	41.72	I	D	SP	P
BDF	31.591	117.64	8.70	41.70	I	D	LP	P
BACH	31.999	170.16	8.66	41.51	I	D	SP	P
FCH	32.010	169.84	8.66	41.50	I	C	SP	P
TACH	32.220	170.96	8.65	41.42	I	D	SP	P
LNV	32.446	171.78	8.64	41.35	I	D	SP	P
CON	35.094	174.89	8.49	40.48	I	D	SP	P
LPA	37.362	154.16	8.35	39.70	I	D	LP	P
JCT	38.855	327.32	8.27	39.24	I	D	LP	P
RLO	41.378	337.37	8.13	38.45	I	D	SP	P
TUL	41.455	336.36	8.12	38.43	E	D	LP	P
SCP	42.320	358.69	8.08	38.18	I	C	LP	P
WES	44.164	5.72	7.98	37.64	I	C	LP	P
ANMO	45.898	325.41	7.88	37.06	I	D	LP	P
MNT	47.091	2.96	7.81	36.67	I	C	SP	P
GAC	47.225	1.17	7.80	36.63	I	C	LP	P
GOL	48.874	330.57	7.66	35.88	E	D	LP	P
PAS	52.803	316.41	7.36	34.25	E	D	LP	P
JAS	56.443	319.01	7.09	32.83	I	C	LP	P
BKS	57.594	318.02	7.00	32.35	E	D	LP	P
COR	61.969	323.97	6.65	30.60	I	D	SP	P
GDH	72.560	8.45	5.83	26.47	I	C	SP	P
PPT	73.157	252.27	5.79	26.30	I	D	LP	P
LIS	73.738	48.87	5.75	26.11	I	C	SP	P
PTO	74.806	46.57	5.68	25.73	E	C	LP	P
CRT	77.639	51.47	5.50	24.88	I	C	SP	P
TOL	77.860	48.71	5.48	24.79	I	D	LP	P
ALM	78.466	51.99	5.44	24.61	I	C	SP	P
ECB	79.228	35.90	5.38	24.29	I	C	SP	P
DCN	79.234	34.85	5.38	24.29	I	C	SP	P
ECP	79.416	36.15	5.35	24.17	I	C	SP	P
LGR	79.549	46.40	5.34	24.09	I	C	SP	P
ALI	80.279	50.78	5.27	23.78	I	C	LP	P
ISSF	80.896	46.09	5.21	23.49	I	C	SP	P
JAU	81.205	46.13	5.19	23.37	I	C	SP	P
LPF	81.716	41.09	5.16	23.24	I	C	SP	P
EPF	81.715	46.24	5.16	23.24	I	C	SP	P
GRR	81.909	40.76	5.15	23.18	I	C	SP	P

Table 45. Station data for event 84 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MFF	82.030	42.63	5.14	23.15	I	C	SP	P
EKA	82.105	33.59	5.13	23.13	I	C	SP	P
FLN	82.229	40.44	5.13	23.09	I	C	SP	P
LFF	82.332	44.39	5.12	23.06	I	C	SP	P
LPO	82.604	44.70	5.10	22.98	I	C	SP	P
RJF	82.939	44.12	5.08	22.89	I	C	SP	P
LSF	83.107	43.19	5.07	22.84	I	C	SP	P
CAF	83.260	44.56	5.07	22.80	I	C	SP	P
TCF	83.578	43.23	5.05	22.70	I	C	SP	P
COL	83.613	336.04	5.04	22.69	I	D	LP	P
MZF	83.823	43.34	5.02	22.60	I	C	SP	P
AVF	84.435	42.85	4.99	22.42	I	C	SP	P
SSF	84.579	42.59	4.98	22.38	I	C	SP	P
SMF	84.747	43.04	4.97	22.33	I	C	SP	P
LOR	84.847	42.42	4.96	22.31	I	C	SP	P
LBF	84.887	42.72	4.96	22.30	I	C	SP	P
SSB	85.047	44.47	4.95	22.24	I	C	SP	P
UCC	85.668	38.96	4.89	21.95	E	C	LP	P
DOU	85.720	39.68	4.88	21.93	I	C	SP	P
FRF	86.348	46.35	4.83	21.69	I	C	SP	P
DBN	86.350	37.73	4.83	21.69	I	C	LP	P
HAU	86.609	41.90	4.81	21.61	I	C	SP	P
ENN	86.649	39.12	4.81	21.60	I	C	SP	P
BSF	86.888	42.11	4.80	21.53	I	C	SP	P
DIX	87.136	43.89	4.78	21.47	E	C	LP	P
CDF	87.269	41.56	4.78	21.45	I	C	SP	P
ZUL	87.931	42.56	4.75	21.32	E	C	LP	P
SPA	88.293	180.00	4.74	21.26	I	D	SP	P
SPA	88.293	180.00	4.74	21.26	I	D	LP	P
STU	88.569	41.31	4.73	21.20	E	C	LP	P
MUD	89.131	33.63	4.71	21.11	I	D	SP	P
KON	89.594	30.45	4.71	21.11	E	C	LP	P
OGA	89.684	43.29	4.71	21.11	I	C	SP	P
GRFO	89.947	40.47	4.70	21.08	E	C	LP	P
MOX	90.247	39.53	4.70	21.05	I	C	SP	P
HOF	90.400	39.87	4.69	21.04	I	C	SP	P
COP	90.918	34.50	4.68	20.99	I	C	SP	P
WET	91.014	41.06	4.68	20.98	I	C	SP	P
KHC	91.472	41.08	4.67	20.93	I	C	SP	P
PRU	92.107	40.23	4.66	20.87	I	C	SP	P
WIN	92.861	112.56	4.63	20.77	I	D	SP	P
KSP	93.220	39.36	4.62	20.71	I	D	SP	P
AFI	94.516	255.99	4.58	20.51	I	D	LP	P
BCAO	95.352	85.74	4.55	20.39	I	D	LP	P
BNG	95.363	85.73	4.55	20.38	I	D	SP	P
SUR	95.436	122.57	4.55	20.38	I	D	SP	P
SNZO	102.739	227.06	4.44	19.86	I	D	LP	Pdf
ADE	130.700	218.88	1.85	8.12	I	D	SP	PKP
RAB	130.809	263.01	1.85	8.12	I	D	LP	PKP
CTAO	132.642	240.55	1.84	8.08	I	D	LP	PKP

Table 45. Station data for event 84 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CN2	133.704	337.81	1.83	8.04	I	D	SP	PKP
GUMO	137.233	288.16	1.80	7.91	E	D	LP	PKP
SHK	137.386	323.25	1.80	7.90	E	D	LP	PKP
SEO	138.209	331.40	1.79	7.86	E	D	LP	PKP
NWAO	143.114	199.72	1.72	7.55	I	D	LP	PKP
TIY	143.212	347.86	1.72	7.54	I	D	SP	PKP
MUN	144.324	199.00	1.69	7.44	I	D	SP	PKP
MUN	144.324	199.00	1.69	7.44	I	D	LP	PKP
SSE	146.237	331.69	1.65	7.27	E	D	LP	PKP
NJ2	146.457	335.66	1.65	7.24	I	D	SP	PKP
ANP	150.794	324.51	1.53	6.72	E	D	LP	PKP
GBA	151.826	63.93	1.50	6.58	I	D	SP	PKP
PLP	156.523	294.48	1.32	5.79	I	D	SP	PKP
KMI	156.729	1.28	1.31	5.75	E	D	LP	PKP
HKC	156.971	333.47	1.30	5.71	I	D	LP	PKP
DAV	157.165	284.19	1.29	5.67	I	D	LP	PKP
BAG	157.579	311.62	1.27	5.59	I	D	LP	PKP
CHG	162.486	13.82	1.04	4.56	I	D	LP	PKP
CHTO	162.486	13.82	1.04	4.56	I	D	LP	PKP
BDT	164.007	15.05	0.96	4.20	I	D	SP	PKP
SNG	173.957	26.15	0.38	1.66	I	D	LP	PKP

Table 46. Station data for event 85.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NNA	2.514	236.52	14.26	45.72	I	D	SP	P
PT02	2.885	215.97	14.25	45.67	I	C	SP	P
PT06	3.584	206.26	14.22	45.55	I	C	SP	P
ZOBO	8.523	132.10	13.89	44.21	I	D	LP	P
LPB	8.714	133.30	13.89	44.21	E	D	LP	P
BOCO	15.097	2.51	12.99	40.70	I	C	SP	P
UAV	19.404	10.63	10.63	32.25	I	C	SP	P
LCR	22.219	335.08	9.97	30.03	I	C	SP	P
CAR	22.343	20.48	9.87	29.70	I	C	SP	P
ROCH	22.521	171.88	9.87	29.70	I	C	SP	P
PEL	22.737	171.26	9.87	29.70	I	C	SP	P
FCH	22.979	170.51	9.78	29.40	I	C	SP	P
BACH	22.971	170.95	9.78	29.40	I	C	SP	P
SAN	23.044	171.35	9.78	29.40	I	C	SP	P
TACH	23.202	172.02	9.78	29.40	I	C	SP	P
LNV	23.439	173.12	9.70	29.14	I	C	SP	P
BDF	26.563	103.80	9.34	27.96	I	D	SP	P
LPA	28.622	150.33	9.13	27.28	I	C	LP	P
RDJ	32.444	116.16	8.72	25.96	E	C	LP	P
CR5	32.766	326.00	8.69	25.87	E	C	LP	P
CSN	32.884	326.18	8.69	25.87	E	C	LP	P
CR6	32.940	325.99	8.69	25.87	I	C	LP	P
CR1	32.950	326.24	8.69	25.87	I	C	LP	P
IIT	37.522	321.53	8.42	25.01	E	C	LP	P
III	37.765	319.48	8.39	24.91	E	C	LP	P
IIP	38.142	321.16	8.39	24.91	E	C	LP	P
SHA	43.034	342.93	8.11	24.03	I	C	LP	P
JCT	47.435	330.18	7.85	23.21	E	C	LP	P
RLO	50.303	338.57	7.62	22.49	I	C	SP	P
TUL	50.355	337.70	7.62	22.49	I	C	LP	P
SCP	51.211	356.92	7.58	22.37	I	C	LP	P
UTO	52.632	351.64	7.46	21.99	I	C	SP	P
WES	52.806	3.14	7.42	21.87	I	C	LP	P
ANMO	54.366	327.86	7.30	21.50	E	C	LP	P
GAC	56.038	359.34	7.18	21.13	I	C	LP	P
GOL	57.574	332.21	7.08	20.82	I	C	LP	P
PAS	60.681	319.12	6.85	20.11	I	C	SP	P
JAS	64.492	321.14	6.52	19.11	I	C	SP	P
MSO	67.042	331.85	6.31	18.47	E	C	LP	P
SES	68.498	335.94	6.19	18.10	I	C	SP	P
LHD	68.835	332.04	6.15	17.98	I	C	SP	P
LDM	68.867	332.31	6.15	17.98	I	C	SP	P
RXF	69.079	332.71	6.15	17.98	I	C	SP	P
NEW	69.568	331.25	6.11	17.86	I	C	SP	P
COR	70.319	325.30	6.03	17.62	I	C	SP	P
EDM	71.593	336.68	5.96	17.41	I	C	SP	P
PPT	72.572	254.84	5.89	17.20	I	C	LP	P
LIS	78.196	46.68	5.52	16.09	I	C	SP	P
SPA	79.472	180.00	5.42	15.79	I	C	LP	P
PTO	79.561	44.60	5.42	15.79	E	C	LP	P

Table 46. Station data for event 85 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
GDH	81.020	7.49	5.26	15.31	I	C	SP	P
CRT	81.699	49.78	5.22	15.19	I	C	SP	P
ALM	82.445	50.41	5.15	14.98	I	C	SP	P
LGR	84.283	45.09	5.02	14.60	I	C	SP	P
ECB	85.277	34.76	4.96	14.42	I	C	SP	P
ECP	85.434	35.04	4.96	14.42	I	C	SP	P
COL	92.481	335.89	4.66	13.53	I	C	LP	P
DAG	92.918	11.02	4.65	13.50	I	D	SP	P
STU	93.888	41.25	4.61	13.38	E	C	LP	P
BCAO	93.976	86.25	4.61	13.38	I	C	LP	P
GRFO	95.361	40.59	4.56	13.23	E	C	LP	P
KSR	95.670	117.51	4.56	13.23	I	C	SP	P
HOF	95.887	40.05	4.55	13.20	I	C	SP	P
KONO	96.187	30.55	4.55	13.20	I	C	LP	P
TRI	96.423	44.83	4.54	13.17	I	C	SP	P
KMR	97.009	42.52	4.53	13.15	I	C	LP	P
BRG	97.274	39.69	4.52	13.12	I	C	SP	P
SNZO	98.073	225.42	4.51	13.09	E	C	LP	P
BUL	98.637	112.36	4.50	13.06	I	C	SP	P
KRA	101.007	40.89	4.45	12.91	I	C	SP	Pdf
CLK	105.653	109.62	1.89	5.44	I	C	SP	PKP
HNR	122.111	251.81	1.87	5.39	E	C	LP	PKP
CTA	129.461	232.94	1.86	5.34	I	C	SP	PKP
CTAO	129.461	232.94	1.86	5.34	I	C	SP	PKP
RAB	131.081	254.93	1.85	5.32	I	C	LP	PKP
NWAO	135.252	194.30	1.82	5.25	E	C	LP	PKP
MUN	136.402	193.49	1.81	5.22	E	C	LP	PKP
MAJO	140.631	316.38	1.75	5.05	I	C	LP	PKP
GUA	141.183	278.42	1.75	5.05	E	C	LP	PKP
GUMO	141.227	278.50	1.75	5.05	E	C	LP	PKP
MTN	145.359	228.38	1.68	4.85	I	C	SP	PKP
SHK	145.478	317.94	1.68	4.85	I	C	LP	PKP
SEO	146.826	327.58	1.64	4.72	I	C	LP	PKP
POO	148.594	71.81	1.59	4.58	I	C	SP	PKP
BJI	149.133	343.60	1.59	4.58	E	C	LP	PKP
BTO	149.834	352.84	1.56	4.49	I	C	SP	PKP
TIY	152.254	347.79	1.50	4.31	I	C	SP	PKP
AAI	153.152	239.27	1.46	4.21	E	C	SP	PKP
LZH	154.595	2.75	1.39	4.00	I	C	SP	PKP
SSE	154.838	326.48	1.39	4.00	I	C	SP	PKP
XAN	156.437	352.46	1.35	3.88	I	C	SP	PKP
ANP	158.858	315.45	1.22	3.50	E	C	LP	PKP
DAV	159.668	261.79	1.17	3.36	I	C	LP	PKP
CD2	159.741	3.83	1.17	3.36	I	C	SP	PKP
CVP	162.501	295.65	1.02	2.93	I	C	SP	PKP
BAG	164.064	292.90	0.96	2.77	I	C	LP	PKP
GYA	164.174	355.52	0.96	2.77	I	C	SP	PKP
KMI	165.353	9.22	0.91	2.62	E	C	LP	PKP
GZH	165.399	329.26	0.91	2.62	I	C	SP	PKP
HKC	165.593	324.97	0.85	2.46	E	C	LP	PKP

Table 46. Station data for event 85 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CHG	169.781	36.23	0.62	1.79	I	C	LP	PKP
SNG	174.257	125.91	0.38	1.09	I	C	LP	PKP

Table 47. Station data for event 95.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPB	1.055	67.40	8.00	142.82	I	D	SP	P
ZOBO	1.162	54.93	8.52	139.92	I	D	LP	P
ARE	2.328	281.51	11.71	117.85	I	C	SP	P
ANT	6.836	190.07	13.24	90.00	I	D	LP	P
PT06	7.618	292.99	13.23	87.52	I	C	SP	P
HUA	7.740	308.22	13.22	87.27	I	C	SP	P
PT02	8.117	298.34	13.21	86.41	I	C	SP	P
NNA	8.959	302.33	13.16	83.72	I	C	SP	P
ROCH	16.050	185.78	12.25	67.74	I	D	SP	P
PEL	16.192	184.73	12.23	67.45	I	D	SP	P
LAV	16.248	187.92	12.22	67.33	I	D	SP	P
BACH	16.385	184.09	12.19	66.99	I	D	SP	P
TACH	16.719	185.29	12.15	66.61	I	D	SP	P
LNV	17.065	186.52	12.05	65.49	I	D	SP	P
BAA	19.986	153.56	10.08	49.58	E	D	LP	P
BDF	20.399	89.46	10.00	49.02	I	C	LP	P
LPA	20.494	152.92	9.98	48.90	I	D	LP	P
RDJ	25.032	107.89	9.36	44.99	I	C	LP	P
RSCP	54.531	343.52	7.23	33.09	I	C	LP	P
BLA	54.899	348.97	7.20	32.94	I	C	LP	P
SCP	58.006	352.17	6.98	31.82	E	C	LP	P
RSNY	61.383	355.59	6.71	30.45	E	C	LP	P
MIM	61.879	0.06	6.67	30.26	I	C	SP	P
MNT	62.273	356.42	6.64	30.10	I	C	SP	P
GAC	62.606	354.98	6.61	29.96	I	C	LP	P
ANMO	62.610	325.86	6.61	29.96	I	D	LP	P
ANMO	62.610	325.86	6.61	29.96	I	D	SP	P
SNA	66.403	160.13	6.30	28.41	I	D	SP	P
ECA	67.354	317.43	6.22	28.04	I	D	SP	P
KIC	67.691	75.62	6.20	27.90	I	C	SP	P
PAS	68.997	317.85	6.09	27.39	I	D	SP	P
RSON	70.871	343.79	5.96	26.75	E	C	LP	P
JAS	72.806	319.75	5.82	26.10	I	D	LP	P
JAS	72.806	319.75	5.82	26.10	I	D	SP	P
SPA	73.167	180.00	5.80	25.98	I	D	LP	P
MHC	73.187	318.64	5.80	25.97	I	D	SP	P
LRM	73.747	330.00	5.75	25.76	I	D	SP	P
WDC	75.711	320.86	5.63	25.16	I	D	SP	P
SES	76.507	333.91	5.58	24.93	I	D	SP	P
RXF	77.198	330.84	5.54	24.72	I	D	LP	P
LON	79.125	326.15	5.40	24.07	E	D	LP	P
SFS	79.624	46.86	5.34	23.78	I	C	SP	P
COI	80.059	42.69	5.30	23.58	I	C	SP	P
PTO	80.437	41.82	5.27	23.44	I	C	SP	P
MAL	81.013	47.34	5.21	23.17	I	C	SP	P
TOL	82.784	44.70	5.09	22.63	I	C	LP	P
GRM	85.478	123.29	4.90	21.74	I	C	SP	P
SWZ	86.240	117.12	4.84	21.47	I	C	SP	P
GDH	86.671	5.50	4.82	21.35	I	C	SP	P
RSNT	86.826	340.63	4.81	21.31	E	N	LP	P

Table 47. Station data for event 95 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
EPF	87.165	43.43	4.79	21.21	I	C	SP	P
DCN	87.756	31.94	4.76	21.07	I	C	SP	P
KSR	87.976	116.28	4.75	21.03	I	C	SP	P
DLE	88.098	32.22	4.75	21.01	I	C	SP	P
DDK	88.255	32.20	4.74	20.98	I	C	SP	P
BPI	88.851	116.89	4.71	20.86	I	C	SP	P
BCAO	89.031	85.10	4.71	20.84	I	C	LP	P
BNG	89.042	85.11	4.71	20.84	I	C	SP	P
SLR	89.203	116.55	4.71	20.83	I	C	SP	P
EVA	89.638	117.50	4.71	20.83	I	C	SP	P
DIX	93.017	42.68	4.63	20.47	E	C	LP	P
ZUL	94.145	41.61	4.60	20.31	E	C	LP	P
OGA	95.634	42.79	4.55	20.09	I	C	SP	P
FUR	96.207	41.61	4.54	20.04	I	C	SP	P
GRF	96.651	40.14	4.53	19.99	I	C	SP	P
SNZO	97.340	222.98	4.51	19.93	E	D	LP	P
WET	97.518	40.99	4.51	19.91	I	C	SP	P
KHC	97.953	41.14	4.50	19.88	I	C	SP	P
CLL	98.222	38.92	4.49	19.84	I	C	SP	P
BRG	98.670	39.51	4.48	19.76	I	C	SP	P
MHI	130.782	56.48	1.85	8.02	I	C	SP	PKP
RAB	134.134	246.47	1.83	7.93	E	D	LP	PKP
KBL	138.771	56.68	1.78	7.73	E	C	LP	PKP
KNA	143.040	209.45	1.72	7.46	I	D	SP	PKP
POO	144.727	81.73	1.69	7.32	I	C	SP	PKP
GUMO	147.073	268.94	1.63	7.09	E	D	LP	PKP
MAJO	148.928	314.25	1.59	6.88	E	D	LP	PKP
TRT	155.454	184.18	1.36	5.91	I	D	SP	PKP
GTA	155.624	21.13	1.36	5.88	I	D	SP	PKP
LEM	156.167	171.95	1.34	5.79	E	D	LP	PKP
DAV	162.627	237.44	1.03	4.47	I	D	LP	PKP
TATO	167.280	310.68	0.78	3.36	E	D	LP	PKP
CHG	168.479	78.91	0.71	3.06	I	D	SP	PKP
KMI	168.865	41.69	0.69	2.97	I	D	SP	PKP
PCT	170.607	102.53	0.58	2.52	I	D	SP	PKP
BAG	170.695	268.13	0.58	2.50	E	D	LP	PKP

Table 48. Station data for event 97.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPB	11.542	336.36	10.11	86.41	E	C	LP	P
ZOBO	11.794	336.73	10.10	85.40	I	C	SP	P
ARE	13.137	323.03	10.00	80.80	I	C	SP	P
VAO	15.382	77.68	9.77	74.67	I	C	SP	P
SDV	36.599	347.79	8.20	54.00	I	D	SP	P
TOV	37.332	349.41	8.16	53.66	I	D	SP	P
CAR	37.677	354.16	8.15	53.49	I	D	SP	P
BIM	41.554	3.26	7.94	51.60	I	D	SP	P
MVM	41.600	3.51	7.94	51.57	I	D	SP	P
KIC	65.699	68.50	6.17	37.51	I	D	SP	P
BLA	66.087	345.10	6.14	37.29	I	D	SP	P
JCT	67.155	326.13	6.07	36.77	I	D	SP	P
SCP	69.015	348.20	5.94	35.86	E	D	LP	P
GBO	69.582	332.75	5.90	35.60	I	D	SP	P
FVM	69.677	337.41	5.89	35.55	I	D	SP	P
TUH	69.717	117.72	5.89	35.53	I	D	SP	P
RLO	69.789	333.04	5.88	35.48	I	D	SP	P
CER	69.808	117.83	5.88	35.47	I	D	SP	P
TUL	69.882	332.33	5.88	35.43	I	D	LP	P
SIO	69.955	331.85	5.87	35.40	I	D	SP	P
OCO	70.264	330.87	5.85	35.28	I	D	SP	P
ACO	71.982	330.33	5.74	34.49	I	D	SP	P
MNT	72.989	352.43	5.67	34.01	I	D	SP	P
OTT	73.153	350.89	5.66	33.93	I	D	SP	P
ALQ	74.089	324.24	5.60	33.56	I	D	SP	P
ANMO	74.091	324.25	5.60	33.56	I	D	SP	P
BLF	76.867	116.03	5.43	32.38	I	D	SP	P
SWZ	76.949	113.91	5.42	32.34	I	D	SP	P
GOL	77.267	327.99	5.39	32.17	I	D	SP	P
KSR	78.773	113.28	5.24	31.17	I	D	SP	P
LHC	78.818	342.70	5.24	31.14	I	D	SP	P
BPI	79.567	114.00	5.18	30.75	I	C	SP	P
SLR	79.959	113.70	5.15	30.55	I	D	SP	P
EVA	80.276	114.72	5.14	30.46	I	D	SP	P
BDW	81.647	327.47	5.06	29.94	I	D	SP	P
SCH	81.761	357.96	5.05	29.90	I	D	SP	P
IFR	81.827	45.82	5.05	29.87	I	D	SP	P
JOZ	82.272	116.75	5.02	29.70	I	D	SP	P
BUL	82.655	108.77	5.00	29.55	I	D	SP	P
FRI	83.004	317.78	4.98	29.41	I	D	SP	P
PRI	83.023	316.62	4.98	29.40	I	D	SP	P
MNV	83.058	319.69	4.97	29.39	I	D	SP	P
JAS	84.071	318.11	4.88	28.79	I	D	SP	P
MAL	84.339	43.73	4.86	28.65	I	D	SP	P
MHC	84.399	317.02	4.85	28.62	I	D	SP	P
BCAO	84.772	82.34	4.83	28.47	I	D	SP	P
BCAO	84.772	82.34	4.83	28.47	I	D	LP	P
BNG	84.783	82.34	4.83	28.46	I	D	SP	P
KRI	84.976	106.23	4.82	28.39	I	D	SP	P
BKS	85.103	317.13	4.81	28.34	I	D	SP	P

Table 48. Station data for event 97 .... continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LRM	85.299	327.94	4.80	28.27	I	D	SP	P
MIN	86.325	319.33	4.75	27.98	I	D	SP	P
MTD	86.678	107.04	4.74	27.89	I	D	SP	P
WDC	87.021	319.05	4.73	27.81	I	D	SP	P
FHC	88.010	318.52	4.71	27.70	I	D	SP	P
FFC	88.136	338.73	4.71	27.69	I	D	SP	P
CLX	88.294	328.25	4.70	27.66	I	D	LP	P
LHD	88.529	328.08	4.70	27.63	I	D	LP	P
LDM	88.555	328.34	4.70	27.63	I	D	LP	P
RXF	88.759	328.72	4.69	27.60	I	D	LP	P
NEW	89.275	327.35	4.68	27.53	I	D	SP	P
FCC	89.413	344.53	4.68	27.51	I	D	SP	P
COR	90.016	321.76	4.67	27.44	I	D	SP	P
EDM	91.136	332.54	4.64	27.22	I	D	SP	P
CAF	93.247	40.30	4.57	26.81	I	D	SP	P
LPF	93.393	36.52	4.56	26.76	I	D	SP	P
LSF	93.721	39.01	4.55	26.70	I	D	SP	P
TCF	94.126	39.26	4.55	26.65	I	D	SP	P
AVF	95.061	39.30	4.53	26.55	I	D	SP	P
SMF	95.254	39.61	4.52	26.52	I	D	SP	P
SSF	95.301	39.14	4.52	26.51	I	D	SP	P
LOR	95.617	39.10	4.52	26.47	I	D	SP	P
HAU	97.428	39.42	4.47	26.19	I	D	SP	P
BSF	97.586	39.73	4.47	26.16	I	D	SP	P
BAF	97.704	39.80	4.46	26.13	I	D	SP	P
ECH	97.999	39.54	4.45	26.04	I	D	SP	P
ZUL	98.319	40.61	4.44	26.00	I	D	SP	P
GWF	98.663	39.05	4.44	25.98	I	D	SP	P
ENN	98.686	36.92	4.44	25.98	I	D	SP	P
WTS	99.812	36.16	4.44	25.99	I	D	SP	P
CLL	102.826	38.72	4.44	25.99	I	D	SP	Pdf
COL	112.038	332.73	1.89	10.73	I	D	SP	PKP
TTA	115.092	329.69	1.88	10.69	I	D	SP	PKP
NWAO	120.175	180.52	1.87	10.65	I	D	SP	PKP
MUN	121.121	179.51	1.87	10.64	I	D	SP	PKP
KLB	121.499	181.06	1.87	10.64	I	D	SP	PKP
BAL	122.490	180.01	1.87	10.63	I	D	SP	PKP
CTA	124.933	214.44	1.86	10.60	I	D	SP	PKP
WB2	130.083	201.89	1.85	10.51	I	D	SP	PKP
KHI	130.166	67.08	1.85	10.50	I	D	LP	PKP
LEM	145.020	164.13	1.67	9.48	I	D	SP	PKP
TRT	145.050	172.96	1.67	9.48	I	D	SP	PKP
NDI	145.201	78.23	1.67	9.46	I	D	SP	PKP
PSI	150.253	142.08	1.53	8.70	I	D	SP	PKP
TSI	150.718	140.57	1.52	8.62	I	D	SP	PKP
WMQ	151.372	47.10	1.50	8.50	I	D	SP	PKP
PCT	161.055	128.19	1.09	6.20	I	D	SP	PKP
GTA	161.423	44.94	1.08	6.09	I	D	SP	PKP
CHG	161.649	113.44	1.06	6.03	I	D	SP	PKP
HHC	165.776	16.04	0.85	4.79	I	D	SP	PKP

Table 48. Station data for event 97 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LZH	165.952	47.94	0.84	4.74	I	D	SP	PKP
BJI	167.223	1.82	0.77	4.34	I	D	SP	PKP
KMI	167.288	96.40	0.76	4.31	I	D	SP	PKP
XAN	170.472	42.76	0.58	3.28	I	D	SP	PKP
SSE	174.507	315.47	0.34	1.91	I	D	LP	PKP

Table 49. Station data for event 114.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPB	2.148	36.75	12.12	115.52	I	D	LP	P
ZOBO	2.351	32.48	12.37	112.90	I	D	SP	P
ARE	2.659	312.17	12.66	109.50	I	C	SP	P
YJA	5.359	137.06	13.42	92.43	I	C	SP	P
ANT	5.486	189.41	13.42	91.87	I	D	SP	P
NNA	9.489	310.11	13.26	80.92	I	C	SP	P
LPA	19.479	150.55	10.28	49.92	E	C	LP	P
CAR	28.694	5.15	8.96	41.85	I	C	SP	P
TRN	29.802	16.05	8.85	41.21	I	C	LP	P
SJG	36.290	5.29	8.43	38.90	I	C	LP	P
ACX	45.990	317.61	7.89	35.99	I	D	SP	P
IIT	46.656	321.09	7.85	35.78	I	D	SP	P
IIP	47.271	320.76	7.82	35.59	I	D	SP	P
IIC	47.798	320.79	7.78	35.39	I	D	SP	P
BEC	50.557	5.21	7.56	34.24	I	C	LP	P
SHA	51.892	339.45	7.45	33.69	E	D	LP	P
RSCP	55.710	344.08	7.15	32.19	E	D	LP	P
BLA	56.136	349.44	7.12	32.03	I	D	LP	P
JCT	56.589	328.48	7.10	31.89	I	D	LP	P
GEO	57.305	352.93	7.04	31.59	E	N	LP	P
TUL	59.377	335.24	6.88	30.82	I	D	LP	P
WES	60.363	358.39	6.80	30.43	E	N	LP	P
EPT	61.143	324.11	6.74	30.12	I	D	LP	P
RSNY	62.674	355.90	6.62	29.52	E	D	LP	P
ANMO	63.532	326.46	6.55	29.19	E	D	LP	P
GAC	63.892	355.29	6.52	29.05	E	D	LP	P
GOL	66.704	330.46	6.29	27.90	I	D	LP	P
RSSD	69.678	334.14	6.06	26.81	E	D	LP	P
RSON	72.051	344.11	5.89	26.00	E	D	LP	P
JAS	73.616	320.17	5.77	25.46	E	D	LP	P
COR	79.483	324.05	5.37	23.59	I	C	SP	P
LIS	79.954	43.64	5.32	23.32	I	C	SP	P
LON	80.049	326.43	5.31	23.27	E	D	LP	P
EDM	80.631	334.99	5.25	23.01	I	D	SP	P
SUR	80.648	120.95	5.25	23.00	I	C	SP	P
SFS	80.751	46.83	5.24	22.97	I	C	SP	P
PTO	81.625	41.81	5.17	22.66	I	C	SP	P
PTO	81.625	41.81	5.17	22.66	I	C	LP	P
MAL	82.133	47.33	5.14	22.51	I	C	SP	P
CRT	82.927	47.25	5.10	22.30	I	C	SP	P
ALM	83.564	47.98	5.06	22.12	I	C	SP	P
TOL	83.938	44.71	5.03	22.02	I	C	LP	P
GRM	85.013	123.28	4.96	21.67	I	C	SP	P
ALI	85.649	47.38	4.91	21.44	I	D	LP	P
LGR	86.214	43.03	4.85	21.18	I	C	SP	P
VAL	86.751	32.18	4.81	21.01	I	C	LP	P
RSNT	87.968	340.76	4.75	20.72	E	D	LP	P
ECP	88.877	33.31	4.72	20.59	I	C	SP	P
SLR	88.890	116.62	4.72	20.59	I	C	LP	P
DCN	89.037	32.03	4.72	20.58	I	C	SP	P

Table 49. Station data for event 114 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ETA	89.233	32.92	4.72	20.56	I	C	SP	P
DLE	89.377	32.31	4.71	20.54	I	C	SP	P
BCAO	89.450	85.19	4.71	20.54	I	C	LP	P
BNG	89.462	85.19	4.71	20.53	I	C	SP	P
DMU	89.521	31.68	4.71	20.53	I	C	SP	P
DDK	89.534	32.29	4.71	20.53	I	C	SP	P
BUL	91.056	111.49	4.69	20.43	I	C	SP	P
UCC	94.155	37.67	4.59	20.00	E	C	LP	P
DIX	94.194	42.82	4.59	20.00	E	C	LP	P
WLF	94.767	39.17	4.58	19.92	E	C	LP	P
DBN	95.143	36.67	4.57	19.88	I	C	LP	P
KLL	95.236	38.30	4.56	19.86	I	C	SP	P
ZUL	95.334	41.76	4.56	19.83	E	C	LP	P
GWF	95.400	40.17	4.55	19.82	I	C	SP	P
STB	95.529	38.47	4.55	19.80	I	C	SP	P
BNS	95.864	38.21	4.54	19.77	I	C	SP	P
WTS	96.035	37.16	4.54	19.75	I	C	SP	P
SNZO	96.165	222.99	4.54	19.74	E	D	LP	P
STU	96.296	40.74	4.53	19.73	E	C	LP	P
AFI	97.053	252.91	4.52	19.66	E	D	LP	P
GRF	97.857	40.31	4.50	19.59	I	C	SP	P
GRFO	97.853	40.31	4.50	19.59	E	C	LP	P
MOX	98.402	39.48	4.48	19.50	I	C	LP	P
WET	98.714	41.18	4.48	19.46	I	C	SP	P
MUD	98.911	33.43	4.47	19.45	I	C	SP	P
KMR	99.183	42.48	4.47	19.42	I	C	LP	P
CLL	99.441	39.11	4.46	19.41	I	C	SP	P
PRU	99.996	40.68	4.44	19.31	I	C	SP	Pdf
KON	100.169	30.44	4.44	19.31	I	C	LP	Pdf
KONO	100.169	30.44	4.44	19.31	E	C	LP	Pdf
COP	100.406	34.76	4.44	19.31	I	D	SP	Pdf
VIE	100.671	42.72	4.44	19.31	E	C	LP	Pdf
ATH	103.425	54.23	4.44	19.31	I	C	SP	Pdf
NUR	107.712	31.21	1.89	8.09	E	D	LP	PKP
KEV	109.218	21.49	1.89	8.09	E	C	LP	PKP
RAB	133.316	245.54	1.83	7.84	I	D	LP	PKP
KBL	139.743	57.87	1.77	7.57	I	C	LP	PKP
POO	145.201	83.64	1.68	7.18	I	C	SP	PKP
GUMO	146.718	267.03	1.64	7.03	E	D	LP	PKP
WMQ	148.074	32.14	1.61	6.89	I	C	SP	PKP
SHK	154.500	313.78	1.40	6.00	E	D	LP	PKP
LEM	154.901	173.09	1.39	5.93	I	C	SP	PKP
SEO	155.992	326.52	1.34	5.74	E	D	LP	PKP
DAV	161.635	234.68	1.08	4.62	E	D	LP	PKP
SSE	164.006	324.97	0.96	4.10	I	C	SP	PKP
SNG	165.326	137.43	0.89	3.79	E	C	LP	PKP
TATO	167.847	305.20	0.74	3.18	E	D	LP	PKP
BDT	168.940	93.50	0.68	2.91	I	C	SP	PKP
CHG	168.967	85.35	0.68	2.90	I	C	LP	PKP
BAG	170.257	260.59	0.60	2.57	I	D	LP	PKP

Table 50. Station data for event 136.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BOG	10.230	23.28	13.39	77.01	I	C	LP	P
ZOBO	14.994	139.96	12.70	67.55	I	N	LP	P
LPB	15.206	140.56	12.66	67.16	I	C	LP	P
SJS	15.834	338.02	12.56	66.05	I	D	SP	P
SSS	21.445	329.23	9.92	46.25	I	D	SP	P
LPS	21.946	330.16	9.83	45.71	I	D	SP	P
JACH	28.569	166.67	9.02	41.02	I	D	SP	P
ROCH	28.754	167.54	9.00	40.90	I	D	SP	P
PEL	28.991	167.09	8.97	40.75	I	D	SP	P
FCH	29.257	166.53	8.93	40.56	I	D	SP	P
LPA	35.259	150.60	8.51	38.29	I	D	LP	P
LPA	35.259	150.60	8.51	141.71	I	C	LP	AP
SHA	36.613	345.42	8.44	142.09	I	C	LP	AP
SHA	36.613	345.42	8.44	37.91	I	D	LP	P
RDJ	38.161	121.41	8.34	37.37	I	D	SP	P
JCT	40.798	330.76	8.20	36.64	I	D	SP	P
JCT	40.798	330.76	8.20	36.64	I	D	LP	P
BLA	41.887	357.23	8.13	36.31	I	D	LP	P
TUL	43.798	339.12	8.03	35.76	I	D	LP	P
FVM	44.116	345.98	8.01	35.68	I	D	SP	P
SCP	45.410	0.25	7.94	35.33	I	D	LP	P
SCP	45.410	0.25	7.94	35.33	I	C	LP	AP
UTO	46.544	354.35	7.88	34.98	I	D	SP	P
WES	47.401	6.83	7.82	145.28	I	C	LP	AP
WES	47.401	6.83	7.82	34.72	I	D	SP	P
ANMO	47.730	328.18	7.80	34.62	I	D	LP	P
RSNY	49.265	3.37	7.69	34.02	I	D	SP	P
RSNY	49.265	3.37	7.69	34.02	I	D	LP	P
BNH	49.586	6.42	7.66	33.89	I	D	SP	P
OTT	50.051	2.19	7.62	33.70	I	D	SP	P
GAC	50.370	2.39	7.60	33.58	I	D	LP	P
GOL	50.945	332.92	7.55	33.35	I	D	SP	P
GOL	50.945	332.92	7.55	33.35	I	D	LP	P
GLA	51.295	319.94	7.52	33.21	I	D	SP	P
RMU	51.749	326.45	7.49	33.03	I	D	SP	P
RSSD	54.034	337.10	7.30	32.12	I	D	LP	P
PAS	54.153	318.80	7.30	32.08	I	D	SP	P
BDW	55.311	332.13	7.20	31.62	I	D	SP	P
MNA	56.826	322.85	7.09	31.08	I	D	SP	P
FRI	56.881	320.59	7.09	31.06	I	D	SP	P
PRI	56.982	319.23	7.08	31.02	I	D	SP	P
RSON	57.078	348.28	7.07	30.98	I	D	LP	P
BKS	59.019	320.00	6.93	30.28	I	D	SP	P
SCH	60.184	7.52	6.83	29.83	I	D	SP	P
WDC	60.814	322.35	6.78	29.59	I	D	SP	P
CLX	61.975	332.85	6.69	29.14	I	D	LP	P
LHD	62.205	332.65	6.67	29.06	I	D	LP	P
LDM	62.239	332.93	6.67	29.04	I	D	LP	P
RXF	62.454	333.35	6.65	28.96	I	D	LP	P
COR	63.697	325.55	6.55	28.49	I	D	SP	P

Table 50. Station data for event 136 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COR	63.697	325.55	6.55	151.51	I	L	LP	AP
COR	63.697	325.55	6.55	28.49	I	D	LP	P
LON	64.247	328.16	6.51	28.28	I	D	SP	P
LON	64.247	328.16	6.51	28.28	I	D	LP	P
EDM	65.014	337.49	6.45	27.99	I	D	SP	P
LIS	76.836	48.58	5.58	23.96	I	D	SP	P
PTO	77.957	46.34	5.50	23.60	I	D	LP	P
PTO	77.957	46.34	5.50	23.60	I	D	SP	P
SFS	78.462	51.45	5.47	23.47	I	D	SP	P
MAL	79.927	51.56	5.34	22.86	I	D	SP	P
VAL	80.405	35.56	5.29	22.63	I	D	LP	P
CRT	80.668	51.25	5.26	22.53	I	D	SP	P
TOL	80.960	48.52	5.24	22.43	I	D	LP	P
ALM	81.481	51.79	5.20	22.24	I	D	SP	P
HON	82.383	292.16	5.14	21.95	E	D	LP	P
AKU	82.529	21.20	5.13	21.91	I	D	SP	P
DCN	82.579	34.83	5.12	21.90	I	D	SP	P
LGR	82.703	46.28	5.12	21.87	I	D	SP	P
DMU	82.960	34.37	5.10	21.80	I	D	SP	P
DLE	82.980	35.02	5.10	21.79	I	D	SP	P
DDK	83.127	34.97	5.09	21.75	I	D	SP	P
COL	85.888	336.35	4.89	20.85	I	D	LP	P
VDM	87.314	40.47	4.80	20.44	E	D	LP	P
ALE	87.523	2.04	4.79	20.40	E	D	LP	P
SSB	88.241	44.48	4.75	20.22	I	D	SP	P
UCC	88.959	39.00	4.72	20.10	I	D	LP	P
DOU	89.000	39.72	4.72	20.09	I	D	LP	P
DBN	89.659	37.78	4.71	20.04	I	D	LP	P
ENN	89.937	39.17	4.70	20.01	I	D	SP	P
WLF	89.938	40.29	4.70	20.01	E	D	LP	P
BAF	90.263	42.17	4.70	20.01	I	D	SP	P
ECH	90.416	41.81	4.70	20.01	I	D	SP	P
STB	90.494	39.42	4.70	20.01	I	D	SP	P
WTS	90.645	38.02	4.70	20.00	I	D	SP	P
BNS	90.749	39.08	4.70	19.99	I	D	SP	P
GWF	90.809	41.08	4.69	19.98	I	D	SP	P
BER	90.924	29.57	4.69	19.97	I	D	LP	P
STU	91.822	41.39	4.67	19.89	I	D	LP	P
STU	91.822	41.39	4.67	19.89	I	C	LP	AP
AFI	92.406	255.91	4.65	19.80	I	D	LP	P
MUD	92.489	33.72	4.65	19.79	I	D	SP	P
HAM	92.677	36.75	4.65	19.76	I	D	SP	P
OGA	92.900	43.39	4.64	19.75	I	D	SP	P
KONO	92.977	30.54	4.64	19.74	I	D	LP	P
KON	92.977	30.54	4.64	19.74	I	D	LP	P
GRFO	93.213	40.58	4.63	19.71	I	D	LP	P
GRF	93.218	40.58	4.63	19.71	I	D	SP	P
MOX	93.528	39.64	4.62	19.64	I	D	LP	P
HOF	93.677	39.98	4.61	19.63	I	D	SP	P
COP	94.266	34.61	4.60	19.56	I	D	SP	P

Table 50. Station data for event 136 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COP	94.266	34.61	4.60	19.56	I	D	LP	P
CLL	94.436	39.01	4.59	19.53	I	D	SP	P
BRN	94.600	37.90	4.59	19.50	I	D	SP	P
TRI	94.736	44.65	4.58	19.48	I	D	SP	P
SUR	94.933	122.96	4.57	19.44	I	D	SP	P
BRG	95.016	39.47	4.57	19.43	I	D	SP	P
KMR	95.063	42.30	4.57	19.42	I	D	LP	P
BCAO	96.967	86.14	4.52	19.21	I	D	LP	P
BNG	96.978	86.14	4.52	19.21	I	D	SP	P
SNZO	99.600	226.88	4.46	18.94	I	D	LP	P
KEV	99.732	19.94	4.46	18.92	I	D	LP	P
BLF	100.060	120.54	4.45	18.90	I	D	SP	Pdf
SKO	100.315	48.38	4.45	18.90	I	D	SP	Pdf
SEK	101.454	120.02	4.45	18.90	I	D	SP	Pdf
VTS	101.581	47.66	4.45	18.90	I	D	SP	Pdf
PRY	101.603	118.60	4.45	18.90	I	D	SP	Pdf
SLR	102.553	117.56	4.45	18.90	I	D	LP	Pdf
ANTO	109.093	49.55	1.89	7.91	I	D	LP	PKP
ARO	121.260	79.51	1.87	7.83	I	D	SP	PKP
IR2	124.012	49.77	1.87	7.81	I	D	SP	PKP
ADE	127.403	218.28	1.86	7.78	I	D	SP	PKP
RAB	128.985	260.69	1.86	7.76	I	D	LP	PKP
CTAO	129.870	238.89	1.85	7.75	E	D	LP	PKP
GUA	136.730	284.54	1.80	7.55	E	D	LP	PKP
HHC	143.119	347.75	1.72	7.19	I	D	SP	PKP
GTA	145.542	2.85	1.67	6.99	I	D	SP	PKP
SSE	148.206	327.46	1.61	6.72	I	D	LP	PKP
NJ2	148.617	331.60	1.60	6.67	I	D	SP	PKP
POO	149.419	61.27	1.57	6.58	I	D	SP	PKP
XAN	150.229	348.20	1.55	6.48	I	D	SP	PKP
ANP	152.368	319.01	1.48	6.19	I	D	LP	PKP
LSA	153.272	21.15	1.45	6.06	I	D	SP	PKP
QZH	154.378	322.91	1.41	5.89	I	D	SP	PKP
DAV	156.347	276.57	1.33	5.56	I	D	LP	PKP
BAG	158.365	303.50	1.24	5.19	E	D	LP	PKP
GZH	158.761	329.70	1.22	5.11	I	D	SP	PKP
KMI	159.822	357.78	1.17	4.90	I	D	SP	PKP
CHG	165.820	11.49	0.86	3.59	I	D	SP	PKP
CHG	165.820	11.49	0.86	3.59	I	D	LP	PKP
PCT	170.214	2.77	0.61	2.53	I	D	SP	PKP
SNG	177.355	28.72	0.17	0.69	I	D	LP	PKP

Table 51. Station data for event 147.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LNV	7.496	22.88	13.97	55.04	I	C	SP	P
BACH	8.343	26.38	13.88	54.52	I	C	SP	P
FCH	8.435	27.36	13.88	54.52	I	C	SP	P
TLL	11.245	18.54	13.59	52.87	I	D	SP	P
BAA	14.444	69.28	13.06	50.01	E	C	LP	P
HUA	28.779	359.16	9.04	32.03	I	D	SP	P
RDJ	32.113	65.67	8.75	30.89	I	C	LP	P
LPS	56.500	343.37	7.15	24.80	I	D	SP	P
SJG	59.291	9.70	6.92	23.95	E	D	LP	P
HKT	73.129	341.10	5.85	20.07	I	D	SP	P
SUR	73.511	118.59	5.82	19.96	I	D	SP	P
BEC	73.545	9.01	5.82	19.96	E	D	LP	P
ATX	73.996	339.46	5.78	19.82	I	D	SP	P
JCT	74.686	337.87	5.75	19.71	I	D	SP	P
JCT	74.686	337.87	5.75	19.71	I	D	LP	P
SNZO	76.690	226.53	5.61	19.22	I	D	LP	P
RSCP	76.777	351.08	5.58	19.11	I	D	LP	P
EPT	78.002	332.86	5.52	18.90	I	D	LP	P
SIO	78.787	342.39	5.45	18.65	I	D	SP	P
TUL	78.828	342.84	5.45	18.65	I	D	LP	P
RLO	78.906	343.52	5.45	18.65	I	D	SP	P
BLF	79.155	119.03	5.45	18.65	I	D	SP	P
ACO	80.379	340.45	5.31	18.15	I	D	SP	P
SEK	80.621	119.27	5.31	18.15	I	D	SP	P
ANMO	80.882	334.19	5.26	17.97	I	D	LP	P
SCP	81.378	357.73	5.22	17.83	I	D	LP	P
KSR	81.755	116.98	5.18	17.69	I	D	SP	P
BPI	82.312	117.90	5.14	17.55	I	D	SP	P
SLR	82.773	117.72	5.12	17.48	I	D	SP	P
EVA	82.790	118.78	5.12	17.48	I	D	SP	P
WES	82.985	2.68	5.12	17.48	I	D	LP	P
GOL	84.904	336.88	4.99	17.02	E	D	LP	P
RSNY	85.085	0.27	4.99	17.02	I	D	LP	P
GAC	86.241	359.60	4.91	16.74	I	D	LP	P
BUL	86.739	113.79	4.86	16.57	I	D	SP	P
RSSD	88.619	339.47	4.75	16.18	I	D	LP	P
BKS	89.567	324.42	4.71	16.04	E	D	LP	P
KRI	89.671	112.01	4.71	16.04	I	D	SP	P
LHC	89.858	350.49	4.71	16.04	I	D	SP	P
MTD	91.081	113.26	4.70	16.01	I	D	SP	P
RSON	92.867	348.20	4.65	15.83	I	D	LP	P
BNG	95.489	88.91	4.56	15.52	I	D	SP	P
COR	95.561	327.53	4.56	15.52	E	D	LP	P
CLL	119.382	46.05	1.88	6.32	I	D	SP	PKP
COL	119.673	332.01	1.87	6.31	I	D	LP	PKP
KDZ	122.214	60.67	1.87	6.30	I	D	SP	PKP
DAG	122.530	13.11	1.87	6.30	I	D	SP	PKP
PVL	122.799	59.02	1.87	6.30	I	D	SP	PKP
MHI	144.382	82.33	1.70	5.74	I	D	LP	PKP
POO	145.168	120.51	1.68	5.67	I	D	SP	PKP

Table 51. Station data for event 147 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SNG	146.157	172.01	1.66	5.60	I	D	LP	PKP
BAG	152.135	213.26	1.50	5.04	E	D	LP	PKP
NDI	154.171	109.45	1.43	4.80	I	D	SP	PKP
SHK	157.320	262.55	1.30	4.39	I	D	LP	PKP
TATO	159.023	225.70	1.22	4.09	I	D	LP	PKP
KMI	164.116	172.19	0.96	3.24	I	D	LP	PKP
NJ2	165.834	235.64	0.85	2.87	I	D	SP	PKP
WMQ	166.815	71.60	0.80	2.68	I	D	SP	PKP
XAN	172.479	205.08	0.50	1.68	I	D	SP	PKP
TIY	173.463	242.94	0.44	1.48	I	D	SP	PKP
GTA	175.682	108.86	0.25	0.85	I	D	SP	PKP

Table 52. Station data for event 157.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HUA	4.725	237.54	7.67	128.76	I	C	SP	P
NNA	6.021	245.39	8.63	118.68	I	C	SP	P
PT02	6.125	235.70	8.69	117.93	I	C	SP	P
ARE	6.911	181.93	9.08	112.64	I	D	SP	P
ZOBO	7.374	155.92	9.27	109.68	I	D	SP	P
LPB	7.622	156.58	9.35	108.16	I	D	LP	P
ANT	14.134	176.87	9.71	80.81	I	C	SP	P
SLA	16.093	160.79	9.56	76.20	I	C	SP	P
SDV	18.284	1.94	9.39	72.59	I	D	SP	P
PEL	23.521	178.81	8.92	65.02	I	D	SP	P
FCH	23.715	178.00	8.90	64.76	I	D	SP	P
SAN	23.830	178.78	8.89	64.57	I	D	SP	P
CHCH	24.309	178.80	8.85	64.11	I	D	SP	P
RFA	25.267	174.63	8.80	63.37	I	D	SP	P
SJG	27.901	10.41	8.64	61.36	I	D	LP	P
LPA	28.059	156.27	8.63	61.26	I	D	LP	P
BMA	29.077	120.06	8.57	60.52	I	C	SP	P
CAI	33.898	87.57	8.31	57.59	I	C	SP	P
BEC	42.119	8.30	7.88	126.75	I	C	LP	AP
BEC	42.119	8.30	7.88	53.25	I	D	LP	P
RSCP	46.860	343.94	7.55	50.13	E	D	LP	P
BLA	47.259	350.02	7.52	49.83	I	D	LP	P
BLA	47.259	350.02	7.52	49.83	I	D	LP	P
MZX	47.344	313.88	7.51	49.77	I	D	SP	P
JCT	48.301	326.45	7.45	49.18	I	D	LP	P
JCT	48.301	326.45	7.45	49.18	I	D	SP	P
IN3	50.368	345.34	7.29	47.82	I	D	SP	P
SCP	50.419	353.48	7.29	47.78	I	D	LP	P
RLO	50.649	335.04	7.27	47.62	I	D	SP	P
TUL	50.755	334.19	7.26	47.54	I	D	LP	P
OCO	51.176	332.44	7.23	47.28	I	D	SP	P
AN10	51.207	347.06	7.23	47.26	I	D	SP	P
IN2	51.258	344.69	7.23	47.26	I	D	SP	P
AN11	51.341	346.90	7.22	47.21	I	D	SP	P
RRO	51.530	331.63	7.21	47.10	I	D	SP	P
AN12	51.574	347.50	7.21	47.08	I	D	SP	P
WES	51.635	359.93	7.20	47.04	I	D	LP	P
PCO	51.930	333.68	7.18	46.82	I	D	SP	P
AAM	52.790	348.45	7.12	46.39	I	D	SP	P
AAM	52.790	348.45	7.12	46.39	I	D	LP	P
ACO	52.911	331.87	7.12	46.32	I	D	SP	P
EPT	53.123	322.07	7.10	46.20	I	D	LP	P
RSNY	53.880	357.10	7.05	45.75	E	D	LP	P
RSNY	53.880	357.10	7.05	45.75	I	D	SP	P
MNT	54.794	357.96	6.98	45.22	I	D	SP	P
GAC	55.085	356.39	6.96	45.05	I	D	LP	P
ALQ	55.348	324.84	6.94	44.88	I	D	SP	P
ANMO	55.350	324.85	6.94	44.87	I	D	SP	P
ANMO	55.350	324.85	6.94	44.87	I	D	LP	P
GOL	58.288	329.42	6.72	43.04	I	D	LP	P

Table 52. Station data for event 157 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
GOL	58.288	329.42	6.72	43.04	I	D	SP	P
GLA	59.263	317.66	6.65	42.51	I	D	SP	P
LHC	59.828	346.21	6.60	42.16	I	D	SP	P
RSSD	61.089	333.54	6.50	41.37	I	D	LP	P
BDW	62.689	329.08	6.39	40.46	I	D	SP	P
RSON	63.199	344.26	6.34	40.15	I	D	LP	P
RSON	63.199	344.26	6.34	40.15	I	C	SP	P
SCH	64.188	2.87	6.27	39.55	I	D	SP	P
MNA	64.678	320.62	6.23	39.25	I	D	SP	P
FRI	64.820	318.53	6.22	39.17	I	D	SP	P
PRI	64.969	317.27	6.20	39.08	I	D	SP	P
JAS	65.844	319.02	6.13	38.55	I	D	LP	P
JAS	65.844	319.02	6.13	38.55	I	D	SP	P
MHC	66.290	317.88	6.10	38.34	I	D	SP	P
LRM	66.314	329.80	6.10	38.33	I	D	SP	P
BKS	66.978	318.08	6.05	37.96	I	D	SP	P
ORV	67.445	319.93	6.02	37.75	I	D	SP	P
KIC	68.114	79.22	5.97	37.37	I	D	SP	P
WDC	68.682	320.35	5.94	37.13	I	D	SP	P
SES	68.959	333.96	5.92	37.01	I	D	SP	P
FFC	69.008	341.49	5.92	36.99	I	D	SP	P
LDM	69.549	330.38	5.88	36.67	I	D	LP	P
NEW	70.314	329.37	5.82	36.29	I	D	SP	P
FCC	70.503	347.61	5.81	36.19	I	D	SP	P
COR	71.419	323.52	5.76	35.79	E	C	LP	P
LON	71.835	326.02	5.73	35.62	I	D	SP	P
EDM	72.001	334.92	5.72	35.55	I	D	SP	P
PNT	72.255	329.10	5.70	35.39	I	D	SP	P
PGC	73.852	326.94	5.60	34.68	I	D	SP	P
LIS	74.996	45.71	5.53	34.20	I	D	SP	P
PTO	76.420	43.65	5.44	33.54	I	D	SP	P
PTO	76.420	43.65	5.44	33.54	I	D	LP	P
PHC	77.148	327.19	5.38	33.12	I	D	SP	P
TOL	79.086	46.26	5.20	31.93	I	D	LP	P
TOL	79.086	46.26	5.20	148.07	E	C	LP	AP
YKC	79.129	341.10	5.20	31.90	I	D	SP	P
ALM	79.148	49.59	5.20	31.89	I	D	SP	P
RSNT	79.168	341.06	5.20	31.88	I	D	LP	P
RSNT	79.168	341.06	5.20	31.88	I	C	SP	P
GDH	79.539	6.33	5.17	31.68	I	D	SP	P
LGR	81.126	44.28	5.07	31.03	I	D	SP	P
ALI	81.134	48.71	5.07	31.03	I	C	LP	P
REY	82.276	19.62	5.00	30.56	I	D	SP	P
ECP	82.614	34.21	4.98	30.43	I	D	SP	P
DCN	82.634	32.91	4.98	30.42	I	C	SP	P
ETA	82.926	33.78	4.97	30.31	I	C	SP	P
DLE	83.003	33.16	4.96	30.27	I	C	SP	P
DMU	83.078	32.51	4.95	30.23	I	C	SP	P
DDK	83.157	33.12	4.95	30.18	I	C	SP	P
EPF	83.289	44.48	4.93	30.07	I	D	SP	P

Table 52. Station data for event 157 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPF	84.114	39.42	4.86	29.61	I	D	SP	P
MFF	84.179	40.98	4.86	29.57	I	D	SP	P
LFF	84.194	42.76	4.85	29.56	I	D	SP	P
GRR	84.356	39.13	4.84	29.46	I	D	SP	P
LPO	84.413	43.11	4.84	29.43	I	D	SP	P
AKU	84.514	19.44	4.83	29.39	I	D	SP	P
FLN	84.723	38.86	4.82	29.32	I	D	SP	P
RJF	84.837	42.60	4.82	29.32	I	D	SP	P
LDF	84.887	39.11	4.82	29.30	I	D	SP	P
CAF	85.083	43.08	4.81	29.24	I	D	SP	P
LSF	85.153	41.70	4.80	29.21	I	D	SP	P
TCF	85.612	41.82	4.78	29.03	I	D	SP	P
MZF	85.835	41.97	4.77	28.98	I	D	SP	P
BGF	86.115	41.70	4.76	28.90	I	D	SP	P
AVF	86.518	41.59	4.74	28.79	I	D	SP	P
SSF	86.700	41.36	4.73	28.74	I	D	SP	P
SMF	86.795	41.83	4.73	28.71	I	D	SP	P
LOR	86.992	41.23	4.72	28.67	I	D	SP	P
LRG	87.612	45.39	4.71	28.58	I	D	SP	P
LMR	87.685	45.54	4.71	28.57	I	D	SP	P
FRF	87.841	45.35	4.70	28.55	I	D	SP	P
DOU	88.290	38.67	4.70	28.54	I	D	LP	P
UCC	88.352	37.95	4.70	28.54	E	C	LP	P
HAU	88.815	41.00	4.69	28.49	I	D	SP	P
JNK	88.938	340.77	4.69	28.47	I	D	SP	P
BSF	89.057	41.25	4.69	28.46	I	D	SP	P
CVF	89.172	46.71	4.69	28.44	I	D	SP	P
BAF	89.190	41.28	4.69	28.44	I	D	SP	P
DBN	89.219	36.85	4.69	28.44	I	D	LP	P
ENN	89.295	38.26	4.69	28.43	I	D	SP	P
MMK	89.382	43.17	4.68	28.42	I	D	SP	P
ECH	89.394	40.94	4.68	28.42	I	D	SP	P
CDF	89.521	40.77	4.68	28.40	I	D	SP	P
GWF	89.886	40.28	4.66	28.29	I	D	SP	P
TMA	90.008	43.27	4.66	28.27	I	D	SP	P
MBC	90.098	349.73	4.66	28.25	I	D	SP	P
WTS	90.160	37.23	4.66	28.24	I	D	SP	P
HON	90.420	291.42	4.65	28.21	I	D	LP	P
TNS	90.715	39.20	4.65	28.17	I	D	SP	P
STU	90.844	40.73	4.64	28.16	E	D	LP	P
STU	90.844	40.73	4.64	28.16	I	D	LP	P
STU	90.844	40.73	4.64	28.16	I	D	SP	P
DAG	91.222	10.53	4.63	28.09	I	D	SP	P
GRM	91.301	123.92	4.63	28.05	I	D	SP	P
SWZ	91.492	117.71	4.62	28.01	I	D	SP	P
OGA	91.628	42.86	4.62	27.98	I	D	SP	P
RMP	91.794	48.06	4.62	27.97	I	D	SP	P
ALE	91.968	1.16	4.61	27.94	I	D	SP	P
FUR	92.064	41.63	4.61	27.92	I	D	SP	P
GRFO	92.338	40.12	4.60	27.85	I	D	LP	P

Table 52. Station data for event 157 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
GRF	92.342	40.12	4.60	27.85	I	D	SP	P
HAM	92.353	36.26	4.60	27.84	I	D	SP	P
PME	92.549	332.14	4.59	27.79	I	D	SP	P
PMR	92.586	332.09	4.59	27.78	I	D	SP	P
MUD	92.601	33.23	4.59	27.78	I	D	SP	P
MOX	92.783	39.24	4.58	27.73	I	D	LP	P
HOF	92.881	39.60	4.57	27.71	I	D	SP	P
FBA	92.897	335.45	4.57	27.70	I	D	SP	P
BHG	93.034	42.27	4.57	27.67	I	D	SP	P
KSR	93.137	116.72	4.56	27.64	I	D	SP	P
KBA	93.227	42.97	4.56	27.61	I	D	SP	P
SEK	93.250	119.25	4.56	27.60	I	D	SP	P
WET	93.298	40.87	4.56	27.59	I	D	SP	P
KDC	93.325	327.93	4.56	27.58	I	D	SP	P
SGO	93.507	49.64	4.55	27.54	I	D	SP	P
KONO	93.538	30.16	4.55	152.46	I	C	LP	AP
KONO	93.538	30.16	4.55	27.54	I	D	LP	P
CEY	93.731	44.42	4.54	27.50	I	D	SP	P
KHC	93.746	40.97	4.54	27.50	I	D	SP	P
CLL	93.771	38.75	4.54	27.51	I	D	SP	P
LJU	93.855	44.13	4.54	27.50	I	D	SP	P
KMR	93.923	42.09	4.54	27.49	I	D	LP	P
BPI	94.067	117.24	4.54	27.47	I	D	SP	P
BRN	94.091	37.68	4.54	27.46	I	D	SP	P
COP	94.232	34.37	4.54	27.45	I	D	LP	P
BRG	94.280	39.29	4.53	27.44	I	D	SP	P
SLR	94.384	116.86	4.53	27.43	I	D	LP	P
SLR	94.384	116.86	4.53	27.43	I	D	SP	P
VKA	95.402	42.11	4.51	27.29	I	D	SP	P
IMA	95.557	336.02	4.51	27.27	I	D	SP	P
KSP	95.746	39.54	4.51	27.25	I	D	SP	P
BUL	95.887	111.47	4.50	27.23	I	D	SP	P
KRA	97.971	40.60	4.45	26.89	I	D	SP	P
JOS	98.224	42.21	4.45	26.86	I	D	SP	P
SKO	98.272	48.83	4.44	26.84	I	D	SP	P
COZ	100.611	45.60	4.44	26.82	I	D	SP	Pdf
CMP	101.099	45.67	4.44	26.82	I	D	SP	Pdf
MLR	101.744	45.47	4.44	26.82	I	D	SP	Pdf
WAM	120.905	217.42	1.87	10.96	I	D	SP	PKP
CAN	121.417	218.25	1.87	10.96	I	D	SP	PKP
TOO	121.903	214.05	1.87	10.96	I	D	SP	PKP
YOU	122.488	218.77	1.87	10.95	I	D	SP	PKP
COO	122.528	224.39	1.87	10.95	I	D	SP	PKP
BFD	123.784	212.31	1.87	10.93	I	D	SP	PKP
CMS	125.950	219.52	1.86	10.91	I	D	SP	PKP
ADE	127.467	211.11	1.86	10.88	I	D	SP	PKP
KHI	128.055	53.92	1.86	10.87	I	D	SP	PKP
MHI	128.088	51.05	1.86	10.87	I	D	LP	PKP
STK	128.231	215.97	1.86	10.87	I	D	SP	PKP
WBN	140.555	205.67	1.75	10.24	I	D	SP	PKP

Table 52. Station data for event 157 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MEK	142.858	194.61	1.71	10.01	I	D	SP	PKP
WWW	142.880	251.08	1.71	10.01	I	D	SP	PKP
CN2	142.882	339.83	1.71	10.01	I	D	SP	PKP
GUA	144.366	279.94	1.68	9.84	E	D	LP	PKP
PJG	144.407	280.02	1.68	9.83	I	D	SP	PKP
POO	145.029	71.29	1.67	9.76	I	D	SP	PKP
SHK	146.831	322.26	1.63	9.51	I	D	LP	PKP
NAU	147.468	191.66	1.61	9.42	I	D	SP	PKP
MTN	148.578	225.42	1.58	9.24	I	D	SP	PKP
HHC	148.694	355.89	1.58	9.22	I	D	SP	PKP
BTO	149.024	358.12	1.57	9.17	I	D	SP	PKP
KOD	149.176	85.97	1.56	9.14	I	D	SP	PKP
HYB	149.633	71.79	1.55	9.06	I	D	SP	PKP
DMN	151.351	47.93	1.50	8.74	I	D	SP	PKP
KKN	151.375	47.44	1.49	8.74	I	D	SP	PKP
PKI	151.594	47.68	1.49	8.70	I	D	SP	PKP
LSA	154.030	36.93	1.40	8.19	I	D	SP	PKP
NJ2	155.697	338.78	1.33	7.79	I	D	SP	PKP
TRT	162.468	192.88	1.02	5.95	I	D	SP	PKP
DAV	163.179	263.04	0.98	5.74	I	D	LP	PKP
KMI	163.456	19.47	0.97	5.65	I	D	LP	PKP
GZH	165.805	342.50	0.84	4.91	I	D	SP	PKP
HKC	166.260	338.39	0.82	4.77	E	D	LP	PKP
CHG	166.744	44.72	0.79	4.61	I	D	SP	PKP
BDT	167.798	49.95	0.73	4.26	I	D	SP	PKP
KGM	170.802	143.71	0.56	3.25	I	D	SP	PKP
PCT	171.175	53.70	0.54	3.12	I	D	SP	PKP

Table 53. Station data for event 188.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ARE	1.724	299.80	12.73	112.03	I	C	SP	P
LPB	1.926	65.96	12.97	109.12	I	C	SP	P
ANT	6.358	184.00	13.70	86.20	I	C	SP	P
YJA	6.369	139.81	13.70	86.16	I	D	SP	P
SLA	8.446	151.37	13.56	81.01	I	D	SP	P
PEL	15.760	182.33	12.57	66.24	I	D	LP	P
PCH	16.229	181.74	12.48	65.34	I	C	SP	P
CHCH	16.545	182.10	12.41	64.71	I	D	SP	P
CON	19.615	187.46	10.35	48.91	I	D	SP	P
LPA	20.523	150.83	10.12	47.50	I	D	LP	P
BOCO	22.149	349.07	9.80	45.52	I	C	SP	P
RDJ	25.664	106.86	9.35	42.94	I	C	LP	P
SDV	26.053	358.42	9.32	42.77	I	D	SP	P
TOV	26.939	0.30	9.23	42.26	I	C	SP	P
RSCP	54.685	344.37	7.25	31.89	I	C	LP	P
BLA	55.134	349.80	7.22	31.72	I	C	SP	P
MRG	57.425	350.82	7.04	30.87	I	D	SP	P
GBO	58.043	335.89	7.00	30.68	I	C	SP	P
RLO	58.256	336.20	6.99	30.59	I	C	SP	P
FVM	58.287	341.02	6.99	30.58	I	C	SP	P
WES	59.419	358.80	6.89	30.14	I	C	SP	P
RSNY	61.711	356.27	6.71	29.26	I	C	LP	P
MNT	62.612	357.08	6.64	28.92	I	C	SP	P
OTT	62.635	355.41	6.64	28.91	I	C	SP	P
GOL	65.661	330.59	6.40	27.76	I	C	SP	P
LHC	67.680	346.20	6.22	26.96	I	C	SP	P
KIC	68.544	75.78	6.15	26.63	I	C	SP	P
RSSD	68.633	334.30	6.15	26.60	I	D	LP	P
SBB	68.892	319.05	6.13	26.50	I	D	SP	P
RSON	71.026	344.33	5.97	25.76	I	C	LP	P
SCH	71.898	1.92	5.91	25.48	I	C	SP	P
JAS	72.598	320.25	5.86	25.27	I	D	SP	P
CLX	76.689	330.80	5.59	24.02	I	D	LP	P
LHD	76.923	330.63	5.57	23.95	I	C	SP	P
LDM	76.951	330.89	5.57	23.95	I	C	SP	P
RXF	77.157	331.28	5.56	23.88	I	C	SP	P
FCC	78.366	347.42	5.48	23.52	I	C	SP	P
LIS	79.607	43.96	5.38	23.06	I	C	SP	P
SUR	81.532	121.19	5.20	22.24	I	D	SP	P
CRT	82.642	47.52	5.12	21.90	I	C	SP	P
SWZ	86.760	117.31	4.83	20.58	I	C	SP	P
YKC	86.894	340.95	4.82	20.54	I	C	SP	P
BLF	86.898	119.38	4.82	20.53	I	C	SP	P
VIR	87.781	118.59	4.77	20.33	I	C	SP	P
EPF	87.983	43.69	4.76	20.29	I	C	SP	P
SEK	88.342	119.03	4.75	20.22	I	C	SP	P
ECP	88.357	33.48	4.75	20.22	I	C	SP	P
KSR	88.505	116.50	4.74	20.20	I	C	SP	P
ETA	88.707	33.09	4.73	20.16	I	C	SP	P
LFF	89.069	42.09	4.72	20.10	I	C	SP	P

Table 53. Station data for event 188 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPO	89.249	42.46	4.71	20.08	I	C	SP	P
MFF	89.243	40.33	4.71	20.08	I	C	SP	P
LPF	89.340	38.78	4.71	20.08	I	C	SP	P
BPI	89.373	117.12	4.71	20.08	I	C	SP	P
GRR	89.611	38.51	4.71	20.05	I	C	SP	P
RJF	89.725	42.00	4.71	20.04	I	C	SP	P
SLR	89.730	116.78	4.71	20.04	I	C	SP	P
BNG	89.854	85.34	4.70	20.02	I	C	SP	P
CAF	89.918	42.51	4.70	20.02	I	C	SP	P
FLN	90.002	38.29	4.70	20.02	I	C	SP	P
LSF	90.135	41.15	4.70	20.01	I	C	SP	P
LDF	90.141	38.55	4.70	20.01	I	C	SP	P
TCF	90.579	41.31	4.70	20.02	I	C	SP	P
MZF	90.785	41.48	4.69	19.99	I	C	SP	P
GRC	91.535	40.64	4.68	19.93	I	C	SP	P
SSB	91.666	42.89	4.68	19.92	I	C	SP	P
SSF	91.710	40.97	4.68	19.91	I	C	SP	P
BUL	91.836	111.62	4.67	19.90	I	C	SP	P
LBF	91.975	41.17	4.67	19.88	I	C	SP	P
LOR	92.013	40.88	4.67	19.88	I	C	SP	P
LRG	92.178	45.08	4.66	19.86	I	C	SP	P
LMR	92.234	45.23	4.66	19.85	I	C	SP	P
FRF	92.410	45.06	4.65	19.81	I	C	SP	P
CVF	93.579	46.56	4.62	19.65	I	C	SP	P
DIX	93.831	42.90	4.61	19.63	E	C	LP	P
MMK	94.181	43.06	4.60	19.59	E	C	LP	P
TMA	94.793	43.23	4.58	19.48	E	C	LP	P
ZUL	94.953	41.82	4.57	19.45	E	C	LP	P
SLE	95.116	41.58	4.57	19.42	E	C	LP	P
LLS	95.133	42.54	4.56	19.42	E	C	LP	P
VDL	95.311	43.01	4.56	19.38	E	C	LP	P
SAX	95.485	42.26	4.55	19.35	E	C	LP	P
WIT	95.788	36.41	4.54	19.33	I	D	SP	P
OSS	95.816	42.98	4.54	19.33	E	C	LP	P
SNZO	96.524	223.25	4.53	19.26	I	D	LP	P
GRF	97.450	40.33	4.51	19.18	I	C	SP	P
BHG	97.909	42.56	4.50	19.14	I	C	SP	P
KBA	98.026	43.28	4.50	19.13	I	C	SP	P
WET	98.322	41.19	4.49	19.11	I	C	SP	P
MUD	98.392	33.44	4.49	19.10	I	D	SP	P
DAG	98.630	10.46	4.49	19.07	I	D	SP	P
CLL	99.014	39.11	4.47	19.00	I	D	SP	P
BRG	99.465	39.70	4.46	18.96	I	C	SP	P
CTA	128.577	225.22	1.86	7.77	I	D	SP	PKP
KHI	131.250	59.60	1.84	7.72	I	D	SP	PKP
POO	145.555	82.36	1.67	6.99	I	D	SP	PKP
MAT	148.629	313.14	1.60	6.68	I	C	SP	PKP
HYB	149.939	85.05	1.56	6.52	I	D	SP	PKP
CHG	169.318	80.37	0.66	2.76	I	D	SP	PKP
KMI	169.668	40.14	0.64	2.67	E	C	LP	PKP

Table 54. Station data for event 197.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PEL	6.586	180.89	14.06	44.91	I	D	SP	P
SAN	6.895	180.69	14.02	44.74	I	D	SP	P
LPB	10.212	13.45	13.72	43.54	I	C	LP	P
ZOBO	10.463	13.01	13.66	43.30	I	C	LP	P
TMU	12.284	187.51	13.39	42.25	I	D	SP	P
BAO	23.649	67.21	9.69	29.11	I	C	SP	P
RDJ	25.080	87.64	9.48	28.42	I	C	LP	P
BOCO	31.116	353.28	8.83	26.32	I	C	SP	P
BOCO	31.116	353.28	8.83	26.32	I	C	LP	P
GUV	34.894	13.01	8.56	25.45	I	C	SP	P
CAR	36.982	5.95	8.45	25.10	I	C	SP	P
JCT	63.211	331.81	6.64	19.48	I	C	LP	P
RSCP	63.401	346.33	6.60	19.35	I	C	LP	P
SPA	63.623	180.00	6.60	19.35	I	C	LP	P
BLA	64.073	351.26	6.56	19.23	I	C	LP	P
BHO	64.810	337.90	6.48	18.99	I	C	SP	P
GBO	66.256	338.30	6.35	18.59	I	C	SP	P
TUL	66.513	337.83	6.35	18.59	I	C	LP	P
FVM	66.822	343.02	6.31	18.47	I	C	SP	P
GMTN	67.148	357.02	6.31	18.47	I	C	LP	P
SCP	67.320	354.00	6.27	18.35	I	C	LP	P
EPT	67.354	327.20	6.27	18.35	I	C	LP	P
ANMO	69.944	329.15	6.07	17.74	I	C	LP	P
ALQ	69.941	329.15	6.07	17.74	I	C	LP	P
RSNY	70.821	357.00	6.00	17.53	I	C	LP	P
GAC	72.022	356.38	5.93	17.32	I	C	LP	P
GLA	72.679	322.12	5.89	17.20	I	C	LP	P
GOL	73.446	332.65	5.82	16.99	E	C	LP	P
LHC	76.463	347.31	5.61	16.36	I	C	SP	P
LPC	76.493	320.02	5.61	16.36	I	C	LP	P
RSSD	76.699	335.91	5.61	16.36	I	C	SP	P
RSSD	76.699	335.91	5.61	16.36	I	C	LP	P
SUR	77.375	119.90	5.55	16.18	I	C	SP	P
BDW	77.759	331.69	5.52	16.09	I	C	SP	P
JAS	79.371	322.04	5.42	15.79	I	C	LP	P
RSON	79.715	345.34	5.42	15.79	I	C	SP	P
RSON	79.715	345.34	5.42	15.79	I	C	LP	P
BLF	82.945	118.87	5.12	14.90	I	C	SP	P
VIR	83.934	118.22	5.06	14.72	I	C	SP	P
KSR	84.955	116.25	4.99	14.51	I	C	SP	P
SLR	86.125	116.71	4.91	14.27	I	C	LP	P
SLR	86.125	116.71	4.91	14.27	I	C	SP	P
LON	86.382	327.50	4.87	14.15	I	C	LP	P
SFS	87.150	46.69	4.83	14.04	I	C	SP	P
PTO	88.454	41.83	4.75	13.80	I	C	LP	P
MAL	88.480	47.32	4.75	13.80	I	C	LP	P
BUL	88.979	111.92	4.73	13.74	I	C	LP	P
CRT	89.278	47.31	4.71	13.68	I	C	SP	P
SNZO	89.441	223.18	4.71	13.68	I	C	LP	P
TOL	90.513	44.90	4.70	13.65	I	C	LP	P

Table 54. Station data for event 197 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TOL	90.513	44.90	4.70	13.65	I	C	SP	P
BCAO	91.149	85.65	4.70	13.65	I	C	SP	P
BNG	91.160	85.66	4.70	13.65	I	C	SP	P
KRI	91.364	109.45	4.69	13.62	I	C	SP	P
MTD	93.045	110.31	4.65	13.50	I	C	SP	P
AFI	93.617	252.63	4.63	13.44	I	C	LP	P
EPF	94.997	44.08	4.58	13.29	I	C	SP	P
RSNT	95.404	341.08	4.56	13.24	I	C	LP	P
MLS	95.424	44.43	4.56	13.24	I	C	SP	P
MFF	96.586	40.84	4.54	13.18	I	C	SP	P
LPF	96.829	39.30	4.53	13.15	I	C	SP	P
RJF	96.902	42.57	4.53	13.15	I	C	SP	P
CAF	97.043	43.09	4.53	13.15	I	C	SP	P
HON	97.085	290.18	4.53	13.15	I	C	LP	P
GRR	97.123	39.06	4.53	13.15	I	C	SP	P
LSF	97.394	41.75	4.52	13.12	I	C	SP	P
LDF	97.647	39.14	4.52	13.12	I	C	SP	P
MZF	98.008	42.16	4.51	13.09	I	C	SP	P
GRC	98.837	41.38	4.48	13.00	I	C	SP	P
SSF	98.979	41.73	4.48	13.00	I	C	SP	P
SMF	98.977	42.21	4.48	13.00	I	C	SP	P
LRG	99.023	45.91	4.48	13.00	I	C	SP	P
LMR	99.062	46.07	4.48	13.00	I	C	SP	P
LBF	99.223	41.96	4.48	13.00	I	C	SP	P
FRF	99.257	45.92	4.47	12.97	I	C	SP	P
LOR	99.290	41.67	4.47	12.97	I	C	SP	P
ESK	99.633	32.36	4.47	12.97	E	C	LP	P
CVF	100.255	47.57	4.45	12.91	I	C	SP	Pdf
DIX	100.895	43.90	4.45	12.91	I	C	LP	Pdf
UCC	101.269	38.67	4.45	12.91	I	C	LP	Pdf
ZUL	102.121	42.92	4.45	12.91	I	C	LP	Pdf
LLS	102.227	43.67	4.45	12.91	E	C	LP	Pdf
SLE	102.308	42.69	4.45	12.91	E	C	LP	Pdf
DBN	102.329	37.73	4.45	12.91	E	C	LP	Pdf
VDL	102.356	44.17	4.45	12.91	E	C	LP	Pdf
SAX	102.606	43.42	4.45	12.91	E	C	LP	Pdf
OSS	102.862	44.18	4.45	12.91	E	C	LP	Pdf
BNS	102.933	39.35	4.45	12.91	I	C	SP	Pdf
STU	103.164	41.96	4.45	12.91	I	C	LP	Pdf
OGA	103.488	44.27	4.45	12.91	I	C	SP	Pdf
GRF	104.754	41.66	4.45	12.91	I	C	SP	Pdf
HAM	105.520	37.74	1.89	5.45	I	C	SP	PKP
BER	106.087	30.09	1.89	5.45	I	C	LP	PKP
KON	107.756	31.70	1.89	5.45	I	C	LP	PKP
SKO	108.622	51.86	1.89	5.45	I	C	SP	PKP
GRG	108.976	53.12	1.89	5.45	I	C	SP	PKP
NUR	115.237	33.01	1.88	5.42	I	C	LP	PKP
KEV	117.231	22.84	1.88	5.41	E	C	LP	PKP
GUA	144.381	255.73	1.70	4.91	I	C	LP	PKP
LEM	146.796	176.70	1.64	4.72	I	C	LP	PKP

Table 54. Station data for event 197 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAV	155.305	221.32	1.39	4.00	I	C	LP	PKP
WMQ	155.354	40.02	1.39	4.00	I	C	SP	PKP
CN2	158.431	327.09	1.26	3.63	I	C	SP	PKP
SNG	159.000	154.88	1.22	3.50	I	C	SP	PKP
SNY	160.818	326.24	1.12	3.22	I	C	SP	PKP
SEO	161.545	310.88	1.07	3.08	I	C	LP	PKP
DL2	163.976	323.35	0.96	2.77	I	C	SP	PKP
GTA	164.847	29.70	0.91	2.62	I	C	SP	PKP
BAG	165.552	228.02	0.85	2.46	I	C	LP	PKP
CHG	167.643	126.29	0.74	2.13	I	C	LP	PKP
TIY	168.571	347.92	0.68	1.96	I	C	SP	PKP
ANP	169.037	265.60	0.68	1.96	I	C	LP	PKP
QZH	171.594	261.14	0.50	1.44	I	C	SP	PKP
XAN	172.508	3.29	0.44	1.26	I	C	SP	PKP
CD2	173.378	47.52	0.44	1.26	I	C	SP	PKP
GZH	175.062	226.80	0.31	0.91	I	C	SP	PKP

Table 55. Station data for event 200.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ANT	2.421	2.19	14.26	123.29	I	C	LP	P
SLA	4.752	73.94	14.17	56.17	I	C	SP	P
LNV	7.832	185.47	13.93	54.75	I	D	SP	P
LPB	9.815	13.73	13.72	53.54	I	C	LP	P
ZOBO	10.065	13.26	13.72	53.54	I	C	SP	P
BOCO	30.725	353.11	8.86	31.29	I	C	LP	P
CAR	36.582	5.93	8.48	29.81	I	C	SP	P
SJG	44.178	5.96	8.05	28.16	I	C	SP	P
JCT	62.880	331.67	6.64	22.91	I	C	LP	P
RSCP	63.024	346.25	6.64	22.91	I	C	LP	P
BLA	63.686	351.19	6.60	22.76	I	C	LP	P
SPA	64.021	180.00	6.56	22.62	I	C	LP	P
BHO	64.457	337.79	6.52	22.47	I	C	SP	P
TUL	66.160	337.73	6.40	22.04	I	C	LP	P
FVM	66.453	342.93	6.35	21.85	I	C	SP	P
SCP	66.928	353.94	6.31	21.71	I	C	LP	P
EPT	67.042	327.07	6.31	21.71	I	C	LP	P
ANMO	69.624	329.04	6.11	20.99	I	C	LP	P
RSNY	70.425	356.95	6.03	20.70	I	C	LP	P
KIC	71.432	72.97	5.96	20.45	I	C	SP	P
GAC	71.627	356.34	5.96	20.45	I	C	LP	P
GLA	72.391	322.01	5.89	20.20	I	C	SP	P
GOL	73.112	332.56	5.85	20.06	I	C	SP	P
PRN	75.796	324.82	5.65	19.34	I	C	SP	P
RSSD	76.352	335.84	5.61	19.20	I	C	LP	P
BDW	77.428	331.62	5.55	18.99	I	C	SP	P
SUR	77.537	119.96	5.55	18.99	I	C	SP	P
JAS	79.083	321.97	5.45	18.63	I	C	LP	P
JAS	79.083	321.97	5.45	18.63	I	C	SP	P
RSON	79.340	345.29	5.42	18.53	I	C	LP	P
GRM	81.575	122.85	5.22	17.82	I	D	SP	P
BLF	83.100	118.90	5.12	17.47	I	D	SP	P
VIR	84.085	118.24	5.06	17.25	I	D	SP	P
BPI	85.865	117.00	4.91	16.73	I	C	SP	P
LON	86.069	327.46	4.91	16.73	I	C	LP	P
SLR	86.266	116.71	4.86	16.55	I	C	LP	P
LIS	86.319	43.48	4.86	16.55	I	D	SP	P
EVA	86.551	117.73	4.86	16.55	I	C	SP	P
SFS	86.846	46.69	4.83	16.45	I	C	SP	P
PTO	88.129	41.82	4.77	16.24	I	C	LP	P
MAL	88.179	47.30	4.77	16.24	I	C	SP	P
BUL	89.088	111.90	4.73	16.10	I	C	LP	P
SNZO	89.761	223.16	4.71	16.03	I	C	LP	P
TOL	90.201	44.87	4.71	16.03	I	C	SP	P
TOL	90.201	44.87	4.71	16.03	I	C	LP	P
KRI	91.456	109.42	4.69	15.96	I	C	SP	P
LGR	92.607	43.39	4.66	15.85	I	C	SP	P
MTD	93.144	110.27	4.65	15.82	I	C	SP	P
RSNT	95.041	341.07	4.58	15.57	I	C	LP	P
MLS	95.109	44.38	4.58	15.57	I	C	SP	P

Table 55. Station data for event 200 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
GDH	95.902	6.01	4.55	15.47	I	C	LP	P
HON	96.987	290.20	4.53	15.40	E	C	LP	P
ESK	99.274	32.31	4.47	15.19	E	C	LP	P
DIX	100.579	43.83	4.45	15.12	E	C	LP	Pdf
MMK	100.911	44.03	4.45	15.12	E	C	LP	Pdf
TMA	101.504	44.26	4.45	15.12	E	C	LP	Pdf
ZUL	101.800	42.85	4.45	15.12	E	C	LP	Pdf
LLS	101.910	43.60	4.45	15.12	E	C	LP	Pdf
SLE	101.986	42.62	4.45	15.12	E	C	LP	Pdf
VDL	102.041	44.09	4.45	15.12	E	C	LP	Pdf
RMP	102.213	49.43	4.45	15.12	I	C	SP	Pdf
SAX	102.288	43.35	4.45	15.12	E	C	LP	Pdf
OSS	102.547	44.11	4.45	15.12	E	C	LP	Pdf
STU	102.839	41.89	4.45	15.12	E	C	LP	Pdf
OGA	103.173	44.19	4.45	15.12	I	C	SP	Pdf
SCE	103.672	44.23	4.45	15.12	I	C	SP	Pdf
TRI	104.460	46.06	4.45	15.12	I	C	SP	Pdf
COP	107.367	36.09	1.89	6.36	I	C	LP	PKP
KON	107.394	31.62	1.89	6.36	E	C	LP	PKP
COL	108.163	334.03	1.89	6.36	E	C	LP	PKP
NUR	114.879	32.91	1.88	6.33	E	C	LP	PKP
KEV	116.847	22.76	1.88	6.32	I	C	LP	PKP
CTA	121.823	221.47	1.87	6.30	I	C	SP	PKP
MUN	121.865	186.73	1.87	6.30	E	C	LP	PKP
KOD	145.848	111.63	1.66	5.59	I	C	SP	PKP
LEM	147.191	176.58	1.64	5.52	I	C	LP	PKP
HYB	150.055	100.54	1.56	5.25	I	C	SP	PKP
NDI	151.287	77.53	1.53	5.15	I	C	SP	PKP
DAV	155.632	221.81	1.35	4.53	I	C	LP	PKP
CN2	158.118	327.70	1.26	4.24	I	C	SP	PKP
SNY	160.508	326.94	1.12	3.76	I	C	SP	PKP
SEO	161.313	311.83	1.12	3.76	I	C	LP	PKP
LSA	163.411	73.46	1.02	3.42	I	C	SP	PKP
BTO	165.569	358.37	0.85	2.87	I	C	SP	PKP
BAG	165.848	229.06	0.85	2.87	I	C	LP	PKP
BDT	166.848	130.18	0.80	2.68	I	C	SP	PKP
CHG	167.840	124.66	0.74	2.49	I	C	LP	PKP
TIA	168.020	328.80	0.74	2.49	I	C	SP	PKP
TIY	168.190	348.50	0.74	2.49	I	C	SP	PKP
ANP	169.103	267.63	0.68	2.29	I	C	LP	PKP
QZH	171.688	263.77	0.50	1.68	I	C	SP	PKP
XAN	172.108	3.40	0.50	1.68	I	C	SP	PKP
CD2	173.073	45.32	0.44	1.47	I	C	SP	PKP
KMI	173.830	97.93	0.38	1.27	E	C	LP	PKP
WHN	173.862	316.80	0.38	1.27	I	C	SP	PKP
GZH	175.358	230.00	0.31	1.06	I	C	SP	PKP

Table 56. Station data for event 203.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ANT	0.264	264.74	6.47	152.56	I	C	LP	P
ANT	0.264	264.74	6.47	152.56	I	D	SP	P
CAC	1.569	40.57	13.73	102.04	I	C	SP	P
TPL	1.577	357.29	13.73	101.94	I	D	SP	P
SLA	4.358	104.77	14.02	87.10	I	C	SP	P
TLL	6.488	185.18	13.90	82.13	I	D	SP	P
ARE	7.294	349.65	13.84	80.37	I	C	SP	P
LPB	7.362	15.38	13.83	80.22	E	C	LP	P
LPA	15.423	139.24	12.77	65.43	I	C	LP	P
VAO	21.277	92.82	10.04	45.65	I	C	SP	P
BOCO	28.350	351.76	9.10	40.39	I	D	LP	P
RSCP	60.739	345.58	6.80	29.00	I	D	LP	P
TUL	64.040	336.98	6.54	27.77	I	D	LP	P
SCP	64.538	353.50	6.50	27.59	I	D	LP	P
ALQ	67.717	328.26	6.24	26.38	I	D	SP	P
ANMO	67.720	328.27	6.24	26.38	I	D	LP	P
RSNY	68.006	356.61	6.21	26.27	I	D	LP	P
MNT	68.914	357.37	6.14	25.94	I	D	SP	P
GAC	69.213	355.99	6.12	25.83	I	D	LP	P
LHC	73.781	346.85	5.79	24.35	I	D	SP	P
RSSD	74.273	335.33	5.75	24.18	I	D	LP	P
TUH	76.831	120.67	5.58	23.44	I	C	SP	P
CER	76.922	120.77	5.58	23.41	I	C	SP	P
RSON	77.069	344.92	5.57	23.37	I	D	LP	P
JAS	77.383	321.43	5.55	23.29	I	D	LP	P
JAS	77.383	321.43	5.55	23.29	I	D	SP	P
BKS	78.374	320.39	5.48	22.99	I	D	SP	P
SUR	78.459	120.29	5.48	22.96	I	C	SP	P
LRM	79.126	331.35	5.43	22.77	I	D	SP	P
WDC	80.371	322.25	5.31	22.21	I	C	SP	P
SES	82.144	334.96	5.15	21.54	I	D	SP	P
FFC	82.729	342.02	5.12	21.40	I	C	SP	P
IFR	84.016	49.58	5.04	21.05	I	C	SP	P
LON	84.202	327.16	5.03	21.00	E	D	LP	P
PNT	84.960	330.03	4.99	20.81	I	D	SP	P
EDM	85.255	335.59	4.97	20.75	I	D	SP	P
KSR	85.860	116.29	4.91	20.47	I	D	SP	P
SLR	87.050	116.69	4.82	20.08	I	C	LP	P
SLR	87.050	116.69	4.82	20.08	I	D	SP	P
BUL	89.671	111.77	4.71	19.60	I	C	SP	P
BNG	90.547	85.43	4.70	19.56	I	C	SP	P
SNZO	91.785	223.02	4.68	19.46	E	D	LP	P
KRI	91.932	109.19	4.67	19.44	I	C	SP	P
EPF	92.678	43.78	4.65	19.34	I	C	SP	P
RSNT	92.844	340.99	4.64	19.32	E	D	LP	P
MTD	93.654	109.96	4.63	19.24	I	C	SP	P
LFF	93.876	42.27	4.62	19.20	I	C	SP	P
MFF	94.175	40.51	4.60	19.14	I	C	SP	P
AFI	94.840	252.64	4.58	19.03	E	D	LP	P
AVF	96.372	41.52	4.53	18.85	I	C	SP	P

Table 56. Station data for event 203 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HON	96.471	290.33	4.53	18.84	E	D	LP	P
LRG	96.757	45.49	4.53	18.84	I	C	SP	P
LMR	96.801	45.64	4.53	18.84	I	C	SP	P
ASPA	127.474	208.07	1.86	7.61	I	D	SP	PKP
GUA	145.378	259.38	1.68	6.86	I	D	LP	PKP
GUMO	145.438	259.43	1.67	6.85	E	D	LP	PKP
DAV	157.650	224.94	1.28	5.21	E	D	LP	PKP
GTA	162.151	26.19	1.06	4.33	I	D	SP	PKP
SSE	167.532	308.77	0.77	3.13	E	D	LP	PKP
BAG	167.613	236.24	0.76	3.11	E	D	LP	PKP
ANP	169.283	280.39	0.66	2.71	I	D	LP	PKP

Table 57. Station data for event 214.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NNA	8.321	162.31	13.63	80.26	I	D	SP	P
BOG	10.108	31.99	13.45	76.53	E	C	LP	P
SJS	14.608	341.59	12.81	67.85	I	D	SP	P
ZOBO	16.474	138.45	12.47	64.40	I	D	SP	P
LPB	16.682	139.01	12.43	64.03	I	D	SP	P
TOV	16.729	34.93	12.42	63.94	I	C	SP	P
CAR	19.044	40.68	10.53	49.59	I	C	SP	P
TRN	23.104	50.78	9.66	44.33	I	C	SP	P
SLA	24.570	148.25	9.46	43.16	I	D	SP	P
SJG	25.581	30.37	9.37	42.65	I	D	SP	P
MDN	26.213	42.51	9.31	42.34	I	D	SP	P
ROCH	29.859	165.71	8.88	39.94	I	D	SP	P
PEL	30.104	165.29	8.85	39.82	I	D	SP	P
FCH	30.380	164.77	8.83	39.70	I	D	SP	P
BDF	33.079	112.69	8.65	38.71	E	D	LP	P
SHA	35.501	347.00	8.50	37.94	I	D	LP	P
JCT	39.445	331.75	8.28	36.76	I	D	SP	P
JCT	39.445	331.75	8.28	36.76	I	D	LP	P
RSCP	39.822	352.14	8.25	36.65	I	D	LP	P
BHO	40.867	340.32	8.20	36.37	I	D	SP	P
BLA	41.018	358.78	8.19	36.33	I	D	LP	P
GBO	42.315	340.86	8.12	35.96	I	D	SP	P
RLO	42.551	341.22	8.11	35.90	I	D	SP	P
TUL	42.570	340.23	8.11	35.90	I	D	LP	P
SIO	42.598	339.56	8.11	35.89	I	D	SP	P
RRO	43.095	337.18	8.08	35.74	I	D	SP	P
ATO	43.299	337.66	8.06	35.68	I	D	SP	P
SCP	44.609	1.68	8.00	35.33	E	D	LP	P
ANMO	46.343	328.92	7.89	34.80	E	D	LP	P
ALQ	46.341	328.92	7.89	34.80	I	D	SP	P
WES	46.756	8.24	7.87	34.68	I	D	LP	P
RSNY	48.536	4.66	7.75	34.09	I	D	LP	P
GAC	49.616	3.62	7.66	33.66	I	D	LP	P
RSSD	52.771	337.86	7.41	32.41	I	D	LP	P
LHC	52.913	351.79	7.40	32.36	I	D	SP	P
RSON	56.013	349.13	7.15	31.14	I	D	LP	P
JAS	56.461	321.50	7.13	31.02	E	D	LP	P
JAS	56.461	321.50	7.13	31.02	I	D	SP	P
LRM	57.642	333.17	7.03	30.57	I	D	SP	P
WDC	59.364	322.76	6.90	29.95	I	D	SP	P
SES	60.639	337.35	6.80	29.46	I	D	SP	P
FFC	61.455	345.32	6.74	29.15	I	D	SP	P
NEW	61.593	332.31	6.73	29.10	I	D	SP	P
COR	62.279	325.97	6.67	28.84	I	D	SP	P
LON	62.858	328.60	6.62	28.62	E	D	LP	P
FCC	63.661	351.53	6.56	28.32	I	D	SP	P
EDM	63.755	338.02	6.55	28.28	I	D	SP	P
RSNT	71.502	343.61	5.94	25.44	E	D	LP	P
GDH	75.230	9.26	5.68	24.24	I	D	LP	P
LIS	77.280	49.02	5.55	23.65	I	D	SP	P

Table 57. Station data for event 214 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AVE	77.282	54.75	5.55	23.65	I	D	SP	P
PTO	78.343	46.76	5.48	23.35	I	D	SP	P
PTO	78.343	46.76	5.48	23.35	E	D	LP	P
MAL	80.447	51.91	5.29	22.48	I	D	LP	P
INK	81.186	342.25	5.23	22.21	I	D	SP	P
AKU	82.240	21.51	5.15	21.85	I	D	SP	P
DCN	82.656	35.13	5.12	21.74	I	D	SP	P
ECB	82.666	36.17	5.12	21.74	I	D	SP	P
ECP	82.858	36.42	5.11	21.69	I	D	SP	P
DMU	83.025	34.66	5.10	21.65	I	D	SP	P
DLE	83.062	35.31	5.10	21.64	I	D	SP	P
LGR	83.085	46.57	5.10	21.63	I	D	SP	P
ETA	83.092	35.94	5.10	21.63	I	D	SP	P
MBC	83.362	351.10	5.08	21.55	I	D	SP	P
COL	84.609	336.53	5.00	21.21	I	D	SP	P
EPF	85.250	46.40	4.96	21.00	I	D	SP	P
LFF	85.858	44.56	4.90	20.74	I	D	SP	P
LPO	86.132	44.87	4.87	20.62	I	D	SP	P
LSF	86.625	43.36	4.84	20.50	I	D	SP	P
CAF	86.787	44.73	4.83	20.43	I	D	SP	P
TCF	87.097	43.39	4.81	20.34	I	D	SP	P
MZF	87.342	43.51	4.80	20.30	I	D	SP	P
DAG	87.421	11.60	4.79	20.29	I	D	SP	P
GRC	87.833	42.48	4.77	20.18	I	D	SP	P
AVF	87.951	43.01	4.76	20.15	I	D	SP	P
SSF	88.092	42.76	4.76	20.12	I	D	SP	P
SMF	88.264	43.20	4.75	20.09	I	D	SP	P
LOR	88.359	42.59	4.75	20.07	I	D	SP	P
LBF	88.401	42.88	4.74	20.06	I	D	SP	P
DOU	89.206	39.84	4.71	19.93	E	D	LP	P
LMR	89.761	46.71	4.70	19.89	I	D	SP	P
DBN	89.813	37.89	4.70	19.89	I	D	LP	P
FRF	89.883	46.49	4.70	19.88	I	D	SP	P
HAU	90.117	42.05	4.70	19.87	I	D	SP	P
ENN	90.129	39.27	4.70	19.87	I	D	SP	P
BSF	90.397	42.25	4.70	19.87	I	D	SP	P
ROF	90.456	42.41	4.70	19.87	I	D	SP	P
BAF	90.534	42.26	4.70	19.87	I	D	SP	P
CDF	90.774	41.70	4.69	19.85	I	D	SP	P
WTS	90.805	38.10	4.69	19.84	I	D	SP	P
BNS	90.938	39.15	4.69	19.83	I	D	SP	P
GWF	91.051	41.16	4.69	19.82	I	D	SP	P
VG1	91.750	45.28	4.68	19.77	I	D	SP	P
OGA	93.203	43.41	4.63	19.58	I	D	SP	P
FUR	93.424	42.12	4.62	19.54	I	C	SP	P
GRF	93.445	40.59	4.62	19.53	I	D	SP	P
CT1	93.603	44.25	4.62	19.51	I	C	SP	P
MOX	93.731	39.64	4.62	19.50	I	D	SP	P
CLL	94.621	38.99	4.59	19.36	I	D	SP	P
BRN	94.755	37.88	4.58	19.34	I	D	SP	P

Table 57. Station data for event 214 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KBA	94.796	43.25	4.58	19.33	I	D	SP	P
RBL	94.943	43.89	4.57	19.31	I	C	SP	P
BRG	95.214	39.43	4.56	19.26	I	D	SP	P
ZST	97.323	42.09	4.52	19.06	I	D	SP	P
BNG	98.231	86.12	4.50	18.97	I	D	SP	P
SNZO	99.201	227.23	4.47	18.84	E	D	LP	P
JOS	99.594	41.64	4.46	18.81	I	D	SP	P
CTA	129.158	240.13	1.85	7.71	I	D	SP	PKP
MTN	145.340	240.65	1.68	6.96	I	D	SP	PKP
LZH	147.946	355.02	1.61	6.71	I	D	SP	PKP
NAU	149.848	208.28	1.56	6.49	I	D	SP	PKP
POO	150.146	59.02	1.55	6.45	I	D	SP	PKP
TRT	163.265	225.95	1.00	4.15	I	D	SP	PKP
CHG	165.206	6.08	0.90	3.71	E	D	LP	PKP
CHG	165.206	6.08	0.90	3.71	I	D	SP	PKP
BDT	166.763	6.60	0.81	3.35	I	D	SP	PKP

Table 58. Station data for event 222.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BOG	7.114	54.59	13.94	80.88	I	C	LP	P
UPA	8.449	2.31	13.80	77.81	I	C	SP	P
SDV	12.426	47.53	13.30	70.40	I	C	SP	P
CAR	16.275	51.85	12.62	63.36	I	C	SP	P
LPB	20.512	146.03	10.26	46.61	E	C	LP	P
TRN	20.956	60.57	10.13	45.85	I	C	SP	P
SJG	22.109	36.84	9.92	44.64	I	C	SP	P
SJG	22.109	36.84	9.92	44.64	I	C	LP	P
SLA	28.671	151.91	9.09	40.08	I	C	SP	P
PEL	34.545	166.33	8.58	37.42	I	C	SP	P
LNV	35.163	167.73	8.55	37.27	I	C	SP	P
CHCH	35.309	166.67	8.52	37.12	I	C	SP	P
JCT	35.329	329.42	8.52	37.12	I	D	LP	P
BDF	35.420	118.34	8.52	37.12	I	C	LP	P
BHO	36.521	338.93	8.46	36.81	I	C	SP	P
BLA	36.546	359.27	8.46	36.81	I	C	LP	P
CON	37.655	171.01	8.40	36.51	I	C	SP	P
TUL	38.226	338.91	8.37	36.36	E	C	LP	P
SCP	40.162	2.37	8.26	35.81	I	C	LP	P
LPA	40.749	151.93	8.23	35.66	I	C	LP	P
ANMO	42.315	326.90	8.12	35.11	I	D	LP	P
ALQ	42.313	326.90	8.12	35.11	E	D	LP	P
WES	42.414	9.41	8.12	35.11	I	C	LP	P
RSNY	44.128	5.49	8.04	34.71	I	C	LP	P
MNT	45.165	6.20	7.99	34.47	I	C	SP	P
GAC	45.194	4.34	7.99	34.47	I	C	LP	P
RSSD	48.474	336.81	7.77	33.39	I	C	LP	P
RSON	51.543	348.85	7.53	32.23	I	C	LP	P
JAS	52.717	319.75	7.45	31.85	I	N	LP	P
COR	58.343	324.75	6.99	29.68	I	C	SP	P
LON	58.826	327.51	6.95	29.49	E	C	LP	P
EDM	59.450	337.35	6.91	29.30	I	C	SP	P
RSNT	67.091	343.31	6.30	26.50	I	C	LP	P
GDH	70.900	9.64	5.99	25.10	I	C	LP	P
LIS	74.727	49.96	5.74	23.99	I	C	SP	P
AVE	75.113	55.73	5.71	23.86	I	C	SP	P
KIC	75.174	83.59	5.71	23.86	I	C	SP	P
PTO	75.643	47.60	5.67	23.68	I	C	SP	P
PTO	75.643	47.60	5.67	23.68	I	C	LP	P
REY	76.106	22.52	5.64	23.55	I	C	SP	P
MAL	78.077	52.65	5.51	22.97	I	C	SP	P
AKU	78.260	21.88	5.48	22.84	I	C	SP	P
HON	78.768	291.52	5.44	22.66	I	D	LP	P
CRT	78.787	52.27	5.44	22.66	I	C	SP	P
TOL	78.829	49.51	5.44	22.66	I	C	LP	P
TOL	78.829	49.51	5.44	22.66	I	C	SP	P
DCN	79.281	35.62	5.41	22.53	I	C	SP	P
ECB	79.344	36.66	5.41	22.53	I	C	SP	P
ECP	79.549	36.90	5.41	22.53	I	C	SP	P
DMU	79.624	35.12	5.41	22.53	I	C	SP	P

Table 58. Station data for event 222 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DLE	79.695	35.78	5.41	22.53	I	C	SP	P
COL	80.332	336.36	5.30	22.05	I	C	LP	P
LGR	80.364	47.10	5.30	22.05	I	C	SP	P
ALI	81.377	51.41	5.21	21.66	I	D	LP	P
LPF	82.175	41.66	5.17	21.48	I	C	SP	P
GRR	82.345	41.32	5.14	21.35	I	C	SP	P
EPF	82.514	46.79	5.14	21.35	I	C	SP	P
MFF	82.590	43.18	5.14	21.35	I	C	SP	P
FLN	82.643	40.98	5.14	21.35	I	C	SP	P
LDF	82.858	41.18	5.11	21.22	I	C	SP	P
LFF	83.008	44.92	5.11	21.22	I	C	SP	P
DAG	83.141	11.72	5.11	21.22	I	C	SP	P
LPO	83.300	45.20	5.08	21.09	I	C	SP	P
RJF	83.596	44.61	5.08	21.09	I	C	SP	P
CAF	83.946	45.02	5.05	20.96	I	C	SP	P
TCF	84.175	43.67	5.05	20.96	I	C	SP	P
MZF	84.427	43.76	5.02	20.83	I	C	SP	P
GRC	84.856	42.71	4.99	20.70	I	C	SP	P
AVF	85.004	43.23	4.99	20.70	I	C	SP	P
SSF	85.131	42.97	4.99	20.70	I	C	SP	P
SMF	85.328	43.41	4.96	20.57	I	C	SP	P
LOR	85.387	42.78	4.96	20.57	I	C	SP	P
LBF	85.446	43.07	4.96	20.57	I	C	SP	P
SSB	85.723	44.81	4.96	20.57	I	C	SP	P
UCC	85.975	39.27	4.90	20.31	E	C	LP	P
DOU	86.075	39.99	4.90	20.31	E	C	LP	P
DBN	86.574	38.00	4.86	20.13	I	C	LP	P
ENN	86.964	39.37	4.82	19.96	I	C	SP	P
WLF	87.057	40.48	4.82	19.96	E	C	LP	P
BSF	87.402	42.33	4.80	19.88	I	C	SP	P
ROF	87.470	42.48	4.80	19.88	I	C	SP	P
BAF	87.539	42.33	4.80	19.88	I	C	SP	P
WTS	87.576	38.16	4.80	19.88	I	C	SP	P
ECH	87.661	41.95	4.80	19.88	I	C	SP	P
DIX	87.769	44.10	4.77	19.75	E	C	LP	P
GWF	87.992	41.20	4.77	19.75	I	C	SP	P
MMK	88.154	44.14	4.77	19.75	E	C	LP	P
ZUL	88.473	42.71	4.75	19.66	E	C	LP	P
SLE	88.547	42.43	4.75	19.66	E	C	LP	P
TMA	88.786	44.09	4.73	19.57	I	C	LP	P
LLS	88.879	43.33	4.73	19.57	E	C	LP	P
STU	89.027	41.42	4.73	19.57	E	C	LP	P
MUD	89.073	33.72	4.73	19.57	I	C	SP	P
SAX	89.119	42.95	4.73	19.57	E	C	LP	P
VDL	89.203	43.71	4.73	19.57	E	C	LP	P
KONO	89.321	30.52	4.71	19.49	I	C	LP	P
KON	89.321	30.52	4.71	19.49	I	C	LP	P
HAM	89.498	36.73	4.71	19.49	I	C	SP	P
OSS	89.667	43.51	4.71	19.49	E	C	LP	P
KBS	89.879	11.15	4.71	19.49	I	C	LP	P

Table 58. Station data for event 222 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
OGA	90.271	43.32	4.70	19.44	I	C	SP	P
GRFO	90.345	40.50	4.70	19.44	I	C	LP	P
GRF	90.350	40.50	4.70	19.44	I	C	SP	P
MOX	90.581	39.53	4.70	19.44	E	C	LP	P
CTI	90.720	44.13	4.70	19.44	I	C	SP	P
COP	90.914	34.47	4.69	19.40	I	C	LP	P
CLL	91.435	38.84	4.68	19.36	I	C	SP	P
WET	91.449	41.01	4.68	19.36	I	C	SP	P
BHG	91.507	42.43	4.68	19.36	I	C	SP	P
RMP	91.610	48.35	4.68	19.36	I	C	SP	P
KHC	91.908	41.00	4.67	19.32	I	C	SP	P
BRG	92.051	39.25	4.67	19.32	I	C	SP	P
TRI	92.209	44.42	4.67	19.32	I	C	SP	P
KMR	92.333	42.06	4.66	19.27	I	C	LP	P
KSP	93.537	39.17	4.63	19.14	I	C	SP	P
VKA	93.778	41.74	4.61	19.06	I	C	SP	P
KEV	95.352	19.55	4.56	18.84	I	C	LP	P
BNG	98.361	85.48	4.49	18.54	I	C	SP	P
ATH	100.407	51.36	4.45	18.37	I	C	SP	Pdf
HLW	108.076	58.42	1.89	7.69	I	C	SP	PKP
ADE	130.298	222.19	1.85	7.53	I	C	SP	PKP
SEO	134.744	329.65	1.82	7.41	E	C	LP	PKP
NDI	143.646	35.24	1.70	6.93	I	C	SP	PKP
MUN	145.184	204.36	1.68	6.85	I	C	SP	PKP
ANP	147.149	322.46	1.64	6.67	I	C	LP	PKP
DAV	153.519	286.96	1.42	5.79	E	C	LP	PKP
BAG	153.751	310.67	1.42	5.79	I	C	LP	PKP
CHG	160.793	3.39	1.12	4.55	I	C	LP	PKP
SNG	172.377	356.31	0.50	2.03	I	C	LP	PKP

Table 59. Station data for event 234.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
FCH	0.269	212.05	4.32	161.74	I	D	SP	P
BACH	0.401	230.81	6.12	153.63	I	D	SP	P
SAN	0.575	231.97	8.06	144.19	I	D	SP	P
TACH	0.880	230.84	10.39	131.01	I	D	SP	P
LNV	1.376	231.26	12.26	117.08	I	D	SP	P
CEN	1.909	37.65	13.09	108.16	I	D	SP	P
TLL	2.980	348.52	13.62	98.45	I	D	SP	P
VBA	8.272	128.98	13.60	80.86	I	D	SP	P
LPA	10.278	103.47	13.40	76.55	I	C	LP	P
LPB	16.594	6.80	12.42	64.40	I	D	LP	P
BOCO	37.658	353.59	8.37	37.42	E	C	LP	P
SDV	41.747	359.24	8.15	36.25	I	D	SP	P
UPA	42.790	346.24	8.09	35.98	I	D	SP	P
CAR	43.461	4.57	8.05	35.77	I	D	SP	P
SJG	51.055	4.86	7.55	33.22	I	D	SP	P
JCT	69.182	332.78	6.11	26.31	I	D	SP	P
RSCP	69.851	346.61	6.06	26.10	E	D	LP	P
BLA	70.597	351.29	6.00	25.83	I	D	LP	P
BHO	71.027	338.52	5.97	25.68	I	D	SP	P
CER	72.266	118.52	5.89	25.29	I	D	SP	P
GBO	72.487	338.84	5.87	25.23	I	D	SP	P
TUL	72.726	338.39	5.85	25.15	I	D	SP	P
RLO	72.730	339.09	5.85	25.14	I	D	SP	P
SUR	73.856	118.26	5.77	24.77	I	D	SP	P
SCP	73.865	353.89	5.77	24.76	E	D	LP	P
ANMO	75.777	329.86	5.64	24.19	E	D	LP	P
ALQ	75.774	329.85	5.64	24.19	I	D	SP	P
RSNY	77.373	356.77	5.54	23.71	E	D	LP	P
GRM	77.579	121.61	5.52	23.65	I	D	SP	P
GLA	78.105	322.86	5.49	23.51	I	D	SP	P
HVD	78.204	118.76	5.49	23.48	I	D	SP	P
MNT	78.287	357.48	5.48	23.46	I	D	SP	P
PLM	79.387	321.67	5.40	23.08	I	D	SP	P
BLF	79.499	117.79	5.39	23.04	I	C	SP	P
VIR	80.547	117.23	5.28	22.52	I	D	SP	P
GSC	80.882	322.93	5.25	22.40	I	D	SP	P
SBB	80.927	321.88	5.25	22.39	I	D	SP	P
SEK	80.984	117.81	5.24	22.37	I	D	SP	P
BFS	81.119	116.19	5.23	22.32	I	D	SP	P
PRY	81.621	116.55	5.19	22.14	I	D	SP	P
KSR	81.758	115.37	5.18	22.08	I	C	SP	P
ISA	82.016	322.09	5.16	21.99	I	D	SP	P
BPI	82.447	116.19	5.13	21.88	I	C	SP	P
RSSD	82.832	336.10	5.11	21.78	E	D	LP	P
SLR	82.876	115.94	5.11	21.76	I	D	SP	P
LHC	82.928	347.28	5.10	21.75	I	D	SP	P
EVA	83.053	116.98	5.10	21.72	I	C	SP	P
FRI	83.673	322.16	5.06	21.55	I	D	SP	P
JAS	84.776	322.34	4.99	21.22	I	D	SP	P
JAS	84.776	322.34	4.99	21.22	E	D	LP	P

Table 59. Station data for event 234 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
RSON	86.140	345.28	4.87	20.70	E	D	LP	P
BUL	86.201	111.45	4.86	20.68	I	D	SP	P
LRM	87.388	331.87	4.80	20.37	I	D	SP	P
WDC	87.830	322.84	4.77	20.26	I	D	SP	P
KRI	88.831	109.24	4.73	20.06	I	D	SP	P
MTD	90.414	110.27	4.70	19.95	I	D	SP	P
NEW	91.243	330.73	4.69	19.88	I	D	SP	P
BNG	91.276	85.58	4.68	19.88	I	D	SP	P
FCC	93.668	347.75	4.62	19.58	I	D	SP	P
EDM	93.806	335.62	4.62	19.58	I	D	SP	P
COL	114.523	332.74	1.88	7.85	E	C	LP	PKP
HNR	116.307	237.56	1.88	7.84	E	C	LP	PKP
CTA	116.729	218.62	1.88	7.84	I	C	SP	PKP
BKB	145.183	192.24	1.68	7.00	I	C	SP	PKP
PSI	148.062	158.97	1.61	6.72	I	C	SP	PKP
DAV	150.303	212.81	1.55	6.46	I	C	LP	PKP
NDI	151.691	90.15	1.51	6.27	I	D	SP	PKP
SNG	152.814	159.54	1.47	6.11	E	C	LP	PKP
WMQ	159.654	51.83	1.18	4.92	I	D	SP	PKP
NST	160.534	150.70	1.14	4.75	I	C	SP	PKP
BAG	160.777	212.77	1.13	4.70	E	C	LP	PKP
GTA	169.722	49.37	0.64	2.65	I	D	SP	PKP

Table 60. Station data for event 237.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SLA	4.027	328.35	6.95	134.96	I	D	SP	P
CEN	5.905	233.81	8.53	119.69	I	D	SP	P
YJA	6.354	340.09	8.78	116.54	I	D	SP	P
ANT	7.901	302.78	9.40	106.72	I	D	LP	P
RFA	7.965	213.24	9.42	106.36	I	D	SP	P
FCH	7.982	228.35	9.43	106.26	I	D	SP	P
LPA	8.051	147.59	9.45	105.87	I	D	LP	P
PEL	8.138	230.81	9.47	105.38	I	D	SP	P
BACH	8.131	228.94	9.47	105.42	I	D	SP	P
SAN	8.304	228.99	9.51	104.46	I	D	SP	P
CHCH	8.596	226.40	9.57	102.90	I	D	SP	P
LPB	12.460	337.56	9.80	86.41	E	D	LP	P
ZOBO	12.714	337.87	9.79	85.59	I	D	SP	P
ARE	13.972	324.90	9.71	81.55	I	D	SP	P
VAO	15.501	74.18	9.59	77.65	I	D	SP	P
CAI	32.739	53.74	8.36	58.41	I	D	SP	P
BOCO	34.225	340.47	8.28	57.53	E	C	LP	P
BOCO	34.225	340.47	8.28	57.53	I	C	SP	P
GUV	35.781	0.13	8.21	56.71	I	C	SP	P
SDV	37.551	347.85	8.12	55.74	I	C	SP	P
TOV	38.286	349.43	8.08	55.37	I	C	SP	P
CAR	38.633	354.08	8.06	55.19	I	C	SP	P
TRN	38.640	2.79	8.06	55.18	I	C	SP	P
UPA	40.192	334.45	7.98	54.36	I	C	SP	P
BIM	42.496	3.01	7.86	53.16	I	C	SP	P
MVM	42.541	3.26	7.86	53.13	I	C	SP	P
SJG	46.111	356.07	7.60	50.72	I	C	SP	P
SJG	46.111	356.07	7.60	50.72	I	C	LP	P
SOR	54.164	337.28	7.03	45.69	I	C	LP	P
III	58.100	318.54	6.73	43.27	I	C	SP	P
MEX	58.687	319.46	6.69	42.92	I	C	SP	P
CRX	59.032	319.09	6.67	137.24	I	L	SP	P
CRX	59.032	319.09	6.67	42.76	I	C	SP	P
IIC	59.074	319.71	6.66	42.73	I	C	SP	P
BEC	60.243	358.53	6.57	41.99	I	C	LP	P
KIC	65.944	68.03	6.12	38.57	I	D	SP	P
RSCP	66.871	340.25	6.06	38.09	I	C	LP	P
BLA	67.034	345.10	6.05	38.01	I	C	LP	P
JCT	68.008	326.25	5.98	37.50	I	C	SP	P
TUH	69.177	117.37	5.91	36.97	I	D	SP	P
CER	69.266	117.48	5.90	36.90	I	D	SP	P
SCP	69.967	348.17	5.85	36.58	I	C	LP	P
GBO	70.478	332.81	5.81	36.28	I	C	SP	P
RLO	70.687	333.09	5.80	36.18	I	C	SP	P
TUL	70.776	332.39	5.79	36.15	I	C	LP	P
SUR	70.811	117.00	5.79	36.13	I	D	SP	P
TEN	72.058	42.54	5.71	35.59	I	D	SP	P
RSNY	73.118	351.54	5.64	35.07	I	C	LP	P
MNT	73.945	352.37	5.59	34.72	I	C	SP	P
OTT	74.108	350.84	5.58	34.65	I	C	SP	P

Table 60. Station data for event 237 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ALQ	74.926	324.31	5.53	34.30	I	C	SP	P
ANMO	74.928	324.31	5.53	34.30	E	C	LP	P
HVD	75.186	116.92	5.52	34.19	I	D	SP	P
MAW	76.413	161.41	5.44	33.61	I	C	SP	P
VIR	77.320	115.08	5.36	33.06	I	D	SP	P
SEK	77.824	115.60	5.31	32.70	I	D	SP	P
PRY	78.302	114.26	5.26	32.42	I	D	SP	P
BPI	79.078	113.79	5.20	31.99	I	D	SP	P
SLR	79.474	113.49	5.17	31.78	I	D	SP	P
PLM	79.604	316.70	5.16	31.72	I	C	LP	P
LHC	79.758	342.67	5.15	31.66	I	C	SP	P
EVA	79.776	114.51	5.15	31.65	I	D	SP	P
RVR	80.354	316.88	5.12	31.41	I	C	LP	P
GSC	80.916	318.16	5.08	31.18	I	C	LP	P
MWC	80.925	316.65	5.08	31.18	I	C	LP	P
RSSD	81.089	331.51	5.07	31.11	I	C	LP	P
SBB	81.101	317.13	5.07	31.11	I	C	LP	P
ISA	82.153	317.48	5.01	30.68	I	C	LP	P
BUL	82.242	108.59	5.00	30.64	I	D	SP	P
IFR	82.408	45.65	4.99	30.57	I	D	SP	P
SCH	82.714	357.89	4.98	30.45	I	C	SP	P
RSON	83.192	341.08	4.94	30.22	I	C	LP	P
LIS	83.508	39.58	4.91	29.99	I	D	SP	P
SFS	83.687	42.84	4.89	29.89	I	D	SP	P
DRV	83.820	189.08	4.88	29.82	I	C	SP	P
KRI	84.602	106.09	4.82	29.42	I	D	SP	P
SAO	84.675	316.68	4.82	29.40	I	C	SP	P
BCAO	84.786	82.19	4.82	29.39	E	D	LP	P
JAS	84.854	318.10	4.82	29.37	I	C	LP	P
JAS	84.854	318.10	4.82	29.37	I	C	SP	P
LRM	86.164	327.91	4.75	28.95	I	C	SP	P
MTD	86.291	106.93	4.75	28.92	I	D	SP	P
TOL	87.216	41.40	4.71	28.69	I	D	LP	P
WDC	87.813	319.01	4.70	28.61	I	C	SP	P
ALI	88.386	44.34	4.70	28.60	I	C	LP	P
FFC	89.061	338.68	4.69	28.52	I	C	SP	P
NEW	90.136	327.30	4.66	28.30	I	C	SP	P
FCC	90.359	344.47	4.65	28.28	I	C	SP	P
EPF	91.761	41.05	4.62	28.04	I	C	SP	P
EDM	92.031	332.47	4.61	27.99	I	C	SP	P
MLS	92.149	41.44	4.60	27.96	I	C	SP	P
SNZO	92.560	219.69	4.59	27.85	I	C	LP	P
LFF	93.150	39.71	4.56	27.69	I	C	SP	P
MFF	93.680	38.01	4.54	27.57	I	C	SP	P
RJF	93.813	39.75	4.54	27.56	I	C	SP	P
CAF	93.897	40.29	4.54	27.55	I	C	SP	P
LPF	94.088	36.51	4.54	27.53	I	C	SP	P
LSF	94.387	39.00	4.53	27.49	I	C	SP	P
GRR	94.405	36.30	4.53	27.49	I	C	SP	P
TCF	94.789	39.25	4.52	27.43	I	C	SP	P

Table 60. Station data for event 237 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DLE	94.828	30.21	4.52	27.43	I	C	SP	P
LDF	94.917	36.44	4.52	27.42	I	C	SP	P
DMU	95.080	29.61	4.52	27.39	I	C	SP	P
LRG	95.577	43.28	4.51	27.33	I	C	SP	P
AVF	95.723	39.31	4.51	27.31	I	C	SP	P
SMF	95.913	39.62	4.50	27.28	I	C	SP	P
SSF	95.966	39.14	4.50	27.28	I	C	SP	P
LOR	96.282	39.11	4.49	27.24	I	C	SP	P
GDH	97.401	3.45	4.46	27.03	E	C	LP	P
ROF	98.222	39.94	4.45	26.92	I	D	SP	P
RMP	98.684	47.17	4.44	26.88	I	D	SP	P
CDF	98.831	39.45	4.44	26.88	I	C	SP	P
YKC	99.187	338.45	4.44	26.88	I	C	SP	P
RSNT	99.227	338.41	4.44	26.88	I	C	LP	P
AFI	99.280	248.83	4.44	26.88	I	C	LP	P
ENN	99.376	36.96	4.44	26.88	I	D	SP	P
WTS	100.510	36.22	4.44	26.88	I	C	SP	Pdf
WIT	100.877	35.47	4.44	26.88	I	C	SP	Pdf
FUR	100.985	41.08	4.44	26.88	I	C	SP	Pdf
TRI	101.266	44.11	4.44	26.88	I	C	SP	Pdf
KBA	101.671	42.74	4.44	26.88	I	D	SP	Pdf
CLL	103.494	38.82	4.44	26.88	I	D	SP	Pdf
MUD	104.013	33.04	4.44	26.88	I	D	SP	Pdf
IST	109.426	53.28	1.89	11.10	E	C	LP	PKP
COL	112.934	332.54	1.88	11.06	E	C	LP	PKP
KOU	113.286	228.73	1.88	11.06	I	C	SP	PKP
IMA	115.605	333.10	1.88	11.03	I	C	SP	PKP
STK	115.786	203.31	1.88	11.03	I	C	SP	PKP
NWAO	119.227	180.39	1.87	11.00	I	C	SP	PKP
MUN	120.171	179.39	1.87	10.99	I	C	SP	PKP
HNR	124.005	234.44	1.87	10.95	E	C	LP	PKP
MEK	125.495	181.89	1.86	10.94	I	C	SP	PKP
ADK	125.945	315.40	1.86	10.93	I	C	SP	PKP
LEM	144.076	164.28	1.69	9.89	I	C	LP	PKP
TRT	144.093	172.90	1.69	9.89	I	C	SP	PKP
KSH	144.525	60.76	1.68	9.84	I	C	SP	PKP
NDI	145.272	79.55	1.66	9.74	I	C	SP	PKP
AAI	146.476	200.86	1.63	9.58	I	C	SP	PKP
MKS	146.695	184.80	1.63	9.55	I	C	SP	PKP
GUA	150.081	246.63	1.54	9.00	I	C	LP	PKP
WMQ	151.925	48.49	1.48	8.65	I	C	SP	PKP
DMN	151.997	83.62	1.47	8.63	I	C	SP	PKP
KKN	152.176	83.29	1.47	8.60	I	C	SP	PKP
PKI	152.257	83.78	1.47	8.58	I	C	SP	PKP
SNG	154.078	140.67	1.40	171.81	I	D	LP	AP
SNG	154.078	140.67	1.40	8.19	I	C	LP	PKP
DAV	157.440	203.17	1.26	7.38	E	C	LP	PKP
DAV	157.440	203.17	1.26	7.38	I	C	LP	PKP
NNT	157.739	130.75	1.25	7.30	I	C	SP	PKP
MAT	160.141	300.20	1.14	6.64	I	C	LP	PKP

Table 60. Station data for event 237 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MDJ	160.694	331.49	1.11	6.48	I	C	SP	PKP
GTA	162.000	47.19	1.04	6.10	I	C	SP	PKP
CN2	162.949	338.28	1.00	5.82	I	C	SP	PKP
SNY	165.322	339.71	0.87	5.08	I	C	SP	PKP
BTO	166.413	22.60	0.81	4.73	I	C	SP	PKP
HHC	166.652	17.55	0.80	4.65	I	C	SP	PKP
KMI	167.036	100.39	0.77	4.53	E	C	LP	PKP
SEO	167.359	320.27	0.76	4.42	I	C	LP	PKP
BAG	167.777	197.26	0.73	4.28	I	C	LP	PKP
BJI	168.168	2.45	0.71	4.15	I	C	LP	PKP
DL2	168.590	340.73	0.69	4.01	I	C	SP	PKP
TIY	169.814	20.10	0.62	3.60	I	C	SP	PKP
XAN	171.062	47.33	0.54	3.17	I	C	SP	PKP
TIA	171.999	358.28	0.49	2.84	I	C	SP	PKP
GZH	174.025	147.48	0.37	2.13	I	C	SP	PKP
ANP	174.847	235.55	0.32	1.84	I	C	LP	PKP
SSE	175.228	308.40	0.29	1.71	I	C	LP	PKP
NJ2	175.770	335.97	0.26	1.52	I	C	SP	PKP

Figure 23. Azimuthal equidistant map for geographic subdivision, North Atlantic Ocean.

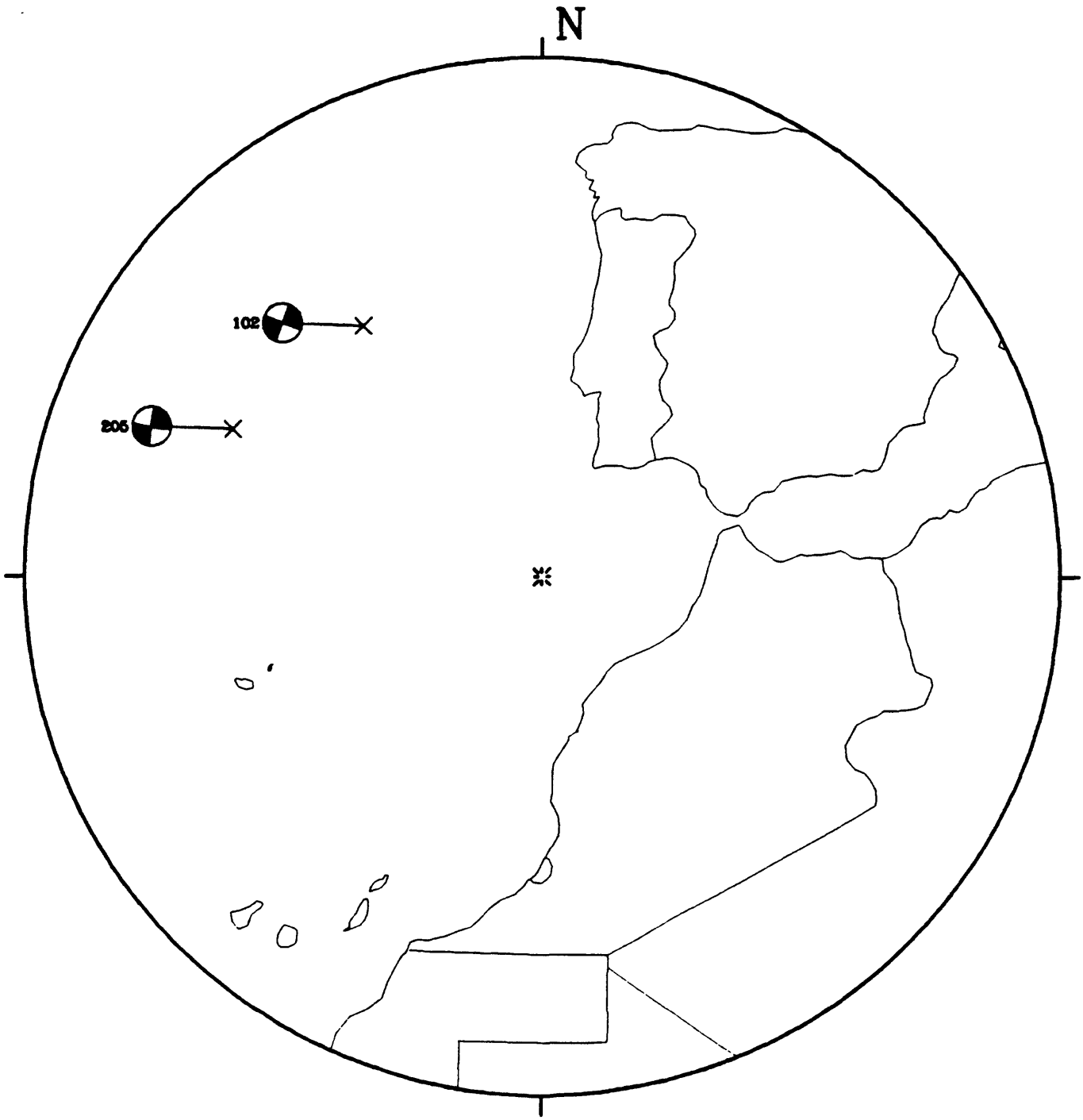

Table 61. Focal Mechanism Parameters for subdivision, North Atlantic Ocean.

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
102	290	90	180	200	90	0	0	65	0	155	90	0
205	189	88	5	99	85	178	5	54	2	324	85	211

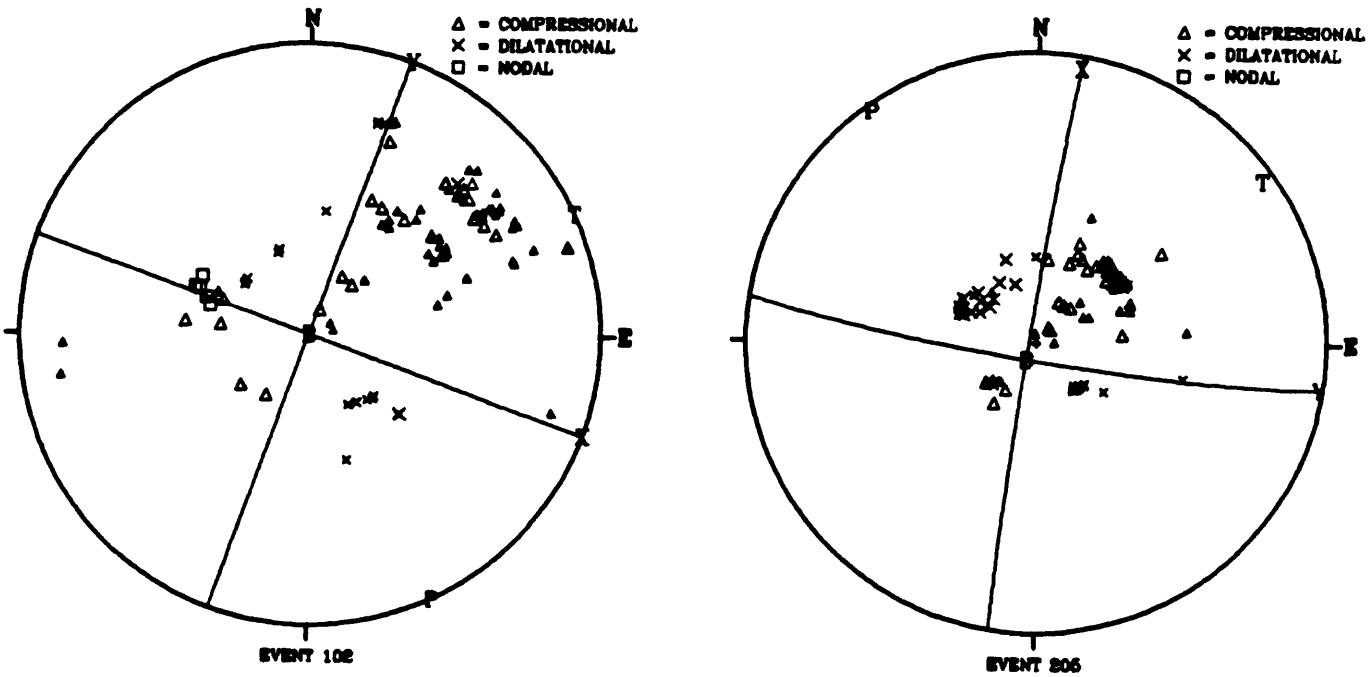

Figure 24. Lower hemisphere focal sphere projection for events 102 and 205.

Table 62. Station data for event 102.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PTO	4.701	70.83	14.16	83.04	I	C	SP	PN
PTO	4.701	70.83	14.16	83.04	I	C	LP	P
MAL	8.478	107.60	13.86	76.31	I	C	SP	P
PDA	8.960	260.71	13.81	75.49	I	C	SP	P
ADH	9.959	267.81	13.69	73.67	I	C	SP	P
EPF	11.612	68.77	13.50	71.15	I	C	SP	P
LFF	12.397	60.30	13.36	69.48	I	C	SP	P
MFF	12.504	52.07	13.36	69.48	I	C	SP	P
LPO	12.621	61.88	13.36	69.48	I	C	SP	P
LPF	12.743	45.03	13.36	69.48	I	C	SP	P
CAF	13.290	61.68	13.20	67.72	I	C	SP	P
LSF	13.396	55.73	13.20	67.72	I	C	SP	P
FLN	13.476	43.40	13.20	67.72	I	C	SP	P
ECP	13.650	21.62	13.20	67.72	I	C	SP	P
ECB	13.702	20.30	13.20	67.72	I	C	SP	P
TCF	13.846	56.35	13.12	66.88	I	C	SP	P
ETA	14.154	20.99	13.12	66.88	I	C	SP	P
DCN	14.471	17.52	13.04	66.08	I	D	SP	P
DLE	14.598	19.22	13.04	66.08	I	D	SP	P
AVF	14.766	55.67	12.95	65.20	I	C	SP	P
SSF	14.967	54.85	12.95	65.20	I	C	SP	P
SMF	15.026	56.68	12.95	65.20	I	C	SP	P
DMU	15.069	17.46	12.95	65.20	I	D	SP	P
VDM	15.131	46.44	12.95	65.20	I	C	LP	P
LBF	15.236	55.60	12.95	65.20	I	C	SP	P
LOR	15.269	54.48	12.86	64.35	I	C	SP	P
LMR	16.119	70.33	12.77	63.53	I	C	SP	P
FRF	16.243	69.56	12.77	63.53	I	C	SP	P
DOU	16.975	46.14	12.58	61.87	E	C	LP	P
HAU	17.106	54.29	12.58	61.87	I	C	SP	P
UCC	17.215	43.84	12.58	61.87	I	D	LP	P
DIX	17.221	61.26	12.58	61.87	E	C	LP	P
ESK	17.309	22.08	12.48	61.03	E	C	LP	P
BSF	17.325	55.20	12.48	61.03	I	C	SP	P
WLF	17.658	49.03	12.48	61.03	E	C	LP	P
ECH	17.688	54.28	12.48	61.03	I	D	SP	P
CDF	17.832	53.77	12.37	60.13	I	C	SP	P
ENN	18.048	45.63	12.37	60.13	I	C	SP	P
ZUL	18.240	57.40	12.37	60.13	E	C	LP	P
DBN	18.364	41.21	12.27	59.33	I	C	LP	P
STB	18.476	47.00	12.27	59.33	I	C	SP	P
BGG	18.584	48.55	12.27	59.33	I	C	SP	P
BNS	18.837	46.30	12.16	58.48	I	C	SP	P
WTS	19.153	43.19	12.16	58.48	I	C	SP	P
STU	19.152	54.09	12.16	58.48	I	C	LP	P
WIT	19.520	40.97	10.58	47.87	I	C	SP	P
FIR	19.594	69.74	10.58	47.87	I	C	SP	P
FUR	20.297	57.02	10.30	46.22	I	C	SP	P
GRF	20.709	52.81	10.30	46.22	I	C	SP	P
BHG	21.242	58.94	10.17	45.47	I	C	SP	P

Table 62. Station data for event 102 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MOX	21.272	50.55	10.05	44.79	I	C	LP	P
HOF	21.314	51.56	10.05	44.79	I	C	SP	P
HAM	21.532	42.32	10.05	44.79	I	C	SP	P
WET	21.581	55.15	10.05	44.79	I	C	SP	P
KMR	22.136	58.52	9.94	44.17	I	C	LP	P
MUD	22.825	35.04	9.76	43.17	I	C	SP	P
COP	23.912	39.24	9.60	42.30	E	C	LP	P
BER	24.083	24.36	9.60	42.30	I	C	LP	P
KON	25.039	29.32	9.47	41.59	E	C	LP	P
KRA	26.261	55.45	9.33	40.85	I	C	SP	P
JOS	26.432	59.06	9.33	40.85	I	C	SP	P
SKO	27.144	73.55	9.28	40.58	I	C	SP	P
UPP	28.441	34.29	9.11	39.69	I	C	SP	P
NUR	31.869	36.27	8.75	37.83	I	C	SP	P
SUF	33.412	33.03	8.65	37.33	I	C	SP	P
ALT	34.202	76.54	8.62	37.18	I	C	SP	P
KIC	34.367	162.66	8.59	37.02	I	D	SP	P
KBS	40.685	7.59	8.24	35.28	I	D	SP	P
BEC	40.801	275.80	8.21	35.14	I	C	LP	P
WES	42.259	292.73	8.13	34.74	E	N	LP	P
GAC	44.257	298.56	8.02	34.21	E	N	LP	P
BCAO	46.089	131.05	7.93	33.77	E	D	LP	P
BNG	46.094	131.03	7.93	33.77	I	D	SP	P
SCP	47.416	292.79	7.85	33.39	E	N	LP	P
RSCP	55.076	289.88	7.26	30.59	E	N	LP	P
SHA	59.320	286.02	6.92	29.02	E	N	LP	P
RLO	61.537	294.77	6.76	28.29	I	C	SP	P
TUL	62.203	294.88	6.72	28.10	I	C	SP	P
JCT	67.937	291.81	6.22	25.85	E	C	LP	P
COL	69.500	340.65	6.10	25.32	I	D	SP	P
KRI	69.685	134.71	6.10	25.32	I	D	SP	P
MTD	70.739	133.05	6.03	25.01	I	D	SP	P
CR5	70.817	276.17	5.99	24.83	E	C	LP	P
CR6	70.815	276.35	5.99	24.83	E	C	LP	P
BUL	71.873	137.51	5.92	24.52	I	D	SP	P
PMR	72.545	339.10	5.89	24.39	I	D	SP	P
ZOBO	74.820	233.27	5.71	23.60	E	C	LP	P
SWZ	76.206	144.04	5.64	23.29	I	D	SP	P
MIN	76.290	311.24	5.61	23.16	I	D	SP	P
WDC	76.675	311.91	5.61	23.16	I	D	SP	P
JAS	77.158	308.77	5.58	23.03	I	D	SP	P
FRI	77.334	307.64	5.55	22.90	I	D	SP	P
SUR	78.856	150.11	5.45	22.46	I	D	SP	P
GTA	80.984	45.64	5.26	21.64	I	C	SP	P
LPA	84.407	214.61	5.02	20.60	E	C	LP	P
SEO	95.322	29.83	4.56	18.64	E	C	LP	P
ANP	103.486	40.33	4.45	18.18	E	C	LP	P
GUA	123.637	24.27	1.87	7.52	E	C	LP	P
WBN	144.896	79.24	1.68	6.78	I	C	SP	PKP
WB2	146.785	62.71	1.64	6.60	I	C	SP	PKP

Table 63. Station data for event 205.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ZST	27.847	54.48	9.20	27.49	I	C	SP	P
COP	27.865	37.24	9.20	27.49	I	C	LP	P
BER	27.936	24.31	9.20	27.49	I	C	LP	P
KONO	28.951	28.57	9.05	27.00	I	C	LP	P
KRA	30.058	51.52	8.92	26.58	I	C	SP	P
JOS	30.157	54.72	8.92	26.58	I	C	SP	P
WAR	31.231	47.65	8.83	26.30	E	C	LP	P
NUR	35.820	34.59	8.51	25.27	I	C	LP	P
IST	36.185	68.37	8.51	25.27	I	C	SP	P
GDH	38.141	340.16	8.39	24.89	E	D	LP	P
DAG	40.287	359.55	8.24	24.42	I	D	SP	P
KEV	40.882	21.90	8.22	24.36	I	C	LP	P
HLW	41.069	84.80	8.22	24.36	E	C	LP	P
MNT	42.477	300.17	8.13	24.07	I	C	SP	P
GAC	43.733	300.76	8.08	23.91	I	D	LP	P
KBS	44.125	7.85	8.05	23.82	I	C	LP	P
BNG	46.030	125.35	7.94	23.48	I	D	SP	P
SCP	46.485	294.51	7.91	23.38	I	D	LP	P
MRG	48.346	293.61	7.79	23.01	I	C	SP	P
BLA	49.456	290.72	7.71	22.76	I	D	LP	P
LHC	52.376	306.98	7.46	21.98	I	D	SP	P
RSCP	53.921	290.71	7.34	21.61	I	D	LP	P
RSON	54.492	310.88	7.30	21.48	I	D	LP	P
BDF	59.355	214.50	6.93	20.35	I	C	LP	P
RSNT	61.351	328.31	6.77	19.86	I	D	LP	P
TUL	61.361	295.08	6.77	19.86	I	D	LP	P
RSSD	63.457	306.52	6.60	19.34	I	D	LP	P
EDM	64.853	318.63	6.48	18.97	I	C	SP	P
KRI	69.287	131.37	6.11	17.85	I	D	SP	P
ANMO	69.476	298.71	6.11	17.85	I	D	LP	P
MTD	70.453	129.79	6.04	17.64	I	D	SP	P
ZOBO	71.006	231.72	6.00	17.52	I	C	LP	P
LPB	71.187	231.52	6.00	17.52	E	C	LP	P
BUL	71.277	134.34	5.96	17.40	I	D	SP	P
COL	71.656	339.95	5.96	17.40	I	D	LP	P
LON	72.891	315.79	5.86	17.10	E	D	LP	P
WMQ	75.139	46.28	5.72	16.68	I	C	SP	P
SWZ	75.159	141.19	5.72	16.68	I	D	SP	P
SLR	75.528	138.10	5.68	16.56	E	D	LP	P
SLR	75.528	138.10	5.68	16.56	E	C	LP	P
BPI	75.745	138.56	5.68	16.56	I	C	SP	P
SLA	75.923	224.14	5.65	16.47	I	D	SP	P
VIR	76.674	140.57	5.62	16.38	I	C	SP	P
NDI	77.003	63.99	5.59	16.29	I	C	SP	P
JAS	77.229	307.80	5.59	16.29	E	D	LP	P
ANT	78.000	228.36	5.52	16.08	E	C	LP	P
LPA	80.462	212.70	5.31	15.45	I	C	LP	P
TLL	83.102	224.37	5.12	14.88	I	C	SP	P
DMN	83.259	60.69	5.09	14.80	I	C	SP	P
KKN	83.271	60.45	5.09	14.80	I	C	SP	P

Table 63. Station data for event 205 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PTO	8.307	54.14	13.89	44.18	I	C	LP	P
MAL	10.535	85.34	13.67	43.30	I	C	SP	P
IFR	10.611	103.15	13.67	43.30	I	D	SP	P
ECP	17.474	23.37	12.52	38.91	I	C	SP	P
DOU	20.897	42.83	10.21	30.81	E	C	LP	P
DIX	20.914	55.29	10.21	30.81	E	C	LP	P
ESK	21.134	23.08	10.21	30.81	I	C	LP	P
ROF	21.144	50.77	10.21	30.81	I	C	SP	P
ORO	21.159	56.83	10.21	30.81	I	D	SP	P
UCC	21.152	40.95	10.21	30.81	E	C	LP	P
MMK	21.272	55.69	10.08	30.38	E	C	LP	P
WLF	21.553	45.26	10.08	30.38	E	C	LP	P
TMA	21.893	56.05	9.97	30.01	E	C	LP	P
ENN	21.973	42.47	9.97	30.01	I	C	SP	P
ZUL	22.010	52.27	9.97	30.01	E	C	LP	P
SLE	22.175	51.63	9.97	30.01	E	C	LP	P
LLS	22.200	54.17	9.97	30.01	E	C	LP	P
DBN	22.312	38.83	9.88	29.72	I	C	LP	P
BUH	22.350	49.23	9.88	29.72	I	C	SP	P
VDL	22.398	55.39	9.88	29.72	E	C	LP	P
SAX	22.546	53.42	9.88	29.72	E	C	LP	P
BNS	22.758	43.08	9.78	29.38	I	C	SP	P
SAL	22.883	58.09	9.78	29.38	I	D	SP	P
OSS	22.900	55.23	9.78	29.38	E	C	LP	P
STU	22.978	49.63	9.78	29.38	I	C	LP	P
WTS	23.093	40.51	9.78	29.38	I	C	SP	P
TNS	23.128	45.74	9.78	29.38	I	C	SP	P
WIT	23.469	38.65	9.70	29.12	I	C	SP	P
OGA	23.533	55.21	9.70	29.12	I	C	SP	P
CTI	23.749	57.46	9.70	29.12	I	D	SP	P
RMP	23.927	68.11	9.62	28.86	I	C	SP	P
MNS	23.942	66.69	9.62	28.86	I	C	SP	P
SCE	24.030	55.11	9.62	28.86	I	C	SP	P
FUR	24.071	52.25	9.62	28.86	I	C	SP	P
POI	24.149	66.27	9.62	28.86	I	C	SP	P
AQU	24.475	66.85	9.55	28.63	I	C	SP	P
GRFO	24.549	48.72	9.55	28.63	I	C	SP	P
GRF	24.553	48.73	9.55	28.63	I	C	SP	P
KBA	25.123	55.68	9.49	28.43	I	C	SP	P
MOX	25.147	46.85	9.49	28.43	I	C	LP	P
HOF	25.175	47.72	9.49	28.43	I	C	SP	P
WET	25.388	50.82	9.43	28.24	I	C	SP	P
HAM	25.476	39.85	9.43	28.24	I	C	SP	P
KHC	25.820	51.17	9.39	28.11	I	C	SP	P
KMR	25.878	53.78	9.39	28.11	I	C	LP	P
SGO	25.886	71.11	9.39	28.11	I	C	SP	P
CLL	26.212	46.21	9.39	28.11	I	C	SP	P
BRG	26.607	47.60	9.34	27.94	I	C	SP	P
BRN	26.762	44.02	9.29	27.78	I	C	SP	P
BRT	27.314	70.28	9.25	27.65	I	D	SP	P

Table 63. Station data for event 205 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PKI	83.495	60.56	5.09	14.80	I	C	SP	P
PEL	85.296	222.36	4.96	14.41	I	C	SP	P
LZH	89.508	43.77	4.72	13.70	E	C	LP	P
SEO	99.232	27.88	4.48	12.99	E	C	LP	P
SSE	102.350	35.42	4.45	12.90	E	C	LP	Pdf
ANP	107.436	38.51	1.89	5.44	E	C	LP	Pdf
BAG	114.106	44.61	1.88	5.42	E	C	LP	PKP
DAV	124.475	46.30	1.87	5.38	E	C	LP	PKP
MEK	141.563	87.79	1.74	5.01	I	C	SP	PKP
KOU	163.956	353.88	0.96	2.77	I	C	SP	PKP

Figure 25. Azimuthal equidistant map for geographic subdivision, Mid-Atlantic Ocean.

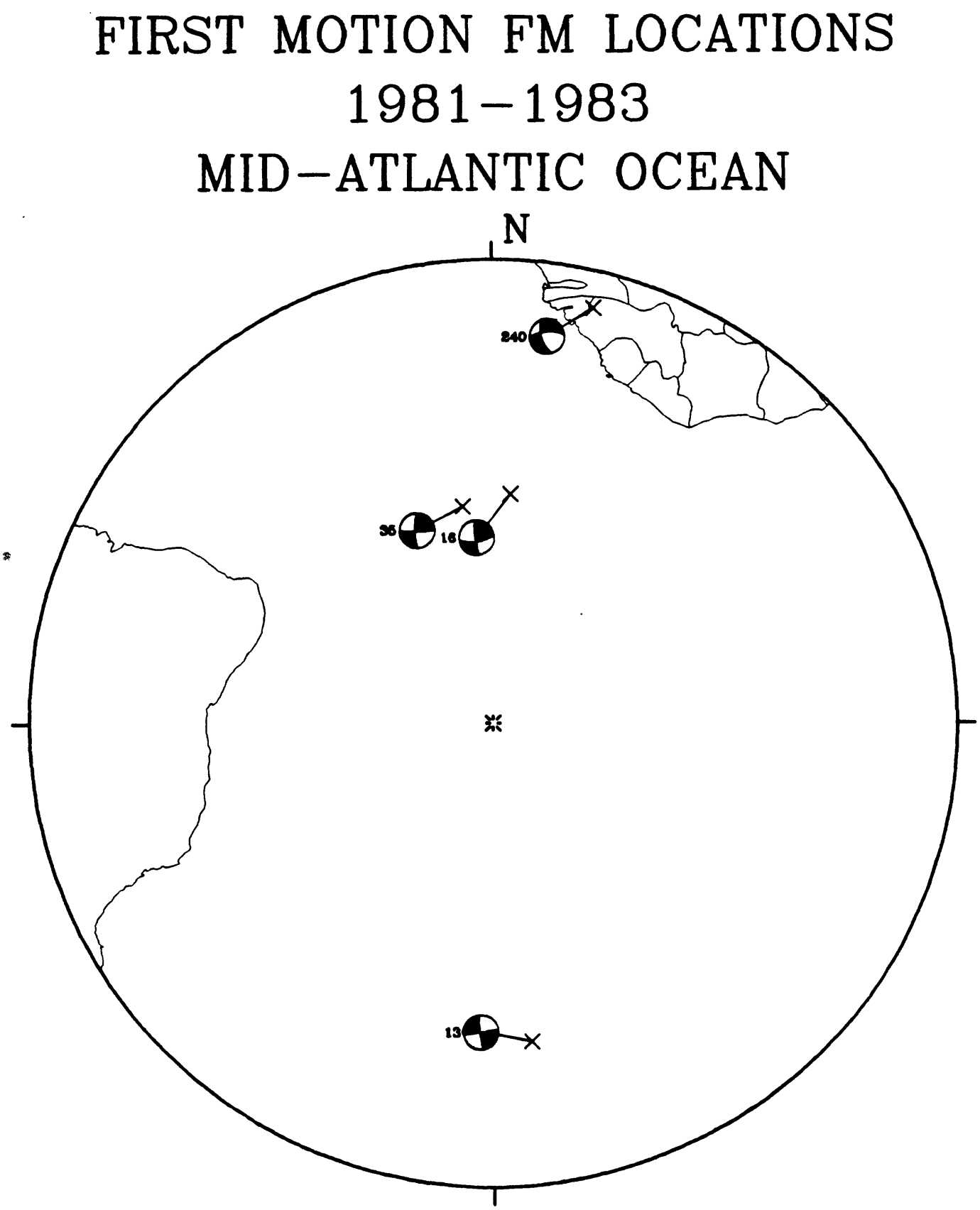

Table 64. Focal mechanism parameters for subdivision, Mid-Atlantic Ocean.

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
13	172	86	180	82	90	-4	3	127	3	37	86	262
16	173	85	20	81	70	175	18	39	10	305	69	186
35	180	80	6	89	84	170	11	44	3	135	78	339
240	265	68	-152	164	64	-25	2	34	35	125	55	300

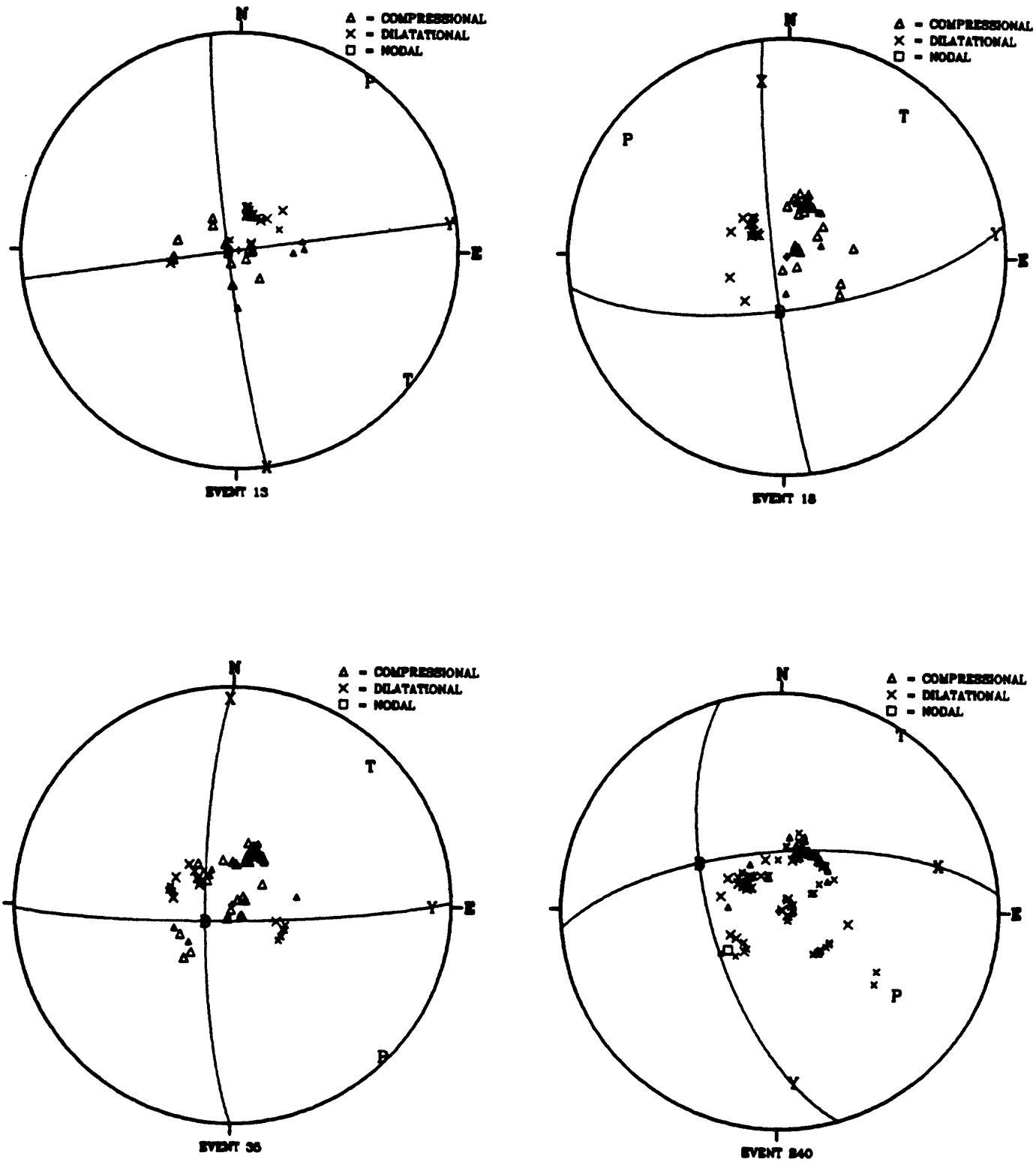

Figure 26. Lower hemisphere focal sphere projections for events 13, 16, 35, and 240.

Table 65. Station data for event 13.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPA	33.241	258.98	8.69	25.85	I	D	LP	P
PRE	39.824	88.62	8.27	24.51	I	C	SP	P
CYA	41.609	265.66	8.19	24.26	E	C	SP	P
CFA	42.452	260.13	8.13	24.07	E	C	SP	P
BUL	42.804	81.44	8.11	24.01	I	C	SP	P
ZOBO	49.223	279.29	7.75	22.88	E	C	LP	P
BCAO	51.917	47.47	7.50	22.10	I	D	LP	P
SPA	54.627	180.00	7.30	21.48	I	C	SP	P
AVY	58.965	91.95	6.97	20.47	I	C	SP	P
ALM	73.300	12.17	5.82	16.98	I	D	SP	P
ARO	73.380	62.22	5.82	16.98	I	D	SP	P
CRT	73.442	11.17	5.82	16.98	I	D	SP	P
TOL	76.010	10.27	5.65	16.47	I	D	LP	P
HLW	79.411	41.35	5.42	15.78	I	D	LP	P
BEC	81.002	320.72	5.27	15.33	I	C	LP	P
LPO	81.553	13.04	5.22	15.18	I	D	LP	P
GRC	84.424	13.60	5.03	14.62	E	D	SP	P
TRI	85.537	21.10	4.96	14.41	I	D	LP	P
KDZ	86.086	30.43	4.91	14.26	I	D	SP	P
PVL	87.270	29.49	4.80	13.93	I	D	SP	P
KMR	87.774	20.34	4.78	13.88	I	C	LP	P
ANTO	87.981	36.05	4.78	13.88	I	D	LP	P
UCC	88.024	13.40	4.78	13.88	I	D	LP	P
GRFO	88.492	17.91	4.75	13.79	I	D	LP	P
DBN	89.423	13.49	4.72	13.70	E	D	LP	P
MOX	89.472	17.78	4.72	13.70	E	D	LP	P
MLR	89.531	28.66	4.72	13.70	I	D	SP	P
BLA	93.260	314.36	4.63	13.43	E	C	LP	P
KONO	97.383	13.27	4.52	13.11	I	D	LP	P
NWAO	99.533	142.36	4.47	12.96	I	C	LP	P
SNZO	102.756	189.05	4.45	12.90	E	C	LP	Pdf
KAAO	106.303	59.11	1.89	5.44	I	D	LP	PKP
ANMO	108.859	299.76	1.89	5.44	E	C	LP	PKP
BKS	121.536	296.36	1.87	5.39	E	C	LP	PKP
CHTO	121.597	88.58	1.87	5.39	E	C	LP	PKP
AFI	125.297	210.52	1.87	5.37	E	C	LP	PKP
TATO	142.897	94.88	1.72	4.96	I	C	LP	PKP
BJI	143.091	68.70	1.72	4.96	I	D	LP	PKP
KDC	143.154	321.14	1.72	4.96	I	D	SP	PKP
GUMO	152.721	138.78	1.46	4.21	E	C	LP	PKP
SHK	155.228	83.52	1.39	3.99	I	C	LP	PKP

Table 66. Station data for event 16.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BCAO	37.614	82.56	8.42	24.99	I	C	LP	P
BNG	37.626	82.56	8.42	24.99	I	C	SP	P
MAL	39.067	18.52	8.33	24.70	E	C	LP	P
WIN	41.451	124.96	8.19	24.26	I	C	LP	P
PTO	42.144	11.54	8.16	24.17	I	C	LP	P
EPF	46.316	19.46	7.91	23.38	I	C	SP	P
LPO	48.065	19.17	7.82	23.10	I	C	SP	P
LFF	48.145	18.63	7.82	23.10	I	C	SP	P
CAF	48.572	19.76	7.79	23.01	I	C	SP	P
MZF	49.880	19.37	7.67	22.63	I	C	SP	P
SJG	49.914	293.97	7.67	22.63	E	D	LP	P
LPA	50.244	222.39	7.67	22.63	I	D	LP	P
BUL	50.479	116.19	7.63	22.51	I	C	LP	P
AVF	50.640	19.61	7.63	22.51	I	C	SP	P
SMF	50.680	20.08	7.63	22.51	I	C	SP	P
SSF	50.928	19.56	7.59	22.38	I	C	SP	P
LBF	51.020	19.97	7.59	22.38	I	C	SP	P
ZOBO	51.150	249.20	7.59	22.38	E	D	LP	P
LPB	51.186	248.86	7.59	22.38	E	D	LP	P
LOR	51.227	19.70	7.59	22.38	I	C	LP	P
LOR	51.227	19.70	7.59	22.38	I	C	SP	P
VAL	52.416	6.70	7.46	21.98	E	C	LP	P
HAU	52.726	21.05	7.46	21.98	I	C	SP	P
ECP	53.199	9.56	7.42	21.86	I	C	SP	P
ECH	53.197	21.48	7.42	21.86	I	C	SP	P
BEC	53.990	311.37	7.34	21.61	E	D	LP	P
STU	54.419	22.48	7.30	21.48	I	C	LP	P
UCC	54.469	17.89	7.30	21.48	I	C	LP	P
BNS	55.519	19.66	7.22	21.24	I	C	SP	P
DBN	55.858	17.66	7.19	21.14	I	C	SP	P
GRFO	55.945	23.12	7.19	21.14	I	C	LP	P
WET	56.188	24.55	7.19	21.14	I	C	SP	P
ESK	56.757	10.61	7.11	20.90	E	C	LP	P
MOX	56.862	22.67	7.11	20.90	I	C	SP	P
VIE	57.037	27.34	7.11	20.90	E	C	LP	P
PRU	57.529	24.90	7.08	20.81	I	C	SP	P
KDZ	57.615	38.22	7.08	20.81	I	C	SP	P
CLL	57.925	23.01	7.04	20.68	I	C	SP	P
BRG	57.961	23.87	7.04	20.68	I	C	SP	P
PVL	58.366	36.68	7.00	20.56	I	C	SP	P
MLR	60.180	34.83	6.89	20.22	I	C	SP	P
COP	61.199	19.60	6.81	19.98	I	C	LP	P
WES	63.303	318.86	6.60	19.34	I	D	LP	P
KONO	63.632	15.66	6.60	19.34	I	C	LP	P
KON	63.632	15.66	6.60	19.34	I	C	LP	P
AKU	65.705	0.33	6.44	18.85	E	C	LP	P
MNT	66.202	321.10	6.40	18.73	I	D	SP	P
BLA	67.777	310.66	6.23	18.21	E	D	LP	P
NUR	69.113	21.38	6.15	17.97	E	C	LP	P
TAB	70.745	49.36	6.04	17.64	E	C	LP	P

Table 66. Station data for event 16 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AAM	71.715	315.00	5.96	17.40	E	D	LP	P
KEV	76.124	14.91	5.65	16.47	E	C	LP	P
TUL	79.539	306.46	5.42	15.78	E	D	LP	P
JCT	82.292	300.64	5.15	14.97	E	D	LP	P
GOL	87.432	309.56	4.80	13.93	E	D	LP	P
ANMO	88.139	304.79	4.78	13.88	I	D	LP	P
KBL	88.343	55.62	4.75	13.79	I	C	LP	P
SPA	89.835	180.00	4.71	13.67	I	C	SP	P
POO	92.601	71.57	4.66	13.52	I	C	SP	P
BKS	100.669	308.43	4.45	12.90	E	D	LP	Pdf
CHTO	116.260	69.15	1.88	5.41	E	C	LP	PKP
CHG	116.260	69.15	1.88	5.41	I	C	LP	PKP
NWAO	127.170	132.92	1.86	5.36	E	C	LP	PKP
SEO	131.226	36.43	1.85	5.32	E	C	LP	PKP
ANP	134.338	53.93	1.83	5.26	I	C	LP	PKP
TATO	134.408	54.21	1.83	5.26	E	C	LP	PKP
SNZO	136.933	194.97	1.80	5.19	E	C	LP	PKP
GUMO	159.064	49.78	1.22	3.50	I	C	LP	PKP

Table 67. Station data for event 35.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
RDJ	30.087	222.05	8.92	26.58	I	C	LP	P
IFR	37.750	23.15	8.39	24.89	I	C	SP	P
BNG	40.738	82.11	8.24	24.42	I	C	SP	P
CRT	41.572	22.17	8.19	24.26	I	C	SP	P
GUV	42.026	282.73	8.16	24.17	I	D	SP	P
CUM	43.585	286.23	8.08	23.91	I	D	SP	P
PTO	43.609	14.56	8.08	23.91	E	C	LP	P
TOL	43.800	19.89	8.05	23.82	I	C	SP	P
CAR	46.246	285.48	7.94	23.48	I	C	SP	P
LGR	46.624	19.73	7.91	23.38	I	C	SP	P
SJG	47.498	295.76	7.85	23.19	I	D	LP	P
LPA	47.630	220.91	7.85	23.19	I	C	LP	P
LPB	48.070	248.59	7.82	23.10	I	C	SP	P
EPF	48.135	21.85	7.82	23.10	I	C	SP	P
MLS	48.354	22.53	7.79	23.01	I	C	SP	P
TOV	48.885	283.82	7.75	22.88	I	C	SP	P
SDV	49.557	282.47	7.71	22.76	I	D	SP	P
LPO	49.869	21.44	7.67	22.63	I	C	SP	P
LFF	49.924	20.91	7.67	22.63	I	C	SP	P
CAF	50.401	21.97	7.63	22.51	I	C	SP	P
RJF	50.522	21.28	7.63	22.51	I	C	SP	P
LMR	50.919	26.54	7.59	22.38	I	C	SP	P
LRG	50.948	26.33	7.59	22.38	I	C	SP	P
MFF	51.076	19.15	7.59	22.38	I	C	SP	P
FRF	51.159	26.46	7.59	22.38	I	C	SP	P
LSF	51.339	20.67	7.55	22.26	I	C	SP	P
TCF	51.615	21.16	7.55	22.26	I	C	SP	P
SSB	51.656	23.61	7.55	22.26	I	C	SP	P
MZF	51.689	21.49	7.55	22.26	I	C	SP	P
LPF	52.061	17.62	7.50	22.10	I	C	SP	P
ANT	52.158	240.45	7.50	22.10	I	C	LP	P
BEC	52.288	313.37	7.46	21.98	I	D	LP	P
BOCO	52.417	276.50	7.46	21.98	I	D	LP	P
BOG	52.441	276.54	7.46	21.98	I	D	LP	P
AVF	52.459	21.67	7.46	21.98	I	C	SP	P
SMF	52.519	22.13	7.46	21.98	I	C	SP	P
SSF	52.744	21.60	7.46	21.98	I	C	SP	P
LBF	52.854	21.99	7.42	21.86	I	C	SP	P
BUL	52.875	114.62	7.42	21.86	I	D	SP	P
FLN	52.882	17.62	7.42	21.86	I	C	SP	P
LOR	53.048	21.71	7.42	21.86	I	C	SP	P
KSR	53.051	122.02	7.42	21.86	I	D	SP	P
MNS	53.213	31.65	7.42	21.86	I	C	SP	P
AQU	53.572	32.14	7.38	21.73	I	C	SP	P
BLF	53.631	126.06	7.38	21.73	I	D	SP	P
SLR	54.187	121.36	7.34	21.61	I	D	SP	P
HAU	54.604	22.93	7.30	21.48	I	C	SP	P
BSF	54.637	23.35	7.30	21.48	I	C	SP	P
MTD	54.886	109.81	7.26	21.36	I	D	SP	P
ECH	55.093	23.31	7.26	21.36	I	C	SP	P

Table 67. Station data for event 35 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CDF	55.298	23.25	7.22	21.24	I	C	SP	P
CTI	55.353	27.88	7.22	21.24	I	C	SP	P
OGA	55.678	26.82	7.22	21.24	I	C	SP	P
CIR	55.782	114.81	7.19	21.14	I	D	SP	P
PEL	55.835	229.74	7.19	21.14	I	C	SP	P
WLF	55.890	21.64	7.19	21.14	E	C	LP	P
TRI	56.120	29.46	7.19	21.14	I	C	SP	P
STU	56.356	24.21	7.15	21.02	I	C	LP	P
ENN	56.720	20.75	7.15	21.02	I	C	SP	P
LJU	56.736	29.63	7.15	21.02	I	C	SP	P
FUR	56.771	25.95	7.11	20.90	I	C	SP	P
BHG	57.157	27.27	7.11	20.90	I	C	SP	P
TNS	57.211	22.69	7.11	20.90	I	C	SP	P
GRFO	57.907	24.74	7.04	20.68	I	C	LP	P
SKO	57.903	37.15	7.04	20.68	I	C	SP	P
GRF	57.910	24.74	7.04	20.68	I	C	SP	P
WTS	58.050	20.47	7.04	20.68	I	C	SP	P
WET	58.210	26.13	7.04	20.68	I	C	SP	P
KHC	58.509	26.54	7.00	20.56	I	C	SP	P
HOF	58.658	24.65	7.00	20.56	I	C	SP	P
MOX	58.803	24.25	6.97	20.47	I	C	SP	P
SOP	58.876	29.38	6.97	20.47	I	C	SP	P
PRU	59.564	26.39	6.93	20.35	I	C	SP	P
CLL	59.880	24.52	6.89	20.22	I	C	SP	P
BUD	59.979	30.86	6.89	20.22	I	C	SP	P
TIM	60.040	33.53	6.89	20.22	I	C	SP	P
BRN	60.796	23.78	6.81	19.98	I	C	SP	P
PVL	60.840	37.84	6.81	19.98	I	C	SP	P
JOS	61.411	30.73	6.77	19.86	I	C	SP	P
WES	61.946	320.36	6.73	19.73	I	C	LP	P
BUC	62.091	37.04	6.73	19.73	I	C	SP	P
MLR	62.589	35.96	6.69	19.61	I	C	SP	P
COP	63.002	20.99	6.64	19.46	I	C	LP	P
KON	65.252	16.97	6.44	18.85	I	C	LP	P
BLA	66.023	311.80	6.40	18.73	I	D	LP	P
AVY	70.407	109.64	6.04	17.64	I	D	LP	P
NUR	70.985	22.32	6.00	17.52	I	C	SP	P
NUR	70.985	22.32	6.00	17.52	E	C	LP	P
SUF	72.947	21.00	5.86	17.10	I	C	SP	P
GDH	73.286	348.73	5.82	16.98	E	C	LP	P
LHC	75.908	320.64	5.65	16.47	I	D	SP	P
RLO	77.022	307.36	5.59	16.29	I	D	SP	P
TUL	77.587	306.99	5.56	16.20	I	D	LP	P
DAG	77.667	0.73	5.56	16.20	E	C	LP	P
DAG	77.667	0.73	5.56	16.20	I	C	SP	P
KEV	77.694	15.57	5.56	16.20	I	C	SP	P
FCC	81.675	329.89	5.22	15.18	I	C	SP	P
KBS	81.706	6.24	5.22	15.18	I	C	LP	P
GOL	85.607	309.75	4.96	14.41	E	D	LP	P
EPT	85.941	301.77	4.91	14.26	E	D	LP	P

Table 67. Station data for event 35 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ANMO	86.107	304.94	4.91	14.26	I	D	LP	P
KBL	91.299	55.65	4.69	13.61	I	C	LP	P
KAAO	91.299	55.65	4.69	13.61	I	C	LP	P
EDM	91.661	323.03	4.69	13.61	E	C	SP	P
COR	98.825	314.86	4.48	12.99	E	C	LP	P
CHG	119.378	69.00	1.88	5.40	E	C	LP	PKP
CHTO	119.378	69.00	1.88	5.40	E	C	LP	PKP
NWAO	128.797	135.05	1.86	5.34	E	C	LP	PKP
SNZO	135.309	197.79	1.82	5.24	E	C	LP	PKP
ANP	137.249	52.76	1.80	5.19	E	C	LP	PKP
TATO	137.325	53.05	1.80	5.19	E	C	LP	PKP
ASP	146.013	137.69	1.66	4.79	I	C	SP	PKP
NOU	155.481	198.84	1.39	3.99	I	C	SP	PKP
GUMO	161.849	45.74	1.07	3.07	I	C	LP	PKP
GUA	161.915	45.76	1.07	3.07	E	C	LP	PKP
HNR	169.509	189.89	0.62	1.79	E	C	LP	PKP

Table 68. Station data for event 240.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MBO	4.175	307.31	14.20	134.56	I	D	SP	P
KIC	10.255	121.47	13.67	43.31	I	D	SP	P
AVE	22.053	13.75	9.97	30.02	I	D	SP	P
IFR	22.878	18.30	9.78	29.39	I	C	SP	P
ALM	26.797	19.98	9.29	27.79	I	C	SP	P
LIS	27.020	7.56	9.29	27.79	I	C	SP	P
TOL	29.135	15.09	9.05	27.01	I	D	SP	P
CAI	29.751	233.31	8.92	26.59	I	D	SP	P
BCAO	32.561	100.43	8.72	25.95	E	D	LP	P
BNG	32.572	100.42	8.72	25.95	I	D	SP	P
EPF	33.299	18.67	8.66	25.76	I	C	SP	P
LMR	35.829	25.29	8.51	25.28	I	C	SP	P
LRG	35.867	25.02	8.51	25.28	I	C	SP	P
FRF	36.073	25.20	8.51	25.28	I	C	SP	P
PDI	37.554	35.12	8.42	24.99	I	C	SP	P
RMP	37.613	32.78	8.42	24.99	I	D	SP	P
SSF	37.907	19.03	8.39	24.90	I	C	SP	P
GRR	37.913	13.77	8.39	24.90	I	C	SP	P
LBF	37.991	19.55	8.39	24.90	I	C	SP	P
LOR	38.203	19.21	8.39	24.90	I	C	SP	P
LDF	38.280	14.39	8.36	24.80	I	C	SP	P
DUI	38.461	34.43	8.36	24.80	I	C	SP	P
BRT	39.534	37.50	8.30	24.61	I	C	SP	P
ROF	39.601	21.72	8.30	24.61	I	C	SP	P
BSF	39.690	21.50	8.30	24.61	I	C	SP	P
OGA	40.574	26.00	8.24	24.42	I	C	SP	P
TRI	40.944	29.36	8.22	24.36	I	D	SP	P
WLF	41.041	19.47	8.22	24.36	E	C	LP	P
RBL	41.389	28.45	8.19	24.27	I	D	SP	P
UCC	41.487	17.11	8.19	24.27	E	D	LP	P
LJU	41.557	29.60	8.19	24.27	I	C	SP	P
DLE	41.688	6.30	8.19	24.27	I	D	SP	P
FUR	41.697	24.98	8.19	24.27	I	C	SP	P
KBA	41.760	27.64	8.16	24.17	I	D	SP	P
ENN	41.927	18.45	8.16	24.17	I	D	SP	P
ATH	42.180	45.43	8.16	24.17	I	D	SP	P
DMU	42.254	5.82	8.13	24.08	I	D	SP	P
SKO	42.750	39.03	8.13	24.08	I	C	SP	P
KMR	42.845	27.26	8.11	24.01	I	D	LP	P
GRFO	42.884	23.55	8.11	24.01	E	N	LP	P
GRF	42.886	23.55	8.11	24.01	I	C	SP	P
DBN	42.881	16.90	8.11	24.01	I	D	SP	P
KHC	43.412	25.82	8.08	23.92	I	D	SP	P
BDF	43.652	231.99	8.08	23.92	E	N	LP	P
MOX	43.802	23.01	8.05	23.82	I	D	LP	P
BUD	44.782	31.21	8.00	23.67	I	D	SP	P
EZN	44.841	44.42	8.00	23.67	I	D	SP	P
CLL	44.864	23.42	8.00	23.67	I	D	SP	P
BRG	44.899	24.47	8.00	23.67	I	D	SP	P
YER	45.098	48.79	8.00	23.67	I	C	SP	P

Table 68. Station data for event 240 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CIN	45.137	48.10	8.00	23.67	I	C	SP	P
HLW	45.262	59.64	7.97	23.57	I	D	SP	P
HAM	45.515	19.49	7.97	23.57	I	D	SP	P
PSZ	45.511	31.29	7.97	23.57	I	D	SP	P
KSP	45.857	26.07	7.94	23.48	I	D	SP	P
ELL	46.161	49.97	7.94	23.48	I	C	SP	P
DMK	46.722	42.65	7.91	23.39	I	D	SP	P
KRA	46.955	29.11	7.88	23.29	I	D	SP	P
IST	47.209	44.16	7.88	23.29	I	D	SP	P
IST	47.209	44.16	7.88	23.29	I	D	LP	P
MLR	47.409	37.40	7.85	23.20	I	C	SP	P
VAO	47.672	223.38	7.85	23.20	I	D	SP	P
MUD	47.835	16.80	7.82	23.10	I	D	SP	P
COP	48.175	19.44	7.82	23.10	I	D	LP	P
TLB	48.218	39.48	7.82	23.10	I	D	SP	P
CLI	48.762	36.86	7.75	22.89	I	D	SP	P
KONO	50.714	14.94	7.63	22.51	E	D	LP	P
BEC	51.065	302.09	7.59	22.39	E	D	LP	P
SJG	51.074	283.72	7.59	22.39	I	D	LP	P
SJG	51.074	283.72	7.59	22.39	I	D	SP	P
KRI	51.296	122.94	7.54	22.23	I	D	SP	P
BUL	52.259	127.13	7.46	21.98	I	D	SP	P
MTD	52.900	121.68	7.42	21.86	I	D	SP	P
SWZ	54.105	136.38	7.34	21.61	I	D	SP	P
BFS	54.921	135.09	7.26	21.36	I	D	SP	P
SLR	55.256	132.96	7.22	21.24	I	D	SP	P
BPI	55.344	133.55	7.22	21.24	I	D	SP	P
PRY	55.417	134.64	7.22	21.24	I	C	SP	P
VIR	55.724	136.14	7.22	21.24	I	D	SP	P
BLF	55.937	137.54	7.19	21.15	I	D	SP	P
NUR	56.062	21.64	7.19	21.15	I	D	SP	P
EVA	56.289	133.18	7.15	21.03	I	D	SP	P
SEK	56.397	135.84	7.15	21.03	I	D	SP	P
BHD	56.828	58.00	7.11	20.90	I	C	SP	P
SUF	58.096	20.28	7.04	20.69	I	D	SP	P
GRM	58.977	140.99	6.96	20.44	I	D	SP	P
KJF	59.614	19.54	6.93	20.35	I	D	SP	P
SCH	59.631	327.48	6.93	20.35	I	C	SP	P
MNT	60.759	315.68	6.81	19.98	I	D	SP	P
LPB	60.884	243.46	6.81	19.98	E	D	LP	P
LPA	62.712	220.32	6.68	19.58	E	D	LP	P
GDH	62.734	345.06	6.68	19.58	I	D	LP	P
SCP	62.946	309.78	6.64	19.46	I	D	LP	P
KEV	63.224	14.68	6.64	19.46	I	D	SP	P
KEV	63.224	14.68	6.64	19.46	I	D	LP	P
UPA	64.853	274.42	6.48	18.98	I	C	SP	P
DAG	64.955	358.67	6.48	18.98	I	D	SP	P
ANT	65.886	237.26	6.40	18.73	E	D	LP	P
VBA	67.215	219.85	6.31	18.46	I	D	SP	P
RSCP	68.644	303.64	6.19	18.10	I	D	LP	P

Table 68. Station data for event 240 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MIH	69.433	55.62	6.11	17.85	I	D	SP	P
CHCH	70.832	227.67	6.00	17.52	I	D	SP	P
LNV	71.393	227.98	5.96	17.40	I	D	SP	P
LHC	71.759	317.16	5.93	17.31	I	D	SP	P
RSON	74.699	319.65	5.75	16.77	I	D	LP	P
RLO	76.282	304.53	5.62	16.38	I	D	SP	P
BHO	76.306	302.69	5.62	16.38	I	D	SP	P
TUL	76.924	304.32	5.59	16.29	I	D	LP	P
FFC	79.529	323.86	5.42	15.78	I	D	SP	P
RSSD	82.215	313.37	5.18	15.07	I	D	SP	P
RSNT	84.628	332.74	5.02	14.59	I	D	LP	P
NDI	85.048	61.87	4.99	14.50	I	D	SP	P
ALQ	85.678	304.63	4.96	14.41	I	D	SP	P
ANMO	85.677	304.63	4.96	14.41	I	D	LP	P
INK	89.562	341.20	4.72	13.70	I	D	SP	P
KKN	92.183	61.18	4.67	13.55	I	D	SP	P
JAS	95.742	310.51	4.56	13.23	I	D	LP	P
COL	96.127	342.11	4.55	13.20	E	D	LP	P
COL	96.127	342.11	4.55	13.20	E	C	LP	P
PRI	96.520	308.87	4.54	13.17	I	D	SP	P
SEO	118.439	35.09	1.88	5.40	E	D	LP	PKP
MAT	124.983	27.74	1.87	5.37	I	C	SP	PKP
BAG	126.627	59.17	1.86	5.36	E	C	LP	PKP
TRT	126.849	90.78	1.86	5.36	I	C	SP	PKP
DAV	135.182	67.19	1.82	5.24	E	D	LP	PKP
MTN	145.479	95.44	1.68	4.85	I	C	SP	PKP
ADE	145.893	136.98	1.66	4.79	I	D	SP	PKP
CTA	158.932	115.37	1.22	3.50	I	D	LP	PKP
HNR	173.147	69.96	0.44	1.26	E	D	LP	PKP

Figure 27. Azimuthal equidistant map for geographic sub division, South Atlantic Ocean.

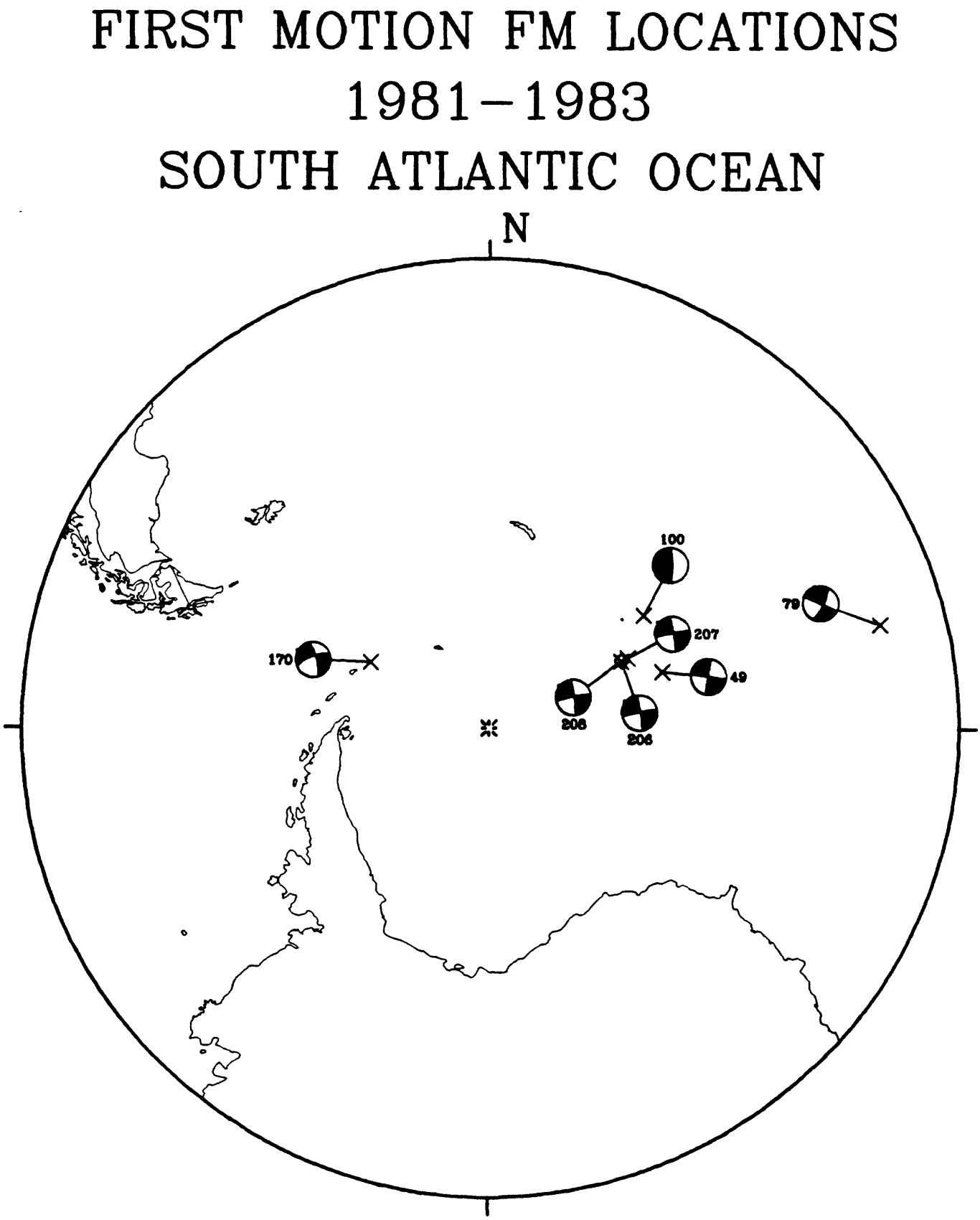

Table 69. Focal mechanism parameters for subdivision, South Atlantic Ocean.

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
49	188	88	180	98	90	-2	1	143	1	53	88	278
79	24	76	-180	114	90	14	10	340	10	248	76	114
100	0	81	90	180	9	90	54	270	36	90	0	180
170	250	75	-17	346	74	-164	1	297	23	207	67	30
206	350	85	-176	260	86	355	1	305	6	215	84	41
207	350	85	-176	260	86	355	1	3-5	6	215	84	41
208	350	85	-176	260	86	355	1	305	6	215	84	41

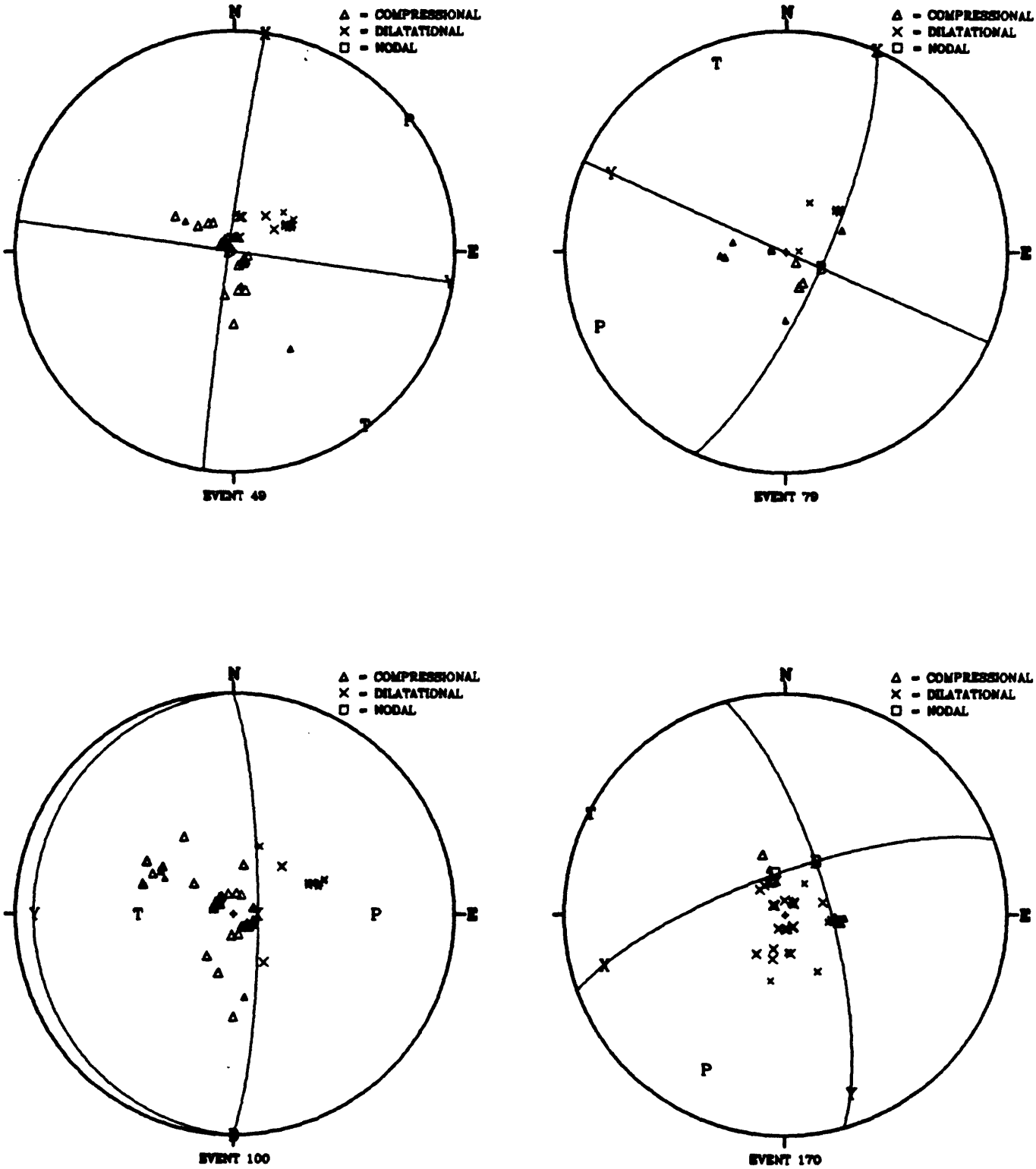

Figure 28. Lower hemisphere focal sphere projections for events 49, 79, 100, and 170.

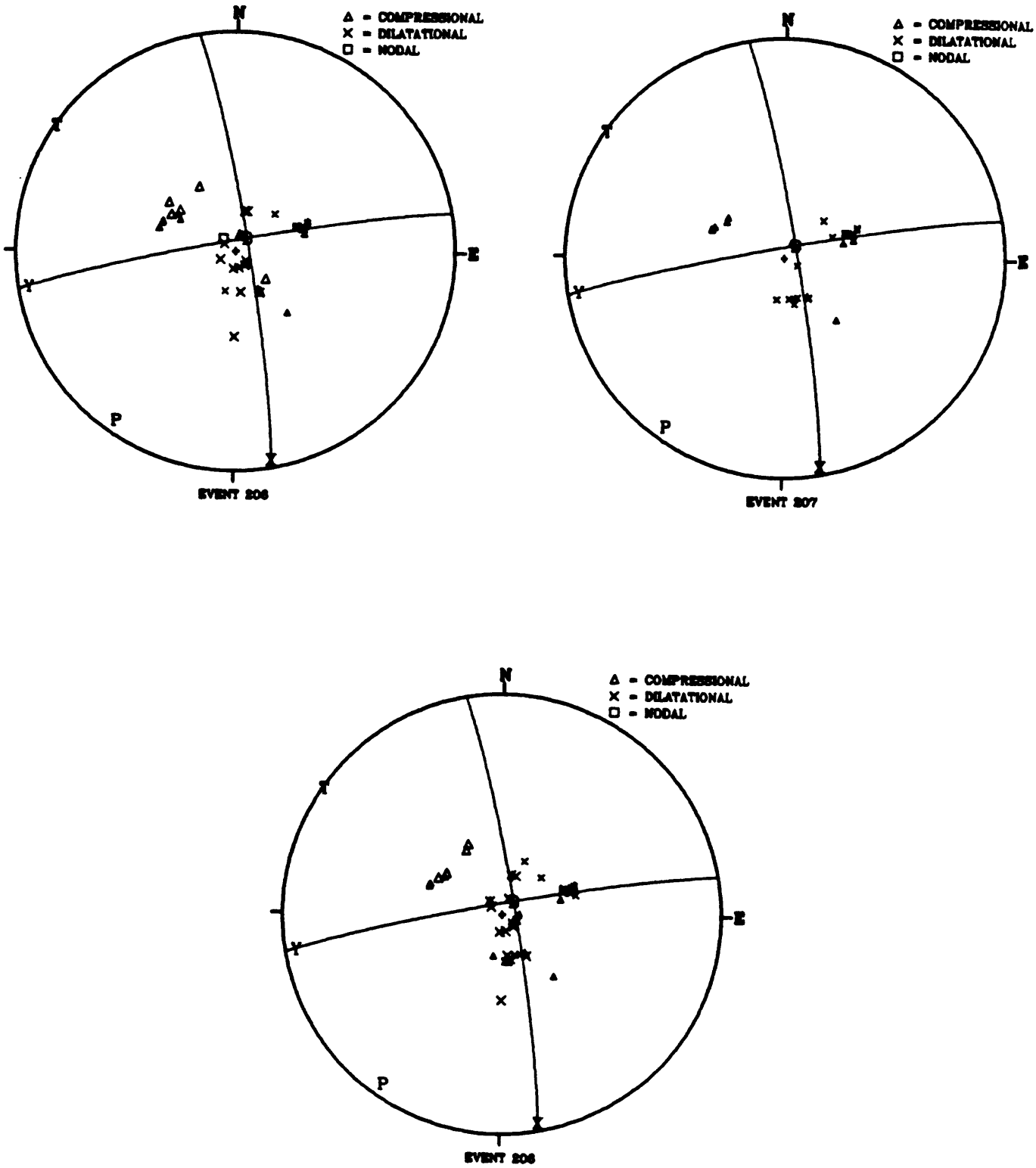

Figure 29. Lower hemisphere focal sphere projections for events 206, 207, and 208.

Table 70. Station data for event 49.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SNA	12.358	149.75	13.40	42.24	I	C	SP	P
SPA	29.573	180.00	8.98	26.78	I	C	LP	P
LPA	35.002	300.30	8.56	25.43	I	C	LP	P
CER	37.664	62.08	8.42	24.99	I	D	SP	P
PKR	42.937	65.53	8.11	24.01	I	D	SP	P
WIN	46.258	51.93	7.91	23.38	I	D	SP	P
BPI	47.699	66.30	7.85	23.19	I	D	SP	P
EVA	47.890	67.62	7.82	23.10	I	D	SP	P
BUL	53.208	63.13	7.42	21.86	I	D	LP	P
CIR	53.773	66.69	7.34	21.61	I	D	SP	P
LPB	55.429	301.24	7.22	21.24	I	C	SP	P
KRI	56.570	62.30	7.15	21.02	I	D	SP	P
MTD	57.481	64.27	7.08	20.81	I	D	SP	P
BCAO	71.736	41.81	5.96	17.40	I	D	LP	P
BNG	71.741	41.82	5.96	17.40	I	D	SP	P
NAI	73.561	61.75	5.82	16.98	E	D	LP	P
BOCO	76.947	305.01	5.59	16.29	I	C	LP	P
BOG	76.989	305.01	5.59	16.29	I	C	LP	P
SNZO	77.658	191.96	5.56	16.20	E	C	LP	P
ADE	83.325	163.24	5.09	14.80	I	C	LP	P
RIV	85.698	173.36	4.96	14.41	I	C	LP	P
SJG	86.467	317.39	4.87	14.14	E	C	LP	P
TEN	88.808	4.08	4.73	13.73	I	D	SP	P
MAL	97.905	13.29	4.51	13.08	I	D	LP	P
CTAO	98.935	167.77	4.48	12.99	I	C	SP	P
BEC	99.327	323.59	4.47	12.96	E	C	LP	P
TOL	101.062	13.12	4.45	12.90	I	D	LP	Pdf
PTO	101.869	9.44	4.45	12.90	I	D	LP	Pdf
SHA	106.105	304.21	1.89	5.44	E	C	LP	Pdf
WES	110.561	322.40	1.89	5.44	E	C	LP	Pdf
STJ	110.859	337.51	1.89	5.44	E	C	LP	Pdf
GRFO	112.940	22.01	1.89	5.43	I	D	LP	Pdf
TUL	113.799	301.05	1.88	5.42	I	C	LP	Pdf
ESK	116.407	11.17	1.88	5.41	E	C	LP	PKP
ANMO	117.686	292.33	1.88	5.40	I	C	LP	PKP
COP	118.891	20.81	1.88	5.40	I	D	LP	PKP
CHG	120.746	107.02	1.87	5.39	I	C	LP	PKP
DAV	120.984	140.23	1.87	5.39	I	C	LP	PKP
GOL	121.115	296.23	1.87	5.39	E	C	LP	PKP
KON	122.220	17.73	1.87	5.39	E	C	LP	PKP
BAG	127.926	130.70	1.86	5.35	I	C	LP	PKP
MSO	130.569	295.49	1.85	5.32	I	C	LP	PKP
GUMO	131.922	161.23	1.84	5.30	E	C	LP	PKP
TATO	136.043	127.02	1.81	5.22	I	C	LP	PKP
DAG	137.115	0.71	1.80	5.19	I	C	SP	PKP
SHK	148.820	134.75	1.59	4.57	E	C	LP	PKP
SEO	149.315	124.02	1.59	4.57	E	C	LP	PKP
COL	155.934	303.24	1.35	3.88	E	C	LP	PKP

Table 71. Station data for event 79.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KSR	35.642	51.41	8.53	25.34	I	D	SP	P
BPI	35.916	53.17	8.51	25.27	I	C	SP	P
SPA	36.738	180.00	8.48	25.18	I	C	SP	P
BUL	41.366	49.04	8.19	24.26	I	D	SP	P
CIR	41.997	53.31	8.16	24.17	I	D	SP	P
VBA	42.393	266.88	8.13	24.07	E	C	SP	P
MTD	45.653	50.29	7.97	23.57	I	D	SP	P
FCH	50.559	265.32	7.63	22.51	I	C	SP	P
BACH	50.661	265.15	7.63	22.51	I	C	SP	P
PEL	50.923	265.19	7.59	22.38	I	C	SP	P
AVY	52.188	69.04	7.50	22.10	E	C	SP	P
BNG	60.569	25.41	6.85	20.10	I	D	SP	P
LPB	61.809	280.47	6.73	19.73	I	C	SP	P
RIV	90.338	159.10	4.70	13.64	E	C	LP	P
CTA	102.237	150.99	4.45	12.90	E	C	LP	Pdf
ANMO	124.566	283.56	1.87	5.37	I	C	SP	PKP
GUMO	133.007	135.73	1.84	5.29	E	C	LP	PKP
FRI	133.775	275.93	1.83	5.26	E	C	SP	PKP
JAS	134.843	276.39	1.82	5.24	E	C	SP	PKP
WDC	137.784	277.78	1.79	5.16	E	C	SP	PKP
CN2	145.565	85.13	1.66	4.79	I	D	SP	PKP

Table 72. Station data for event 100.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPA	32.137	301.18	8.74	38.27	I	C	LP	P
SPA	32.212	180.00	8.74	38.27	I	C	LP	P
BAA	32.653	300.81	8.71	38.11	I	C	LP	P
CER	38.178	69.05	8.37	36.38	I	D	SP	P
FCH	39.397	288.45	8.29	35.97	I	C	SP	P
SUR	39.723	69.76	8.29	35.97	I	D	SP	P
PEL	39.743	288.21	8.29	35.97	I	C	LP	P
PEL	39.743	288.21	8.29	35.97	I	C	SP	P
BDF	45.767	327.45	7.93	34.19	I	C	LP	P
SWZ	46.217	70.08	7.93	34.19	I	D	SP	P
ANT	47.393	296.17	7.84	33.75	I	C	LP	P
KSR	48.092	70.67	7.81	33.60	I	D	SP	P
BPI	48.409	72.03	7.77	33.41	I	D	SP	P
SLR	48.898	71.95	7.73	33.21	I	D	SP	P
LPB	52.529	303.25	7.45	31.86	I	C	SP	P
LPB	52.529	303.25	7.45	31.86	I	C	LP	P
ZOBO	52.773	303.37	7.41	31.67	I	C	LP	P
ZOBO	52.773	303.37	7.41	31.67	I	C	SP	P
BUL	53.733	68.40	7.37	31.48	I	D	SP	P
ARE	54.134	299.72	7.33	31.29	I	C	SP	P
DRV	55.141	172.46	7.25	30.91	I	C	SP	P
KRI	57.042	67.30	7.10	30.21	I	D	SP	P
MTD	58.059	69.18	7.03	29.88	I	D	SP	P
NNA	60.537	296.88	6.83	28.94	I	C	SP	P
KIC	66.039	21.37	6.38	26.88	I	D	SP	P
BNG	71.057	45.81	5.99	25.12	I	D	SP	P
BCAO	71.051	45.80	5.99	25.12	I	D	SP	P
BCAO	71.051	45.80	5.99	25.12	I	D	LP	P
SNZO	79.825	194.44	5.35	22.28	E	C	LP	P
MUN	84.480	147.12	5.02	20.84	E	D	LP	P
PTO	99.603	11.97	4.46	18.42	E	C	LP	P
SHA	103.131	307.45	4.45	18.38	E	C	LP	Pdf
AFI	103.552	212.49	4.45	18.38	E	C	LP	Pdf
WES	107.391	325.39	1.89	7.70	E	C	LP	Pdf
SCP	108.069	320.02	1.89	7.70	E	C	LP	Pdf
JCT	108.159	298.40	1.89	7.70	E	C	LP	Pdf
STU	109.897	22.86	1.89	7.70	E	C	LP	Pdf
VAL	110.138	9.22	1.89	7.70	E	C	LP	Pdf
TUL	110.888	304.52	1.89	7.70	E	C	LP	Pdf
EPT	112.433	294.08	1.89	7.70	E	C	LP	PKP
HNR	112.754	184.56	1.89	7.68	E	C	LP	PKP
SNG	114.068	117.00	1.88	7.67	E	C	LP	PKP
GOL	118.316	300.03	1.88	7.64	E	C	LP	PKP
KBL	120.213	72.49	1.87	7.63	E	C	LP	PKP
CHG	123.235	108.73	1.87	7.61	E	C	LP	PKP
BKS	125.126	286.59	1.87	7.60	E	C	LP	PKP
GDH	128.659	347.12	1.86	7.55	I	C	LP	PKP
GUMO	134.958	165.05	1.82	7.41	E	C	LP	PKP
TATO	139.056	128.88	1.78	7.25	E	C	LP	PKP
SHK	151.940	136.68	1.50	6.09	E	C	LP	PKP

Table 72. Station data for event 100 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SEO	152.262	124.86	1.50	6.09	E	C	LP	PKP
COL	152.959	308.50	1.46	5.95	E	C	LP	PKP
MAJO	155.645	144.08	1.35	5.48	E	C	LP	PKP

Table 73. Station data for event 170.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SBA	39.393	192.33	8.30	24.61	I	D	SP	P
MAW	43.632	150.02	8.08	23.91	I	D	SP	P
ZOBO	45.867	339.59	7.94	23.48	I	C	LP	P
TUH	52.990	93.12	7.42	21.86	I	C	SP	P
SUR	54.546	93.88	7.30	21.48	I	C	SP	P
GRM	56.583	99.33	7.15	21.02	I	C	SP	P
SEK	61.203	96.93	6.81	19.98	I	C	SP	P
PRY	62.292	95.94	6.69	19.61	I	C	SP	P
EVA	63.424	97.04	6.60	19.34	I	C	SP	P
SLR	63.683	95.90	6.60	19.34	E	N	LP	P
JOZ	64.089	100.11	6.56	19.22	I	C	SP	P
CNG	65.109	99.52	6.48	18.97	I	D	SP	P
BUL	68.567	92.96	6.19	18.09	I	C	LP	P
SDV	70.926	341.56	6.00	17.52	I	C	SP	P
WEL	70.997	216.19	6.00	17.52	I	D	SP	P
SNZO	70.993	216.13	6.00	17.52	I	D	LP	P
TET	74.399	95.09	5.75	16.77	I	D	SP	P
TAU	75.243	195.31	5.72	16.68	I	D	LP	P
NPA	78.063	99.41	5.52	16.08	I	D	SP	P
SJG	79.425	347.30	5.42	15.78	E	N	LP	P
BCAO	84.991	71.71	4.99	14.50	I	D	LP	P
BNG	84.997	71.71	4.99	14.50	I	D	SP	P
NWAO	86.192	171.80	4.91	14.26	I	D	LP	P
KLG	88.558	175.25	4.75	13.79	I	D	SP	P
TEN	93.932	31.89	4.62	13.40	I	D	SP	P
CTAO	97.825	198.25	4.51	13.08	I	D	LP	P
CTA	97.825	198.25	4.51	13.08	I	D	LP	P
RSCP	99.759	333.57	4.47	12.96	I	D	LP	P
BLA	100.283	338.07	4.45	12.90	I	N	LP	Pdf
EPT	102.070	315.57	4.45	12.90	E	D	LP	Pdf
TUL	102.581	325.61	4.45	12.90	I	D	LP	Pdf
SCP	103.336	340.86	4.45	12.90	E	N	LP	Pdf
WES	103.988	346.13	4.45	12.90	E	D	LP	Pdf
MAL	105.039	38.62	1.89	5.44	I	D	LP	Pdf
PTO	107.922	33.75	1.89	5.44	I	D	LP	Pdf
TOL	108.056	37.63	1.89	5.44	I	D	LP	Pdf
COR	119.488	309.39	1.88	5.40	I	D	LP	PKP
ESK	122.360	31.13	1.87	5.39	E	C	LP	PKP
SNG	122.892	148.35	1.87	5.38	E	D	LP	PKP
DAV	126.309	178.27	1.86	5.37	I	D	LP	PKP
COP	127.139	40.26	1.86	5.36	E	D	LP	PKP
GDH	129.840	359.76	1.85	5.33	I	D	SP	PKP
GDH	129.840	359.76	1.85	5.33	E	D	LP	PKP
GUA	130.951	203.36	1.85	5.32	E	D	LP	PKP
CHG	133.509	142.13	1.83	5.26	E	D	LP	PKP
BAG	135.344	171.24	1.82	5.24	I	D	LP	PKP
KMI	140.579	144.12	1.75	5.05	E	D	LP	PKP
COL	143.731	314.06	1.70	4.90	I	C	SP	PKP
COL	143.731	314.06	1.70	4.90	I	D	LP	PKP

Table 74. Station data for event 206.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SPA	29.504	180.00	8.97	31.76	I	D	LP	P
LPA	33.153	306.19	8.68	30.62	I	C	LP	P
MAW	35.964	139.28	8.50	29.92	I	C	SP	P
CON	38.198	286.64	8.38	29.45	I	C	SP	P
CHCH	39.461	291.82	8.30	29.14	I	C	SP	P
CER	39.730	67.19	8.30	29.14	I	C	SP	P
LNV	39.790	290.98	8.27	29.03	I	C	SP	P
PEL	40.136	292.46	8.27	29.03	I	C	SP	P
SUR	41.245	68.03	8.21	28.80	I	D	SP	P
BDF	47.782	330.21	7.82	27.31	I	C	LP	P
ANT	48.142	299.58	7.82	27.31	I	C	LP	P
KSR	49.562	69.59	7.70	26.86	I	D	SP	P
BPI	49.823	70.95	7.66	26.71	I	D	SP	P
EVA	50.031	72.22	7.66	26.71	I	D	SP	P
SLR	50.315	70.91	7.62	26.56	I	D	SP	P
SLR	50.315	70.91	7.62	26.56	I	D	LP	P
JOZ	50.659	75.82	7.62	26.56	I	C	SP	P
CNG	51.683	75.14	7.54	26.26	I	D	SP	P
ZOBO	53.839	306.26	7.34	25.51	I	C	LP	P
ARE	55.033	302.56	7.26	25.21	I	C	SP	P
BUL	55.287	67.74	7.22	25.06	I	D	SP	P
KRI	58.636	66.86	7.00	24.25	I	D	SP	P
MTD	59.576	68.76	6.92	23.96	I	D	SP	P
NNA	61.297	299.34	6.76	23.37	I	C	SP	P
BNG	73.358	46.29	5.82	19.97	I	D	SP	P
NWAO	81.874	149.00	5.18	17.69	E	D	LP	P
MUN	82.511	147.88	5.14	17.55	E	C	LP	P
MEK	88.222	148.23	4.77	16.25	I	C	SP	P
SFS	98.051	15.57	4.51	15.35	I	D	SP	P
MAL	98.559	16.96	4.49	15.28	I	D	LP	P
CTAO	99.262	172.10	4.47	15.21	I	D	LP	Pdf
PVC	101.091	193.36	4.45	15.14	I	D	SP	Pdf
PTO	102.373	12.95	4.45	15.14	I	D	SP	Pdf
PTO	102.373	12.95	4.45	15.14	I	D	LP	Pdf
LEM	103.368	131.79	4.45	15.14	E	C	LP	Pdf
BLA	107.357	316.77	1.89	6.37	E	N	LP	Pdf
HNR	110.004	185.67	1.89	6.37	I	D	LP	Pdf
STU	112.614	24.05	1.89	6.36	I	D	LP	PKP
ESK	116.966	14.05	1.88	6.33	E	C	LP	PKP
COP	119.807	23.63	1.87	6.31	E	D	LP	PKP
DAV	122.294	145.34	1.87	6.30	E	D	LP	PKP
HON	128.691	241.63	1.86	6.25	E	D	LP	PKP
BAG	129.520	135.96	1.85	6.24	I	D	LP	PKP
GUA	132.426	167.26	1.84	6.20	I	D	LP	PKP
KEV	135.349	23.13	1.82	6.13	I	C	LP	PKP
SEO	151.069	130.48	1.53	5.15	I	D	LP	PKP
COL	154.099	304.40	1.43	4.80	I	D	LP	PKP

Table 75. Station data for event 207.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MAW	35.973	139.31	8.50	29.96	I	C	SP	P
TUH	39.350	66.62	8.29	29.15	I	D	SP	P
CER	39.361	66.83	8.29	29.15	I	D	SP	P
CHCH	39.635	290.89	8.29	29.15	I	C	SP	P
PCH	39.830	291.31	8.27	29.07	I	C	SP	P
TACH	40.000	290.83	8.27	29.07	I	C	SP	P
PEL	40.306	291.54	8.24	28.96	I	C	SP	P
SUR	40.878	67.67	8.21	28.84	I	D	SP	P
TLL	42.863	293.81	8.10	28.42	I	C	SP	P
KSR	49.199	69.21	7.74	27.05	I	D	SP	P
BPI	49.463	70.57	7.70	26.90	I	D	SP	P
SLR	49.955	70.52	7.66	26.75	I	D	SP	P
CNG	51.335	74.77	7.54	26.30	I	C	SP	P
LPB	53.673	305.36	7.38	25.70	I	C	SP	P
BUL	54.919	67.33	7.26	25.25	I	D	SP	P
ARE	55.139	301.79	7.26	25.25	I	C	SP	P
KRI	58.266	66.42	7.00	24.29	I	D	SP	P
MTD	59.211	68.33	6.96	24.14	I	D	SP	P
NPA	64.289	74.71	6.51	22.49	I	C	SP	P
BNG	72.967	45.78	5.85	20.11	I	D	SP	P
NAI	75.243	65.51	5.71	19.60	I	D	SP	P
KLB	83.351	148.56	5.08	17.37	I	D	SP	P
BAL	84.009	147.40	5.05	17.26	I	D	SP	P
ADE	84.027	166.50	5.05	17.26	I	D	SP	P
MEK	88.291	147.73	4.75	16.21	I	C	SP	P
WB2	98.185	160.29	4.51	15.37	I	D	SP	P
ISQ	98.192	165.28	4.51	15.37	I	D	SP	P
KOU	98.991	188.67	4.48	15.26	I	D	SP	P
CTA	99.480	171.54	4.47	15.23	I	D	SP	P
BRG	115.240	26.04	1.88	6.35	I	C	SP	PKP
TIA	145.779	117.67	1.66	5.61	I	D	SP	PKP

Table 76. Station data for event 208.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SPA	29.549	180.00	8.97	31.81	E	D	LP	P
MAW	35.979	139.30	8.50	29.96	I	C	SP	P
CHCH	39.471	291.71	8.29	29.15	I	C	SP	P
TUH	39.675	66.96	8.29	29.15	I	C	SP	P
CER	39.686	67.17	8.29	29.15	I	C	SP	P
RDJ	39.699	333.76	8.29	29.15	I	C	LP	P
LNV	39.801	290.87	8.27	29.07	I	C	SP	P
FCH	39.811	292.62	8.27	29.07	I	C	SP	P
SUR	41.201	68.01	8.21	28.84	I	D	SP	P
GRM	43.119	74.79	8.10	28.42	I	D	SP	P
BLF	46.436	71.12	7.91	27.70	I	D	SP	P
VIR	47.620	71.07	7.85	27.47	I	D	SP	P
BDF	47.757	330.12	7.81	27.32	I	C	LP	P
SEK	47.771	72.01	7.81	27.32	I	D	SP	P
ANT	48.145	299.48	7.81	27.32	I	C	LP	P
BPI	49.781	70.93	7.66	26.75	I	D	SP	P
EVA	49.990	72.20	7.66	26.75	I	D	SP	P
SLR	50.273	70.88	7.62	26.60	I	D	LP	P
SLR	50.273	70.88	7.62	26.60	I	D	SP	P
LPB	53.587	306.06	7.38	25.70	I	C	LP	P
ZOBO	53.836	306.17	7.34	25.55	I	C	LP	P
ARE	55.034	302.47	7.26	25.25	I	C	SP	P
BUL	55.243	67.71	7.26	25.25	I	D	LP	P
KRI	58.591	66.82	7.00	24.29	I	D	SP	P
MTD	59.533	68.73	6.92	23.99	I	D	SP	P
NPA	64.597	75.10	6.51	22.49	I	C	SP	P
KIC	68.718	22.10	6.18	21.29	I	D	SP	P
BNG	73.306	46.24	5.82	20.00	I	D	SP	P
TOO	81.883	172.69	5.18	17.72	I	D	SP	P
NWAO	81.898	148.96	5.18	17.72	E	D	LP	P
BFD	82.061	170.30	5.18	17.72	I	D	SP	P
MUN	82.534	147.83	5.14	17.58	I	D	SP	P
WAM	83.430	175.34	5.08	17.37	I	D	SP	P
ADE	83.876	166.92	5.05	17.26	I	D	SP	P
BAL	83.966	147.82	5.05	17.26	I	C	SP	P
CAN	84.304	175.39	5.02	17.16	I	D	SP	P
STK	87.227	168.94	4.83	16.49	I	D	SP	P
MEK	88.245	148.18	4.77	16.28	I	C	SP	P
WBN	90.584	155.01	4.70	16.03	I	D	SP	P
ASPA	94.347	161.03	4.60	15.68	I	D	SP	P
NOU	96.817	191.03	4.53	15.44	I	C	SP	P
CTAO	99.303	172.05	4.47	15.23	I	D	LP	P
CTA	99.303	172.05	4.47	15.23	I	D	LP	P
ALI	100.709	19.69	4.45	15.16	I	D	LP	Pdf
PTO	102.323	12.91	4.45	15.16	I	D	LP	Pdf
BLA	107.344	316.73	1.89	6.38	E	C	LP	Pdf
HNR	110.052	185.61	1.89	6.38	I	D	LP	Pdf
POO	110.484	88.58	1.89	6.38	I	C	SP	PKP
STU	112.561	24.00	1.89	6.37	E	D	LP	PKP
JOS	114.919	31.81	1.88	6.35	I	C	SP	PKP

Table 76. Station data for event 208 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COP	119.754	23.59	1.87	6.32	E	D	LP	PKP
MUD	119.873	21.30	1.87	6.32	I	D	SP	PKP
CHG	122.842	111.41	1.87	6.31	I	D	SP	PKP
BAG	129.532	135.86	1.85	6.24	I	D	LP	PKP
GUA	132.464	167.17	1.84	6.21	E	D	LP	PKP
TIY	145.057	111.61	1.68	5.68	I	D	SP	PKP
TIA	145.907	118.59	1.66	5.61	I	D	SP	PKP
HHC	147.160	107.27	1.64	5.53	I	D	SP	PKP
SEO	151.076	130.33	1.53	5.15	I	D	LP	PKP
COL	154.097	304.46	1.43	4.81	I	D	LP	PKP
MDJ	158.135	125.81	1.26	4.25	I	D	SP	PKP

Figure 30. Azimuthal equidistant map for geographic subdivision, Greece-Turkey.

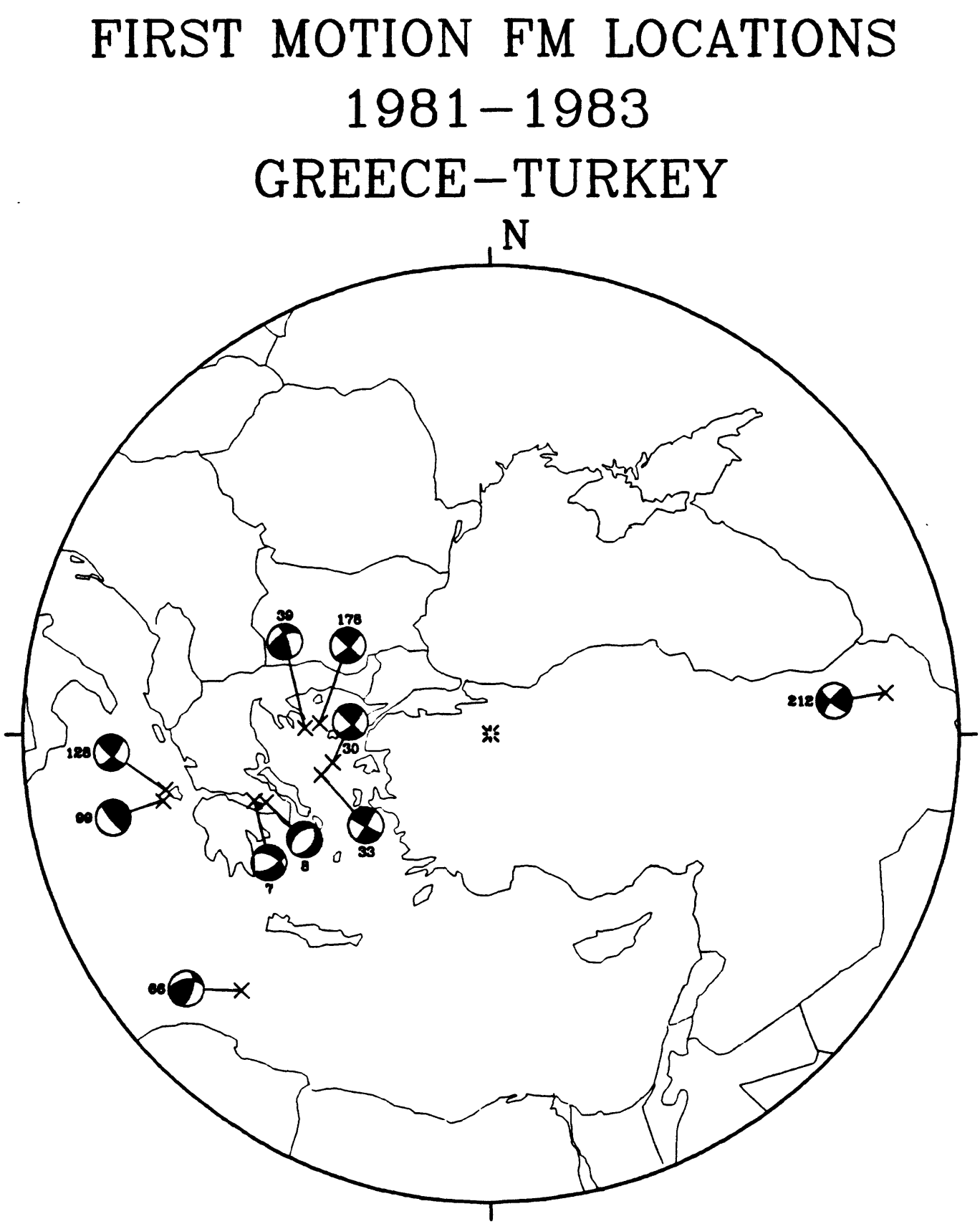

Table 77. Focal mechanism parameters for subdivision, Greece-Turkey.

EVENT#	NODAL PLANE 1 (DEG.)			NODAL PLANE 2 (DEG.)			T AXIS (DEG.)		P AXIS (DEG.)		B AXIS (DEG.)	
	ϑ	δ	λ	ϑ	δ	λ	PLG	AZM	PLG	AZM	PLG	AZM
007	300	50	-40	58	61	-132	8	177	53	275	36	83
008	232	45	-75	31	47	-105	1	132	79	227	11	41
030	135	88	18	44	72	178	14	1	11	268	72	141
033	120	86	3	30	87	176	5	345	1	75	85	173
039	340	77	33	242	58	165	32	205	12	107	55	359
066	260	50	142	17	62	47	52	235	7	136	37	41
099	140	80	90	320	10	90	55	50	35	230	0	140
128	133	78	17	39	73	167	20	357	3	266	69	167
178	315	90	-10	45	80	180	7	0	7	270	80	135
212	220	77	13	127	77	167	18	83	0	174	72	264

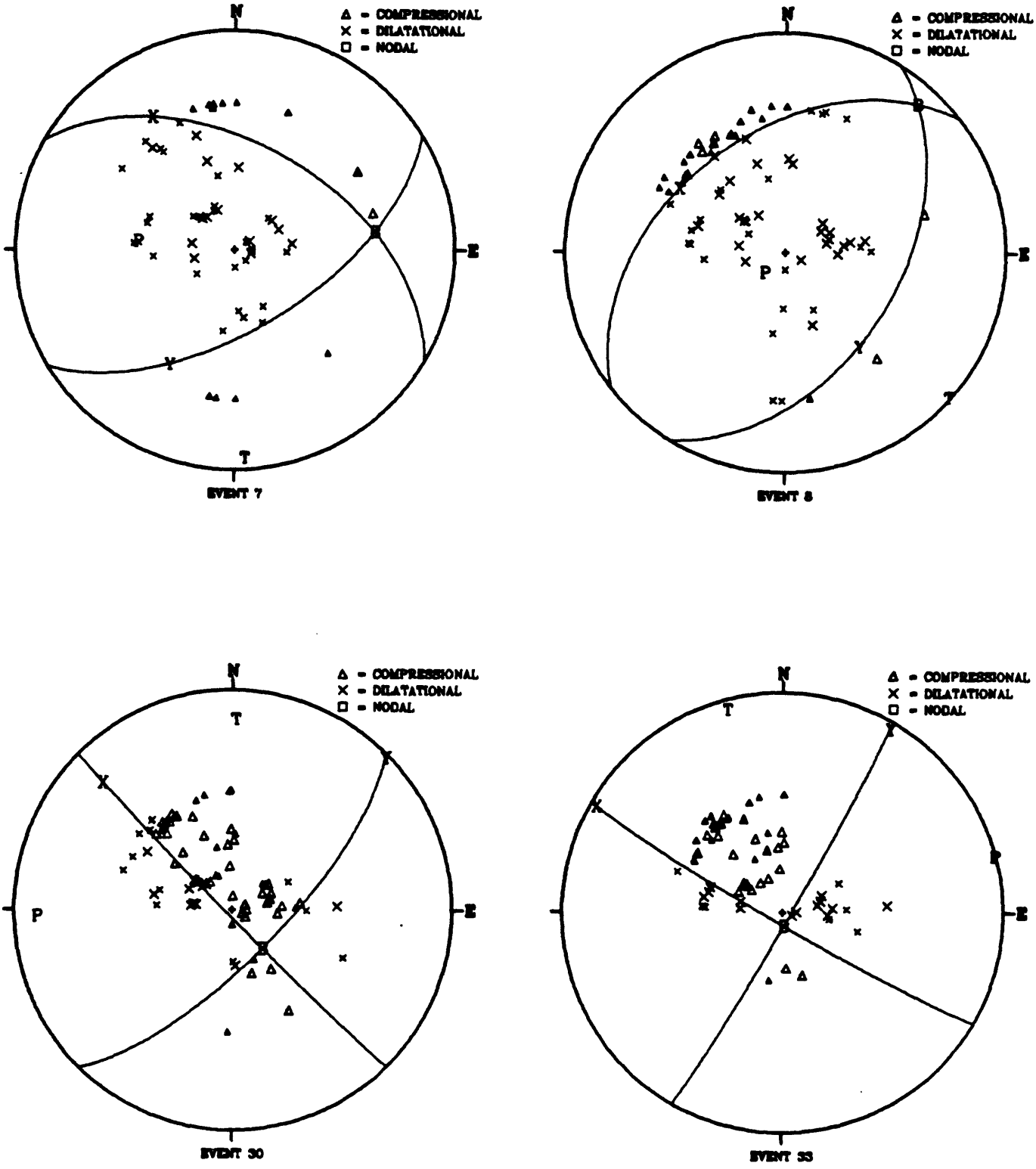

Figure 31. Lower hemisphere focal sphere projections for events 7, 8, 30, and 33.

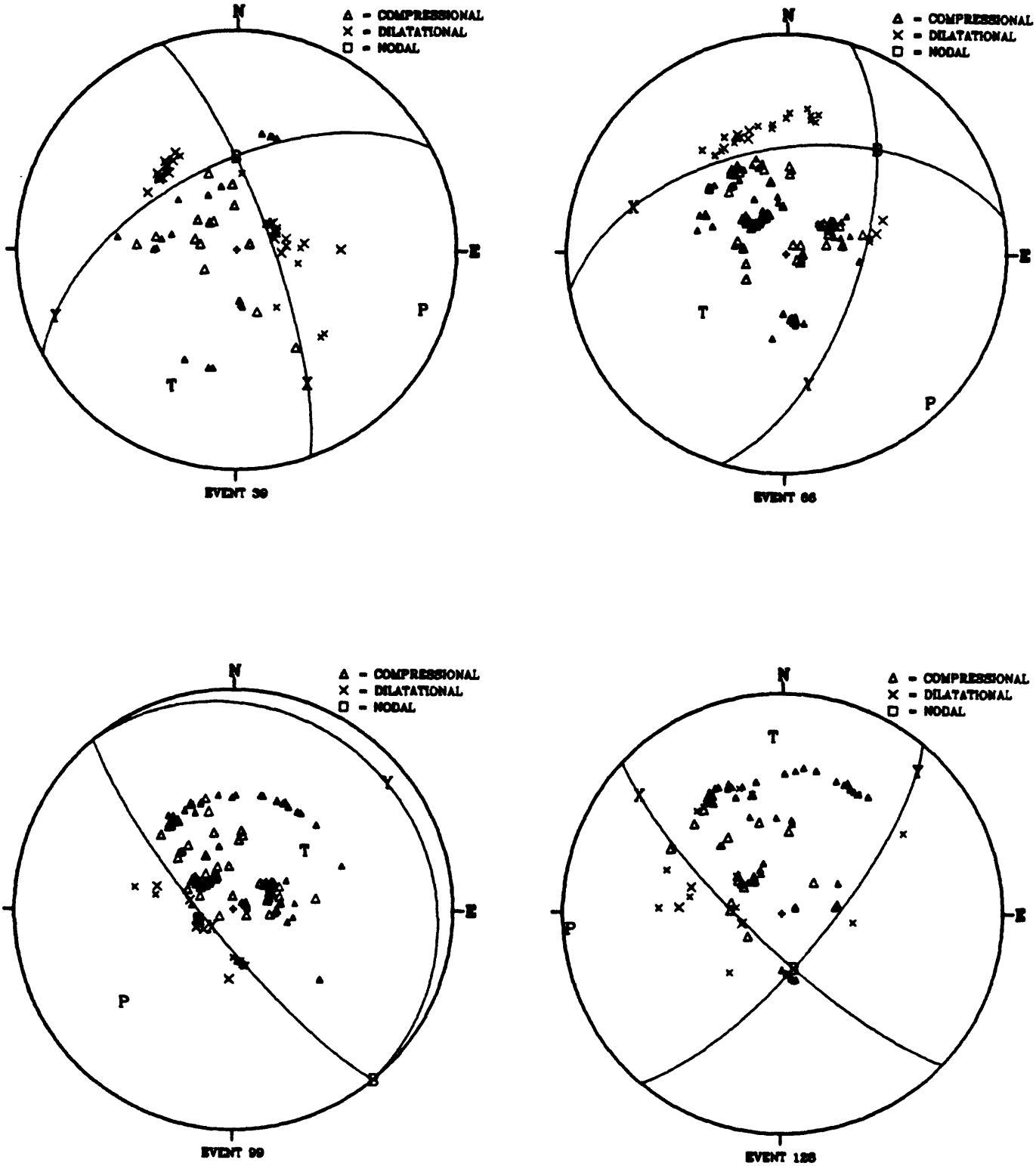

Figure 32. Lower hemisphere focal sphere projections for events 39, 66, 99, and 128.

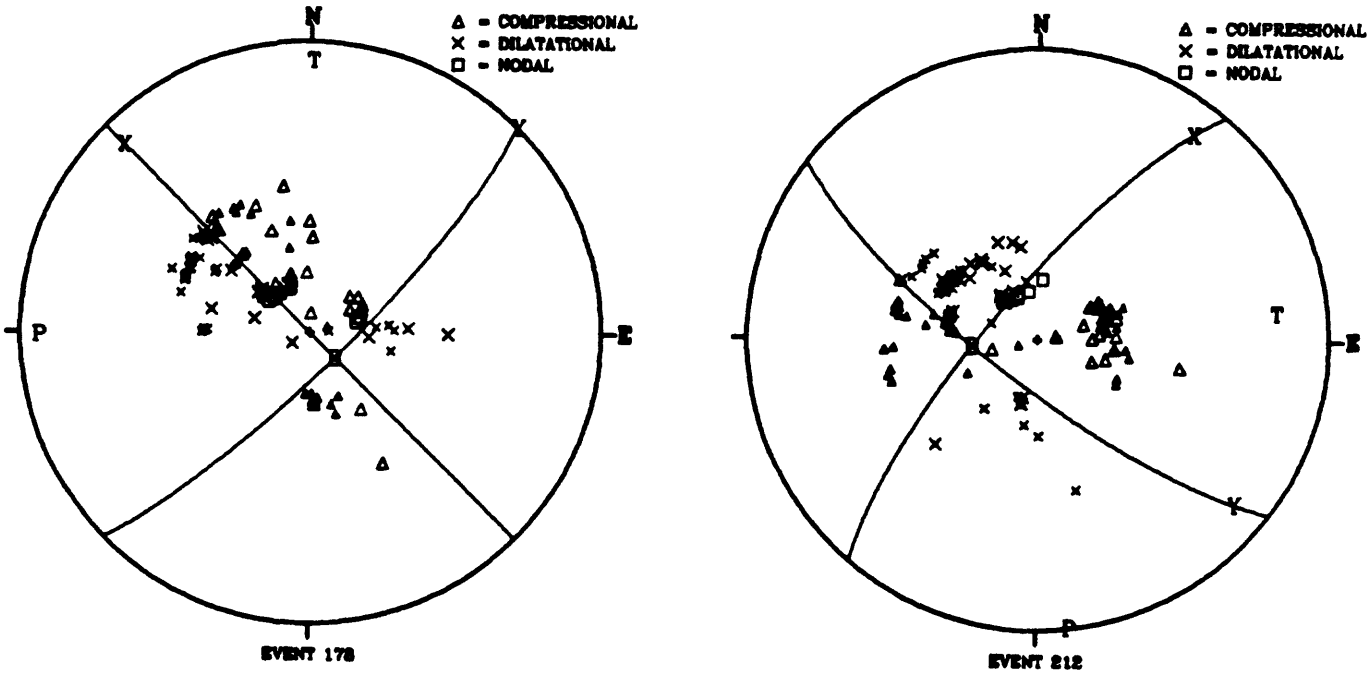

Figure 33. Lower hemisphere focal sphere projections for events 178 and 212.

Table 78. Station data for event 7.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LIT	1.908	349.71	14.26	56.92	I	C	SP	P
OUR	2.261	20.76	14.26	56.92	I	C	SP	P
THE	2.407	0.56	14.25	56.86	I	C	SP	P
SOH	2.616	7.00	14.25	123.14	I	C	SP	P
GRG	2.762	351.60	14.24	56.80	I	C	SP	P
SRS	2.936	9.76	14.24	123.20	I	C	SP	P
KNT	2.936	359.47	14.24	123.20	I	C	SP	P
VAY	3.108	354.94	14.23	56.74	I	C	SP	P
SKO	3.917	343.46	14.20	56.55	I	C	SP	P
IST	5.463	57.04	14.11	56.01	I	C	SP	P
IST	5.463	57.04	14.11	56.01	I	C	LP	P
TIM	7.616	350.91	13.96	55.11	I	C	SP	P
ANTO	7.848	74.84	13.91	54.82	I	C	LP	P
TRI	10.123	320.55	13.70	53.61	I	D	SP	P
FIR	10.422	305.85	13.64	53.27	I	D	SP	P
HLW	10.868	137.65	13.57	52.88	I	C	SP	P
VKA	11.132	336.50	13.57	52.88	I	D	SP	P
STU	14.489	321.09	13.04	50.02	E	D	LP	P
BNS	16.931	323.86	12.58	47.66	I	D	SP	P
DBN	18.621	323.90	12.27	46.14	I	D	SP	P
COP	18.843	341.36	12.17	45.65	E	D	LP	P
ALM	20.171	273.97	10.44	37.84	I	D	SP	P
MAL	21.730	274.54	10.05	36.20	I	D	SP	P
KON	23.078	342.61	9.76	34.99	I	D	LP	P
STS	24.293	291.07	9.53	34.05	I	D	SP	P
PTO	24.379	286.83	9.53	34.05	I	D	SP	P
KEV	31.672	2.70	8.79	31.10	I	D	LP	P
BNG	33.863	187.87	8.62	30.43	I	D	SP	P
TEN	33.934	265.16	8.62	30.43	I	D	SP	P
NAI	41.329	158.72	8.18	28.73	I	D	SP	P
DAG	42.695	346.94	8.13	28.54	I	D	SP	P
KRI	55.108	172.19	7.26	25.25	I	D	SP	P
AVY	61.420	153.12	6.76	23.40	I	D	SP	P
KSR	63.848	176.02	6.56	22.67	I	D	SP	P
CHG	67.801	83.09	6.22	21.44	I	D	LP	P
MRG	75.187	308.86	5.71	19.60	I	D	SP	P
SNG	75.925	91.93	5.64	19.35	I	D	SP	P
ANP	81.132	65.06	5.26	18.00	I	D	LP	P
EDM	81.382	335.14	5.22	17.86	I	D	SP	P
FVM	82.489	312.97	5.14	17.58	I	D	SP	P
SHK	82.651	51.58	5.14	17.58	E	D	LP	P
MAT	84.588	47.02	5.02	17.16	I	D	SP	P
RLO	86.383	314.26	4.86	16.59	I	D	SP	P
RDJ	86.827	237.65	4.83	16.49	I	D	SP	P
MSO	86.957	331.96	4.83	16.49	I	D	SP	P
TUL	86.999	314.53	4.83	16.49	I	D	LP	P
COR	92.121	336.58	4.67	15.93	E	D	LP	P
COR	92.121	336.58	4.67	15.93	I	D	SP	P
BOG	92.657	277.93	4.66	15.89	I	D	LP	P
ANMO	93.406	320.50	4.63	15.79	I	D	LP	P

Table 78. Station data for event 7 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPB	100.825	257.53	4.45	15.16	I	D	LP	Pdf
GUMO	105.148	58.75	1.89	6.38	I	D	LP	Pdf
WRA	118.642	93.63	1.88	6.33	I	D	SP	PKP
SPA	128.030	180.00	1.86	6.27	I	D	SP	PKP
CTA	128.099	86.42	1.86	6.27	I	D	SP	PKP
RIV	138.337	100.32	1.79	6.05	E	D	LP	PKP
MCQ	146.207	133.25	1.66	5.61	I	D	SP	PKP
VUN	150.637	53.51	1.53	5.15	I	D	SP	PKP

Table 79. Station data for event 8.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
THE	2.433	354.20	14.25	56.80	I	C	SP	PN
SOH	2.610	1.10	14.25	123.20	I	D	SP	PN
GRG	2.828	346.26	14.24	56.74	I	C	SP	PN
SRS	2.914	4.53	14.24	123.26	I	D	SP	PN
VAY	3.157	350.13	14.23	123.32	I	C	SP	PN
KDZ	3.777	24.17	14.21	56.56	I	D	SP	P
SOF	4.471	0.44	14.18	56.38	I	C	SP	P
PVL	5.136	15.59	14.15	56.19	I	D	SP	P
CMP	7.174	9.95	14.01	55.36	I	D	SP	P
MLR	7.541	14.38	13.96	55.06	I	D	SP	P
ANTO	7.583	74.42	13.96	55.06	I	C	LP	P
AQU	8.614	301.82	13.87	54.54	I	C	SP	P
RMP	8.883	297.20	13.82	54.25	I	C	SP	P
CEY	10.001	321.59	13.70	53.56	I	C	LP	P
SRO	10.264	340.85	13.64	53.22	I	C	SP	P
HLW	10.672	138.91	13.64	53.22	I	C	LP	P
CTI	11.654	315.92	13.51	52.50	I	C	SP	P
KMR	11.890	328.79	13.44	52.11	I	C	LP	P
SAL	12.034	311.94	13.44	52.11	I	C	SP	P
KRA	12.084	349.64	13.44	52.11	I	C	SP	P
BRG	14.291	335.37	13.05	50.03	I	C	SP	P
GRF	14.375	326.85	13.05	50.03	I	C	SP	P
GRFO	14.378	326.84	13.05	50.03	I	C	LP	P
ROG	14.637	297.61	13.05	50.03	I	C	SP	P
STU	14.675	320.51	13.05	50.03	I	C	LP	P
CLL	14.977	334.30	12.96	49.56	I	C	SP	P
BRN	15.857	336.89	12.78	48.63	I	C	SP	P
LBF	16.673	307.89	12.68	48.13	I	C	SP	P
LOR	16.866	308.66	12.59	47.67	I	C	LP	P
LOR	16.866	308.66	12.59	47.67	I	C	SP	P
SSF	16.998	307.67	12.59	47.67	I	C	SP	P
BNS	17.107	323.37	12.59	47.67	I	C	SP	P
MZF	17.267	304.19	12.49	47.18	I	C	SP	P
MLS	17.508	292.73	12.49	47.18	I	D	SP	P
DBN	18.797	323.48	12.17	45.62	I	D	LP	P
COP	18.946	340.82	12.17	45.62	I	D	LP	P
TOL	21.272	283.07	10.06	36.21	I	D	SP	P
CRT	21.278	275.60	10.06	36.21	I	D	SP	P
MAL	22.009	274.73	9.95	35.75	I	D	SP	P
NUR	22.339	1.78	9.85	35.34	I	D	LP	P
KONO	23.175	342.22	9.76	34.97	E	D	LP	P
STS	24.558	291.09	9.54	34.07	I	D	SP	P
PTO	24.650	286.90	9.54	34.07	I	D	LP	P
ESK	24.712	322.41	9.54	34.07	I	D	LP	P
ECB	25.230	313.87	9.47	33.79	I	D	SP	P
KJF	26.161	4.39	9.38	33.42	I	D	LP	P
KJF	26.161	4.39	9.38	33.42	I	D	LP	P
VAL	27.096	311.33	9.28	33.02	E	D	LP	P
TGI	29.544	89.17	8.97	31.79	I	D	SP	P
BNG	33.889	188.50	8.62	30.41	I	D	SP	P

Table 79. Station data for event 8 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TEN	34.211	265.43	8.62	30.41	I	D	SP	P
KBL	36.739	81.36	8.47	29.83	I	D	LP	P
KAAO	36.739	81.36	8.47	29.83	I	D	LP	P
NAI	41.216	159.23	8.21	28.82	I	D	LP	P
DAG	42.771	346.86	8.10	28.40	I	D	SP	P
NDI	45.442	85.37	7.96	27.87	I	D	SP	P
SHIO	58.399	80.88	7.00	24.27	I	D	LP	P
AVY	61.283	153.47	6.76	23.39	I	D	SP	P
CHTO	67.526	83.29	6.27	21.60	E	D	LP	P
WES	68.488	307.45	6.18	21.28	I	D	LP	P
SUR	70.256	182.23	6.03	20.74	I	D	SP	P
MRG	75.412	309.03	5.68	19.48	I	D	SP	P
SNG	75.646	92.15	5.68	19.48	I	D	LP	P
BLA	77.187	307.30	5.58	19.13	I	D	LP	P
TKL	80.262	307.82	5.31	18.17	I	D	SP	P
TATO	80.991	65.44	5.26	17.99	I	D	LP	P
SHK	82.441	51.78	5.14	17.57	I	D	LP	P
CAR	83.763	278.39	5.05	17.25	I	D	LP	P
RCD	84.887	324.42	4.99	17.04	E	D	LP	P
BAG	85.588	72.72	4.96	16.93	I	D	LP	P
DAV	95.216	76.85	4.58	15.60	I	D	LP	P
TEP	99.016	296.76	4.48	15.25	I	D	SP	P
ZOBO	100.958	257.96	4.45	15.15	E	D	LP	Pdf
GUMO	104.916	59.01	4.45	15.15	E	D	LP	Pdf
NWAO	112.256	114.96	1.89	6.37	E	D	LP	PKP
SPA	128.017	180.00	1.86	6.27	I	D	SP	PKP

Table 80. Station data for event 30.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SOH	2.134	318.23	14.27	45.72	I	D	SP	P
THE	2.225	309.30	14.26	45.68	I	D	SP	P
LIT	2.280	292.94	14.26	134.32	I	D	SP	P
KDZ	2.397	2.20	14.26	134.32	I	C	SP	P
KNT	2.618	317.80	14.26	45.68	I	D	SP	P
PVL	3.900	359.40	14.21	45.47	I	C	SP	P
CMP	6.023	358.73	14.10	45.02	I	C	SP	P
DEV	6.854	346.27	14.03	44.74	I	C	SP	P
DUI	8.559	289.82	13.89	44.18	I	D	SP	P
JOS	9.847	341.46	13.73	43.54	I	C	SP	P
LJU	10.398	314.26	13.67	43.30	I	D	SP	P
HLW	10.629	149.89	13.67	43.30	I	C	LP	P
VIE	11.044	327.47	13.61	43.06	I	C	LP	P
FIR	11.411	297.87	13.54	42.79	I	D	SP	P
KMR	11.913	321.28	13.47	42.52	I	C	LP	P
KHC	12.930	323.65	13.32	41.93	I	C	SP	P
PRU	13.150	328.26	13.32	41.93	I	C	SP	P
BRG	14.079	329.37	13.16	41.32	I	C	LP	P
GRFO	14.439	320.90	13.08	41.01	I	C	LP	P
CLL	14.794	328.63	12.99	40.67	I	C	SP	P
MOX	14.900	324.36	12.99	40.67	I	C	LP	P
STU	14.934	314.84	12.99	40.67	I	C	LP	P
TNS	16.166	318.24	12.81	39.99	I	C	SP	P
TAB	16.526	87.41	12.72	39.66	I	D	LP	P
LOR	17.474	304.26	12.52	38.91	I	D	LP	P
COP	18.532	336.76	12.32	38.18	I	C	LP	P
DBN	18.937	319.33	12.21	37.78	I	C	LP	P
NUR	21.293	359.22	10.08	30.38	I	C	LP	P
TOL	22.541	280.99	9.88	29.72	I	D	LP	P
KON	22.701	339.23	9.88	29.72	I	C	LP	P
ESK	24.863	319.66	9.49	28.43	I	C	LP	P
SFS	24.913	273.55	9.49	28.43	I	D	SP	P
KJF	25.038	2.57	9.49	28.43	I	C	SP	P
PTO	25.824	285.12	9.39	28.11	I	D	SP	P
KHI	27.179	90.29	9.29	27.78	I	D	SP	P
VAL	27.587	309.12	9.25	27.65	E	C	LP	P
KEV	30.592	1.22	8.87	26.42	I	C	LP	P
ARO	31.733	145.66	8.79	26.17	I	C	LP	P
KBL	35.101	83.71	8.56	25.43	I	C	LP	P
KBS	40.153	356.04	8.27	24.51	E	C	LP	P
NAI	41.694	162.44	8.19	24.26	I	C	SP	P
NAI	41.694	162.44	8.19	24.26	I	C	LP	P
DAG	42.120	346.20	8.16	24.17	I	C	SP	P
NDI	43.864	87.53	8.05	23.82	I	C	SP	P
WMQ	46.012	63.15	7.94	23.48	I	D	SP	P
BUL	59.150	176.29	6.97	20.47	E	D	LP	P
AVY	61.564	155.67	6.77	19.86	I	C	SP	P
KSR	64.778	178.34	6.48	18.97	I	D	SP	P
CHTO	65.910	84.87	6.40	18.73	I	C	LP	P
MNT	68.666	311.75	6.19	18.09	I	C	SP	P

Table 80. Station data for event 30 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
WES	69.057	307.98	6.15	17.97	E	D	LP	P
BEC	70.320	296.02	6.04	17.64	E	D	LP	P
SCP	73.954	309.69	5.79	16.89	E	C	LP	P
SNG	74.184	93.65	5.79	16.89	E	C	LP	P
SEO	75.116	53.62	5.72	16.68	I	C	LP	P
MRG	75.928	309.79	5.65	16.47	I	D	SP	P
COL	76.058	356.94	5.65	16.47	I	C	LP	P
BLA	77.756	308.12	5.52	16.08	E	D	LP	P
ANP	79.078	66.53	5.45	15.87	E	C	LP	P
TATO	79.186	66.71	5.45	15.87	I	C	LP	P
SHK	80.609	52.97	5.31	15.45	I	C	LP	P
TRN	80.764	276.17	5.27	15.33	I	D	LP	P
MAT	82.575	48.39	5.15	14.97	I	C	SP	P
SZP	83.034	73.16	5.12	14.88	I	D	SP	P
BAG	83.839	73.98	5.06	14.71	I	C	LP	P
CVP	83.952	72.22	5.06	14.71	I	C	SP	P
CAR	85.101	279.47	4.99	14.50	I	D	LP	P
RXF	85.517	335.00	4.96	14.41	I	C	SP	P
LDM	85.938	334.90	4.91	14.26	I	C	SP	P
SHA	86.872	307.63	4.83	14.02	E	D	LP	P
TUL	87.540	315.86	4.80	13.93	E	C	LP	P
COR	91.872	338.08	4.67	13.55	I	C	SP	P
DAV	93.511	78.00	4.63	13.43	I	C	LP	P
ANMO	93.733	322.06	4.63	13.43	E	C	LP	P
JCT	93.838	314.88	4.62	13.40	E	D	LP	P
BOCO	94.282	279.40	4.60	13.34	I	D	LP	P
GUMO	103.086	60.19	4.45	12.90	E	C	LP	Pdf
GUA	103.152	60.19	4.45	12.90	E	C	LP	Pdf
NWAO	111.325	115.53	1.89	5.44	E	C	LP	PKP
KIP	119.585	3.47	1.87	5.39	E	C	LP	PKP
CTAO	126.251	87.15	1.86	5.37	E	C	LP	PKP
CTA	126.251	87.15	1.86	5.37	E	C	LP	PKP
SPA	129.049	180.00	1.86	5.34	I	C	SP	PKP
HNR	129.920	66.08	1.85	5.33	E	C	LP	PKP
SNZO	156.675	104.90	1.31	3.76	E	C	LP	PKP

Table 81. Station data for event 33.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VAY	2.978	323.79	14.24	45.62	I	C	SP	PN
SKO	4.022	320.00	14.21	45.50	I	C	SP	PN
CMP	6.327	0.85	14.06	44.89	I	C	SP	P
DEV	7.097	348.61	14.02	44.73	I	C	SP	P
JOS	10.061	343.15	13.73	43.56	I	C	SP	P
VIE	11.172	329.17	13.60	43.05	E	C	LP	P
KMR	12.000	322.90	13.47	42.54	I	C	LP	P
CTI	12.083	310.27	13.47	42.54	I	C	SP	P
CVF	12.689	291.70	13.39	42.23	I	D	SP	P
WET	13.359	323.69	13.24	41.65	I	D	SP	P
BRG	14.218	330.63	13.16	41.34	I	C	SP	P
GRF	14.518	322.20	13.08	41.04	I	C	SP	P
GRFO	14.522	322.19	13.08	41.04	I	C	LP	P
HOF	14.650	325.15	13.08	41.04	I	C	SP	P
CLL	14.928	329.83	12.99	40.69	I	C	SP	P
STU	14.975	316.11	12.99	40.69	E	C	LP	P
MOX	15.006	325.58	12.99	40.69	I	C	LP	P
TAB	16.793	86.24	12.62	39.31	I	D	LP	P
LBF	17.266	304.51	12.52	38.93	I	C	SP	P
LOR	17.442	305.31	12.52	38.93	I	C	SP	P
LOR	17.442	305.31	12.52	38.93	E	C	LP	P
SSF	17.596	304.39	12.52	38.93	I	C	SP	P
TCF	18.211	301.11	12.42	38.57	I	C	SP	P
LSF	18.657	300.60	12.31	38.16	I	C	SP	P
UCC	18.708	316.02	12.31	38.16	I	C	SP	P
COP	18.715	337.59	12.31	38.16	I	C	LP	P
COP	18.715	337.59	12.31	38.16	I	C	SP	P
DBN	19.007	320.25	12.20	37.76	I	C	LP	P
UPP	21.444	349.93	10.08	30.40	I	C	SP	P
NUR	21.595	359.66	10.08	30.40	I	C	LP	P
TOL	22.355	281.62	9.87	29.70	I	D	LP	P
CRT	22.476	274.52	9.87	29.70	I	D	SP	P
KON	22.898	339.84	9.78	29.40	I	C	LP	P
SHI	24.556	103.78	9.55	28.64	I	D	SP	P
SFS	24.683	274.04	9.55	28.64	I	D	SP	P
ESK	24.935	320.29	9.49	28.45	E	C	LP	P
STS	25.492	289.69	9.43	28.25	I	D	LP	P
PTO	25.663	285.66	9.43	28.25	E	D	LP	P
KEV	30.902	1.42	8.83	26.31	I	C	LP	P
BNG	34.823	191.15	8.56	25.45	I	C	SP	P
KBS	40.440	356.16	8.24	24.43	I	C	LP	P
NAI	41.481	161.87	8.19	24.27	I	C	LP	P
NAI	41.481	161.87	8.19	24.27	I	C	SP	P
DAG	42.356	346.34	8.13	24.08	E	C	LP	P
DAG	42.356	346.34	8.13	24.08	I	C	SP	P
NDI	44.129	87.02	8.05	23.83	I	D	SP	P
WMQ	46.374	62.79	7.91	23.39	I	D	SP	P
GDH	50.174	332.95	7.66	22.61	I	C	SP	P
BUL	58.863	175.93	6.96	20.45	I	C	LP	P
CHTO	66.188	84.55	6.40	18.74	I	D	LP	P

Table 81. Station data for event 33 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CHG	66.188	84.55	6.40	18.74	I	D	LP	P
WES	69.046	307.93	6.15	17.98	E	C	LP	P
BEC	70.228	295.95	6.07	17.74	E	C	LP	P
BSI	71.345	98.17	5.96	17.41	I	D	SP	P
SCP	73.955	309.60	5.78	16.87	E	C	LP	P
SNG	74.415	93.36	5.75	16.78	I	D	LP	P
GEO	74.626	307.65	5.75	16.78	E	C	LP	P
COL	76.349	356.80	5.61	16.36	I	C	LP	P
BLA	77.746	308.00	5.55	16.18	E	C	LP	P
BLA	77.746	308.00	5.55	16.18	I	C	SP	P
ANP	79.430	66.29	5.42	15.79	E	D	LP	P
TATO	79.537	66.47	5.42	15.79	E	D	LP	P
SJG	79.648	284.84	5.42	15.79	E	D	LP	P
TRN	80.547	276.03	5.31	15.46	E	D	LP	P
BAG	84.164	73.75	5.06	14.71	E	D	LP	P
SHA	86.859	307.45	4.83	14.03	E	C	LP	P
GOL	89.478	323.94	4.72	13.70	E	C	LP	P
COR	92.060	337.87	4.67	13.56	E	C	LP	P
DAV	93.820	77.82	4.61	13.38	E	D	LP	P
CTAO	126.516	87.16	1.86	5.36	E	D	LP	PKP
CTA	126.516	87.16	1.86	5.36	I	D	SP	PKP
CTA	126.516	87.16	1.86	5.36	E	D	LP	PKP
SNZO	156.837	105.53	1.31	3.76	E	D	LP	PKP

Table 82. Station data for event 39.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KDZ	1.813	25.24	14.27	134.28	I	C	SP	P
VAY	1.871	315.24	14.27	134.28	I	D	SP	PN
ATH	2.082	193.22	14.27	45.72	I	C	SP	PN
SKO	2.935	312.98	14.25	134.36	I	D	SP	P
PVL	3.204	11.24	14.24	134.40	I	C	SP	P
LCI	4.888	275.91	14.17	45.31	I	C	SP	PN
ISR	5.387	17.03	14.13	45.15	I	C	SP	P
MLR	5.613	11.77	14.13	45.15	I	C	SP	P
FOC	6.064	19.36	14.10	45.02	I	C	SP	P
VRI	6.123	15.96	14.10	45.02	I	C	SP	P
VIE	10.027	327.89	13.73	43.54	E	D	LP	P
KMR	10.881	321.05	13.61	43.06	I	D	LP	P
HLW	11.641	148.24	13.54	42.79	I	C	LP	P
GRFO	13.407	320.58	13.25	41.66	I	D	LP	P
CLL	13.781	328.86	13.16	41.32	I	D	SP	P
MOX	13.874	324.27	13.16	41.32	I	D	LP	P
STU	13.901	314.06	13.16	41.32	I	D	LP	P
WLF	16.067	312.94	12.81	39.99	E	D	LP	P
BNS	16.225	318.15	12.81	39.99	I	D	SP	P
LOR	16.469	302.88	12.72	39.66	I	D	LP	P
DOU	17.158	312.53	12.62	39.28	E	D	LP	P
TAB	17.206	89.40	12.62	39.28	I	D	LP	P
UCC	17.633	314.34	12.52	38.91	E	D	LP	P
DBN	17.903	318.85	12.42	38.54	I	D	LP	P
ALI	19.290	273.07	12.10	37.38	I	C	LP	P
ALM	21.187	270.03	10.21	30.81	I	C	SP	P
TOL	21.719	278.86	10.08	30.38	I	C	LP	P
KON	21.742	339.61	10.08	30.38	I	C	LP	P
MAL	22.722	270.93	9.88	29.72	I	C	SP	P
KJF	24.317	3.61	9.55	28.63	I	D	SP	P
ECP	24.322	310.26	9.55	28.63	I	C	SP	P
LIS	25.829	278.00	9.39	28.11	I	C	SP	P
ARO	32.757	144.86	8.69	25.85	I	D	SP	P
KBL	35.719	84.30	8.53	25.34	I	D	LP	P
KAAO	35.719	84.30	8.53	25.34	I	D	LP	P
PDA	38.571	283.15	8.36	24.80	I	C	SP	P
KBS	39.348	356.24	8.30	24.61	E	C	LP	P
DAG	41.215	346.18	8.22	24.36	I	C	SP	P
NAI	42.634	161.39	8.13	24.07	I	C	LP	P
NDI	44.534	87.76	8.03	23.76	I	D	SP	P
POO	47.523	101.86	7.85	23.19	I	D	SP	P
GDH	49.020	332.51	7.75	22.88	I	C	SP	P
KRI	56.745	173.93	7.15	21.02	I	C	SP	P
BUL	59.959	175.34	6.89	20.22	I	C	SP	P
SLR	65.494	176.07	6.44	18.85	I	C	SP	P
KSR	65.563	177.45	6.44	18.85	I	C	SP	P
KMI	65.791	76.83	6.40	18.73	I	D	LP	P
CHG	66.540	84.66	6.36	18.61	I	D	SP	P
CHTO	66.540	84.66	6.36	18.61	I	D	LP	P
CHG	66.540	84.66	6.36	18.61	I	D	LP	P

Table 82. Station data for event 39 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
WES	68.037	307.34	6.23	18.21	E	C	LP	P
SNG	74.930	93.28	5.72	16.68	I	D	LP	P
SEO	75.227	53.31	5.72	16.68	E	D	LP	P
COL	75.259	356.53	5.68	16.56	I	C	LP	P
SSE	75.512	61.61	5.68	16.56	E	D	LP	P
SJG	78.942	284.29	5.45	15.87	E	C	LP	P
ANP	79.416	66.13	5.42	15.78	I	D	LP	P
TATO	79.526	66.31	5.42	15.78	I	D	LP	P
SHK	80.708	52.56	5.31	15.45	E	D	LP	P
MAT	82.591	47.95	5.15	14.97	I	D	LP	P
BAG	84.299	73.50	5.03	14.62	I	D	LP	P
TUL	86.506	315.28	4.87	14.14	E	C	LP	P
RDJ	88.683	238.48	4.75	13.79	I	C	LP	P
ANMO	92.702	321.48	4.66	13.52	E	C	LP	P
BOG	93.463	278.91	4.63	13.43	E	C	LP	P
HNR	130.241	64.68	1.85	5.33	E	C	LP	PKP
NOU	143.436	72.60	1.72	4.96	I	C	SP	PKP

Table 83. Station data for event 66.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ATH	4.236	8.11	14.19	56.46	I	D	SP	PN
KDZ	8.080	12.84	13.92	54.85	I	D	SP	P
VTS	8.816	1.15	13.82	54.27	I	D	SP	P
PVL	9.518	9.83	13.76	53.93	I	D	SP	P
MLR	11.927	10.20	13.44	52.14	I	D	SP	P
DEV	12.096	359.81	13.44	52.14	I	D	SP	P
VRI	12.422	12.31	13.37	51.76	I	D	SP	P
FIR	13.520	321.05	13.21	50.89	I	D	SP	PN
TRI	13.850	332.10	13.13	50.47	I	D	SP	P
SRO	14.457	347.36	13.04	50.00	I	D	SP	P
JOS	14.821	353.69	12.96	49.58	I	D	SP	P
VIE	15.286	343.06	12.87	49.11	I	D	LP	P
KMR	15.736	337.68	12.87	49.11	I	D	LP	P
KRA	16.424	353.10	12.68	48.15	I	D	SP	P
KHC	16.858	338.33	12.58	47.64	I	D	SP	P
WET	17.092	336.98	12.58	47.64	I	D	SP	P
GRF	18.123	334.86	12.38	46.65	I	D	SP	P
STU	18.166	329.67	12.38	46.65	I	D	LP	P
BRG	18.319	341.58	12.28	46.17	I	D	LP	P
BAF	18.479	324.21	12.28	46.17	I	D	SP	P
BUH	18.510	327.93	12.28	46.17	I	D	SP	P
BSF	18.576	323.91	12.28	46.17	I	D	SP	P
TAB	19.390	70.55	10.59	38.47	I	D	LP	P
CAF	19.569	310.84	10.59	38.47	I	C	SP	P
TNS	19.602	331.33	10.59	38.47	I	C	SP	P
BRN	19.919	342.26	10.44	37.83	I	C	SP	P
LPO	20.020	309.37	10.44	37.83	I	C	SP	P
RJF	20.089	311.30	10.44	37.83	I	C	SP	P
WLF	20.164	326.96	10.44	37.83	I	C	LP	P
LFF	20.419	309.64	10.31	37.27	I	C	SP	P
LSF	20.534	313.70	10.31	37.27	I	C	SP	P
BNS	20.689	330.86	10.31	37.27	I	C	SP	P
ENN	21.066	328.82	10.17	36.68	I	C	SP	P
DOU	21.186	325.83	10.17	36.68	E	C	LP	P
WTS	21.633	332.19	10.05	36.18	I	C	SP	P
HAM	21.765	338.67	9.95	35.77	I	C	SP	P
UCC	21.781	326.93	9.95	35.77	I	C	LP	P
WIT	22.328	333.37	9.85	35.35	I	C	SP	P
DBN	22.368	330.32	9.85	35.35	E	C	LP	P
TOL	22.418	293.60	9.85	35.35	I	C	SP	P
COP	23.098	344.70	9.76	34.98	I	C	LP	P
COP	23.098	344.70	9.76	34.98	I	C	SP	P
TEH	23.407	77.13	9.68	34.65	I	D	LP	P
SFS	23.971	284.74	9.61	34.37	I	C	SP	P
MUD	24.593	341.46	9.54	34.08	I	C	SP	P
PTO	26.014	295.64	9.38	33.44	I	C	SP	P
PTO	26.014	295.64	9.38	33.44	I	C	LP	P
NUR	26.773	1.86	9.28	33.03	I	C	LP	P
KONO	27.352	345.20	9.24	32.87	E	C	LP	P
KON	27.352	345.20	9.24	32.87	I	C	LP	P

Table 83. Station data for event 66 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ECP	27.978	319.98	9.18	32.63	I	C	SP	P
ESK	28.195	327.75	9.18	32.63	I	C	SP	P
ECB	28.291	320.06	9.11	32.35	I	C	SP	P
DKM	28.471	322.02	9.11	32.35	I	C	SP	P
DDK	28.578	322.20	9.11	32.35	I	C	SP	P
DLE	28.631	321.89	9.11	32.35	I	C	SP	P
DCN	29.038	321.53	9.04	32.07	I	C	SP	P
DMU	29.136	322.74	9.04	32.07	I	C	SP	P
BNG	29.473	188.97	8.97	31.80	I	C	SP	P
KHI	29.509	79.16	8.97	31.80	I	C	SP	P
VAL	30.004	317.31	8.91	31.56	E	C	LP	P
TGI	30.177	81.32	8.91	31.56	I	D	SP	P
KJF	30.596	4.09	8.86	31.36	I	C	SP	P
KEV	36.107	2.39	8.50	29.95	I	C	LP	P
KBL	37.888	75.54	8.38	29.49	I	C	LP	P
PDA	39.310	290.11	8.29	29.14	I	C	SP	P
DAG	47.034	347.90	7.88	27.57	I	C	SP	P
DAG	47.034	347.90	7.88	27.57	I	C	LP	P
POO	47.674	95.28	7.85	27.46	I	C	SP	P
WMQ	50.278	58.33	7.62	26.59	I	C	SP	P
CLK	50.485	164.93	7.62	26.59	I	C	SP	P
KRI	50.708	171.76	7.62	26.59	I	C	SP	P
BUL	53.876	173.42	7.34	25.54	I	C	SP	P
CIR	55.087	170.17	7.26	25.24	I	C	SP	P
LSA	57.181	73.99	7.11	24.69	I	C	SP	P
SLR	59.386	174.42	6.92	23.98	I	C	SP	P
SLR	59.386	174.42	6.92	23.98	I	C	LP	P
KSR	59.417	175.88	6.92	23.98	I	C	SP	P
BPI	59.802	174.73	6.88	23.84	I	C	SP	P
EVA	60.218	173.68	6.88	23.84	I	C	SP	P
GTA	60.226	60.37	6.88	23.84	I	C	SP	P
FRB	60.939	329.42	6.80	23.54	I	C	SP	P
JOZ	61.485	170.78	6.76	23.40	I	C	SP	P
LZH	64.449	62.44	6.52	22.52	I	C	LP	P
SUR	65.822	181.99	6.39	22.05	I	C	SP	P
BTO	66.974	55.72	6.31	21.76	I	C	SP	P
MBC	67.708	350.90	6.26	21.58	I	C	SP	P
HHC	67.924	54.93	6.22	21.43	I	C	SP	P
CHG	68.381	81.33	6.18	21.29	I	C	LP	P
KMI	68.435	73.59	6.18	21.29	I	C	SP	P
XAN	69.087	62.47	6.14	21.14	I	C	SP	P
BDT	69.207	82.76	6.14	21.14	I	C	SP	P
TIY	69.938	57.60	6.07	20.89	I	C	SP	P
MNT	70.968	312.35	5.99	20.60	I	C	SP	P
WES	71.008	308.61	5.99	20.60	I	C	LP	P
BJI	71.421	53.97	5.96	20.49	I	C	LP	P
GAC	72.004	313.20	5.92	20.35	I	C	LP	P
SCP	76.041	309.78	5.64	19.35	I	C	LP	P
INK	76.742	351.22	5.61	19.24	I	C	SP	P
FDF	77.145	279.18	5.58	19.13	I	C	SP	P

Table 83. Station data for event 66 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
GZH	77.846	70.39	5.52	18.92	I	C	SP	P
UTO	79.124	312.99	5.45	18.67	I	C	SP	P
SJG	79.443	284.68	5.41	18.53	I	C	LP	P
SSE	79.511	59.71	5.41	18.53	I	C	LP	P
BLA	79.678	307.86	5.41	18.53	I	C	SP	P
BLA	79.678	307.86	5.41	18.53	I	C	LP	P
SEO	79.885	51.56	5.36	18.35	E	C	LP	P
FFC	79.989	331.12	5.36	18.35	I	C	SP	P
COL	81.396	356.02	5.22	17.86	I	C	SP	P
COL	81.396	356.02	5.22	17.86	E	C	LP	P
ANP	83.004	64.52	5.11	17.47	I	C	LP	P
TATO	83.098	64.70	5.11	17.47	E	C	LP	P
RDJ	84.478	237.95	5.02	17.15	I	C	LP	P
SHK	85.405	51.24	4.96	16.94	I	C	LP	P
EDM	85.424	335.37	4.96	16.94	I	C	SP	P
FVM	85.542	313.32	4.96	16.94	I	C	SP	P
MAT	87.606	46.81	4.80	16.38	I	C	SP	P
SDV	88.093	279.33	4.77	16.27	I	C	SP	P
SHA	88.706	306.50	4.75	16.20	I	C	LP	P
LDM	90.067	333.70	4.71	16.06	I	C	SP	P
TUL	90.132	314.62	4.71	16.06	I	C	LP	P
HRY	90.143	330.77	4.71	16.06	I	C	SP	P
GOL	92.676	322.71	4.66	15.89	I	C	LP	P
BOCO	93.286	277.68	4.63	15.78	I	C	LP	P
LON	93.801	336.57	4.61	15.71	I	C	LP	P
HKT	94.214	310.30	4.61	15.71	I	C	SP	P
ATX	95.242	311.78	4.58	15.61	I	C	SP	P
DUG	95.835	327.51	4.55	15.50	E	C	LP	P
COR	96.203	336.47	4.55	15.50	I	C	SP	P
JCT	96.316	313.08	4.54	15.47	I	C	LP	P
DAV	96.473	77.09	4.54	15.47	E	C	LP	P
ANMO	96.841	320.27	4.53	15.43	I	C	LP	P
EPT	99.275	318.22	4.47	15.22	E	C	LP	P
ZOBO	99.739	256.99	4.47	15.22	I	C	LP	P
JAS	100.953	331.30	4.45	15.15	I	C	LP	Pdf
GUMO	107.396	59.89	1.89	6.37	I	C	LP	Pdf
WB2	118.256	96.03	1.88	6.33	I	C	SP	PKP
ADE	127.793	110.58	1.86	6.27	I	C	SP	PKP
CTAO	128.219	89.92	1.86	6.27	E	C	LP	PKP
TAU	136.114	118.96	1.81	6.11	I	C	LP	PKP
AFI	156.125	37.62	1.35	4.54	E	C	LP	PKP
SNZO	156.434	116.86	1.35	4.54	E	C	LP	PKP

Table 84. Station data for event 99.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VTS	5.102	25.50	14.16	45.31	I	C	SP	PG
DIM	5.745	43.99	14.13	45.18	I	C	SP	P
PVL	6.349	34.78	14.06	44.90	I	C	SP	P
CLO	7.301	14.50	13.98	44.57	I	C	SP	P
YLV	7.532	67.48	13.98	44.57	I	C	SP	P
BUC1	7.680	32.87	13.98	44.57	I	C	SP	P
COZ	7.911	21.58	13.94	44.41	I	C	SP	P
CMP	8.081	24.92	13.94	44.41	I	C	SP	P
DEV	8.100	13.38	13.94	44.41	I	C	SP	P
MLR	8.593	27.96	13.89	44.21	I	C	SP	P
SRO	9.882	352.46	13.73	43.57	I	C	SP	P
JOS	10.468	1.14	13.67	43.34	I	C	SP	P
VIE	10.599	345.81	13.67	43.34	I	C	LP	P
KMR	10.968	338.01	13.60	43.06	E	C	LP	P
OGA	11.141	325.39	13.60	43.06	I	C	SP	P
KRA	12.029	359.11	13.47	42.55	I	C	SP	P
KHC	12.096	338.71	13.47	42.55	I	C	SP	P
HLW	12.301	128.19	13.39	42.24	I	C	SP	P
PRU	12.634	343.00	13.39	42.24	I	C	SP	P
GRF	13.337	333.85	13.24	41.66	I	C	SP	P
STU	13.389	326.85	13.24	41.66	I	C	LP	P
BRG	13.599	342.85	13.24	41.66	I	C	SP	P
WLF	15.412	323.51	12.90	40.36	E	C	LP	P
STB	15.770	327.11	12.81	40.02	I	C	SP	P
BNS	15.905	328.59	12.81	40.02	I	C	SP	P
KLL	16.036	326.33	12.81	40.02	I	C	SP	P
DOU	16.447	322.19	12.71	39.65	E	C	LP	P
HAM	17.003	338.55	12.62	39.31	I	C	SP	P
UCC	17.028	323.66	12.62	39.31	I	C	LP	P
VDM	17.046	316.12	12.62	39.31	E	C	LP	P
DBN	17.587	327.98	12.52	38.94	I	C	LP	P
COP	18.429	345.94	12.31	38.17	I	C	LP	P
TOL	18.962	283.18	12.20	37.77	I	D	SP	P
TAB	20.539	81.79	10.34	31.27	I	C	LP	P
PTO	22.394	287.04	9.87	29.70	I	D	SP	P
PTO	22.394	287.04	9.87	29.70	I	D	LP	P
NUR	22.679	5.68	9.87	29.70	I	C	LP	P
KON	22.688	345.94	9.87	29.70	I	C	LP	P
LIS	23.005	280.88	9.78	29.40	I	D	SP	P
ECP	23.340	315.90	9.70	29.14	I	C	SP	P
ESK	23.431	325.13	9.70	29.14	I	C	LP	P
ETA	23.491	317.17	9.70	29.14	I	C	SP	P
ECB	23.650	316.03	9.70	29.14	I	C	SP	P
DKM	23.789	318.35	9.62	28.88	I	C	SP	P
DDK	23.892	318.58	9.62	28.88	I	C	SP	P
DLE	23.951	318.22	9.62	28.88	I	C	SP	P
DCN	24.365	317.83	9.55	28.65	I	C	SP	P
DMU	24.440	319.27	9.55	28.65	I	C	SP	P
VAL	25.429	313.01	9.43	28.26	I	C	LP	P
KJF	26.589	7.32	9.34	27.96	I	C	LP	P

Table 84. Station data for event 99 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KEV	32.001	4.45	8.76	26.09	I	C	LP	P
BCAO	33.467	183.06	8.66	25.77	I	D	LP	P
BNG	33.465	183.04	8.66	25.77	I	D	SP	P
DAG	42.415	347.59	8.13	24.09	I	C	SP	P
NDI	47.862	83.54	7.82	23.12	I	C	SP	P
GDH	49.322	333.18	7.70	22.74	E	C	LP	P
GDH	49.322	333.18	7.70	22.74	I	C	SP	P
WMQ	50.039	60.73	7.66	22.62	I	C	SP	P
POO	50.342	97.14	7.62	22.49	I	C	SP	P
KRI	55.263	169.04	7.22	21.25	I	D	SP	P
MTD	55.541	166.78	7.22	21.25	I	D	SP	P
KOD	58.067	102.75	7.04	20.70	I	C	SP	P
BUL	58.385	170.74	7.00	20.57	I	D	SP	P
KSR	63.852	173.31	6.56	19.23	I	D	SP	P
SLR	63.864	171.91	6.56	19.23	I	D	SP	P
LZH	64.482	63.13	6.52	19.11	I	C	LP	P
EVA	64.717	171.23	6.52	19.11	I	D	SP	P
SWZ	65.031	174.99	6.48	18.98	I	D	SP	P
WES	66.666	306.23	6.36	18.62	E	C	LP	P
BEC	67.284	293.97	6.27	18.35	E	C	LP	P
HHC	67.316	55.29	6.27	18.35	I	C	SP	P
GAC	67.512	311.00	6.27	18.35	E	C	LP	P
RSNY	67.546	309.55	6.27	18.35	E	C	LP	P
KMI	69.375	73.81	6.11	17.86	E	C	LP	P
CHG	69.942	81.46	6.07	17.74	I	C	LP	P
SUR	70.038	179.47	6.07	17.74	I	D	SP	P
BJI	70.720	54.00	6.03	17.62	E	C	LP	P
BDT	70.876	82.79	6.00	17.53	I	C	SP	P
SCP	71.655	307.63	5.96	17.41	I	C	LP	P
RSNT	73.469	339.89	5.82	16.99	I	C	LP	P
RSON	74.255	322.99	5.75	16.78	I	C	LP	P
UTO	74.635	311.00	5.75	16.78	I	C	SP	P
BLA	75.357	305.81	5.68	16.57	I	C	LP	P
SJG	76.294	282.31	5.61	16.36	I	D	LP	P
COL	76.987	354.79	5.59	16.30	I	C	LP	P
NJ2	77.097	59.47	5.59	16.30	I	C	SP	P
SNG	78.056	90.21	5.52	16.09	I	C	LP	P
GZH	78.487	69.78	5.49	16.00	I	C	SP	P
SEO	78.955	50.84	5.45	15.88	I	C	LP	P
SSE	79.258	59.01	5.42	15.79	E	C	LP	P
PSI	79.439	94.86	5.42	15.79	I	C	SP	P
RSCP	79.629	307.14	5.42	15.79	E	C	LP	P
EDM	80.639	333.80	5.31	15.46	I	C	SP	P
CAR	81.393	276.57	5.22	15.19	I	C	SP	P
ANP	83.140	63.50	5.12	14.89	I	C	LP	P
BDF	83.174	244.21	5.12	14.89	I	D	LP	P
TATO	83.249	63.68	5.12	14.89	I	C	LP	P
SHA	84.429	304.77	5.02	14.60	I	C	LP	P
SHK	84.430	50.06	5.02	14.60	I	C	LP	P
RXF	84.865	332.23	4.99	14.51	I	C	SP	P

Table 84. Station data for event 99 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LDM	85.278	332.10	4.96	14.42	I	C	SP	P
GBO	85.281	312.58	4.96	14.42	I	C	SP	P
CLX	85.414	331.86	4.96	14.42	I	C	SP	P
LHD	85.530	332.13	4.96	14.42	I	C	SP	P
TUL	85.593	312.97	4.96	14.42	I	C	LP	P
MAJO	86.265	45.46	4.87	14.15	I	C	LP	P
LRM	86.331	328.99	4.87	14.15	I	C	SP	P
BAG	87.938	70.87	4.78	13.88	I	C	LP	P
GOL	87.966	321.12	4.78	13.88	I	C	LP	P
LON	89.020	334.97	4.73	13.74	I	C	LP	P
COR	91.422	334.86	4.69	13.62	I	C	LP	P
JCT	91.817	311.60	4.67	13.56	I	C	LP	P
LEM	92.103	96.95	4.67	13.56	I	C	LP	P
ALQ	92.176	318.75	4.67	13.56	E	C	LP	P
ANMO	92.173	318.75	4.67	13.56	I	C	LP	P
EPT	94.646	316.77	4.60	13.35	I	C	LP	P
LPS	95.955	293.16	4.55	13.20	E	C	LP	P
JAS	96.167	329.73	4.55	13.20	I	C	LP	P
BKS	96.930	330.94	4.53	13.15	E	C	LP	P
DAV	97.601	74.92	4.52	13.12	I	C	LP	P
ZOBO	98.565	256.14	4.50	13.06	E	N	LP	P
LPB	98.703	255.92	4.50	13.06	I	D	LP	P
LPA	102.486	235.48	4.45	12.91	I	D	SP	Pdf
ANT	104.673	251.35	4.45	12.91	I	D	LP	Pdf
PEL	110.139	243.32	1.89	5.44	E	C	LP	Pdf
MUN	113.152	113.18	1.89	5.44	E	C	LP	PKP
HON	120.955	358.08	1.87	5.39	E	C	LP	PKP
CTA	130.242	84.78	1.85	5.33	I	C	SP	PKP
HNR	133.974	62.43	1.83	5.27	E	C	LP	PKP
KOU	144.418	70.98	1.70	4.91	I	C	SP	PKP
PVC	145.553	62.97	1.66	4.79	I	C	SP	PKP
VUN	152.431	49.68	1.50	4.31	I	C	SP	PKP

Table 85. Station data for event 128.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
OHR	2.844	8.20	14.25	56.67	I	C	SP	P
SKO	3.783	13.43	14.21	56.42	I	C	SP	P
VTS	4.850	26.59	14.17	56.18	I	C	SP	P
PVL	6.115	36.02	14.09	55.70	I	C	SP	P
DMK	6.742	56.15	14.06	55.52	I	D	SP	P
TIM	7.471	5.18	13.98	55.05	I	C	SP	P
COZ	7.653	22.15	13.98	55.05	I	C	SP	P
CMP	7.828	25.58	13.93	54.76	I	C	SP	P
ISR	8.294	32.48	13.88	54.47	I	C	SP	P
MLR	8.345	28.68	13.88	54.47	I	C	SP	P
CEY	8.611	331.60	13.88	54.47	I	C	SP	P
CVO	8.711	28.40	13.88	54.47	I	C	SP	P
LJU	8.832	333.07	13.83	54.18	I	C	SP	P
TRI	8.845	328.95	13.83	54.18	I	C	SP	P
TRI	8.845	328.95	13.83	54.18	I	C	SP	P
VRI	8.963	30.32	13.83	54.18	I	C	SP	P
PPE	9.608	32.18	13.78	53.89	I	D	SP	P
JOS	10.200	1.04	13.72	53.55	I	C	SP	P
KMR	10.731	337.37	13.66	53.22	I	C	LP	P
GAP	11.382	326.67	13.53	52.49	I	C	SP	P
FUR	11.835	329.34	13.46	52.11	I	C	SP	P
KHC	11.857	338.15	13.46	52.11	I	C	SP	P
WET	12.082	336.23	13.46	52.11	I	C	SP	P
KSP	12.859	348.63	13.31	51.29	I	C	SP	P
STU	13.181	326.15	13.31	51.29	E	C	LP	P
BRG	13.351	342.43	13.23	50.87	I	C	SP	P
ECH	13.748	320.35	13.23	50.87	I	D	SP	P
CLL	13.987	340.84	13.15	50.44	I	D	SP	P
GWF	14.044	323.54	13.15	50.44	I	D	SP	P
TNS	14.601	328.55	13.07	50.02	I	D	SP	P
WLF	15.213	322.86	12.98	49.55	E	C	LP	P
LPO	15.640	300.14	12.89	49.09	E	C	LP	P
BNS	15.692	328.03	12.89	49.09	I	C	SP	P
HAM	16.765	338.16	12.61	47.67	I	C	SP	P
VDM	16.873	315.47	12.61	47.67	I	C	LP	P
LGR	17.825	290.68	12.40	46.64	I	D	SP	P
ALM	18.067	272.46	12.40	46.64	I	D	SP	P
COP	18.176	345.68	12.40	46.64	I	C	LP	P
COP	18.176	345.68	12.40	46.64	I	D	SP	P
MUD	19.620	341.45	10.62	38.51	I	C	SP	P
MAL	19.626	273.07	10.62	38.51	I	D	LP	P
UPP	21.650	356.39	10.07	36.19	I	C	SP	P
PTO	22.343	286.42	9.87	35.36	E	D	LP	P
NUR	22.410	5.70	9.87	35.36	I	C	SP	P
KON	22.435	345.74	9.87	35.36	I	C	LP	P
LIS	22.982	280.27	9.78	34.99	I	D	SP	P
ESK	23.228	324.74	9.78	34.99	E	C	LP	P
DLE	23.770	317.79	9.62	34.33	I	C	SP	P
DCN	24.186	317.41	9.62	34.33	I	C	SP	P
DMU	24.256	318.86	9.55	34.05	I	C	SP	P

Table 85. Station data for event 128 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SUF	24.719	6.49	9.55	34.05	I	C	SP	P
KEV	31.732	4.46	8.79	31.02	I	C	LP	P
KIC	39.037	221.84	8.33	29.23	I	D	SP	P
POO	50.349	97.38	7.62	26.54	I	D	SP	P
KRI	55.521	169.12	7.22	25.04	I	C	SP	P
MTD	55.795	166.86	7.18	24.90	I	C	SP	P
BUL	58.645	170.80	7.00	24.23	I	C	SP	P
GTA	59.954	61.67	6.88	23.79	I	C	SP	P
KSR	64.114	173.36	6.56	22.62	I	C	SP	P
SLR	64.125	171.96	6.56	22.62	I	C	SP	P
SWZ	65.296	175.04	6.44	22.18	I	C	SP	P
MNT	66.350	310.00	6.35	21.86	I	D	SP	P
GAC	67.356	310.92	6.27	21.57	I	C	LP	P
CHG	69.876	81.58	6.07	20.85	E	C	LP	P
CHG	69.876	81.58	6.07	20.85	I	C	SP	P
SUR	70.305	179.51	6.03	20.70	I	C	SP	P
SCP	71.513	307.58	5.96	20.45	E	C	LP	P
YKC	73.196	339.83	5.85	20.06	I	C	SP	P
PCT	74.184	83.66	5.78	19.81	I	C	SP	P
SJG	76.263	282.27	5.61	19.20	E	C	LP	P
TRN	76.974	273.32	5.58	19.10	E	C	LP	P
RSCP	79.489	307.12	5.41	18.49	I	C	LP	P
EDM	80.410	333.80	5.31	18.14	I	C	SP	P
RSSD	83.762	323.23	5.06	17.26	I	C	LP	P
SHA	84.298	304.77	5.02	17.12	E	C	LP	P
RLO	84.808	312.72	4.99	17.01	I	C	SP	P
SDV	85.266	277.51	4.96	16.91	I	D	SP	P
NEW	85.867	333.02	4.91	16.73	I	C	SP	P
MAJO	86.058	45.49	4.91	16.73	I	C	LP	P
GOL	87.775	321.13	4.77	16.24	E	C	LP	P
ANMO	91.989	318.78	4.67	15.89	I	C	LP	P
ZOBO	98.655	256.20	4.49	15.26	I	D	LP	P
LPA	102.659	235.54	4.45	15.12	E	C	LP	Pdf
PVC	145.407	62.66	1.68	5.67	I	C	SP	PKP
NOU	146.966	70.96	1.64	5.52	I	C	SP	PKP

Table 86. Station data for event 178.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
FIR	10.696	294.25	13.68	43.27	I	D	SP	P
KMR	10.995	319.52	13.61	43.00	E	C	LP	P
HLW	11.584	150.30	13.55	42.76	I	C	LP	P
KHC	11.999	322.19	13.48	42.49	I	C	SP	P
OGA	12.022	308.51	13.48	42.49	I	D	SP	P
WAR	12.375	349.20	13.41	42.22	E	C	LP	P
GRF	13.518	319.40	13.26	41.64	I	C	SP	P
CLL	13.844	327.67	13.17	41.29	I	C	SP	P
STU	14.054	313.00	13.17	41.29	E	D	LP	P
BRN	14.627	330.91	13.09	40.99	I	C	SP	P
GWF	15.052	311.59	13.00	40.65	I	C	SP	P
WLF	16.227	312.07	12.82	39.97	E	D	LP	P
BNS	16.354	317.25	12.73	39.63	I	C	SP	P
SMF	16.517	300.06	12.73	39.63	I	D	SP	P
LBF	16.523	301.29	12.73	39.63	I	D	SP	P
LOR	16.684	302.16	12.73	39.63	I	D	SP	P
HAM	16.710	327.81	12.73	39.63	I	C	SP	P
SSF	16.854	301.23	12.63	39.26	I	D	SP	P
TAB	16.862	90.14	12.63	39.26	I	D	LP	P
DOU	17.320	311.75	12.53	38.89	E	D	LP	P
CAF	17.384	293.41	12.53	38.89	I	D	SP	P
TCF	17.525	297.94	12.53	38.89	I	D	SP	P
COP	17.566	336.37	12.53	38.89	I	C	LP	P
UCC	17.784	313.57	12.43	38.52	E	D	LP	P
RJF	17.823	294.46	12.43	38.52	I	D	SP	P
LSF	17.979	297.49	12.43	38.52	I	D	SP	P
LPO	17.973	292.36	12.43	38.52	I	D	SP	P
DBN	18.027	318.06	12.43	38.52	I	C	LP	P
LFF	18.321	293.05	12.33	38.16	I	D	SP	P
EPF	18.484	286.96	12.33	38.16	I	D	SP	P
MFF	19.184	297.88	12.22	37.76	I	D	SP	P
MUD	19.268	333.11	12.11	37.36	I	C	SP	P
LDF	19.632	303.73	12.11	37.36	I	D	SP	P
FLN	19.908	304.01	10.50	31.74	I	D	SP	P
GRR	20.049	302.76	10.50	31.74	I	D	SP	P
LPF	20.080	301.66	10.50	31.74	I	D	SP	P
UPP	20.242	349.55	10.50	31.74	I	C	SP	P
NUR	20.392	359.84	10.36	31.27	I	C	LP	P
ALM	21.530	269.96	10.09	30.37	I	D	SP	P
KON	21.735	338.97	10.09	30.37	I	C	LP	P
CRT	22.306	271.53	9.88	29.67	I	D	SP	P
MAL	23.063	270.88	9.79	29.38	I	D	SP	P
ESK	23.951	318.66	9.63	28.85	I	C	LP	P
EBL	24.087	319.76	9.63	28.85	I	C	SP	P
EDI	24.230	319.99	9.63	28.85	I	C	SP	P
EAU	24.325	319.64	9.56	28.62	I	C	SP	P
EDU	24.456	321.42	9.56	28.62	I	C	SP	P
ECP	24.496	309.83	9.56	28.62	I	C	SP	P
SFS	24.519	271.34	9.56	28.62	I	D	SP	P
EBH	24.546	320.46	9.56	28.62	I	C	SP	P

Table 86. Station data for event 178 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ETA	24.560	311.09	9.56	28.62	I	C	SP	P
EAB	24.926	319.81	9.49	28.39	I	C	SP	P
DLE	24.941	312.27	9.49	28.39	I	C	SP	P
PTO	25.259	283.18	9.44	28.23	I	D	LP	P
DCN	25.376	312.07	9.44	28.23	I	C	SP	P
VAL	26.750	307.89	9.35	27.94	I	D	LP	P
MHI	27.448	86.83	9.25	27.61	I	D	LP	P
KEV	29.703	1.57	8.99	26.77	I	C	LP	P
ARO	32.675	145.71	8.73	25.94	E	C	LP	P
DAG	41.163	346.05	8.22	24.32	I	C	SP	P
NAI	42.657	162.08	8.14	24.07	I	C	SP	P
NDI	44.186	88.18	8.05	23.79	I	D	SP	P
POO	47.217	102.34	7.88	23.26	I	D	SP	P
DMN	50.756	84.71	7.59	22.35	I	D	SP	P
KKN	50.797	84.41	7.59	22.35	I	D	SP	P
PKI	51.007	84.58	7.59	22.35	I	D	SP	P
NPA	56.568	163.17	7.15	20.99	I	C	SP	P
BUL	60.070	175.83	6.89	20.20	I	C	LP	P
AVY	62.529	155.40	6.69	19.59	I	C	SP	P
SLR	65.610	176.52	6.44	18.83	I	C	LP	P
SLR	65.610	176.52	6.44	18.83	I	C	SP	P
CHG	66.185	84.99	6.40	18.70	I	D	SP	P
EVA	66.416	175.78	6.36	18.58	I	C	SP	P
CNG	66.443	172.73	6.36	18.58	I	C	SP	P
JOZ	67.574	172.97	6.27	18.31	I	C	SP	P
MNT	67.805	311.28	6.23	18.19	I	D	SP	P
WES	68.226	307.50	6.23	18.19	I	D	LP	P
GAC	68.749	312.27	6.19	18.07	I	D	LP	P
RSNY	68.882	310.84	6.15	17.95	I	D	LP	P
SUR	72.241	183.51	5.93	17.29	I	C	SP	P
RSNT	72.643	341.52	5.89	17.17	I	C	LP	P
RSNT	72.643	341.52	5.89	17.17	I	C	SP	P
GRM	73.098	178.42	5.86	17.08	I	C	SP	P
SCP	73.109	309.26	5.86	17.08	I	D	LP	P
SNG	74.595	93.60	5.75	16.75	I	D	LP	P
RSON	74.634	324.70	5.75	16.75	I	C	LP	P
SEO	74.870	53.57	5.72	16.66	I	C	LP	P
MRG	75.082	309.38	5.72	16.66	I	D	SP	P
COL	75.142	356.72	5.72	16.66	I	C	LP	P
SSE	75.144	61.88	5.72	16.66	I	C	LP	P
BLA	76.924	307.72	5.59	16.27	I	D	LP	P
ANP	79.046	66.42	5.46	15.88	I	C	LP	P
TATO	79.157	66.60	5.46	15.88	E	C	LP	P
SJG	79.239	284.54	5.46	15.88	I	D	LP	P
RSCP	81.097	309.34	5.27	15.31	I	D	LP	P
MAJO	82.244	48.22	5.18	15.04	I	C	LP	P
BAG	83.931	73.79	5.06	14.69	I	N	LP	P
RSSD	84.296	325.66	5.03	14.60	I	C	LP	P
RXF	84.553	334.70	5.03	14.60	I	D	LP	P
YKM	84.747	335.03	5.03	14.60	I	D	LP	P

Table 86. Station data for event 178 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LHD	85.224	334.65	4.99	14.48	I	D	LP	P
SHA	86.043	307.31	4.91	14.24	E	N	LP	P
GOL	88.443	323.84	4.75	13.77	E	C	LP	P
GOL	88.443	323.84	4.75	13.77	E	D	LP	P
LON	88.502	337.73	4.75	13.77	I	C	LP	P
COR	90.906	337.79	4.70	13.62	E	N	LP	P
ANMO	92.807	321.78	4.65	13.47	E	C	LP	P
JCT	92.953	314.61	4.65	13.47	E	N	LP	P
DAV	93.669	77.65	4.63	13.41	E	N	LP	P
MIN	94.239	334.88	4.62	13.39	I	C	SP	P
JAS	96.005	333.02	4.55	13.18	E	C	LP	P
JAS	96.005	333.02	4.55	13.18	I	C	SP	P
BKS	96.679	334.28	4.54	13.15	I	C	LP	P
GUA	103.010	59.68	4.45	12.88	I	C	LP	Pdf
LPA	106.598	238.29	1.89	5.43	E	D	LP	Pdf
HON	118.810	2.95	1.88	5.39	E	C	LP	PKP
CTA	126.553	86.18	1.86	5.35	I	D	SP	PKP
KOU	140.404	72.66	1.77	5.08	I	C	SP	PKP
NOU	143.067	72.85	1.72	4.95	I	C	SP	PKP

Table 87. Station data for event 212.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BHD	7.259	165.26	13.98	44.56	I	D	SP	P
ALT	9.398	266.10	13.79	43.79	I	C	SP	P
BCK	9.485	256.13	13.79	43.79	I	C	SP	P
ELL	10.261	253.52	13.67	43.32	I	C	SP	P
PSN	10.946	292.39	13.60	43.04	I	C	SP	P
YER	11.320	258.07	13.54	42.81	I	C	SP	P
BUC1	12.610	293.85	13.40	42.26	I	D	SP	P
PLD	13.286	283.36	13.24	41.64	I	C	SP	P
HLW	13.697	223.65	13.24	41.64	I	D	LP	P
MMB	14.011	281.15	13.16	41.33	I	C	SP	P
MHI	14.171	100.97	13.16	41.33	I	C	LP	P
VTS	14.419	285.24	13.08	41.03	I	C	SP	P
ATH	14.527	266.61	13.08	41.03	I	C	SP	P
SKO	15.716	282.75	12.90	40.35	I	C	SP	P
OHR	16.236	279.71	12.81	40.01	I	C	SP	P
TIM	16.239	296.34	12.81	40.01	I	D	SP	P
JOS	17.447	305.07	12.52	38.93	I	D	SP	P
PSZ	17.673	302.80	12.52	38.93	I	D	SP	P
BUD	18.119	300.91	12.42	38.56	I	D	SP	P
KRA	18.389	309.32	12.31	38.16	I	D	SP	P
BRT	18.967	279.79	12.21	37.79	I	C	SP	P
MMN	20.024	277.26	10.48	31.73	I	C	SP	P
VIE	20.044	301.83	10.48	31.73	E	D	LP	P
VKA	20.076	301.86	10.48	31.73	I	D	SP	P
LJU	20.900	295.01	10.20	30.79	I	D	SP	P
CEY	20.946	294.14	10.20	30.79	I	D	SP	P
KMR	21.464	300.41	10.08	30.39	I	D	LP	P
RBL	21.608	295.91	10.08	30.39	I	C	SP	P
PRU	21.646	305.71	10.08	30.39	I	D	SP	P
KBA	21.836	297.57	9.97	30.02	I	D	SP	P
KHC	22.042	303.05	9.97	30.02	I	D	SP	P
RMP	22.235	283.48	9.97	30.02	I	C	SP	P
BRG	22.265	307.69	9.87	29.69	I	D	SP	P
WET	22.493	302.83	9.87	29.69	I	D	SP	P
NUR	22.944	337.51	9.78	29.39	I	D	LP	P
CLL	22.962	308.31	9.78	29.39	I	D	SP	P
BRN	23.196	311.10	9.78	29.39	I	D	SP	P
FUR	23.370	299.88	9.70	29.13	I	D	SP	P
HOF	23.386	305.39	9.70	29.13	I	D	SP	P
OGA	23.393	296.58	9.70	29.13	I	D	SP	P
GAP	23.425	298.11	9.70	29.13	I	D	SP	P
MOX	23.628	306.10	9.70	29.13	I	D	LP	P
GRF	23.664	303.64	9.70	29.13	I	D	SP	P
STU	24.824	300.89	9.49	28.44	I	D	LP	P
COP	24.883	318.08	9.49	28.44	I	D	SP	P
COP	24.883	318.08	9.49	28.44	I	D	LP	P
KJF	25.368	345.21	9.43	28.25	I	D	LP	P
HAM	25.413	311.95	9.43	28.25	I	D	SP	P
TNS	25.523	304.10	9.43	28.25	I	D	SP	P
DBN	27.879	307.43	9.20	27.50	I	D	LP	P

Table 87. Station data for event 212 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KON	28.063	324.45	9.20	27.50	I	D	LP	P
KONO	28.063	324.45	9.20	27.50	I	D	LP	P
ARO	28.689	178.65	9.14	27.30	I	D	SP	P
BER	30.312	323.82	8.87	26.43	I	D	LP	P
KEV	30.555	349.67	8.87	26.43	I	D	LP	P
NDI	30.927	101.08	8.83	26.30	I	C	SP	P
ALI	32.834	280.60	8.69	25.86	I	C	LP	P
ESK	33.300	312.16	8.66	25.76	E	D	LP	P
LGR	33.307	288.58	8.66	25.76	I	D	SP	P
WMQ	33.637	68.78	8.66	25.76	I	C	SP	P
ALM	34.794	278.94	8.56	25.44	I	D	SP	P
POO	34.812	119.26	8.56	25.44	I	C	SP	P
TOL	35.057	284.63	8.56	25.44	I	D	SP	P
TOL	35.057	284.63	8.56	25.44	E	N	LP	P
MAL	36.309	279.65	8.48	25.19	I	D	SP	P
DMN	37.442	96.28	8.42	25.00	I	C	SP	P
KKN	37.482	95.90	8.42	25.00	I	C	SP	P
PKI	37.692	96.11	8.42	25.00	I	C	SP	P
SFS	37.754	280.09	8.39	24.90	I	C	SP	P
PTO	38.049	288.27	8.39	24.90	O	D	LP	P
IFR	38.068	275.12	8.39	24.90	I	C	SP	P
HYB	38.785	115.35	8.33	24.71	I	C	SP	P
BNG	41.599	217.03	8.19	24.27	I	D	SP	P
NAI	41.691	188.11	8.19	24.27	I	D	SP	P
AKU	41.960	327.46	8.16	24.17	I	D	SP	P
GTA	43.557	71.73	8.08	23.92	I	C	SP	P
LZH	47.781	74.30	7.82	23.11	I	C	LP	P
TEN	48.854	274.98	7.75	22.89	I	C	SP	P
CD2	50.038	80.46	7.66	22.61	I	C	SP	P
BTO	50.396	66.25	7.62	22.48	I	C	SP	P
HHC	51.374	65.35	7.54	22.24	I	C	SP	P
KMI	52.204	87.43	7.50	22.11	I	C	LP	P
CHG	52.873	96.46	7.42	21.86	I	C	LP	P
TIY	53.307	68.58	7.38	21.74	I	C	SP	P
KIC	53.853	244.05	7.34	21.62	I	C	SP	P
BDT	53.860	97.97	7.34	21.62	I	C	SP	P
GDH	54.894	334.31	7.26	21.37	I	D	LP	P
WHN	58.133	75.25	7.04	20.69	I	C	SP	P
SNY	59.085	59.47	6.96	20.44	I	C	SP	P
DL2	59.173	63.29	6.96	20.44	I	C	SP	P
CN2	59.369	56.69	6.93	20.35	I	C	SP	P
NJ2	60.653	71.44	6.85	20.11	I	C	SP	P
GZH	61.401	83.04	6.77	19.86	I	C	SP	P
SNG	61.500	105.85	6.77	19.86	I	C	LP	P
SSE	62.847	71.16	6.64	19.47	I	C	LP	P
SEO	63.476	62.19	6.60	19.34	I	C	LP	P
QZH	64.314	78.28	6.52	19.10	I	C	SP	P
ANP	66.359	76.40	6.36	18.61	I	C	LP	P
TATO	66.457	76.61	6.36	18.61	I	C	LP	P
SLR	66.980	193.62	6.31	18.46	I	D	LP	P

Table 87. Station data for event 212 .... continued.

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BPI	67.454	193.77	6.27	18.34	I	C	SP	P
BAG	70.816	84.52	6.00	17.52	I	C	LP	P
MAJO	71.489	57.63	5.96	17.40	I	C	LP	P
MAT	71.489	57.63	5.96	17.40	I	C	SP	P
GRM	74.675	193.51	5.75	16.77	I	D	LP	P
COL	74.825	4.39	5.72	16.68	E	N	LP	P
COL	74.825	4.39	5.72	16.68	E	N	LP	P
SUR	74.993	198.62	5.72	16.68	I	D	SP	P
RSNT	75.854	349.11	5.65	16.47	I	D	LP	P
LEM	76.139	111.54	5.65	16.47	I	C	LP	P
MNT	77.050	319.48	5.59	16.29	I	C	SP	P
GAC	77.818	320.58	5.52	16.08	I	D	LP	P
OTT	78.157	320.48	5.52	16.08	I	C	SP	P
RSNY	78.182	319.26	5.52	16.08	I	D	LP	P
DAV	80.423	88.84	5.31	15.46	I	C	LP	P
RSON	81.337	333.49	5.22	15.19	I	D	LP	P
SCP	82.601	318.49	5.15	14.98	I	D	LP	P
MRG	84.528	318.93	5.02	14.59	I	C	SP	P
BLA	86.608	317.64	4.87	14.15	E	D	LP	P
FDF	90.445	289.70	4.70	13.64	I	D	SP	P
RSCP	90.467	319.89	4.70	13.64	I	D	LP	P
RSSD	90.606	336.39	4.70	13.64	E	N	LP	P
GUA	90.795	71.58	4.70	13.64	E	C	LP	P
LON	92.144	349.06	4.67	13.55	E	N	LP	P
TUL	94.862	326.95	4.58	13.29	E	C	LP	P
ANMO	99.721	334.30	4.47	12.96	E	N	LP	P
BDF	100.025	258.04	4.45	12.90	E	C	LP	Pdf
HNR	117.147	78.87	1.88	5.41	I	C	LP	PKP
PEL	126.873	255.09	1.86	5.36	I	C	SP	PKP
KOU	127.277	86.11	1.86	5.36	I	C	SP	PKP
NOU	129.930	86.44	1.85	5.33	I	C	SP	PKP