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U. S. GEOLOGICAL SURVEY

Catalog Of First Motion Focal Mechanisms

1981 - 1983

Volume 3

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by

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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 3):

This is the third of a set of three volumes that present the first motion focal mechanisms routinely 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 Islands of the South and Southwest Pacific Ocean including Indonesia and the southern Philippine Islands (figure 64). This geographic area of volume 3 was divided into 6 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 equadistant projections, as figures 65, 72, 74, 79, 86, and 95 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 (301-700 km.). Table 173 shows the map name, latitude and longitude of the center and the radius for each azimuthal equadistant projection.

Table 173. Azimuthal equidistant projections coordinates and map radii for Volume 3

MAP NAME	LATITUDE OF CENTER (DEGREES)	LONGITUDE OF CENTER (DEGREES)	RADIUS OF MAP (DEGREES)
TONGA-FIJI-KERMADEC ISLES.	25.0 S	173.0 W	12
GILBERT ISLANDS	10.0 S	177.0 E	10
VANUATU-LOYALTY ISLES.	15.0 S	170.0 E	10
E.NEW GUINEA-SOLOMON ISLANDS	5.0 S	155.0 E	12
EAST INDONESIA	5.0 S	125.0 E	16
SOUTH PACIFIC OCEAN	50.0 S	165.0 E	20

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 174.

Table 174. Flinn-Engdahl region numbers for earthquakes within Volume 3 geographic subdivisions

GEOGRAPHIC SUBDIVISION	REGION NUMBER
TONGA-FIJI-KERMADEC ISLANDS	169,171,173,174,175,177,178,179, 181
GILBERT ISLANDS	618
VANUATU-LOYALTY ISLANDS	184,186,189
E.NEW GUINEA-SOLOMON ISLANDS	190,192,193,199,200,202,207,614
EAST INDONESIA	201,259,261,263,267,277,280,281, 282,284,285,286,287
SOUTH PACIFIC OCEAN	161,165,598,701

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 requests focal mechanisms, may be included even though the selection criteria were not met. Volume 3 has one of these special events, the Gilbert Islands earthquake of 7 January 1982. Table 175 lists the hypocenter parameters for the earthquakes in this volume chronologically and by event number for each geographic subdivision. It contains a total of 95 earthquakes for which focal mechanisms were computed. Of these 17 were selected using the criterion of magnitude greater than or equal to 6.5, 77 using the criteria of m_b greater than or equal to 5.8 or 5.7 with depths greater than 70 km., and one was selected as a special event. Some of the earthquakes of this listing have magnitudes smaller than the above values because the selection criteria were applied to events in the U.S.Geological Survey PDE listing, rather than to events in the PDE Monthly Listing where the focal mechanism parameters are published. 15 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 in table 176. Three of these unreported events had magnitudes less than the selection criteria on the PDE and

were therefore not selected. The 12 other events were not reported because the 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 178, 203, 206, 221, 244, and 275 shows the focal mechanism parameters for each of the geographic subdivisions of this volume. the focal angles which are listed in this catalog and plotted on the lower hemisphere focal sphere projections in figures 66-71, 73, 75-78, 80-85, 87-94, and 96 were derived from the Earth model of Jeffreys and Bullen (1958). These figures, ordered by the event numbers (table 175) , show the nodal plane configuration; the P, T, and B axes of the focal mechanism; and the station data used. 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) the first motions determined by U.S.Geological Survey personnel from seismograms of the World-Wide Standardized Seismograph Network (WWSSN); (3) first motions obtained from the Global Digital Seismograph Network (GDSN). Individual station data, ordered by distance from the event, are shown as tables 179-202, 204-205, 207-220, 222-243, 245-274 and 276-279. The codes and locations for stations used in these tables are listed in the abbreviation table (table 177), (Presgrave,Needham and Minsch, 1985). These 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.

AKNOWLEDGEMENT

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 64. Mollweide projection showing geographic area for Volume 3

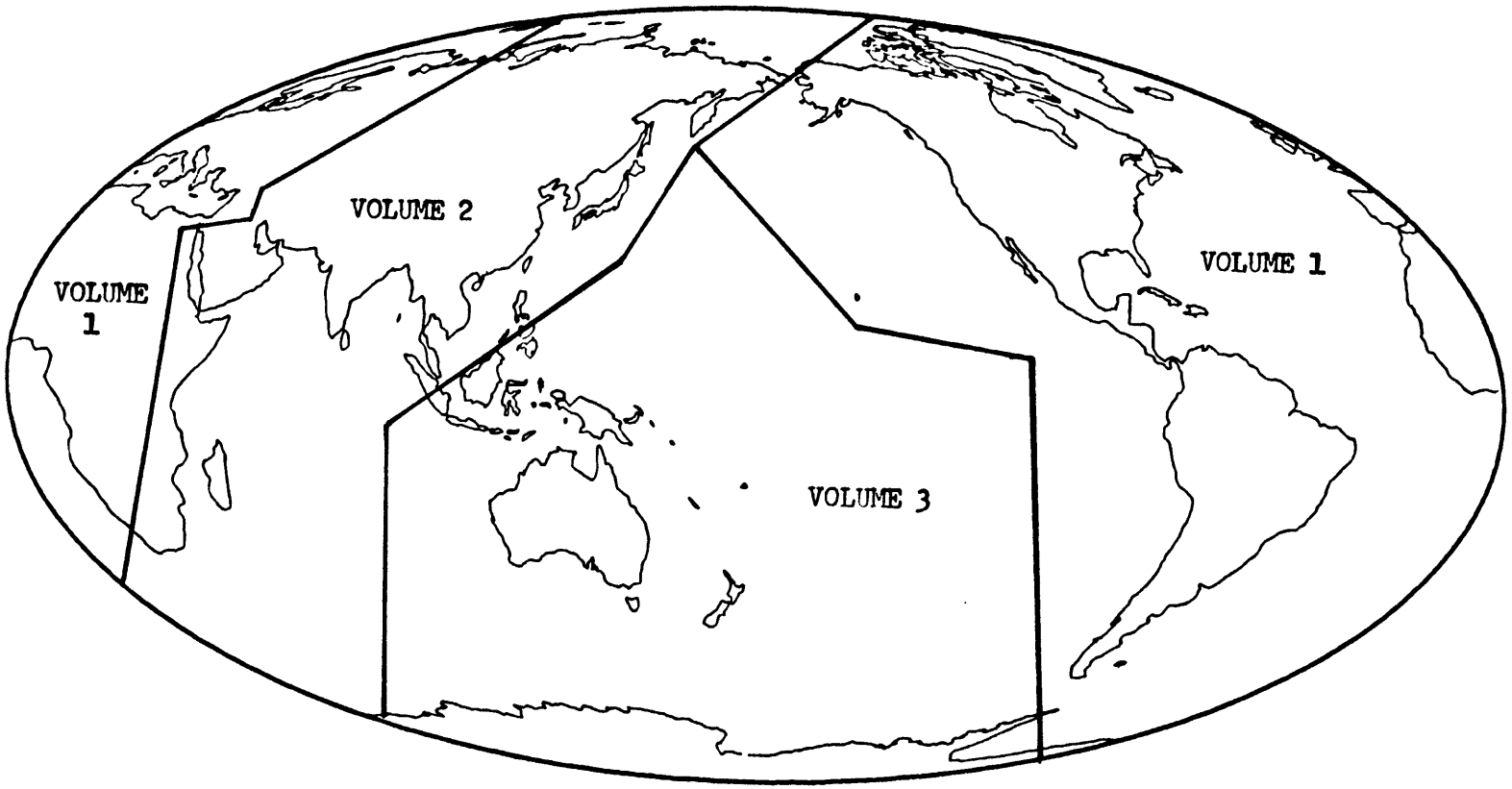

Table 175. Hypocenter parameters for events in volume 3 with focal mechanisms computed

EVT. NO.	DATE UTC.	ORIGIN TIME UTC. HR MN SEC	GEOGRAPHIC COORDINATES LAT.	LONG.	DEPTH km.	MAG. MB	MS	SD	NO. STA.	REGION
TONGA – FIJI – KERMADEC ISLANDS										
019	09/01/81	09 29 31.5	14.960 S	173.085 W	25G	7.0	7.7	1.2	248	SAMOA ISLANDS REGION
031	12/24/81	05 33 20.7	29.970 S	177.610 W	28D	6.0	6.8	1.2	264	KERMADEC ISLANDS
032	12/26/84	17 05 32.5	29.934 S	177.741 W	33N	6.1	7.1	1.2	248	KERMADEC ISLANDS
048	05/02/82	11 19 38.0	29.318 S	177.151 W	25	6.0	6.5	1.3	155	KERMADEC ISLANDS
052	06/02/82	12 37 34.5	18.083 S	172.492 W	33N	6.4	6.4	1.2	313	TONGA ISLANDS REGION
072	09/03/82	23 39 39.0	15.296 S	173.089 W	33N	5.9	6.3	1.1	207	TONGA ISLANDS
073	09/04/82	13 31 14.9	25.524 S	176.245 W	33N	6.0	6.0	1.0	200	SOUTH OF FIJI ISLANDS
076	09/17/82	13 28 24.8	23.469 S	179.852 W	546D	5.9		0.9	273	SOUTH OF FIJI ISLANDS
077	09/28/82	15 14 36.7	24.271 S	176.674 W	40D	6.0	6.1	1.3	237	SOUTH OF FIJI ISLANDS
091	12/19/82	17 43 54.8	24.133 S	175.864 W	33N	5.9	7.7	1.5	104	SOUTH OF TONGA ISLANDS
092	12/20/82	02 58 10.5	23.723 S	175.977 W	32D	5.6	6.3	1.2	126	TONGA ISLANDS REGION
096	01/08/83	11 21 29.5	15.394 S	173.330 W	33N	6.1	6.3	1.1	267	TONGA ISLANDS
104	01/26/83	16 02 21.3	30.383 S	179.339 W	238D	6.0		1.2	367	KERMADEC ISLANDS REGION
106	02/07/83	18 23 16.6	29.707 S	177.832 W	52D	6.0	5.9	1.0	265	KERMADEC ISLANDS
126	03/21/83	07 44 17.7	21.466 S	175.431 W	68D	6.3		1.0	315	TONGA ISLANDS
137	04/15/83	00 09 33.3	19.221 S	175.469 W	227	5.7		1.0	298	TONGA ISLANDS
146	05/05/83	04 43 50.4	33.866 S	179.649 E	25	5.8	5.4	1.3	90	SOUTH OF KERMADEC ISLANDS
151	05/11/83	21 48 15.4	21.432 S	173.453 W	33D	5.7	5.3	1.1	156	TONGA ISLANDS
156	06/01/83	01 59 54.6	17.038 S	174.605 W	180D	6.2		1.0	343	TONGA ISLANDS
187	08/30/83	08 50 17.1	16.708 S	172.082 W	39D	6.0	5.7	1.1	298	SAMOA ISLANDS REGION
194	09/17/83	12 11 42.7	16.636 S	177.476 W	33N	6.1	6.5	1.2	211	FIJI ISLANDS REGION
204	10/17/83	13 25 21.1	20.794 S	173.758 W	30D	6.0	6.3	1.3	171	TONGA ISLANDS
227	11/29/83	23 41 07.3	19.503 S	177.783 W	525	5.7		0.9	305	FIJI ISLANDS REGION
230	12/03/83	01 23 55.3	15.240 S	172.915 W	33N	6.0	6.0	1.3	204	SAMOA ISLANDS REGION
GILBERT ISLANDS										
036	01/07/82	08 42 50.7	3.387 S	177.569 E	33N	5.8	5.4	1.1	164	GILBERT ISLANDS REGION
105	01/03/83	21 17 31.5	3.480 S	177.709 E	31D	5.8	5.3	1.0	141	GILBERT ISLANDS REGION
VANUATU – LOYALTY ISLANDS										
006	02/17/81	15 18 33.7	21.743 S	169.377 E	30	5.6	6.7	1.0	95	LOYALTY ISLANDS REGION
010	04/24/81	21 50 06.0	13.426 S	166.421 E	33N	6.1	6.9	1.3	192	VANUATU ISLANDS
015	07/06/81	03 08 24.1	22.293 S	171.742 E	33N	6.9	7.0	0.9	235	LOYALTY ISLANDS REGION
017	07/15/81	07 59 08.4	17.260 S	167.610 E	30D	5.6	7.0	1.0	87	VANUATU ISLANDS
021	09/17/81	08 23 24.6	22.518 S	170.506 E	30D	5.7	6.6	1.0	118	LOYALTY ISLANDS REGION
028	11/24/81	23 30 32.6	22.504 S	170.635 E	30	5.6	6.7	1.1	215	LOYALTY ISLANDS REGION
042	02/20/82	13 26 50.3	10.861 S	166.015 E	36D	6.0	6.8	1.1	180	SANTA CRUZ ISLANDS
062	08/05/82	20 32 52.9	12.597 S	165.931 E	31	6.2	7.1	1.4	165	SANTA CRUZ ISLANDS
068	08/22/82	03 42 36.1	20.553 S	169.451 E	34D	5.6	5.1	1.1	179	VANUATU ISLANDS
077	10/05/82	09 14 32.5	15.591 S	168.004 E	18	5.8	5.4	1.0	190	VANUATU ISLANDS
083	11/16/82	17 25 53.3	14.614 S	168.025 E	27D	5.8	5.5	1.0	213	VANUATU ISLANDS
086	12/03/82	22 29 59.7	13.323 S	167.205 E	257	5.7		1.1	232	VANUATU ISLANDS
152	05/23/83	06 54 36.6	13.812 S	171.308 E	27D	5.7	5.6	1.1	164	VANUATU ISLANDS
169	07/05/83	11 11 39.8	22.599 S	171.020 E	33	6.1	6.4	1.1	208	LOYALTY ISLANDS REGION
EAST NEW GUINEA – SOLOMON ISLANDS										
025	11/06/81	16 47 49.1	3.558 S	143.790 E	33N	6.2	6.9	1.2	187	NEAR N. COAST OF PAPUA NEW GUINEA
064	08/12/82	02 13 08.6	4.354 S	153.158 E	45D	5.9	6.4	1.2	206	NEW IRELAND REGION
065	08/14/82	14 27 40.2	5.055 S	143.964 E	106	5.9		1.0	294	PAPUA NEW GUINEA
087	12/05/82	05 48 25.3	9.884 S	161.168 E	97	5.8		1.0	177	SOLOMON ISLANDS
098	01/16/83	22 10 12.2	5.458 S	147.046 E	235	6.0		0.9	309	EAST PAPUA NEW GUINEA REGION
113	02/25/83	22 03 56.3	5.401 S	146.878 E	235D	5.9		1.4	298	EAST PAPUA NEW GUINEA REGION
120	03/11/83	03 10 41.5	6.972 S	147.389 E	62	6.0		0.9	224	EAST PAPUA NEW GUINEA REGION
124	03/18/83	09 05 50.0	4.883 S	153.581 E	89	6.6	7.6	1.3	334	NEW IRELAND REGION
125	03/20/83	13 45 49.0	4.694 S	153.161 E	80	5.9		1.0	238	NEW IRELAND REGION
127	03/23/83	06 09 28.8	6.514 S	154.603 E	35	5.8	6.2	1.3	169	SOLOMON ISLANDS
138	04/15/83	04 44 01.4	6.487 S	154.938 E	38	5.8	5.5	1.0	224	SOLOMON ISLANDS
142	04/24/83	09 08 47.8	8.875 S	157.669 E	12	5.8	6.1	1.3	105	SOLOMON ISLANDS
148	05/10/83	11 02 35.8	5.399 S	150.896 E	112	6.1		1.0	301	NEW BRITAIN REGION
149	05/10/83	18 27 31.8	4.805 S	152.509 E	72	6.0	6.5	1.0	293	NEW BRITAIN REGION
199	10/08/83	22 33 32.0	5.458 S	146.020 E	59D	5.7		1.0	119	EAST PAPUA NEW GUINEA REGION
201	10/15/83	10 56 50.8	8.101 S	156.311 E	7	5.9	5.7	1.0	187	SOLOMON ISLANDS
225	11/25/83	21 54 12.3	5.466 S	152.003 E	26	5.7	6.0	1.1	183	NEW BRITAIN REGION
231	12/08/83	13 17 56.3	3.792 N	148.958 E	10G	5.9	6.0	1.2	200	CAROLINE ISLANDS REGION
235	12/15/83	14 11 24.7	3.155 S	145.393 E	24	5.9	6.2	1.0	208	NEAR N. COAST OF PAPUA NEW GUINEA
236	12/20/83	16 58 30.7	2.408 S	145.045 E	10G	5.9	6.1	1.2	112	ADMIRALTY ISLANDS REGION
238	12/21/83	23 32 11.6	5.540 S	151.860 E	33N	6.0	6.2	1.1	256	NEW BRITAIN REGION

Table 175. Hypocenter parameters for events in volume 3 with focal mechanisms computed....continued

239	12/22/83	01	02	02.4	5.392 S	151.868 E	26	5.7	6.4	1.2	189	NEW BRITAIN REGION
EAST INDONESIA													
002	01/19/81	15	11	01.0	4.576 S	139.232 E	33N	6.0	6.7	1.1	128	WEST IRIAN
044	03/11/82	10	32	27.1	9.265 S	118.479 E	33N	6.1	6.4	1.3	186	SUMBAWA ISLANDS REGION
056	06/22/82	04	18	40.5	7.339 S	126.043 E	450G	6.3		1.1	312	BANDA SEA
063	08/07/82	20	56	22.7	11.143 S	115.418 E	33N	6.1	6.2	1.1	287	SOUTH OF BALI ISLAND
080	10/07/82	07	15	56.6	7.156 S	125.776 E	515	6.2		1.0	309	BANDA SEA
107	02/12/83	08	47	12.7	5.669 N	126.297 E	51D	5.7	6.1	1.2	197	MINDANAO, PHILIPPINE ISLANDS
111	02/19/83	20	14	22.8	8.735 N	124.039 E	568	5.8		1.0	230	MINDANAO, PHILIPPINE ISLANDS
112	02/20/83	10	49	54.1	5.546 N	126.246 E	61	5.9		1.2	259	MINDANAO, PHILIPPINE ISLANDS
121	03/12/83	00	53	40.1	4.036 S	127.893 E	33N	5.8	6.0	1.1	205	BANDA SEA
122	03/12/83	01	36	35.8	4.056 S	127.924 E	17	6.0	6.5	1.1	257	BANDA SEA
123	03/15/83	19	58	30.4	5.346 N	126.566 E	41D	5.7	6.6	1.3	170	MINDANAO, PHILIPPINE ISLANDS
139	04/16/83	12	57	49.9	10.161 S	110.890 E	57	5.9		1.1	240	SOUTH OF JAVA
150	05/11/83	00	17	12.0	2.293 N	128.340 E	125D	5.7		1.2	173	HALMAHERA
173	07/14/83	19	47	46.5	5.557 N	126.452 E	43	5.8	6.0	1.1	213	MINDANAO, PHILIPPINE ISLANDS
176	07/24/83	23	38	09.8	8.141 S	119.504 E	48	5.8	5.8	1.2	112	FLORES ISLAND REGION
179	08/06/83	22	37	54.9	6.518 S	130.119 E	160D	5.8		1.0	217	BANDA SEA
181	08/11/83	22	56	10.7	1.815 N	127.294 E	100	5.7		1.0	140	HALMAHERA
182	08/13/83	22	28	19.6	8.667 S	111.240 E	81	5.9		1.1	241	JAVA
185	08/21/83	08	34	45.7	3.742 N	126.617 E	46	5.8	5.6	1.1	197	TALAUD ISLANDS
202	10/16/83	05	32	28.7	1.084 N	121.032 E	40D	6.0	6.0	1.1	186	MINAHASSA PENINSULA
209	10/25/83	00	36	23.4	1.131 N	120.858 E	33N	5.8	6.1	1.3	169	MINAHASSA PENINSULA
210	10/27/83	19	43	48.4	1.093 N	120.833 E	28	5.7	6.2	1.1	204	MINAHASSA PENINSULA
213	10/31/83	17	37	56.2	9.016 S	119.180 E	83D	6.0		1.2	237	SUMBA ISLAND REGION
215	11/07/83	08	39	20.4	1.411 N	128.164 E	31D	5.7	6.1	1.3	153	HALMAHERA
216	11/07/83	08	42	29.9	1.270 N	128.335 E	59D	5.8		1.3	77	HALMAHERA
217	11/07/83	16	26	31.7	1.413 N	128.154 E	39D	5.9	6.4	1.2	153	HALMAHERA
219	11/16/83	22	07	21.7	8.980 S	119.156 E	79	5.8		1.1	163	FLORES ISLAND REGION
221	11/20/83	20	32	20.5	7.450 S	130.645 E	59D	6.0		1.0	244	TANIMBAR ISLANDS REGION
223	11/24/83	05	30	34.2	7.481 S	128.168 E	179	6.4		1.2	364	BANDA SEA
233	12/12/83	09	26	07.0	7.583 S	127.288 E	137	6.1		1.1	302	BANDA SEA
SOUTH PACIFIC OCEAN													
011	04/27/81	18	17	33.7	57.591 S	148.079 E	10G	5.7	6.5	1.4	122	WEST OF MACQUARIE ISLAND
012	05/25/81	05	25	14.4	48.786 S	164.357 E	33N	6.1	7.6	1.2	199	OFF W. COAST OF S. ISLAND, NZ.
059	07/07/82	10	43	03.7	51.225 S	160.513 E	10G	6.3	7.0	1.3	286	NORTH OF MACQUARIE ISLAND
224	11/25/83	19	56	07.8	40.451 S	155.507 E	19	6.0	5.8	1.0	213	SOUTHEAST OF AUSTRALIA

Table 176. Hypocenter parameters for events in volume 3 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
TONGA - FIJI - KERMADEC ISLANDS										
	12/19/82	00 06 19.7	32.547 S	178.411 W	36	5.8	5.3	1.2	75	SOUTH OF KERMADEC ISLANDS
	02/17/83	16 10 39.1	21.592 S	174.179 W	32D	5.8	5.5	1.2	101	TONGA ISLANDS
	04/24/83	03 29 17.5	23.976 S	175.956 W	29D	5.9	5.5	1.0	202	TONGA ISLANDS REGION
	04/30/83	02 51 43.3	21.354 S	174.252 W	23D	5.8	5.6	1.2	217	TONGA ISLANDS
	09/16/83	08 09 26.6	24.032 S	179.796 W	510D	6.0		1.0	192	SOUTH OF FIJI ISLANDS
	10/17/83	13 25 21.1	20.794 S	173.758 W	30D	6.0	6.3	1.3	171	TONGA ISLAQNDS
GILBERT ISLANDS										
	02/05/83	23 51 45.8	3.514 S	177.768 E	33N	5.8	5.6	0.8	160	GILBERT ISLANDS
	03/08/83	13 21 46.9	3.471 S	177.628 E	33N	5.8	5.0	0.9	170	GILBERT ISLANDS
VANUATU - LOYALTY ISLANDS										
	04/04/83	23 58 59.0	15.038 S	167.285 E	123D	6.2		1.0	196	VANUATU ISLANDS
EAST NEW GUINEA - SOLOMON ISLANDS										
	05/17/83	23 26 30.8	5.371 S	150.938 E	97D	5.7		1.0	138	NEW BRITAIN REGION
	09/24/83	17 17 53.6	3.727 S	151.090 E	10G	5.9	6.1	1.2	160	NEW IRELAND REGION
	11/29/83	22 18 30.9	6.220 S	146.560 E	39	5.8	5.2	1.1	143	EAST PAPUA NEW GUINEA
EAST INDONESIA										
	08/06/82	20 40 52.2	8.375 S	120.577 E	46	5.9	5.6	1.2	76	FLORES ISLANDS REGION
	12/18/83	17 28 30.3	8.964 S	119.728 E	36	5.8	4.7	1.2	136	FLORES ISLANDS REGION
SOUTH PACIFIC OCEAN										
	07/31/83	10 26 00.3	20.127 S	126.931 W	10G	5.9	5.3	0.9	212	SOUTH PACIFIC OCEAN

Table 177. 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 Covern 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	Ainapa, Hawaii, U.S.A.
AJI	Ajiro, Honshu, Japan
AKU	Akureyri, Iceland
ALE	Alert, Northwest Territories, Canada
ALI	Alicante, Spain
ALM	Almerio, Spain
ALP	Ascoli Piceno, Marche, Italy
ALQ	Albuquerque, New Mexico, U.S.A.
ALT	Altintos, 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	Antofogasto, Antofogasto, Chile
ANTO	Ankara, Turkey
AQU	L'Aquila, Abruzzo, Italy
ARE	Arequipa (Chorocoto), Peru
ARN	Arnold Ranch, California, U.S.A.
ARO	Arto 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	Altono, Oklahoma, U.S.A.
ATX	Austin, Texas, U.S.A.
AVE	Averroes, Morocco
AVF	Avril sur Loire, Nivernais, France
AVY	Angovokely, Madagascar
BAA	Buenos Aires, Buenos Aires, Argentina
BAF	Belacker, Alsace, France
BAG	Baguio City, Luzon, Philippines
BAL	Bollidu, Western Australia, Australia
BBI	Big Bend, Idaho, U.S.A.
BCAO	Bongui, Central African Republic
BCK	Bucak, Turkey
BDF	Brasilia, Distrito Federal, Brazil
BDT	Bhumibol Dam, Thailand
BDW	Boulder, Wyoming, U.S.A.
BEC	Bermudo—Columbia, Bermudo
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, Boyern, Fed. Rep. of Germany
BHO	Bethel, Oklahoma, U.S.A.
BIM	Bigot, Martinique
BJI	Beijing (Peking), Beijing, China (Mainland)
BKB	Balikpapan, Kalimantan, Indonesia
BKR	Bokurioni, 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 Joneiro, Brazil
BMN	Battle Mountain, Nevada, U.S.A.
BMR	Baia More, Romania
BNG	Bangui, Central African Republic
BNH	Berlin, New Hampshire, U.S.A.
BNS	Bensberg, Nordrhein-Westfalen, Fed. Rep. of Germany
BOCO	Bogata, Colombia
BOG	Bogota, Colombia
BPI	Bernard Price Institute, Johannesburg Transvaal, South Africa
BPIL	Belle Proirie, Illinois, U.S.A.
BOA	Mbengga, Fiji
BRG	Berggiesshubel, German Dem. Rep.
BRK	Berkeley—Hovland, California, U.S.A.
BRL	Berlin—Free University Berlin (West), Fed. Rep. of Germany
BRN	Berlin, Berlin (West), Fed. Rep. of Germany
BRT	Bori-Costellano, Puglio, Italy
BRY	Bratogos, Yugoslavia
BSF	Bollon de Servance, Franche Comte, France
BSI	Bando Aceh, Sumatera, Indonesia
BTO	Bootou (Paotou), Inner Mongolia, China (Mainland)
BUC	Bucharest, Romania
BUC1	Bucharest, Romania
BUD	Budapest, Hungary
BUH	Buehlerhoehe, Boden-Wurttemberg, Fed. Rep. of Germany
BUL	Bulawayo, Zimbabwe
BUT	Butte, Montana, U.S.A.
CAF	Colvioc, Auvergne, France
CAI	Caico, Rio Grande do Norte, Brazil
CAN	Canberro, Australian Cap. Terr., Australia
CAR	Coracas, 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	Cadarache, Provence, France
CDY	Cape Darby, Alaska, U.S.A.
CEA	Ceohlou, Romania
CEN	Cerro Negro, San Juan, Argentina
CER	Ceres, Cape Province, South Africa
CEY	Cerknica, Yugoslavia
CFA	Coronel Fontono, San Juan, Argentina
CFI	College Fiord, Alaska, U.S.A.
CFR	Corcoliu, Romania
CGN	Colugareni, Romania
CGP	Cogoyon de Oro, Mindenao, Philippines
CHCH	Chadas Angostura, Santiago, Chile
CHG	Chiang Moi, Thailand
CHO	Chashi, Honshu, Japan
CHTO	Chiang Moi, Thailand
CIN	Cine, Turkey
CIR	Chiredzi, Zimbabwe
CLI	Calonesti, Romania
CLK	Chileko, Malawi
CLL	Collmberg, German Dem. Rep.
CLO	Closoni, Romania
CLX	Calx Mountain, Montana, U.S.A.
CMP	Campulung, Romania
CMS	Cobar Meteorology Station, New South Wales, Australia
CN2	Changchun, Jilin, China (Mainland)
CNG	Changolane, Mozambique
CNP	Catarman, Samar, Philippines
COI	Colmbra, 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	Coravelle, Martinique
CRT	Cartujo (Granado), Spain
CRX	Cerrillo, Mexico, Mexico
CSIL	Creol Springs, Illinois, U.S.A.
CSN	Chicoasen, Chiapas, Mexico

Table 177. 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	Cotolco, Turkey
CUM	Cumono, Venezuela
CVF	Calvi, Corsica, France
CVO	Covasna, Romania
CVP	Calloo Coves, Luzon, Philippines
CYA	Chaya, 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	Craghan, 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	Kilmashogue, 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	Couldkine Hill, Scotland, United Kingdom
ECP	Cornsare 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 Alo, 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	Farellones, 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	Galpazari, Turkey
GRB1	Graefenberg Array (Bruennthal) Bayern, Fed. Rep. of Germany
GRC	Gorchy, 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	Griva, 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	Gootai, 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	Garo Zlato, 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 (Hatidyazima), Bonin Islands, Japan
HKC	Hong Kong, Hong Kong
HKT	Hockley, Texas, U.S.A.
HLD	Holoksiton, Djibouti
HLP	Hilino Poli, Hawaii, U.S.A.
HLW	Helwan, Egypt
HMM	Hamamatsu (Hamamatu), Honshu, Japan
HNR	Honiara, Solomon Islands
HOF	Hof, Bayern, Fed. Rep. of Germany
HON	Honolulu, Hawaii, U.S.A.
HPU	Hole Pohoku, 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 Ingiinieria, UNAM Distrito Federal, Mexico
IIP	El Pino, Mexico, Mexico
IIT	Tonantzintla, 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 177. 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
ISQ	Mount Isa, 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	Josvafo, Hungary
JOZ	Jozini, Natal, South Africa
KAAO	Kabul, Afghanistan
KAE	Kaena, Hawaii, U.S.A.
KAG	Kagoshima, Kyushu, Japan
KAS	Kastamonu, Turkey
KBA	Barrage Koelnbrein, Austria
KBL	Kabul, Afghanistan
KBS	Kingsbay, Svalbard, Norway
KDC	Kadiak, 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	Kokhk, 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	Karai, Zimbabwe
KRO	Koro, Fiji
KRP	Karapiro, North Island, New Zealand
KSH	Kashi (Kashgar), Xinjiang, China (Mainland)
KSP	Ksiaz, Poland
KSR	Koster, Transvaal, South Africa
KSU	Kousour, 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, Java, 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 Haodo Mountain, Montana, U.S.A.
LIS	Lisbon, Portugal
LIT	Litokhoron, Greece
LJU	Ljubljana (Laibach), Yugoslavia
LLA	Llanada, 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	Longavila, Valparaiso, Chile
LON	Longmire, Washington, U.S.A.
LOR	Lormes (Somme), 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
LQT	Los Queltehues, Santiago, Chile
LRG	Lorgues, 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 (Dilimon), Luzon, 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, Heilongjiang, China (Mainland)
MDN	Morne Daniel, Dominica
MEI	Melilli, Basilicata, Italy
MEK	Meekathorra, Western Australia, Australia
MEM	Memboch, 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	Moshhod, Iran
MIM	Milo, Maine, U.S.A.
MIN	Mineral, California, U.S.A.
MIS	Mishimo, Honshu, Japan
MIT	Mito, Honshu, Japan
MIY	Miyoko, Honshu, Japan
MKA	Makaopuhi, Hawaii, U.S.A.
MKL	Maskali, Djibouti
MKS	Ujungpandang (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	Musomishta, Bulgaria
MMK	Mattmark, Switzerland
MMN	Marmanno, 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	Murotomisaki, Shikoku, Japan
MSI	Messina I.N.G., Sicily, Italy

Table 177. 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	Monsted 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	Mokuaweoweo, Hawaii, U.S.A.
MYK	Miyako-jima, Ryukyu Islands, Japan
MZF	Mazirat, 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	Nopah 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	Panguna, 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
PKT	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	Polino, 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	Pulkovo, 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	Poliokeowe 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	Roibi, 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	Rhoboro 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	Rikiteo, 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 177. 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
ROG	Rognes, Provence, France
RRO	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	Salo, 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	Shionomisaki (Siomisaki), Honshu, Japan
SHK	Shiroki, Honshu, Japan
SHL	Shillong, Meghalaya, India
SHN	Shimonoseki 3 (Shimonoseki), 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	Songkhla, 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	Srobarova, Czechoslovakia
SRS	Serroi, Greece
SRY	Shiroyama, Honshu, Japan
SSB	Saint Souveur en Rue, Languedoc, France
SSC	Saint Souveur de Carouges, Normandie, France
SSE	Sheshan, Shanghai, China (Mainland)
SSF	Saint Soulge, Nivernais, France
SSR	Susoro, 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 Ghambar, 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	Topalu, Romania
TLL	Tololo Astronomical Observatory, Coquimbo, Chile
TLO	Toledo, Spain
TLX	Tulancingo, Hidalgo, Mexico
TMA	Tamaro, Switzerland
TMU	Temuco, Coutin, Chile
TNS	Taunus, Hessen, Fed. Rep. of Germany
TOA	Talsona, Alaska, U.S.A.
TOL	Toledo, Spain
TOO	Toolangi, Victoria, Australia
TOT	Tottori, Honshu, Japan
TOV	El Tocuyo, Venezuela
TP2	Tecpan 2, Guatemala
TPT	Tiputa, Tuamotu Archipelago, French Polynesia
TRI	Trieste (Grotto Gigante) Friuli-Venezia Giulia, Italy
TRN	Trinidad (Saint Augustine) Trinidad, Trinidad and Tobago
TRO	Tromso, Norway
TRT	Tretes, Jawa, Indonesia
TSI	Tuntungon, Sumatera, Indonesia
TSK	Tsukuba, Honshu, Japan
TTA	Talalina, 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 177. Station code abbreviations and locations....continued

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	Valinhos, Sao Paulo, Brazil
VAY	Valandovo, Yugoslavia
VBA	Sierra de la 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	Volsomata (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	Windhaek, Namibia
WIT	Witteveen, Netherlands
WKY	Wakayama, Honshu, Japan
WLF	Walferdange, Luxembourg
WLO	Wilson, Oklahoma, U.S.A.
WMQ	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 Territories, 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	Zonga (La Paz), Bolivia
ZST	Bratislava—Zelezna Studnicka, Czechoslovakia
ZUL	Zurich—Lagaren, Switzerland

Figure 65. Azimuthal equidistant map for geographic subdivision, Tonga - Fiji - Kermadec islands

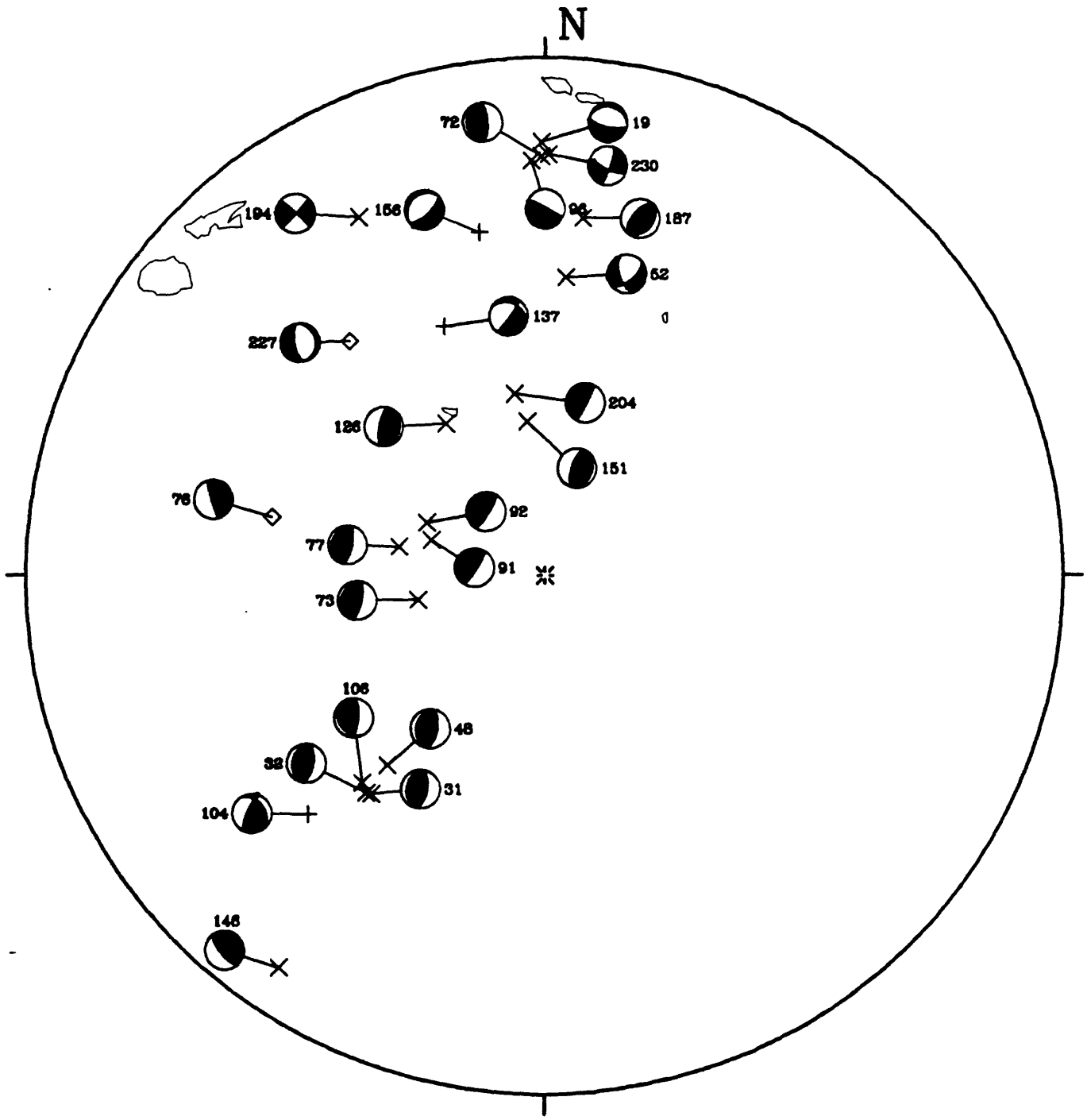

Table 178. Focal mechanism parameters for subdivision, Tonga - Fiji - Kermadec Islands

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
19	102	70	-90	282	20	-90	25	192	65	12	0	102
31	10	60	90	190	30	90	75	280	15	100	0	10
32	10	60	90	190	30	90	75	280	15	100	0	10
48	10	60	90	190	30	90	75	290	15	100	0	10
52	50	60	-37	161	59	-144	1	106	46	15	44	196
72	355	68	90	175	22	90	67	265	23	85	0	175
73	12	70	85	206	21	103	65	274	25	106	5	14
76	164	82	90	344	8	90	53	74	37	254	0	164
77	12	70	85	206	21	103	65	274	25	106	5	14
91	32	79	90	212	11	90	56	302	34	122	0	32
92	32	77	90	212	13	90	58	302	32	122	0	32
96	297	85	90	117	5	90	50	207	40	27	0	117
104	203	70	118	326	34	38	56	149	20	272	26	13
106	5	70	105	147	25	55	62	298	24	83	14	180
126	190	72	90	10	18	90	63	100	27	280	0	10
137	35	85	-120	296	30	-10	33	150	42	276	30	38
146	140	72	90	320	18	90	63	50	27	230	0	140
151	198	68	90	18	22	90	67	108	23	288	0	18
156	46	68	-90	226	22	90	67	316	23	136	0	46
187	220	58	90	40	32	90	77	130	13	310	0	40
194	42	88	3	312	87	178	4	267	1	177	86	76
204	28	84	90	208	6	90	51	298	39	118	0	28
227	170	66	-90	350	24	90	69	80	21	260	0	170
230	113	75	-168	20	78	-15	2	67	19	330	71	174

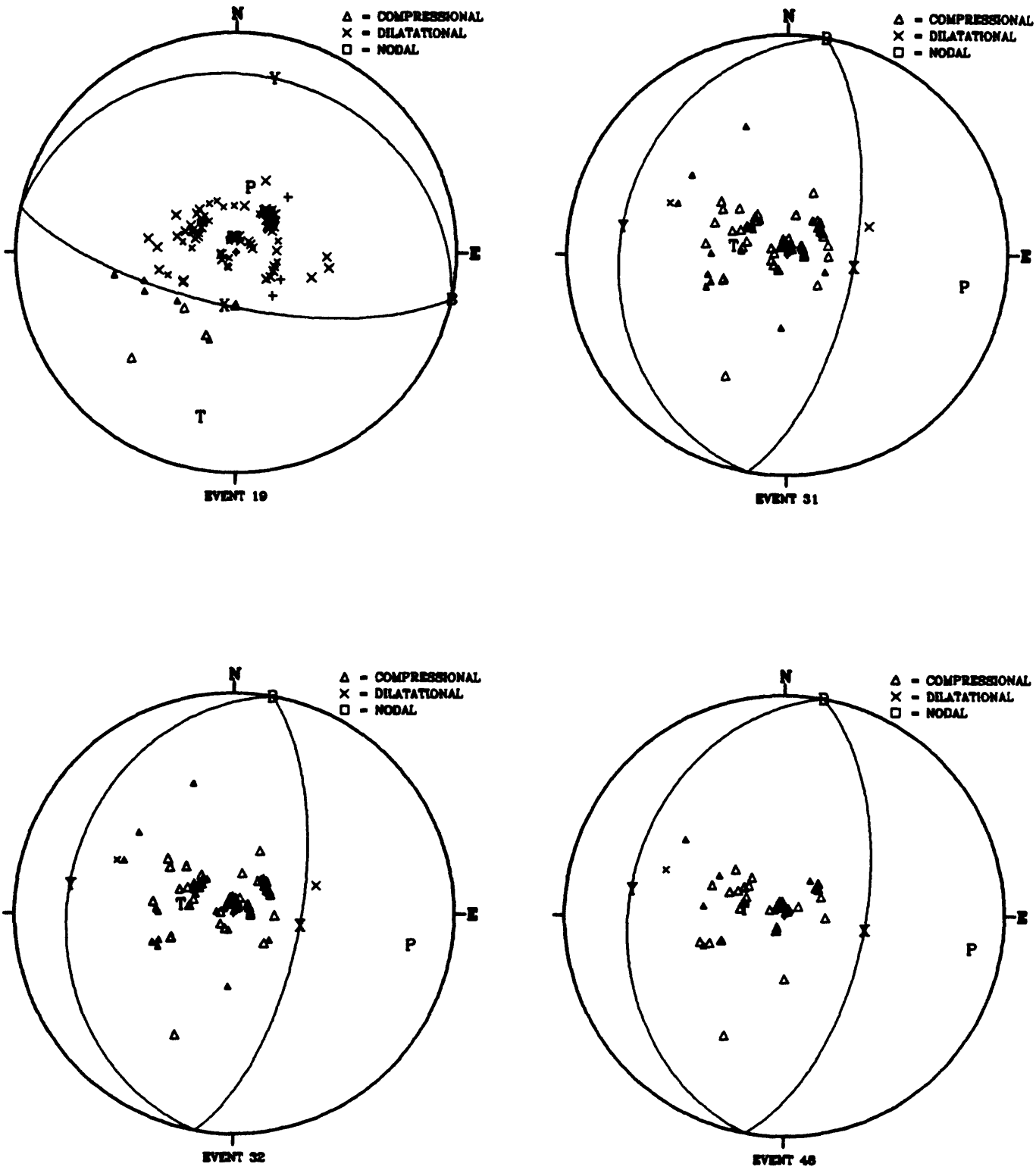

Figure 66. Lower hemisphere focal sphere projections for events 19, 31, 32, and 48

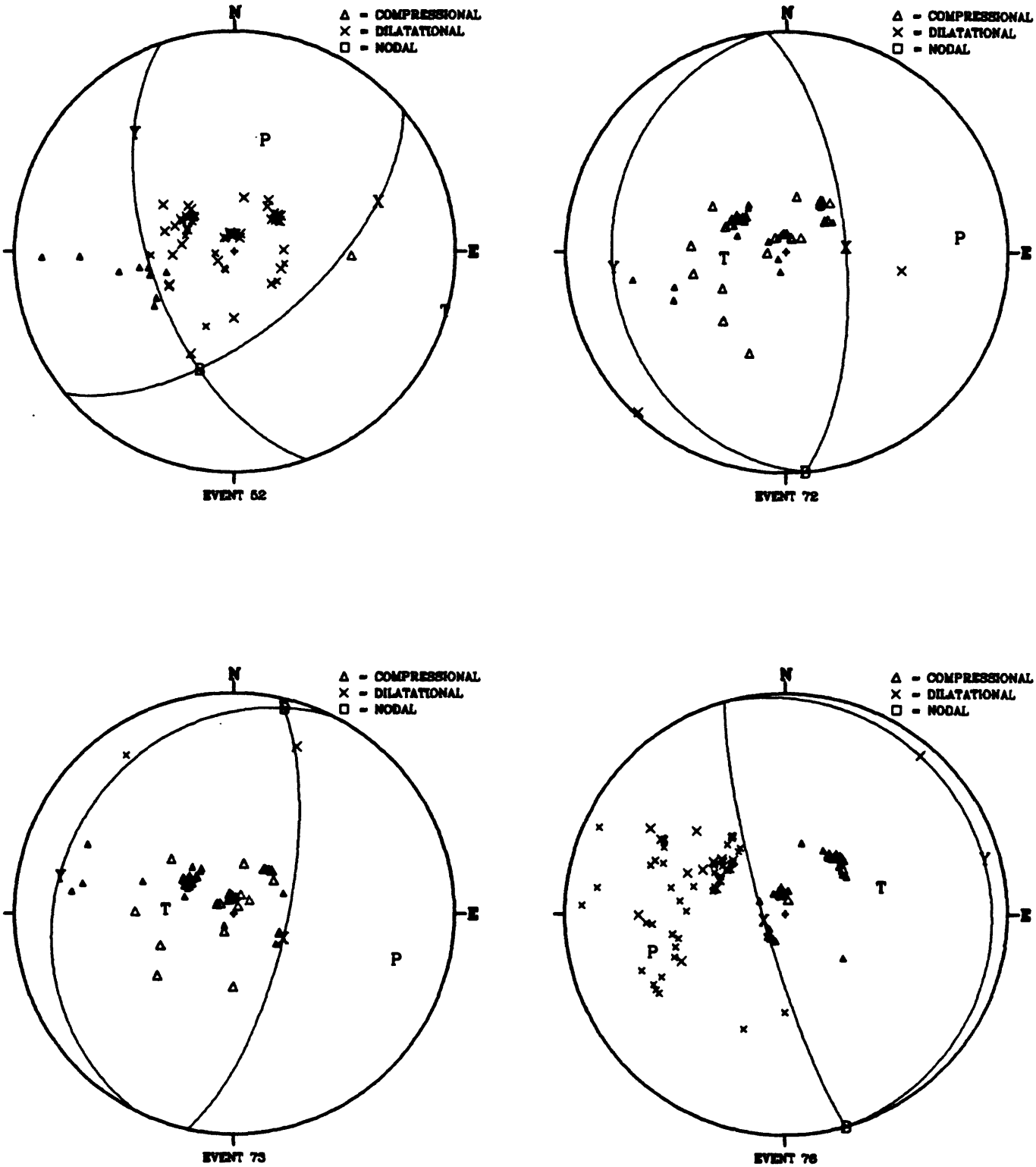

Figure 67. Lower hemisphere focal sphere projections for events 52, 72, 73, and 76

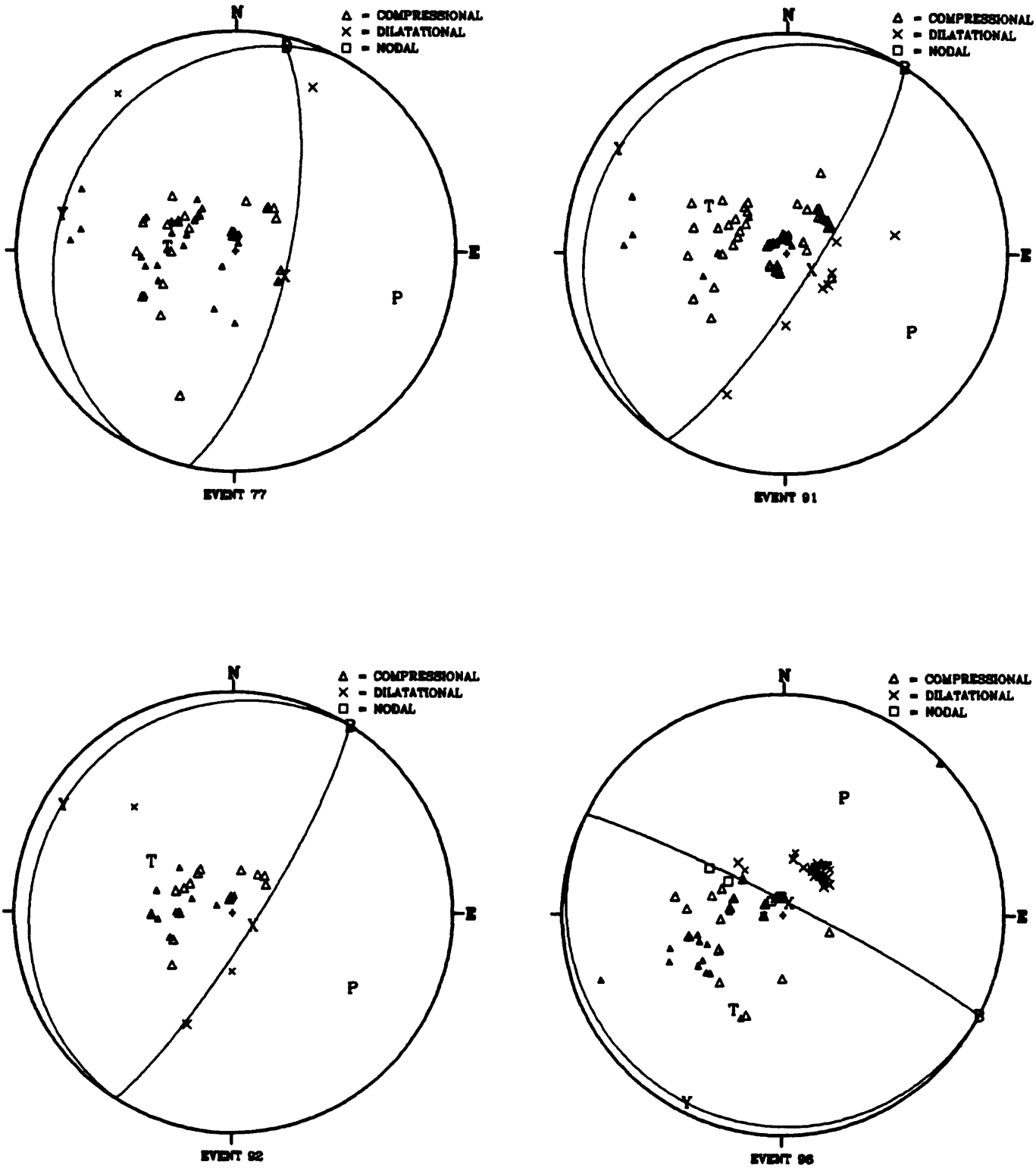

Figure 68. Lower hemisphere focal sphere projections for events 77, 91, 92, and 96

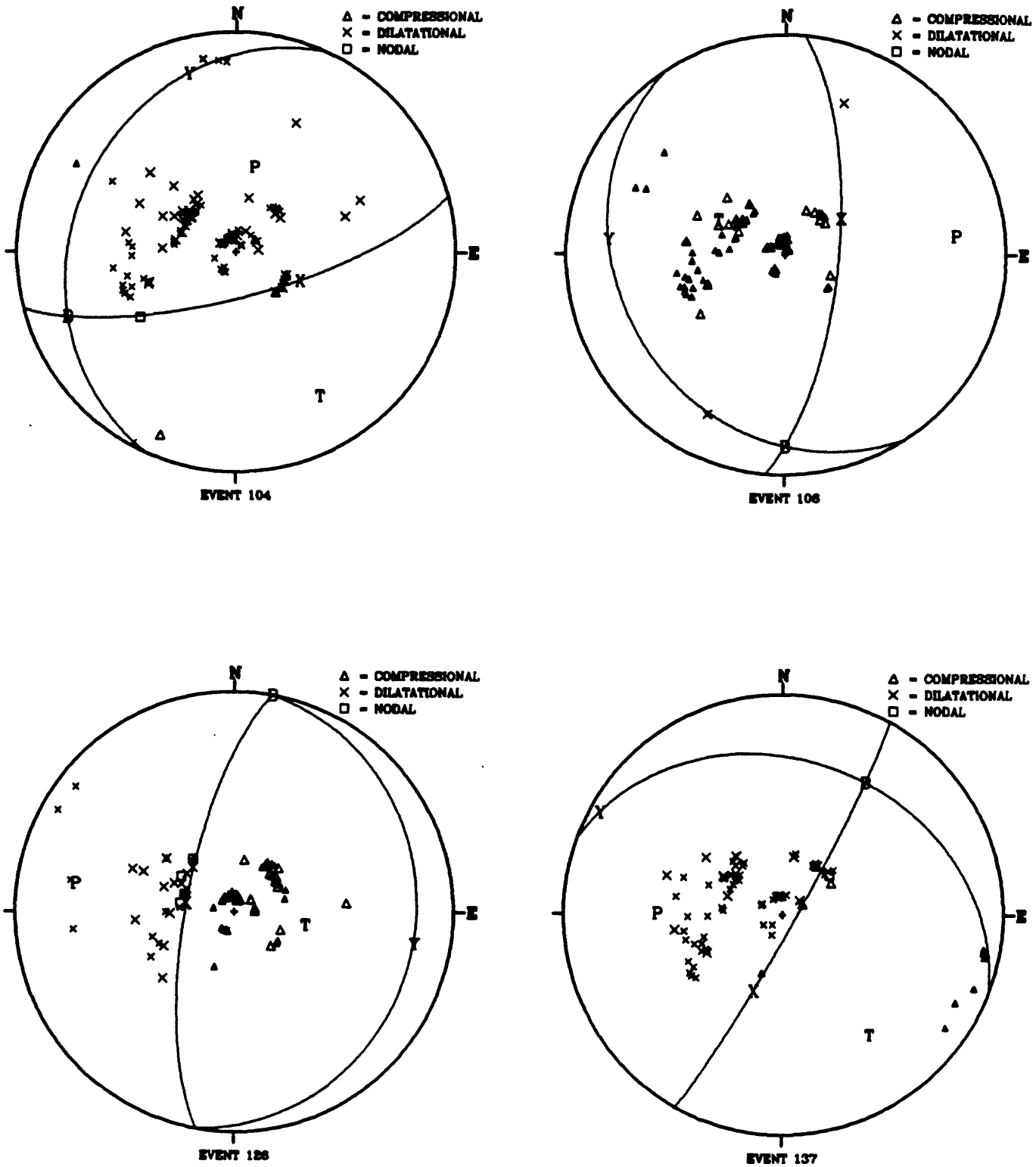

Figure 69. Lower hemisphere focal sphere projections for event 104, 106, 126, and 137

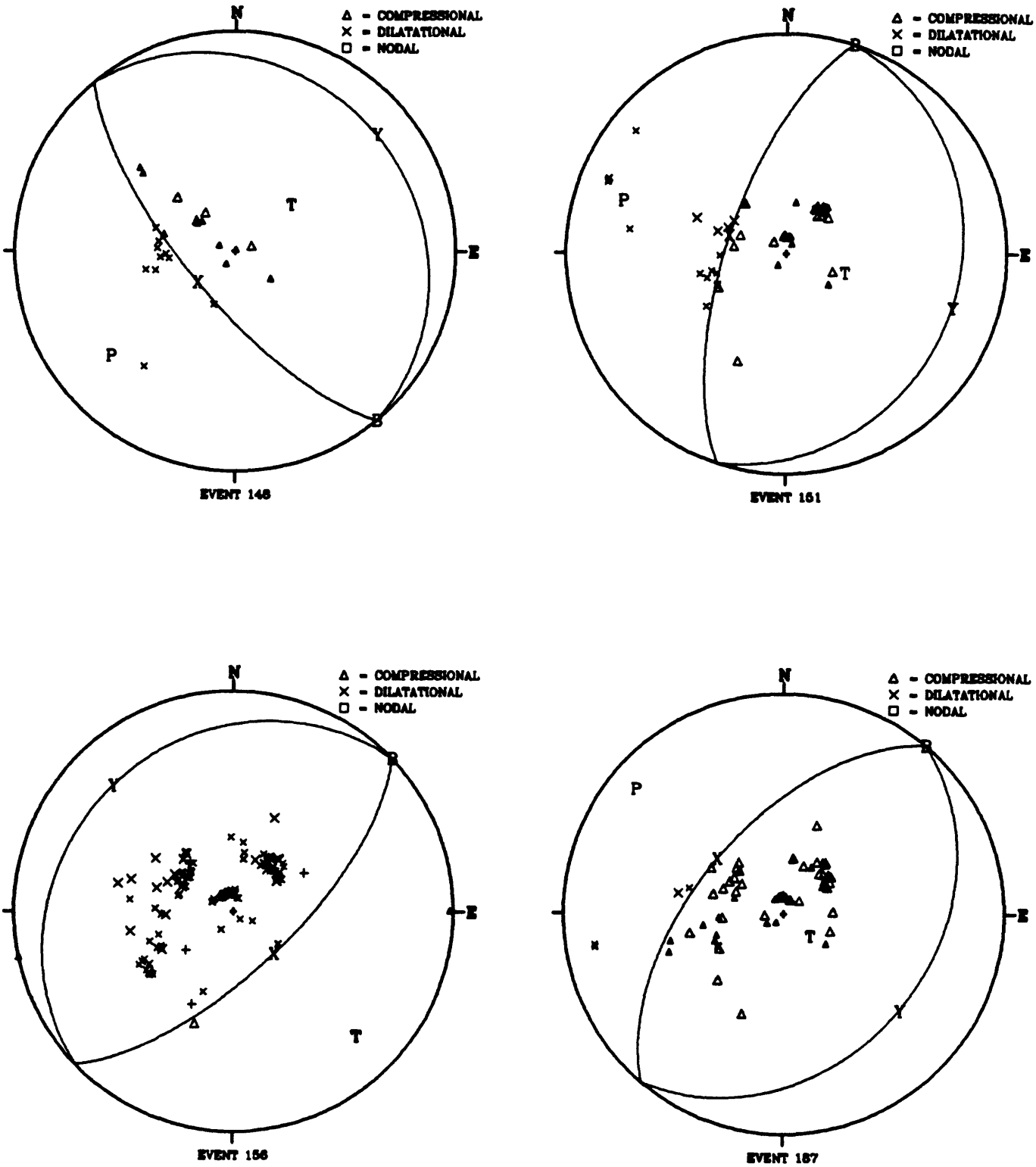

Figure 70. Lower hemisphere focal sphere projections for events 146, 151, 156, and 187

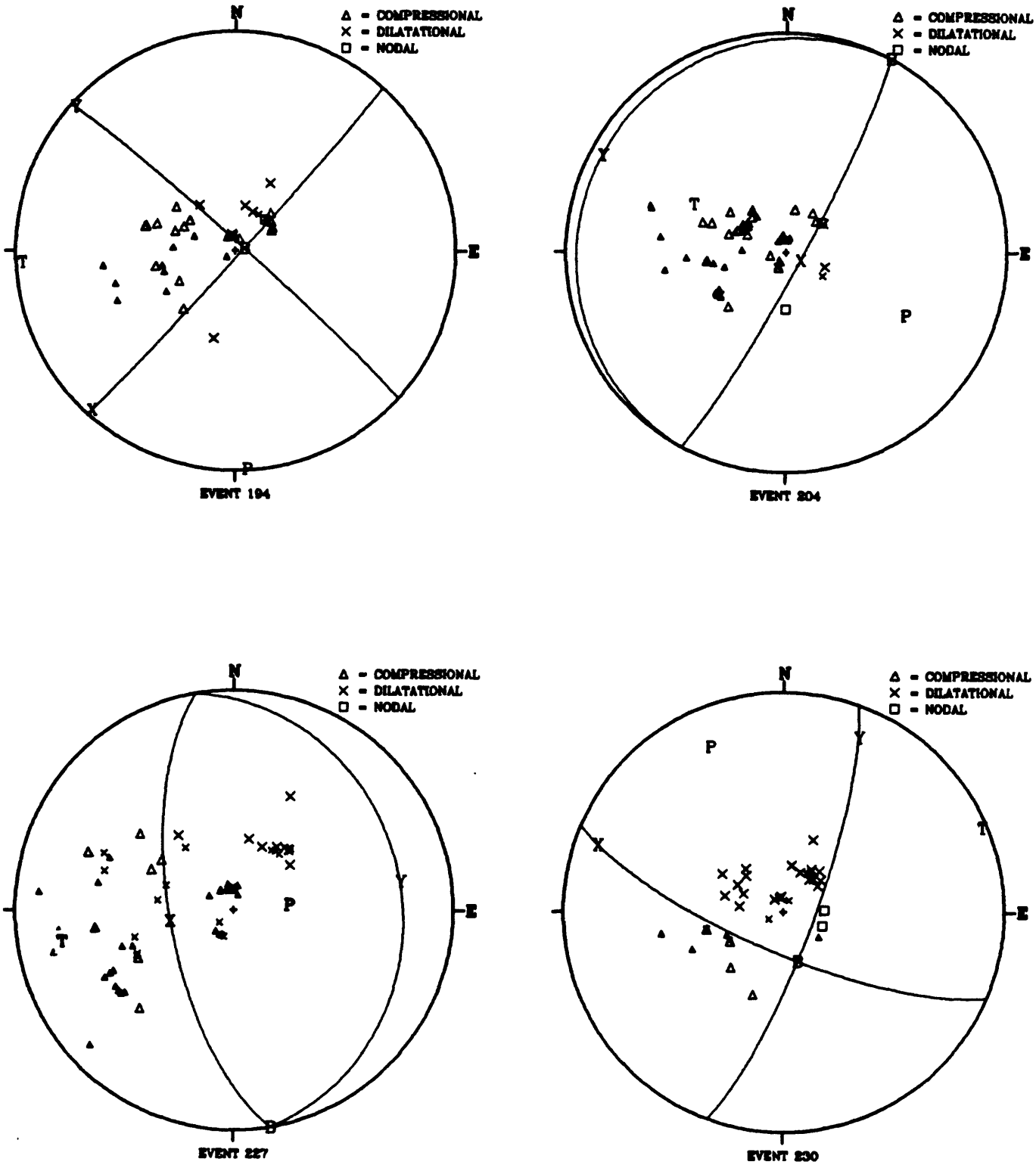

Figure 71. Lower hemisphere focal sphere projections for events 194, 204, 227, and 230

Table 179. Station data for event 19

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AFI	1.805	44.73	14.27	123.13	I	C	LP	P
PVC	18.019	259.38	12.39	46.65	I	C	SP	P
NOU	20.614	246.87	10.32	37.27	I	C	SP	P
KOU	22.180	252.79	9.96	35.77	I	C	SP	P
PPT	22.675	99.21	9.86	35.36	I	D	LP	P
TPT	24.585	92.85	9.54	34.05	I	D	LP	P
GNZ	24.629	196.89	9.54	34.05	I	C	SP	P
HNR	26.949	279.14	9.29	33.04	E	D	LP	P
WEL	28.042	199.71	9.19	32.64	I	C	LP	P
SNZO	28.084	199.78	9.19	32.64	I	C	LP	P
RKT	36.767	108.32	8.45	29.73	I	D	LP	P
CTAO	38.983	256.79	8.32	29.23	I	D	LP	P
CTA	38.983	256.79	8.32	29.23	I	D	LP	P
PMG	39.229	273.70	8.32	29.23	I	D	LP	P
KIP	39.282	22.50	8.30	29.15	I	D	LP	P
TOO	42.825	230.66	8.10	28.38	I	C	SP	P
TAU	43.666	222.71	8.08	151.69	E	D	LP	pP
TAU	43.666	222.71	8.08	28.31	I	C	LP	P
GUA	50.419	302.39	7.62	26.56	E	D	LP	P
ASP	50.468	251.72	7.62	26.56	I	D	SP	P
GUMO	50.483	302.41	7.62	26.56	I	D	LP	P
DAV	64.684	285.55	6.52	22.50	I	D	LP	P
NWAO	64.981	240.51	6.48	22.35	I	D	LP	P
MUN	65.895	241.50	6.39	22.02	I	D	LP	P
MAT	68.980	319.59	6.14	21.12	I	D	SP	P
MAJO	68.980	319.59	6.14	21.12	I	D	LP	P
MAT	68.980	319.59	6.14	21.12	I	D	LP	P
KUR	69.788	331.68	6.07	20.87	I	D	SP	P
SKR	70.929	339.82	6.00	20.62	I	D	SP	P
BKS	71.150	40.43	6.00	20.62	I	D	LP	P
SHK	71.407	315.02	5.96	20.47	I	D	LP	P
PAS	71.657	45.64	5.96	20.47	I	D	LP	P
JAS	72.326	41.27	5.89	20.22	I	D	SP	P
BAG	72.615	292.90	5.89	20.22	I	D	LP	P
WDC	72.632	38.04	5.89	20.22	I	D	SP	P
KKM	73.136	281.24	5.85	20.08	I	D	SP	P
GSC	73.230	45.28	5.85	20.08	I	D	LP	P
COR	74.738	34.45	5.75	19.72	I	D	LP	P
SPA	74.897	180.00	5.71	19.58	I	C	SP	P
SPA	74.897	180.00	5.71	19.58	I	C	LP	P
TATO	75.226	301.39	5.71	19.58	I	D	LP	P
ANP	75.290	301.60	5.68	19.47	I	D	LP	P
BMN	75.801	40.67	5.65	19.36	I	D	SP	P
TUC	76.029	50.59	5.65	19.36	I	D	SP	P
LON	76.928	33.42	5.58	19.12	I	D	LP	P
DUG	78.506	42.75	5.49	18.80	I	D	LP	P
NEW	80.371	34.17	5.31	18.16	I	D	SP	P
HKC	80.390	296.23	5.31	18.16	I	D	LP	P
ALQ	80.437	49.89	5.31	18.16	I	D	LP	P
ANMO	80.440	49.89	5.31	18.16	I	D	LP	P

Table 179. Station data for event 19....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CN2	81.127	319.92	5.26	17.98	I	D	SP	P
MSO	81.338	36.61	5.22	17.84	I	D	SP	P
BDW	81.910	41.74	5.18	17.70	I	D	SP	P
COL	82.141	10.60	5.18	17.70	I	D	LP	P
SEY	82.371	344.82	5.14	17.56	I	D	SP	P
ILT	82.966	357.86	5.12	17.49	I	D	SP	P
GOL	83.296	45.96	5.08	17.34	I	D	SP	P
GOL	83.296	45.96	5.08	17.34	I	D	LP	P
TIA	83.309	310.16	5.08	17.34	I	D	SP	P
JCT	83.784	56.28	5.05	17.24	I	D	LP	P
SES	84.864	34.59	4.99	17.03	I	D	SP	P
EDM	85.156	31.42	4.99	17.03	I	D	SP	P
BJI	85.552	313.37	4.96	16.92	I	D	LP	P
RCD	86.627	42.69	4.86	16.57	I	D	LP	P
IPM	87.230	275.47	4.83	16.47	I	D	SP	P
LPS	87.984	74.71	4.77	16.26	I	D	SP	P
GYA	88.217	297.88	4.77	16.26	I	D	SP	P
TUL	88.838	52.38	4.73	16.12	I	D	LP	P
BTO	90.126	312.13	4.71	16.05	I	D	SP	P
PEL	91.844	124.93	4.67	15.91	I	D	LP	P
NNA	92.807	103.13	4.65	15.84	I	D	SP	P
CHTO	92.930	288.58	4.65	15.84	I	D	LP	P
CHG	92.930	288.58	4.65	15.84	I	D	LP	P
LZH	93.349	306.34	4.63	15.77	I	D	LP	P
SHA	93.383	59.27	4.63	15.77	I	D	LP	P
FVM	93.565	51.75	4.63	15.77	I	D	LP	P
ANT	95.161	116.11	4.58	15.59	I	D	LP	P
ZAK	97.561	320.07	4.52	15.38	I	D	SP	P
LPB	99.544	110.02	4.47	15.21	I	D	LP	P
UTO	99.576	49.46	4.47	15.21	I	D	SP	P
ZOBO	99.605	109.76	4.47	15.21	I	D	LP	P
BOG	99.889	87.87	4.47	15.21	I	D	LP	P
SHIO	100.854	293.63	4.45	15.14	I	D	LP	Pdf
LPA	100.886	130.75	4.45	15.14	E	D	LP	Pdf
BLA	101.111	54.37	4.45	15.14	I	D	LP	Pdf
LSA	102.287	297.63	4.45	15.14	I	D	SP	Pdf
SCP	103.666	51.09	4.45	15.14	I	D	LP	Pdf
WES	108.712	49.98	1.89	6.37	I	D	LP	PKP
SJG	110.363	76.05	1.89	6.37	I	D	LP	PKP
BEC	113.377	61.01	1.89	6.36	E	D	LP	PKP
KBS	116.215	358.92	1.88	6.33	I	D	LP	PKP
KEV	124.050	351.70	1.87	6.29	I	D	LP	PKP
AKU	126.830	12.64	1.86	6.27	E	D	LP	PKP
NUR	132.959	348.11	1.84	6.19	I	D	LP	PKP
SLR	134.304	207.34	1.83	6.16	I	D	SP	PKP
KSR	134.788	205.71	1.82	6.13	I	D	SP	PKP
KONO	135.583	358.05	1.81	6.11	E	D	LP	PKP
KON	135.583	358.05	1.81	6.11	E	D	LP	PKP
BUL	138.910	211.91	1.78	6.00	I	D	SP	PKP
UCC	144.439	2.79	1.70	5.74	I	D	LP	PKP

Table 179. Station data for event 19....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ARO	144.877	268.50	1.68	5.67	I	D	SP	PKP
JOS	144.958	344.16	1.68	5.67	I	D	SP	PKP
TNS	145.052	358.28	1.68	5.67	I	D	LP	PKP
GRFO	145.428	355.08	1.68	5.67	I	D	LP	PKP
WLF	145.628	0.88	1.66	5.60	I	D	LP	PKP
KHC	145.730	352.22	1.66	5.60	I	D	SP	PKP
WET	145.802	353.03	1.66	5.60	I	D	SP	PKP
VIE	146.141	348.64	1.66	5.60	I	D	LP	PKP
NAI	146.211	243.61	1.66	5.60	I	D	LP	PKP
STU	146.475	357.27	1.66	5.60	I	D	LP	PKP
DEV	146.596	339.54	1.64	5.52	I	D	SP	PKP
KMR	146.704	351.17	1.64	5.52	I	D	LP	PKP
ECH	147.083	359.70	1.64	5.52	I	D	SP	PKP
LOR	147.931	3.92	1.62	5.44	I	D	LP	PKP
OGA	148.247	354.64	1.62	5.44	I	D	SP	PKP
AAE	148.286	262.55	1.62	5.44	I	D	LP	PKP
TRI	149.050	350.65	1.59	5.35	I	D	LP	PKP
KDZ	149.207	332.42	1.59	5.35	I	D	SP	PKP
ATH	152.888	329.91	1.46	4.93	I	D	SP	PKP
MAL	156.309	23.12	1.35	4.53	I	D	LP	PKP
BNG	164.333	228.11	0.96	3.24	I	D	SP	PKP

Table 180. Station data for event 31

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SVA	12.332	342.22	13.37	51.72	E	C	SP	P
SNZO	12.918	206.79	13.29	51.29	I	C	LP	P
NOU	16.208	294.34	12.78	48.62	I	D	SP	P
PVC	17.698	310.31	12.49	47.17	I	C	SP	P
KOU	18.846	295.62	12.18	45.65	I	C	SP	P
PPT	28.388	70.57	9.11	32.34	I	D	LP	P
WAM	28.660	248.61	9.11	32.34	I	C	SP	P
HNR	29.279	309.63	8.97	31.78	I	C	LP	P
CTA	34.067	278.31	8.62	30.41	I	C	LP	P
CTAO	34.067	278.31	8.62	30.41	E	C	LP	P
STK	34.910	256.25	8.56	30.17	I	C	SP	P
ADE	36.972	250.59	8.44	29.71	I	C	SP	P
RAB	38.378	306.04	8.35	29.36	I	C	LP	P
PMG	38.733	294.51	8.35	29.36	E	C	LP	P
WB2	44.410	271.51	8.02	28.09	I	C	SP	P
WRA	44.420	271.50	8.02	28.09	I	C	SP	P
SBA	48.492	184.37	7.78	27.18	I	C	SP	P
KIP	54.458	22.58	7.30	25.38	E	C	LP	P
NWAO	54.868	248.95	7.26	25.23	I	C	LP	P
MUN	55.964	249.76	7.18	24.93	I	C	LP	P
GUA	56.345	314.69	7.15	24.82	E	C	LP	P
GUMO	56.411	314.69	7.15	24.82	I	C	LP	P
DAV	65.765	294.37	6.39	22.04	I	C	LP	P
BAG	75.290	299.00	5.68	19.48	I	C	LP	P
MAT	78.075	324.99	5.52	18.91	E	C	LP	P
SHK	79.462	320.16	5.41	18.52	E	C	LP	P
TATO	79.958	306.35	5.36	18.34	I	C	LP	P
QZH	81.984	304.66	5.18	17.71	I	C	SP	P
SSE	84.074	310.90	5.05	17.25	I	C	SP	P
SEO	84.855	318.93	4.99	17.04	E	C	LP	P
PAS	84.934	45.80	4.99	17.04	I	C	LP	P
BKS	85.043	40.82	4.99	17.04	E	C	LP	P
PSI	85.674	275.58	4.96	16.93	I	C	SP	P
NJ2	86.217	310.37	4.91	16.76	I	C	SP	P
SNG	86.472	280.29	4.86	16.58	I	C	LP	P
COR	89.187	35.48	4.73	16.12	I	C	SP	P
CN2	89.998	322.63	4.71	16.05	I	C	SP	P
ALQ	93.038	51.13	4.64	15.81	E	C	LP	P
ANMO	93.041	51.13	4.64	15.81	I	C	LP	P
CHG	93.752	289.43	4.61	15.70	E	C	LP	P
CHTO	93.752	289.43	4.61	15.70	I	C	LP	P
LPA	94.018	134.29	4.61	15.70	E	C	LP	P
XAN	94.118	307.04	4.61	15.70	I	C	SP	P
JCT	95.311	57.94	4.56	15.53	I	C	LP	P
LPS	95.688	76.88	4.56	15.53	E	C	LP	P
RXF	96.224	36.10	4.55	15.49	I	C	SP	P
GOL	96.425	47.68	4.54	15.46	E	C	LP	P
COL	97.370	12.35	4.52	15.39	I	C	LP	P
LPB	97.902	114.11	4.51	15.35	I	C	SP	P
TUL	100.946	54.93	4.45	15.15	I	C	LP	Pdf

Table 180. Station data for event 31....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BOCO	104.028	92.79	4.45	15.15	E	C	LP	Pdf
BOG	104.026	92.75	4.45	15.15	E	C	LP	Pdf
SHA	104.207	62.70	4.45	15.15	E	C	LP	Pdf
BLA	112.701	59.17	1.89	6.36	I	C	LP	PKP
CAR	113.044	90.96	1.89	6.36	I	C	LP	PKP
GEO	115.765	58.42	1.88	6.34	E	C	LP	PKP
SCP	115.781	56.21	1.88	6.34	E	C	LP	PKP
SJG	117.095	83.86	1.88	6.33	E	C	LP	PKP
TRN	117.900	93.66	1.88	6.32	I	C	LP	PKP
MNT	120.052	52.04	1.87	6.32	I	C	SP	PKP
WES	120.935	56.01	1.87	6.31	E	C	LP	PKP
CIR	122.052	212.52	1.87	6.31	I	C	SP	PKP
BEC	123.429	69.04	1.87	6.30	E	C	LP	PKP
BUL	124.149	210.11	1.87	6.30	I	C	LP	PKP
BUL	124.149	210.11	1.87	6.30	I	C	SP	PKP
KBL	124.357	293.34	1.87	6.30	I	C	LP	PKP
KAAO	124.357	293.34	1.87	6.30	I	C	LP	PKP
MTD	125.672	215.11	1.86	6.28	I	C	SP	PKP
KRI	126.587	213.07	1.86	6.27	I	C	SP	PKP
DAG	132.068	6.43	1.84	6.21	E	C	LP	PKP
NAI	134.809	232.79	1.82	6.14	E	C	LP	PKP
KEV	137.776	347.54	1.79	6.04	E	C	LP	PKP
ARO	138.228	252.68	1.79	6.04	I	C	LP	PKP
KON	149.922	352.69	1.56	5.26	I	C	LP	PKP
COP	153.322	347.29	1.46	4.92	E	C	LP	PKP
HLW	154.929	277.05	1.39	4.67	I	C	LP	PKP
VAL	156.137	19.56	1.35	4.54	E	C	LP	PKP
JOS	156.868	328.17	1.30	4.39	I	C	SP	PKP
HOF	158.459	343.27	1.26	4.25	I	C	SP	PKP
VIE	158.832	333.45	1.22	4.09	I	C	LP	PKP
KHC	159.053	339.11	1.22	4.09	I	C	SP	PKP
GRFO	159.198	343.71	1.22	4.09	I	C	LP	PKP
STU	160.516	346.41	1.12	3.77	E	C	LP	PKP
SKO	160.526	313.10	1.12	3.77	I	C	SP	PKP
FLN	161.105	5.88	1.12	3.77	I	C	SP	PKP
LOR	162.691	356.64	1.02	3.42	I	C	LP	PKP
LOR	162.691	356.64	1.02	3.42	I	C	SP	PKP
SSF	162.913	357.40	1.02	3.42	I	C	SP	PKP
CAF	165.069	0.90	0.91	3.06	I	C	SP	PKP
PTO	165.724	35.74	0.85	2.87	E	C	LP	PKP
FRF	166.017	347.10	0.85	2.87	I	C	SP	PKP
LMR	166.262	347.25	0.85	2.87	I	C	SP	PKP
CVF	166.393	339.25	0.85	2.87	I	C	SP	PKP
TOL	168.794	26.36	0.68	2.29	I	C	SP	PKP
ALI	171.304	15.13	0.56	1.89	I	C	LP	PKP

Table 181. Station data for event 32

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SVA	12.263	342.73	13.36	51.72	E	C	SP	P
WEL	12.854	206.21	13.29	51.34	E	C	LP	P
SNZO	12.899	206.34	13.29	51.34	I	C	LP	P
NOU	16.090	294.45	12.77	48.62	I	D	SP	P
PVC	17.588	310.52	12.48	47.17	I	C	SP	P
KOU	18.728	295.74	12.27	46.14	I	C	SP	P
CAN	28.440	250.35	9.11	32.36	I	C	SP	P
PPT	28.483	70.77	9.11	32.36	I	D	LP	P
HNR	29.169	309.78	9.04	32.09	I	C	LP	P
TOO	31.356	246.07	8.79	31.10	I	C	SP	P
CTAO	33.949	278.35	8.62	30.43	I	C	LP	P
CTA	33.949	278.35	8.62	30.43	I	C	LP	P
ADE	36.876	250.56	8.44	29.73	I	C	SP	P
RAB	38.265	306.16	8.35	29.38	I	C	LP	P
ISQ	39.492	273.27	8.29	29.15	I	C	SP	P
WB2	44.295	271.54	8.02	28.12	I	C	SP	P
WRA	44.305	271.53	8.02	28.12	I	C	SP	P
SBA	48.519	184.33	7.78	27.20	I	C	SP	P
KIP	54.469	22.73	7.30	25.40	E	C	LP	P
NWAO	54.774	248.96	7.26	25.25	I	C	LP	P
MUN	55.870	249.77	7.18	24.95	I	C	LP	P
GUA	56.239	314.79	7.18	24.95	I	C	LP	P
GUMO	56.305	314.79	7.14	24.81	I	C	LP	P
DAV	65.646	294.44	6.43	22.20	I	C	LP	P
BAG	75.173	299.07	5.71	19.60	I	C	LP	P
SHK	79.362	320.24	5.41	18.54	I	C	LP	P
TATO	79.845	306.42	5.36	18.36	I	C	LP	P
ANP	79.958	306.60	5.36	18.36	I	C	LP	P
QZH	81.870	304.73	5.18	17.72	I	C	SP	P
SSE	83.965	310.97	5.05	17.26	I	C	SP	P
GZH	84.603	300.34	5.02	17.16	I	C	SP	P
SEO	84.753	319.00	4.99	17.05	I	C	LP	P
PAS	84.990	45.88	4.99	17.05	E	C	LP	P
BKS	85.090	40.89	4.99	17.05	E	C	LP	P
NJ2	86.107	310.44	4.90	16.73	I	C	SP	P
JAS	86.169	41.82	4.90	16.73	I	C	SP	P
SNG	86.353	280.35	4.86	16.59	I	C	SP	P
SNG	86.353	280.35	4.86	16.59	I	C	LP	P
PEL	86.763	126.54	4.83	16.49	I	C	SP	P
WDC	86.805	38.79	4.83	16.49	I	C	SP	P
CN2	89.900	322.70	4.71	16.07	I	C	SP	P
ALQ	93.104	51.19	4.64	15.82	E	C	LP	P
ANMO	93.107	51.19	4.64	15.82	I	C	LP	P
CHG	93.633	289.49	4.63	15.79	I	C	LP	P
CHTO	93.633	289.49	4.63	15.79	I	C	LP	P
TIY	93.721	311.75	4.63	15.79	I	C	SP	P
KMI	93.808	296.70	4.61	15.72	I	C	SP	P
LPA	94.124	134.36	4.61	15.72	I	C	LP	P
JCT	95.388	58.00	4.56	15.54	I	C	LP	P
GOL	96.485	47.74	4.54	15.47	I	C	LP	P

Table 181. Station data for event 32....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BTO	96.899	313.07	4.53	15.44	I	C	SP	P
COL	97.359	12.40	4.52	15.40	I	C	LP	P
LZH	98.618	306.62	4.49	15.30	I	C	SP	P
SES	99.300	36.56	4.47	15.23	E	C	LP	P
TUL	101.019	54.98	4.45	15.16	I	C	LP	Pdf
BOCO	104.143	92.85	4.45	15.16	I	C	LP	Pdf
BOG	104.142	92.81	4.45	15.16	I	C	LP	Pdf
SHA	104.292	62.74	4.45	15.16	I	C	LP	Pdf
BLA	112.781	59.19	1.89	6.37	I	C	LP	PKP
CAR	113.158	91.01	1.89	6.37	I	C	LP	PKP
POO	114.640	277.93	1.88	6.35	I	C	SP	PKP
SUR	115.585	197.37	1.88	6.34	I	C	SP	PKP
GEO	115.843	58.44	1.88	6.34	E	C	LP	PKP
SCP	115.855	56.23	1.88	6.34	E	C	LP	PKP
SJG	117.205	83.90	1.88	6.34	E	C	LP	PKP
TRN	118.016	93.71	1.88	6.33	I	C	LP	PKP
WES	121.010	56.02	1.87	6.32	E	C	LP	PKP
BEC	123.522	69.05	1.87	6.30	E	C	LP	PKP
BUL	124.123	210.26	1.87	6.30	I	C	LP	PKP
GDH	129.625	22.50	1.85	6.24	E	C	LP	PKP
KBS	130.740	357.54	1.85	6.23	E	C	LP	PKP
DAG	132.046	6.39	1.84	6.21	I	C	SP	PKP
NAI	134.740	232.95	1.82	6.14	I	C	LP	PKP
KEV	137.716	347.49	1.79	6.05	E	C	LP	PKP
KON	149.872	352.57	1.56	5.26	I	C	LP	PKP
COP	153.262	347.15	1.46	4.93	I	C	LP	PKP
ESK	154.332	7.22	1.43	4.81	E	C	LP	PKP
HLW	154.812	277.16	1.39	4.67	I	C	LP	PKP
VAL	156.141	19.35	1.35	4.54	E	C	LP	PKP
DEV	157.323	320.29	1.30	4.40	I	C	SP	PKP
BRG	157.324	340.55	1.30	4.40	I	C	SP	PKP
DBN	157.748	355.24	1.26	4.25	I	C	LP	PKP
MOX	158.150	343.85	1.26	4.25	I	C	LP	PKP
MOX	158.150	343.85	1.26	4.25	I	C	SP	PKP
VIE	158.749	333.30	1.22	4.09	I	C	LP	PKP
KHC	158.978	338.93	1.22	4.09	I	C	SP	PKP
UCC	159.099	356.26	1.22	4.09	I	C	LP	PKP
SOP	159.126	332.07	1.22	4.09	I	C	SP	PKP
GRF	159.130	343.50	1.22	4.09	I	C	SP	PKP
GRFO	159.131	343.51	1.22	4.09	I	C	LP	PKP
KMR	159.731	336.52	1.17	3.94	I	C	LP	PKP
DOU	159.785	355.64	1.17	3.94	I	C	LP	PKP
WLF	160.074	352.56	1.17	3.94	I	C	LP	PKP
SKO	160.418	313.02	1.17	3.94	I	C	SP	PKP
STU	160.454	346.18	1.17	3.94	I	C	LP	PKP
ATH	160.505	299.96	1.12	3.77	I	C	SP	PKP
LPF	161.751	7.09	1.07	3.60	I	C	SP	PKP
LOR	162.648	356.34	1.02	3.43	I	C	LP	PKP
SSF	162.872	357.10	1.02	3.43	I	C	SP	PKP
AVF	163.149	357.41	1.02	3.43	I	C	SP	PKP

Table 181. Station data for event 32....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SMF	163.270	356.21	1.02	3.43	I	C	SP	PKP
PTO	165.761	35.36	0.85	2.88	I	C	LP	PKP
TOL	168.812	25.83	0.68	2.29	I	C	LP	PKP

Table 182. Station data for event 48

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SNZO	13.677	206.83	13.22	50.88	E	C	LP	P
NOU	16.323	291.53	12.69	48.14	I	D	SP	P
PVC	17.600	307.71	12.50	47.19	I	C	SP	P
RIV	27.312	252.38	9.24	32.84	I	C	LP	P
CAN	29.134	249.34	9.04	32.04	I	C	SP	P
CTAO	34.376	277.06	8.59	30.27	I	C	SP	P
ADE	37.568	249.74	8.41	29.57	I	C	LP	P
PMG	38.835	293.35	8.32	29.23	E	C	LP	P
MOM	43.259	302.25	8.08	28.31	I	C	SP	P
NWAO	55.476	248.40	7.22	25.07	E	C	LP	P
GUMO	56.244	313.96	7.18	24.92	I	C	LP	P
MUN	56.565	249.22	7.15	24.81	I	C	SP	P
SPA	60.850	180.00	6.80	23.52	I	C	LP	P
DAV	65.865	293.81	6.39	22.02	I	C	LP	P
BAG	75.327	298.58	5.68	19.47	I	C	LP	P
SHK	79.222	319.80	5.45	18.65	I	C	LP	P
TATO	79.898	305.99	5.36	18.33	I	C	LP	P
ANP	80.008	306.17	5.36	18.33	I	C	LP	P
SSE	83.954	310.60	5.05	17.24	E	C	LP	P
PAS	84.195	45.60	5.05	17.24	E	C	LP	P
SNG	86.751	280.02	4.83	16.47	I	C	LP	P
COR	88.427	35.26	4.75	16.19	I	C	SP	P
ANMO	92.322	50.89	4.66	15.87	I	C	LP	P
CHTO	93.915	289.25	4.61	15.70	E	C	LP	P
KMI	93.994	296.46	4.61	15.70	E	C	LP	P
GOL	95.692	47.43	4.56	15.52	E	C	LP	P
SHA	103.554	62.37	4.45	15.14	E	C	LP	Pdf
BOCO	103.658	92.40	4.45	15.14	E	C	LP	Pdf
WES	120.240	55.60	1.87	6.31	E	C	LP	PKP
BUL	124.910	209.87	1.87	6.29	E	C	LP	PKP
TAB	143.063	295.34	1.72	5.80	E	C	LP	PKP
NUR	145.543	341.04	1.66	5.60	E	C	LP	PKP
KON	149.327	353.28	1.59	5.35	I	C	LP	PKP
BCAO	151.132	213.94	1.53	5.15	E	C	LP	PKP
COP	152.774	348.10	1.46	4.93	E	C	LP	PKP
JOS	156.520	329.51	1.30	4.39	I	C	SP	PKP
BRG	156.909	341.88	1.30	4.39	I	C	SP	PKP
DBN	157.175	356.30	1.30	4.39	I	C	LP	PKP
PVL	157.403	313.65	1.30	4.39	I	C	SP	PKP
MOX	157.696	345.18	1.26	4.24	I	C	LP	PKP
VIE	158.422	334.87	1.26	4.24	E	C	LP	PKP
UCC	158.516	357.38	1.22	4.09	E	C	LP	PKP
GRF	158.680	344.92	1.22	4.09	I	C	SP	PKP
DOU	159.207	356.83	1.22	4.09	E	C	LP	PKP
WLF	159.526	353.85	1.17	3.93	E	C	LP	PKP
STU	159.974	347.67	1.17	3.93	I	C	LP	PKP
SKO	160.362	314.97	1.17	3.93	I	C	SP	PKP
ATH	160.631	301.91	1.12	3.77	I	C	SP	PKP
PTO	164.964	35.31	0.91	3.06	E	C	LP	PKP
RMP	165.195	329.96	0.91	3.06	I	C	SP	PKP

Table 182. Station data for event 48....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TOL	168.035	26.47	0.74	2.49	I	C	LP	PKP
SFS	169.581	44.55	0.62	2.09	I	C	SP	PKP
MAL	170.427	37.63	0.62	2.09	I	C	LP	PKP

Table 183. Station data for event 52

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SVA	8.613	268.37	13.86	76.31	I	C	SP	P
PVC	18.278	268.09	12.27	59.33	I	C	SP	P
PPT	21.817	92.21	9.94	44.17	I	C	LP	P
KOU	22.060	259.80	9.94	44.17	I	C	SP	P
SNZO	25.625	202.72	9.42	41.33	I	D	LP	P
CAN	38.169	235.49	8.38	35.98	I	C	SP	P
CTAO	38.976	260.22	8.32	35.68	I	C	SP	P
CTA	38.976	260.22	8.32	35.68	I	C	SP	P
ADE	46.329	238.70	7.91	33.68	I	C	SP	P
WB2	50.125	258.84	7.66	32.48	I	C	SP	P
ASPA	50.169	253.98	7.66	32.48	I	C	SP	P
GUMO	52.529	303.90	7.46	31.53	I	D	LP	P
MTN	54.426	266.93	7.30	30.78	I	D	SP	P
DRV	57.391	200.41	7.07	29.71	I	D	SP	P
NWAO	64.100	241.66	6.56	27.38	E	D	LP	P
MUN	65.061	242.60	6.47	26.97	I	D	LP	P
DAV	66.027	286.57	6.39	26.61	I	D	LP	P
NAU	67.101	252.66	6.31	26.25	I	C	SP	P
SPA	72.035	180.00	5.92	24.52	E	D	LP	P
SHK	73.842	315.35	5.78	23.90	I	D	LP	P
BAG	74.269	293.45	5.75	23.77	I	D	LP	P
COR	76.786	33.75	5.58	23.03	E	D	LP	P
ANP	77.285	301.95	5.55	22.90	E	D	LP	P
LEM	78.339	266.57	5.48	22.59	I	D	LP	P
SEO	79.370	315.25	5.41	22.29	I	D	LP	P
QZH	79.558	300.53	5.41	22.29	I	D	SP	P
SSE	80.261	307.14	5.31	21.85	E	D	LP	P
EPT	80.315	52.12	5.31	21.85	E	D	LP	P
ANMO	81.857	49.32	5.17	21.25	I	D	LP	P
ALQ	81.855	49.32	5.17	21.25	E	D	LP	P
NJ2	82.467	307.07	5.14	21.12	I	D	SP	P
MSO	83.301	36.14	5.08	20.86	E	D	LP	P
COL	84.851	10.31	4.99	20.48	I	D	LP	P
GOL	84.882	45.53	4.99	20.48	I	D	LP	P
JCT	84.906	55.84	4.99	20.48	I	D	LP	P
TIA	85.594	310.17	4.96	20.35	I	D	SP	P
ATX	86.370	56.67	4.86	19.92	I	D	SP	P
BJI	87.933	313.29	4.77	19.53	I	D	SP	P
SNG	89.266	277.74	4.71	19.28	I	D	LP	P
TIY	89.633	309.97	4.71	19.28	I	D	SP	P
PEL	89.737	124.78	4.71	19.28	I	D	SP	P
GYA	90.060	297.74	4.71	19.28	I	D	SP	P
TUL	90.134	52.19	4.71	19.28	E	D	LP	P
XAN	90.893	305.50	4.69	19.19	I	D	SP	P
HHC	91.475	312.59	4.68	19.15	I	D	SP	P
NNA	91.599	103.06	4.68	19.15	I	D	SP	P
KMI	92.961	295.32	4.64	18.98	I	D	LP	P
CHG	94.379	288.25	4.60	18.81	I	D	SP	P
LZH	95.502	306.02	4.56	18.64	I	D	SP	P
ZOBO	98.092	109.98	4.51	18.43	E	D	LP	P

Table 183. Station data for event 52....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LPA	98.581	130.88	4.49	18.35	E	D	LP	P
BOCO	99.423	88.23	4.47	18.26	E	D	LP	P
AAM	101.092	49.10	4.45	18.18	E	D	LP	Pdf
EVA	130.987	205.87	1.85	7.44	I	D	SP	PKP
SLR	131.996	205.49	1.84	7.41	I	D	SP	PKP
KSR	132.431	203.90	1.84	7.41	I	D	SP	PKP
NUR	135.878	347.91	1.81	7.30	E	D	LP	PKP
BUL	136.744	209.58	1.80	7.26	I	D	SP	PKP
MUD	141.667	358.52	1.74	7.00	I	D	SP	PKP
VAL	143.426	18.48	1.72	6.93	E	D	LP	PKP
ARO	145.267	264.18	1.68	6.78	I	D	SP	PKP
NAI	145.348	239.34	1.68	6.78	I	D	LP	PKP
BRN	145.446	353.85	1.68	6.78	I	D	SP	PKP
UCC	147.263	3.70	1.64	6.60	E	D	LP	PKP
MOX	147.347	355.16	1.64	6.60	E	D	LP	PKP
GRFO	148.327	355.42	1.62	6.50	I	D	LP	PKP
WLF	148.476	1.69	1.62	6.50	E	D	LP	PKP
ZST	148.962	347.52	1.59	6.39	I	D	SP	PKP
SRO	149.058	345.78	1.59	6.39	I	D	SP	PKP
VIE	149.059	348.46	1.59	6.39	E	D	LP	PKP
KMR	149.620	351.21	1.56	6.28	E	D	LP	PKP
IST	150.610	325.63	1.53	6.15	I	D	LP	PKP
THE	153.883	332.57	1.43	5.74	I	D	SP	PKP
FIR	154.190	353.76	1.43	5.74	I	D	SP	PKP
ATH	155.633	327.69	1.35	5.42	I	D	SP	PKP
TLO	156.114	22.33	1.35	5.42	I	D	LP	PKP

Table 184. Station data for event 72

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AFI	1.874	42.83	14.26	91.56	I	D	LP	P
AFI	1.874	42.83	14.26	91.56	I	D	SP	P
PVC	17.998	259.66	12.37	60.13	I	C	SP	P
NOU	20.574	247.10	10.30	46.22	I	C	SP	P
KOU	22.149	253.01	9.94	44.17	I	C	SP	P
PPT	22.664	98.99	9.85	43.67	I	D	LP	P
SNZO	27.996	199.84	9.18	40.05	I	C	LP	P
CTA	38.958	256.90	8.32	35.68	I	C	LP	P
CTAO	38.958	256.90	8.32	35.68	I	C	LP	P
PMG	39.231	273.82	8.32	35.68	I	C	LP	P
TAU	43.596	222.77	8.07	34.45	E	C	LP	P
GUMO	50.529	302.48	7.62	32.29	I	C	LP	P
NWAO	64.933	240.54	6.47	26.97	I	C	LP	P
CVP	72.046	294.66	5.92	24.52	I	C	SP	P
JAS	72.398	41.25	5.89	24.39	I	C	LP	P
BAG	72.648	292.93	5.89	24.39	E	C	LP	P
COR	74.817	34.43	5.71	23.60	I	C	SP	P
TATO	75.271	301.41	5.68	23.46	I	C	LP	P
LON	77.007	33.41	5.58	23.03	I	C	LP	P
QZH	77.658	300.28	5.55	22.90	I	C	SP	P
SSE	78.131	306.96	5.52	22.77	E	C	LP	P
MDJ	79.121	322.25	5.45	22.46	I	C	SP	P
NJ2	80.338	306.96	5.31	21.85	I	C	SP	P
CN2	81.195	319.93	5.26	21.64	I	C	SP	P
LHD	81.299	34.78	5.22	21.46	I	C	SP	P
MSO	81.414	36.60	5.22	21.46	I	C	SP	P
GZH	81.418	296.71	5.22	21.46	I	C	SP	P
CLX	81.506	34.98	5.22	21.46	I	C	SP	P
LDM	81.543	34.71	5.22	21.46	I	C	SP	P
RXF	81.881	34.44	5.17	21.25	I	C	SP	P
COL	82.233	10.60	5.17	21.25	I	C	LP	P
HRY	82.578	37.48	5.14	21.12	I	C	SP	P
WHN	83.281	304.02	5.08	20.86	I	C	SP	P
TIA	83.366	310.17	5.08	20.86	I	C	SP	P
ATX	85.340	57.03	4.96	20.35	I	C	SP	P
BJI	85.612	313.37	4.96	20.35	I	C	SP	P
TIY	87.410	310.10	4.80	19.66	I	C	SP	P
XAN	88.812	305.67	4.73	19.36	I	C	SP	P
TUL	88.897	52.38	4.73	19.36	E	C	LP	P
BTO	90.186	312.13	4.71	19.28	I	C	SP	P
CHG	92.956	288.57	4.64	18.98	I	C	SP	P
LZH	93.401	306.34	4.63	18.94	I	C	SP	P
SCP	103.727	51.11	4.45	18.18	I	C	LP	Pdf
GAC	106.054	46.29	1.89	7.61	E	C	LP	Pdf
KBL	121.353	301.28	1.87	7.54	I	C	SP	PKP
SUR	130.768	195.57	1.85	7.44	I	C	SP	PKP
BRG	144.064	352.40	1.70	6.86	E	C	LP	PKP
BNS	144.425	359.71	1.70	6.86	I	C	SP	PKP
HOF	144.845	354.47	1.68	6.78	I	C	SP	PKP
ARO	144.870	268.37	1.68	6.78	I	C	LP	PKP

Table 184. Station data for event 72....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DOU	145.243	2.62	1.68	6.78	I	C	LP	PKP
GRF	145.519	355.05	1.66	6.69	I	C	SP	PKP
WET	145.894	353.00	1.66	6.69	I	C	SP	PKP
SRO	146.232	346.13	1.66	6.69	I	C	SP	PKP
ANTO	146.679	322.29	1.64	6.60	I	C	LP	PKP
ATH	152.966	329.82	1.46	5.88	I	C	SP	PKP
TOL	153.699	19.28	1.43	5.74	I	C	LP	PKP
MAL	156.396	23.20	1.35	5.42	I	C	LP	PKP
BNG	164.269	227.88	0.96	3.87	I	C	SP	PKP

Table 185. Station data for event 73

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VUN	8.949	325.65	13.81	75.49	I	D	SP	P
AFI	12.293	20.81	13.36	69.48	E	D	LP	P
NOU	16.143	277.82	12.77	63.53	I	C	SP	P
PVC	16.304	295.31	12.67	62.64	I	C	SP	P
KOU	18.585	281.42	12.27	59.33	I	C	SP	P
TAU	34.435	230.51	8.59	37.02	E	C	LP	P
CTA	34.911	271.11	8.56	36.87	I	C	LP	P
CTAO	34.911	271.11	8.56	36.87	E	C	LP	P
LMG	37.646	289.64	8.41	36.12	I	C	SP	P
GUMO	54.277	311.24	7.30	30.78	I	C	LP	P
NWAO	57.687	245.89	7.07	29.71	I	C	LP	P
SPA	64.630	180.00	6.51	27.15	I	C	LP	P
SHK	76.883	318.73	5.58	23.03	I	C	SP	P
TATO	78.362	304.89	5.48	22.59	I	C	LP	P
QZH	80.510	303.35	5.31	21.85	I	C	SP	P
JAS	82.003	41.33	5.17	21.25	I	C	LP	P
JAS	82.003	41.33	5.17	21.25	I	C	SP	P
SSE	82.130	309.77	5.17	21.25	I	C	LP	P
WDC	82.543	38.26	5.14	21.12	I	C	SP	P
GZH	83.573	299.18	5.08	20.86	I	C	SP	P
NJ2	84.305	309.39	5.02	20.60	I	C	SP	P
COR	84.871	34.93	4.99	20.48	I	C	SP	P
MDJ	85.529	324.49	4.96	20.35	I	C	SP	P
III	86.443	67.86	4.86	19.92	I	C	SP	P
WHN	86.698	306.00	4.86	19.92	I	C	SP	P
LON	87.115	34.06	4.83	19.79	I	C	LP	P
CN2	87.235	321.91	4.83	19.79	I	C	SP	P
PEL	88.294	126.04	4.75	19.45	I	C	SP	P
ANMO	89.303	50.44	4.71	19.28	I	C	LP	P
GYA	90.509	299.09	4.70	19.24	I	C	SP	P
BJI	90.570	314.78	4.70	19.24	I	C	LP	P
TIY	91.802	311.26	4.67	19.11	I	C	SP	P
XAN	92.430	306.66	4.66	19.07	I	C	SP	P
COL	92.787	11.74	4.64	18.98	I	C	LP	P
CHG	93.434	289.08	4.63	18.94	I	C	SP	P
HHC	93.985	313.61	4.61	18.85	I	C	SP	P
CD2	94.823	301.85	4.58	18.73	I	C	SP	P
LZH	97.066	306.52	4.53	18.52	I	C	SP	P
ZOBO	98.664	112.58	4.49	18.35	E	C	LP	P
GAC	115.083	49.48	1.88	7.58	E	C	LP	PKP
SLR	123.810	206.78	1.87	7.52	E	C	LP	PKP
GDH	125.056	21.49	1.87	7.52	E	C	LP	PKP
KEV	133.684	349.04	1.83	7.37	E	C	LP	PKP
TAB	142.026	299.79	1.74	7.00	I	C	LP	PKP
KONO	145.651	354.74	1.66	6.69	I	C	LP	PKP
EAU	149.255	7.96	1.59	6.39	I	C	SP	PKP
DMU	150.564	12.88	1.53	6.15	I	C	SP	PKP
DCN	151.010	13.70	1.53	6.15	I	C	SP	PKP
ANTO	151.833	307.68	1.50	6.02	I	C	LP	PKP
KSP	152.946	342.38	1.46	5.88	I	C	SP	PKP

Table 185. Station data for event 73....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BRG	153.506	345.45	1.43	5.74	E	C	LP	PKP
BNS	154.465	354.98	1.43	5.74	I	C	SP	PKP
BNG	154.681	216.53	1.39	5.58	I	C	SP	PKP
KHC	155.218	344.49	1.39	5.58	I	C	SP	PKP
DOU	155.461	358.70	1.39	5.58	E	C	LP	PKP
KMR	156.069	342.67	1.35	5.42	E	C	LP	PKP
MAL	166.831	30.06	0.80	3.20	I	C	LP	PKP

Table 186. Station data for event 76

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AFI	12.198	40.21	10.15	83.41	E	D	LP	P
PVC	12.459	295.03	10.13	82.37	I	D	SP	P
NOU	12.680	272.53	10.11	81.63	I	D	SP	P
KOU	14.997	278.07	9.87	74.93	I	D	SP	P
HNR	23.830	302.51	9.00	61.68	I	D	LP	P
COO	26.103	248.12	8.80	59.43	I	D	SP	P
CAN	29.476	239.28	8.59	57.26	I	D	SP	P
YOU	29.718	241.57	8.58	57.11	I	D	SP	P
WAM	29.804	237.64	8.57	57.06	I	D	SP	P
CTA	31.612	269.50	8.48	56.05	I	D	LP	P
RAB	33.117	301.09	8.40	55.26	I	D	LP	P
LMG	33.861	290.00	8.35	54.82	I	D	SP	P
KVG	35.191	301.82	8.28	54.15	I	D	SP	P
LAT	35.973	292.38	8.23	53.69	I	D	SP	P
ISQ	37.630	266.11	8.16	52.95	I	D	SP	P
ADE	37.696	242.74	8.15	52.92	I	D	SP	P
MOM	38.199	299.05	8.12	52.66	I	D	SP	P
WB2	42.561	265.62	7.89	50.55	I	D	SP	P
JAY	43.471	292.70	7.84	50.15	I	D	SP	P
DRV	49.995	199.59	7.36	46.11	I	D	SP	P
GUA	50.404	313.26	7.33	45.85	I	D	LP	P
KLG	52.243	248.44	7.19	44.75	I	D	SP	P
AAI	53.838	283.24	7.08	43.90	I	D	SP	P
MEK	55.433	253.02	6.97	42.99	I	D	SP	P
MBL	55.490	259.76	6.96	42.96	I	D	SP	P
NWAO	55.539	245.26	6.96	42.93	E	D	LP	P
NAU	59.042	256.98	6.70	40.97	I	D	SP	P
MKS	61.078	277.23	6.55	39.84	I	D	SP	P
DAV	61.331	292.82	6.53	39.69	E	D	LP	P
TRT	66.371	271.74	6.13	36.87	I	D	SP	P
SPA	66.675	180.00	6.11	36.72	I	D	SP	P
KKM	68.907	286.76	5.95	35.60	I	D	SP	P
KYS	69.575	325.82	5.91	35.32	I	D	SP	P
OYM	70.217	325.36	5.86	34.98	I	D	SP	P
SRY	70.345	325.51	5.85	34.94	I	D	SP	P
TSK	70.381	326.47	5.85	34.92	I	D	SP	P
BAG	70.412	298.55	5.85	34.91	I	D	LP	P
DDR	70.686	325.72	5.83	34.78	I	D	SP	P
MAT	71.613	325.44	5.76	34.35	I	D	SP	P
SHK	73.196	320.54	5.66	33.63	I	D	SP	P
TATO	74.499	306.44	5.58	33.11	E	D	LP	P
QZH	76.642	304.87	5.44	32.18	I	D	SP	P
SSE	78.303	311.35	5.29	31.19	I	D	LP	P
GZH	79.705	300.65	5.18	30.43	I	D	SP	P
NJ2	80.475	310.95	5.13	30.15	I	D	SP	P
PRI	81.472	44.67	5.07	29.77	I	C	SP	P
BKS	81.538	42.51	5.07	29.74	I	C	SP	P
MHC	81.579	43.22	5.07	29.73	I	C	SP	P
PAS	81.947	47.51	5.04	29.59	I	C	SP	P
MDJ	81.977	326.15	5.04	29.57	I	D	SP	P

Table 186. Station data for event 76....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
FHC	82.329	39.35	5.02	29.44	I	C	SP	P
FRI	82.597	44.45	5.01	29.33	I	C	SP	P
JAS	82.704	43.33	5.00	29.29	I	C	SP	P
JAS	82.704	43.33	5.00	29.29	E	C	LP	P
WHN	82.842	307.52	4.99	29.24	I	D	SP	P
WDC	83.038	40.23	4.98	29.16	I	C	SP	P
MIN	83.450	40.86	4.96	29.02	I	C	SP	P
CN2	83.617	323.51	4.94	28.92	I	D	SP	P
MNV	84.441	44.01	4.86	28.37	I	C	SP	P
PCT	85.763	287.87	4.78	27.90	I	D	SP	P
GYA	86.641	300.57	4.74	27.67	I	D	SP	P
BJI	86.808	316.29	4.74	27.63	I	D	LP	P
PHC	87.103	30.31	4.73	27.55	I	C	SP	P
LON	87.318	35.74	4.72	27.49	E	C	LP	P
TIY	87.992	312.75	4.71	27.45	I	D	SP	P
XAN	88.577	308.14	4.70	27.38	I	D	SP	P
BDT	88.943	289.20	4.69	27.34	I	D	SP	P
KMI	89.179	297.77	4.69	27.31	I	D	LP	P
CHTO	89.649	290.59	4.68	27.25	I	D	LP	P
CHG	89.649	290.59	4.68	27.25	I	D	SP	P
HHC	90.205	315.07	4.67	27.17	I	D	SP	P
ANMO	90.582	51.94	4.66	27.12	E	C	LP	P
NEW	90.768	36.45	4.65	27.06	I	C	SP	P
BTO	91.086	314.25	4.64	27.00	I	D	SP	P
COL	91.496	13.09	4.63	26.95	I	C	SP	P
LHD	91.623	37.04	4.63	26.92	I	C	SP	P
MSO	91.746	38.84	4.62	26.89	I	C	SP	P
LDM	91.866	36.97	4.62	26.85	I	C	SP	P
AMM	91.925	39.83	4.61	26.84	I	C	SP	P
LRM	92.076	40.25	4.61	26.81	I	C	SP	P
PEL	92.151	127.53	4.61	26.80	I	C	SP	P
BACH	92.188	127.79	4.61	26.79	I	C	SP	P
RXF	92.202	36.70	4.61	26.79	I	C	SP	P
HRY	92.909	39.72	4.58	26.65	I	C	SP	P
LZH	93.212	307.98	4.57	26.58	I	D	SP	P
GOL	93.573	48.15	4.56	26.50	I	C	SP	P
JCT	93.602	58.43	4.56	26.49	I	C	SP	P
SES	95.264	36.82	4.52	26.28	I	C	SP	P
GTA	97.520	309.61	4.47	25.94	I	D	SP	P
SIO	98.411	54.80	4.44	25.76	I	C	SP	P
KBL	119.763	297.48	1.87	10.56	I	C	SP	PKP
CER	120.621	198.60	1.87	10.55	I	C	SP	PKP
SUR	121.067	200.40	1.87	10.55	I	C	SP	PKP
EVA	122.989	211.12	1.87	10.53	I	C	SP	PKP
SLR	124.017	210.87	1.87	10.52	I	C	SP	PKP
KSR	124.546	209.49	1.87	10.52	I	D	SP	PKP
CIR	126.224	217.16	1.86	10.50	I	D	SP	PKP
BUL	128.534	214.93	1.85	10.45	I	D	SP	PKP
KONO	143.238	351.99	1.71	9.61	E	C	LP	PKP
COP	146.566	347.36	1.63	9.21	I	C	SP	PKP

Table 186. Station data for event 76....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HAM	149.146	348.58	1.57	8.82	I	C	SP	PKP
DMU	149.151	8.15	1.57	8.82	I	C	SP	PKP
DCN	149.643	8.82	1.55	8.74	I	C	SP	PKP
DKM	149.863	7.68	1.55	8.70	I	C	SP	PKP
JOS	150.252	332.15	1.53	8.63	I	C	SP	PKP
ETA	150.418	7.85	1.53	8.60	I	C	SP	PKP
DBN	151.155	353.56	1.51	8.47	I	C	LP	PKP
MOX	151.441	344.64	1.50	8.42	I	C	SP	PKP
GRF	152.421	344.37	1.46	8.23	I	C	SP	PKP
WET	152.476	341.75	1.46	8.22	I	C	SP	PKP
UCC	152.524	354.20	1.46	8.21	I	C	LP	PKP
FUR	153.813	342.97	1.41	7.94	I	C	SP	PKP
BNG	154.049	225.98	1.40	7.89	I	C	SP	PKP
SSC	154.936	0.40	1.37	7.70	I	C	SP	PKP
OGA	155.068	342.11	1.36	7.67	I	C	SP	PKP
GRR	155.120	1.59	1.36	7.66	I	C	SP	PKP
LOR	156.068	353.76	1.32	7.44	I	C	SP	PKP
SSF	156.306	354.28	1.31	7.38	I	C	SP	PKP
DIX	156.688	347.15	1.30	7.29	I	C	LP	PKP
LSF	157.245	357.52	1.27	7.15	I	C	SP	PKP
TOL	163.257	11.27	0.98	5.52	E	C	LP	PKP

Table 187. Station data for event 77

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVC	2.157	172.18	14.26	123.29	I	D	SP	P
KOU	6.080	215.06	14.09	55.69	I	D	SP	P
NOU	6.842	192.16	14.02	55.27	I	D	SP	P
HNR	9.965	306.95	13.72	53.54	E	C	LP	P
CTA	21.176	254.61	10.20	36.72	E	D	LP	P
CTAO	21.176	254.61	10.20	36.72	E	D	SP	P
CTA	21.176	254.61	10.20	36.72	I	D	SP	P
PMG	21.253	284.34	10.07	36.18	I	D	SP	P
RIV	23.684	216.91	9.69	34.61	E	D	LP	P
SNZO	26.275	168.55	9.34	33.20	E	C	LP	P
WRA	32.315	257.29	8.72	30.74	E	D	SP	P
GUMO	36.931	320.51	8.45	29.69	I	C	LP	P
KNA	37.743	264.31	8.42	29.58	I	D	SP	P
PPT	40.646	98.92	8.24	28.88	E	D	LP	P
AAI	40.903	282.63	8.21	28.77	E	C	SP	P
KLG	45.056	241.97	8.00	27.97	I	D	SP	P
DAV	47.684	295.10	7.85	27.40	E	C	LP	P
MKS	48.728	276.81	7.79	27.17	E	C	SP	P
NAU	49.901	253.52	7.66	26.68	I	C	SP	P
LGP	52.281	300.73	7.46	25.93	E	C	SP	P
TRT	54.667	271.55	7.30	25.34	I	C	SP	P
KKM	55.605	288.74	7.22	25.04	I	C	SP	P
BAG	56.578	302.13	7.15	24.78	E	C	LP	P
LEM	59.709	271.15	6.92	23.93	E	C	SP	P
SHK	60.101	326.58	6.89	23.82	I	C	SP	P
SHK	60.101	326.58	6.89	23.82	E	C	LP	P
TATO	60.675	310.95	6.84	23.64	I	C	LP	P
ANP	60.778	311.16	6.80	23.49	E	C	LP	P
QZH	62.792	309.18	6.64	22.91	E	C	SP	P
SSE	64.626	316.18	6.52	22.47	I	C	SP	P
SEO	65.447	325.00	6.44	22.18	I	C	SP	P
GZH	65.845	304.59	6.40	22.04	I	C	SP	P
KGM	66.266	279.29	6.35	21.85	E	C	SP	P
NJ2	66.780	315.65	6.31	21.71	I	C	SP	P
WHN	69.038	311.91	6.15	21.13	I	C	SP	P
MDJ	69.364	331.69	6.11	20.99	I	C	SP	P
TSI	71.239	279.24	6.00	20.59	E	C	SP	P
BJI	73.372	320.95	5.82	19.95	I	C	SP	P
TIY	74.366	317.21	5.75	19.70	I	C	SP	P
XAN	74.787	312.41	5.72	19.59	I	C	SP	P
KMI	75.356	301.68	5.68	19.45	I	C	SP	P
CHG	76.074	294.29	5.65	19.34	I	C	SP	P
CHTO	76.074	294.29	5.65	19.34	I	C	LP	P
CHG	76.074	294.29	5.65	19.34	I	C	LP	P
HHC	76.692	319.49	5.61	19.20	I	C	SP	P
CD2	77.090	307.42	5.58	19.09	I	C	SP	P
BTO	77.529	318.60	5.55	18.99	I	C	SP	P
LZH	79.417	312.13	5.42	18.53	E	C	SP	P
GTA	83.768	313.65	5.06	17.25	E	C	SP	P
BKS	84.228	48.27	5.06	17.25	E	C	LP	P

Table 187. Station data for event 77....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BKS	84.228	48.27	5.06	17.25	E	C	SP	P
SHIO	84.595	298.26	5.02	17.11	E	C	LP	P
WDC	85.149	45.71	4.99	17.01	I	C	SP	P
JAS	85.554	48.79	4.96	16.90	I	C	SP	P
PAS	85.787	53.01	4.91	16.73	I	C	SP	P
COR	86.363	41.84	4.86	16.55	I	C	SP	P
LHD	92.729	40.57	4.66	15.85	I	C	SP	P
LDM	92.948	40.45	4.65	15.82	I	C	SP	P
CLX	92.979	40.72	4.65	15.82	I	C	SP	P
RXF	93.209	40.10	4.65	15.82	I	C	SP	P
WMQ	93.831	314.34	4.61	15.68	E	C	SP	P
LRM	93.933	43.58	4.61	15.68	E	C	SP	P
GBA	94.111	282.90	4.61	15.68	E	C	SP	P
ANMO	95.203	55.33	4.58	15.57	I	C	LP	P
KBL	105.940	302.00	1.89	6.36	E	C	LP	Pdf
BOCO	118.132	93.14	1.88	6.31	E	C	LP	PKP
ANTO	134.179	310.88	1.83	6.15	E	C	LP	PKP
OGA	143.405	333.25	1.72	5.79	I	C	SP	PKP
ZUL	143.997	336.30	1.70	5.73	I	C	SP	PKP
DIX	145.533	335.88	1.66	5.59	I	C	LP	PKP
RMP	146.297	325.74	1.66	5.59	I	C	SP	PKP
BNG	147.998	252.96	1.62	5.43	I	C	SP	PKP

Table 188. Station data for event 91

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVC	16.086	290.29	12.77	63.53	I	C	SP	P
NOU	16.360	272.82	12.67	62.64	I	C	SP	P
KOU	18.705	277.05	12.27	59.33	I	C	SP	P
SNZO	18.854	202.46	12.16	58.48	I	D	LP	P
PPT	25.395	80.12	9.42	41.33	I	D	LP	P
HNR	27.317	298.24	9.23	40.32	I	C	LP	P
RIV	30.314	243.86	8.86	38.40	I	C	LP	P
CTAO	35.256	268.97	8.53	36.72	E	C	LP	P
TAU	35.592	229.16	8.53	36.72	I	C	LP	P
PMG	38.171	286.16	8.38	35.98	E	C	LP	P
HON	48.400	22.48	7.78	33.05	E	C	LP	P
WBN	51.780	254.93	7.50	31.72	I	C	SP	P
GUA	53.571	310.15	7.38	31.15	E	C	LP	P
GUMO	53.637	310.15	7.38	31.15	I	C	LP	P
NWAO	58.577	245.04	7.00	29.39	E	C	LP	P
DAV	64.967	290.84	6.47	26.97	E	C	LP	P
SPA	66.014	180.00	6.39	26.61	E	D	LP	P
TRT	70.036	270.38	6.07	25.18	I	C	SP	P
BAG	73.956	296.59	5.78	23.90	I	C	LP	P
MAJO	74.284	323.05	5.75	23.77	E	C	LP	P
LEM	74.960	269.18	5.71	23.60	I	C	LP	P
SHK	76.075	318.29	5.64	23.29	I	C	LP	P
TATO	77.858	304.45	5.52	22.77	E	C	LP	P
ANP	77.953	304.65	5.52	22.77	I	C	LP	P
SEO	81.555	317.54	5.22	21.46	I	C	LP	P
COR	83.537	34.82	5.08	20.86	E	C	LP	P
COR	83.537	34.82	5.08	20.86	I	C	SP	P
LON	85.773	33.93	4.90	20.09	E	C	LP	P
SNG	87.026	279.16	4.83	19.79	I	C	LP	P
ANMO	88.153	50.30	4.77	19.53	E	C	LP	P
PEL	88.827	125.91	4.73	19.36	I	D	LP	P
BJI	89.842	314.63	4.71	19.28	I	C	SP	P
JCT	90.867	56.93	4.69	19.19	E	C	LP	P
GOL	91.330	46.67	4.68	19.15	E	C	LP	P
COL	91.361	11.58	4.68	19.15	E	C	LP	P
SSS	92.515	76.24	4.66	19.07	E	D	LP	P
KMI	92.734	296.19	4.66	19.07	E	C	LP	P
CHG	93.310	289.01	4.63	18.94	I	C	LP	P
ANT	93.474	117.73	4.63	18.94	E	C	LP	P
RSSD	94.402	43.34	4.60	18.81	I	C	LP	P
LZH	96.520	306.52	4.54	18.56	E	C	LP	P
LPA	96.904	132.99	4.53	18.52	E	D	LP	P
LPB	98.769	112.44	4.48	18.30	E	D	LP	P
RSNT	98.973	24.36	4.48	18.30	E	C	LP	P
RSON	103.617	40.25	4.45	18.18	E	C	LP	Pdf
RSCP	103.838	57.07	4.45	18.18	E	C	LP	Pdf
GEO	111.300	55.86	1.89	7.61	E	C	LP	PKP
PCR	112.665	232.26	1.89	7.60	E	C	LP	Pdf
SJG	114.753	80.37	1.88	7.58	E	C	LP	PKP
WES	116.294	53.13	1.88	7.57	E	C	LP	PKP

Table 188. Station data for event 91....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SUR	121.599	196.56	1.87	7.54	I	C	SP	PKP
SUR	121.599	196.56	1.87	7.54	I	C	LP	PKP
KBL	123.317	296.53	1.87	7.53	I	C	LP	PKP
QUE	124.388	291.04	1.87	7.52	I	C	LP	PKP
SLR	125.202	206.84	1.87	7.52	I	C	SP	PKP
SLR	125.202	206.84	1.87	7.52	E	C	LP	PKP
DAG	126.118	6.37	1.86	7.51	I	C	SP	PKP
BUL	129.954	210.52	1.85	7.46	I	C	LP	PKP
KEV	132.388	349.44	1.84	7.41	E	C	LP	PKP
NAI	139.461	236.12	1.78	7.17	I	C	LP	PKP
TAB	141.620	301.37	1.74	7.00	I	C	LP	PKP
KONO	144.302	355.25	1.70	6.86	E	C	LP	PKP
KON	144.302	355.25	1.70	6.86	E	C	LP	PKP
COP	147.898	351.15	1.62	6.50	I	C	SP	PKP
COP	147.898	351.15	1.62	6.50	E	C	LP	PKP
ESK	148.383	8.01	1.62	6.50	I	C	SP	PKP
ANTO	151.235	309.91	1.53	6.15	E	C	LP	PKP
GRFO	153.893	349.52	1.43	5.74	E	C	LP	PKP
PVL	154.311	322.69	1.43	5.74	I	C	SP	PKP
STU	155.088	352.04	1.39	5.58	E	C	LP	PKP
FLN	155.150	7.28	1.39	5.58	I	C	SP	PKP
CDF	155.643	354.92	1.35	5.42	I	C	SP	PKP
BNG	155.995	217.58	1.35	5.42	I	C	SP	PKP
BCAO	156.000	217.56	1.35	5.42	E	C	LP	PKP
HAU	156.112	356.33	1.35	5.42	I	C	SP	PKP
BSF	156.256	355.55	1.35	5.42	I	C	SP	PKP
LOR	156.914	0.48	1.30	5.25	I	C	SP	PKP
SSF	157.116	1.11	1.30	5.25	I	C	SP	PKP
LBF	157.198	0.28	1.30	5.25	I	C	SP	PKP
LSF	157.834	4.80	1.26	5.07	I	C	SP	PKP
TCF	157.841	3.54	1.26	5.07	I	C	SP	PKP
MZF	157.932	2.87	1.26	5.07	I	C	SP	PKP
ATH	158.341	314.14	1.26	5.07	I	C	SP	PKP
RJF	158.772	5.11	1.22	4.89	I	C	SP	PKP
EPF	160.893	8.53	1.12	4.50	I	C	SP	PKP
SFS	164.824	33.56	0.91	3.65	I	C	SP	PKP

Table 189. Station data for event 92

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VUN	7.703	316.54	13.96	55.10	I	D	SP	P
SNZO	19.194	201.78	12.17	45.64	E	D	LP	P
CTAO	35.162	268.44	8.56	30.19	E	C	LP	P
CTA	35.162	268.44	8.56	30.19	I	C	SP	P
TAU	35.783	228.68	8.50	29.96	E	C	LP	P
PMG	37.960	285.75	8.38	29.49	I	C	SP	P
WB2	46.081	264.65	7.94	27.81	I	C	SP	P
GUMO	53.295	310.02	7.38	25.69	I	C	SP	P
KLG	55.451	248.04	7.22	25.10	I	C	SP	P
NWAO	58.656	244.83	7.00	24.28	I	C	LP	P
DAV	64.726	290.73	6.51	22.49	E	C	LP	P
SPA	66.422	180.00	6.35	21.90	I	D	SP	P
TRT	69.930	270.27	6.07	20.89	I	C	SP	P
BAG	73.681	296.55	5.82	19.99	E	C	LP	P
MAJO	73.896	323.05	5.78	19.85	I	C	LP	P
LEM	74.862	269.12	5.71	19.60	I	C	LP	P
SHK	75.701	318.29	5.68	19.49	E	C	LP	P
TATO	77.542	304.44	5.55	19.03	I	C	LP	P
JAS	80.495	41.37	5.31	18.18	E	C	LP	P
LON	85.493	34.00	4.96	16.94	E	C	LP	P
ANMO	87.972	50.36	4.77	16.27	E	C	LP	P
COL	90.982	11.63	4.70	16.03	I	C	LP	P
CHG	93.079	289.07	4.64	15.82	I	C	SP	P
KBL	123.042	296.79	1.87	6.30	I	C	SP	PKP
DAG	125.724	6.31	1.86	6.29	I	C	SP	PKP
KONO	143.887	355.20	1.70	5.75	E	C	LP	PKP
GRFO	153.473	349.51	1.46	4.93	E	C	LP	PKP

Table 190. Station data for event 96

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AFI	2.106	45.72	14.26	88.44	I	C	SP	P
SVA	8.319	249.87	13.86	76.31	I	C	SP	P
NOU	20.322	247.16	10.30	46.22	I	C	SP	P
KOU	21.899	253.13	9.94	44.17	I	C	SP	P
KRP	24.505	201.60	9.53	41.92	I	C	SP	P
HNR	26.746	279.65	9.33	40.85	I	C	LP	P
SNZO	27.826	199.55	9.18	40.05	I	C	LP	P
COO	35.234	238.51	8.56	36.87	I	C	SP	P
CTA	38.710	257.01	8.35	35.83	I	C	SP	P
CTAO	38.710	257.01	8.35	35.83	I	C	LP	P
PMG	39.006	274.02	8.32	35.68	E	C	LP	P
CAN	39.087	232.44	8.32	35.68	I	C	SP	P
TOO	42.522	230.72	8.13	34.74	I	C	SP	P
TAU	43.366	222.72	8.07	34.45	E	C	LP	P
STK	44.102	239.95	8.05	34.35	I	C	SP	P
WB2	49.899	256.75	7.66	32.48	I	C	SP	P
ASPA	50.180	251.90	7.66	32.48	I	C	SP	P
GUMO	50.386	302.71	7.62	32.29	E	N	LP	P
WBN	56.777	248.66	7.11	29.90	I	C	SP	P
DAV	64.507	285.73	6.51	27.15	I	C	LP	P
NWAO	64.682	240.59	6.51	27.15	I	C	LP	P
MUN	65.597	241.59	6.43	26.79	I	C	SP	P
MUN	65.597	241.59	6.43	26.79	E	C	LP	P
MAJO	68.972	319.77	6.14	25.49	E	D	LP	P
PRI	71.416	42.77	5.96	24.70	I	D	SP	P
BKS	71.447	40.51	5.96	24.70	I	D	SP	P
PAS	71.959	45.72	5.92	24.52	I	D	SP	P
BAG	72.472	293.05	5.89	24.39	I	C	LP	P
JAS	72.625	41.35	5.89	24.39	E	D	LP	P
JAS	72.625	41.35	5.89	24.39	I	D	SP	P
WDC	72.927	38.13	5.85	24.21	I	D	SP	P
MIN	73.343	38.78	5.82	24.08	I	D	SP	P
SPA	74.707	180.00	5.75	23.77	I	C	LP	P
KDC	74.880	11.40	5.71	23.60	I	D	SP	P
TATO	75.124	301.53	5.71	23.60	E	N	LP	P
LON	77.216	33.51	5.58	23.03	E	D	LP	P
LEM	77.699	266.24	5.55	22.90	I	C	LP	P
NEW	80.661	34.25	5.31	21.85	I	D	SP	P
ANMO	80.743	49.95	5.31	21.85	I	D	SP	P
ANMO	80.743	49.95	5.31	21.85	I	D	LP	P
CN2	81.120	320.03	5.26	21.64	I	D	SP	P
LHD	81.512	34.86	5.22	21.46	I	D	LP	P
CLX	81.719	35.07	5.22	21.46	I	D	LP	P
LDM	81.755	34.79	5.17	21.25	I	D	LP	P
RXF	82.092	34.52	5.17	21.25	I	D	LP	P
COL	82.372	10.69	5.14	21.12	I	D	LP	P
COL	82.372	10.69	5.14	21.12	I	D	SP	P
GOL	83.598	46.03	5.08	20.86	I	D	LP	P
JCT	84.086	56.34	5.05	20.73	I	D	LP	P
JCT	84.086	56.34	5.05	20.73	I	D	SP	P

Table 190. Station data for event 96....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
EDM	85.441	31.49	4.96	20.35	I	D	SP	P
BJI	85.510	313.45	4.96	20.35	I	C	SP	P
RSSD	86.406	42.46	4.86	19.92	I	D	LP	P
IPM	87.013	275.54	4.83	19.79	I	C	SP	P
TIY	87.295	310.17	4.80	19.66	I	C	SP	P
SNG	88.101	277.92	4.77	19.53	I	C	LP	P
PSI	88.534	273.18	4.75	19.45	I	C	SP	P
RLO	89.812	52.41	4.71	19.28	I	D	SP	P
RSNT	90.058	23.40	4.71	19.28	E	D	LP	P
BTO	90.079	312.19	4.71	19.28	I	C	SP	P
FFC	92.057	33.37	4.67	19.11	I	D	SP	P
CHG	92.767	288.63	4.64	18.98	I	C	LP	P
CHG	92.767	288.63	4.64	18.98	I	C	SP	P
RSON	95.389	38.77	4.56	18.64	E	D	LP	P
RSCP	97.002	55.13	4.53	18.52	E	D	LP	P
ZOBO	99.763	109.87	4.47	18.26	E	C	LP	P
KBL	121.205	301.22	1.87	7.54	E	C	LP	PKP
MHI	128.779	304.34	1.86	7.47	I	C	SP	PKP
ARO	144.635	268.30	1.68	6.78	I	C	LP	PKP
HOF	144.919	354.19	1.68	6.78	I	C	SP	PKP
BMR	144.929	340.09	1.68	6.78	I	C	SP	PKP
KSU	145.020	268.16	1.68	6.78	I	D	SP	PKP
TNS	145.234	358.00	1.68	6.78	I	D	SP	PKP
GRFO	145.596	354.77	1.66	6.69	E	N	LP	PKP
GRF	145.596	354.77	1.66	6.69	I	D	SP	PKP
KHC	145.885	351.90	1.66	6.69	I	D	SP	PKP
MLR	145.893	335.54	1.66	6.69	I	D	SP	PKP
GWF	146.502	358.86	1.64	6.60	I	D	SP	PKP
ANTO	146.613	321.99	1.64	6.60	E	N	LP	PKP
STU	146.653	356.96	1.64	6.60	E	D	LP	PKP
COZ	146.656	337.06	1.64	6.60	I	D	SP	PKP
KMR	146.855	350.83	1.64	6.60	E	D	LP	PKP
FUR	147.104	354.32	1.64	6.60	I	C	SP	PKP
ZUL	147.977	357.80	1.62	6.50	E	C	LP	PKP
PVL	148.131	333.90	1.62	6.50	I	D	SP	PKP
LJU	148.743	349.42	1.59	6.39	I	C	SP	PKP
TRI	149.198	350.27	1.59	6.39	I	C	SP	PKP
KDZ	149.265	331.98	1.59	6.39	I	D	SP	PKP
DIX	149.404	358.99	1.59	6.39	E	C	LP	PKP

Table 191. Station data for event 104

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KRP	8.636	208.06	12.77	88.17	I	D	SP	P
SNZO	11.921	202.24	12.55	79.21	I	C	LP	P
SVA	12.374	350.18	12.50	78.12	I	D	SP	P
VUN	12.481	350.28	12.49	77.86	I	D	SP	P
KRO	13.060	354.63	12.42	76.43	I	D	SP	P
TVI	13.410	357.10	12.38	75.61	I	D	SP	P
NOU	15.053	298.92	12.15	71.91	I	C	SP	P
KOU	17.711	299.70	10.43	54.71	I	D	SP	P
AFI	17.815	24.69	10.41	54.55	I	D	SP	P
AFI	17.815	24.69	10.41	54.55	I	D	LP	P
RAR	19.819	67.16	9.97	51.28	I	D	LP	P
COO	24.770	262.19	9.32	46.86	I	D	SP	P
CAN	26.986	251.09	9.08	45.27	I	D	SP	P
WAM	27.115	249.18	9.06	45.15	I	D	SP	P
YOU	27.488	253.37	9.01	44.82	I	D	SP	P
HNR	28.424	312.85	8.90	44.13	I	D	LP	P
TAU	29.333	235.52	8.83	43.70	E	N	LP	P
TOO	29.909	246.63	8.79	43.45	I	D	SP	P
PPT	29.937	71.61	8.78	43.43	I	D	LP	P
CTAO	32.655	280.16	8.61	42.35	I	D	LP	P
CTA	32.655	280.16	8.61	42.35	I	D	SP	P
STK	33.358	257.20	8.56	42.09	I	D	SP	P
ADE	35.422	251.32	8.45	41.41	I	D	SP	P
PMG	37.560	296.67	8.32	40.64	I	D	LP	P
ISQ	38.142	274.75	8.29	40.43	I	D	SP	P
ASPA	41.957	267.53	8.08	39.21	I	D	SP	P
WB2	42.929	272.86	8.03	38.93	I	D	SP	P
KLG	50.430	253.55	7.52	36.06	I	D	SP	P
KLB	53.256	251.46	7.30	34.83	I	D	SP	P
NWAO	53.322	249.71	7.29	34.80	I	D	LP	P
MUN	54.416	250.54	7.21	34.37	I	D	LP	P
MUN	54.416	250.54	7.21	34.37	I	D	SP	P
GUA	55.591	316.47	7.13	33.92	I	D	LP	P
GUMO	55.657	316.46	7.12	33.89	I	D	LP	P
DAV	64.582	295.70	6.43	30.21	I	D	LP	P
LEM	71.960	272.63	5.86	27.29	I	D	LP	P
BAG	74.191	300.16	5.71	26.53	I	D	LP	P
MAJO	77.568	326.17	5.49	25.45	I	D	LP	P
MAT	77.568	326.17	5.49	25.45	I	D	LP	P
SHK	78.833	321.30	5.40	25.01	I	D	LP	P
SHK	78.833	321.30	5.40	25.01	I	D	SP	P
TATO	79.008	307.44	5.39	24.93	I	D	LP	P
ANP	79.124	307.62	5.37	24.87	I	D	LP	P
QZH	80.997	305.70	5.20	23.99	I	D	SP	P
SSE	83.224	311.91	5.05	23.28	I	D	LP	P
IPM	83.391	279.20	5.04	23.23	I	D	SP	P
GZH	83.643	301.25	5.02	23.16	I	D	SP	P
SEO	84.194	319.93	4.99	23.00	I	D	LP	P
PSI	84.228	276.50	4.99	22.99	I	D	SP	P
SNG	85.077	281.20	4.93	22.70	I	D	LP	P

Table 191. Station data for event 104....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NJ2	85.353	311.33	4.90	22.55	I	D	SP	P
PRI	86.085	43.88	4.84	22.25	I	D	SP	P
PAS	86.300	46.73	4.83	22.19	I	D	SP	P
MHC	86.319	42.46	4.82	22.18	I	D	SP	P
LNV	86.641	127.60	4.81	22.09	I	C	SP	P
CHCH	87.172	127.95	4.78	21.95	I	D	SP	P
WHN	87.412	307.73	4.77	21.91	I	D	SP	P
JAS	87.431	42.66	4.77	21.90	I	D	SP	P
PEL	87.601	127.28	4.76	21.87	I	D	LP	P
PEL	87.601	127.28	4.76	21.87	I	C	SP	P
BACH	87.614	127.55	4.76	21.87	I	D	SP	P
JACH	87.928	126.95	4.74	21.79	I	C	SP	P
WDC	88.027	39.62	4.74	21.77	I	D	SP	P
PCT	88.321	287.97	4.73	21.71	I	D	SP	P
CN2	89.427	323.51	4.70	21.60	I	D	SP	P
VBA	90.273	135.48	4.69	21.56	I	D	SP	P
GYA	90.537	300.48	4.69	21.53	I	D	SP	P
BDT	91.628	288.93	4.67	21.42	I	D	SP	P
BJI	92.098	316.10	4.65	21.33	I	D	SP	P
CHG	92.484	290.24	4.64	21.30	I	D	LP	P
CHG	92.484	290.24	4.64	21.30	I	D	SP	P
KMI	92.780	297.44	4.63	21.24	I	D	LP	P
TIY	92.994	312.48	4.62	21.20	I	D	SP	P
XAN	93.179	307.83	4.62	21.18	I	D	SP	P
ANT	93.197	119.72	4.62	21.17	I	D	LP	P
ANMO	94.469	51.96	4.57	20.96	I	D	LP	P
LPA	94.791	135.26	4.56	20.91	I	D	LP	P
LPA	94.791	135.26	4.56	20.91	I	C	LP	P
CD2	95.098	302.81	4.55	20.87	I	D	SP	P
HHC	95.388	314.61	4.54	20.83	I	D	SP	P
SLA	96.224	123.21	4.53	20.75	I	D	SP	P
ARE	96.457	113.19	4.52	20.74	I	C	SP	P
LHD	96.841	37.15	4.52	20.70	I	D	SP	P
LZH	97.781	307.25	4.50	20.60	I	D	LP	P
COL	98.101	13.03	4.49	20.56	I	D	LP	P
LPB	99.092	115.12	4.46	20.42	I	C	LP	P
ZOBO	99.223	114.89	4.46	20.41	I	D	LP	P
RSSD	101.019	45.22	4.44	20.33	I	D	LP	Pdf
GTA	102.218	308.50	4.44	20.33	I	D	SP	Pdf
SHA	105.729	63.48	1.89	8.51	I	D	LP	Pdf
RSNT	105.921	25.91	1.89	8.51	I	D	LP	Pdf
EVA	117.244	208.66	1.88	8.45	I	D	SP	PKP
SCP	117.257	56.83	1.88	8.45	I	C	LP	PKP
PRY	117.515	207.01	1.88	8.45	I	D	SP	PKP
BPI	117.966	207.89	1.88	8.44	I	D	SP	PKP
SLR	118.253	208.34	1.88	8.44	I	D	SP	PKP
SJG	118.626	84.87	1.87	8.44	I	D	LP	PKP
BUL	123.027	211.69	1.87	8.41	I	D	SP	PKP
CLK	123.534	220.65	1.87	8.41	I	D	SP	PKP
KRI	125.411	214.67	1.86	8.39	I	D	SP	PKP

Table 191. Station data for event 104....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SCH	127.027	42.04	1.86	8.37	I	D	SP	PKP
DAG	132.640	5.98	1.84	8.26	I	D	SP	PKP
ARO	136.676	253.59	1.80	8.11	I	D	SP	PKP
BNG	149.163	216.68	1.58	7.09	I	D	SP	PKP
KONO	150.116	350.89	1.55	6.97	I	D	LP	PKP
ANTO	152.190	298.66	1.48	6.67	I	D	LP	PKP
COP	153.364	345.06	1.44	6.48	I	D	SP	PKP
ESK	154.927	5.22	1.38	6.21	I	D	LP	PKP
KRA	155.578	329.02	1.36	6.10	I	D	SP	PKP
EDC	155.773	301.63	1.35	6.06	I	D	SP	PKP
HAM	155.968	346.33	1.34	6.02	I	D	SP	PKP
JOS	156.394	325.61	1.32	5.94	I	D	SP	PKP
EZN	157.051	301.19	1.30	5.82	I	D	SP	PKP
KDZ	157.165	306.22	1.29	5.80	I	D	SP	PKP
PRU	157.800	335.80	1.26	5.67	I	D	SP	PKP
DBN	158.046	352.54	1.25	5.62	I	D	LP	PKP
MOX	158.158	341.02	1.25	5.60	I	D	SP	PKP
HOF	158.381	340.21	1.24	5.55	I	D	SP	PKP
KHC	158.861	335.97	1.21	5.45	I	D	SP	PKP
BNS	158.872	348.52	1.21	5.45	I	D	SP	PKP
WET	159.089	337.08	1.20	5.40	I	D	SP	PKP
GRFO	159.129	340.49	1.20	5.40	I	D	LP	PKP
GRF	159.127	340.48	1.20	5.40	I	D	SP	PKP
VAY	159.211	307.63	1.20	5.38	I	D	SP	PKP
UCC	159.419	353.31	1.19	5.33	I	D	SP	PKP
ATH	159.509	297.84	1.18	5.32	I	D	SP	PKP
KMR	159.550	333.43	1.18	5.31	I	D	SP	PKP
SKO	159.682	310.36	1.18	5.28	I	D	SP	PKP
WLF	160.299	349.37	1.15	5.15	I	D	LP	PKP
OHR	160.506	308.78	1.14	5.10	I	D	SP	PKP
STU	160.516	342.88	1.14	5.10	I	D	LP	PKP
STU	160.516	342.88	1.14	5.10	I	D	SP	PKP
KBA	160.658	333.06	1.13	5.07	I	D	SP	PKP
GWF	160.688	346.03	1.13	5.06	I	D	SP	PKP
ECH	161.509	346.19	1.09	4.88	I	D	SP	PKP
OGA	161.685	336.87	1.08	4.84	I	D	SP	PKP
SSB	164.820	349.48	0.91	4.09	I	D	SP	PKP
PTO	166.905	32.46	0.80	3.57	I	D	SP	PKP
LIS	168.409	41.56	0.71	3.18	I	D	SP	PKP

Table 192. Station data for event 106

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SNZO	13.066	205.63	13.22	69.26	E	D	LP	P
NOU	15.921	293.90	12.71	64.04	I	C	SP	P
AFI	16.689	20.91	12.62	63.22	E	D	LP	P
PVC	17.378	310.19	12.42	61.48	I	C	SP	P
KOU	18.555	295.29	12.22	59.82	I	C	SP	P
COO	26.160	260.45	9.36	41.46	I	C	SP	P
RIV	26.626	253.10	9.32	41.25	I	C	SP	P
CAN	28.439	249.96	9.09	40.02	I	C	SP	P
WAM	28.573	248.15	9.09	40.02	I	C	SP	P
YOU	28.932	252.14	9.02	39.65	I	C	SP	P
TAU	30.788	235.10	8.81	38.55	I	C	LP	P
CMS	31.241	257.43	8.81	38.55	I	C	SP	P
TOO	31.372	245.73	8.78	38.40	I	C	SP	P
CTA	33.834	278.08	8.61	37.52	I	C	SP	P
CTAO	33.834	278.08	8.61	37.52	I	C	LP	P
STK	34.781	255.93	8.55	37.22	I	C	SP	P
ADE	36.873	250.29	8.44	36.66	I	C	SP	P
PMG	38.445	294.43	8.34	36.16	I	C	LP	P
ASPA	43.295	266.13	8.07	34.81	I	C	SP	P
WB2	44.206	271.36	8.04	34.66	I	C	SP	P
WBN	48.852	260.00	7.73	33.15	I	C	SP	P
KLG	51.872	252.59	7.49	32.00	I	C	SP	P
NWAO	54.778	248.84	7.25	30.86	I	C	LP	P
MUN	55.870	249.66	7.17	30.48	I	C	SP	P
GUMO	56.087	314.77	7.17	30.48	I	C	LP	P
DAV	65.477	294.41	6.43	27.06	E	C	LP	P
TRT	68.455	273.39	6.18	25.92	I	C	SP	P
KKM	72.477	287.76	5.88	24.58	I	C	SP	P
LEM	73.237	271.66	5.85	24.45	I	C	SP	P
BAG	74.990	299.08	5.71	23.82	E	C	LP	P
MAT	77.747	325.11	5.55	23.12	I	C	SP	P
MAJO	77.747	325.11	5.55	23.12	I	C	LP	P
TATO	79.644	306.45	5.41	22.50	I	C	LP	P
QZH	81.673	304.75	5.21	21.63	I	C	SP	P
SSE	83.754	311.01	5.05	20.93	I	C	SP	P
GZH	84.416	300.37	5.02	20.80	I	C	SP	P
PAS	84.893	45.95	4.99	20.67	I	C	SP	P
BKS	84.974	40.96	4.99	20.67	I	C	SP	P
PSI	85.452	275.68	4.96	20.54	I	C	SP	P
NJ2	85.897	310.48	4.90	20.28	I	C	SP	P
JAS	86.056	41.89	4.90	20.28	I	C	SP	P
JAS	86.056	41.89	4.90	20.28	E	C	LP	P
LAV	86.252	126.06	4.86	20.11	I	C	SP	P
CHCH	86.551	127.27	4.86	20.11	I	C	SP	P
WDC	86.682	38.85	4.86	20.11	I	C	SP	P
SAN	86.810	126.87	4.82	19.94	I	C	SP	P
ROCH	86.831	126.30	4.82	19.94	I	C	SP	P
RFA	87.578	128.98	4.80	19.85	E	C	SP	P
MDJ	88.129	325.42	4.77	19.72	I	C	SP	P
PCT	89.359	287.20	4.71	19.46	I	C	SP	P

Table 192. Station data for event 106....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TIA	89.597	312.84	4.71	19.46	I	C	SP	P
CN2	89.670	322.75	4.71	19.46	I	C	SP	P
LON	91.351	34.78	4.68	19.33	E	C	LP	P
ANMO	93.030	51.23	4.64	19.16	I	C	LP	P
CHTO	93.479	289.55	4.63	19.12	I	C	SP	P
CHG	93.479	289.55	4.63	19.12	I	C	SP	P
TIY	93.508	311.81	4.63	19.12	I	C	SP	P
KMI	93.632	296.76	4.63	19.12	I	C	LP	P
XAN	93.803	307.16	4.61	19.03	I	C	SP	P
ZOBO	98.316	113.97	4.49	18.52	E	C	LP	P
RSSD	99.622	44.55	4.46	18.39	E	C	LP	Pdf
RSNT	104.750	25.40	4.45	18.35	I	C	LP	Pdf
SLR	119.456	207.13	1.88	7.62	I	C	SP	PKP
BUL	124.276	210.43	1.87	7.59	I	C	SP	PKP
QUE	124.578	287.92	1.87	7.59	I	C	SP	PKP
CLK	124.888	219.52	1.87	7.59	I	C	SP	PKP
MTD	125.772	215.45	1.86	7.58	I	C	SP	PKP
KRI	126.698	213.41	1.86	7.56	I	C	SP	PKP
DAG	131.830	6.34	1.84	7.48	I	C	SP	PKP
TAB	142.685	294.88	1.72	7.00	I	C	LP	PKP
SUF	143.499	341.64	1.72	7.00	I	C	SP	PKP
MSL	145.200	291.96	1.68	6.84	I	C	SP	PKP
NUR	145.710	340.37	1.66	6.76	I	C	SP	PKP
BER	149.246	356.93	1.59	6.45	I	C	LP	PKP
KON	149.637	352.53	1.56	6.33	I	C	LP	PKP
KONO	149.637	352.53	1.56	6.33	I	C	LP	PKP
BNG	150.471	214.79	1.56	6.33	I	C	SP	PKP
BCAO	150.475	214.77	1.56	6.33	I	C	LP	PKP
ANTO	152.993	300.28	1.46	5.94	I	C	LP	PKP
COP	153.023	347.14	1.46	5.94	E	C	LP	PKP
DMU	154.940	12.73	1.39	5.63	I	C	SP	PKP
DCN	155.392	13.66	1.39	5.63	I	C	SP	PKP
DDK	155.535	12.35	1.35	5.47	I	C	SP	PKP
DLE	155.591	12.71	1.35	5.47	I	C	SP	PKP
KRA	155.639	331.50	1.35	5.47	I	C	SP	PKP
KSP	156.374	337.28	1.35	5.47	I	C	SP	PKP
BRG	157.082	340.59	1.30	5.29	I	C	SP	PKP
SRO	158.046	329.90	1.26	5.11	I	C	SP	PKP
HOF	158.151	343.10	1.26	5.11	I	C	SP	PKP
ZST	158.257	332.25	1.26	5.11	I	D	SP	PKP
VTS	158.760	312.97	1.22	4.93	I	D	SP	PKP
UCC	158.868	356.13	1.22	4.93	E	C	LP	PKP
GRFO	158.890	343.52	1.22	4.93	I	C	LP	PKP
WET	158.937	340.14	1.22	4.93	I	C	SP	PKP
DOU	159.553	355.51	1.17	4.74	I	C	LP	PKP
WLF	159.839	352.46	1.17	4.74	E	C	LP	PKP
LDF	161.058	4.68	1.12	4.54	I	C	SP	PKP
LPF	161.536	6.80	1.07	4.33	I	C	SP	PKP
ZUL	161.609	346.51	1.07	4.33	E	C	LP	PKP
LOR	162.417	356.17	1.07	4.33	I	C	SP	PKP

Table 192. Station data for event 106....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LBF	162.692	355.82	1.02	4.12	I	C	SP	PKP
DIX	163.145	347.31	1.02	4.12	E	C	LP	PKP
RJF	164.422	1.70	0.96	3.91	I	C	SP	PKP
LFF	164.756	3.86	0.91	3.69	I	C	SP	PKP
CAF	164.809	0.27	0.91	3.69	I	C	SP	PKP
LPO	165.032	2.70	0.91	3.69	I	C	SP	PKP
FRF	165.717	346.68	0.85	3.46	I	C	SP	PKP
LRG	165.875	347.38	0.85	3.46	I	C	SP	PKP
EPF	166.623	5.79	0.80	3.23	I	C	SP	PKP
TOL	168.643	25.01	0.68	2.76	I	C	LP	PKP
MAL	171.095	36.46	0.56	2.27	I	C	LP	PKP
ALI	171.099	13.59	0.56	2.27	I	C	LP	PKP

Table 193. Station data for event 126

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VUN	6.684	299.92	13.88	81.97	I	D	SP	P
MBU	7.090	308.08	13.85	81.06	I	D	SP	P
PVC	15.741	280.79	12.70	64.98	I	D	SP	P
NOU	16.821	263.79	12.50	63.07	I	D	SP	P
PPT	24.684	85.49	9.48	42.53	I	C	LP	P
HNR	26.511	293.04	9.30	41.59	E	D	LP	P
CTAO	35.774	265.13	8.50	37.31	I	D	LP	P
RAB	35.807	294.09	8.49	37.30	I	D	LP	P
TAU	37.654	226.69	8.38	36.73	I	D	LP	P
ADE	42.226	241.25	8.13	35.44	I	D	SP	P
GUA	52.188	308.25	7.47	32.19	E	D	LP	P
GUMO	52.254	308.26	7.46	32.17	E	D	LP	P
PJG	52.254	308.26	7.46	32.17	I	C	SP	P
WBN	52.883	252.88	7.41	31.92	I	D	SP	P
KLG	56.767	246.57	7.11	30.49	I	D	SP	P
NWAO	60.072	243.56	6.86	29.29	I	D	LP	P
DAV	64.411	289.44	6.51	27.67	I	D	LP	P
DAV	64.411	289.44	6.51	27.67	I	D	LP	P
TRT	70.425	269.26	6.03	25.46	I	D	SP	P
MAT	72.404	322.32	5.88	24.80	I	C	SP	P
MAJO	72.404	322.32	5.88	24.80	I	N	LP	P
BAG	73.128	295.68	5.83	24.59	E	D	LP	P
LEM	75.398	268.32	5.68	23.90	E	D	LP	P
TATO	76.686	303.75	5.59	23.51	E	N	LP	P
PAS	77.621	45.59	5.54	23.26	I	C	LP	P
JAS	78.489	41.38	5.47	22.98	I	C	SP	P
WDC	78.919	38.26	5.45	22.86	I	C	SP	P
SEO	79.863	317.04	5.36	22.47	E	D	LP	P
SSE	80.133	308.89	5.33	22.34	I	D	LP	P
COR	81.141	34.83	5.24	21.94	I	C	LP	P
HKC	81.230	298.04	5.23	21.90	E	D	LP	P
MAW	81.460	199.26	5.21	21.80	I	C	SP	P
LON	83.358	33.89	5.08	21.26	I	C	LP	P
MEX	84.883	67.07	4.99	20.85	I	C	SP	P
ANMO	86.163	50.23	4.88	20.36	I	C	LP	P
NEW	86.778	34.73	4.83	20.17	I	C	SP	P
PSI	86.905	274.09	4.83	20.14	I	D	SP	P
SNG	86.987	278.86	4.82	20.12	E	N	LP	P
COL	88.684	11.42	4.73	19.74	I	C	LP	P
JCT	89.097	56.77	4.72	19.67	I	C	LP	P
GOL	89.229	46.51	4.72	19.66	I	C	LP	P
CHCH	89.755	126.50	4.71	19.64	I	C	SP	P
PEL	90.073	125.78	4.71	19.63	I	C	SP	P
FCH	90.290	126.08	4.70	19.61	I	C	SP	P
JACH	90.343	125.39	4.70	19.60	I	C	SP	P
TLL	91.268	123.06	4.68	19.52	I	C	SP	P
EDM	91.634	32.12	4.68	19.49	I	C	SP	P
LPS	91.763	75.44	4.68	19.49	I	C	SP	P
KMI	91.906	296.13	4.67	19.47	E	D	LP	P
RSSD	92.207	43.10	4.66	19.43	I	C	LP	P

Table 193. Station data for event 126....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CHG	92.806	288.99	4.64	19.35	E	N	LP	P
CHG	92.806	288.99	4.64	19.35	I	C	SP	P
TUL	94.395	53.23	4.59	19.13	I	C	LP	P
LPA	98.426	132.53	4.49	18.69	I	C	LP	P
SHA	98.456	60.45	4.49	18.69	E	C	LP	P
ZOBO	99.508	111.62	4.46	18.55	I	C	LP	P
BLA	106.513	56.05	1.89	7.75	I	C	LP	Pdf
SCP	109.274	52.88	1.89	7.75	I	C	LP	Pdf
GEO	109.479	54.97	1.89	7.75	E	C	LP	Pdf
SJG	113.904	79.07	1.88	7.73	E	C	LP	Pdf
POO	115.296	280.98	1.88	7.71	I	C	SP	PKP
TRN	116.098	88.39	1.88	7.70	I	C	LP	PKP
GRM	121.621	201.64	1.87	7.67	I	D	SP	PKP
SUR	124.251	196.66	1.87	7.66	I	C	SP	PKP
JOZ	124.568	209.92	1.87	7.65	I	D	SP	PKP
EVA	126.723	207.65	1.86	7.63	I	D	SP	PKP
BPI	127.459	206.81	1.86	7.62	I	D	SP	PKP
BUL	132.427	211.27	1.84	7.54	I	C	SP	PKP
MTD	133.668	217.01	1.83	7.50	I	C	SP	PKP
KRI	134.704	214.81	1.82	7.47	I	C	SP	PKP
KON	141.685	355.87	1.74	7.14	E	C	LP	PKP
COP	145.327	352.15	1.68	6.87	I	C	LP	PKP
ESK	145.702	7.87	1.67	6.84	I	C	SP	PKP
DMU	146.464	12.29	1.65	6.77	I	C	SP	PKP
DCN	146.912	13.01	1.64	6.72	I	C	SP	PKP
DDK	147.060	12.01	1.64	6.71	I	C	SP	PKP
DLE	147.114	12.28	1.64	6.70	I	C	SP	PKP
ECP	148.196	12.79	1.61	6.59	I	C	SP	PKP
WIT	148.666	357.53	1.60	6.54	I	C	SP	PKP
WTS	149.478	357.25	1.57	6.45	I	C	SP	PKP
BRG	149.739	348.15	1.57	6.42	I	C	SP	PKP
BRD	149.743	327.72	1.57	6.42	I	C	SP	PKP
TLB	149.879	325.43	1.56	6.40	I	C	SP	PKP
ISR	150.263	327.69	1.55	6.35	I	C	SP	PKP
MLR	150.303	328.80	1.55	6.35	I	C	SP	PKP
ENN	150.738	358.21	1.54	6.29	I	C	SP	PKP
PSZ	150.861	338.55	1.53	6.28	I	D	SP	PKP
TNS	151.138	354.81	1.52	6.24	I	C	SP	PKP
BGG	151.236	356.28	1.52	6.23	I	C	SP	PKP
WLF	151.834	357.79	1.50	6.15	E	C	LP	PKP
TIM	152.207	334.47	1.49	6.09	I	C	SP	PKP
FLN	152.469	7.21	1.48	6.06	I	C	SP	PKP
STU	152.503	353.33	1.48	6.05	I	D	LP	PKP
EDC	152.673	318.78	1.47	6.03	I	C	SP	PKP
LDF	152.677	6.77	1.47	6.03	I	C	SP	PKP
CDF	153.027	355.99	1.46	5.98	I	C	SP	PKP
ELL	153.226	310.21	1.45	5.95	I	C	SP	PKP
HAU	153.483	357.29	1.44	5.91	I	C	SP	PKP
BAF	153.620	356.29	1.44	5.89	I	C	SP	PKP
BSF	153.634	356.60	1.44	5.89	I	C	SP	PKP

Table 193. Station data for event 126....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
OGA	154.121	349.79	1.42	5.81	I	C	SP	PKP
LJU	154.162	343.91	1.42	5.81	E	C	SP	PKP
YER	154.176	312.40	1.42	5.80	I	C	SP	PKP
LOR	154.254	1.08	1.41	5.79	I	C	SP	PKP
SSF	154.453	1.65	1.41	5.76	I	C	SP	PKP
LBF	154.540	0.91	1.40	5.75	I	C	SP	PKP
MFF	154.637	7.57	1.40	5.73	I	C	SP	PKP
AVF	154.720	1.93	1.40	5.72	I	C	SP	PKP
SMF	154.877	1.15	1.39	5.70	I	C	SP	PKP
SKO	155.101	329.03	1.38	5.66	I	C	SP	PKP
PTO	157.449	26.62	1.28	5.26	I	C	LP	PKP
CDR	157.831	357.66	1.27	5.19	I	D	SP	PKP
FRF	157.899	355.94	1.26	5.18	I	C	SP	PKP
LRG	158.022	356.47	1.26	5.15	I	C	SP	PKP
LMR	158.134	356.16	1.25	5.13	I	C	SP	PKP
EPF	158.212	8.34	1.25	5.12	I	C	SP	PKP
CVF	158.651	351.21	1.23	5.04	I	C	SP	PKP
LIS	159.162	31.39	1.21	4.94	I	C	SP	PKP
ALI	162.618	13.36	1.04	4.24	I	C	LP	PKP
MAL	162.912	25.21	1.02	4.17	I	C	SP	PKP

Table 194. Station data for event 137

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TVI	4.911	296.97	12.52	103.04	I	C	SP	P
UDU	5.279	304.61	12.61	101.05	I	C	SP	P
SVA	5.861	279.83	12.72	98.16	I	C	SP	P
VUN	5.879	280.87	12.72	98.08	I	C	SP	P
MBU	5.960	291.11	12.74	97.70	I	C	SP	P
VDW	6.114	282.04	12.76	97.01	I	C	SP	P
HNR	25.697	288.80	9.25	46.03	E	D	LP	P
CAN	35.196	235.55	8.47	41.22	I	D	SP	P
YOU	35.384	237.52	8.46	41.15	I	D	SP	P
CTA	36.006	262.06	8.42	40.92	I	D	LP	P
CTAO	36.006	262.06	8.42	40.92	E	D	LP	P
PMG	37.431	279.77	8.33	40.42	I	D	SP	P
TOO	38.570	233.40	8.27	40.03	I	D	SP	P
MOM	40.138	290.64	8.18	39.54	I	D	SP	P
STK	40.492	243.19	8.16	39.41	I	D	SP	P
ADE	43.321	239.15	8.01	38.55	I	D	SP	P
WB2	47.138	260.32	7.79	37.31	I	D	SP	P
ASPA	47.141	255.23	7.79	37.30	I	D	SP	P
GUA	50.814	306.85	7.49	35.67	E	D	LP	P
GUMO	50.879	306.87	7.49	35.64	I	D	LP	P
MTN	51.556	268.65	7.43	35.34	I	D	SP	P
WBN	53.553	251.30	7.28	34.53	I	D	SP	P
KLG	57.663	245.26	6.98	32.88	I	D	SP	P
MEK	60.656	249.75	6.75	31.67	I	D	SP	P
NWAO	61.071	242.44	6.71	31.49	I	D	LP	P
NWAO	61.071	242.44	6.71	31.49	I	D	SP	P
BAL	61.753	245.01	6.66	31.21	I	D	SP	P
MUN	62.026	243.41	6.64	31.09	I	D	SP	P
NAU	64.065	253.73	6.47	30.25	I	D	SP	P
PLP	65.985	292.16	6.31	29.41	I	D	SP	P
DDR	69.682	322.04	6.02	27.95	I	D	SP	P
TRT	70.452	268.48	5.97	27.69	I	D	SP	P
MAJO	70.631	321.87	5.96	27.63	E	D	LP	P
SHK	72.705	317.15	5.81	26.90	I	D	SP	P
TATO	75.438	303.30	5.62	25.95	I	D	LP	P
ANP	75.518	303.50	5.62	25.92	E	D	LP	P
QZH	77.728	301.97	5.48	25.25	I	D	SP	P
GLA	77.789	48.50	5.48	25.22	I	D	SP	P
SEO	78.220	316.75	5.45	25.07	E	D	LP	P
MDJ	80.868	323.69	5.21	23.92	I	D	SP	P
NJ2	80.923	308.40	5.21	23.89	I	D	SP	P
RMU	82.588	46.72	5.09	23.35	I	D	SP	P
CN2	82.766	321.23	5.08	23.30	I	D	SP	P
PMR	83.240	12.34	5.05	23.16	I	D	SP	P
MAW	83.563	199.17	5.04	23.07	I	C	SP	P
TIA	84.192	311.36	5.00	22.89	I	D	SP	P
PNT	84.275	32.98	4.99	22.86	I	D	SP	P
ANMO	84.750	50.38	4.96	22.72	E	N	LP	P
NEW	84.954	34.83	4.95	22.67	I	D	SP	P
IPM	85.377	276.44	4.90	22.42	I	D	SP	P

Table 194. Station data for event 137....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LHD	85.800	35.44	4.86	22.24	I	D	LP	P
CLX	86.005	35.64	4.85	22.17	I	D	LP	P
LDM	86.044	35.37	4.85	22.15	I	C	LP	P
RXF	86.383	35.10	4.83	22.06	I	D	LP	P
BDW	86.403	42.34	4.83	22.05	I	D	SP	P
COL	86.498	11.45	4.82	22.03	I	D	SP	P
COL	86.498	11.45	4.82	22.03	E	D	LP	P
PSI	86.731	273.97	4.81	21.96	I	D	SP	P
GOL	87.705	46.56	4.76	21.73	I	D	SP	P
JCT	87.888	56.83	4.75	21.67	E	C	LP	P
TIY	88.217	310.97	4.73	21.59	I	D	SP	P
XAN	89.270	306.44	4.71	21.50	I	D	SP	P
SES	89.444	35.27	4.71	21.50	I	D	SP	P
EDM	89.752	32.11	4.70	21.47	I	D	SP	P
HHC	90.182	313.50	4.70	21.43	I	D	SP	P
KMI	90.906	296.19	4.68	21.36	I	D	SP	P
CHG	92.062	289.08	4.65	21.20	I	D	SP	P
CHG	92.062	289.08	4.65	21.20	E	D	LP	P
CD2	92.120	301.90	4.65	21.19	I	D	SP	P
GTA	98.016	308.82	4.49	20.45	I	D	SP	P
WES	113.008	51.31	1.89	8.44	E	D	LP	PKP
BEC	117.267	62.87	1.88	8.40	E	C	LP	PKP
KBL	121.355	299.23	1.87	8.37	I	D	SP	PKP
QUE	122.855	293.99	1.87	8.36	I	D	SP	PKP
KSR	130.197	206.67	1.85	8.27	I	D	SP	PKP
NAI	142.331	240.87	1.73	7.73	I	D	SP	PKP
DMU	144.282	11.60	1.69	7.58	I	D	SP	PKP
DCN	144.736	12.27	1.69	7.54	I	D	SP	PKP
DDK	144.876	11.32	1.68	7.52	I	D	SP	PKP
DLE	144.933	11.58	1.68	7.52	I	D	SP	PKP
DKM	145.016	11.32	1.68	7.51	I	D	SP	PKP
HAM	145.568	354.29	1.67	7.46	I	D	SP	PKP
BRL	146.119	350.38	1.66	7.40	I	D	SP	PKP
BRN	146.184	350.45	1.65	7.39	I	D	SP	PKP
KRA	146.866	341.74	1.64	7.32	I	D	SP	PKP
BRG	147.547	348.86	1.62	7.25	I	D	SP	PKP
BNS	148.259	356.82	1.60	7.17	I	D	SP	PKP
GRF	149.132	351.52	1.58	7.06	I	D	SP	PKP
KHC	149.286	348.33	1.57	7.04	I	D	SP	PKP
WET	149.400	349.20	1.57	7.02	I	D	SP	PKP
KMR	150.198	346.99	1.55	6.92	I	D	LP	PKP
ECH	151.001	356.37	1.52	6.81	I	D	SP	PKP
BAF	151.390	356.53	1.51	6.75	I	D	SP	PKP
OGA	151.917	350.51	1.49	6.67	I	D	SP	PKP
LOR	152.022	0.98	1.49	6.65	I	D	SP	PKP
SSF	152.221	1.50	1.48	6.62	I	D	SP	PKP
LBF	152.308	0.82	1.48	6.61	I	C	SP	PKP
SMF	152.645	1.03	1.47	6.56	I	D	SP	PKP
TCF	152.940	3.54	1.46	6.51	I	D	SP	PKP
SKO	153.155	331.29	1.45	6.48	I	D	SP	PKP

Table 194. Station data for event 137....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BNG	159.925	224.71	1.16	5.20	I	D	SP	PKP

Table 195. Station data for event 146

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KRP	5.247	218.32	14.15	56.14	I	D	SP	P
NOU	16.356	311.34	12.69	48.14	I	C	SP	P
KOU	19.004	310.30	12.18	45.63	I	C	SP	P
CAN	25.229	257.99	9.48	33.80	I	D	SP	P
CTA	32.613	286.29	8.72	30.78	I	D	SP	P
ADE	33.629	256.36	8.65	30.51	I	D	SP	P
RAB	39.055	313.08	8.32	29.23	I	C	LP	P
ASPA	41.083	271.98	8.21	28.80	I	D	SP	P
WB2	42.379	277.24	8.13	28.50	I	D	SP	P
WBN	46.180	264.83	7.94	27.77	I	D	SP	P
MTN	48.695	283.43	7.78	27.17	I	C	SP	P
MBL	53.878	267.28	7.34	25.52	I	D	SP	P
NAU	56.851	263.58	7.11	24.66	I	D	SP	P
MAW	68.373	201.60	6.18	21.26	I	D	SP	P
ANP	80.596	308.74	5.31	18.16	E	C	LP	P
SHK	81.032	322.34	5.26	17.98	E	C	LP	P
QZH	82.356	306.72	5.14	17.56	I	C	SP	P
PEL	86.170	127.64	4.91	16.75	I	C	SP	P
FCH	86.315	127.99	4.86	16.57	I	C	SP	P
NJ2	87.022	312.08	4.83	16.47	I	C	SP	P
BEC	126.910	72.52	1.86	6.27	E	C	LP	PKP
MHI	131.648	290.80	1.84	6.20	I	C	SP	PKP
BNG	145.846	215.11	1.66	5.60	I	C	SP	PKP
ALM	176.558	29.45	0.19	0.64	I	C	SP	PKP

Table 196. Station data for event 151

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
UDU	8.116	309.21	13.91	77.19	I	D	SP	P
SVA	8.299	292.01	13.86	76.31	I	D	SP	P
VUN	8.341	292.70	13.86	76.31	I	D	SP	P
VDW	8.596	293.17	13.86	76.31	I	D	SP	P
PVC	17.569	278.89	12.48	61.03	I	D	SP	P
SNZO	22.204	204.15	9.94	44.17	I	C	LP	P
RAB	37.504	292.33	8.41	36.12	I	D	LP	P
TOO	38.851	236.31	8.32	35.68	I	D	SP	P
ASPA	48.449	256.89	7.78	33.05	I	D	SP	P
WBN	54.670	252.54	7.30	30.78	I	D	SP	P
KLB	61.508	244.85	6.76	28.29	I	D	SP	P
MBL	61.698	256.85	6.76	28.29	I	D	SP	P
NWAO	61.751	243.28	6.72	28.10	I	C	LP	P
BAL	62.558	245.79	6.68	27.92	I	D	SP	P
NAU	65.279	254.28	6.43	26.79	I	D	SP	P
DAV	66.161	288.43	6.39	26.61	E	D	LP	P
TRT	72.287	268.54	5.89	24.39	I	D	SP	P
MAJO	73.530	321.14	5.82	24.08	I	C	LP	P
MAT	73.530	321.14	5.82	24.08	I	C	SP	P
BAG	74.798	294.72	5.71	23.60	E	D	LP	P
PRI	75.944	41.65	5.64	23.29	I	C	SP	P
JAS	77.245	40.36	5.58	23.03	I	C	SP	P
WDC	77.753	37.23	5.52	22.77	I	C	SP	P
TATO	78.224	302.79	5.52	22.77	E	D	LP	P
MNA	78.941	41.14	5.45	22.46	I	C	SP	P
LON	82.304	32.97	5.14	21.12	I	C	SP	P
LON	82.304	32.97	5.14	21.12	I	C	LP	P
DUG	83.312	42.24	5.08	20.86	I	C	SP	P
ANMO	84.719	49.41	5.02	20.60	I	C	LP	P
NEW	85.701	33.90	4.96	20.35	I	D	SP	P
LHD	86.516	34.55	4.86	19.92	I	C	SP	P
LDM	86.763	34.50	4.83	19.79	I	D	LP	P
CHCH	88.272	125.79	4.75	19.45	I	C	SP	P
COL	88.294	10.65	4.75	19.45	I	C	SP	P
PEL	88.575	125.06	4.75	19.45	I	C	SP	P
SNG	88.823	278.12	4.73	19.36	E	C	LP	P
EDM	90.626	31.42	4.70	19.24	I	C	SP	P
RSSD	90.918	42.41	4.69	19.19	I	C	LP	P
ZOBO	97.785	110.78	4.51	18.43	I	C	LP	P
RSON	100.128	39.32	4.45	18.18	I	C	LP	Pdf
SHL	102.961	292.51	4.45	18.18	E	C	LP	Pdf
KONO	141.759	357.50	1.74	7.00	E	C	LP	PKP
EBH	144.438	9.65	1.70	6.86	I	C	SP	PKP
EAU	144.835	9.79	1.68	6.78	I	C	SP	PKP
MUD	144.966	357.46	1.68	6.78	I	C	SP	PKP
COP	145.516	354.11	1.66	6.69	I	C	LP	PKP
DMU	146.003	14.26	1.66	6.69	I	C	SP	PKP
DCN	146.428	15.02	1.66	6.69	I	C	SP	PKP
DLE	146.653	14.32	1.64	6.60	I	C	SP	PKP
BNS	150.523	359.19	1.53	6.15	I	C	SP	PKP

Table 196. Station data for event 151....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ANTO	151.053	315.31	1.53	6.15	E	C	LP	PKP
FLN	152.158	9.98	1.50	6.02	I	C	SP	PKP
LDF	152.379	9.57	1.50	6.02	I	C	SP	PKP
GRR	152.457	10.71	1.50	6.02	I	C	SP	PKP
GWF	152.503	358.47	1.46	5.88	I	C	SP	PKP
LPF	152.769	11.17	1.46	5.88	I	C	SP	PKP
BNG	159.480	216.25	1.22	4.89	I	C	SP	PKP
MAL	162.023	29.66	1.07	4.30	I	C	SP	PKP

Table 197. Station data for event 156

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MBU	6.385	269.61	13.18	91.70	I	C	SP	P
BQA	7.048	257.99	13.18	90.00	I	C	SP	P
HNR	25.878	283.74	9.27	44.66	I	D	LP	P
SNZO	25.881	198.67	9.27	44.66	I	C	LP	P
COO	33.345	240.01	8.59	40.63	I	D	SP	P
RAB	34.985	287.61	8.50	40.14	I	D	LP	P
CAN	37.125	233.51	8.37	39.41	I	D	SP	P
CTAO	37.173	259.09	8.37	39.40	E	D	LP	P
YOU	37.268	235.41	8.36	39.36	I	D	SP	P
WAM	37.516	232.22	8.35	39.28	I	D	SP	P
PMG	37.937	276.57	8.32	39.14	I	D	SP	P
CMS	38.612	240.70	8.28	38.92	I	D	SP	P
TOO	40.543	231.65	8.18	38.33	I	D	SP	P
HON	41.444	23.73	8.13	141.92	I	C	LP	AP
HON	41.444	23.73	8.13	38.08	E	D	LP	P
STK	42.232	241.18	8.09	37.84	I	D	SP	P
BFD	42.658	233.29	8.07	37.74	I	C	SP	P
ADE	45.161	237.43	7.93	36.97	I	D	SP	P
GUA	50.210	304.74	7.57	35.05	E	D	LP	P
GUMO	50.275	304.76	7.57	35.02	E	D	LP	P
WBN	55.052	249.76	7.18	33.02	I	D	SP	P
DRV	57.673	199.61	7.00	32.05	I	D	SP	P
KLG	59.336	244.00	6.87	31.41	I	D	SP	P
KLB	62.456	242.89	6.62	30.15	I	C	SP	P
NWAO	62.818	241.36	6.59	30.00	I	D	SP	P
NWAO	62.818	241.36	6.59	30.00	E	D	LP	P
NWAO	62.818	241.36	6.59	150.00	I	C	LP	AP
BAL	63.431	243.91	6.54	29.76	I	D	SP	P
DAV	63.792	287.01	6.51	29.61	I	D	LP	P
MKS	65.483	272.01	6.38	28.94	I	D	SP	P
NAU	65.481	252.60	6.38	28.94	I	D	SP	P
KYS	67.380	320.94	6.22	28.14	I	D	SP	P
TSK	68.090	321.72	6.16	27.86	I	D	SP	P
SRY	68.184	320.75	6.15	27.82	I	D	SP	P
DDR	68.494	321.01	6.13	27.70	I	D	SP	P
ADK	68.643	358.62	6.12	27.64	I	D	SP	P
MAJO	69.448	320.88	6.06	27.37	I	D	LP	P
MAT	69.448	320.88	6.06	27.37	I	D	SP	P
TRT	71.351	267.47	5.92	26.68	I	D	SP	P
SHK	71.689	316.21	5.90	26.56	I	D	SP	P
SHK	71.689	316.21	5.90	26.56	I	D	LP	P
BAG	72.002	294.04	5.88	26.48	I	D	LP	P
SDN	73.073	8.37	5.80	26.11	I	D	SP	P
BKS	73.485	40.82	5.77	25.96	E	D	LP	P
PAS	73.976	45.97	5.74	25.81	I	D	SP	P
JAS	74.661	41.66	5.70	25.60	I	D	LP	P
TATO	74.950	302.43	5.67	25.48	I	D	LP	P
ORV	74.966	39.81	5.67	25.47	I	D	SP	P
LGBM	75.650	38.02	5.63	25.28	I	C	SP	P
GLA	75.735	48.49	5.62	25.25	I	D	SP	P

Table 197. Station data for event 156....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LEM	76.379	266.95	5.59	25.07	E	D	LP	P
COR	77.070	34.91	5.54	24.87	I	D	SP	P
QZH	77.291	301.20	5.52	24.77	I	D	SP	P
PHC	79.115	28.35	5.40	24.16	I	D	SP	P
LON	79.256	33.88	5.38	24.06	I	D	LP	P
LON	79.256	33.88	5.38	24.06	I	D	SP	P
NJ2	80.231	307.77	5.28	23.60	I	D	SP	P
GZH	80.910	297.48	5.22	23.31	I	D	SP	P
CN2	81.597	320.69	5.16	23.05	I	D	SP	P
NEW	82.701	34.62	5.10	22.74	I	D	SP	P
ANMO	82.731	50.24	5.10	22.74	I	D	LP	P
ANMO	82.731	50.24	5.10	22.74	I	D	SP	P
ANMO	82.731	50.24	5.10	157.26	I	C	LP	AP
WHN	83.056	304.71	5.08	22.64	I	D	SP	P
LHD	83.553	35.23	5.05	22.50	I	D	SP	P
CLX	83.761	35.43	5.03	22.44	I	D	LP	P
LDM	83.797	35.15	5.03	22.43	I	D	SP	P
RXF	84.133	34.88	5.01	22.33	I	D	SP	P
COL	84.208	11.15	5.01	22.31	I	D	SP	P
BDW	84.244	42.14	5.00	22.30	I	D	SP	P
GOL	85.614	46.35	4.89	21.76	I	D	SP	P
BJI	85.754	313.96	4.88	21.71	I	D	SP	P
JCT	86.010	56.63	4.86	21.62	I	D	SP	P
TIY	87.421	310.62	4.77	21.23	I	D	SP	P
EDM	87.475	31.86	4.77	21.21	I	D	SP	P
GYA	87.789	298.38	4.76	21.16	I	D	SP	P
RSSD	88.438	42.80	4.73	21.04	I	D	LP	P
PCT	88.641	285.69	4.72	21.00	I	D	SP	P
XAN	88.647	306.14	4.72	21.00	I	D	SP	P
HHC	89.288	313.22	4.71	20.94	I	D	SP	P
SIO	90.657	52.81	4.69	20.86	I	D	SP	P
KMI	90.690	295.95	4.69	20.85	I	D	LP	P
TUL	91.106	52.80	4.68	20.78	I	D	LP	P
LNV	91.126	125.96	4.68	20.77	I	D	SP	P
BDT	91.618	287.42	4.67	20.73	I	D	SP	P
RLO	91.778	52.78	4.66	20.72	I	D	SP	P
PEL	91.987	125.42	4.66	20.70	I	D	SP	P
RSNT	92.046	23.74	4.66	20.69	I	D	LP	P
YKC	92.091	23.78	4.66	20.69	I	D	SP	P
FCH	92.226	125.72	4.66	20.68	I	D	SP	P
JACH	92.230	125.03	4.66	20.68	I	D	SP	P
LZH	93.259	306.62	4.62	20.50	I	D	SP	P
GTA	97.295	308.85	4.51	20.02	I	D	SP	P
RSON	97.430	39.14	4.51	20.01	I	D	LP	P
MBC	98.751	11.48	4.48	19.85	I	D	SP	P
RSCP	98.939	55.58	4.47	19.83	I	D	LP	P
FCC	99.575	31.42	4.45	19.71	I	D	SP	P
LSA	101.837	297.56	4.44	19.68	I	D	SP	Pdf
BLA	103.358	54.93	4.44	19.68	E	D	LP	Pdf
NDI	113.657	294.30	1.88	8.22	I	D	SP	PKP

Table 197. Station data for event 156....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAG	118.973	6.19	1.88	8.18	I	D	SP	PKP
QUE	122.698	295.21	1.87	8.15	I	D	SP	PKP
MHI	128.667	303.06	1.86	8.09	I	D	SP	PKP
CAI	131.881	115.55	1.84	8.03	I	D	SP	PKP
BUL	136.588	212.62	1.81	7.87	I	D	SP	PKP
BRN	144.165	351.83	1.70	7.40	I	D	SP	PKP
WIT	144.291	358.68	1.70	7.39	I	D	SP	PKP
DBN	145.017	0.23	1.68	7.32	I	D	LP	PKP
KRA	145.038	343.59	1.68	7.32	I	D	SP	PKP
WTS	145.106	358.47	1.68	7.31	I	D	SP	PKP
KSP	145.165	347.89	1.68	7.31	I	D	SP	PKP
CLI	145.427	333.04	1.67	7.28	I	D	SP	PKP
PPE	145.538	332.35	1.67	7.27	I	D	SP	PKP
BRG	145.559	350.41	1.67	7.27	I	D	SP	PKP
SPC	145.738	342.62	1.66	7.25	I	D	SP	PKP
CFR	146.076	330.64	1.66	7.22	I	D	SP	PKP
MOX	146.105	352.89	1.66	7.22	I	D	SP	PKP
BNS	146.127	357.98	1.66	7.22	I	D	SP	PKP
JOS	146.274	341.76	1.65	7.20	I	D	SP	PKP
PRU	146.314	349.34	1.65	7.20	I	D	SP	PKP
AAR	146.348	333.93	1.65	7.19	I	D	SP	PKP
ENN	146.352	359.39	1.65	7.19	I	D	SP	PKP
HOF	146.400	352.48	1.65	7.19	I	D	SP	PKP
TLB	146.578	330.04	1.65	7.17	I	D	SP	PKP
MLR	146.836	333.17	1.64	7.14	I	D	SP	PKP
MDB	146.960	335.49	1.64	7.13	I	D	SP	PKP
DOU	147.020	0.95	1.64	7.13	E	D	LP	PKP
GRF	147.091	353.03	1.63	7.12	I	D	SP	PKP
KHC	147.307	350.03	1.63	7.09	I	D	SP	PKP
WET	147.404	350.86	1.63	7.08	I	D	SP	PKP
WLF	147.452	359.09	1.62	7.08	E	D	LP	PKP
SRO	147.525	343.70	1.62	7.07	I	D	SP	PKP
VKA	147.599	346.33	1.62	7.06	I	D	SP	PKP
BUD	147.629	342.63	1.62	7.06	I	D	SP	PKP
CGN	147.847	331.58	1.61	7.04	I	D	SP	PKP
FLN	148.000	7.35	1.61	7.02	I	D	SP	PKP
LDF	148.209	6.96	1.61	6.99	I	D	SP	PKP
STU	148.200	355.23	1.61	6.99	I	D	SP	PKP
KMR	148.247	348.83	1.60	6.99	I	D	LP	PKP
GRR	148.319	7.95	1.60	6.98	I	D	SP	PKP
BUH	148.364	356.42	1.60	6.98	I	D	SP	PKP
STR	148.479	356.99	1.60	6.96	I	D	SP	PKP
FUR	148.586	352.44	1.60	6.95	I	D	SP	PKP
LPF	148.644	8.31	1.59	6.94	I	D	SP	PKP
BHG	148.789	350.23	1.59	6.93	I	D	SP	PKP
ECH	148.875	357.72	1.59	6.91	I	D	SP	PKP
PVL	149.018	331.24	1.58	6.90	I	D	SP	PKP
HAU	149.109	358.75	1.58	6.89	I	D	SP	PKP
BAF	149.261	357.89	1.58	6.87	I	D	SP	PKP
EDC	149.708	324.61	1.56	6.81	I	D	SP	PKP

Table 197. Station data for event 156....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DST	149.774	322.74	1.56	6.80	I	D	SP	PKP
LOR	149.830	2.08	1.56	6.80	I	D	SP	PKP
OGA	149.893	352.29	1.56	6.79	I	D	SP	PKP
SSF	150.023	2.59	1.55	6.77	I	D	SP	PKP
KDZ	150.087	329.14	1.55	6.76	I	D	SP	PKP
LJU	150.095	347.18	1.55	6.76	I	D	SP	PKP
MFF	150.166	7.69	1.55	6.75	I	D	SP	PKP
AVF	150.286	2.83	1.55	6.74	I	D	SP	PKP
VTS	150.335	332.86	1.54	6.73	I	D	SP	PKP
CEY	150.408	347.14	1.54	6.72	I	D	SP	PKP
BGF	150.491	3.57	1.54	6.71	I	D	SP	PKP
LSF	150.698	5.49	1.53	6.68	I	D	SP	PKP
TCF	150.717	4.52	1.53	6.68	I	D	SP	PKP
ELL	150.763	316.97	1.53	6.67	I	D	SP	PKP
MZF	150.816	4.01	1.53	6.67	I	D	SP	PKP
IZM	151.371	322.35	1.51	6.59	I	D	SP	PKP
SKO	151.598	334.32	1.51	6.56	I	D	SP	PKP
RJF	151.634	5.77	1.50	6.55	I	D	SP	PKP
LFF	151.914	7.04	1.49	6.51	I	D	SP	PKP
CAF	152.059	5.05	1.49	6.49	I	D	SP	PKP
LPO	152.215	6.45	1.48	6.46	I	D	SP	PKP
OHR	152.581	334.16	1.47	6.41	I	D	SP	PKP
ATH	153.659	325.95	1.43	6.24	I	D	SP	PKP
LRG	153.658	358.42	1.43	6.24	I	D	SP	PKP
CVF	154.384	354.06	1.41	6.12	I	D	SP	PKP
RMP	154.528	347.23	1.40	6.10	I	D	SP	PKP
SFS	158.092	25.75	1.25	5.45	I	D	SP	PKP
ALM	159.077	17.88	1.21	5.25	I	D	SP	PKP
KIC	165.480	135.76	0.88	3.82	I	D	SP	PKP

Table 198. Station data for event 187

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VUN	9.120	260.47	13.79	75.70	I	D	SP	P
SVA	9.139	259.80	13.79	75.70	I	D	SP	P
NOU	20.980	251.19	10.16	45.56	I	C	SP	P
KOU	22.717	256.63	9.84	43.75	I	C	SP	P
SNZO	27.034	202.26	9.28	40.70	I	C	LP	P
HNR	28.165	281.36	9.18	40.17	I	D	LP	P
RAB	37.207	285.51	8.44	36.38	I	D	SP	P
CTAO	39.606	258.55	8.29	35.63	I	C	LP	P
HON	40.229	20.55	8.26	35.48	I	C	LP	P
TAU	43.244	224.26	8.10	34.69	E	C	LP	P
GUA	52.037	302.71	7.49	31.76	E	C	LP	P
KNA	56.616	261.92	7.14	30.11	I	C	SP	P
MEK	64.563	248.10	6.51	27.22	I	C	SP	P
KLB	64.754	242.56	6.47	27.04	I	D	SP	P
NWAO	65.093	241.06	6.47	27.04	I	C	LP	P
BAL	65.742	243.55	6.43	26.86	I	D	SP	P
DAV	66.017	285.82	6.39	26.68	E	C	LP	P
NAU	67.882	252.05	6.22	25.92	I	C	SP	P
MAJO	70.745	319.40	6.03	25.07	I	C	LP	P
MAT	70.745	319.40	6.03	25.07	I	C	LP	P
BKS	71.675	39.58	5.96	24.76	I	C	LP	P
FRI	72.702	41.62	5.88	24.41	I	C	SP	P
JAS	72.826	40.46	5.85	24.27	I	C	SP	P
JAS	72.826	40.46	5.85	24.27	I	C	LP	P
SHK	73.147	314.87	5.85	24.27	I	C	LP	P
WDC	73.228	37.25	5.85	24.27	I	C	SP	P
TRT	73.780	266.68	5.78	23.96	I	C	SP	P
BAG	74.086	292.93	5.78	23.96	I	C	LP	P
TATO	76.829	301.31	5.58	23.09	I	C	LP	P
ANP	76.895	301.51	5.58	23.09	E	C	LP	P
LON	77.654	32.78	5.55	22.95	I	C	LP	P
SEO	78.676	314.89	5.48	22.65	E	C	LP	P
LEM	78.810	266.18	5.45	22.52	E	C	LP	P
EPT	79.173	52.15	5.45	22.52	I	C	LP	P
SSE	79.748	306.79	5.41	22.34	E	C	LP	P
ANMO	80.674	49.32	5.30	21.87	I	C	LP	P
COL	83.439	10.17	5.08	20.91	I	C	LP	P
FBA	83.439	10.17	5.08	20.91	I	C	SP	P
COL	83.439	10.17	5.08	20.91	I	C	SP	P
GOL	83.650	45.49	5.08	20.91	I	C	LP	P
JCT	83.820	55.81	5.05	20.79	I	C	LP	P
EDM	85.935	31.02	4.90	20.14	I	C	SP	P
RSSD	86.566	42.01	4.86	19.97	I	C	LP	P
TUL	88.991	52.08	4.73	19.41	E	C	LP	P
PEL	90.198	124.67	4.71	19.33	I	C	SP	P
RSNT	90.785	23.07	4.69	19.24	I	C	LP	P
KMI	92.727	295.27	4.66	19.11	E	C	LP	P
SHA	93.320	59.10	4.63	18.99	E	C	LP	P
CHG	94.318	288.23	4.60	18.86	I	C	SP	P
LZH	95.011	306.02	4.58	18.77	E	C	LP	P

Table 198. Station data for event 187....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
RSCP	96.766	55.00	4.53	18.56	I	C	LP	P
ZOBO	98.192	109.66	4.51	18.48	I	C	LP	P
BOCO	98.991	87.89	4.48	18.35	I	C	LP	P
BLA	101.197	54.45	4.45	18.22	E	C	LP	Pdf
WES	108.930	50.31	1.89	7.63	I	C	LP	Pdf
DBN	144.623	2.92	1.68	6.80	I	C	LP	PKP
KSP	145.292	350.67	1.68	6.80	I	C	SP	PKP
KRA	145.348	346.34	1.68	6.80	I	C	SP	PKP
BRG	145.578	353.24	1.66	6.71	I	C	SP	PKP
ARO	145.769	265.99	1.66	6.71	I	C	LP	PKP
MOX	146.017	355.79	1.66	6.71	I	C	SP	PKP
KLL	146.123	1.84	1.66	6.71	I	C	SP	PKP
NAI	146.365	240.68	1.66	6.71	I	C	SP	PKP
FLN	147.304	10.31	1.64	6.62	I	C	SP	PKP
KHC	147.337	353.11	1.64	6.62	I	C	SP	PKP
LDF	147.528	9.96	1.62	6.52	I	C	SP	PKP
GRR	147.599	10.94	1.62	6.52	I	C	SP	PKP
VKA	147.785	349.45	1.62	6.52	I	C	SP	PKP
STU	148.007	358.41	1.62	6.52	E	C	LP	PKP
KMR	148.325	352.05	1.62	6.52	E	C	LP	PKP
CDF	148.379	0.82	1.62	6.52	I	C	SP	PKP
HAU	148.764	2.03	1.59	6.41	I	C	SP	PKP
BSF	148.951	1.47	1.59	6.41	I	C	SP	PKP
SLE	149.027	359.25	1.59	6.41	E	C	LP	PKP
GRC	149.239	6.45	1.59	6.41	I	C	SP	PKP
ZUL	149.313	359.37	1.59	6.41	E	C	LP	PKP
LOR	149.344	5.43	1.59	6.41	I	C	SP	PKP
KBA	149.386	352.71	1.59	6.41	I	C	SP	PKP
MFF	149.450	10.97	1.59	6.41	I	C	SP	PKP
SSF	149.515	5.95	1.56	6.29	I	C	SP	PKP
SAX	149.523	358.08	1.56	6.29	E	C	LP	PKP
LBF	149.636	5.34	1.56	6.29	I	C	SP	PKP
AVF	149.768	6.24	1.56	6.29	I	C	SP	PKP
OGA	149.819	355.76	1.56	6.29	I	C	SP	PKP
PVL	149.830	334.41	1.56	6.29	I	C	SP	PKP
LLS	149.915	358.52	1.56	6.29	E	C	LP	PKP
SMF	149.960	5.62	1.56	6.29	I	C	SP	PKP
OSS	150.053	356.93	1.56	6.29	E	C	LP	PKP
TCF	150.128	7.96	1.56	6.29	I	C	SP	PKP
MZF	150.247	7.47	1.56	6.29	I	C	SP	PKP
VDL	150.282	357.84	1.56	6.29	E	C	LP	PKP
TMA	150.680	358.64	1.53	6.17	E	C	LP	PKP
DIX	150.714	0.72	1.53	6.17	E	C	LP	PKP
MMK	150.745	359.93	1.53	6.17	E	C	LP	PKP
KDZ	150.980	332.43	1.53	6.17	I	C	SP	PKP
RJF	150.991	9.34	1.53	6.17	I	C	SP	PKP
VTS	151.077	336.27	1.53	6.17	I	C	SP	PKP
LFF	151.218	10.63	1.53	6.17	I	C	SP	PKP
CAF	151.443	8.72	1.53	6.17	I	C	SP	PKP
LPO	151.542	10.11	1.50	6.04	I	C	SP	PKP

Table 198. Station data for event 187....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PTO	151.789	27.02	1.50	6.04	E	C	LP	PKP
EPF	152.981	12.29	1.46	5.90	I	C	SP	PKP
FRF	153.214	2.05	1.46	5.90	I	C	SP	PKP
LRG	153.309	2.53	1.46	5.90	I	C	SP	PKP
LMR	153.436	2.30	1.46	5.90	I	C	SP	PKP
LIS	153.465	30.93	1.46	5.90	I	C	SP	PKP
RMP	154.649	351.63	1.39	5.59	I	C	SP	PKP
TOL	154.673	21.90	1.39	5.59	I	C	SP	PKP
BNG	163.954	221.71	0.96	3.88	I	C	SP	PKP

Table 199. Station data for event 194

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVC	13.626	263.31	13.21	50.92	I	C	SP	P
NOU	16.169	247.04	12.77	48.62	I	C	SP	P
KOU	17.725	254.47	12.48	47.17	I	C	SP	P
HNR	23.116	285.23	9.76	34.99	I	C	LP	P
SVO	23.336	285.78	9.68	34.67	E	C	LP	P
WEL	25.458	193.69	9.42	33.61	E	D	LP	P
SNZO	25.495	193.78	9.42	33.61	I	D	LP	P
RAB	32.250	289.17	8.75	30.94	I	C	LP	P
CTA	34.552	258.64	8.59	30.31	I	C	LP	P
CTAO	34.552	258.64	8.59	30.31	I	C	LP	P
CMS	36.430	239.28	8.47	29.85	I	C	SP	P
TAU	39.777	221.46	8.27	29.07	E	C	LP	P
HON	42.273	27.51	8.13	28.54	I	D	LP	P
WB2	45.739	258.19	7.96	27.89	I	C	SP	P
ASPA	46.006	253.01	7.94	27.81	I	C	SP	P
GUA	47.744	306.68	7.85	27.47	I	C	LP	P
NWAO	60.597	241.29	6.84	23.70	I	C	LP	P
DAV	61.050	288.07	6.80	23.55	I	C	LP	P
MKS	62.720	272.70	6.68	23.11	I	C	SP	P
MAJO	67.429	322.46	6.26	21.58	I	D	LP	P
BAG	69.335	295.14	6.10	21.00	I	C	LP	P
TATO	72.427	303.60	5.89	20.25	I	C	LP	P
ANP	72.503	303.80	5.89	20.25	E	C	LP	P
JAS	76.219	43.08	5.64	19.35	I	C	LP	P
COL	84.375	12.26	5.02	17.16	I	D	LP	P
ANMO	84.608	51.29	5.02	17.16	I	C	LP	P
BDW	85.813	43.17	4.90	16.73	I	D	SP	P
GOL	87.346	47.31	4.80	16.38	I	D	SP	P
JCT	88.101	57.55	4.77	16.28	I	C	LP	P
EDM	88.607	32.77	4.75	16.21	I	D	SP	P
CHG	89.405	289.72	4.71	16.07	I	C	SP	P
RSSD	90.030	43.66	4.71	16.07	E	N	LP	P
RSNT	92.804	24.46	4.64	15.82	I	D	LP	P
SHA	97.751	60.38	4.51	15.37	I	C	LP	P
KEV	124.780	349.88	1.87	6.29	E	D	LP	PKP
DBN	144.555	357.18	1.68	5.68	I	C	LP	PKP
BRG	144.639	347.48	1.68	5.68	I	C	SP	PKP
MLR	145.188	330.67	1.68	5.68	I	C	SP	PKP
PRU	145.343	346.33	1.68	5.68	I	C	SP	PKP
PSN	145.361	326.44	1.68	5.68	I	C	SP	PKP
BNS	145.555	354.80	1.66	5.61	I	C	SP	PKP
ENN	145.845	356.15	1.66	5.61	I	C	SP	PKP
GRF	146.285	349.81	1.66	5.61	I	C	SP	PKP
BGG	146.292	354.42	1.66	5.61	I	C	SP	PKP
KHC	146.364	346.86	1.66	5.61	I	C	SP	PKP
WET	146.498	347.65	1.66	5.61	I	C	SP	PKP
WLF	146.927	355.68	1.64	5.53	E	C	LP	PKP
KMR	147.247	345.55	1.64	5.53	E	C	LP	PKP
PVL	147.292	328.56	1.64	5.53	I	C	SP	PKP
GWF	147.479	353.75	1.64	5.53	I	C	SP	PKP

Table 199. Station data for event 194....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
STU	147.491	351.78	1.64	5.53	E	D	LP	PKP
FUR	147.747	348.99	1.62	5.45	I	C	SP	PKP
ECH	148.279	354.10	1.62	5.45	I	C	SP	PKP
PTO	153.762	19.25	1.43	4.81	E	C	LP	PKP
BNG	160.147	234.13	1.17	3.94	I	C	SP	PKP

Table 200. Station data for event 204

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VUN	7.847	289.36	13.92	54.84	I	C	SP	P
NDF	8.836	288.50	13.82	54.26	I	C	SP	P
PVC	17.199	277.12	12.59	47.68	I	C	SP	P
NOU	18.473	261.72	12.28	46.16	I	C	SP	P
KOU	20.549	266.74	10.31	37.27	I	C	SP	P
HNR	27.735	290.09	9.24	32.87	I	C	LP	P
CAN	35.686	238.04	8.53	30.07	I	C	SP	P
YOU	35.948	239.97	8.50	29.95	I	C	SP	P
RAB	37.002	291.81	8.44	29.72	I	C	LP	P
CTA	37.411	263.83	8.41	29.60	I	C	SP	P
CTAO	37.411	263.83	8.41	29.60	I	C	LP	P
TOO	38.970	235.57	8.32	29.25	I	C	SP	P
TAU	39.264	226.83	8.29	29.14	I	C	LP	P
BFD	41.179	236.94	8.21	28.83	I	D	SP	P
ADE	43.933	240.84	8.05	28.22	I	C	SP	P
WB2	48.478	261.37	7.78	27.19	I	C	SP	P
GUA	53.039	306.50	7.42	25.84	I	C	LP	P
GUMO	53.104	306.52	7.42	25.84	E	C	LP	P
MBL	61.566	256.59	6.76	23.39	I	C	SP	P
DAV	65.690	288.31	6.43	22.19	I	C	LP	P
SPA	69.337	180.00	6.10	20.99	E	N	LP	P
PGP	72.625	292.20	5.89	20.24	I	C	SP	P
MAJO	72.857	321.20	5.85	20.10	I	C	LP	P
MAT	72.857	321.20	5.85	20.10	I	C	SP	P
BAG	74.274	294.70	5.75	19.74	I	C	LP	P
ANP	77.721	303.02	5.55	19.02	I	C	LP	P
QZH	79.919	301.48	5.36	18.35	I	C	SP	P
SEO	80.463	316.16	5.31	18.17	I	C	LP	P
SSE	80.955	308.03	5.26	17.99	I	C	LP	P
LON	81.928	33.16	5.18	17.71	E	C	LP	P
EPT	82.917	52.33	5.11	17.46	E	D	LP	P
NJ2	83.155	307.86	5.11	17.46	I	C	SP	P
GZH	83.349	297.61	5.08	17.36	I	C	SP	P
ANMO	84.523	49.59	5.02	17.15	E	N	LP	P
CN2	84.995	320.62	4.99	17.04	I	C	SP	P
WHN	85.842	304.69	4.90	16.73	I	C	SP	P
COL	87.723	10.77	4.80	16.37	I	C	LP	P
PSI	88.438	273.45	4.75	16.20	I	C	SP	P
TLL	90.300	122.43	4.70	16.02	I	D	SP	P
RSSD	90.642	42.51	4.70	16.02	E	C	LP	P
KMI	93.037	295.58	4.64	15.81	E	C	LP	P
ZOBO	98.277	110.82	4.49	15.29	I	D	LP	P
SLR	129.044	205.84	1.86	6.25	E	C	LP	PKP
KEV	129.448	350.80	1.86	6.25	I	C	LP	PKP
KRI	136.142	213.25	1.81	6.11	I	D	SP	PKP
NUR	138.242	346.43	1.79	6.04	I	C	LP	PKP
ARO	143.729	261.07	1.70	5.74	E	C	LP	PKP
COP	144.855	353.91	1.68	5.68	E	C	LP	PKP
DMU	145.456	13.74	1.68	5.68	I	C	SP	PKP
DCN	145.887	14.47	1.66	5.61	I	C	SP	PKP

Table 200. Station data for event 204....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DLE	146.106	13.79	1.66	5.61	I	C	SP	PKP
PSN	150.755	326.29	1.53	5.15	I	C	SP	PKP
GWF	151.860	358.07	1.50	5.04	I	C	SP	PKP
GRR	151.884	10.07	1.50	5.04	I	C	SP	PKP
STU	151.987	355.84	1.50	5.04	E	C	LP	PKP
CDF	152.435	358.51	1.50	5.04	I	C	SP	PKP
HAU	152.854	359.84	1.46	4.93	I	C	SP	PKP
BSF	153.024	359.18	1.46	4.93	I	C	SP	PKP
LOR	153.521	3.64	1.43	4.80	I	C	SP	PKP
SSF	153.704	4.23	1.43	4.80	I	C	SP	PKP
MFF	153.735	9.98	1.43	4.80	I	C	SP	PKP
LBF	153.811	3.52	1.43	4.80	I	C	SP	PKP
SMF	154.141	3.79	1.43	4.80	I	C	SP	PKP
LSF	154.319	7.56	1.43	4.80	I	C	SP	PKP
TCF	154.359	6.47	1.43	4.80	I	C	SP	PKP
MZF	154.469	5.90	1.43	4.80	I	C	SP	PKP
RJF	155.247	7.98	1.39	4.68	I	C	SP	PKP
CAF	155.688	7.22	1.35	4.54	I	C	SP	PKP
BNG	159.814	218.01	1.17	3.93	I	C	SP	PKP
BCAO	159.819	217.98	1.17	3.93	I	C	LP	PKP

Table 201. Station data for event 227

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AFI	8.001	46.88	10.18	101.43	I	C	SP	P
PVC	13.298	275.32	10.16	78.13	I	C	SP	P
NOU	14.996	256.53	9.95	73.35	I	C	SP	P
KOU	16.889	263.38	9.71	69.27	I	C	SP	P
HNR	23.745	291.78	9.05	60.61	E	C	LP	P
COO	29.516	242.12	8.61	55.98	I	C	SP	P
RAB	33.018	293.58	8.42	54.15	I	D	SP	P
CAN	33.242	234.81	8.41	54.03	I	C	SP	P
YOU	33.395	236.90	8.40	53.94	I	C	SP	P
WAM	33.628	233.39	8.38	53.81	I	C	SP	P
CTAO	33.804	262.81	8.37	53.71	E	C	LP	P
CTA	33.804	262.81	8.37	53.71	I	C	SP	P
CMS	34.791	242.66	8.31	53.15	I	C	SP	P
PMG	35.335	281.45	8.29	52.93	I	C	SP	P
TOO	36.654	232.75	8.22	52.34	I	C	SP	P
TAU	37.479	223.70	8.17	51.88	E	C	LP	P
MDG	38.192	286.94	8.14	51.60	I	D	SP	P
MOM	38.211	292.72	8.14	51.59	I	C	SP	P
STK	38.416	243.06	8.12	51.46	I	C	SP	P
HON	44.945	26.52	7.75	48.29	E	D	LP	P
GUMO	49.327	308.94	7.42	45.62	E	C	LP	P
WBN	51.392	251.73	7.27	44.41	I	C	SP	P
MEK	58.507	250.22	6.75	40.53	I	C	SP	P
KLB	58.662	244.36	6.74	40.46	I	D	SP	P
NWAO	59.002	242.77	6.72	40.32	E	C	LP	P
BAL	59.652	245.40	6.67	39.94	I	D	SP	P
NAU	61.888	254.33	6.49	38.67	I	D	SP	P
MAJO	69.527	323.33	5.92	34.74	E	D	LP	P
MAT	69.527	323.33	5.92	34.74	I	D	SP	P
BAG	70.308	296.23	5.86	34.36	E	C	LP	P
TATO	73.781	304.46	5.63	32.85	E	C	LP	P
SAO	77.162	43.28	5.42	31.44	I	D	SP	P
BKS	77.321	41.98	5.41	31.37	I	D	SP	P
FRI	78.424	43.92	5.30	30.66	I	D	SP	P
JAS	78.505	42.79	5.29	30.62	I	D	SP	P
JAS	78.505	42.79	5.29	30.62	E	D	LP	P
WDC	78.775	39.64	5.26	30.43	I	D	SP	P
CN2	81.633	322.25	5.07	29.23	I	D	SP	P
LON	82.985	35.05	4.99	28.72	E	D	LP	P
IPM	83.241	277.26	4.98	28.62	I	D	SP	P
NEW	86.444	35.71	4.75	27.23	I	D	SP	P
ANMO	86.620	51.23	4.74	27.18	E	D	LP	P
FBA	87.223	12.33	4.72	27.06	I	D	SP	P
COL	87.223	12.33	4.72	27.06	E	D	LP	P
LRM	87.812	39.49	4.71	26.99	I	D	SP	P
CHG	90.095	289.83	4.67	26.70	I	D	SP	P
EDM	91.162	32.86	4.64	26.56	I	D	SP	P
RSNT	95.519	24.62	4.52	25.80	E	D	LP	P
HVD	125.387	204.71	1.86	10.34	I	D	SP	PKP
SUR	125.433	199.34	1.86	10.34	I	D	SP	PKP

Table 201. Station data for event 227....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BLF	126.425	206.22	1.86	10.32	I	D	SP	PKP
MHI	127.411	301.17	1.86	10.30	I	C	SP	PKP
SLR	128.394	210.38	1.85	10.29	I	D	SP	PKP
MTD	133.819	220.62	1.83	10.12	I	C	SP	PKP
UPP	138.199	348.39	1.78	9.88	I	C	SP	PKP
DCN	145.434	10.04	1.66	9.21	I	C	SP	PKP
ETA	146.229	9.23	1.64	9.11	I	C	SP	PKP
MLR	147.496	328.21	1.61	8.93	I	C	SP	PKP
WET	149.210	346.27	1.57	8.67	I	C	SP	PKP
PVL	149.530	325.74	1.56	8.62	I	C	SP	PKP
CDF	150.874	353.07	1.52	8.39	I	C	SP	PKP
GRR	151.080	4.24	1.51	8.35	I	C	SP	PKP
ZUL	151.644	351.16	1.49	8.25	E	C	LP	PKP
LOR	152.275	357.60	1.47	8.13	I	C	SP	PKP
MMK	153.103	351.13	1.44	7.97	E	C	LP	PKP
CAF	154.650	0.25	1.38	7.64	I	C	SP	PKP
BNG	158.141	228.84	1.23	6.82	I	D	SP	PKP
MAL	161.883	17.35	1.05	5.82	I	C	SP	PKP

Table 202. Station data for event 230

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVC	18.173	259.54	12.38	46.67	I	C	SP	P
NOU	20.750	247.09	10.17	36.70	I	C	SP	P
SNZO	28.106	200.05	9.18	32.64	I	C	LP	P
CTA	39.134	256.83	8.32	29.27	I	D	SP	P
CTAO	39.134	256.83	8.32	29.27	I	C	LP	P
HON	39.163	22.32	8.32	29.27	E	D	LP	P
TAU	43.751	222.82	8.05	28.23	E	C	LP	P
GUMO	50.641	302.32	7.62	26.60	I	D	LP	P
MEK	64.372	247.54	6.51	22.49	I	C	SP	P
KLB	64.723	242.00	6.51	22.49	I	D	SP	P
DAV	64.851	285.50	6.47	22.34	E	D	LP	P
NWAO	65.106	240.51	6.47	22.34	E	C	LP	P
MAJO	69.115	319.51	6.14	21.15	E	D	LP	P
JAS	72.246	41.18	5.92	20.36	I	D	SP	P
JAS	72.246	41.18	5.92	20.36	E	D	LP	P
TATO	75.386	301.33	5.68	19.50	I	D	LP	P
ANP	75.449	301.54	5.68	19.50	E	D	LP	P
LON	76.868	33.34	5.58	19.14	E	D	LP	P
SEO	77.078	315.01	5.58	19.14	I	D	LP	P
NEW	80.309	34.10	5.31	18.18	I	D	SP	P
ANMO	80.338	49.82	5.31	18.18	I	D	LP	P
ALQ	80.336	49.82	5.31	18.18	I	D	LP	P
COL	82.147	10.53	5.18	17.72	I	D	LP	P
COL	82.147	10.53	5.18	17.72	I	D	SP	P
SES	84.801	34.53	4.99	17.05	I	D	SP	P
EDM	85.102	31.36	4.99	17.05	I	D	SP	P
RSSD	86.023	42.34	4.90	16.73	E	D	LP	P
SNG	88.476	277.80	4.75	16.21	E	D	LP	P
TUL	88.730	52.34	4.75	16.21	I	D	LP	P
RSNT	89.759	23.29	4.71	16.07	E	D	LP	P
KMI	91.377	295.53	4.68	15.96	I	D	LP	P
CHCH	91.453	125.63	4.68	15.96	I	C	SP	P
PEL	91.688	124.88	4.68	15.96	I	C	SP	P
RSON	95.019	38.69	4.58	15.61	I	D	LP	P
ZOBO	99.438	109.71	4.47	15.23	E	N	LP	P
BOCO	99.738	87.88	4.47	15.23	E	N	LP	P
MOX	144.498	355.03	1.70	5.75	E	D	LP	PKP
JOS	145.038	344.33	1.68	5.68	I	D	SP	PKP
GRF	145.478	355.26	1.68	5.68	I	D	SP	PKP
KHC	145.788	352.41	1.66	5.61	I	D	SP	PKP
NAI	146.341	243.41	1.66	5.61	I	D	SP	PKP
KMR	146.765	351.36	1.64	5.53	I	D	LP	PKP
IST	148.023	327.79	1.62	5.45	E	D	LP	PKP
CTI	149.051	353.81	1.59	5.35	I	D	SP	PKP
LIS	152.593	28.37	1.46	4.93	I	D	SP	PKP

Figure 72. Azimuthal equidistant map for geographic subdivision, Gilbert Islands

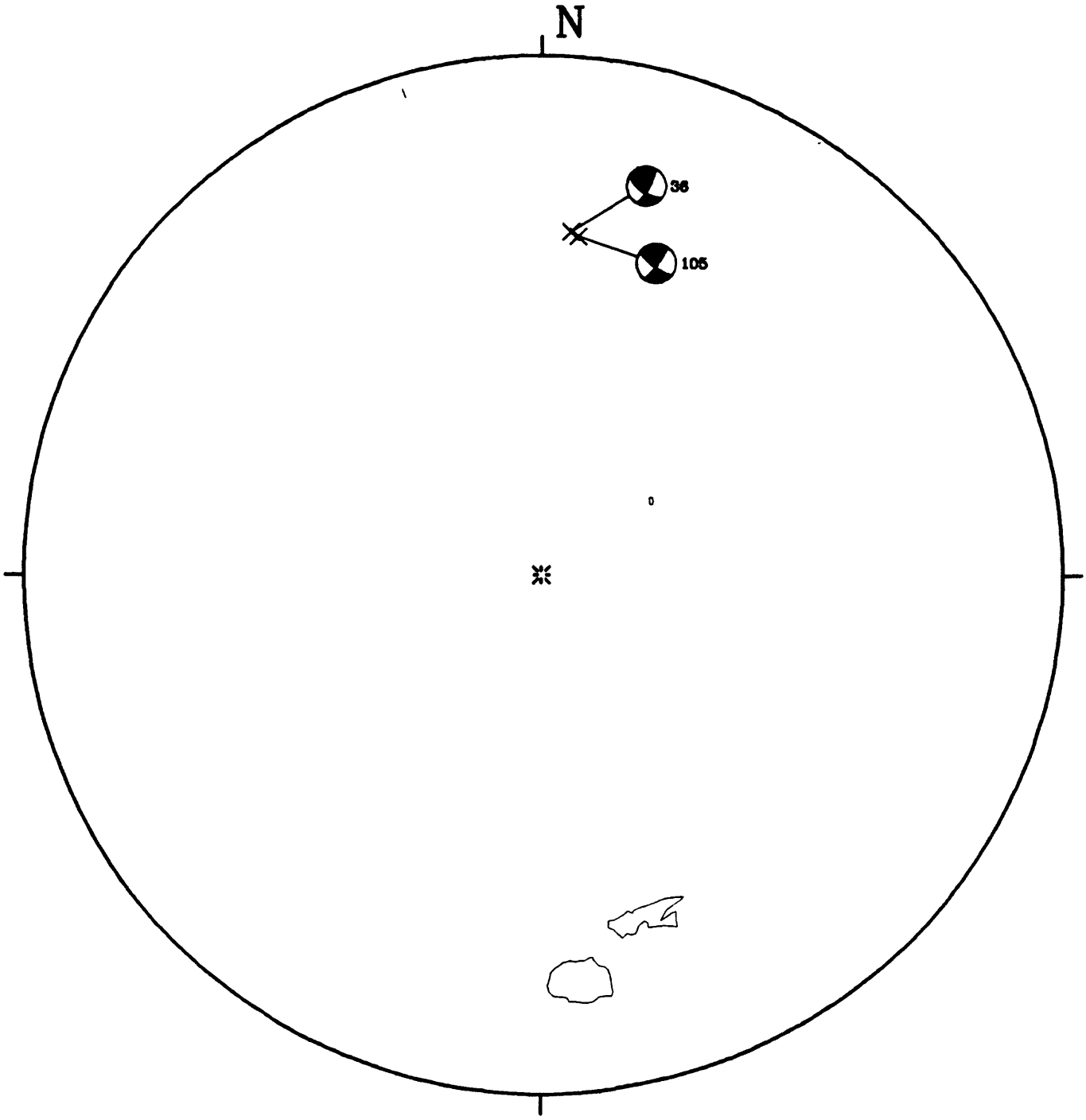

Table 203. Focal mechanism parameters for subdivision, Gilbert Islands

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
33	128	74	8	36	82	164	17	351	6	83	72	191
105	125	82	15	28	77	151	30	343	10	79	59	185

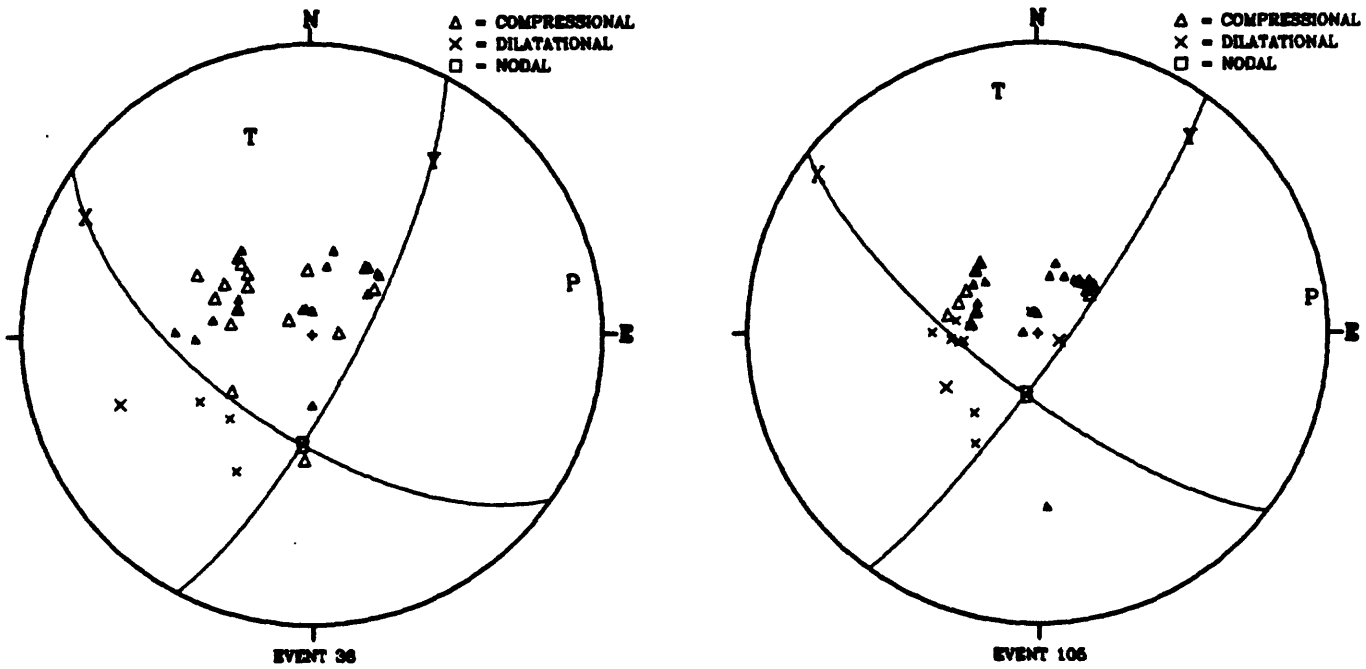

Figure 73. Lower hemisphere focal sphere projections for events 36 and 105

Table 204. Station data for event 36

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HNR	18.524	250.21	12.27	59.33	I	D	LP	P
NOU	21.700	208.92	10.05	44.79	I	D	SP	P
MOM	30.177	271.73	8.91	38.65	I	C	SP	P
CTA	34.769	238.98	8.56	36.87	I	D	SP	P
CTAO	34.769	238.98	8.56	36.87	I	D	SP	P
GUMO	36.576	298.12	8.47	36.42	I	C	LP	P
SNZO	37.852	183.54	8.38	35.98	I	C	LP	P
ADE	47.804	224.09	7.81	33.19	I	D	SP	P
AAI	49.292	268.05	7.70	32.67	E	C	SP	P
MAT	54.066	320.87	7.34	30.97	I	C	SP	P
SHK	56.579	315.71	7.14	30.03	E	C	SP	P
BAG	59.644	291.11	6.92	29.02	I	C	LP	P
TATO	61.259	300.78	6.76	28.29	E	C	LP	P
KKM	61.991	278.62	6.72	28.10	E	C	SP	P
SEO	62.104	315.97	6.72	28.10	E	C	LP	P
NWAO	63.450	234.80	6.60	27.56	E	C	LP	P
BKS	69.077	47.31	6.14	25.49	I	C	SP	P
PRI	69.625	49.52	6.10	25.32	E	C	SP	P
BJI	70.771	314.44	5.99	24.83	E	C	LP	P
COR	71.014	40.43	5.99	24.83	E	C	SP	P
COL	72.687	14.71	5.89	24.39	I	C	SP	P
LON	72.872	38.83	5.85	24.21	E	C	LP	P
SNG	77.518	278.06	5.55	22.90	E	C	LP	P
KMI	77.765	296.45	5.52	22.77	I	C	SP	P
LZH	78.921	307.59	5.45	22.46	I	C	LP	P
CHG	80.355	289.61	5.31	21.85	I	C	SP	P
CHTO	80.355	289.61	5.31	21.85	I	C	LP	P
CHG	80.355	289.61	5.31	21.85	E	C	LP	P
ANMO	80.465	53.92	5.31	21.85	E	C	LP	P
SPA	86.649	180.00	4.86	19.92	I	C	SP	P
MBC	87.046	12.34	4.83	19.79	E	C	SP	P
GBO	89.708	54.24	4.71	19.28	E	C	SP	P
RLO	89.860	53.94	4.71	19.28	E	C	SP	P
KBS	104.152	357.17	4.45	18.18	E	C	LP	Pdf
KAAO	107.160	305.00	1.89	7.61	I	C	LP	PKP
BOCO	108.561	86.32	1.89	7.61	E	C	LP	PKP
BUD	132.319	340.41	1.84	7.41	I	C	SP	PKP
GRFO	132.420	348.03	1.84	7.41	I	C	SP	PKP
ALM	146.688	0.06	1.64	6.60	I	C	SP	PKP
MAL	146.762	2.93	1.64	6.60	I	C	SP	PKP

Table 205. Station data for event 105

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VUN	14.454	177.12	13.04	50.00	E	C	SP	P
NOU	21.668	209.32	10.05	36.18	I	D	SP	P
CTAO	34.822	239.20	8.56	30.19	E	D	LP	P
JAY	36.965	270.44	8.44	29.72	E	D	SP	P
YOU	41.022	218.17	8.21	28.83	I	D	SP	P
DAV	53.081	281.48	7.42	25.84	I	C	LP	P
MAT	54.226	320.85	7.34	25.54	I	C	SP	P
MAJO	54.226	320.85	7.34	25.54	E	C	LP	P
SHK	56.742	315.69	7.14	24.80	E	C	SP	P
SHK	56.742	315.69	7.14	24.80	E	C	LP	P
MKS	58.081	266.04	7.03	24.39	E	D	SP	P
BAG	59.798	291.14	6.88	23.84	E	C	LP	P
TATO	61.420	300.79	6.76	23.40	E	C	LP	P
KKM	62.130	278.65	6.72	23.25	E	D	SP	P
SSE	63.808	307.11	6.56	22.67	I	C	SP	P
TRT	64.852	263.17	6.47	22.34	E	D	SP	P
PRI	69.598	49.46	6.10	21.00	E	C	SP	P
LEM	69.840	264.04	6.07	20.89	E	D	SP	P
WDC	69.882	44.49	6.07	20.89	I	C	SP	P
JAS	70.404	47.73	6.03	20.75	I	C	SP	P
FRI	70.615	48.89	6.03	20.75	I	C	SP	P
BJI	70.934	314.43	5.99	20.60	I	C	SP	P
SBB	71.311	51.72	5.96	20.49	I	C	SP	P
COL	72.757	14.65	5.85	20.10	I	C	SP	P
NEW	76.393	38.61	5.61	19.24	I	C	SP	P
IPM	77.032	275.48	5.58	19.13	E	D	SP	P
LHD	77.368	38.99	5.55	19.03	I	C	SP	P
LDM	77.586	38.86	5.55	19.03	I	C	SP	P
SNG	77.657	278.08	5.55	19.03	I	C	LP	P
RXF	77.846	38.51	5.52	18.92	I	C	SP	P
KMI	77.923	296.45	5.52	18.92	I	C	SP	P
MSO	77.933	40.74	5.52	18.92	I	C	SP	P
LRM	78.609	42.04	5.48	18.78	I	C	SP	P
EDM	80.356	34.70	5.31	18.17	I	C	SP	P
ANMO	80.426	53.88	5.31	18.17	E	C	LP	P
CHG	80.508	289.61	5.31	18.17	I	C	LP	P
CHG	80.508	289.61	5.31	18.17	I	C	SP	P
SES	80.847	37.87	5.26	18.00	I	C	SP	P
GOL	82.187	49.34	5.18	17.71	I	C	SP	P
YKC	83.009	25.69	5.11	17.47	E	C	SP	P
MBC	87.122	12.32	4.83	16.48	E	C	SP	P
LPB	112.044	109.27	1.89	6.37	I	D	LP	PKP
KSP	130.280	344.64	1.85	6.24	I	D	SP	PKP
VKA	132.610	343.16	1.84	6.19	E	D	SP	PKP
WET	132.699	346.48	1.84	6.19	I	C	SP	PKP
GWF	133.889	350.94	1.83	6.17	I	C	SP	PKP
ALM	146.793	0.25	1.64	5.53	I	C	SP	PKP
BNG	159.191	273.31	1.22	4.09	I	C	SP	PKP

Figure 74. Azimuthal equidistant map for geographic subdivision, Vanuatu - Loyalty Islands

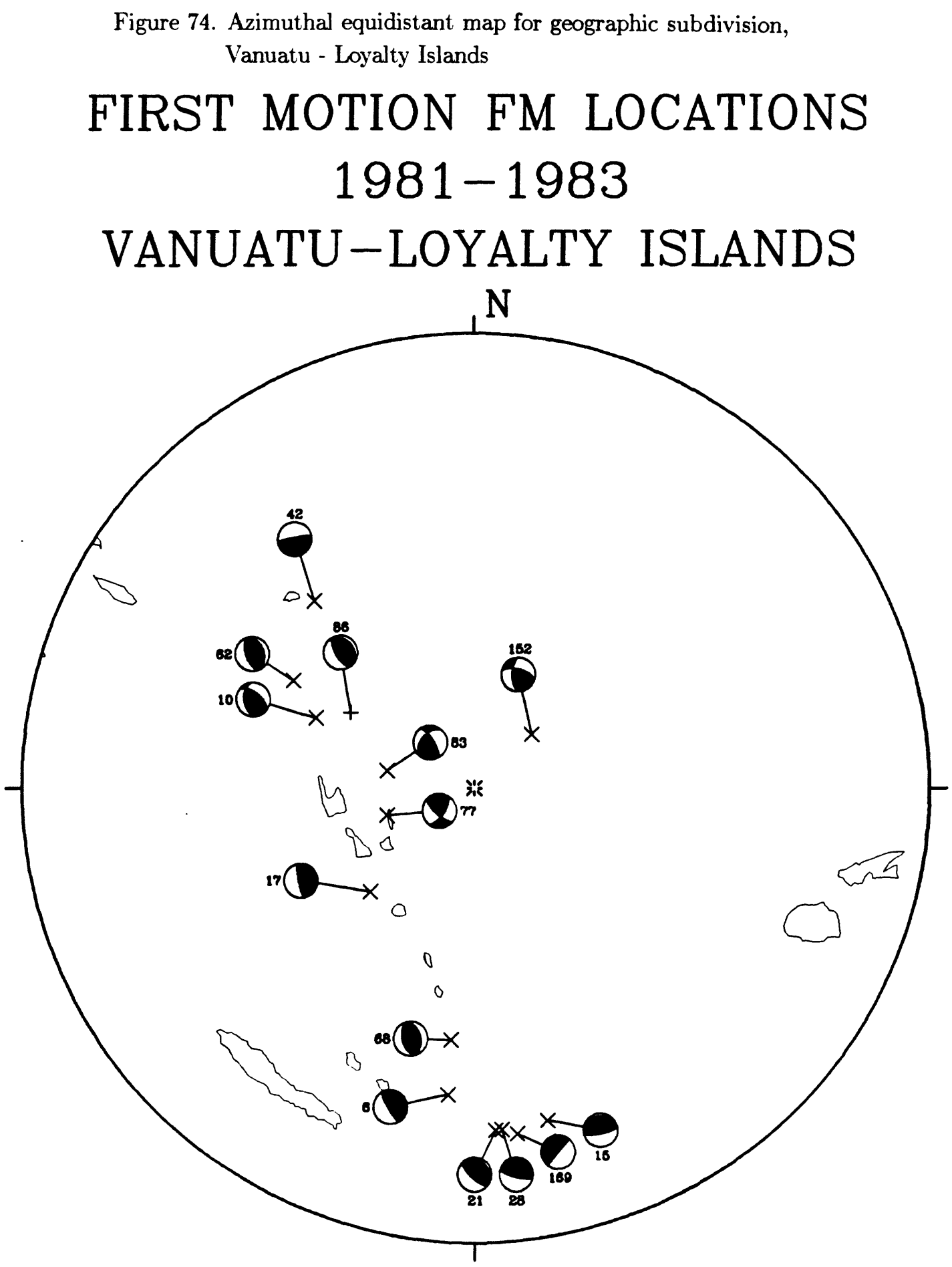

Table 206. Focal mechanism parameters for subdivision, Vanuatu - Loyalty Islands

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
6	150	80	90	330	10	90	55	60	35	240	0	150
10	307	55	60	172	45	126	65	160	6	58	24	325
15	258	18	90	78	72	90	63	348	27	168	0	78
17	169	79	90	349	11	90	56	79	34	259	0	169
21	132	72	90	312	18	90	63	42	27	222	0	132
28	105	77	90	285	13	90	58	15	32	195	0	105
42	259	82	90	79	8	90	53	169	37	349	0	79
62	161	60	90	341	30	90	75	71	15	251	0	161
68	165	50	90	345	40	90	85	75	5	255	0	165
77	132	72	24	34	67	160	329	354	3	262	60	167
83	220	46	155	328	72	47	45	195	16	88	41	344
86	150	68	97	312	23	73	66	72	23	235	6	327
152	180	60	150	286	64	34	41	145	3	52	49	319
169	40	88	90	220	2	90	47	310	43	130	0	40

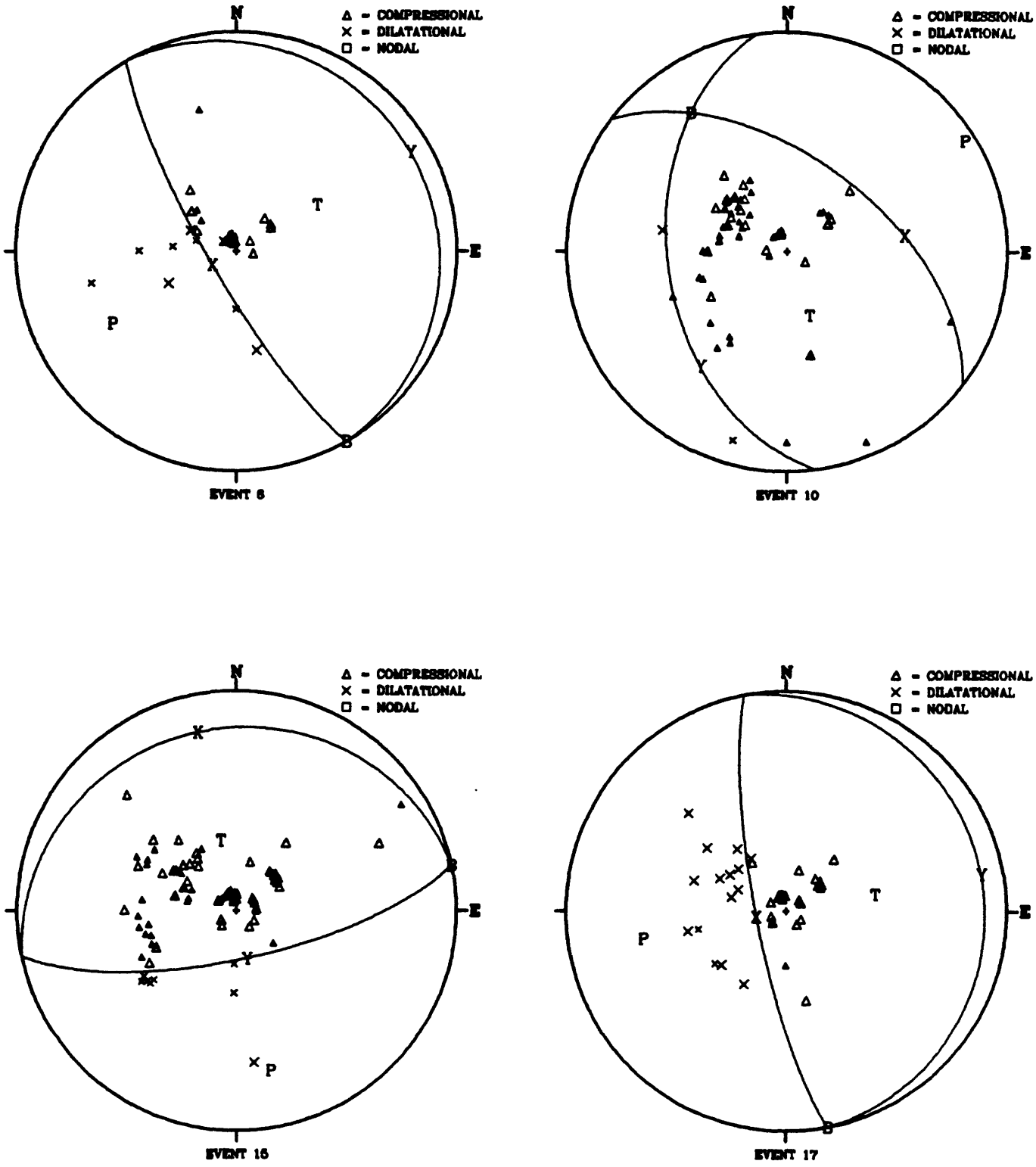

Figure 75. Lower hemisphere focal sphere projections for events 6, 10, 15, 17

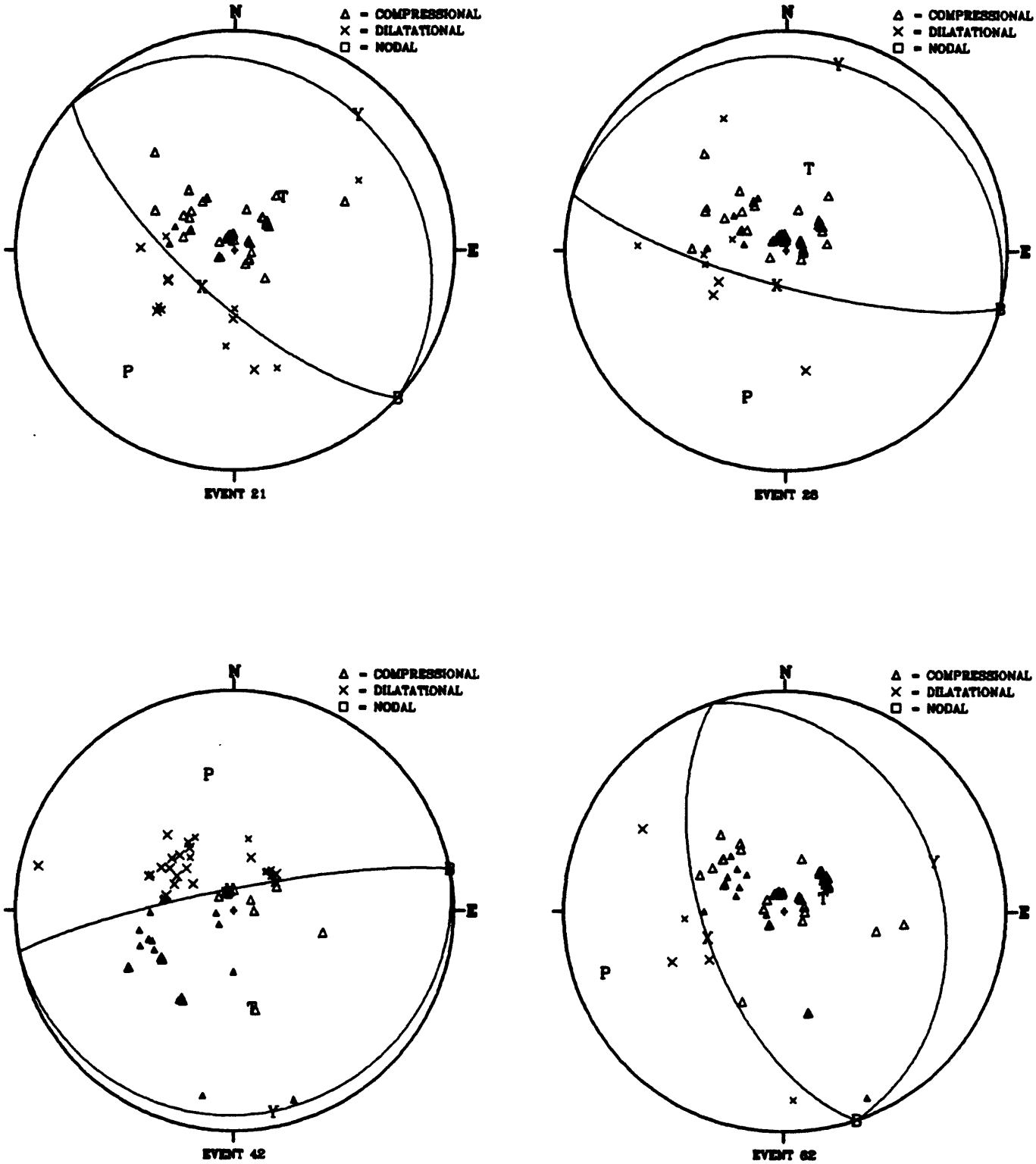

Figure 76. Lower hemisphere focal sphere projections for events 21, 28, 42, and 62

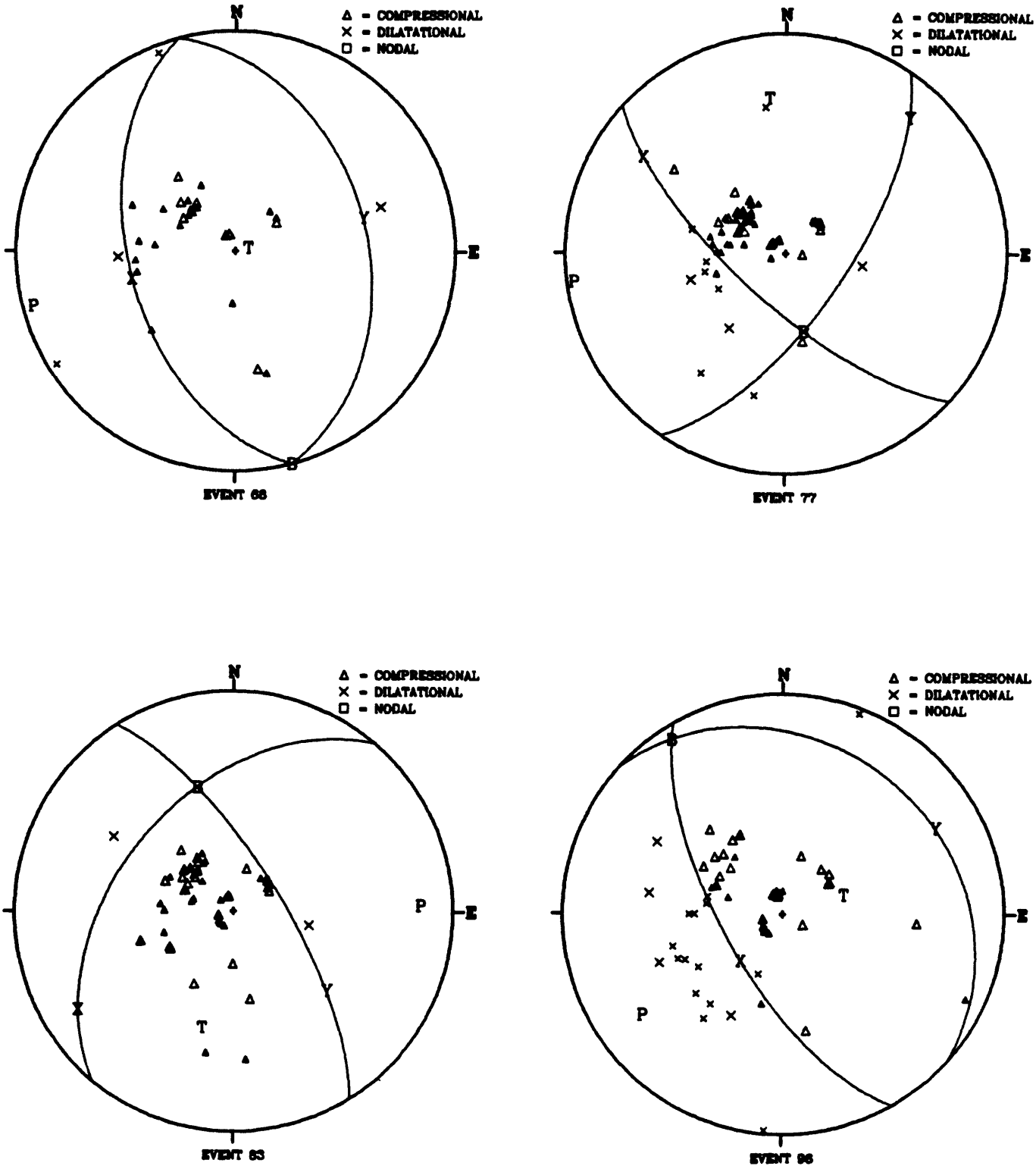

Figure 77. Lower hemisphere focal sphere projections for events 68, 77, 83, and 86

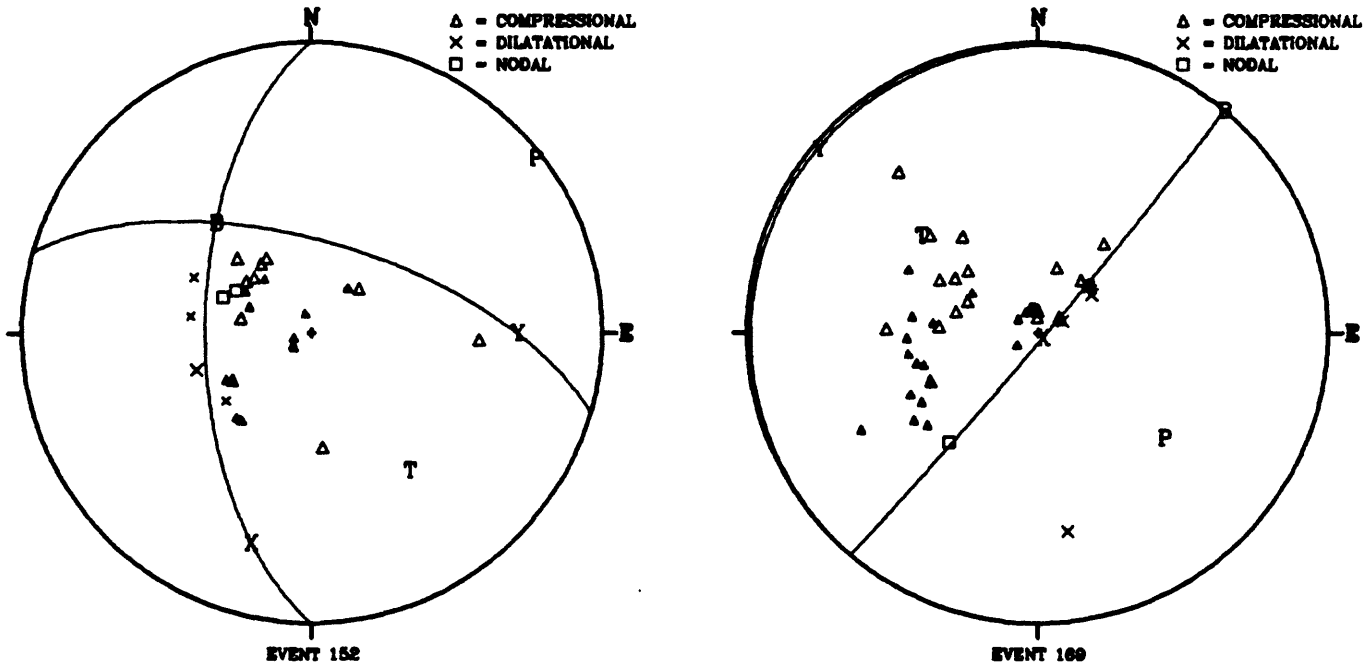

Figure 78. Lower hemisphere focal sphere projections for events 152 and 169

Table 207. Station data for event 6

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NOU	2.775	257.54	14.24	56.76	I	D	SP	P
PVC	4.097	345.65	14.19	56.45	I	C	SP	P
SNZO	20.028	168.21	10.44	37.82	I	D	LP	P
CTA	21.661	270.12	10.06	36.22	I	D	SP	P
GUA	42.482	323.39	8.13	28.52	I	C	LP	P
GUMO	42.548	323.38	8.13	28.52	I	C	LP	P
NWAO	47.232	244.77	7.88	27.57	I	D	LP	P
LEM	61.293	274.13	6.76	23.39	I	D	SP	P
TATO	65.711	312.38	6.43	22.19	I	C	LP	P
ANP	65.827	312.57	6.39	22.04	I	C	LP	P
SPA	68.402	180.00	6.18	21.28	I	D	SP	P
SSE	69.964	317.11	6.07	20.89	I	C	SP	P
CHTO	79.805	294.93	5.36	18.35	I	D	LP	P
CHG	79.805	294.93	5.36	18.35	I	D	SP	P
LZH	84.484	312.21	5.02	17.15	I	C	SP	P
PAS	88.461	52.29	4.75	16.20	I	C	LP	P
SHIO	88.631	298.11	4.75	16.20	I	C	LP	P
COR	90.074	41.25	4.71	16.06	E	C	LP	P
ANMO	97.598	55.54	4.52	15.39	I	C	LP	P
POO	101.610	285.40	4.45	15.15	I	D	SP	Pdf
BOG	116.349	95.74	1.88	6.34	E	C	LP	PKP
AAM	116.622	52.54	1.88	6.33	E	C	LP	PKP
KEV	126.972	344.57	1.86	6.28	E	C	LP	PKP
NUR	134.067	336.56	1.83	6.17	E	C	LP	PKP
IST	141.493	309.22	1.75	5.91	I	D	LP	PKP
COP	141.993	338.88	1.74	5.86	E	C	LP	PKP
SRO	145.126	325.22	1.68	5.68	I	C	SP	PKP
ATH	146.336	306.46	1.66	5.61	I	C	SP	PKP
SKO	146.394	314.33	1.66	5.61	I	C	SP	PKP
GRF	147.184	333.52	1.64	5.53	I	C	SP	PKP
DBN	147.312	341.88	1.64	5.53	I	C	SP	PKP
DMU	147.764	355.88	1.62	5.44	I	C	SP	PKP
STU	148.732	334.39	1.59	5.35	I	C	LP	PKP
FIR	151.496	325.55	1.53	5.15	I	C	SP	PKP
LOR	151.966	338.75	1.50	5.04	I	C	LP	PKP
PTO	160.580	355.41	1.12	3.77	E	C	LP	PKP
ALI	161.278	334.46	1.12	3.77	I	C	LP	PKP
MAL	164.115	341.48	0.96	3.25	I	C	LP	PKP
SFS	164.830	346.27	0.91	3.06	I	C	SP	PKP

Table 208. Station data for event 10

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVC	4.659	157.22	14.16	83.04	I	C	SP	P
KOU	7.384	195.80	13.96	78.13	I	D	SP	P
NOU	8.835	179.82	13.81	75.49	I	C	SP	P
VUN	12.455	112.99	13.36	69.48	I	C	SP	P
PMG	19.300	279.91	10.58	47.87	E	D	LP	P
CTA	20.404	248.35	10.30	46.22	I	C	SP	P
COO	21.702	215.81	10.05	44.79	I	C	SP	P
WAM	27.604	211.74	9.23	40.32	I	C	SP	P
WEL	28.694	166.83	9.11	39.69	I	C	SP	P
SNZO	28.703	166.94	9.11	39.69	I	C	LP	P
STK	29.246	226.99	9.03	39.27	I	C	SP	P
TOO	30.433	214.08	8.86	38.40	I	C	SP	P
GUMO	34.295	320.65	8.59	37.02	I	C	LP	P
MBL	45.013	253.48	7.99	34.06	I	C	SP	P
NAU	49.080	251.77	7.74	32.86	I	C	SP	P
KIP	49.174	45.74	7.74	32.86	I	C	LP	P
MUN	49.401	239.33	7.70	32.67	I	C	LP	P
TRT	53.097	270.39	7.42	31.34	I	C	SP	P
BAG	54.137	301.83	7.34	30.97	I	C	LP	P
MAT	56.370	332.79	7.14	30.03	I	C	SP	P
SHK	57.461	327.04	7.07	29.71	I	C	LP	P
TATO	58.106	310.97	7.03	29.53	I	C	LP	P
LEM	58.149	270.25	7.03	29.53	I	C	LP	P
LEM	58.149	270.25	7.03	29.53	I	C	SP	P
ANP	58.207	311.19	7.03	29.53	I	C	LP	P
QZH	60.244	309.19	6.88	28.84	I	C	SP	P
SSE	62.011	316.39	6.72	28.10	I	C	LP	P
HKC	62.311	304.21	6.68	27.92	I	C	SP	P
GZH	63.361	304.55	6.60	27.56	I	C	SP	P
NJ2	64.168	315.86	6.56	27.38	I	C	SP	P
TIA	67.818	318.54	6.22	25.85	I	C	SP	P
CN2	68.106	329.22	6.22	25.85	I	C	SP	P
SNG	68.464	283.34	6.18	25.67	I	C	SP	P
PSI	68.824	278.24	6.14	25.49	I	C	SP	P
TSI	69.384	278.96	6.10	25.32	I	C	SP	P
PCT	70.139	291.15	6.07	25.18	I	C	SP	P
GYA	70.297	304.65	6.03	25.01	I	C	SP	P
BJI	70.735	321.30	6.03	25.01	I	C	LP	P
XAN	72.203	312.64	5.92	24.52	I	C	SP	P
KMI	72.921	301.78	5.85	24.21	I	C	LP	P
BDT	73.195	292.82	5.85	24.21	I	C	SP	P
CHTO	73.791	294.33	5.78	23.90	I	C	LP	P
CHG	73.791	294.33	5.78	23.90	I	C	LP	P
LZH	76.835	312.40	5.58	23.03	I	C	LP	P
BKS	83.955	48.94	5.05	20.73	I	C	SP	P
LSA	84.171	302.23	5.05	20.73	I	C	SP	P
PAS	85.730	53.60	4.96	20.35	I	C	LP	P
COR	85.796	42.42	4.90	20.09	I	C	SP	P
WMQ	91.229	314.76	4.69	19.19	I	C	SP	P
RXF	92.557	40.37	4.66	19.07	I	C	SP	P

Table 208. Station data for event 10....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ANMO	95.243	55.48	4.58	18.73	I	C	LP	P
NDI	95.639	298.01	4.56	18.64	I	C	SP	P
POO	96.562	287.43	4.54	18.56	I	C	SP	P
KAAO	103.493	302.65	4.45	18.18	E	C	LP	Pdf
TUL	103.987	55.99	4.45	18.18	I	C	LP	Pdf
ZOBO	118.548	117.04	1.88	7.55	I	C	LP	PKP
ARO	124.973	274.77	1.87	7.52	I	C	LP	PKP
KONO	130.770	344.70	1.85	7.44	I	C	LP	PKP
COP	133.269	340.05	1.84	7.39	I	C	SP	PKP
KDZ	136.062	317.25	1.81	7.30	I	C	SP	PKP
GRFO	138.514	335.72	1.78	7.17	I	C	LP	PKP
BNS	138.949	340.05	1.78	7.17	I	C	SP	PKP
STU	140.046	336.50	1.77	7.12	I	C	LP	PKP
HAU	141.746	338.30	1.74	7.00	I	C	SP	PKP
RMP	143.655	326.04	1.70	6.86	I	C	SP	PKP
BNG	147.069	257.24	1.64	6.60	I	C	SP	PKP
LGR	149.525	343.72	1.56	6.28	I	C	SP	PKP
TOL	152.346	344.07	1.50	6.02	I	C	SP	PKP

Table 209. Station data for event 15

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VUN	7.617	57.17	13.96	78.13	E	C	SP	P
HNR	17.077	316.62	12.58	61.87	I	C	LP	P
AFI	17.734	64.75	12.48	61.03	E	C	LP	P
SNZO	19.123	173.17	12.16	58.48	I	D	LP	P
RIV	21.451	233.16	10.05	44.79	I	D	SP	P
ESA	23.633	298.55	9.68	42.73	I	C	SP	P
CAN	23.715	231.82	9.68	42.73	I	D	SP	P
YOU	23.724	234.70	9.68	42.73	I	D	SP	P
CTA	23.859	270.54	9.60	42.30	I	C	LP	P
WAM	24.205	230.04	9.60	42.30	I	D	SP	P
RAB	26.139	310.68	9.38	41.11	I	C	LP	P
PMG	26.843	294.60	9.28	40.58	I	C	LP	P
TOO	27.253	230.13	9.23	40.32	I	D	SP	P
STK	28.413	243.90	9.11	39.69	I	C	SP	P
MDG	30.285	300.17	8.86	38.40	I	C	SP	P
MOM	31.056	307.02	8.82	38.19	I	C	SP	P
ADE	31.477	239.03	8.79	38.04	E	C	LP	P
WAB	31.809	297.49	8.75	37.83	I	C	SP	P
ASP	34.803	260.23	8.56	36.87	I	C	SP	P
WB2	34.902	266.78	8.56	36.87	I	C	SP	P
WRA	34.912	266.78	8.56	36.87	I	C	SP	P
MTN	39.734	276.70	8.29	35.53	I	C	SP	P
WBN	41.216	255.34	8.21	35.14	I	C	SP	P
GUA	44.267	321.03	8.02	34.21	I	C	LP	P
GUMO	44.332	321.02	8.02	34.21	I	C	LP	P
KLG	45.464	248.24	7.96	33.92	I	C	SP	P
MBL	48.038	261.09	7.81	33.19	I	C	SP	P
MEK	48.338	253.65	7.78	33.05	I	C	SP	P
NWAO	48.986	245.17	7.74	32.86	I	C	LP	P
MUN	49.896	246.36	7.66	32.48	I	C	SP	P
KIP	52.512	36.26	7.46	31.53	I	C	LP	P
DAV	53.816	297.50	7.34	30.97	I	C	LP	P
SBA	55.666	181.28	7.22	30.41	I	D	SP	P
BAG	63.154	303.08	6.64	27.74	I	C	LP	P
SZP	63.921	304.02	6.56	27.38	I	C	SP	P
PIP	64.255	304.81	6.51	27.15	I	C	SP	P
MAT	66.531	330.99	6.35	26.43	I	C	SP	P
SHK	67.607	325.75	6.26	26.03	I	C	LP	P
TATO	67.719	311.05	6.26	26.03	I	C	LP	P
ANP	67.832	311.24	6.22	25.85	I	C	LP	P
HKC	71.476	304.47	5.96	24.70	I	C	SP	P
SSE	71.879	315.81	5.92	24.52	I	C	LP	P
SEO	72.929	324.16	5.85	24.21	E	C	LP	P
SNG	75.493	284.11	5.68	23.46	I	C	LP	P
SNG	75.493	284.11	5.68	23.46	I	C	SP	P
BJI	80.766	320.09	5.26	21.64	I	C	LP	P
KMI	81.856	301.25	5.17	21.25	I	C	LP	P
CHG	82.033	293.98	5.17	21.25	I	C	SP	P
CHTO	82.033	293.98	5.17	21.25	I	C	LP	P
CHG	82.033	293.98	5.17	21.25	I	C	LP	P

Table 209. Station data for event 15....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BKS	86.140	46.45	4.90	20.09	I	C	LP	P
PAS	87.079	51.33	4.83	19.79	I	C	LP	P
WDC	87.376	44.03	4.80	19.66	I	C	SP	P
JAS	87.389	47.13	4.80	19.66	I	C	SP	P
SNA	87.560	182.01	4.80	19.66	I	D	SP	P
GLA	89.018	53.62	4.73	19.36	I	C	SP	P
COR	89.060	40.35	4.73	19.36	I	C	SP	P
COR	89.060	40.35	4.73	19.36	I	C	LP	P
COL	92.319	16.09	4.66	19.07	I	C	LP	P
MSO	95.867	41.65	4.55	18.60	I	C	SP	P
ANMO	96.114	54.86	4.55	18.60	I	C	LP	P
BDW	96.973	46.67	4.53	18.52	I	C	SP	P
GOL	98.709	50.76	4.49	18.35	I	C	LP	P
PEL	98.888	131.17	4.48	18.30	I	C	SP	P
GBA	98.959	281.02	4.48	18.30	I	C	SP	P
JCT	99.715	61.11	4.47	18.26	I	C	LP	P
POO	103.874	284.52	4.45	18.18	I	C	SP	Pdf
NDI	104.137	295.41	4.45	18.18	I	C	SP	Pdf
LPA	106.130	139.29	1.89	7.61	E	C	LP	Pdf
ZOBO	109.975	117.89	1.89	7.61	E	C	LP	PKP
KBL	112.389	299.42	1.89	7.61	I	C	LP	PKP
AAM	115.218	52.52	1.88	7.58	E	C	LP	PKP
BLA	116.973	58.52	1.88	7.56	I	C	LP	PKP
SDV	118.830	92.01	1.88	7.55	I	C	SP	PKP
SCP	119.370	54.75	1.88	7.55	E	C	LP	PKP
TOV	119.919	91.37	1.87	7.55	I	C	SP	PKP
CAR	122.815	91.71	1.87	7.53	I	C	SP	PKP
SHD	124.038	299.69	1.87	7.52	I	C	SP	PKP
WES	124.341	53.13	1.87	7.52	E	C	LP	PKP
BUL	124.548	223.20	1.87	7.52	E	C	LP	PKP
SJG	125.781	83.24	1.86	7.51	I	C	LP	PKP
KEV	128.081	345.21	1.86	7.48	E	C	LP	PKP
BEC	129.375	65.78	1.86	7.47	I	C	LP	PKP
NUR	135.437	337.47	1.82	7.33	E	C	LP	PKP
KONO	140.586	345.80	1.75	7.06	I	C	LP	PKP
KON	140.586	345.80	1.75	7.06	I	C	LP	PKP
WAR	142.576	330.33	1.72	6.93	E	C	LP	PKP
COP	143.278	340.45	1.72	6.93	I	C	LP	PKP
ALT	143.325	305.98	1.72	6.93	I	C	SP	PKP
KRA	144.536	328.33	1.68	6.78	I	C	SP	PKP
JOS	145.234	325.81	1.68	6.78	I	C	SP	PKP
PVL	145.357	314.82	1.68	6.78	I	C	SP	PKP
KSP	145.666	332.15	1.66	6.69	I	C	SP	PKP
BRN	145.696	336.57	1.66	6.69	I	C	SP	PKP
BRG	146.625	334.20	1.64	6.60	I	C	SP	PKP
ESK	146.807	354.72	1.64	6.60	I	C	LP	PKP
MOX	147.712	336.10	1.62	6.50	E	C	LP	PKP
DBN	148.487	344.09	1.62	6.50	E	C	LP	PKP
BCAO	148.567	239.52	1.59	6.39	E	C	LP	PKP
GRFO	148.635	335.42	1.59	6.39	E	C	LP	PKP

Table 209. Station data for event 15....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
STU	150.151	336.50	1.56	6.28	I	C	LP	PKP
VAL	150.367	2.49	1.56	6.28	I	C	LP	PKP
BSF	151.802	338.27	1.50	6.02	I	C	SP	PKP
LOR	153.236	341.49	1.46	5.88	I	C	LP	PKP
PTO	161.210	0.81	1.12	4.50	I	C	LP	PKP
TOL	162.106	349.41	1.07	4.30	I	C	LP	PKP
MAL	165.235	347.79	0.91	3.65	I	C	LP	PKP

Table 210. Station data for event 17

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HNR	10.767	315.30	13.58	52.90	I	D	LP	P
RAB	19.937	308.90	10.44	37.82	I	D	LP	P
CTA	20.417	258.75	10.31	37.27	I	D	LP	P
PMG	21.356	288.81	10.06	36.22	I	D	LP	P
SNZO	24.734	167.13	9.54	34.08	I	C	LP	P
ISQ	26.729	258.15	9.33	33.23	I	D	SP	P
STK	27.679	233.43	9.24	32.87	I	D	SP	P
TAU	30.843	209.79	8.82	31.20	E	D	LP	P
ADE	31.204	229.99	8.82	31.20	E	D	LP	P
GUA	37.922	322.38	8.38	29.48	I	D	LP	P
DAV	48.062	296.72	7.82	27.34	I	D	LP	P
KIP	51.118	42.53	7.58	26.44	I	C	LP	P
BAG	57.149	303.30	7.11	24.68	I	D	LP	P
SHK	61.282	327.39	6.76	23.39	I	D	LP	P
ANP	61.591	312.09	6.76	23.39	I	D	LP	P
SEO	66.592	325.67	6.35	21.90	E	C	LP	P
SNG	70.481	284.31	6.03	20.74	I	D	SP	P
SNG	70.481	284.31	6.03	20.74	I	D	LP	P
SPA	72.852	180.00	5.85	20.10	I	C	SP	P
CHG	76.412	294.81	5.61	19.24	I	D	LP	P
CHTO	76.412	294.81	5.61	19.24	E	D	LP	P
BKS	85.621	48.30	4.96	16.94	I	C	LP	P
PAS	87.094	53.05	4.83	16.48	I	C	LP	P
COR	87.857	41.92	4.77	16.27	I	C	LP	P
COL	88.650	17.44	4.75	16.20	I	C	LP	P
ANMO	96.463	55.56	4.54	15.46	I	C	LP	P
GOL	98.589	51.19	4.49	15.29	I	C	LP	P
KBL	106.486	301.64	1.89	6.37	I	C	LP	Pdf
LPA	112.470	140.60	1.89	6.37	E	C	LP	PKP
AAM	115.181	50.93	1.88	6.35	E	C	LP	PKP
ZOBO	115.771	118.20	1.88	6.34	I	C	LP	PKP
BLA	117.584	56.65	1.88	6.33	E	C	LP	PKP
SCP	119.547	52.56	1.87	6.32	E	C	LP	PKP
KEV	122.238	344.85	1.87	6.31	E	C	LP	PKP
WES	124.296	50.19	1.87	6.30	E	C	LP	PKP
MTD	125.035	234.34	1.87	6.29	I	C	SP	PKP
BUL	125.209	228.99	1.87	6.29	E	C	LP	PKP
NUR	129.317	337.33	1.86	6.25	E	C	LP	PKP
BEC	130.676	61.96	1.85	6.23	E	C	LP	PKP
KONO	134.747	344.46	1.82	6.14	I	C	LP	PKP
COP	137.238	339.49	1.80	6.08	E	C	LP	PKP
ESK	141.368	351.59	1.75	5.91	E	C	LP	PKP
GRFO	142.452	334.73	1.74	5.86	E	C	LP	PKP
STU	143.991	335.53	1.70	5.74	E	C	LP	PKP
VAL	145.359	357.65	1.68	5.68	I	C	LP	PKP
BCAO	147.123	250.77	1.64	5.53	E	C	LP	PKP
LOR	147.211	339.38	1.64	5.53	I	C	LP	PKP
TOL	156.323	343.84	1.35	4.54	I	C	LP	PKP

Table 211. Station data for event 21

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VUN	8.712	60.43	13.87	54.55	I	D	SP	P
HNR	16.487	320.43	12.68	48.14	E	C	LP	P
GNZ	17.314	159.87	12.49	47.19	I	D	SP	P
AFI	18.867	66.04	12.17	45.62	I	C	LP	P
SNZO	19.067	170.28	12.17	45.62	E	D	LP	P
RIV	20.405	232.28	10.31	37.27	E	D	LP	P
MSZ	22.197	184.89	9.95	35.76	I	D	SP	P
YOU	22.664	234.04	9.85	35.35	I	D	SP	P
CAN	22.681	231.04	9.85	35.35	I	D	SP	P
CTA	22.719	271.57	9.85	35.35	I	D	SP	P
CTAO	22.719	271.57	9.85	35.35	I	D	LP	P
PMG	25.907	296.47	9.38	33.43	E	C	LP	P
GUA	43.735	322.57	8.08	28.33	E	C	LP	P
GUMO	43.801	322.56	8.05	28.22	I	C	LP	P
NWAO	47.853	245.40	7.82	27.34	E	D	LP	P
MUN	48.757	246.61	7.74	27.04	E	D	LP	P
MKS	52.158	281.31	7.50	26.14	I	D	SP	P
KIP	53.376	37.32	7.38	25.69	E	C	LP	P
SBA	55.419	180.96	7.22	25.09	E	D	LP	P
TRT	57.446	275.28	7.07	24.53	I	C	SP	P
KKM	60.203	291.48	6.88	23.83	I	C	SP	P
BAG	62.324	303.97	6.68	23.10	I	C	LP	P
MAJO	66.182	331.94	6.39	22.04	I	C	LP	P
MAT	66.182	331.94	6.39	22.04	I	C	SP	P
TATO	67.011	311.90	6.31	21.75	I	C	LP	P
ANP	67.126	312.09	6.31	21.75	E	C	LP	P
SHK	67.157	326.67	6.31	21.75	I	C	LP	P
SPA	67.622	180.00	6.27	21.61	I	D	SP	P
HKC	70.665	305.23	6.03	20.74	E	C	LP	P
SNG	74.441	284.71	5.75	19.74	I	C	LP	P
CHG	81.082	294.55	5.26	17.99	I	C	SP	P
CHTO	81.082	294.55	5.26	17.99	I	C	LP	P
CHG	81.082	294.55	5.26	17.99	I	C	LP	P
JAS	88.382	47.62	4.75	16.20	E	C	LP	P
COR	89.975	40.83	4.71	16.06	E	C	LP	P
BMN	91.775	46.68	4.67	15.92	I	C	SP	P
LON	92.003	39.54	4.67	15.92	E	C	LP	P
COL	92.855	16.51	4.64	15.81	I	C	LP	P
ALQ	97.177	55.28	4.53	15.43	E	C	LP	P
ANMO	97.180	55.28	4.53	15.43	E	C	LP	P
PEL	99.597	131.79	4.47	15.22	E	C	LP	P
GOL	99.738	51.14	4.47	15.22	E	C	LP	P
ANT	105.057	123.94	1.89	6.37	E	C	LP	Pdf
LPA	106.699	140.05	1.89	6.37	E	C	LP	Pdf
SHA	110.495	64.38	1.89	6.37	E	C	LP	PKP
ZOBO	110.876	118.63	1.89	6.37	E	C	LP	PKP
KAAO	111.504	299.59	1.89	6.37	E	C	LP	PKP
KBL	111.504	299.59	1.89	6.37	E	C	LP	PKP
BOG	115.230	95.64	1.88	6.35	E	C	LP	PKP
BOCO	115.236	95.69	1.88	6.35	E	C	LP	PKP

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

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BLA	118.066	58.78	1.88	6.33	I	C	LP	PKP
SCP	120.434	54.95	1.87	6.32	E	C	LP	PKP
GEO	120.889	57.20	1.87	6.31	E	C	LP	PKP
KBS	122.690	355.18	1.87	6.30	I	C	LP	PKP
NAI	129.074	248.59	1.86	6.25	E	C	LP	PKP
KON	140.513	344.86	1.75	5.91	E	C	LP	PKP
KONO	140.513	344.86	1.75	5.91	E	C	LP	PKP
COP	143.095	339.38	1.72	5.80	I	C	LP	PKP
KSP	145.319	331.00	1.68	5.68	I	C	SP	PKP
BRG	146.316	332.97	1.66	5.61	I	C	LP	PKP
SRO	146.363	325.41	1.66	5.61	I	C	SP	PKP
ESK	146.912	353.41	1.64	5.53	E	C	LP	PKP
BNG	147.455	240.61	1.64	5.53	I	C	SP	PKP
KHC	147.769	331.14	1.62	5.44	I	C	SP	PKP
KMR	148.290	329.23	1.62	5.44	E	C	LP	PKP
GRFO	148.349	334.04	1.62	5.44	I	C	LP	PKP
UCC	149.771	342.43	1.56	5.26	I	C	LP	PKP
STU	149.885	335.00	1.56	5.26	E	C	LP	PKP
TRI	150.105	326.28	1.56	5.26	I	C	LP	PKP
DOU	150.332	341.53	1.56	5.26	I	C	SP	PKP
LOR	153.067	339.68	1.46	4.93	I	C	LP	PKP
PTO	161.420	357.89	1.12	3.77	E	C	LP	PKP
ALM	164.472	338.47	0.96	3.25	I	C	SP	PKP

Table 212. Station data for event 28

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NOU	3.877	272.06	14.20	56.51	I	D	SP	P
PVC	5.217	334.86	14.15	56.21	I	D	SP	P
HNR	16.553	320.04	12.68	48.14	I	C	LP	P
WEL	19.046	170.42	12.17	45.62	I	D	LP	P
SNZO	19.060	170.58	12.17	45.62	I	D	LP	P
CTA	22.838	271.48	9.76	34.98	I	C	LP	P
LMG	25.466	298.50	9.42	33.59	I	C	SP	P
PMG	26.008	296.28	9.38	33.43	I	C	LP	P
ADE	30.491	238.87	8.86	31.36	I	D	LP	P
ASP	33.758	260.70	8.62	30.42	I	D	SP	P
WB2	33.868	267.43	8.62	30.42	I	D	SP	P
WRA	33.879	267.43	8.62	30.42	I	D	SP	P
KNA	40.024	272.09	8.27	29.06	I	C	SP	P
GUA	43.797	322.42	8.05	28.22	I	C	LP	P
GUMO	43.862	322.41	8.05	28.22	I	C	LP	P
NWAO	47.967	245.38	7.82	27.34	I	D	LP	P
DAV	53.010	298.41	7.42	25.84	I	C	LP	P
KIP	53.293	37.20	7.38	25.69	E	C	LP	P
BAG	62.415	303.88	6.68	23.10	I	C	SP	P
MAT	66.225	331.84	6.39	22.04	I	C	SP	P
TATO	67.090	311.82	6.31	21.75	I	C	LP	P
ANP	67.205	312.01	6.31	21.75	E	C	LP	P
SHK	67.211	326.58	6.31	21.75	I	C	LP	P
SEO	72.506	324.88	5.89	20.24	I	C	LP	P
IPM	73.081	282.40	5.85	20.10	I	D	SP	P
CHG	81.185	294.49	5.26	17.99	I	C	LP	P
CHG	81.185	294.49	5.26	17.99	I	C	SP	P
CHTO	81.185	294.49	5.26	17.99	I	C	LP	P
BKS	87.029	46.90	4.83	16.48	E	C	LP	P
PAS	88.012	51.77	4.77	16.27	I	C	LP	P
JAS	88.285	47.57	4.75	16.20	I	C	SP	P
SHIO	90.020	297.64	4.71	16.06	I	C	LP	P
TUC	92.714	56.20	4.66	15.88	E	C	LP	P
COL	92.808	16.46	4.64	15.81	I	C	LP	P
KOD	96.745	278.25	4.54	15.46	I	C	SP	P
ANMO	97.074	55.24	4.53	15.43	E	C	LP	P
GOL	99.636	51.11	4.47	15.22	I	C	LP	P
JCT	100.715	61.48	4.45	15.15	E	C	LP	Pdf
LPS	104.604	80.39	4.45	15.15	E	C	LP	Pdf
TUL	105.601	57.27	1.89	6.37	I	C	LP	Pdf
SHA	110.382	64.34	1.89	6.37	I	C	LP	Pdf
ZOBO	110.778	118.56	1.89	6.37	I	C	LP	Pdf
BOG	115.113	95.58	1.88	6.35	I	C	LP	Pdf
BOCO	115.119	95.63	1.88	6.35	I	C	LP	Pdf
BLA	117.957	58.75	1.88	6.33	E	C	LP	PKP
MHI	119.584	299.95	1.87	6.32	I	C	SP	PKP
SCP	120.329	54.93	1.87	6.32	I	C	LP	PKP
GEO	120.781	57.18	1.87	6.31	E	C	LP	PKP
KBS	122.687	355.21	1.87	6.30	I	C	LP	PKP
WES	125.287	53.24	1.87	6.29	E	C	LP	PKP

Table 212. Station data for event 28....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SJG	126.823	83.73	1.86	6.28	E	C	LP	PKP
KEV	128.019	344.81	1.86	6.27	E	C	LP	PKP
TRN	128.980	94.45	1.86	6.25	I	C	LP	PKP
NAI	129.190	248.52	1.86	6.25	E	C	LP	PKP
BEC	130.396	66.01	1.85	6.24	E	C	LP	PKP
NUR	135.232	336.85	1.82	6.14	E	C	LP	PKP
ANTO	140.404	305.85	1.77	5.96	I	C	LP	PKP
KONO	140.531	344.95	1.75	5.91	E	C	LP	PKP
KON	140.531	344.95	1.75	5.91	E	C	LP	PKP
KRA	144.169	327.39	1.70	5.74	I	C	LP	PKP
PVL	144.771	314.00	1.68	5.68	I	C	SP	PKP
JOS	144.824	324.85	1.68	5.68	I	C	SP	PKP
IZM	144.937	305.31	1.68	5.68	I	C	SP	PKP
KDZ	145.252	311.50	1.68	5.68	I	C	SP	PKP
KSP	145.364	331.11	1.68	5.68	I	C	SP	PKP
BUD	146.247	324.52	1.66	5.61	I	C	SP	PKP
SRO	146.419	325.52	1.66	5.61	I	C	SP	PKP
ESK	146.911	353.55	1.64	5.53	I	C	LP	PKP
VIE	147.129	327.68	1.64	5.53	I	C	LP	PKP
MOX	147.478	334.91	1.64	5.53	I	C	SP	PKP
ATH	147.729	306.10	1.62	5.44	I	C	SP	PKP
SKO	147.764	314.28	1.62	5.44	I	C	SP	PKP
WET	148.111	331.93	1.62	5.44	I	C	SP	PKP
KMR	148.339	329.36	1.62	5.44	I	C	LP	PKP
GRFO	148.389	334.18	1.62	5.44	E	C	LP	PKP
BNS	148.804	339.66	1.59	5.35	I	C	SP	PKP
TNS	149.003	337.57	1.59	5.35	I	C	SP	PKP
DCN	149.169	357.56	1.59	5.35	I	C	SP	PKP
FUR	149.548	332.24	1.56	5.26	I	C	SP	PKP
UCC	149.793	342.59	1.56	5.26	I	C	LP	PKP
STU	149.923	335.15	1.56	5.26	I	C	LP	PKP
ECB	150.123	356.82	1.56	5.26	I	C	SP	PKP
VAL	150.609	1.11	1.53	5.15	E	C	LP	PKP
PTO	161.411	358.19	1.12	3.77	I	C	LP	PKP
TOL	162.098	346.59	1.07	3.60	I	C	LP	PKP
TLO	162.111	346.49	1.07	3.60	I	C	LP	PKP
ALM	164.502	338.84	0.91	3.06	I	C	SP	PKP
MAL	165.191	344.25	0.91	3.06	I	C	SP	PKP
SFS	165.824	349.55	0.85	2.88	I	C	SP	PKP

Table 213. Station data for event 42

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HNR	6.140	282.82	14.07	80.92	I	D	LP	P
PVC	7.190	162.23	13.99	79.07	I	C	SP	P
KOU	9.787	189.60	13.69	73.90	I	C	SP	P
CTA	21.118	241.89	10.16	45.48	I	C	LP	P
CTAO	21.118	241.89	10.16	45.48	I	C	SP	P
YOU	28.336	211.91	9.10	39.69	I	C	SP	P
CAN	28.848	209.74	9.03	39.33	I	C	SP	P
WAM	29.606	208.84	8.97	39.02	I	C	SP	P
SNZO	31.277	167.34	8.78	38.04	E	C	LP	P
WB2	31.783	249.65	8.75	37.89	I	C	SP	P
WRA	31.793	249.65	8.75	37.89	I	C	SP	P
GUA	32.029	318.68	8.75	37.89	I	D	LP	P
GUMO	32.095	318.68	8.75	37.89	E	D	LP	P
TOO	32.364	211.36	8.71	37.68	I	C	SP	P
KNA	36.539	258.23	8.47	36.47	I	C	SP	P
PPT	43.484	104.05	8.07	34.50	I	C	LP	P
DAV	44.023	292.13	8.05	34.40	I	D	LP	P
CGP	45.372	293.39	7.96	33.96	I	D	SP	P
MBL	45.412	251.03	7.96	33.96	I	C	SP	P
MEK	47.322	243.82	7.84	33.38	I	C	SP	P
NAU	49.547	249.67	7.70	32.71	I	C	SP	P
NWAO	49.784	235.94	7.66	32.52	I	C	LP	P
NWAO	49.784	235.94	7.66	32.52	I	C	SP	P
MUN	50.399	237.41	7.62	32.33	E	C	LP	P
BAG	52.479	300.44	7.45	31.52	I	D	LP	P
TRT	52.723	268.55	7.45	31.52	I	C	SP	P
MAT	53.925	332.30	7.33	30.96	I	D	SP	P
SHK	55.112	326.42	7.26	30.63	I	D	LP	P
TATO	56.149	309.97	7.18	30.26	E	D	LP	P
ANP	56.244	310.20	7.18	30.26	I	D	LP	P
SSE	59.901	315.65	6.88	28.87	E	D	LP	P
SEO	60.487	324.88	6.84	28.69	E	D	LP	P
HKC	60.565	303.26	6.84	28.69	I	D	LP	P
ADK	64.245	11.81	6.55	27.37	I	D	SP	P
KLM	65.529	278.44	6.43	26.83	I	D	SP	P
IPM	66.474	279.85	6.35	26.47	I	D	SP	P
SNG	67.508	282.45	6.26	26.06	I	D	LP	P
BJI	68.501	320.90	6.18	25.70	I	D	SP	P
KMI	71.250	301.23	5.99	24.86	I	D	LP	P
CHTO	72.390	293.75	5.88	24.37	E	D	LP	P
LZH	74.827	312.08	5.71	23.62	I	D	LP	P
SPA	79.212	180.00	5.45	22.49	I	C	SP	P
BKS	82.587	49.28	5.14	21.15	E	D	LP	P
COL	83.061	18.07	5.11	21.02	E	D	LP	P
COR	84.186	42.68	5.05	20.76	I	D	SP	P
BMN	87.088	48.08	4.83	19.81	I	D	SP	P
NEW	89.431	40.60	4.71	19.30	I	D	SP	P
BDW	93.226	47.22	4.64	19.00	I	D	SP	P
SES	93.816	39.54	4.61	18.88	I	D	SP	P
ANMO	94.124	55.38	4.61	18.88	E	D	LP	P

Table 213. Station data for event 42....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
JCT	98.993	60.66	4.48	18.33	E	C	LP	P
KAAO	101.775	303.17	4.45	18.20	I	D	SP	Pdf
KBL	101.775	303.17	4.45	18.20	E	D	LP	Pdf
DAG	114.057	1.21	1.88	7.60	E	C	LP	PKP
KEV	115.696	345.32	1.88	7.58	E	D	LP	PKP
BOG	120.224	90.96	1.87	7.56	E	C	LP	PKP
BOCO	120.239	91.00	1.87	7.56	E	C	LP	PKP
NUR	122.845	338.42	1.87	7.54	E	D	LP	PKP
PRY	124.959	226.16	1.87	7.53	I	C	SP	PKP
KON	128.206	345.01	1.86	7.49	E	C	LP	PKP
BEC	128.776	57.13	1.86	7.48	E	C	LP	PKP
ANTO	129.589	313.30	1.85	7.46	E	C	LP	PKP
ESK	134.850	351.33	1.82	7.34	E	C	LP	PKP
GRFO	136.022	336.53	1.81	7.31	E	C	LP	PKP
BNG	147.153	261.32	1.64	6.61	I	C	SP	PKP
TOL	149.784	344.70	1.56	6.29	I	C	SP	PKP
ALM	152.112	339.96	1.50	6.03	I	C	SP	PKP
MAL	152.836	342.98	1.46	5.89	I	C	SP	PKP

Table 214. Station data for event 62

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVC	5.605	156.09	14.11	81.54	I	C	SP	P
NOU	9.671	177.13	13.75	74.55	I	D	SP	P
RAB	15.961	300.37	12.77	63.53	E	D	LP	P
CTAO	20.284	245.91	10.30	46.22	I	D	LP	P
CTA	20.284	245.91	10.30	46.22	I	D	LP	P
AFI	21.737	95.96	10.05	44.79	I	C	LP	P
WEL	29.606	166.45	8.97	38.96	I	C	SP	P
SNZO	29.615	166.55	8.97	38.96	I	C	LP	P
GUA	33.289	320.54	8.65	37.33	I	C	LP	P
GUMO	33.355	320.53	8.65	37.33	I	C	LP	P
MTN	33.933	265.67	8.62	37.18	I	D	SP	P
TAU	34.232	204.64	8.62	37.18	E	C	LP	P
PPT	43.171	102.27	8.10	34.60	I	C	LP	P
DAV	44.621	293.80	8.02	34.21	I	C	LP	P
NWAO	48.765	237.16	7.74	32.86	I	D	LP	P
BAG	53.298	301.61	7.38	31.15	I	C	LP	P
SHK	56.510	327.12	7.14	30.03	I	C	LP	P
TATO	57.206	310.89	7.11	29.90	I	C	LP	P
ANP	57.305	311.11	7.07	29.71	I	C	LP	P
LEM	57.671	269.85	7.07	29.71	I	C	SP	P
SSE	61.085	316.38	6.80	28.47	I	C	SP	P
SEO	61.856	325.48	6.72	28.10	I	C	LP	P
KMI	72.081	301.75	5.92	24.52	I	C	SP	P
CHG	73.017	294.27	5.85	24.21	I	C	LP	P
CHG	73.017	294.27	5.85	24.21	I	C	SP	P
LZH	75.926	312.44	5.64	23.29	I	C	SP	P
COL	84.727	18.04	5.02	20.60	E	C	LP	P
JAS	85.131	49.58	4.99	20.48	I	C	LP	P
COR	85.511	42.59	4.96	20.35	I	C	LP	P
PAS	85.627	53.78	4.96	20.35	I	C	SP	P
LON	87.290	40.97	4.80	19.66	I	C	LP	P
WMQ	90.309	314.87	4.70	19.24	I	C	SP	P
DUG	91.466	49.23	4.68	19.15	I	C	LP	P
MSO	92.440	42.62	4.66	19.07	I	C	LP	P
EPT	94.483	58.61	4.60	18.81	E	C	LP	P
NDI	94.830	298.17	4.58	18.73	I	C	SP	P
ANMO	95.170	55.51	4.58	18.73	I	C	LP	P
POO	95.859	287.61	4.55	18.60	I	C	SP	P
GOL	96.933	50.99	4.53	18.52	I	C	LP	P
JCT	99.906	60.92	4.47	18.26	I	C	LP	P
TUL	103.921	55.86	4.45	18.18	E	C	LP	Pdf
MHI	110.539	304.16	1.89	7.61	E	C	LP	Pdf
BLA	116.302	54.67	1.88	7.57	I	C	LP	PKP
KEV	117.343	345.08	1.88	7.56	I	C	LP	PKP
SCP	117.924	50.45	1.88	7.56	I	C	LP	PKP
GAC	118.814	44.61	1.88	7.55	I	C	LP	PKP
ZOBO	119.347	116.87	1.88	7.55	E	C	LP	PKP
BOCO	120.276	92.03	1.87	7.55	E	C	LP	PKP
WES	122.465	47.61	1.87	7.54	I	C	LP	PKP
SLR	123.863	227.03	1.87	7.52	E	C	LP	PKP

Table 214. Station data for event 62....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SLR	123.863	227.03	1.87	7.52	I	C	SP	PKP
ARO	124.424	275.42	1.87	7.52	I	C	LP	PKP
SJG	129.608	76.87	1.85	7.46	I	C	LP	PKP
KON	129.849	344.60	1.85	7.46	E	C	LP	PKP
KONO	129.849	344.60	1.85	7.46	E	C	LP	PKP
VIE	136.371	330.61	1.81	7.30	E	C	LP	PKP
STU	139.100	336.48	1.78	7.17	E	C	LP	PKP
VAL	140.644	356.27	1.75	7.06	E	C	LP	PKP
RMP	142.705	326.24	1.72	6.93	I	C	SP	PKP
BNG	146.773	258.74	1.64	6.60	I	C	SP	PKP
PTO	151.169	351.42	1.53	6.15	I	C	LP	PKP

Table 215. Station data for event 68

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVC	2.998	338.76	14.23	85.97	I	D	SP	P
NOU	3.297	237.44	14.22	85.43	I	D	SP	P
AFI	19.099	72.75	12.16	58.48	E	D	LP	P
CNZ	19.310	165.55	10.58	47.87	I	C	SP	P
SNZO	21.167	168.99	10.17	45.47	E	C	LP	P
CTA	21.758	267.15	9.94	44.17	I	D	SP	P
CTAO	21.758	267.15	9.94	44.17	E	D	LP	P
CAN	23.233	226.42	9.76	43.17	I	C	SP	P
PMG	24.185	293.96	9.60	42.30	I	C	SP	P
WB2	32.899	264.81	8.68	37.48	I	C	SP	P
ASPA	33.031	257.96	8.68	37.48	I	C	SP	P
MTN	37.425	275.67	8.41	36.12	I	C	SP	P
GUMO	41.652	322.50	8.18	34.99	E	C	LP	P
CCP	54.291	300.12	7.30	30.78	I	C	SP	P
TRT	56.302	274.45	7.14	30.03	I	C	SP	P
MAT	63.994	332.30	6.56	27.38	I	C	SP	P
TATO	64.974	311.93	6.47	26.97	I	C	LP	P
SSE	69.153	316.76	6.14	25.49	I	C	SP	P
BJI	78.073	321.03	5.52	22.77	I	C	LP	P
TIY	78.925	317.32	5.45	22.46	I	C	SP	P
XAN	79.137	312.59	5.45	22.46	I	C	SP	P
KMI	79.131	302.02	5.45	22.46	I	C	LP	P
CHG	79.374	294.70	5.41	22.29	I	C	SP	P
CD2	81.186	307.56	5.26	21.64	I	C	SP	P
BTO	82.141	318.56	5.17	21.25	I	C	SP	P
LZH	83.747	312.08	5.08	20.86	I	C	SP	P
ISA	88.146	50.83	4.77	19.53	I	C	SP	P
COR	89.145	41.23	4.73	19.36	I	C	SP	P
SNA	89.200	182.78	4.73	19.36	I	C	SP	P
ANMO	96.876	55.40	4.53	18.52	E	C	LP	P
VIE	144.899	328.25	1.68	6.78	I	C	LP	PKP
KMR	146.107	329.84	1.66	6.69	I	C	LP	PKP
DBN	146.214	342.50	1.66	6.69	I	C	LP	PKP
UCC	147.610	342.25	1.62	6.50	I	C	LP	PKP

Table 216. Station data for event 77

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVC	2.157	172.18	14.26	123.29	I	D	SP	P
KOU	6.080	215.06	14.09	55.69	I	D	SP	P
NOU	6.842	192.16	14.02	55.27	I	D	SP	P
HNR	9.965	306.95	13.72	53.54	E	C	LP	P
CTA	21.176	254.61	10.20	36.72	E	D	LP	P
CTAO	21.176	254.61	10.20	36.72	E	D	SP	P
CTA	21.176	254.61	10.20	36.72	I	D	SP	P
PMG	21.253	284.34	10.07	36.18	I	D	SP	P
RIV	23.684	216.91	9.69	34.61	E	D	LP	P
SNZO	26.275	168.55	9.34	33.20	E	C	LP	P
WRA	32.315	257.29	8.72	30.74	E	D	SP	P
GUMO	36.931	320.51	8.45	29.69	I	C	LP	P
KNA	37.743	264.31	8.42	29.58	I	D	SP	P
PPT	40.646	98.92	8.24	28.88	E	D	LP	P
AAI	40.903	282.63	8.21	28.77	E	C	SP	P
KLG	45.056	241.97	8.00	27.97	I	D	SP	P
DAV	47.684	295.10	7.85	27.40	E	C	LP	P
MKS	48.728	276.81	7.79	27.17	E	C	SP	P
NAU	49.901	253.52	7.66	26.68	I	C	SP	P
LGP	52.281	300.73	7.46	25.93	E	C	SP	P
TRT	54.667	271.55	7.30	25.34	I	C	SP	P
KKM	55.605	288.74	7.22	25.04	I	C	SP	P
BAG	56.578	302.13	7.15	24.78	E	C	LP	P
LEM	59.709	271.15	6.92	23.93	E	C	SP	P
SHK	60.101	326.58	6.89	23.82	I	C	SP	P
SHK	60.101	326.58	6.89	23.82	E	C	LP	P
TATO	60.675	310.95	6.84	23.64	I	C	LP	P
ANP	60.778	311.16	6.80	23.49	E	C	LP	P
QZH	62.792	309.18	6.64	22.91	E	C	SP	P
SSE	64.626	316.18	6.52	22.47	I	C	SP	P
SEO	65.447	325.00	6.44	22.18	I	C	SP	P
GZH	65.845	304.59	6.40	22.04	I	C	SP	P
KGM	66.266	279.29	6.35	21.85	E	C	SP	P
NJ2	66.780	315.65	6.31	21.71	I	C	SP	P
WHN	69.038	311.91	6.15	21.13	I	C	SP	P
MDJ	69.364	331.69	6.11	20.99	I	C	SP	P
TSI	71.239	279.24	6.00	20.59	E	C	SP	P
BJI	73.372	320.95	5.82	19.95	I	C	SP	P
TIY	74.366	317.21	5.75	19.70	I	C	SP	P
XAN	74.787	312.41	5.72	19.59	I	C	SP	P
KMI	75.356	301.68	5.68	19.45	I	C	SP	P
CHG	76.074	294.29	5.65	19.34	I	C	SP	P
CHTO	76.074	294.29	5.65	19.34	I	C	LP	P
CHG	76.074	294.29	5.65	19.34	I	C	LP	P
HHC	76.692	319.49	5.61	19.20	I	C	SP	P
CD2	77.090	307.42	5.58	19.09	I	C	SP	P
BTO	77.529	318.60	5.55	18.99	I	C	SP	P
LZH	79.417	312.13	5.42	18.53	E	C	SP	P
GTA	83.768	313.65	5.06	17.25	E	C	SP	P
BKS	84.228	48.27	5.06	17.25	E	C	LP	P

Table 216. Station data for event 77....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BKS	84.228	48.27	5.06	17.25	E	C	SP	P
SHIO	84.595	298.26	5.02	17.11	E	C	LP	P
WDC	85.149	45.71	4.99	17.01	I	C	SP	P
JAS	85.554	48.79	4.96	16.90	I	C	SP	P
PAS	85.787	53.01	4.91	16.73	I	C	SP	P
COR	86.363	41.84	4.86	16.55	I	C	SP	P
LHD	92.729	40.57	4.66	15.85	I	C	SP	P
LDM	92.948	40.45	4.65	15.82	I	C	SP	P
CLX	92.979	40.72	4.65	15.82	I	C	SP	P
RXF	93.209	40.10	4.65	15.82	I	C	SP	P
WMQ	93.831	314.34	4.61	15.68	E	C	SP	P
LRM	93.933	43.58	4.61	15.68	E	C	SP	P
GBA	94.111	282.90	4.61	15.68	E	C	SP	P
ANMO	95.203	55.33	4.58	15.57	I	C	LP	P
KBL	105.940	302.00	1.89	6.36	E	C	LP	Pdf
BOCO	118.132	93.14	1.88	6.31	E	C	LP	PKP
ANTO	134.179	310.88	1.83	6.15	E	C	LP	PKP
OGA	143.405	333.25	1.72	5.79	I	C	SP	PKP
ZUL	143.997	336.30	1.70	5.73	I	C	SP	PKP
DIX	145.533	335.88	1.66	5.59	I	C	LP	PKP
RMP	146.297	325.74	1.66	5.59	I	C	SP	PKP
BNG	147.998	252.96	1.62	5.43	I	C	SP	PKP

Table 217. Station data for event 83

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVC	3.120	174.97	14.24	56.72	I	C	SP	P
NOU	7.798	190.81	13.92	54.80	I	C	SP	P
HNR	9.430	302.20	13.77	53.94	I	D	LP	P
CTAO	21.473	252.24	10.06	36.20	I	C	SP	P
CTAO	21.473	252.24	10.06	36.20	I	C	LP	P
CTA	21.473	252.24	10.06	36.20	I	C	LP	P
SNZO	27.223	168.96	9.29	33.05	I	C	LP	P
TAU	33.342	208.21	8.65	30.52	I	C	LP	P
GUA	36.133	319.65	8.50	29.93	E	C	LP	P
GUMO	36.199	319.65	8.50	29.93	I	C	LP	P
PPT	40.786	100.03	8.21	28.81	I	D	LP	P
DAV	47.297	294.28	7.85	27.44	I	C	LP	P
MKS	48.640	275.95	7.78	27.18	I	C	SP	P
KLB	48.793	240.73	7.74	27.02	I	C	SP	P
NWAO	49.435	239.08	7.70	26.87	I	C	SP	P
NWAO	49.435	239.08	7.70	26.87	I	C	LP	P
PLP	49.756	298.65	7.66	26.72	I	C	SP	P
MUN	50.155	240.47	7.66	26.72	I	C	SP	P
MUN	50.155	240.47	7.66	26.72	E	C	LP	P
NAU	50.203	252.74	7.66	26.72	I	C	SP	P
TRT	54.667	270.86	7.30	25.38	I	C	SP	P
MAT	58.138	331.87	7.04	24.41	I	C	SP	P
SHK	59.303	326.26	6.92	23.97	I	C	LP	P
TATO	60.056	310.52	6.88	23.82	E	C	LP	P
QZH	62.197	308.77	6.72	23.23	I	C	SP	P
SSE	63.941	315.85	6.56	22.65	E	C	LP	P
HKC	64.262	303.88	6.52	22.50	I	C	LP	P
SEO	64.665	324.72	6.52	22.50	E	C	LP	P
NJ2	66.101	315.35	6.39	22.03	I	C	SP	P
MDJ	68.520	331.50	6.18	21.27	I	C	SP	P
CN2	69.921	328.56	6.07	20.88	I	C	SP	P
BJI	72.632	320.76	5.89	20.23	I	C	SP	P
TIY	73.668	317.01	5.82	19.98	I	C	SP	P
XAN	74.148	312.20	5.78	19.83	I	C	SP	P
KMI	74.865	301.45	5.71	19.58	I	C	LP	P
SPA	75.482	180.00	5.68	19.48	I	C	LP	P
CHTO	75.695	294.06	5.68	19.48	I	C	LP	P
CHG	75.695	294.06	5.68	19.48	I	C	LP	P
CHG	75.695	294.06	5.68	19.48	I	C	SP	P
HHC	75.968	319.32	5.65	19.37	I	C	SP	P
BTO	76.815	318.45	5.58	19.12	I	C	SP	P
LZH	78.781	311.98	5.45	18.66	I	C	LP	P
BKS	83.567	48.34	5.08	17.35	E	C	LP	P
WDC	84.457	45.77	5.02	17.14	I	C	SP	P
JAS	84.899	48.84	4.99	17.03	I	C	SP	P
FRI	85.070	49.95	4.99	17.03	I	C	SP	P
PAS	85.187	53.06	4.99	17.03	I	C	LP	P
COL	86.018	17.34	4.91	16.75	I	C	LP	P
MNV	86.750	49.07	4.83	16.47	I	C	SP	P
LHD	91.978	40.54	4.67	15.91	I	C	SP	P

Table 217. Station data for event 83....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LDM	92.195	40.41	4.67	15.91	I	C	SP	P
RXF	92.453	40.07	4.66	15.88	I	C	SP	P
WMQ	93.166	314.38	4.64	15.81	I	C	SP	P
GBA	93.914	282.96	4.61	15.70	I	C	SP	P
ANMO	94.633	55.26	4.60	15.67	E	C	LP	P
POO	98.398	286.95	4.49	15.28	I	C	SP	P
JCT	99.102	60.89	4.48	15.25	E	C	LP	P
JOZ	120.227	225.66	1.87	6.32	I	C	SP	PKP
TUH	123.859	211.42	1.87	6.30	I	C	SP	PKP
SLR	123.927	224.63	1.87	6.30	I	C	SP	PKP
MTD	126.880	235.62	1.86	6.27	I	C	SP	PKP
BUL	127.225	230.15	1.86	6.27	I	C	SP	PKP
KRI	128.412	234.23	1.86	6.27	I	C	SP	PKP
ANTO	133.554	311.59	1.83	6.16	I	C	SP	PKP
DOU	142.130	342.59	1.74	5.86	E	C	LP	PKP
OGA	142.544	333.84	1.72	5.80	I	C	SP	PKP
LDF	144.737	346.34	1.68	5.67	I	C	SP	PKP
LOR	144.872	341.16	1.68	5.67	I	C	SP	PKP
LBF	145.087	340.80	1.68	5.67	I	C	SP	PKP
GRR	145.094	347.02	1.68	5.67	I	C	SP	PKP
SSF	145.166	341.37	1.68	5.67	I	C	SP	PKP
SMF	145.431	340.67	1.68	5.67	I	C	SP	PKP
AVF	145.456	341.32	1.68	5.67	I	C	SP	PKP
LPF	145.472	347.02	1.68	5.67	I	C	SP	PKP
MZF	146.207	341.71	1.66	5.60	I	C	SP	PKP
TCF	146.254	342.19	1.66	5.60	I	C	SP	PKP
LSF	146.486	342.93	1.66	5.60	I	C	SP	PKP
MFF	146.607	345.12	1.64	5.52	I	C	SP	PKP
FRF	147.043	334.74	1.64	5.52	I	C	SP	PKP
LRG	147.248	334.95	1.64	5.52	I	C	SP	PKP
LMR	147.286	334.65	1.64	5.52	I	C	SP	PKP
RJF	147.350	342.23	1.64	5.52	I	C	SP	PKP
CAF	147.527	341.28	1.62	5.44	I	C	SP	PKP
LPO	148.013	342.14	1.62	5.44	I	C	SP	PKP
BNG	148.290	254.44	1.62	5.44	I	C	SP	PKP
BCAO	148.300	254.43	1.62	5.44	I	C	LP	PKP
EPF	149.770	341.90	1.56	5.25	I	C	SP	PKP

Table 218. Station data for event 86

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KOU	7.722	200.84	12.63	92.68	I	D	SP	P
NOU	8.966	184.49	12.63	88.20	I	D	SP	P
VUN	11.798	114.68	12.46	80.39	I	C	SP	P
RAB	17.397	300.08	10.44	55.71	I	D	LP	P
PMG	20.036	279.09	9.89	51.48	I	D	LP	P
AFI	20.437	94.10	9.82	50.96	E	C	LP	P
CTAO	21.152	248.65	9.71	50.16	E	D	LP	P
COO	22.237	217.00	9.56	49.12	I	D	SP	P
SNZO	28.639	168.16	8.86	44.52	E	C	LP	P
STK	29.876	227.59	8.77	43.95	I	D	SP	P
WB2	32.119	253.71	8.63	43.05	I	D	SP	P
BFD	32.394	218.47	8.61	42.94	I	D	SP	P
ASPA	33.139	247.06	8.57	42.67	I	D	SP	P
TAU	34.116	206.46	8.51	42.32	E	D	LP	P
GUMO	34.706	319.53	8.47	42.10	E	C	LP	P
WBN	40.144	245.21	8.17	40.26	I	D	SP	P
NWAO	49.426	237.98	7.59	36.91	I	D	SP	P
TRT	53.859	270.14	7.24	34.92	I	D	SP	P
BAG	54.734	301.30	7.18	34.60	I	C	LP	P
DRV	56.293	192.64	7.06	33.97	I	C	SP	P
MAJO	56.632	332.13	7.04	33.84	I	C	LP	P
MAT	56.632	332.13	7.04	33.84	I	C	SP	P
SHK	57.794	326.42	6.95	33.37	I	C	LP	P
TATO	58.618	310.44	6.90	33.07	I	C	LP	P
LEM	58.912	270.01	6.87	32.94	I	D	SP	P
SSE	62.466	315.88	6.59	31.42	E	C	LP	P
SNG	69.183	283.05	6.05	28.61	I	D	SP	P
PSI	69.565	277.98	6.02	28.45	I	D	SP	P
PCT	70.815	290.84	5.93	27.98	I	C	SP	P
BJI	71.134	320.89	5.91	27.87	I	C	SP	P
KMI	73.517	301.46	5.75	27.04	I	C	LP	P
CHG	74.445	294.03	5.68	26.71	I	C	LP	P
CHTO	74.445	294.03	5.68	26.71	I	C	SP	P
LZH	77.331	312.09	5.50	25.78	I	C	LP	P
MAW	83.161	201.96	5.05	23.54	I	D	SP	P
JAS	84.658	49.18	4.96	23.08	I	C	LP	P
COL	85.033	17.63	4.92	22.92	I	C	LP	P
LON	87.025	40.62	4.78	22.21	I	C	LP	P
ANMO	94.557	55.33	4.57	21.18	E	C	LP	P
POO	97.260	287.29	4.50	20.88	I	C	SP	P
TUL	103.298	55.89	4.44	20.56	I	C	LP	Pdf
DAG	116.475	1.54	1.88	8.54	I	C	SP	PKP
LPB	117.825	116.91	1.88	8.54	I	C	LP	Pdf
SLR	124.265	225.82	1.87	8.49	E	C	LP	PKP
SUR	124.335	214.55	1.87	8.49	I	C	SP	PKP
CIR	124.645	232.58	1.87	8.49	I	C	SP	PKP
MTD	126.930	236.95	1.86	8.47	I	C	SP	PKP
BUL	127.419	231.49	1.86	8.46	I	C	SP	PKP
KONO	130.869	345.17	1.85	8.40	E	C	LP	PKP
GRFO	138.730	336.38	1.78	8.10	I	C	LP	PKP

Table 218. Station data for event 86....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ENN	139.673	341.64	1.77	8.04	I	C	SP	PKP
FUR	139.918	334.90	1.77	8.03	I	C	SP	PKP
ETA	140.377	353.72	1.76	8.00	I	C	SP	PKP
ECP	140.903	353.73	1.75	7.96	I	C	SP	PKP
OGA	141.042	333.85	1.75	7.95	I	C	SP	PKP
CDF	141.256	338.57	1.75	7.94	I	C	SP	PKP
LBF	143.613	340.55	1.71	7.76	I	C	SP	PKP
GRR	143.663	346.54	1.71	7.75	I	C	SP	PKP
SSF	143.695	341.09	1.70	7.75	I	C	SP	PKP
SMF	143.956	340.41	1.70	7.73	I	C	SP	PKP
AVF	143.984	341.03	1.70	7.72	I	C	SP	PKP
LPF	144.040	346.53	1.70	7.72	I	C	SP	PKP
MZF	144.738	341.40	1.68	7.66	I	C	SP	PKP
TCF	144.788	341.86	1.68	7.65	I	C	SP	PKP
LSF	145.024	342.57	1.68	7.63	I	C	SP	PKP
MFF	145.161	344.67	1.68	7.62	I	C	SP	PKP
CVF	145.353	331.33	1.67	7.60	I	C	SP	PKP
FRF	145.543	334.68	1.67	7.58	I	C	SP	PKP
LRG	145.749	334.88	1.66	7.56	I	C	SP	PKP
LMR	145.786	334.59	1.66	7.55	I	C	SP	PKP
BNG	147.836	256.95	1.61	7.33	I	C	SP	PKP
BCAO	147.846	256.94	1.61	7.33	I	C	LP	PKP
MLS	148.132	340.52	1.61	7.30	I	C	SP	PKP
PTO	152.050	353.23	1.49	6.76	I	C	SP	PKP
TOL	152.448	345.35	1.47	6.69	I	C	LP	PKP
CRT	154.852	342.52	1.38	6.29	I	C	SP	PKP

Table 219. Station data for event 152

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AFI	16.426	92.36	12.69	48.16	I	C	LP	P
RAB	21.161	295.07	10.18	36.70	I	D	SP	P
PMG	24.054	277.87	9.61	34.34	I	D	SP	P
CTA	24.747	251.95	9.54	34.06	I	D	LP	P
CTAO	24.747	251.95	9.54	34.06	I	D	LP	P
SNZO	27.553	174.46	9.24	32.85	I	C	LP	P
YOU	29.086	221.58	9.04	32.05	I	C	SP	P
CAN	29.367	219.28	8.97	31.77	I	C	SP	P
WAM	30.016	218.09	8.91	31.54	I	C	SP	P
STK	32.600	231.51	8.72	30.79	I	D	SP	P
GUA	37.706	315.01	8.41	29.58	I	C	LP	P
GUMO	37.772	315.02	8.38	29.47	I	C	LP	P
KLG	48.709	241.11	7.78	27.18	I	C	SP	P
DAV	49.917	291.74	7.66	26.72	E	N	LP	P
NWAO	52.576	239.05	7.46	25.97	I	C	LP	P
MUN	53.318	240.36	7.38	25.67	I	C	SP	P
BAG	58.425	299.29	7.00	24.26	D	N	LP	P
MAJO	59.013	329.13	6.96	24.12	I	C	LP	P
SHK	60.479	323.68	6.84	23.67	E	C	LP	P
TATO	62.012	308.25	6.72	23.23	I	C	LP	P
ANP	62.103	308.47	6.72	23.23	E	C	LP	P
SSE	65.640	313.72	6.43	22.18	E	C	LP	P
GZH	67.538	302.36	6.27	21.60	I	C	SP	P
SNG	73.184	281.96	5.85	20.09	E	C	LP	P
BJI	74.072	319.07	5.78	19.83	I	C	SP	P
CHG	78.300	292.80	5.49	18.80	I	C	SP	P
BKS	80.672	47.33	5.31	18.16	E	C	LP	P
LDM	89.537	39.64	4.71	16.05	I	C	SP	P
MTD	129.940	233.87	1.85	6.24	I	C	SP	PKP
BUL	130.155	228.17	1.85	6.24	I	C	SP	PKP
SMF	145.619	344.65	1.66	5.60	I	C	SP	PKP
BNG	151.570	253.44	1.50	5.04	I	C	SP	PKP

Table 220. Station data for event 169

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HNR	16.856	319.19	12.58	61.87	I	C	LP	P
COO	18.846	241.04	12.16	58.48	I	C	SP	P
SNZO	18.911	171.41	12.16	58.48	E	D	LP	P
YOU	23.003	234.66	9.76	43.17	I	C	SP	P
CTA	23.196	271.54	9.76	43.17	I	C	LP	P
RAB	25.841	312.33	9.38	41.11	U	C	LP	P
PMG	26.369	295.99	9.33	40.85	I	C	SP	P
TOO	26.545	230.02	9.33	40.85	I	C	SP	P
STK	27.679	244.14	9.23	40.32	I	C	SP	P
TAU	28.249	218.61	9.18	40.05	E	N	LP	P
ADE	30.747	239.17	8.86	38.40	I	C	SP	P
ASPA	34.092	260.81	8.62	37.18	I	C	SP	P
WB2	34.219	267.45	8.62	37.18	I	C	SP	P
MTN	39.109	277.45	8.32	35.68	I	C	SP	P
WBN	40.493	255.76	8.24	35.28	I	C	SP	P
GUA	44.090	322.04	8.05	34.35	I	C	LP	P
MEK	47.612	254.02	7.85	33.39	I	C	SP	P
NWAO	48.251	245.44	7.78	33.05	I	C	SP	P
NWAO	48.251	245.44	7.78	33.05	I	C	LP	P
MUN	49.162	246.65	7.74	32.86	I	C	SP	P
HON	53.076	36.88	7.42	31.34	I	C	LP	P
DAV	53.368	298.20	7.38	31.15	I	C	LP	P
TRT	57.927	275.11	7.03	29.53	I	C	SP	P
BAG	62.764	303.67	6.64	27.74	I	C	LP	P
LEM	62.873	273.91	6.64	27.74	I	C	LP	P
TATO	67.419	311.60	6.26	26.03	I	C	LP	P
ANP	67.534	311.79	6.26	26.03	I	C	LP	P
SNG	74.921	284.50	5.71	23.60	I	C	LP	P
KMI	81.445	301.61	5.22	21.46	I	C	SP	P
CHG	81.548	294.33	5.22	21.46	I	C	LP	P
BKS	86.834	46.74	4.83	19.79	I	D	SP	P
PAS	87.792	51.62	4.77	19.53	I	D	SP	P
WDC	88.060	44.32	4.77	19.53	I	D	SP	P
JAS	88.086	47.41	4.77	19.53	I	D	SP	P
JAS	88.086	47.41	4.77	19.53	I	C	LP	P
FRI	88.106	48.53	4.77	19.53	I	D	SP	P
LON	91.763	39.35	4.67	19.11	I	C	LP	P
COL	92.798	16.34	4.64	18.98	E	C	LP	P
ANMO	96.835	55.12	4.53	18.52	I	D	LP	P
SHA	110.102	64.29	1.89	7.61	E	D	LP	PKP
BLA	117.701	58.75	1.88	7.56	E	C	LP	PKP
WES	125.058	53.30	1.87	7.52	E	C	LP	PKP
KON	140.714	345.19	1.75	7.06	E	C	LP	PKP
PRU	147.011	331.76	1.64	6.60	I	C	SP	PKP
ESK	147.044	353.93	1.64	6.60	E	C	LP	PKP
BNG	147.828	239.93	1.62	6.50	I	C	SP	PKP
ATH	148.072	306.17	1.62	6.50	I	C	SP	PKP
ENN	149.572	341.18	1.56	6.28	I	C	SP	PKP
VAL	150.695	1.60	1.53	6.15	E	C	LP	PKP
PTO	161.514	359.10	1.07	4.30	E	C	LP	PKP

Figure 79. Azimuthal equidistant map for geographic subdivision,
E. NBew Guinea - Solomon Islands

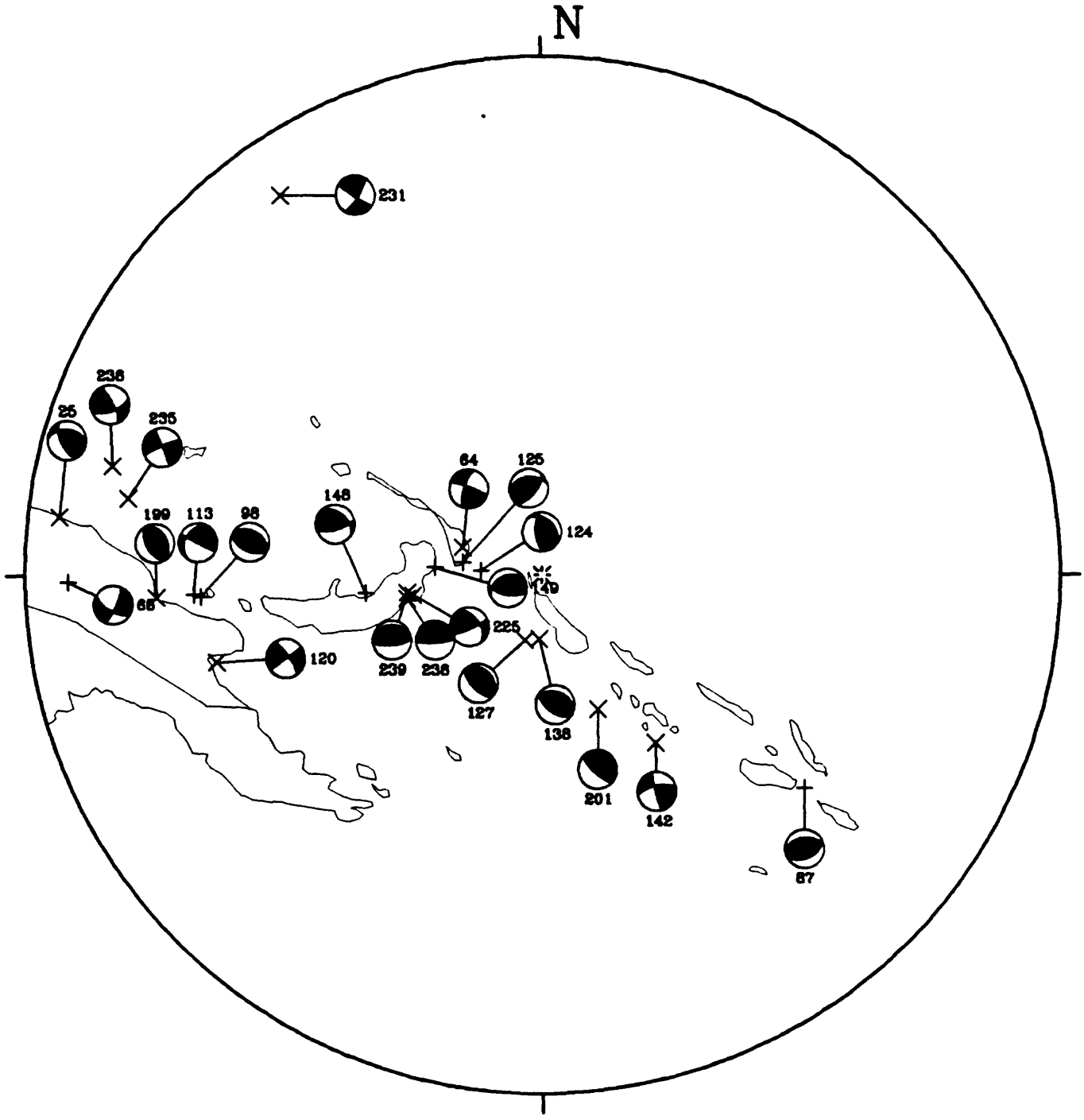

Table 221. Focal mechanisms for subdivision, E. New Guinea - Solomon Islands

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
25	155	65	127	274	44	38	54	112	12	219	33	317
64	290	82	20	197	70	171	20	155	8	62	69	311
65	120	63	-167	24	78	-28	10	74	28	339	60	182
87	260	43	100	66	48	81	83	272	2	163	7	73
98	115	52	90	295	38	90	83	25	7	205	0	115
113	117	88	124	210	34	4	38	57	34	178	34	296
120	55	88	15	324	75	178	12	281	9	189	75	62
124	175	65	110	314	32	54	64	119	18	250	18	346
125	40	58	65	261	40	124	67	261	10	148	21	54
127	135	65	90	315	25	90	70	45	20	225	0	135
138	125	57	100	287	34	75	76	65	11	208	8	300
142	165	85	155	257	65	6	21	118	14	214	65	334
148	75	66	60	310	38	138	58	303	16	187	27	88
149	100	60	110	244	36	59	68	51	13	176	17	270
199	150	54	90	330	36	90	81	60	9	240	0	150
201	133	74	90	313	16	90	61	43	29	223	0	133
225	65	80	45	325	46	166	38	296	22	188	44	75
231	123	83	14	31	76	173	15	348	5	257	74	149
235	338	88	-173	248	83	-2	4	113	6	203	83	354
236	70	62	15	333	77	151	30	288	10	24	59	130
238	85	77	90	265	13	90	58	355	32	175	0	85
239	85	67	90	265	23	90	68	355	22	175	0	85

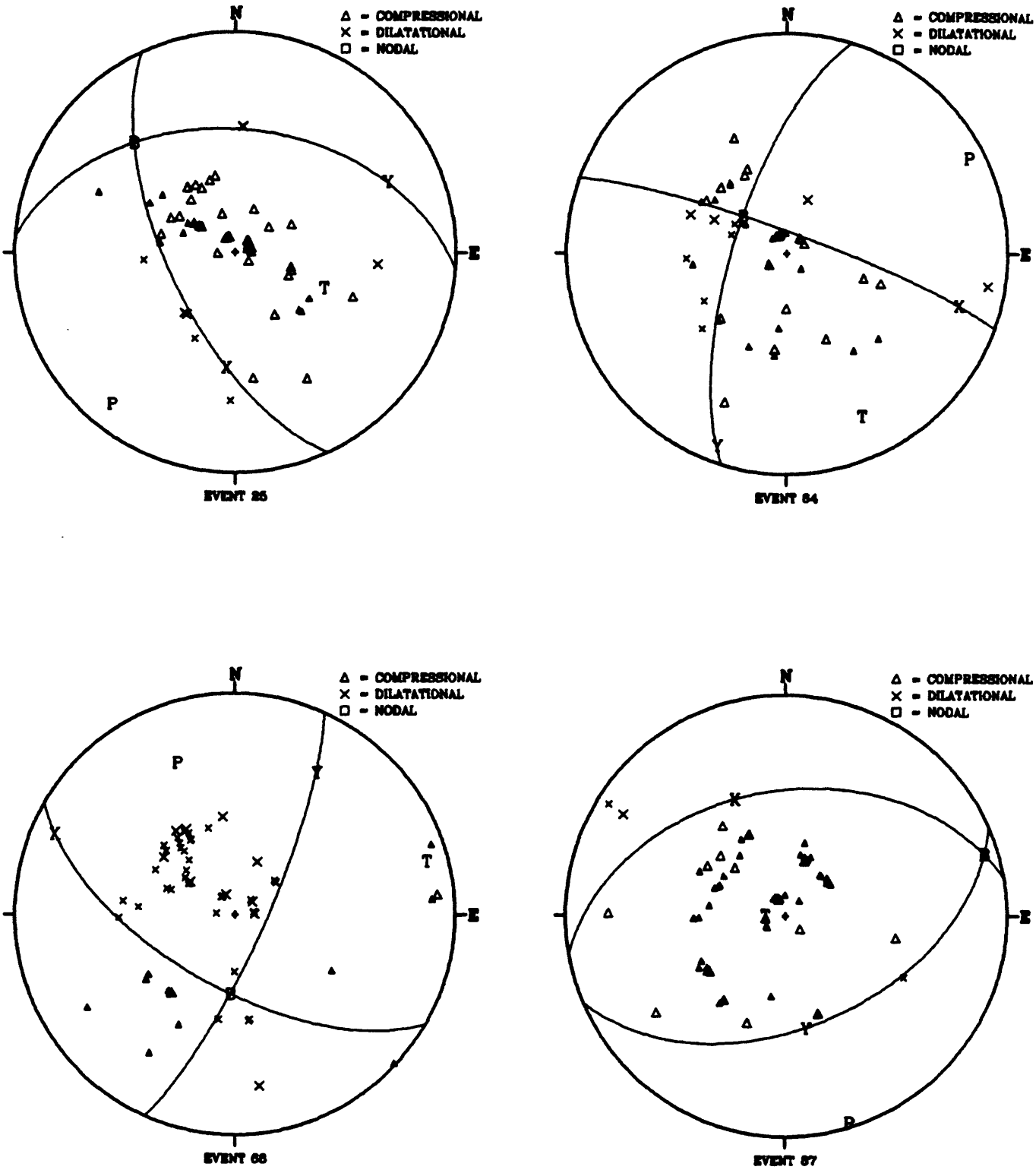

Figure 80. Lower hemisphere focal sphere projections for events 25, 64, 65, and 87

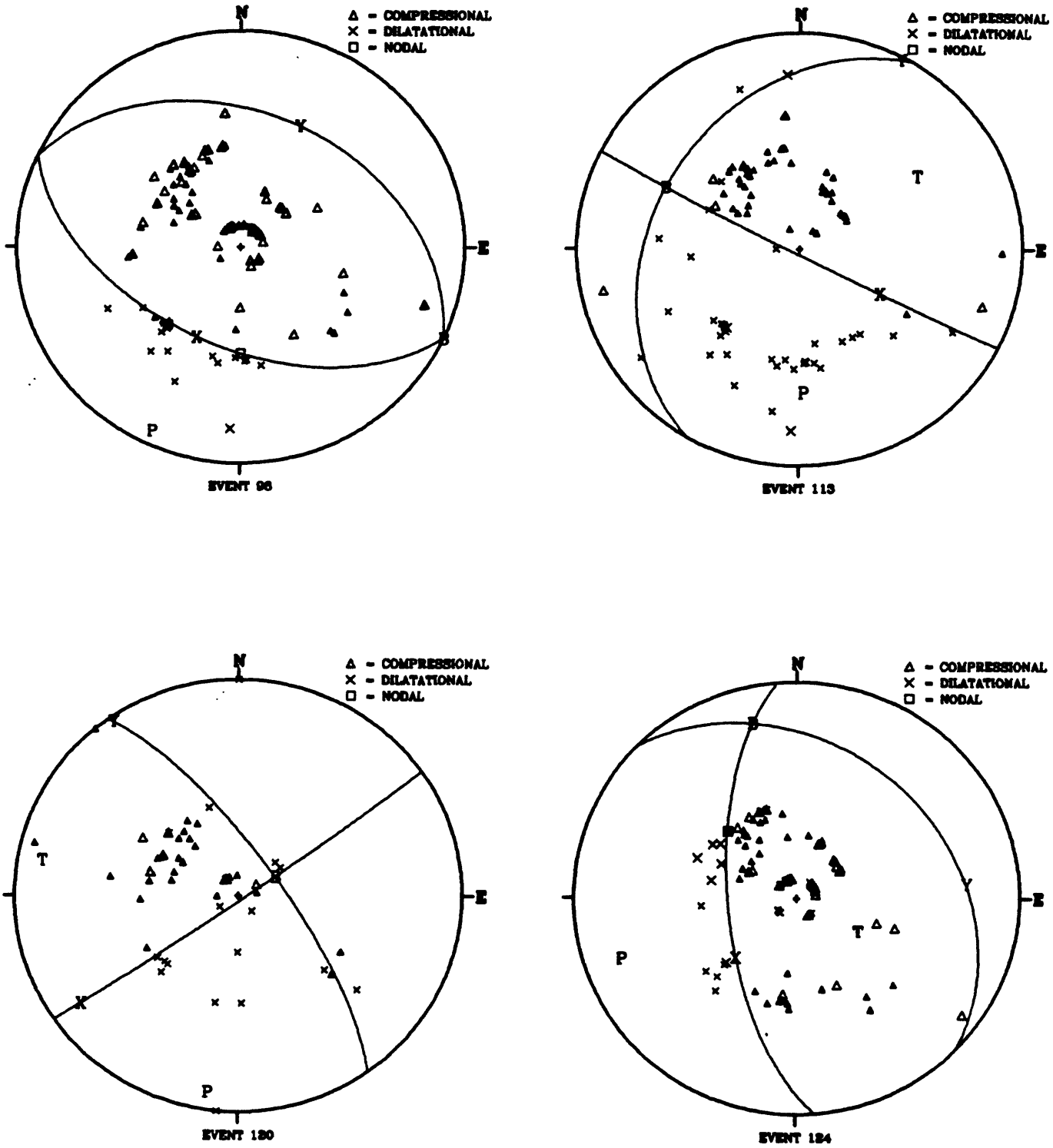

Figure 81. Lower hemisphere focal sphere projections for events 98, 113, 120, and 124

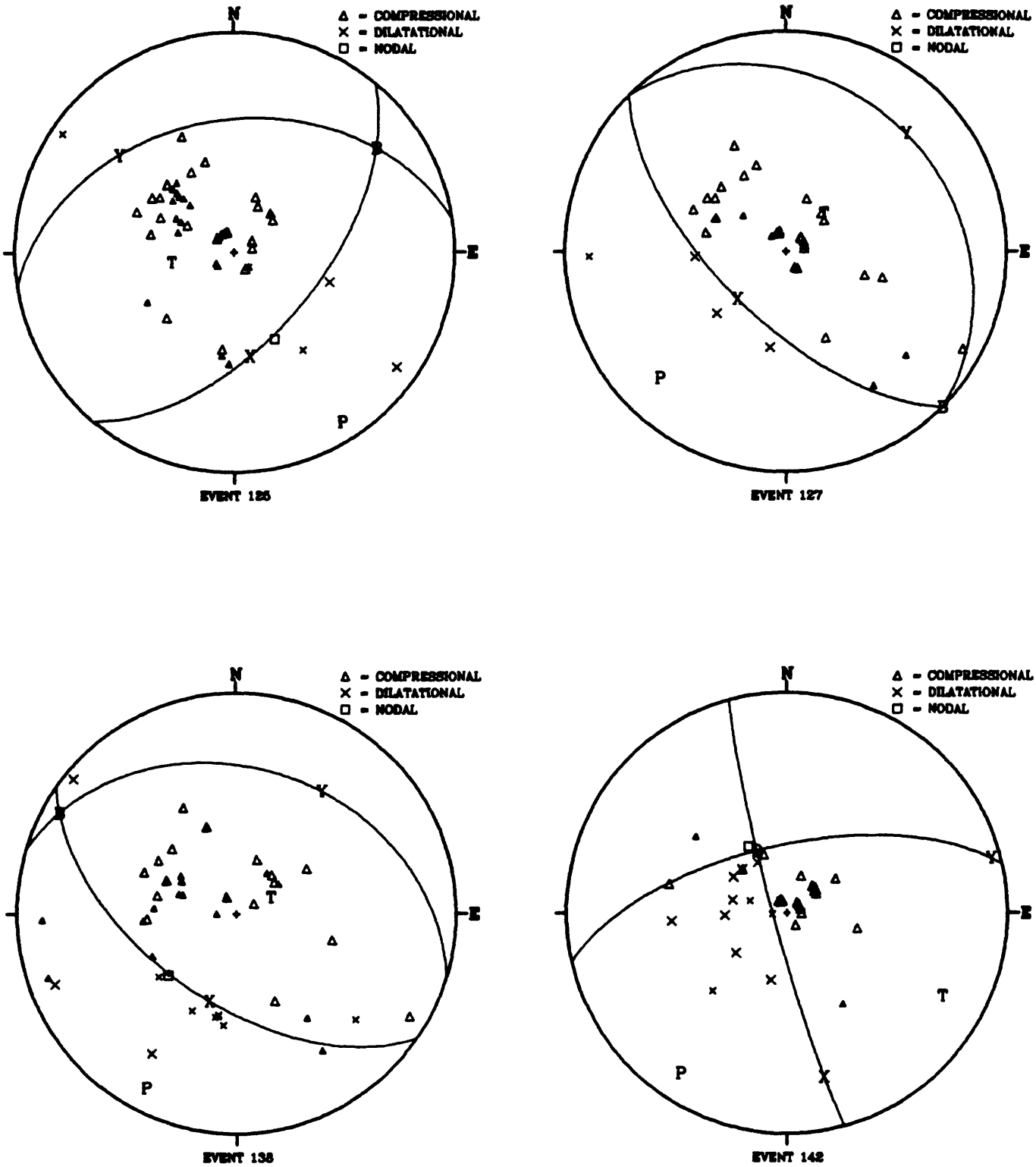

Figure 82. Lower hemisphere focal sphere projections for events 125, 127, 138, and 142

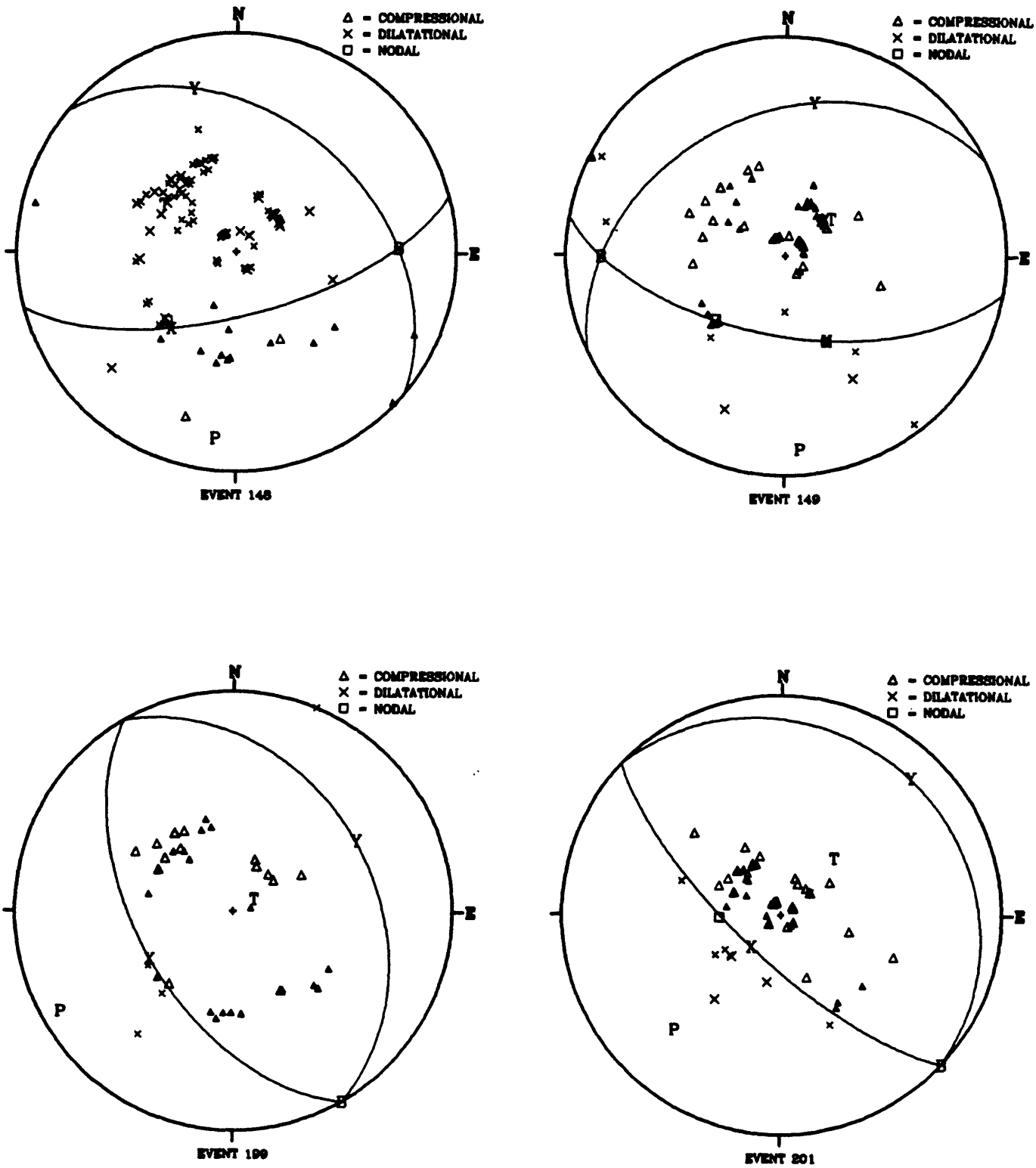

Figure 83. Lower hemisphere focal sphere projections for events 148, 149, 199, and 201

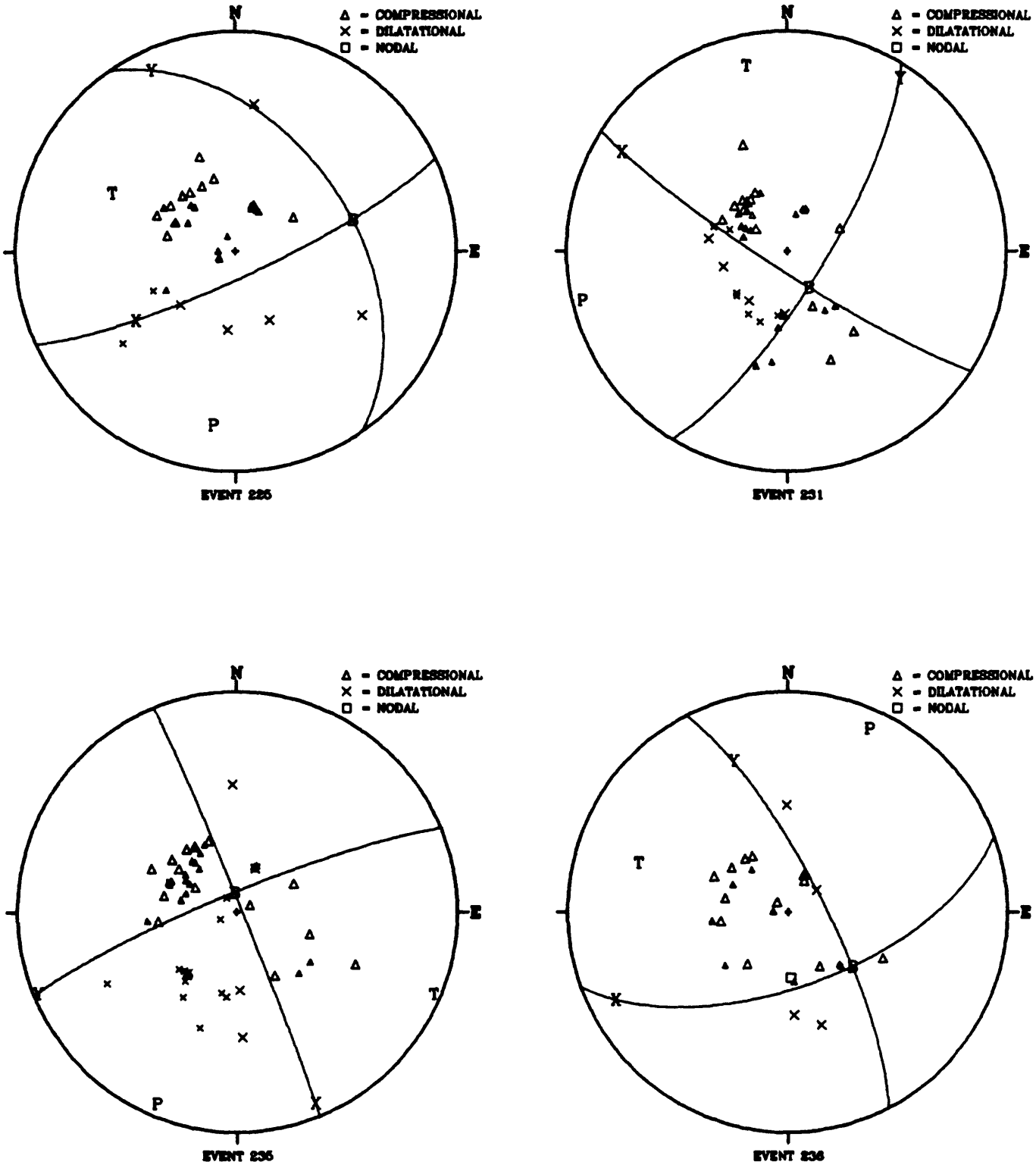

Figure 84. Lower hemisphere focal sphere projections for events 225, 231, 235, and 236

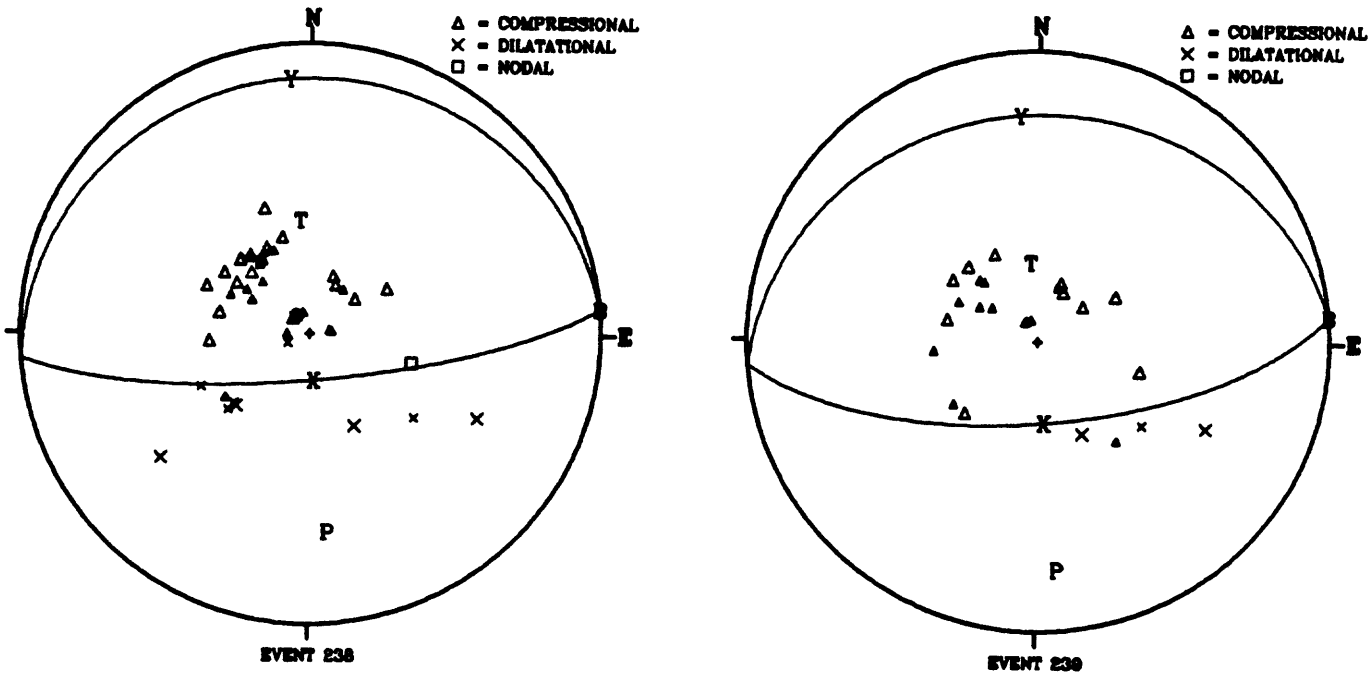

Figure 85. Lower hemisphere focal sphere projections for events 238 and 239

Table 222. Station data for event 25

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TBL	1.333	113.92	14.27	123.02	I	C	SP	P
WAB	1.925	181.83	14.26	56.92	I	D	SP	P
PMG	6.704	150.27	14.04	55.59	E	C	LP	P
RAB	8.385	94.58	13.86	54.53	I	D	LP	P
CTA	16.602	171.87	12.68	48.17	I	C	LP	P
CTAO	16.602	171.87	12.68	48.17	I	C	LP	P
GUA	17.019	3.73	12.58	47.66	I	D	LP	P
GUMO	17.065	3.57	12.58	47.66	I	D	LP	P
HNR	17.075	110.76	12.58	47.66	E	C	LP	P
DAV	21.032	300.18	10.17	36.70	I	C	SP	P
ASP	22.172	204.67	9.95	35.78	I	D	SP	P
PLP	23.753	308.23	9.60	34.34	I	C	SP	P
MKS	24.304	265.23	9.53	34.05	I	D	SP	P
KOU	26.151	131.90	9.38	33.45	I	C	SP	P
PVC	27.858	122.17	9.18	32.64	I	C	SP	P
NOU	28.812	132.24	9.04	32.09	I	C	SP	P
TATO	35.685	323.81	8.53	30.08	I	C	LP	P
ANP	35.826	324.07	8.50	29.96	I	C	LP	P
NWAO	38.349	217.30	8.35	29.38	I	D	LP	P
MUN	38.340	219.37	8.35	29.38	I	D	LP	P
SHK	39.300	345.45	8.29	29.15	I	C	LP	P
SSE	40.641	329.59	8.24	28.96	I	C	LP	P
SEO	43.796	340.59	8.05	28.23	I	C	LP	P
SNG	44.388	283.93	8.02	28.12	I	C	LP	P
PSI	45.270	277.30	7.96	27.89	I	C	SP	P
SNZO	46.712	147.88	7.91	27.70	I	C	LP	P
CHG	49.415	298.41	7.70	26.90	I	C	LP	P
CHTO	49.415	298.41	7.70	26.90	I	C	LP	P
BJI	50.243	332.42	7.66	26.75	E	C	LP	P
LZH	54.288	320.17	7.30	25.40	E	C	LP	P
SHIO	58.012	303.06	7.03	24.40	I	C	LP	P
KIP	62.111	63.62	6.72	23.26	E	C	LP	P
PPT	66.665	107.50	6.35	21.91	I	C	LP	P
TBI	67.268	113.71	6.26	21.58	I	C	LP	P
TPT	68.411	104.62	6.18	21.29	I	C	LP	P
NDI	71.382	301.70	5.96	20.50	I	C	SP	P
POO	72.221	290.62	5.92	20.36	I	C	SP	P
KAAO	79.514	305.91	5.41	18.54	I	C	LP	P
KBL	79.514	305.91	5.41	18.54	I	C	SP	P
KBL	79.514	305.91	5.41	18.54	I	C	LP	P
COL	84.210	23.50	5.05	17.26	E	C	LP	P
MHI	87.488	306.42	4.80	16.38	I	C	LP	P
BKS	95.304	52.45	4.56	15.54	E	C	LP	P
TAB	98.058	307.77	4.51	15.37	E	C	LP	P
KEV	102.378	341.45	4.45	15.16	E	C	LP	Pdf
NAI	106.867	267.60	1.89	6.38	E	C	LP	PKP
NUR	107.101	333.11	1.89	6.38	E	C	LP	PKP
ANMO	108.196	54.48	1.89	6.38	E	C	LP	PKP
GOL	108.250	49.40	1.89	6.38	E	C	LP	PKP
KON	113.982	336.51	1.88	6.36	E	C	LP	PKP

Table 222. Station data for event 25....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KONO	113.982	336.51	1.88	6.36	E	C	LP	PKP
JCT	114.478	58.17	1.88	6.36	E	C	LP	PKP
COP	115.109	332.00	1.88	6.35	E	C	LP	PKP
GRFO	119.041	326.83	1.88	6.33	E	C	LP	PKP
DOU	122.261	330.15	1.87	6.31	I	C	SP	PKP
SHA	124.156	55.04	1.87	6.30	E	C	LP	PKP
LOR	124.427	327.89	1.87	6.30	E	C	LP	PKP
LPS	126.733	74.90	1.86	6.28	E	C	LP	PKP
VAL	127.155	340.12	1.86	6.28	E	C	LP	PKP
BLA	127.467	44.54	1.86	6.28	I	C	SP	PKP
BLA	127.467	44.54	1.86	6.28	E	C	LP	PKP
ALM	134.628	321.23	1.82	6.14	I	C	SP	PKP
MAL	135.911	322.52	1.81	6.12	I	C	SP	PKP
BOG	142.229	87.06	1.74	5.86	I	C	LP	PKP
BOCO	142.251	87.12	1.74	5.86	E	C	LP	PKP
ZOBO	142.805	122.87	1.72	5.81	E	C	LP	PKP
SJG	147.313	61.52	1.64	5.53	I	C	LP	PKP
TRN	154.044	72.94	1.43	4.81	I	C	LP	PKP

Table 223. Station data for event 64

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
RAB	0.999	279.28	14.02	98.64	I	D	LP	P
CTA	17.022	202.70	12.54	62.16	I	C	LP	P
CTAO	17.022	202.70	12.54	62.16	I	C	LP	P
GUA	19.567	335.39	10.55	48.07	I	C	LP	P
PVC	19.927	133.03	10.41	47.23	I	C	SP	P
NOU	22.007	145.37	9.92	44.39	I	C	SP	P
WRA	24.003	228.24	9.59	42.55	I	D	SP	P
DAV	29.783	292.31	8.90	38.87	I	D	LP	P
CAN	31.050	186.60	8.82	38.46	I	C	SP	P
ADE	33.269	201.94	8.64	37.54	I	C	SP	P
MKS	33.579	267.14	8.64	37.54	I	D	SP	P
LGP	34.006	301.17	8.61	37.38	I	C	SP	P
AFI	35.849	107.72	8.49	36.78	E	C	LP	P
BAG	38.251	303.41	8.35	36.07	I	C	LP	P
TAU	38.738	186.86	8.35	36.07	E	C	LP	P
KLG	39.775	224.98	8.26	35.63	I	C	SP	P
TRT	40.424	263.27	8.23	35.48	I	C	SP	P
NAU	40.662	240.09	8.23	35.48	I	D	SP	P
SNZO	41.553	155.35	8.18	35.23	I	C	LP	P
TATO	42.388	315.02	8.12	34.93	I	C	LP	P
ANP	42.499	315.28	8.12	34.93	E	C	LP	P
SHK	43.223	335.05	8.10	34.83	E	C	LP	P
NWAO	43.950	225.32	8.04	34.54	E	C	LP	P
SSE	46.612	321.31	7.90	33.85	I	C	SP	P
GZH	47.472	306.86	7.84	33.56	I	C	SP	P
SEO	48.296	331.98	7.78	33.27	E	C	LP	P
NJ2	48.724	320.44	7.78	33.27	I	C	SP	P
PPT	57.522	107.97	7.07	29.90	I	C	LP	P
CHG	58.117	295.19	7.03	29.72	I	D	LP	P
CHG	58.117	295.19	7.03	29.72	I	D	SP	P
DRV	62.869	185.85	6.63	27.87	I	C	SP	P
NDI	79.814	300.00	5.35	22.16	I	D	SP	P
POO	81.274	289.40	5.21	21.56	I	D	SP	P
COL	81.339	21.72	5.21	21.56	E	D	LP	P
SPA	85.676	180.00	4.96	20.47	I	C	LP	P
KBL	87.601	304.72	4.80	19.78	I	D	LP	P
MHI	95.504	305.91	4.56	18.76	I	C	SP	P
JCT	106.877	59.61	1.89	7.66	E	C	LP	PKP
DAG	107.506	358.06	1.89	7.66	I	C	SP	PKP
CIR	117.452	243.76	1.88	7.61	I	C	SP	PKP
KON	118.189	339.98	1.88	7.60	E	C	LP	PKP
SLR	118.798	237.61	1.88	7.60	E	C	LP	PKP
BLF	119.229	233.24	1.88	7.60	I	C	SP	PKP
PVL	120.039	318.21	1.87	7.59	I	C	SP	PKP
BUL	120.363	243.76	1.87	7.59	I	C	SP	PKP
VTS	121.583	318.36	1.87	7.58	I	C	SP	PKP
SCP	121.688	43.92	1.87	7.58	E	C	LP	PKP
BACH	124.241	135.66	1.87	7.57	I	C	SP	PKP
WES	125.295	39.50	1.87	7.56	E	C	LP	PKP
ESK	125.740	343.60	1.86	7.55	I	C	LP	PKP

Table 223. Station data for event 64....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
STU	126.159	331.18	1.86	7.55	E	C	LP	PKP
PTO	139.887	338.47	1.77	7.16	E	C	LP	PKP

Table 224. Station data for event 65

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TZZ	2.740	265.45	13.47	101.00	I	C	SP	P
LMG	5.649	132.88	13.72	89.04	I	C	SP	P
KVG	7.248	70.36	13.64	83.94	I	C	SP	P
RAB	8.224	84.35	13.57	81.59	I	C	LP	P
MTN	14.846	237.72	12.71	67.93	I	C	SP	P
CTA	15.106	171.71	12.67	67.45	I	D	LP	P
CTAO	15.106	171.71	12.67	67.45	E	D	LP	P
WB2	17.507	211.48	12.23	63.02	I	C	SP	P
ASPA	20.890	206.70	10.03	46.98	I	C	SP	P
MKS	24.396	268.52	9.47	43.63	I	D	SP	P
PVC	26.943	119.87	9.23	42.28	I	C	SP	P
BKB	27.342	276.97	9.19	42.07	I	D	SP	P
MBL	28.360	233.45	9.04	41.24	I	C	SP	P
YOU	29.362	172.53	8.92	40.55	I	D	SP	P
ADE	30.156	188.61	8.84	40.13	I	D	SP	P
CAN	30.471	171.86	8.82	40.00	I	D	SP	P
NAU	32.542	235.00	8.67	39.22	I	C	SP	P
KLB	36.062	219.80	8.46	38.09	I	D	SP	P
TATO	36.994	324.79	8.41	37.79	E	D	LP	P
NWAO	37.284	218.65	8.39	37.70	E	C	LP	P
MUN	37.314	220.76	8.39	37.69	I	C	SP	P
GZH	40.946	314.30	8.19	36.65	I	D	SP	P
MAT	41.722	353.03	8.14	36.41	I	D	LP	P
SSE	42.014	330.25	8.13	36.32	I	D	LP	P
PPI	43.742	274.61	8.03	35.84	I	D	SP	P
NJ2	43.962	328.73	8.02	35.77	I	D	SP	P
WHN	45.336	323.17	7.95	35.40	I	D	SP	P
GYA	47.808	312.84	7.80	34.65	I	D	SP	P
TIA	48.132	330.64	7.78	34.53	I	D	SP	P
KMI	50.039	308.79	7.62	33.75	I	D	LP	P
CHG	50.285	299.42	7.60	33.65	I	D	SP	P
XAN	51.057	322.19	7.54	33.35	I	D	SP	P
CN2	51.416	342.89	7.51	33.20	I	D	SP	P
HHC	54.473	330.03	7.27	32.00	I	D	SP	P
BTO	55.070	328.76	7.22	31.76	I	D	SP	P
LZH	55.545	320.72	7.18	31.58	I	D	SP	P
GTA	60.103	321.50	6.84	29.90	I	D	SP	P
HYB	68.302	290.87	6.17	26.74	I	D	SP	P
WMQ	70.120	320.20	6.04	26.12	I	D	SP	P
POO	72.911	291.02	5.83	25.16	I	D	SP	P
KSH	76.482	312.42	5.60	24.09	I	D	SP	P
KBL	80.528	306.09	5.28	22.61	I	D	SP	P
SPA	84.980	180.00	4.97	21.24	I	D	SP	P
COL	85.505	23.42	4.94	21.09	E	D	LP	P
TGI	88.341	303.11	4.75	20.24	I	D	SP	P
MHI	88.511	306.45	4.74	20.21	I	D	LP	P
KHI	88.940	304.23	4.72	20.13	I	D	SP	P
WDC	95.910	49.85	4.54	19.33	I	D	SP	P
JAS	97.493	52.53	4.51	19.19	I	D	SP	P
ANMO	108.914	54.91	1.89	7.92	E	D	LP	PKP

Table 224. Station data for event 65....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KONO	115.414	336.30	1.88	7.88	E	D	LP	PKP
BRG	118.268	326.57	1.88	7.86	I	D	SP	PKP
KHC	119.339	324.97	1.87	7.85	I	D	SP	PKP
LJU	120.234	321.48	1.87	7.85	I	D	SP	PKP
FVM	120.796	48.41	1.87	7.84	I	D	SP	PKP
OGA	121.959	323.69	1.87	7.84	I	D	SP	PKP
BSF	123.846	326.53	1.87	7.83	I	D	SP	PKP
SSF	126.093	327.41	1.86	7.81	I	D	SP	PKP
BOCO	142.128	89.03	1.73	7.26	E	D	LP	PKP
UAV	144.972	82.26	1.68	7.05	I	D	SP	PKP
KIC	148.836	273.91	1.59	6.66	I	D	SP	PKP

Table 225. Station data for event 87

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PAA	6.653	301.92	13.73	84.06	I	D	SP	P
RAB	10.568	301.73	13.37	75.70	I	D	LP	P
PMG	13.826	270.77	12.92	69.40	I	C	LP	P
CTA	17.604	233.12	12.24	62.48	I	C	LP	P
VUN	18.614	117.58	10.64	50.41	I	D	SP	P
RIV	25.542	199.61	9.37	42.75	E	C	LP	P
AFI	26.765	101.25	9.26	42.12	E	C	LP	P
GUMO	28.379	324.95	9.05	40.98	I	C	LP	P
STK	28.422	216.79	9.04	40.94	I	C	SP	P
ADE	32.308	215.95	8.70	39.05	E	C	LP	P
ADE	32.308	215.95	8.70	39.05	I	C	SP	P
CAW	33.436	160.76	8.63	38.68	I	C	SP	P
SNZO	33.502	161.37	8.62	38.66	I	C	LP	P
WBN	36.497	239.09	8.45	37.76	I	C	SP	P
CCP	42.157	297.42	8.12	36.06	I	C	SP	P
KLG	42.335	234.73	8.12	36.03	I	C	SP	P
MEK	43.524	241.69	8.05	35.68	I	C	SP	P
KLB	45.591	235.18	7.94	35.10	I	C	SP	P
BAL	46.152	236.87	7.90	34.93	I	C	SP	P
NWAO	46.445	233.63	7.88	34.84	I	C	LP	P
NWAO	46.445	233.63	7.88	34.84	I	C	SP	P
MUN	46.966	235.24	7.85	34.68	I	C	SP	P
BAG	47.908	302.70	7.80	34.40	I	C	LP	P
TRT	47.980	268.51	7.79	34.37	I	C	SP	P
MAT	50.975	336.15	7.55	33.18	I	C	SP	P
MAJO	50.975	336.15	7.55	33.18	E	C	LP	P
SHK	51.770	329.91	7.49	32.87	I	C	SP	P
TATO	51.925	312.60	7.48	32.81	E	C	LP	P
LEM	53.026	268.87	7.39	32.37	I	C	SP	P
DRV	58.500	189.71	6.97	30.34	I	C	SP	P
PSI	63.229	278.07	6.59	28.53	I	C	SP	P
PCT	64.064	291.61	6.53	28.22	I	C	SP	P
ADK	64.408	15.02	6.50	28.09	I	C	SP	P
BJI	64.801	323.14	6.47	27.94	I	C	SP	P
KMI	66.691	302.76	6.30	27.18	I	C	SP	P
BDT	67.080	293.44	6.27	27.04	I	C	SP	P
CHTO	67.646	295.02	6.23	26.83	I	C	SP	P
CHG	67.646	295.02	6.23	26.83	I	C	SP	P
LZH	70.673	313.73	6.00	25.76	I	C	LP	P
KDC	77.238	23.44	5.55	23.72	I	C	SP	P
ANM	78.389	14.07	5.48	23.39	I	C	SP	P
TTA	79.679	18.43	5.37	22.91	I	C	SP	P
PMR	81.079	21.67	5.23	22.29	I	C	SP	P
COL	83.679	19.50	5.06	21.51	E	C	LP	P
FBA	83.679	19.50	5.06	21.51	I	C	SP	P
COL	83.679	19.50	5.06	21.51	I	C	SP	P
WDC	86.136	47.88	4.87	20.66	I	C	SP	P
JAS	87.000	50.85	4.81	20.40	I	C	SP	P
JAS	87.000	50.85	4.81	20.40	E	C	LP	P
PAS	87.858	54.98	4.77	20.21	I	C	SP	P

Table 225. Station data for event 87....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PNT	90.473	40.01	4.70	19.91	I	C	SP	P
NEW	91.829	41.42	4.68	19.80	I	C	SP	P
DAG	113.136	359.98	1.89	7.85	I	C	SP	PKP
MNT	121.385	42.31	1.87	7.79	I	C	SP	PKP
MTD	123.544	242.35	1.87	7.78	I	C	SP	PKP
BUL	124.595	237.23	1.87	7.77	I	C	SP	PKP
KRI	125.234	241.34	1.87	7.77	I	C	SP	PKP
BRG	131.061	332.94	1.85	7.69	I	C	SP	PKP
CLL	131.164	333.91	1.85	7.68	I	C	SP	PKP
TRI	134.699	327.92	1.82	7.59	I	C	SP	PKP
GWF	135.199	335.38	1.82	7.58	I	C	SP	PKP
BDF	141.620	131.07	1.74	7.26	E	C	LP	PKP
BCAO	142.552	264.39	1.73	7.19	E	C	LP	PKP
LGR	144.539	338.98	1.69	7.04	I	C	SP	PKP
TOL	147.358	338.65	1.63	6.78	E	C	LP	PKP
TOL	147.358	338.65	1.63	6.78	I	C	SP	PKP
CRT	149.531	335.55	1.57	6.54	I	C	SP	PKP
LIS	150.010	344.74	1.56	6.48	I	C	SP	PKP

Table 226. Station data for event 98

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HNR	13.386	107.91	12.39	75.49	I	C	SP	P
HNR	13.386	107.91	12.39	75.49	I	C	LP	P
CTA	14.561	182.96	12.23	72.82	I	D	LP	P
CTAO	14.561	182.96	12.23	72.82	I	D	LP	P
ISQ	16.819	204.95	10.89	58.27	I	D	SP	P
MTN	17.334	243.85	10.54	55.42	I	D	SP	P
WB2	18.967	219.50	10.15	52.47	I	D	SP	P
GUA	18.988	353.61	10.14	52.44	E	C	LP	P
GUMO	19.042	353.49	10.13	52.35	I	C	LP	P
ASPA	22.090	213.67	9.60	48.63	I	D	SP	P
KOU	22.485	133.45	9.56	48.31	I	C	SP	P
PVC	24.106	122.18	9.38	47.15	I	C	SP	P
NOU	25.150	133.62	9.29	46.53	I	C	SP	P
COO	25.397	170.22	9.27	46.40	I	D	SP	P
STK	26.776	190.34	9.11	45.39	I	D	SP	P
WBN	28.383	221.40	8.90	44.08	I	D	SP	P
YOU	28.700	177.70	8.87	43.89	I	D	SP	P
CAN	29.768	176.78	8.80	43.43	I	D	SP	P
ADE	30.355	193.63	8.76	43.17	I	D	SP	P
WAM	30.630	177.08	8.74	43.05	I	D	SP	P
MBL	30.652	236.85	8.73	43.04	I	D	SP	P
TOO	31.991	182.33	8.65	42.50	I	D	SP	P
VUN	33.121	114.79	8.58	42.09	I	C	SP	P
BAG	34.021	310.13	8.52	41.77	I	C	LP	P
TRT	34.251	264.36	8.51	41.68	I	C	SP	P
MEK	34.376	229.17	8.50	41.63	I	C	SP	P
KLG	34.828	220.61	8.48	41.51	I	D	SP	P
TAU	37.293	179.67	8.34	40.66	E	N	LP	P
BAL	37.939	225.10	8.30	40.43	I	C	SP	P
NWAO	38.959	221.68	8.25	40.11	I	N	LP	P
MUN	39.082	223.71	8.24	40.07	E	D	LP	P
TATO	39.152	321.67	8.24	40.05	E	C	LP	P
LEM	39.219	265.91	8.23	40.03	I	C	LP	P
LEM	39.219	265.91	8.23	40.03	I	C	SP	P
ANP	39.287	321.92	8.23	40.01	I	C	LP	P
OSH	40.646	350.29	8.15	39.55	E	C	LP	P
KYS	40.951	351.37	8.14	39.49	I	C	SP	P
QZH	40.976	318.73	8.14	39.48	I	C	SP	P
OIT	41.162	340.20	8.13	39.42	E	C	LP	P
OYM	41.312	350.33	8.12	39.36	I	C	SP	P
AFI	41.393	104.78	8.11	39.34	I	C	LP	P
SRY	41.491	350.42	8.11	39.30	I	C	SP	P
DDR	41.885	350.45	8.08	39.16	I	C	SP	P
TSK	41.951	351.60	8.08	39.14	I	C	SP	P
SHK	42.019	342.18	8.08	39.12	I	C	SP	P
SHK	42.019	342.18	8.08	39.12	I	C	LP	P
MAJO	42.585	349.46	8.05	38.99	I	C	LP	P
MAT	42.585	349.46	8.05	38.99	I	C	SP	P
NGN	42.703	349.49	8.05	38.95	E	C	LP	P
SNZO	43.411	149.41	8.00	38.69	I	C	LP	P

Table 226. Station data for event 98....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SSE	43.947	327.37	7.98	38.57	I	C	LP	P
NJ2	45.954	326.07	7.86	37.88	I	C	SP	P
SEO	46.710	337.99	7.81	37.63	I	C	LP	P
IPM	47.029	281.38	7.79	37.52	I	C	SP	P
SNG	47.999	284.67	7.72	37.08	I	C	LP	P
TIA	50.037	328.24	7.55	36.16	I	C	SP	P
KMI	52.704	307.25	7.34	35.00	I	C	LP	P
CN2	52.762	340.44	7.34	34.99	I	C	SP	P
CHG	53.167	298.25	7.31	34.84	I	C	SP	P
CHG	53.167	298.25	7.31	34.84	I	C	LP	P
XAN	53.292	320.24	7.30	34.78	I	C	SP	P
BJI	53.450	330.63	7.29	34.71	I	C	LP	P
TIY	53.680	326.00	7.27	34.61	I	C	SP	P
CD2	54.929	313.94	7.17	34.08	I	C	SP	P
HHC	56.395	328.08	7.06	33.49	I	C	SP	P
BTO	57.044	326.87	7.02	33.28	I	C	SP	P
LZH	57.828	319.07	6.96	32.93	I	C	LP	P
HON	60.067	61.73	6.79	32.05	E	C	LP	P
DRV	61.295	183.19	6.69	31.53	I	C	SP	P
GTA	62.354	320.05	6.61	31.08	I	C	SP	P
LSA	63.952	306.69	6.48	30.42	I	C	SP	P
PKI	67.892	302.52	6.15	28.74	I	C	SP	P
KKN	68.071	302.71	6.14	28.67	I	C	SP	P
DMN	68.159	302.47	6.13	28.64	I	C	SP	P
WMQ	72.410	319.21	5.83	27.12	I	C	SP	P
NDI	75.136	301.42	5.65	26.19	I	C	SP	P
POO	75.923	290.54	5.59	25.92	I	C	SP	P
KSH	79.028	311.75	5.38	24.87	I	C	SP	P
SPA	84.579	180.00	4.97	22.86	I	C	LP	P
COL	84.666	22.88	4.97	22.83	I	C	SP	P
COL	84.666	22.88	4.97	22.83	I	C	LP	P
MHI	91.221	306.17	4.68	21.43	I	C	LP	P
KHI	91.706	303.96	4.66	21.37	E	C	LP	P
COR	93.540	45.72	4.61	21.11	I	C	LP	P
BKS	93.878	52.48	4.59	21.04	I	C	LP	P
LON	94.718	43.62	4.56	20.89	I	C	LP	P
JAS	95.301	52.49	4.55	20.80	I	C	LP	P
RSNT	98.680	27.71	4.47	20.45	I	C	LP	P
TAB	101.780	307.60	4.44	20.30	I	C	LP	Pdf
EPT	106.834	58.59	1.89	8.49	E	C	LP	PKP
GOL	106.986	50.27	1.89	8.49	I	C	LP	PKP
DAG	108.317	356.59	1.89	8.49	I	C	SP	PKP
JCT	112.680	59.35	1.89	8.48	I	C	LP	PKP
SLR	113.036	239.23	1.89	8.47	I	C	SP	PKP
GDH	114.864	7.94	1.88	8.45	E	C	LP	PKP
TUL	115.094	52.90	1.88	8.45	I	C	LP	PKP
KON	116.991	337.33	1.88	8.43	E	C	LP	PKP
KDZ	117.040	314.27	1.88	8.43	I	C	SP	PKP
DEV	117.254	319.43	1.88	8.43	I	C	SP	PKP
COP	118.286	332.75	1.88	8.43	E	C	LP	PKP

Table 226. Station data for event 98....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TIM	118.395	319.79	1.88	8.43	I	C	SP	PKP
BRG	120.272	327.61	1.87	8.41	I	C	SP	PKP
GRF	122.382	327.59	1.87	8.40	I	C	SP	PKP
SHA	122.517	57.01	1.87	8.40	E	C	LP	PKP
CEY	122.654	322.25	1.87	8.40	I	C	SP	PKP
STU	123.999	327.62	1.87	8.39	E	C	LP	PKP
LPS	124.052	76.51	1.87	8.39	E	C	LP	PKP
OGA	124.076	324.88	1.87	8.39	I	C	SP	PKP
BGG	124.081	329.88	1.87	8.39	I	C	SP	PKP
ESK	124.865	339.77	1.87	8.38	E	C	LP	PKP
GAC	125.562	35.61	1.86	8.38	E	C	LP	PKP
SCP	126.641	41.92	1.86	8.36	E	C	LP	PKP
MNT	126.744	34.89	1.86	8.36	I	C	SP	PKP
RSNY	126.768	36.33	1.86	8.36	E	C	LP	PKP
ETA	128.032	339.65	1.86	8.35	I	C	SP	PKP
BCAO	128.704	271.31	1.86	8.33	E	C	LP	PKP
WES	129.924	36.85	1.85	8.31	E	C	LP	PKP
VAL	129.998	341.82	1.85	8.31	E	C	LP	PKP
ANT	133.361	129.93	1.83	8.23	I	C	LP	PKP
LPA	133.464	151.43	1.83	8.22	E	C	LP	PKP
PTO	138.330	332.06	1.79	8.02	E	C	LP	PKP
LPB	138.948	122.78	1.78	7.99	E	C	LP	PKP
ZOBO	139.054	122.42	1.78	7.98	I	C	LP	PKP
BEC	140.072	43.89	1.76	7.92	E	C	LP	PKP
BDF	154.321	145.01	1.41	6.31	I	C	LP	PKP

Table 227. Station data for event 113

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LAT	1.250	174.43	7.00	146.83	I	C	SP	P
MOM	3.377	8.92	11.57	115.26	I	D	SP	P
WWW	3.697	299.05	11.83	112.45	I	D	SP	P
LMG	3.705	160.16	11.83	112.38	I	D	SP	P
PMG	3.991	176.09	12.02	110.13	I	D	LP	P
KVG	4.812	54.43	12.39	104.45	I	D	SP	P
RAB	5.409	77.39	12.56	101.14	I	C	LP	P
TZZ	5.634	271.08	12.60	99.98	I	C	SP	P
HNR	13.563	107.94	12.37	75.08	I	C	LP	P
CTAO	14.610	182.32	12.22	72.71	I	D	SP	P
CTA	14.610	182.32	12.22	72.71	I	D	LP	P
ISQ	16.800	204.39	10.92	58.55	I	D	SP	P
MTN	17.209	243.47	10.47	54.89	I	D	SP	P
AAI	18.702	274.43	10.21	52.94	I	D	SP	P
WB2	18.905	219.03	10.16	52.57	I	D	SP	P
GUA	18.914	354.09	10.16	52.56	I	C	SP	P
GUMO	18.967	353.97	10.15	52.47	I	C	LP	P
ASPA	22.045	213.27	9.61	48.67	I	D	SP	P
KOU	22.645	133.28	9.54	48.17	I	D	SP	P
PVC	24.278	122.11	9.37	47.07	I	C	SP	P
COO	25.482	169.91	9.26	46.35	I	D	SP	P
CMS	25.965	182.05	9.22	46.06	I	D	SP	P
STK	26.802	190.01	9.11	45.36	I	D	SP	P
WBN	28.315	221.11	8.91	44.12	I	D	SP	P
RIV	28.561	172.53	8.89	43.97	I	D	SP	P
YOU	28.764	177.41	8.87	43.88	I	D	SP	P
CAN	29.835	176.51	8.79	43.41	I	D	SP	P
ADE	30.371	193.35	8.75	43.16	I	D	SP	P
WAM	30.696	176.82	8.73	43.02	I	D	SP	P
BFD	31.869	186.56	8.65	42.54	I	D	SP	P
BAG	33.856	310.25	8.53	41.83	E	C	LP	P
MEK	34.287	228.96	8.51	41.67	I	D	SP	P
KLG	34.762	220.39	8.48	41.53	I	D	SP	P
KLB	37.720	222.75	8.31	40.51	I	D	SP	P
BAL	37.861	224.91	8.30	40.46	I	D	SP	P
NWAO	38.890	221.50	8.25	40.13	I	D	SP	P
NWAO	38.890	221.50	8.25	40.13	I	D	LP	P
TATO	39.004	321.81	8.24	40.10	I	C	SP	P
MUN	39.007	223.53	8.24	40.10	I	D	SP	P
LEM	39.056	265.84	8.24	40.08	I	D	SP	P
QZH	40.823	318.85	8.14	39.52	I	C	SP	P
KYS	40.870	351.57	8.14	39.51	I	C	SP	P
OYM	41.228	350.52	8.12	39.40	I	C	SP	P
SRY	41.407	350.62	8.11	39.33	I	C	SP	P
KRP	41.570	145.14	8.10	39.28	I	D	SP	P
DDR	41.802	350.64	8.09	39.19	I	C	SP	P
TSK	41.870	351.79	8.08	39.17	I	C	SP	P
SHK	41.914	342.35	8.08	39.15	I	C	SP	P
MAT	42.499	349.65	8.06	39.01	I	C	SP	P
TCW	43.256	149.56	8.01	38.74	I	D	SP	P

Table 227. Station data for event 113....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
GZH	43.297	312.11	8.01	38.73	I	D	SP	P
RHP	43.602	155.69	7.99	38.64	I	D	SP	P
SSE	43.809	327.50	7.98	38.60	I	C	SP	P
NJ2	45.813	326.19	7.87	37.93	I	C	SP	P
PCT	49.291	294.48	7.61	36.50	I	D	SP	P
TIA	49.901	328.35	7.56	36.22	I	C	SP	P
MCQ	49.917	170.82	7.56	36.22	I	D	SP	P
MDJ	52.152	344.41	7.38	35.23	I	C	SP	P
KMI	52.536	307.31	7.35	35.06	I	C	SP	P
CN2	52.653	340.56	7.34	35.02	I	C	SP	P
CHTO	52.993	298.29	7.32	34.91	I	C	LP	P
XAN	53.142	320.33	7.31	34.85	I	C	SP	P
BJI	53.319	330.74	7.30	34.77	I	C	SP	P
TIY	53.539	326.10	7.28	34.67	I	C	SP	P
BTO	56.905	326.96	7.03	33.33	I	C	SP	P
LZH	57.676	319.14	6.97	33.01	I	C	SP	P
GTA	62.203	320.12	6.62	31.15	I	C	SP	P
SMY	62.338	18.31	6.61	31.09	I	C	SP	P
ADK	64.965	23.98	6.40	29.99	I	C	SP	P
KKN	67.900	302.74	6.15	28.74	I	C	SP	P
DMN	67.987	302.50	6.15	28.71	I	C	SP	P
WMQ	72.258	319.25	5.84	27.16	I	C	SP	P
NDI	74.964	301.45	5.66	26.25	I	C	SP	P
ANM	78.182	19.06	5.45	25.19	I	C	SP	P
KSH	78.866	311.78	5.40	24.95	I	C	SP	P
KDC	79.458	28.38	5.33	24.62	I	C	SP	P
TTA	80.542	22.92	5.23	24.13	I	C	SP	P
PMR	82.720	25.68	5.08	23.40	I	C	SP	P
PME	82.778	25.67	5.08	23.38	I	C	SP	P
IMA	83.041	20.73	5.06	23.31	I	C	SP	P
KBL	83.082	305.62	5.06	23.29	I	C	SP	P
SIT	87.897	32.31	4.74	21.76	I	C	SP	P
ARN	94.501	53.05	4.57	20.92	I	C	SP	P
JAS	95.399	52.49	4.54	20.79	I	C	SP	P
FRI	95.939	53.48	4.53	20.73	I	C	SP	P
GLA	99.868	57.52	4.44	20.31	I	C	SP	P
DUG	101.337	50.24	4.44	20.30	I	C	SP	Pdf
BDW	103.595	47.43	4.44	20.30	I	C	SP	Pdf
RSSD	107.418	45.51	1.89	8.49	I	C	SP	PKP
MUD	119.119	334.68	1.87	8.42	I	C	SP	PKP
MNT	126.793	34.78	1.86	8.36	I	C	SP	PKP
BNG	128.524	271.37	1.86	8.34	I	D	SP	PKP

Table 228. Station data for event 120

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LAT	0.499	309.31	11.95	121.79	I	D	SP	P
PMG	2.432	185.47	14.15	90.00	I	D	SP	P
TBL	3.705	320.19	14.13	90.00	I	C	SP	P
MOM	4.897	0.15	14.08	90.00	I	D	SP	P
TZZ	6.362	285.09	13.97	83.53	I	C	SP	P
AAI	19.386	278.70	10.53	48.50	I	C	SP	P
KOU	21.220	131.21	10.13	46.10	I	C	SP	P
PVC	23.041	119.59	9.73	43.79	I	C	SP	P
NOU	23.880	131.66	9.58	42.95	I	D	SP	P
STK	25.364	191.57	9.41	42.01	I	D	SP	P
DAV	25.855	302.26	9.36	41.74	E	C	LP	P
YOU	27.185	178.20	9.27	41.25	I	D	SP	P
WBN	27.506	223.75	9.22	40.98	I	D	SP	P
MBL	30.146	239.30	8.89	39.22	I	C	SP	P
MEK	33.674	231.17	8.64	37.92	I	D	SP	P
KLB	36.942	224.59	8.44	36.89	I	D	SP	P
BAL	37.138	226.78	8.44	36.89	I	D	SP	P
LEM	39.476	267.73	8.29	36.13	I	C	SP	P
SHK	43.555	342.28	8.07	35.03	I	D	SP	P
HKC	43.644	312.69	8.07	35.03	E	C	LP	P
GZH	44.726	312.89	8.01	34.73	I	D	SP	P
NJ2	47.394	326.55	7.84	33.89	I	C	SP	P
SNG	48.724	285.84	7.77	33.55	E	C	LP	P
PSI	49.316	279.58	7.69	33.16	I	C	SP	P
PCT	50.411	295.44	7.61	32.77	I	C	SP	P
BDT	53.523	297.31	7.37	31.61	I	C	SP	P
CHG	54.188	299.06	7.33	31.42	I	C	LP	P
XAN	54.669	320.71	7.29	31.23	I	C	SP	P
BJI	54.929	330.91	7.25	31.04	I	C	SP	P
CD2	56.222	314.48	7.17	30.66	I	C	SP	P
GTA	63.728	320.37	6.59	27.95	I	C	SP	P
PKI	68.992	302.91	6.14	25.89	I	C	SP	P
KKN	69.174	303.09	6.14	25.89	I	C	SP	P
DMN	69.257	302.85	6.10	25.71	I	C	SP	P
KOD	71.690	283.15	5.95	25.04	I	C	SP	P
HYB	72.162	290.72	5.92	24.90	I	C	SP	P
WMQ	73.773	319.39	5.78	24.27	I	C	SP	P
NDI	76.213	301.67	5.64	23.65	I	C	SP	P
SPA	83.076	180.00	5.11	21.31	I	D	SP	P
SBB	97.848	55.99	4.51	18.71	I	D	SP	P
BDW	104.273	47.75	4.45	18.45	I	D	SP	Pdf
DAG	109.838	356.64	1.89	7.73	I	C	SP	PKP
SUF	110.136	335.18	1.89	7.73	I	C	SP	PKP
LUB	111.095	56.80	1.89	7.73	E	C	LP	PKP
SLR	112.551	238.57	1.89	7.71	I	D	SP	PKP
KSP	120.462	326.33	1.87	7.66	I	D	SP	PKP
SKO	120.994	315.23	1.87	7.65	I	C	SP	PKP
BRG	121.723	327.26	1.87	7.65	I	C	SP	PKP
CLL	121.988	328.07	1.87	7.65	I	D	SP	PKP
KHC	122.844	325.65	1.87	7.64	I	D	SP	PKP

Table 228. Station data for event 120....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
WET	123.226	325.95	1.87	7.64	I	D	SP	PKP
BHG	123.977	324.50	1.87	7.64	I	D	SP	PKP
FUR	124.650	325.65	1.87	7.63	I	D	SP	PKP
ROCH	126.065	139.76	1.86	7.62	I	D	SP	PKP
GWF	126.161	328.19	1.86	7.62	I	D	SP	PKP
ZUL	126.641	326.31	1.86	7.61	E	C	LP	PKP
BAF	127.188	327.37	1.86	7.61	I	D	SP	PKP
DIX	128.007	325.38	1.86	7.59	E	C	LP	PKP
BNG	129.052	270.06	1.86	7.58	I	C	SP	PKP
CAR	145.913	81.60	1.66	6.79	I	C	SP	PKP

Table 229. Station data for event 124

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HNR	7.766	125.94	13.69	81.17	I	C	LP	P
KOU	18.736	147.20	10.83	51.37	I	C	SP	P
PVC	19.261	132.72	10.49	49.18	I	C	SP	P
ISQ	20.819	219.68	10.09	46.71	I	D	SP	P
NOU	21.335	145.46	9.97	46.03	I	C	SP	P
WB2	23.968	229.70	9.54	43.53	I	D	SP	P
COO	25.605	183.37	9.37	42.54	I	C	SP	P
ASPA	26.620	223.56	9.28	42.02	I	D	SP	P
CMS	27.445	194.48	9.19	41.57	I	C	SP	P
RIV	28.885	184.18	8.99	40.47	I	C	SP	P
YOU	29.641	188.73	8.90	39.98	I	C	SP	P
DAV	30.374	292.83	8.84	39.62	I	D	LP	P
CAN	30.579	187.38	8.82	39.54	I	C	SP	P
WAM	31.453	187.29	8.76	39.20	I	C	SP	P
ADE	32.944	202.81	8.66	38.66	I	C	SP	P
AFI	35.289	107.16	8.52	37.92	I	C	LP	P
TAU	38.269	187.43	8.34	36.99	I	C	LP	P
BAG	38.893	303.63	8.31	36.84	I	D	LP	P
KLG	39.706	225.75	8.26	36.60	I	D	SP	P
SNZO	40.900	155.50	8.20	36.28	I	C	LP	P
MSZ	41.573	164.56	8.16	36.07	I	C	SP	P
OSK	42.758	338.05	8.10	35.76	I	D	SP	P
TATO	43.058	315.07	8.08	35.67	I	D	LP	P
ANP	43.169	315.33	8.07	35.64	I	N	LP	P
HIM	43.321	337.17	8.07	35.59	I	C	LP	P
MAJO	43.641	341.98	8.05	35.49	I	C	LP	P
MAT	43.641	341.98	8.05	35.49	I	D	SP	P
NGS	43.656	330.59	8.05	35.49	I	C	LP	P
NWAO	43.885	225.98	8.03	35.41	I	D	LP	P
LEM	45.752	265.25	7.93	34.90	E	D	SP	P
HKC	47.072	306.59	7.85	34.50	I	D	LP	P
SSE	47.286	321.28	7.84	34.44	I	C	LP	P
SEO	48.958	331.84	7.72	33.85	I	C	SP	P
YSS	52.556	350.65	7.43	32.43	I	C	SP	P
TIA	53.240	323.14	7.38	32.16	I	C	SP	P
MDJ	53.769	338.90	7.33	31.95	I	C	SP	P
SNG	54.195	282.40	7.30	31.79	I	D	LP	P
CN2	54.691	335.27	7.26	31.59	I	C	SP	P
PPT	56.959	107.69	7.09	30.76	I	C	LP	P
TIY	57.070	321.56	7.08	30.72	I	C	SP	P
XAN	57.216	316.03	7.07	30.66	I	C	SP	P
CHG	58.723	295.33	6.96	30.13	I	D	LP	P
BTO	60.328	322.84	6.83	29.52	I	C	SP	P
DRV	62.390	186.06	6.66	28.74	I	C	SP	P
GTA	66.243	316.94	6.35	27.28	I	C	SP	P
ZAK	69.965	328.38	6.05	25.90	I	C	SP	P
ILT	75.192	10.49	5.68	24.20	I	C	SP	P
SVW	76.585	22.76	5.60	23.82	I	C	SP	P
TIK	78.064	352.21	5.50	23.39	I	C	SP	P
PME	79.497	24.16	5.39	22.91	I	C	SP	P

Table 229. Station data for event 124....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NDI	80.442	300.01	5.29	22.44	I	C	SP	P
TOA	80.909	24.43	5.25	22.27	I	C	SP	P
COL	81.672	21.60	5.19	21.98	I	C	LP	P
COL	81.672	21.60	5.19	21.98	I	C	SP	P
POO	81.846	289.42	5.17	21.92	I	C	SP	P
SEM	83.227	321.88	5.09	21.55	I	C	SP	P
KSH	83.561	310.45	5.07	21.45	I	C	SP	P
COR	88.498	45.21	4.74	20.00	I	C	LP	P
QUE	89.518	300.18	4.71	19.87	I	C	LP	P
LON	89.828	43.21	4.71	19.85	I	C	LP	P
PAS	91.258	56.02	4.68	19.76	I	C	SP	P
KHI	96.799	303.67	4.53	19.06	I	C	LP	P
GOL	101.602	50.63	4.45	18.73	I	C	LP	Pdf
LUB	104.806	56.70	4.45	18.73	I	C	LP	Pdf
APA	105.716	339.84	1.89	7.84	I	C	SP	PKP
TAB	106.571	308.14	1.89	7.84	I	C	LP	PKP
KEV	106.616	343.04	1.89	7.84	I	C	LP	PKP
JCT	106.778	59.78	1.89	7.84	I	C	LP	PKP
TUL	109.532	53.73	1.89	7.84	E	C	LP	PKP
SHA	116.715	58.14	1.88	7.79	I	C	LP	PKP
GRM	117.132	228.71	1.88	7.79	I	D	SP	PKP
UTO	117.448	45.19	1.88	7.79	I	C	SP	PKP
KON	118.827	340.07	1.88	7.78	I	C	LP	PKP
BPI	118.917	236.65	1.88	7.78	I	D	SP	PKP
EDC	119.942	314.26	1.87	7.77	I	D	SP	PKP
KSR	119.978	236.53	1.87	7.77	I	D	SP	PKP
COP	120.611	335.62	1.87	7.77	I	C	LP	PKP
YER	120.729	310.64	1.87	7.76	I	D	SP	PKP
SWZ	120.744	234.48	1.87	7.76	I	C	SP	PKP
EZN	121.231	314.20	1.87	7.76	I	C	SP	PKP
SCP	121.772	44.30	1.87	7.76	I	C	LP	PKP
SUR	121.836	226.98	1.87	7.76	I	D	SP	PKP
MNT	122.427	37.69	1.87	7.76	I	D	SP	PKP
GEO	123.087	46.07	1.87	7.75	I	C	LP	PKP
CHCH	123.137	136.16	1.87	7.75	I	C	SP	PKP
ROCH	123.416	135.00	1.87	7.75	I	D	SP	PKP
PEL	123.551	135.36	1.87	7.75	I	D	SP	PKP
WET	124.760	329.58	1.87	7.74	I	D	SP	PKP
STU	126.823	331.23	1.86	7.72	I	C	LP	PKP
ENN	126.866	334.87	1.86	7.72	I	D	SP	PKP
ECH	128.179	331.93	1.86	7.70	I	D	SP	PKP
DMU	128.611	345.35	1.86	7.70	I	C	SP	PKP
DDK	128.927	344.67	1.86	7.69	I	C	SP	PKP
DLE	129.070	344.76	1.85	7.69	I	C	SP	PKP
DCN	129.208	345.30	1.85	7.69	I	C	SP	PKP
ECP	130.019	344.00	1.85	7.68	I	C	SP	PKP
LPA	130.544	145.57	1.85	7.66	I	C	LP	PKP
VAL	131.215	346.75	1.84	7.65	I	C	LP	PKP
BEC	134.998	47.82	1.82	7.55	I	C	LP	PKP
LGR	136.969	333.92	1.80	7.47	I	C	SP	PKP

Table 229. Station data for event 124....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SJG	139.020	67.97	1.78	7.38	I	C	LP	PKP
TOL	139.736	333.05	1.77	7.34	I	C	LP	PKP
TRN	144.888	78.49	1.69	6.99	I	C	LP	PKP

Table 230. Station data for event 125

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PAA	2.815	124.63	13.85	95.76	I	D	SP	P
HNR	8.215	125.32	13.70	79.65	E	D	LP	P
GUA	19.876	335.77	10.35	48.01	I	C	LP	P
GUMO	19.939	335.71	10.33	47.91	E	C	LP	P
NOU	21.728	144.90	9.91	45.40	I	D	SP	P
COO	25.771	182.52	9.36	42.23	I	C	SP	P
DAV	29.915	292.85	8.88	39.60	I	C	LP	P
CAN	30.715	186.67	8.82	39.31	I	C	SP	P
AFI	35.745	107.27	8.49	37.59	E	D	LP	P
MBL	36.246	240.16	8.46	37.44	I	C	SP	P
TAU	38.403	186.91	8.33	36.76	E	C	LP	P
BAG	38.441	303.76	8.33	36.75	I	C	LP	P
SNZO	41.245	155.19	8.19	36.01	E	N	LP	P
TATO	42.630	315.28	8.10	35.59	I	C	LP	P
ANP	42.742	315.54	8.10	35.56	I	C	LP	P
MAJO	43.334	342.37	8.07	35.41	I	C	LP	P
NWAO	43.716	225.57	8.05	35.30	I	C	LP	P
HKC	46.624	306.71	7.88	34.47	I	C	LP	P
SEO	48.596	332.12	7.75	33.82	I	C	LP	P
NJ2	48.986	320.63	7.72	33.67	I	C	SP	P
WHN	51.026	315.93	7.56	32.87	I	C	SP	P
SNG	53.746	282.37	7.34	31.81	I	C	LP	P
XAN	56.790	316.17	7.10	30.68	I	C	SP	P
CHG	58.264	295.37	7.00	30.17	I	C	LP	P
CD2	58.940	310.37	6.94	29.91	I	C	SP	P
LZH	61.402	315.60	6.75	28.98	I	C	SP	P
GTA	65.821	317.05	6.39	27.34	I	C	SP	P
PKI	72.687	300.61	5.86	24.87	I	C	SP	P
KKN	72.854	300.80	5.85	24.83	I	C	SP	P
DMN	72.957	300.58	5.84	24.80	I	C	SP	P
WMQ	75.906	317.24	5.64	23.88	I	C	SP	P
NDI	79.986	300.05	5.34	22.55	I	C	SP	P
POO	81.389	289.44	5.21	21.97	I	C	SP	P
COL	81.652	21.70	5.19	21.87	I	C	LP	P
COR	88.663	45.26	4.73	19.87	I	C	SP	P
QUE	89.062	300.22	4.72	19.80	I	C	LP	P
LON	89.978	43.24	4.71	19.77	I	C	LP	P
RSNT	95.171	27.78	4.56	19.14	I	C	LP	P
GOL	101.806	50.58	4.45	18.64	E	C	LP	Pdf
TAB	106.125	308.14	1.89	7.80	E	C	LP	PKP
KEV	106.314	342.97	1.89	7.80	E	C	LP	PKP
JCT	107.045	59.70	1.89	7.80	I	C	LP	PKP
GRM	116.941	228.96	1.88	7.75	I	C	SP	PKP
SHA	116.971	57.98	1.88	7.75	E	C	LP	PKP
KON	118.507	339.92	1.88	7.74	E	C	LP	PKP
SLR	118.620	237.45	1.88	7.74	I	C	SP	PKP
MLR	118.806	320.26	1.88	7.74	I	C	SP	PKP
KRA	120.141	327.10	1.87	7.73	I	C	SP	PKP
COP	120.267	335.47	1.87	7.73	E	C	LP	PKP
COP	120.267	335.47	1.87	7.73	I	D	SP	PKP

Table 230. Station data for event 125....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PVL	120.293	318.08	1.87	7.73	I	D	SP	PKP
DIM	120.463	316.77	1.87	7.73	I	D	SP	PKP
KDZ	120.785	316.42	1.87	7.73	I	C	SP	PKP
CHCH	123.562	136.31	1.87	7.71	I	D	SP	PKP
PEL	123.979	135.50	1.87	7.71	I	C	SP	PKP
MOX	124.031	331.46	1.87	7.71	I	C	SP	PKP
WET	124.386	329.43	1.87	7.71	I	D	SP	PKP
FUR	125.831	329.35	1.86	7.70	I	C	SP	PKP
GWF	127.059	332.15	1.86	7.68	I	C	SP	PKP
CDF	127.621	331.85	1.86	7.67	I	C	SP	PKP
BAF	128.164	331.50	1.86	7.67	I	C	SP	PKP
BSF	128.262	331.62	1.86	7.67	I	C	SP	PKP
HAU	128.347	332.05	1.86	7.66	I	C	SP	PKP
ECP	129.722	343.74	1.85	7.64	I	C	SP	PKP
LOR	130.033	332.99	1.85	7.64	I	C	SP	PKP
LBF	130.190	332.67	1.85	7.64	I	C	SP	PKP
SSF	130.347	333.05	1.85	7.63	I	C	SP	PKP
SMF	130.505	332.46	1.85	7.63	I	C	SP	PKP
FLN	130.687	337.20	1.85	7.62	I	C	SP	PKP
LPA	130.935	145.82	1.85	7.62	I	C	LP	PKP
GRR	131.137	337.18	1.85	7.62	I	C	SP	PKP
FRF	131.311	327.72	1.84	7.61	I	C	SP	PKP
MZF	131.403	332.95	1.84	7.61	I	C	SP	PKP
LPF	131.499	337.04	1.84	7.61	I	C	SP	PKP
TCF	131.516	333.27	1.84	7.61	I	C	SP	PKP
LMR	131.539	327.59	1.84	7.61	I	C	SP	PKP
LSF	131.848	333.73	1.84	7.60	I	C	SP	PKP
MFF	132.291	335.24	1.84	7.59	I	C	SP	PKP
ALM	140.964	328.28	1.75	7.23	I	D	SP	PKP
TRN	145.260	78.14	1.68	6.92	I	C	LP	PKP

Table 231. Station data for event 127

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HNR	6.034	119.06	14.07	80.71	E	C	LP	P
LAT	7.555	268.52	13.95	78.09	I	D	SP	P
KOU	16.824	147.02	12.57	61.85	I	C	SP	P
PVC	17.422	131.03	12.47	61.01	I	C	SP	P
GUA	22.121	334.23	9.94	44.20	I	C	LP	P
GUMO	22.185	334.18	9.94	44.20	E	C	LP	P
DAV	31.956	294.51	8.75	37.86	I	C	LP	P
AFI	33.861	105.21	8.62	37.20	I	C	LP	P
TAU	36.810	188.94	8.44	36.30	I	D	LP	P
SNZO	39.005	155.71	8.32	35.70	I	C	LP	P
BAG	40.643	304.46	8.24	35.31	I	C	LP	P
NWAO	43.521	227.84	8.07	34.47	I	D	LP	P
TATO	44.924	315.40	7.99	34.09	I	C	LP	P
ANP	45.037	315.65	7.99	34.09	I	C	LP	P
MAJO	45.498	341.41	7.96	33.94	I	C	LP	P
LEM	46.654	266.77	7.91	33.70	E	D	LP	P
HKC	48.857	307.10	7.74	32.88	E	C	LP	P
SEO	50.867	331.63	7.58	32.12	E	C	LP	P
PPT	55.508	106.76	7.22	30.43	I	C	LP	P
SNG	55.547	283.25	7.22	30.43	I	C	LP	P
CHG	60.340	295.83	6.84	28.67	I	C	LP	P
CHG	60.340	295.83	6.84	28.67	I	C	SP	P
COL	82.808	21.29	5.11	21.00	E	C	LP	P
KSH	85.385	310.40	4.96	20.36	E	C	SP	P
LON	90.314	43.11	4.70	19.25	I	C	LP	P
GOL	101.838	50.92	4.45	18.19	E	C	LP	Pdf
JCT	106.707	60.25	1.89	7.62	E	C	LP	PKP
KON	120.696	340.20	1.87	7.55	E	C	LP	PKP
SCP	122.204	45.36	1.87	7.54	E	C	LP	PKP
COP	122.506	335.67	1.87	7.53	E	C	LP	PKP
KDZ	123.084	316.15	1.87	7.53	I	C	SP	PKP
GEO	123.460	47.20	1.87	7.53	E	C	LP	PKP
ESK	128.201	344.05	1.86	7.49	E	C	LP	PKP
LPA	128.633	145.54	1.86	7.48	E	C	LP	PKP
BEC	135.303	49.62	1.82	7.34	E	C	LP	PKP
SJG	138.651	70.02	1.78	7.18	E	C	LP	PKP
PTO	142.408	339.04	1.74	7.01	E	C	LP	PKP
CRT	143.573	330.04	1.70	6.86	I	D	SP	PKP
TRN	144.177	80.88	1.70	6.86	I	C	LP	PKP
RDJ	145.969	149.71	1.66	6.70	I	C	LP	PKP

Table 232. Station data for event 138

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PAA	0.580	71.42	14.00	100.46	I	C	SP	P
RAB	3.577	309.46	14.19	85.36	I	D	LP	P
HNR	5.759	120.85	14.06	80.97	E	C	LP	P
LAT	7.888	268.35	13.90	77.52	I	C	SP	P
PMG	8.238	248.86	13.90	77.52	I	D	LP	P
CTA	15.932	211.13	12.75	63.58	I	D	LP	P
KOU	16.667	147.96	12.66	62.78	I	C	SP	P
PVC	17.190	131.76	12.56	61.91	I	D	SP	P
NOU	19.258	145.92	10.57	47.94	I	C	SP	P
GUA	22.244	333.43	9.94	44.28	E	C	LP	P
COO	24.132	186.44	9.60	42.40	I	D	SP	P
STK	28.172	204.58	9.18	40.15	I	D	SP	P
YOU	28.309	191.50	9.10	39.73	I	D	SP	P
CAN	29.208	189.99	9.03	39.37	I	D	SP	P
WAM	30.078	189.80	8.90	38.69	I	D	SP	P
DAV	32.248	294.21	8.75	37.92	I	C	LP	P
WBN	33.364	230.93	8.65	37.42	I	D	SP	P
AFI	33.547	105.34	8.65	37.42	I	C	LP	P
SNZO	38.893	156.06	8.32	35.76	I	C	LP	P
BAG	40.903	304.18	8.21	35.22	I	C	LP	P
NAU	41.212	243.05	8.21	35.22	I	C	SP	P
TRT	41.985	265.71	8.15	34.92	I	C	SP	P
NWAO	43.786	228.02	8.05	34.43	E	N	LP	P
MUN	44.115	229.81	8.05	34.43	I	D	SP	P
TATO	45.140	315.11	7.99	34.14	I	C	LP	P
ANP	45.251	315.36	7.96	34.00	I	C	LP	P
MAT	45.580	341.06	7.96	34.00	I	C	SP	P
MAJO	45.580	341.06	7.96	34.00	I	C	LP	P
LEM	46.988	266.72	7.87	33.56	I	C	LP	P
HON	53.794	57.76	7.33	30.99	E	C	LP	P
PPI	54.737	274.02	7.29	30.80	I	C	SP	P
SNG	55.865	283.15	7.18	30.29	I	C	LP	P
CHG	60.628	295.70	6.84	28.71	I	C	LP	P
CHG	60.628	295.70	6.84	28.71	I	C	SP	P
LSA	70.938	304.32	5.99	24.88	I	C	SP	P
PKI	75.116	300.62	5.71	23.65	I	C	SP	P
KKN	75.285	300.81	5.68	23.51	I	C	SP	P
DMN	75.386	300.58	5.68	23.51	I	C	SP	P
HYB	79.050	289.07	5.45	22.51	I	C	SP	P
COL	82.662	21.21	5.14	21.16	I	C	LP	P
POO	83.649	289.42	5.08	20.91	I	C	SP	P
LON	90.067	43.07	4.71	19.32	E	C	LP	P
SBB	91.380	55.42	4.68	19.19	I	C	SP	P
EDM	96.172	37.20	4.55	18.64	I	C	SP	P
GOL	101.563	50.92	4.45	18.21	I	C	LP	Pdf
JCT	106.404	60.25	1.89	7.63	E	C	LP	PKP
BRG	125.175	330.79	1.87	7.53	I	C	SP	PKP
GWF	129.457	332.56	1.86	7.49	I	C	SP	PKP
ECH	130.219	332.16	1.85	7.47	I	C	SP	PKP
BAF	130.570	331.91	1.85	7.45	I	C	SP	PKP

Table 232. Station data for event 138....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BNG	136.551	269.61	1.80	7.28	I	C	SP	PKP
MAL	144.478	330.81	1.70	6.87	I	C	LP	PKP

Table 233. Station data for event 142

Event 142

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HNR	2.317	104.00	14.26	134.30	I	C	LP	P
RAB	7.175	310.07	14.02	44.72	I	C	SP	P
PMG	10.396	266.25	13.67	43.32	E	D	LP	P
CTA	15.684	223.48	12.90	40.35	I	D	SP	P
NOU	15.799	148.72	12.81	40.01	I	C	SP	P
GUA	25.614	330.21	9.43	28.25	E	N	LP	P
AFI	30.350	102.33	8.87	26.43	I	C	LP	P
TAU	35.093	193.27	8.56	25.44	I	D	LP	P
NWAO	44.315	231.34	8.02	23.73	I	D	LP	P
BAG	44.475	304.29	8.02	23.73	I	D	LP	P
MAJO	48.733	339.09	7.79	23.01	I	C	LP	P
TATO	48.732	314.53	7.79	23.01	E	D	LP	P
ANP	48.842	314.77	7.75	22.89	I	D	LP	P
LEM	49.596	268.57	7.70	22.73	E	D	LP	P
HON	52.858	54.81	7.42	21.86	I	C	LP	P
SEO	54.395	330.06	7.30	21.49	E	D	LP	P
SNG	59.051	283.85	6.96	20.44	I	D	LP	P
COL	83.916	20.45	5.06	14.71	I	C	LP	P
POO	86.988	289.16	4.83	14.03	I	D	SP	P
COR	88.441	44.57	4.75	13.79	I	D	SP	P
COR	88.441	44.57	4.75	13.79	I	C	LP	P
JAS	89.063	51.52	4.73	13.73	I	C	LP	P
LON	89.962	42.71	4.71	13.67	I	C	LP	P
ANMO	99.815	56.03	4.47	12.96	I	C	LP	P
GOL	100.946	51.27	4.45	12.90	E	C	LP	Pdf
JCT	105.213	60.85	1.89	5.44	E	C	LP	PKP
SHA	115.253	60.32	1.88	5.42	E	C	LP	PKP
BLA	120.618	51.96	1.87	5.39	I	C	LP	PKP
SCP	121.624	47.32	1.87	5.39	E	C	LP	PKP
GEO	122.755	49.26	1.87	5.38	E	C	LP	PKP
LPA	124.967	144.28	1.87	5.37	E	C	LP	PKP
WES	125.687	43.50	1.86	5.37	E	C	LP	PKP
COP	125.882	336.51	1.86	5.37	E	C	LP	PKP
COZ	125.946	320.65	1.86	5.37	I	C	SP	PKP
BOG	128.484	91.13	1.86	5.35	E	C	LP	PKP
STU	132.239	332.14	1.84	5.30	E	C	LP	PKP
ECH	133.572	332.97	1.83	5.27	I	D	SP	PKP
SJG	136.508	73.10	1.80	5.19	E	C	LP	PKP
BNG	139.178	266.52	1.78	5.13	I	D	SP	PKP
PTO	145.643	341.48	1.66	4.79	I	C	LP	PKP
ALM	146.824	330.11	1.64	4.72	I	D	SP	PKP
MAL	147.853	332.31	1.62	4.65	I	C	LP	PKP

Table 234. Station data for event 148

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
RAB	1.747	46.68	12.54	113.61	I	D	LP	P
MOM	4.824	313.59	13.68	91.46	I	C	SP	P
WWW	7.454	283.68	13.60	83.63	I	C	SP	P
HNR	9.828	114.59	13.39	78.18	I	C	SP	P
CTAO	15.281	196.77	12.62	67.28	I	C	LP	P
CTA	15.281	196.77	12.62	67.28	I	C	LP	P
GUMO	19.787	342.44	10.28	48.71	E	D	SP	P
PVC	20.984	127.20	10.00	46.95	I	C	SP	P
NOU	22.556	139.66	9.72	45.24	I	C	SP	P
ASPA	24.449	220.35	9.45	43.71	I	C	SP	P
CMS	26.381	189.78	9.28	42.72	I	C	SP	P
DAV	28.148	295.87	9.07	41.53	I	D	LP	P
YOU	28.827	184.32	8.98	41.01	I	C	SP	P
CGP	29.531	297.60	8.89	40.54	I	D	SP	P
CAN	29.824	183.12	8.87	40.39	I	C	SP	P
PLP	30.594	302.57	8.81	40.07	I	D	SP	P
WAM	30.698	183.19	8.80	40.03	I	C	SP	P
WBN	31.072	225.83	8.78	39.90	I	D	SP	P
ADE	31.502	199.38	8.75	39.73	I	C	SP	P
TOO	32.396	188.03	8.68	39.39	I	C	SP	P
MBL	33.943	239.60	8.59	38.88	I	D	SP	P
BAG	36.996	306.38	8.40	37.90	I	D	LP	P
KLG	37.455	224.07	8.38	37.76	I	D	SP	P
AFI	37.710	105.71	8.36	37.68	I	D	LP	P
TRT	38.071	264.43	8.34	37.56	I	D	SP	P
NAU	38.191	240.01	8.33	37.52	I	D	SP	P
KAG	41.569	333.44	8.15	36.56	I	D	SP	P
TATO	41.586	317.82	8.15	36.56	E	D	LP	P
SNZO	41.607	152.74	8.15	36.55	E	C	LP	P
NWAO	41.623	224.58	8.15	36.55	E	N	LP	P
ANP	41.707	318.08	8.14	36.52	I	D	LP	P
MUN	41.839	226.48	8.13	36.47	I	D	LP	P
RHP	42.071	159.30	8.12	36.41	I	C	SP	P
OSA	42.413	341.10	8.11	36.35	I	D	SP	P
OIT	42.543	335.85	8.10	36.32	I	D	SP	P
TSK	42.603	347.08	8.10	36.30	I	D	SP	P
DDR	42.613	345.94	8.10	36.30	I	D	SP	P
LEM	43.046	265.80	8.07	36.16	I	D	LP	P
SHK	43.274	337.88	8.06	36.08	I	D	SP	P
SHK	43.274	337.88	8.06	36.08	I	D	LP	P
MAT	43.374	345.07	8.05	36.05	I	D	SP	P
MAJO	43.374	345.07	8.05	36.05	I	D	LP	P
QZH	43.550	315.24	8.04	36.00	I	D	SP	P
SSE	46.066	323.82	7.90	35.27	E	D	LP	P
GZH	46.334	309.11	7.89	35.19	I	D	SP	P
NJ2	48.137	322.77	7.77	34.63	I	D	SP	P
WHN	49.995	317.88	7.62	33.85	I	D	SP	P
SNG	51.703	283.47	7.49	33.17	I	D	LP	P
TIA	52.091	325.26	7.45	33.01	I	D	SP	P
GYA	53.264	308.71	7.36	32.54	I	D	SP	P

Table 234. Station data for event 148....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MDJ	53.336	341.13	7.35	32.52	I	D	SP	P
CN2	54.087	337.41	7.30	32.22	I	D	SP	P
BJI	55.360	327.89	7.20	31.73	I	D	SP	P
KMI	55.761	305.23	7.16	31.57	I	D	LP	P
XAN	55.763	317.79	7.16	31.57	I	D	SP	P
TIY	55.847	323.41	7.16	31.54	I	D	SP	P
CHG	56.543	296.61	7.11	31.32	I	D	LP	P
CHG	56.543	296.61	7.11	31.32	I	D	SP	P
HON	56.686	60.26	7.10	31.27	I	D	LP	P
CD2	57.699	311.81	7.02	30.88	I	D	SP	P
HHC	58.442	325.65	6.97	30.62	I	D	SP	P
LZH	60.349	316.98	6.82	29.88	I	D	LP	P
DRV	61.625	184.91	6.72	29.39	I	C	SP	P
GTA	64.818	318.23	6.46	28.17	I	D	SP	P
WMQ	74.902	317.99	5.70	24.60	I	D	SP	P
NDI	78.391	300.58	5.47	23.58	I	D	SP	P
TTA	79.015	21.88	5.42	23.35	I	D	SP	P
POO	79.500	289.88	5.39	23.18	I	D	SP	P
IMA	81.651	19.85	5.18	22.27	I	D	SP	P
KSH	81.867	310.96	5.17	22.18	I	D	SP	P
FBA	83.144	22.14	5.09	21.82	I	D	SP	P
COL	83.144	22.14	5.09	21.82	I	D	LP	P
MAW	84.292	202.64	5.02	21.52	I	C	SP	P
QUE	87.468	300.47	4.79	20.48	I	D	SP	P
COR	90.760	45.46	4.69	20.07	I	D	SP	P
COR	90.760	45.46	4.69	20.07	I	D	LP	P
WDC	90.865	49.50	4.69	20.06	I	D	SP	P
LON	92.036	43.42	4.67	19.94	I	D	LP	P
JAS	92.229	52.28	4.66	19.91	I	D	SP	P
MHI	94.287	305.91	4.60	19.63	I	D	SP	P
LHD	96.354	42.16	4.53	19.35	I	D	LP	P
LDM	96.517	41.96	4.53	19.33	I	D	LP	P
CLX	96.637	42.21	4.53	19.32	I	D	LP	P
RXF	96.650	41.55	4.53	19.32	I	D	SP	P
EDM	97.741	37.15	4.50	19.22	I	D	SP	P
ANMO	103.437	55.50	4.45	18.98	I	D	LP	Pdf
EPT	103.528	58.76	4.45	18.98	I	D	LP	Pdf
RSSD	104.551	45.94	4.45	18.98	I	D	LP	Pdf
GDH	114.231	9.30	1.88	7.91	E	D	LP	PKP
KSR	117.457	237.33	1.88	7.89	I	D	SP	PKP
BUL	117.882	243.99	1.88	7.88	I	D	SP	PKP
MLR	117.883	319.28	1.88	7.88	I	D	SP	PKP
KRI	117.919	247.87	1.88	7.88	I	D	SP	PKP
PVL	119.287	317.05	1.87	7.87	I	D	SP	PKP
EZN	119.650	313.14	1.87	7.87	I	D	SP	PKP
KDZ	119.718	315.39	1.87	7.87	I	D	SP	PKP
VTS	120.835	317.12	1.87	7.86	I	D	SP	PKP
KSP	121.034	328.21	1.87	7.86	I	D	SP	PKP
BRG	122.230	329.25	1.87	7.86	I	D	SP	PKP
PRU	122.443	328.13	1.87	7.86	I	D	SP	PKP

Table 234. Station data for event 148....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
WET	123.814	328.08	1.87	7.85	I	D	SP	PKP
GRF	124.336	329.40	1.87	7.84	I	D	SP	PKP
WIT	124.377	334.53	1.87	7.84	I	D	SP	PKP
MNT	124.453	36.73	1.87	7.84	I	D	SP	PKP
BHG	124.659	326.69	1.87	7.84	I	D	SP	PKP
KBA	124.775	325.83	1.87	7.84	I	D	SP	PKP
WTS	124.894	333.75	1.87	7.84	I	D	SP	PKP
CEY	124.909	323.97	1.87	7.84	I	D	SP	PKP
PEL	125.030	137.15	1.87	7.84	I	D	SP	PKP
TRI	125.312	324.25	1.87	7.84	I	D	SP	PKP
STU	125.947	329.57	1.86	7.83	E	C	LP	PKP
OGA	126.181	326.77	1.86	7.83	I	D	SP	PKP
GWF	126.592	330.61	1.86	7.82	I	D	SP	PKP
SGO	127.043	318.08	1.86	7.82	I	D	SP	PKP
SAL	127.220	325.78	1.86	7.81	I	D	SP	PKP
ECH	127.332	330.16	1.86	7.81	I	D	SP	PKP
WES	127.524	38.89	1.86	7.81	E	D	LP	PKP
BAF	127.670	329.90	1.86	7.81	I	D	SP	PKP
MNS	127.794	321.34	1.86	7.81	I	D	SP	PKP
CYA	131.210	135.62	1.84	7.75	I	D	SP	PKP
LPA	131.581	148.01	1.84	7.74	E	D	LP	PKP
FDF	147.155	71.18	1.63	6.86	I	D	SP	PKP
RDJ	148.678	154.36	1.59	6.69	I	D	SP	PKP

Table 235. Station data for event 149

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
RAB	0.697	330.97	11.22	126.62	I	D	LP	P
KVG	2.801	322.30	13.94	94.34	I	D	SP	P
PAA	3.319	116.72	13.98	91.68	I	C	SP	P
MOM	5.790	298.12	13.92	84.47	I	D	SP	P
JAY	11.997	280.51	13.29	71.90	I	D	SP	P
CTA	16.364	201.31	12.57	63.99	I	D	LP	P
CTAO	16.364	201.31	12.57	63.99	I	D	LP	P
NOU	22.019	143.48	9.87	44.91	I	D	SP	P
ASPA	25.951	221.96	9.35	41.94	I	D	SP	P
DAV	29.361	293.53	8.95	39.79	E	C	LP	P
WBN	32.642	226.78	8.68	38.38	I	C	SP	P
AFI	36.333	106.92	8.46	37.23	I	C	LP	P
BAG	37.964	304.40	8.36	36.73	I	C	LP	P
KLG	39.001	224.86	8.31	36.47	I	C	SP	P
MEK	39.011	232.62	8.31	36.46	I	C	SP	P
NAU	39.878	240.22	8.26	36.20	I	C	SP	P
SNZO	41.422	154.52	8.18	35.78	E	N	LP	P
TATO	42.254	315.93	8.12	35.52	I	C	LP	P
ANP	42.368	316.18	8.12	35.49	I	C	LP	P
NWAO	43.176	225.22	8.08	35.31	I	C	LP	P
MAJO	43.247	343.12	8.08	35.29	I	C	LP	P
SHK	43.362	335.92	8.07	35.24	I	C	LP	P
MUN	43.414	227.06	8.07	35.23	E	N	LP	P
LEM	44.694	265.18	8.00	34.90	E	C	LP	P
NJ2	48.662	321.19	7.75	33.65	I	C	SP	P
SNG	53.136	282.61	7.39	31.90	I	C	LP	P
CN2	54.180	336.03	7.31	31.50	I	C	SP	P
HON	54.999	59.92	7.24	31.19	E	C	LP	P
CHG	57.725	295.67	7.04	30.21	I	C	LP	P
ADK	62.270	21.02	6.68	28.53	I	C	SP	P
GTA	65.460	317.36	6.42	27.35	I	C	SP	P
PKI	72.185	300.80	5.90	24.94	I	C	SP	P
KKN	72.353	300.99	5.88	24.87	I	C	SP	P
DMN	72.454	300.76	5.87	24.84	I	C	SP	P
PMR	79.807	24.44	5.36	22.55	I	C	SP	P
COL	81.995	21.84	5.16	21.66	I	C	LP	P
FBA	81.995	21.84	5.16	21.66	I	C	SP	P
PCA	83.036	27.74	5.11	21.43	I	C	SP	P
SIT	84.428	31.51	5.01	21.02	I	C	SP	P
SPA	85.228	180.00	4.97	20.81	I	D	SP	P
QUE	88.556	300.28	4.74	19.80	I	C	SP	P
INK	88.565	20.96	4.74	19.80	I	C	SP	P
COR	89.202	45.32	4.72	19.71	I	C	LP	P
COR	89.202	45.32	4.72	19.71	I	C	SP	P
LON	90.504	43.30	4.70	19.64	I	C	LP	P
MBC	94.186	13.88	4.60	19.22	I	C	SP	P
LHD	94.838	42.09	4.58	19.10	I	C	SP	P
CLX	95.121	42.15	4.57	19.06	I	C	SP	P
RXF	95.143	41.49	4.57	19.06	I	C	SP	P
MHI	95.242	305.89	4.56	19.05	I	C	LP	P

Table 235. Station data for event 149....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
EDM	96.301	37.12	4.53	18.92	I	C	SP	P
ANMO	101.778	55.46	4.45	18.56	I	C	LP	Pdf
GOL	102.378	50.56	4.45	18.56	E	C	LP	Pdf
RSSD	102.986	45.96	4.45	18.56	I	C	LP	Pdf
JCT	107.662	59.68	1.89	7.77	E	C	LP	PKP
TUL	110.346	53.56	1.89	7.77	I	C	LP	PKP
GDH	113.382	9.82	1.89	7.75	E	C	LP	PKP
AAM	117.870	44.20	1.88	7.71	E	C	LP	PKP
BER	119.223	342.03	1.87	7.70	I	C	LP	PKP
COP	120.095	335.16	1.87	7.70	I	C	SP	PKP
SCP	122.460	43.88	1.87	7.69	E	C	LP	PKP
BRG	122.531	330.17	1.87	7.68	I	C	SP	PKP
LNV	123.397	136.32	1.87	7.68	I	C	SP	PKP
HOF	123.905	330.66	1.87	7.68	I	C	SP	PKP
CHCH	123.930	136.73	1.87	7.68	I	C	SP	PKP
PCH	124.202	136.50	1.87	7.68	I	C	SP	PKP
WIT	124.520	335.56	1.87	7.67	I	C	SP	PKP
EDU	124.864	343.76	1.87	7.67	I	C	SP	PKP
CEY	125.362	324.99	1.87	7.67	I	C	SP	PKP
EAB	125.541	344.33	1.87	7.66	I	C	SP	PKP
BNS	125.648	333.73	1.86	7.66	I	C	SP	PKP
WES	126.052	39.40	1.86	7.66	E	C	LP	PKP
STU	126.236	330.66	1.86	7.66	E	C	LP	PKP
ENN	126.337	334.27	1.86	7.66	I	C	SP	PKP
OGA	126.552	327.86	1.86	7.65	I	C	SP	PKP
GWF	126.850	331.73	1.86	7.65	I	C	SP	PKP
SLE	127.262	330.13	1.86	7.64	E	C	LP	PKP
ZUL	127.506	329.92	1.86	7.64	E	C	LP	PKP
ECH	127.603	331.31	1.86	7.64	I	C	SP	PKP
LLS	127.610	329.00	1.86	7.64	E	C	LP	PKP
SGO	127.663	319.16	1.86	7.64	I	C	SP	PKP
BAF	127.948	331.07	1.86	7.64	I	C	SP	PKP
BSF	128.048	331.18	1.86	7.63	I	C	SP	PKP
HAU	128.137	331.61	1.86	7.63	I	C	SP	PKP
TMA	128.179	328.34	1.86	7.63	E	C	LP	PKP
DMU	128.260	344.63	1.86	7.63	I	C	SP	PKP
MMK	128.687	328.83	1.86	7.63	E	C	LP	PKP
DCN	128.855	344.57	1.86	7.63	I	C	SP	PKP
DIX	128.952	329.19	1.86	7.62	E	C	LP	PKP
ETA	129.141	343.45	1.85	7.62	I	C	SP	PKP
LOR	129.833	332.52	1.85	7.61	E	C	LP	PKP
SSF	130.148	332.57	1.85	7.60	I	C	SP	PKP
SMF	130.300	331.98	1.85	7.60	I	C	SP	PKP
CYA	130.487	134.14	1.85	7.60	I	C	SP	PKP
LDF	130.527	336.32	1.85	7.60	I	C	SP	PKP
FLN	130.535	336.71	1.85	7.60	I	C	SP	PKP
BGF	130.826	332.57	1.85	7.59	I	C	SP	PKP
FRF	131.055	327.25	1.85	7.58	I	C	SP	PKP
LPA	131.206	146.39	1.85	7.58	I	C	LP	PKP
LRG	131.280	327.33	1.84	7.58	I	C	SP	PKP

Table 235. Station data for event 149....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LMR	131.281	327.11	1.84	7.58	I	C	SP	PKP
LPF	131.344	336.53	1.84	7.58	I	C	SP	PKP
MFF	132.116	334.72	1.84	7.56	I	C	SP	PKP
RJF	132.380	332.40	1.84	7.56	I	C	SP	PKP
CAF	132.409	331.66	1.84	7.56	I	C	SP	PKP
LFF	133.019	332.64	1.83	7.54	I	C	SP	PKP
EPF	134.654	331.23	1.82	7.49	I	C	SP	PKP
ZOBO	134.685	118.39	1.82	7.49	I	C	LP	PKP
BEC	135.733	47.12	1.81	7.46	E	C	LP	PKP
ALM	140.712	327.59	1.76	7.22	I	C	SP	PKP
GUV	144.492	83.33	1.69	6.96	I	C	SP	PKP
TRN	145.918	78.15	1.66	6.83	I	C	SP	PKP

Table 236. Station data for event 199

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MOM	3.662	22.16	14.13	90.00	I	D	SP	P
WB2	18.333	217.22	12.22	60.18	I	D	SP	P
KOU	23.236	131.90	9.73	43.70	I	C	SP	P
DAV	23.907	301.19	9.58	42.86	I	C	LP	P
PVC	24.976	121.11	9.46	42.20	I	C	SP	P
NOU	25.898	132.26	9.36	41.65	I	C	SP	P
STK	26.609	188.43	9.32	41.43	I	C	SP	P
WBN	27.717	220.04	9.22	40.89	I	D	SP	P
CAN	29.841	175.10	8.89	39.14	I	C	SP	P
ADE	30.128	192.02	8.89	39.14	I	C	SP	P
WAM	30.697	175.46	8.85	38.93	I	C	SP	P
BFD	31.725	185.28	8.78	38.56	I	C	SP	P
TOO	31.963	180.79	8.74	38.36	I	C	SP	P
BAG	33.246	311.23	8.67	37.99	I	C	LP	P
MEK	33.608	228.27	8.64	37.84	I	C	SP	P
NAU	34.017	237.06	8.61	37.68	I	D	SP	P
NWAO	38.285	220.82	8.34	36.31	E	C	LP	P
TATO	38.527	322.77	8.34	36.31	I	C	LP	P
ANP	38.665	323.02	8.34	36.31	E	C	LP	P
SHK	41.716	343.36	8.18	35.51	I	C	SP	P
SSE	43.404	328.38	8.07	34.96	E	C	LP	P
MNG	43.853	147.29	8.04	34.81	I	C	SP	P
SNZO	43.937	148.59	8.04	34.81	E	C	LP	P
SNY	51.319	338.56	7.53	32.32	I	C	SP	P
BSI	51.783	281.33	7.49	32.13	I	C	SP	P
KMI	51.894	307.83	7.49	32.13	E	C	LP	P
MDJ	51.982	345.14	7.49	32.13	I	C	SP	P
CHG	52.269	298.72	7.45	31.94	I	C	SP	P
CHG	52.269	298.72	7.45	31.94	I	C	LP	P
CD2	54.198	314.54	7.33	31.36	I	C	SP	P
LZH	57.163	319.66	7.10	30.27	I	C	LP	P
HON	60.968	62.10	6.79	28.82	E	C	LP	P
GTA	61.701	320.57	6.75	28.64	I	C	SP	P
WMQ	71.745	319.56	5.95	24.99	I	C	SP	P
COL	85.064	23.06	4.99	20.75	E	C	LP	P
LON	95.423	43.65	4.56	18.89	E	C	LP	P
JAS	96.111	52.53	4.55	18.85	E	C	LP	P
RSNT	99.155	27.66	4.48	18.55	E	C	LP	P
CAR	147.004	79.17	1.64	6.68	I	C	SP	PKP

Table 237. Station data for event 201

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PAA	1.965	335.49	14.27	134.31	I	D	SP	P
HNR	3.830	110.47	14.22	45.49	I	C	LP	P
RAB	5.659	313.08	14.13	45.12	I	C	LP	P
KOU	14.588	148.94	13.08	40.99	I	C	SP	P
PVC	15.109	130.51	13.00	40.69	I	C	SP	P
CTA	15.387	218.21	12.91	40.35	I	D	LP	P
JAY	16.495	288.81	12.72	39.63	I	D	SP	P
NOU	17.168	146.47	12.63	39.30	I	C	SP	P
GUA	24.293	332.14	9.55	28.61	I	C	LP	P
WB2	24.302	238.74	9.55	28.61	I	D	SP	P
AFI	31.830	103.27	8.76	26.06	I	C	LP	P
DAV	34.157	295.39	8.63	25.64	I	C	LP	P
TAU	35.557	191.39	8.54	25.36	E	D	LP	P
SNZO	36.878	156.66	8.45	25.07	I	C	LP	P
MEK	40.259	238.04	8.24	24.41	I	D	SP	P
KLB	42.794	231.52	8.11	24.00	I	D	SP	P
BAG	42.932	304.62	8.11	24.00	I	C	LP	P
NWAO	43.763	230.04	8.05	23.81	I	D	LP	P
TWC	46.752	315.00	7.88	23.28	I	C	SP	P
TATO	47.237	315.09	7.88	23.28	I	C	LP	P
ANP	47.349	315.33	7.85	23.18	I	C	LP	P
MAT	47.544	340.17	7.85	23.18	I	C	LP	P
MAJO	47.544	340.17	7.85	23.18	I	C	LP	P
LEM	48.276	268.07	7.79	22.99	E	N	LP	P
SSE	51.477	320.88	7.55	22.25	I	C	SP	P
SEO	53.064	330.84	7.42	21.84	I	C	LP	P
HON	53.528	56.05	7.38	21.72	E	C	LP	P
NJ2	53.589	320.08	7.38	21.72	I	C	SP	P
DL2	56.784	327.95	7.11	20.89	I	C	SP	P
SNY	58.024	331.55	7.04	20.67	I	C	SP	P
CN2	58.739	334.24	7.00	20.55	I	C	SP	P
TSI	58.738	279.06	7.00	20.55	I	C	SP	P
TIY	61.260	321.17	6.77	19.85	I	C	SP	P
CHG	62.553	295.99	6.69	19.60	I	C	LP	P
CHG	62.553	295.99	6.69	19.60	I	C	SP	P
LZH	66.010	315.32	6.40	18.72	I	C	SP	P
GTA	70.430	316.71	6.04	17.63	I	C	SP	P
COL	83.670	20.82	5.09	14.79	I	C	LP	P
NDI	84.389	299.89	5.03	14.61	I	C	SP	P
JAS	89.639	51.74	4.72	13.69	I	D	SP	P
JAS	89.639	51.74	4.72	13.69	I	C	LP	P
LON	90.311	42.91	4.70	13.63	I	C	LP	P
RSNT	96.702	27.89	4.54	13.16	I	C	LP	P
JCT	106.009	60.68	1.89	5.44	I	C	LP	PKP
KEV	110.461	343.29	1.89	5.44	E	C	LP	PKP
NUR	116.572	335.58	1.88	5.40	E	C	LP	PKP
SLR	119.325	234.58	1.88	5.40	I	C	SP	PKP
SLR	119.325	234.58	1.88	5.40	I	C	LP	PKP
PEL	119.371	135.24	1.88	5.40	I	C	SP	PKP
TLL	120.904	132.30	1.87	5.39	I	C	SP	PKP

Table 237. Station data for event 201....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BLA	121.194	51.30	1.87	5.39	E	C	LP	PKP
KON	122.749	340.64	1.87	5.38	E	C	LP	PKP
ANT	124.487	125.93	1.87	5.38	I	C	SP	PKP
COP	124.637	336.06	1.87	5.37	E	C	LP	PKP
PVL	124.902	317.77	1.87	5.37	I	C	SP	PKP
JOS	125.205	325.40	1.87	5.37	I	C	SP	PKP
MMB	126.525	316.58	1.86	5.35	I	C	SP	PKP
LPB	129.709	119.25	1.85	5.33	E	C	LP	PKP
ESK	130.174	344.82	1.85	5.33	I	C	LP	PKP
STU	130.927	331.61	1.85	5.31	I	C	LP	PKP
OGA	131.324	328.64	1.85	5.31	I	C	SP	PKP
CDF	132.075	332.49	1.84	5.30	I	C	SP	PKP
SAL	132.415	327.68	1.84	5.30	I	C	SP	PKP
BSF	132.721	332.27	1.84	5.28	I	C	SP	PKP
HAU	132.796	332.73	1.84	5.28	I	C	SP	PKP
LBF	134.625	333.47	1.82	5.24	I	C	SP	PKP
FLN	135.004	338.36	1.82	5.24	I	C	SP	PKP
MZF	135.830	333.82	1.81	5.22	I	C	SP	PKP
TCF	135.936	334.18	1.81	5.22	I	C	SP	PKP
MFF	136.661	336.34	1.80	5.19	I	C	SP	PKP
BNG	137.875	267.67	1.79	5.16	I	C	SP	PKP
ALI	143.325	328.76	1.72	4.95	I	C	LP	PKP
RDJ	143.746	148.57	1.70	4.90	I	C	LP	PKP
PTO	144.476	340.22	1.70	4.90	I	C	LP	PKP
CRT	145.781	330.80	1.66	4.78	I	C	SP	PKP
MAL	146.540	331.24	1.64	4.72	I	C	SP	PKP
LIS	146.827	338.96	1.64	4.72	I	C	SP	PKP
SFS	147.587	333.14	1.62	4.65	I	C	SP	PKP
IFR	149.444	328.46	1.59	4.57	I	C	SP	PKP

Table 238. Station data for event 225

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
RAB	1.277	7.49	14.27	56.89	I	D	LP	P
PMG	6.201	230.55	14.09	55.79	I	D	SP	P
HNR	8.807	117.04	13.82	54.21	E	D	LP	P
GUA	20.148	339.60	10.45	37.83	I	C	LP	P
KNA	24.990	244.06	9.48	33.81	I	D	SP	P
DAV	29.172	295.01	9.04	32.05	E	C	LP	P
PLP	31.563	301.59	8.79	31.06	I	C	SP	P
TAU	37.514	185.65	8.41	29.58	E	D	LP	P
BAG	37.927	305.50	8.38	29.46	E	C	LP	P
NAU	39.116	240.66	8.32	29.23	I	C	SP	P
SNZO	41.051	153.72	8.21	28.81	E	D	LP	P
NWAO	42.355	225.39	8.13	28.50	E	D	LP	P
TATO	42.382	316.87	8.13	28.50	I	C	LP	P
ANP	42.500	317.12	8.13	28.50	E	C	LP	P
MAJO	43.733	343.87	8.08	28.31	I	C	LP	P
SSE	46.777	322.91	7.88	27.55	E	C	LP	P
SEO	48.750	333.43	7.78	27.17	E	C	LP	P
SNG	52.791	283.22	7.42	25.82	I	C	LP	P
HON	55.765	59.75	7.18	24.92	I	C	LP	P
CHG	57.559	296.22	7.07	24.52	I	C	SP	P
CHG	57.559	296.22	7.07	24.52	I	C	LP	P
LZH	61.153	316.45	6.80	23.52	I	C	SP	P
GTA	65.604	317.77	6.43	22.17	I	C	SP	P
PKI	72.090	301.11	5.92	20.33	I	C	SP	P
KKN	72.261	301.30	5.89	20.23	I	C	SP	P
DMN	72.359	301.07	5.89	20.23	I	C	SP	P
TTA	78.669	21.57	5.49	18.80	I	C	SP	P
IMA	81.342	19.59	5.22	17.84	I	C	SP	P
COL	82.792	21.91	5.12	17.49	I	C	SP	P
COL	82.792	21.91	5.12	17.49	E	C	LP	P
FBA	82.792	21.91	5.12	17.49	I	C	SP	P
PCA	83.851	27.81	5.05	17.24	I	C	SP	P
SIT	85.251	31.56	4.96	16.93	I	C	SP	P
MTD	117.112	248.14	1.88	6.33	I	C	SP	PKP
BUL	118.842	243.59	1.88	6.32	I	C	SP	PKP
GRC	130.524	332.47	1.85	6.22	I	C	SP	PKP
BNG	133.627	270.92	1.83	6.16	I	C	SP	PKP

Table 239. Station data for event 231

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MOM	5.999	195.05	14.10	45.02	I	C	SP	P
RAB	8.553	157.93	13.89	44.18	I	C	LP	P
GUA	10.475	337.82	13.67	43.30	I	C	LP	P
PMG	13.234	187.80	13.32	41.93	I	C	SP	P
HNR	17.101	140.24	12.62	39.28	I	C	LP	P
DAV	23.504	279.01	9.70	29.12	I	D	LP	P
CTA	23.875	186.29	9.62	28.86	I	C	SP	P
PLP	24.861	288.45	9.49	28.43	I	D	SP	P
ISQ	26.040	200.39	9.39	28.11	I	D	SP	P
WB2	27.608	210.79	9.25	27.65	I	D	SP	P
PVC	28.673	138.83	9.14	27.29	I	C	SP	P
BAG	30.564	296.22	8.87	26.42	E	C	LP	P
NOU	31.070	147.36	8.83	26.30	I	C	SP	P
TATO	33.787	311.16	8.63	25.66	I	C	LP	P
SSE	37.705	319.19	8.42	24.99	E	C	LP	P
MBL	37.808	227.82	8.39	24.89	I	D	SP	P
SEO	39.183	331.90	8.33	24.70	I	C	LP	P
BFD	41.188	187.79	8.22	24.36	I	D	SP	P
TOO	41.273	184.18	8.19	24.26	I	C	SP	P
NAU	41.874	229.78	8.16	24.17	I	D	SP	P
LEM	42.593	255.73	8.13	24.07	E	D	LP	P
TIA	43.592	321.78	8.08	23.91	I	C	SP	P
CN2	44.937	335.86	8.00	23.66	I	C	SP	P
TAU	46.502	181.66	7.91	23.38	E	D	LP	P
BJI	46.672	325.15	7.91	23.38	E	C	LP	P
NWAO	47.287	217.01	7.85	23.19	E	D	LP	P
CD2	50.364	307.63	7.63	22.51	I	C	SP	P
SNZO	50.658	154.96	7.63	22.51	I	C	LP	P
BTO	50.684	321.78	7.63	22.51	I	C	SP	P
CHG	51.064	291.08	7.59	22.38	I	D	SP	P
LZH	52.487	313.65	7.46	21.98	I	C	LP	P
HON	54.322	66.51	7.30	21.48	E	C	LP	P
GTA	56.821	315.56	7.11	20.90	I	C	SP	P
PKI	64.861	298.60	6.48	18.97	I	C	SP	P
KKN	65.009	298.82	6.48	18.97	I	C	SP	P
DMN	65.133	298.60	6.48	18.97	I	C	SP	P
WMQ	66.884	316.36	6.31	18.46	I	C	SP	P
TTA	71.328	23.31	5.96	17.40	I	C	SP	P
NDI	72.178	298.78	5.93	17.31	I	C	SP	P
IMA	73.768	20.97	5.79	16.89	I	C	SP	P
POO	74.689	288.07	5.75	16.77	I	C	SP	P
FBA	75.463	23.18	5.68	16.56	I	C	SP	P
QUE	81.200	299.81	5.27	15.33	I	C	SP	P
MBC	86.746	13.87	4.87	14.14	I	C	SP	P
MHI	87.349	306.03	4.80	13.93	I	C	LP	P

Table 240. Station data for event 235

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MOM	2.291	61.19	14.26	123.20	I	D	SP	P
HNR	15.747	113.99	12.88	49.09	I	C	LP	P
GUA	16.589	358.36	12.69	48.13	I	D	LP	P
GUMO	16.639	358.21	12.69	48.13	E	D	LP	P
CTA	16.849	177.21	12.60	47.67	E	D	LP	P
ISQ	18.355	197.61	12.29	46.15	I	D	SP	P
WB2	19.862	212.02	10.46	37.86	I	D	SP	P
DAV	22.243	297.26	9.96	35.76	I	C	LP	P
MKS	25.933	264.59	9.38	33.39	I	C	SP	P
PVC	26.740	124.42	9.33	33.19	I	C	SP	P
NOU	27.926	134.73	9.19	32.63	I	C	SP	P
STK	28.794	186.72	9.04	32.04	I	D	SP	P
WBN	29.125	216.56	9.04	32.04	I	D	SP	P
BAG	31.292	309.15	8.79	31.05	I	C	LP	P
ADE	32.252	190.32	8.72	30.77	I	D	SP	P
MEK	34.721	225.23	8.59	30.27	I	D	SP	P
KLG	35.580	216.88	8.53	30.03	I	D	SP	P
TATO	36.336	321.63	8.47	29.80	I	C	LP	P
ANP	36.470	321.90	8.47	29.80	E	C	LP	P
LEM	37.799	262.97	8.38	29.45	I	C	LP	P
KLB	38.425	219.56	8.35	29.34	I	D	SP	P
BAL	38.468	221.71	8.35	29.34	I	D	SP	P
TAU	39.617	177.78	8.30	29.14	E	D	LP	P
NWAO	39.648	218.47	8.30	29.14	I	D	LP	P
RKG	40.559	217.36	8.24	28.91	I	C	SP	P
SSE	41.132	327.67	8.21	28.80	I	C	LP	P
NJ2	43.136	326.29	8.10	28.38	I	C	SP	P
AFI	43.602	106.82	8.08	28.30	I	C	LP	P
SEO	43.977	338.79	8.05	28.19	I	C	LP	P
SNG	45.850	283.08	7.94	27.77	I	C	LP	P
SNZO	46.219	149.28	7.94	27.77	I	C	LP	P
PCT	47.034	293.30	7.88	27.54	I	C	SP	P
DL2	47.244	334.64	7.88	27.54	I	C	SP	P
NST	48.519	294.03	7.79	27.20	I	D	SP	P
KHT	49.660	292.31	7.70	26.86	I	C	SP	P
KMI	50.011	306.71	7.66	26.71	I	C	LP	P
BDT	50.055	295.51	7.66	26.71	I	C	SP	P
HHC	53.582	328.34	7.38	25.66	I	C	SP	P
LZH	55.020	319.03	7.26	25.21	I	C	SP	P
GTA	59.542	320.06	6.92	23.96	I	C	SP	P
HON	60.478	63.45	6.84	23.66	E	C	LP	P
LSA	61.266	306.37	6.76	23.37	I	C	SP	P
PKI	65.275	302.19	6.44	22.20	I	C	SP	P
KKN	65.451	302.38	6.44	22.20	I	C	SP	P
DMN	65.543	302.14	6.44	22.20	I	C	SP	P
KOD	68.918	282.15	6.15	21.15	I	C	SP	P
WMQ	69.602	319.25	6.11	21.01	I	C	SP	P
NDI	72.539	301.23	5.89	20.22	I	C	SP	P
POO	73.581	290.24	5.82	19.97	I	C	SP	P
TTA	79.074	23.44	5.45	18.65	I	C	SP	P

Table 240. Station data for event 235....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
IMA	81.486	21.13	5.22	17.84	I	C	SP	P
QUE	81.612	300.96	5.22	17.84	I	C	LP	P
COL	83.207	23.26	5.12	17.48	E	D	LP	P
FBA	83.207	23.26	5.12	17.48	I	C	SP	P
BUL	113.829	246.49	1.88	6.35	I	D	SP	PKP
KBA	119.802	324.20	1.87	6.31	I	D	SP	PKP
SJG	145.714	62.03	1.66	5.60	I	C	LP	PKP

Table 241. Station data for event 236

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PMG	7.263	163.31	13.98	44.54	E	D	LP	P
GUA	15.841	359.52	12.81	39.99	I	D	LP	P
HNR	16.375	115.84	12.72	39.66	I	C	LP	P
CTA	17.609	176.24	12.52	38.91	I	D	LP	P
KNA	20.806	229.45	10.21	30.81	I	C	SP	P
DAV	21.600	296.02	10.08	30.38	I	C	LP	P
MKS	25.668	263.00	9.43	28.24	I	C	SP	P
KOU	26.030	135.29	9.39	28.11	I	C	SP	P
NOU	28.696	135.26	9.14	27.29	I	C	SP	P
BAG	30.556	308.57	8.87	26.42	I	C	LP	P
YOU	31.856	174.76	8.76	26.07	I	C	SP	P
TATO	35.539	321.39	8.53	25.34	E	C	LP	P
LEM	37.551	261.98	8.42	24.99	I	C	LP	P
NWAO	40.018	217.61	8.27	24.51	E	C	LP	P
SSE	40.320	327.57	8.24	24.42	E	C	LP	P
TAU	40.372	177.42	8.24	24.42	E	N	LP	P
SNG	45.347	282.47	7.97	23.57	I	C	LP	P
SNZO	47.034	149.37	7.88	23.29	E	C	LP	P
CHG	49.993	296.99	7.67	22.63	I	C	SP	P
GTA	58.750	319.96	7.00	20.56	I	C	SP	P
COL	82.664	23.35	5.15	14.97	E	C	LP	P
JAS	95.035	52.30	4.58	13.28	E	D	LP	P
RSNT	96.918	27.41	4.53	13.14	E	C	LP	P
IST	111.050	313.27	1.89	5.44	E	C	LP	PKP
BNG	126.565	273.71	1.86	5.36	I	C	SP	PKP

Table 242. Station data for event 238

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
PMG	6.045	230.24	14.08	55.83	E	D	LP	P
HNR	8.901	116.22	13.81	54.24	I	D	LP	P
PVC	20.140	128.38	10.44	37.84	I	D	SP	P
GUA	20.168	340.05	10.44	37.84	I	C	LP	P
GUMO	20.229	339.98	10.44	37.84	E	C	LP	P
KNA	24.830	244.08	9.47	33.81	I	D	SP	P
DAV	29.074	295.25	9.04	32.09	I	C	LP	P
WBN	31.671	226.99	8.79	31.10	I	D	SP	P
AFI	36.748	105.78	8.47	29.85	E	N	LP	P
BAG	37.854	305.70	8.38	29.50	I	C	LP	P
MEK	38.054	232.91	8.38	29.50	I	C	SP	P
SNZO	41.048	153.55	8.21	28.84	I	D	LP	P
NWAO	42.203	225.35	8.16	28.65	I	D	LP	P
TATO	42.338	317.05	8.13	28.54	I	C	LP	P
MUN	42.444	227.22	8.13	28.54	I	D	SP	P
ANP	42.457	317.31	8.13	28.54	I	C	LP	P
MAT	43.764	344.05	8.05	28.23	I	C	LP	P
LEM	43.993	265.93	8.05	28.23	I	C	LP	P
SSE	46.750	323.07	7.91	27.70	E	C	LP	P
SEO	48.752	333.58	7.74	27.05	I	C	LP	P
NJ2	48.833	322.09	7.74	27.05	I	C	SP	P
DL2	52.331	330.24	7.46	26.00	I	C	SP	P
SNG	52.669	283.31	7.46	26.00	I	C	LP	P
TIA	52.757	324.63	7.42	25.85	I	D	SP	P
SNY	53.738	333.95	7.38	25.70	I	C	SP	P
CN2	54.590	336.72	7.30	25.40	I	C	SP	P
HON	55.925	59.77	7.18	24.95	E	C	LP	P
BJI	55.992	327.30	7.18	24.95	E	C	LP	P
KMI	56.627	304.84	7.14	24.81	I	C	LP	P
CHG	57.464	296.32	7.07	24.55	I	C	SP	P
HHC	59.102	325.12	6.96	24.14	I	C	SP	P
BTO	59.831	324.02	6.88	23.85	I	C	SP	P
LZH	61.108	316.55	6.80	23.55	I	C	LP	P
LSA	67.885	305.00	6.22	21.44	I	C	SP	P
WMQ	75.649	317.74	5.68	19.50	I	C	SP	P
NDI	79.289	300.42	5.41	18.54	I	C	SP	P
COL	82.913	21.94	5.11	17.47	I	C	LP	P
JAS	91.556	52.21	4.68	15.96	I	C	LP	P
RSNT	96.519	27.82	4.54	15.47	I	C	LP	P
EDM	97.273	37.17	4.52	15.40	I	C	SP	P
IST	118.119	313.91	1.88	6.33	E	C	LP	PKP
KRI	118.754	247.51	1.88	6.33	I	D	SP	PKP
EZN	120.445	313.37	1.87	6.32	I	C	SP	PKP
BRG	122.838	329.64	1.87	6.31	I	D	SP	PKP
SKO	123.038	317.37	1.87	6.31	I	D	SP	PKP
KHC	124.081	328.14	1.87	6.30	I	D	SP	PKP
WET	124.438	328.49	1.87	6.30	I	D	SP	PKP
WTS	125.441	334.23	1.87	6.29	I	D	SP	PKP
FUR	125.880	328.35	1.86	6.29	I	D	SP	PKP
TRI	125.984	324.66	1.86	6.29	I	D	SP	PKP

Table 242. Station data for event 238....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BAF	128.269	330.40	1.86	6.27	I	C	SP	PKP
DMU	128.788	344.04	1.86	6.26	I	C	SP	PKP
UPA	128.935	82.97	1.86	6.26	I	C	SP	PKP
BNG	133.486	270.86	1.84	6.19	I	C	SP	PKP
IFR	144.898	325.39	1.68	5.68	I	C	SP	PKP
AVE	146.318	327.69	1.66	5.61	I	C	SP	PKP
TRN	146.696	79.09	1.64	5.53	I	C	SP	PKP

Table 243. Station data for event 239

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HNR	8.960	117.08	13.82	54.21	E	D	LP	P
PVC	20.225	128.70	10.45	37.83	I	D	SP	P
NOU	21.946	141.40	9.95	35.73	I	C	SP	P
AFI	36.781	105.98	8.44	29.70	E	C	LP	P
BAG	37.775	305.54	8.38	29.46	E	C	LP	P
MEK	38.149	232.77	8.38	29.46	I	C	SP	P
TRT	39.035	264.45	8.32	29.23	I	C	SP	P
SNZO	41.177	153.63	8.21	28.81	E	D	LP	P
TATO	42.236	316.93	8.16	28.62	I	C	LP	P
NWAO	42.312	225.24	8.13	28.50	E	C	LP	P
SEO	48.624	333.52	7.78	27.17	E	C	LP	P
SNG	52.643	283.20	7.46	25.97	E	C	LP	P
HON	55.844	59.85	7.18	24.92	I	C	LP	P
CHG	57.406	296.23	7.07	24.52	I	C	SP	P
LZH	61.007	316.49	6.80	23.52	I	C	SP	P
GTA	65.460	317.81	6.43	22.17	I	C	SP	P
NDI	79.222	300.40	5.45	18.66	I	C	SP	P
COL	82.774	21.94	5.12	17.49	I	C	LP	P
INK	89.338	21.03	4.71	16.05	I	C	SP	P
JAS	91.459	52.21	4.68	15.94	E	C	LP	P
MHI	95.067	305.87	4.58	15.59	I	C	SP	P
RSNT	96.385	27.81	4.54	15.45	E	C	LP	P
GWF	127.057	331.15	1.86	6.27	I	C	SP	PKP
BSF	128.246	330.58	1.86	6.26	I	C	SP	PKP
DMU	128.649	344.08	1.86	6.25	I	C	SP	PKP
DLE	129.089	343.46	1.86	6.25	I	C	SP	PKP
LOR	130.051	331.88	1.85	6.24	I	C	SP	PKP
SSF	130.367	331.92	1.85	6.24	I	C	SP	PKP
SMF	130.510	331.32	1.85	6.22	I	C	SP	PKP
MZF	131.419	331.77	1.85	6.22	I	C	SP	PKP
LRG	131.421	326.63	1.85	6.22	I	C	SP	PKP
LFF	133.238	331.92	1.84	6.19	I	C	SP	PKP

Figure 86. Azimuthal equidistant map for geographic subdivision, East Indonesia

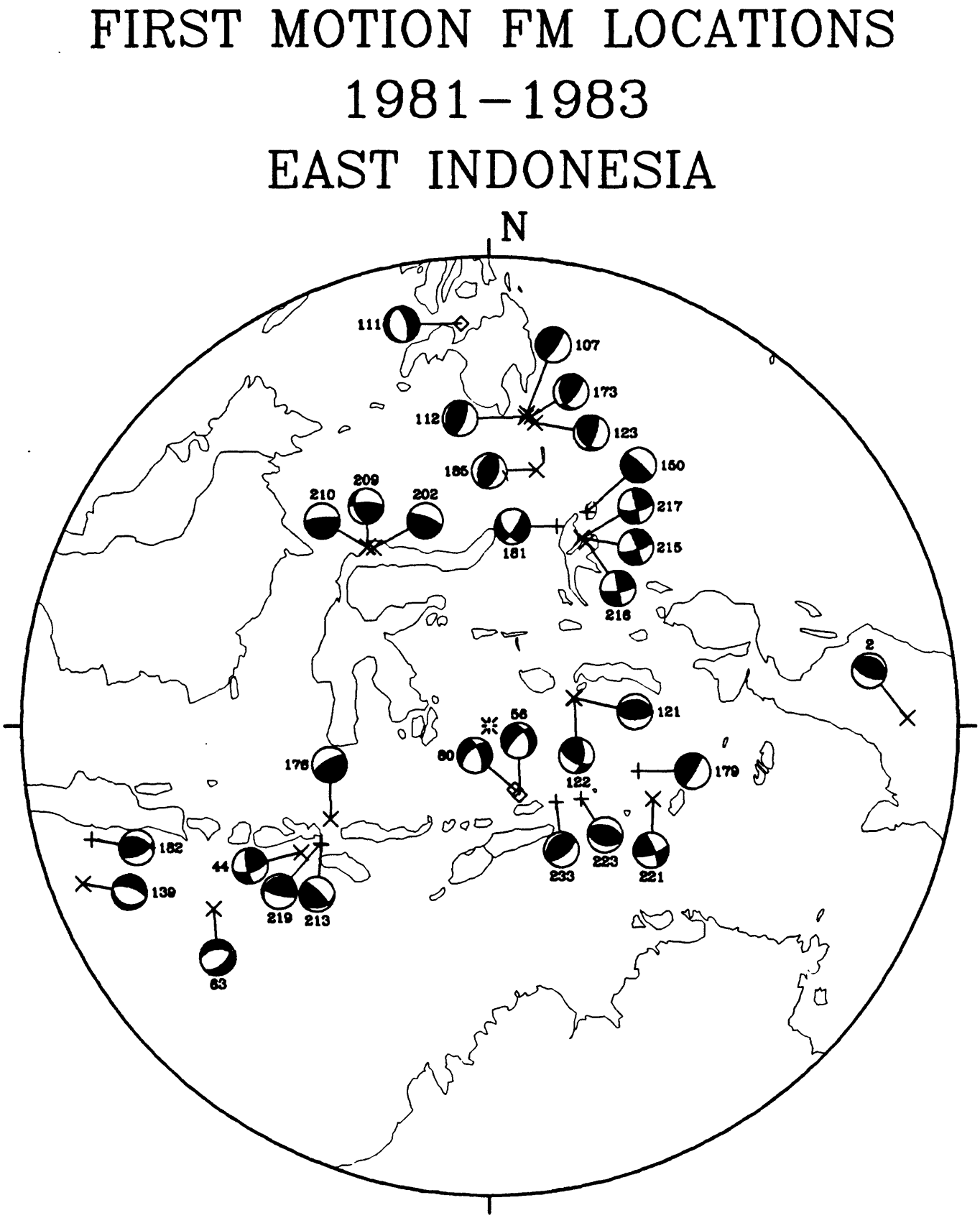

Table 244. Focal mechanism parameters for subdivision, East Indonesia

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
2	115	63	90	295	27	90	72	25	18	205	0	115
44	170	75	28	72	63	163	30	34	8	299	59	196
56	337	44	-151	225	70	-50	10	287	48	179	37	29
63	45	50	-120	267	48	-59	1	156	67	248	23	65
80	337	63	-143	228	58	-33	3	101	44	195	45	8
107	35	75	90	215	15	90	60	305	30	125	0	35
111	345	65	-95	177	25	-79	20	79	70	245	5	347
112	20	68	90	200	22	90	67	290	23	110	0	20
121	90	55	90	270	35	90	80	0	10	180	0	90
122	120	60	40	7	56	143	48	335	2	243	42	151
123	20	70	115	146	32	41	58	324	21	91	23	191
139	288	64	-90	108	26	-90	19	18	71	198	0	108
150	312	80	85	159	11	116	55	216	35	46	5	313
173	40	65	120	166	38	43	59	353	15	109	27	206
176	240	70	90	60	20	90	65	150	25	330	0	60
179	32	83	90	212	7	90	52	302	38	122	0	32
181	35	75	-41	138	51	-160	15	91	39	348	47	198
182	65	55	60	290	45	126	65	278	6	176	24	83
185	18	50	90	198	40	90	85	268	5	108	0	18
202	290	73	90	110	17	90	62	200	28	20	0	110
209	270	75	55	160	38	155	48	143	22	26	34	280
210	263	77	90	83	13	90	58	173	32	353	0	83
213	315	75	110	80	25	38	56	250	27	29	19	130
215	340	83	-14	72	78	-173	5	26	15	295	74	134
216	350	88	-15	81	75	-178	9	38	12	304	75	163
217	348	88	-22	79	68	-178	14	36	17	301	68	163
219	105	75	105	239	21	46	57	35	28	183	14	281
221	338	75	160	73	71	16	25	295	3	26	65	123
223	105	43	90	285	47	90	88	195	2	15	0	105
233	52	64	95	221	26	80	71	333	19	138	4	230

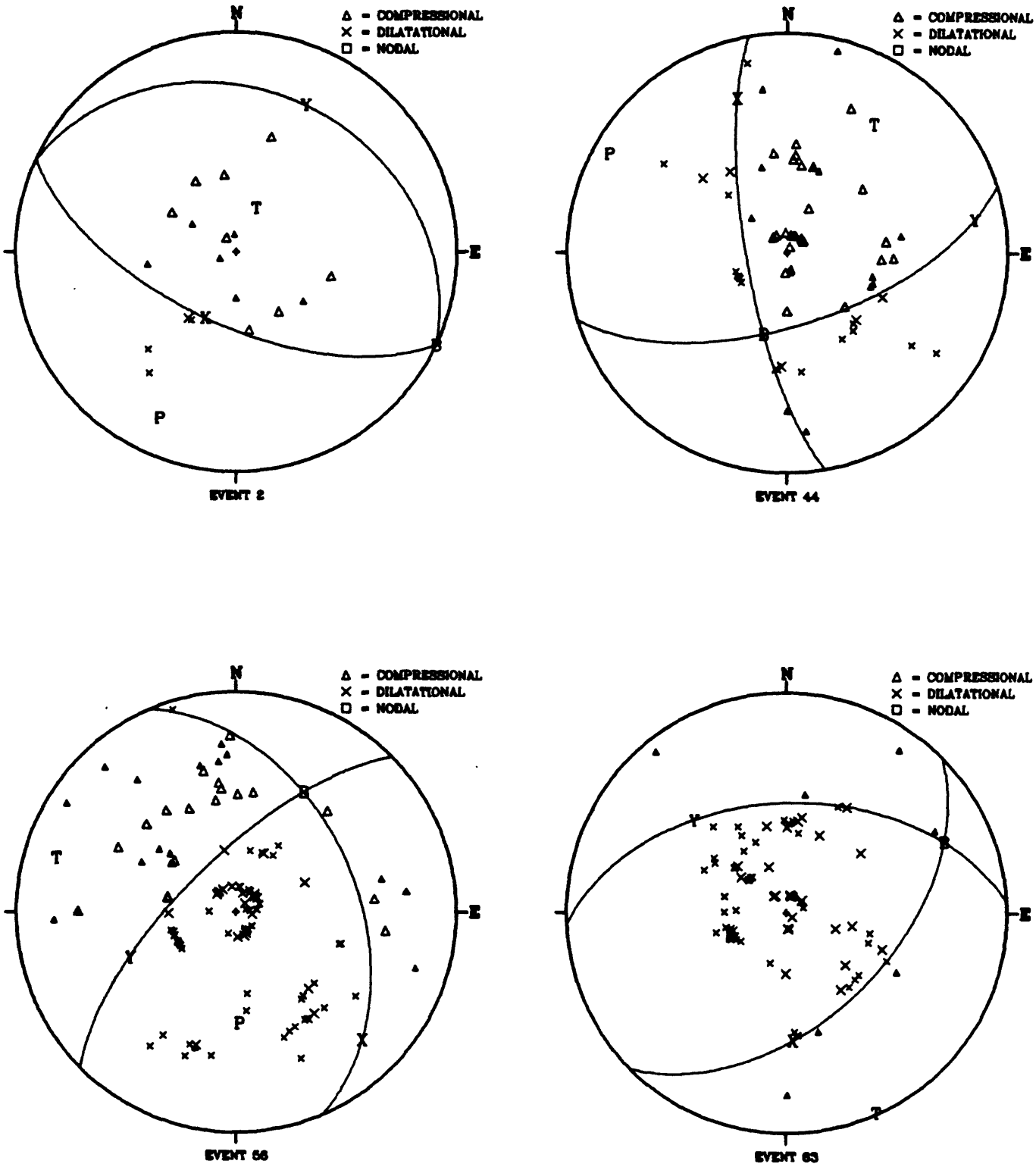

Figure 87. Lower hemisphere focal sphere projections for events 2, 44, 56, and 63

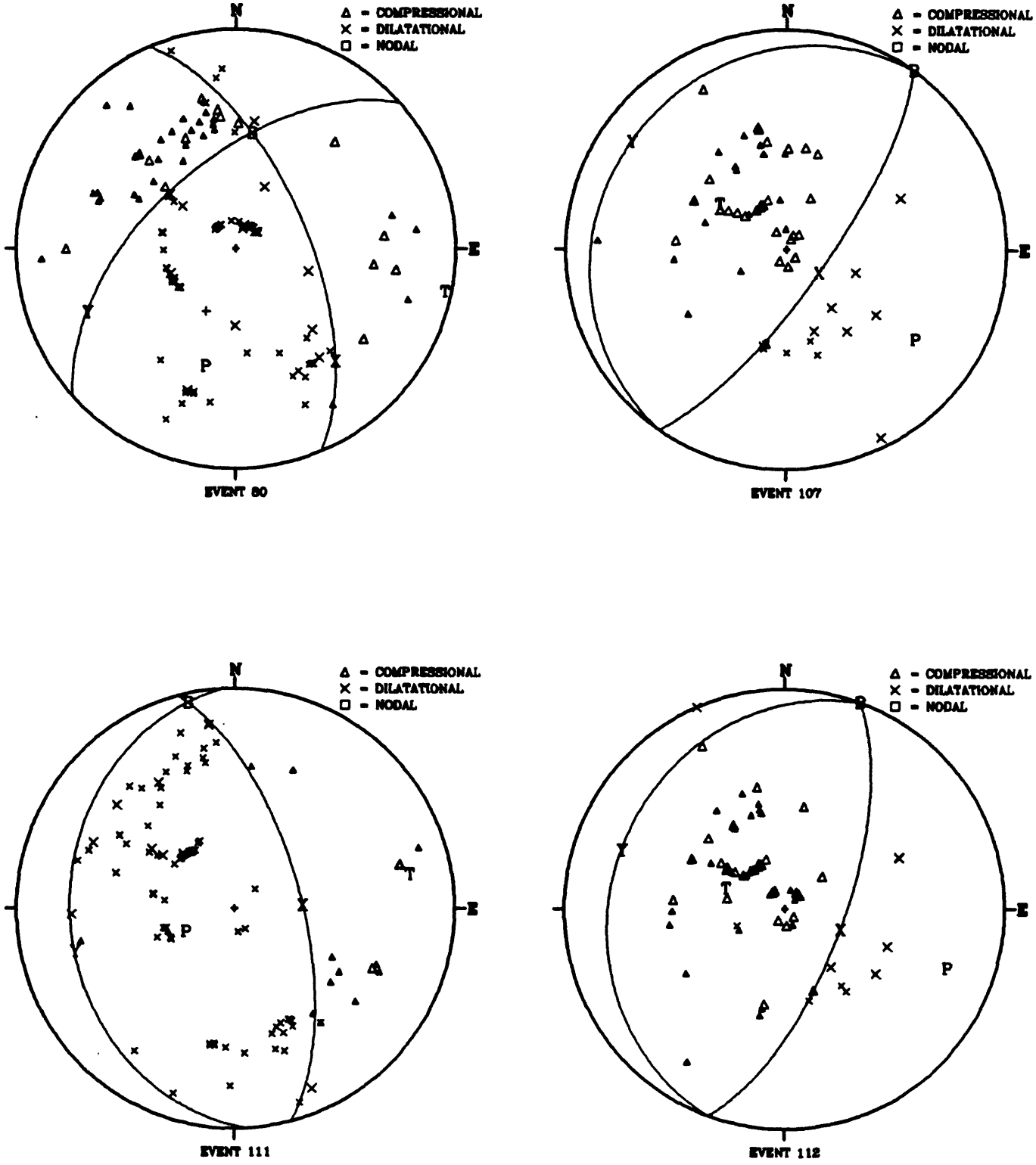

Figure 88. Lower hemisphere focal sphere projections for events 80, 107, 111, and 112

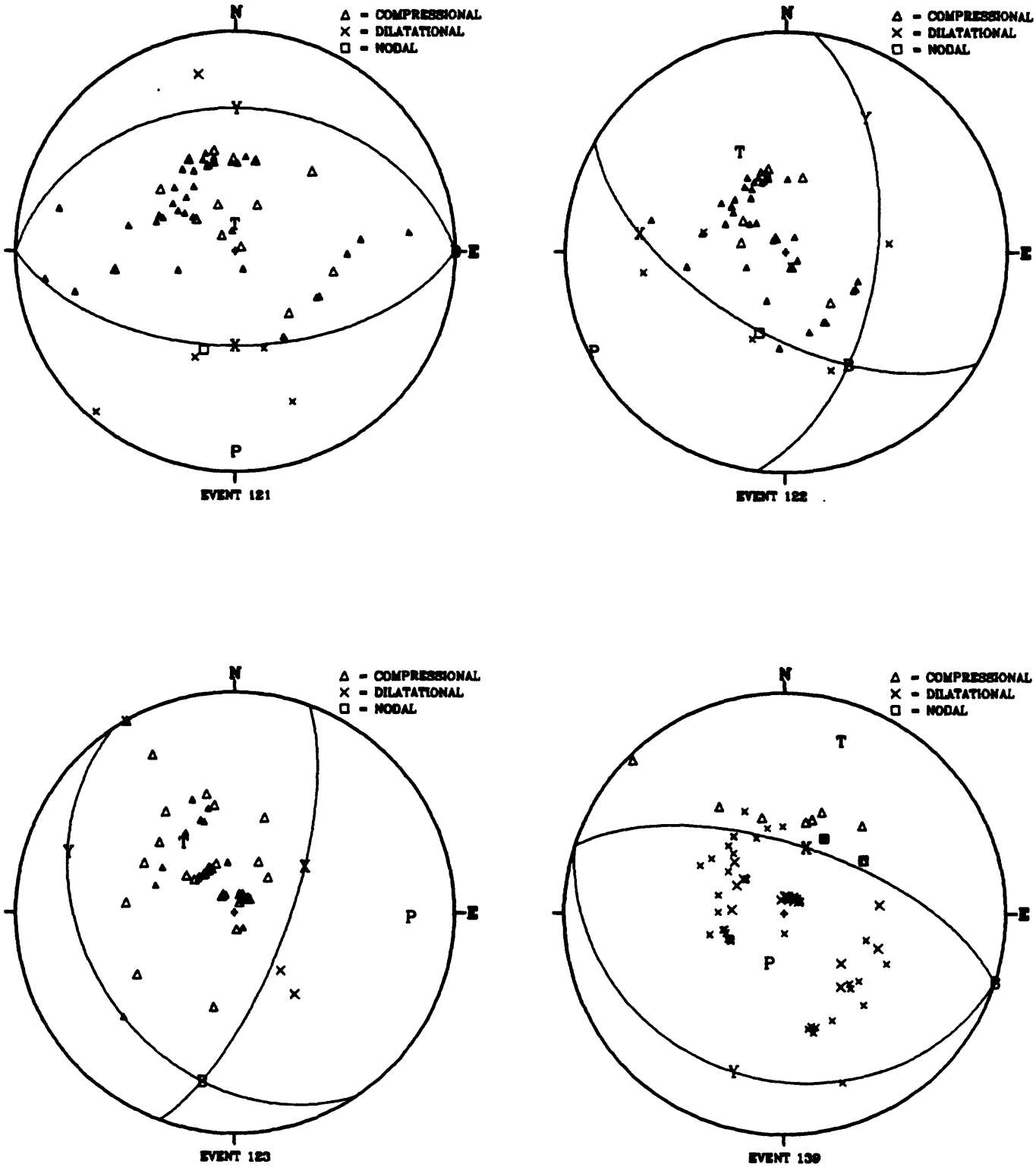

Figure 89. Lower hemisphere focal sphere projections for events 121, 122, 123, and 139

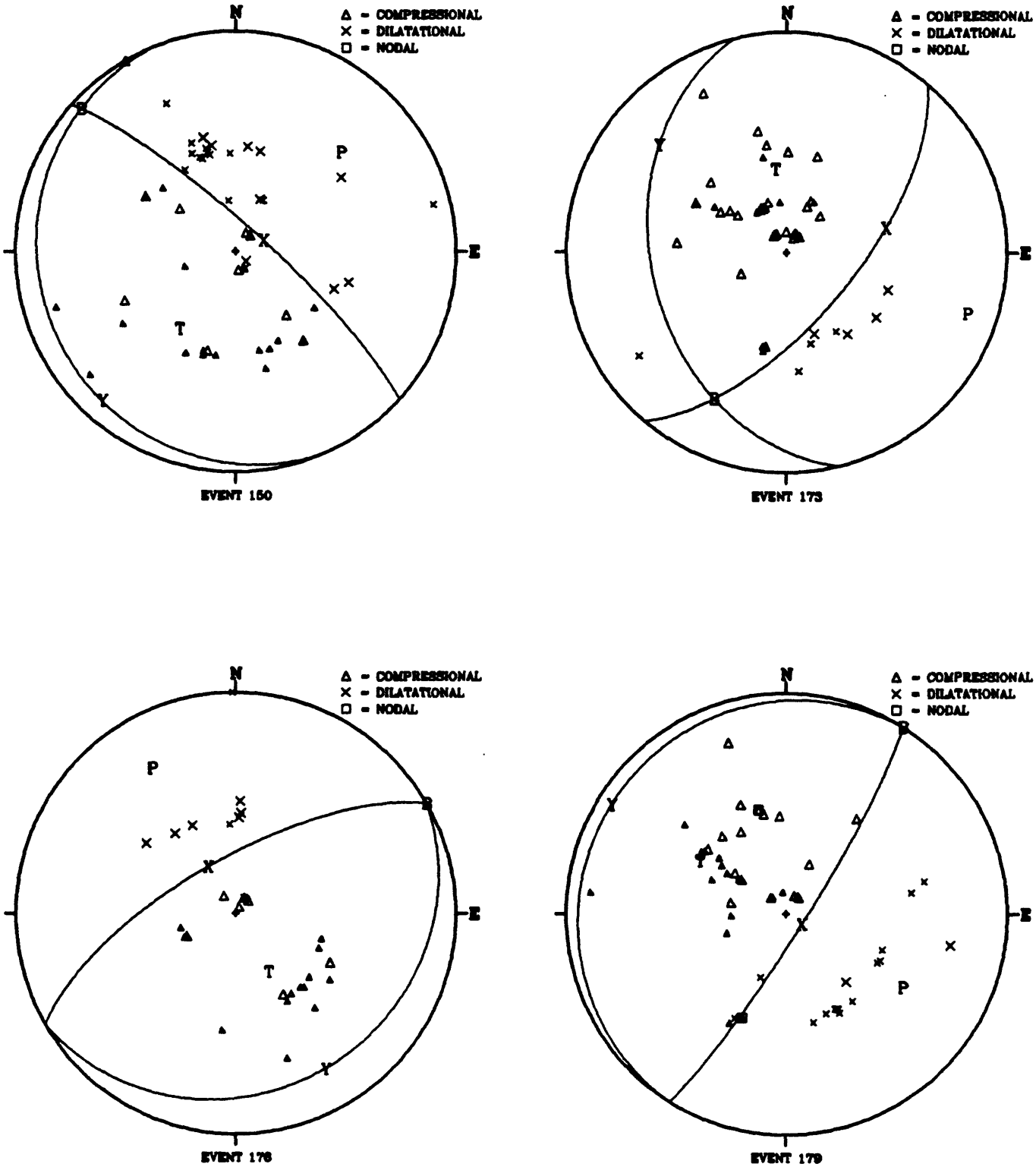

Figure 90. Lower hemisphere focal sphere projections for events 150, 173, 176, and 179

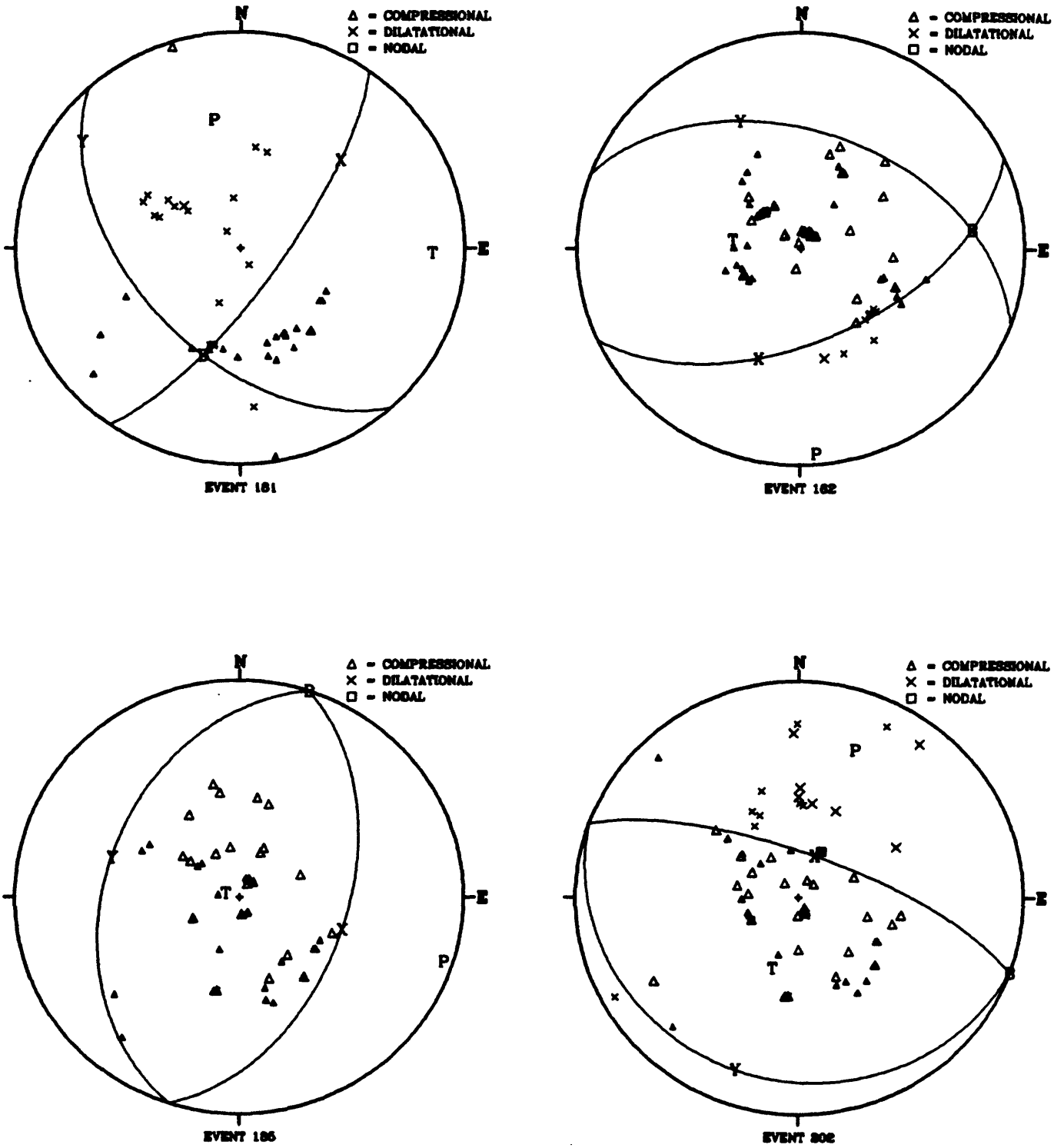

Figure 91. Lower hemisphere focal sphere projections for events 181, 182, 185, and 202

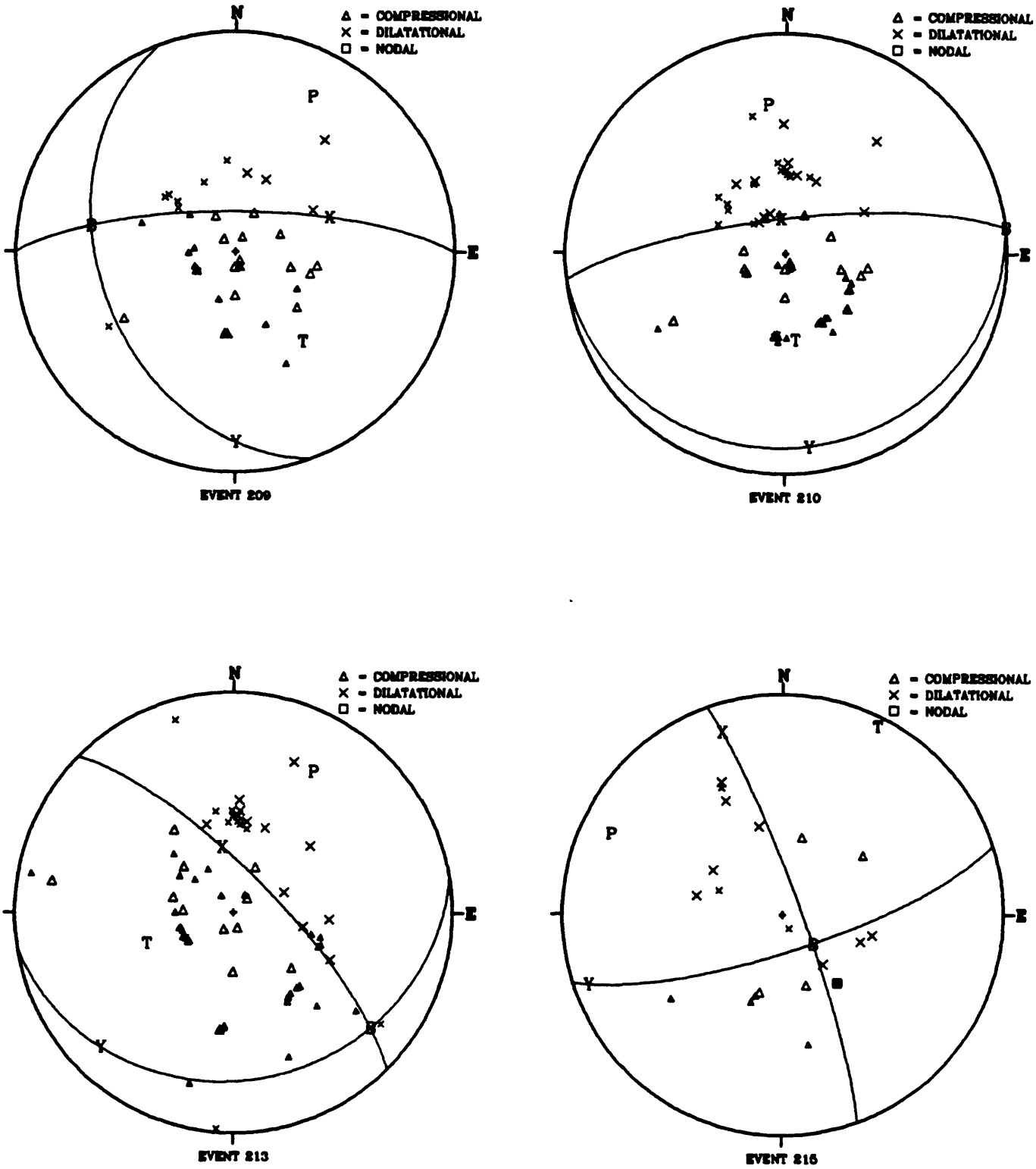

Figure 92. Lower hemisphere focal sphere projections for events 209. 210. 213, and 215

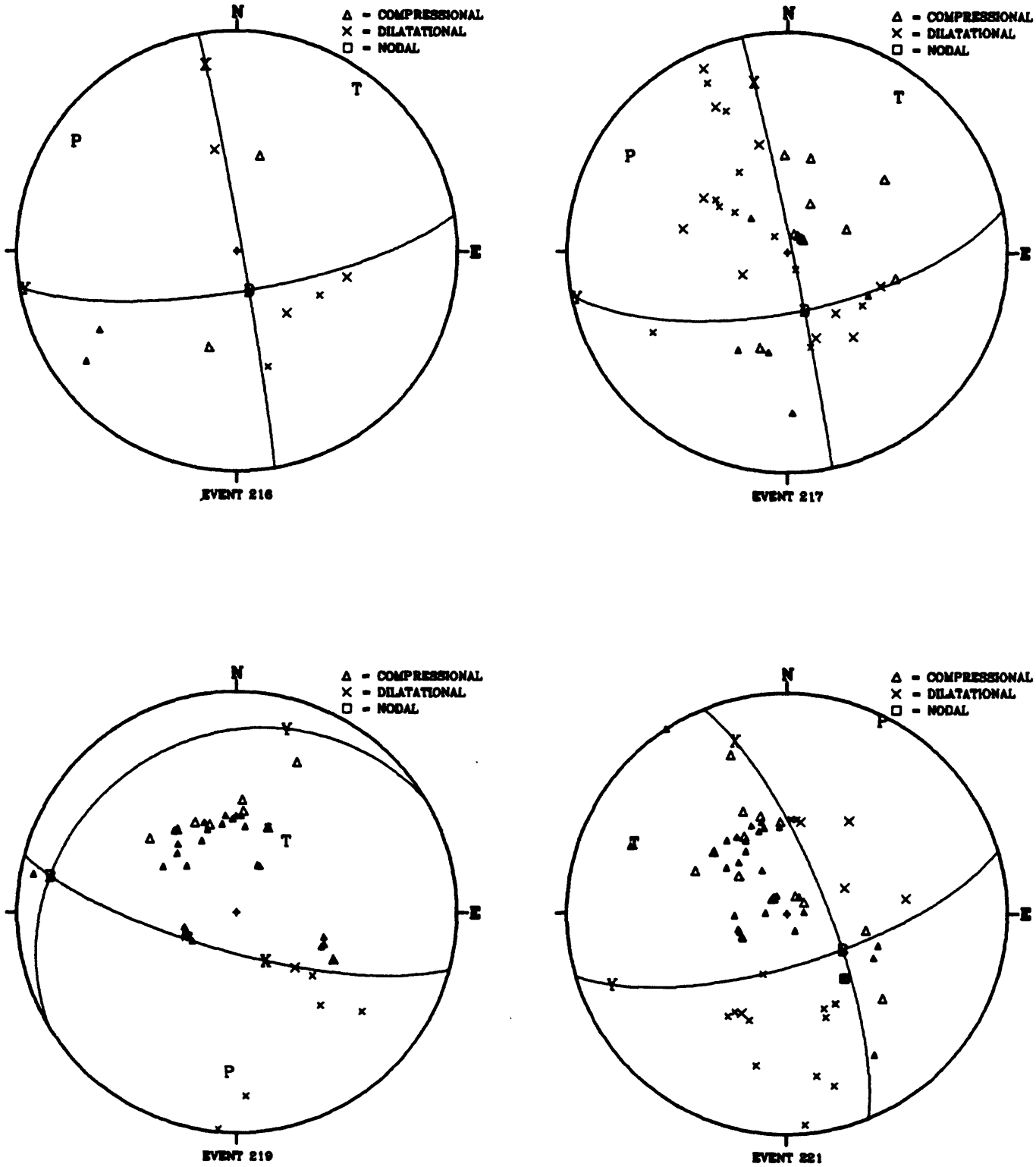

Figure 93. Lower hemisphere focal sphere projections for events 216, 217, 219, and 221

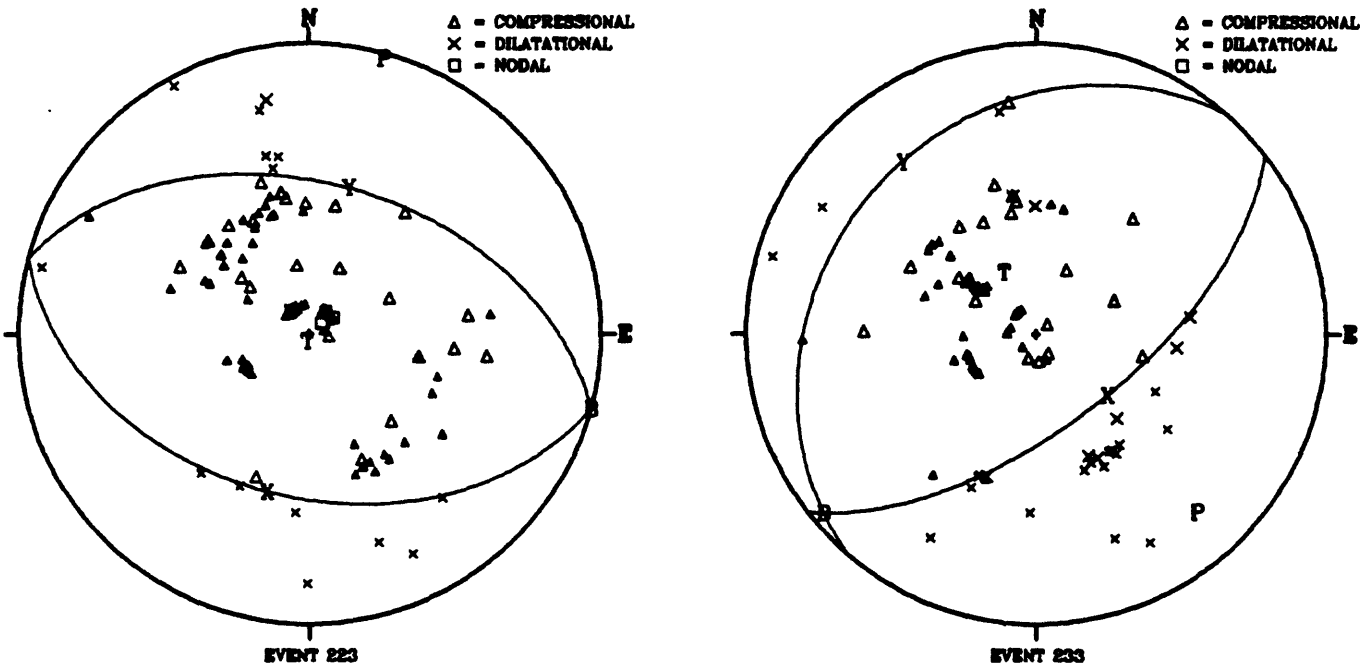

Figure 94. Lower hemisphere focal sphere projections for events 223 and 233

Table 245. Station data for event 2

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
JAY	2.520	35.73	14.25	123.14	I	D	SP	P
KNA	15.134	222.06	12.95	49.55	I	D	SP	P
GUMO	18.889	17.15	12.17	45.65	I	C	LP	P
HNR	21.113	104.33	10.17	36.70	I	C	LP	P
TRT	26.622	261.98	9.33	33.25	I	C	SP	P
NOU	31.698	126.28	8.79	31.10	I	C	SP	P
TATO	34.061	330.41	8.62	30.43	I	C	LP	P
MUN	34.767	215.66	8.56	30.20	I	D	LP	P
NWAO	34.891	213.42	8.56	30.20	I	D	SP	P
TAU	38.839	170.51	8.32	29.27	I	C	LP	P
SHK	39.381	351.46	8.29	29.15	I	C	LP	P
CHTO	45.980	301.60	7.94	27.81	I	C	LP	P
SNZO	48.414	144.23	7.78	27.20	I	C	LP	P
QUE	77.112	302.21	5.58	19.14	I	C	SP	P
SPA	85.455	180.00	4.96	16.94	I	C	SP	P
DAG	106.859	354.83	1.89	6.38	I	C	SP	PKP
BUL	107.621	247.32	1.89	6.38	I	C	SP	PKP
PTO	133.578	326.28	1.83	6.17	I	C	LP	PKP

Table 246. Station data for event 44

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MKS	4.139	13.81	14.19	84.11	I	C	SP	P
BKB	8.095	348.24	13.91	77.19	I	D	SP	P
MBL	11.897	173.86	13.43	70.30	I	C	SP	P
KNA	11.930	123.71	13.43	70.30	I	D	SP	P
KKM	15.372	351.48	12.86	64.35	I	C	SP	P
MEK	17.252	179.80	12.48	61.03	I	C	SP	P
DAV	17.714	23.76	12.48	61.03	I	C	LP	P
WB2	18.653	126.44	12.27	59.33	I	D	SP	P
KGM	18.807	305.84	12.16	58.48	I	D	SP	P
KLG	21.587	173.02	10.05	44.79	I	D	SP	P
MUN	22.697	185.01	9.85	43.67	I	D	LP	P
TZZ	22.902	81.60	9.76	43.17	I	C	SP	P
NWAO	23.572	182.62	9.68	42.73	I	D	LP	P
SNG	24.155	311.95	9.60	42.30	I	D	LP	P
BAG	25.591	4.67	9.42	41.33	I	C	LP	P
PMG	28.293	92.64	9.11	39.69	E	C	LP	P
CTA	28.894	114.97	9.03	39.27	I	D	LP	P
CTAO	28.894	114.97	9.03	39.27	I	D	SP	P
STK	31.079	139.69	8.82	38.19	I	D	SP	P
ADE	31.573	147.15	8.79	38.04	I	D	SP	P
HKC	31.650	352.38	8.79	38.04	I	C	LP	P
RAB	33.821	83.70	8.62	37.18	E	C	LP	P
CHG	33.903	325.40	8.62	37.18	I	D	SP	P
CHTO	33.903	325.40	8.62	37.18	I	D	SP	P
CHTO	33.903	325.40	8.62	37.18	I	D	LP	P
CHG	33.903	325.40	8.62	37.18	I	D	LP	P
TATO	34.153	4.87	8.62	37.18	I	C	LP	P
ANP	34.361	4.88	8.59	37.02	E	C	LP	P
GUA	34.664	49.57	8.59	37.02	E	C	LP	P
GUMO	34.661	49.45	8.59	37.02	I	C	LP	P
YOU	37.034	136.73	8.44	36.27	I	D	SP	P
RIV	38.713	134.05	8.35	35.83	E	D	LP	P
SSE	40.207	3.60	8.26	35.38	E	C	LP	P
HNR	40.901	93.72	8.21	35.14	E	C	LP	P
KOU	45.517	109.67	7.96	33.92	I	C	SP	P
SHK	45.583	16.47	7.96	33.92	I	C	SP	P
SHK	45.583	16.47	7.96	33.92	I	C	LP	P
LZH	47.163	343.79	7.88	33.53	I	C	SP	P
SEO	47.252	9.19	7.85	33.39	E	C	LP	P
NOU	47.750	111.67	7.85	33.39	I	C	SP	P
PVC	49.061	105.40	7.74	32.86	I	C	SP	P
MAT	49.190	21.05	7.74	32.86	I	C	SP	P
NDI	54.855	314.87	7.26	30.59	I	D	SP	P
SNZO	58.762	132.91	6.96	29.20	E	C	LP	P
SPA	80.798	180.00	5.26	21.64	I	C	LP	P
SLR	86.216	244.68	4.90	20.09	I	C	SP	P
BPI	86.376	244.21	4.86	19.92	I	D	SP	P
GRM	86.565	236.98	4.86	19.92	I	D	SP	P
BUL	86.737	250.24	4.86	19.92	I	D	SP	P
KSR	87.431	244.36	4.80	19.66	I	D	SP	P

Table 246. Station data for event 44....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BLF	87.544	241.07	4.80	19.66	I	D	SP	P
MLR	98.301	314.75	4.49	18.35	I	C	SP	P
COL	99.905	25.60	4.47	18.26	E	C	LP	P
KON	107.458	329.75	1.89	7.61	E	C	LP	PKP
GRFO	108.172	319.25	1.89	7.61	E	C	LP	PKP
OGA	108.632	316.31	1.89	7.61	I	C	SP	PKP
GWF	110.602	318.87	1.89	7.61	I	C	SP	PKP
BSF	111.344	317.76	1.89	7.61	I	C	SP	PKP
HAU	111.607	318.00	1.89	7.61	I	C	SP	PKP
LBF	113.382	317.25	1.89	7.60	I	C	SP	PKP
SMF	113.543	316.91	1.88	7.59	I	C	SP	PKP
SSF	113.681	317.41	1.88	7.59	I	C	SP	PKP
AVF	113.842	317.14	1.88	7.59	I	C	SP	PKP
TCF	114.721	316.79	1.88	7.58	I	C	SP	PKP
CAF	115.121	315.35	1.88	7.58	I	C	SP	PKP
LSF	115.190	316.87	1.88	7.58	I	C	SP	PKP
RJF	115.416	315.85	1.88	7.58	I	C	SP	PKP
SSC	115.673	319.68	1.88	7.57	I	C	SP	PKP
LPO	115.784	315.24	1.88	7.57	I	C	SP	PKP
FLN	115.862	319.95	1.88	7.57	I	C	SP	PKP
LFF	116.038	315.60	1.88	7.57	I	C	SP	PKP
GRR	116.207	319.63	1.88	7.57	I	C	SP	PKP
MFF	116.226	317.57	1.88	7.57	I	C	SP	PKP
LPF	116.425	319.29	1.88	7.57	I	C	SP	PKP
COR	116.449	44.69	1.88	7.57	E	C	LP	PKP
BKS	118.679	51.88	1.88	7.55	E	C	LP	PKP
GDH	119.858	356.73	1.87	7.55	E	C	LP	PKP
PTO	123.668	313.61	1.87	7.52	I	C	SP	PKP
GOL	130.616	44.76	1.85	7.44	E	C	LP	PKP
ANMO	131.703	51.00	1.84	7.41	E	C	LP	PKP
LPA	135.943	184.24	1.81	7.30	E	C	LP	PKP
PEL	136.940	168.71	1.80	7.26	I	C	SP	PKP
JCT	138.563	53.92	1.78	7.17	E	C	LP	PKP
AAM	141.780	26.86	1.74	7.00	I	C	LP	PKP
SCP	145.415	22.11	1.68	6.78	E	C	LP	PKP
WES	145.908	13.00	1.66	6.69	E	C	LP	PKP
ANT	146.103	165.28	1.66	6.69	I	C	SP	PKP
BLA	147.345	28.64	1.64	6.60	I	C	SP	PKP
ZOBO	153.806	165.51	1.43	5.74	I	C	SP	PKP
SJG	170.125	26.59	0.62	2.50	E	C	LP	PKP

Table 247. Station data for event 56

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AAI	4.212	30.67	9.06	125.43	I	D	SP	P
MKS	6.865	287.49	10.71	105.70	I	C	SP	P
MTN	7.417	137.94	10.87	102.23	I	C	SP	P
KNA	8.773	162.54	11.09	94.18	I	D	SP	P
BKB	10.975	302.81	10.97	80.65	I	C	SP	P
TRT	13.299	267.57	10.57	71.81	I	C	SP	P
DAV	14.336	358.12	10.39	69.06	I	C	LP	P
TZZ	15.226	83.11	10.23	66.89	I	C	SP	P
CGP	15.744	355.08	10.14	65.70	I	C	SP	P
KKM	16.518	323.34	10.01	64.13	I	C	SP	P
ASPA	17.900	155.93	9.80	61.73	I	D	SP	P
NAU	18.209	212.77	9.75	61.24	I	D	SP	P
LEM	18.293	270.44	9.74	61.11	I	C	LP	P
LEM	18.293	270.44	9.74	61.11	I	C	SP	P
PLP	18.410	356.69	9.72	60.94	I	C	SP	P
MEK	20.450	199.54	9.48	58.42	I	D	SP	P
LGP	20.487	353.56	9.47	58.39	I	C	SP	P
PMG	20.986	97.10	9.43	57.99	I	C	LP	P
PGP	21.310	346.26	9.41	57.74	I	C	SP	P
MOM	21.920	77.16	9.36	57.28	I	C	SP	P
CTAO	23.331	124.92	9.23	56.05	I	D	SP	P
KLG	23.713	189.85	9.19	55.74	I	D	SP	P
BAG	24.205	347.12	9.14	55.31	I	C	LP	P
KLB	25.336	196.70	8.99	53.92	I	C	SP	P
MUN	26.170	199.22	8.90	53.18	I	D	SP	P
RAB	26.178	84.59	8.90	53.17	I	C	LP	P
NWAO	26.739	196.63	8.85	52.72	I	D	LP	P
GUMO	27.954	42.01	8.77	52.08	E	C	LP	P
SNG	29.171	299.06	8.69	51.38	I	C	LP	P
ADE	29.860	158.79	8.65	51.04	I	D	SP	P
ANP	32.619	352.38	8.49	49.79	I	C	LP	P
BFD	33.277	155.57	8.45	49.47	I	D	SP	P
COO	33.476	137.02	8.44	49.38	I	D	SP	P
YOU	33.809	145.55	8.42	49.22	I	D	SP	P
TOO	34.889	152.45	8.36	48.70	I	D	SP	P
CAN	34.918	146.14	8.35	48.69	I	D	SP	P
RIV	35.118	142.10	8.34	48.61	I	D	LP	P
RIV	35.118	142.10	8.34	48.61	I	D	SP	P
WAM	35.502	147.27	8.33	48.50	I	D	SP	P
CHG	37.270	314.56	8.23	47.73	I	C	LP	P
CHTO	37.270	314.56	8.23	47.73	E	C	LP	P
SSE	38.492	353.30	8.17	47.28	I	C	LP	P
KMI	39.441	325.63	8.11	46.84	I	C	LP	P
SHK	42.107	8.18	7.97	45.80	I	C	LP	P
SEO	44.673	1.04	7.83	44.75	I	C	LP	P
LZH	47.967	335.67	7.58	42.98	I	C	LP	P
BJI	48.009	349.80	7.58	42.96	I	C	LP	P
NDF	51.090	106.82	7.34	41.32	I	D	SP	P
MSZ	51.980	142.80	7.28	40.90	I	D	SP	P
SVA	52.077	107.17	7.27	40.85	I	D	SP	P

Table 247. Station data for event 56....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HYB	52.974	298.17	7.20	40.36	I	C	SP	P
RHP	53.006	141.16	7.20	40.34	I	D	SP	P
KRP	54.043	132.02	7.13	39.85	I	D	SP	P
SNZO	54.758	136.16	7.08	39.53	I	D	LP	P
WEL	54.792	136.11	7.08	39.51	I	D	SP	P
NDI	59.121	309.59	6.75	37.37	I	C	SP	P
DRV	60.008	173.63	6.68	36.91	I	D	SP	P
KBL	68.013	311.70	6.06	33.01	I	C	SP	P
SBA	73.544	171.72	5.68	30.70	I	D	SP	P
TGI	74.980	306.83	5.59	30.18	I	C	SP	P
KHI	75.802	307.83	5.54	29.89	I	C	SP	P
MHI	75.869	310.16	5.54	29.87	I	C	LP	P
ADK	76.533	32.43	5.49	29.57	I	D	SP	P
KIP	79.721	66.72	5.22	27.99	I	D	LP	P
OBO	84.474	282.79	4.89	26.10	I	C	LP	P
TDD	84.821	282.55	4.86	25.93	I	C	LP	P
ARO	84.837	282.27	4.86	25.92	I	C	LP	P
SGH	85.028	282.15	4.85	25.84	I	C	LP	P
DAF	85.157	282.30	4.84	25.79	I	C	LP	P
GBR	85.154	281.84	4.84	25.79	I	C	LP	P
SDN	86.720	33.27	4.76	25.35	I	D	SP	P
CLK	89.067	254.41	4.70	24.99	I	D	SP	P
NAI	89.085	268.84	4.70	24.99	I	D	LP	P
CIR	91.541	248.72	4.64	24.65	I	D	SP	P
IMA	92.722	23.74	4.60	24.46	I	D	SP	P
EVA	92.952	242.96	4.60	24.44	I	D	SP	P
GRM	93.860	235.88	4.56	24.23	I	D	SP	P
BPI	93.934	243.12	4.56	24.22	I	D	SP	P
KRI	94.006	252.56	4.56	24.20	I	D	SP	P
PRY	94.291	242.29	4.55	24.17	I	D	SP	P
BUL	94.421	249.15	4.55	24.16	I	D	SP	P
COL	94.959	25.29	4.54	24.10	I	D	LP	P
KSR	94.992	243.24	4.54	24.09	I	D	SP	P
BLF	95.001	239.94	4.54	24.09	I	D	SP	P
PKR	96.057	238.81	4.52	23.97	I	D	SP	P
KBS	101.707	349.61	4.44	23.53	E	D	LP	Pdf
MBC	102.828	12.90	4.44	23.53	I	D	SP	Pdf
BNG	107.883	272.30	1.89	9.78	I	D	SP	PKP
DAG	108.072	351.97	1.89	9.78	I	D	SP	PKP
DAG	108.072	351.97	1.89	9.78	E	D	LP	PKP
KON	109.490	331.16	1.89	9.78	E	D	LP	PKP
COR	109.802	45.29	1.89	9.78	E	D	LP	PKP
GRF	111.526	320.68	1.89	9.78	E	D	SP	PKP
GRFO	111.530	320.68	1.89	9.78	E	D	LP	PKP
EDM	113.896	34.48	1.88	9.74	I	D	SP	PKP
HAU	115.088	319.90	1.88	9.73	I	D	SP	PKP
PAS	115.388	55.75	1.88	9.73	I	D	SP	PKP
LRG	116.402	315.06	1.88	9.72	I	D	SP	PKP
LOR	116.920	319.72	1.88	9.72	I	D	SP	PKP
LBF	116.939	319.39	1.88	9.72	I	D	SP	PKP

Table 247. Station data for event 56....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ESY	116.983	330.44	1.88	9.72	I	D	SP	PKP
SSF	117.216	319.60	1.88	9.71	I	D	SP	PKP
ELO	117.233	331.32	1.88	9.71	I	D	SP	PKP
AVF	117.408	319.35	1.88	9.71	I	D	SP	PKP
MZF	118.104	318.94	1.87	9.70	I	D	SP	PKP
TCF	118.322	319.12	1.87	9.70	I	D	SP	PKP
CAF	118.891	317.71	1.87	9.70	I	D	SP	PKP
SSC	118.910	322.22	1.87	9.70	I	D	SP	PKP
FLN	119.065	322.53	1.87	9.70	I	D	SP	PKP
RJF	119.123	318.27	1.87	9.70	I	D	SP	PKP
FFC	119.225	29.62	1.87	9.70	I	D	SP	PKP
LPO	119.561	317.70	1.87	9.70	I	D	SP	PKP
LPF	119.705	321.94	1.87	9.70	I	D	SP	PKP
MFF	119.719	320.15	1.87	9.70	I	D	SP	PKP
LFF	119.770	318.10	1.87	9.70	I	D	SP	PKP
EPF	120.715	316.16	1.87	9.69	I	D	SP	PKP
FRB	122.725	7.65	1.87	9.68	I	D	SP	PKP
GOL	123.920	46.62	1.87	9.66	E	D	LP	PKP
ANMO	124.640	52.39	1.87	9.66	E	D	SP	PKP
TOL	124.933	314.10	1.87	9.65	I	D	LP	PKP
EPT	125.467	56.12	1.86	9.65	E	D	LP	PKP
SCH	131.552	9.89	1.84	9.53	I	D	SP	PKP
HI	134.416	71.53	1.82	9.43	I	D	SP	PKP
HM	134.547	70.16	1.82	9.42	I	D	SP	PKP
PEL	136.718	159.37	1.80	9.31	I	D	LP	PKP
LPA	137.820	175.13	1.79	9.25	E	D	LP	PKP
SHA	140.469	49.50	1.75	9.08	E	D	LP	PKP
BLA	141.755	35.08	1.73	8.97	I	D	SP	PKP
ANT	145.212	152.92	1.67	8.63	I	D	LP	PKP
RDJ	148.174	199.01	1.60	8.26	I	D	SP	PKP
SJS	150.138	82.86	1.54	7.96	I	D	SP	PKP
LCR	150.198	83.25	1.54	7.95	I	D	SP	PKP
NNA	150.227	129.98	1.54	7.95	I	D	SP	PKP
ARE	150.672	143.83	1.52	7.88	I	D	SP	PKP
HUA	151.332	132.02	1.50	7.77	I	D	SP	PKP
LPB	152.465	149.54	1.46	7.57	I	D	LP	PKP
LPB	152.465	149.54	1.46	7.57	I	D	SP	PKP
ZOBO	152.675	149.20	1.46	7.53	E	D	LP	PKP
BEC	153.163	20.41	1.44	7.44	I	D	LP	PKP
BOCO	159.838	96.66	1.16	5.98	I	D	LP	PKP
UAV	162.931	84.60	1.00	5.18	I	D	SP	PKP
SDV	163.419	83.54	0.98	5.05	I	D	SP	PKP
SJG	164.010	46.82	0.95	4.89	I	D	LP	PKP
CAR	166.806	75.26	0.79	4.09	I	D	SP	PKP

Table 248. Station data for event 63

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TRT	4.383	320.97	14.17	83.37	I	C	SP	P
MKS	7.122	34.58	14.00	78.93	I	C	SP	P
NAU	11.336	179.61	13.50	71.15	I	C	SP	P
AAI	14.669	60.64	13.04	66.08	I	C	SP	P
WRA	20.205	117.95	10.44	47.04	I	C	SP	P
KLG	20.330	164.89	10.30	46.22	I	C	SP	P
KLB	20.463	174.27	10.30	46.22	I	D	SP	P
DAV	20.738	29.62	10.30	46.22	I	D	LP	P
PPR	21.038	9.13	10.17	45.47	I	C	SP	P
CGP	21.543	25.74	10.05	44.79	I	D	SP	P
NWAO	21.743	175.87	10.05	44.79	I	D	SP	P
SNG	23.411	320.36	9.68	42.73	I	D	SP	P
ISQ	25.052	115.31	9.47	41.59	I	D	SP	P
CTAO	30.954	110.50	8.82	38.19	E	D	LP	P
CTA	30.954	110.50	8.82	38.19	I	D	LP	P
CHG	33.908	331.22	8.62	37.18	I	D	SP	P
TATO	36.378	9.31	8.47	36.42	E	D	LP	P
ANP	36.586	9.29	8.47	36.42	I	D	LP	P
TOO	37.682	139.35	8.41	36.12	I	D	SP	P
GUMO	38.169	50.68	8.38	35.98	E	D	LP	P
CAN	38.819	133.81	8.32	35.68	I	D	SP	P
RIV	39.692	130.41	8.29	35.53	I	D	SP	P
WIIN	41.452	358.61	8.18	34.99	I	D	SP	P
TAU	42.064	144.58	8.16	34.89	E	D	LP	P
SSE	42.353	7.35	8.13	34.74	I	D	LP	P
NJ2	43.068	4.27	8.10	34.60	I	D	SP	P
KOD	43.294	298.02	8.07	34.45	I	D	SP	P
HYB	46.169	307.44	7.93	33.77	I	D	SP	P
LSA	46.856	330.65	7.88	33.53	I	D	SP	P
TIA	47.119	1.88	7.88	33.53	I	D	SP	P
LZH	48.221	347.41	7.81	33.19	I	D	LP	P
NOU	49.910	109.75	7.66	32.48	I	D	SP	P
POO	50.505	305.33	7.62	32.29	I	D	SP	P
BJI	50.919	0.75	7.58	32.10	I	D	LP	P
PVC	51.508	103.81	7.54	31.91	I	D	SP	P
MAT	52.055	23.30	7.50	31.72	I	D	LP	P
CN2	55.431	8.81	7.22	30.41	I	D	SP	P
SNZO	59.743	131.42	6.92	29.02	E	D	LP	P
WMQ	60.236	337.17	6.88	28.84	I	D	SP	P
KSH	62.266	326.24	6.68	27.92	I	D	SP	P
AVY	65.506	254.23	6.43	26.79	I	D	SP	P
TGI	69.222	311.63	6.14	25.49	I	D	SP	P
KHI	70.199	312.49	6.07	25.18	I	D	SP	P
MHI	70.665	314.83	6.03	25.01	I	D	LP	P
AFI	70.878	100.94	5.99	24.83	E	D	LP	P
ARO	75.524	285.04	5.68	23.46	I	D	SP	P
SGH	75.700	284.89	5.68	23.46	I	D	SP	P
DAF	75.845	285.03	5.64	23.29	I	D	SP	P
KSU	75.901	284.92	5.64	23.29	I	D	SP	P
CLK	77.963	256.23	5.52	22.77	I	D	SP	P

Table 248. Station data for event 63....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NAI	78.584	270.95	5.48	22.59	I	D	SP	P
SPA	78.932	180.00	5.45	22.46	I	D	LP	P
JOZ	79.096	244.02	5.45	22.46	I	D	SP	P
CIR	80.395	250.41	5.31	21.85	I	D	SP	P
EVA	81.875	244.60	5.17	21.25	I	D	SP	P
MSL	82.655	309.19	5.14	21.12	I	D	LP	P
SLR	82.697	245.26	5.14	21.12	E	D	LP	P
SLR	82.697	245.26	5.14	21.12	I	D	SP	P
KRI	82.876	254.28	5.11	20.99	I	D	SP	P
BUL	83.275	250.85	5.08	20.86	I	D	LP	P
KSR	83.909	244.93	5.05	20.73	I	D	SP	P
BLF	84.005	241.62	5.05	20.73	I	D	SP	P
SUR	87.959	237.56	4.77	19.53	I	D	SP	P
SNA	88.523	197.46	4.75	19.45	I	D	SP	P
PPT	91.382	108.09	4.68	19.15	I	D	LP	P
VRI	96.990	315.27	4.53	18.52	I	D	SP	P
KDZ	97.351	310.90	4.52	18.47	I	D	SP	P
BNG	97.574	273.03	4.52	18.47	I	D	SP	P
BCAO	97.585	273.03	4.52	18.47	I	D	SP	P
PVL	97.695	312.39	4.52	18.47	I	D	SP	P
VTS	99.062	311.65	4.48	18.30	I	D	SP	P
KEV	99.817	339.32	4.47	18.26	E	D	LP	P
JOS	101.470	317.44	4.45	18.18	I	D	SP	Pdf
SRO	102.922	316.66	4.45	18.18	I	D	SP	Pdf
COP	106.446	324.87	1.89	7.61	E	D	LP	PKP
KONO	107.533	329.17	1.89	7.61	E	D	LP	PKP
JAS	123.577	51.76	1.87	7.52	E	D	LP	PKP
ANMO	135.219	51.12	1.82	7.33	E	D	LP	PKP
ATX	143.695	53.28	1.70	6.86	I	D	SP	PKP
GAC	144.326	13.13	1.70	6.86	E	D	LP	PKP
MNT	144.900	11.08	1.68	6.78	I	D	SP	PKP
UTO	145.336	25.39	1.68	6.78	I	D	SP	PKP
HC	145.554	71.32	1.66	6.69	I	D	SP	PKP
SCP	148.228	19.35	1.62	6.50	E	D	LP	PKP
PAL	149.145	13.84	1.59	6.39	I	D	LP	PKP
ARE	151.738	165.89	1.50	6.02	I	D	SP	PKP
LPB	152.288	172.73	1.50	6.02	I	D	LP	PKP
ZOBO	152.544	172.61	1.46	5.88	E	D	LP	PKP
BOCO	168.591	124.07	0.68	2.74	E	D	LP	PKP

Table 249. Station data for event 80

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AAI	4.147	33.94	8.12	129.24	I	D	SP	P
MKS	6.654	286.46	9.88	109.46	I	C	SP	P
MTN	7.663	137.95	10.21	103.02	I	C	SP	P
KNA	8.997	161.91	10.42	95.83	I	D	SP	P
TRT	13.142	266.78	10.24	77.72	I	C	SP	P
MBL	15.097	202.16	9.98	72.25	I	D	SP	P
WB2	15.139	147.93	9.97	72.15	I	C	SP	P
TZZ	15.370	83.86	9.95	71.66	I	C	SP	P
CGP	15.549	355.63	9.92	71.27	I	D	SP	P
KKM	16.273	323.44	9.83	69.78	I	C	SP	P
CCP	17.479	353.53	9.68	67.49	I	D	SP	P
LEM	18.126	269.91	9.60	66.41	I	C	LP	P
ASPA	18.134	155.71	9.60	66.39	I	D	SP	P
MEK	20.566	198.98	9.37	63.41	I	D	SP	P
PMG	21.174	97.54	9.32	62.83	I	C	LP	P
MOM	22.043	77.71	9.25	62.00	I	C	SP	P
CTAO	23.571	125.07	9.09	60.22	E	C	LP	P
CTA	23.571	125.07	9.09	60.22	I	C	LP	P
KLG	23.865	189.43	9.06	59.81	I	D	SP	P
BAG	23.991	347.41	9.04	59.63	I	C	LP	P
KGM	24.284	291.22	9.00	59.24	I	C	SP	P
BAL	24.861	199.07	8.94	58.56	I	D	SP	P
SZP	25.123	347.74	8.91	58.28	I	C	SP	P
KLB	25.464	196.27	8.88	57.90	I	D	SP	P
PIP	25.841	348.48	8.85	57.62	I	D	SP	P
KLM	26.243	292.05	8.82	57.36	I	C	SP	P
MUN	26.288	198.80	8.82	57.35	I	D	LP	P
MUN	26.288	198.80	8.82	57.35	I	D	SP	P
RAB	26.327	85.01	8.82	57.33	I	C	LP	P
NWAO	26.867	196.24	8.78	56.92	I	D	SP	P
GUA	27.926	42.64	8.71	56.25	E	C	LP	P
GUMO	27.931	42.49	8.71	56.24	I	C	LP	P
PSI	28.622	289.07	8.67	55.84	I	C	SP	P
STK	28.634	151.26	8.67	55.83	I	D	SP	P
TSI	29.241	290.35	8.63	55.48	I	C	SP	P
TATO	32.216	352.52	8.47	53.91	I	C	LP	P
ANP	32.418	352.62	8.46	53.83	E	C	LP	P
GZH	32.456	338.14	8.46	53.81	I	C	SP	P
QZH	32.679	347.69	8.45	53.71	I	C	SP	P
BFD	33.511	155.48	8.40	53.26	I	D	SP	P
COO	33.722	137.05	8.38	53.15	I	D	SP	P
HNR	33.782	96.24	8.38	53.11	E	C	LP	P
YOU	34.052	145.52	8.36	52.97	I	D	SP	P
TOO	35.127	152.38	8.30	52.38	I	D	SP	P
CAN	35.161	146.11	8.30	52.37	I	D	SP	P
RIV	35.363	142.10	8.29	52.31	I	D	SP	P
RIV	35.363	142.10	8.29	52.31	I	D	LP	P
WAM	35.744	147.23	8.27	52.14	I	D	SP	P
BDT	35.960	312.64	8.26	52.02	I	C	SP	P
CHTO	37.025	314.56	8.21	51.55	I	C	SP	P

Table 249. Station data for event 80....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CHG	37.025	314.56	8.21	51.55	I	C	LP	P
CHTO	37.025	314.56	8.21	51.55	I	C	LP	P
GYA	38.259	331.55	8.14	50.97	I	C	SP	P
SSE	38.292	353.50	8.14	50.95	I	C	LP	P
WHN	39.075	344.13	8.10	50.64	I	C	SP	P
KMI	39.198	325.70	8.10	50.58	I	C	SP	P
NJ2	39.553	350.62	8.07	50.41	I	C	SP	P
SHK	41.951	8.41	7.95	49.33	I	D	SP	P
SHK	41.951	8.41	7.95	49.33	E	D	LP	P
TIA	43.908	349.78	7.83	48.37	I	C	SP	P
XAN	44.002	339.60	7.83	48.32	I	C	SP	P
SEO	44.495	1.24	7.80	48.09	E	C	LP	P
SHIO	46.367	315.76	7.66	46.96	I	C	LP	P
LZH	47.733	335.76	7.56	46.18	I	C	LP	P
BJI	47.801	349.94	7.55	46.13	I	C	SP	P
LSA	49.561	319.36	7.41	45.03	I	C	SP	P
BTO	49.707	344.17	7.40	44.95	I	C	SP	P
CN2	50.712	359.60	7.33	44.40	I	D	SP	P
GTA	52.236	334.50	7.22	43.54	I	C	SP	P
HYB	52.742	298.13	7.18	43.26	I	C	SP	P
RHP	53.251	141.17	7.15	42.99	I	D	SP	P
MCQ	54.158	156.87	7.08	42.53	I	D	SP	P
SNZO	55.004	136.19	7.02	42.10	I	D	LP	P
POO	57.301	297.28	6.85	40.85	I	C	SP	P
NDI	58.878	309.59	6.73	39.99	I	C	SP	P
DRV	60.207	173.56	6.63	39.25	I	D	SP	P
WMQ	61.361	329.35	6.54	38.60	I	C	SP	P
KBL	67.769	311.71	6.04	35.21	E	C	LP	P
KHI	75.559	307.84	5.53	31.86	I	D	SP	P
MHI	75.625	310.17	5.53	31.83	I	D	LP	P
TEH	81.724	307.61	5.07	28.94	I	D	SP	P
PPT	82.701	106.79	5.01	28.57	I	D	LP	P
SPA	82.893	180.00	5.00	28.49	I	D	LP	P
OBO	84.272	282.80	4.88	27.77	I	D	SP	P
ATA	84.276	282.26	4.88	27.77	I	D	SP	P
MKL	84.370	282.51	4.87	27.72	I	D	SP	P
ARO	84.637	282.28	4.85	27.60	I	D	SP	P
SGH	84.828	282.16	4.84	27.54	I	D	SP	P
DAF	84.956	282.31	4.84	27.49	I	D	SP	P
KSU	85.024	282.21	4.83	27.46	I	D	SP	P
NAI	88.923	268.86	4.70	26.66	I	D	SP	P
CLK	88.956	254.43	4.70	26.66	I	D	SP	P
JOZ	90.097	242.47	4.67	26.47	I	D	SP	P
TET	90.233	253.80	4.67	26.44	I	D	SP	P
CIR	91.453	248.75	4.63	26.25	I	D	SP	P
EVA	92.887	242.99	4.59	25.96	I	D	SP	P
SLR	93.719	243.63	4.56	25.82	I	D	LP	P
GRM	93.825	235.92	4.56	25.77	I	D	SP	P
BPI	93.868	243.16	4.55	25.76	I	D	SP	P
BUL	94.331	249.18	4.54	25.70	I	D	LP	P

Table 249. Station data for event 80....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VIR	94.556	241.10	4.54	25.67	I	D	SP	P
COL	94.865	25.29	4.53	25.63	I	D	LP	P
COL	94.865	25.29	4.53	154.37	I	C	LP	AP
ANTO	96.896	309.27	4.49	25.39	E	D	LP	P
SUR	98.760	235.77	4.44	25.08	I	D	SP	P
CER	99.748	234.48	4.44	25.07	I	D	SP	P
WIN	104.361	244.61	4.44	25.07	I	D	SP	Pdf
JOS	105.484	318.26	1.89	10.39	I	D	SP	PKP
KRA	105.678	319.92	1.89	10.39	I	C	SP	PKP
DAG	107.869	351.95	1.89	10.39	I	D	SP	PKP
MUD	110.517	328.03	1.89	10.39	I	D	SP	PKP
MIN	111.732	49.47	1.89	10.38	I	D	SP	PKP
WIT	113.096	324.83	1.88	10.36	I	D	SP	PKP
NEW	113.150	40.36	1.88	10.36	I	D	SP	PKP
ZUL	113.677	318.92	1.88	10.35	I	D	SP	PKP
EDM	113.840	34.39	1.88	10.35	I	D	SP	PKP
ENN	114.219	322.89	1.88	10.34	I	D	SP	PKP
DIX	114.713	317.65	1.88	10.34	I	D	SP	PKP
HAU	114.843	319.91	1.88	10.34	I	D	SP	PKP
UCC	115.140	323.30	1.88	10.33	I	D	SP	PKP
PAS	115.423	55.66	1.88	10.33	I	D	SP	PKP
MSO	115.629	41.17	1.88	10.33	I	D	SP	PKP
SSP	116.500	52.31	1.88	10.32	I	D	SP	PKP
LOR	116.674	319.74	1.88	10.32	I	D	SP	PKP
LBF	116.693	319.41	1.88	10.32	I	D	SP	PKP
SMF	116.894	319.09	1.88	10.32	I	D	SP	PKP
LRM	116.925	41.88	1.88	10.32	I	D	SP	PKP
SSF	116.971	319.61	1.88	10.32	I	D	SP	PKP
HRY	117.039	40.78	1.88	10.32	I	D	SP	PKP
AVF	117.162	319.37	1.88	10.32	I	D	SP	PKP
EKA	117.302	330.03	1.88	10.32	I	D	SP	PKP
MZF	117.858	318.96	1.88	10.31	I	D	SP	PKP
TCF	118.076	319.14	1.87	10.31	I	D	SP	PKP
CAF	118.645	317.73	1.87	10.30	I	D	SP	PKP
FFC	119.149	29.51	1.87	10.30	I	D	SP	PKP
LPO	119.315	317.72	1.87	10.30	I	D	SP	PKP
LPF	119.460	321.95	1.87	10.30	I	D	SP	PKP
MFF	119.473	320.16	1.87	10.30	I	D	SP	PKP
FRB	122.567	7.55	1.87	10.27	I	D	SP	PKP
ANMO	124.660	52.24	1.87	10.26	I	D	LP	PKP
TOL	124.687	314.13	1.87	10.26	I	D	SP	PKP
LIS	128.775	314.82	1.85	10.19	I	D	SP	PKP
LHC	129.265	29.69	1.85	10.18	I	D	SP	PKP
AAM	136.348	31.99	1.80	9.91	I	D	SP	PKP
SHA	140.476	49.23	1.75	9.63	E	D	LP	PKP
BLA	141.701	34.80	1.73	9.52	I	D	LP	PKP
WES	141.764	20.73	1.73	9.52	E	D	LP	PKP
BEC	153.050	20.00	1.44	7.91	E	D	LP	PKP

Table 250. Station data for event 107

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAV	1.582	333.04	14.09	94.91	I	D	LP	P
KKM	10.037	272.64	13.63	74.54	I	C	SP	P
BAG	12.055	332.75	13.37	70.98	I	C	LP	P
TATO	19.741	346.98	10.53	48.12	I	C	LP	P
GUMO	19.913	65.39	10.39	47.28	E	D	LP	P
ANP	19.935	347.21	10.39	47.28	I	C	LP	P
GUA	19.937	65.57	10.39	47.28	I	D	LP	P
QZH	20.538	339.70	10.26	46.51	I	C	SP	P
GZH	21.351	325.46	10.02	45.12	I	C	SP	P
LEM	22.395	236.59	9.82	43.98	I	C	SP	P
KLM	24.710	265.12	9.52	42.31	I	C	SP	P
SNG	25.562	274.75	9.41	41.71	I	C	LP	P
PMG	25.619	125.66	9.41	41.71	E	D	LP	P
SSE	25.742	340.87	9.41	41.71	E	C	LP	P
WB2	26.653	162.91	9.32	41.23	I	D	SP	P
NJ2	27.152	346.05	9.27	40.96	I	C	SP	P
SHK	29.319	10.80	8.95	39.26	I	C	LP	P
CHG	29.689	298.51	8.95	39.26	I	C	LP	P
CHG	29.689	298.51	8.95	39.26	I	C	SP	P
KMI	29.729	313.06	8.95	39.26	E	C	LP	P
WBN	31.615	179.52	8.78	38.38	I	D	SP	P
SEO	31.751	1.01	8.74	38.17	I	C	LP	P
CTAO	32.250	143.04	8.71	38.02	E	D	LP	P
CTA	32.250	143.04	8.71	38.02	I	D	SP	P
MAJO	32.606	17.97	8.71	38.02	I	C	LP	P
MEK	32.953	192.83	8.67	37.81	I	D	SP	P
BJI	35.409	346.53	8.52	37.05	I	C	SP	P
LZH	36.624	328.76	8.46	36.74	I	C	SP	P
BAL	37.215	193.74	8.44	36.64	I	D	SP	P
CN2	37.981	359.00	8.37	36.29	I	C	SP	P
NWAO	39.331	192.07	8.29	35.89	I	D	SP	P
NWAO	39.331	192.07	8.29	35.89	I	C	LP	P
GTA	41.223	328.38	8.20	35.44	I	C	SP	P
ADE	42.072	164.72	8.15	35.19	I	D	SP	P
TAU	51.976	160.45	7.49	31.98	E	D	LP	P
POO	52.664	288.91	7.45	31.79	I	C	SP	P
QUE	60.764	301.39	6.79	28.69	I	C	LP	P
SNZO	64.329	141.31	6.51	27.41	E	D	LP	P
AFI	64.446	108.25	6.51	27.41	E	D	LP	P
KBI	68.370	304.38	6.18	25.91	E	C	LP	P
TAB	78.636	307.55	5.48	22.80	I	C	LP	P
COL	83.165	25.38	5.11	21.18	I	C	LP	P
KEV	87.935	339.89	4.77	19.71	I	C	LP	P
ANTO	89.093	309.79	4.73	19.54	I	C	LP	P
NUR	90.811	331.01	4.69	19.37	I	C	LP	P
PVL	94.227	313.93	4.61	19.03	I	C	SP	P
DAG	95.306	352.39	4.56	18.81	I	C	SP	P
KONO	98.197	332.71	4.51	18.60	I	C	LP	P
KON	98.197	332.71	4.51	18.60	E	C	LP	P
COP	98.464	328.42	4.49	18.51	E	C	LP	P

Table 250. Station data for event 107....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SLR	99.644	244.95	4.46	18.38	I	C	SP	P
GRFO	101.502	323.11	4.45	18.34	I	C	LP	Pdf
STU	103.085	322.79	4.45	18.34	E	C	LP	Pdf
GDH	105.251	359.94	1.89	7.68	I	C	SP	PKP
VAL	111.728	332.71	1.89	7.68	E	C	LP	PKP
SHA	131.087	40.27	1.85	7.50	E	C	LP	PKP
LPA	150.645	172.90	1.53	6.21	I	C	LP	PKP
SJG	153.372	27.22	1.46	5.93	E	C	LP	PKP
RDJ	160.113	209.54	1.17	4.73	I	C	LP	PKP
TRN	162.071	25.33	1.07	4.33	I	C	LP	PKP
LPB	162.238	128.58	1.07	4.33	I	C	LP	PKP
ZOBO	162.370	127.83	1.07	4.33	I	C	LP	PKP

Table 251. Station data for event 111

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAV	2.234	136.98	4.74	151.89	I	D	LP	P
KKM	8.207	251.53	9.80	102.99	I	C	SP	P
BAG	8.341	336.47	9.83	102.12	I	D	LP	P
AAI	13.015	161.27	9.96	81.96	I	D	SP	P
MKS	14.588	198.36	9.81	77.37	I	D	SP	P
TATO	16.331	351.74	9.64	73.46	E	D	SP	P
ANP	16.531	351.94	9.62	73.05	I	D	LP	P
QZH	16.933	342.79	9.58	72.26	I	D	SP	P
KUPT	18.764	181.33	9.42	69.50	I	D	SP	P
TRT	19.893	215.16	9.33	68.13	I	D	SP	P
GUMO	20.989	74.84	9.24	66.83	E	C	LP	P
GUA	21.023	75.00	9.24	66.79	E	C	LP	P
SSE	22.404	353.57	9.11	64.97	I	D	SP	P
PCT	22.921	287.05	9.04	64.09	I	D	SP	P
SNG	23.248	267.87	9.01	63.62	I	D	LP	P
WHN	23.509	338.65	8.98	63.29	I	D	SP	P
NJ2	23.693	348.99	8.96	63.06	I	D	SP	P
GYA	24.130	319.09	8.92	62.51	I	D	SP	P
MOM	25.630	113.63	8.81	61.16	I	C	SP	P
PSI	25.688	257.98	8.80	61.11	I	C	SP	P
BDT	25.794	291.66	8.79	60.98	I	D	SP	P
KMI	26.023	311.36	8.78	60.79	I	D	LP	P
CHG	26.315	295.01	8.76	60.58	I	D	LP	P
CHTO	26.315	295.01	8.76	60.58	I	D	SP	P
TIA	28.064	348.06	8.65	59.38	I	D	SP	P
XAN	28.770	333.26	8.61	58.89	I	D	SP	P
KVG	28.942	111.66	8.60	58.79	I	C	SP	P
CD2	29.060	322.17	8.59	58.72	I	D	SP	P
PMG	29.234	127.52	8.59	58.64	I	C	SP	P
WB2	30.249	160.47	8.53	58.03	I	D	SP	P
MAT	30.531	22.84	8.51	57.85	I	C	SP	P
TIY	30.695	341.79	8.51	57.77	I	D	SP	P
RAB	30.848	113.50	8.50	57.74	I	C	LP	P
BJI	31.951	348.55	8.44	57.05	I	D	SP	P
LZH	32.859	328.98	8.39	56.49	I	D	LP	P
ASPA	33.610	163.52	8.35	56.13	I	D	SP	P
BTO	34.092	340.78	8.32	55.83	I	D	SP	P
WBN	34.747	175.99	8.28	55.47	I	D	SP	P
CTAO	36.031	142.83	8.22	54.85	I	C	SP	P
CTA	36.031	142.83	8.22	54.85	I	C	SP	P
MDJ	36.066	6.74	8.22	54.83	I	C	SP	P
GTA	37.455	328.48	8.15	54.12	I	D	SP	P
KLG	39.364	183.50	8.05	53.18	I	D	SP	P
BAL	39.738	189.91	8.03	53.00	I	D	SP	P
KLB	40.540	188.26	7.99	52.63	I	D	SP	P
PKI	40.974	302.31	7.97	52.40	I	D	SP	P
KKN	41.156	302.56	7.96	52.30	I	D	SP	P
MUN	41.163	190.13	7.96	52.30	I	D	SP	P
DMN	41.240	302.22	7.95	52.25	I	D	SP	P
NWAO	41.927	188.58	7.91	51.85	I	D	SP	P

Table 251. Station data for event 111....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
STK	43.730	158.21	7.81	50.97	I	D	SP	P
CMS	45.101	153.40	7.71	50.04	I	D	SP	P
BRS	45.434	143.13	7.68	49.81	I	C	SP	P
ADE	45.619	163.08	7.67	49.70	I	D	SP	P
WMQ	47.120	324.17	7.56	48.73	I	D	SP	P
NDI	48.212	300.75	7.48	48.05	I	D	SP	P
YOU	48.601	152.93	7.45	47.78	I	D	SP	P
BFD	48.848	160.32	7.43	47.62	I	D	SP	P
POO	49.596	286.84	7.37	47.12	I	D	SP	P
CAN	49.749	153.12	7.36	47.04	I	D	SP	P
TOO	50.243	157.79	7.33	46.77	I	D	SP	P
WAM	50.429	153.84	7.31	46.64	I	D	SP	P
PVC	51.029	121.16	7.26	46.25	I	C	SP	P
NOU	51.758	127.32	7.21	45.84	I	C	SP	P
KSH	52.625	313.55	7.15	45.36	I	D	SP	P
VUN	59.936	116.58	6.62	41.16	I	C	SP	P
MHI	64.395	306.01	6.26	38.52	I	D	LP	P
KHI	64.810	303.55	6.24	38.33	I	D	SP	P
IR7	71.512	304.65	5.76	34.96	I	D	SP	P
TAB	75.008	307.02	5.54	33.45	I	D	LP	P
TDD	79.639	280.43	5.17	30.96	I	D	SP	P
ARO	79.729	280.16	5.17	30.92	I	D	SP	P
SGH	79.945	280.10	5.15	30.83	I	D	SP	P
DAF	80.029	280.28	5.15	30.80	I	D	SP	P
AVY	80.043	249.04	5.15	30.80	I	D	SP	P
HLD	80.124	280.28	5.14	30.76	I	D	SP	P
KSU	80.121	280.20	5.14	30.77	I	D	SP	P
GBR	80.148	279.83	5.14	30.75	I	D	SP	P
SUF	85.909	332.76	4.77	28.29	I	D	SP	P
NUR	87.060	330.73	4.72	27.99	I	D	SP	P
ELL	88.129	306.72	4.71	27.92	I	D	SP	P
VRI	88.856	316.11	4.69	27.82	I	D	SP	P
MLR	89.468	315.85	4.68	27.74	I	D	SP	P
PVL	90.502	313.68	4.65	27.55	I	D	SP	P
KDZ	90.694	312.18	4.65	27.52	I	D	SP	P
CLK	91.428	254.46	4.63	27.43	I	D	SP	P
CLO	91.724	315.94	4.62	27.37	I	D	SP	P
VTS	92.037	313.47	4.61	27.28	I	D	SP	P
KRA	92.288	321.26	4.60	27.21	I	D	SP	P
BUD	93.606	318.97	4.56	26.95	I	D	SP	P
MTD	94.810	253.84	4.53	26.79	I	D	SP	P
PRU	95.612	322.30	4.52	26.70	I	D	SP	P
BRG	95.653	323.27	4.52	26.70	I	D	SP	P
CLL	96.046	323.90	4.51	26.64	I	D	SP	P
KHC	96.504	321.72	4.49	26.53	I	D	SP	P
KRI	96.686	254.03	4.49	26.50	I	D	SP	P
WET	96.926	321.91	4.48	26.47	I	D	SP	P
HOF	97.085	323.24	4.48	26.44	I	D	SP	P
MOX	97.110	323.62	4.48	26.44	I	D	SP	P
GRF	97.718	322.83	4.46	26.35	I	C	SP	P

Table 251. Station data for event 111....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BUL	98.016	250.84	4.45	26.26	I	C	SP	P
SLR	98.892	245.28	4.44	26.20	I	D	SP	P
WTS	99.273	326.14	4.44	26.20	I	D	SP	P
PRY	99.721	244.14	4.44	26.20	I	D	SP	P
ENN	100.332	325.29	4.44	26.20	I	D	SP	Pdf
BNG	104.577	276.89	4.44	26.20	I	D	SP	Pdf
JCT	122.646	45.25	1.87	10.71	I	D	SP	PKP
VBA	150.313	170.38	1.53	8.76	I	D	SP	PKP
LNV	151.152	152.68	1.50	8.60	I	D	SP	PKP

Table 252. Station data for event 112

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAV	1.670	336.49	14.11	90.00	I	D	LP	P
BAG	12.141	333.22	13.37	71.91	I	C	LP	P
MKS	12.652	212.45	13.30	71.01	I	C	SP	P
TATO	19.848	347.19	10.39	47.62	I	C	LP	P
GUMO	20.011	65.14	10.39	47.62	E	D	LP	P
GUA	20.033	65.32	10.39	47.62	I	D	LP	P
ANP	20.043	347.41	10.39	47.62	I	C	LP	P
QZH	20.636	339.93	10.26	46.84	I	C	SP	P
GZH	21.423	325.74	10.02	45.43	I	C	SP	P
LEM	22.285	236.77	9.82	44.28	I	C	SP	P
KGM	23.141	262.16	9.73	43.77	I	C	SP	P
IPM	25.140	268.97	9.46	42.27	I	C	SP	P
SNG	25.522	275.01	9.41	41.99	I	C	LP	P
PMG	25.589	125.39	9.41	41.99	E	D	LP	P
NJ2	27.258	346.20	9.22	40.96	I	C	SP	P
MBL	27.271	193.15	9.22	40.96	I	C	SP	P
RAB	27.638	109.96	9.22	40.96	I	D	LP	P
SHK	29.448	10.84	8.95	39.52	I	C	LP	P
CHG	29.703	298.74	8.95	39.52	I	C	LP	P
CHG	29.703	298.74	8.95	39.52	I	C	SP	P
KMI	29.776	313.28	8.89	39.20	E	C	LP	P
TIA	31.645	345.85	8.78	38.63	I	C	SP	P
CTA	32.183	142.86	8.74	38.42	I	D	SP	P
MEK	32.822	192.79	8.67	38.05	I	C	SP	P
TIY	34.402	340.42	8.58	37.59	I	C	SP	P
BJI	35.516	346.64	8.52	37.28	I	C	SP	P
LZH	36.702	328.90	8.46	36.98	E	C	LP	P
NWAO	39.201	192.03	8.32	36.27	E	C	LP	P
GTA	41.301	328.50	8.18	35.56	I	C	SP	P
BRS	41.586	143.25	8.18	35.56	I	D	SP	P
ADE	41.968	164.63	8.15	35.41	I	D	SP	P
NDI	51.736	302.33	7.53	32.37	I	C	SP	P
TAU	51.878	160.38	7.49	32.18	E	C	LP	P
KBL	60.048	306.78	6.87	29.24	I	C	LP	P
SNZO	64.265	141.24	6.51	27.57	E	D	LP	P
MHI	68.039	306.84	6.22	26.25	I	C	LP	P
KHI	68.397	304.43	6.18	26.06	E	C	LP	P
IR7	75.123	305.33	5.71	23.95	I	C	SP	P
TAB	78.670	307.57	5.48	22.93	I	C	LP	P
ARO	82.461	280.86	5.14	21.43	I	C	LP	P
KEV	88.032	339.89	4.77	19.82	I	C	LP	P
ANTO	89.132	309.79	4.73	19.65	I	C	LP	P
NUR	90.893	331.00	4.69	19.48	E	C	LP	P
EDC	92.810	310.79	4.64	19.26	I	D	SP	P
KDZ	94.445	312.41	4.59	19.05	I	D	SP	P
KRA	96.130	321.52	4.55	18.87	I	D	SP	P
TIM	96.444	317.10	4.54	18.83	I	C	SP	P
KONO	98.283	332.69	4.49	18.62	I	C	LP	P
KON	98.283	332.69	4.49	18.62	E	C	LP	P
COP	98.542	328.40	4.49	18.62	E	C	LP	P

Table 252. Station data for event 112....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BUL	99.037	250.56	4.48	18.57	I	D	SP	P
SLR	99.546	244.93	4.46	18.49	I	C	SP	P
CLL	99.896	324.16	4.46	18.49	I	D	SP	P
MOX	100.960	323.88	4.45	18.44	I	D	SP	Pdf
KBA	101.227	320.06	4.45	18.44	I	D	SP	Pdf
GRFO	101.569	323.08	4.45	18.44	I	C	LP	Pdf
JAS	104.638	48.63	4.45	18.44	E	C	LP	Pdf
UCC	105.042	326.08	1.89	7.72	E	C	LP	PKP
VAL	111.813	332.67	1.89	7.72	E	C	LP	PKP
GOL	114.570	41.68	1.88	7.69	E	C	LP	PKP
ALM	116.230	315.75	1.88	7.68	I	C	SP	PKP
PTO	117.862	322.72	1.88	7.66	E	C	LP	PKP
JCT	123.230	47.99	1.87	7.64	E	C	LP	PKP
MNT	126.170	17.22	1.86	7.62	I	C	SP	PKP
RSCP	129.317	33.75	1.86	7.58	E	C	LP	PKP
LQT	147.992	153.57	1.62	6.59	I	C	SP	PKP
LPA	150.530	173.01	1.53	6.24	I	C	LP	PKP
TOV	157.925	46.44	1.26	5.14	I	C	SP	PKP
RDJ	159.982	209.49	1.17	4.76	I	C	LP	PKP
ZOBO	162.335	128.23	1.07	4.35	I	C	LP	PKP

Table 253. Station data for event 121

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AAI	0.459	40.97	14.23	94.03	I	D	SP	P
MKS	8.478	261.72	13.86	76.31	I	C	SP	P
DAV	11.288	348.16	13.50	71.15	I	D	LP	P
BKB	11.380	283.60	13.50	71.15	E	C	SP	P
JAY	12.879	83.66	13.28	68.58	E	C	SP	P
TRT	15.607	255.80	12.86	64.35	E	C	SP	P
WB2	17.018	158.80	12.58	61.87	I	D	SP	P
MOM	19.581	84.77	10.58	47.87	I	C	SP	P
LEM	20.372	261.30	10.30	46.22	E	C	SP	P
LEM	20.372	261.30	10.30	46.22	I	C	LP	P
MEK	24.164	200.81	9.60	42.30	I	D	SP	P
RAB	24.215	91.24	9.60	42.30	I	C	SP	P
GUMO	24.296	43.62	9.53	41.92	E	C	LP	P
GUA	24.292	43.78	9.53	41.92	I	C	LP	P
KGM	25.284	283.32	9.42	41.33	E	C	SP	P
HKC	29.413	333.43	8.97	38.96	I	C	LP	P
TATO	29.497	348.13	8.97	38.96	I	C	LP	P
ANP	29.693	348.28	8.97	38.96	E	C	LP	P
QZH	30.186	343.03	8.91	38.65	E	C	SP	P
NWAO	30.419	197.89	8.86	38.40	E	N	LP	P
GZH	30.467	332.85	8.86	38.40	I	C	SP	P
HNR	32.266	101.23	8.71	37.63	E	C	LP	P
ADE	32.366	163.27	8.71	37.63	I	D	SP	P
YOU	35.608	150.14	8.53	36.72	I	C	SP	P
CHG	36.441	309.48	8.47	36.42	I	C	LP	P
GYA	36.618	327.03	8.47	36.42	E	C	SP	P
WHN	36.737	340.26	8.47	36.42	I	C	SP	P
CAN	36.745	150.51	8.47	36.42	I	C	SP	P
NJ2	36.898	347.16	8.44	36.27	E	C	SP	P
SHK	38.620	6.33	8.35	35.83	E	C	SP	P
KOU	39.020	117.99	8.32	35.68	I	C	SP	P
TIA	41.281	346.76	8.18	34.99	E	C	SP	P
SEO	41.393	358.89	8.18	34.99	I	C	LP	P
MAT	41.497	12.57	8.18	34.99	I	C	SP	P
MAJO	41.497	12.57	8.18	34.99	I	C	LP	P
NOU	41.516	119.44	8.18	34.99	I	C	SP	P
TIY	43.947	342.26	8.05	34.35	E	C	SP	P
BJI	45.159	347.30	7.99	34.06	I	C	SP	P
LZH	45.817	332.59	7.93	33.77	I	C	SP	P
HHC	47.099	343.07	7.88	33.53	I	C	SP	P
BTO	47.338	341.47	7.85	33.39	E	C	SP	P
CN2	47.663	357.61	7.85	33.39	E	C	SP	P
MDJ	48.451	1.62	7.78	33.05	I	C	SP	P
LSA	48.618	316.07	7.78	33.05	I	C	SP	P
GBA	53.045	290.23	7.42	31.34	E	C	SP	P
HYB	53.147	295.16	7.42	31.34	E	C	SP	P
SNZO	55.921	138.46	7.18	30.22	E	C	LP	P
POO	57.746	294.75	7.07	29.71	I	C	SP	P
NDI	58.528	307.16	7.00	29.39	I	C	SP	P
WMQ	59.779	327.27	6.88	28.84	I	C	SP	P

Table 253. Station data for event 121....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
KSH	64.392	317.48	6.51	27.15	E	C	SP	P
QUE	67.385	304.92	6.26	26.03	I	C	SP	P
KHI	75.281	306.68	5.68	23.46	E	C	SP	P
AVY	79.404	251.61	5.41	22.29	E	C	SP	P
TAB	85.838	308.48	4.90	20.09	E	C	SP	P
COL	91.206	25.13	4.69	19.19	E	C	LP	P
ANTO	96.481	309.50	4.54	18.56	I	C	LP	P
KEV	97.534	339.83	4.52	18.47	I	C	LP	P
DAG	105.071	352.47	1.89	7.61	I	C	SP	PKP
PTO	126.324	319.80	1.86	7.51	E	C	LP	PKP
PEL	139.054	155.93	1.78	7.17	I	C	SP	PKP
TRN	168.684	54.02	0.68	2.74	E	C	LP	PKP

Table 254. Station data for event 122

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MKS	8.505	261.88	13.89	54.50	I	D	SP	P
BKB	11.415	283.66	13.53	52.47	E	C	SP	P
WB2	16.988	158.87	12.61	47.65	I	D	SP	P
MOM	19.552	84.70	10.63	38.54	I	D	SP	P
LEM	20.400	261.36	10.33	37.26	I	C	SP	P
WBN	21.994	183.23	9.97	35.76	I	C	SP	P
MEK	24.156	200.89	9.62	34.32	I	D	SP	P
TATO	29.523	348.09	8.98	31.76	I	C	LP	P
ANP	29.719	348.23	8.98	31.76	I	C	LP	P
PSI	29.747	282.57	8.98	31.76	I	C	SP	P
QZH	30.214	342.99	8.92	31.52	I	C	SP	P
TSI	30.283	283.95	8.86	31.29	E	D	SP	P
NWAO	30.409	197.95	8.86	31.29	E	N	LP	P
GZH	30.499	332.82	8.86	31.29	I	C	SP	P
ADE	32.338	163.30	8.72	30.74	I	C	SP	P
BDT	35.542	307.34	8.53	30.00	I	C	SP	P
YOU	35.576	150.16	8.53	30.00	I	C	SP	P
CAN	36.712	150.53	8.48	29.80	I	C	SP	P
WHN	36.766	340.23	8.45	29.69	I	C	SP	P
NJ2	36.924	347.13	8.45	29.69	I	C	SP	P
WAM	37.357	151.52	8.42	29.57	I	C	SP	P
KOU	38.984	117.99	8.33	29.22	I	C	SP	P
TIA	41.307	346.73	8.19	28.69	I	C	SP	P
NOU	41.479	119.44	8.19	28.69	I	C	SP	P
MAJO	41.509	12.53	8.19	28.69	I	C	LP	P
CD2	41.724	328.08	8.19	28.69	I	C	SP	P
PVC	41.807	112.12	8.16	28.57	I	C	SP	P
XAN	41.917	336.12	8.16	28.57	I	C	SP	P
BJI	45.185	347.27	8.00	27.96	I	C	SP	P
HHC	47.127	343.05	7.88	27.51	I	C	SP	P
BTO	47.367	341.44	7.85	27.39	I	C	SP	P
MDJ	48.470	1.59	7.79	27.17	I	C	SP	P
LSA	48.654	316.06	7.79	27.17	I	C	SP	P
GTA	50.411	331.73	7.62	26.53	I	C	SP	P
PKI	51.655	310.10	7.54	26.23	I	C	SP	P
KKN	51.864	310.26	7.50	26.08	I	C	SP	P
DMN	51.905	309.97	7.50	26.08	I	C	SP	P
SNZO	55.886	138.46	7.18	24.89	E	C	LP	P
POO	57.783	294.75	7.04	24.37	I	C	SP	P
NDI	58.565	307.16	7.00	24.22	I	C	SP	P
WMQ	59.812	327.26	6.89	23.82	I	C	SP	P
KBI	75.318	306.68	5.68	19.45	I	C	LP	P
MAW	76.930	200.90	5.58	19.09	I	C	SP	P
TAB	85.875	308.47	4.91	16.73	I	C	SP	P
ARO	85.989	281.80	4.91	16.73	I	C	LP	P
BUL	97.331	249.21	4.52	15.36	I	C	SP	P
CLO	103.531	315.28	4.45	15.12	I	C	SP	Pdf
UCC	113.848	324.67	1.88	6.34	E	C	LP	PKP
LBF	115.633	320.95	1.88	6.33	E	C	SP	PKP
MAL	125.562	313.10	1.86	6.27	I	C	SP	PKP

Table 254. Station data for event 122....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LHC	125.580	29.68	1.86	6.27	I	C	SP	PKP
PEL	139.023	155.90	1.78	5.99	I	C	SP	PKP
CFA	141.342	157.65	1.75	5.90	E	C	LP	PKP
SLA	148.558	156.14	1.59	5.34	I	D	SP	PKP
PT02	150.494	125.27	1.56	5.25	I	C	SP	PKP

Table 255. Station data for event 123

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAV	1.991	330.38	14.22	90.00	I	C	LP	P
BAG	12.463	332.37	13.33	69.63	I	C	LP	P
TRT	19.004	227.12	12.14	58.63	I	C	SP	P
ANP	20.308	346.72	10.29	46.36	I	C	LP	P
HKC	20.683	325.75	10.29	46.36	I	C	LP	P
QZH	20.933	339.36	10.15	45.55	I	C	SP	P
LEM	22.445	237.62	9.84	43.79	I	C	LP	P
SNG	25.857	275.39	9.37	41.22	I	C	LP	P
SSE	26.106	349.47	9.37	41.22	I	C	LP	P
NJ2	27.528	345.73	9.23	40.48	I	C	SP	P
CHG	30.078	298.80	8.90	38.75	I	C	LP	P
KMI	30.144	313.18	8.90	38.75	E	C	LP	P
CTAO	31.833	143.10	8.75	37.98	I	D	LP	P
CTA	31.833	143.10	8.75	37.98	I	D	SP	P
MAJO	32.830	17.45	8.68	37.62	I	C	LP	P
TIY	34.696	340.11	8.58	37.12	I	C	SP	P
HHC	37.820	341.32	8.38	36.11	I	C	SP	P
NWAO	39.075	192.50	8.32	35.81	I	C	LP	P
GTA	41.637	328.34	8.18	35.12	I	C	SP	P
NDI	52.111	302.36	7.49	31.79	I	C	SP	P
POO	53.022	289.10	7.41	31.41	I	C	SP	P
SNZO	63.911	141.34	6.55	27.43	I	D	LP	P
TAB	79.044	307.59	5.45	22.54	I	C	LP	P
COL	83.340	25.36	5.08	20.93	I	C	LP	P
KEV	88.328	339.91	4.75	19.52	E	C	LP	P
ANTO	89.504	309.82	4.71	19.34	I	C	LP	P
NUR	91.222	331.03	4.69	19.26	I	C	LP	P
MLR	93.632	316.15	4.63	19.00	I	C	SP	P
DAG	95.659	352.43	4.56	18.71	I	C	SP	P
SKO	97.592	313.42	4.52	18.54	I	C	SP	P
KONO	98.605	332.75	4.49	18.41	I	C	LP	P
KON	98.605	332.75	4.49	18.41	I	C	LP	P
COP	98.878	328.45	4.48	18.37	I	C	LP	P
COR	100.379	43.01	4.45	18.24	E	C	LP	Pdf
KMR	100.739	320.86	4.45	18.24	E	C	LP	Pdf
STU	103.503	322.82	4.45	18.24	E	C	LP	Pdf
BNS	103.731	325.44	4.45	18.24	I	C	SP	Pdf
DOU	105.593	325.44	1.89	7.64	E	C	LP	PKP
ESK	106.752	332.68	1.89	7.64	E	C	LP	PKP
VAL	112.136	332.78	1.89	7.64	E	C	LP	PKP
GOL	114.505	41.88	1.88	7.61	E	C	LP	PKP
PTO	118.213	322.82	1.88	7.58	I	C	LP	PKP
JCT	123.125	48.26	1.87	7.55	E	C	LP	PKP
SCP	128.911	23.80	1.86	7.50	E	C	LP	PKP
GEO	130.842	24.43	1.85	7.46	E	C	LP	PKP
SHA	131.157	40.65	1.85	7.46	E	C	LP	PKP
BEC	140.993	15.20	1.75	7.09	E	C	LP	PKP
ROCH	148.003	151.37	1.62	6.52	I	C	SP	PKP
LPA	150.293	172.53	1.56	6.30	I	C	LP	PKP
SJG	153.533	28.02	1.43	5.76	E	C	LP	PKP

Table 255. Station data for event 123....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TRN	162.243	26.54	1.07	4.31	I	C	LP	PKP

Table 256. Station data for event 139

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
LEM	4.631	315.41	14.09	87.52	I	C	LP	P
NAU	13.080	160.83	13.22	69.62	I	D	SP	P
SNG	20.031	328.89	10.39	47.45	I	C	LP	P
BAL	21.050	165.92	10.13	45.91	I	D	SP	P
WBN	21.749	139.01	10.02	45.27	I	D	SP	P
KLB	22.255	164.36	9.82	44.13	I	D	SP	P
MUN	22.260	168.00	9.82	44.13	I	D	SP	P
DAV	22.525	41.05	9.82	44.13	E	C	LP	P
KLG	22.751	155.91	9.73	43.62	I	D	SP	P
NWAO	23.397	166.47	9.66	43.23	I	D	SP	P
WB2	24.626	115.98	9.52	42.46	I	D	SP	P
PCT	26.406	339.00	9.32	41.36	I	D	SP	P
BAG	28.084	20.07	9.17	40.56	I	C	LP	P
ADE	35.399	138.57	8.52	37.17	I	D	SP	P
CTAO	35.466	110.35	8.52	37.17	E	D	LP	P
CTA	35.466	110.35	8.52	37.17	I	D	LP	P
STK	35.679	131.86	8.52	37.17	I	D	SP	P
KMI	35.953	347.36	8.49	37.01	E	C	LP	P
TATO	36.415	16.33	8.46	36.86	E	C	LP	P
ANP	36.620	16.27	8.46	36.86	E	C	LP	P
KOD	38.932	300.37	8.32	36.15	I	D	SP	P
GUMO	41.150	55.67	8.20	35.55	E	N	LP	P
GUA	41.160	55.77	8.20	35.55	E	C	LP	P
RAB	41.355	84.80	8.18	35.45	I	D	LP	P
TOO	41.380	136.95	8.18	35.45	I	D	SP	P
SSE	42.187	13.20	8.15	35.30	E	C	LP	P
PKI	44.902	327.25	7.99	34.51	I	D	SP	P
DMN	45.094	326.97	7.99	34.51	I	D	SP	P
KKN	45.145	327.30	7.99	34.51	I	D	SP	P
TAU	45.501	142.28	7.96	34.36	I	D	LP	P
POO	46.349	307.82	7.90	34.07	I	D	SP	P
GTA	50.374	348.86	7.61	32.66	I	D	SP	P
NDI	50.486	320.84	7.61	32.66	I	D	SP	P
BTO	50.502	359.14	7.61	32.66	I	D	SP	P
KOU	52.312	108.09	7.45	31.89	I	D	SP	P
MAT	53.086	27.54	7.41	31.70	I	D	SP	P
MAJO	53.086	27.54	7.41	31.70	E	N	LP	P
WMQ	57.712	340.29	7.06	30.04	I	D	SP	P
KBL	59.565	320.30	6.91	29.34	I	D	SP	P
AVY	61.492	253.99	6.75	28.60	I	D	SP	P
SNZO	63.734	131.07	6.59	27.86	I	D	LP	P
MHI	66.860	316.64	6.30	26.53	I	D	LP	P
SHI	68.694	307.29	6.18	25.99	I	D	SP	P
ARO	70.974	285.94	5.99	25.13	I	D	SP	P
NAI	74.113	271.57	5.78	24.19	I	D	SP	P
MTD	76.981	255.05	5.58	23.31	I	D	SP	P
KRI	78.846	254.77	5.44	22.69	I	D	SP	P
SLR	79.052	245.65	5.44	22.69	I	D	SP	P
BPI	79.232	245.18	5.44	22.69	I	D	SP	P
BUL	79.380	251.32	5.41	22.56	I	D	SP	P

Table 256. Station data for event 139....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
VIR	80.062	243.15	5.35	22.29	I	D	SP	P
KSR	80.279	245.38	5.30	22.07	I	D	SP	P
BLF	80.540	242.05	5.30	22.07	I	D	SP	P
SWZ	81.522	243.89	5.21	21.68	I	D	SP	P
HLW	86.080	301.09	4.90	20.33	I	D	LP	P
ANTO	87.454	311.07	4.80	19.90	E	D	LP	P
BNG	93.072	273.93	4.64	19.21	I	D	SP	P
BCAO	93.083	273.93	4.64	19.21	E	D	LP	P
PVL	93.761	312.99	4.61	19.08	I	D	SP	P
VTS	95.098	312.20	4.58	18.95	I	D	SP	P
EDM	124.345	30.54	1.87	7.61	I	D	SP	PKP
RXF	125.671	35.80	1.86	7.59	I	C	SP	PKP
LHD	125.712	36.62	1.86	7.59	I	C	SP	PKP
LDM	125.759	36.32	1.86	7.59	I	C	SP	PKP
CLX	125.985	36.51	1.86	7.59	I	C	SP	PKP
JAS	126.419	50.09	1.86	7.59	I	C	SP	PKP
PRI	126.756	52.31	1.86	7.58	I	C	SP	PKP
SBB	129.390	53.25	1.86	7.56	I	D	SP	PKP
PEL	136.919	178.06	1.80	7.35	I	D	SP	PKP
JACH	137.382	178.15	1.80	7.35	I	D	SP	PKP
MNT	144.575	5.48	1.68	6.86	I	D	SP	PKP
TUL	144.735	39.15	1.68	6.86	I	D	LP	PKP
JCT	145.019	50.23	1.68	6.86	I	D	LP	PKP
WES	147.846	3.08	1.62	6.58	E	D	LP	PKP
SCP	148.524	12.79	1.59	6.47	E	D	LP	PKP
BLA	151.200	18.97	1.53	6.22	I	C	LP	PKP
SHA	152.967	38.18	1.46	5.95	E	D	LP	PKP
BEC	157.516	350.16	1.26	5.13	E	D	LP	PKP

Table 257. Station data for event 150

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MNI	3.599	256.50	13.43	98.61	I	D	SP	P
DAV	5.502	330.04	13.59	90.00	I	C	LP	P
MKS	11.583	229.89	13.13	75.15	I	C	SP	P
BKB	12.040	252.95	13.06	74.12	I	C	SP	P
PIP	17.638	335.09	12.13	63.30	I	D	SP	P
TRT	18.549	237.49	10.52	50.74	I	C	SP	P
GUA	19.833	54.85	10.23	48.89	I	D	LP	P
LEM	22.581	246.21	9.70	45.56	I	C	LP	P
WB2	22.870	165.31	9.65	45.27	I	C	SP	P
TATO	23.496	344.24	9.56	44.74	I	D	LP	P
ANP	23.686	344.46	9.54	44.60	I	D	LP	P
QZH	24.400	338.16	9.45	44.09	I	D	SP	P
RAB	24.669	105.11	9.42	43.93	I	D	LP	P
NAU	27.682	206.25	9.13	42.26	I	C	SP	P
CTA	28.348	142.49	9.03	41.68	I	C	SP	P
CTAO	28.348	142.49	9.03	41.68	I	C	LP	P
SSE	29.431	347.44	8.89	40.87	E	D	LP	P
MEK	30.250	197.60	8.82	40.51	I	C	SP	P
NJ2	30.916	344.19	8.78	40.25	I	D	SP	P
WHN	31.062	336.16	8.77	40.19	I	D	SP	P
SHK	32.324	6.71	8.68	39.72	E	D	LP	P
CHG	33.136	301.73	8.63	39.46	I	C	LP	P
CHG	33.136	301.73	8.63	39.46	I	C	SP	P
KLG	33.535	190.76	8.61	39.33	I	C	SP	P
HNR	33.574	110.76	8.61	39.31	E	D	LP	P
BAL	34.542	197.86	8.55	39.00	I	C	SP	P
MAT	35.275	13.83	8.50	38.76	I	D	SP	P
MAJO	35.275	13.83	8.50	38.76	I	D	LP	P
TIA	35.306	344.21	8.50	38.75	I	D	SP	P
STK	36.237	160.74	8.45	38.45	I	C	SP	P
NWAO	36.566	195.78	8.43	38.34	I	C	LP	P
TIY	38.154	339.40	8.33	37.83	I	D	SP	P
ADE	38.315	166.21	8.32	37.77	I	C	SP	P
BJI	39.159	345.15	8.28	37.57	I	D	SP	P
HHC	41.264	340.61	8.16	36.95	I	D	SP	P
CN2	41.406	356.83	8.16	36.90	I	D	SP	P
CAN	42.120	154.52	8.11	36.68	I	C	SP	P
NOU	44.515	125.39	7.99	36.03	I	C	SP	P
LSA	44.587	311.48	7.99	36.01	I	C	SP	P
GTA	45.147	328.54	7.95	35.83	I	D	SP	P
SNZO	60.438	141.18	6.80	30.07	I	C	LP	P
MHI	71.655	307.46	5.92	25.83	I	C	LP	P
PMR	84.432	28.46	5.00	21.62	I	D	SP	P
COL	85.326	25.19	4.95	21.35	I	D	LP	P
MTD	97.124	253.48	4.52	19.43	I	C	SP	P
DAG	98.895	352.73	4.47	19.23	I	D	SP	P
GOL	115.532	43.57	1.88	7.96	E	C	LP	PKP
AAM	127.020	29.50	1.86	7.87	E	C	LP	PKP
LNV	143.497	151.82	1.71	7.24	I	C	SP	PKP
CHCH	143.868	152.68	1.70	7.21	I	C	SP	PKP

Table 257. Station data for event 150....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
TACH	143.968	152.08	1.70	7.20	I	D	SP	PKP
PCH	144.191	152.55	1.70	7.18	I	D	SP	PKP
BACH	144.424	152.33	1.69	7.16	I	D	SP	PKP
PEL	144.507	151.90	1.69	7.16	I	C	SP	PKP
LPA	147.033	170.50	1.64	6.92	I	C	LP	PKP
ZOBO	158.658	131.59	1.23	5.19	I	D	LP	PKP

Table 258. Station data for event 173

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BKB	11.766	235.01	13.40	70.68	I	D	SP	P
BAG	12.225	332.37	13.40	70.68	I	C	LP	P
ANP	20.078	346.88	10.41	47.15	I	C	LP	P
KNA	21.290	173.85	10.03	44.94	I	D	SP	P
PMG	25.429	125.67	9.41	41.50	I	D	LP	P
SNG	25.725	274.97	9.41	41.50	I	C	LP	P
SSE	25.879	349.61	9.37	41.29	I	C	LP	P
RAB	27.449	110.13	9.23	40.54	I	D	LP	P
CHG	29.877	298.57	8.90	38.81	I	C	LP	P
CHG	29.877	298.57	8.90	38.81	I	C	SP	P
KMI	29.918	313.04	8.90	38.81	I	C	LP	P
SEO	31.860	0.77	8.74	37.99	E	C	LP	P
CTA	32.069	143.15	8.74	37.99	I	D	LP	P
CTAO	32.069	143.15	8.74	37.99	I	D	LP	P
MAJO	32.665	17.70	8.71	37.83	I	C	LP	P
MEK	32.879	193.11	8.68	37.68	I	C	SP	P
BJI	35.553	346.37	8.52	36.87	I	C	SP	P
MUN	38.576	194.03	8.35	36.02	I	C	SP	P
NWAO	39.255	192.29	8.29	35.72	I	C	SP	P
NWAO	39.255	192.29	8.29	35.72	I	C	LP	P
ADE	41.924	164.87	8.15	35.03	I	D	SP	P
COO	43.401	147.37	8.07	34.63	I	D	SP	P
TAU	51.819	160.55	7.49	31.83	I	D	LP	P
NDI	51.903	302.26	7.49	31.83	I	C	SP	P
QUE	60.954	301.41	6.80	28.61	E	C	LP	P
MHI	68.196	306.80	6.22	25.98	I	C	LP	P
TAB	78.826	307.56	5.45	22.57	E	C	LP	P
PMR	82.486	28.69	5.14	21.22	I	C	SP	P
COL	83.199	25.37	5.11	21.09	I	C	LP	P
KEV	88.092	339.90	4.77	19.63	I	C	LP	P
NUR	90.983	331.02	4.69	19.29	I	C	SP	P
DAG	95.437	352.42	4.56	18.73	I	C	SP	P
RSNT	97.973	24.23	4.51	18.52	I	C	LP	P
KONO	98.367	332.74	4.49	18.43	I	C	LP	P
COP	98.640	328.45	4.49	18.43	E	C	LP	P
BRG	99.615	323.58	4.47	18.35	I	C	SP	P
SLR	99.736	244.94	4.47	18.35	I	C	LP	P
BER	99.910	334.43	4.47	18.35	I	C	LP	P
COR	100.303	42.96	4.45	18.26	E	C	LP	Pdf
UCC	105.148	326.15	1.89	7.65	E	C	LP	PKP
GDH	105.362	359.99	1.89	7.65	E	C	LP	PKP
VAL	111.897	332.76	1.89	7.65	E	C	LP	PKP
PTO	117.978	322.83	1.88	7.59	E	C	LP	PKP
SCP	128.764	23.64	1.86	7.51	E	C	LP	PKP
BLA	130.616	28.39	1.85	7.47	E	C	LP	PKP
SHA	131.071	40.45	1.85	7.47	E	C	LP	PKP
SJG	153.400	27.61	1.46	5.91	E	C	LP	PKP

Table 259. Station data for event 176

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MKS	2.904	359.33	14.16	90.00	I	D	SP	P
WBN	19.121	160.25	12.12	58.87	I	C	SP	P
ASPA	20.704	139.84	10.27	46.49	I	C	SP	P
BAL	22.500	186.31	9.83	43.97	I	C	SP	P
ISQ	23.055	124.96	9.74	43.46	I	C	SP	P
SNG	24.209	308.44	9.58	42.58	I	D	LP	P
BAG	24.413	2.50	9.52	42.25	I	D	LP	P
CTA	28.478	117.47	9.09	39.94	I	C	LP	P
CTAO	28.478	117.47	9.09	39.94	E	C	LP	P
ADE	31.989	149.34	8.74	38.12	I	C	SP	P
TATO	32.967	3.31	8.67	37.76	E	D	LP	P
CHG	33.590	323.04	8.64	37.60	I	D	LP	P
CMS	33.773	137.04	8.61	37.45	I	C	SP	P
KMI	36.872	334.17	8.44	36.59	I	D	LP	P
YOU	37.177	138.56	8.44	36.59	I	C	SP	P
TOO	37.573	145.18	8.40	36.39	I	C	SP	P
COO	37.603	130.79	8.40	36.39	I	C	SP	P
SSE	39.040	2.29	8.32	35.99	E	D	LP	P
TAU	42.370	149.42	8.12	34.99	I	C	LP	P
NOU	47.235	112.82	7.87	33.77	I	C	SP	P
BJI	48.030	356.56	7.81	33.48	I	D	SP	P
PVC	48.393	106.43	7.77	33.28	I	C	SP	P
TET	83.889	254.60	5.05	20.89	I	C	SP	P
CNG	84.054	244.37	5.05	20.89	I	C	SP	P
EVA	86.800	243.83	4.82	19.90	I	C	SP	P
SLR	87.611	244.50	4.80	19.82	I	C	LP	P
ESK	114.914	327.97	1.88	7.64	E	C	LP	PKP
SHA	145.785	45.31	1.66	6.74	I	C	LP	PKP
BLA	145.878	29.02	1.66	6.74	I	C	LP	PKP
BLA	145.878	29.02	1.66	6.74	I	D	SP	PKP
SJG	168.667	28.48	0.68	2.75	E	C	LP	PKP

Table 260. Station data for event 179

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MKS	10.672	276.39	13.07	78.52	I	C	SP	P
DAV	14.253	341.38	12.60	70.84	I	C	LP	P
PMG	17.113	100.77	12.06	64.74	E	D	LP	P
MOM	17.795	76.29	10.81	54.17	I	D	SP	P
KKM	18.661	311.68	10.45	51.60	I	C	SP	P
KVG	20.976	80.17	9.92	48.03	I	D	SP	P
MEK	22.822	207.59	9.61	46.11	I	C	SP	P
BAG	24.656	337.59	9.40	44.80	I	C	LP	P
GUA	24.752	36.38	9.39	44.77	E	C	LP	P
BAL	27.068	206.07	9.17	43.46	I	D	SP	P
KLB	27.491	203.31	9.11	43.07	I	D	SP	P
MUN	28.465	205.38	8.97	42.28	I	C	SP	P
CMS	28.861	151.36	8.93	42.02	I	D	SP	P
NWAO	28.878	202.85	8.93	42.00	E	N	LP	P
NWAO	28.878	202.85	8.93	42.00	I	C	SP	P
ADE	29.395	165.53	8.87	41.70	I	D	SP	P
COO	31.472	142.21	8.72	40.81	I	D	SP	P
YOU	32.372	151.01	8.66	40.51	I	D	SP	P
TATO	32.407	345.28	8.66	40.50	E	N	LP	P
ANP	32.598	345.43	8.65	40.43	E	C	LP	P
CAN	33.513	151.36	8.59	40.11	I	D	SP	P
TOO	33.926	157.83	8.57	39.98	I	D	SP	P
WAM	34.171	152.40	8.56	39.91	I	D	SP	P
PCT	35.411	306.65	8.48	39.49	I	C	SP	P
KOU	35.923	116.25	8.45	39.32	I	D	SP	P
KHT	37.749	304.29	8.34	38.71	I	C	SP	P
SSE	38.359	347.61	8.30	38.51	I	C	LP	P
NOU	38.388	117.93	8.30	38.50	I	D	SP	P
BDT	38.767	307.94	8.29	38.41	I	C	SP	P
PVC	38.886	110.17	8.28	38.38	I	D	SP	P
CHG	39.722	309.89	8.23	38.12	I	C	LP	P
KMI	41.215	320.75	8.15	37.69	I	C	LP	P
SEO	43.948	356.39	8.01	36.91	E	C	LP	P
LZH	49.033	331.65	7.67	35.12	I	C	LP	P
SNZO	52.606	138.27	7.39	33.64	I	D	LP	P
PKI	54.902	310.24	7.21	32.72	I	C	SP	P
KKN	55.113	310.40	7.20	32.65	I	C	SP	P
DMN	55.152	310.11	7.19	32.64	I	C	SP	P
POO	60.798	295.32	6.76	30.47	I	C	SP	P
NDI	61.784	307.31	6.68	30.07	I	C	SP	P
QUE	70.614	305.01	5.98	26.63	I	C	SP	P
MAW	75.439	201.42	5.65	25.07	I	D	SP	P
MHI	78.471	308.94	5.45	24.11	I	C	LP	P
AVY	80.739	251.93	5.24	23.12	I	C	SP	P
IR7	85.311	306.58	4.93	21.70	I	C	SP	P
TDD	88.602	281.97	4.73	20.75	E	C	LP	P
ARO	88.627	281.69	4.73	20.75	I	C	LP	P
SGH	88.821	281.57	4.72	20.73	E	C	LP	P
DAF	88.945	281.73	4.72	20.72	E	C	LP	P
TAB	89.107	308.30	4.72	20.70	I	C	LP	P

Table 260. Station data for event 179....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COL	92.500	25.02	4.65	20.40	I	C	LP	P
NAI	93.151	268.37	4.62	20.29	I	C	SP	P
DAG	107.799	352.82	1.89	8.15	I	C	SP	PKP
EDM	110.915	35.17	1.89	8.15	I	C	SP	PKP
SAX	115.398	319.61	1.88	8.10	E	C	LP	PKP
LLS	115.748	319.29	1.88	8.10	E	C	LP	PKP
TMA	116.078	318.52	1.88	8.10	E	C	LP	PKP
DIX	117.046	318.88	1.88	8.09	E	C	LP	PKP
LBF	118.910	320.83	1.88	8.08	I	C	SP	PKP
SMF	119.131	320.51	1.87	8.08	I	C	SP	PKP
AVF	119.380	320.82	1.87	8.08	I	C	SP	PKP
CAF	120.963	319.28	1.87	8.07	I	C	SP	PKP
LPF	121.504	323.65	1.87	8.07	I	C	SP	PKP
MFF	121.634	321.83	1.87	8.07	I	C	SP	PKP
RSON	122.794	31.47	1.87	8.06	I	C	SP	PKP
PTO	129.637	319.68	1.85	7.98	E	C	LP	PKP
RSCP	136.296	43.50	1.81	7.79	I	C	SP	PKP
BLA	138.691	37.92	1.78	7.68	E	C	LP	PKP
WES	139.551	24.68	1.77	7.63	E	C	LP	PKP

Table 261. Station data for event 181

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAV	5.510	341.93	13.76	87.36	E	C	LP	P
AAI	5.538	170.65	13.76	87.31	I	C	SP	P
MKS	10.482	228.18	13.37	76.12	I	C	SP	P
TRT	17.413	236.94	12.27	62.95	I	C	SP	P
KNA	17.510	175.28	12.25	62.77	I	D	SP	P
LEM	21.433	246.21	9.93	46.15	I	C	SP	P
WB2	22.703	162.57	9.71	44.82	I	C	SP	P
ISQ	25.405	152.40	9.38	42.91	I	C	SP	P
ASPA	26.128	166.14	9.32	42.57	I	C	SP	P
NAU	26.803	204.78	9.25	42.18	I	C	SP	P
WBN	27.795	181.38	9.14	41.57	I	C	SP	P
CTAO	28.628	140.40	9.01	40.87	E	C	LP	P
CTA	28.628	140.40	9.01	40.87	I	C	SP	P
MEK	29.493	196.06	8.91	40.31	I	C	SP	P
KHT	31.127	296.02	8.78	39.60	I	D	SP	P
BDT	31.753	300.61	8.74	39.36	I	D	SP	P
KLG	32.886	189.28	8.66	38.94	I	C	SP	P
SHK	32.931	8.19	8.65	38.92	I	D	SP	P
BAL	33.779	196.55	8.60	38.65	I	D	SP	P
KLB	34.431	194.48	8.56	38.44	I	D	SP	P
MUN	35.211	196.46	8.52	38.20	I	C	SP	P
NWAO	35.834	194.53	8.48	37.99	I	C	SP	P
MAT	35.995	15.04	8.47	37.95	I	D	SP	P
CMS	37.505	153.51	8.38	37.47	I	C	SP	P
ADE	38.117	164.73	8.34	37.28	I	C	SP	P
COO	39.835	145.91	8.25	36.79	I	C	SP	P
YOU	41.006	152.99	8.19	36.48	I	C	SP	P
CAN	42.154	153.21	8.12	36.14	I	C	SP	P
KOU	42.510	123.45	8.11	36.07	I	C	SP	P
TOO	42.658	158.52	8.10	36.03	I	C	SP	P
WAM	42.832	154.03	8.09	35.97	I	C	SP	P
PVC	44.830	117.48	7.98	35.40	I	C	SP	P
NOU	45.101	124.36	7.96	35.32	I	C	SP	P
HYB	50.308	291.14	7.61	33.51	I	D	SP	P
NDI	54.646	304.29	7.26	31.80	I	D	SP	P
POO	54.917	291.35	7.24	31.69	I	D	SP	P
QUE	63.644	302.89	6.56	28.43	I	D	SP	P
MHI	71.117	307.77	5.96	25.65	I	D	LP	P
IR7	78.133	305.96	5.49	23.50	I	D	SP	P
MAW	82.165	200.42	5.15	21.95	I	D	SP	P
DAG	99.231	352.51	4.46	18.91	I	D	SP	P
FUR	105.675	321.32	1.89	7.89	I	D	SP	PKP
CHCH	143.910	154.22	1.70	7.10	I	D	SP	PKP
PEL	144.565	153.47	1.69	7.05	I	D	SP	PKP

Table 262. Station data for event 182

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MTN	19.974	103.74	10.32	47.88	I	C	SP	P
DAV	21.190	42.83	10.02	46.09	E	C	LP	P
WBN	22.674	141.92	9.74	44.44	I	D	SP	P
KLG	23.982	157.94	9.55	43.32	I	D	SP	P
NWAO	24.768	167.90	9.45	42.78	I	D	LP	P
WB2	25.006	119.12	9.43	42.64	I	C	SP	P
BAG	26.572	20.38	9.29	41.88	E	C	LP	P
ISQ	29.831	116.80	8.88	39.68	I	C	SP	P
CHG	29.874	336.11	8.88	39.65	I	C	SP	P
TATO	34.893	16.40	8.54	37.88	I	C	LP	P
CTA	35.686	112.40	8.50	37.64	I	C	SP	P
CTAO	35.686	112.40	8.50	37.64	I	C	LP	P
CMS	39.356	130.11	8.29	36.55	I	D	SP	P
GUMO	40.039	56.83	8.25	36.34	I	C	LP	P
TOO	42.244	138.30	8.12	35.72	I	D	SP	P
YOU	42.558	132.33	8.11	35.63	I	C	SP	P
CAN	43.497	133.32	8.06	35.39	I	D	SP	P
WAM	43.835	134.49	8.04	35.28	I	D	SP	P
PKI	43.851	326.06	8.04	35.27	I	C	SP	P
DMN	44.049	325.79	8.03	35.22	I	C	SP	P
KKN	44.093	326.13	8.02	35.21	I	C	SP	P
RIV	44.421	130.25	8.01	35.16	I	D	SP	P
TAU	46.475	143.36	7.89	34.54	E	C	LP	P
SHK	47.515	24.15	7.83	34.23	I	C	SP	P
HNR	48.077	94.90	7.79	34.06	I	C	LP	P
NDI	49.564	319.76	7.67	33.46	I	C	SP	P
OYM	51.193	29.48	7.54	32.82	I	C	SP	P
SRY	51.359	29.36	7.53	32.76	I	C	SP	P
MAT	51.611	27.77	7.51	32.66	I	C	SP	P
MAJO	51.611	27.77	7.51	32.66	I	C	LP	P
DDR	51.633	29.00	7.51	32.65	I	C	SP	P
TSK	52.246	29.60	7.46	32.41	I	C	SP	P
KOU	52.460	109.21	7.44	32.33	I	C	SP	P
NOU	54.626	111.14	7.27	31.49	I	C	SP	P
AVY	62.242	253.22	6.68	28.68	I	C	SP	P
SNZO	64.455	131.66	6.50	27.85	E	C	LP	P
MHI	66.024	316.03	6.38	27.27	I	C	LP	P
IR7	72.077	311.80	5.90	25.10	I	C	SP	P
NAI	74.423	271.09	5.73	24.34	I	C	SP	P
TET	75.854	255.52	5.64	23.91	I	C	SP	P
JOZ	76.476	243.87	5.60	23.73	I	C	SP	P
EVA	79.208	244.65	5.42	22.94	I	C	SP	P
SLR	79.982	245.37	5.34	22.57	I	C	LP	P
SLR	79.982	245.37	5.34	22.57	I	C	SP	P
BUL	80.186	251.03	5.32	22.47	I	C	SP	P
GRM	80.864	237.62	5.26	22.21	I	C	SP	P
VIR	81.043	242.90	5.24	22.14	I	C	SP	P
HLW	85.611	300.93	4.94	20.78	I	C	LP	P
SUR	85.784	238.04	4.91	20.67	I	C	SP	P
ADK	85.918	36.25	4.90	20.60	I	C	SP	P

Table 262. Station data for event 182....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BCK	87.869	308.21	4.77	20.07	I	C	SP	P
ELL	88.250	307.40	4.75	19.98	I	C	SP	P
ALT	88.579	309.68	4.74	19.90	I	C	SP	P
GPA	88.692	310.92	4.73	19.87	I	C	SP	P
YER	89.603	307.51	4.71	19.78	I	C	SP	P
DST	89.817	309.99	4.71	19.79	I	C	SP	P
IST	89.826	311.45	4.71	19.78	I	C	SP	P
IZM	90.633	308.60	4.70	19.73	I	C	SP	P
PSN	90.932	313.92	4.69	19.70	I	C	SP	P
VRI	92.352	315.88	4.65	19.54	I	C	SP	P
MLR	92.828	315.42	4.64	19.49	I	C	SP	P
BNG	93.315	273.96	4.63	19.45	I	C	SP	P
HON	93.795	69.13	4.62	19.38	I	C	LP	P
VAY	94.655	310.93	4.58	19.23	I	C	SP	P
SKO	95.575	311.47	4.56	19.11	I	C	SP	P
NUR	95.794	330.23	4.55	19.07	I	C	SP	P
JOS	96.880	317.93	4.53	19.00	I	C	SP	P
PSZ	97.260	317.31	4.52	18.98	I	C	SP	P
KRA	97.405	319.47	4.52	18.96	I	C	SP	P
UPP	99.245	329.31	4.47	18.74	I	C	SP	P
BRG	101.264	320.14	4.45	18.65	I	C	SP	Pdf
KHC	101.505	318.36	4.45	18.65	I	C	SP	Pdf
WET	101.963	318.38	4.45	18.65	I	C	SP	Pdf
GRC1	102.859	318.25	4.45	18.65	I	C	SP	Pdf
OGA	103.250	316.07	4.45	18.65	I	C	SP	Pdf
KON	103.313	329.26	4.45	18.65	E	C	LP	Pdf
SAX	104.384	316.51	4.45	18.65	I	C	LP	Pdf
LLS	104.640	316.13	4.45	18.65	I	C	SP	Pdf
TMA	104.765	315.34	4.45	18.65	I	C	SP	Pdf
MMK	105.399	315.32	1.89	7.81	I	C	SP	PKP
DIX	105.782	315.38	1.89	7.81	I	C	LP	PKP
PTO	118.017	312.08	1.88	7.75	E	C	LP	PKP
PTO	118.017	312.08	1.88	7.75	I	C	SP	PKP
WDC	122.820	46.99	1.87	7.72	I	C	SP	PKP
EDM	122.890	30.18	1.87	7.72	I	C	SP	PKP
JAS	125.196	49.38	1.87	7.71	I	C	SP	PKP
PRI	125.569	51.55	1.86	7.70	I	C	SP	PKP
FFC	126.999	23.45	1.86	7.69	I	C	SP	PKP
SBB	128.218	52.41	1.86	7.67	I	C	SP	PKP
LPA	135.473	192.72	1.82	7.50	E	C	LP	PKP
RLO	143.653	37.17	1.71	7.06	I	C	SP	PKP
GBO	143.768	37.71	1.71	7.05	I	C	SP	PKP
JCT	143.794	48.91	1.71	7.05	E	C	LP	PKP
RSNY	143.908	7.01	1.70	7.04	I	C	SP	PKP
BNH	144.150	3.05	1.70	7.02	I	C	SP	PKP
WES	146.345	3.43	1.65	6.83	E	C	LP	PKP
SCP	147.000	12.74	1.64	6.76	E	C	LP	PKP
PWLA	148.399	31.20	1.60	6.62	I	C	SP	PKP
BLA	149.684	18.64	1.57	6.47	E	C	LP	PKP
SHA	151.580	36.92	1.51	6.23	E	C	LP	PKP

Table 262. Station data for event 182....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SJG	170.276	345.14	0.60	2.49	E	C	LP	PKP

Table 263. Station data for event 185

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MKS	11.408	218.79	13.46	71.77	I	C	SP	P
TRT	17.996	230.81	12.33	60.47	I	C	SP	P
ANP	21.872	347.51	9.92	44.43	I	C	LP	P
WB2	24.731	162.38	9.52	42.20	I	C	SP	P
SSE	27.682	349.94	9.22	40.59	E	C	LP	P
ASPA	28.149	165.73	9.17	40.32	I	C	SP	P
NST	28.622	296.26	9.09	39.90	I	C	SP	P
CTAO	30.541	141.57	8.85	38.65	I	C	LP	P
CTA	30.541	141.57	8.85	38.65	I	C	SP	P
CHG	30.917	301.11	8.82	38.49	I	C	SP	P
SHK	31.145	9.70	8.82	38.49	I	C	LP	P
MAJO	34.339	16.67	8.58	37.26	I	C	LP	P
BAL	35.439	194.83	8.52	36.96	I	C	SP	P
HNR	35.699	111.71	8.52	36.96	E	C	LP	P
NWAO	37.532	193.01	8.41	36.40	I	D	SP	P
NWAO	37.532	193.01	8.41	36.40	I	C	LP	P
LZH	38.432	329.71	8.35	36.10	I	C	LP	P
ADE	40.142	164.52	8.26	35.65	I	C	SP	P
KOU	44.142	124.70	8.04	34.57	I	C	SP	P
PVC	46.329	118.78	7.90	33.88	I	C	SP	P
NOU	46.751	125.47	7.87	33.73	I	C	SP	P
TAU	50.066	160.20	7.65	32.67	I	C	LP	P
MSZ	60.689	147.31	6.83	28.81	I	C	SP	P
SNZO	62.640	140.86	6.67	28.08	I	C	LP	P
MHI	69.414	307.34	6.10	25.50	I	C	LP	P
HON	75.027	69.05	5.71	23.76	I	C	LP	P
TAB	80.059	307.82	5.35	22.18	E	C	LP	P
MAW	83.724	200.23	5.08	21.01	I	C	SP	P
COL	84.758	25.29	4.99	20.62	E	C	LP	P
KBS	90.978	349.87	4.69	19.33	E	C	LP	P
CIN	94.485	308.01	4.60	18.94	I	C	SP	P
CNG	95.608	244.08	4.56	18.77	I	C	SP	P
VTS	97.312	313.60	4.52	18.60	I	C	SP	P
SLR	99.118	244.67	4.48	18.43	I	C	LP	P
SLR	99.118	244.67	4.48	18.43	I	C	SP	P
RSNT	99.548	24.38	4.47	18.39	I	C	LP	P
SEK	99.677	242.05	4.47	18.39	I	C	SP	P
KON	100.044	332.64	4.45	18.30	E	C	LP	Pdf
BNG	107.676	275.82	1.89	7.66	I	C	SP	PKP
MNT	127.766	17.93	1.86	7.53	I	C	SP	PKP
SCP	130.344	24.38	1.85	7.51	E	C	LP	PKP
BLA	132.116	29.29	1.84	7.46	E	C	LP	PKP
SHA	132.323	41.63	1.84	7.46	E	C	LP	PKP
VBA	144.962	168.14	1.68	6.82	I	C	SP	PKP
CHCH	145.927	153.86	1.66	6.74	I	C	SP	PKP
PCH	146.253	153.74	1.66	6.74	I	C	SP	PKP
PEL	146.578	153.06	1.64	6.65	I	C	SP	PKP
LPA	148.707	172.79	1.59	6.43	E	C	LP	PKP
VCA	151.427	151.99	1.53	6.19	I	C	SP	PKP
SJG	154.903	29.70	1.39	5.62	E	C	LP	PKP

Table 264. Station data for event 202

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BKB	4.829	240.88	14.13	83.38	I	D	SP	P
KKM	6.897	315.70	13.98	79.36	I	C	SP	P
DAV	7.476	36.98	13.93	78.32	I	D	LP	P
CGP	8.170	26.24	13.89	77.54	I	D	SP	P
TRT	12.110	223.75	13.41	70.51	I	C	SP	P
PGP	12.336	359.55	13.34	69.69	I	D	SP	P
BAG	15.234	358.27	12.93	65.36	I	D	LP	P
LEM	15.539	239.45	12.84	64.51	I	C	LP	P
GZH	23.114	341.66	9.75	43.27	I	D	SP	P
ANP	23.959	1.04	9.59	42.39	I	D	LP	P
WB2	24.631	148.71	9.53	42.06	I	C	SP	P
GUA	26.661	61.25	9.32	40.93	E	D	LP	P
CHTO	27.936	310.45	9.18	40.19	I	C	LP	P
ISQ	28.236	141.10	9.18	40.19	I	C	SP	P
SSE	29.845	0.23	8.90	38.73	I	D	LP	P
RAB	31.534	99.76	8.78	38.11	I	C	LP	P
BAL	31.780	187.12	8.75	37.96	I	C	SP	P
CTA	32.447	131.76	8.71	37.76	I	C	SP	P
CTAO	32.447	131.76	8.71	37.76	I	C	LP	P
KLB	32.642	185.21	8.71	37.76	I	C	SP	P
MUN	33.196	187.53	8.68	37.60	I	C	LP	P
CD2	33.888	332.72	8.61	37.25	I	D	SP	P
NWAO	34.015	185.75	8.61	37.25	I	C	LP	P
SEO	36.706	7.87	8.47	36.54	I	D	LP	P
DL2	37.640	0.74	8.41	36.24	I	D	SP	P
STK	38.124	151.09	8.38	36.09	I	C	SP	P
MAJO	38.689	22.34	8.35	35.94	I	D	LP	P
ADE	39.485	156.93	8.29	35.65	I	C	SP	P
HNR	40.118	105.96	8.26	35.50	E	C	LP	P
SNY	40.619	2.90	8.23	35.35	I	D	SP	P
GTA	42.786	335.60	8.10	34.71	I	D	SP	P
PKI	43.117	310.81	8.10	34.71	I	C	SP	P
KKN	43.329	310.99	8.07	34.56	I	C	SP	P
DMN	43.366	310.65	8.07	34.56	I	C	SP	P
KOU	47.461	119.41	7.84	33.45	I	C	SP	P
TAU	49.757	154.78	7.65	32.53	E	C	LP	P
NOU	49.981	120.57	7.65	32.53	I	C	SP	P
WMQ	51.867	329.60	7.49	31.77	I	D	SP	P
SNZO	64.272	137.66	6.51	27.24	I	C	LP	P
MHI	66.686	309.33	6.35	26.51	I	C	SP	P
KHI	66.761	306.87	6.30	26.29	I	C	LP	P
AFI	68.148	105.36	6.22	25.93	E	C	LP	P
ARO	78.227	281.47	5.52	22.83	E	C	LP	P
MAW	79.358	199.35	5.41	22.35	I	C	SP	P
HON	81.165	68.72	5.26	21.70	E	C	LP	P
NAI	84.275	268.62	5.02	20.67	I	C	SP	P
HLW	89.215	299.68	4.73	19.42	I	C	LP	P
CNG	89.454	243.85	4.71	19.34	I	D	SP	P
COL	89.519	25.25	4.71	19.34	E	D	LP	P
COL	89.519	25.25	4.71	19.34	E	N	LP	P

Table 264. Station data for event 202....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
JOZ	89.582	242.70	4.71	19.34	I	D	SP	P
MTD	89.800	253.32	4.71	19.34	I	C	SP	P
SPA	91.077	180.00	4.69	19.25	E	C	LP	P
KRI	91.686	253.30	4.68	19.21	I	C	SP	P
BUL	92.660	250.01	4.66	19.12	I	C	SP	P
SLR	92.963	244.44	4.64	19.04	I	C	LP	P
SLR	92.963	244.44	4.64	19.04	I	D	SP	P
BPI	93.188	244.00	4.64	19.04	I	D	SP	P
PVL	93.565	313.15	4.63	19.00	I	C	SP	P
DAG	99.073	351.34	4.48	18.36	I	C	SP	P
COP	99.516	327.03	4.47	18.31	E	C	LP	P
BCAO	102.392	274.75	4.45	18.23	I	C	LP	Pdf
PTO	118.011	318.80	1.88	7.58	E	C	LP	PKP
JCT	130.047	47.54	1.85	7.48	E	C	LP	PKP
BLA	137.017	25.38	1.80	7.28	E	C	LP	PKP
CHCH	145.535	162.66	1.66	6.71	I	C	SP	PKP
PCH	145.867	162.65	1.66	6.71	I	D	SP	PKP
LAV	145.972	160.59	1.66	6.71	I	D	LP	PKP
PEL	146.259	162.10	1.66	6.71	I	D	SP	PKP
LPA	146.340	181.51	1.66	6.71	E	C	LP	PKP
JACH	146.716	161.93	1.64	6.62	I	C	SP	PKP
ANT	154.917	154.54	1.39	5.60	I	C	LP	PKP
LPB	162.200	150.07	1.07	4.31	E	C	LP	PKP

Table 265. Station data for event 209

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BKB	4.685	239.22	14.16	56.31	I	D	SP	P
DAV	7.558	38.35	13.96	55.11	I	D	LP	P
LEM	15.397	238.94	12.86	49.08	I	C	LP	P
KNA	18.502	155.32	12.27	46.14	I	C	SP	P
SNG	21.054	287.13	10.17	36.70	I	C	SP	P
QZH	23.770	354.89	9.60	34.34	I	D	SP	P
BDT	26.805	307.92	9.28	33.04	I	D	SP	P
GUA	26.809	61.51	9.28	33.04	E	D	LP	P
CHG	27.758	310.62	9.18	32.64	I	D	SP	P
RAB	31.733	99.77	8.79	31.10	I	C	LP	P
CTAO	32.623	131.60	8.72	30.82	I	C	LP	P
MUN	33.218	187.22	8.68	30.67	I	C	LP	P
NWAO	34.042	185.45	8.62	30.43	I	C	LP	P
NWAO	34.042	185.45	8.62	30.43	I	C	SP	P
SEO	36.687	8.14	8.47	29.85	I	D	LP	P
MAJO	38.720	22.58	8.35	29.38	I	D	LP	P
ADE	39.605	156.74	8.29	29.15	I	C	SP	P
HNR	40.317	105.95	8.24	28.96	I	C	LP	P
GTA	42.664	335.76	8.13	28.54	I	D	SP	P
PKI	42.940	310.90	8.10	28.42	I	D	SP	P
KKN	43.152	311.09	8.10	28.42	I	D	SP	P
DMN	43.189	310.75	8.10	28.42	I	D	SP	P
NDI	49.826	307.47	7.66	26.75	I	D	SP	P
NOU	50.171	120.52	7.66	26.75	I	C	SP	P
MHI	66.506	309.36	6.35	21.91	I	C	SP	P
AFI	68.348	105.35	6.18	21.29	E	C	LP	P
MAW	79.337	199.31	5.41	18.54	I	C	SP	P
HON	81.329	68.73	5.22	17.86	E	C	LP	P
NAI	84.082	268.61	5.05	17.26	I	C	SP	P
COL	89.559	25.25	4.71	16.07	E	C	LP	P
SPA	91.123	180.00	4.70	16.03	I	C	LP	P
BUL	92.493	250.01	4.66	15.89	I	C	SP	P
SLR	92.808	244.44	4.64	15.82	I	C	LP	P
SLR	92.808	244.44	4.64	15.82	I	C	SP	P
SEK	93.380	241.86	4.63	15.79	I	D	SP	P
VIR	94.056	242.09	4.61	15.72	I	D	SP	P
KONO	99.627	331.31	4.47	15.23	E	C	LP	P
BNG	102.184	274.75	4.45	15.16	I	C	SP	Pdf
PTO	117.848	318.73	1.88	6.33	E	C	LP	PKP
BLA	137.057	25.17	1.80	6.08	I	C	LP	PKP
LNV	145.387	161.88	1.68	5.68	I	C	SP	PKP
CHCH	145.637	162.91	1.66	5.61	I	C	SP	PKP
TACH	145.813	162.33	1.66	5.61	I	C	SP	PKP
PCH	145.969	162.90	1.66	5.61	I	C	SP	PKP
FCH	146.309	163.03	1.66	5.61	I	C	SP	PKP
PEL	146.363	162.36	1.66	5.61	I	C	LP	PKP
LPA	146.381	181.80	1.66	5.61	I	C	LP	PKP
LPB	162.337	150.52	1.07	3.60	E	C	LP	PKP

Table 266. Station data for event 210

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BKB	4.644	239.47	14.17	56.30	I	C	SP	P
DAV	7.603	38.32	13.97	55.11	I	D	LP	P
PPR	8.875	346.45	13.82	54.24	I	D	SP	P
BAG	15.220	359.07	12.96	49.55	I	D	LP	P
LEM	15.356	239.01	12.87	49.08	I	C	LP	P
QZH	23.805	354.95	9.61	34.35	I	D	SP	P
ANP	23.955	1.53	9.61	34.35	I	D	LP	P
WB2	24.753	148.31	9.48	33.82	I	C	SP	P
GUA	26.849	61.47	9.28	33.02	I	D	LP	P
MEK	27.628	184.42	9.24	32.85	I	C	SP	P
CHG	27.764	310.71	9.19	32.65	I	D	SP	P
KMI	29.595	325.25	8.97	31.78	I	D	LP	P
SSE	29.837	0.61	8.91	31.54	I	D	LP	P
NJ2	30.845	356.72	8.82	31.19	I	D	SP	P
KLG	31.701	178.98	8.79	31.07	I	C	SP	P
RAB	31.751	99.71	8.75	30.91	I	C	LP	P
BAL	31.763	186.77	8.75	30.91	I	D	SP	P
CTA	32.617	131.53	8.72	30.80	I	C	SP	P
CTAO	32.617	131.53	8.72	30.80	I	C	LP	P
KLB	32.632	184.87	8.72	30.80	I	C	SP	P
MUN	33.177	187.19	8.68	30.64	I	C	SP	P
MUN	33.177	187.19	8.68	30.64	I	C	LP	P
NWAO	34.002	185.42	8.62	30.41	I	C	SP	P
NWAO	34.002	185.42	8.62	30.41	I	C	LP	P
SHK	35.056	17.16	8.56	30.17	I	D	SP	P
RKG	35.156	185.52	8.56	30.17	I	D	SP	P
SEO	36.728	8.16	8.47	29.82	I	D	LP	P
DL2	37.634	1.02	8.41	29.59	I	D	SP	P
LZH	38.217	337.51	8.38	29.47	E	D	LP	P
STK	38.239	150.84	8.38	29.47	I	C	SP	P
MAJO	38.765	22.59	8.32	29.24	I	D	LP	P
MAT	38.765	22.59	8.32	29.24	I	D	SP	P
HNR	40.331	105.90	8.24	28.93	I	C	LP	P
SNY	40.621	3.15	8.24	28.93	I	D	SP	P
GTA	42.688	335.80	8.13	28.51	I	D	SP	P
PKI	42.946	310.95	8.10	28.40	I	D	SP	P
BFD	43.064	154.36	8.10	28.40	I	C	SP	P
KKN	43.158	311.14	8.10	28.40	I	D	SP	P
DMN	43.195	310.79	8.10	28.40	I	D	SP	P
YOU	43.658	146.30	8.08	28.32	I	C	SP	P
TOO	44.721	151.89	8.02	28.09	I	C	SP	P
WAM	45.357	147.68	7.97	27.90	I	C	SP	P
KOU	47.656	119.32	7.85	27.45	I	C	SP	P
POO	49.220	293.63	7.74	27.03	I	D	SP	P
NDI	49.829	307.51	7.66	26.73	I	D	SP	P
NOU	50.174	120.48	7.66	26.73	I	C	SP	P
PVC	50.336	114.15	7.62	26.58	I	C	SP	P
VUN	59.763	111.51	6.88	23.83	I	C	SP	P
AFI	68.362	105.34	6.18	21.28	I	C	LP	P
HON	81.366	68.73	5.22	17.85	I	C	LP	P

Table 266. Station data for event 210....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
COL	89.604	25.25	4.71	16.05	I	C	LP	P
KEV	90.313	339.67	4.70	16.02	E	D	LP	P
SPA	91.085	180.00	4.70	16.02	I	C	LP	P
PSN	91.174	313.54	4.70	16.02	I	D	SP	P
NUR	92.110	330.51	4.67	15.91	E	D	LP	P
BUL	92.457	250.01	4.66	15.88	I	C	LP	P
SLR	92.770	244.44	4.64	15.81	I	C	SP	P
SLR	92.770	244.44	4.64	15.81	I	C	LP	P
SEK	93.340	241.86	4.63	15.77	I	C	SP	P
DAG	99.031	351.31	4.48	15.25	I	C	SP	P
KONO	99.648	331.30	4.47	15.22	E	C	LP	P
BCAO	102.173	274.74	4.45	15.15	I	C	LP	Pdf
STU	103.281	320.81	4.45	15.15	E	D	LP	Pdf
FCH	146.280	163.08	1.66	5.60	I	C	SP	PKP
PEL	146.334	162.41	1.66	5.60	I	C	SP	PKP
LPA	146.342	181.83	1.66	5.60	E	C	LP	PKP
RDJ	153.364	214.40	1.46	4.92	I	C	SP	PKP
ANT	155.019	154.95	1.39	4.67	E	C	LP	PKP
LPB	162.316	150.64	1.07	3.60	E	C	LP	PKP

Table 267. Station data for event 213

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MKS	3.784	4.38	13.89	91.93	I	D	SP	P
TRT	6.606	280.89	13.81	83.42	I	C	SP	P
BKB	8.028	342.95	13.70	80.21	I	D	SP	P
KNA	11.506	126.49	13.32	73.30	I	D	SP	P
LEM	11.657	279.92	13.30	73.02	I	C	LP	P
NAU	13.906	194.29	12.96	68.74	I	C	SP	P
DAV	17.217	21.93	12.37	62.84	I	D	LP	P
WB2	18.252	128.17	12.14	60.86	I	C	SP	P
WBN	18.420	158.51	11.95	59.30	I	C	SP	P
ASPA	20.261	137.71	10.24	47.44	I	C	SP	P
MUN	23.012	186.47	9.69	44.18	I	C	LP	P
MUN	23.012	186.47	9.69	44.18	I	C	SP	P
NWAO	23.860	184.05	9.56	43.45	I	C	SP	P
RKG	25.011	184.26	9.42	42.67	I	C	SP	P
BAG	25.297	3.15	9.40	42.55	I	D	LP	P
CTA	28.374	115.81	9.07	40.73	I	D	LP	P
CTAO	28.374	115.81	9.07	40.73	I	D	LP	P
ADE	31.412	148.21	8.76	39.07	I	C	SP	P
GZH	32.407	349.94	8.69	38.70	I	D	SP	P
QZH	33.752	359.04	8.61	38.27	I	D	SP	P
TATO	33.854	3.76	8.61	38.24	I	D	LP	P
GUA	33.978	49.07	8.60	38.20	E	D	LP	P
CHTO	34.100	324.24	8.59	38.16	E	C	LP	P
BFD	35.116	146.58	8.53	37.85	I	C	SP	P
YOU	36.744	137.52	8.44	37.36	I	C	SP	P
TOO	37.049	144.23	8.42	37.28	I	C	SP	P
CAN	37.771	138.40	8.37	37.02	I	C	SP	P
WAM	38.223	139.62	8.34	36.88	I	C	SP	P
SSE	39.922	2.68	8.25	36.41	I	D	LP	P
HNR	40.226	93.95	8.23	36.31	I	D	LP	P
NJ2	40.830	359.58	8.21	36.17	I	D	SP	P
KOU	44.950	110.02	7.98	35.03	I	C	SP	P
SEO	46.901	8.48	7.86	34.44	I	D	LP	P
LZH	47.123	343.00	7.85	34.37	I	D	LP	P
NOU	47.199	112.01	7.84	34.35	I	C	SP	P
DL2	47.722	2.58	7.81	34.20	I	D	SP	P
PVC	48.461	105.66	7.76	33.93	I	C	SP	P
MAT	48.713	20.45	7.74	33.83	I	D	LP	P
MAJO	48.713	20.45	7.74	33.83	I	D	LP	P
BJI	48.880	356.94	7.73	33.76	I	D	SP	P
SNY	50.747	4.24	7.58	33.03	I	D	SP	P
MDJ	54.199	9.16	7.30	31.68	I	D	SP	P
NDI	55.174	314.30	7.22	31.30	I	C	SP	P
VUN	58.130	105.56	7.01	30.27	I	C	SP	P
SNZO	58.425	133.20	6.98	30.15	I	C	LP	P
AFI	67.650	101.34	6.23	26.64	E	D	LP	P
MHI	71.877	312.79	5.92	25.18	I	C	LP	P
SHI	74.681	304.03	5.72	24.28	I	C	SP	P
ARO	78.589	283.70	5.46	23.14	I	C	LP	P
SPA	81.045	180.00	5.24	22.16	I	C	LP	P

Table 267. Station data for event 213....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
NAI	82.273	269.93	5.14	21.70	I	C	SP	P
MTD	85.162	253.85	4.97	20.93	I	C	SP	P
EVA	86.130	243.92	4.87	20.53	I	C	SP	P
HON	86.618	67.92	4.84	20.38	E	D	LP	P
SLR	86.948	244.57	4.82	20.29	I	C	LP	P
SLR	86.948	244.57	4.82	20.29	I	C	SP	P
KRI	87.022	253.53	4.82	20.27	I	C	SP	P
BPI	87.107	244.11	4.81	20.25	I	C	SP	P
SEK	87.144	241.94	4.81	20.24	I	D	SP	P
GRM	87.280	236.88	4.80	20.20	I	C	SP	P
BUL	87.472	250.13	4.79	20.15	I	C	SP	P
BLF	88.269	240.97	4.75	19.98	I	C	SP	P
SUR	92.218	236.91	4.66	19.59	I	C	SP	P
KDZ	98.771	310.82	4.48	18.82	I	C	SP	P
COL	99.383	25.58	4.46	18.73	E	C	LP	P
BCAO	101.179	272.76	4.45	18.67	E	C	LP	Pdf
UPP	103.546	329.43	4.45	18.67	I	C	SP	Pdf
ETA	118.146	325.75	1.88	7.75	I	C	SP	PKP
ECP	118.445	325.26	1.88	7.75	I	C	SP	PKP
EDM	119.062	33.10	1.87	7.75	I	C	SP	PKP
TUL	138.420	44.52	1.79	7.39	E	C	LP	PKP
RDJ	143.912	208.25	1.70	7.04	I	C	LP	PKP
LPB	153.618	164.13	1.44	5.94	E	C	LP	PKP

Table 268. Station data for event 215

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAV	6.201	335.48	14.08	55.80	I	D	LP	P
CCP	9.819	334.63	13.70	53.59	I	D	SP	P
MKS	10.898	232.78	13.58	52.91	I	C	SP	P
MTN	14.465	168.34	13.04	50.00	I	C	SP	P
BAG	16.670	333.79	12.68	48.15	I	D	LP	P
GUA	20.490	53.19	10.31	37.27	E	C	LP	P
MBL	23.864	199.53	9.61	34.37	I	C	SP	P
ANP	24.486	345.34	9.54	34.08	I	D	LP	P
RAB	24.626	103.16	9.54	34.08	I	D	LP	P
CTA	27.767	141.21	9.18	32.63	I	D	LP	P
CTAO	27.767	141.21	9.18	32.63	E	N	LP	P
SNG	28.049	282.60	9.18	32.63	I	D	LP	P
MEK	29.362	197.76	8.97	31.80	I	C	SP	P
HNR	33.438	109.42	8.65	30.54	E	D	LP	P
CHG	33.456	302.99	8.65	30.54	E	D	LP	P
CHG	33.456	302.99	8.65	30.54	I	D	SP	P
NWAO	35.675	195.87	8.53	30.07	E	C	LP	P
MAJO	36.167	13.77	8.50	29.95	E	C	LP	P
TAU	47.368	160.87	7.85	27.46	E	C	LP	P
POO	55.873	291.42	7.18	24.95	I	D	SP	P
SNZO	59.869	140.78	6.88	23.84	E	D	LP	P
FCH	143.838	153.31	1.70	5.74	I	D	SP	PKP

Table 269. Station data for event 216

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MKS	10.951	233.89	13.51	73.58	I	C	SP	P
TRT	18.018	240.12	12.32	61.01	I	C	SP	P
WB2	21.890	164.66	9.92	44.78	I	D	SP	P
RAB	24.428	102.95	9.52	42.53	I	D	LP	P
SSE	30.423	347.83	8.85	38.93	E	D	LP	P
NWAO	35.588	196.16	8.52	37.22	E	C	LP	P
MAJO	36.263	13.50	8.46	36.92	E	C	LP	P
PVC	43.657	117.50	8.07	34.96	I	D	SP	P
SNZO	59.652	140.81	6.91	29.38	E	D	LP	P

Table 270. Station data for event 217

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
DAV	6.195	335.55	14.06	81.12	I	D	LP	P
CCP	9.813	334.68	13.68	74.01	I	D	SP	P
BAG	16.664	333.82	12.66	62.83	I	D	LP	P
KNA	17.061	177.99	12.56	61.96	I	C	SP	P
TRT	17.933	239.45	12.36	60.29	I	D	SP	P
PIP	18.360	336.70	12.25	59.41	I	D	SP	P
GUA	20.497	53.21	10.29	46.31	I	C	LP	P
ANP	24.481	345.36	9.53	42.04	I	D	LP	P
RAB	24.636	103.16	9.53	42.04	I	C	LP	P
NAU	26.816	206.68	9.28	40.70	I	C	SP	P
CTAO	27.775	141.20	9.18	40.17	I	D	LP	P
SNG	28.039	282.60	9.18	40.17	I	D	LP	P
KLG	32.642	190.72	8.71	37.74	I	C	SP	P
HNR	33.449	109.42	8.65	37.43	E	D	LP	P
CHG	33.447	303.00	8.65	37.43	I	D	LP	P
NWAO	35.674	195.86	8.53	36.83	I	C	LP	P
SEO	35.989	358.39	8.50	36.68	E	C	LP	P
MAJO	36.168	13.78	8.50	36.68	E	C	LP	P
ADE	37.512	165.70	8.41	36.23	I	D	SP	P
LZH	41.204	329.59	8.21	35.23	I	D	SP	P
PVC	43.883	117.54	8.05	34.45	I	C	SP	P
NOU	44.166	124.54	8.05	34.45	I	D	SP	P
TAU	47.374	160.86	7.84	33.43	I	D	LP	P
PKI	48.469	306.40	7.78	33.14	I	D	SP	P
KKN	48.665	306.60	7.78	33.14	I	D	SP	P
DMN	48.729	306.29	7.78	33.14	I	D	SP	P
NDI	55.581	304.20	7.21	30.44	I	D	SP	P
SNZO	59.877	140.78	6.88	28.91	I	D	LP	P
MHI	72.041	307.72	5.92	24.58	I	D	SP	P
HON	74.436	68.38	5.74	23.79	E	C	LP	P
COL	86.196	25.17	4.90	20.14	E	C	LP	P
PVL	98.494	313.85	4.49	18.39	I	C	SP	P
SLR	99.507	244.29	4.47	18.31	I	D	SP	P
SLR	99.507	244.29	4.47	18.31	E	D	LP	P
ROF	109.418	322.22	1.89	7.63	I	D	SP	PKP
JCT	124.447	51.03	1.87	7.54	E	C	LP	PKP
SHA	132.972	44.18	1.84	7.41	E	C	LP	PKP
WES	132.992	19.74	1.84	7.41	E	C	LP	PKP
BLA	133.331	31.67	1.84	7.41	E	C	LP	PKP
CHCH	143.173	153.44	1.72	6.95	I	D	SP	PKP
PEL	143.820	152.68	1.70	6.88	I	D	SP	PKP

Table 271. Station data for event 219

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MKS	3.750	4.78	13.93	91.54	I	D	SP	P
TRT	6.576	280.63	13.83	83.18	I	C	SP	P
MBL	12.126	176.99	13.25	71.95	I	D	SP	P
DAV	17.193	22.05	12.39	62.77	E	C	LP	P
WB2	18.293	128.22	12.25	61.53	I	D	SP	P
ASPA	20.304	137.74	10.24	47.30	I	D	SP	P
SNG	24.472	310.39	9.49	42.92	E	C	LP	P
BAG	25.262	3.20	9.41	42.47	E	C	LP	P
CTA	28.411	115.86	9.07	40.61	I	C	SP	P
CTAO	28.411	115.86	9.07	40.61	E	C	LP	P
BDT	32.797	322.57	8.67	38.48	I	C	SP	P
TATO	33.820	3.80	8.61	38.16	E	C	LP	P
CHG	34.057	324.24	8.59	38.09	E	C	LP	P
CHG	34.057	324.24	8.59	38.09	I	C	SP	P
COO	37.327	129.72	8.40	37.08	I	D	SP	P
KMI	37.477	335.10	8.39	37.03	E	C	LP	P
WHN	39.560	353.48	8.27	36.43	I	C	SP	P
SSE	39.888	2.72	8.26	36.33	I	C	SP	P
NJ2	40.794	359.61	8.21	36.10	I	C	SP	P
CD2	42.318	340.18	8.12	35.64	I	C	SP	P
KOU	44.984	110.05	7.98	34.94	I	C	SP	P
TIA	44.983	357.68	7.98	34.94	I	C	SP	P
LZH	47.082	343.02	7.85	34.31	I	C	LP	P
NOU	47.235	112.04	7.84	34.26	I	C	SP	P
PVC	48.493	105.69	7.76	33.84	I	C	SP	P
MAJO	48.688	20.49	7.74	33.76	I	C	LP	P
MAT	48.688	20.49	7.74	33.76	I	D	SP	P
PKI	48.863	319.09	7.73	33.69	I	C	SP	P
DMN	49.085	318.89	7.71	33.61	I	C	SP	P
KKN	49.096	319.20	7.71	33.60	I	C	SP	P
BTO	50.040	350.92	7.64	33.23	I	C	SP	P
GTA	51.379	340.83	7.53	32.71	I	C	SP	P
POO	52.391	301.64	7.45	32.31	I	C	SP	P
CN2	52.833	5.72	7.41	32.14	I	C	SP	P
NDI	55.132	314.30	7.23	31.25	I	C	SP	P
SNZO	58.466	133.21	6.98	30.07	E	D	LP	P
WMQ	59.798	334.08	6.87	29.56	I	C	SP	P
MHI	71.835	312.79	5.92	25.14	I	C	SP	P
JOZ	83.348	243.33	5.08	21.39	I	D	SP	P
EVA	86.124	243.92	4.88	20.49	I	D	SP	P
SLR	86.942	244.58	4.82	20.25	I	C	SP	P
KRI	87.009	253.54	4.82	20.23	I	C	SP	P
BPI	87.102	244.11	4.81	20.21	I	D	SP	P
SEK	87.140	241.94	4.81	20.20	I	D	SP	P
BUL	87.462	250.13	4.79	20.11	I	C	SP	P
PRY	87.482	243.29	4.79	20.11	I	C	SP	P
VIR	87.841	242.07	4.78	20.05	I	D	SP	P
BFS	88.094	243.23	4.76	20.00	I	D	SP	P
SUR	92.218	236.91	4.66	19.55	I	C	SP	P
TTA	95.570	27.25	4.56	19.09	I	C	SP	P

Table 271. Station data for event 219....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
IMA	96.986	24.24	4.53	18.97	I	C	SP	P

Table 272. Station data for event 221

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AAI	4.463	326.75	14.10	90.00	I	C	SP	P
MTN	5.383	174.95	14.04	85.46	I	D	SP	P
WB2	12.928	164.22	13.22	69.82	I	D	SP	P
BKB	15.066	293.34	12.89	66.23	I	C	SP	P
DAV	15.299	340.58	12.81	65.44	E	C	LP	P
ISQ	15.753	147.73	12.71	64.48	I	C	SP	P
ASPA	16.423	169.38	12.62	63.64	I	D	SP	P
WBN	18.984	191.30	12.11	59.30	I	D	SP	P
CTA	19.664	131.27	10.53	48.39	I	C	LP	P
RAB	21.654	82.60	10.02	45.35	I	D	LP	P
MEK	22.259	209.70	9.82	44.21	I	D	SP	P
KLG	24.754	199.16	9.46	42.20	I	D	SP	P
GUMO	25.221	34.10	9.46	42.20	E	D	LP	P
BAG	25.711	337.25	9.41	41.92	E	C	LP	P
STK	26.361	158.66	9.32	41.43	I	D	SP	P
BAL	26.479	207.76	9.32	41.43	I	D	SP	P
NWAO	28.239	204.35	9.17	40.62	E	D	LP	P
YOU	31.309	150.96	8.78	38.56	I	D	SP	P
CAN	32.451	151.32	8.71	38.20	I	D	SP	P
TOO	32.872	157.97	8.67	37.99	I	D	SP	P
SNG	33.285	295.20	8.64	37.84	I	C	LP	P
TATO	33.436	344.80	8.64	37.84	E	C	LP	P
NOU	37.497	117.12	8.40	36.61	I	C	SP	P
PVC	38.082	109.23	8.37	36.46	I	C	SP	P
CHG	40.717	310.27	8.23	35.76	I	C	LP	P
CHG	40.717	310.27	8.23	35.76	I	C	SP	P
NJ2	40.855	344.62	8.20	35.61	I	C	SP	P
WHN	40.878	338.29	8.20	35.61	I	C	SP	P
SHK	41.791	2.52	8.15	35.36	I	D	SP	P
OSA	42.146	5.99	8.15	35.36	I	D	SP	P
KMI	42.262	320.89	8.12	35.21	I	C	SP	P
MAT	44.325	8.73	8.01	34.66	I	D	SP	P
MAJO	44.325	8.73	8.01	34.66	I	D	LP	P
SEO	44.907	355.86	7.99	34.56	E	C	LP	P
CD2	46.020	327.30	7.93	34.27	I	C	SP	P
BJI	49.102	345.30	7.73	33.29	I	C	SP	P
LZH	50.096	331.57	7.65	32.90	I	C	LP	P
HHC	51.163	341.43	7.57	32.51	I	C	SP	P
CN2	51.220	355.17	7.57	32.51	I	C	SP	P
SNZO	51.568	138.02	7.53	32.32	E	N	LP	P
SNZO	51.568	138.02	7.53	32.32	E	D	LP	P
GTA	54.668	330.88	7.29	31.17	I	C	SP	P
AFI	56.834	101.70	7.10	30.27	E	C	LP	P
NDI	62.761	307.47	6.63	28.08	I	C	SP	P
WMQ	64.114	326.75	6.55	27.71	I	C	SP	P
KSH	68.742	317.33	6.18	26.03	I	C	SP	P
MAW	74.769	201.57	5.71	23.92	I	D	SP	P
HON	75.570	65.81	5.67	23.74	I	D	LP	P
MHI	79.459	308.95	5.41	22.59	I	C	LP	P
NAI	93.645	268.25	4.63	19.19	I	C	SP	P

Table 272. Station data for event 221....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MTD	96.470	252.19	4.54	18.80	I	C	SP	P
EVA	96.953	242.18	4.53	18.76	I	C	SP	P
SEK	97.828	240.12	4.51	18.68	I	C	SP	P
BPI	97.940	242.31	4.51	18.68	I	C	SP	P
PRY	98.265	241.46	4.49	18.59	I	C	SP	P
KRI	98.318	251.81	4.49	18.59	I	C	SP	P
BUL	98.636	248.36	4.49	18.59	I	C	SP	P
BFS	98.871	241.35	4.48	18.55	I	C	SP	P
SWZ	100.073	240.77	4.45	18.42	I	C	SP	Pdf
NUR	104.307	330.60	4.45	18.42	I	C	SP	Pdf
PVL	106.344	312.68	1.89	7.71	I	C	SP	PKP
VTS	107.841	312.26	1.89	7.71	I	C	SP	PKP
EDM	111.369	35.48	1.89	7.71	I	C	SP	PKP
BNG	112.449	271.73	1.89	7.71	I	C	SP	PKP
CLL	112.896	322.87	1.89	7.70	I	C	SP	PKP
OGA	115.468	318.64	1.88	7.67	I	C	SP	PKP
GWF	116.935	321.71	1.88	7.66	I	C	SP	PKP
BAF	117.737	320.67	1.88	7.65	I	C	SP	PKP
LBF	119.957	320.66	1.87	7.64	I	C	SP	PKP
SSF	120.221	320.89	1.87	7.64	I	C	SP	PKP
GRC	120.395	321.28	1.87	7.64	I	C	SP	PKP
TCF	121.353	320.50	1.87	7.64	I	C	SP	PKP
DMU	122.475	331.74	1.87	7.63	I	C	SP	PKP
LPO	122.674	319.13	1.87	7.63	I	C	SP	PKP
DLE	122.670	331.00	1.87	7.63	I	C	SP	PKP
MFF	122.684	321.66	1.87	7.63	I	C	SP	PKP
JCT	127.602	57.16	1.86	7.58	E	C	LP	PKP
MAL	129.839	312.34	1.85	7.55	I	C	SP	PKP
PTO	130.681	319.44	1.85	7.54	E	C	LP	PKP
WES	140.167	25.64	1.77	7.21	E	C	LP	PKP
SLA	144.362	154.29	1.70	6.95	I	C	SP	PKP
UPA	150.096	84.96	1.56	6.36	I	C	SP	PKP

Table 273. Station data for event 223

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
AAI	3.768	0.40	12.74	105.06	I	D	SP	P
MTN	6.076	151.57	13.17	93.25	I	D	SP	P
MKS	8.932	284.07	13.12	84.04	I	D	SP	P
BKB	12.865	298.05	12.72	74.60	I	C	SP	P
WB2	13.763	154.79	12.59	72.62	I	D	SP	P
DAV	14.699	349.81	12.45	70.72	E	D	LP	P
CGP	16.202	347.59	12.20	67.61	I	D	SP	P
ASPA	17.007	161.75	11.93	64.76	I	D	SP	P
ISQ	17.158	141.21	11.65	61.98	I	D	SP	P
MDG	17.642	83.82	10.47	52.54	I	C	SP	P
CCP	18.194	346.46	10.50	52.76	I	D	SP	P
WBN	18.615	184.48	10.39	51.96	I	D	SP	P
PLP	18.790	350.24	10.35	51.67	I	D	SP	P
PMG	18.877	97.17	10.33	51.52	I	C	LP	P
NAU	19.313	217.81	10.22	50.80	I	D	SP	P
LGP	20.967	347.85	9.88	48.48	I	D	SP	P
MEK	21.111	204.55	9.85	48.32	I	D	SP	P
CTA	21.545	127.38	9.78	47.82	I	C	SP	P
RAB	24.097	83.55	9.44	45.67	I	C	LP	P
BAG	24.894	342.48	9.37	45.23	I	C	LP	P
GUA	26.690	38.59	9.20	44.20	I	C	LP	P
GUMO	26.700	38.45	9.20	44.20	E	C	LP	P
NWAO	27.275	200.37	9.12	43.73	E	C	LP	P
STK	27.310	154.50	9.11	43.70	I	C	SP	P
ADE	29.019	161.96	8.89	42.39	I	C	SP	P
CMS	29.018	147.70	8.89	42.39	I	C	SP	P
PSI	30.881	288.05	8.75	41.53	I	C	SP	P
SNG	31.095	297.29	8.73	41.44	I	C	LP	P
HNR	31.488	95.82	8.71	41.31	I	C	LP	P
COO	31.961	139.04	8.68	41.14	I	C	SP	P
BFD	32.320	158.23	8.66	41.02	I	C	SP	P
TATO	32.904	348.79	8.61	40.77	I	C	LP	P
ANP	33.101	348.92	8.60	40.69	I	C	LP	P
QZH	33.546	344.14	8.58	40.54	I	C	SP	P
CAN	33.659	148.35	8.57	40.51	I	C	SP	P
TOO	33.827	154.85	8.57	40.49	I	C	SP	P
BDT	37.873	310.66	8.33	39.13	I	C	SP	P
CHG	38.895	312.56	8.27	38.84	I	C	SP	P
CHG	38.895	312.56	8.27	38.84	I	C	LP	P
SSE	38.930	350.45	8.27	38.83	I	C	LP	P
TAU	39.106	157.53	8.26	38.78	E	C	LP	P
NOU	39.680	116.03	8.23	38.58	I	C	SP	P
WHN	40.058	341.33	8.20	38.46	I	C	SP	P
PVC	40.396	108.54	8.18	38.34	I	C	SP	P
KMI	40.779	323.42	8.17	38.26	I	C	LP	P
CD2	44.762	329.71	7.95	37.07	I	C	SP	P
MAJO	44.786	11.50	7.95	37.06	E	C	LP	P
SEO	44.820	358.65	7.95	37.05	I	C	LP	P
XAN	45.138	337.28	7.93	36.95	I	C	SP	P
LZH	48.995	333.76	7.67	35.54	I	C	LP	P

Table 273. Station data for event 223....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HHC	50.456	343.67	7.55	34.92	I	C	SP	P
BTO	50.675	342.14	7.53	34.83	I	C	SP	P
CN2	51.093	357.47	7.50	34.65	I	C	SP	P
LSA	51.306	317.84	7.48	34.56	I	C	SP	P
MCQ	52.988	158.04	7.35	33.85	I	C	SP	P
SNZO	53.206	136.93	7.33	33.76	E	C	LP	P
GTA	53.535	332.77	7.31	33.63	I	C	SP	P
PKI	54.070	311.90	7.26	33.40	I	C	SP	P
KKN	54.287	312.04	7.25	33.31	I	C	SP	P
DMN	54.315	311.75	7.24	33.30	I	C	SP	P
HYB	54.905	297.27	7.19	33.05	I	C	SP	P
AFI	59.233	101.69	6.88	31.43	I	C	SP	P
AFI	59.233	101.69	6.88	31.43	E	C	LP	P
POO	59.474	296.53	6.86	31.33	I	C	SP	P
NDI	60.846	308.61	6.75	30.78	I	C	SP	P
WMQ	62.817	328.12	6.59	29.98	I	C	SP	P
KSH	67.117	318.40	6.24	28.22	I	C	SP	P
MHI	77.577	309.59	5.50	24.66	I	C	LP	P
HON	77.828	66.36	5.49	24.59	I	C	LP	P
AVY	78.602	252.23	5.43	24.32	I	C	SP	P
TAB	88.184	308.58	4.74	21.07	I	C	LP	P
COL	94.188	25.18	4.59	20.37	I	C	LP	P
EVA	94.761	242.61	4.57	20.26	I	D	SP	P
SLR	95.608	243.23	4.55	20.17	I	C	LP	P
SLR	95.608	243.23	4.55	20.17	I	D	SP	P
SEK	95.678	240.58	4.55	20.16	I	D	SP	P
BPI	95.746	242.76	4.55	20.15	I	D	SP	P
BUL	96.338	248.79	4.53	20.10	I	C	SP	P
BFS	96.696	241.83	4.53	20.06	I	D	SP	P
BLF	96.750	239.55	4.52	20.06	I	D	SP	P
HVD	97.010	237.95	4.52	20.04	I	D	SP	P
HLW	99.581	298.98	4.45	19.70	I	C	SP	P
SUR	100.451	235.21	4.44	19.67	I	C	SP	Pdf
KBS	102.223	349.77	4.44	19.67	I	C	LP	Pdf
ATH	105.951	307.25	1.89	8.24	I	C	SP	PKP
WAR	106.364	322.23	1.89	8.24	E	D	LP	PKP
KRA	107.386	320.09	1.89	8.24	E	D	LP	PKP
SKO	107.398	311.54	1.89	8.24	I	C	SP	PKP
DAG	108.499	352.38	1.89	8.24	I	C	SP	PKP
COP	110.515	326.99	1.89	8.24	I	C	LP	PKP
BER	112.294	333.19	1.89	8.23	I	C	LP	PKP
TRI	112.294	316.39	1.89	8.23	I	C	SP	PKP
HAM	112.597	325.21	1.89	8.22	I	C	SP	PKP
EDM	112.811	34.99	1.89	8.22	I	C	SP	PKP
OGA	113.859	318.11	1.88	8.21	I	D	SP	PKP
WIT	114.663	325.28	1.88	8.20	I	D	SP	PKP
CDF	115.827	320.56	1.88	8.19	I	C	SP	PKP
BSF	116.324	320.07	1.88	8.19	I	C	SP	PKP
CVF	116.465	313.97	1.88	8.18	I	C	SP	PKP
HAU	116.548	320.36	1.88	8.18	I	C	SP	PKP

Table 273. Station data for event 223....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
UCC	116.751	323.80	1.88	8.18	E	C	LP	PKP
DOU	116.880	323.01	1.88	8.18	E	C	LP	PKP
AKU	117.337	345.00	1.88	8.18	I	C	SP	PKP
FRF	117.755	315.55	1.88	8.18	I	C	SP	PKP
LMR	117.918	315.34	1.88	8.18	I	C	SP	PKP
LRG	117.986	315.50	1.88	8.18	I	C	SP	PKP
LOR	118.383	320.25	1.88	8.17	I	C	SP	PKP
LBF	118.411	319.91	1.88	8.17	I	C	SP	PKP
SMF	118.620	319.59	1.88	8.17	I	C	SP	PKP
SSF	118.683	320.13	1.88	8.17	I	C	SP	PKP
GRC	118.870	320.50	1.88	8.17	I	C	SP	PKP
AVF	118.881	319.89	1.88	8.17	I	C	SP	PKP
MZF	119.587	319.50	1.87	8.17	I	C	SP	PKP
TCF	119.800	319.69	1.87	8.16	I	C	SP	PKP
LSF	120.251	319.86	1.87	8.16	I	C	SP	PKP
LDF	120.309	322.87	1.87	8.16	I	C	SP	PKP
CAF	120.406	318.28	1.87	8.16	I	C	SP	PKP
FLN	120.450	323.17	1.87	8.16	I	C	SP	PKP
RJF	120.623	318.85	1.87	8.16	I	C	SP	PKP
GRR	120.839	322.90	1.87	8.16	I	C	SP	PKP
LPO	121.076	318.29	1.87	8.16	I	C	SP	PKP
LPF	121.106	322.59	1.87	8.16	I	C	SP	PKP
MFF	121.169	320.78	1.87	8.16	I	C	SP	PKP
LFF	121.275	318.70	1.87	8.16	I	C	SP	PKP
DMU	121.319	330.71	1.87	8.16	I	C	SP	PKP
DLE	121.487	329.97	1.87	8.16	I	C	SP	PKP
DCN	121.817	330.32	1.87	8.15	I	C	SP	PKP
ECP	122.018	328.82	1.87	8.15	I	C	SP	PKP
ECB	122.124	329.17	1.87	8.15	I	C	SP	PKP
EPF	122.269	316.76	1.87	8.15	I	C	SP	PKP
ALM	126.523	310.75	1.86	8.11	I	C	SP	PKP
PTO	129.086	318.20	1.85	8.08	E	C	LP	PKP
SFS	129.463	311.72	1.85	8.07	I	C	SP	PKP
JCT	129.674	56.43	1.85	8.07	I	N	LP	PKP
TUL	130.918	48.23	1.85	8.05	I	C	LP	PKP
SCP	139.523	30.89	1.77	7.72	I	C	LP	PKP
BLA	140.628	37.03	1.76	7.66	E	N	LP	PKP
SOR	146.386	59.66	1.65	7.19	I	C	SP	PKP
BOG	157.712	96.05	1.27	5.52	I	C	LP	PKP
TOV	162.096	81.36	1.06	4.60	I	D	SP	PKP
SJG	162.507	51.49	1.04	4.51	E	N	LP	PKP
CAR	164.790	77.49	0.92	3.98	I	D	SP	PKP

Table 274. Station data for event 233

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MKS	8.117	286.36	13.42	83.78	I	D	SP	P
BKB	12.153	300.49	13.00	74.37	I	D	SP	P
WB2	14.066	151.57	12.72	70.50	I	D	SP	P
TRT	14.524	268.56	12.65	69.58	I	C	SP	P
DAV	14.671	353.27	12.62	69.30	I	C	LP	P
MBL	15.298	207.32	12.52	68.09	I	D	SP	P
CGP	16.137	350.73	12.37	66.44	I	D	SP	P
ASPA	17.204	159.08	12.18	64.46	I	D	SP	P
WBN	18.465	182.02	10.59	51.70	I	D	SP	P
NAU	18.708	216.08	10.39	50.32	I	C	SP	P
LEM	19.530	270.95	10.29	49.68	I	C	LP	P
MEK	20.668	202.68	10.02	47.92	I	D	SP	P
CTA	22.185	126.00	9.74	46.20	I	D	SP	P
BAG	24.743	344.46	9.41	44.20	I	C	LP	P
BAL	24.955	202.04	9.39	44.11	I	D	SP	P
RAB	24.975	83.66	9.39	44.10	I	D	LP	P
KLB	25.486	199.17	9.34	43.80	I	C	SP	P
MUN	26.373	201.57	9.26	43.34	I	D	SP	P
NWAO	26.886	198.95	9.21	43.05	I	D	SP	P
NWAO	26.886	198.95	9.21	43.05	E	D	LP	P
GUA	27.321	39.91	9.17	42.78	I	C	LP	P
GUMO	27.329	39.77	9.17	42.77	E	C	LP	P
STK	27.605	153.02	9.13	42.56	I	D	SP	P
ADE	29.203	160.53	8.90	41.29	I	D	SP	P
CMS	29.408	146.41	8.88	41.16	I	D	SP	P
SNG	30.370	298.24	8.81	40.75	E	C	LP	P
HNR	32.346	95.63	8.67	40.00	I	D	LP	P
BFD	32.559	157.01	8.66	39.93	I	D	SP	P
TATO	32.845	350.26	8.64	39.83	I	C	LP	P
YOU	32.920	146.74	8.64	39.81	I	D	SP	P
ANP	33.044	350.38	8.63	39.76	I	D	LP	P
CAN	34.038	147.28	8.57	39.44	I	D	SP	P
TOO	34.114	153.73	8.57	39.41	I	D	LP	P
RIV	34.176	143.15	8.56	39.39	I	D	SP	P
WAM	34.639	148.41	8.54	39.24	I	D	SP	P
NST	35.457	310.72	8.49	38.97	I	C	SP	P
KHT	36.102	307.98	8.45	38.76	I	C	SP	P
CHG	38.326	313.52	8.31	38.03	I	C	SP	P
SSE	38.894	351.65	8.29	37.90	I	C	LP	P
TAU	39.352	156.61	8.26	37.76	E	D	LP	P
KMI	40.347	324.43	8.20	37.43	I	C	LP	P
NOU	40.421	115.58	8.20	37.41	I	D	SP	P
SHK	42.189	6.63	8.11	36.92	I	C	SP	P
SEO	44.908	359.64	7.96	36.15	I	D	LP	P
MAT	45.067	12.45	7.95	36.10	I	C	SP	P
BJI	48.479	348.60	7.73	34.92	I	C	LP	P
LZH	48.706	334.60	7.71	34.82	I	C	LP	P
KOD	52.668	288.95	7.39	33.20	I	C	SP	P
PKI	53.492	312.50	7.32	32.87	I	C	SP	P
KKN	53.710	312.64	7.31	32.78	I	C	SP	P

Table 274. Station data for event 233....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
SNZO	53.730	136.53	7.31	32.77	E	D	LP	P
DMN	53.735	312.35	7.31	32.77	I	C	SP	P
POO	58.741	296.94	6.94	30.93	I	C	SP	P
AFI	60.067	101.65	6.83	30.40	E	C	LP	P
QUE	68.946	306.27	6.11	26.92	I	C	LP	P
KHI	76.927	307.53	5.56	24.33	I	C	LP	P
MHI	76.971	309.85	5.56	24.31	I	C	LP	P
AVY	77.740	252.31	5.51	24.09	I	C	SP	P
HON	78.669	66.53	5.44	23.79	I	C	LP	P
IR7	83.697	307.17	5.05	21.96	I	C	SP	P
TAB	87.566	308.72	4.78	20.72	I	C	LP	P
MSL	89.754	306.60	4.70	20.40	I	D	SP	P
NAI	90.314	268.68	4.70	20.39	I	C	SP	P
TET	91.458	253.61	4.68	20.28	I	C	SP	P
EVA	93.940	242.75	4.60	19.93	I	C	SP	P
COL	94.651	25.24	4.58	19.85	I	C	LP	P
GRM	94.744	235.65	4.58	19.83	I	C	SP	P
SLR	94.783	243.38	4.58	19.83	I	C	SP	P
SEK	94.868	240.73	4.57	19.81	I	C	SP	P
KRI	95.110	252.35	4.57	19.77	I	C	SP	P
PRY	95.270	242.07	4.56	19.74	I	C	SP	P
BUL	95.488	248.93	4.55	19.70	I	C	SP	P
BFS	95.878	241.98	4.54	19.67	I	C	SP	P
BLF	95.946	239.70	4.54	19.66	I	C	SP	P
HVD	96.217	238.11	4.54	19.64	I	C	SP	P
HLW	98.867	299.01	4.47	19.36	I	C	LP	P
SUR	99.676	235.40	4.45	19.27	I	C	SP	P
IST	101.179	310.27	4.44	19.21	E	C	LP	Pdf
MLR	103.317	314.86	4.44	19.21	I	C	SP	Pdf
BNG	109.126	272.07	1.89	8.05	I	C	SP	PKP
MUD	111.617	328.22	1.89	8.05	I	C	SP	PKP
CTI	113.130	316.93	1.89	8.03	I	C	SP	PKP
CDF	115.350	320.32	1.88	8.01	I	C	SP	PKP
BSF	115.840	319.82	1.88	8.00	I	C	SP	PKP
CVF	115.906	313.75	1.88	8.00	I	C	SP	PKP
FRF	117.215	315.30	1.88	8.00	I	C	SP	PKP
LRG	117.445	315.25	1.88	8.00	I	C	SP	PKP
LOR	117.901	319.97	1.88	7.99	I	C	SP	PKP
LBF	117.925	319.64	1.88	7.99	I	C	SP	PKP
SMF	118.130	319.31	1.88	7.99	I	C	SP	PKP
SSF	118.200	319.85	1.88	7.99	I	C	SP	PKP
AVF	118.394	319.60	1.88	7.99	I	C	SP	PKP
TCF	119.311	319.39	1.87	7.98	I	C	SP	PKP
LSF	119.764	319.55	1.87	7.98	I	C	SP	PKP
RJF	120.124	318.54	1.87	7.98	I	C	SP	PKP
LPO	120.569	317.97	1.87	7.97	I	C	SP	PKP
LPF	120.655	322.26	1.87	7.97	I	C	SP	PKP
MFF	120.694	320.45	1.87	7.97	I	C	SP	PKP
DLE	121.136	329.60	1.87	7.97	I	C	SP	PKP
ETA	121.289	328.89	1.87	7.97	I	C	SP	PKP

Table 274: Station data for event 233....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ECP	121.650	328.44	1.87	7.97	I	C	SP	PKP
EPF	121.743	316.44	1.87	7.97	I	C	SP	PKP
ECB	121.762	328.79	1.87	7.97	I	C	SP	PKP
CRT	126.664	311.17	1.86	7.93	I	C	SP	PKP
LNV	135.050	157.84	1.82	7.75	I	C	SP	PKP
LPA	137.458	173.65	1.80	7.65	E	C	LP	PKP
MBO	144.287	284.05	1.70	7.22	I	C	SP	PKP
RDJ	148.323	196.83	1.60	6.83	E	C	LP	PKP
LPB	151.615	147.63	1.51	6.41	E	C	LP	PKP
CAI	159.079	228.34	1.21	5.13	I	C	SP	PKP
SJG	163.247	50.07	1.00	4.25	I	C	LP	PKP

Figure 95. Azimuthal equidistant map for geographic subdivision, South Pacific Ocean

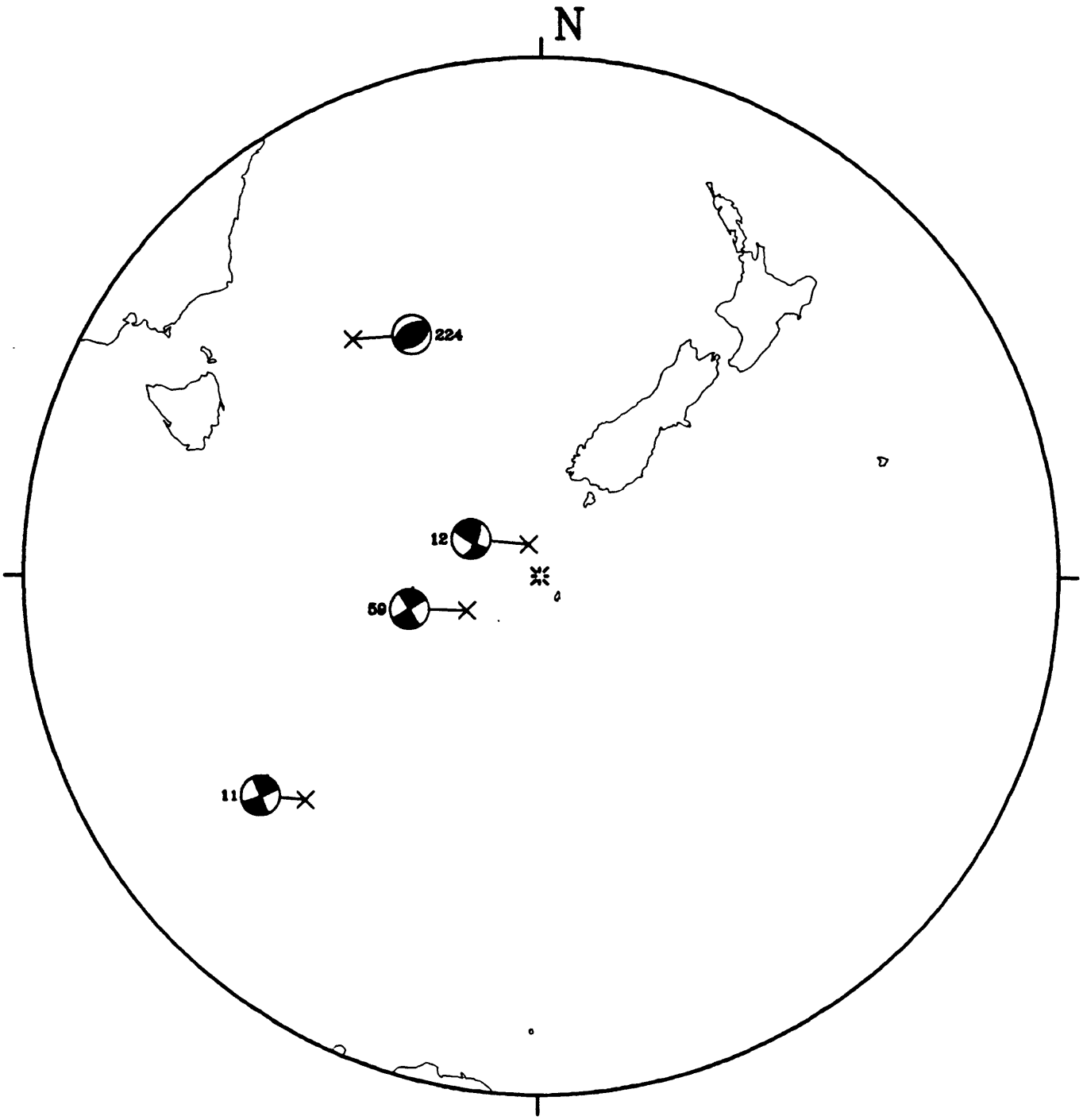

Table 275. Focal mechanism parameters for subdivision, South Pacific Ocean

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
11	158	90	5	68	85	180	4	23	4	293	85	158
12	120	80	25	25	65	169	25	345	10	251	63	140
59	328	90	0	238	90	180	0	13	0	103	90	0
224	239	47	90	59	43	90	88	149	2	329	0	59

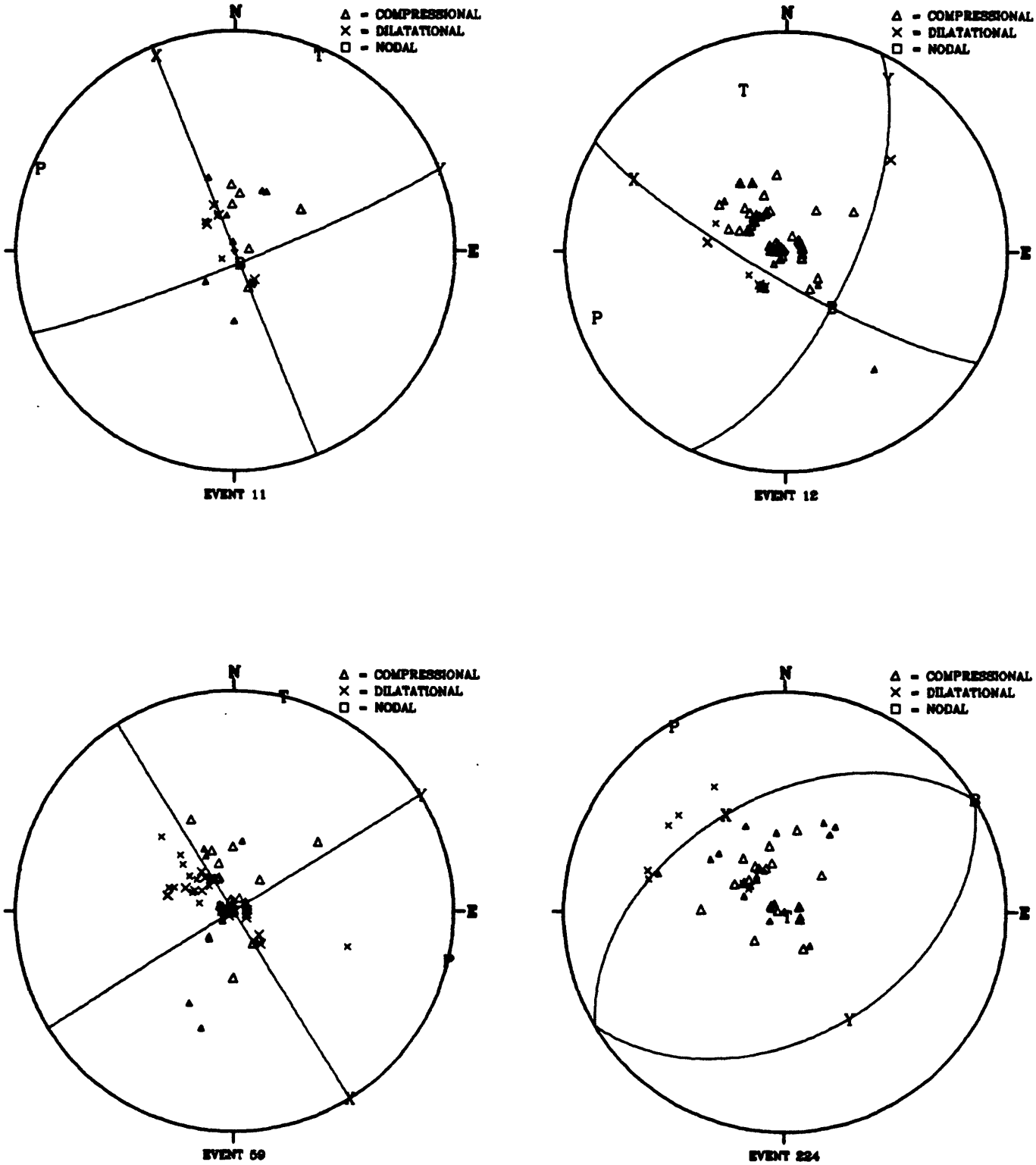

Figure 96. Lower hemisphere focal sphere projections for events 11, 12, 59, and 224

Table 276. Station data for event 11

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
ADE	23.494	340.40	9.70	29.12	I	C	SP	P
SNZO	23.539	57.72	9.70	29.12	I	C	LP	P
WEL	23.588	57.78	9.70	29.12	I	C	LP	P
SPA	32.588	180.00	8.72	25.94	I	C	SP	P
CTA	37.475	357.18	8.42	24.99	I	C	LP	P
NOU	37.691	28.51	8.42	24.99	I	C	SP	P
KOU	38.849	24.64	8.33	24.70	I	C	SP	P
RAB	53.347	5.09	7.38	21.73	I	C	LP	P
DAV	67.010	335.63	6.31	18.46	E	D	LP	P
GUMO	70.959	356.70	6.00	17.52	E	C	LP	P
SUR	80.036	223.13	5.37	15.63	I	C	SP	P
PCT	81.632	314.64	5.22	15.18	E	D	SP	P
TATO	85.217	335.94	4.99	14.50	E	D	LP	P
LPA	85.291	158.80	4.96	14.41	I	C	LP	P
QZH	85.853	333.38	4.91	14.26	I	D	SP	P
CHG	86.344	314.13	4.87	14.14	I	D	SP	P
CHTO	86.344	314.13	4.87	14.14	E	D	LP	P
TCA	87.246	152.46	4.83	14.02	E	D	SP	P
VCA	88.757	148.68	4.73	13.73	E	D	SP	P
SHK	92.675	347.32	4.66	13.52	I	C	SP	P
SLA	93.304	149.75	4.63	13.43	E	D	SP	P
ZOBO	100.538	144.76	4.45	12.90	I	D	LP	Pdf
BNG	113.986	237.32	1.88	5.42	I	D	SP	PKP
ANMO	126.753	81.20	1.86	5.36	I	C	LP	PKP
DAG	160.173	351.11	1.17	3.36	I	C	SP	PKP

Table 277. Station data for event 12

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
CBZ	4.851	142.80	14.15	56.25	I	C	SP	P
SNZO	10.456	48.22	13.64	53.27	I	D	LP	P
WEL	10.505	48.33	13.64	53.27	I	D	LP	P
CTAO	32.116	326.68	8.75	30.94	I	C	LP	P
CTA	32.116	326.68	8.75	30.94	I	C	SP	P
ASP	34.691	305.26	8.59	30.31	I	C	LP	P
WB2	37.519	309.42	8.41	29.62	I	C	SP	P
NWAO	38.351	276.61	8.35	29.38	I	D	LP	P
HNR	39.396	353.13	8.29	29.15	I	C	LP	P
MUN	39.620	276.91	8.29	29.15	I	D	LP	P
RAR	39.657	58.95	8.29	29.15	I	C	LP	P
PMG	41.819	334.04	8.16	28.65	I	C	LP	P
LML	44.404	334.96	8.02	28.12	I	C	SP	P
MBL	44.823	291.80	7.99	28.00	I	D	SP	P
LEM	63.335	291.70	6.60	22.82	I	C	LP	P
GUA	64.394	338.96	6.51	22.49	I	C	LP	P
GUMO	64.452	338.92	6.51	22.49	I	C	LP	P
DAV	65.177	316.77	6.47	22.34	I	C	LP	P
BAG	75.651	316.73	5.68	19.50	I	C	LP	P
KIP	77.537	35.63	5.55	19.03	I	C	LP	P
SNG	78.620	294.81	5.48	18.78	I	C	LP	P
TATO	82.813	321.51	5.11	17.47	I	C	LP	P
ANP	82.985	321.63	5.11	17.47	I	C	LP	P
HKC	83.726	314.30	5.08	17.37	I	C	SP	P
QZH	84.007	319.15	5.05	17.26	I	C	SP	P
PEL	84.832	136.33	4.99	17.05	I	C	SP	P
SHK	87.617	334.28	4.80	16.38	I	C	LP	P
MAT	88.072	339.20	4.77	16.28	I	C	LP	P
SSE	88.369	324.04	4.75	16.21	I	C	LP	P
LPA	88.565	146.41	4.75	16.21	E	C	LP	P
CHG	88.835	300.51	4.73	16.14	I	C	LP	P
CHTO	88.835	300.51	4.73	16.14	I	C	LP	P
GRM	90.017	214.24	4.71	16.07	I	D	LP	P
GYA	90.882	310.73	4.70	16.03	I	C	SP	P
KMI	91.810	307.07	4.67	15.93	I	C	LP	P
SEO	92.158	331.12	4.67	15.93	I	C	LP	P
AVY	92.231	237.88	4.67	15.93	I	D	SP	P
CER	92.486	208.67	4.66	15.89	I	D	SP	P
BLF	93.921	215.80	4.61	15.72	I	D	SP	P
PRE	96.100	218.91	4.55	15.51	I	D	LP	P
KSR	96.532	217.82	4.54	15.47	I	C	SP	P
SHIO	98.160	299.53	4.51	15.37	I	C	LP	P
LZH	100.138	314.25	4.45	15.16	I	C	SP	Pdf
ZOBO	100.261	129.27	4.45	15.16	I	C	LP	Pdf
WIN	103.188	210.90	4.45	15.16	I	D	LP	Pdf
BKS	108.000	52.89	1.89	6.38	I	C	SP	PKP
COR	112.410	47.44	1.89	6.38	I	C	LP	PKP
BOG	113.910	111.73	1.88	6.36	E	C	LP	PKP
DUG	114.761	56.83	1.88	6.35	I	C	LP	PKP
ANMO	114.828	64.84	1.88	6.35	I	C	LP	PKP

Table 277. Station data for event 12....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
JCT	115.886	72.68	1.88	6.34	I	C	LP	PKP
KAAO	118.282	291.02	1.88	6.33	I	C	LP	PKP
KBL	118.282	291.02	1.88	6.33	I	C	LP	PKP
GOL	118.655	61.55	1.88	6.33	E	C	LP	PKP
MSO	118.663	50.75	1.88	6.33	E	C	LP	PKP
COL	119.272	21.26	1.88	6.33	I	C	LP	PKP
SHA	123.520	80.22	1.87	6.30	E	C	LP	PKP
BNG	127.094	224.62	1.86	6.28	I	C	SP	PKP
ATL	127.750	80.18	1.86	6.27	E	C	LP	PKP
SJG	129.182	108.76	1.86	6.26	I	C	LP	PKP
BLA	132.580	78.79	1.84	6.19	I	C	SP	PKP
BEC	140.048	95.68	1.77	5.96	E	C	LP	PKP
WES	141.260	77.93	1.75	5.92	E	C	LP	PKP
ANTO	144.744	273.90	1.68	5.68	I	C	LP	PKP
MLR	151.771	279.18	1.50	5.05	I	C	SP	PKP
NUR	154.341	312.35	1.43	4.81	I	C	LP	PKP
TRI	159.856	272.33	1.17	3.94	E	C	LP	PKP
COP	161.559	302.57	1.07	3.60	I	C	LP	PKP
KONO	161.792	316.12	1.07	3.60	I	C	LP	PKP
GRFO	162.465	283.12	1.07	3.60	I	C	LP	PKP
STU	163.642	279.33	0.96	3.25	I	C	LP	PKP
MAL	165.416	218.43	0.91	3.06	E	C	LP	PKP
ESK	169.936	315.20	0.62	2.09	I	C	LP	PKP
PTO	170.873	215.71	0.56	1.89	E	C	LP	PKP
VAL	175.320	314.45	0.31	1.06	I	C	LP	PKP

Table 278. Station data for event 59

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
MCQ	3.413	195.44	14.23	45.56	I	C	SP	P
CBZ	5.518	107.29	14.13	45.15	I	D	SP	P
SNZO	13.929	50.12	13.16	41.32	I	C	LP	P
TOO	17.317	316.22	12.52	38.91	I	D	SP	P
DRV	18.593	205.96	12.32	38.18	I	C	SP	P
RIV	18.674	335.00	12.32	38.18	I	C	LP	P
STK	23.832	316.94	9.62	28.86	I	D	SP	P
KOU	30.743	6.92	8.87	26.42	I	C	SP	P
CTAO	33.037	334.87	8.69	25.85	I	C	SP	P
CTA	33.037	334.87	8.69	25.85	I	C	SP	P
ASPA	34.326	313.25	8.59	25.53	I	D	SP	P
KLG	35.294	290.19	8.53	25.34	I	D	SP	P
NWAO	36.327	283.26	8.48	25.18	I	D	LP	P
NWAO	36.327	283.26	8.48	25.18	I	D	SP	P
MUN	37.607	283.40	8.42	24.99	I	D	LP	P
MUN	37.607	283.40	8.42	24.99	I	D	SP	P
SPA	38.968	180.00	8.33	24.70	I	C	LP	P
HNR	41.666	359.16	8.19	24.26	I	C	LP	P
PMG	43.113	340.51	8.11	24.01	I	C	LP	P
NAU	44.979	292.32	8.00	23.66	I	D	SP	P
TZZ	48.547	333.96	7.79	23.01	I	C	SP	P
MKS	57.139	308.88	7.11	20.90	I	D	SP	P
LEM	62.061	296.31	6.73	19.73	I	D	LP	P
LEM	62.061	296.31	6.73	19.73	I	D	SP	P
DAV	65.394	321.31	6.44	18.85	I	D	LP	P
GUA	65.903	343.35	6.40	18.73	I	C	LP	P
GUMO	65.959	343.31	6.40	18.73	I	C	LP	P
KKM	68.511	311.72	6.19	18.09	I	D	SP	P
TSI	75.638	294.59	5.68	16.56	E	D	SP	P
BAG	75.844	320.55	5.65	16.47	I	D	LP	P
SNG	77.496	298.44	5.56	16.20	I	D	LP	P
TMU	79.094	140.42	5.45	15.87	I	D	LP	P
KIP	80.980	38.67	5.27	15.33	E	C	LP	P
TATO	83.281	324.87	5.09	14.80	I	D	LP	P
ANP	83.460	324.98	5.09	14.80	E	D	LP	P
TLL	87.233	137.40	4.83	14.02	I	C	LP	P
LPA	87.820	149.24	4.78	13.88	I	C	LP	P
CHG	88.027	303.54	4.78	13.88	I	D	LP	P
CHG	88.027	303.54	4.78	13.88	I	D	SP	P
CHTO	88.027	303.54	4.78	13.88	I	D	LP	P
SHK	88.827	337.32	4.73	13.73	E	C	LP	P
SSE	88.979	327.06	4.73	13.73	E	D	LP	P
SLR	92.611	221.96	4.66	13.52	I	C	SP	P
KSR	93.072	220.79	4.65	13.49	I	C	SP	P
SEO	93.178	333.91	4.65	13.49	E	C	LP	P
BUL	97.383	224.85	4.52	13.11	I	C	SP	P
LZH	100.134	316.56	4.45	12.90	I	D	SP	Pdf
ZOBO	100.529	132.84	4.45	12.90	E	D	LP	Pdf
POO	102.173	284.31	4.45	12.90	I	D	SP	Pdf
BKS	111.437	56.02	1.89	5.44	E	C	LP	PKP

Table 278. Station data for event 59....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
BOCO	115.169	116.19	1.88	5.42	E	D	LP	PKP
KBL	116.878	292.30	1.88	5.41	E	C	LP	PKP
KAAO	116.878	292.30	1.88	5.41	E	D	SP	PKP
ANMO	118.073	68.40	1.88	5.40	E	C	LP	PKP
DUG	118.152	60.15	1.88	5.40	E	D	LP	PKP
MSO	122.118	53.93	1.87	5.39	E	C	LP	PKP
CLX	122.446	52.08	1.87	5.39	I	C	SP	PKP
COL	122.472	23.38	1.87	5.39	E	C	LP	PKP
RXF	122.890	51.51	1.87	5.38	I	C	SP	PKP
BCAO	123.618	227.52	1.87	5.38	I	C	SP	PKP
BNG	123.614	227.53	1.87	5.38	I	C	SP	PKP
BLA	135.404	83.70	1.82	5.24	I	C	LP	PKP
UTO	136.118	76.50	1.81	5.22	I	C	SP	PKP
GEO	138.530	84.11	1.78	5.13	E	D	LP	PKP
SCP	139.141	81.23	1.78	5.13	E	C	LP	PKP
BEC	142.123	102.08	1.74	5.01	E	D	LP	PKP
WES	144.103	83.50	1.70	4.90	I	C	LP	PKP
MNT	144.275	77.47	1.70	4.90	I	D	SP	PKP
ATH	146.996	263.40	1.64	4.72	I	D	SP	PKP
PVL	149.001	272.64	1.59	4.57	I	D	SP	PKP
KBS	150.073	348.34	1.56	4.49	E	C	LP	PKP
JOS	154.271	279.75	1.43	4.10	I	D	SP	PKP
DAG	154.349	359.62	1.43	4.10	I	C	SP	PKP
RMP	156.100	259.44	1.35	3.88	I	D	SP	PKP
VIE	156.782	276.77	1.31	3.76	I	D	LP	PKP
KMR	158.108	274.91	1.26	3.63	I	D	LP	PKP
GRFO	160.457	277.56	1.17	3.36	E	D	LP	PKP
COP	160.578	295.75	1.12	3.22	I	D	LP	PKP
STU	161.446	273.65	1.12	3.22	E	D	LP	PKP
MUD	162.372	298.46	1.07	3.07	I	D	SP	PKP
LOR	164.269	264.56	0.96	2.77	E	C	LP	PKP
PTO	167.419	220.91	0.80	2.29	E	D	LP	PKP

Table 279. Station data for event 224

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
WAM	6.721	307.13	14.06	55.52	I	D	SP	P
CAN	7.259	312.81	13.98	55.05	I	D	SP	P
RIV	7.465	330.93	13.98	55.05	I	D	SP	P
TOO	8.311	287.03	13.88	54.47	I	D	SP	P
BFD	10.631	283.76	13.66	53.22	I	D	SP	P
ADE	14.375	287.04	13.07	50.02	I	C	SP	P
NOU	20.323	30.41	10.33	37.28	I	C	SP	P
KOU	21.192	23.29	10.19	36.69	I	C	SP	P
CTA	21.784	335.97	9.96	35.73	I	C	SP	P
ASPA	24.703	306.11	9.55	34.05	I	C	SP	P
PVC	25.188	29.76	9.48	33.77	I	C	SP	P
WB2	27.294	312.23	9.24	32.80	I	C	SP	P
HNR	31.139	8.49	8.83	31.18	I	C	LP	P
NWAO	31.410	271.52	8.79	31.02	I	C	LP	P
RAB	36.219	354.36	8.50	29.89	I	C	SP	P
GUA	54.599	347.33	7.30	25.34	E	C	LP	P
GUMO	54.655	347.28	7.30	25.34	I	C	LP	P
DAV	54.747	322.67	7.30	25.34	E	C	LP	P
SNG	69.185	299.73	6.15	21.14	I	C	LP	P
TATO	72.374	327.81	5.89	20.20	I	C	LP	P
HON	75.143	44.39	5.71	19.56	E	C	LP	P
BDT	77.753	305.37	5.52	18.88	I	D	SP	P
SSE	77.956	330.36	5.52	18.88	E	C	LP	P
MAJO	78.240	345.84	5.52	18.88	I	C	LP	P
CHG	78.975	306.36	5.45	18.63	I	C	SP	P
CHG	78.975	306.36	5.45	18.63	I	C	LP	P
KMI	81.617	313.15	5.22	17.82	I	C	LP	P
SEO	81.923	337.45	5.18	17.68	E	C	LP	P
DL2	84.822	334.10	4.99	17.01	I	C	SP	P
XAN	85.666	322.77	4.96	16.91	I	C	SP	P
HYB	91.589	291.49	4.69	15.96	I	C	SP	P
LSA	91.784	308.30	4.67	15.89	I	C	SP	P
PKI	93.833	303.22	4.61	15.68	I	D	SP	P
KKN	94.066	303.30	4.61	15.68	I	D	SP	P
GTA	94.319	320.07	4.60	15.65	I	C	SP	P
FCH	95.288	142.93	4.56	15.51	I	C	SP	P
SLR	97.898	226.48	4.51	15.33	E	C	LP	P
LPA	98.937	152.71	4.48	15.23	E	C	LP	P
UPA	122.154	106.99	1.87	6.30	I	C	SP	PKP
BOG	123.028	115.17	1.87	6.29	E	C	LP	PKP
RLO	125.835	70.24	1.86	6.27	I	C	SP	PKP
BNG	127.284	238.79	1.86	6.26	I	C	SP	PKP
CAR	132.143	116.50	1.84	6.20	I	C	SP	PKP
OTT	142.684	64.99	1.72	5.79	I	C	SP	PKP
WES	145.169	71.11	1.68	5.67	E	C	LP	PKP
SKO	145.725	287.92	1.66	5.60	I	C	SP	PKP
JOS	147.273	299.47	1.64	5.52	I	C	SP	PKP
SGO	149.911	283.37	1.56	5.25	I	C	SP	PKP
DUI	150.766	285.29	1.53	5.15	I	C	SP	PKP
RMP	152.086	285.10	1.50	5.04	I	C	SP	PKP

Table 279. Station data for event 224....continued

Station	Distance (°)	Azimuth (°)	dt/dΔ (sec/°)	JB Focal Angle (°)	Quality, Direction, and Source of Earth Motion			
HAM	153.432	310.92	1.46	4.92	I	C	SP	PKP
PTO	167.932	278.43	0.74	2.49	E	C	LP	PKP