STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS

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Report of Investigations 86-22

SUMMARY OF ALASKA EARTHQUAKES FOR THE PERIOD APRIL, MAY, AND JUNE 1985

Compiled by
Hans Pulpan and J.N. Davies

STATE OF ALASKA
Department of Natural Resources
DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

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SUMMARY OF ALASKA EARTHQUAKES FOR THE PERIOD APRIL, MAY, AND JUNE 1985

Compiled by
Hans Pulpan[1] and J.N. Davies[2]

INTRODUCTION

This report lists the parameters of earthquakes that occur in and near areas encompassed by the network of seismograph stations operated or recorded by the University of Alaska Geophysical Institute (UAGI) (fig. 1; table 1). The goal of this report is to provide a convenient reference source for earthquake activity in the seismic-network area and quantitative information that researchers, administrators, planners, and other interested people can use. Therefore, this report contains hypocentral parameters and information about the quality of data and precision of the parameters. Because of the substantial quantity of data, this report is based on routine data processing. However, earthquakes are located as accurately and with as many useful data as possible. Additional data and more sophisticated methods of analysis might lead to more accurate locations.

DATA COLLECTION

The data used in this report are derived from two principal sources: seismic stations operated by UAGI and seismic stations operated by other agencies whose data are continuously recorded by UAGI under data-sharing or data-exchange agreements. For earthquakes of local magnitude (M_L) ≥ 3, we receive records of earthquake arrival times at several stations of the Alaska Tsunami Warning System that is operated by the National Oceanic and Atmospheric Administration (NOAA).

Signals from various stations are transmitted by UAGI-operated VHF-radio links and leased commercial-telephone circuits to one of two recording centers in Homer and Fairbanks that are operated by the University of Alaska. Remote stations are serviced and calibrated annually; stations easily accessible by road are serviced more frequently if necessary. Difficult access to many stations can result in lengthy data losses if instruments have malfunctioned. Significant data losses result in lower detection thresholds and poorer solution qualities for earthquakes in the affected regions. To discern such conditions, a station-use record is provided in figure 2.

Data are recorded on 16-mm film on several Teledyne Geotech Develocorders that have a 20-channel capacity. Satellite-linked clocks provide time marks that are superimposed on the records. Figure 3 shows the typical response of the seismic-network system from transducer to recorder.

DATA PROCESSING

Arrival times of body waves are read from the 16-mm film with Geotech filmviewers that provide a time resolution of 0.1 s/mm. Thus, the impulsive arrivals can be read to 0.05 s.

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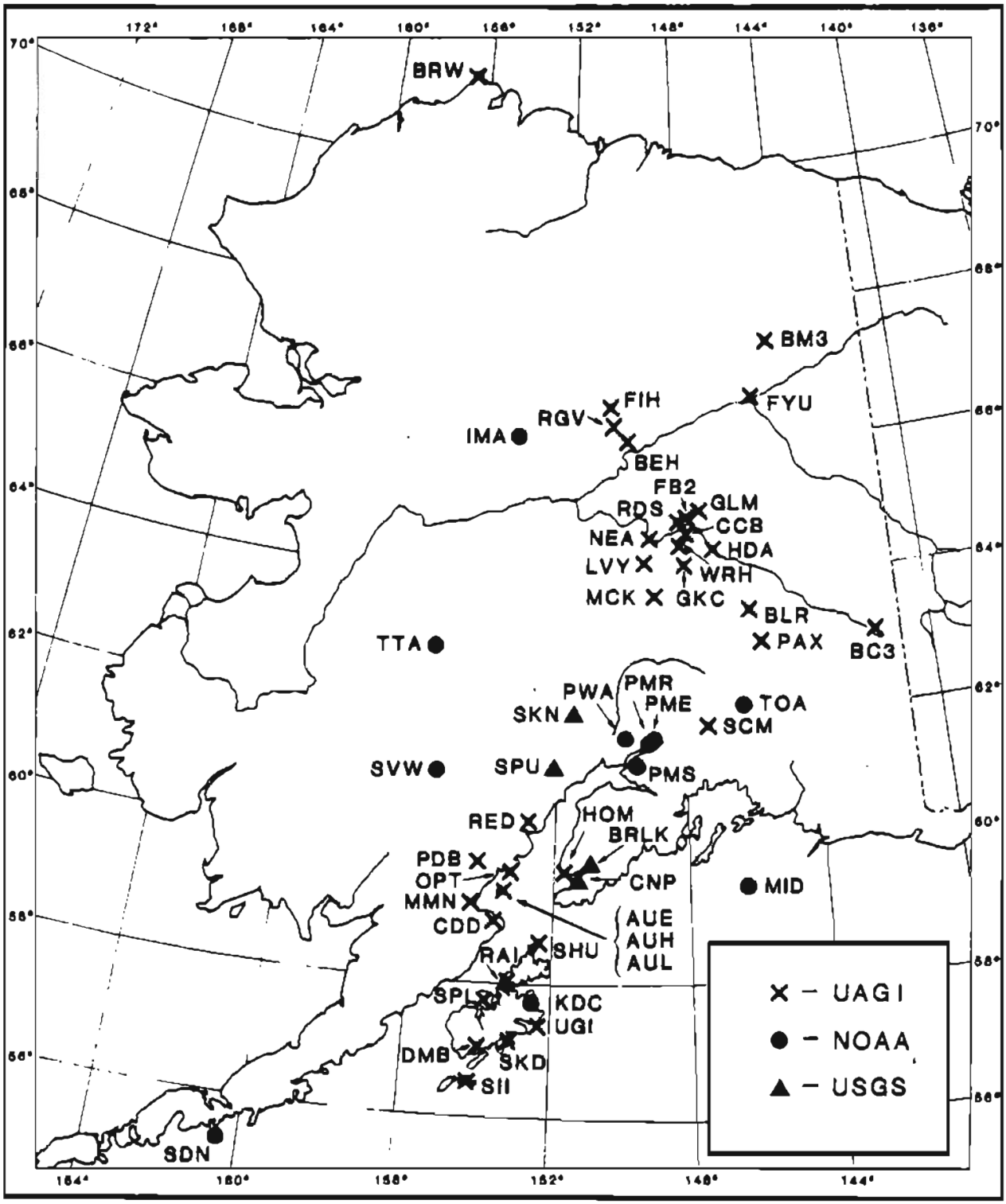

Figure 1. All seismic-network stations operated by the University of Alaska and by other organizations whose data were used in this report. See table 1 for station names.

Table 1. Names and parameters of seismic-network stations used to prepare this report.

Code	Station	Latitude (N.)	Longitude (W.)	Elevation (m)	Velocity model[a]	Operator
AUE	Augustine East	59° 21.54'	153° 22.33'	172	2	UAGI[b]
AUH	Augustine Hill	59° 21.83'	153° 26.61'	900	2	UAGI
AUL	Augustine Lava Flow	59° 22.93'	153° 26.07'	360	2	UAGI
BC3	Beaver Creek	63° 4.00'	141° 45.50'	762	1	UAGI
BEH	Bench	66° 0.90'	141° 48.70'	961	1	UAGI
BLR	Black Rapids	63° 30.10'	145° 50.70'	810	1	UAGI
BM3	Burnt Mountain	67° 17.18'	144° 25.17'	305	1	UAGI
BRLK	Bradley Lake	59° 45.85'	150° 53.13'	631	2	USGS
BRW	Barrow	71° 18.40'	156° 44.90'	13	1	UAGI
CCB	Clear Creek Butte	64° 38.80'	147° 48.33'	219	1	UAGI
CDD	Cape Douglas	58° 55.79'	153° 38.58'	622	2	UAGI
CNP	China Poot Bay	59° 31.55'	151° 14.16'	564	2	USGS
DMB	Deadman Bay	57° 5.23'	153° 57.63'	300	3	UAGI
FB2	Fairbanks	64° 54.00'	147° 47.60'	320	1	UAGI
FIH	Fish	66° 31.67'	150° 25.25'	1102	1	UAGI
FYU	Fort Yukon	66° 33.96'	145° 13.90'	137	1	UAGI
GKC	Gold King Creek	64° 10.72'	147° 56.08'	490	1	UAGI
GLM	Gilmore Dome	64° 59.24'	147° 23.34'	820	1	UAGI
HDA	Harding Lake	64° 24.35'	146° 57.23'	450	1	UAGI
HOM	Homer	59° 39.50'	151° 38.60'	198	2	UAGI[c]
IMA	Indian Mountain	66° 4.10'	153° 40.72'	1380	1	NOAA
KDC	Kodiak	57° 44.87'	152° 29.50'	13	3	NOAA
LVY	Levy	64° 13.00'	149° 15.20'	230	1	UAGI
MCK	McKinley Park	64° 43.94'	148° 56.10'	618	1	UAGI
MID	Middleton Island	59° 25.67'	146° 20.33'	37	4	NOAA
MMN	McNeil River	59° 11.11'	154° 20.20'	442	2	UAGI
NEA	Nenana	64° 34.63'	149° 4.63'	364	1	UAGI
OPT	Oil Point	59° 39.16'	153° 13.78'	450	2	UAGI
PAX	Paxson	62° 58.25'	145° 28.12'	1130	1	UAGI
PDB	Pedro Bay	59° 47.27'	154° 11.55'	305	2	UA/USGS[d]
PME	Palmer East	61° 37.70'	149° 1.90'	232	2	NOAA
PMR	Palmer Observatory	61° 35.53'	149° 7.85'	100	2	NOAA
PMS	Palmer - Arctic Valley	61° 14.68'	149° 33.63'	716	2	NOAA
PNL	Peninsula	59° 40.06'	130° 23.82'	585	5	USGS
PWA	Palmer West - Houston	61° 39.05'	149° 52.72'	137	2	UAGI
RAI	Raspberry Island	58° 3.63'	153° 9.55'	520	3	UAGI
RDS	Richard D. Siegrist	64° 49.59'	148° 8.68'	930	1	UAGI
RED	Redoubt Volcano	60° 25.14'	152° 46.32'	1087	2	UAGI
RGV	Remote Gate Value	66° 15.87'	150° 19.93'	506	1	UAGI
SCM	Sheep Mountain	61° 50.00'	147° 19.66'	1020	4	UAGI
SDN	Sand Point	55° 20.40'	160° 29.83'	19	6	NOAA
SHU	Shuyak Island	58° 37.68'	152° 20.93'	10	3	UAGI
SII	Sitkinak Island	56° 33.60'	154° 10.92'	500	3	UAGI
SIT	Sitka	57° 09.85'	135° 19.47'	19	2	NOAA
SKD	Sitkalidak Island	57° 9.85'	153° 4.82'	135	3	UAGI
SKN	Skwentna	61° 58.86'	151° 31.78'	564	2	USGS
SMY	Shemya	52° 43.85'	174° 6.18'	58	6	NOAA
SPL	Spiridon Lake	57° 45.55'	153° 46.28'	600	3	UAGI
SPU	Mount Spurr	61° 10.90'	152° 3.26'	800	2	USGS
SVW	Sparrevohn	61° 6.49'	155° 37.30'	762	2	NOAA
TOA	Tolsona	62° 6.29'	146° 10.34'	909	4	NOAA
TTA	Tatalina	62° 55.80'	156° 1.32'	914	2	NOAA
UGI	Ugak Island	57° 23.67'	152° 16.90'	213	3	UAGI
WRH	Wood River Hill	64° 28.28'	148° 5.39'	314	1	UAGI
YKU	Yakutat	59° 32.72'	139° 43.73'	15	5	NOAA

[a] See tables 2, 3, and 4.
[b] University of Alaska Geophysical Institute.
[c] National Oceanic and Atmospheric Administration.
[d] U.S. Geological Survey.

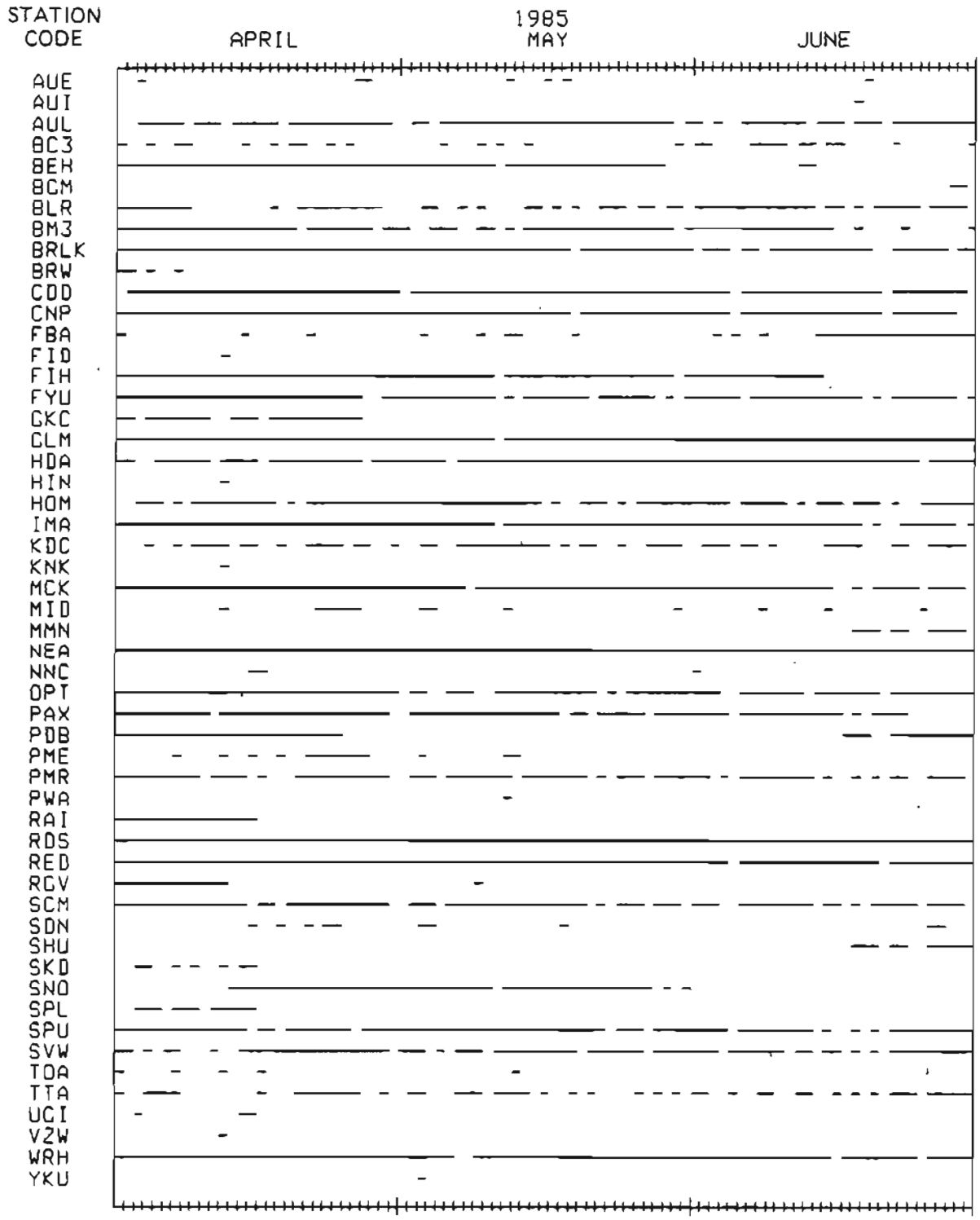

Figure 2. Station-use record. Lines indicate that at least one arrival-time was read from a specific station operating on a specific day. Nonuse does not imply that a station was malfunctioning, but rather that no data were required to locate earthquakes. See table 1 for station names.

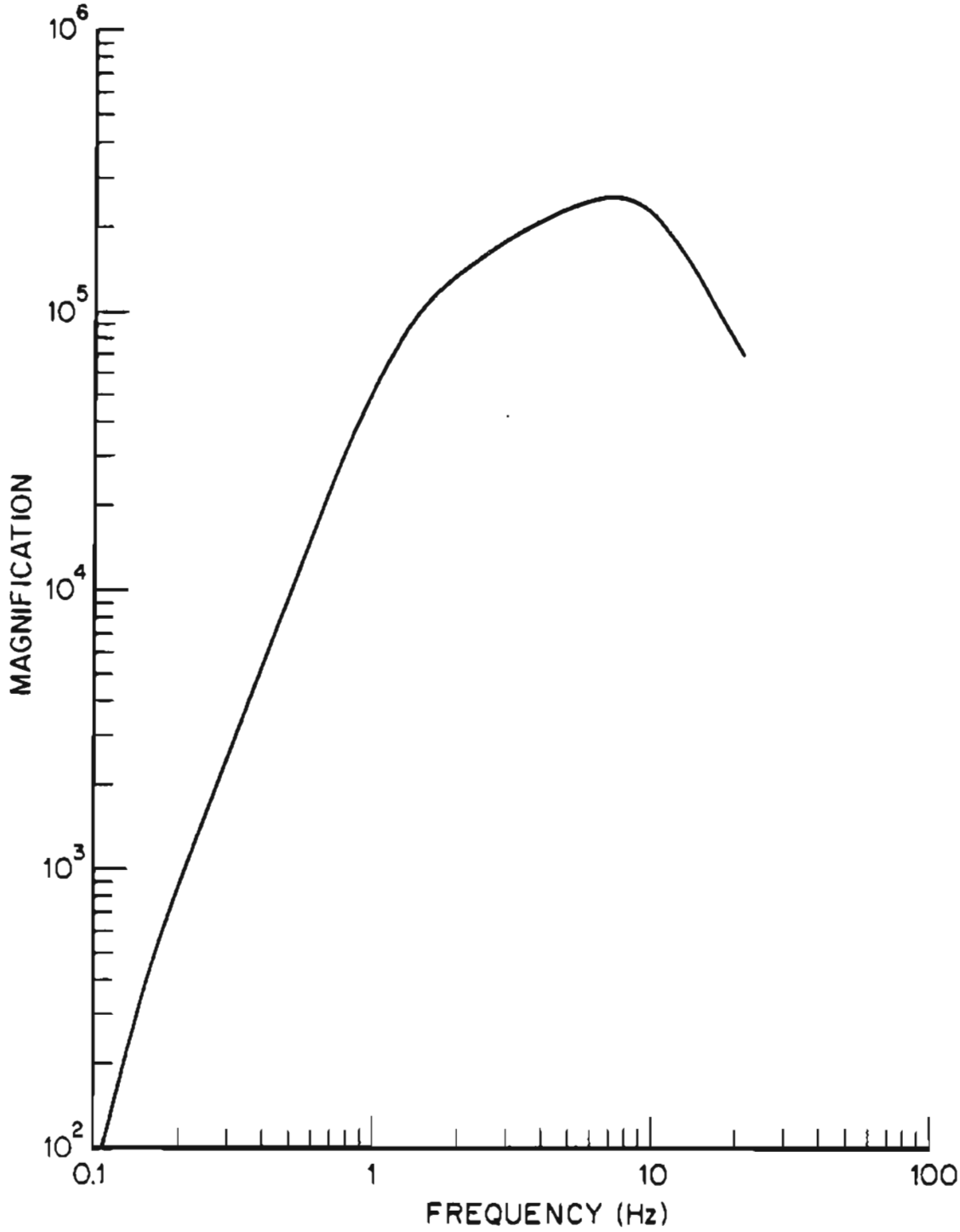

Figure 3. Typical response of a seismic-network station operated by the University of Alaska Geophysical Institute. Magnification is the ratio of the amplitude measured on the filmviewer to that of the actual ground motion recorded. Actual values vary with station.

Earthquake locations are based on arrival times of P and S waves. As many S arrivals as possible are used to help determine hypocentral depth. Most S readings are obtained from vertical components because few three-component systems are recorded. When large earthquakes occur, traces overlap on multichannel-film recorders; consequently, S arrivals are difficult to identify.

After earthquakes are identified and arrival times are determined, phase data are processed with the HYPOELLIPSE computer program (Lahr, 1980) to obtain earthquake parameters. Each solution is checked for the root-mean-square (RMS) error of travel-time residuals and the spatial distribution of stations used. Solutions that have residuals 0.5 s or greater are reread. If the stations used are poorly distributed, additional data are sought from stations not recorded by UAGI. Events recorded by fewer than six stations receive less attention. Data for earthquakes of $M_L \geq 3.5$ are processed more carefully, sometimes by changing control parameters in the computer program.

VELOCITY MODELS

The tectonic regime and geologic setting vary greatly throughout the area covered by the UAGI seismic network. Although our knowledge of the seismic-velocity structure is limited, significant variations exist. To account for these variations, each UAGI station is associated with one of three velocity models (tables 1 through 4), depending on the station's location. The models vary only with depth; lateral variation of velocity is not considered. For stations outside the UAGI seismic network, we generally use models adopted by the station's operators (table 1). For all models, S velocity = $\frac{\text{P velocity}}{\sqrt{3}}$.

Model 1 is used primarily in central and northern Alaska (figs. 4 and 5) and is based on unpublished data by Biswas (oral commun., 1978). The upper mantle structure is based on travel-time studies by Biswas and Bhattacharya (1974).

Table 2. Velocity model 1.

Layer	Depth (km)	P velocity (km/sec)
1	0-24	5.9
2	24-40	7.4
3	40-76	7.9
4	76-300	8.3
5	301-545	10.4
6	>545	12.6

Model 2 is associated with stations located in the Cook Inlet - Kenai Peninsula area (figs. 6 and 7) and is used by the USGS for locating earthquakes in the same area. It is a modified version of the model determined by Matumoto and Page (1969) from travel-time studies of aftershocks of the 1964 Great Alaska earthquake.

Table 3. Velocity model 2.

Layer	Depth (km)	P velocity (km/sec)
1	0-2	2.75
2	2-4	5.3
3	4-10	5.6
4	10-15	6.2
5	15-20	6.9
6	20-25	7.4
7	25-33	7.7
8	33-47	7.9
9	47-65	8.1
10	>65	8.3

Model 3 is used on Kodiak Island and the Alaska Peninsula. The depth and velocity of the first three layers are based on refraction experiments in the central Aleutian Islands (Engdahl and Tarr, 1970). The remaining layers are based on work by Herrin and others (1968).

Table 4. Velocity model 3.

Layer	Depth (km)	P velocity (km/sec)
1	0-1.6	4.2
2	1.6-12	5.5
3	12-42	6.6
4	42-60	8.06
5	60-80	8.09
6	80-100	8.11
7	100-150	8.14
8	150-200	8.27
9	200-250	8.41
10	250-300	8.50
11	300-350	8.74
12	>350	9.02

EARTHQUAKE MAGNITUDE

Earthquake magnitudes are determined from the maximum amplitude of the body-wave trace. Because regional body-wave phases are used, we determine local magnitudes (M_L). The relationship we use was derived by Richter (1958) using earthquake data recorded on standard horizontal Wood-Anderson seismographs in California. Corrections were made for differences in response and magnification between the standard instruments used by Richter and the instruments we used. However, no corrections were made for differences in attenuation properties between California and Alaska. Additionally, no corrections were made for measuring vertical ground motion rather than horizontal ground motion.

The magnitude of each earthquake is usually calculated at several seismic-network stations and then averaged. When large earthquakes occur,

the instrument response saturates the maximum trace amplitude of the recorder at most of our stations. Therefore, we frequently list local magnitude determined by NOAA's Palmer Observatory. Felt reports and intensity observations based on the Modified Mercalli Intensity Scale (app. A; Richter, 1958) are also listed. The intensity levels are defined in appendix A.

RECORDED EARTHQUAKES

Appendix B lists hypocenter, magnitude, and quality parameters for each earthquake of $M_L \geq 3$ that was located during the second quarter of 1985 (see also figs. 5, 7, and 8). Appendix C lists the same parameters for all earthquakes that were located during the same period (see also figs. 4 and 6). Detection threshold and solution quality vary throughout the areas shown in figures 4, 6, and 8. Appendix B is probably complete for $M_L > 3$. As shown in figure 1, the distribution of stations varies significantly; thus detection-threshold levels also vary significantly.

The reliability of a hypocenter location can be assessed from two sets of information: the quality of the input data and the results of statistical tests. The number of P and S phases used to locate the earthquake (NP and NS), the largest azimuthal separation between stations as measured from the epicenter (GAP), and the distances from the epicenter to the closest and third closest station (D1, D3) are the most important parameters that control the reliability of the hypocenter location. A GAP of more than 180° means that the epicenter is located outside the seismic network; therefore, locations will generally be less reliable. Also, as D1 exceeds hypocentral depth, the reliability of hypocentral depth decreases. Magnitude threshold and location reliability vary throughout the state because of the uneven distribution of stations (fig. 1).

The RMS travel-time residual and the horizontal (ERH) and vertical (ERZ) projections of the maximum axes of the one-standard-deviation confidence ellipsoid reflect the precision of the solution. Because we use simplified velocity models, the RMS residuals probably measure the inaccuracy of these models with respect to the real crust and upper mantle; they only secondarily account for random reading errors and phase misidentifications. Although the precision of hypocentral locations is fairly well indicated by ERH and ERZ, their absolute accuracy is difficult to determine because adequate calibration studies with known sources, such as explosions, have not been performed in the region.

Seismicity south of lat 61° N. (fig. 6) dominantly reflects the subduction of the North Pacific plate beneath the North American plate. A well-defined Benioff zone dips about 45° NW. below Cook Inlet and the Alaska Peninsula. Near lat 60° N., high seismic activity at depths greater than 70 km is typical of the area. The Benioff zone terminates at about lat 64° N. A cluster of hypocenters at an intermediate depth (>50 km) near lat 63° N. (below Mt. McKinley) pinpoints where the strike of the Benioff zone changes from north-northeast to more northeast. The cluster of shallow hypocenters near Fairbanks is characteristic of the seismic activity in central Alaska. Although the seismic-station distribution near Fairbanks is dense and provides the lowest detection threshold throughout the network (with the

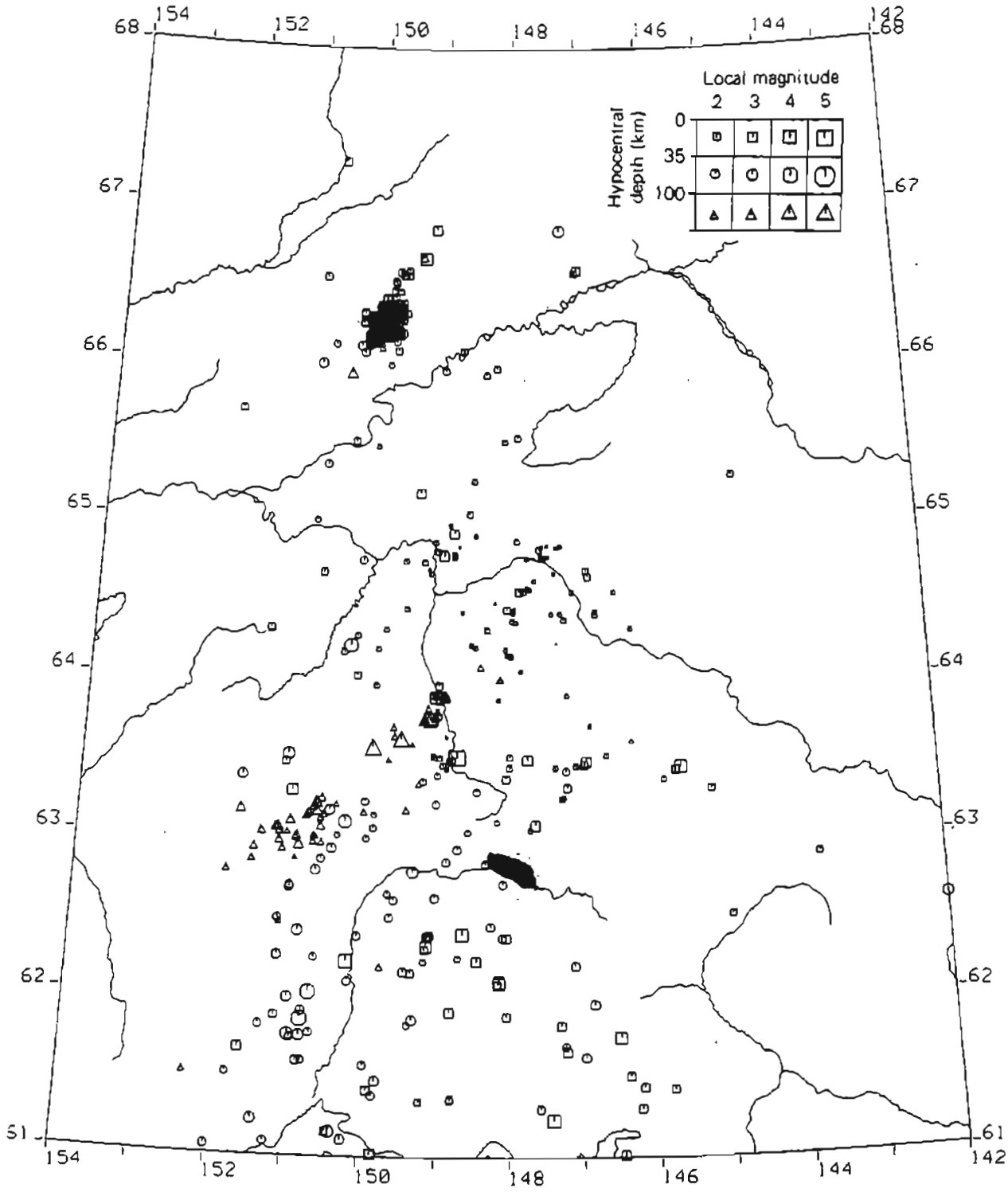

Figure 4. Epicenters of earthquakes that occurred north of lat 61° N. during the second quarter of 1985. Symbol sizes are shown for local magnitudes 2 through 5. Symbols larger or smaller than those shown reflect local magnitudes that must be interpolated relative to the symbol sizes shown.

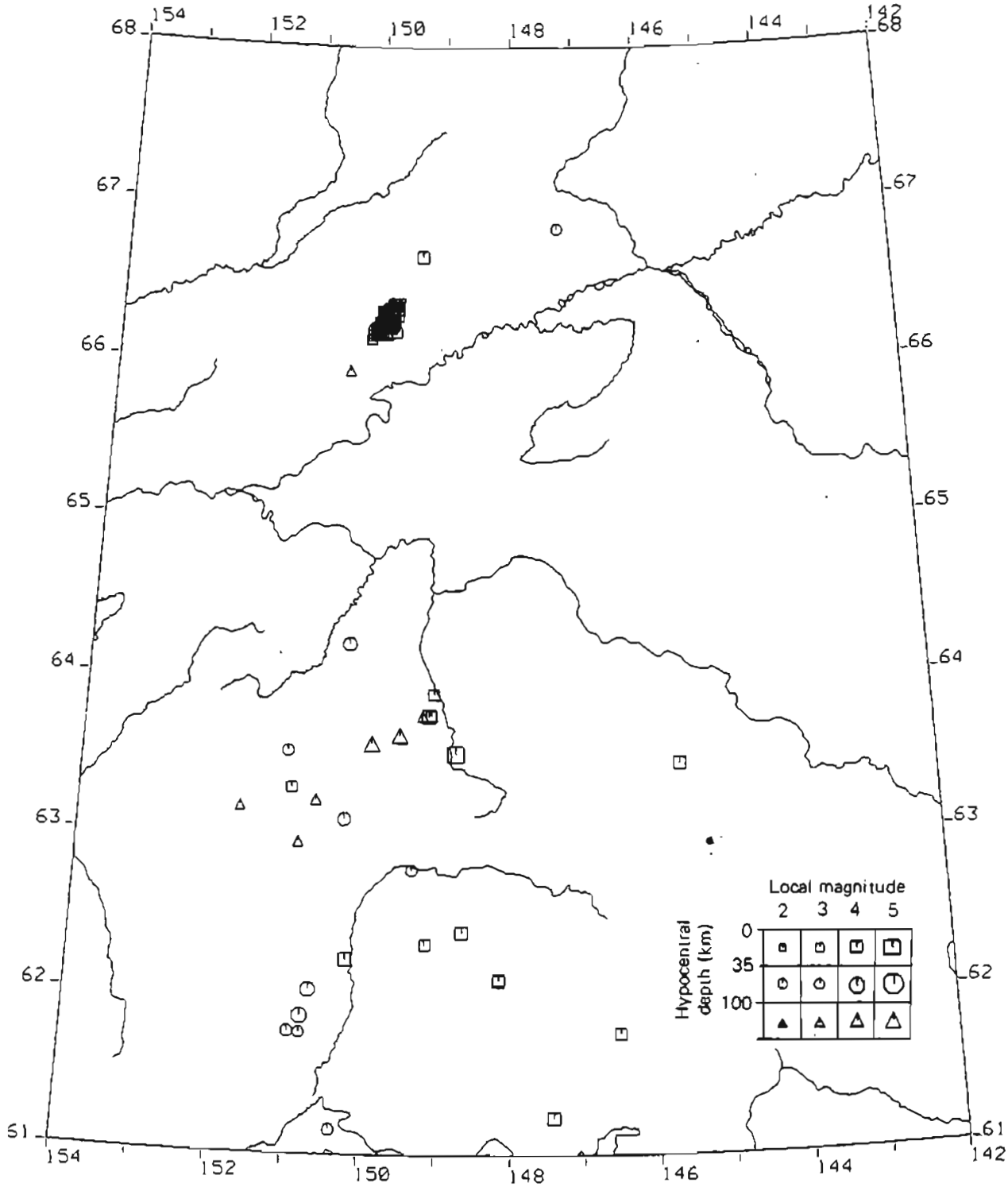

Figure 5. Epicenters of earthquakes with $M_L \geq 3$ that occurred north of lat 61° N. during the second quarter of 1985. Symbol sizes are shown for local magnitudes 2 through 5. Symbols larger or smaller than those shown reflect local magnitudes that must be interpolated relative to the symbol sizes shown.

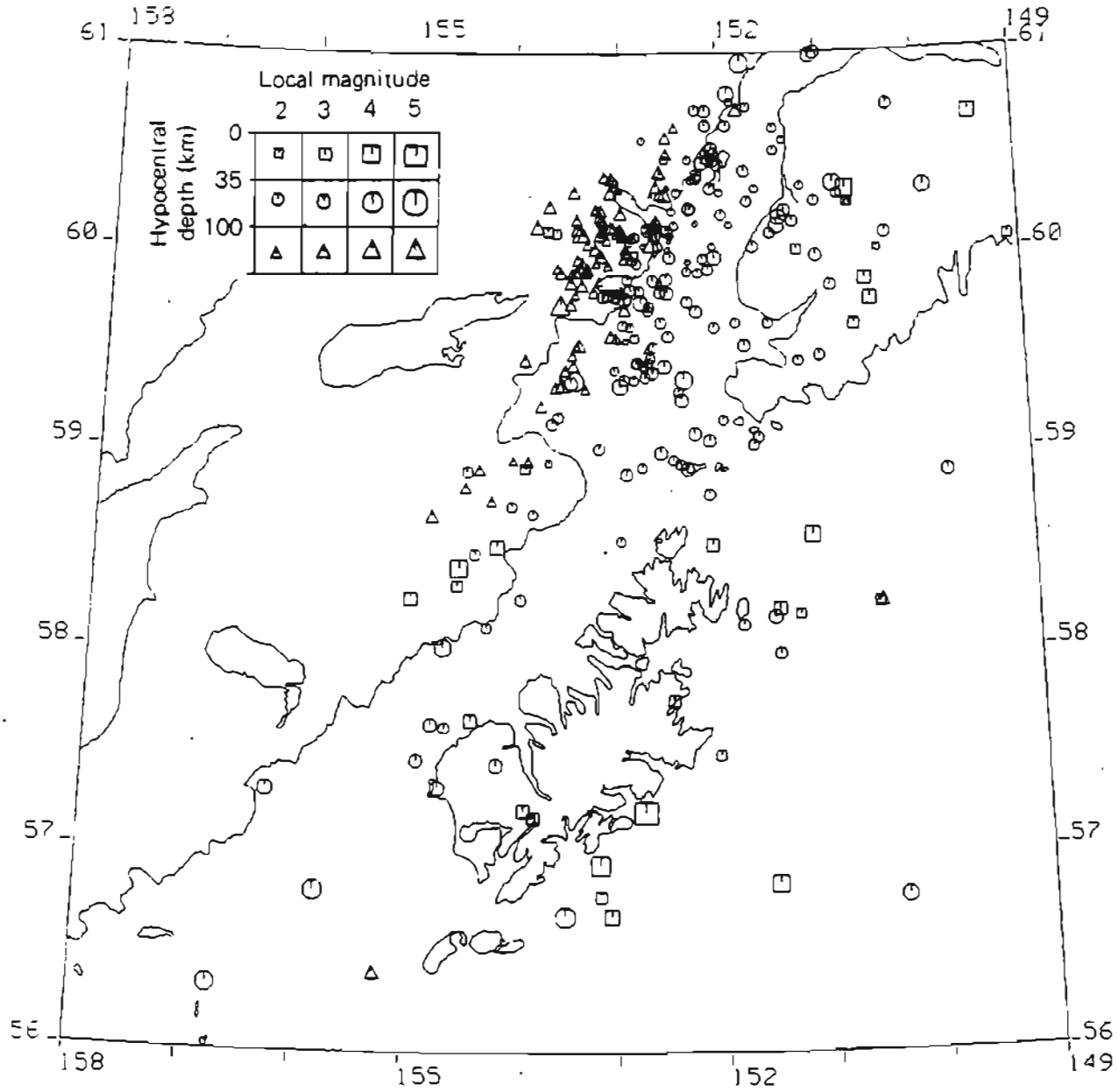

Figure 6. Epicenters of earthquakes that occurred south of lat 61° N. during the second quarter of 1985. Symbol sizes are shown for local magnitudes 2 through 5. Symbols larger or smaller than those shown reflect local magnitudes that must be interpolated relative to the symbol sizes shown.

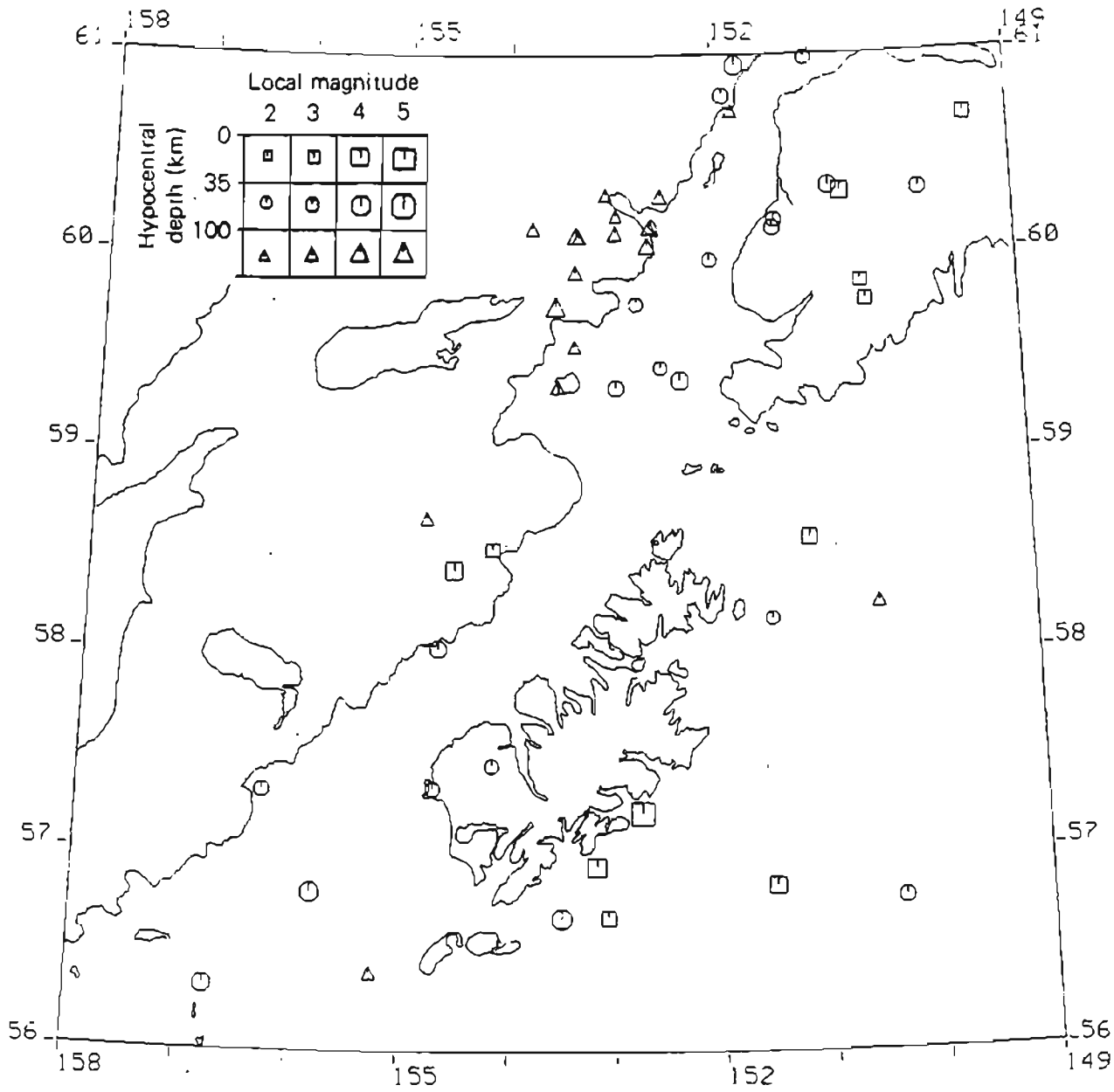

Figure 7. Epicenters of earthquakes with $M_L \geq 3$ that occurred south of lat 61° N. during the second quarter of 1985. Symbol sizes are shown for local magnitudes 2 through 5. Symbols larger or smaller than those shown reflect local magnitudes that must be interpolated relative to the symbol sizes shown.

exception of Augustine Volcano), the concentration of epicenters indicates a very active seismic zone.

SIGNIFICANT EVENTS

The largest event during this quarter was the magnitude 5.1 (NEIS, m_b) earthquake of April 21 offshore of Kodiak Island (fig. 7). Other significant activity in the subduction zone occurred near the Shumagin Islands and around Prince William Sound. On April 15, 21, and 24, earthquakes of magnitude 4.9, 4.8, and 5.1, respectively, occurred southeast of the Shumagin Islands (fig. 8); the latter was felt in Chignik. Several events occurred in and around Prince William Sound (fig. 8); the magnitude 4.4 earthquake of May 20 was felt in Valdez and Anchorage.

Clusters of deep events occurred along the Wadati-Benioff zone beneath Mount Illiamna (fig. 7), the lower Susitna River, and Denali National Park (fig. 5). The event of June 28 in the perennial Illiamna cluster and a shallower one on May 12 were felt in Homer. Events along the Susitna River on May 2, 3, and 30 were felt in the Anchorage-Palmer area; the May 3rd event was shallow. Events near Denali National Park on June 13, 20, and 27 were felt in the park and variously from Healy to Talkeetna. The events of June 13, near the park, and May 9, near the Canadian border (fig. 8) and felt in Beaver Creek and Koidern, were shallow and probably on the Denali fault.

In northern Alaska, the Dall City aftershock (see the previous bulletin) continued to produce many events (fig. 5). Five of these aftershocks were larger than magnitude 4.0, the largest being a magnitude 4.7 event on April 1. Also on April 1, a magnitude 4.8 event on the Koyukuk River (fig. 8) occurred near the epicenter of the 1958 Huslia earthquake (M_s - 7.3).

ACKNOWLEDGMENTS

We thank Tom Sokolowski and the staff of the NOAA Tsunami Warning System in Palmer for helping us record several of their station signals on a continuous basis. We also thank John Lahr of the USGS for sharing information with us and providing the HYPOELLIPSE computer program.

The operation of the seismic networks and preparation and publication of this report were made possible by support from the Alaska Division of Geological and Geophysical Surveys and the University of Alaska Geophysical Institute.

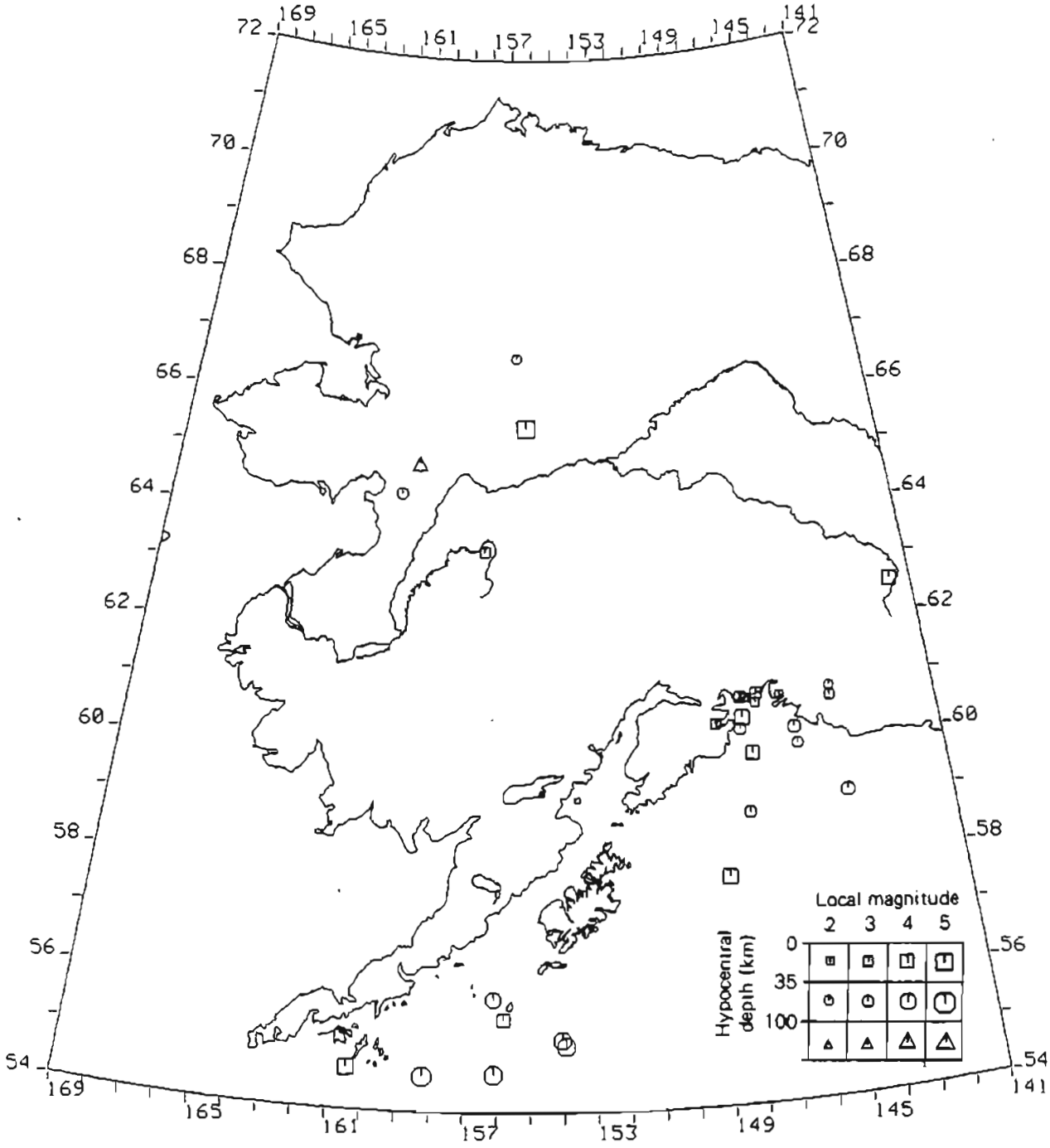

Figure 8. Epicenters of earthquakes that occurred in the second quarter of 1985 and are not shown in figures 4 or 5. Symbol sizes are shown for local magnitudes 2 through 5. Symbols larger or smaller than those shown reflect local magnitudes that must be interpolated relative to the symbol sizes shown.

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APPENDIX A

Modified Mercalli scale, 1956 version.

I. Not felt. Some very low frequency effects, such as seiching in lakes, may be observed resulting from large, distinct earthquakes.

II. Felt by persons at rest, on upper floors, or favorably placed.

III. Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.

IV. Hanging objects swing. Vibration like passing of heavy trucks; or sensation of a jolt like a heavy ball striking the walls. Standing motor cars rock. Windows, dishes, doors rattle. Glasses clink. Crockery clashes. In the upper range of IV, wooden walls and frame creak.

V. Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clocks stop, start, change rate.

VI. Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books, etc., off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry D cracked. Small bells ring (church, school). Trees, bushes shaken (visibly, or heard to rustle--CFR[3]).

VII. Difficult to stand. Noticed by drivers of motor cars. Hanging objects quiver. Furniture broken. Damage to masonry D, including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices (also unbraced parapets and architectural ornaments--CFR). Some cracks in masonry C. Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.

VIII. Steering of motor cars affected. Damage to masonry C; partial collapse. Some damage to masonry B; none to masonry A. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes.

IX. General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. (General damage to foundations--CFR.) Frame structures, if not bolted, shifted off foundations. Frames racked. Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluviated areas, sand and mud ejected, earthquake fountains, sand craters.

[3]CFR refers to supplemental comments by Charles F. Richter.

X. Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.

XI. Rails bent greatly. Underground pipelines completely out of service.

XII. Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.

APPENDIX B

Data for Alaska earthquakes of $M_L \geq 3$ that were located during the second quarter 1985.[a]

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
APR 01	2	14	32.4	66	15.9	149	50.1	12.3	4.7*	13	0	100	22	39	0.21	1.6	1.7	B
01	14	30	31.0	65	43.3	154	20.6	10.0	4.1*	7	0	270	49	199	0.16	23.5	7.3	D
01	14	37	27.9	65	43.9	155	12.3	8.4	4.8*	16	0	172	79	234	0.34	5.5	4.2	D
01	16	27	44.8	68	43.8	154	53.3	10.5	4.3*	13	0	225	67	221	0.15	6.8	3.8	D
01	19	39	51.1	68	47.4	154	56.1	14.4	4.2*	7	0	306	65	220	0.29	37.5	6.1	D
02	11	32	16.0	65	47.0	154	55.3	15.8	4.0*	12	0	170	65	220	0.28	12.3	3.1	D
03	2	25	14.6	60	58.8	151	2.3	49.8	3.2	15	4	114	89	123	0.36	1.4	5.7	C
03	3	53	54.0	60	5.7	153	20.2	140.1	3.1	6	3	155	48	134	0.13	2.3	5.0	C
04	2	14	46.1	60	24.9	147	47.0	66.8	3.1	11	1	210	150	187	0.17	5.2	16.8	D
04	2	25	10.8	66	21.2	149	45.8	14.4	4.0*	10	0	84	27	38	0.14	1.6	1.8	B
04	3	32	12.1	62	20.2	149	9.0	15.8	3.3	14	0	60	83	166	0.42	2.3	4.7	D
04	6	5	7.7	66	14.8	149	58.3	0.2	3.1	9	0	98	16	37	0.40	1.6	2.6	C
04	18	34	40.6	59	45.2	152	46.8	94.0	3.2	12	9	88	86	74	0.33	1.5	2.9	B
05	6	42	27.3	59	56.2	153	22.6	133.2	3.4	9	5	138	31	60	0.37	3.7	4.0	C
05	7	24	32.1	66	20.0	149	57.3	1.4	3.1*	9	1	104	19	36	0.43	1.5	2.3	C
05	13	0	14.2	66	12.4	149	59.3	1.1	4.2*	9	0	106	17	41	0.44	2.3	2.4	C
05	17	52	13.7	60	47.7	151	53.4	61.3	3.3	10	5	165	44	127	0.27	1.6	2.5	C
06	17	55	46.7	61	46.4	150	58.3	74.5	3.4	16	2	78	88	160	0.29	2.1	3.3	B
									PALMER ML = 3.9									
07	10	07	25.9	65	4.7	159	27.5	177.3	4.1*	6	0	270	289	463	0.32	74.9	42.0	D
07	16	24	0.6	60	18.6	150	43.3	34.6	3.9*	14	0	157	62	92	0.24	2.6	12.6	D
									NEIS MB = 4.1									
08	2	34	5.4	66	12.5	149	59.9	0.2	3.1	7	0	107	16	40	0.36	2.9	3.5	C
08	11	49	7.9	66	12.4	150	3.4	0.6	3.0	6	0	102	14	39	0.44	2.9	3.0	C
08	20	32	56.2	63	15.5	151	2.7	1.1	3.0	10	1	201	115	181	0.26	3.5	1.7	D
09	5	37	36.7	66	20.0	149	55.0	1.1	3.1	6	0	124	15	36	0.35	1.7	2.6	C
09	10	24	20.9	66	15.3	149	55.3	0.1	3.6*	9	0	101	19	33	0.38	1.7	2.8	C
09	14	40	9.1	60	20.5	150	50.3	64.6	3.7	13	3	150	64	94	0.32	2.1	5.2	D
									PALMER ML = 3.4									
10	9	58	22.5	66	12.6	149	58.0	6.6	3.9*	9	0	99	19	42	0.35	2.0	1.8	C
10	10	17	23.3	66	11.0	150	6.5	0.3	3.2	9	0	103	13	41	0.38	2.0	2.6	C
10	20	34	19.8	66	12.4	150	5.6	0.5	3.6*	9	0	101	13	39	0.45	1.9	2.5	C
11	2	49	4.0	59	26.0	152	33.0	80.5	3.0	10	4	97	51	75	0.18	1.6	2.7	B
11	5	28	58.9	60	40.2	149	26.3	33.6	3.3	11	4	177	104	153	0.34	1.8	5.5	D
11	8	11	23.2	66	19.6	149	47.7	10.7	3.8*	10	0	131	25	36	0.15	1.8	1.8	C
11	8	34	33.1	59	58.5	152	2.6	72.1	3.1	9	5	148	42	66	0.18	2.2	2.7	C
11	21	17	4.8	60	6.9	152	58.9	112.2	3.5	10	5	89	36	86	0.34	1.7	2.1	B
12	2	28	51.8	56	23.9	155	15.0	105.8	3.2	7	0	313	158	224	0.11	58.2	35.5	D
12	2	33	38.5	59	59.1	147	26.9	9.2	3.8	9	0	199	70	98	0.36	3.3	3.6	D
									PALMER ML = 3.7, NEIS MB = 4.4									
13	13	55	25.7	66	11.9	149	54.6	8.9	4.1*	13	0	97	16	43	0.27	1.9	1.6	C
14	0	47	52.2	60	12.1	152	56.3	124.4	3.0	10	4	148	27	82	0.34	2.7	2.6	C
14	8	57	32.6	57	19.3	154	41.7	64.7	3.2	6	0	266	74	123	0.28	10.4	6.4	D
14	9	14	38.7	66	15.7	149	60.0	1.4	3.5*	9	0	91	14	35	0.41	1.7	2.7	C
14	14	26	55.6	60	18.7	149	55.8	63.5	3.4	15	2	157	81	120	0.39	2.8	3.5	D
15	4	7	43.0	54	39.8	156	5.9	42.5	4.8*	11	0	250	291	374	0.43	20.6	13.7	D
									NEIS MB = 4.9									
17	3	49	36.3	66	9.4	150	7.1	1.0	3.0	9	0	104	12	44	0.60	2.0	2.5	C
17	6	7	50.1	66	16.6	149	55.6	7.2	3.8*	8	0	155	17	171	0.20	4.3	2.6	C
18	6	16	54.1	58	57.2	156	6.0	49.3	4.1	9	0	211	283	364	0.36	11.9	18.9	D
									NEIS MB = 4.4									
19	21	36	6.8	66	12.0	150	1.6	10.3	3.4*	8	0	103	13	41	0.26	2.3	1.5	B
21	15	4	46.1	58	8.7	153	56.0	46.7	4.8*	8	0	257	303	422	0.62	15.8	13.3	D
									NEIS MB = 4.7, MS = 4.8									
21	15	25	32.3	57	12.0	152	45.1	23.7	5.3*	10	1	319	63	274	0.79	4.9	4.9	D
									NEIS MB = 5.1									
21	15	46	56.4	55	15.5	154	2.1	42.4	4.6*	9	0	255	293	411	0.48	14.7	11.6	D
									NEIS MB = 4.7									
21	16	44	6.5	56	40.6	153	29.8	43.3	4.4	7	1	320	134	377	0.53	14.0	25.2	D
21	19	0	41.4	66	20.1	149	54.5	34.9	3.2*	4	0	246	172	478	0.07	99.0	99.0	D
21	19	27	17.5	56	56.0	153	10.5	17.2	4.4	7	1	320	100	310	0.16	9.2	6.9	D

[a] See explanation of column headings at end of appendix C.

APPENDIX B (con.)

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
APR 21	22	14	56.5	62	24.9	148	39.3	22.8	3.6	16	1	73	98	148	0.41	2.3	4.3	D
									NEIS MB - 4.3									
22	8	53	41.9	62	48.4	149	20.7	76.4	3.0	16	0	88	105	151	0.33	1.9	5.8	C
22	16	11	26.0	60	8.6	152	38.6	105.1	3.4	8	4	125	32	78	0.21	2.2	2.5	B
22	17	50	19.4	60	56.8	151	45.2	85.0	4.0	13	3	94	31	140	0.33	1.9	4.5	C
22	20	41	24.0	59	44.9	153	34.0	140.8	4.6*	13	0	95	22	41	0.31	2.5	5.8	C
									NEIS MB - 4.5									
22	22	2	19.8	63	14.5	150	42.4	126.8	3.3	17	0	123	104	188	0.33	2.4	7.3	C
23	5	45	47.8	56	48.0	155	48.7	41.5	4.2*	10	0	182	226	334	0.45	9.6	14.0	D
									NEIS MB - 4.6									
23	6	32	2.7	59	9.0	144	26.7	38.2	3.6	10	0	238	112	375	0.42	11.5	7.5	D
									PALMER ML - 3.8, NEIS MB - 4.3									
23	23	8	40.5	66	17.0	149	47.2	8.4	3.1	9	0	104	24	39	0.38	2.4	2.0	C
24	1	42	54.0	56	40.7	153	4.2	11.8	3.4	5	0	333	124	367	0.06	99.0	99.0	D
24	3	28	40.3	66	14.1	150	3.0	7.1	3.0	9	0	99	11	37	0.48	1.8	1.7	C
24	17	17	46.3	60	6.3	153	22.0	158.5	4.0*	13	3	80	48	58	0.40	2.5	3.5	B
24	22	6	46.8	54	36.9	158	12.7	42.1	5.1	10	0	257	167	556	0.49	29.4	21.3	D
									NEIS MB - 5.0, MS - 4.5,									
									FELT (II) IN CHIGNIK									
25	2	41	50.3	61	52.3	150	48.8	72.2	4.2	19	1	79	94	101	0.31	1.8	3.6	C
									PALMER ML - 4.2, NEIS MB - 4.1									
25	12	32	58.3	66	15.9	149	57.1	1.5	3.3	9	0	94	16	36	0.35	1.5	2.5	C
26	1	17	2.0	66	14.4	149	50.8	3.0	3.9*	10	0	96	20	41	0.20	1.6	2.3	C
26	2	48	56.6	60	18.0	152	31.8	101.8	3.5	9	4	167	19	87	0.28	2.1	5.1	C
									PALMER ML - 3.7									
26	23	23	41.3	58	1.5	154	39.8	94.3	3.8	13	1	249	117	166	0.28	8.2	9.2	D
									PALMER ML - 4.4, NEIS MB - 4.7									
28	13	47	22.3	60	43.0	151	47.9	155.9	3.1	8	0	169	54	118	0.40	5.9	17.5	D
30	5	38	21.5	66	13.7	150	2.7	0.9	3.5*	9	0	100	11	37	0.44	1.5	2.4	C
30	5	47	32.1	66	13.5	150	3.8	0.5	3.1	9	0	100	11	37	0.46	1.5	2.4	C
MAY 02	0	8	28.7	66	12.2	149	48.1	0.6	3.2	8	0	116	21	47	0.17	1.8	2.9	C
02	7	40	34.0	60	60.0	147	6.5	17.6	3.0	8	1	215	94	236	0.27	5.2	4.1	D
02	7	47	51.6	61	9.3	150	22.2	43.4	3.2*	9	1	127	82	154	0.18	2.1	5.1	C
									FELT (II) IN ANCHORAGE									
03	10	0	38.9	55	36.4	155	49.3	31.8	3.6	9	0	227	297	393	0.39	36.3	30.8	D
03	10	4	50.2	63	28.4	145	36.5	7.9	3.6*	10	0	199	12	123	0.52	3.4	2.0	D
03	12	7	31.9	57	54.3	148	35.3	33.5	4.2	14	0	231	214	237	0.44	19.0	15.6	D
									PALMER ML - 4.5 , NEIS MB - 4.7									
03	13	35	41.0	64	14.2	150	18.0	38.3	3.8*	14	0	128	70	110	0.27	1.8	3.1	B
03	23	40	1.0	62	14.3	150	13.6	8.2	3.7	15	0	85	92	158	0.40	2.0	3.9	D
									PALMER ML - 3.4, FELT IN PALMER									
04	4	18	38.5	56	50.2	151	31.5	0.2	3.9	11	1	213	117	300	0.44	5.0	1.6	D
									PALMER ML - 4.1, NEIS MB - 4.5									
06	1	6	11.3	66	16.4	149	55.7	9.3	3.5*	9	0	97	17	36	0.24	1.9	1.8	B
06	6	7	44.7	59	45.7	150	30.6	26.1	3.2	11	3	202	21	65	0.41	2.0	2.8	D
06	21	1	57.9	66	17.1	149	49.8	10.0	3.1*	9	0	123	22	38	0.20	1.8	1.8	C
07	8	38	30.1	60	18.5	153	4.3	133.9	3.0	10	2	112	21	105	0.26	2.4	3.6	C
08	4	1	47.9	66	11.7	150	1.2	6.8	3.5*	9	0	102	13	41	0.24	2.5	1.7	C
09	0	42	22.9	63	11.5	151	45.3	169.0	3.1*	7	0	185	153	225	0.41	8.5	17.7	D
09	4	9	24.0	62	33.1	141	45.6	22.2	3.8*	10	0	264	57	232	0.40	15.2	6.3	D
									NEIS MB - 4.3, FELT (IV) IN BEAVER CREEK									
									AND KOIDERN AND IN THE YUKON TERRITORY, CANADA									
09	9	33	12.5	66	51.5	147	15.6	40.2	3.1	12	0	164	95	144	0.29	2.3	99.0	D
09	9	42	30.4	66	16.0	149	47.3	10.5	3.4	10	0	102	23	41	0.20	1.9	1.8	C
12	17	7	0.9	58	31.6	154	9.8	1.2	3.2	13	0	214	54	104	0.44	9.3	11.0	D
12	21	18	56.3	59	22.0	152	21.5	98.4	4.0*	13	0	96	52	61	0.13	2.1	4.5	C
									NEIS MB - 4.6, FELT (III) IN HOMER									
13	10	21	27.6	66	22.9	149	46.5	5.7	3.3*	8	0	210	29	41	0.39	3.2	2.5	D
13	10	25	19.2	66	40.8	149	21.4	15.0	3.4*	5	0	267	205	100	0.31	74.4	99.0	D
13	10	55	3.8	66	22.6	149	47.7	5.9	3.4*	8	0	208	28	40	0.42	3.1	2.5	D
13	21	7	50.1	58	40.9	154	47.6	131.3	3.2	11	1	224	72	140	0.34	5.3	2.9	D
14	10	19	53.2	63	7.2	150	17.8	99.5	3.6*	20	0	67	96	181	0.37	1.9	6.1	B
15	3	0	31.2	66	15.7	149	58.7	0.9	3.2*	7	1	172	15	36	0.40	1.9	2.6	C
15	10	33	18.2	56	46.4	150	20.9	41.6	3.5	12	0	291	169	330	0.45	31.4	19.3	D
15	19	2	40.0	66	15.5	149	59.4	1.6	3.5*	8	0	111	14	36	0.37	1.6	2.4	C
18	3	56	17.6	66	13.5	150	2.3	0.1	3.7	8	0	104	12	38	0.47	2.3	2.8	C
18	22	6	56.2	58	25.3	154	31.5	19.5	4.0*	10	0	120	124	142	0.45	8.0	21.4	D
									NEIS MB - 4.3									

APPENDIX B (con.)

1988	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
MAY 19	7	17	39.0	61	46.0	150	49.0	39.5	3.0*	14	0	106	91	184	0.39	2.5	5.6	D
20	13	54	30.7	60	36.3	147	40.6	16.5	4.0	9	0	200	138	201	0.27	5.6	5.3	D
									PALMER ML = 4.4, NEIS MB = 4.3.									
									FELT (III) IN VALDEZ AND (II) ANCHORAGE									
21	5	50	2.0	67	26.3	154	9.2	51.6	3.1	8	0	279	108	321	0.30	19.6	17.3	D
24	6	8	23.7	58	10.5	151	30.9	44.8	3.0	7	2	220	75	151	0.29	25.5	83.8	D
26	8	16	44.7	61	14.0	147	24.7	20.9	3.6*	13	0	203	67	219	0.24	3.7	2.7	D
26	17	12	0.7	62	6.3	148	9.1	25.5	3.5	8	0	103	53	168	0.38	2.9	7.3	D
26	17	14	55.3	62	7.0	148	9.0	26.0	3.4*	15	0	88	53	168	0.32	2.6	5.5	D
28	5	45	9.6	60	10.4	151	23.6	43.3	3.3	11	2	100	54	73	0.26	1.7	4.4	B
28	7	54	38.0	58	34.8	151	8.5	24.6	3.5	10	2	191	108	123	0.61	2.7	6.6	D
28	17	11	33.1	66	20.5	149	51.4	15.1	4.0*	8	0	192	33	187	0.20	6.7	2.9	D
30	12	4	44.2	60	20.9	148	56.0	64.8	3.4*	11	0	159	105	222	0.38	3.0	5.1	D
30	16	55	0.5	62	2.5	150	42.7	69.4	4.1*	15	0	86	97	179	0.32	2.0	4.7	C
									NEIS MB = 4.6, FELT (IV) IN WILLOW									
									AND (II) ANCHORAGE									
31	11	38	59.0	66	22.5	149	43.6	6.7	3.6*	9	0	122	31	181	0.26	1.7	3.1	C
JUN 01	19	8	20.1	63	46.7	149	8.6	8.2	4.0*	14	0	64	12	93	0.34	2.2	1.4	C
01	19	55	10.3	66	21.0	149	47.8	6.9	3.3	12	0	135	34	186	0.32	2.6	4.6	C
02	4	55	54.3	66	18.5	149	44.2	10.4	3.6*	11	0	131	39	181	0.42	5.2	8.0	C
02	9	46	4.4	66	18.7	149	50.0	0.2	3.9*	8	0	106	36	183	0.46	6.3	9.0	C
03	6	12	31.2	59	51.5	150	33.4	30.4	3.1	10	2	169	21	68	0.39	5.2	3.7	D
05	6	52	55.3	66	58.1	154	40.5	0.0	3.4	14	0	260	110	370	0.30	16.5	5.1	D
									PALMER ML = 3.6									
06	1	26	24.8	63	55.0	149	4.4	0.2	3.2*	6	1	198	22	78	0.29	10.1	11.8	D
07	8	20	14.1	59	19.9	152	58.9	94.5	3.8	9	1	94	26	59	0.27	2.2	3.5	C
									PALMER ML = 3.6									
09	1	22	58.4	62	58.5	150	55.7	130.4	3.2	16	2	69	131	201	0.36	2.2	8.5	C
09	11	23	18.2	60	3.1	152	39.8	100.7	4.0	10	3	115	41	72	0.31	2.3	5.0	C
									PALMER ML = 4.2 NEIS MB = 4.4									
13	4	19	28.0	63	32.3	148	45.7	14.3	4.7*	17	0	76	23	117	0.31	1.7	1.9	C
									NEIS MB = 4.9, FELT (IV) IN CANTWELL,									
									HEALY, DENALI NATIONAL PARK, AND BROAD PASS									
13	8	37	42.6	65	57.5	150	26.3	338.7	3.3	5	0	204	64	167	0.42	20.3	56.6	D
15	18	49	52.0	58	58.7	147	44.0	53.8	3.3	11	0	159	94	200	0.37	3.6	7.4	D
									PALMER ML = 3.3									
18	8	47	35.9	63	46.9	149	13.8	119.9	3.3	13	1	152	16	95	0.16	3.0	5.2	C
18	22	3	52.1	63	46.8	149	6.1	8.0	3.2*	8	0	238	10	92	0.15	4.9	1.6	D
19	18	33	15.2	60	8.2	153	47.8	193.3	3.2	8	4	211	48	68	0.35	4.5	7.3	D
20	8	50	35.0	63	39.5	149	32.6	120.5	4.7*	23	0	67	31	105	0.37	1.8	4.3	B
									NEIS MB = 4.8, FELT IN CANTWELL									
									AND DENALI NATIONAL PARK									
22	12	6	13.4	61	46.7	146	30.4	31.0	3.4	16	0	207	44	148	0.29	4.4	2.7	D
									PALMER ML = 3.7									
23	19	31	29.0	62	18.6	154	47.7	83.9	3.6	9	0	120	93	192	0.41	4.3	11.9	C
									PALMER ML = 3.7									
26	12	44	56.8	54	42.8	160	27.1	32.1	4.4*	8	0	305	70	621	0.43	67.3	19.6	D
									NEIS MB = 4.7									
26	13	42	58.3	59	20.6	153	32.8	113.1	3.3	12	4	75	8	46	0.27	1.8	4.0	B
26	23	56	11.7	58	18.3	150	29.7	101.7	3.2	3	1	323	148	221	1.63	15.2	48.3	D
27	0	28	13.6	63	36.1	149	56.3	147.2	4.9*	16	0	70	52	133	0.37	2.4	5.4	B
									NEIS MB = 4.7, FELT (IV) IN TALKEETNA									
									AND DENALI NATIONAL PARK									
27	14	35	3.5	56	19.6	156	44.8	41.8	4.1	11	0	190	289	344	0.29	23.5	44.7	D
									NEIS MB = 4.7									
28	4	42	52.4	57	18.5	156	16.7	62.2	3.3	12	1	289	232	238	0.32	10.8	6.6	D
28	16	35	2.2	59	32.6	153	22.9	116.6	3.1	11	4	67	15	53	0.32	2.0	2.4	B
									PALMER ML = 3.5, FELT (II) IN HOMER									
29	1	30	34.0	63	32.8	151	7.2	52.0	3.2*	7	0	246	110	181	0.21	9.6	24.0	D
29	21	55	50.6	60	8.0	151	24.8	51.3	3.4	14	1	96	61	82	0.30	1.9	5.0	C
									PALMER ML = 3.8, NEIS MB = 4.6									
30	1	10	50.3	66	14.8	149	58.9	54.3	3.1*	9	0	164	168	181	0.40	2.8	21.9	D

APPENDIX C

Data for Alaska earthquakes of all magnitudes that were located during the second quarter 1985.[a]

1985	HR	MN	SEC	DEG	MIN	DEG	MIN	KM				DEG	KM	KM	SEC	KM	KM	
APR 01	2	14	32.4	66	15.9	149	50.1	12.3	4.7*	13	0	100	22	39	0.21	1.6	1.7	B
01	2	42	10.8	66	9.1	150	9.0	0.4	2.9	7	0	121	15	44	0.33	2.2	2.7	C
01	4	27	26.7	61	25.6	145	48.3	11.2	2.3	7	0	272	93	178	0.32	14.1	5.9	D
01	4	53	46.7	66	16.1	149	50.2	0.2	1.9	5	2	152	22	39	0.23	2.4	3.0	C
01	7	45	19.0	64	34.9	147	53.6	2.9	2.2	7	0	86	16	46	0.39	1.1	3.3	C
01	11	40	23.8	60	8.3	152	26.4	94.0	2.0	4	3	148	36	96	0.21	2.8	3.8	C
01	11	44	37.7	60	2.2	152	45.1	89.1	1.2	4	3	129	43	102	0.08	3.1	5.4	C
01	12	7	17.4	59	55.0	153	17.4	121.8	2.2	5	2	133	53	124	0.11	4.3	7.6	C
01	13	41	47.9	63	7.7	151	3.1	116.5	2.9	12	0	170	125	198	0.29	3.7	8.8	D
01	14	30	31.0	65	43.3	154	20.6	10.0	4.1*	7	0	270	49	199	0.16	23.5	7.3	D
01	14	35	54.8	64	26.6	147	25.1	15.0	1.1	6	0	120	23	39	0.22	2.1	9.9	C
01	14	37	27.9	65	43.9	155	12.3	8.4	4.6*	16	0	172	79	234	0.34	5.5	4.2	D
01	14	48	50.3	65	46.7	154	59.5	14.8	2.1	6	0	308	68	223	0.09	50.9	9.4	D
01	16	27	44.5	65	43.8	154	53.3	10.5	4.3*	13	0	225	67	221	0.15	6.5	3.5	D
01	19	39	51.1	65	47.4	154	56.1	14.4	4.2*	7	0	306	68	220	0.29	37.5	6.1	D
02	0	24	36.5	60	7.6	153	2.8	111.0	2.5	7	6	145	36	122	0.28	2.3	3.6	C
02	8	20	8.7	66	15.6	149	57.6	0.2	2.0	7	0	173	17	36	0.45	2.4	2.7	C
02	8	46	35.3	64	6.9	148	26.3	124.3	2.1	9	0	119	26	49	0.11	3.9	8.4	C
02	8	16	11.0	66	15.6	149	50.0	0.6	2.1	7	1	159	23	36	0.41	2.5	2.8	D
02	8	53	47.7	64	41.3	150	43.9	3.2	2.0	7	0	226	80	129	0.34	4.9	4.5	D
02	10	5	24.3	64	20.9	146	16.7	3.5	1.2	9	0	201	33	68	0.12	2.3	2.2	C
02	10	20	19.6	61	55.4	148	49.2	21.9	2.5	8	1	160	40	202	0.27	5.5	7.6	C
02	11	32	16.0	65	47.0	154	55.3	15.5	4.0*	12	0	170	65	220	0.28	12.3	3.1	D
02	15	16	59.9	66	16.5	149	59.5	0.5	2.1	7	1	173	15	34	0.49	2.1	2.7	C
02	15	22	3.2	66	13.7	150	0.4	0.3	1.9	8	0	107	15	38	0.40	2.7	3.2	C
02	21	9	21.5	66	14.6	149	58.7	0.2	2.0	9	0	98	16	37	0.44	1.6	2.6	C
03	2	28	14.6	60	58.5	151	2.3	49.5	3.2	15	4	114	59	123	0.36	1.4	5.7	C
03	3	53	54.0	60	5.7	153	20.2	140.1	3.1	6	3	155	48	134	0.13	2.3	5.0	C
03	5	4	9.9	59	47.6	153	6.1	114.6	2.5	7	5	105	17	61	0.22	3.0	4.5	C
03	5	10	7.2	66	12.6	150	1.5	0.1	1.6	7	2	163	15	40	0.47	2.2	2.4	C
03	6	56	15.4	66	14.6	149	59.5	0.3	2.1	7	1	159	16	37	0.32	2.6	4.7	C
03	7	50	1.5	60	16.5	152	51.0	103.3	0.6	4	3	141	16	123	0.10	3.5	5.5	C
03	9	51	10.7	66	16.0	149	59.0	1.3	2.5	9	0	113	16	35	0.46	1.5	2.5	C
03	11	36	43.9	66	15.7	149	58.3	0.1	1.9	8	0	105	21	34	0.42	2.7	3.2	C
03	12	4	9.6	65	42.3	152	4.5	9.5	2.0	4	0	328	101	118	0.42	99.0	63.0	D
03	13	8	15.6	59	35.0	150	40.6	33.7	2.5	7	3	273	19	65	0.29	3.9	3.8	D
03	13	48	29.9	66	15.5	150	0.5	0.5	2.0	6	0	98	14	35	0.48	1.5	2.6	C
03	16	35	34.0	57	37.5	154	35.5	65.4	2.4	4	2	303	54	107	0.11	5.6	3.6	D
03	16	56	33.1	66	19.2	149	59.2	0.7	2.2	7	1	160	17	35	0.49	2.1	2.7	C
03	18	48	48.1	59	33.7	152	55.4	93.5	1.3	4	3	198	76	96	0.22	4.6	3.9	D
03	19	54	1.9	66	16.0	150	0.5	0.9	1.8	7	0	171	15	34	0.49	2.5	2.6	C
03	22	17	20.6	59	54.3	153	27.1	117.3	2.0	6	4	140	31	69	0.27	3.1	3.4	C
03	22	40	15.5	66	19.3	149	55.1	0.3	2.3	5	0	125	20	35	0.41	2.2	2.9	C
03	23	29	23.3	66	19.1	149	58.5	0.3	1.7	8	1	100	17	35	0.48	1.7	2.7	C
04	2	14	46.1	60	24.9	147	47.0	66.5	3.1	11	1	210	150	187	0.17	5.2	18.5	D
04	2	25	10.5	66	21.2	149	45.5	14.4	4.0*	10	0	84	27	35	0.14	1.6	1.6	B
04	2	34	46.5	66	22.1	149	56.6	3.0	2.4	5	1	132	21	40	0.40	1.5	2.9	C
04	3	32	12.1	62	20.2	149	9.0	15.5	3.3	14	0	60	65	156	0.42	2.3	4.7	D
04	3	53	52.0	66	20.9	149	57.0	1.2	1.9	9	2	107	20	35	0.48	1.5	2.6	C
04	5	20	35.9	66	21.0	149	57.6	0.5	2.0	9	1	106	19	35	0.43	1.6	2.7	C
04	5	35	57.5	60	19.1	151	37.7	89.7	1.5	4	3	225	64	91	0.10	4.0	3.7	D
04	6	5	7.7	66	14.5	149	58.3	0.2	3.1	9	0	98	16	37	0.40	1.6	2.6	C
04	6	31	22.5	60	12.5	151	20.1	41.4	2.5	5	5	172	56	76	0.25	1.5	4.1	C
04	12	34	33.1	66	20.9	149	58.5	0.1	2.2	10	1	105	15	35	0.45	1.5	2.5	C
04	13	38	5.4	66	19.9	149	58.5	0.4	2.4	9	1	102	15	36	0.46	1.5	2.6	C
04	13	52	3.5	60	5.3	152	28.1	84.7	1.2	4	4	136	41	96	0.17	2.1	3.1	C
04	15	0	32.5	62	19.0	149	10.2	16.5	2.0	5	1	129	51	155	0.34	2.4	4.7	D
04	15	54	59.5	60	45.5	151	41.9	76.4	2.0	5	5	178	54	116	0.11	2.1	3.7	C
04	17	25	14.5	66	16.4	149	58.7	0.5	2.2	7	1	174	16	35	0.42	2.1	2.7	C
04	18	34	40.5	59	45.2	152	46.5	94.0	3.2	12	9	55	56	74	0.33	1.5	2.9	B

[a] See explanation of column headings at end of appendix C.

APPENDIX C (con.)

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
APR	04 18	43	51.8	66	14.4	150	4.2	2.2	1.8	7	1	104	28	164	0.41	2.0	2.4	C
	04 19	6	53.7	66	20.1	149	54.5	0.5	2.3	9	0	107	21	36	0.35	1.6	2.7	C
	04 19	56	35.8	58	8.3	151	48.8	45.6	2.6	6	2	199	59	132	0.36	2.2	8.8	D
	04 21	35	56.3	59	48.4	152	58.1	100.8	2.6	8	7	100	23	69	0.23	1.6	2.4	B
	04 23	56	19.6	59	27.2	151	14.1	44.9	2.2	6	4	238	8	115	0.22	3.3	3.4	C
	05 3	48	5.8	66	13.8	150	3.0	0.6	2.3	9	1	100	13	37	0.48	1.6	2.5	C
	05 6	42	27.3	59	55.2	153	22.6	133.2	3.4	9	5	138	31	60	0.37	3.7	4.0	C
	05 7	24	32.1	66	20.0	149	57.3	1.4	3.1*	9	1	104	19	36	0.43	1.5	2.5	C
	05 9	26	41.2	65	33.4	147	54.7	8.0	1.7	10	1	113	68	101	0.26	1.6	1.7	C
	05 10	46	43.4	66	17.8	150	1.1	1.5	2.3	8	1	94	15	33	0.46	2.2	3.4	C
	05 13	0	14.2	66	12.4	149	59.3	1.1	4.2*	9	0	105	17	41	0.44	2.3	2.4	C
	05 13	4	53.9	66	13.7	150	0.2	0.7	2.2	8	1	107	15	38	0.38	2.6	3.2	C
	05 13	29	4.4	61	52.5	149	19.4	43.7	2.8	15	0	70	33	165	0.38	2.0	3.6	B
	05 13	54	24.6	59	57.4	152	18.3	84.1	1.3	4	4	133	58	82	0.23	2.4	3.8	C
	05 16	15	40.4	62	12.9	147	6.8	51.1	2.5	8	4	150	44	127	0.33	3.3	4.9	C
	05 17	52	13.7	60	47.7	151	53.4	81.3	3.3	10	6	165	44	127	0.27	1.6	2.5	C
	05 19	16	3.6	60	6.4	153	9.6	119.8	2.0	6	3	153	41	68	0.21	3.1	5.1	C
	05 23	43	27.5	59	32.0	151	45.7	59.5	2.8	9	6	115	15	56	0.24	1.2	2.0	B
	06 1	18	18.7	66	15.1	149	59.2	0.9	2.0	9	1	98	16	36	0.48	1.5	2.5	C
	06 3	28	41.6	66	14.3	149	58.7	0.5	2.2	7	1	102	16	38	0.31	2.7	3.6	C
	06 4	50	5.5	66	12.8	149	59.3	1.6	2.3	6	0	166	16	40	0.48	2.8	2.7	C
	06 12	41	35.4	60	27.3	152	3.6	82.8	1.2	4	3	235	39	113	0.11	10.2	4.0	D
	06 13	35	14.6	59	58.3	152	56.6	112.7	2.2	5	4	116	39	73	0.19	3.6	4.0	C
	06 14	26	18.8	60	0.0	153	10.7	115.0	1.9	4	3	138	52	121	0.05	4.4	7.0	D
	06 14	50	14.8	64	20.6	148	20.9	21.2	1.5	6	0	104	19	44	0.04	1.4	1.5	B
	06 15	21	57.9	60	20.1	152	30.3	102.4	1.3	4	2	182	18	112	0.09	4.3	5.4	D
	06 15	40	37.0	62	52.2	148	53.5	78.3	2.2	7	2	274	96	174	0.39	5.6	4.3	D
	06 17	55	46.7	61	46.4	150	58.3	74.5	3.4	18	2	78	68	180	0.29	2.1	3.3	B
									PALMER ML = 3.5									
	06 22	26	13.6	59	8.7	153	38.6	93.1	2.4	6	3	157	24	78	0.32	4.0	5.9	C
	06 23	35	7.0	63	53.7	149	0.4	12.5	2.2	7	0	189	19	76	0.48	2.4	1.8	D
	06 23	48	43.7	63	50.2	149	2.8	11.3	1.0	5	0	204	13	83	0.23	3.1	2.6	D
	07 3	27	49.8	57	12.6	153	53.6	29.0	3.0	6	3	261	49	104	0.13	3.0	5.3	D
	07 3	49	14.9	64	14.0	148	30.7	15.2	1.2	7	2	124	29	47	0.27	1.0	1.9	B
	07 6	30	50.2	66	18.1	149	59.8	0.2	1.7	8	1	96	16	33	0.48	1.7	2.6	C
	07 7	45	51.4	66	12.6	149	46.7	8.1	2.0	8	1	116	22	46	0.24	1.8	1.9	C
	07 9	22	3.2	62	57.1	148	44.3	74.3	2.5	9	3	131	68	144	0.43	1.6	3.0	C
	07 9	47	59.1	59	38.5	152	57.5	93.3	2.2	5	3	100	71	98	0.16	2.6	5.5	C
	07 9	53	47.3	66	13.1	150	2.9	0.9	2.3	8	0	103	14	38	0.40	1.8	2.4	C
	07 10	07	28.9	65	4.7	159	27.5	177.3	4.1*	5	0	270	289	483	0.32	74.9	42.0	D
	07 10	30	22.0	66	13.0	150	2.2	0.1	2.2	6	2	176	14	39	0.42	2.4	2.5	C
	07 11	29	47.4	59	54.4	153	33.7	137.2	2.6	6	3	148	34	72	0.35	3.4	2.9	C
	07 14	27	40.1	59	46.7	153	1.4	96.0	2.1	6	3	99	66	105	0.14	3.0	5.2	C
	07 15	22	25.7	66	20.5	149	57.8	0.6	2.4	8	1	105	19	37	0.43	1.6	2.8	C
	07 16	24	0.6	60	18.6	150	43.3	34.6	3.9*	14	0	157	62	92	0.24	2.6	12.6	D
									NEIS MB = 4.1									
	07 16	48	7.4	63	1.9	150	57.7	131.8	2.7	11	1	192	128	196	0.34	3.8	8.7	D
	07 18	41	52.5	60	8.9	152	13.5	73.5	1.3	4	4	164	43	89	0.12	3.5	4.7	C
	07 20	4	10.2	66	12.8	150	1.1	0.8	2.3	9	0	100	15	39	0.44	2.6	2.8	C
	07 20	40	33.7	64	35.6	147	44.2	0.2	1.2	6	3	98	22	43	0.18	0.7	99.0	C
	07 21	43	28.9	66	13.6	149	49.1	0.9	2.1	9	2	96	24	43	0.35	1.6	2.5	C
	07 23	29	50.1	63	31.3	147	45.6	8.3	2.9	16	0	119	63	95	0.47	1.3	1.5	D
	07 23	51	1.8	63	55.8	149	2.1	0.9	2.4	11	2	177	23	72	0.29	1.9	2.2	C
	08 2	21	32.2	66	35.3	147	1.9	7.1	1.8	6	2	139	80	141	0.27	2.2	3.8	C
	08 2	25	20.2	66	12.5	149	59.4	0.8	2.0	7	1	166	17	41	0.33	3.3	5.3	C
	08 2	29	45.1	66	12.8	150	1.0	0.2	2.3	8	0	105	15	39	0.41	2.8	3.3	C
	08 2	34	5.4	66	12.8	149	59.9	0.2	3.1	7	0	107	16	40	0.36	2.9	3.5	C
	08 4	5	49.1	66	13.5	149	57.8	0.9	1.8	7	1	169	17	40	0.31	3.0	5.2	C
	08 5	1	39.0	66	12.6	149	59.1	1.6	2.0	6	1	106	17	40	0.34	2.8	3.5	C
	08 5	19	17.8	59	37.8	152	53.0	94.3	1.9	6	3	90	76	94	0.28	2.6	5.1	B
	08 8	45	33.7	66	15.7	149	57.7	1.0	2.3	8	1	97	17	36	0.45	1.8	2.5	C
	08 9	1	7.5	63	24.1	148	3.7	28.6	2.2	8	2	202	57	119	0.34	5.2	27.8	D
	08 10	30	58.8	64	26.2	146	47.3	12.2	1.6	5	2	211	9	63	0.12	1.6	2.1	C
	08 11	13	55.3	58	57.6	153	52.5	108.8	2.5	8	5	172	14	94	0.31	2.3	2.3	C
	08 11	49	7.9	66	12.4	150	3.4	0.6	3.0	8	0	102	14	39	0.44	2.9	3.0	C

APPENDIX C (con.)

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
APR 08	13	19	12.0	64	48.3	147	34.9	9.6	0.9	6	1	122	22	45	0.33	2.2	13.6	C
08	13	42	6.4	66	15.2	149	56.6	0.2	2.8	8	1	113	17	37	0.39	2.3	2.9	C
08	14	35	11.7	60	4.8	152	50.2	97.8	2.2	5	4	118	38	109	0.27	2.1	2.9	B
08	18	45	8.8	66	16.7	149	57.7	0.4	2.4	9	1	96	17	35	0.40	2.1	2.8	C
08	19	36	29.1	60	11.2	153	10.8	129.2	2.6	6	2	168	34	131	0.14	3.6	5.8	C
08	20	1	58.2	66	15.5	149	55.1	0.3	1.7	8	1	95	19	38	0.35	2.3	2.9	C
08	20	32	56.2	63	18.8	151	2.7	1.1	3.0	10	1	201	115	151	0.26	3.8	1.7	D
08	20	58	14.1	59	1.2	153	11.3	70.7	2.5	6	4	117	28	103	0.24	1.6	5.1	C
08	21	34	25.3	60	5.3	150	20.3	46.0	2.6	7	3	150	47	140	0.25	2.8	8.0	D
08	23	26	44.8	63	6.3	147	39.2	27.4	2.8	10	1	148	95	112	0.47	2.4	4.3	D
09	3	28	37.9	66	15.9	149	57.6	0.9	1.8	6	2	174	17	36	0.43	2.8	3.0	C
09	3	38	59.4	66	15.6	149	56.3	0.2	1.9	8	1	97	16	36	0.34	2.3	3.2	C
09	4	18	34.7	66	14.2	150	1.0	0.1	1.6	6	2	179	15	37	0.43	2.3	2.5	C
09	6	25	8.5	60	43.6	150	16.2	39.1	2.6	8	4	147	109	114	0.30	1.3	11.4	D
09	6	28	28.9	59	22.0	152	56.4	63.9	2.3	7	5	106	36	86	0.34	2.4	3.4	C
09	7	33	33.5	60	34.0	152	45.6	90.0	1.6	5	2	267	105	137	0.28	9.7	11.3	D
09	8	37	36.7	66	20.0	149	56.0	1.1	3.1	8	0	124	18	36	0.35	1.7	2.6	C
09	9	11	6.6	59	5.6	152	15.4	63.2	2.5	9	5	155	72	75	0.25	1.4	3.3	C
09	10	24	20.9	66	15.3	149	55.3	0.1	3.6*	9	0	101	19	33	0.38	1.7	2.8	C
09	10	27	33.5	66	17.9	149	59.3	0.7	2.3	9	0	97	16	33	0.45	1.7	2.6	C
09	10	57	29.1	57	10.3	153	49.4	30.0	2.1	3	0	272	45	107	0.00	99.0	99.0	D
09	11	33	13.9	59	10.7	153	35.0	94.3	2.4	4	2	146	28	127	0.18	4.9	8.7	C
09	11	37	16.3	60	8.3	152	39.4	99.6	1.6	4	4	123	32	105	0.15	2.3	2.9	B
09	11	53	5.5	66	19.4	149	56.5	0.2	1.6	6	2	183	19	35	0.44	3.0	4.0	D
09	12	37	20.5	66	20.6	149	55.5	0.2	1.7	8	1	186	20	37	0.44	3.0	4.0	D
09	13	30	58.2	62	31.0	149	39.4	65.6	2.3	10	0	146	107	143	0.36	2.6	11.2	D
09	13	57	43.9	60	37.3	151	25.5	65.7	2.1	5	4	269	77	123	0.09	4.4	4.8	D
09	14	40	9.1	60	20.5	150	50.3	64.6	3.7	13	3	150	64	94	0.32	2.1	5.2	D
									PALMER ML = 3.4									
09	16	2	1.3	66	14.8	149	59.4	2.0	1.6	6	2	170	16	37	0.36	3.2	7.7	C
09	16	49	31.3	62	37.6	149	36.1	68.6	2.2	10	0	147	118	148	0.31	2.5	11.2	D
09	18	26	20.0	64	20.5	149	48.1	11.5	1.5	7	1	265	44	84	0.26	4.1	2.1	D
09	19	0	11.3	66	15.1	149	59.2	0.5	2.3	7	0	170	16	36	0.46	2.4	2.7	C
09	19	9	35.3	59	49.9	150	53.9	54.6	2.7	7	2	231	8	123	0.31	5.5	6.2	D
09	19	18	56.8	60	18.2	152	24.8	82.1	1.6	4	4	181	24	109	0.17	2.8	3.0	C
09	19	35	2.0	66	16.1	149	56.3	0.1	2.1	7	0	176	18	36	0.32	2.4	2.8	C
09	19	59	58.9	66	15.7	149	58.7	0.4	2.1	7	0	172	16	36	0.35	2.4	2.6	C
09	23	30	30.5	63	28.4	148	0.8	16.1	1.7	8	2	190	54	111	0.20	2.2	1.6	D
10	0	12	20.0	62	54.3	148	14.4	80.5	1.6	6	2	284	99	175	0.15	3.5	6.6	D
10	0	50	28.5	60	34.9	152	31.1	110.5	2.7	7	4	153	23	128	0.21	2.3	5.7	C
10	3	46	39.8	60	30.3	152	7.4	82.2	1.7	5	2	244	37	113	0.22	5.4	2.8	D
10	4	19	0.5	66	15.3	149	57.5	0.9	1.5	6	2	173	17	37	0.40	2.9	3.0	C
10	7	35	11.0	64	49.0	148	49.7	16.4	1.3	6	1	230	29	52	0.33	3.2	2.1	D
10	9	50	36.2	66	19.5	149	54.3	0.5	1.5	7	1	105	20	35	0.42	3.2	6.0	C
10	9	58	22.5	66	12.6	149	56.0	6.6	3.9*	9	0	99	19	42	0.35	2.0	1.5	C
10	10	17	23.3	66	11.0	150	6.5	0.3	3.2	9	0	103	13	41	0.38	2.0	2.6	C
10	15	20	56.5	66	19.3	149	59.0	1.1	2.2	9	1	100	17	35	0.40	1.5	2.3	C
10	15	32	17.2	63	32.6	149	5.3	12.1	1.5	9	0	206	25	115	0.13	3.4	1.7	D
10	15	47	4.2	66	6.7	149	59.5	0.9	1.6	6	1	157	14	60	0.29	4.2	3.0	C
10	16	59	55.3	59	52.2	152	31.6	88.2	2.5	5	5	109	46	63	0.17	1.6	2.2	B
10	17	29	52.6	58	32.2	152	6.1	30.0	2.5	9	3	168	52	122	0.34	3.1	10.5	D
10	20	34	19.5	66	12.4	150	5.6	0.5	3.8*	9	0	101	13	39	0.45	1.9	2.6	C
10	21	38	0.9	66	20.3	149	57.5	0.3	1.7	9	0	104	19	37	0.47	1.5	2.7	C
11	0	16	50.5	59	16.4	152	24.6	62.2	2.1	5	3	125	71	114	0.14	3.2	4.5	C
11	1	37	31.9	58	43.7	154	1.6	82.7	2.2	6	3	184	32	109	0.24	4.0	4.1	D
11	2	49	4.0	59	26.0	152	33.0	80.5	3.0	10	4	97	51	75	0.18	1.6	2.7	B
11	3	31	16.2	60	18.3	151	42.5	63.4	2.3	7	4	212	62	86	0.25	3.2	3.0	D
11	5	28	58.9	60	40.2	149	26.3	33.6	3.3	11	4	177	104	153	0.34	1.5	5.5	D
11	8	11	23.2	66	19.6	149	47.7	10.7	3.8*	10	0	131	25	36	0.15	1.5	1.5	C
11	8	14	24.0	66	19.9	149	56.5	0.4	1.9	8	0	185	19	36	0.42	2.4	2.5	D
11	8	34	33.1	59	58.5	152	2.6	72.1	3.1	9	5	148	42	85	0.18	2.2	2.7	C
11	10	9	22.7	66	19.6	149	56.9	0.4	1.7	7	0	184	19	35	0.41	2.3	2.7	D
11	10	41	32.7	66	18.8	149	58.7	0.5	2.2	9	0	99	17	34	0.40	1.5	2.6	C
11	12	11	54.4	66	19.6	149	59.9	1.3	2.2	9	0	100	17	36	0.46	1.5	2.5	C

APPENDIX C (con.)

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
APR 11	15	59	7.7	60	57.6	147	42.0	23.0	3.0	6	0	215	99	221	0.16	26.5	46.8	D
11	16	20	34.7	60	7.3	153	9.6	116.5	2.2	5	2	185	39	127	0.33	4.0	5.9	C
11	18	16	40.3	66	9.6	150	1.6	0.8	1.6	6	1	159	18	45	0.42	3.7	3.0	C
11	18	57	50.0	66	19.1	149	51.6	0.1	2.0	7	1	188	22	34	0.31	2.9	3.4	D
11	19	21	50.1	66	16.1	150	0.1	0.7	1.8	7	1	171	15	34	0.45	2.0	2.6	C
11	21	17	4.8	60	6.9	152	55.9	112.2	3.8	10	5	89	36	86	0.34	1.7	2.1	B
12	1	15	53.4	61	1.0	149	48.9	11.7	2.8	11	3	149	74	152	0.37	1.9	2.6	D
12	2	28	51.5	56	23.9	155	15.0	106.5	3.2	7	0	313	158	224	0.11	58.2	35.5	D
12	2	33	38.5	59	59.1	147	26.9	9.2	3.6	9	0	199	70	95	0.36	3.3	3.6	D
									PALMER ML = 3.7, NEIS MB = 4.4									
12	7	10	34.8	66	14.3	149	59.3	0.2	2.4	9	1	98	16	36	0.38	1.5	2.5	C
12	7	12	51.5	59	39.0	151	30.7	59.7	2.1	5	5	166	11	56	0.21	2.0	2.5	C
12	10	20	10.1	65	29.5	149	59.9	16.4	1.3	5	1	194	59	111	0.26	7.0	13.3	D
12	11	33	54.4	60	1.0	152	30.2	72.0	1.3	4	2	129	47	98	0.09	3.0	6.3	C
12	13	20	57.2	59	52.1	152	54.7	92.6	2.2	5	3	104	62	102	0.08	3.4	4.3	C
12	19	22	22.5	66	11.1	150	5.0	0.9	2.2	9	0	102	14	41	0.42	1.7	2.3	C
12	19	37	46.3	65	31.7	148	5.8	5.7	1.5	6	0	206	69	95	0.39	3.1	3.3	D
12	21	27	43.9	59	45.5	152	19.3	66.9	2.5	6	4	108	53	78	0.19	1.7	4.1	B
12	22	54	49.5	66	12.1	150	5.7	0.3	2.7	7	0	102	24	163	0.36	2.2	2.7	C
12	23	12	33.5	66	12.7	150	2.2	0.2	2.4	7	0	111	24	165	0.21	1.5	2.7	C
13	0	24	7.4	60	2.7	149	6.4	6.5	2.3	6	2	220	104	221	0.36	7.6	6.4	D
13	0	27	24.1	66	14.5	150	1.4	0.5	2.2	7	0	99	27	166	0.39	2.1	2.6	C
13	4	14	36.6	62	59.7	150	43.5	122.3	2.2	11	0	185	122	192	0.25	3.6	9.5	D
13	4	52	33.5	66	17.1	150	1.4	1.2	2.0	9	1	92	14	32	0.46	1.5	2.5	C
13	6	1	52.0	65	57.1	148	23.0	15.5	1.7	6	1	113	65	112	0.17	4.2	2.3	D
13	6	48	40.6	66	14.2	150	2.0	1.0	1.9	7	0	186	12	37	0.48	2.1	2.5	C
13	10	13	31.5	59	51.1	152	36.6	0.4	1.4	5	0	108	64	65	0.34	1.5	36.3	D
13	10	22	6.5	66	16.5	149	56.9	0.1	2.1	9	1	101	15	34	0.45	1.2	1.5	C
13	10	37	44.7	66	15.0	149	57.2	0.5	1.5	7	0	99	17	33	0.60	1.5	2.7	D
13	13	1	52.3	66	12.5	150	0.6	0.4	1.5	6	1	165	13	40	0.37	2.5	3.3	C
13	13	5	44.3	60	24.7	152	35.1	106.0	3.0	11	3	108	10	92	0.40	1.7	4.0	C
13	13	38	52.4	60	59.6	150	59.6	49.5	2.5	7	3	125	61	120	0.36	1.9	5.7	C
13	13	55	25.7	66	11.9	149	54.6	5.9	4.1*	13	0	97	15	43	0.27	1.9	1.5	C
13	14	56	12.2	63	15.3	150	41.0	137.5	2.1	5	0	293	103	170	0.15	22.2	14.5	D
13	15	19	15.7	59	46.0	153	27.9	136.4	2.7	5	2	111	17	41	0.39	5.4	5.5	C
13	23	21	20.5	66	14.6	149	57.7	0.3	1.7	7	0	171	15	36	0.36	2.2	2.6	C
14	0	47	52.2	60	12.1	152	55.3	124.4	3.0	10	4	148	27	82	0.34	2.7	2.6	C
14	1	19	12.0	63	0.7	149	59.9	95.7	1.9	9	2	166	96	160	0.15	2.0	3.4	C
14	3	35	39.0	61	21.1	149	12.5	30.5	1.5	5	0	203	27	154	0.30	4.7	3.2	D
14	5	27	47.1	60	7.6	153	24.1	153.6	2.5	10	3	162	48	66	0.37	2.4	3.0	C
14	5	32	16.5	59	25.1	153	31.0	113.4	2.6	5	3	130	6	55	0.29	2.4	5.4	C
14	6	6	48.5	66	17.2	149	57.5	1.7	2.0	7	1	96	16	34	0.40	1.5	2.3	C
14	6	14	38.0	59	54.5	153	24.5	114.9	2.4	5	3	138	30	59	0.36	2.7	2.9	C
14	7	41	54.3	66	14.5	149	55.5	0.0	1.9	6	0	174	17	38	0.39	2.3	2.9	C
14	8	40	24.9	64	34.7	147	7.4	4.4	1.2	5	5	172	21	48	0.25	1.1	9.6	C
14	8	50	16.4	66	12.4	149	40.7	0.1	1.9	7	1	164	22	49	0.19	2.5	3.2	C
14	8	57	32.5	57	19.3	154	41.7	64.7	3.2	5	0	266	74	123	0.28	10.4	6.4	D
14	9	14	38.7	66	15.7	149	60.0	1.4	3.5*	9	0	91	14	35	0.41	1.7	2.7	C
14	12	4	46.5	60	19.5	151	10.4	40.3	1.9	4	2	248	65	90	0.12	3.5	10.5	D
14	12	40	9.5	66	18.5	149	51.1	1.3	1.5	5	3	106	22	35	0.45	1.2	2.5	C
14	13	23	46.2	66	20.0	150	0.7	0.3	1.7	6	1	180	17	37	0.40	1.5	1.9	C
14	14	26	55.6	60	15.7	149	55.5	63.5	3.4	15	2	157	61	120	0.39	2.5	3.5	D
14	14	50	2.3	66	16.5	150	6.5	6.5	1.7	7	0	87	11	32	0.46	2.3	1.9	C
14	15	5	3.7	66	16.5	150	2.7	6.5	1.9	5	0	110	12	33	0.27	2.2	2.1	C
14	15	27	55.5	64	49.9	149	4.2	13.3	1.5	7	0	256	28	62	0.11	4.1	1.5	D
14	15	34	47.3	64	2.9	150	11.5	13.6	2.0	5	2	263	71	111	0.39	3.7	2.1	D
14	16	3	30.1	57	38.4	154	46.1	60.9	3.0	6	1	251	61	115	0.17	5.1	7.0	D
14	19	20	26.7	60	14.4	150	41.2	35.7	1.5	4	3	271	54	117	0.21	3.4	7.0	D
14	19	40	3.9	59	19.5	153	19.3	105.0	2.2	6	2	114	48	121	0.27	2.1	6.1	C
15	2	28	40.5	58	55.0	152	19.9	67.7	3.0	11	3	142	76	91	0.31	1.4	6.7	D
15	4	7	43.0	54	39.8	156	5.9	42.5	4.8*	11	0	250	291	374	0.43	20.6	13.7	D
									NEIS MB 4.9									
15	4	24	5.5	58	16.0	153	56.2	73.4	2.4	4	2	188	51	76	0.15	5.9	5.1	D
15	10	42	2.3	64	51.9	147	17.3	17.4	1.2	6	0	182	14	54	0.03	2.3	2.1	C
15	12	9	13.3	66	13.7	150	2.9	0.1	2.2	9	1	88	11	28	0.42	1.9	2.9	C
15	12	17	32.5	58	59.9	152	35.3	66.3	2.5	10	5	146	61	82	0.37	1.4	3.0	D

APPENDIX C (con.)

1985	ORIGIN R	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
APR 15	3	51	12.1	66	16.7	149	56.1	0.1	1.9	9	0	97	17	30	0.37	2.1	3.1	C
15	4	16	59.9	66	20.8	149	52.0	0.1	2.1	10	3	111	23	32	0.47	1.2	2.4	C
15	5	13	31.3	63	11.1	150	2.5	100.1	2.0	7	1	283	82	173	0.22	8.4	7.1	D
15	7	2	8.6	66	15.9	150	1.0	1.6	1.9	8	1	170	13	29	0.47	1.7	2.2	C
15	1	10	27.0	59	54.0	152	12.7	76.4	2.0	5	3	129	64	69	0.16	2.8	4.8	C
15	1	36	11.7	66	16.9	149	53.1	0.1	1.5	6	1	194	19	37	0.28	3.0	3.7	D
15	2	12	51.4	66	20.1	149	59.3	0.3	1.5	7	1	182	18	37	0.38	2.1	2.7	D
15	2	28	19.1	60	17.7	152	40.5	108.0	1.0	4	2	141	15	116	0.02	4.2	5.5	C
16	3	40	22.8	59	22.8	152	44.3	87.8	2.3	6	6	148	41	87	0.28	1.5	3.1	C
16	4	24	11.9	66	15.1	150	0.9	1.1	2.2	10	1	89	13	28	0.45	1.5	2.4	C
16	4	54	39.8	60	7.1	152	42.3	88.7	2.8	8	6	117	34	79	0.24	1.4	2.0	B
16	9	11	52.0	60	18.5	153	26.0	158.1	2.9	9	3	123	39	74	0.25	3.2	7.6	C
16	0	53	57.0	66	16.7	150	1.8	0.6	1.8	9	0	91	13	33	0.47	1.4	2.5	C
16	0	53	42.6	66	21.5	149	49.7	0.6	1.8	6	1	209	25	38	0.30	3.0	3.0	D
16	3	44	33.7	66	12.1	150	1.8	0.0	2.0	9	0	101	13	40	0.35	2.4	2.9	C
16	4	0	1.7	59	56.9	152	49.0	90.5	2.2	6	3	105	40	73	0.17	3.2	7.0	C
16	4	3	52.4	59	35.3	153	4.3	100.2	2.9	7	4	120	12	67	0.18	2.4	5.0	C
16	4	32	31.8	61	25.4	149	54.0	27.9	2.4	14	1	126	45	144	0.49	1.7	2.8	C
									PALMER ML = 2.9, FELT IN ANCHORAGE									
16	5	30	28.8	66	17.8	150	4.9	74.8	1.5	7	0	169	12	34	0.39	5.5	4.7	D
16	7	3	12.8	61	13.6	151	24.1	66.4	2.9	12	2	112	36	128	0.44	2.2	3.3	C
16	8	59	13.2	66	18.1	150	5.3	0.7	1.6	7	1	169	12	34	0.47	1.8	2.5	C
17	1	18	15.1	63	12.2	149	27.5	109.8	2.3	11	0	223	65	154	0.25	5.4	7.1	D
17	3	49	36.3	66	9.4	150	7.1	1.0	3.0	9	0	104	12	44	0.50	2.0	2.5	C
17	5	45	17.6	60	1.5	153	13.4	124.2	2.9	9	8	76	41	60	0.28	1.5	2.3	B
17	6	7	50.1	66	16.6	149	55.6	7.2	3.8*	8	0	155	17	171	0.20	4.3	2.6	C
17	6	7	35.5	66	20.8	149	55.3	0.2	2.0	7	1	189	21	37	0.44	1.4	2.7	D
17	8	49	6.1	66	14.6	149	58.0	0.5	1.8	8	1	98	15	38	0.34	2.0	2.8	C
17	1	7	6.9	66	21.0	149	51.5	4.5	1.5	7	2	193	24	37	0.39	2.7	6.5	D
17	1	36	5.7	59	21.8	152	51.0	74.9	2.0	6	4	145	39	89	0.22	2.2	4.8	C
17	3	31	24.5	63	40.5	149	38.7	139.0	2.1	8	0	266	36	104	0.07	10.5	11.9	D
17	5	6	3.5	60	8.3	151	53.5	53.5	1.5	4	2	183	58	77	0.09	3.2	7.3	D
17	6	3	37.8	66	12.4	150	4.7	0.8	2.0	9	2	101	10	39	0.52	1.6	2.2	D
17	6	51	32.5	66	11.9	150	2.5	3.8	1.5	6	0	161	12	40	0.38	3.9	6.8	C
17	6	58	12.1	66	19.9	149	58.5	0.7	1.7	7	0	183	18	36	0.47	2.2	2.6	D
17	1	24	36.5	60	7.3	152	43.9	99.6	1.5	5	3	114	33	90	0.09	3.1	4.9	C
17	1	50	54.7	66	7.9	150	4.0	1.0	1.5	7	0	154	15	47	0.44	3.3	3.2	C
17	3	25	4.9	60	14.4	153	40.3	175.0	3.0	7	1	189	54	70	0.12	3.2	6.9	D
18	2	41	51.7	66	13.9	149	58.6	1.2	1.9	9	2	99	15	39	0.40	1.5	2.0	C
18	3	45	50.3	66	10.6	150	5.7	0.1	2.1	9	1	103	11	42	0.48	1.8	2.1	C
18	3	58	2.2	66	17.4	149	58.9	0.9	2.0	8	2	96	16	33	0.47	1.7	2.3	C
18	4	36	5.8	59	59.7	152	50.1	83.2	1.7	4	3	134	47	104	0.13	3.1	5.1	C
18	5	25	8.3	65	12.0	149	21.0	13.3	2.5	10	0	169	71	93	0.35	2.1	1.7	D
18	6	16	54.1	55	57.2	156	8.0	49.3	4.1	9	0	211	283	364	0.36	11.9	18.9	D
									NEIS MB = 4.4									
18	6	47	27.8	66	12.7	150	9.6	0.3	1.7	6	2	154	7	37	0.41	2.2	2.8	C
18	0	33	13.7	66	18.9	149	56.5	1.0	1.7	6	2	182	19	34	0.42	3.0	3.8	D
18	6	58	50.4	60	3.4	152	53.6	93.6	2.0	6	3	96	41	79	0.17	2.8	4.0	B
18	1	1	23.4	66	19.0	150	9.5	0.3	2.2	6	1	164	11	37	0.25	1.9	2.4	C
18	2	2	10.9	63	43.9	149	39.4	131.5	2.0	7	0	266	36	142	0.09	15.7	15.9	D
18	3	0	59.4	60	1.9	152	3.7	75.5	1.6	4	3	156	58	73	0.12	2.7	5.0	D
19	2	8	30.4	66	13.2	150	2.0	0.4	2.5	9	0	100	12	38	0.44	1.5	2.5	C
19	7	45	19.1	66	17.3	149	53.8	0.2	1.9	7	2	181	19	36	0.43	2.1	2.5	D
19	2	0	22.0	66	13.4	150	1.5	0.3	2.1	7	3	100	12	38	0.55	1.3	2.8	D
19	5	38	19.4	66	13.9	149	58.3	0.6	2.0	7	1	169	15	39	0.44	2.0	2.6	C
19	6	3	48.4	66	6.0	148	44.3	17.6	1.8	6	1	127	50	89	0.47	2.1	1.7	C
19	0	33	38.0	60	27.0	152	9.6	81.1	2.9	9	5	133	34	93	0.29	1.3	2.2	B
19	1	36	6.8	66	12.0	150	1.6	10.3	3.4*	8	0	103	13	41	0.26	2.3	1.5	B
19	1	53	29.4	60	28.1	152	17.9	83.2	1.7	5	4	201	27	121	0.24	2.5	3.3	D
19	2	6	45.3	64	19.8	151	27.6	2.5	2.1	7	0	310	118	163	0.32	26.1	8.9	D
19	3	16	46.5	66	21.5	149	59.6	0.6	1.7	8	1	106	20	39	0.41	1.6	2.7	C
20	0	17	20.1	59	47.6	153	25.2	120.6	2.0	6	3	117	19	79	0.21	2.9	3.0	C
20	3	46	6.4	60	30.1	152	1.8	80.6	2.1	4	4	244	42	117	0.10	3.0	2.8	D
20	5	43	8.4	66	12.9	150	1.6	0.2	2.0	8	1	104	12	39	0.33	2.2	3.2	C

APPENDIX C (con.)

1986	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
APR 20	6	42	18.9	64	39.1	147	40.4	12.3	1.1	6	2	108	28	40	0.29	1.0	7.9	C
20	11	58	49.6	66	7.9	150	42.2	39.1	1.9	6	1	113	21	46	0.34	5.3	7.0	C
20	12	45	49.1	61	58.4	146	51.1	38.1	2.8	15	0	160	29	152	0.42	3.0	2.8	C
20	18	52	51.3	66	16.6	149	58.2	1.1	1.9	7	1	175	16	34	0.35	2.0	2.5	C
20	19	26	38.9	59	51.7	153	11.1	102.3	2.0	6	3	118	58	66	0.19	3.1	4.0	C
20	21	11	0.8	63	4.5	147	43.3	2.5	1.3	7	0	226	95	123	0.35	4.7	2.5	D
20	21	52	4.2	64	53.3	149	6.6	18.7	1.3	5	0	264	35	67	0.04	5.4	1.8	D
20	22	29	29.8	66	16.3	150	0.4	0.1	2.0	7	2	171	14	34	0.49	1.9	2.3	C
21	0	8	22.4	58	20.0	154	32.4	28.2	2.5	6	1	249	86	137	0.79	9.5	47.1	D
21	0	21	47.4	59	47.7	153	2.7	94.8	1.3	4	3	164	65	106	0.27	3.6	4.3	D
21	1	43	26.9	64	26.6	147	58.7	6.8	0.7	6	0	110	6	43	0.02	1.3	3.5	B
21	2	1	0.8	59	56.6	153	18.2	126.7	2.6	9	4	71	31	61	0.34	2.3	3.3	B
21	4	3	21.9	66	20.2	149	57.2	0.2	1.8	7	1	186	19	36	0.35	2.4	2.8	D
21	4	23	47.8	66	15.2	150	2.0	0.7	2.0	7	1	187	12	35	0.47	1.8	2.8	C
21	5	43	11.8	66	16.3	149	58.9	0.3	2.0	5	0	93	18	35	0.44	2.0	2.7	C
21	5	58	52.6	66	13.1	150	2.8	0.7	2.9	9	0	100	11	36	0.41	1.5	2.4	C
21	6	14	52.8	60	0.6	150	25.1	15.9	1.6	4	1	290	38	136	0.38	15.9	7.1	D
21	13	33	24.8	58	29.6	154	22.5	86.4	2.5	7	2	238	68	146	0.27	6.7	3.7	D
21	15	4	46.1	55	8.7	153	56.0	46.7	4.8*	8	0	257	303	422	0.62	15.8	13.3	D
									NEIS MB - 4.7, MS - 4.8									
21	15	26	32.3	57	12.0	152	46.1	23.7	5.3*	10	1	319	63	274	0.79	4.9	4.9	D
									NEIS MB - 5.1, MS - 4.9									
21	15	46	56.4	55	15.5	154	2.1	42.4	4.6*	9	0	255	293	411	0.48	14.7	11.6	D
									NEIS MB - 4.7									
21	16	44	5.5	56	40.6	153	29.8	43.3	4.4	7	1	320	134	377	0.53	14.0	28.2	D
21	19	0	41.4	66	20.1	149	54.8	34.9	3.2*	4	0	246	172	478	0.07	99.0	99.0	D
21	19	27	17.5	56	56.0	153	10.5	17.2	4.4	7	1	320	100	310	0.16	9.2	6.9	D
21	20	6	1.4	61	29.0	149	47.6	79.2	2.7	6	1	259	200	232	0.11	8.2	30.5	D
21	21	33	1.5	60	5.0	153	4.1	124.5	2.7	8	3	148	36	74	0.21	3.0	3.4	C
21	22	14	56.5	62	24.9	148	39.3	22.8	3.6	16	1	73	98	148	0.41	2.3	4.3	D
									PALMER ML - 4.3, FELT (II) IN PALMER									
21	22	52	29.5	60	3.7	152	29.7	81.2	1.1	4	1	130	43	96	0.18	3.5	9.0	D
21	23	22	2.9	56	46.6	153	9.9	14.6	2.5	5	0	329	116	100	0.22	99.0	99.0	D
22	2	29	34.4	66	17.2	149	59.6	1.5	1.8	6	0	166	15	33	0.43	2.7	4.1	D
22	3	59	42.6	66	14.7	150	0.9	0.8	2.3	7	1	168	13	36	0.35	1.9	2.6	C
22	4	50	44.6	66	13.2	150	4.4	0.5	1.7	6	2	173	10	38	0.39	2.0	2.4	C
22	5	56	47.5	60	18.1	151	58.9	67.7	1.7	4	4	207	46	96	0.21	3.8	3.1	D
22	7	41	8.8	60	22.8	153	3.7	136.0	3.0	9	3	167	17	91	0.24	2.2	6.6	C
22	7	42	50.4	63	15.1	150	1.7	96.0	2.1	8	0	212	77	166	0.07	5.3	6.5	D
22	8	53	41.9	62	48.4	149	20.7	76.4	3.0	16	0	86	105	151	0.33	1.9	5.8	C
22	10	1	3.2	58	56.9	153	40.3	0.6	1.5	6	1	201	3	82	0.37	4.2	2.3	D
22	12	37	14.8	66	15.4	149	59.3	0.1	2.1	6	0	171	14	36	0.42	2.1	2.8	C
22	14	41	58.8	66	20.4	149	56.8	1.1	2.6	9	0	105	20	37	0.40	1.6	2.7	C
22	16	11	26.0	60	8.6	152	38.6	105.1	3.4	8	4	125	32	78	0.21	2.2	2.5	B
22	17	50	19.4	60	56.8	151	45.2	85.0	4.0	13	3	94	31	140	0.33	1.9	4.5	C
22	18	2	5.5	62	16.1	151	9.5	75.9	2.7	13	2	138	130	198	0.33	3.4	7.2	D
22	20	41	24.0	59	44.9	153	34.0	140.8	4.6*	13	0	96	22	41	0.31	2.3	5.8	C
									NEIS MB - 4.5									
22	21	3	46.2	59	58.2	152	51.8	108.6	2.2	6	3	110	60	77	0.17	2.5	4.4	C
22	22	2	19.8	63	14.5	150	42.4	126.8	3.3	17	0	123	104	188	0.33	2.4	7.3	C
22	23	46	25.2	62	52.7	151	34.1	130.0	2.3	9	0	307	163	232	0.23	38.3	17.4	D
23	0	45	23.3	60	33.7	151	20.6	60.6	1.7	8	3	193	79	92	0.08	3.4	8.9	D
23	1	30	8.0	63	32.3	149	0.4	6.2	1.5	9	0	260	22	113	0.32	4.9	2.4	D
23	2	29	6.7	66	19.1	149	56.2	0.3	1.6	6	1	183	19	34	0.36	2.2	2.7	D
23	3	29	14.7	66	18.9	149	57.9	0.8	1.6	9	0	100	18	34	0.45	1.5	2.7	C
23	8	29	7.0	60	37.9	152	25.8	108.7	2.4	6	3	271	30	118	0.23	4.8	2.8	D
23	5	45	47.8	56	48.0	156	48.7	41.5	4.2*	10	0	182	226	334	0.45	9.6	14.0	D
									NEIS MB - 4.6									
23	6	1	54.5	59	21.0	153	27.7	99.2	2.8	7	5	127	4	48	0.27	2.2	2.7	C
23	6	6	46.7	60	13.4	152	17.4	80.2	2.7	8	3	173	38	82	0.24	2.1	3.6	C
23	6	32	2.7	59	9.0	144	26.7	38.2	3.6	10	0	238	112	376	0.42	11.6	7.8	D
									PALMER ML - 3.8, NEIS MB - 4.3									
23	6	42	17.9	60	13.2	153	13.1	132.3	2.3	5	2	179	33	73	0.25	3.5	5.7	C
23	6	51	5.3	64	51.8	148	46.7	10.8	0.7	7	0	232	30	54	0.16	2.9	2.5	D

APPENDIX C (con.)

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
APR 23	10	8	18.1	57	59.7	151	28.2	89.3	2.7	6	0	237	67	171	0.07	26.9	57.5	D
23	11	41	43.6	66	19.2	149	58.2	1.3	1.6	9	1	101	18	35	0.41	1.5	2.3	C
23	11	48	51.5	59	26.5	153	26.3	114.5	2.7	7	5	121	7	58	0.17	2.5	4.2	C
23	15	8	25.8	63	8.5	150	38.4	121.7	2.1	10	0	293	108	178	0.27	21.6	11.9	D
23	19	9	8.5	60	14.7	150	42.8	30.0	2.0	4	0	270	55	115	0.20	99.0	99.0	D
23	19	12	40.2	64	56.7	148	50.3	12.4	2.6	8	0	144	35	64	0.21	1.5	1.9	C
23	19	51	15.6	64	45.7	149	15.9	21.2	1.6	7	0	261	23	65	0.12	4.8	1.3	D
23	21	24	8.2	59	19.8	153	36.7	118.3	2.6	7	6	145	12	45	0.26	1.7	2.2	C
23	23	8	40.5	66	17.0	149	47.2	8.4	3.1	9	0	104	24	39	0.38	2.4	2.0	C
24	1	21	34.3	66	16.5	149	58.4	0.2	1.9	6	0	174	18	35	0.45	2.1	2.8	C
24	1	42	54.0	56	40.7	153	4.2	11.8	3.4	5	0	333	124	367	0.06	99.0	99.0	D
24	2	57	26.4	58	55.5	152	46.3	84.2	2.2	5	2	219	50	110	0.35	2.6	4.7	D
24	3	28	40.3	66	14.1	150	3.0	7.1	3.0	9	0	99	11	37	0.48	1.8	1.7	C
24	6	22	9.1	60	30.6	151	25.9	42.4	2.1	7	3	184	75	89	0.42	1.9	5.6	D
24	6	23	34.7	59	32.4	153	24.5	108.6	1.9	5	3	111	52	104	0.09	2.7	4.1	C
24	6	26	50.2	58	7.6	154	15.2	64.9	2.3	7	1	280	96	148	0.31	13.4	7.4	D
24	6	34	34.1	66	17.1	149	58.6	0.4	1.6	7	0	176	16	34	0.39	2.1	2.6	C
24	9	33	6.8	63	11.7	150	41.2	131.5	3.0	19	0	120	106	175	0.36	2.1	7.2	C
									PALMER ML = 3.0									
24	13	31	23.0	60	32.2	148	36.9	30.9	2.7	7	3	208	121	160	0.27	2.9	3.5	D
24	16	49	19.5	59	3.5	152	6.9	54.7	2.7	8	7	218	72	84	0.21	1.8	4.1	C
24	17	17	46.3	60	6.3	153	22.0	158.5	4.0*	13	3	80	48	58	0.40	2.5	3.5	B
24	17	46	15.4	60	42.5	152	6.8	84.4	2.5	8	3	143	48	125	0.18	2.0	2.5	C
24	20	50	5.4	63	32.6	148	0.8	18.1	1.8	10	0	126	50	104	0.33	1.8	2.2	D
24	22	6	46.8	54	36.9	158	12.7	42.1	5.1	10	0	257	167	556	0.49	29.4	21.3	D
									NEIS MB = 5.0, MS = 4.5									
									FELT (II) IN CHIGNIK									
24	22	35	28.9	64	28.2	148	3.5	16.7	1.9	8	0	72	2	40	0.05	1.2	1.6	B
25	1	13	13.4	59	59.3	153	9.5	126.1	3.0	8	2	191	38	69	0.14	3.1	3.5	D
25	2	41	50.3	61	52.3	150	48.8	72.2	4.2	19	1	79	94	101	0.31	1.8	3.6	C
									PALMER ML = 4.2, NEIS MB = 4.1									
25	5	40	36.4	60	6.9	152	57.7	102.5	2.4	6	3	179	36	86	0.15	2.7	4.9	C
25	5	54	31.6	59	29.6	153	26.8	106.7	2.3	6	3	190	12	64	0.23	3.7	4.5	D
25	6	30	2.3	66	15.3	149	53.9	0.3	1.6	7	0	177	18	38	0.42	2.3	2.8	C
25	7	49	25.7	61	21.9	148	47.8	21.1	2.1	6	0	209	31	176	0.31	3.9	2.3	D
25	8	40	19.9	58	57.8	152	27.9	59.3	2.2	6	2	220	68	88	0.23	3.9	6.2	D
25	11	27	5.0	66	14.0	150	2.3	0.0	2.2	8	0	105	12	37	0.47	1.7	2.7	C
25	12	32	58.3	66	15.9	149	57.1	1.5	3.3	9	0	94	16	36	0.35	1.5	2.5	C
25	19	35	49.6	64	27.3	146	47.0	2.2	1.4	7	0	182	10	64	0.17	1.9	11.4	D
25	23	13	22.8	66	16.6	150	6.1	0.1	2.0	8	0	106	10	32	0.48	1.5	2.6	C
25	23	33	58.0	63	1.9	150	43.6	116.8	2.1	13	0	115	119	191	0.28	2.3	8.9	C
26	1	11	36.5	66	15.7	149	60.0	0.2	1.7	6	1	171	14	35	0.46	1.9	2.8	C
26	1	17	2.0	66	14.4	149	50.8	3.0	3.9*	10	0	96	20	41	0.20	1.6	2.3	C
26	2	48	56.6	60	18.0	152	31.8	101.8	3.5	9	4	167	19	87	0.28	2.1	5.1	C
									PALMER ML = 3.7									
26	3	21	29.7	66	18.3	149	58.6	0.5	2.0	9	0	98	17	33	0.43	1.5	2.6	C
26	4	38	40.0	66	12.8	150	2.0	0.2	1.4	7	0	111	12	39	0.29	2.6	3.7	C
26	4	42	56.4	66	12.7	150	2.8	0.7	2.3	8	0	100	12	39	0.15	1.8	2.4	C
26	5	7	2.8	64	24.2	147	14.5	30.0	1.5	6	0	145	14	42	0.39	4.7	8.7	C
26	8	20	26.0	66	9.3	150	7.0	1.5	1.7	7	0	153	12	44	0.35	3.8	4.2	C
26	9	42	33.0	59	51.8	152	39.4	89.0	2.5	7	4	120	40	69	0.16	2.3	4.5	C
26	12	27	14.2	62	53.0	150	36.7	92.9	2.2	10	0	230	127	204	0.24	5.9	10.3	D
26	19	44	29.3	66	17.0	149	58.0	0.1	1.9	6	2	188	16	34	0.37	2.3	2.7	D
26	20	30	38.8	66	20.6	149	56.8	0.7	2.1	7	0	188	21	37	0.40	2.4	2.7	D
26	21	29	46.8	66	15.6	149	59.5	0.6	2.0	7	0	171	14	36	0.41	2.1	2.7	C
26	21	52	1.2	60	12.6	152	27.6	96.2	1.8	5	2	155	29	101	0.16	3.1	5.3	C
26	23	23	41.3	58	1.5	154	39.8	94.3	3.8	13	1	249	117	166	0.28	8.2	9.2	D
									PALMER ML = 4.4, NEIS MB = 4.7									
27	4	0	50.8	60	20.2	152	36.9	116.1	2.9	8	4	166	13	93	0.20	4.2	3.9	D
27	4	8	56.2	66	16.8	149	49.9	0.0	1.4	6	2	197	22	38	0.28	3.2	3.7	D
27	4	21	44.3	60	4.7	152	51.1	110.6	1.9	5	2	162	38	84	0.08	3.1	5.5	C
27	5	28	19.4	57	39.8	154	23.8	21.1	3.0	8	2	266	114	232	0.49	6.9	18.7	D
27	7	58	32.1	66	19.9	149	56.4	0.2	1.8	8	1	104	20	36	0.37	1.8	2.7	C
27	8	46	16.6	58	11.2	151	16.6	30.0	2.3	5	0	229	87	161	0.24	44.9	86.6	D
27	9	45	24.3	64	46.2	149	32.5	10.3	1.5	5	0	270	31	77	0.20	11.4	6.4	D
27	13	27	44.3	66	15.3	150	1.0	0.1	2.1	7	0	169	13	35	0.41	2.1	2.6	C
27	13	38	14.5	61	22.3	148	47.6	20.6	2.0	6	0	209	31	176	0.17	3.8	2.3	D

APPENDIX C (con.)

1988	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
APR 28	2	56	23.4	66	14.8	149	59.7	0.2	1.8	7	1	169	14	37	0.39	2.1	2.3	C
28	4	14	53.4	59	48.5	153	14.2	125.1	2.6	8	5	125	17	73	0.25	1.6	2.3	B
28	4	45	20.0	66	15.8	150	1.4	0.7	2.0	7	0	169	13	35	0.48	2.0	2.6	C
28	8	15	11.1	66	13.9	149	56.4	0.3	1.8	7	0	171	16	40	0.38	2.3	2.7	C
28	8	36	23.1	64	34.8	146	30.7	2.3	1.3	5	0	206	29	77	0.03	3.0	43.7	D
28	10	12	21.6	60	10.4	153	9.3	129.3	2.7	8	2	196	35	90	0.24	2.2	3.3	D
28	12	6	43.8	66	13.1	149	59.2	0.1	1.7	7	0	167	14	40	0.23	2.6	3.5	C
28	13	47	22.3	60	43.0	151	47.9	155.9	3.1	8	0	169	84	118	0.40	5.9	17.5	D
28	14	48	36.9	62	23.5	146	3.8	28.5	2.5	10	0	105	73	148	0.40	2.5	5.8	D
28	15	50	48.8	60	2.1	152	36.1	92.8	2.2	6	3	134	44	98	0.28	2.8	5.3	C
28	19	27	4.3	66	16.1	149	57.0	0.3	1.7	7	0	175	16	36	0.40	2.2	2.7	C
28	23	10	37.8	62	10.6	149	27.2	14.5	2.2	10	0	132	67	176	0.16	2.6	4.8	C
28	23	12	44.2	59	50.6	153	21.4	129.1	2.9	8	5	196	22	72	0.24	2.1	2.7	C
29	2	12	34.0	64	48.1	148	49.1	15.7	1.0	6	0	226	28	51	0.09	3.6	1.7	D
29	5	3	17.6	63	9.8	150	49.8	140.1	2.4	15	0	121	114	196	0.20	2.5	8.2	C
29	6	50	56.4	63	1.1	150	58.6	138.7	2.3	13	2	117	130	197	0.30	2.3	9.0	C
29	7	8	31.5	60	38.2	151	54.6	75.2	2.5	8	2	109	53	110	0.29	2.1	3.0	B
29	8	16	57.3	59	58.3	153	23.7	181.5	2.5	8	2	206	37	68	0.22	3.1	3.4	D
29	13	50	17.4	66	13.6	150	2.2	0.1	1.5	6	1	164	12	38	0.20	2.1	2.9	C
29	14	1	10.4	66	12.1	149	48.7	0.7	1.7	8	1	179	21	47	0.27	2.4	3.0	C
29	16	18	58.5	66	17.3	150	11.3	0.0	1.5	8	0	81	8	35	0.32	1.8	2.8	C
29	18	22	8.3	66	16.1	150	0.2	2.9	1.8	8	0	92	14	38	0.49	1.6	2.3	C
29	23	7	53.4	66	20.5	149	56.3	0.3	1.6	7	1	187	20	37	0.37	2.3	2.7	D
30	4	6	17.4	66	36.3	146	59.5	5.1	2.4	7	0	140	78	143	0.23	2.2	4.4	C
30	4	26	11.3	66	19.8	149	58.1	0.5	2.0	9	0	103	18	36	0.46	1.7	2.8	C
30	4	27	21.8	66	20.1	149	58.2	1.3	2.2	9	0	103	19	36	0.50	1.8	2.5	D
30	5	4	44.2	60	9.3	151	15.4	41.5	2.5	6	4	179	48	70	0.32	2.6	5.5	C
30	9	20	30.4	57	10.4	153	47.5	5.7	2.5	6	0	312	101	278	0.14	99.0	99.0	D
30	9	38	21.5	66	13.7	150	2.7	0.9	3.5*	9	0	100	11	37	0.44	1.5	2.4	C
30	9	47	32.1	66	13.5	150	3.5	0.5	3.1	9	0	100	11	37	0.46	1.5	2.4	C
30	6	21	0.7	66	17.2	149	58.6	0.2	2.1	5	0	188	16	34	0.40	2.3	3.0	D
30	6	41	14.7	66	11.9	149	48.1	0.2	1.6	7	0	179	21	47	0.25	2.5	3.0	C
30	8	18	34.8	64	23.3	147	55.7	17.8	1.1	6	0	127	12	80	0.07	1.8	2.3	B
30	8	36	35.6	64	23.9	147	59.2	18.0	1.3	6	0	124	10	80	0.05	1.7	2.2	B
30	9	15	45.1	66	13.1	149	43.5	0.1	1.9	8	0	119	23	46	0.30	1.8	3.0	C
30	10	0	47.1	66	10.4	149	51.0	0.3	1.5	7	0	114	18	47	0.34	2.9	4.1	C
30	10	43	44.6	66	13.6	149	56.3	0.9	1.8	7	0	169	15	39	0.36	2.3	2.5	C
30	11	2	2.0	60	24.0	152	33.7	102.4	2.2	6	2	109	12	97	0.19	4.7	6.8	C
30	19	40	21.8	66	14.6	149	59.6	0.4	1.6	7	0	169	14	37	0.40	2.2	2.7	C
30	21	36	15.6	66	16.2	149	59.5	1.0	1.9	7	0	172	14	36	0.43	2.1	2.6	C
MAY 01	2	40	39.8	66	15.4	149	56.5	0.3	1.7	7	0	175	17	37	0.40	2.3	2.8	C
01	2	53	36.5	64	53.9	147	55.1	29.6	1.5	5	1	190	13	48	0.21	3.4	4.6	D
01	2	59	7.4	66	17.5	149	56.5	0.5	1.5	7	0	176	17	170	0.36	2.8	3.5	C
01	3	6	26.4	66	20.8	149	56.0	0.3	2.2	9	0	107	21	37	0.41	1.6	2.8	C
01	8	18	59.2	66	12.1	149	48.8	0.5	1.6	7	1	179	21	47	0.26	2.4	2.9	C
01	8	58	37.4	60	42.9	152	13.3	87.6	2.2	6	3	138	48	122	0.17	2.8	3.0	C
01	11	29	27.2	64	28.1	149	30.7	13.6	1.4	6	0	257	24	77	0.17	5.3	1.8	D
01	13	15	12.1	66	16.1	149	56.4	0.9	1.8	7	1	173	16	38	0.42	2.0	2.6	C
01	14	10	37.2	66	14.6	149	58.2	0.5	1.7	5	1	183	15	38	0.43	2.7	3.1	D
02	0	5	28.7	66	12.2	149	46.1	0.6	3.2	8	0	116	21	47	0.17	1.8	2.9	C
02	1	30	46.5	66	14.8	150	3.4	1.1	1.9	8	1	106	11	35	0.47	1.5	2.6	C
02	3	28	19.0	65	1.0	150	52.0	66.3	1.7	6	0	282	98	131	0.21	12.1	18.3	D
02	3	32	17.4	66	11.9	149	43.0	3.2	1.4	6	1	181	21	48	0.38	4.5	5.3	D
02	4	23	58.3	66	12.2	149	59.7	0.3	1.7	6	0	165	14	41	0.45	2.7	3.0	C
02	7	40	34.0	60	60.0	147	6.5	17.6	3.0	8	1	215	94	236	0.27	5.2	4.1	D
02	7	47	51.6	61	9.3	150	22.2	43.4	3.2*	9	1	127	82	154	0.18	2.1	5.1	C
									FELT	(II)	IN	ANCHORAGE						
02	11	19	42.6	59	39.2	152	35.0	89.6	2.4	5	2	128	37	87	0.10	3.0	5.4	C
02	11	38	56.8	66	18.8	150	5.6	2.8	1.2	5	0	170	13	38	0.12	2.0	2.5	C
02	16	34	1.8	62	29.0	151	9.1	133.6	1.9	6	0	184	153	285	0.15	15.7	19.8	D
02	18	28	38.9	66	16.6	149	59.7	0.6	1.9	6	0	173	15	34	0.39	2.1	2.7	C
02	20	12	38.9	59	57.6	153	21.0	142.3	2.3	7	4	128	35	65	0.25	2.3	3.0	C
02	21	29	15.6	66	19.8	149	37.8	8.1	1.9	7	0	202	32	42	0.27	3.1	2.4	D
03	1	26	54.4	66	14.3	149	47.3	1.1	1.9	8	0	119	23	43	0.24	1.8	2.8	C

APPENDIX C (con.)

1988	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
MAY 03	2	28	46.1	60	5.6	153	11.0	123.1	2.6	6	2	120	43	126	0.31	2.7	6.1	C
03	7	12	18.7	61	47.2	150	41.0	48.4	2.4	11	1	79	85	177	0.38	1.9	9.2	C
03	8	39	25.8	58	57.8	154	1.1	100.2	2.2	5	2	241	22	199	0.11	11.1	14.7	D
03	9	10	50.4	63	27.1	145	41.2	10.0	2.2	7	0	193	10	123	0.18	3.4	1.6	D
03	9	10	46.7	61	30.8	146	23.2	30.7	2.3	8	0	259	61	169	0.35	11.0	8.6	D
03	10	0	38.9	58	36.4	155	49.3	31.8	3.6	9	0	227	297	393	0.39	36.3	30.8	D
03	10	4	50.2	63	28.4	145	36.8	7.9	3.6*	10	0	199	12	123	0.82	3.4	2.0	D
03	10	8	52.5	63	3.3	151	26.9	145.2	2.8	9	0	273	147	229	0.30	15.1	13.9	D
03	12	2	32.8	66	16.0	150	0.3	1.6	2.2	8	0	111	14	35	0.43	1.7	2.5	C
03	12	7	31.9	57	54.3	148	36.3	33.6	4.2	14	0	231	214	237	0.44	19.0	15.6	D
									PALMER ML = 4.6, NEIS MB = 4.7									
03	13	35	41.0	64	14.2	150	16.0	38.3	3.8*	14	0	128	70	110	0.27	1.8	3.1	B
03	23	40	1.0	62	14.3	150	13.6	8.2	3.7	15	0	85	92	158	0.40	2.0	3.9	D
									PALMER ML = 3.4, FELT IN PALMER									
04	1	21	4.4	66	16.7	149	59.8	0.7	1.7	7	0	173	15	34	0.42	2.1	2.7	C
04	1	51	6.3	66	18.3	150	5.4	0.1	2.2	9	0	87	11	36	0.41	1.5	2.6	C
04	4	7	10.0	66	18.0	150	11.4	0.0	2.0	9	0	82	9	36	0.44	1.5	2.5	C
04	4	16	36.5	56	50.2	151	31.5	0.2	3.9	11	1	213	117	300	0.44	5.0	1.6	D
									PALMER ML = 4.1, NEIS MB = 4.6									
04	6	20	38.7	63	28.3	149	1.5	94.3	1.9	6	0	264	36	150	0.03	13.2	12.3	D
04	8	38	55.6	63	14.1	150	25.4	107.4	1.9	6	0	269	93	179	0.04	29.2	12.0	D
04	14	50	17.4	66	18.1	150	0.5	0.9	2.3	8	0	111	14	34	0.36	1.6	2.6	C
04	16	33	52.9	59	37.7	152	3.5	66.2	2.4	5	4	127	24	65	0.21	3.4	8.4	C
04	18	27	17.2	66	14.3	149	52.1	9.1	1.7	6	1	177	19	41	0.46	3.7	2.9	C
04	22	37	41.2	61	38.3	146	56.4	37.7	2.6	8	0	235	29	168	0.24	7.0	2.4	D
05	4	9	24.5	64	57.5	139	34.4	29.8	2.5	7	0	245	237	357	0.22	8.9	99.0	D
05	11	41	30.9	59	57.3	153	12.9	121.8	2.1	5	2	193	57	117	0.14	2.9	6.1	D
05	12	17	6.6	60	19.4	152	59.9	113.3	2.1	6	2	109	16	133	0.27	3.2	5.8	C
05	14	50	46.7	59	55.0	152	6.6	58.9	2.3	5	3	136	39	67	0.14	2.3	4.5	C
05	15	37	50.5	66	16.2	149	56.6	0.7	1.9	7	1	174	16	37	0.43	2.0	2.6	C
05	16	37	3.2	66	16.4	150	0.5	0.0	2.1	7	1	171	14	34	0.45	1.9	2.5	C
05	19	20	35.5	66	14.1	150	1.1	0.3	2.2	8	0	107	13	37	0.33	2.0	2.7	C
05	20	14	24.3	60	10.4	153	24.3	157.8	2.7	6	0	207	45	138	0.13	5.7	14.1	D
06	1	6	11.3	66	16.4	149	56.7	9.3	3.5*	9	0	97	17	36	0.24	1.9	1.8	B
06	2	13	21.0	60	5.7	151	29.1	55.6	2.3	5	2	200	50	80	0.09	4.5	4.6	D
06	6	7	44.7	59	45.7	150	30.6	26.1	3.2	11	3	202	21	65	0.41	2.0	2.8	D
06	8	35	44.5	62	23.9	149	8.1	39.3	2.0	7	0	131	90	149	0.35	6.2	20.9	D
06	11	4	14.6	66	12.2	150	6.3	0.5	2.2	9	0	102	9	39	0.48	1.8	2.5	C
06	13	55	3.6	66	19.8	149	54.2	0.7	2.4	9	0	106	21	35	0.35	1.6	2.7	C
06	14	19	59.8	66	14.2	150	4.8	0.7	2.0	8	0	103	10	36	0.49	1.6	2.4	C
06	21	1	57.9	66	17.1	149	49.8	10.0	3.1*	9	0	123	22	38	0.20	1.8	1.8	C
06	21	10	17.0	60	11.4	151	58.1	68.3	2.3	4	3	168	61	77	0.14	4.6	3.9	D
06	21	37	56.4	59	34.5	152	50.3	91.8	2.0	4	2	149	55	94	0.06	2.9	6.7	D
07	0	21	34.1	66	18.2	149	57.1	1.7	1.6	8	0	120	18	33	0.45	1.7	2.6	C
07	1	1	47.0	66	16.8	149	58.0	0.1	1.9	7	1	175	16	34	0.33	2.1	2.6	C
07	3	10	55.5	62	39.9	149	41.4	62.4	2.0	6	0	169	123	154	0.06	2.6	15.4	D
07	6	12	44.1	66	17.7	150	0.0	0.6	1.8	7	1	175	15	32	0.44	2.1	2.5	C
07	7	14	46.5	62	6.5	150	12.0	78.3	2.3	7	0	154	143	192	0.27	5.4	20.9	D
07	8	38	30.1	60	18.5	153	4.3	133.9	3.0	10	2	112	21	105	0.26	2.4	3.6	C
07	22	35	53.3	66	16.1	150	0.2	0.3	2.3	8	0	110	14	36	0.45	2.2	2.9	C
08	1	20	14.7	59	54.4	152	19.2	75.5	2.0	5	2	124	62	82	0.26	2.5	5.2	C
08	4	1	47.9	66	11.7	150	1.2	6.8	3.5*	9	0	102	13	41	0.24	2.5	1.7	C
08	4	32	7.5	59	24.9	153	2.2	93.6	1.9	4	2	184	64	113	0.16	3.6	6.9	B
08	12	0	40.7	66	17.6	150	0.1	1.3	1.7	7	1	175	15	168	0.33	2.1	3.4	C
08	12	40	41.7	59	31.7	152	39.5	76.6	2.2	5	1	131	47	87	0.08	2.3	8.3	C
08	13	10	46.0	59	58.7	152	29.2	92.0	2.7	9	3	122	52	59	0.21	2.2	2.8	B
08	14	0	32.1	61	49.9	151	21.9	55.6	2.3	9	1	81	81	176	0.33	1.7	7.9	C
08	16	8	56.1	66	12.8	149	58.0	0.6	2.0	8	0	168	15	41	0.41	2.4	2.7	C
09	0	42	22.9	63	11.5	151	45.3	159.0	3.1*	7	0	185	153	225	0.41	8.5	17.7	D
09	2	3	43.2	66	18.1	149	58.3	0.4	2.1	9	0	98	15	37	0.39	1.5	2.6	C
09	2	41	38.5	63	37.4	149	23.3	107.4	1.4	6	0	275	26	147	0.05	14.0	12.8	D
09	3	39	15.7	61	56.5	150	48.0	41.1	2.6	13	2	61	96	183	0.39	1.6	5.5	D
09	4	9	24.0	62	33.1	141	45.6	22.2	3.8*	10	0	254	57	232	0.40	15.2	6.3	D
									NEIS MB = 4.3, FELT (IV) IN BEAVER CREEK AND KOIDERN AND IN THE YUKON TERRITORY, CANADA									
09	7	44	52.9	58	41.5	153	49.4	91.1	2.1	6	1	234	29	178	0.33	4.7	6.6	D

APPENDIX C (con.)

1986	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
MAY 09	7	48	19.1	66	17.0	150	9.9	1.1	2.2	8	2	83	8	34	0.44	1.4	2.0	C
09	8	15	16.9	63	1.6	150	41.9	116.5	1.6	10	0	184	118	190	0.23	4.0	9.2	D
09	9	27	46.4	66	19.4	149	59.0	1.0	2.3	9	0	100	17	35	0.36	1.5	2.3	C
09	9	33	12.5	66	31.5	147	15.6	40.2	3.1	12	0	164	95	144	0.29	2.3	99.0	D
09	9	42	30.4	66	16.0	149	47.3	10.5	3.4	10	0	102	23	41	0.20	1.9	1.8	C
09	10	48	46.1	59	34.7	153	1.1	107.1	2.4	6	3	141	32	81	0.26	2.9	3.4	C
09	22	26	53.0	64	12.9	149	54.5	0.3	1.4	6	0	266	57	92	0.24	7.7	2.8	D
10	6	31	7.7	66	18.2	150	4.5	0.0	1.9	6	0	170	13	34	0.40	2.1	3.3	C
10	7	19	52.8	60	56.6	147	31.4	20.3	2.2	10	0	212	100	227	0.23	4.4	2.9	D
10	7	54	34.0	59	42.6	152	14.0	67.6	2.7	6	3	114	34	76	0.15	1.8	4.6	B
10	9	36	36.7	66	20.6	149	55.6	0.3	1.8	7	0	155	21	37	0.40	2.5	2.9	D
10	10	24	41.7	57	27.6	154	53.8	59.0	3.0	12	0	303	147	231	0.48	24.0	7.4	D
10	20	33	33.2	66	16.9	149	59.5	0.5	1.5	9	0	94	15	34	0.47	2.0	2.5	C
11	0	14	29.4	60	13.6	153	13.1	133.5	2.4	6	2	201	33	124	0.19	2.6	6.1	D
11	2	20	25.4	61	36.7	150	46.4	38.0	2.1	8	1	121	67	184	0.37	4.4	3.9	D
11	3	25	51.9	63	27.9	148	54.1	11.0	1.2	5	0	315	30	124	0.15	31.7	4.3	D
11	12	12	49.4	62	30.2	151	10.4	76.1	2.3	13	0	100	147	178	0.31	2.5	12.9	C
11	13	49	34.4	61	0.7	146	28.5	2.0	2.6	6	0	231	102	226	0.24	10.8	3.4	D
11	21	29	55.0	59	58.5	151	1.9	59.0	2.5	12	3	118	25	52	0.35	1.6	2.5	C
12	1	41	29.5	66	15.7	150	0.9	0.2	1.5	7	2	170	13	35	0.35	1.8	2.4	C
12	4	36	55.0	66	14.7	150	6.0	0.5	1.9	11	0	96	9	35	0.66	1.5	2.3	C
12	10	17	36.9	66	15.4	150	3.3	1.1	2.1	9	1	90	11	34	0.46	1.5	2.4	C
12	12	12	49.1	58	33.4	152	58.7	61.5	2.1	6	2	155	57	147	0.36	5.7	12.5	D
12	12	52	33.0	58	14.6	150	31.1	25.0	2.4	5	1	252	129	171	0.15	32.3	39.7	D
12	12	58	53.2	64	30.7	148	14.3	15.0	0.9	5	0	159	5	41	0.02	1.9	3.5	C
12	13	34	47.9	66	13.0	149	59.9	1.0	1.9	7	1	166	14	40	0.45	2.0	2.5	C
12	17	7	0.9	58	31.6	154	9.5	1.2	3.2	13	0	214	54	104	0.44	9.3	11.0	D
12	20	51	34.6	62	42.7	151	1.7	76.4	2.3	14	0	106	155	179	0.40	2.2	12.4	D
12	21	10	25.4	66	22.8	149	54.5	0.5	2.4	10	0	115	24	41	0.44	1.7	2.9	C
12	21	14	46.0	66	20.9	149	58.7	1.5	2.0	9	1	105	19	38	0.34	1.6	2.6	C
12	21	16	18.3	66	20.5	150	0.0	0.5	2.1	7	2	182	18	37	0.43	2.1	2.3	D
12	21	18	56.3	59	22.0	152	21.5	96.4	4.0*	13	0	96	52	61	0.13	2.1	4.5	C
									NEIS MB = 4.6, FELT (III) IN HOMER									
13	1	35	5.1	63	3.2	151	12.0	142.5	2.3	5	0	268	136	220	0.06	15.6	12.9	D
13	3	50	42.1	66	12.5	150	2.9	0.5	2.3	6	0	162	12	39	0.39	2.3	2.7	C
13	8	45	5.2	60	22.4	152	13.1	81.7	2.4	6	2	212	31	95	0.32	4.5	3.3	D
13	10	21	27.6	66	22.9	149	46.5	5.7	3.3*	5	0	210	29	41	0.39	3.2	2.5	D
13	10	25	19.2	66	40.5	149	21.4	15.0	3.4*	5	0	267	205	100	0.31	74.4	99.0	D
13	10	49	36.9	63	36.1	156	45.7	15.0	2.5	4	0	219	284	483	0.15	24.0	99.0	D
13	10	55	3.5	66	22.6	149	47.7	5.9	3.4*	5	0	208	25	40	0.42	3.1	2.5	D
13	21	7	50.1	58	40.9	154	47.5	131.3	3.2	11	1	224	72	140	0.34	5.3	2.9	D
14	4	26	12.7	59	24.0	152	40.0	75.9	2.7	9	5	97	43	65	0.25	1.9	3.4	B
14	10	19	53.2	63	7.2	150	17.5	99.5	3.5*	20	0	67	96	181	0.37	1.9	6.1	B
14	13	55	46.3	66	13.5	150	4.3	0.7	2.2	9	0	100	10	37	0.47	1.7	2.5	C
14	18	6	29.5	63	12.5	150	44.7	122.5	1.9	6	0	294	107	192	0.01	38.9	16.7	D
14	20	27	17.4	63	3.5	148	35.9	90.0	1.5	9	0	194	77	152	0.13	3.7	7.7	D
14	20	29	22.5	59	44.0	152	41.9	59.4	2.3	5	5	122	31	77	0.32	1.5	2.5	C
14	21	22	41.7	60	4.3	153	6.5	120.1	2.4	5	2	192	43	121	0.21	2.9	6.0	D
14	23	47	7.5	66	19.5	149	59.3	1.0	2.2	9	0	101	17	36	0.41	1.6	2.6	C
15	0	21	15.0	66	19.7	149	58.7	0.5	1.9	9	0	102	18	36	0.37	1.7	2.9	C
15	1	48	5.5	66	19.0	149	58.7	0.6	2.0	8	0	100	17	34	0.38	1.5	2.7	C
15	2	50	49.7	66	14.9	150	0.7	0.9	2.3	8	0	105	13	36	0.34	1.7	2.6	C
15	3	0	31.2	66	16.7	149	58.7	0.9	3.2*	7	1	172	15	36	0.40	1.9	2.6	C
15	3	15	7.2	66	16.0	149	59.6	0.3	2.3	8	1	184	14	36	0.35	2.1	2.9	D
15	4	27	59.7	59	35.0	152	30.5	81.2	2.5	6	5	127	50	73	0.24	1.3	2.9	B
15	7	59	16.5	66	20.9	149	59.4	0.5	1.6	5	0	104	19	35	0.40	1.5	2.5	C
15	10	33	18.2	56	46.4	150	20.9	41.6	3.5	12	0	291	169	330	0.45	31.4	19.3	D
15	10	46	3.7	66	15.1	149	56.7	0.9	1.9	7	0	173	16	37	0.39	2.2	2.6	C
15	11	9	31.0	63	33.1	146	39.0	27.9	1.4	6	1	178	40	96	0.32	4.3	16.5	C
15	13	33	6.9	59	48.2	152	36.4	62.5	2.3	7	4	106	40	67	0.15	2.1	4.7	B
15	14	14	6.5	59	36.9	151	31.4	62.2	2.3	6	2	108	7	36	0.22	2.7	3.2	C
15	16	8	39.4	63	3.1	151	5.4	137.5	1.5	7	0	195	132	214	0.16	6.1	11.7	D
15	19	2	40.0	66	15.5	149	59.4	1.5	3.5*	5	0	111	14	36	0.37	1.6	2.4	C

APPENDIX C (con.)

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
MAY 15	21	59	53.5	63	54.2	148	53.2	6.4	1.0	6	0	166	19	76	0.20	2.4	3.0	C
15	23	24	6.6	66	16.4	150	0.1	0.9	2.4	5	0	112	14	34	0.41	1.7	2.7	C
16	1	0	13.5	66	19.9	149	54.2	0.8	2.3	9	0	106	21	36	0.34	1.6	2.9	C
16	3	42	16.3	59	54.3	153	18.2	117.0	2.2	6	2	197	26	64	0.15	2.8	5.7	D
16	5	4	52.5	62	56.9	150	28.2	91.2	2.6	16	0	105	116	194	0.30	2.1	7.9	C
16	17	51	48.4	60	6.7	153	41.3	0.2	2.2	7	0	138	57	83	0.31	2.4	16.9	D
16	23	7	42.1	56	45.5	154	13.2	123.1	2.4	8	0	207	36	115	0.12	7.8	7.8	D
17	1	26	42.4	61	42.5	147	14.7	37.9	2.2	7	0	227	15	168	0.37	6.2	2.1	D
17	5	28	7.4	60	6.0	153	36.1	2.0	2.1	7	0	135	64	81	0.23	3.7	8.3	D
17	7	13	24.8	58	54.2	154	27.4	37.3	2.5	6	1	260	47	109	0.30	9.0	16.5	D
17	8	4	8.4	66	16.3	150	1.7	0.3	1.7	5	0	91	13	34	0.45	1.9	2.7	C
17	11	47	55.7	60	21.1	153	2.3	2.6	1.6	6	1	121	17	164	0.20	6.3	7.3	C
17	13	45	50.4	60	13.2	152	16.3	79.3	2.2	5	3	174	35	93	0.21	3.5	4.5	C
17	15	53	34.0	66	21.5	149	58.8	2.5	1.5	5	1	107	20	39	0.44	1.6	2.5	C
17	16	53	55.5	61	23.3	149	49.6	47.3	2.4	7	0	192	43	142	0.25	4.3	5.5	D
17	18	50	43.0	66	20.3	149	58.3	1.6	2.3	9	0	104	19	37	0.33	1.7	2.6	C
17	18	58	21.4	66	22.1	149	57.6	0.2	1.6	7	1	190	21	40	0.38	2.4	2.8	D
17	19	6	47.3	66	20.6	149	57.9	0.0	1.6	6	2	197	19	37	0.38	2.5	2.8	D
17	20	2	3.7	64	56.0	148	31.4	13.5	1.1	6	0	120	22	54	0.25	2.4	4.1	B
17	23	25	24.2	66	20.0	150	2.2	0.1	1.6	7	1	99	16	37	0.44	1.7	2.7	C
18	3	15	13.2	66	15.7	149	56.7	0.1	1.6	7	0	175	16	37	0.40	2.4	3.2	C
18	3	56	17.6	66	13.6	150	2.3	0.1	3.7	8	0	104	12	35	0.47	2.3	2.8	C
18	4	11	32.7	64	51.3	147	20.6	11.6	0.9	5	3	167	15	54	0.16	1.5	4.5	C
18	5	23	13.1	66	17.8	149	58.6	1.6	1.8	9	1	97	16	32	0.46	1.5	2.5	C
18	14	42	33.4	63	29.6	151	9.3	9.7	2.2	6	0	246	113	185	0.38	19.2	12.4	D
18	15	42	10.2	64	27.1	148	42.3	10.7	1.0	6	2	120	25	50	0.20	1.2	3.2	C
18	16	45	30.0	59	56.3	153	5.6	113.7	2.2	5	2	181	56	114	0.13	3.9	11.0	D
18	16	48	47.7	66	10.9	150	9.8	0.4	2.4	9	0	103	8	40	0.48	2.0	2.6	C
18	18	3	56.3	59	28.0	153	54.6	139.1	3.0	7	2	168	29	62	0.18	3.6	4.9	C
18	19	53	20.8	66	13.6	150	0.9	0.3	1.8	7	0	166	13	38	0.34	2.5	3.4	C
18	22	6	56.2	58	25.3	154	31.5	19.5	4.0*	10	0	120	124	148	0.48	8.0	21.4	D
									NEIS MB = 4.3									
18	23	20	22.9	58	55.1	153	54.0	1.3	2.2	5	0	300	15	90	0.19	35.6	50.7	D
18	23	26	52.9	66	15.1	150	1.3	1.2	1.9	6	1	168	13	36	0.43	1.8	2.6	C
19	0	39	19.6	64	35.0	147	49.5	12.1	1.6	7	0	90	15	46	0.30	1.2	1.8	C
19	1	32	43.7	66	16.9	150	5.0	1.3	1.9	8	0	113	13	36	0.24	1.9	2.5	C
19	5	31	34.6	66	13.7	150	0.7	0.4	1.5	7	1	166	13	38	0.30	1.9	3.4	C
19	7	17	39.0	61	46.0	150	49.0	39.5	3.0*	14	0	106	91	184	0.39	2.5	5.6	D
19	8	12	17.7	66	19.9	149	52.7	0.7	1.7	7	0	108	22	36	0.35	1.6	3.0	C
19	9	11	9.2	61	35.0	149	57.3	45.7	2.4	6	1	161	44	142	0.10	12.1	5.8	D
19	11	30	31.0	63	4.8	149	54.4	92.9	2.1	8	0	166	87	172	0.06	3.5	7.0	D
19	17	13	4.7	63	59.5	149	1.6	0.6	2.0	11	2	104	29	102	0.85	1.7	1.5	D
19	21	44	46.3	66	14.8	149	57.2	0.6	1.7	8	0	97	16	38	0.39	2.2	2.6	C
19	23	55	30.7	62	23.9	150	5.3	88.5	2.3	6	0	298	160	248	0.04	34.3	17.9	D
20	0	19	26.9	66	14.6	149	56.1	0.3	2.2	6	0	186	16	39	0.30	2.6	2.9	D
20	2	2	48.0	66	16.9	149	54.1	1.6	2.0	7	1	180	19	36	0.25	2.3	2.7	C
20	3	46	50.1	66	15.6	149	59.9	0.0	2.3	9	0	91	14	35	0.39	1.6	2.8	C
20	4	6	8.4	66	20.9	149	51.4	3.6	2.4	7	0	132	24	37	0.19	2.3	3.5	C
20	8	11	32.3	66	12.5	149	53.5	6.2	2.5*	5	0	96	19	42	0.15	2.5	2.0	C
20	8	25	24.6	63	9.9	149	54.1	97.7	1.5	5	0	166	80	171	0.14	4.6	6.6	D
20	9	1	12.5	66	17.6	149	57.6	0.5	1.5	5	0	98	17	33	0.44	2.1	2.7	C
20	12	10	17.1	64	28.2	147	57.4	9.7	1.0	5	2	173	6	49	0.22	1.3	3.2	C
20	13	54	30.7	60	36.3	147	40.5	16.5	4.0	9	0	200	135	201	0.27	5.6	5.3	D
									PALMER ML = 4.4, NEIS MB = 4.3, FELT (III) IN VALDEZ AND (II) ANCHORAGE									
20	18	30	44.0	59	9.7	151	58.5	50.1	2.1	5	3	210	59	91	0.06	4.3	5.3	D
20	19	18	4.3	60	27.7	152	2.6	66.3	2.6	6	2	140	40	92	0.23	3.2	3.9	C
20	21	26	6.9	66	14.9	149	59.5	0.5	2.3	8	0	109	14	37	0.30	2.1	2.7	C
20	21	31	17.2	66	14.7	149	56.3	6.1	2.6*	7	0	111	15	37	0.26	2.3	2.0	C
20	22	12	32.2	60	26.3	152	4.5	77.0	2.7	8	2	99	39	94	0.26	2.0	2.6	B
20	22	17	39.5	62	15.5	150	39.7	74.1	2.2	6	0	174	110	181	0.31	2.6	5.7	D
21	4	42	52.4	64	26.5	147	58.4	22.4	0.8	5	0	192	7	49	0.05	2.9	2.0	D
21	5	50	2.0	57	26.3	154	9.2	51.6		8	0	279	105	321	0.30	19.6	17.3	D
21	8	14	18.9	64	48.3	148	59.1	19.5	2.5	7	0	150	26	57	0.19	1.5	1.4	C
21	9	28	41.7	66	17.1	149	52.9	0.1	2.0	7	1	162	20	36	0.24	2.2	3.0	C

APPENDIX C (con.)

1986	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
MAY 21	15	22	31.4	66	14.1	149	51.6	3.9	2.1	8	1	95	20	41	0.34	2.2	2.2	C
21	16	39	46.2	59	43.5	152	56.0	103.4	2.9	9	4	80	19	73	0.33	1.7	3.4	B
22	6	43	28.2	66	21.5	149	55.5	1.1	2.2	9	0	110	22	39	0.23	1.8	2.8	C
22	12	51	38.5	60	1.7	151	39.6	56.2	2.6	7	4	178	41	61	0.21	2.2	2.4	C
22	12	58	52.5	66	12.8	149	48.2	1.1	1.7	9	1	97	22	46	0.27	1.8	2.9	C
22	14	38	17.0	58	54.9	154	20.5	117.5	2.7	6	2	287	40	190	0.23	7.8	10.4	D
22	15	38	35.5	63	20.7	147	12.1	8.0	2.2	10	0	90	70	97	0.30	1.4	2.2	D
22	20	22	50.0	66	55.3	155	37.6	52.5	2.5	6	0	329	129	278	0.03	99.0	14.3	D
22	20	33	15.8	62	14.6	148	27.9	28.1	2.8	10	0	112	75	168	0.25	2.3	5.5	D
22	20	37	15.1	66	20.6	149	51.2	1.6	1.9	5	0	205	24	37	0.36	2.5	2.9	D
22	22	7	53.6	59	27.0	152	42.2	82.2	2.0	5	2	140	42	84	0.24	3.0	6.8	C
22	23	16	14.4	66	15.2	150	5.9	0.3	2.3	9	0	86	10	36	0.40	1.5	2.6	C
23	0	25	21.3	60	13.2	153	10.0	134.9	2.6	5	2	214	31	133	0.15	5.5	11.6	D
23	2	9	52.0	66	14.1	149	55.2	13.1	2.5	6	0	112	17	40	0.30	2.6	1.6	C
23	3	45	16.7	63	16.9	147	14.9	8.9	1.2	6	0	191	74	98	0.06	3.7	3.5	D
23	4	0	12.0	66	17.6	149	52.7	1.1	1.9	7	0	163	20	36	0.29	2.4	2.9	C
23	8	13	55.0	66	14.5	149	57.5	0.3	1.6	8	1	111	15	38	0.33	1.6	2.7	C
23	10	5	26.1	66	15.5	149	59.7	0.5	2.3	9	0	92	14	36	0.42	1.7	2.7	C
23	11	12	7.1	64	13.3	145	4.6	16.2	1.2	5	0	241	28	63	0.07	4.2	2.1	D
23	11	48	20.7	66	13.8	150	4.3	1.6	1.6	7	0	162	10	37	0.38	2.2	3.1	C
23	12	0	17.3	66	11.1	150	1.4	7.0	2.8	9	0	101	13	42	0.29	2.4	2.0	C
23	12	14	56.7	66	12.7	150	0.8	0.2	1.9	7	0	109	13	40	0.33	2.4	3.0	C
23	12	34	9.3	66	13.4	150	0.5	1.3	1.8	7	0	166	13	39	0.46	2.4	2.5	C
23	12	48	54.5	59	14.2	153	45.2	121.5	2.7	7	4	165	24	85	0.21	3.2	4.7	C
23	14	29	11.7	66	21.3	149	53.2	0.7	1.9	7	0	193	23	38	0.42	2.5	2.9	D
23	15	6	57.3	66	17.4	150	1.1	1.2	1.6	7	0	173	14	32	0.34	2.1	3.1	C
23	18	45	20.6	64	11.3	148	4.0	16.0	1.1	6	0	155	32	65	0.13	1.6	2.2	C
24	0	11	43.2	61	3.3	151	59.7	58.8	2.4	6	3	169	15	166	0.24	2.2	2.1	C
24	3	42	46.5	61	15.4	146	14.6	15.2	2.4	6	0	271	82	190	0.30	12.7	6.1	D
24	5	22	42.9	66	0.5	149	51.1	9.4	1.5	6	0	107	2	161	0.17	3.7	1.8	C
24	6	8	23.7	58	10.5	151	30.9	44.6	3.0	7	2	220	76	151	0.29	25.5	63.6	D
24	6	34	56.9	64	36.1	147	46.0	13.4	1.4	5	0	106	21	45	0.37	1.4	7.4	D
24	8	54	55.6	64	51.5	147	34.4	12.5	1.0	5	0	129	17	50	0.03	3.2	11.6	D
24	9	27	24.2	66	16.1	150	1.5	0.4	1.9	6	1	170	30	166	0.35	3.1	3.0	C
24	9	31	51.4	64	50.5	147	36.0	1.5	1.7	5	0	127	19	48	0.29	1.4	3.0	C
24	10	22	3.5	66	20.5	149	59.4	0.7	1.9	8	1	104	28	169	0.42	2.2	2.7	C
24	10	25	49.9	63	25.3	147	22.3	1.4	1.4	7	0	172	75	106	0.09	1.9	2.5	C
24	12	31	37.7	63	2.1	150	23.7	93.7	1.6	5	0	291	107	197	0.09	34.3	9.9	D
24	14	26	31.2	66	13.5	150	0.7	0.5	2.0	6	1	166	25	166	0.44	3.0	2.9	C
24	16	43	26.5	66	15.1	150	1.6	0.1	1.5	7	1	98	25	166	0.23	2.9	3.0	C
24	18	26	42.1	66	21.1	149	51.0	1.5	2.5	6	0	112	24	38	0.18	1.9	2.8	C
25	0	3	35.9	63	0.1	151	11.5	142.5	2.5	10	0	197	140	205	0.33	4.2	11.4	D
25	5	59	47.5	60	5.5	152	56.2	118.9	2.1	7	2	109	38	64	0.19	2.6	5.9	C
25	13	20	5.3	66	21.3	149	56.4	0.5	1.9	9	0	109	21	38	0.36	1.6	2.9	C
25	23	11	11.1	64	26.7	147	17.5	12.4	1.2	6	0	121	17	59	0.05	1.7	2.5	B
26	1	53	30.7	66	18.3	149	56.3	0.3	2.4	9	0	100	18	33	0.25	1.7	2.7	C
26	4	46	48.5	66	12.1	150	1.2	0.4	2.0	9	0	101	13	41	0.42	1.5	2.5	C
26	6	16	44.7	61	14.0	147	24.7	20.9	3.6*	13	0	203	67	219	0.24	3.7	2.7	D
26	11	45	33.5	64	47.3	147	46.5	19.3	1.0	5	1	116	18	38	0.19	2.0	5.3	C
26	15	8	8.5	58	56.5	152	23.9	63.5	2.3	6	4	224	72	92	0.29	3.1	5.1	D
26	16	7	13.7	60	17.2	150	48.2	43.5	2.3	8	3	139	58	85	0.32	2.5	4.0	D
26	17	12	0.7	62	6.3	148	9.1	25.5	3.5	8	0	103	53	168	0.38	2.9	7.3	D
26	17	14	33.6	62	6.0	148	10.0	25.0	1.9	7	0	103	53	169	0.32	3.3	6.7	D
26	17	14	55.3	62	7.0	148	9.0	25.0	3.4*	15	0	85	53	168	0.32	2.6	5.5	D
26	17	55	24.6	66	33.1	150	52.9	3.2	2.0	9	0	199	21	77	0.27	2.9	2.7	D
26	19	29	5.6	61	31.4	152	20.3	104.5	2.0	6	2	247	41	171	0.35	3.9	2.3	D
27	0	17	16.9	65	59.5	148	13.1	16.5	1.9	6	1	101	72	118	0.39	2.3	3.6	D
27	3	48	11.5	64	47.3	148	50.3	2.2	1.1	5	2	226	26	81	0.30	1.5	35.0	D
27	7	2	5.5	60	1.5	152	55.4	110.7	2.5	7	4	165	45	77	0.27	1.9	2.3	C
27	12	1	34.3	57	29.4	152	3.2	28.5	2.2	6	1	303	39	232	0.25	9.0	6.5	D
27	12	9	55.7	64	41.4	149	10.5	15.5	1.2	5	2	254	14	57	0.23	3.7	1.4	D
27	12	11	41.3	64	11.1	147	59.7	2.5	1.1	7	1	98	32	68	0.15	1.1	30.9	C
27	15	17	54.7	66	12.5	150	6.3	0.1	2.2	9	0	101	9	36	0.44	1.5	2.6	C
27	15	37	16.5	66	19.0	150	7.2	0.1	2.0	7	0	168	12	36	0.46	1.9	2.7	C
27	22	37	54.5	66	14.2	150	10.1	0.7	1.9	6	1	177	30	165	0.37	5.4	3.5	D

APPENDIX C (con.)

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
MAY 27	23	49	29.4	59	25.9	151	1.5	36.1	2.5	6	2	252	13	40	0.14	4.6	4.6	D
28	6	45	9.6	60	10.4	151	23.6	43.3	3.3	11	2	100	54	73	0.26	1.7	4.4	B
28	7	54	38.0	58	34.8	151	8.5	24.6	3.5	10	2	191	105	123	0.61	2.7	6.6	D
28	11	37	39.3	61	53.5	151	9.7	76.9	2.5	6	0	167	92	317	0.04	8.7	13.4	D
28	12	8	36.3	60	31.4	152	3.1	87.1	2.7	10	1	84	41	99	0.24	2.1	5.3	B
28	17	11	33.1	66	20.5	149	51.4	15.1	4.0*	8	0	192	33	157	0.20	6.7	2.9	D
28	19	30	41.2	63	7.5	148	11.1	71.3	1.5	7	1	235	77	150	0.20	5.7	4.7	D
28	19	46	57.4	66	15.0	150	8.0	1.1	2.3	6	1	100	34	183	0.33	2.2	5.5	C
29	3	45	47.2	62	45.7	150	40.7	57.6	2.7	10	0	179	136	195	0.29	3.0	10.1	D
29	12	6	11.3	66	18.0	150	4.1	0.3	1.6	6	1	112	13	157	0.17	4.1	5.9	C
29	13	38	55.6	60	6.3	152	36.0	91.7	2.6	8	3	121	38	73	0.20	2.2	3.6	C
29	14	9	5.7	57	46.7	152	29.0	30.0	2.7	5	0	176	2	100	0.15	99.0	99.0	D
29	16	12	19.7	64	40.5	146	53.4	13.0	1.9	7	0	192	30	62	0.35	2.2	1.6	D
29	23	5	7.9	66	17.5	150	1.6	5.9	2.2	7	1	93	14	157	0.22	2.1	2.5	C
30	5	4	9.4	60	38.3	152	7.0	85.6	2.5	6	2	141	44	112	0.24	3.4	8.4	C
30	6	1	40.3	58	53.5	152	55.3	60.9	2.6	6	2	223	42	119	0.14	4.5	6.6	D
30	12	4	44.2	60	20.9	145	56.0	64.6	3.4*	11	0	169	105	222	0.38	5.0	5.1	D
30	13	39	34.7	64	2.0	148	9.7	108.5	2.1	8	0	99	49	72	0.10	3.3	9.0	C
30	15	51	57.7	64	11.8	150	23.9	5.4	1.7	6	1	291	77	116	0.34	4.6	3.1	D
30	16	55	0.5	62	2.5	150	42.7	69.4	4.1*	16	0	66	97	179	0.32	2.0	4.7	C
									NEIS MB = 4.6, FELT (IV) IN WILLOW AND (II) ANCHORAGE									
31	2	42	8.0	60	26.5	151	60.0	81.3	2.7	10	3	91	43	90	0.23	1.9	4.6	B
31	3	46	32.6	64	47.5	147	32.6	25.0	1.5	5	1	128	23	44	0.30	4.9	14.2	C
31	11	36	59.0	66	22.8	149	43.6	6.7	3.6*	9	0	122	31	181	0.26	1.7	3.1	C
31	12	4	1.5	66	21.2	149	58.7	0.7	2.0	8	1	106	20	170	0.23	1.9	3.6	C
31	13	12	51.3	66	23.1	149	58.3	0.0	1.6	6	1	193	23	171	0.24	1.9	3.8	C
31	13	23	30.8	60	0.6	151	13.4	29.0	2.3	7	2	184	33	97	0.27	2.2	6.6	C
31	14	39	43.7	66	22.2	149	58.8	0.3	2.0	8	0	109	21	170	0.20	1.7	3.7	C
31	21	2	41.3	63	24.1	151	46.2	82.9	2.7	6	0	220	145	216	0.21	6.1	16.8	D
JUN 01	2	18	14.4	63	10.8	150	48.6	137.9	2.5	6	1	137	112	197	0.08	4.1	3.8	D
01	8	13	14.9	63	23.6	145	51.0	17.7	1.5	5	1	186	12	125	0.21	10.1	3.3	D
01	9	23	33.7	66	17.0	150	1.3	0.6	2.2	9	2	93	17	167	0.47	1.6	2.5	C
01	13	26	46.5	64	42.8	146	55.0	5.4	1.5	5	1	219	34	60	0.27	3.5	35.6	D
01	19	8	20.1	63	46.7	149	8.6	8.2	4.0*	14	0	84	12	93	0.34	2.2	1.4	C
01	19	55	10.3	66	21.0	149	47.8	6.9	3.3	12	0	138	34	186	0.32	2.6	4.5	C
01	20	21	36.3	60	6.7	152	30.8	68.2	2.7	6	3	154	37	70	0.23	2.9	3.3	C
02	0	4	13.8	64	46.2	150	9.7	38.5	2.0	6	0	161	56	105	0.09	2.7	3.6	D
02	2	38	5.7	63	47.9	149	1.6	1.6	1.7	6	1	210	9	68	0.23	3.0	2.1	D
02	4	55	54.3	66	18.5	149	44.2	10.4	3.6*	11	0	131	39	181	0.42	5.2	5.0	C
02	6	42	41.3	61	45.3	150	56.3	56.6	2.3	9	2	123	57	179	0.31	2.2	4.5	C
02	9	46	4.4	66	15.7	149	50.0	0.2	3.9*	5	0	106	36	183	0.46	5.3	9.0	C
02	12	57	21.7	62	10.1	149	21.3	32.7	2.3	4	1	133	65	176	0.33	20.9	47.5	D
02	13	4	45.2	61	50.5	149	22.9	50.5	1.9	5	1	159	31	160	0.27	6.0	6.5	C
02	16	13	33.0	66	0.6	150	53.5	39.1	2.7	5	0	115	62	151	0.10	10.9	19.9	C
02	20	14	33.7	66	13.4	150	10.0	0.5	2.2	7	0	101	36	152	0.31	2.7	5.9	C
02	20	54	29.0	66	28.7	149	56.7	7.9	2.1	6	0	124	24	210	0.43	5.7	6.7	D
02	23	2	38.0	60	30.1	152	30.9	108.5	2.7	9	3	164	17	106	0.33	3.5	6.4	C
02	23	49	18.4	64	2.3	148	9.1	108.7	1.9	5	3	98	48	71	0.17	2.7	6.1	C
03	1	34	51.5	66	18.3	150	5.3	1.3	2.5	9	0	99	34	153	0.44	6.2	10.9	C
03	6	12	31.2	59	51.5	150	33.4	30.4	3.1	10	2	169	21	65	0.39	5.2	3.7	D
03	6	17	4.9	60	15.0	152	34.7	114.6	2.6	6	4	156	17	102	0.30	3.9	2.4	C
03	16	16	27.9	63	51.2	149	10.5	113.1	2.0	5	1	225	15	87	0.04	5.5	5.4	D
04	1	24	50.2	66	15.3	150	3.5	3.6	2.5	7	1	99	34	152	0.48	6.3	7.7	C
04	2	58	4.4	63	56.1	149	3.5	106.6	2.2	5	2	195	24	76	0.23	4.1	6.2	D
04	7	17	56.4	66	21.7	149	58.5	15.0	2.1	6	0	160	170	203	0.23	5.1	99.0	D
04	8	33	27.7	63	22.9	149	13.5	92.3	2.0	5	3	166	42	160	0.21	2.5	3.4	C
04	11	6	38.0	58	53.1	149	49.1	42.5	2.5	7	2	225	108	136	0.27	5.9	10.2	D
04	15	7	54.6	62	23.6	146	6.2	24.1	2.0	5	1	338	155	271	0.20	36.0	43.1	D
04	21	15	37.0	66	14.2	150	9.4	2.6	1.5	5	0	101	35	277	0.27	6.4	10.2	D
05	2	49	17.7	66	17.9	150	2.5	1.5	1.6	6	1	113	31	156	0.17	2.7	4.6	C
05	6	3	34.6	65	23.5	149	54.0	13.2	2.3	5	1	199	28	192	0.16	58.1	33.6	D
05	8	52	55.3	66	58.1	154	40.5	0.0	3.4	14	0	250	110	370	0.30	18.5	8.1	D
									PALMER ML = 3.6									
05	8	34	3.2	64	59.9	148	53.5	15.1	1.0	5	0	260	40	70	0.04	5.7	7.4	D

APPENDIX C (con.)

1988	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
JUN 05	13	34	19.8	63	59.3	149	55.0	9.1	1.5	5	2	271	56	104	0.31	4.9	2.0	D
06	1	26	24.8	63	55.0	149	4.4	0.2	3.2*	8	1	198	22	78	0.29	10.1	11.8	D
06	1	34	59.7	63	55.6	149	7.1	12.9	1.6	5	1	204	23	79	0.20	7.7	3.4	D
06	3	59	37.4	66	35.4	149	44.5	22.3	2.0	5	0	281	31	209	0.26	30.1	2.6	D
06	10	18	18.6	64	43.1	149	11.9	13.6	0.8	6	1	267	17	60	0.12	5.8	3.2	D
06	10	49	27.7	66	22.7	150	1.4	0.4	1.8	6	1	108	24	197	0.34	2.9	6.5	C
06	14	22	13.3	62	14.5	149	10.9	26.6	1.6	5	1	131	72	167	0.49	8.5	20.0	D
06	20	25	29.2	59	15.7	152	23.0	73.2	3.0	9	2	117	61	65	0.14	1.6	4.8	B
06	20	30	48.2	66	36.0	149	36.4	24.9	1.7	6	1	262	37	209	0.47	49.7	60.0	D
06	23	42	45.6	62	15.5	148	42.5	16.2	1.7	6	1	128	76	201	0.36	4.6	10.6	D
07	0	44	29.9	66	20.1	150	16.5	2.7	2.2	7	1	97	22	195	0.20	2.8	4.9	C
07	4	1	26.5	66	26.5	149	49.5	18.9	1.8	5	0	222	27	199	0.30	58.9	16.7	D
07	8	20	14.1	59	19.9	152	58.9	94.5	3.5	9	1	94	26	89	0.27	2.2	3.5	C
									PALMER ML = 3.6									
07	12	30	42.8	60	4.0	146	53.0	59.4	3.0	11	1	226	212	282	0.40	4.8	20.8	D
									PALMER ML = 3.4									
07	12	35	35.1	60	50.5	147	10.2	16.7	2.4	7	0	221	111	238	0.23	8.1	5.9	D
07	16	1	13.5	60	7.0	152	31.5	91.6	1.9	6	2	134	36	96	0.09	2.6	5.1	C
07	16	24	56.5	66	22.4	149	59.5	3.0	2.0	6	1	109	26	192	0.12	5.3	5.2	C
07	19	6	4.2	66	13.7	150	3.4	5.7	2.5	7	0	104	37	185	0.32	4.9	7.1	C
07	20	38	45.2	63	19.2	148	28.5	72.0*	2.0	5	4	231	51	133	0.20	2.1	5.0	D
08	0	24	43.5	63	46.3	149	13.9	22.3	1.3	5	1	277	15	129	0.23	20.6	5.5	D
08	1	21	3.3	66	32.0	149	49.1	74.0	2.1	5	0	251	181	208	0.16	14.2	26.5	D
08	2	52	37.2	66	19.9	149	58.1	12.5	1.4	6	0	183	30	186	0.29	10.3	5.9	D
08	3	39	33.4	63	31.4	149	43.2	100.0	1.7	6	0	283	45	164	0.36	32.1	19.8	D
08	6	40	3.0	59	4.5	151	38.2	47.2	2.4	5	2	239	55	111	0.28	4.4	7.5	D
08	7	20	25.7	63	55.2	148	58.5	0.2	1.3	6	0	161	21	109	0.10	3.9	99.0	D
08	8	9	6.6	65	58.6	149	0.5	39.3	2.1	7	0	227	133	156	0.42	9.5	99.0	D
08	8	24	58.6	66	24.9	149	57.3	6.5	2.7	8	0	121	24	196	0.19	4.0	4.6	C
08	8	55	29.5	66	22.2	149	53.9	13.1	2.5	7	1	113	29	190	0.39	7.0	5.3	D
08	8	58	35.2	66	19.9	149	50.7	3.9	2.6	10	0	109	34	185	0.27	5.5	6.5	C
08	13	58	55.5	60	19.4	152	4.6	81.1	2.4	8	4	151	40	96	0.23	2.4	4.7	C
08	16	47	17.1	60	58.4	144	33.0	38.4	2.4	5	0	246	177	258	0.65	11.4	5.6	D
08	16	47	12.9	60	48.0	144	34.0	14.7	2.6	7	2	186	182	247	0.16	10.9	16.9	D
08	18	15	54.7	63	16.4	150	37.5	120.7	2.6	13	1	123	99	153	0.42	2.2	7.2	C
09	1	22	58.4	62	58.5	150	55.7	130.4	3.2	16	2	69	131	201	0.36	2.2	5.5	C
09	1	56	2.5	62	49.3	147	44.5	59.3	2.1	9	1	161	112	118	0.25	3.4	10.6	D
09	2	5	47.3	66	18.5	150	1.9	5.9	1.7	5	1	187	30	187	0.21	44.2	43.9	D
09	9	14	23.5	66	16.3	149	58.3	1.5	2.4	5	1	97	35	182	0.43	2.1	5.0	C
09	11	4	18.3	66	17.5	150	3.3	4.9	1.5	7	0	97	31	186	0.42	5.5	11.3	C
09	11	23	18.2	60	3.1	152	39.5	100.7	4.0	10	3	115	41	72	0.31	2.3	5.0	C
									PALMER ML = 4.2, NEIS MB = 4.4									
09	12	5	26.5	59	45.5	152	47.4	75.1	2.3	6	3	127	31	67	0.25	2.6	7.9	C
09	13	51	59.5	66	22.5	149	57.5	7.0	2.4	5	1	112	26	193	0.25	2.5	3.5	C
09	17	21	43.7	66	19.6	150	16.5	0.7	2.1	7	1	97	23	194	0.23	6.6	12.3	C
09	17	52	18.1	61	9.5	150	25.4	31.5	2.2	5	2	208	84	181	0.10	10.9	4.4	D
09	21	16	9.4	66	11.1	150	10.5	7.0	2.6	5	0	103	40	178	0.48	2.7	5.1	C
09	21	41	32.2	66	21.6	149	56.5	0.5	2.3	7	1	109	25	190	0.30	2.4	4.0	C
10	2	2	37.0	66	22.5	149	54.6	15.5	2.1	5	1	195	29	191	0.15	15.2	9.4	D
10	2	13	10.4	66	14.6	149	49.0	1.4	2.4	5	0	98	42	178	0.25	3.3	6.2	C
10	3	55	25.9	66	22.3	149	51.7	9.7	1.9	5	0	197	30	190	0.11	42.9	29.6	D
10	5	11	5.4	66	25.9	149	48.5	15.5	1.9	5	0	212	29	196	0.14	11.5	5.5	D
10	5	34	35.5	66	31.5	149	48.4	16.1	1.9	5	0	235	27	204	0.32	60.9	9.0	D
10	5	56	48.6	66	34.3	149	38.5	19.2	1.8	5	0	246	37	206	0.38	62.7	3.6	D
10	7	0	1.1	62	31.9	144	57.3	12.9	1.9	4	1	170	56	146	0.19	2.4	3.2	C
10	7	2	0.2	62	53.7	143	43.7	1.3	1.9	4	0	161	89	126	0.15	4.2	99.0	D
10	7	5	57.7	61	40.3	147	13.4	0.3	2.5	10	0	229	19	171	0.43	13.5	6.1	D
10	7	6	0.3	61	50.4	147	18.1	0.9	2.5	11	0	185	2	158	1.48	3.9	0.9	D
10	7	41	44.2	66	16.2	149	58.3	2.3	2.2	7	0	97	35	182	0.31	3.1	6.0	C
10	9	3	47.5	66	15.5	150	0.2	2.0	1.4	5	1	113	35	182	0.34	8.0	12.0	C
10	12	31	5.4	61	18.5	147	35.0	27.1	2.1	5	1	239	60	216	0.22	14.3	7.0	D
10	13	1	52.1	66	34.4	149	40.5	21.6	1.9	5	0	247	33	207	0.29	63.1	4.0	D
10	13	54	12.5	66	11.0	150	11.9	0.4	2.7	8	0	104	40	179	0.35	6.1	12.2	C
10	14	31	4.7	64	17.9	150	12.4	40.2	1.7	5	1	283	63	104	0.01	14.0	4.0	D
10	16	54	15.2	66	17.1	149	40.4	2.2	1.6	5	1	194	45	179	0.22	9.1	10.5	D
10	17	58	35.5	63	4.9	151	15.4	123.7	2.4	9	1	200	137	199	0.34	4.9	10.1	D

APPENDIX C (con.)

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
JUN 10	19	15	4.7	59	46.3	152	56.1	97.6	2.8	8	4	98	21	73	0.26	2.3	4.1	C
10	21	1	11.7	67	16.9	150	39.6	34.1	2.2	5	0	282	85	295	0.11	32.3	11.7	D
10	21	50	17.8	62	56.7	151	8.9	126.6	2.3	7	2	206	141	202	0.38	6.2	15.1	D
11	1	5	50.1	59	28.5	152	41.2	82.2	2.0	6	2	137	37	82	0.11	2.6	8.1	C
11	6	32	4.0	66	17.9	150	3.8	0.7	2.2	8	1	97	30	187	0.36	6.1	8.7	C
11	12	32	22.6	63	16.4	147	16.4	0.3	1.6	7	0	193	76	97	0.20	2.3	2.9	D
11	17	15	42.4	63	54.7	148	56.6	2.1	1.2	5	0	176	20	75	0.12	3.8	3.5	D
11	19	12	52.6	60	55.4	146	18.6	3.2	2.2	5	0	267	115	312	0.13	41.8	21.6	D
12	1	42	29.0	63	33.2	149	6.0	81.6	1.4	6	0	253	22	114	0.11	8.0	7.1	D
12	2	30	30.4	61	26.5	146	12.3	17.6	2.4	5	1	255	74	175	0.39	14.7	7.5	D
12	4	1	21.0	63	19.7	145	11.1	4.0	1.9	6	1	133	38	148	0.38	2.5	3.3	C
12	6	49	2.7	58	47.4	152	7.4	65.4	2.5	7	3	248	89	100	0.15	5.7	7.8	D
12	9	26	17.0	63	27.0	147	13.1	87.0	2.1	8	1	170	69	103	0.06	3.2	8.5	D
12	9	42	14.2	66	28.2	149	44.2	10.7	1.6	5	1	223	31	197	0.24	23.7	7.8	D
12	9	46	51.7	66	15.3	150	4.9	2.6	2.0	6	1	99	34	183	0.32	4.6	7.4	C
12	10	37	6.5	64	33.1	160	4.2	72.7	3.0	6	0	270	270	446	0.21	57.8	83.5	D
12	12	45	32.6	62	24.3	149	6.3	14.0	2.1	9	1	130	91	148	0.32	2.3	3.0	D
12	13	37	10.5	66	21.9	150	2.5	1.3	2.4	6	0	104	25	193	0.35	2.8	5.5	C
12	14	3	36.4	66	22.9	150	1.0	0.6	2.3	5	1	109	24	194	0.12	8.6	10.7	C
12	14	5	0.8	66	51.8	149	11.4	2.4	2.7	6	0	270	66	225	0.37	34.5	14.9	D
12	16	22	17.0	64	10.6	148	0.1	5.7	1.4	7	0	99	33	68	0.07	1.6	4.0	C
12	16	52	50.9	66	19.0	150	3.3	12.3	1.9	5	0	174	29	188	0.01	20.4	18.7	D
12	20	48	30.2	64	5.1	147	51.8	11.2	1.1	5	1	263	44	80	0.07	4.9	15.1	D
12	21	37	29.8	66	21.4	149	58.2	5.0	2.6	7	0	107	28	190	0.46	6.8	9.5	D
12	22	43	20.8	66	16.8	150	15.6	0.7	2.5	8	1	100	29	156	0.38	2.7	3.7	C
12	22	54	37.4	66	18.5	149	54.6	0.6	2.2	5	1	196	33	172	0.43	5.7	4.5	D
13	1	42	5.4	66	11.2	150	4.8	0.4	1.8	5	0	158	23	163	0.31	3.3	3.3	D
13	1	56	20.3	66	14.8	150	3.6	0.6	1.7	5	1	165	28	165	0.37	3.0	3.1	C
13	4	19	28.0	63	32.3	148	45.7	14.3	4.7*	17	0	76	23	117	0.31	1.7	1.9	C
									NEIS MB - 4.9, FELT (IV) IN CANTWELL, HEALY, DENALI NATIONAL PARK AND BROAD PASS									
13	4	29	25.2	63	29.0	148	57.5	13.7	1.5	7	1	202	28	122	0.33	3.6	1.6	D
13	5	19	22.8	63	31.3	148	49.9	14.6	2.0	8	0	191	24	118	0.14	3.6	2.2	D
13	5	26	45.6	63	29.0	147	5.1	0.2	1.5	8	0	163	62	99	0.27	2.8	2.7	D
13	6	20	2.8	62	51.5	148	20.8	97.0	2.3	7	0	260	102	180	0.05	14.2	16.6	D
13	8	37	42.6	65	57.5	150	26.3	335.7	3.3	5	0	204	64	167	0.42	20.3	55.6	D
13	10	21	52.9	61	5.3	151	13.0	71.3	2.3	6	0	221	113	174	0.22	8.7	16.8	D
13	13	37	10.7	66	19.7	149	59.8	2.3	2.3	7	0	121	29	168	0.33	2.1	2.7	C
13	13	37	10.6	66	20.6	149	56.0	1.9	2.3	7	0	127	30	171	0.90	2.0	2.6	D
13	14	34	46.1	66	4.9	150	15.1	62.1	2.2	6	0	119	21	155	0.21	4.5	5.3	C
13	14	34	45.9	66	7.7	150	11.1	65.7	2.1	7	0	140	21	158	0.41	4.2	4.9	C
14	2	49	3.8	65	22.4	150	44.5	41.8	2.1	5	0	229	119	136	0.15	7.8	99.0	D
14	3	37	19.8	63	31.4	148	53.0	13.4	1.3	6	0	246	23	118	0.24	6.4	2.2	D
14	4	4	1.9	66	16.0	149	57.0	0.8	1.9	4	0	128	36	185	0.30	4.0	7.3	D
14	5	16	15.5	63	30.7	148	52.9	14.4	1.5	6	0	246	25	119	0.06	6.5	2.2	D
14	10	56	14.6	59	42.7	152	42.3	86.5	2.2	6	5	109	30	79	0.15	2.0	3.6	B
14	17	21	23.9	66	15.0	149	58.4	20.0	2.1	5	0	174	168	215	0.35	37.7	99.0	D
14	18	11	46.1	66	8.8	150	0.9	20.0	2.1	6	0	148	166	219	0.42	19.7	99.0	D
14	23	1	50.4	65	16.8	148	33.1	31.0	1.6	5	0	314	54	64	0.16	30.7	14.2	D
15	5	30	0.2	60	9.6	153	8.5	123.3	2.6	7	1	117	35	128	0.19	3.0	4.7	C
15	7	46	10.7	62	12.6	149	46.3	108.3	2.2	5	0	267	135	237	0.28	19.9	29.0	D
15	10	35	11.6	66	21.2	150	1.1	20.0	1.9	7	0	160	168	192	0.25	10.0	99.0	D
15	15	23	43.2	60	2.8	153	17.9	130.6	2.4	7	2	206	44	74	0.26	3.9	7.0	D
15	15	24	53.3	62	59.3	150	37.0	114.9	2.0	8	0	294	118	207	0.15	27.0	12.9	D
15	18	2	23.1	63	22.2	149	17.6	102.8	2.0	9	0	216	44	136	0.39	5.0	6.5	D
15	18	44	28.1	66	16.6	150	9.5	20.0	2.2	6	0	176	161	188	0.23	14.5	99.0	D
15	18	49	52.0	58	58.7	147	44.0	53.8	3.3	11	0	189	94	200	0.37	3.6	7.4	D
									PALMER ML - 3.3									
15	18	59	22.4	59	27.0	152	49.6	86.5	2.3	7	1	90	32	71	0.26	2.6	5.8	B
16	3	40	9.1	66	9.1	149	46.3	79.8	1.8	6	0	166	166	170	0.33	18.0	99.0	D
16	7	37	28.2	62	34.9	142	0.4	39.8	2.9	6	0	244	55	289	0.17	99.0	99.0	D
16	9	10	49.2	66	10.1	150	8.1	74.6	2.0	5	0	169	161	183	0.14	19.6	35.3	D
16	13	51	27.6	60	23.2	153	8.1	144.4	2.6	9	1	113	20	113	0.14	4.5	7.1	C
16	16	19	11.0	59	58.2	152	9.6	72.4	2.2	6	3	141	45	70	0.06	2.8	6.3	C
17	7	45	39.4	65	17.8	144	43.4	24.0	1.8	5	0	332	130	151	0.08	99.0	99.0	D

APPENDIX C (con.)

1985	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
JUN 17	19	81	28.9	66	49.5	154	28.5	124.5	2.6	6	2	233	49	167	0.28	6.9	8.7	D
17	22	13	7.7	66	16.4	150	0.3	58.1	2.3	6	0	176	167	164	0.37	17.0	99.0	D
17	22	66	3.5	60	22.0	152	16.9	87.7	1.8	6	4	206	28	102	0.27	3.1	6.2	D
18	0	23	54.0	59	47.9	152	30.9	83.1	2.9	13	3	103	43	70	0.14	1.9	6.0	B
18	5	20	19.3	66	16.0	149	56.2	75.2	2.3	6	1	175	170	166	0.46	4.3	48.4	D
18	8	47	38.9	63	46.9	149	13.6	119.9	3.3	13	1	152	16	95	0.18	3.0	5.2	C
18	9	34	56.4	62	48.2	151	54.7	146.1	2.2	6	0	282	182	281	0.07	25.3	19.3	D
18	10	11	54.9	60	45.2	151	51.8	82.5	1.6	5	4	280	62	141	0.27	6.2	8.2	D
18	14	6	30.7	62	53.4	150	58.6	100.0	1.5	5	0	338	139	227	0.18	99.0	76.8	D
18	15	23	31.9	66	7.6	150	18.7	70.5	2.4	6	0	148	153	160	0.42	8.9	21.1	D
18	18	58	31.1	61	31.3	151	46.4	88.3	2.1	7	1	187	41	141	0.34	2.1	4.7	D
18	22	3	52.1	63	46.8	149	6.1	6.0	3.2*	8	0	238	10	92	0.15	4.9	1.6	D
18	22	6	57.1	63	46.7	149	6.4	5.9	1.2	5	0	237	9	91	0.10	16.4	34.0	D
19	2	38	4.7	60	0.4	152	55.1	114.5	2.4	5	3	118	43	75	0.21	3.3	6.0	C
19	6	31	18.4	64	47.8	147	28.3	18.4	0.5	6	2	140	19	32	0.09	1.1	1.5	C
19	7	40	56.1	64	52.2	147	28.9	12.5	1.0	6	3	135	14	32	0.30	2.2	4.5	C
19	7	58	25.6	65	4.2	148	37.2	19.9	1.5	6	2	257	35	59	0.17	1.9	1.9	C
19	18	18	57.9	60	10.3	152	36.9	102.4	2.2	7	2	132	29	95	0.31	3.0	5.0	C
19	18	33	15.2	60	8.2	153	47.5	193.3	3.2	5	4	211	45	65	0.35	4.5	7.3	D
20	0	26	7.5	66	41.5	149	23.4	108.4	2.5	5	0	261	204	213	0.23	54.5	99.0	D
20	0	44	2.5	66	19.0	150	0.1	62.5	2.0	6	0	178	168	166	0.24	15.7	99.0	D
20	4	32	13.4	64	47.2	147	33.4	14.6	1.3	6	3	126	17	28	0.32	1.6	3.8	C
20	5	50	17.1	63	10.1	150	38.5	115.2	2.2	10	0	186	104	191	0.22	4.2	8.7	D
20	8	50	35.0	63	39.5	149	32.6	120.5	4.7*	23	0	67	31	105	0.37	1.8	4.3	B
				NEIS MB - 4.5, FELT IN CANTWELL AND DENALI NATIONAL PARK														
20	8	57	6.7	66	12.9	150	9.3	76.5	2.2	6	0	172	160	163	0.09	21.5	99.0	D
21	12	37	18.0	63	44.4	146	53.0	4.4	1.1	5	1	208	58	101	0.23	2.7	2.6	D
21	18	49	31.7	62	57.1	151	32.5	152.0	2.5	7	0	275	157	241	0.02	20.5	16.5	D
21	22	2	28.4	63	54.5	148	55.5	0.6	2.0	5	0	174	20	74	0.23	7.5	99.0	C
22	2	27	22.9	59	47.0	153	9.1	99.2	2.4	5	3	105	15	59	0.25	2.5	7.2	C
22	5	2	29.4	63	56.2	148	56.9	7.5	1.5	6	0	177	23	73	0.09	7.1	51.1	C
22	8	10	16.3	58	13.0	151	28.1	11.5	2.9	5	2	219	69	146	0.31	3.2	10.1	D
22	8	26	18.2	63	30.7	148	56.1	0.4	2.9*	11	0	137	54	100	0.46	1.7	1.9	D
22	8	29	19.5	63	38.3	146	17.7	45.1	1.2	5	1	155	27	91	0.20	7.2	4.3	D
22	11	25	36.0	63	29.4	146	57.5	0.9	2.2	9	0	159	56	101	0.25	1.5	2.3	C
22	12	6	13.4	61	48.7	146	30.4	31.0	3.4	16	0	207	44	148	0.29	4.4	2.7	D
				PALMER ML - 3.7														
22	12	59	3.1	59	26.3	152	45.5	73.4	2.0	5	2	178	39	90	0.29	4.0	8.4	C
22	16	5	43.0	62	0.3	150	59.9	82.1	2.5	9	0	263	109	219	0.07	29.9	43.2	D
22	16	30	20.0	61	40.7	151	37.5	34.4	2.5	7	2	226	153	223	0.21	4.5	16.4	D
				PALMER ML - 3.0														
23	2	27	43.9	59	27.1	152	48.5	79.1	2.3	8	6	80	33	75	0.24	1.5	3.6	B
23	5	0	44.8	58	16.0	154	58.7	20.5	3.0	6	0	243	107	158	0.31	5.4	17.1	D
23	10	50	36.2	66	5.4	150	11.3	39.1	2.1	7	0	149	158	177	0.44	2.4	99.0	D
23	13	12	41.3	62	43.9	148	6.1	55.5	2.2	7	1	152	108	137	0.21	3.5	9.5	D
23	14	40	44.5	62	24.0	149	5.5	75.7	2.5	10	0	131	90	199	0.37	4.0	4.5	C
23	19	31	29.0	62	18.5	154	47.7	53.9	3.5	9	0	120	93	192	0.41	4.3	11.9	C
				PALMER ML - 3.7														
23	22	19	38.7	63	5.5	150	37.9	116.5	2.7	9	0	256	111	196	0.11	11.4	9.4	D
24	6	7	41.4	65	31.4	150	19.7	33.5	1.5	5	1	322	121	135	0.12	6.7	5.3	D
24	6	16	34.5	63	5.1	151	13.1	145.5	2.9	9	0	268	135	215	0.12	14.4	12.5	D
24	7	1	30.4	63	11.5	150	30.5	46.1	2.5	5	1	279	280	363	0.29	15.3	99.0	D
24	7	28	34.7	66	21.5	149	55.5	82.2	2.5	6	0	181	170	194	0.36	15.3	99.0	D
24	9	27	55.9	60	24.4	151	43.9	65.9	2.5	5	5	155	57	55	0.27	1.4	2.5	C
24	13	5	53.7	63	54.3	148	10.3	7.4	1.3	7	2	197	42	82	0.14	1.6	2.7	C
24	14	43	36.1	66	16.5	150	9.5	47.3	2.2	6	1	176	160	159	0.30	3.2	74.4	D
25	7	36	29.3	59	2.2	151	41.3	45.9	2.4	9	5	236	60	93	0.31	3.7	7.6	D
25	16	53	52.6	66	15.7	150	4.0	41.0	2.1	6	0	175	164	165	0.25	3.0	99.0	D
25	17	2	42.5	66	5.5	149	44.4	10.0	1.9	5	3	163	160	165	0.69	2.4	3.5	D
25	22	33	47.2	60	28.1	152	31.9	1.1	1.7	6	1	196	14	121	0.15	3.2	2.4	D
26	10	0	20.5	66	19.2	150	0.9	41.5	2.3	6	2	178	167	159	0.37	2.5	99.0	D
26	12	44	56.5	54	42.5	160	27.1	32.1	4.4*	8	0	305	70	621	0.43	67.3	19.6	D
				NEIS MB - 4.7														
26	13	42	58.3	59	20.5	153	32.5	113.1	3.3	12	4	78	8	46	0.27	1.5	4.0	B
26	17	49	52.5	62	41.9	151	1.5	77.4	2.5	14	0	106	156	177	0.37	2.2	11.9	D

APPENDIX C (con.)

1988	ORIGIN HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	D3 KM	RMS SEC	ERH KM	ERZ KM	Q
JUN 26	19	5	5.7	66	13.8	150	0.6	11.1	2.3	6	0	172	167	184	0.31	2.7	99.0	D
26	22	20	2.4	63	14.4	149	2.7	84.3	2.0	9	0	178	55	149	0.34	3.4	5.4	D
26	23	56	11.7	58	15.3	150	29.7	101.7	3.2	3	1	323	148	221	1.53	15.2	48.3	D
27	0	25	13.6	63	36.1	149	56.3	147.2	4.9*	16	0	70	52	133	0.37	2.4	5.4	B
									NEIS MB = 4.7, FELT (IV) IN TALKEETNA									
									AND DENALI NATIONAL PARK									
27	3	28	19.8	62	28.6	150	53.6	98.0	3.0	6	0	178	131	178	0.20	3.8	18.2	D
27	4	35	48.2	66	15.2	150	5.9	61.0	2.3	6	0	174	163	186	0.28	10.0	99.0	D
27	6	29	53.5	64	41.8	147	23.1	1.2	0.8	5	3	148	30	39	0.21	2.3	86.9	C
27	7	40	31.9	62	38.6	149	2.8	72.1	2.4	9	0	134	117	127	0.33	2.9	5.8	C
27	8	46	30.9	60	15.2	151	2.2	57.3	2.3	7	3	249	88	98	0.23	3.6	5.5	D
27	12	12	14.3	61	53.9	148	2.6	10.8	2.3	11	1	114	39	211	0.45	4.5	6.1	C
27	14	28	1.0	66	13.8	149	55.2	74.5	2.0	6	0	172	171	177	0.30	17.1	99.0	D
27	14	35	3.5	56	19.6	156	44.8	41.8	4.1	11	0	190	259	344	0.29	23.6	44.7	D
									NEIS MB = 4.7									
27	17	27	46.6	59	51.3	153	27.8	137.4	3.0	6	2	131	26	63	0.30	2.9	6.6	C
28	4	42	62.4	57	18.5	156	16.7	62.2	3.3	12	1	289	232	236	0.32	10.8	6.6	D
28	5	4	40.0	61	36.5	150	50.6	53.4	2.5	10	1	95	60	169	0.37	2.3	6.9	C
28	6	23	54.2	60	6.2	152	57.4	114.9	2.8	9	4	131	38	77	0.34	2.9	4.5	C
28	6	42	55.7	66	9.3	150	4.4	30.0	2.2	6	0	168	163	176	0.33	12.5	53.2	D
28	7	30	26.0	62	27.9	146	16.1	76.6	2.3	9	0	142	86	145	0.34	3.5	12.9	D
28	16	36	2.2	59	32.6	153	22.9	118.5	3.1	11	4	67	15	63	0.32	2.0	2.4	B
									PALMER ML = 3.5, FELT (II) IN HOMER									
28	17	17	25.3	64	14.9	148	34.3	25.0	1.2	5	1	129	34	60	0.22	1.8	16.0	C
28	18	7	56.3	66	16.1	150	17.3	40.6	2.3	6	0	176	155	191	0.35	3.2	99.0	D
29	1	4	25.0	59	31.5	152	42.5	106.6	2.2	7	3	170	33	55	0.27	2.7	4.7	C
29	1	30	34.0	63	32.5	151	7.2	52.0	3.2*	7	0	246	110	151	0.21	9.6	24.0	D
29	4	19	6.8	63	40.2	148	54.5	7.7	0.5	5	0	301	7	102	0.01	5.7	2.3	D
29	9	58	51.3	63	55.5	147	12.1	11.3	1.3	7	1	131	54	52	0.23	1.2	1.7	C
29	11	11	15.2	61	6.3	150	12.9	39.5	2.7	9	1	133	79	154	0.34	1.5	6.3	D
29	18	22	42.9	59	56.6	153	35.9	139.7	2.3	7	1	154	37	61	0.20	5.3	6.6	C
29	21	56	50.6	60	5.0	151	24.5	51.3	3.4	14	1	96	51	52	0.30	1.9	5.0	C
									PALMER ML = 3.5, NEIS MB = 4.6									
30	1	10	50.3	66	14.5	149	58.9	54.3	3.1*	9	0	154	168	181	0.40	2.5	21.9	D
30	2	48	19.5	64	49.0	147	35.0	14.4	0.9	6	3	121	14	27	0.23	1.7	3.2	B
30	11	13	4.3	60	23.5	152	12.5	86.5	2.5	6	3	127	31	59	0.22	2.1	4.2	C
30	12	36	50.1	66	20.5	149	58.5	56.9	2.2	6	0	160	169	190	0.34	14.9	99.0	D
30	14	53	39.5	66	10.4	150	8.4	74.1	2.1	6	0	169	160	179	0.22	22.5	99.0	D
30	23	54	8.0	59	49.0	152	52.5	93.5	2.5	7	3	67	27	65	0.17	1.9	4.4	B

Explanation for Appendixes B and C

Earthquakes are listed in chronological order. The following data are given for each earthquake.

1. ORIGIN TIME in Universal Time (UT): Date, hour (HR), minute (MN), and second (SEC). To convert to Alaska Standard Time (AST), subtract 9 hr.
2. LAT N, LONG W: Epicenter in degrees and minutes of north latitude and west longitude.
3. DEPTH: Depth of focus (measured in kilometers).
4. MAG: Local magnitude from maximum trace amplitude. An asterisk that follows an entry means that the value determined by the Alaska Tsumani Warning System (Palmer) was used.
5. NP: Number of P arrivals used to locate earthquake.
6. NS: Number of S arrivals used to locate earthquake.
7. GAP: Largest azimuthal separation between stations (measured in degrees).
8. D1: Distance from the closest station to the epicenter (measured in kilometers).
9. D3: Distance from the third closest station to the epicenter (measured in kilometers).
10. RMS: Root-mean-square error of the travel-time residuals (measured in seconds).
11. ERH: Largest horizontal deviation (measured in kilometers), from the hypocenter within the one-standard-deviation confidence ellipsoid. The quantity measures the epicentral precision for an earthquake. Values of ERH >99 km are listed as 99 km.
12. ERZ: Largest vertical deviation (measured in kilometers), from the hypocenter within the one-standard deviation confidence ellipsoid. This quantity measures the precision of the hypocentral depth. Values of ERZ that >99 km are listed as 99 km.
13. Q: Reliability of the hypocenter. This index measures precision of the hypocenter location and also reflects the quality of the data used to derive the hypocenter parameters.