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CATALOG OF EARTHQUAKES IN SOUTHERN ALASKA FOR 1984

by

K. A. Fogleman, C. D. Stephens, J. C. Lahr and J. A. Rogers

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INTRODUCTION

The Office of Earthquakes, Volcanoes, and Engineering (formerly the Office of Earthquake Studies) of the U.S. Geological Survey (USGS) has operated a regional network of telemetering seismographs in south-central Alaska since 1971. The principal purpose of this network has been to record seismic data to be used to precisely locate earthquakes in the active seismic zones of southern Alaska, delineate seismically active faults, assess seismic risk, document potential premonitory earthquake phenomena, investigate current tectonic deformation, and study the structure and physical properties of the crust and upper mantle. A task fundamental to all of these goals is the routine cataloging of earthquake parameters for earthquakes located within and adjacent to the seismograph network.

The initial network of 10 stations, 7 around Cook Inlet and 3 near Valdez, was installed in 1971. In subsequent summers additions or modifications to the network were made. By the fall of 1973, 26 stations extended from western Cook Inlet to eastern Prince William Sound, and 4 stations were located to the east between Cordova and Yakutat. A year later 20 additional stations were installed. Thirteen of these were placed along the eastern Gulf of Alaska with support from the National Oceanic and Atmospheric Administration (NOAA) under the Outer Continental Shelf Environmental Assessment Program to investigate the seismicity of the outer continental shelf, a region of interest for oil exploration. During the subsequent years the region covered by the network has remained relatively fixed while effort has been made to make the stations more reliable through improved electronic instrumentation and strengthened antenna systems. The majority of the stations installed since 1980 have been operated only temporarily (from one to several years) for special studies in various areas within the network.

The locations of the stations of the USGS seismograph network operating during 1984 are plotted in Figure 1 and listed in Table 1 along with the stations from other institutions from which readings were obtained. Table 2 summarizes for each station the number of earthquakes per month for which readings were obtained. Each USGS station has a single vertical-component seismometer except for stations BRLK, GLB, RDT, SKN, and VLZ, which also have two horizontal-component seismometers. The horizontal-component seismometers at BRLK were removed on July 2, 1984.

This catalog presents origin times, focal coordinates and magnitudes for 3446 earthquakes occurring in 1984. Readings from total of 99 stations were used to locate the shocks, including 15 stations operated by the NOAA Alaska Tsunami Warning Center (ATWC, formerly Palmer Observatory), 14 stations operated by the Geophysical Institute of the University of Alaska, Fairbanks (U of A), 3 stations operated jointly by the USGS and U of A, 4 stations operated by the Earth Physics Branch of the Department of Energy, Mines and Resources, Canada (EMRC), and one station (TTV) operated cooperatively by the University of Washington (U of W) and the USGS.

Earthquakes in south-central Alaska as small as magnitude 3.0 have been routinely located by the National Earthquake Information Service (NEIS) of the USGS and its predecessor since the great Alaska earthquake of 1964 and are published in "Preliminary Determination of Epicenters" (PDE) reports. In contrast, the shocks included in this catalog are as small as magnitude -0.8 and most are smaller than magnitude 3.0. Data for the larger historic earthquakes that occurred in south-central Alaska through 1975 have been tabulated by Meyers (1976). Maps of the seismicity of Alaska and the Aleutian Islands from 1960-1983 have been published by Espinosa (1984).

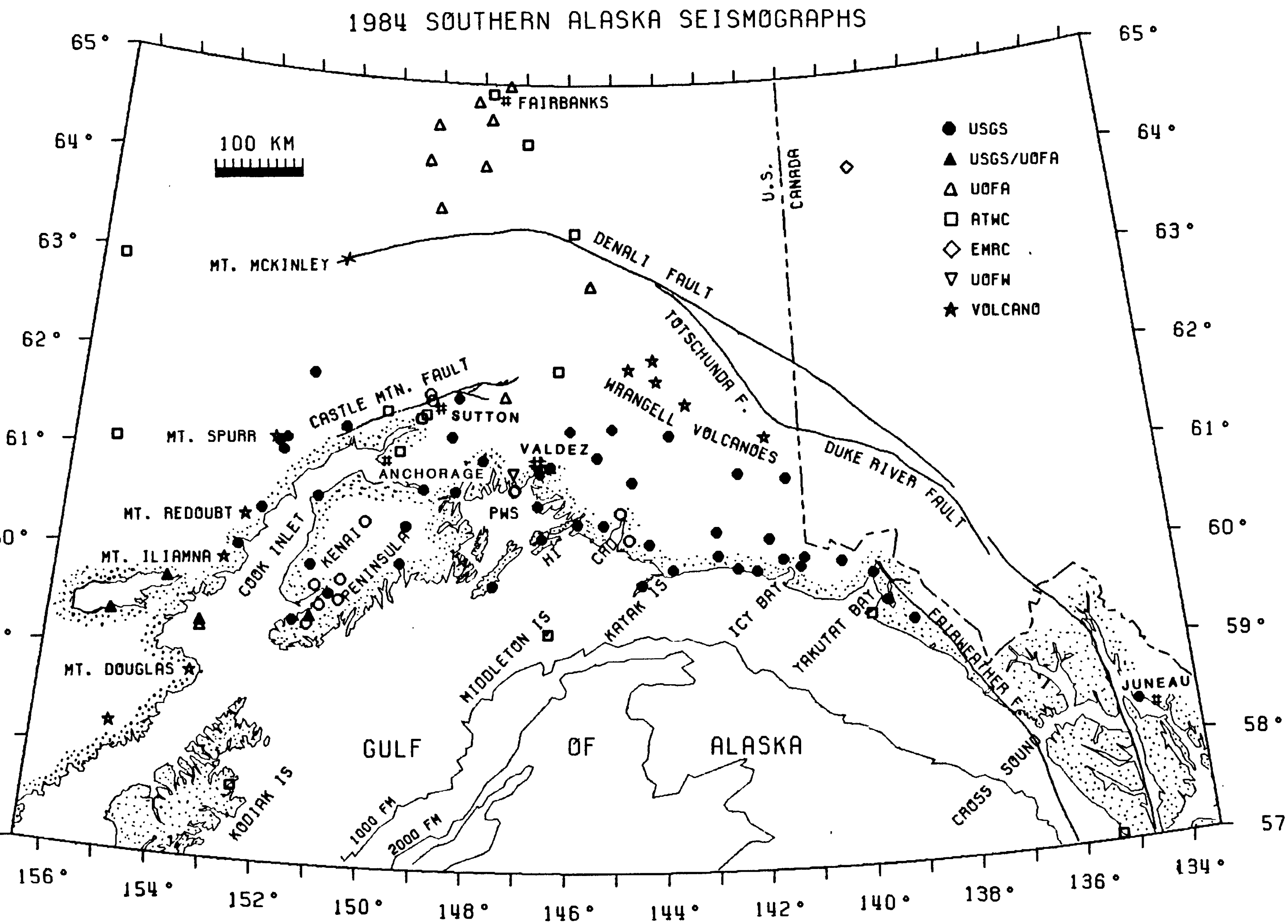

Figure 1. Map showing the locations of all USGS seismograph stations in southern Alaska and of other stations used in the preparation of this catalog. Symbols not listed in the key are as follows: open circles, USGS stations that opened or closed in 1984 (see Table 1); heavy lines, principal faults in southern Alaska; CRD = Copper River Delta: HI = Hinchinbrook Is.; PWS = Prince William Sound. Stations BRW, FYU, IMA, INK, MBC, SDN, and YKA, are located outside the map borders and are not plotted.

Table 1. Station parameters

STA CODE	STATION NAME	LATITUDE N	LONGITUDE W	ELEV M	P MOD	D KM	DLY1 SEC	DLY2 SEC	DLY3 SEC	TDLY SEC	MAG AT 1 HZ	INST	REMARKS
ABF	AUKE BAY	58 22.88	134 38.60	3	3	0.01	0.00	0.00	0.00	0.00	106400	USGS	
AGA	AGASSIZ LAKES	60 9.25	141 2.00	1024	3	0.01	0.00	0.00	0.00	-0.27	22800	USGS	
AUI	AUGUSTINE ISLAND	59 20.05	153 25.62	282	1	0.01	0.00	0.00	0.00	0.00		UOFA	
AUL	AUGUSTINE LAVA FLOW	59 22.93	153 26.07	360	1	0.01	0.00	0.00	0.00	0.00		UOFA	
BAL	BALDY	61 2.17	142 20.67	1300	3	0.01	0.00	0.00	-0.19	0.00	182400	USGS	
BCP	BANCAS POINT	59 57.20	139 38.10	396	3	0.01	0.00	0.00	-0.80	-0.27	79000	USGS	
BGM	BIG MOUNTAIN	59 23.56	155 13.76	625	1	0.01	0.00	0.00	0.00	-0.27	63800	USGS/UOFA	
BLR	BLACK RAPIDS	63 30.10	145 50.70	809	2	0.01	0.00	0.00	0.00	0.00		ATWC	
BMR	BREMNER RIVER	60 58.09	144 36.18	823	2	0.01	0.00	0.00	0.37	-0.27	98700	USGS	
BRLK	BRADLEY LAKE	59 46.85	150 53.13	631	1	0.01	0.00	0.00	0.00	0.00	185400	USGS	
BRNE	BRADLEY LAKE NE	59 54.65	150 39.13	1219	1	0.01	0.00	0.00	0.00	0.00	91200	USGS	CLOSED 6/29/84
BRNW	BRADLEY LAKE NW	59 50.25	151 10.15	582	1	0.01	0.00	0.00	0.00	0.00	40200	USGS	CLOSED 6/29/84
BRSE	BRADLEY LAKE SE	59 42.33	150 40.25	975	1	0.01	0.00	0.00	0.00	0.00	85100	USGS	CLOSED 6/29/84
BRSW	BRADLEY LAKE SW	59 38.46	151 2.69	951	1	0.01	0.00	0.00	0.00	0.00	86600	USGS	CLOSED 6/29/84
BRW	BARROW	71 16.43	156 47.08	13	1	0.01	0.00	0.00	0.00	0.00		UOFA	
CCB	CLEAR CREEK BUTTE	64 38.80	147 48.33	219	1	0.01	0.00	0.00	0.00	0.00		UOFA	
CFI	COLLEGE FIORD	61 10.96	147 45.99	3	2	0.01	0.00	0.00	0.00	0.00	45600	USGS	
CGL	CHITNA GLACIER	61 18.46	152 0.40	1082	1	0.01	0.00	0.00	0.00	0.00	83600	USGS	
CHX	CHAIX HILLS	60 3.78	141 7.00	1067	3	0.01	0.00	0.00	-0.05	-0.27	39500	USGS	
CNP	CHINA POOT	59 31.55	151 14.16	564	1	0.01	0.00	0.00	0.00	0.00	38000	USGS/UOFA	
CRP	CRATER PEAK	61 16.02	152 9.33	1622	1	0.01	0.00	0.00	0.00	0.00	38000	USGS	
CSG	CHILDS GLACIER	60 39.66	144 51.30	678	2	0.01	0.00	0.00	0.00	0.00	82000	USGS	OPENED 7/20/84
CTG	CHITNA GLACIER	60 57.90	141 20.00	1554	3	0.01	0.00	0.00	-0.53	0.00	79000	USGS	
CVA	CORDOVA	60 32.79	145 44.96	90	2	0.01	0.00	0.00	0.00	-0.81	20900	USGS	
DWY	DAWSON CITY	64 3.20	139 25.90	346	3	0.01	0.00	0.00	0.00	0.00		EMRC	
FBA	COLLEGE OUTPOST	64 54.00	147 47.60	320	1	0.01	0.00	0.00	0.00	0.00		ATWC	
FID	FIDALGO	60 43.73	146 35.79	486	2	0.01	0.00	0.00	0.00	-0.27	80500	USGS	
FYU	FORT YUKON	66 33.63	145 12.60	137	1	0.00	0.00	0.00	0.00	0.00		UOFA	
GHO	GLORYHOLE	61 46.33	148 55.45	1021	1	0.01	0.00	0.00	0.00	0.00	83600	USGS	OPENED 9/11/84
GKC	GOLD KING CREEK	64 10.72	147 56.08	490	1	0.00	0.00	0.00	0.00	0.00		UOFA	
GLB	GILAHINA BUTTE	61 26.51	143 48.63	845	3	0.01	0.00	0.00	1.60	0.00	167200	USGS	
GLC	GLACIER ISLAND	60 53.44	147 4.38	3	2	0.01	0.00	0.00	0.00	-0.27	94200	USGS	CLOSED 9/17/84
GLI	GLACIER ISLAND	60 52.78	147 5.65	429	2	0.01	0.00	0.00	0.00	0.00	94200	USGS	OPENED 9/17/84
GLM	GILMORE DOME	64 59.23	147 23.33	820	2	0.01	0.00	0.00	0.00	0.00		UOFA	
GYO	GUYOT	60 8.78	141 28.29	183	3	0.01	0.00	0.00	-0.06	-0.27	28800	USGS	
HDA	HARDING LAKE	64 24.35	146 57.23	450	1	0.01	0.00	0.00	0.00	0.00		ATWC	
HIN	HINCHINBROOK ISLAND	60 23.81	146 30.10	611	2	0.01	0.00	0.00	0.00	-0.81	42500	USGS	
HMT	HAMILTON	60 20.19	144 15.64	620	3	0.01	0.00	0.00	1.28	-0.27	82000	USGS	
HON	HARLEQUIN	59 27.10	138 52.62	372	3	0.01	0.00	0.00	0.00	-0.27	98700	USGS	
ILM	ILIAMNA	60 10.92	152 48.97	550	1	0.01	0.44	0.00	0.00	0.00	76000	USGS	
IMA	INDIAN MOUNTAIN	66 4.11	153 40.72	1380	1	0.01	0.00	0.00	0.00	-0.27		ATWC	
INK	INUVIK	68 17.50	133 30.00	40	3	0.01	0.00	0.00	0.00	0.00		EMRC	
KAI	KAYAK ISLAND	59 55.61	144 24.98	311	2	0.01	0.00	0.00	1.50	-0.81	38000	USGS	
KDC	KODIAK	57 44.87	152 29.50	13	1	0.01	0.00	0.00	0.00	-0.27		ATWC	
KLU	KLUTINA	61 29.57	145 55.21	1021	2	0.01	0.00	0.00	0.00	0.00	316100	USGS	
KMP	KIMBALL PASS	61 30.78	145 1.09	1143	2	0.01	0.00	0.00	0.00	-0.27	173200	USGS	
KNK	KNIK GLACIER	61 24.75	148 27.34	595	2	0.01	0.00	0.00	0.00	0.00	95700	USGS	
LVY	LEVY	64 13.00	149 15.20	230	1	0.01	0.00	0.00	0.00	0.00		UOFA	
MBC	MOULD BAY	76 17.50	119 21.60	15	3	0.01	0.00	0.00	0.00	0.00		EMRC	
MCK	MCKINLEY PARK	63 43.94	148 56.10	610	1	0.01	0.00	0.00	0.00	0.00		UOFA	
MID	MIDDLETON ISLAND	59 25.67	146 20.34	37	2	0.01	0.00	0.00	0.00	-0.27		ATWC	
MSE	MOOSE CREEK	61 50.30	148 58.03	1318	1	0.01	0.00	0.00	0.00	0.00	81700	USGS	OPENED 9/11/84
MSP	MOOSE PASS	60 29.35	149 21.64	150	1	0.01	0.00	0.00	0.00	0.00	91200	USGS	
MTG	MONTAGUE ISLAND	59 54.71	147 29.82	31	2	0.01	0.00	0.00	0.00	-0.81	10400	USGS	
NEA	NENANA	64 34.63	149 4.63	365	1	0.01	0.00	0.00	0.00	0.00		UOFA	
NKA	NIKISHKA	60 44.58	151 14.28	100	1	4.00	1.36	0.00	0.00	0.00	5700	USGS	
NNL	NINILCHIK	60 2.53	151 17.78	366	1	4.00	0.67	0.00	0.00	0.00	20900	USGS	
PAX	PAXSON	62 58.25	145 28.11	1130	2	0.01	0.00	0.00	0.00	0.00		UOFA	
PDB	PEDRO BAY	59 47.27	154 11.55	305	1	0.01	0.00	0.00	0.00	-0.27	79000	USGS/UOFA	
PIN	PINNACLE	60 5.80	140 15.40	975	3	0.01	0.00	0.00	-0.01	-0.27	83600	USGS	
PLR	PALMER (USGS)	61 35.53	149 7.85	100	1	0.01	0.00	0.00	0.00	0.00	19900	USGS	OPENED 9/11/84
PME	PALMER EAST	61 37.90	149 1.70	232	1	0.01	0.00	0.00	0.00	0.00		ATWC	
PMR	PALMER OBSERVATORY	61 35.53	149 7.85	100	1	0.01	0.00	0.00	0.00	0.00		ATWC	
PMS	ARCTIC VALLEY	61 14.68	149 33.63	716	1	0.01	0.00	0.00	0.00	0.00		ATWC	
PNL	PENINSULA	59 40.06	139 23.82	585	3	0.01	0.00	0.00	-1.10	-0.27	77500	USGS	

TABLE 1 (continued). Station parameters

STA CODE	STATION NAME	LATITUDE N	LONGITUDE W	ELEV M	P MOD	D KM	DLY1 SEC	DLY2 SEC	DLY3 SEC	TDLY SEC	MAG AT 1 HZ	INST	REMARKS
PRG	PORTAGE	6Ø 51.87	149 1.21	55	1	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ	8Ø5ØØ	USGS	
PWA	HOUSTON	61 39.Ø5	149 52.72	137	1	Ø.Ø1	Ø.7Ø	Ø.ØØ	Ø.ØØ	Ø.ØØ		ATWC	
PWL	PORT WELLS	6Ø 51.56	148 2Ø.Ø9	549	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ	881ØØ	USGS	
RAG	RAG	6Ø 23.22	144 4Ø.51	739	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ	471ØØ	USGS	OPENED 7/2Ø/84
RDS	RICHARD D. SIEGRIST	64 49.59	148 8.68	51Ø	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ		UOFA	
RDT	REDOUBT	6Ø 34.43	152 24.37	93Ø	1	Ø.Ø1	Ø.36	Ø.ØØ	Ø.ØØ	Ø.ØØ	775ØØ	USGS	
SAW	SAWMILL	61 48.49	148 19.98	74Ø	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ	1672ØØ	USGS	
SCM	SHEEP MOUNTAIN	61 5Ø.ØØ	147 19.66	1Ø2Ø	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ		UOFA	
SDE	SADIE COVE	59 26.6Ø	151 16.92	77Ø	1	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ	79ØØØ	USGS	CLOSED 6/29/84
SDN	SAND POINT	55 2Ø.48	16Ø 29.75	3Ø	1	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ		UOFA	
SGA	SHERMAN GLACIER	6Ø 32:Ø4	145 12.42	424	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	-Ø.81	744ØØ	USGS	
SIT	SITKA	57 3.42	135 19.47	19	3	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	-Ø.27		ATWC	
SKL	SKILAK	6Ø 3Ø.86	15Ø 12.96	64Ø	1	Ø.Ø1	Ø.1Ø	Ø.ØØ	Ø.ØØ	Ø.ØØ	41ØØØ	USGS	CLOSED 7/28/84
SKN	SKWENTNA	61 58.82	151 31.78	564	1	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ	1672ØØ	USGS	
SLK	SKILAK	6Ø 3Ø.74	15Ø 13.26	655	1	Ø.Ø1	Ø.1Ø	Ø.ØØ	Ø.ØØ	Ø.ØØ	972ØØ	USGS	OPENED 7/28/84
SLV	SELDOVIA	59 28.28	151 34.83	91	1	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ	364ØØ	USGS	
SPU	SPURR	61 1Ø.9Ø	152 3.26	8ØØ	1	Ø.Ø1	Ø.39	Ø.ØØ	Ø.ØØ	Ø.ØØ	1824ØØ	USGS	
SSN	SUSITNA	61 27.83	15Ø 44.6Ø	1297	1	Ø.Ø1	Ø.67	Ø.ØØ	Ø.ØØ	Ø.ØØ	471ØØ	USGS	
SSP	SUNSHINE POINT	6Ø 12.3Ø	142 49.8Ø	3Ø5	3	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.79	-Ø.27	2Ø9ØØ	USGS	
SUK	SUCKLING HILLS	6Ø 4.42	143 46.62	454	3	Ø.Ø1	Ø.ØØ	Ø.ØØ	2.14	-Ø.81	22ØØØ	USGS	
SVW	SPARREVOHN	61 6.49	155 37.3Ø	762	1	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	-Ø.27		ATWC	
SWD	SEWARD	6Ø 6.22	149 26.96	91	1	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ	38ØØØ	USGS	
TOA	TOLSONA	62 6.29	146 1Ø.34	9Ø9	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ		ATWC	
TSI	TSINA	61 13.57	145 2Ø.24	1113	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	-Ø.27	76ØØØ	USGS	
TTA	TATALINA	62 55.8Ø	156 1.32	914	1	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	-Ø.27		ATWC	
TTV	TERRENTIEV LAKE	61 3.29	147 7.29	533	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ		UOFW	OPENED 9/19/84
VLZ	VALDEZ	61 7.89	146 19.92	1Ø	2	Ø.Ø1	Ø.ØØ	Ø.1Ø	Ø.ØØ	-Ø.27	456ØØ	USGS	
VZW	VALDEZ WEST	61 3.54	146 33.24	796	2	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	-Ø.27	866ØØ	USGS	
WAX	WAXELL RIDGE	6Ø 26.9Ø	142 51.1Ø	975	3	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.61	-Ø.27	79ØØØ	USGS	
WRG	WHITE RIVER GLACIER	6Ø 2.27	142 1.9Ø	55Ø	3	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.66	-Ø.27	19ØØØ	USGS	
YAH	YAHTSE	6Ø 21.51	141 44.7Ø	2135	3	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.17	-Ø.27	1975ØØ	USGS	
YKA	YELLOWKNIFE ARRAY	62 29.59	114 36.32	2ØØ	3	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	Ø.ØØ		EMRC	
YKG	YAKATAGA	6Ø 4.2Ø	142 25.33	46	3	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.ØØ	-Ø.27	55ØØ	USGS	
YKU	YAKUTAT	59 32.72	139 43.73	15	3	Ø.Ø1	Ø.ØØ	Ø.ØØ	Ø.35	-Ø.27		ATWC	

This table lists geographic coordinates and other pertinent information for seismograph stations operated by the USGS and institutions in southern Alaska used in the preparation of this catalog. P-MOD is the number of the preferred P-wave velocity model assigned to the station unless the earthquake occurs east of longitude 144.5°W and outside the Icy Bay region, in which case the Eastern model is assigned to all the stations (see Table 3). The numbers 1, 2, and 3 correspond to the Western, Central, and Icy Bay models. D is the thickness of the low-velocity surficial sedimentary layer in kilometers assigned in the calculation of traveltimes to a given station. DLY is the station P-phase traveltime delay correction in seconds. The station traveltime corrections for delay model 4 are all currently set to Ø.ØØ s and are not listed. TDLY is the telephone line delay correction in seconds. The magnification (MAG) of the vertical seismograph component is given at 1 Hz. The institutions (INST) other than the USGS operating the stations are the Alaska Tsunami Warning Center (ATWC), the Geophysical Institute of the University of Alaska (UOFA), the University of Washington (UOFW) and the Department of Energy, Mines, and Resources, Canada (EMRC). Station BGM was not operational during 1984 and is not included in Table 2.

USGS STATIONS

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                B B B B B
     A A B B B R R R R R C C C C C C C C F G G G G G H H H I K K K K M M M N N P P P P P P R R S S S S S S S S S S S S T T V V W W Y Y
     B G A C M L N N S S F G H N R S T V I H L L L Y I M Q L A L M N S S T K N D I L N R W A D A D G K K L L P S S U W S T L Z A R A K
     F A L P R K E W E W I L X P P G G A D O B C I O N T N M I U P K E P G A L B N R L G L G T W E A L N K V U N P K D I V Z W X G H G
                                                                                                                                         #EQ
JAN    F L A C18 7 5 5 415 6 A 6 91   G 1 7   17 4     8 31A C 7 1 617 8     6 114 6     K   1B 8 4     915 5 7 9 91   7 A 8 41       4     412 I 6 J Ø  338
FEB  Ø G J 7 119 8 6 6 512 5 E 6 81   E 1 9   17 3     8 616 9 8 Ø 618 9     8 114 7     J   1A 9 1     819 7 7 B 91   7 B 9 41     3 4     511 C 2 J Ø  33Ø
MAR  Ø K N C A18 9 6 7 511 4 D 6 A1   H 1 1   17 1     9 51A 9 8 Ø 51A B     A 114 7     M   1D B 2     C1B 6 8 C D1   7 D B 51     5 5     71Ø E 8 N Ø  383
APR  Ø 9 9 7 61F A 8 8 61   A Ø 8 81  A 1 3   17 1     Ø 518 6 7 1 618 9     9 213 7     B   19 9 9     H19 9 7 B G1   9 8 9 51     7 5     41   8 7 D 1  269
MAY    B H 9 319 B 6 7 512 8 Ø 7 81   B 2 B   1B 5       518 7 5 2 71E       8 212 6     C   1A 6 8     918 7 5 A C1   7 A 9 71     5 5     612 Ø 8 F 1  267
JUN  Ø 7 C 6 319 7 6 7 411 9 Ø 6 81   6 2 6   18 6     Ø 517 5 6 1 413 1     8 212 6 1 8   16 7 8     517 6 3 8 C1   6 9 7 21     6 2     814   6 A 1  2Ø8
JUL  Ø 9 F 9 412           15 7 1 2 611 6 1 7   18 6     1 41C 9 6 1 61A 8     Ø 31Ø Ø 4 C   18 8 7 2 C17 Ø 7 6 F1Ø 4 8 8`51Ø 5 4     C17 3 7 C 1  236
AUG  Ø 8 E 8 316           1A 7 1   816 5 3 D   1D B   1 71A 7 7 1 D1C C     D 313 5 5 A   17 D D 7 J1C   B   Q1A 6 D B 31   B 4     F1C 9 6 A Ø  279
SEP  Ø B I 9 417           18 C 9   A16 7 3 7 81A 4 4 9 518 9 8 1 A1E B 8 A 215 7 5 D   18 8 B 6 11B   7   M1B 6 C B 712 8 4 2 C19 C 6 F 1  3Ø1
OCT  Ø 9 F 7 316           16 A 6   814 9 2 6 B1A   7 8 41A 5 7 1 81C B A 9 315 6 4 B 416 A 9 4 E19   5   H1A 1 A A 611 7 4 4 916 8 6 D Ø  267
NOV  Ø A F 7 215           15 B 4   814 B 1 6 919   5 5 419 6 5 1 61A 8 9 8 113 4 3 C 517 9 7 4 C18   5   G18   B 8 61   5 2 3 616 9 7 D Ø  274
DEC    A F 8 316           18 C 5   A15 A 1 8 A19   8 7 31Ø 4 6 Ø 91D B C 8 213 4 4 D 718 A 9 4 E1B   4   H1A   C B 71   5 3 4 718 Ø 6 D Ø  294

     Ø 1 1 1 Ø Ø Ø Ø Ø Ø Ø 1 Ø Ø 1 Ø 1 Ø Ø Ø 1 Ø Ø Ø Ø 1 Ø Ø Ø Ø 1 1 Ø 1 Ø Ø Ø Ø 1 Ø 1 1 Ø Ø 1 1 Ø Ø Ø 1 Ø Ø 1 1 Ø Ø Ø Ø Ø Ø Ø Ø Ø 1 Ø
STA  Ø 3 9 Ø 5 9 5 4 4 3 5 Ø 6 4 Ø 2 2 2 8 3 1 4 2 6 6 Ø 9 8 1 8 2 Ø 4 Ø 2 4 7 2 6 1 Ø 1 9 3 5 1 4 7 6 8 5 6 3 1 6 Ø 6 5 1 9 6 9 8 8 1
TOT  2 8 8 5 7 4 1 Ø 2 2 9 5 7 3 7 8 6 5 6 9 4 6 6 2 1 5 3 5 4 9 6 6 Ø Ø 9 2 Ø 9 8 7 7 5 2 Ø 4 3 2 6 9 7 2 4 4 7 5 4 9 2 3 9 Ø 7 Ø 1 1
     7 8 Ø Ø 9 Ø 2 1 6 5 3 1 2 Ø 1 4 6 Ø 4 8 6 Ø 4 6 5 8 2 3 1 7 5 4 7 7 5 4 3 3 6 8 8 5 1 2 7 2 5 9 3 3 9 6 9 Ø 5 Ø 1 2 4 7 5 3 4 Ø 4

                B B B B B
     A A B B B R R R R R C C C C C C C C F G G G G G H H H I K K K K M M M N N P P P P P P R R S S S S S S S S S S S S T T V V W W Y Y
     B G A C M L N N S S F G H N R S T V I H L L L Y I M Q L A L M N S S T K N D I L N R W A D A D G K K L L P S S U W S T L Z A R A K
     F A L P R K E W E W I L X P P G G A D O B C I O N T N M I U P K E P G A L B N R L G L G T W E A L N K V U N P K D I V Z W X G H G
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NON-USGS STATIONS

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     A A B B C D F F G G H I I K L M M M N P P P P P R S S S S T T W Y Y
     U U L R C W B Y K L D M N D V B C I E A M M M W D C D I V O T R K K
     I L R W B Y A U C M A A K C Y C K D A X E R S A S M N T W A A H A U
                                                                          #EQ
JAN           1   2       1   Ø Ø 1  1Ø   Ø    17 Ø 7 6  16 Ø Ø 4 612   Ø      338
FEB           1   3       1   Ø   1  1    Ø    18 Ø 9 8  17   Ø 4 814     Ø    33Ø
MAR    Ø      1   3       1   Ø   2  1    Ø    19 Ø B A  18 Ø Ø 3 914          383
APR           1   2       1       2  1    Ø    16 Ø A 7  16 Ø Ø 4 512          269
MAY           1   2       1   Ø   1  1    Ø    16   9 6  16 Ø Ø 4 312          267
JUN    Ø      1   2       1       1  1    Ø    15 Ø 8 6  15   Ø 3 211          2Ø8
JUL  Ø 1      1   Ø       1   Ø   2  1    Ø    16 2 8 6  15   Ø 3 411     Ø    236
AUG  2 Ø    Ø Ø1  1 Ø    1Ø Ø     2 Ø1  Ø 1 Ø Ø1A 6 C 9 Ø19 Ø Ø 4 812 Ø        279
SEP  2        1   1       1       2  1    Ø    19 7 B 7  17   Ø 5 612          3Ø1
OCT  2   Ø   1Ø   1   Ø Ø1Ø Ø Ø   1  1  Ø Ø Ø Ø17 1 9 5  16   Ø 4 511 Ø        267
NOV  1   Ø   Ø1   Ø   Ø  1Ø       2 Ø1  Ø Ø Ø Ø16 Ø 7 4 Ø15 Ø Ø 2 41Ø Ø        274
DEC  Ø        1   1       1   Ø   2  1    Ø    18 Ø Ø 8  16     3 611          294

     Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø 1 Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø
STA  Ø Ø Ø Ø Ø Ø 2 Ø Ø Ø Ø Ø Ø 2 Ø Ø Ø Ø Ø Ø 9 1 Ø 8 Ø B Ø Ø 4 7 2 Ø Ø Ø
TOT  9 1 Ø Ø Ø Ø 4 Ø Ø Ø Ø 2 Ø 6 Ø Ø Ø 6 Ø Ø 3 9 7 8 Ø 2 Ø 3 7 1 8 Ø Ø Ø
     7 8 2 1 2 1 2 1 2 1 3 Ø 2 2 2 1 3 5 3 3 2 4 3 2 2 1 8 1 7 1 3 3 1 2

     A A B B C D F F G G H I I K L M M M N P P P P P R S S S S T T W Y Y
     U U L R C W B Y K L D M N D V B C I E A M M M W D C D I V O T R K K
     I L R W B Y A U C M A A K C Y C K D A X E R S A S M N T W A A H A U
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Table 2. Record of station use

This table lists the number of earthquake readings that were obtained from each station per month. The number "Ø" corresponds to 1-9 readings, "1" to 1Ø-19, etc. to "9" for 9Ø-99 readings. The letter "A" corresponds to 1ØØ-1Ø9 readings, "B" to 11Ø-119, etc. to "Z" for 35Ø-359 readings. An asterik "*" indicates 36Ø or more earthquakes. The total number of earthquakes from which readings were taken for each station are given below the monthly tabulations.

INSTRUMENTATION

The instrumentation used in the USGS seismograph network is illustrated in the block diagram in Figure 2. Data from each seismometer are telemetered to the NOAA Alaska Tsunami Warning Center in Palmer. The standard equipment at each field site includes a vertical seismometer with a natural frequency of 1.0 Hz (Mark Products, Model L-4), an electronics package consisting of an amplifier, calibrator, and a voltage-controlled oscillator (A1VCO), and "air-cell" storage batteries (McGraw-Edison, Model ST-2-1000) or a solar panel and 80 amp-hr storage batteries.

The USGS-designed A1VCO amplifier-oscillator (Rogers and others, 1980) features crystal-referenced center frequency, digital channel selection, firmware based calibration cycle, ultra-low noise synthesized FM output and automatic gain-ranging (Rogers, 1986). The crystal reference eliminates the problem of carrier drift experienced with previous VCO designs. In addition, by using digital techniques to synthesize and shape the carrier waveform, the A1VCO reduces channel noise, eliminates lengthy tuning procedures, and allows for the field selection of channel frequencies. The A1VCO automatically calibrates the seismograph system every 24 hours providing information on electronic noise, geophone response, amplifier/VCO response, overall system response, station identification code, field gain setting, air tempreature, and battery voltage. With this information the operational status of the station can be monitored, and equipment problems can be diagnosed prior to visiting the field installation. The A1VCO incorporates an automatic gain-ranging feature so that larger events are less likely to clip. Gain-ranging reduces the original gain by a factor of 10 within one millisecond after the input signal exceeds a preset threshold. A few of the stations now have an additional gain-range step which reduces the original gain by a total factor of 500. Another feature of the A1VCO is the monitoring of a remote strong-motion earthquake recorder co-located with the high-gain seismic station. When the recorder triggers and when the recording ends, a distinctive signal is superimposed on the A1VCO output. This signal can be accurately timed to determine the time of operation of the strong-motion recorder.

Data are telemetered via a combination of VHF (162-174 MHz) radio links and leased telephone circuits, some of which use satellite links having a 0.27 s transmission delay per hop. The radio equipment consists of low-power (100 mW) transmitters and receivers adapted from HT-200 Motorola handie-talkie transceivers, and either Yagi antennae with 9 db directional gain (Scala, Model CAS-150) or log periodic antennae (Scala, Model CL-150). At the receive sites, where the seismic signals enter the telephone circuits, base-station radio receivers (G.E. Model R46AP66B) with greater sensitivity are used. The central recording facility incorporates a bank of discriminators (USGS-designed NCER J101 or Develco Model 6203), four 16 mm-film 20-channel oscillographs (Teledyne Geotech Develocorder, Model RF400 and 4000D), a 14-track FM magnetic tape recorder (Bell and Howell Model VR3700B), three 3-channel drum recorders (Teledyne Geotech Helicorder, Model RV301B), and a time-code generator (Datum, Model 9100).

The principle of operation is as follows: The seismometer translates ground velocity into an electrical voltage that is fed into the amplifier/VCO unit. There the amplified voltage causes the frequency of the VCO to fluctuate about its center frequency. The frequency-modulated (FM) tone from the

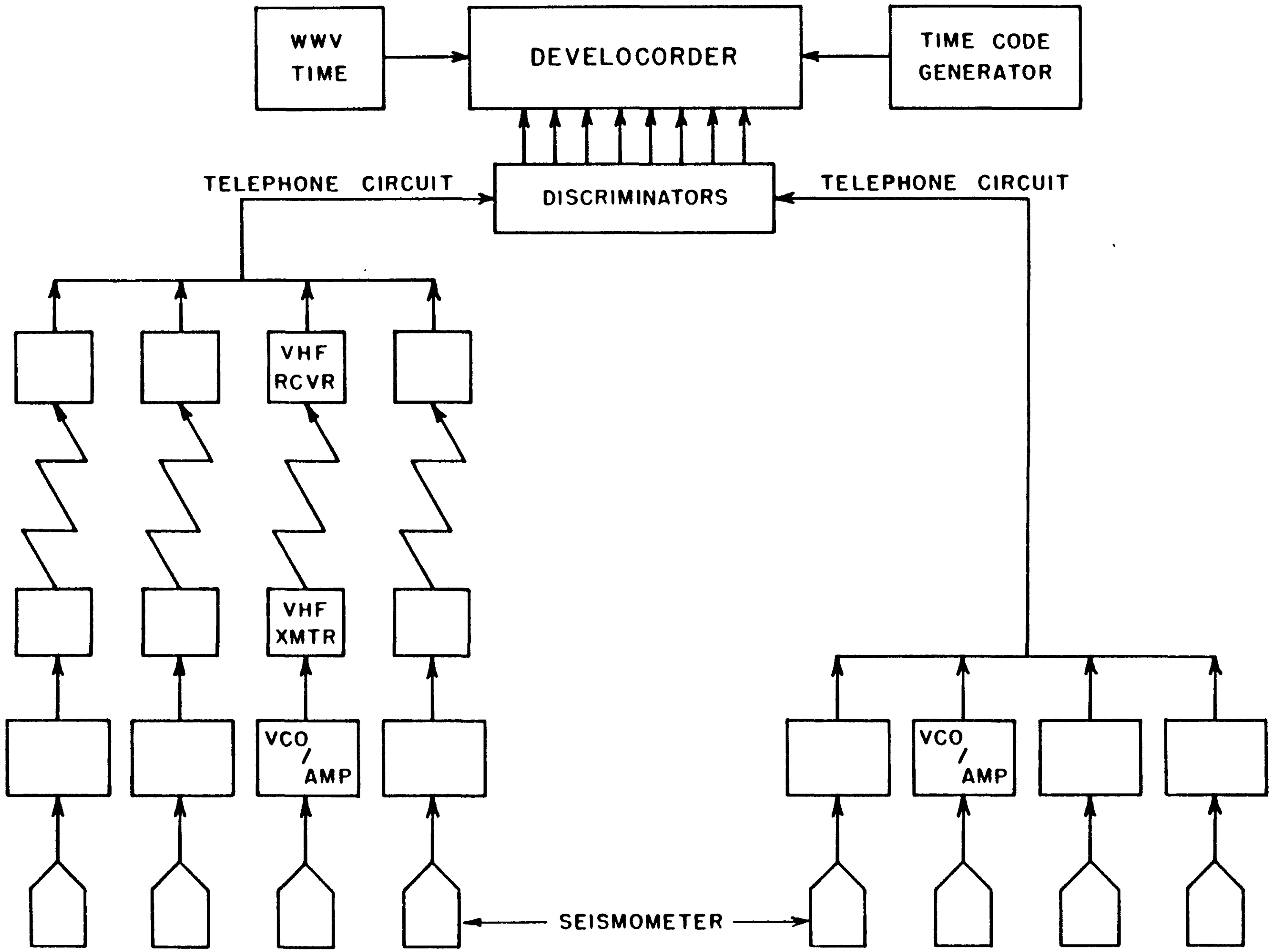

Figure 2. Block diagram of telemetered seismograph system in the USGS Alaska seismic network.

amplifier/VCO unit is carried directly to the recording site by VHF radio links and/or voice-grade telephone circuit. Signals from nine seismograph stations can be transmitted on a single telemetry circuit using standard frequency division multiplexing techniques with a 340 Hz separation between carriers and a constant bandwidth of 250 Hz per channel. The channel frequencies range from 340 to 3,060 Hz. At the recording site the FM seismic signal is demodulated by a discriminator. The demodulated signal, which is simply an amplified and filtered form of the initial signal from the seismometer, is recorded on the oscillograph and tape recorder together with time signals from the time-code generator. Twenty-four hours of data from 18 stations can be recorded on a single 43 m-long roll of 16-mm film, while data from nine stations can be recorded on a single track of a 7,200 ft-long, 14-track tape. Several stations are also recorded on Helicorder records for monitoring purposes.

Figure 3 illustrates the response characteristics of the entire seismic system from seismometer to film viewer. The response level at each station is adjusted in steps of 6 decibels so that the ambient seismic noise produces a small deflection of the trace on the film. As a result, the actual response for an individual station may differ from that of the typical station by a factor of 2, 4, 8, etc. The magnification of the typical station is about 6×10^4 at 1 hz and 10^6 at 10 Hz.

DATA PROCESSING

The 16-mm films (four per day), magnetic tapes (one per day), and Helicorder records (three per day), are mailed weekly from Palmer to Menlo Park where the seismic data are processed by the following multi-step routine:

1. Scanning. The scan film, which records data from 18 stations distributed throughout the network, is scanned to identify and note times of all seismic events whether of local, regional, or teleseismic origin.

2. Timing. For the "well-recorded" local earthquakes identified in the scanning process, the following data are read from each station: P- and S-wave arrival times, direction of first motion, duration of signal in excess of a given threshold amplitude, and period and amplitude of maximum recorded signal. The criterion for choosing earthquakes to be timed is the duration of the signal, which is related to the magnitude. The network is divided into two regions--western and eastern--bounded approximately by longitudes 156° and 145° W., and 145° and 134° W., respectively, and by latitudes 58° and 63° N. Starting on April 1, 1984, the northern border for timing earthquakes was moved south to latitude 62.5° N, closer to the northern edge of the network, to reduce the number of events processed outside the network. In the western region, only events with signal durations longer than 30s are timed. In the eastern region, all earthquakes that are recorded by at least three stations and that produce at least four clear arrivals are timed. These criteria were established to select from the large number of earthquakes recorded by the network those shocks that are of greatest interest to current research objectives. In areas where special studies are being conducted, exceptions to the standard criterion may be made to facilitate the study. For example, to investigate the distribution of small, shallow crustal earthquakes near the city of Anchorage and the active volcanoes, Mt. Spurr and Mt. Redoubt, any earthquake with an S-phase minus P-phase time interval of less than or equal to 5 at one of the stations PMS, SSN, SPU, and RDT was timed if it was recorded at three or more stations.

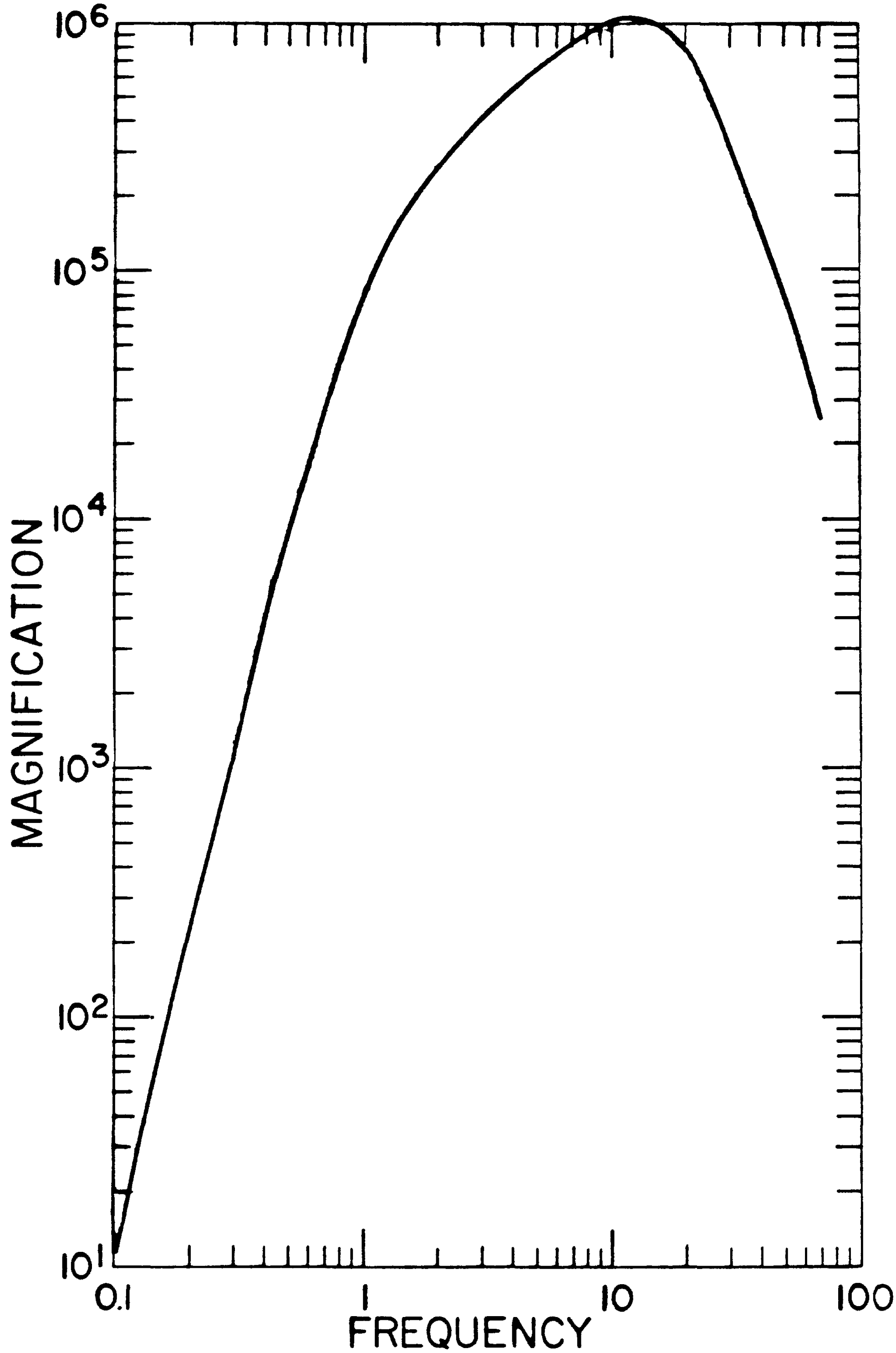

Figure 3. System response curve for typical USGS Alaska seismographs that incorporate the A1VCO unit.

The bulk of timing is done by projecting the seismic traces from the film onto a one-film wire-grid or four-film sonic (Astrue and others, 1983) computer-based digitizing table, where the P- and S-phases and magnitude information are fed into a computer and reformatted using the program DIGIT3 (written by P. Ward and W. Ellsworth, USGS) for input into a hypocentral location program. Since the fall of 1983 a part of the timing has utilized digital waveform data obtained by digitizing the daily FM magnetic tapes at 100 samples per second. An interactive, computer-based processing system (Stevenson, 1978) is used to display the seismic traces and to pick the phase data.

3. Initial computer processing. The phase data for the timed events are batch processed by computer using the program HYPOELLIPSE (Lahr, 1984) to obtain origin times, hypocenters, magnitudes and, if desired, first-motion plots for fault-plane solutions. The HYPOELLIPSE computer program determines hypocenters by minimizing differences between observed and computed traveltimes through an iterative least-squares scheme. In many respects the program is similar to HYPO71 (Lee and Lahr, 1972), which has been used in the preparation of catalogs of central California earthquakes since January 1969. An important feature available in HYPOELLIPSE is the calculation of confidence ellipsoids for each hypocenter. The ellipsoids provide valuable insight into the effect of network geometry on possible hypocentral errors.

4. Analysis of initial computer results. Each hypocentral solution is checked for traveltime residuals greater than or equal to 0.75 seconds and for a poor spatial distribution of stations. Arrival times that produce large residuals are re-read. For shocks with a poor distribution of stations, readings from additional stations, including those outside the USGS network, are sought.

5. Final computer processing. Poor hypocentral solutions are rerun with corrected and/or additional data, and the new solutions are checked for large residuals that might be due to remaining errors. Corrections are made as required before the final computer run.

The earthquake locations are based on P- and S- arrivals. S-arrivals are important for determining epicenters of shocks outside the network and depths of events in the Benioff zone beneath the network in Cook Inlet. For some large events timed from the films S-arrivals cannot be read at any station because the traces on the film overlap each other or are too faint to read. However, S-arrivals not readable from the films can often be picked when the digital waveform data is used.

VELOCITY MODELS

Our experience with locating earthquakes in southern Alaska suggests that significant lateral variations are present in the velocity structure across the network. Such variations might be expected from the complicated geology and tectonics of the region (e.g., Plafker, 1967; Fuis and others, 1985). Four velocity models were used in locating the 1984 earthquakes, as described below and summarized in Table 3.

1. Western Model

Layer	Depth (km)	P velocity (km/s)
1	0 - D	2.75
2	D - 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	below 65	8.3

This model is based on a study of earthquakes below the Kenai Peninsula (Model A, Matumoto and Page, 1969). The thickness, D, of the first layer is allowed to vary between stations to account for the presence of thick sections of low-velocity sediments beneath the stations NKA and NNL, which are located in the Cook Inlet basin. For these stations, D is 4 km; for all other stations, D is 0.01 km. It is recognized that a model comprised of uniform horizontal layers is a poor representation of the actual velocity structure in the vicinity of a subduction zone (Mitronovas and Isacks, 1971; Jacob, 1972, McLaren and Frohlich, 1985), however such a model does have the advantage of simplifying the computation of traveltimes. In order to determine any bias that might result from the approximation, a set of events in the Benioff zone below Cook Inlet was relocated using a ray-tracing program of E. R. Engdahl and incorporating a more realistic, three-dimensional velocity model (Lahr, 1975). Hypocenter shifts, apparently due to the oversimplified flat-layer model, ranged from near zero at a depth of 60 km to as great as 25 km at the 160 km depth. The offsets were oriented in such a way that the dip of the Benioff zone would appear to be too great for locations based on a flat-layered model.

2. Central Model

Layer	Depth (km)	P velocity (km/s)
1	0.0	2.75
2	0.01	6.4
3	below 39	8.0

This model was developed empirically by minimizing the RMS traveltime residuals for a set of selected earthquakes in the Valdez region.

3. Icy Bay Model

The Icy Bay model consists of a layer of linearly increasing velocity with depth over a constant-velocity half space and was developed for aftershocks of the 1979 St. Elias earthquake by Stephens and others (1980). The P-wave velocity of the first layer increases from 5.0 km/s at the surface to 7.8 km/s at 32 km depth, while the half-space has a velocity of 8.2 km/s.

4. Eastern Model (exclusive of Icy Bay)

Layer	Depth (km)	P velocity (km/s)
1	0.0	2.75
2	0.01	6.25
3	below 30.0	7.5

This model is based on a study of earthquakes below the Wrangell volcanoes (Stephens and others, 1984).

The velocity model used to calculate the traveltime from an earthquake to a given station is based on the location of both the earthquake and the station. This particular method of assigning velocity models was chosen to minimize possible spurious offsets between hypocenters on opposite sides of a model boundary. Table 3 summarizes the assignment of velocity models. Work continues on improving our modeling of the first-order velocity features of southern coastal Alaska.

Table 3. Geographical boundaries used to assign velocity model, starting depth, and delay models

EARTHQUAKE LOCATION	VELOCITY MODEL — station location: Western (West of 148.75°W)	VELOCITY MODEL — station location: Central (Between 148.75°W and 144.5°W)	VELOCITY MODEL — station location: Eastern (East of 144.5°W)	TRIAL DEPTH KM	DELAY MODEL
Western (West of 148°W)	1	2	3	75.	1
Central (148°-144.5°W)	1	2	3	30.	2
Icy Bay (59.25°-61.0°N, 138°-142.25°W)	1	2	3	15.	3
Eastern (East of 144.5°, but exclusive of Icy Bay)	4	4	4	15.	4

The velocity model assigned to a particular station depends on the location of both the station and the event. The trial depth and delay model are assigned on the basis of the earthquake location only. The numbers 1-4 refer to the Western, Central, Icy Bay, and Eastern models, respectively.

TRAVELTIME DELAY MODELS AND TRIAL FOCAL DEPTHS

Corrections for P-phase traveltime delay are applied at stations in the network that have consistent large residuals for large groups of earthquakes. Corresponding corrections for S-phase traveltimes are determined by multiplying the P-delay by 1.78, the P- to S-velocity ratio. Each station has four P-delay corrections assigned to it (see Table 1). The particular correction that is used to locate an earthquake is determined by the region in which the earthquake occurs (see Table 3). For example, a station near Icy Bay that is used to locate an earthquake beneath Cook Inlet will be assigned a correction DLY1, but the same station will use DLY3 to locate an earthquake that occurs beneath Icy Bay.

Additional corrections are applied at several stations to correct for telemetry delays associated with one or more satellite links in the relay of the signal (Table 1).

The initial or trial focal depths for earthquakes which occur in the western, central, and eastern parts of the network are 75, 30, and 15 km, respectively, and reflect a progressive decrease in the range of depths of earthquakes from the west to east (see Table 3).

MAGNITUDE

Magnitudes are determined from either the coda duration or the maximum trace amplitude. Eaton and others (1970) approximated the local Richter magnitude, whose definition is tied to maximum trace amplitudes recorded on standard Wood-Anderson horizontal torsion seismographs, by an amplitude magnitude based on maximum trace amplitudes recorded on high-gain, high-frequency vertical seismographs, such as those operated in the Alaskan network. The amplitude magnitude, XMAG, used in this catalog is based on the work of Eaton and his co-workers and is given by the expression (Lee and Lahr, 1972):

$$\mathrm{XMAG} = \log_{10} A - B_1 + B_2 \log_{10} D^2 \qquad (1)$$

where A is the equivalent maximum trace amplitude in millimeters on a standard Wood-Anderson seismograph, D is the hypocentral distance in kilometers, and B_1 and B_2 are constants. Differences in the frequency response of the two seismograph systems are accounted for in A. It is assumed, however, that there is no systematic difference between the maximum horizontal ground motion and the maximum vertical motion. The terms $-B_1 + B_2 \log_{10} D^2$ approximate Richter's $-\log_{10} A_0$ function (Richter, 1958, p. 342), which expresses the trace amplitude for an earthquake of magnitude zero as a function of epicentral distance, and which was derived for earthquakes in southern California. The constants used are $B_1 = 0.15$ and $B_2 = 0.08$ for D = 1-200 km, and $B_1 = 3.38$ and $B_2 = 1.50$ for D = 200-600 km. The constants in the attenuation function have not been calibrated for southern coastal Alaska.

Coda durations are also used because the maximum trace amplitude is often off scale due to the limited dynamic range of the film recording. For small, shallow earthquakes in central California, Lee and others (1972) express the duration magnitude, FMAG, at a given station by the relation:

$$\mathrm{FMAG} = -0.87 + 2.00 \log_{10} T + 0.0035\, D \qquad (2)$$

where T is the signal duration in seconds from the P-wave onset to the point on the Develocorder film where the peak-to-peak trace amplitude of the coda envelope measured on a film viewer with 20X magnification falls below 1 cm and D is the epicentral distance in kilometers.

Comparison of XMAG and FMAG estimates from equations (1) and (2) for 77 southern Alaskan shocks in the depth range 0 to 150 km and in the magnitude range 1.5 to 3.5 reveals a systematic linear decrease of FMAG relative to XMAG with increasing focal depth. However, no systematic dependence of T on D has been found. The following equation, including a linear depth-dependence term but not a distance term, is therefore used for Alaska:

$$FMAG = -1.15 + 2.00 \log_{10} T + 0.007 Z \qquad (3)$$

where Z is the focal depth in kilometers.

The coda duration magnitudes calculated from the network data are systematically less than the magnitudes reported in the Earthquake Data File (EDF) of NOAA (Lahr and Stephens, 1983). Based on a preliminary analysis, the empirical relationship between body-wave magnitude m_b and duration magnitude, M_D, is:

$$m_b = 1.3 M_D - 0.39 \qquad (4)$$

The magnitude preferentially assigned to each earthquake in this catalog is the mean of the FMAG (equation 3) estimates obtained for USGS stations. When no FMAG can be determined, the mean of the XMAG (equation 1) estimates for USGS stations is reported.

ANALYSIS OF HYPOCENTRAL QUALITY

Two types of errors enter into the determination of hypocenters: systematic errors limiting the accuracy and random errors limiting the precision. Systematic errors result mainly from incorrect modeling of the seismic velocity structure in the earth and from incorrect phase identification. Random errors arise primarily from timing errors and their effect on the solution can be estimated for each earthquake through the use of standard statistical techniques.

The HYPOELLIPSE computer program determines hypocenters by minimizing difference between observed and computed traveltimes through an iterative least-squares process. For each earthquake, HYPOELLIPSE calculates the lengths and orientations of the principal axes of the joint confidence ellipsoid. The one-standard-deviation confidence ellipsoid describes the region of space within which one is 68 percent confident that the hypocenter lies, assuming that the only source of error is random reading errors. The confidence ellipsoid is a function of the geometry of the stations recording each individual event, the velocity model assumed, and the standard deviation of the random reading error; it is a measure of the precision of the hypocentral solution (see descriptions of SEH and SEZ in Appendix A). The standard deviation determined from repeated readings of the same phases by four seismologists is as small as 0.01 to 0.02 s for the most impulsive arrivals and as large as 0.10 to 0.20 s for emergent arrivals. The confidence ellipsoids are computed for a standard deviation of 0.16 s and therefore likely overestimate the 68 percent confidence regions. The standard deviation of the residuals for an individual solution is not used to calculate the confidence ellipsoid because it contains information not only about random reading errors but also about the incompatibility of the velocity model to the data. In a few extreme cases the value calculated for one of the ellipsoid axes becomes very large corresponding to a spatial direction with very great uncertainty. In these cases an upperbound length of 25 km is tabulated. In most hypocentral solutions, the epicentral precision (SEH) is better determined than the focal depth precision (SEZ) so that SEH is generally smaller than SEZ.

To fully evaluate the quality of a hypocenter one must consider both the size and orientation of the confidence ellipsoid and the root-mean-square (RMS) residual (see description of RMS in Appendix A). In addition to reflecting random errors, the RMS residual can be large due to the misfit of the velocity model to the actual velocities within the earth, misinterpretation of phases, and systematic timing errors. In areas where the velocity structure is accurately known, a large RMS residual would probably indicate errors in the phase data. If the assumed velocity model does not represent the true seismic velocity structure within the earth, the RMS residuals could be large and reflect the incompatibility; alternatively, the RMS residuals could be small and not indicate the actual error in a mislocated hypocenter.

Other parameters provided by HYPOELLIPSE that are helpful in evaluating the quality of a hypocentral solution are: 1) GAP, the largest azimuthal separation between stations measured in degrees at the epicenter. If GAP exceeds 180°, the earthquake lies outside the network of stations used to locate the shock, and the solution is generally less reliable than that for an event occuring inside the network. 2) D1, the epicentral distance in kilometers of the closest station used in the solution. Solutions where D1 is less than the calculated depth generally have smaller SEZ values (better depth precision) than for events which have calculated depths that exceed the epicentral distance to the closest station. 3) NP and NS, the number of P- and S-arrivals, respectively, used in the solution. The accuracy of the solutions generally improves with an increase in the number of P- and S-arrivals. The RMS residual may actually increase, however, if distant stations are included in locating an event, because the differences between the observed and calculated traveltimes commonly increase with increasing epicentral distance due to the errors in the assumed velocity model. Such systematic errors may cause the RMS residual to increase, even though the addition of distant stations well-distributed in azimuth generally improves the accuracy of the solution.

FOCAL DEPTHS

Previous studies (e.g., Francis and others, 1978; Lilwall and Francis, 1978; Uhrhammer, 1980; and McLaren and Frohlich, 1985) have shown that the accuracy of focal depths for shocks occurring in the vicinity of a seismic network is primarily a function of the geometrical configuration of the network, the number of P- and S-phase arrivals read, and the adequacy of the assumed velocity model. Depths are generally more accurate for events located within the network or on its periphery than for those occurring outside and for earthquakes where the distance from the epicenter to the closest station (D1) is less than the calculated focal depth. The accuracy of focal depths usually increases as the number of S-phase arrivals increases.

Focal depths for shallow (depth less than about 20-30 km) shocks within the southern Alaska network generally are not well constrained due to the relatively large distances between stations and to a lack of knowledge about the velocity structure. Calculated depths for the same event can vary by several kilometers depending on the number of P- and S-phase arrivals used in the location, the trial focal depth, the velocity model, and the P-phase traveltime corrections used to locate the earthquake. Ambiguity in the calculated depth arises in cases where the traveltimes to receiving stations are similar for upward-leaving rays from a deep source and for downward-leaving rays from a shallow source; this situation leads to double minima in the variation of RMS residuals with depth.

COMPLETENESS OF CATALOG

The magnitude threshold at which the catalog is complete varies geographically as a function of the density of stations and the criteria for timing earthquakes (see section on Data Processing). East of longitude 145°W, Lahr and Stephens (1983) found that the magnitude level for completness was about coda magnitude 1.6 for an approximately 100-km wide zone extending inland from the coast but was about 2.4 for areas north and south of the 100-km wide coastal zone. West of longitude 145°W we estimate that this catalog is reasonably complete within the boundaries of the network for shallow events (0-40 km) of about coda magnitude 2.0 and larger. The completeness level increases with increasing depth for the events in the Benioff zone so that for earthquakes deeper than 100 km the catalog is complete above about magnitude 2.8.

DISCUSSION OF CATALOG

Hypocenters have been determined for 3446 earthquakes recorded by the USGS seismograph network in southern Alaska for 1984 (see Appendix A). The precision of the hypocenters, or the relative location accuracy of neighboring events, is represented by the confidence ellipsoids. The precision of epicenters, expressed in terms of the maximum semi-axes of the projected one-standard-deviation confidence ellipsoid (SEH), averages 1.9, 1.0, and 1.7 km, respectively, in the eastern (east of longitude 145°W.), central (between longtiudes 145° and 150°W.) and western (west of longitude 150°W.) parts of the network. Similarly, the precision of focal depth (SEZ) averages about 2.9, 1.4 and 2.6 km, respectively. The variation in the precision of hypocenter determination across the network is strongly influenced by differences in the station coverage in the different regions. Hypocenter biases equal to and larger than the dimensions of the confidence ellipsoids are not unlikely as a consequence of the over-simplified velocity models assumed in the preparation of this catalog.

During 1984, the largest event located by the network was a magnitude 5.7 m_b (5.2 M_S) shock on August 14 located within the crust near Sutton, about 80 km northeast of Anchorage (see Figure 4). The focal mechanism and distribution of aftershocks for this event suggest that it occurred on the ENE-WSW-trending Talkeetna segment of the Castle Mountain fault, thus providing the first clear evidence that this segment of the fault is active (Lahr and others, 1985). Two shocks of magnitude 5.5 m_b (5.2 M_S, 4.2 M_D) and 5.1 m_b (4.7 M_S, 3.9 M_D) with nearly identical epicenters occurred 11 minutes apart on September 20 at shallow depth southeast of Hinchinbrook Island. The pair of events did not have a detectable aftershock sequence. However, in the surrounding offshore region, it is not unusual for double or single shocks of comparable magnitude to occur without significant aftershock activity. Two other events exceeding magnitude 5 m_b occurred during 1984, both within the Aleutian Benioff zone; a 5.3 m_b (4.3 M_D) shock on March 23 west of Mt. Douglas and a 5.1 m_b (4.3 M_D) shock on April 18 about 100 km southwest of Anchorage.

Below 30 km depth the distribution of earthquakes is dominated by activity within the northwestward-dipping Aleutian Benioff zone west and north of the Cook Inlet region (Figure 5 and Figure 8, sections C-E). The depth to the top of this zone varies from about 50 km beneath the western Kenai Peninsula to about 115 km beneath the active volcanoes west of Cook Inlet. Clusters of intense seismic activity in the Benioff zone below 70 km depth observed beneath Mts. Iliamna and Denali (Mt. McKinley) are persistent features that characterize this segment of the subducted Pacific plate. The seismicity east of the Cook Inlet region appears to be bounded by a northwest-southeast trending line, which passes about 50 km northeast of Valdez. Such a line approximately delineates the northeastern terminus of the Aleutian Benioff zone (Stephens and others, 1984). The diffuse appearance of the Aleutian Benioff zone in Figure 8, section C, may be attributed in part to a lack of focal depth control for earthquakes north of the USGS network (north of latitude 62°N). No events deeper than 35 km were located in the weakly active, NNE-dipping Wrangell Benioff zone (Stephens and others, 1984) south of the Wrangell volcanoes.

Epicenters of shocks shallower than 30 km depth are shown in Figure 6. West of about longitude 148° W., nearly all events occur within the overriding North American plate. The rate of activity within the overriding plate is low compared to that of the Aleutian Benioff zone in the upper part of the subducting Pacific plate. The most prominent feature in the distribution of the shallow seismicity is aftershock activity from the August 14, 1984, earthquake near Sutton. The plotted data are not complete below magnitude 2; areas of special study marked by numerous events with magnitude less than 2 events are apparent, and include the volcanic arc west of Cook Inlet, the southern Kenai Peninsula, and the Anchorage region. In general, the crustal activity is not concentrated along the mapped traces of major faults. In fact, the Sutton earthquake is the first shallow event within the network that can be unequivocally associated with a major mapped fault since the regional network began recording in 1971.

North of Prince William Sound two concentrations of events occur in the shallow seismicity (Figure 6). The tight cluster of events about 50 km west of Valdez along the northern margin of Prince William Sound is due to continuing aftershock activity from the 1983 Columbia Bay shocks (Page and others, 1985), which are attributed to normal slip on a NNE-striking fault within the subducted Pacific plate. A more diffuse concentration of events located about 40 km to the northeast has a similar trend, but is offset from the strike of the Columbia Bay aftershock zone. A more detailed description of the earthquake activity around Valdez for 1983-1984 can be found in Fogleman and others (1986).

East of longitude 145°W., the apparent high rate of shallow activity is due at least in part to a lower magnitude threshold used in selecting events for processing. In contrast to the region west of Prince William Sound, most of the earthquakes within the prominent concentration of activity north of Icy Bay in the 1979 St. Elias aftershock zone (Stephens and others, 1980), occur in a thin subhorizontal tabular zone that may be the thrust interface between the North American plate and either the underthrusting Pacific plate or the colliding Yakutat block. Well-located events from the St. Elias area indicate that the crust above the inferred thrust interface is also seismically active, but the rate of activity is low compared to that along the interface. In the Waxell Ridge and Copper River Delta areas, about 75 and 200 km west of the St. Elias aftershock zone, respectively, the nature of the activity is less certain because of uncertain focal depths. Nonetheless, the broad areal distribution of activity in these areas is similar to that observed within the St. Elias region and suggests that the Waxell Ridge and Copper River Delta activity may also reflect low-angle faulting. The Waxell Ridge and Copper

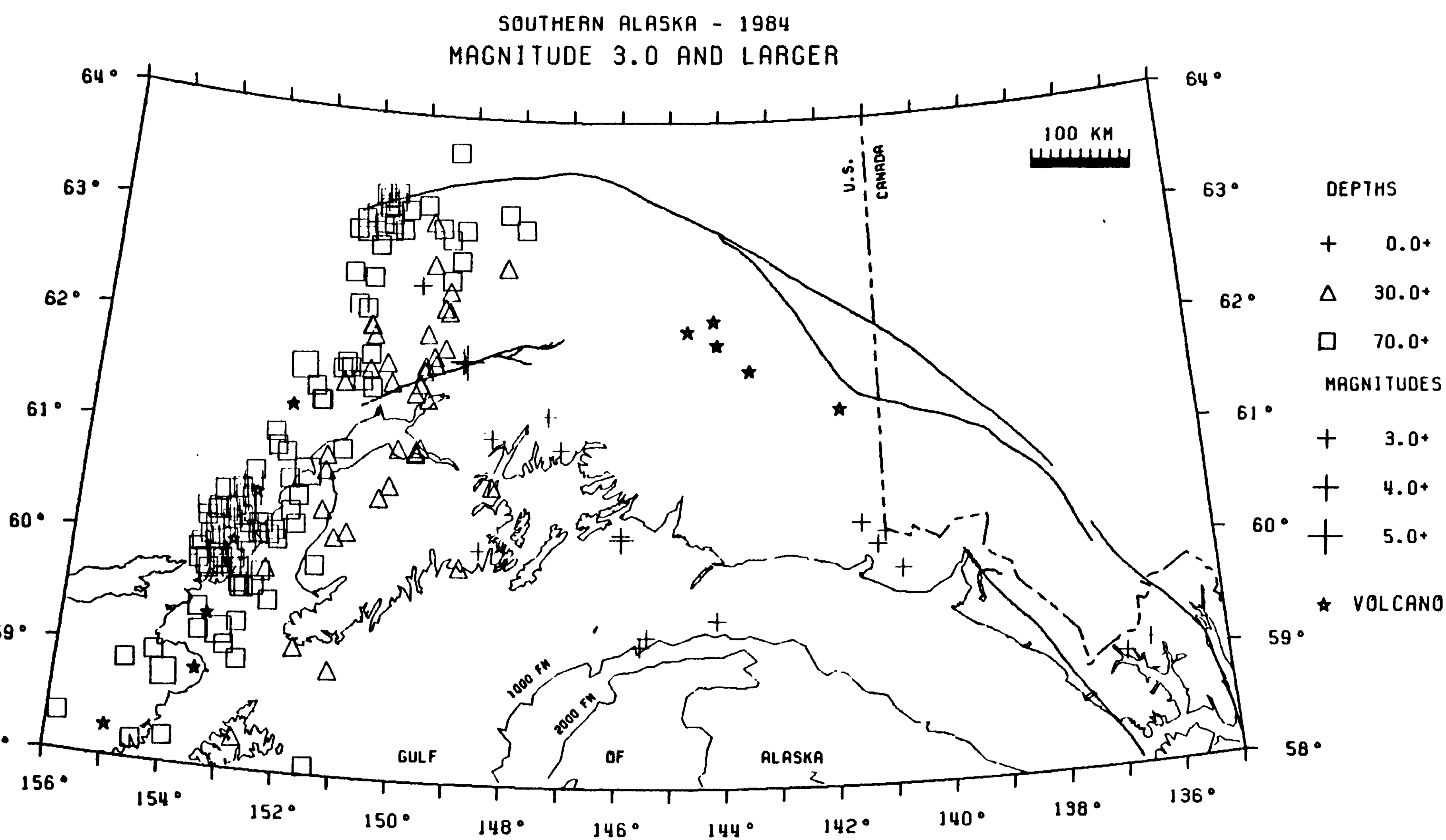

Figure 4. Map showing the epicenters of earthquakes of magnitude 3.0 or larger in 1984. Quaternary volcanoes are indicated by stars.

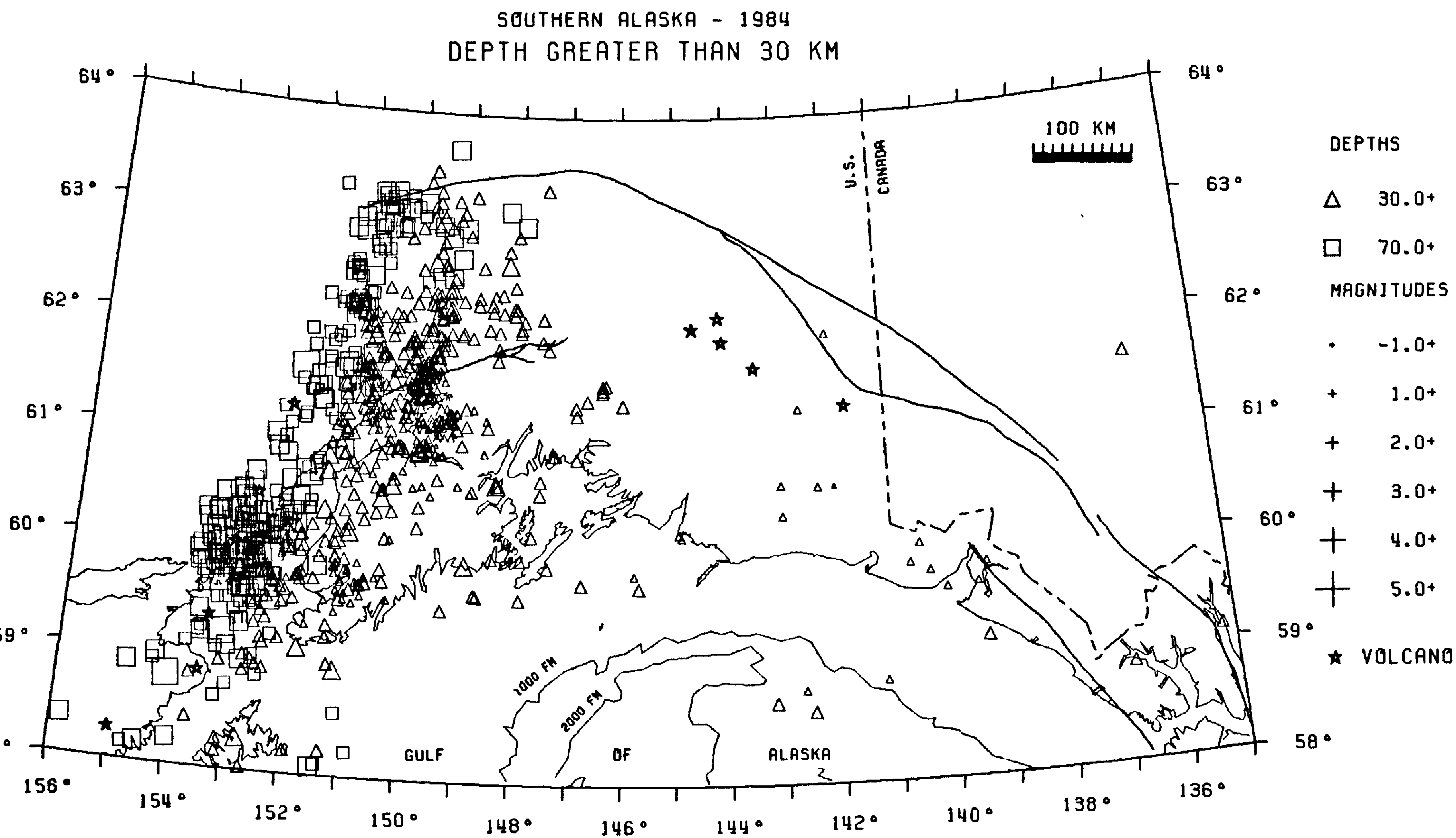

Figure 5. Map showing epicenters of earthquakes with depths deeper than 30 km during 1984. Quaternary volcanoes are indicated by stars.

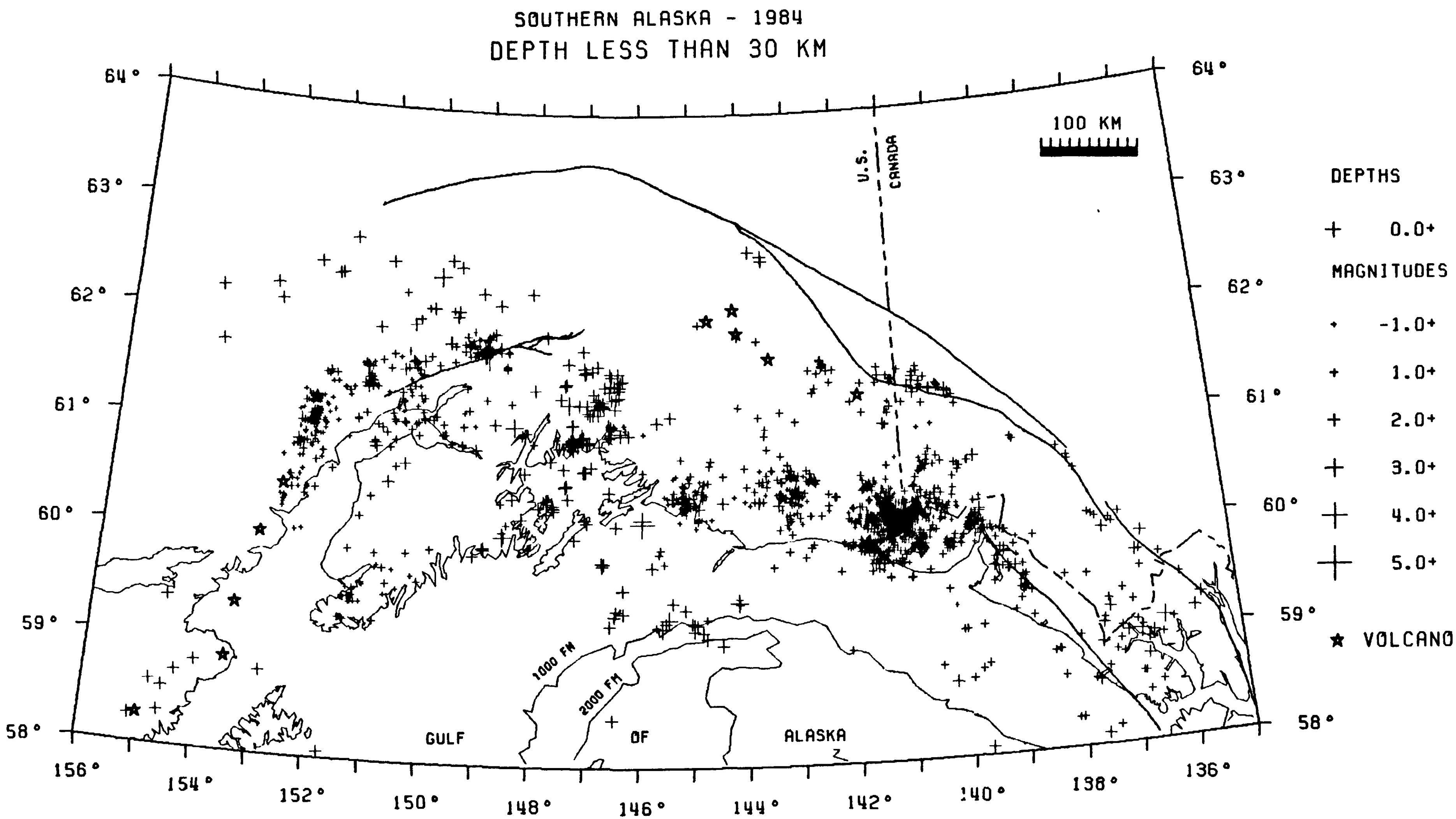

Figure 6. Map showing epicenters of earthquake epicenters with depths shallower than 30 km during 1984. Quaternary volcanoes are indicated by stars.

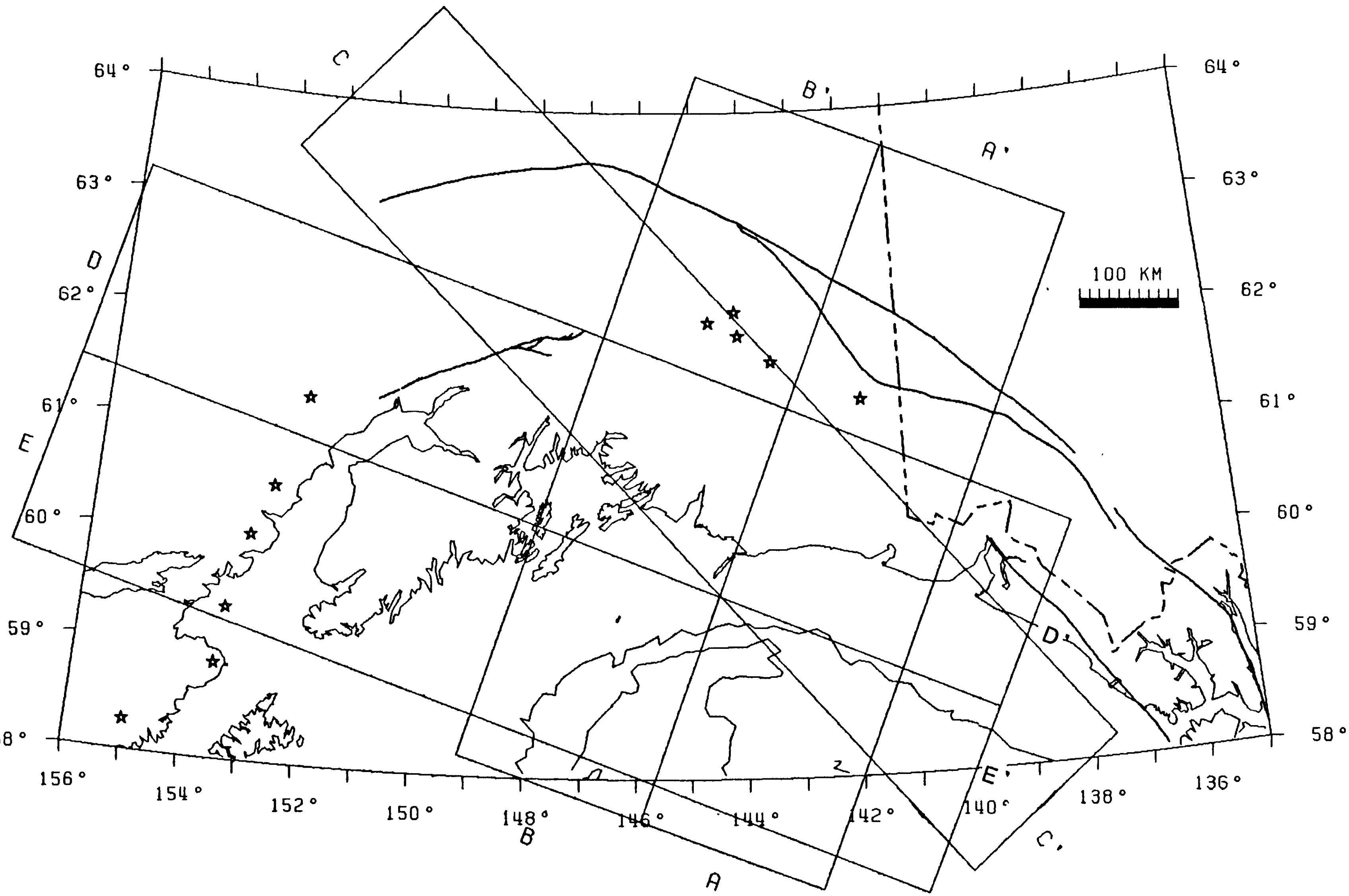

Figure 7. Reference map showing the areas represented in the cross sections in Figure 8.

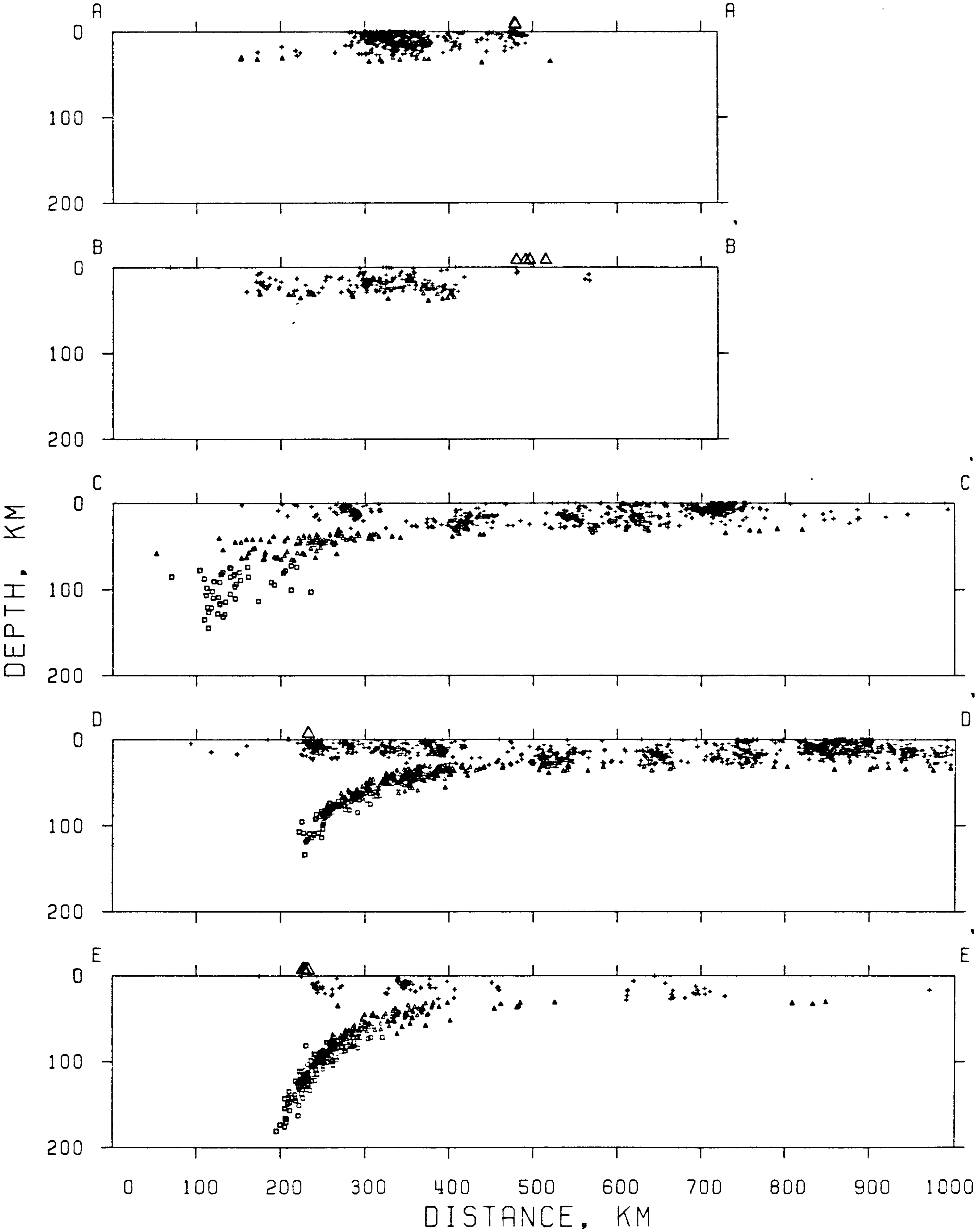

Figure 8. Vertical sections of hypocenters for the areas indicated in Figure 7. Quaternary volcanoes are plotted as triangles above zero depth. No vertical exaggeration. Symbol types are same as Figures 4-6.

River Delta concentrations of seismicity occur near the center and western edge, respectively, of the Yakataga seismic gap, which extends westward from the western limit of the St. Elias aftershock zone to the eastern extent of the 1964 rupture near the longitude of Kayak Island. The Yakataga gap is a likely site for a great ($M_S \geq 7.8$) thrust earthquake within the next one or two decades (McCann and others, 1980). Over the past ten years, the spatial distribution of microearthquake activity in and around the gap has been remarkably stable, and, except for the continuing but slowly decaying aftershock activity from the 1979 St. Elias earthquake, the rate of activity during 1984 does not differ markedly from that observed over the past decade (see Appendix B, References of Previously Published Catalogs). Concentrations of earthquakes are observed along the Fairweather fault north and east of Yakutat Bay and along the western section of the Duke River fault, but the earthquake hypocenters are not sufficiently well constrained to associate confidently the seismicity with particular mapped fault traces. The diffuse character of the seismicity east of longitude 138° W. and south of latitude 59.5° N. is at least partially attributed to this area being outside the seismograph network.

AVAILABILITY OF DATA

The contents of the Appendix may be obtained on magnetic tape by contacting the authors. Appendix B lists previously published catalogs available from the USGS Open-File Services section, Western Distribution Branch, Box 25425, Federal Center, Denver, CO 80225. Information about the availability of this data and other preliminary data on magnetic tape can be obtained by contacting the principal investigators.

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APPENDIX A

Southern Alaska Earthquakes for 1984

Earthquakes from southern Alaska are listed in chronological order. The following data are given for each event:

1. Origin time in Universal Time (UT): date, hour (HR), minute (MN), and second (SEC). To convert to Alaska Standard Time (AST) subtract 9 hours.

2. Epicenter in degrees and minutes of north latitude (LAT N) and west longitude (LONG W).

3. DEPTH, depth of focus in kilometers.

4. MAG, magnitude of the earthquake, coda duration magnitude (FMAG) unless noted otherwise. A letter following the magnitude indicates a magnitude other than FMAG as follows:

   A - Amplitude magnitude (XMAG), USGS.
   B - Body-wave magnitude (m_b), USGS National Earthquake Information Service (NEIS).
   C - Local magnitude (ML), EMRC.
   G - Local magnitude (ML), UOFA.
   H - Approximate coda duration magnitude obtained from Helicorder records based on an empirical relation between coda durations measured
   on Develocorder records and coda durations measured on Helicorder records.
   P - Local magnitude (ML), Alaska Tsunami Warning Center.
   S - Surface-wave magnitude (M_s), NEIS.

5. NP, number of P arrivals used in locating earthquake.

6. NS, number of S arrivals used in locating earthquake.

7. GAP, largest azimuthal separation in degrees between stations.

8. D1, epicentral distance in kilometers to the station closest to the epicenter.
9. RMS, root-mean-square traveltime residual in seconds:

$$RMS = \left[\frac{\sum^{N} W_i [R_i]^2}{N}\right]^{1/2}$$

where R_i is the observed minus computed arrival time of the i^{th} arrival, W_i is the corresponding weight of the arrival, and the weights are normalized so that their sum equals N, the total number of P, S, and S-P readings used in the solution.

10. SEH, standard error in kilometers in the horizontal direction with least control. SEH = MAXH/1.87, where MAXH is the largest horizontal deviation in kilometers of the one-standard-deviation confidence ellipsoid (see Figure 9 below). In previous catalogs MAXH was referred to as ERH. Values of SEH that exceed 25 km are tabulated as 25 km.

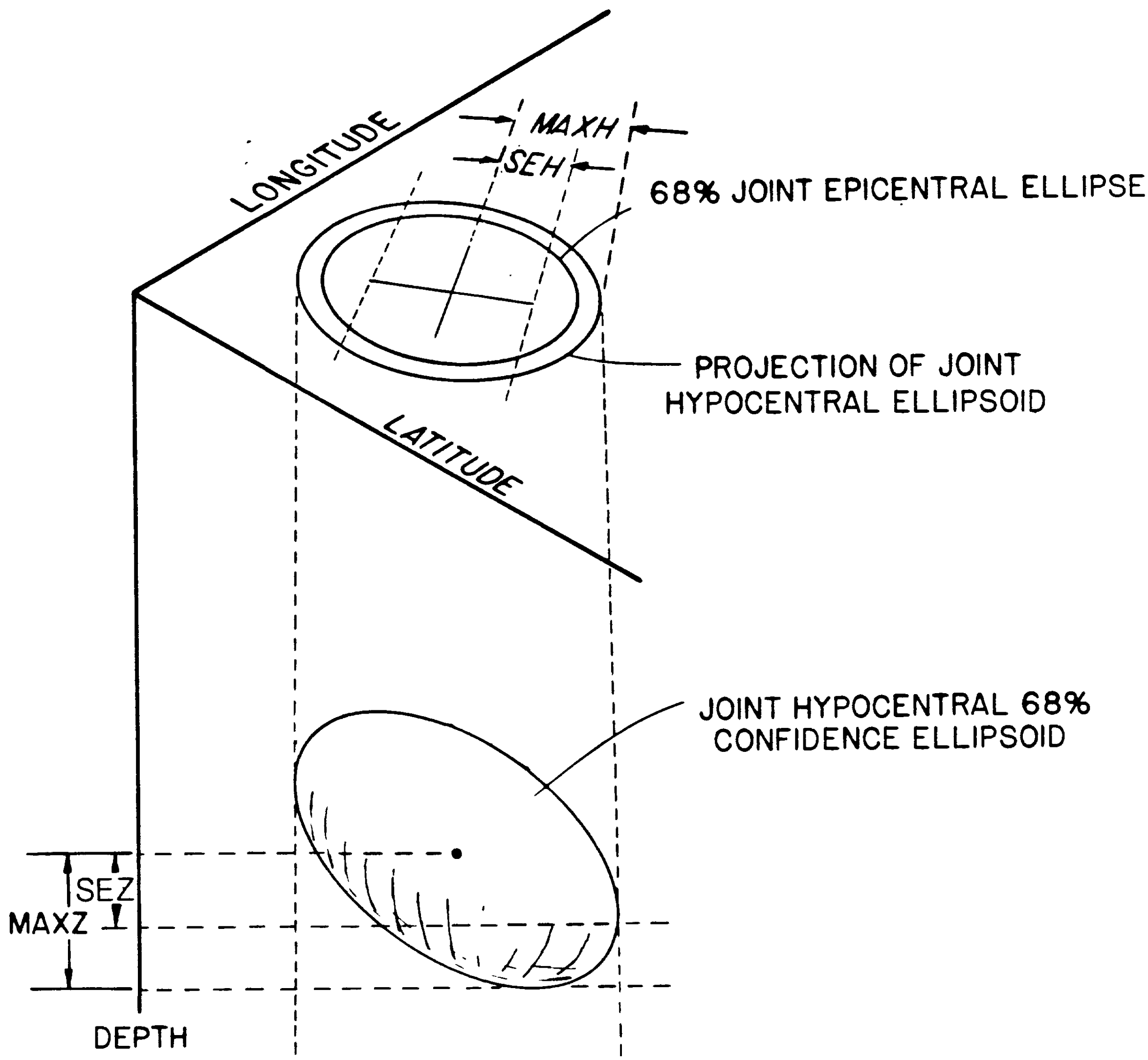

Figure 9. Relationship between the confidence ellipsoid and SEH, MAXH, SEZ, and MAXZ. The projected ellipse has the same orientation and eccentricity as the joint epicentral 68-percent confidence region, but is 1.23 times larger. The error ellipsoid is calculated assuming a constant standard deviation of 0.16 sec for the arrival time readings.

11. SEZ, standard error in kilometers of depth. SEZ = MAXZ/1.87 where MAXZ is the largest vertical deviation in kilometers of the one-standard-deviation confidence ellipsoid (see Figure 9). In previous catalogs MAXZ was referred to as ERZ. Values of SEZ that exceed 25 km are tabulated as 25 km.

12. Q, quality of the hypocenter. This index is a measure of the precision of the hypocenter (see section Analysis of hypocentral Quality) and is calculated from SEH and SEZ as follows:

Q	Larger of SEH and SEZ (km)
A	≤ 1.34
B	≤ 2.67
C	≤ 5.35
D	> 5.35

13. AZ1, DIP1, and SE1 are the azimuth in degrees (clockwise from north), dip in degrees, and length in kilometers of the most nearly horizontal of the three principal semi-axes of the one-standard-deviation error ellipsoid. Values of SE1 that exceed 25 km are tabulated as 25 km.

14. AZ2, DIP2, and SE2 are defined as above, but correspond to the principal semi-axis of intermediate dip.

15. AZ3, DIP3, and SE3 are defined as above, but correspond to the most nearly vertical principal semi-axis.

Magnitudes and felt reports listed below an event were obtained from the Preliminary Determination of Epicenters of the USGS National Earthquake Information Service (NEIS), from the Department of Energy, Mines and Resources, Canada (EMRC), or from the NOAA Alaska Tsunami Warning Center (ATWC). The body-wave (m_b) and surface-wave (M_s) magnitudes are those determined by the NEIS.

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JANUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JAN 1	1	40	33.0	60	19.7	141	22.2	17.9	1.4	12	8	111	21	0.28	0.7	0.9	A	328	12	0.6	81	23	0.9	217	56	1.7
1	5	1	28.8	60	6.6	141	19.5	7.7	1.2	13	8	163	9	0.59	0.7	0.4	A	108	2	0.5	18	4	1.3	225	86	0.8
1	7	32	20.3	60	12.6	141	8.3	13.1	1.1	10	9	111	9	0.33	0.7	0.7	A	299	10	0.6	199	43	1.7	39	45	0.6
1	9	57	58.8	60	10.4	141	10.7	16.1	0.3A	7	5	104	8	0.20	1.0	0.8	A	303	29	0.8	192	33	2.2	64	43	1.0
1	10	20	27.5	60	22.6	141	21.6	14.3	0.9	10	9	114	21	0.43	0.6	0.9	A	308	3	0.6	39	24	0.8	211	66	1.8
1	11	26	31.9	60	1.9	140	42.6	8.7	1.1	9	6	157	23	0.49	1.0	0.9	A	104	7	0.5	8	40	2.0	202	49	1.5
1	11	27	33.4	63	9.5	149	46.1	45.3	2.6	12	8	117	160	0.70	3.1	7.6	D	330	5	5.0	81	7	2.8	212	67	13.6
1	14	18	44.0	59	40.0	150	6.9	25.2	1.0A	11	4	253	32	0.14	1.4	2.1	B	44	1	1.5	134	27	2.0	312	63	4.3
1	15	55	22.8	61	40.7	150	20.8	50.0	2.0	20	11	137	25	0.40	0.7	0.9	A	273	1	0.6	183	23	1.1	5	67	1.8
1	18	46	54.5	59	58.3	139	58.2	22.8	0.8	4	4	175	19	0.17	3.8	3.1	C	125	8	0.9	28	38	8.9	225	51	2.0
1	19	11	55.8	61	32.3	150	57.0	61.9	2.1	27	12	108	14	0.53	0.6	1.0	A	82	5	0.7	173	13	1.2	331	76	2.0
2	1	48	31.2	59	18.7	151	29.6	13.6	0.6A	8	5	298	18	0.24	1.3	0.8	A	345	12	2.0	261	30	2.5	96	57	0.9
2	2	44	49.6	60	8.7	141	4.0	8.8	1.0	10	8	137	2	0.52	0.9	0.4	A	26	1	1.6	295	21	0.6	119	69	0.7
2	4	32	10.9	61	18.4	150	7.7	43.0	1.9	22	12	63	31	0.73	0.4	0.8	A	271	0	0.5	181	2	0.7	1	88	1.6
2	5	31	53.8	60	16.3	141	21.0	8.6	0.8	8	7	109	22	0.35	0.5	1.0	A	310	12	0.6	43	14	0.8	181	71	2.0
2	8	59	14.6	60	16.7	141	16.5	11.8	0.5A	6	5	154	19	0.34	1.7	2.0	B	306	6	0.7	41	39	1.1	209	50	4.7
2	12	6	50.9	60	15.0	141	12.3	5.0	0.6A	8	5	113	14	0.47	1.0	1.2	A	296	3	0.6	29	33	1.4	201	57	2.7
2	12	33	16.5	60	13.8	141	16.1	10.7	0.9	11	8	121	16	0.69	0.6	0.7	A	112	1	0.5	22	24	1.0	204	66	1.4
2	14	22	42.0	60	40.1	149	5.0	31.3	1.6	23	10	125	22	0.47	0.7	0.6	A	81	3	0.6	145	36	1.3	347	47	1.0
2	16	57	53.9	58	57.9	136	25.9	2.5	1.7	5	4	221	150	0.17	15.3	5.3	D	205	13	29.5	109	25	4.4	320	61	8.2
2	17	2	23.9	60	11.1	141	0.7	10.3	0.8A	8	7	114	4	0.37	1.2	0.7	A	308	24	0.7	204	27	2.5	73	52	0.7
2	17	26	47.0	59	41.5	141	18.3	17.1	1.3A	10	8	195	54	0.58	0.9	1.4	B	125	8	0.8	218	17	1.7	11	71	2.6
2	17	46	27.7	60	44.3	140	37.1	12.2	0.9A	6	5	221	46	0.89	1.1	1.5	B	145	2	0.8	261	26	1.4	51	54	2.8
2	22	9	15.0	60	8.3	141	9.2	4.6	1.2	12	6	138	7	0.47	0.7	0.6	A	279	17	0.5	23	38	1.5	170	47	1.0
2	23	18	44.5	61	10.0	152	7.8	3.0	-0.8A	3	3	285	4	0.67	1.1	2.0	B	218	11	1.9	312	17	0.9	97	69	4.0
3	2	17	30.3	60	19.7	141	21.4	17.5	1.7	15	9	111	22	0.26	0.5	0.6	A	121	1	0.4	30	35	0.7	212	55	1.2
3	3	14	1.5	61	45.8	149	46.0	43.3	2.3	22	13	152	14	0.46	0.5	0.9	A	91	3	0.5	0	7	1.0	204	82	1.8
3	3	40	9.2	62	19.1	151	9.6	83.4	2.8	17	6	256	42	0.28	1.6	1.4	B	183	22	3.0	83	25	1.6	310	56	2.7
3	3	57	6.9	61	9.3	152	11.2	9.5	1.2	8	5	170	8	0.46	1.2	0.6	A	101	16	2.4	204	39	0.5	353	47	1.1
3	4	44	17.2	60	22.2	141	19.0	18.1	1.6	15	10	116	24	0.56	0.4	0.7	A	311	5	0.5	43	20	0.6	208	69	1.3
3	5	37	1.9	60	5.6	141	10.9	0.4	0.6A	6	3	205	11	0.28	1.3	3.0	C	178	9	2.3	270	10	1.0	47	76	5.8
3	7	6	46.2	61	2.3	148	13.3	23.1	1.7	22	6	86	21	0.52	0.4	0.7	A	24	3	0.6	293	10	0.8	130	80	1.3
3	11	40	10.7	61	44.6	149	44.4	39.1	3.5	33	9	88	13	0.39	0.6	1.1	A	95	6	0.6	4	9	1.1	218	79	2.2
	3.8 MB				3.6 ML ATWC							FELT (III) AT PALMER AND (II) AT ANCHORAGE.														
3	13	41	56.0	60	7.4	141	9.1	12.1	1.0A	8	6	172	42	0.48	1.3	1.4	B	298	3	0.7	30	30	2.2	203	60	2.7
3	14	41	55.2	60	10.5	141	6.4	4.3	1.6	13	6	132	41	0.50	0.7	1.0	A	116	5	0.6	25	10	1.3	232	79	1.9
3	16	17	54.0	60	53.3	152	24.6	2.3	1.1	9	6	182	35	0.55	2.1	2.3	B	12	0	0.5	102	41	2.6	282	49	5.2
3	16	21	11.0	61	20.2	150	22.8	46.2	1.9	22	10	77	24	0.55	0.5	0.8	A	107	4	0.6	198	10	0.9	356	79	1.6
3	18	52	49.4	63	2.7	149	45.6	57.5	3.2	17	5	114	150	0.31	3.4	14.1	D	81	4	3.1	346	12	1.5	189	76	27.1
3	23	32	15.6	60	23.1	141	21.6	16.0	0.7A	7	5	116	21	0.29	2.0	2.4	B	322	1	0.8	81	35	1.2	231	46	5.2
4	0	37	48.5	60	54.0	151	13.1	63.7	2.3	29	14	41	18	0.66	0.4	1.1	A	81	6	0.6	158	10	0.6	317	73	2.0
4	5	43	13.3	59	55.9	152	55.6	91.7	2.7	21	7	189	29	0.25	1.6	1.2	B	332	1	1.0	81	12	2.8	238	68	2.2
4	7	28	31.0	60	1.3	140	39.7	4.6	1.2	11	6	159	24	0.57	1.1	1.0	A	95	2	0.4	3	41	2.5	187	49	1.5
4	7	42	55.9	62	54.5	151	8.4	110.1	3.0	12	5	198	105	0.26	2.9	4.1	C	301	2	5.1	33	32	2.8	208	58	8.9
4	19	53	16.1	61	36.6	140	34.6	0.4	1.2A	5	4	269	83	0.16	3.4	25.0	D	275	0	3.7	5	1	6.2	185	89	89.6
4	20	14	8.6	60	50.8	145	10.2	25.0	1.6	19	8	45	34	0.51	0.3	0.5	A	33	4	0.6	124	16	0.5	289	73	1.0
4	21	17	23.7	60	15.2	151	41.8	53.6	2.3	26	13	87	32	0.51	0.6	1.4	B	333	0	0.6	81	13	0.8	243	68	2.6
4	21	50	38.9	60	11.4	141	10.7	8.9	0.8A	7	4	155	52	0.34	2.6	3.3	C	303	10	1.3	36	17	4.8	184	70	6.4
4	22	36	0.1	60	11.6	141	11.8	0.7	1.0A	8	3	150	53	0.38	2.0	3.5	C	296	5	1.2	27	17	3.2	190	72	6.8
4	22	43	9.2	61	23.9	151	15.8	72.0	2.2	19	13	84	29	0.47	0.6	0.9	A	81	9	0.6	169	20	1.0	327	68	1.7
5	2	4	15.1	60	17.0	140	50.0	11.7	1.2	8	3	144	38	0.35	0.9	1.8	B	304	6	0.6	36	18	1.3	196	71	3.6

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JANUARY 1984

1984	ORIGIN TIME HR MN SEC	LAT N DEG MIN	LONG W DEG MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JAN 5	4 17 44.1	61 48.3	149 40.1	41.5	1.9	17	8	165	20	0.47	0.9	0.8	A	282	2	0.7	191	31	1.7	15	59	1.4
5	4 21 11.9	61 48.0	149 23.5	4.4	1.4	16	9	167	27	0.84	0.5	0.6	A	185	9	0.9	278	20	0.4	72	68	1.1
5	13 33 56.8	61 15.6	149 15.7	28.5	1.6	24	5	53	16	0.53	0.5	1.0	A	314	4	0.6	224	5	0.9	83	84	1.8
5	15 47 40.9	60 10.9	141 0.1	11.8	0.9A	6	3	164	43	0.18	2.7	1.7	C	289	7	0.7	197	17	5.2	41	72	3.0
5	21 54 28.6	59 51.3	139 11.1	20.0	1.3	7	4	202	24	0.53	1.7	1.7	B	328	8	0.9	65	44	1.6	230	45	4.3
5	23 42 48.2	61 50.9	149 18.0	3.1	1.5	18	8	161	28	0.89	0.5	0.7	A	167	14	0.9	264	27	0.5	52	59	1.5
6	7 33 57.3	60 35.3	145 7.4	17.2	1.0	8	4	97	8	0.40	0.9	0.9	A	5	22	0.8	112	35	1.1	250	47	2.2
6	8 46 34.7	60 12.1	141 2.5	10.1	1.1	9	4	162	43	0.13	1.6	2.2	B	299	5	0.8	208	6	3.0	68	82	4.1
6	9 25 1.5	60 28.8	140 18.3	0.1	0.8A	5	2	190	43	0.28	2.6	3.2	C	342	1	1.1	261	19	4.7	75	69	6.1
6	10 22 52.9	60 13.0	141 1.2	12.9	1.4	12	4	127	43	0.48	0.8	1.1	A	295	2	0.6	205	2	1.5	70	87	2.0
6	11 2 21.9	60 26.7	145 2.8	17.9	1.7	17	6	162	13	0.53	0.6	0.8	A	101	16	0.6	7	16	1.1	234	67	1.5
6	13 41 15.9	60 14.5	140 59.7	5.7	1.1A	8	1	158	44	0.21	1.6	3.0	C	302	3	0.8	32	6	2.9	185	83	5.7
6	16 57 36.6	60 7.0	141 25.1	11.9	1.2A	6	2	164	33	0.16	1.0	1.3	A	283	6	0.9	15	20	1.9	177	69	2.5
6	17 13 23.0	60 2.0	141 14.9	7.8	1.5A	8	3	183	46	0.40	2.0	2.7	C	116	6	1.2	209	26	3.0	14	63	5.5
7	7 5 48.6	60 7.9	143 4.6	24.6	1.1A	8	6	200	16	0.18	1.4	0.5	B	186	1	2.5	277	37	0.7	95	53	1.1
7	9 22 49.1	60 1.5	140 59.2	7.9	1.0A	8	6	165	41	0.52	1.2	1.3	A	291	0	0.5	201	40	1.4	21	50	3.0
7	9 35 29.9	60 13.1	141 2.3	10.5	1.2	12	9	126	42	0.51	0.8	1.1	A	295	1	0.6	26	6	1.6	196	84	2.0
7	12 11 35.1	60 15.3	140 56.7	11.2	1.7	15	13	129	42	0.47	0.4	0.8	A	289	7	0.5	20	9	0.8	162	79	1.5
7	13 32 58.9	60 21.6	140 30.7	14.8	1.1A	7	3	170	33	0.34	3.2	2.0	B	324	22	1.0	261	22	5.1	113	50	3.3
7	19 22 21.9	60 38.0	150 27.1	37.9	1.8	26	11	51	19	0.55	0.5	0.7	A	81	6	0.5	318	7	0.6	197	56	1.1
7	20 11 59.2	60 19.1	140 46.5	4.0	1.0A	8	6	145	38	0.60	0.8	0.9	A	300	12	0.5	35	23	1.4	184	64	1.8
7	22 11 0.6	59 58.4	140 15.2	4.3	0.9A	6	4	166	14	0.31	1.2	1.5	B	302	2	0.7	210	39	1.3	34	51	3.4
7	23 10 49.2	59 58.0	151 32.4	62.0	2.4	24	11	107	16	0.48	0.5	1.2	A	81	5	0.9	350	12	0.6	193	77	2.3
8	3 36 44.1	59 7.1	136 21.8	0.0	3.0	10	2	216	183	0.51	12.7	3.4	D	81	6	20.0	139	12	3.3	321	56	5.5
	3.8 MB		4.3 ML ATWC			FELT AT HAINES.																
8	5 22 19.0	60 8.6	141 6.4	7.4	0.9	8	6	88	4	0.59	0.5	0.5	A	291	21	0.5	34	31	0.8	172	51	1.1
8	5 27 22.0	60 9.9	141 12.8	0.2	1.4	15	14	101	10	0.70	0.4	0.6	A	281	2	0.3	12	25	0.7	187	65	1.2
8	7 36 45.1	60 23.3	152 46.8	8.6	0.6A	4	4	199	23	0.69	1.0	0.5	A	287	7	1.9	19	14	0.6	171	74	1.0
8	10 40 22.7	61 17.1	152 12.2	5.1	-0.5A	3	3	292	3	0.02	1.1	0.9	A	22	1	1.1	291	11	2.1	117	79	1.6
8	20 16 58.8	60 14.0	141 2.9	10.2	0.7	8	5	119	9	0.23	0.6	0.9	A	91	7	0.9	357	32	0.6	192	57	2.0
8	22 46 47.7	61 11.2	152 9.4	6.3	-0.3A	3	3	265	6	0.10	1.2	1.3	A	333	14	0.9	261	15	2.0	114	63	2.4
9	6 18 14.4	61 53.0	150 39.0	63.4	2.5	20	7	159	47	0.34	1.0	1.5	B	82	8	0.9	174	15	1.8	325	73	2.9
9	7 59 32.6	60 20.8	140 41.0	15.0	1.0	7	4	154	29	0.51	0.8	2.4	B	87	2	1.1	357	16	0.8	184	74	4.7
9	10 24 23.5	59 17.3	151 26.1	10.9	1.1	10	5	295	19	0.34	1.1	1.1	A	103	25	1.2	211	32	1.3	343	47	2.6
9	14 30 47.0	60 11.5	141 2.6	13.7	0.9A	3	3	267	4	0.04	2.3	1.0	B	333	9	4.0	261	44	2.3	72	43	1.1
9	16 22 31.1	60 13.3	141 0.3	13.8	0.7A	3	3	268	8	0.07	2.2	1.2	B	163	5	4.1	81	37	1.0	260	52	2.7
9	20 43 32.7	60 12.7	140 57.0	8.0	0.6	6	4	122	8	0.45	1.3	1.2	A	81	15	0.7	336	42	1.0	186	44	3.1
10	1 38 58.5	60 15.1	152 17.3	79.4	2.6	23	8	100	30	0.29	1.2	1.4	B	341	0	0.9	81	33	1.6	251	56	3.0
10	8 24 26.5	60 18.5	141 26.6	3.8	1.6	13	4	105	18	0.29	0.7	1.6	B	48	11	1.0	315	15	0.6	173	71	3.1
10	15 13 57.5	60 17.1	141 0.5	9.8	0.8A	2	3	352	15	0.19	2.0	2.8	C	337	7	3.5	81	25	1.0	233	61	5.8
10	15 57 31.8	60 32.0	141 36.8	22.7	1.4	11	6	105	44	0.48	0.6	1.6	B	261	1	1.1	338	2	0.7	142	77	2.9
10	22 58 37.2	60 25.6	141 29.7	12.7	0.5	5	2	131	16	0.09	2.4	3.9	C	126	8	4.2	32	25	1.0	232	64	8.2
10	23 33 17.3	60 26.6	141 30.3	11.0	1.0	5	4	116	16	0.26	1.0	1.4	B	293	17	1.5	30	22	0.9	168	62	2.9
11	3 2 30.8	62 34.8	151 15.3	83.1	2.7	15	7	194	68	0.61	1.4	1.9	B	117	2	2.7	26	19	1.2	213	71	3.7
11	3 14 29.3	60 5.3	137 26.9	3.3	1.7	9	2	293	107	0.06	2.2	4.1	C	96	12	3.7	2	15	2.3	223	70	8.0
11	3 16 2.8	60 26.6	141 29.5	9.9	1.0	6	5	111	17	0.31	1.5	3.1	C	351	6	0.7	83	25	0.8	248	64	6.4
11	5 53 36.2	59 58.0	141 34.7	2.4	0.9A	8	2	229	21	0.30	1.7	1.8	B	283	11	1.0	184	40	2.0	25	48	4.2
11	7 43 27.0	60 53.5	150 45.5	20.8	1.5	17	11	50	31	0.51	0.4	1.4	B	273	3	0.5	183	3	0.7	48	86	2.7
11	10 42 50.8	60 4.5	140 57.3	12.8	0.7A	4	2	220	10	0.09	5.2	1.5	C	14	4	9.8	105	11	1.0	264	78	2.8
11	11 52 52.0	59 31.0	151 19.2	6.7	0.7	10	4	110	5	0.53	0.9	0.8	A	81	15	0.5	157	42	1.8	334	44	1.0
11	13 8 11.8	59 29.3	151 17.8	10.9	0.4A	7	4	134	5	0.22	0.9	0.8	A	81	11	0.7	152	38	1.6	337	47	1.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JANUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JAN 11	15	2	59.8	59	59.4	141	44.9	8.1	1.2A	7	2	221	41	0.54	2.8	3.8	C	266	7	1.3	172	31	3.7	7	58	8.1
11	20	17	31.0	60	8.1	140	54.8	8.8	1.0A	8	2	165	7	0.24	1.8	0.8	B	195	2	3.3	104	19	0.7	291	71	1.5
11	20	49	31.9	61	49.7	149	34.8	36.2	3.0	27	8	94	25	0.52	0.7	0.8	A	91	1	0.6	1	32	1.2	183	58	1.6
				3.2 ML ATWC																						
11	21	11	28.4	61	5.1	152	14.5	1.3	1.1	5	4	184	15	0.49	1.1	3.1	C	107	3	2.0	198	12	0.4	3	78	5.8
12	0	43	53.3	60	18.8	151	22.7	47.8	2.2	22	9	73	31	0.35	0.6	1.6	B	81	2	1.1	348	6	0.7	189	83	3.1
12	1	18	50.2	61	44.4	154	8.8	14.7	2.7	10	5	113	106	0.45	1.0	2.4	B	186	4	1.9	95	15	1.0	291	74	4.7
				3.3 ML ATWC								FELT (III) AT PALMER.														
12	2	43	44.7	59	38.1	151	8.9	7.0	1.3	12	6	126	13	0.40	0.5	0.5	A	21	15	0.4	280	35	0.8	130	51	1.2
12	3	41	57.7	60	16.1	141	5.2	9.6	0.7A	8	2	122	13	0.09	1.2	1.6	B	311	16	0.9	51	31	1.5	198	54	3.5
12	3	59	32.7	60	10.3	140	57.6	11.6	0.6A	5	3	142	5	0.10	13.0	5.3	D	198	21	26.1	90	38	1.2	310	44	4.0
12	5	40	10.9	60	8.4	141	10.5	1.9	0.5A	3	2	213	8	0.02	4.0	3.3	C	278	12	0.8	17	38	9.0	174	50	3.7
12	7	43	12.9	60	19.0	141	19.0	14.2	0.8A	7	3	142	24	0.13	2.7	4.2	C	81	18	2.5	332	20	0.8	204	58	8.9
12	8	12	32.7	60	15.2	140	55.0	1.8	0.7A	5	2	156	13	0.12	1.3	4.1	C	81	9	0.9	346	12	1.2	206	74	7.9
12	10	59	7.9	60	0.7	152	55.2	97.7	2.6	19	6	183	20	0.42	1.4	2.0	B	81	6	2.4	334	9	1.2	199	70	3.6
12	12	23	38.4	60	16.9	141	14.7	7.8	0.8A	7	2	142	19	0.46	1.1	1.5	B	313	15	0.8	50	26	1.7	196	60	3.2
12	17	23	51.7	59	41.8	136	20.7	1.3	1.9	7	5	242	146	0.63	2.6	2.4	B	118	18	2.0	222	36	5.4	7	48	4.0
12	18	55	6.8	60	13.3	140	58.0	9.7	1.0A	6	4	123	8	0.10	2.0	2.3	B	97	15	1.0	355	37	0.7	205	49	5.6
12	22	21	30.0	62	37.0	151	21.4	93.2	2.6	10	3	210	71	0.48	7.1	5.2	D	105	27	3.9	216	34	15.7	346	44	5.2
13	0	50	27.5	60	17.5	141	3.2	5.7	0.2A	5	4	127	15	0.13	3.2	6.1	D	81	17	1.9	338	18	1.1	208	62	12.6
13	3	5	30.9	61	19.7	150	1.9	34.0	1.8	19	6	60	27	0.65	0.5	0.9	A	278	9	0.6	186	14	0.9	40	73	1.7
13	4	11	39.5	60	49.3	150	36.9	40.2	1.9	19	4	42	35	0.38	0.4	2.1	B	291	0	0.8	201	2	0.7	21	88	3.9
13	6	39	7.7	59	50.8	153	41.6	148.6	2.9	15	5	217	62	0.48	3.8	2.5	C	293	14	3.3	30	26	7.7	177	60	3.7
13	7	2	57.6	60	19.5	140	39.6	10.5	1.4	8	5	153	28	0.51	0.8	1.5	B	313	12	0.5	46	17	1.1	189	69	3.1
13	7	10	48.1	61	8.9	150	41.7	18.8	1.8	20	10	50	35	0.73	0.4	0.9	A	161	7	0.6	261	9	0.5	37	75	1.7
13	8	49	11.9	58	5.8	137	35.8	0.1	2.0	6	4	191	168	0.68	18.7	5.5	D	323	7	3.0	81	8	32.2	204	60	6.2
13	9	22	10.0	59	54.4	140	43.0	0.3	2.7	14	7	167	33	0.68	0.7	0.7	A	300	8	0.6	37	40	1.6	201	49	1.1
13	9	51	45.6	59	54.9	138	59.4	14.8	1.2	8	4	220	36	0.28	3.9	8.2	D	322	3	0.8	81	20	2.7	225	55	15.1
13	10	10	33.9	59	54.6	138	59.8	15.0	0.6	4	4	246	35	0.20	2.9	5.2	C	322	0	0.8	81	25	1.8	232	52	9.9
13	10	22	23.7	61	16.7	152	11.4	5.4	0.5	3	3	286	2	0.06	1.1	0.9	A	199	2	1.0	290	25	2.2	105	65	1.5
13	14	58	46.0	60	29.8	141	34.3	14.3	1.4	12	8	105	18	0.31	0.5	0.9	A	352	7	0.5	84	18	0.8	242	71	1.7
13	16	57	15.6	59	41.5	139	5.9	9.1	1.7	11	4	195	17	0.68	2.0	1.2	B	321	13	0.6	261	14	3.2	107	55	2.0
13	17	39	48.5	60	15.9	141	2.2	10.7	1.2	11	7	125	12	0.20	0.6	1.0	A	81	7	0.9	345	28	0.5	184	61	2.0
13	18	30	43.8	59	56.4	152	45.8	91.8	2.5	20	9	188	27	0.53	1.1	1.1	A	152	13	1.0	81	37	1.9	260	47	2.0
13	19	33	54.7	60	13.1	152	39.3	95.2	3.5	20	12	108	10	0.61	0.8	0.8	A	163	4	0.8	81	42	1.4	257	47	1.7
	3.9 MB			3.8 ML ATWC																						
13	21	21	16.5	59	55.8	140	42.9	3.1	1.0	9	5	180	31	0.29	1.1	2.2	B	110	9	0.8	203	18	1.4	355	70	4.4
14	2	4	25.0	60	7.8	141	7.2	5.9	1.0	9	5	101	8	0.46	1.1	1.3	A	303	8	0.6	40	40	0.7	204	49	3.1
14	7	24	41.0	60	4.6	140	51.2	10.5	1.5	10	7	170	33	0.52	0.9	1.0	A	293	6	0.5	199	41	1.5	30	48	2.1
14	7	42	12.0	59	47.8	150	42.1	38.3	1.3	12	7	152	10	0.25	1.1	1.2	A	30	5	0.7	296	40	1.6	126	50	2.7
14	11	44	28.1	59	49.3	153	29.3	124.7	4.1	21	3	99	55	0.31	1.6	2.7	B	322	1	2.0	261	21	1.5	54	55	4.8
	4.8 MB			4.4 ML ATWC								FELT (III) AT HOMER.														
14	13	32	37.5	60	10.9	140	50.6	13.5	1.1	9	6	160	34	0.63	1.0	1.1	A	120	1	0.6	30	33	1.8	212	57	2.1
14	14	8	25.5	60	13.8	140	58.1	11.1	1.1	7	3	158	42	0.34	1.3	1.3	A	299	6	0.8	203	44	2.6	35	45	2.2
14	14	53	30.1	60	9.4	141	9.4	8.3	0.8A	6	5	169	40	0.54	1.4	1.9	B	291	0	0.8	21	9	2.6	201	81	3.6
14	16	46	5.6	60	18.9	140	50.5	10.5	1.1	7	4	146	41	0.17	1.3	2.9	C	294	5	0.8	25	17	1.7	188	72	5.7
14	19	45	34.5	60	0.8	141	3.5	3.2	0.6A	3	2	238	16	0.11	1.4	3.2	C	125	10	1.0	218	18	1.5	7	69	6.4
14	20	14	12.8	61	58.0	148	48.8	12.4	2.0	18	7	97	39	0.64	0.7	1.1	A	8	10	1.0	273	27	0.6	117	61	2.4
14	21	24	0.2	60	10.2	141	1.7	11.2	0.5	7	5	111	2	0.29	1.3	0.5	A	113	8	0.6	205	15	2.5	356	73	0.8
14	23	19	50.0	61	59.0	150	26.8	46.2	2.4	21	7	175	57	0.49	1.1	2.1	B	89	7	0.9	181	16	1.8	336	72	4.1
15	0	44	44.9	60	7.0	141	8.0	10.1	0.8A	6	4	200	7	0.25	2.4	1.0	B	25	17	4.8	279	42	0.9	132	43	1.4

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JANUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JAN 15	2	5	56.9	59	31.8	138	48.9	5.3	1.0	4	3	246	9	0.59	4.7	7.7	D	347	17	0.8	85	24	4.0	225	60	16.5
15	3	33	31.9	60	1.3	141	38.3	4.2	1.1	11	9	164	22	0.82	0.6	0.8	A	359	8	1.1	90	10	0.6	231	77	1.6
15	4	11	21.2	60	0.4	141	40.0	10.8	1.0	12	8	170	21	0.58	0.8	0.6	A	94	8	0.5	188	28	1.5	349	61	1.1
15	4	20	15.9	60	11.7	141	7.6	7.4	2.0	16	10	120	7	0.92	0.6	0.5	A	285	12	0.5	190	22	1.2	42	65	0.9
15	6	37	47.9	59	58.4	140	46.9	6.8	1.3	14	7	159	21	0.53	0.7	0.7	A	288	0	0.5	198	41	1.1	18	49	1.6
15	7	38	15.5	60	13.1	141	11.5	10.8	1.1	13	7	109	11	0.39	0.7	0.5	A	296	8	0.5	201	36	1.4	37	53	0.7
15	9	7	39.6	60	8.6	140	28.5	9.2	1.0	10	6	140	13	0.69	1.0	0.7	A	287	9	0.5	194	19	1.9	41	69	1.1
15	10	14	31.5	61	15.4	152	10.9	2.6	-0.6A	3	3	269	2	0.02	1.1	0.9	A	182	15	0.8	281	31	2.2	70	55	1.5
15	13	16	30.0	61	26.2	151	15.9	9.4	2.1	27	8	89	28	0.73	0.4	0.7	A	312	3	0.7	222	12	0.6	56	78	1.3
15	14	48	8.0	59	35.3	151	24.8	7.6	0.5A	8	5	170	12	0.26	0.9	1.7	B	42	9	0.5	309	21	1.0	154	67	3.4
15	15	56	54.3	60	16.1	140	57.7	7.5	0.7A	7	5	130	13	0.16	0.7	1.2	A	82	11	0.7	347	24	0.6	195	63	2.5
15	16	20	6.8	60	17.4	141	12.1	9.5	0.9	14	8	117	18	0.49	0.6	0.9	A	313	12	0.5	50	28	0.7	202	59	2.0
15	17	0	24.5	60	9.2	141	4.1	3.6	0.7	10	4	97	2	0.35	0.6	0.4	A	175	3	1.2	267	31	0.7	80	59	0.8
15	19	14	49.2	63	8.6	148	14.9	100.8	3.5	10	5	132	154	0.52	2.9	12.5	D	261	6	4.1	340	9	3.7	134	75	23.3
15	20	53	48.7	60	7.2	141	11.2	8.3	1.3	17	7	110	7	0.69	0.5	0.4	A	187	21	1.0	286	22	0.4	58	59	0.7
15	22	53	46.8	61	25.7	149	52.0	43.8	2.2	29	10	117	47	0.56	0.5	1.4	B	276	2	0.6	186	7	0.8	22	83	2.6
16	4	53	40.6	60	23.8	145	0.1	22.5	1.5	19	7	137	19	0.70	0.6	0.6	A	112	24	0.6	221	36	1.2	356	44	1.3
16	9	39	52.9	60	13.3	140	56.5	7.8	0.6A	4	4	180	9	0.24	0.9	1.2	A	81	17	0.6	340	27	1.1	199	57	2.7
16	13	9	21.9	60	14.7	140	59.2	7.6	0.6A	5	4	185	10	0.11	0.8	1.3	A	89	8	0.6	354	28	0.9	193	61	2.7
16	13	45	1.5	60	14.6	140	59.0	8.4	0.8	15	8	125	10	0.37	0.6	0.9	A	292	4	0.5	25	34	0.6	196	56	1.9
16	14	8	24.5	60	14.9	140	59.2	5.7	0.6A	6	4	186	11	0.24	0.8	1.5	B	295	3	0.6	26	26	0.8	199	64	3.1
16	16	29	54.3	60	28.2	143	4.2	2.1	0.9	6	5	134	12	0.63	0.5	4.5	C	263	2	0.6	353	3	0.9	139	86	8.4
16	17	9	51.5	60	28.2	143	5.6	1.4	1.1	10	5	104	14	0.56	0.5	7.7	D	273	1	0.6	3	1	0.9	138	89	14.5
16	18	10	29.7	60	58.9	152	10.7	1.4	0.4A	4	3	178	23	0.52	3.0	2.5	C	194	11	0.5	288	21	5.7	78	66	4.6
16	19	54	26.7	60	12.5	141	2.1	8.2	0.4A	4	4	172	6	0.29	0.8	0.9	A	106	2	0.7	14	40	0.8	198	50	2.0
16	20	20	35.8	60	19.7	141	13.4	15.2	1.0A	10	4	120	22	0.38	0.9	1.2	A	322	13	0.6	81	24	0.9	212	51	2.5
17	5	10	14.6	60	18.1	140	58.3	11.4	1.2	17	11	132	17	0.36	0.5	0.6	A	325	15	0.4	81	29	0.5	215	49	1.3
17	5	49	17.0	59	45.8	153	29.2	110.8	3.1	19	6	158	60	0.21	2.2	2.2	B	160	20	1.7	266	37	3.0	48	46	5.1
					3.2 ML ATWC																					
17	6	34	35.2	60	18.8	140	52.5	8.7	0.5A	5	3	203	20	0.15	1.5	2.7	B	88	15	0.9	352	22	1.3	210	63	5.6
17	6	45	47.0	60	7.0	141	16.4	10.5	0.6	8	4	162	11	0.17	0.8	0.6	A	108	1	0.6	199	18	1.6	15	72	1.0
17	8	11	19.3	60	18.4	141	8.6	6.9	0.9	16	6	123	18	0.46	0.5	0.9	A	319	15	0.4	54	19	0.6	193	65	1.8
17	8	12	49.8	60	17.4	141	8.8	11.3	0.5A	5	3	190	16	0.12	1.4	2.1	B	304	8	0.7	39	31	1.5	201	58	4.5
17	10	6	48.6	61	37.1	149	35.8	36.4	1.8	25	14	139	15	0.72	0.5	0.5	A	271	1	0.5	181	4	0.9	15	86	0.9
17	11	13	44.0	60	8.8	139	47.4	17.9	1.0A	5	4	223	23	0.50	2.5	1.1	B	118	1	0.8	208	18	5.0	25	72	1.5
17	12	53	57.8	60	29.9	144	44.7	21.3	0.7A	9	4	155	26	0.25	0.6	0.9	A	124	17	0.7	27	23	1.0	247	61	1.9
17	18	3	36.5	59	53.0	140	41.8	4.2	0.9	10	4	184	31	0.64	0.8	1.5	B	120	5	0.6	211	16	1.4	13	73	2.9
17	21	40	30.5	59	58.0	141	35.1	0.3	0.9A	10	4	208	21	0.62	0.7	1.7	B	168	2	1.2	261	8	0.8	64	81	3.1
17	22	27	27.5	60	24.2	144	55.0	19.4	0.8A	11	5	194	22	0.53	1.1	0.8	A	214	19	2.1	117	20	0.7	344	62	1.6
17	22	37	17.5	60	25.6	144	55.5	24.2	1.1A	11	3	186	20	0.38	1.3	1.0	A	117	13	0.8	213	26	2.5	3	61	1.6
17	23	7	21.3	61	29.0	141	6.0	0.1	1.4	10	4	254	59	0.18	1.1	13.4	D	301	0	1.3	31	0	2.0	0	90	25.0
17	23	11	37.1	60	10.7	140	56.0	10.4	0.7A	9	3	117	6	0.23	0.8	0.7	A	81	30	0.6	325	33	1.0	201	41	1.8
18	0	17	16.3	60	27.6	143	16.8	18.0	1.0A	6	4	118	24	0.26	0.6	2.1	B	261	1	0.9	347	6	1.1	161	83	4.0
18	1	18	13.1	61	2.3	147	4.3	14.5	3.0	31	5	48	17	0.47	0.5	0.7	A	194	1	0.9	284	13	0.6	100	77	1.4
					3.5 ML ATWC																					
18	1	25	41.0	60	12.3	141	10.6	12.7	0.5A	5	3	164	10	0.15	1.1	1.2	A	278	7	0.9	13	33	1.7	178	56	2.5
18	5	23	30.0	59	51.4	141	20.0	4.3	0.9	6	3	272	26	0.28	1.3	2.2	B	298	4	1.2	207	18	2.2	40	72	4.3
18	5	25	46.4	59	53.8	141	22.4	4.7	1.4	16	7	180	23	0.58	0.6	1.1	A	106	6	0.6	199	25	0.8	3	64	2.2
18	5	27	33.4	59	52.3	141	22.5	2.6	0.8	12	3	190	26	0.52	0.9	1.8	B	282	6	1.0	190	17	1.4	31	72	3.5
18	6	11	44.4	59	53.5	141	24.0	0.4	1.3	11	2	187	25	0.47	1.0	1.9	B	283	8	1.0	190	21	1.4	33	67	3.8
18	7	23	44.7	62	5.9	147	56.8	39.3	2.1	25	10	181	38	0.56	1.2	2.3	B	81	4	1.0	162	9	2.2	326	77	4.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JANUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JAN 18	7	31	17.0	60	49.3	144	36.7	8.4	1.5	16	2	65	16	0.60	0.7	1.4	A	81	13	1.1	154	22	0.8	318	60	2.7
18	7	59	55.7	60	12.3	139	41.7	17.2	0.8	5	3	207	28	0.37	2.2	2.1	B	108	17	1.0	214	42	5.0	1	43	2.8
18	16	40	3.4	60	6.9	141	30.1	10.7	0.3	6	1	192	4	0.10	3.3	1.0	C	114	2	1.7	24	8	6.2	218	82	1.6
18	17	29	6.6	60	5.4	141	16.8	9.6	0.8	8	4	154	10	0.17	1.1	0.7	A	98	15	0.7	1	25	2.2	216	60	1.1
18	20	29	41.2	60	37.3	143	16.4	7.1	1.1	12	4	88	30	0.69	0.6	3.5	C	354	1	0.8	264	3	1.1	102	87	6.6
18	22	5	45.9	60	13.7	141	1.5	9.0	0.7	8	4	120	8	0.30	1.1	1.2	A	90	6	1.0	355	42	0.9	187	47	2.9
19	2	16	30.1	60	35.9	147	21.0	20.8	2.1	27	10	71	36	0.55	0.5	1.0	A	178	8	0.9	270	14	0.4	59	74	2.0
19	6	6	49.8	60	8.5	141	13.6	3.2	1.1	12	3	110	11	0.47	0.6	0.8	A	283	9	0.6	16	19	0.9	169	69	1.6
19	6	45	52.2	63	4.7	149	34.3	53.2	2.5	14	3	162	155	0.58	4.1	25.0	D	88	1	3.1	358	4	5.8	192	86	70.5
19	14	45	31.0	60	25.1	141	37.4	4.8	1.1A	6	4	109	32	0.49	1.2	2.1	B	333	6	0.7	81	21	1.5	229	62	4.2
19	20	12	20.1	60	56.4	151	13.6	70.4	3.0	28	5	46	22	0.52	0.6	1.4	B	38	4	0.8	129	9	0.9	284	80	2.7
20	1	10	41.6	60	16.9	140	35.1	0.1	1.3	13	6	152	27	0.53	0.6	1.4	B	287	1	0.6	17	14	0.9	193	76	2.8
20	1	51	43.3	60	23.0	140	58.1	4.7	0.8A	10	3	139	26	0.55	0.9	2.4	B	297	1	0.7	28	16	1.2	204	74	4.7
20	3	0	38.0	60	11.9	141	0.1	12.4	1.1	14	5	117	5	0.36	0.8	0.6	A	100	13	0.6	199	33	1.7	352	54	0.7
20	4	36	53.6	60	55.8	152	26.6	113.7	3.1	23	6	104	35	0.43	1.0	1.7	B	267	0	1.9	177	3	1.0	357	87	3.2
20	8	3	57.7	60	20.7	141	20.5	16.4	1.1	10	4	114	22	0.67	0.7	0.9	A	93	19	0.8	355	22	1.2	220	60	1.9
20	13	32	44.2	60	13.2	142	54.2	27.1	0.4A	6	3	168	4	0.18	1.4	0.8	A	166	14	2.5	81	23	1.3	288	63	1.5
20	14	46	59.5	60	13.8	141	1.8	8.6	0.5A	7	2	120	9	0.20	2.8	3.1	C	95	16	1.9	352	37	0.8	204	48	7.8
20	15	55	14.0	60	8.5	141	16.4	9.1	1.2	13	5	136	13	0.43	0.5	0.6	A	284	14	0.5	22	29	0.9	171	57	1.2
20	16	11	22.4	60	4.9	141	17.7	7.7	0.5A	3	2	233	17	0.05	3.0	3.3	C	284	13	1.2	183	39	2.0	29	48	8.0
20	17	29	34.8	61	4.3	148	6.9	28.5	1.7	25	8	94	42	0.26	0.5	0.7	A	88	5	0.6	180	15	1.0	340	74	1.4
20	18	23	31.1	60	0.0	153	24.9	121.9	3.7	19	5	198	39	0.29	2.0	1.7	B	156	6	1.5	81	35	4.0	255	52	2.5
		4.1 MB			3.7 ML ATWC																					
20	18	44	6.2	62	55.3	148	2.2	44.4	2.5	15	5	130	127	0.66	2.2	6.8	D	356	2	4.2	266	4	2.4	113	86	12.7
20	20	55	51.7	59	49.0	152	45.7	88.3	2.8	21	7	138	41	0.24	1.5	1.8	B	325	1	1.2	81	18	2.4	232	59	3.2
20	22	51	59.2	61	8.1	152	12.3	5.5	1.0	3	3	313	10	0.38	1.4	1.2	B	192	27	0.9	81	37	3.2	309	42	1.7
20	23	8	29.6	60	5.5	141	12.8	3.7	0.7A	6	2	180	12	0.30	3.2	5.7	D	174	16	4.8	269	17	1.5	43	66	11.7
21	2	5	45.0	59	55.9	141	22.3	8.8	1.8	15	3	177	31	0.57	1.0	1.1	A	277	5	0.7	183	34	1.5	14	55	2.4
21	6	18	41.3	60	1.8	140	46.3	0.0	0.8A	5	2	187	20	0.10	2.2	10.3	D	116	4	0.7	206	7	3.3	356	82	19.4
21	14	5	21.4	60	26.3	143	37.5	9.2	1.3A	10	2	132	37	0.58	0.9	2.8	C	86	3	0.6	356	9	1.5	194	81	5.4
21	18	39	28.8	60	13.4	141	0.2	7.3	0.7	8	3	147	8	0.44	1.1	0.9	A	81	29	0.6	314	29	0.9	198	38	2.4
21	18	49	11.7	61	38.9	149	54.7	34.9	1.8	13	7	146	2	0.38	0.8	1.2	A	293	4	0.9	202	12	1.4	41	77	2.3
21	21	14	57.2	60	15.0	141	50.8	6.4	1.1	11	4	85	13	0.71	0.5	0.8	A	309	12	0.7	216	16	0.7	74	70	1.6
22	2	41	30.8	60	59.2	147	16.2	17.1	2.0	25	11	87	15	0.66	0.5	0.7	A	184	3	0.9	275	18	0.5	85	72	1.4
22	2	44	51.4	60	25.8	145	4.9	19.5	0.8A	9	8	165	13	0.93	0.7	1.0	A	200	2	1.2	109	25	0.9	294	65	2.0
22	4	18	20.9	60	11.9	140	13.6	6.6	0.9	9	6	164	11	0.32	1.9	2.0	B	303	17	0.9	46	37	1.1	193	48	5.1
22	7	31	33.2	59	58.6	138	36.5	5.0	1.0	7	4	253	56	0.24	4.1	25.0	D	332	1	1.2	81	5	2.2	232	70	69.9
22	7	41	49.6	61	45.7	149	50.7	46.6	1.9	16	7	151	13	0.38	0.8	0.9	A	109	4	0.7	16	38	1.4	204	52	1.9
22	7	42	30.4	60	36.5	144	44.7	19.6	1.1	10	9	114	27	0.42	0.6	1.0	A	145	15	0.6	81	28	0.7	265	50	1.7
22	9	8	10.0	59	48.8	140	56.5	0.1	0.9	8	6	213	29	0.42	1.5	2.3	B	308	0	1.2	38	11	2.6	218	79	4.4
22	9	40	36.9	60	18.0	141	5.3	7.1	0.4A	6	4	155	17	0.11	0.9	2.4	B	45	8	1.6	314	10	0.7	173	77	4.6
22	11	47	32.2	60	13.3	152	10.8	69.6	2.7	25	10	105	36	0.45	0.8	0.9	A	335	1	0.6	81	28	1.3	243	58	1.8
22	12	8	23.3	61	15.5	143	14.9	11.9	1.1	11	6	162	36	0.49	1.0	2.9	C	115	1	0.5	205	11	1.7	20	79	5.5
22	12	20	48.3	60	43.3	145	54.1	24.8	1.9	22	10	66	21	0.60	0.5	0.6	A	261	2	0.7	137	7	0.5	2	55	1.0
22	13	43	15.5	60	17.8	140	40.4	10.5	0.8	13	6	149	26	0.27	0.7	1.6	B	285	3	0.6	16	20	0.8	187	70	3.1
22	15	51	36.2	60	8.0	141	5.6	8.6	0.8	5	5	110	4	0.36	0.7	1.0	A	12	6	1.0	279	32	0.9	111	57	2.1
22	16	0	26.8	61	46.2	150	54.2	58.1	2.8	23	8	77	35	0.36	0.8	1.1	A	81	2	0.7	346	3	1.5	203	84	2.0
22	19	27	21.8	60	20.8	141	16.8	13.4	1.3	13	8	117	25	0.55	0.5	0.9	A	328	12	0.6	81	14	0.7	208	61	1.7
22	20	9	25.5	60	26.9	145	1.8	19.9	2.2	23	12	64	14	0.51	0.4	0.6	A	18	9	0.8	110	18	0.5	262	70	1.1
23	2	47	37.3	60	10.7	140	57.2	11.0	0.7	9	6	116	5	0.25	0.8	0.7	A	83	33	0.7	325	36	0.9	202	37	1.8
23	4	32	16.6	60	9.2	141	18.2	11.0	0.7	6	4	131	9	0.21	0.9	1.0	A	296	6	0.5	30	37	1.1	198	52	2.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JANUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JAN 23	4	42	9.2	60	21.9	147	35.0	26.1	2.3	32	10	72	51	0.51	0.5	0.9	A	273	5	0.6	5	20	0.9	170	69	1.7
23	7	46	19.5	60	13.1	140	54.5	3.5	0.6A	6	4	181	10	0.45	1.2	2.4	B	94	4	0.8	3	23	1.2	193	67	4.8
23	7	48	9.0	60	10.8	140	57.3	9.4	0.5A	5	4	168	5	0.19	0.8	0.8	A	81	26	0.8	330	34	1.0	199	44	1.8
23	8	41	23.5	60	4.8	141	18.8	10.6	2.2	18	5	148	11	0.47	0.7	0.5	A	276	12	0.5	13	28	1.3	165	59	0.9
23	8	51	59.5	60	15.1	141	15.8	10.9	1.5	18	7	109	16	0.51	0.5	0.7	A	318	18	0.5	55	23	0.7	193	60	1.5
23	9	8	1.9	60	10.3	141	8.0	8.3	0.9	11	5	106	6	0.42	0.7	0.6	A	299	15	0.6	197	40	1.5	45	46	0.8
23	9	35	18.9	60	27.5	142	15.1	3.8	1.0	7	5	135	30	0.65	0.7	8.2	D	276	1	0.7	6	3	1.0	168	87	15.3
23	9	47	19.5	60	10.5	141	7.9	10.6	1.2	12	7	107	6	0.45	0.6	0.5	A	322	31	0.6	77	36	0.8	203	39	1.4
23	10	10	49.4	60	3.8	141	18.3	10.5	0.9	7	3	225	10	0.27	1.5	0.9	B	202	3	2.7	295	34	0.7	108	56	2.1
23	11	6	43.1	60	16.4	140	47.8	7.2	0.8A	5	3	167	19	0.18	2.0	2.9	C	286	0	0.7	16	32	1.7	196	58	6.4
23	11	58	19.5	60	19.1	141	14.2	16.3	1.6	10	6	118	22	0.51	0.6	0.8	A	81	8	0.9	330	18	0.6	190	62	1.6
23	12	26	40.6	60	4.8	141	10.2	7.8	0.3A	3	3	227	11	0.20	2.4	2.0	B	280	12	0.9	20.	39	5.6	176	48	1.4
23	13	22	48.5	60	6.6	141	11.7	11.6	0.2A	3	3	221	10	0.07	3.6	1.5	C	285	15	0.9	21	20	7.1	161	65	1.5
23	15	25	59.2	61	20.5	150	55.6	59.0	2.2	23	9	73	17	0.41	0.6	1.2	A	261	5	0.8	154	9	0.9	15	70	2.2
23	17	47	29.2	60	13.3	141	13.0	12.4	0.9	10	5	109	13	0.18	0.8	1.0	A	318	23	0.7	58	23	1.0	188	57	2.2
23	17	58	31.0	60	10.7	141	6.8	9.9	0.3A	7	5	108	5	0.39	0.7	0.8	A	296	20	0.6	38	31	0.9	178	52	1.7
23	18	40	58.6	58	16.2	138	5.9	0.4	1.8	6	4	324	139	0.56	9.1	2.3	D	81	9	17.0	166	19	2.7	325	68	3.9
23	21	44	59.6	60	16.6	140	58.2	1.3	0.9	9	6	131	14	0.47	0.7	1.9	B	81	8	0.7	333	12	0.6	199	67	3.5
23	23	4	2.5	61	26.9	150	44.2	61.9	2.3	27	10	76	2	0.41	0.5	1.2	A	97	7	0.7	188	9	1.0	330	79	2.2
24	0	59	23.3	62	19.4	151	44.6	95.8	2.7	14	6	272	40	0.54	1.9	1.3	B	151	4	3.3	81	32	2.0	247	53	2.5
24	3	6	26.9	60	17.8	141	5.2	1.3	0.7	11	7	126	16	0.64	0.5	1.4	B	313	6	0.4	44	15	0.7	202	74	2.6
24	7	24	39.0	62	0.8	149	5.8	30.6	2.6	19	7	175	43	0.46	0.7	0.9	A	280	15	0.8	15	17	1.2	151	67	1.9
24	8	23	39.6	58	56.8	137	11.7	5.0	1.9	9	4	201	111	0.30	9.9	2.6	D	212	6	18.7	120	18	3.4	320	71	4.6
24	9	18	17.7	60	16.9	141	14.9	0.4	0.8	11	7	114	19	0.62	0.5	1.4	A	325	7	0.5	81	9	0.6	208	62	2.4
24	11	24	59.5	62	15.8	151	11.8	77.9	2.6	14	6	253	36	0.42	1.7	1.3	B	347	10	3.2	82	27	1.5	238	61	2.6
24	16	2	46.2	60	58.1	150	39.4	14.8	1.5	15	8	58	40	0.64	0.4	1.1	A	261	2	0.6	150	3	0.7	18	69	1.9
24	18	52	58.9	60	13.3	141	19.6	3.2	0.9	9	5	124	18	0.61	0.7	1.1	A	296	8	0.6	29	15	1.1	179	73	2.2
24	21	41	29.2	60	18.2	140	58.2	0.4	0.4A	6	2	135	17	0.36	0.6	2.6	B	268	0	1.2	358	6	0.7	178	84	5.0
25	1	44	13.0	59	6.4	137	28.9	10.5	2.0	9	4	341	88	0.36	9.6	2.1	D	114	6	5.9	205	8	18.2	348	80	3.0
25	2	7	40.1	60	20.6	152	43.1	0.0	0.5A	6	3	197	19	0.54	7.1	5.5	D	33	10	0.7	295	38	16.7	135	50	1.5
25	4	18	55.2	60	16.8	141	20.7	13.5	0.6A	6	5	152	16	0.17	1.8	1.9	B	330	12	0.7	81	37	1.2	227	47	4.7
25	4	41	54.0	61	42.2	149	35.4	7.3	1.8	22	12	86	16	0.92	0.5	0.7	A	174	16	0.9	271	24	0.4	53	61	1.4
25	14	47	48.3	60	5.8	141	8.1	4.0	0.5A	6	5	119	4	0.57	0.5	0.6	A	280	4	0.5	11	21	0.8	180	69	1.2
25	14	52	11.5	60	13.1	141	13.9	8.4	0.7	12	5	107	13	0.29	0.7	0.8	A	291	5	0.5	25	35	0.8	194	54	1.8
25	18	20	0.9	60	14.0	141	16.3	9.9	0.8	12	5	107	15	0.38	0.6	0.8	A	293	6	0.6	28	35	0.8	195	54	1.7
25	21	19	55.5	61	26.3	146	51.2	19.1	2.9	22	9	57	44	0.57	0.4	0.9	A	193	1	0.8	283	9	0.5	97	81	1.6
					3.2 ML	ATWC																				
25	21	45	50.0	60	10.7	141	3.9	8.7	0.8	7	5	137	3	0.36	0.6	0.6	A	290	9	0.6	192	41	1.4	30	48	0.8
25	23	9	11.6	61	12.4	148	57.2	31.6	2.0	28	15	74	33	0.58	0.5	0.5	A	261	4	0.6	146	24	0.8	359	56	0.9
26	0	1	6.2	60	45.2	140	29.8	16.6	1.0A	5	1	214	51	0.02	3.0	6.0	D	42	0	5.7	132	13	1.0	312	77	11.5
26	1	2	30.8	60	3.5	141	19.4	11.5	1.2A	12	9	183	11	0.44	0.7	0.4	A	296	0	0.5	26	6	1.2	206	84	0.8
26	1	22	30.5	60	30.2	145	8.4	16.4	1.4	12	9	168	5	0.52	0.5	0.5	A	10	13	0.9	106	26	0.6	256	61	1.1
26	2	5	36.1	60	3.3	139	10.1	12.9	1.4A	9	4	215	28	0.69	1.9	1.6	B	134	8	0.9	230	37	4.1	34	52	2.0
26	2	10	35.6	60	18.8	140	45.4	8.7	1.1	10	7	154	23	0.30	0.6	1.2	A	298	10	0.6	31	19	0.7	182	68	2.4
26	2	41	24.8	60	17.3	140	48.3	9.7	0.8A	10	4	140	20	0.36	1.2	1.8	B	288	3	0.8	20	33	0.9	193	57	4.0
26	6	40	36.7	61	18.5	146	46.3	19.0	2.0	21	13	66	31	0.56	0.4	0.7	A	192	4	0.6	283	12	0.5	84	77	1.3
26	7	33	43.7	60	16.0	141	6.6	9.5	2.4	16	3	120	13	0.26	0.6	0.9	A	302	9	0.7	36	27	0.8	195	61	1.8
26	10	55	47.3	60	14.1	141	4.4	10.2	1.6	13	9	118	9	0.38	0.6	0.7	A	321	24	0.4	67	32	0.7	201	48	1.6
26	12	34	53.5	59	36.8	153	1.3	93.2	2.7	17	13	149	65	0.30	1.6	1.5	B	320	1	1.2	81	32	3.0	229	47	2.2
26	12	56	37.6	61	15.7	148	34.3	35.7	1.8	21	10	91	18	0.44	0.5	0.5	A	204	29	0.7	94	31	0.6	327	45	1.1
26	14	43	54.0	60	51.8	152	32.3	10.0	1.1	11	11	102	33	1.06	0.9	1.2	A	194	4	0.5	102	29	1.3	291	61	2.4

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JANUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JAN 26	14	56	22.1	61	11.2	152	7.7	1.5	-0.6A	3	2	252	4	0.01	1.5	6.1	D	261	4	1.8	322	12	0.8	152	59	10.3
26	15	25	38.0	59	29.6	152	39.1	64.0	2.6	18	12	142	61	0.45	1.5	2.3	B	322	3	1.1	261	16	2.2	62	57	3.8
26	15	36	41.3	59	48.9	152	55.5	86.3	2.9	20	8	142	41	0.33	1.4	1.4	B	147	2	1.1	261	42	2.2	55	43	2.8
26	21	9	32.7	61	42.7	149	56.1	45.7	1.8	16	9	152	7	0.46	0.7	0.9	A	275	2	0.7	5	17	1.3	178	73	1.7
26	22	14	42.2	60	20.7	140	22.5	1.1	2.6	18	9	173	28	0.56	0.6	1.0	A	81	8	0.7	317	12	0.5	193	53	1.6
27	1	43	23.4	60	9.0	148	33.0	2.7	1.9	27	11	179	59	0.55	0.5	0.7	A	337	1	0.9	261	30	0.5	69	57	1.5
27	5	42	6.8	60	12.0	140	58.1	9.6	1.2	15	7	119	6	0.40	0.9	0.7	A	311	30	0.6	81	34	0.7	198	33	2.0
27	8	57	36.3	60	12.5	141	32.6	11.1	1.0	11	5	121	8	0.57	0.7	0.7	A	311	18	0.7	47	19	1.4	180	63	1.3
27	10	10	19.1	61	16.7	152	11.1	4.1	0.3	3	3	284	2	0.02	1.2	1.1	A	199	5	0.9	293	39	2.6	103	51	1.6
27	10	17	53.1	61	8.6	152	14.8	8.3	-0.3A	3	3	312	11	0.04	1.5	2.2	B	333	9	1.5	261	30	1.9	79	54	4.3
27	15	46	17.6	60	10.6	141	5.6	11.1	1.4	15	10	109	4	0.39	0.5	0.4	A	303	16	0.4	204	28	1.1	59	57	0.6
27	16	16	38.6	60	59.5	146	59.1	18.1	2.1	19	13	59	12	0.67	0.3	0.6	A	196	1	0.6	287	11	0.5	101	79	1.1
27	16	59	17.5	60	37.9	137	49.8	14.6	1.7A	6	5	282	125	0.33	2.4	2.2	B	48	0	3.4	138	42	5.9	318	48	1.8
27	17	12	23.4	59	47.2	150	46.0	15.1	1.1	11	5	124	7	0.32	0.8	0.6	A	210	3	0.6	119	19	1.5	309	71	1.1
27	17	26	20.5	60	28.5	152	18.0	23.1	0.4A	5	3	114	0	0.15	1.2	1.1	A	47	25	1.3	156	36	1.0	290	44	2.8
28	1	22	43.4	61	50.5	149	35.7	10.0	1.7	16	6	173	26	0.55	0.6	0.9	A	177	2	1.1	268	17	0.6	80	73	1.9
28	4	38	11.4	60	10.7	141	8.9	10.4	0.7A	6	3	107	7	0.23	1.2	0.8	A	179	26	2.5	284	28	1.0	53	50	1.3
28	5	52	36.5	60	19.6	140	44.1	11.9	1.0A	7	4	157	25	0.18	1.6	2.0	B	321	11	1.0	81	28	1.5	216	49	4.3
28	6	53	41.3	61	15.8	150	38.6	45.8	1.7	15	6	66	23	0.30	0.5	1.7	B	28	3	0.9	118	5	0.7	267	84	3.2
28	6	58	18.6	61	4.4	152	23.1	1.8	1.0	8	5	196	22	0.86	1.1	1.1	A	207	20	0.6	100	38	1.5	318	45	2.6
28	9	12	58.2	60	58.8	149	55.1	39.0	1.8	23	6	92	35	0.48	0.6	0.6	A	45	16	0.6	144	31	1.0	291	54	1.2
28	13	32	45.6	60	14.6	140	45.9	14.1	0.9A	8	2	141	18	0.26	1.4	1.4	B	311	11	1.1	51	42	1.4	209	46	3.4
28	14	49	13.9	60	24.0	141	21.6	16.0	1.6	16	4	115	22	0.60	0.6	0.9	A	312	3	0.7	44	25	0.9	216	65	1.8
28	15	7	12.6	59	34.5	151	18.0	9.5	1.1	10	4	126	7	0.30	1.0	0.7	A	81	22	0.5	153	34	1.8	316	47	0.9
28	19	27	49.1	60	16.5	140	43.8	14.9	1.0	8	4	150	22	0.18	1.2	1.6	B	302	12	0.7	40	33	1.2	195	54	3.6
28	21	4	0.6	60	12.0	141	16.0	14.6	0.9A	6	2	177	14	0.16	2.7	1.4	C	200	19	5.3	299	23	1.0	75	59	2.4
29	0	50	18.6	61	48.4	151	11.1	70.1	2.4	20	13	96	27	0.54	0.8	1.0	A	81	6	0.8	168	28	1.2	340	61	2.0
29	2	36	3.9	60	36.6	142	45.0	0.9	1.1A	10	7	81	19	0.76	0.4	4.5	C	30	1	0.6	300	1	0.8	165	89	8.4
29	5	43	32.1	60	20.2	140	22.0	6.8	1.3	11	9	173	27	0.56	0.9	1.1	A	325	13	0.5	81	24	1.2	214	53	2.2
29	11	23	22.9	59	55.7	141	28.9	25.2	1.3	10	5	183	33	0.72	1.0	1.5	B	28	4	1.9	119	20	1.3	287	70	3.0
29	14	21	57.7	61	8.5	152	13.0	7.8	0.0A	3	3	311	10	0.03	1.5	2.2	B	327	13	1.5	261	29	1.9	82	51	4.0
30	3	13	38.9	59	46.3	151	8.0	46.1	1.3	10	5	79	8	0.17	1.2	1.4	B	28	4	1.2	295	37	1.4	123	53	3.1
30	4	38	37.6	61	29.3	141	23.1	5.0	1.2	6	3	246	58	0.19	3.5	25.0	D	311	2	1.5	41	4	3.1	194	86	75.5
30	5	24	8.5	62	40.2	148	13.6	42.5	3.0	13	6	232	96	0.56	2.3	16.6	D	353	0	4.2	83	2	1.7	263	88	31.2
					3.3 ML ATWC																					
30	7	51	14.0	60	16.7	140	54.9	10.6	1.5	12	5	133	42	0.48	0.6	1.0	A	42	7	1.0	311	12	0.6	162	76	2.0
30	18	39	8.8	62	58.9	149	5.9	95.1	3.0	12	6	147	137	0.60	3.2	7.3	D	280	7	2.5	13	18	3.7	170	71	14.5
30	21	5	16.2	59	15.1	137	19.8	11.3	2.4	8	2	201	91	0.18	4.3	2.7	C	198	20	8.4	100	22	2.0	326	60	4.7
30	21	22	40.2	59	19.5	137	20.6	4.4	1.3	4	4	340	88	0.14	3.5	3.7	C	94	5	2.7	0	40	5.4	190	50	7.9
31	8	46	30.9	60	20.6	141	24.9	16.7	1.9	15	4	109	18	0.67	0.6	0.9	A	305	8	0.8	37	15	1.0	188	73	1.8
31	10	19	53.0	59	28.9	151	12.6	55.4	1.2A	10	5	174	5	0.20	2.1	1.1	B	140	9	3.4	81	38	1.2	241	42	2.0
31	16	51	12.9	62	22.2	149	34.2	45.7	2.3	18	5	210	82	0.44	1.2	2.8	C	95	6	1.0	4	6	2.1	230	81	5.3
31	19	32	25.7	60	8.2	141	7.3	14.6	2.2	13	5	138	43	0.56	0.8	1.1	A	107	1	0.6	197	19	1.4	14	71	2.1

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - FEBRUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
FEB 1	4	30	22.9	60	23.2	140	48.6	6.5	1.4	12	6	150	40	0.76	0.5	0.9	A	81	8	0.8	322	10	0.4	198	59	1.6
1	10	11	2.4	60	20.8	141	15.8	13.5	1.5	11	5	118	27	0.54	0.7	1.0	A	104	9	0.7	11	22	1.1	215	66	2.1
1	15	41	38.8	61	50.9	148	41.7	20.2	2.3	29	7	90	20	0.58	0.5	0.9	A	266	13	0.6	359	13	1.0	133	71	1.8
1	20	13	19.2	59	44.8	152	56.5	88.2	2.5	17	6	206	49	0.18	1.6	1.6	B	314	7	1.5	49	34	3.2	214	55	2.8
1	20	29	9.5	60	14.7	141	4.6	8.5	0.7A	7	1	119	25	0.11	4.1	5.8	D	92	7	1.2	358	34	2.5	192	55	13.0
1	21	21	3.8	61	49.9	148	43.5	20.6	1.3	12	5	172	21	0.58	0.7	1.4	B	265	14	0.8	359	14	1.1	132	70	2.8
2	4	17	30.2	61	12.4	149	28.4	32.7	1.9	25	13	50	6	0.65	0.4	0.6	A	302	10	0.6	209	12	0.6	70	74	1.2
2	6	31	36.3	60	16.6	143	7.2	15.9	1.7	17	9	156	18	0.86	0.5	1.1	A	283	3	0.6	13	3	0.8	148	86	2.1
2	7	36	25.5	62	16.8	151	15.5	82.9	2.6	19	9	100	36	0.35	1.1	1.7	B	285	2	1.4	16	25	1.6	191	65	3.3
2	12	21	54.5	61	16.5	152	11.0	4.7	-0.5A	3	3	282	2	0.04	1.1	0.8	A	197	3	1.0	289	27	2.3	101	63	1.3
2	14	36	40.1	60	21.2	152	34.1	100.9	2.9	26	8	82	23	0.35	0.9	1.1	A	163	9	0.9	81	12	1.7	292	73	2.0
2	16	29	29.1	61	44.8	150	46.6	5.0	1.8	22	12	78	32	0.84	0.4	0.5	A	118	8	0.5	212	24	0.7	11	64	1.0
2	17	9	27.0	60	12.1	141	7.5	10.2	1.1	12	7	111	16	0.28	0.7	1.0	A	327	18	0.6	67	28	0.7	208	56	2.3
2	20	40	40.9	61	37.5	136	20.2	30.4	2.9A	9	4	306	273	0.32	4.3	25.0	D	352	0	6.9	262	0	8.0	0	90	99.0
3	1	41	55.7	60	39.1	143	10.7	1.1	1.1	10	5	99	29	0.60	0.5	25.0	D	261	0	0.6	329	0	0.8	0	90	70.7
3	3	13	25.5	60	57.1	149	30.8	31.9	1.7	27	12	61	28	0.60	0.3	0.6	A	307	3	0.6	216	15	0.5	48	75	1.2
3	7	13	58.2	59	0.8	137	3.5	3.3	2.5	9	6	169	115	0.49	3.8	1.9	C	35	0	7.0	125	17	1.9	305	73	3.7
3	7	30	25.7	60	11.1	141	4.4	7.9	1.1	11	7	111	14	0.47	0.8	1.3	A	289	0	0.5	19	31	0.6	199	59	2.7
3	16	59	40.6	61	7.7	150	40.6	13.9	1.5	15	8	57	38	0.57	0.3	0.9	A	129	2	0.6	220	9	0.5	27	81	1.7
3	18	25	42.2	61	15.9	152	13.5	9.5	0.7	5	2	189	4	0.31	1.6	0.8	B	358	10	1.0	92	24	3.3	247	64	0.8
3	23	17	17.4	62	4.7	150	50.8	60.5	3.9	16	1	131	37	0.29	1.3	2.1	B	323	10	1.7	81	16	1.3	210	57	3.9
	4.1 MB				4.3 ML ATWC							FELT AT ANCHORAGE, BIG LAKE AND WASILLA.														
4	0	29	14.6	59	58.6	152	49.8	100.7	2.9	19	5	183	23	0.22	1.4	2.1	B	328	9	1.3	261	17	2.2	89	60	3.6
4	7	2	33.1	59	57.4	147	21.8	31.4	2.4	24	5	101	9	0.56	0.8	0.7	A	229	16	1.0	128	33	1.5	341	52	1.1
4	10	50	6.2	61	12.8	150	44.8	52.2	1.9	21	11	55	28	0.46	0.4	1.0	A	92	3	0.6	183	8	0.7	342	81	1.8
4	16	25	21.3	60	18.2	141	11.5	7.1	0.9	5	4	192	19	0.16	0.8	3.8	C	300	3	0.9	30	4	1.5	173	85	7.2
4	20	31	44.2	61	29.1	140	40.8	3.8	1.9	10	5	262	68	0.49	1.6	20.8	D	109	1	1.6	19	3	2.1	217	87	39.1
5	3	27	4.6	59	36.2	151	4.1	41.5	1.3	12	8	152	4	0.24	1.3	1.5	B	81	7	0.9	315	31	1.2	179	43	3.1
5	4	54	7.3	60	16.4	140	44.2	11.7	1.1	11	7	142	21	0.31	0.8	1.1	A	298	4	0.6	31	32	0.9	202	58	2.4
5	9	48	34.9	61	31.3	149	53.0	41.7	1.7	19	8	67	14	0.41	0.5	0.9	A	107	1	0.6	16	6	1.0	206	84	1.7
5	17	8	29.7	61	52.7	149	27.8	58.1	2.2	23	10	163	34	0.37	0.9	1.5	B	267	1	0.7	357	9	1.6	171	81	2.7
5	17	27	16.9	59	56.0	141	25.5	0.9	0.8A	7	5	264	22	0.49	0.9	2.0	B	12	0	1.6	282	6	0.9	102	84	3.7
5	17	57	27.9	60	5.6	141	8.5	16.3	0.4A	4	4	223	9	0.29	3.4	1.0	C	23	13	6.5	283	37	0.9	129	50	1.4
5	18	54	53.5	60	13.1	141	36.9	7.4	1.1	15	8	94	11	0.68	0.4	0.6	A	216	6	0.8	307	11	0.5	98	77	1.1
5	20	37	57.6	60	12.8	141	37.1	9.9	0.9	9	6	137	11	0.13	0.6	0.6	A	309	15	0.5	207	38	1.1	56	48	1.2
5	21	22	8.5	60	16.2	140	59.8	10.0	1.1A	9	4	128	13	0.26	0.9	1.4	B	85	4	0.9	352	31	0.6	182	59	3.0
5	22	2	17.3	60	22.0	140	44.6	6.3	1.0A	9	6	161	29	0.68	0.9	1.7	B	81	12	1.0	322	14	0.7	199	56	3.1
5	23	2	28.7	60	18.2	141	6.0	14.0	0.9	8	7	126	17	0.27	0.8	1.3	A	332	18	0.6	81	19	0.7	208	58	2.8
5	23	3	0.6	60	16.8	140	56.3	4.2	0.7A	7	7	134	15	0.21	0.8	2.2	B	320	13	0.6	53	14	0.8	189	71	4.3
5	23	26	53.3	60	58.0	148	35.3	31.3	1.5	18	9	88	18	0.60	0.4	0.6	A	157	1	0.7	261	14	0.7	63	70	1.1
6	1	10	40.1	61	45.4	149	12.1	18.7	1.9	25	8	152	17	0.53	0.6	0.8	A	169	9	1.0	264	27	0.6	62	61	1.6
6	3	12	30.3	60	17.9	141	0.3	6.3	0.7A	6	4	159	16	0.15	0.8	2.4	B	44	7	1.3	313	13	0.9	162	75	4.6
6	5	29	44.2	60	19.0	140	48.1	3.6	0.4A	5	2	174	22	0.04	1.2	3.1	C	296	9	1.1	28	16	1.5	178	72	6.1
6	7	2	31.6	59	53.8	140	41.8	3.6	0.9	11	4	183	30	0.38	0.6	1.4	B	287	0	0.5	197	14	1.0	17	76	2.7
6	7	16	31.8	61	57.9	148	51.5	14.8	1.8	24	9	171	0	0.64	0.7	1.2	A	1	11	1.1	266	26	0.5	112	62	2.5
					3.3 ML ATWC							FELT IN THE ANCHORAGE AND PALMER AREAS.														
6	7	48	18.6	62	58.2	150	42.2	132.5	4.2	13	2	121	118	0.26	1.8	7.8	D	291	7	2.2	22	8	1.8	160	79	14.9
	4.4 MB				4.0 ML ATWC							FELT (II-III) IN THE ANCHORAGE-TALKEETNA AREA.														
6	8	13	15.8	60	14.9	141	1.7	11.1	0.7	9	7	123	11	0.20	0.8	1.0	A	81	21	0.8	327	25	0.6	200	51	2.3
6	8	31	46.6	60	8.6	140	54.7	13.8	0.9	10	5	112	7	0.38	0.8	0.5	A	194	30	1.6	310	37	0.8	77	38	0.7
6	10	10	32.4	59	38.6	150	41.1	10.1	1.1	10	4	222	7	0.31	1.0	1.0	A	220	10	0.7	125	27	1.9	329	61	1.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - FEBRUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
FEB 6	12	6	28.7	59	45.5	150	51.5	45.4	1.5	13	6	96	2	0.23	1.0	1.0	A	18	19	1.0	272	39	1.4	128	45	2.4
6	14	42	28.9	60	23.1	140	49.0	4.5	1.0	12	6	149	28	0.68	0.5	1.6	B	81	5	0.8	340	11	0.6	193	74	3.1
6	15	29	38.0	60	15.8	140	55.5	9.0	1.0	13	4	131	14	0.21	0.6	1.0	A	93	5	0.7	1	27	0.6	193	63	2.1
6	16	9	52.5	59	34.6	151	17.9	8.0	1.0	10	4	126	7	0.28	0.8	0.9	A	32	16	0.5	289	39	0.8	140	47	2.1
6	16	43	52.0	60	11.9	141	22.3	0.3	1.0A	7	2	103	8	0.31	0.7	1.8	B	304	3	0.6	35	11	1.2	199	79	3.4
6	16	54	48.8	60	12.9	140	47.3	12.7	1.3A	12	6	133	15	0.37	0.8	0.9	A	290	5	0.5	25	43	1.0	195	47	2.0
6	22	23	33.9	59	44.5	140	34.0	7.8	1.8	13	4	184	43	0.45	1.1	1.3	A	289	8	0.7	193	35	1.4	30	54	2.8
7	1	42	27.0	60	14.6	143	7.6	11.2	0.9	7	3	175	17	0.68	0.9	1.1	A	281	12	0.9	14	13	1.7	150	72	2.2
7	1	58	46.1	60	13.6	140	59.6	10.9	0.7	12	4	122	8	0.23	0.8	0.9	A	94	6	0.8	358	40	0.7	191	49	2.1
7	2	21	30.5	63	12.1	150	34.0	102.5	3.0	10	1	193	145	0.23	14.0	16.6	D	318	19	9.9	81	24	3.9	203	46	37.4
7	2	55	33.6	60	10.3	141	9.3	9.5	1.4	14	4	105	7	0.26	0.7	0.6	A	289	10	0.6	192	37	1.5	32	51	0.8
7	5	35	2.2	59	35.6	139	23.3	26.6	1.0	5	3	187	8	0.29	5.0	1.3	C	45	5	9.4	314	10	1.3	161	79	2.4
7	9	28	37.2	60	58.1	147	15.9	18.8	1.9	25	9	51	36	0.37	0.4	0.8	A	288	11	0.4	195	12	0.7	59	74	1.6
7	10	59	57.6	60	18.0	143	11.0	4.3	1.9	16	5	154	22	0.61	0.6	2.9	C	25	2	1.0	295	4	0.6	142	86	5.4
7	12	42	21.3	61	38.2	149	53.3	35.9	1.7	18	5	82	2	0.40	0.7	1.2	A	281	8	0.7	189	13	1.3	42	75	2.3
7	18	47	24.5	60	8.4	141	5.9	9.6	0.5	5	2	122	4	0.25	1.0	0.9	A	4	24	1.6	114	37	2.2	249	43	1.2
7	20	8	38.2	60	15.2	143	6.2	16.0	1.4	10	5	170	16	0.71	0.8	1.2	A	280	12	0.7	15	24	1.1	165	63	2.4
7	22	47	52.3	59	44.4	139	7.3	26.0	1.0	4	3	207	18	0.20	5.9	4.7	C	317	5	1.4	261	35	11.8	53	43	2.6
8	0	42	5.2	60	50.6	140	26.6	0.1	1.4A	8	2	224	50	0.52	2.7	3.1	C	137	9	1.0	261	24	4.1	33	48	5.6
8	1	9	55.5	59	58.7	141	42.6	7.4	1.2A	9	5	207	19	0.47	0.7	1.2	A	86	2	0.6	356	6	1.3	194	84	2.3
8	1	19	19.2	62	5.2	150	52.0	58.5	3.1	21	4	93	37	0.31	1.4	2.0	B	310	6	1.5	81	17	1.2	208	46	3.3
					3.5 ML ATWC																					
8	5	57	16.2	61	8.7	152	15.0	111.2	2.7	23	5	184	11	0.31	1.3	1.8	B	21	0	1.3	111	30	2.0	291	60	3.6
8	6	5	35.8	60	16.3	141	6.4	6.3	1.0A	7	3	150	14	0.17	1.1	1.8	B	81	13	1.3	326	15	0.8	201	59	3.4
8	9	30	32.8	60	13.7	141	4.3	14.1	0.6A	4	2	176	9	0.08	1.4	1.2	B	80	31	1.4	324	36	1.1	199	39	3.1
8	16	20	3.9	60	13.3	141	41.0	7.8	1.0	13	3	99	14	0.50	0.6	0.7	A	303	9	0.6	211	11	1.0	71	76	1.4
8	18	17	1.5	60	10.4	141	17.3	12.1	1.6	15	3	108	11	0.25	0.5	0.6	A	297	23	0.6	42	32	0.8	178	49	1.2
8	18	17	31.3	60	9.6	141	16.5	10.6	1.1	4	2	142	11	0.07	1.7	2.7	B	302	8	0.8	36	28	1.8	197	61	5.7
8	19	2	40.4	60	7.6	141	15.3	7.9	0.9	10	3	146	11	0.16	1.0	0.8	A	97	1	0.6	188	22	1.8	5	68	1.5
9	0	49	11.4	60	46.6	150	7.0	41.0	1.5	22	9	58	30	0.35	0.4	0.9	A	261	7	0.6	347	7	0.7	124	79	1.8
9	0	56	24.3	60	14.3	141	18.2	15.6	0.9A	7	3	106	14	0.17	1.4	1.8	B	311	12	1.0	49	33	1.8	204	54	4.0
9	3	5	48.4	60	12.6	141	19.3	18.7	1.9	17	6	102	11	0.48	0.5	0.6	A	310	22	0.6	54	32	0.8	192	50	1.2
9	4	3	51.2	60	40.1	143	6.1	9.1	1.1	8	3	90	28	0.44	0.6	2.6	B	1	5	0.8	271	6	0.9	131	82	4.9
9	5	43	24.3	60	11.3	140	58.5	11.0	0.7A	5	3	170	5	0.20	1.0	0.8	A	81	31	0.8	187	36	1.9	318	42	1.6
9	7	53	54.3	62	2.2	149	4.3	30.7	2.1	21	10	177	46	0.53	0.7	0.7	A	81	6	0.7	346	39	1.0	178	50	1.5
9	8	59	43.0	60	18.7	140	47.5	4.6	1.0A	7	2	151	22	0.23	1.2	2.4	B	101	2	1.1	10	22	1.3	196	68	4.9
9	9	8	6.4	60	39.8	140	32.8	10.2	0.9A	7	3	196	54	0.77	2.3	3.1	C	132	4	1.4	41	14	4.2	238	75	5.9
9	9	44	39.4	59	59.7	140	52.3	5.9	0.8A	6	2	182	16	0.32	1.4	1.5	B	117	17	1.1	218	30	2.3	2	54	3.2
9	11	41	6.6	61	37.7	149	54.8	41.5	2.1	24	9	99	3	0.37	0.7	1.0	A	91	2	0.9	181	6	1.2	343	84	1.8
9	12	43	20.0	59	18.7	139	1.9	27.0	1.2	7	4	277	18	0.27	2.9	1.7	C	168	10	3.7	81	31	6.1	275	57	1.0
9	12	48	58.6	61	1.3	150	24.5	40.0	1.9	29	9	42	52	0.50	0.4	1.5	B	334	1	0.7	81	2	0.6	221	73	2.6
9	13	1	55.8	60	13.1	140	59.9	11.6	0.9A	8	2	120	8	0.09	1.3	1.7	B	289	4	0.9	22	36	1.3	194	54	3.9
9	14	35	41.5	61	7.5	152	15.7	10.8	0.3A	4	4	192	13	0.20	1.7	1.8	B	195	14	1.4	294	33	2.7	85	53	3.8
9	15	44	21.3	59	57.1	140	38.8	2.9	1.3	10	2	170	27	0.42	0.9	1.9	B	272	1	0.6	182	15	1.3	6	75	3.7
9	16	47	3.8	60	9.5	141	13.2	10.8	0.6A	6	3	124	10	0.18	0.8	1.4	B	281	8	0.7	13	15	1.5	164	73	2.6
9	16	50	15.5	60	16.6	140	47.4	9.8	1.2	10	5	140	19	0.24	0.7	1.4	B	298	5	0.7	30	23	0.8	196	66	2.9
9	22	6	36.0	63	8.9	150	26.5	116.5	2.9	10	4	125	142	0.41	2.0	5.1	C	303	10	2.7	35	12	2.8	174	74	10.0
9	22	13	43.9	59	18.7	151	30.3	10.8	0.9A	9	5	300	18	0.16	1.5	0.8	A	336	29	2.5	261	31	1.6	115	46	1.4
9	22	42	29.7	62	12.1	149	19.4	39.3	2.8	27	6	115	66	0.48	1.0	3.6	C	81	7	1.1	344	8	1.2	209	77	6.8
10	0	5	58.1	59	53.7	141	26.3	0.1	0.8A	9	2	218	26	0.40	0.7	1.9	B	346	0	1.4	261	3	0.8	76	84	3.5
10	0	56	37.8	60	9.8	141	7.6	14.9	0.6A	4	2	156	5	0.28	0.9	0.8	A	81	23	1.4	187	35	1.9	324	46	1.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - FEBRUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
FEB 10	1	32	32.7	59	50.3	141	7.1	0.1	0.8A	8	2	206	25	0.42	1.3	2.3	B	125	3	1.1	216	20	2.1	27	70	4.6
10	1	37	23.5	59	32.5	150	43.0	13.9	0.3A	7	2	253	19	0.19	3.2	1.7	C	81	9	1.5	316	9	5.3	199	53	2.3
10	6	46	4.8	60	12.1	141	0.6	10.5	0.6A	5	5	172	5	0.15	0.8	0.8	A	93	7	0.8	190	44	2.0	356	45	1.0
10	7	23	39.8	61	19.3	152	21.9	12.2	0.5A	6	5	209	13	0.23	1.4	1.1	B	346	18	1.4	92	38	3.2	236	46	0.8
10	7	51	45.8	60	17.3	140	57.6	3.5	0.5A	6	4	198	16	0.25	0.9	2.6	B	297	3	0.8	28	16	1.0	197	74	5.2
10	10	29	4.6	60	7.1	140	54.4	6.9	0.6A	4	2	153	8	0.20	0.9	1.6	B	185	14	1.3	90	22	0.8	305	64	3.2
10	10	38	5.2	60	7.1	140	56.3	9.3	1.0	11	8	117	7	0.36	0.7	0.5	A	107	12	0.5	201	16	1.4	342	70	1.0
10	10	50	55.8	61	17.3	152	13.6	8.7	0.3A	6	3	198	5	0.33	1.4	0.7	B	23	4	1.1	114	21	2.9	283	69	0.8
10	12	29	28.8	60	13.9	141	1.1	10.3	0.9	14	7	121	9	0.18	0.6	0.7	A	107	1	0.5	16	39	0.6	198	51	1.7
10	14	22	7.3	60	16.6	140	50.6	9.7	1.2	15	9	137	17	0.30	0.5	0.9	A	103	4	0.5	11	29	0.6	200	61	1.8
10	19	53	51.0	60	7.8	140	51.1	17.3	0.7A	4	3	171	10	0.12	2.1	1.6	B	94	20	0.7	350	33	4.4	210	50	2.3
10	22	17	45.2	61	33.8	146	18.5	29.8	2.5	21	7	87	22	0.60	0.5	0.6	A	284	1	0.6	194	20	0.9	17	70	1.2
					3.0 ML ATWC						FELT AT PALMER.															
10	23	4	52.7	60	15.8	140	55.6	4.5	0.5A	4	3	193	14	0.13	1.2	2.9	C	81	13	0.9	339	14	1.1	208	68	5.8
11	0	7	17.0	60	4.6	140	50.7	11.9	0.5A	7	3	143	14	0.36	1.3	1.2	A	100	17	0.6	355	41	2.8	207	44	1.6
11	2	45	47.3	60	18.7	141	18.6	15.0	0.9	12	8	113	21	0.52	0.6	0.8	A	308	16	0.5	46	24	1.0	188	60	1.6
11	3	28	28.6	60	14.5	141	10.0	6.4	0.7A	6	3	143	12	0.17	0.8	1.5	B	297	9	0.6	30	20	0.9	184	68	3.0
11	3	34	46.5	59	41.3	139	7.0	8.9	1.5	11	9	193	16	0.60	1.8	0.9	A	261	25	2.7	322	26	0.8	114	45	1.3
11	9	13	4.5	60	14.1	140	57.9	7.6	1.3	15	10	125	10	0.69	0.7	0.8	A	98	3	0.6	5	40	0.6	192	50	1.9
11	13	6	6.0	60	13.3	140	58.0	12.4	0.7A	7	4	123	8	0.30	0.9	1.0	A	89	10	0.6	350	40	0.9	190	48	2.4
11	13	8	52.2	61	16.0	152	16.0	7.7	-0.5A	3	3	302	6	0.05	1.2	1.2	A	190	8	1.3	93	43	2.6	288	46	1.9
11	14	3	41.2	60	23.9	145	11.2	15.3	0.8	8	5	199	15	0.44	2.0	1.1	B	34	9	3.7	134	44	0.9	295	44	2.5
11	15	24	10.1	60	19.6	141	18.9	10.6	1.7	15	10	114	22	0.56	0.4	0.8	A	81	3	0.7	336	19	0.4	179	66	1.6
11	15	36	45.7	60	20.3	141	17.9	4.3	0.6	10	5	116	23	0.37	0.7	2.2	B	314	3	0.6	44	12	1.0	210	78	4.2
11	21	54	17.5	61	38.0	149	56.0	44.6	1.8	17	12	121	4	0.42	0.5	1.0	A	289	1	0.6	199	5	0.9	30	85	1.9
11	23	41	36.2	60	11.5	141	3.0	9.7	0.7A	5	5	167	4	0.28	0.7	0.7	A	297	21	0.7	43	36	0.9	183	47	1.7
12	2	26	30.5	61	21.0	150	31.4	48.1	1.5	15	9	102	17	0.37	0.7	1.1	A	98	1	0.7	189	18	1.2	5	72	2.1
12	2	43	18.3	60	7.5	140	59.9	6.1	1.1	12	5	105	4	0.39	0.6	0.6	A	299	13	0.7	197	41	1.5	43	46	0.7
12	3	31	12.9	60	4.9	140	39.0	7.6	1.5	14	6	141	22	0.50	0.8	0.7	A	107	5	0.5	200	30	1.5	8	59	1.2
12	4	48	2.0	60	16.7	140	59.0	9.9	3.2	19	5	129	14	0.39	0.6	0.8	A	289	5	0.6	22	32	0.9	191	58	1.6
		3.7 MB			4.0 ML ATWC																					
12	5	5	27.4	60	16.8	141	0.6	8.7	0.9A	6	5	129	14	0.14	1.4	3.0	C	81	12	1.1	343	19	0.8	200	66	6.2
12	5	23	5.7	60	16.8	140	58.9	4.6	1.0A	6	5	131	14	0.22	0.8	2.0	B	81	6	1.1	346	19	0.6	187	70	4.1
12	5	33	6.7	60	17.1	140	59.6	9.6	0.9	11	8	129	15	0.29	0.7	1.0	A	81	22	0.7	338	23	0.6	208	56	2.2
12	9	1	48.9	59	17.1	145	31.9	26.7	3.0	13	4	224	49	0.88	1.6	1.4	B	81	21	1.1	336	29	3.1	201	52	2.7
					3.0 ML ATWC																					
12	14	46	43.0	59	46.8	141	30.8	1.3	1.3A	9	3	220	38	0.63	1.2	1.9	B	120	14	1.4	216	23	1.7	1	63	3.8
13	0	48	32.1	60	11.1	141	29.4	7.7	1.0	12	3	92	4	0.29	0.8	0.6	A	101	22	1.1	207	34	1.6	345	48	0.7
13	6	53	18.5	60	25.0	148	36.6	0.4	1.8	31	6	143	42	0.92	0.5	0.6	A	261	22	0.5	348	29	0.7	134	54	1.3
13	11	14	31.9	61	27.9	151	47.9	90.5	1.8A	18	6	113	21	0.32	1.2	1.6	B	212	15	1.2	114	28	1.6	327	58	3.4
13	11	14	52.8	60	12.4	151	14.0	53.0	2.9	21	12	75	19	0.94	0.5	1.3	A	83	4	1.0	353	11	0.7	193	78	2.5
13	12	7	26.3	61	36.9	149	44.8	40.5	1.7	17	7	132	8	0.47	0.7	1.1	A	103	1	0.7	13	19	1.2	196	71	2.2
13	13	52	42.7	61	16.1	151	12.2	59.8	2.2	26	9	72	33	0.47	0.5	1.2	A	171	10	0.9	81	12	0.7	301	74	2.3
13	15	51	38.1	60	12.4	141	1.5	9.8	1.1	10	5	117	6	0.12	0.7	0.9	A	97	13	0.6	358	35	0.8	204	52	2.0
13	18	19	2.5	61	40.7	148	33.8	2.2	1.9	21	6	116	19	0.95	0.7	0.7	A	261	19	0.6	155	22	1.1	25	57	1.5
13	18	35	32.1	61	39.7	149	52.8	4.1	1.4	13	4	145	1	0.68	0.5	0.5	A	274	4	0.5	181	42	0.9	8	48	1.0
13	18	39	58.5	60	8.9	141	17.5	9.3	1.0	10	3	135	10	0.16	0.8	0.7	A	288	4	0.6	196	33	1.8	24	57	0.9
13	20	10	21.8	60	14.2	140	56.3	7.8	0.8	9	3	127	11	0.11	1.6	1.9	B	295	12	1.4	34	37	0.9	190	50	4.6
13	20	51	55.8	60	7.9	139	36.1	19.1	1.2	5	4	206	20	0.32	3.2	1.9	C	126	16	1.2	225	29	6.8	11	56	1.6
13	21	43	39.8	60	18.5	140	11.0	15.3	1.2	5	2	182	24	0.45	2.3	2.6	B	106	16	1.8	3	38	1.2	214	48	6.4
13	23	1	14.4	62	54.7	150	36.4	86.1	2.6	15	5	118	114	0.43	2.1	5.4	C	81	8	2.2	330	12	1.8	198	65	10.1

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - FEBRUARY 1984

ORIGIN TIME 1984	HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
FEB 13	23	32	37.4	60	9.7	153	26.5	147.2	3.2	21	3	187	35	0.43	2.0	2.3	B	150	5	2.0	261	26	3.2	51	57	4.4
14	5	39	50.9	62	17.4	149	43.6	43.5	2.2	17	9	127	72	0.84	1.3	4.0	C	91	6	1.1	359	14	1.5	204	75	7.7
14	7	43	48.8	61	26.6	150	15.7	46.2	1.8	16	9	89	26	0.31	0.6	0.9	A	270	2	0.6	179	22	1.1	5	68	1.8
14	9	46	26.5	60	4.6	139	30.3	17.7	0.9A	4	2	239	16	0.42	4.3	2.4	C	230	27	9.1	343	38	2.7	114	40	1.4
14	14	59	14.5	61	43.9	149	53.2	47.1	1.6	12	6	196	9	0.54	1.1	1.3	A	262	8	0.8	357	32	1.6	160	57	2.7
14	18	17	25.8	59	46.6	150	22.1	35.5	2.8	25	6	151	19	0.28	1.2	1.5	A	81	10	0.7	314	15	1.8	192	49	2.5
					3.3 ML ATWC					FELT AT HOMER.																
14	20	14	58.3	61	0.1	149	34.8	31.5	1.6A	18	6	52	27	0.39	0.6	1.0	A	317	9	1.0	223	20	0.6	70	68	2.1
14	20	38	14.1	60	23.4	140	57.6	16.1	1.3A	7	6	147	27	0.48	0.9	1.7	B	308	7	0.7	40	21	1.0	200	68	3.5
14	21	14	54.8	59	48.4	150	30.7	36.2	1.7	14	9	158	14	0.63	0.6	0.9	A	313	3	1.1	43	8	0.8	203	81	1.7
14	23	40	39.8	61	9.2	149	55.1	39.0	1.9	27	10	84	22	0.51	0.4	0.7	A	345	8	0.8	81	21	0.6	236	67	1.3
15	0	24	0.4	60	12.6	140	58.8	9.2	0.8A	6	4	120	7	0.22	0.9	1.2	A	81	14	0.8	340,	29	1.2	193	56	2.6
15	2	12	6.7	60	13.0	141	9.8	9.4	0.6A	7	4	111	10	0.10	1.1	2.0	B	37	12	1.7	304	16	0.9	162	70	4.0
15	2	48	15.0	59	55.7	141	33.2	1.9	0.8A	5	2	283	25	1.01	1.3	2.1	B	276	11	1.5	183	13	2.3	45	73	4.0
15	4	35	57.7	60	10.5	143	19.2	5.1	1.0A	4	3	267	27	0.23	3.3	10.1	D	195	5	5.7	286	13	2.3	84	76	19.6
15	9	4	24.2	60	17.3	141	10.6	11.0	0.6A	9	2	119	17	0.15	1.8	2.8	C	289	1	1.6	19	29	2.2	197	61	5.8
15	9	58	59.1	61	43.1	142	26.1	0.7	1.8	10	5	239	76	0.40	2.1	7.0	D	292	0	0.9	22	3	3.8	202	87	13.2
15	10	31	8.5	60	11.6	140	59.8	10.0	0.7A	7	4	116	5	0.15	1.2	1.0	A	104	6	1.2	199	38	2.8	6	51	1.0
15	10	50	10.1	60	13.1	141	8.3	13.2	1.0	11	7	112	9	0.26	0.6	0.5	A	318	22	0.5	208	40	1.4	69	42	0.7
15	11	56	13.5	60	16.9	151	1.7	46.6	2.2	27	8	55	31	0.34	0.4	1.1	A	8	5	0.6	278	6	0.8	138	82	2.0
15	12	6	39.3	60	16.5	140	58.9	10.5	0.5A	6	3	157	14	0.12	1.7	2.6	B	314	19	1.2	52	22	1.8	187	60	5.6
15	12	7	8.6	60	17.2	141	0.0	8.1	0.8A	8	2	130	15	0.35	1.0	2.3	B	291	5	0.7	23	19	0.9	187	70	4.7
15	12	38	10.6	61	14.6	149	29.3	38.6	2.0	27	5	54	4	0.64	0.5	0.6	A	81	1	0.8	156	20	0.9	348	65	1.0
15	14	23	43.3	60	16.3	140	41.9	11.5	0.7A	8	3	145	23	0.23	1.3	2.3	B	289	1	0.7	20	29	1.0	197	61	4.8
15	16	18	5.0	61	36.1	142	31.1	0.2	1.4	9	6	230	64	0.44	1.7	11.5	D	294	0	1.1	24	1	3.2	204	89	21.6
15	17	36	6.1	61	36.1	142	30.9	22.3	1.6	10	5	230	64	0.64	3.1	1.4	C	293	11	1.2	200	15	6.0	58	71	2.1
15	17	36	17.2	60	18.8	152	43.2	16.0	0.7A	3	3	180	16	0.32	25.0	15.4	D	122	20	82.3	23	22	1.0	250	59	6.2
15	20	56	9.8	59	33.7	151	17.1	8.9	0.3A	7	5	133	5	0.23	1.0	0.6	A	147	15	1.7	81	18	0.5	286	57	1.1
16	2	29	30.3	60	34.9	145	6.4	11.9	1.7	24	11	106	8	1.07	0.4	0.6	A	8	13	0.6	104	23	0.5	251	63	1.2
16	2	34	41.7	59	56.7	151	24.9	20.7	1.3	12	4	99	13	0.28	0.6	1.7	B	172	7	0.8	263	7	1.0	38	80	3.1
16	4	32	42.6	60	22.7	140	43.8	14.8	0.3A	7	3	166	30	0.57	1.5	5.8	D	296	7	1.1	27	10	1.8	171	78	11.1
16	5	11	38.7	60	5.5	140	51.1	9.5	0.9A	10	3	136	12	0.36	0.9	1.1	A	96	17	0.5	194	25	1.5	335	59	2.2
16	5	36	54.8	60	26.6	143	47.1	20.1	1.6	14	7	129	29	0.82	0.7	1.1	A	87	3	0.5	356	26	1.0	183	64	2.3
16	5	46	33.9	60	13.1	141	5.4	13.1	0.8	12	6	115	8	0.25	0.7	0.7	A	295	6	0.6	200	43	1.8	31	46	0.7
16	5	48	10.2	60	12.0	141	6.2	12.0	0.1A	7	5	112	6	0.28	0.9	1.2	A	293	10	0.8	30	31	1.2	187	57	2.6
16	6	10	0.8	63	4.3	149	58.7	89.8	2.7	14	5	117	146	0.31	5.9	12.8	D	81	13	3.3	338	16	5.4	205	66	25.6
16	6	31	0.3	58	59.2	154	16.3	114.1	3.1	12	6	201	157	0.22	3.2	4.6	C	179	2	2.0	270	26	4.9	85	64	9.2
16	7	24	14.4	60	7.1	141	9.7	0.2	0.8	7	6	121	7	0.33	0.4	1.3	A	286	3	0.5	16	6	0.6	169	83	2.4
16	7	34	28.8	60	14.9	141	4.8	11.9	0.8	7	5	120	11	0.32	1.0	1.4	B	81	11	1.4	331	27	0.9	189	55	2.8
16	9	56	14.2	60	18.1	141	14.5	15.6	1.2	11	8	116	20	0.49	0.6	0.8	A	335	21	0.5	81	21	0.7	208	57	1.7
16	13	11	20.3	60	47.6	140	29.7	20.1	1.2A	6	4	215	49	0.38	2.6	1.5	B	138	2	0.9	81	11	4.2	237	55	2.2
16	13	52	35.1	60	17.8	141	12.7	8.5	1.1	10	6	117	19	0.17	0.7	1.1	A	323	8	0.6	81	25	0.6	220	52	2.2
16	14	55	53.5	60	8.4	152	22.6	82.7	2.7	23	11	132	25	0.35	0.8	0.9	A	336	1	0.7	81	32	1.2	244	55	1.8
16	16	9	29.9	60	14.0	147	39.7	31.9	2.1	26	9	173	0	0.34	0.9	0.7	A	261	2	0.6	165	13	1.7	359	76	1.3
16	16	12	21.3	60	9.7	140	54.0	7.2	0.2A	5	3	166	8	0.32	1.2	1.0	A	83	33	1.3	325	35	1.6	203	37	2.6
16	17	3	3.2	60	27.6	151	46.3	71.8	2.5	27	7	68	37	0.44	0.6	1.0	A	344	1	0.7	81	13	1.0	250	75	1.8
16	17	27	36.5	60	16.2	140	44.0	9.7	0.4A	6	4	149	21	0.16	2.2	4.3	C	287	5	0.9	20	25	1.6	186	64	9.0
16	18	2	11.9	61	39.3	148	33.3	9.5	1.5	16	7	110	21	0.56	0.5	0.5	A	117	17	0.8	216	27	0.6	359	57	1.1
16	19	31	7.6	60	34.6	152	36.7	14.2	1.0	13	4	189	11	0.63	1.1	0.6	A	206	18	0.7	108	22	2.2	332	61	0.9
16	20	31	11.5	60	11.2	140	56.7	11.4	0.6	7	6	118	6	0.15	0.8	0.8	A	81	21	0.8	333	38	1.0	193	44	2.0
16	20	53	4.9	59	5.9	153	3.3	81.4	3.0	16	5	199	94	0.68	1.8	3.7	C	193	5	1.6	285	19	2.3	89	70	7.4

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - FEBRUARY 1984

1984		ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
FEB	16	21	31	13.0	60	7.7	140	55.1	6.6	1.2	10	3	114	7	0.26	1.0	0.7	A	97	13	0.6	4	14	1.9	228	71	1.4
	16	22	20	39.6	60	28.2	152	17.1	21.2	0.7A	9	4	115	13	0.56	1.1	1.6	B	81	21	1.2	172	27	0.9	314	56	3.6
	16	23	14	40.9	60	6.1	139	23.4	11.6	1.1	7	3	205	21	0.40	1.6	1.6	B	124	2	0.9	32	43	1.5	216	47	3.9
	17	4	25	22.4	60	5.2	141	19.9	9.2	1.1	7	5	207	10	0.22	1.1	0.8	A	290	20	0.8	189	29	2.2	50	54	1.2
	17	7	59	3.3	60	41.3	142	43.7	22.8	1.9	18	10	78	44	0.46	0.5	0.6	A	340	7	0.6	261	23	0.7	87	64	1.2
	17	10	40	44.5	60	13.2	141	16.4	15.2	1.1A	7	5	121	14	0.19	1.0	1.3	A	321	25	0.6	65	26	0.9	194	52	2.9
	17	11	22	6.8	61	1.4	147	6.3	12.7	2.0	20	13	91	43	0.43	0.4	0.7	A	206	13	0.6	300	14	0.5	75	71	1.3
	17	11	50	51.2	60	38.3	149	54.5	36.6	1.9	28	13	46	22	0.46	0.4	0.6	A	117	1	0.8	27	12	0.6	212	78	1.2
	17	14	48	53.2	61	9.3	152	17.3	4.7	0.3A	3	3	313	13	0.07	1.2	4.6	C	333	5	1.4	261	9	1.9	95	69	8.2
	17	15	16	0.5	60	10.8	141	6.4	3.7	1.9	13	8	109	5	0.64	0.5	0.6	A	303	15	0.5	40	27	0.7	187	59	1.3
	17	16	21	16.8	60	16.5	140	55.6	7.6	0.9	10	6	134	15	0.19	0.7	1.3	A	93	3	0.9	2	25	0.5	189	65	2.7
	17	16	47	57.2	63	13.9	150	44.5	88.1	3.3	12	4	131	145	0.89	4.1	10.5	D	296	3	1.7	26	18	4.2	197	72	20.8
	17	19	23	27.9	60	10.1	141	9.9	8.5	1.4	12	7	105	8	0.13	0.6	0.5	A	81	27	0.7	312	31	0.5	194	36	1.4
	17	19	30	47.6	60	10.2	141	9.8	8.5	0.8	7	3	105	7	0.12	0.7	0.8	A	287	14	0.6	26	33	1.0	177	53	1.7
	17	22	48	46.3	60	11.6	140	58.5	10.4	0.7	9	5	118	6	0.31	0.8	0.9	A	296	11	0.9	34	37	0.7	192	51	2.2
	18	4	26	54.7	59	46.8	152	18.0	82.8	2.9	22	12	128	53	0.38	1.2	1.2	A	325	5	1.0	81	43	1.7	230	41	2.6
	18	5	39	50.5	61	23.4	150	47.6	50.6	2.2	25	8	70	9	0.42	0.5	1.2	A	202	10	0.9	110	11	0.8	333	75	2.4
	18	22	46	23.9	60	12.2	141	5.6	13.5	0.5	9	5	113	7	0.21	1.0	0.9	A	294	16	0.8	191	38	2.3	42	48	1.0
	19	0	8	15.1	60	12.8	140	59.8	10.0	0.7A	11	4	119	7	0.21	1.0	0.9	A	89	19	0.6	196	40	2.4	340	44	0.9
	19	2	55	8.2	60	2.5	141	25.0	3.9	1.2	11	5	174	12	0.22	0.8	1.0	A	273	14	0.6	176	27	1.5	28	59	2.0
	19	3	37	55.1	60	5.6	141	7.8	7.5	1.8	15	9	109	4	0.77	0.5	0.3	A	199	2	0.9	290	11	0.5	99	79	0.7
	19	5	7	47.2	60	4.1	141	10.8	5.7	1.3	11	6	167	13	0.33	0.8	0.8	A	283	19	0.6	176	39	0.9	33	45	1.9
	19	8	37	37.9	60	58.6	147	15.9	18.1	2.3	22	9	59	14	0.45	0.4	0.8	A	306	5	0.4	215	9	0.6	65	80	1.6
	19	9	7	43.3	59	31.0	145	19.5	16.9	2.3	18	7	224	58	0.73	1.3	1.0	A	261	27	1.8	110	37	1.1	3	20	2.3
	19	12	41	23.2	60	10.0	141	17.0	7.2	1.1	12	7	117	11	0.61	0.7	0.6	A	284	4	0.5	190	40	1.6	19	50	0.8
	19	13	9	33.9	61	10.2	152	9.3	4.1	-0.6A	3	3	283	6	0.05	1.3	1.9	B	261	5	2.0	320	21	0.9	159	53	3.3
	19	14	59	49.4	59	55.3	153	17.3	115.4	2.9	18	13	148	39	0.49	1.6	1.7	B	332	5	1.4	261	33	2.5	70	52	3.3
	19	23	47	12.4	63	1.0	147	53.8	103.1	3.1	12	5	136	135	0.59	2.4	5.9	D	15	9	3.6	283	16	2.3	133	72	11.6
	20	1	27	2.8	60	10.2	141	9.8	10.7	0.5	4	3	198	8	0.16	0.9	0.8	A	272	8	0.9	174	43	1.9	10	46	1.3
	20	14	39	1.2	61	16.5	151	31.4	72.2	2.3	26	14	146	26	0.56	0.9	1.1	A	183	23	1.1	82	24	0.8	311	56	2.5
	21	1	3	58.0	61	47.3	150	38.0	56.0	2.2	20	9	145	37	0.53	0.7	1.1	A	182	1	1.2	92	6	0.7	281	84	2.0
	21	2	23	11.5	60	6.8	141	13.9	9.3	0.9	10	3	148	8	0.29	0.8	0.6	A	284	11	0.6	190	23	1.5	38	64	1.2
	21	2	38	26.9	60	8.8	141	37.7	4.4	0.7A	6	3	203	9	0.13	1.7	1.3	B	309	16	0.7	49	31	3.5	196	54	2.1
	21	3	46	50.1	60	22.9	140	24.0	9.4	1.1	11	6	176	33	0.60	0.8	1.9	B	304	10	0.7	36	11	1.4	173	75	3.7
	21	5	39	18.2	61	38.7	149	46.6	35.5	2.0	20	10	140	5	0.60	0.6	0.9	A	10	2	1.0	280	7	0.6	116	83	1.6
	21	6	37	3.7	60	4.4	141	10.1	2.8	0.3A	6	3	208	12	0.47	1.4	1.9	B	261	13	1.4	163	30	1.7	12	57	4.1
	21	10	16	13.5	61	11.3	152	12.2	7.5	-0.3A	3	3	281	8	0.04	1.2	1.4	B	337	7	1.1	261	32	2.0	78	55	2.8
	21	10	18	52.7	58	59.3	136	36.2	6.1	2.1	9	5	168	132	0.41	5.9	2.8	D	218	14	11.4	121	27	2.9	333	59	4.9
	21	10	22	28.6	61	18.3	152	10.6	7.1	-0.4A	3	3	283	4	0.03	1.1	1.1	A	217	6	1.2	310	33	2.2	118	56	1.9
	21	11	40	41.2	60	16.7	142	56.3	0.2	1.8	19	8	101	10	1.04	0.5	7.8	D	324	0	0.6	261	0	0.7	0	90	14.6
	21	12	18	23.1	62	48.2	150	50.4	76.1	3.0	15	4	116	98	0.53	1.6	3.5	C	303	6	2.2	35	19	1.7	196	70	6.9
	21	12	36	32.0	60	11.4	141	19.4	17.4	0.4A	6	4	185	17	0.30	2.7	1.2	C	299	7	0.9	208	7	5.1	74	80	2.2
	21	13	11	25.3	61	16.6	152	11.7	4.4	-0.3A	3	3	287	2	0.02	1.1	0.8	A	198	3	1.0	289	18	2.2	99	72	1.4
	21	13	14	25.5	61	16.5	152	11.6	3.8	-0.3A	3	3	285	2	0.04	1.1	0.8	A	197	1	0.9	287	12	2.1	102	78	1.5
	21	16	24	3.5	61	3.9	148	12.7	26.1	1.5	18	8	114	41	0.30	0.5	1.1	A	286	0	0.6	196	14	0.8	16	76	2.1
	21	16	31	48.8	62	59.1	149	35.4	114.0	3.4	14	5	159	146	0.67	3.9	5.3	C	92	2	2.2	1	33	4.3	185	57	11.5
						3.4 ML ATWC																					
	21	16	36	48.4	63	6.8	149	9.7	64.9	2.4	10	9	153	152	0.71	3.6	11.5	D	281	3	3.1	11	13	4.5	178	77	22.1
	21	16	38	59.4	60	13.7	141	2.5	11.3	1.2	11	7	119	8	0.25	0.8	0.6	A	299	4	0.5	206	34	1.9	35	56	0.7
	21	20	13	53.9	60	7.5	141	7.2	10.9	0.3A	7	4	172	6	0.33	2.6	0.8	B	21	7	5.0	287	31	1.0	122	58	1.4
	22	1	8	24.5	59	6.5	135	13.3	36.0	2.3	8	4	224	88	0.59	6.2	25.0	D	43	2	11.4	313	3	2.6	167	86	67.7

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - FEBRUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
FEB 22	2	32	19.4	60	19.5	140	14.7	7.8	1.0	5	2	195	25	0.15	2.0	3.9	C	81	13	2.0	341	21	1.1	199	64	8.0
22	7	58	48.2	60	11.1	141	7.8	12.2	0.6	9	3	165	6	0.16	1.4	0.5	B	208	10	2.7	301	17	0.6	89	70	0.9
22	8	40	45.5	60	8.2	139	43.5	14.0	1.0	6	3	202	21	0.49	2.5	1.7	B	304	7	0.8	209	33	5.4	44	56	1.5
22	11	54	31.2	61	32.4	149	54.1	42.2	1.8	18	8	65	12	0.33	0.6	0.9	A	91	4	0.6	0	12	1.1	199	77	1.7
22	15	32	46.8	58	54.0	138	24.0	0.1	1.5	6	3	336	67	0.34	5.0	9.2	D	161	1	2.6	261	9	8.9	65	77	17.1
22	15	51	12.6	58	43.2	139	54.0	7.4	1.4A	5	3	296	100	0.17	2.6	12.2	D	311	2	4.7	220	6	3.4	59	84	23.1
22	18	24	18.9	60	13.4	141	7.1	15.7	0.7A	3	3	172	9	0.09	18.0	8.8	D	301	16	1.0	203	26	37.5	59	59	1.7
23	0	35	8.0	59	27.2	151	14.9	10.1	0.8	10	5	191	2	0.36	1.3	0.7	A	154	20	2.5	262	41	1.3	45	42	0.6
23	0	51	41.5	62	59.5	150	37.0	129.3	3.0	10	3	121	122	0.55	4.1	4.6	C	321	10	4.1	81	33	2.9	219	46	10.3
23	2	14	38.3	60	19.8	140	22.5	12.2	1.0A	6	3	222	0	0.27	2.6	3.3	C	312	18	1.5	53	30	3.0	195	54	7.4
23	3	48	52.4	60	8.4	140	53.5	6.1	0.4A	4	3	160	8	0.20	0.9	1.1	A	359	15	1.7	95	21	0.8	236	64	2.2
23	4	18	53.0	60	18.1	140	46.8	15.3	1.0A	7	4	150	22	0.22	1.1	1.4	B	119	3	0.9	27	35	1.2	213	55	3.0
23	8	58	47.0	60	3.2	141	3.0	1.8	0.9A	5	2	210	11	0.04	1.8	4.8	C	81	4	2.9	145	16	1.0	337	60	8.5
23	9	57	57.0	60	14.8	141	18.0	11.2	0.2A	5	2	172	18	0.29	13.3	5.9	D	302	9	1.4	208	23	27.0	52	65	3.7
23	10	6	48.5	62	35.5	149	55.8	38.4	2.5	19	4	105	105	0.64	1.3	1.5	B	188	13	2.4	90	31	1.0	298	56	3.2
23	10	45	36.0	61	15.2	152	16.5	20.8	0.3A	3	2	303	7	0.28	3.1	5.6	C	332	21	2.7	261	21	4.3	117	55	10.5
23	12	56	9.1	60	28.3	140	39.7	16.7	0.9A	7	2	171	41	0.18	0.8	2.2	B	309	6	0.7	40	7	1.5	179	81	4.2
23	12	57	22.7	60	28.5	140	39.0	13.9	0.7A	4	1	172	47	0.04	6.8	4.3	D	323	13	1.3	81	15	12.5	205	56	6.5
23	13	43	16.4	60	7.1	141	8.2	8.8	0.6A	7	2	189	7	0.20	3.3	1.4	C	285	5	1.5	17	21	6.6	182	68	1.1
23	15	35	44.6	61	25.1	140	10.7	5.0	1.4A	6	2	276	80	0.26	5.0	20.6	D	113	2	3.2	23	5	8.8	225	85	38.7
23	19	11	24.2	60	11.2	140	31.8	17.2	0.7A	6	2	191	18	0.20	7.4	1.1	D	26	3	13.8	294	27	1.0	122	63	2.0
23	19	38	39.0	60	22.9	142	23.1	1.9	1.0	8	3	127	27	0.45	0.6	16.8	D	263	0	0.7	353	1	0.9	173	89	31.5
23	20	23	56.0	60	8.8	141	9.8	8.8	0.2A	5	3	136	7	0.28	0.7	0.8	A	279	9	0.7	15	33	1.1	176	55	1.6
23	23	10	4.0	60	9.6	141	1.0	11.3	1.5	13	4	110	12	0.36	0.7	0.8	A	299	2	0.6	30	35	0.9	206	55	1.8
24	0	18	55.2	60	10.8	141	8.4	12.8	0.4A	6	4	143	7	0.10	1.4	0.8	B	280	5	0.7	188	24	2.8	21	65	1.1
24	0	52	51.9	60	12.0	141	8.2	9.0	0.6	11	4	110	15	0.31	1.2	1.7	B	296	0	0.6	26	33	0.8	206	57	3.8
24	2	28	15.2	59	49.3	151	15.0	42.2	1.6	11	5	90	5	0.32	0.6	1.0	A	16	0	0.9	286	17	1.1	106	73	1.9
24	4	57	50.5	60	17.2	140	54.2	0.2	0.4A	6	2	137	28	0.35	2.3	4.1	C	294	0	0.9	24	21	3.3	204	69	8.2
24	6	47	6.3	60	19.4	152	58.1	132.2	4.0	22	6	150	18	0.39	1.5	2.2	B	338	3	1.4	261	8	2.6	90	74	4.0
		4.3 MB				4.2 ML ATWC						FELT (III) AT HOMER.														
24	10	29	56.2	59	54.6	140	57.8	8.1	0.7	9	4	188	19	0.34	0.8	1.0	A	112	7	0.6	207	34	1.2	12	55	2.1
24	15	35	29.1	59	17.4	150	53.8	4.1	1.0A	10	4	282	28	0.29	1.0	1.3	A	96	17	1.2	194	23	1.5	333	61	2.6
24	18	28	44.5	60	10.8	141	8.3	10.8	0.7	14	11	107	7	0.55	0.7	0.5	A	300	24	0.5	199	24	1.4	70	55	0.7
24	20	5	6.8	60	23.5	151	46.5	84.5	2.6	24	12	174	47	0.27	0.8	1.5	B	2	4	0.7	271	7	1.4	121	82	2.8
24	20	38	58.3	60	12.2	141	7.7	9.9	0.6	11	3	111	8	0.18	0.8	0.7	A	294	16	0.6	191	37	1.8	43	48	0.8
24	22	0	0.3	60	15.5	140	44.6	14.1	0.8A	8	5	151	33	0.40	1.1	1.2	A	301	10	0.6	40	40	1.9	200	48	2.5
25	6	2	22.1	60	11.1	141	7.7	10.4	0.2A	6	1	162	6	0.04	1.3	1.4	B	96	4	0.8	2	41	1.5	191	49	3.2
25	7	55	22.5	58	12.8	151	54.0	58.0	2.9	11	7	192	63	0.89	9.0	5.0	D	23	12	1.1	288	22	18.0	140	65	7.3
		3.9 MB				3.6 ML ATWC																				
25	8	10	7.0	60	3.0	140	59.8	4.0	0.6A	8	2	163	12	0.43	2.4	2.6	C	138	21	0.8	261	26	1.5	23	45	6.2
26	1	11	21.1	61	20.7	150	42.4	61.3	1.0A	4	5	157	13	0.29	1.4	2.5	B	280	6	1.2	189	8	2.6	46	80	4.8
26	2	7	30.0	61	10.1	151	19.1	65.5	1.9	9	4	81	40	0.42	0.8	1.8	B	198	3	1.5	107	8	1.4	308	81	3.5
26	7	32	45.2	61	22.3	151	43.4	81.1	3.1	28	5	105	17	0.35	0.9	1.3	A	40	1	0.9	131	32	1.0	308	58	2.7
26	9	23	33.2	60	13.4	141	4.5	9.9	0.3A	6	2	116	8	0.31	1.1	1.3	A	261	18	1.9	347	36	1.2	146	50	2.8
26	10	35	25.9	59	49.7	141	24.9	2.2	1.0A	9	4	226	31	0.57	0.9	2.7	B	203	3	1.6	293	10	1.4	96	80	5.1
26	11	23	27.8	61	26.5	149	39.5	31.8	3.5	32	5	84	23	0.46	0.5	0.7	A	181	8	0.9	272	10	0.7	53	77	1.4
		3.9 MB				3.6 ML ATWC						FELT (IV) AT SKWENTNA. ALSO FELT IN THE ANCHORAGE AREA.														
26	11	29	53.9	61	27.4	149	39.6	33.9	2.0	21	7	88	24	0.70	0.5	0.8	A	269	10	0.6	176	18	0.8	27	69	1.7
26	14	55	48.5	60	16.4	141	6.2	9.9	0.9	7	6	121	14	0.10	0.9	1.4	B	315	13	0.6	51	25	1.0	200	61	3.0
26	16	25	39.8	60	9.3	140	56.7	10.2	1.3	12	4	113	5	0.48	0.7	0.8	A	114	1	0.8	23	42	0.7	205	48	1.9
26	20	13	3.1	61	26.8	149	40.2	35.7	1.7	17	8	84	23	0.54	0.5	0.9	A	175	3	1.0	265	10	0.6	68	80	1.7

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - FEBRUARY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
FEB 26	20	14	26.5	61	26.4	149	42.1	31.0	2.6	31	6	81	23	0.62	0.5	0.8	A	272	8	0.5	180	16	0.9	28	72	1.5
26	21	54	47.2	61	0.3	149	45.0	39.3	3.4	31	9	35	29	0.49	0.5	1.5	B	307	1	0.9	217	2	0.6	64	88	2.8
				3.5 ML ATWC																						
26	23	19	58.0	60	16.1	141	12.6	12.1	1.0	10	5	114	16	0.25	1.0	1.0	A	325	20	0.6	81	29	1.1	210	48	2.4
27	0	14	21.3	59	58.7	141	39.2	4.4	0.7A	6	5	236	31	0.26	1.6	2.7	C	288	6	1.0	19	8	2.9	162	80	5.2
27	2	13	42.9	60	28.3	143	11.2	19.8	1.9	17	12	110	19	0.40	0.4	0.6	A	21	10	0.6	289	11	0.5	152	75	1.2
27	3	12	24.3	59	47.3	152	32.5	76.5	3.1	22	10	133	46	0.25	1.1	1.1	A	320	2	0.8	81	25	1.8	226	51	1.9
										FELT AT HOMER.																
27	3	21	39.8	61	22.6	146	48.8	18.6	2.1	23	11	55	38	0.50	0.3	0.7	A	190	5	0.6	281	13	0.4	79	76	1.3
27	8	2	0.6	60	24.0	141	23.0	16.1	1.1	8	4	115	21	0.41	0.9	1.7	B	342	9	0.7	81	25	0.8	234	62	3.5
27	8	28	15.3	60	18.3	140	55.2	9.3	1.0	9	6	139	18	0.38	0.8	1.3	A	327	16	0.6	81	17	0.7	205	57	2.7
27	9	42	0.7	61	9.6	152	16.2	4.1	0.1A	3	3	309	12	0.01	1.3	13.0	D	261	3	1.9	329	5	1.3	135	67	22.7
27	12	20	47.1	61	43.4	150	7.4	42.3	2.8	29	10	85	15	0.46	0.5	1.0	A	92	2	0.5	182	3	1.0	328	86	1.9
27	12	42	41.3	61	42.9	150	6.8	41.2	2.0	24	11	144	14	0.45	0.6	0.7	A	271	0	0.5	1	1	1.2	181	89	1.4
27	18	10	19.8	60	15.6	141	8.4	17.1	0.8	9	4	118	13	0.40	1.1	1.0	A	314	18	0.7	60	42	1.2	206	43	2.6
27	18	56	39.5	60	18.1	140	15.4	10.0	0.8	7	3	199	23	0.36	2.9	4.2	C	81	9	4.2	329	25	1.4	187	56	8.6
27	22	49	39.6	63	3.2	149	14.1	57.1	2.4	10	6	257	146	0.68	4.4	25.0	D	288	2	3.1	19	7	5.3	182	83	50.2
27	23	13	27.3	59	23.6	140	7.3	15.0	0.8A	5	5	236	51	0.71	1.3	3.0	C	37	2	2.5	307	6	1.3	145	84	5.6
28	1	0	41.4	60	0.6	152	3.8	63.3	2.6	21	9	140	43	0.36	0.9	1.2	A	328	5	0.7	81	27	1.2	230	55	2.3
28	1	49	27.3	60	7.6	141	11.8	3.6	1.4	11	7	130	8	0.81	0.4	0.7	A	44	2	0.8	312	28	0.5	138	62	1.4
28	7	16	9.0	60	17.7	141	5.9	1.8	0.8	8	5	125	16	0.43	0.8	1.7	B	328	9	0.6	81	12	1.0	210	63	3.2
28	7	57	39.1	61	13.3	149	20.6	36.0	1.8	21	10	51	12	0.43	0.4	0.7	A	313	5	0.8	222	17	0.7	59	72	1.3
28	13	7	19.6	59	40.5	151	11.7	46.5	1.4	11	4	79	9	0.20	1.4	1.7	B	21	22	1.4	278	29	1.7	142	52	3.8
28	13	42	41.4	60	16.7	141	4.9	9.4	0.9	8	6	124	14	0.18	0.9	1.3	B	81	19	1.0	333	20	0.6	206	58	2.8
28	14	50	35.6	60	34.1	141	37.6	10.1	0.8	14	8	101	24	0.83	0.4	0.9	A	31	1	0.7	301	3	0.6	139	87	1.7
28	15	4	17.9	59	31.0	151	20.4	11.1	0.7	10	6	92	6	0.25	1.0	0.6	A	81	22	0.5	293	40	0.7	181	22	1.8
28	17	59	22.9	61	7.1	152	29.2	2.8	1.0	5	5	231	24	0.62	1.4	1.3	B	210	16	0.7	113	22	2.7	333	62	2.5
29	4	6	59.2	59	55.8	153	5.7	114.5	3.0	23	9	143	32	0.48	1.5	1.4	B	155	1	1.3	261	44	2.0	64	44	3.2
29	7	29	3.3	60	57.6	147	16.5	15.2	2.1	23	9	87	45	0.38	0.5	1.1	A	183	11	0.8	277	15	0.5	58	71	2.3
29	9	12	27.8	60	10.0	141	6.9	8.6	0.9	7	5	121	5	0.33	0.8	0.7	A	81	26	1.1	327	35	0.7	197	42	1.8
29	9	18	45.4	60	16.8	140	44.5	13.6	0.6A	9	5	143	21	0.38	0.8	1.2	A	316	12	0.7	53	28	0.9	205	59	2.6
29	9	19	23.9	60	21.3	141	13.9	16.1	0.6A	6	4	122	25	0.34	1.3	1.9	B	323	9	0.7	81	26	1.0	219	52	3.9
29	9	33	33.5	60	39.2	149	44.9	36.2	1.2	13	6	74	28	0.58	0.6	0.9	A	289	2	1.0	20	26	0.8	195	64	1.8
29	12	50	43.0	61	17.6	152	12.9	7.3	1.9	17	8	120	11	1.24	0.7	0.5	A	114	31	1.5	228	33	0.6	352	41	0.8
29	13	47	32.2	59	55.6	140	6.4	14.1	1.3	10	4	159	21	0.84	1.5	1.3	B	298	5	0.7	32	38	3.4	202	52	1.4
29	14	3	59.2	61	1.4	147	15.0	21.0	2.3	23	8	81	48	0.41	0.4	1.0	A	192	6	0.7	284	14	0.5	79	75	2.0
29	15	8	45.3	59	56.8	140	12.5	13.0	1.3	10	4	159	17	0.70	1.7	1.2	B	133	16	0.7	261	43	1.1	31	34	3.6
29	16	51	36.6	62	33.6	149	38.4	79.1	2.8	15	6	141	102	0.46	0.9	3.4	C	297	1	1.4	27	11	1.1	202	79	6.5

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MARCH 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAR 1	1	58	28.0	61	10.1	152	12.3	7.9	0.9A	3	3	184	8	0.31	25.0	25.0	D	311	19	1.5	261	40	0.7	64	34	60.1
1	4	37	27.5	59	53.0	141	23.9	0.8	1.8	13	4	188	25	0.58	0.9	1.3	A	282	4	0.7	190	26	1.3	20	64	2.7
1	4	41	11.5	59	50.9	141	20.0	0.6	0.9	4	2	273	27	0.22	1.6	3.4	C	204	2	3.0	294	16	1.9	107	74	6.7
1	4	57	41.7	60	9.8	141	3.9	6.3	0.8	7	3	108	2	0.64	0.5	0.5	A	265	4	0.9	171	39	1.2	0	51	0.7
1	6	3	1.1	60	13.3	140	49.2	9.9	0.8A	6	2	156	14	0.12	4.3	4.2	C	91	14	0.7	348	42	1.7	195	45	11.2
1	7	58	54.1	60	1.2	141	44.4	8.9	1.7A	9	6	180	38	0.55	0.8	1.0	A	132	12	0.7	228	29	1.3	22	58	2.2
1	8	15	21.3	60	25.9	141	18.7	22.0	0.6A	4	4	129	25	0.13	1.2	2.3	B	115	5	1.9	23	24	1.2	216	65	4.6
1	10	3	55.0	61	11.5	152	28.2	18.4	0.8A	4	4	245	19	0.07	1.8	2.4	B	317	17	2.5	217	30	0.9	73	55	5.4
1	10	10	1.2	60	11.4	141	8.2	11.8	1.1A	5	2	174	7	0.26	5.6	1.7	D	203	15	10.8	106	24	1.8	322	61	1.3
1	11	52	6.8	60	13.5	140	50.8	15.3	1.5	8	6	131	13	0.33	1.0	1.0	A	115	7	0.7	212	43	2.5	18	46	1.1
1	14	3	39.0	60	31.0	141	23.0	17.3	1.4	10	6	119	27	0.54	0.7	1.2	A	163	3	0.6	81	26	1.0	259	63	2.4
1	14	6	17.5	59	34.6	138	54.6	16.1	0.7	4	2	216	14	0.28	7.7	3.8	D	328	27	0.8	261	37	13.3	98	41	2.8
1	14	10	55.8	60	10.1	140	55.8	9.8	0.8A	6	5	116	6	0.21	1.0	0.8	A	83	33	0.8	325	35	1.2	203	37	2.2
1	15	28	16.9	60	5.2	141	15.9	7.0	0.9	7	2	211	9	0.12	1.6	1.5	B	51	25	3.0	303	34	1.3	169	46	3.3
1	15	57	20.1	60	18.1	140	59.8	11.9	1.1A	7	5	130	17	0.25	1.0	1.6	B	81	16	1.2	345	22	0.7	204	62	3.4
1	16	1	7.4	61	41.8	149	29.8	42.8	1.7	16	8	151	21	0.54	0.7	1.1	A	114	4	0.9	204	4	1.3	339	84	2.1
1	19	6	48.9	60	16.3	140	51.8	14.0	1.2A	6	4	138	16	0.67	1.4	2.2	B	89	8	1.6	354	31	1.0	192	58	4.7
1	19	17	30.4	60	11.3	141	17.0	17.2	1.1A	5	3	160	14	0.29	1.5	1.7	B	81	23	2.0	327	27	0.8	201	49	3.9
1	20	39	55.8	60	43.4	143	26.8	11.6	1.2A	9	5	146	69	0.60	1.2	2.5	B	274	0	0.9	184	11	2.2	4	79	4.7
2	10	43	49.9	60	12.9	141	17.2	0.7	0.9	10	2	119	16	0.53	1.1	2.3	B	81	2	1.4	315	12	0.8	178	52	3.7
2	13	1	53.5	62	30.4	150	54.5	74.0	3.0	18	3	82	67	0.83	0.9	1.8	B	97	6	1.4	5	19	1.0	204	70	3.7
					3.1	ML	ATWC																			
2	13	18	36.2	61	29.1	149	41.8	34.3	1.8	21	9	90	21	0.56	0.5	0.6	A	273	7	0.5	180	20	0.9	21	69	1.2
2	13	20	20.1	61	30.5	146	24.2	22.0	2.9	28	5	79	42	0.60	0.4	0.9	A	304	2	0.6	34	4	0.8	187	86	1.7
					3.9	ML	ATWC																			
2	14	57	32.5	62	22.6	148	28.6	45.0	2.9	24	6	97	64	0.53	0.9	3.5	C	85	3	1.2	354	12	0.9	189	78	6.8
					3.2	ML	ATWC																			
2	15	19	7.4	60	16.6	141	14.7	10.5	0.4A	4	3	181	18	0.18	4.7	9.0	D	113	9	3.3	19	25	2.2	221	63	18.9
2	15	53	57.6	60	13.9	152	58.6	112.3	2.6	17	4	244	11	0.25	2.0	1.7	B	157	16	1.8	261	30	4.1	44	54	2.7
2	17	5	33.1	59	1.1	137	55.2	19.3	1.8	5	4	349	73	0.25	25.0	3.7	D	315	0	6.0	225	6	60.3	45	84	2.9
2	18	28	39.6	60	20.7	141	21.6	12.1	1.1	8	5	114	21	0.39	1.0	1.5	B	331	10	0.6	81	26	0.9	224	56	3.2
2	18	55	20.4	61	5.6	152	11.0	6.8	0.8	4	4	165	12	0.40	2.2	2.4	B	306	27	2.4	200	28	0.5	72	49	5.9
2	19	2	0.5	61	36.0	149	24.0	35.3	1.3	14	10	136	20	0.67	0.5	0.8	A	182	9	1.0	274	14	0.7	60	73	1.5
2	23	11	9.2	62	20.2	149	3.5	19.6	2.1	16	6	204	70	0.55	1.0	1.5	B	174	5	1.7	267	27	1.1	74	62	3.2
3	1	23	47.6	62	59.8	150	48.5	128.1	3.1	12	6	193	119	0.32	4.2	4.0	C	319	24	4.6	81	30	2.9	204	42	9.7
3	4	30	23.7	59	56.0	141	18.6	2.7	1.0	11	2	176	18	0.33	1.8	2.6	B	158	21	1.5	261	23	1.7	32	57	5.7
3	5	15	47.3	60	42.3	139	55.7	1.9	0.9A	5	2	225	70	0.32	5.8	7.0	D	172	3	1.4	264	33	8.8	77	57	14.7
3	5	52	5.8	60	2.2	139	53.8	15.7	1.2	7	4	159	17	0.64	2.3	0.6	B	302	0	0.7	32	1	4.4	212	89	1.1
3	5	53	11.7	60	14.2	140	60.0	12.2	0.7A	5	3	271	9	0.18	2.6	1.3	B	172	18	5.2	279	42	2.4	65	43	0.9
3	6	16	46.3	59	50.8	141	11.3	27.0	0.7	4	3	262	24	1.05	2.7	3.3	C	81	6	2.9	154	38	1.3	343	49	7.5
3	12	0	0.6	59	30.7	151	18.2	12.3	0.6	10	3	106	4	0.39	1.0	0.9	A	27	32	0.6	272	34	1.3	148	40	2.4
3	18	39	0.3	59	52.9	151	14.8	44.9	1.8	13	5	89	7	0.24	0.7	1.3	A	81	4	1.1	329	16	0.8	183	63	2.5
3	19	41	38.4	59	48.0	152	31.4	72.5	2.8	21	8	132	46	0.31	1.3	1.5	B	326	7	0.8	261	13	2.1	88	61	2.6
3	22	43	23.6	60	16.8	140	44.7	10.8	1.1A	8	4	143	21	0.26	0.9	1.3	A	302	5	0.7	35	30	1.0	203	59	2.8
4	0	19	8.5	60	9.9	141	2.7	12.9	0.8	7	4	125	1	0.25	1.0	0.6	A	187	13	1.8	286	35	1.3	80	52	0.8
4	10	51	52.0	59	53.2	150	25.4	31.1	2.5	24	9	127	13	0.61	0.6	1.0	A	308	3	1.1	38	8	0.6	198	81	1.8
4	17	26	35.4	60	17.5	140	42.9	13.6	0.6A	7	5	154	23	0.34	0.9	1.5	B	291	4	0.6	24	29	0.9	194	61	3.1
4	17	38	50.1	60	11.9	141	2.8	1.7	0.2A	4	4	169	5	0.17	1.2	2.0	B	290	4	0.5	22	30	0.8	193	60	4.3
4	19	14	3.5	61	20.3	146	40.6	23.5	2.2	19	9	62	30	0.65	0.4	0.6	A	195	6	0.7	286	8	0.5	69	80	1.2
4	23	38	56.3	60	11.2	139	44.0	15.0	1.0A	7	4	194	27	0.49	2.0	1.3	B	110	11	0.9	205	27	4.2	0	61	1.6
5	1	52	16.1	60	13.6	152	7.3	82.7	2.7	21	9	103	39	0.33	0.7	1.7	B	81	3	1.4	351	5	0.9	202	84	3.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MARCH 1984

1984		ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAR	5	7	50	26.9	60	15.1	141	2.2	9.2	0.6A	8	3	123	11	0.08	0.9	1.3	A	83	14	1.0	345	28	0.8	197	58	2.8
	5	9	45	8.6	60	15.9	141	8.8	8.0	0.5A	6	4	118	14	0.17	1.4	2.1	B	301	4	0.7	33	30	1.4	204	60	4.4
	5	16	23	7.1	62	17.8	151	26.3	87.5	2.9	18	5	102	36	0.48	1.3	1.8	B	115	9	2.3	22	21	1.4	227	67	3.6
	5	20	25	4.6	60	40.2	137	49.5	18.5	1.6A	6	4	283	128	0.15	2.2	1.5	B	127	5	3.0	219	19	4.3	23	70	2.7
	5	21	58	50.3	60	2.0	140	34.8	8.1	0.8A	8	4	175	19	0.58	2.1	1.8	B	280	3	0.6	13	41	5.0	187	49	1.3
	6	1	48	41.7	60	2.6	141	34.8	3.8	0.6	7	6	183	13	0.27	0.7	1.5	B	261	5	0.8	170	8	1.3	23	81	2.8
	6	1	49	7.8	60	2.2	141	35.8	0.1	0.4	6	5	187	14	0.23	0.6	2.6	B	91	1	0.7	181	2	1.1	334	88	4.9
	6	4	20	5.6	60	13.9	141	2.7	10.1	0.5A	6	4	147	9	0.29	1.1	1.1	A	319	24	1.1	81	27	1.2	202	44	2.5
	6	6	29	51.6	59	52.4	141	29.3	7.9	1.2	14	6	183	36	0.56	0.7	1.2	A	103	7	0.7	195	19	1.2	354	70	2.4
	6	10	37	47.5	60	43.8	150	17.8	43.9	1.6	21	10	37	24	0.31	0.5	1.0	A	81	2	0.6	345	11	0.8	181	77	1.9
	6	11	13	36.2	61	24.9	151	41.6	20.6	0.4A	3	3	209	30	0.16	16.5	25.0	D	27	6	0.7	119	17	3.9	278	72	99.0
	6	12	7	10.0	63	11.7	150	43.0	120.4	2.9	9	7	292	142	0.31	8.9	13.4	D	286	3	4.6	18	32	6.4	191	58	29.4
	6	12	17	23.0	60	10.4	152	33.6	87.5	2.5	22	10	129	14	0.23	1.1	1.1	A	148	9	0.9	261	38	2.3	48	46	1.6
	6	12	35	3.7	60	17.6	141	11.0	9.5	0.9	7	4	150	18	0.36	1.0	1.5	B	309	7	0.6	43	26	1.4	205	63	3.2
	6	13	1	20.3	60	15.0	141	13.3	12.1	0.2A	5	4	142	15	0.24	1.8	2.0	B	302	4	0.7	36	41	2.1	207	49	4.6
	6	15	30	4.0	61	54.5	148	58.7	14.6	1.2	16	7	166	31	0.81	0.7	0.9	A	15	3	1.0	283	34	0.6	109	56	2.0
	6	17	57	57.6	60	27.6	143	13.2	19.4	1.9	15	11	114	20	0.37	0.4	0.7	A	22	8	0.8	291	12	0.4	145	76	1.3
	6	18	22	35.7	60	27.3	140	42.9	18.0	0.7A	5	3	201	38	0.62	1.9	6.8	D	288	5	1.0	18	8	3.0	166	81	12.9
	6	18	35	18.9	60	17.9	140	21.2	3.7	0.8A	9	5	169	23	0.73	1.1	1.9	B	295	5	0.9	27	16	1.9	188	73	3.7
	6	19	4	41.8	60	53.8	149	6.6	28.9	2.3	29	11	87	6	0.48	0.4	0.7	A	335	11	0.7	261	19	0.6	98	63	1.3
	6	20	22	6.9	60	7.7	141	15.2	7.9	1.0	7	3	139	13	0.25	1.5	1.1	B	281	15	0.7	19	29	3.1	167	57	1.8
	6	20	58	30.2	60	34.2	149	34.9	40.3	1.8	24	13	46	15	0.35	0.4	0.7	A	37	2	0.5	306	12	0.8	136	78	1.3
	7	0	40	56.5	60	39.4	140	39.2	10.7	1.1A	11	5	190	50	0.52	0.8	1.9	B	132	1	0.7	222	5	1.4	31	85	3.5
	7	0	41	10.0	60	41.7	140	34.6	6.0	1.7	11	6	198	51	0.83	1.5	1.4	B	318	1	0.6	261	42	1.6	49	39	3.1
	7	1	23	17.9	60	5.7	141	1.0	7.6	0.4A	5	2	217	7	0.17	3.3	1.8	C	16	27	7.0	126	35	0.9	257	43	1.9
	7	2	35	57.0	61	7.4	148	22.4	29.3	3.1	37	10	48	32	0.46	0.4	0.6	A	81	6	0.5	173	25	0.7	338	64	1.2
						3.5 ML ATWC							FELT (II) AT ANCHORAGE AND PALMER.														
	7	3	56	36.7	60	12.2	141	7.8	10.3	0.8	11	8	111	8	0.23	0.6	0.6	A	308	24	0.6	56	35	0.7	191	45	1.5
	7	5	37	10.9	60	8.7	141	6.9	8.7	0.8	7	4	111	5	0.31	0.6	0.7	A	39	14	1.0	301	32	0.9	150	55	1.4
	7	6	10	29.0	60	9.7	141	4.5	5.9	1.5	13	9	134	3	0.61	0.5	0.4	A	297	22	0.4	195	28	0.9	60	53	0.6
	7	6	52	44.2	61	4.5	140	22.3	23.5	0.9A	3	3	268	107	0.20	9.0	11.5	D	308	5	2.5	215	37	5.1	45	53	26.9
	7	7	2	50.1	61	5.2	152	19.8	4.1	0.8A	3	3	201	18	0.26	1.5	25.0	D	23	0	0.7	293	1	2.3	113	89	99.0
	7	9	42	0.5	60	26.3	140	23.9	4.3	2.0	16	6	182	39	0.61	0.7	1.2	A	81	3	1.0	321	9	0.5	185	59	1.9
	7	9	49	33.7	60	25.3	140	28.3	7.3	1.3	12	8	175	38	0.88	0.6	1.1	A	311	7	0.5	42	14	1.1	195	74	2.2
	7	10	14	51.5	60	23.0	140	28.8	13.9	0.9A	8	6	189	34	0.81	1.9	2.9	C	307	14	1.0	44	25	2.5	191	61	6.0
	7	12	25	10.6	60	18.1	140	32.3	9.3	0.7A	8	5	184	28	0.30	1.4	2.4	B	289	10	0.7	23	22	2.0	176	66	4.9
	7	12	48	35.6	60	14.4	140	33.1	15.1	0.8	9	5	169	23	0.32	1.7	1.6	B	288	11	0.7	187	42	3.9	30	46	1.8
	7	14	55	27.2	61	53.7	148	58.2	8.9	1.9	20	11	165	30	0.84	0.5	0.6	A	5	10	0.8	269	32	0.4	110	56	1.3
	7	15	11	25.2	61	11.6	150	41.1	47.5	1.7	22	8	57	30	0.50	0.5	1.3	A	273	2	0.6	182	12	0.8	12	78	2.5
	7	15	50	44.5	61	19.1	151	16.2	63.0	2.1	26	9	83	32	0.41	0.7	1.2	A	81	7	0.7	153	19	1.0	330	63	2.2
	8	0	49	41.1	60	15.9	141	22.6	7.9	1.5	13	5	113	23	0.49	0.6	0.7	A	294	2	0.5	24	15	1.0	197	75	1.4
	8	2	55	25.8	60	16.0	141	22.1	8.1	0.8	8	5	126	22	0.50	0.8	0.9	A	306	7	0.5	42	39	1.2	208	50	1.9
	8	3	6	41.0	62	3.9	147	56.9	36.2	2.2	19	10	93	35	0.70	0.8	0.7	A	320	25	1.5	81	34	0.8	206	40	1.3
	8	4	43	42.6	60	16.5	141	23.3	4.2	1.0	12	7	105	15	0.41	0.6	1.1	A	312	4	0.5	43	22	0.7	212	68	2.2
	8	9	37	23.4	59	52.7	151	34.0	71.7	3.0	26	10	103	23	0.26	0.6	1.1	A	81	9	1.0	345	19	0.8	195	68	2.1
	8	15	31	14.2	60	6.9	140	59.7	4.9	0.6A	5	5	137	5	0.38	0.5	0.7	A	81	16	0.7	177	20	0.9	315	64	1.5
	8	18	40	55.5	60	52.4	152	15.9	114.2	3.0	25	10	166	34	0.53	1.2	1.3	A	357	0	1.0	87	34	1.9	267	56	2.7
	8	19	6	43.1	60	45.3	152	24.5	17.4	0.5A	4	3	182	20	0.21	2.5	1.2	B	15	4	0.7	106	17	4.9	272	73	1.9
	8	22	25	4.7	63	7.2	150	40.2	90.9	2.8	13	7	126	134	0.28	5.7	11.5	D	307	8	2.0	41	23	4.7	199	65	23.5
	8	23	14	32.3	61	14.0	150	10.8	44.4	1.8	20	11	59	33	0.54	0.5	1.0	A	291	3	0.6	201	9	0.8	39	81	1.9
	9	5	32	33.7	60	14.2	140	51.5	11.9	0.9	11	6	132	13	0.18	0.8	0.9	A	283	0	0.6	12	41	0.7	193	49	2.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MARCH 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAR 9	7	11	32.8	61	39.5	149	37.0	31.7	1.6	15	7	143	14	0.59	0.6	1.1	A	197	8	1.0	289	10	0.6	69	77	2.2
9	9	0	28.5	60	6.9	140	57.3	13.8	1.0	9	6	169	6	0.31	1.5	0.5	B	21	1	2.7	112	41	0.8	290	49	0.9
9	9	48	31.8	60	15.3	141	16.9	11.2	0.5A	8	4	111	18	0.35	0.7	0.9	A	307	19	0.6	46	24	1.2	183	59	2.0
9	10	56	12.3	61	42.2	150	57.5	60.5	2.9	22	11	83	29	0.53	0.6	1.1	A	81	11	0.7	171	17	1.1	319	70	2.1
9	12	38	50.6	60	8.2	140	58.3	7.2	-0.1A	4	4	155	4	0.29	0.7	0.6	A	198	16	1.4	100	26	0.8	316	59	1.2
9	13	7	31.4	60	20.3	141	11.3	9.4	0.6A	7	5	124	22	0.34	1.0	2.1	B	310	3	0.6	42	23	0.9	213	67	4.3
9	13	47	58.5	60	1.7	139	53.8	12.6	1.1	8	5	156	17	0.48	2.0	0.8	B	34	8	3.7	301	19	0.6	146	69	1.4
9	15	11	18.8	61	18.5	150	49.4	46.3	1.7	12	9	75	18	0.52	0.5	1.0	A	117	8	0.7	209	12	0.8	354	75	1.9
9	16	42	50.6	60	17.9	140	54.1	8.2	0.6A	5	4	165	18	0.14	1.6	2.0	B	302	10	0.8	40	36	1.1	199	52	4.8
9	22	8	53.6	60	15.5	140	59.8	1.6	0.7A	6	4	126	12	0.46	0.7	1.5	B	124	1	0.7	33	22	0.9	216	68	2.9
10	0	56	26.3	61	54.6	149	21.9	36.7	3.0	19	6	166	36	0.44	1.0	0.9	A	90	2	0.9	181	41	2.2	358	49	1.4
					3.0 ML ATWC																					
10	4	28	1.9	61	8.3	150	36.5	49.2	1.7	22	13	67	37	0.49	0.4	1.2	A	223	8	0.7	132	9	0.6	354	78	2.2
10	5	1	34.3	60	22.4	141	23.7	10.4	1.0	14	9	112	19	0.61	0.4	0.7	A	353	10	0.5	86	21	0.6	239	67	1.4
10	5	14	31.5	60	10.5	141	8.7	7.3	1.1	12	5	106	7	0.37	0.7	0.8	A	299	7	0.7	35	41	0.9	201	48	1.8
10	7	51	33.8	60	10.1	141	9.3	8.8	1.3	14	10	105	7	0.35	0.5	0.5	A	288	17	0.5	184	38	1.1	37	47	0.7
10	11	1	51.7	60	21.0	140	45.9	6.9	1.2A	9	4	149	27	0.40	0.7	1.7	B	307	10	0.8	40	14	1.1	183	73	3.3
10	11	28	0.4	60	10.4	141	6.0	10.8	1.1A	8	4	108	4	0.13	1.0	0.6	A	184	25	2.0	296	38	0.8	70	41	1.0
10	14	46	8.6	60	6.2	141	16.0	15.0	0.8A	7	3	161	14	0.62	1.2	1.0	A	280	8	0.8	15	32	2.4	178	57	1.5
10	15	4	49.7	61	12.0	148	32.3	34.2	2.2	33	13	75	24	0.51	0.5	0.6	A	196	18	0.6	94	32	0.7	311	52	1.2
10	18	5	59.1	60	28.8	140	39.3	14.4	1.4A	8	5	170	42	0.37	0.8	1.6	B	305	4	0.8	36	7	1.4	186	82	3.0
10	20	7	22.9	60	2.8	141	20.8	0.1	1.4	12	4	155	21	0.75	0.7	1.3	A	270	1	0.5	180	13	1.2	4	77	2.5
11	2	18	29.0	60	15.5	144	54.8	34.2	1.3A	9	6	202	35	0.90	1.0	0.9	A	279	10	0.9	184	28	1.9	27	60	1.6
11	2	53	11.4	60	14.1	141	0.3	5.1	2.7	17	9	122	9	0.83	0.4	0.5	A	288	1	0.4	18	26	0.6	196	64	1.1
					3.4 ML ATWC																					
11	4	21	5.2	60	12.5	141	4.2	8.6	0.9	8	5	115	6	0.37	0.7	0.7	A	81	19	0.8	335	34	0.6	194	49	1.7
11	4	23	25.3	61	22.1	139	59.5	4.4	1.4A	4	3	291	85	0.47	4.3	25.0	D	359	2	6.3	89	3	3.6	235	86	99.0
11	4	23	46.7	61	22.9	140	2.4	0.6	2.0A	4	3	306	0	0.21	3.4	7.4	D	81	6	3.3	316	7	4.1	196	54	11.8
11	4	49	45.1	60	12.0	141	3.5	10.1	1.2	15	10	114	5	0.31	0.5	0.6	A	329	28	0.6	76	29	0.7	203	48	1.3
11	5	4	26.5	60	26.1	152	15.1	77.7	2.3	24	11	68	18	0.45	0.8	1.1	A	167	5	0.8	81	26	1.3	267	63	2.1
11	6	34	4.2	60	36.4	145	8.7	13.4	1.6	12	8	82	9	0.64	0.6	0.7	A	342	7	0.8	81	38	0.6	243	51	1.6
11	10	25	37.4	60	15.7	141	4.9	9.2	0.8	14	9	121	12	0.42	0.6	0.8	A	317	20	0.6	56	22	0.8	189	59	1.6
11	10	44	32.6	60	13.3	141	4.2	7.2	0.8A	5	3	174	8	0.15	0.9	1.1	A	279	9	1.0	16	34	1.1	176	54	2.5
11	10	50	16.8	60	15.6	141	39.6	8.3	0.7	11	4	90	12	0.40	1.0	0.9	A	321	7	0.7	261	25	1.5	66	51	1.4
11	13	39	59.2	60	17.6	141	26.1	10.9	1.3	15	10	104	17	0.41	0.5	0.6	A	324	13	0.5	81	17	0.6	207	56	1.2
11	18	5	31.7	60	11.7	141	1.0	11.2	1.4	15	10	116	5	0.28	0.6	0.5	A	99	2	0.6	191	38	1.3	6	52	0.8
11	23	5	56.4	60	11.8	141	21.9	3.0	1.2A	11	5	125	19	0.56	0.6	1.2	A	102	2	0.8	12	4	1.1	219	86	2.3
11	23	10	33.7	59	37.5	152	52.7	98.0	3.1	20	13	145	0	0.33	1.5	1.4	A	140	2	1.1	81	39	2.9	232	42	1.9
					3.6 ML ATWC																					
12	1	10	49.0	60	10.9	140	57.8	20.9	0.6A	5	2	128	5	0.17	6.7	2.6	D	197	20	13.4	96	28	1.0	318	55	1.9
12	1	14	26.3	60	35.9	143	38.5	7.1	0.9A	9	3	96	45	0.37	0.7	3.9	C	292	0	1.0	22	3	1.3	202	87	7.4
12	5	50	18.7	60	4.8	141	17.5	0.5	0.8A	6	2	205	17	0.10	1.9	4.0	C	198	2	3.5	288	9	0.9	96	81	7.6
12	7	31	2.9	60	26.4	145	25.4	13.1	0.9	10	4	216	16	0.25	1.5	0.8	B	39	17	2.9	141	35	1.0	288	50	1.3
12	8	3	12.6	61	59.8	150	58.9	67.3	2.4	21	8	118	29	0.34	0.7	1.0	A	168	7	1.3	81	20	1.0	277	69	2.1
12	11	23	58.8	60	4.6	139	33.4	17.4	1.0	6	2	205	15	0.38	4.3	2.1	C	322	23	1.3	221	25	8.9	89	55	1.3
12	13	2	30.9	60	7.5	141	6.3	8.8	0.9	10	5	84	5	0.28	0.7	0.4	A	99	4	0.6	8	10	1.3	210	79	0.8
12	14	48	54.3	63	8.9	150	6.5	75.0	2.5	11	4	268	149	0.42	5.4	21.3	D	93	3	4.9	3	5	9.6	214	84	40.2
12	17	38	12.8	62	14.1	151	14.2	80.2	2.4	12	6	252	32	0.41	1.3	1.7	B	81	12	1.4	343	17	2.2	203	68	3.3
12	19	49	39.3	60	59.2	147	13.8	29.7	2.4	26	12	83	51	0.58	0.3	0.6	A	0	0	0.6	270	5	0.4	90	85	1.0
12	20	36	0.1	59	41.2	140	53.7	5.6	1.7	12	4	191	53	0.55	0.8	1.4	B	299	0	0.8	209	16	1.3	29	74	2.8
12	20	52	44.7	60	13.1	141	9.2	10.1	1.4	13	5	111	10	0.44	0.5	0.6	A	55	26	0.8	311	27	0.5	182	51	1.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MARCH 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAR 12	23	25	0.8	61	24.5	151	41.3	22.4	0.7A	3	4	211	30	0.23	3.8	3.0	C	23	6	0.7	289	36	8.5	121	53	3.2
13	0	41	56.9	60	25.4	141	16.7	10.4	1.5	13	4	122	27	0.58	0.6	1.1	A	299	7	0.6	30	9	1.0	172	79	2.0
13	2	37	13.4	60	32.9	137	44.1	15.9	1.6	7	3	299	124	0.05	5.6	2.8	D	261	18	2.9	149	19	11.1	24	56	2.1
13	3	54	49.2	60	1.7	141	34.2	1.1	0.9A	8	4	189	25	0.54	0.8	1.8	B	268	2	0.7	359	7	1.5	162	83	3.4
13	5	35	8.9	61	37.3	151	50.4	108.5	2.6	25	8	179	43	0.37	1.0	1.2	A	217	9	1.2	121	35	1.6	319	54	2.5
13	6	48	2.0	60	12.4	141	17.1	14.6	1.0	10	5	103	12	0.29	0.7	0.7	A	308	13	0.6	51	42	0.8	205	45	1.8
13	7	23	6.7	60	12.8	141	55.8	0.5	0.9	6	4	150	19	0.44	0.5	1.8	B	287	0	0.9	17	5	0.8	197	85	3.3
13	14	13	45.0	60	8.2	141	26.0	8.6	1.0	12	4	137	2	0.47	0.7	0.5	A	268	13	0.5	170	31	1.3	18	56	0.9
13	21	58	12.5	58	55.0	138	19.3	19.5	1.3	4	1	349	68	0.01	12.6	7.0	D	81	21	22.6	158	24	4.4	305	56	12.6
13	22	28	4.5	60	8.6	140	57.5	18.6	0.5A	4	4	190	4	0.14	6.5	1.5	D	199	12	12.4	292	17	1.0	75	69	1.4
14	0	28	8.9	60	20.7	139	40.7	22.0	1.2A	7	3	216	42	0.43	2.0	2.6	B	306	14	1.3	45	31	2.0	195	55	5.8
14	2	14	24.5	60	6.7	140	53.5	10.9	0.5A	9	5	129	9	0.40	0.8	0.8	A	94	18	0.8	353	30	1.5	211	54	1.6
14	5	9	40.5	60	6.0	139	45.1	23.9	1.0A	7	3	187	18	0.39	3.1	1.0	C	209	7	5.9	115	26	0.9	313	63	1.9
14	6	44	39.8	60	12.7	140	59.2	9.3	0.3A	7	3	120	7	0.17	0.8	0.9	A	95	4	1.0	1	40	0.9	190	50	2.2
14	7	1	28.0	62	52.3	150	10.9	62.5	2.4	13	7	113	121	0.39	1.4	5.1	C	81	1	2.2	349	12	1.7	176	78	9.8
14	8	24	12.9	61	44.0	150	8.0	40.0	1.8	16	10	153	16	0.49	0.6	0.8	A	277	0	0.6	7	13	1.1	187	77	1.5
14	9	13	52.3	60	14.0	140	59.5	12.7	0.5A	9	6	123	9	0.21	0.9	1.1	A	82	16	1.0	341	34	0.9	193	51	2.5
14	11	53	47.9	60	23.1	147	35.6	29.7	2.4	34	12	70	53	0.53	0.4	0.6	A	261	2	0.5	351	27	0.6	167	63	1.2
14	15	14	11.0	59	30.8	151	21.0	12.0	0.7A	8	7	125	7	0.41	0.7	0.7	A	28	25	0.6	281	32	0.9	148	47	1.6
14	15	32	53.0	61	32.9	151	17.5	66.6	3.2	27	6	93	31	0.32	0.7	1.1	A	114	18	1.0	211	19	1.1	344	63	2.2
14	20	32	53.8	61	41.5	149	44.9	47.3	3.9	28	4	85	8	0.41	0.7	1.3	A	274	4	0.8	183	7	1.3	33	82	2.4
			4.8 MB				4.5 ML ATWC					FELT (IV) AT EAGLE RIVER, PALMER, SUTTON AND WASILLA. FELT (III) AT ANCHORAGE, CHUGIAK AND WILLOW.														
14	20	39	11.6	61	40.9	149	42.0	47.5	2.3	22	12	144	10	0.43	0.5	0.7	A	274	0	0.6	183	13	1.0	4	77	1.4
14	20	56	57.5	60	8.8	140	59.5	13.1	0.5A	8	5	168	2	0.47	2.3	0.7	B	202	12	4.4	105	27	0.7	314	60	1.1
14	21	33	16.1	60	37.3	142	39.2	17.5	2.1	20	15	54	22	0.66	0.3	0.6	A	81	1	0.5	332	8	0.4	177	69	1.0
14	21	48	22.3	60	3.7	141	5.3	12.8	0.6A	3	3	228	11	0.20	3.9	2.3	C	14	29	8.3	123	31	1.4	250	45	1.8
14	22	5	20.6	61	35.6	149	39.7	36.0	2.4	26	7	131	13	0.58	0.6	0.8	A	277	7	0.6	187	8	1.2	48	79	1.4
14	22	21	44.5	60	8.9	141	6.2	9.8	0.7A	10	5	136	4	0.42	1.2	0.6	A	9	2	2.2	278	36	0.8	102	54	1.3
14	23	24	38.7	61	29.9	149	59.2	45.4	1.7	17	6	75	18	0.47	0.6	0.8	A	123	1	0.8	213	13	1.2	29	77	1.6
15	7	33	5.4	60	16.8	141	15.1	13.0	0.4A	10	6	113	19	0.10	0.9	1.3	A	81	18	0.8	337	23	0.6	203	58	2.8
15	8	16	12.4	59	30.0	152	53.3	72.3	2.9	19	8	148	74	0.46	1.5	1.8	B	141	3	1.1	261	27	2.0	46	50	3.3
15	9	20	47.2	60	4.2	140	51.6	6.0	0.7	9	4	146	13	0.30	0.9	1.0	A	108	13	0.6	203	20	1.5	347	66	2.0
15	10	56	49.9	59	40.8	140	54.3	7.1	1.3	11	9	198	44	0.59	1.0	1.3	A	125	6	0.7	219	30	1.4	25	59	2.6
15	11	24	46.1	61	5.8	152	15.7	9.7	0.5A	4	4	189	15	0.26	1.8	2.4	B	302	23	2.2	201	25	0.6	69	55	5.4
15	13	54	23.4	60	22.0	141	19.0	13.5	0.9	10	7	152	24	0.44	1.1	1.2	A	117	7	0.6	21	39	0.9	215	50	3.0
15	14	2	0.3	61	54.8	143	39.4	5.5	1.5	12	5	209	53	0.36	1.0	5.0	C	290	0	1.1	20	7	1.6	200	83	9.4
15	14	49	8.4	61	20.1	148	26.0	20.9	1.5	15	5	93	9	0.59	0.7	0.7	A	146	27	1.2	261	34	0.9	29	42	1.5
15	14	59	22.7	60	21.4	141	22.6	13.1	0.9	12	8	113	20	0.37	0.5	0.9	A	81	13	0.8	338	16	0.6	205	66	1.8
15	16	53	15.0	60	44.8	151	52.1	76.9	2.4	24	9	108	34	0.34	0.7	1.1	A	21	0	0.7	111	27	1.0	291	63	2.3
15	17	13	17.2	59	38.4	150	45.2	57.5	1.7	14	6	180	9	0.25	1.0	0.8	A	39	10	1.0	306	15	1.9	161	72	1.5
15	17	31	29.9	61	43.9	149	42.6	50.1	1.7	14	7	149	13	0.36	0.6	1.2	A	15	3	1.1	284	5	0.7	136	84	2.2
15	18	9	12.9	60	23.2	141	18.8	16.5	0.9	8	7	118	24	0.43	1.1	1.9	B	329	7	0.7	81	25	0.9	226	57	3.8
15	19	16	43.4	59	58.0	152	13.0	69.0	1.9	12	6	159	41	0.19	1.4	1.7	B	144	5	0.9	81	22	2.1	246	55	3.0
15	22	26	54.1	60	12.2	141	12.3	7.8	0.8	10	5	136	11	0.47	0.7	0.7	A	291	7	0.5	28	42	0.8	193	47	1.6
16	1	4	45.2	60	12.0	141	11.8	11.0	0.8	10	6	107	10	0.22	0.7	0.7	A	303	20	0.5	51	40	0.7	193	43	1.7
16	1	36	2.3	60	37.0	142	41.1	18.0	1.6	16	8	54	21	0.46	0.5	0.7	A	328	9	0.6	81	16	0.7	215	61	1.4
16	3	10	18.8	60	55.2	147	14.0	20.7	2.5	28	12	47	54	0.43	0.4	1.0	A	183	9	0.7	275	11	0.4	55	76	2.0
16	3	46	44.7	60	18.0	141	14.4	17.3	0.7A	12	5	116	20	0.38	0.8	0.9	A	326	21	0.6	81	24	1.0	206	51	1.9
16	3	58	2.2	59	57.3	141	33.6	10.2	0.8A	8	6	212	22	0.67	0.8	0.9	A	271	6	0.7	178	27	1.5	13	62	1.7
16	5	23	33.3	60	18.2	141	15.3	18.0	0.6A	9	4	115	21	0.20	0.9	1.2	A	324	18	0.7	81	18	1.1	203	54	2.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MARCH 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAR 16	8	29	30.6	60	14.6	141	9.7	15.4	1.0	12	7	114	12	0.24	0.7	0.7	A	321	21	0.6	81	31	0.7	208	44	1.8
16	8	33	17.2	62	50.8	149	32.0	44.2	2.4	11	6	152	132	0.49	2.2	12.2	D	85	5	1.7	354	6	3.1	214	82	23.1
16	10	11	51.9	61	8.8	152	19.0	0.1	1.2	14	5	189	15	1.04	0.7	0.9	A	213	17	0.5	309	19	1.3	84	64	1.8
16	11	4	48.8	62	9.2	149	30.0	55.0	2.4	18	8	114	59	0.45	0.8	2.1	B	278	0	0.8	8	13	1.3	188	77	4.1
16	15	50	7.8	61	17.0	152	23.7	108.9	2.9	26	6	125	13	0.54	0.9	1.2	A	181	7	1.1	272	13	1.7	63	75	2.2
16	16	18	24.3	60	17.5	140	51.3	7.1	0.3A	5	5	167	18	0.14	1.1	2.0	B	298	9	0.8	32	26	0.9	190	62	4.1
16	16	58	38.8	60	0.8	140	41.5	4.2	1.2	11	7	164	24	0.55	0.8	0.8	A	276	3	0.5	7	22	1.4	179	68	1.5
16	20	7	17.2	60	16.0	152	38.3	105.9	2.9	23	9	81	14	0.31	1.2	1.1	A	159	7	1.1	261	34	2.4	59	54	1.8
16	22	7	56.2	60	20.8	140	33.0	0.4	1.4A	7	2	168	32	0.61	1.9	2.4	B	315	7	0.7	81	19	2.6	212	49	4.1
16	22	46	47.9	60	10.7	141	11.6	9.1	0.7A	7	3	146	9	0.55	1.2	0.8	A	193	14	2.2	287	17	0.7	65	68	1.5
16	22	50	28.6	60	12.1	141	54.7	2.7	0.8	9	5	85	19	0.49	0.4	1.0	A	297	6	0.6	28	8	0.6	171	80	2.0
16	23	2	57.0	61	19.0	146	43.1	22.2	2.1	23	8	56	29	0.61	0.4	0.6	A	290	4	0.4	199	7	0.7	49	82	1.2
17	1	1	2.3	60	13.1	140	58.4	9.0	0.8A	7	2	122	8	0.16	2.2	1.5	B	313	24	1.0	81	40	0.9	206	33	4.8
17	2	5	38.8	60	3.8	139	13.0	9.2	1.7	10	4	213	26	0.76	2.5	1.4	B	317	11	0.9	261	24	4.0	73	48	1.8
17	2	16	48.8	60	13.4	140	57.6	10.6	1.0A	9	4	123	9	0.14	0.9	1.9	A	102	5	0.8	261	44	3.0	10	15	0.9
17	2	56	53.6	60	18.6	141	16.8	14.4	1.8	18	5	115	21	0.49	0.5	0.8	A	329	14	0.6	81	15	0.7	206	60	1.6
17	3	10	53.1	60	19.1	141	18.4	12.9	1.2	14	7	114	21	0.48	0.5	0.9	A	81	13	0.8	341	20	0.5	200	64	1.8
17	3	23	27.5	60	57.5	149	45.7	35.0	2.2	28	9	53	34	0.54	0.4	0.9	A	15	3	0.6	284	11	0.6	120	79	1.6
17	3	44	39.6	60	5.4	141	28.3	9.3	0.8	7	3	235	6	0.41	1.8	1.2	B	301	3	1.0	211	4	3.3	68	85	2.3
17	5	56	57.1	60	58.6	152	12.2	2.7	1.3	8	3	171	24	0.68	1.8	0.8	B	285	9	3.3	193	13	0.5	49	74	1.5
17	11	59	32.9	61	11.2	152	12.3	5.5	0.0A	3	3	283	8	0.01	1.7	2.5	B	333	7	1.4	261	17	2.9	87	65	4.6
17	12	34	42.7	60	8.8	139	31.5	11.2	1.3	6	1	211	22	0.51	3.0	3.1	C	331	16	1.3	81	38	1.5	224	45	7.8
17	15	40	57.4	63	16.7	150	32.2	144.9	3.1	11	6	131	153	0.33	5.4	9.5	D	312	15	2.7	48	22	5.6	190	63	19.9
17	15	43	5.3	59	4.4	137	9.1	0.4	1.9	9	4	168	107	0.47	7.9	5.1	D	222	3	14.8	131	9	3.0	330	80	9.7
17	16	54	48.1	60	9.5	141	11.0	9.1	1.2	12	5	104	8	0.46	0.7	0.4	A	292	12	0.6	198	19	1.3	53	67	0.8
17	18	50	35.4	61	35.7	146	20.5	32.0	2.2	21	7	87	25	0.64	0.6	0.6	A	116	6	0.6	211	34	0.9	17	55	1.3
17	21	13	53.6	60	15.9	141	18.7	6.9	1.0	12	3	108	16	0.23	0.6	1.1	A	115	1	0.6	24	27	0.7	207	63	2.2
17	23	10	19.7	60	7.4	141	23.6	5.3	1.1	10	3	141	17	0.18	0.8	1.3	A	199	1	1.5	289	4	0.7	95	86	2.4
18	4	50	39.0	60	15.6	141	18.0	8.3	1.5	16	6	108	16	0.31	0.6	1.0	A	335	19	0.5	81	19	0.7	208	59	2.1
18	4	53	33.8	60	40.9	143	5.3	0.1	1.1	10	4	75	29	0.71	0.6	25.0	D	336	0	0.9	261	0	1.0	0	90	99.0
18	5	19	32.8	60	15.0	141	19.9	10.8	0.6A	6	3	167	14	0.14	1.2	1.7	B	116	1	0.8	26	32	1.0	208	58	3.8
18	5	19	58.4	60	12.9	141	19.5	13.2	0.3A	6	3	133	11	0.13	2.3	2.1	B	93	10	1.4	192	42	5.3	352	46	2.7
18	6	40	48.5	60	9.0	141	9.2	3.5	1.4	14	5	92	7	0.46	0.5	0.7	A	278	9	0.5	12	27	0.8	171	61	1.5
18	7	16	51.4	60	16.1	141	7.5	7.6	1.0	10	3	119	14	0.27	1.0	1.6	B	316	16	0.6	54	24	1.0	196	60	3.5
18	9	58	22.6	60	8.4	141	11.0	2.3	1.1	13	5	99	9	0.47	0.6	0.9	A	285	6	0.5	17	18	1.0	177	71	1.7
18	11	14	21.3	61	35.0	149	54.2	44.2	1.9	18	8	72	8	0.37	0.5	1.0	A	275	4	0.6	5	4	1.0	140	84	1.9
18	11	37	23.2	60	13.7	141	2.8	7.2	0.4A	5	5	177	8	0.13	0.9	1.5	B	92	3	1.0	0	25	1.1	188	65	3.0
18	17	53	42.8	60	6.7	140	43.7	8.1	1.1	10	4	133	18	0.36	0.9	1.0	A	95	6	0.5	0	37	1.6	193	52	2.0
18	21	59	34.7	60	8.0	141	11.0	14.8	1.7	17	4	102	9	0.45	0.7	0.5	A	290	9	0.7	195	27	1.4	37	61	0.8
19	1	18	27.2	59	52.7	145	30.1	28.8	1.9A	11	4	232	61	0.46	1.3	1.0	A	26	6	2.5	117	14	1.4	273	75	1.9
19	3	15	56.3	62	10.9	149	18.8	47.0	2.8	20	11	113	63	0.61	0.9	2.3	B	275	2	0.9	5	13	1.4	176	77	4.5
19	3	17	19.3	60	12.1	141	16.0	12.4	1.0	8	4	104	13	0.21	0.9	0.8	A	322	24	0.6	81	30	0.9	206	44	2.0
19	6	2	9.5	60	17.3	141	0.3	5.8	0.9A	7	4	129	15	0.62	0.7	1.7	B	91	11	0.8	357	18	0.7	211	69	3.3
19	12	6	10.0	60	1.9	139	40.9	20.2	1.1	8	4	185	9	0.67	3.4	0.7	C	222	4	6.3	314	30	1.0	125	60	1.3
19	15	27	39.0	60	8.1	141	14.3	5.3	0.7	7	3	135	11	0.14	0.8	1.0	A	279	5	0.5	12	28	1.2	180	61	2.1
19	16	31	7.1	60	8.1	141	14.1	4.8	0.4	4	3	134	10	0.16	0.8	1.9	B	278	5	0.5	9	12	1.3	166	77	3.6
19	17	27	26.0	60	14.2	141	17.3	11.7	1.4	17	9	106	14	0.56	0.4	0.6	A	317	14	0.5	54	25	0.6	201	61	1.2
19	17	31	7.6	60	14.3	141	18.4	13.2	0.7	10	7	106	14	0.47	0.7	0.9	A	81	16	0.9	327	27	0.5	194	51	1.9
19	20	27	23.5	60	8.0	141	9.7	12.9	2.5	18	6	95	8	0.54	0.6	0.5	A	275	1	0.6	184	36	1.1	6	54	0.9
19	20	31	7.5	61	19.4	152	5.6	4.0	0.2A	3	2	174	7	0.05	8.8	11.0	D	20	24	1.2	124	28	1.6	256	52	26.3
19	21	48	55.1	60	7.8	141	8.2	16.0	1.2A	5	3	117	6	0.36	1.0	0.8	A	287	25	0.9	177	37	2.0	43	43	1.4

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MARCH 1984

1984	ORIGIN HR	TIME MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAR 19	23	5	51.0	61	6.5	152	12.0	12.5	0.8A	3	3	177	11	0.29	25.0	25.0	D	308	26	2.6	200	33	0.6	68	46	99.0
20	0	22	14.7	60	30.0	145	30.0	14.1	0.4A	8	4	244	17	0.22	1.6	1.0	B	45	12	3.1	310	22	1.5	162	65	1.9
20	0	48	51.3	60	16.2	140	42.9	11.6	0.4A	5	5	150	22	0.19	2.2	4.3	C	291	6	0.8	24	25	1.6	188	64	8.9
20	1	21	7.1	60	4.8	140	58.2	14.2	0.4A	4	3	170	9	0.21	1.3	1.7	B	188	16	1.8	89	31	1.0	302	54	3.8
20	2	53	22.9	60	17.8	140	42.7	12.6	0.8A	10	7	155	24	0.32	1.1	2.6	B	309	13	0.7	43	17	1.0	183	68	5.2
20	2	54	56.4	60	18.1	140	42.6	12.1	0.5A	7	6	147	24	0.24	1.7	2.8	C	294	6	0.9	27	28	1.6	193	61	5.8
20	3	35	21.0	61	40.3	150	17.9	44.8	2.2	23	9	137	22	0.50	0.6	1.0	A	90	4	0.6	180	4	1.1	315	84	1.8
20	3	37	13.6	59	59.1	141	39.4	10.1	1.1	15	6	176	21	0.64	0.7	1.0	A	275	5	0.7	183	18	1.3	20	71	1.9
20	4	12	50.2	61	56.3	149	59.0	41.5	2.0	16	7	169	33	0.46	1.0	1.3	A	103	4	0.7	10	34	1.5	199	56	2.7
20	5	14	37.8	60	18.7	153	12.6	144.8	3.6	22	3	170	26	0.31	1.9	3.1	B	138	3	1.4	81	13	2.8	240	55	5.0
20	7	28	35.7	59	24.8	138	54.5	27.8	1.1	6	4	282	5	0.19	3.7	0.9	C	44	3	7.0	137	41	2.4	311	49	1.0
20	8	49	28.9	60	11.9	141	15.5	13.3	0.5	9	5	104	13	0.22	1.0	1.1	A	291	11	0.7	31	41	1.0	189	47	2.6
20	9	36	9.0	60	5.7	140	53.5	8.1	1.0	11	9	133	10	0.45	0.7	0.6	A	98	15	0.4	201	41	1.3	352	45	1.2
20	12	31	37.3	62	1.5	150	24.3	4.0	2.0	18	4	180	50	0.53	1.0	1.0	A	101	14	0.6	358	41	2.3	206	46	1.3
20	15	20	57.7	60	46.6	144	38.8	27.7	1.7	23	11	57	21	0.56	0.4	0.5	A	39	22	0.6	139	23	0.5	270	57	1.2
20	16	55	9.9	61	16.2	140	31.1	3.3	0.5A	4	4	278	56	0.38	3.2	25.0	D	115	1	2.4	25	3	3.7	223	87	85.6
20	17	38	52.7	60	13.3	141	53.6	5.8	0.1A	6	4	184	17	0.53	1.7	1.8	B	320	8	0.8	261	41	1.9	59	40	3.7
20	17	46	36.8	61	11.9	149	33.7	38.5	1.8	15	8	74	5	0.39	0.5	0.8	A	191	9	0.7	284	15	0.8	71	72	1.5
20	18	17	25.6	60	4.3	141	16.9	11.4	1.4	17	6	149	9	0.32	0.7	0.4	A	14	12	1.4	280	18	0.5	136	68	0.8
20	18	26	28.4	61	11.9	149	37.8	30.8	2.2	28	8	48	6	0.60	0.4	1.1	A	316	9	0.7	224	11	0.6	84	76	2.0
20	20	14	39.2	60	16.4	140	43.9	9.9	0.6A	9	5	150	21	0.26	1.2	2.1	B	91	5	0.8	359	26	1.2	191	63	4.4
20	20	36	33.8	60	6.2	141	15.6	8.8	0.9	12	5	141	9	0.29	0.8	0.7	A	287	6	0.5	193	36	1.6	25	53	1.1
20	21	8	51.8	60	16.0	141	25.4	7.8	0.7	9	6	116	14	0.39	0.7	1.2	A	311	1	0.6	41	8	1.4	214	82	2.2
20	23	15	48.1	61	25.9	149	55.5	39.9	1.8	18	11	59	25	0.49	0.4	0.8	A	289	1	0.6	199	2	0.8	46	88	1.5
21	1	17	32.3	59	57.4	140	12.6	6.3	0.7	8	4	170	16	0.87	1.8	1.7	B	140	11	0.6	261	39	1.2	40	41	4.4
21	1	36	56.2	60	6.2	140	41.8	4.3	1.2	12	7	136	20	0.58	0.7	0.8	A	99	5	0.5	6	37	1.0	196	53	1.8
21	2	28	42.8	60	21.4	143	15.9	12.6	1.3	12	6	143	25	0.66	0.6	1.4	B	10	4	1.2	280	7	0.7	130	82	2.7
21	7	19	38.9	60	6.6	141	3.8	4.9	0.9	7	4	93	5	0.56	0.5	0.5	A	98	10	0.8	197	42	0.8	357	46	1.0
21	9	17	25.7	59	54.2	136	37.4	1.0	2.5	9	6	209	137	0.34	3.4	3.0	C	309	25	4.7	81	31	3.3	198	35	6.6
21	13	53	51.5	60	15.0	141	6.4	10.4	1.3	11	7	118	11	0.29	0.7	0.7	A	325	24	0.5	81	32	0.8	209	44	1.7
21	14	16	34.8	60	2.8	141	4.6	19.8	0.4	5	3	225	3	0.34	1.8	0.8	B	199	10	3.3	104	26	1.9	308	62	1.2
21	15	55	18.8	60	12.9	141	8.8	10.7	0.6	10	5	112	9	0.27	0.7	0.7	A	288	0	0.6	198	40	1.7	18	50	0.7
21	16	36	13.2	60	11.5	141	20.5	24.3	0.9A	12	6	99	9	0.65	1.0	0.5	A	300	5	0.7	209	16	2.0	47	73	0.9
21	17	48	2.5	60	5.6	152	19.9	12.0	0.5A	3	3	283	29	0.03	5.7	7.3	D	326	9	2.6	81	32	1.0	224	49	16.7
21	18	38	23.8	59	35.9	150	29.7	26.2	0.7A	7	4	263	16	0.19	1.4	1.3	B	208	21	1.2	316	39	3.1	97	44	2.0
21	22	27	27.3	61	36.8	150	33.3	12.6	2.2	20	9	126	19	0.53	0.4	0.5	A	4	7	0.7	273	8	0.6	135	79	1.0
22	0	8	4.3	61	17.6	140	53.7	2.3	1.4	10	5	233	44	0.31	1.2	9.0	D	120	1	1.5	30	4	2.0	224	86	16.9
22	1	31	46.7	61	7.8	150	22.9	57.0	2.9	23	9	52	42	0.48	0.4	1.3	A	94	1	0.6	4	3	0.7	202	87	2.4
22	3	26	59.5	60	23.4	140	29.6	12.3	1.2	11	8	170	35	0.77	0.6	1.0	A	308	5	0.5	40	23	1.0	206	66	2.0
22	5	41	35.7	60	10.9	141	6.9	10.6	0.4A	5	4	161	5	0.09	1.1	0.7	A	279	6	0.7	186	25	2.3	22	64	1.1
22	9	37	29.2	59	51.7	141	32.4	6.1	1.3	15	8	191	32	0.65	0.5	0.8	A	106	7	0.6	198	18	0.9	356	71	1.5
22	10	17	48.5	60	34.4	143	32.4	10.4	1.7	18	9	101	40	0.82	0.4	1.6	B	293	0	0.4	23	1	0.7	203	89	3.0
22	10	49	41.5	60	52.8	149	33.2	36.5	1.7	18	9	73	29	0.36	0.5	0.8	A	217	9	0.6	310	18	0.7	102	70	1.6
22	14	25	41.2	60	23.4	141	16.0	11.5	0.8	11	6	123	27	0.46	0.6	1.1	A	311	2	0.6	42	21	0.8	216	69	2.3
22	16	25	49.5	60	22.5	141	17.8	18.7	1.2A	8	6	120	25	0.38	1.0	1.6	B	113	12	0.7	17	26	1.0	226	61	3.4
22	17	53	52.9	60	14.4	141	13.5	13.1	0.9A	9	5	110	14	0.26	0.8	0.9	A	303	20	0.6	45	30	0.9	184	53	2.1
22	18	12	56.6	60	43.8	140	14.4	8.0	1.0A	10	5	224	65	0.56	1.4	1.9	B	318	1	0.8	261	12	2.0	52	55	3.0
22	20	55	4.0	61	1.4	152	19.9	109.4	2.7	28	7	105	23	0.34	1.0	1.0	A	193	5	1.0	98	41	1.5	289	49	2.1
22	21	12	30.6	60	43.1	149	27.5	32.4	2.0	20	10	88	26	0.55	0.6	0.6	A	217	4	0.5	310	37	0.8	122	53	1.4
22	22	30	59.1	60	24.4	145	4.5	18.4	1.5	13	8	148	16	0.63	0.7	0.7	A	21	20	1.3	125	33	0.7	265	50	1.6
23	0	22	47.9	60	9.9	141	6.4	14.1	0.3A	3	1	196	4	0.00	19.7	2.5	D	203	4	37.0	297	44	2.0	109	46	5.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MARCH 1984

1984	ORIGIN HR	TIME MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAR 23	0	27	20.1	60	23.2	145	6.3	21.1	1.1A	9	4	244	17	0.43	1.1	1.0	A	25	20	1.8	133	39	1.1	274	44	2.4
23	0	54	18.2	60	3.3	141	11.6	11.2	0.4A	3	1	234	14	0.00	8.6	8.3	D	149	29	5.3	261	31	2.2	27	44	21.9
23	2	51	27.9	62	33.8	151	15.2	86.0	2.5	11	4	271	67	0.29	3.8	2.3	C	167	18	6.9	81	38	2.3	280	48	5.0
23	5	16	33.9	61	34.2	150	3.0	49.5	2.0	19	4	104	13	0.52	0.8	1.2	A	91	2	0.9	181	9	1.5	349	81	2.2
23	5	40	51.2	60	17.5	141	17.4	18.0	0.8A	5	2	150	21	0.12	2.3	3.6	C	83	21	1.7	344	22	1.0	212	59	7.8
23	5	43	25.8	60	19.9	141	16.4	10.1	1.1	7	4	126	24	0.44	1.0	1.7	B	313	8	0.8	47	27	1.2	208	62	3.5
23	6	10	10.0	61	60.0	151	20.4	86.6	2.4	15	8	195	10	0.30	1.1	1.0	A	83	13	1.1	343	38	2.3	188	49	1.8
23	8	38	8.0	58	47.8	154	3.5	84.6	4.3	12	1	156	149	0.27	4.1	17.4	D	11	1	3.0	280	8	6.1	108	82	33.0
			5.3 MB			5.4 ML ATWC						FELT (IV) AT HOMER, PORTLOCK AND SELDOVIA. FELT (II) AT KODIAK.														
23	9	41	17.8	60	7.4	141	14.9	8.4	0.5A	4	3	221	12	0.12	4.2	1.7	C	287	5	1.0	19	18	8.2	182	71	2.1
23	13	0	8.5	60	15.1	140	56.4	8.9	1.1	14	5	129	12	0.32	0.9	0.9	A	294	3	0.5	26	40	1.1	200	50	2.1
23	13	54	1.6	62	53.5	149	23.8	91.5	3.2	13	3	150	133	0.77	4.0	8.2	D	268	0	2.2	358	16	6.2	178	74	15.9
						3.4 ML ATWC																				
23	19	41	8.1	60	17.5	140	47.8	12.4	1.2	9	5	141	20	0.46	1.0	1.4	B	304	8	0.7	39	31	1.0	201	58	3.0
23	21	55	14.5	60	12.9	141	54.4	7.8	1.0	5	3	102	18	0.39	1.0	1.4	B	1	22	0.9	261	24	1.3	129	57	3.0
23	22	17	56.0	60	18.7	141	19.0	12.6	0.7A	9	2	113	24	0.35	1.1	1.5	B	308	6	1.0	42	33	1.4	209	56	3.2
24	1	4	14.4	60	3.1	141	48.9	8.1	1.2	10	5	168	12	0.51	0.5	0.7	A	181	2	0.9	90	28	0.7	275	62	1.4
24	6	8	35.8	59	18.9	152	51.9	75.3	3.2	19	6	132	75	0.42	1.1	2.5	B	175	3	1.6	266	19	1.4	76	71	5.0
						3.5 ML ATWC																				
24	7	43	57.8	62	17.8	148	47.5	40.6	2.2	19	6	112	60	0.44	1.5	3.9	C	81	7	1.1	335	12	1.8	197	69	7.4
24	13	53	31.6	61	38.5	149	27.1	30.3	1.6	19	8	142	23	0.51	0.6	0.8	A	15	3	1.1	284	10	0.6	121	80	1.6
24	15	16	12.7	60	7.1	140	56.7	6.6	0.8	8	2	168	6	0.28	1.3	0.6	A	18	7	2.4	111	20	0.6	270	69	1.1
24	16	43	35.9	61	45.3	150	29.3	52.7	3.5	25	3	85	34	0.25	0.8	1.6	B	150	2	1.3	81	3	1.1	279	69	2.9
			4.7 MB			4.0 ML ATWC																				
24	22	56	46.6	60	22.3	141	14.8	17.9	1.0	6	4	123	27	0.19	0.8	1.3	B	336	13	0.8	81	19	0.9	217	63	2.7
25	0	59	24.5	59	18.1	151	27.2	13.7	1.1	10	4	295	19	0.19	1.1	0.8	A	358	4	1.9	265	36	2.3	93	54	0.9
25	3	34	44.8	62	54.9	149	0.9	65.1	2.3	10	7	142	128	0.27	4.2	12.9	D	31	9	4.1	299	14	2.5	153	73	25.1
25	3	58	25.1	60	3.7	151	49.8	62.0	2.7	22	10	116	30	0.34	0.7	1.3	A	323	2	0.6	81	13	1.0	226	59	2.2
25	8	21	20.5	59	6.8	153	46.6	80.9	2.8	14	6	183	131	0.30	2.1	4.5	C	269	4	3.8	178	5	1.5	37	84	8.4
25	10	20	3.9	60	12.3	140	59.6	8.1	0.9A	7	5	118	6	0.23	3.4	3.6	C	301	10	1.1	261	40	6.6	40	29	0.9
25	10	32	43.1	60	12.7	141	16.1	16.4	0.5A	7	4	126	15	0.54	1.0	1.0	A	290	21	0.9	35	33	1.7	174	49	2.2
25	10	45	36.0	61	35.4	149	58.1	41.2	1.8	17	11	96	8	0.48	0.5	0.7	A	90	1	0.5	180	3	1.0	342	87	1.2
25	11	54	17.1	61	21.6	148	49.3	32.0	1.9	23	15	73	21	0.69	0.4	0.5	A	261	12	0.6	149	18	0.7	17	60	1.0
25	13	19	1.9	60	43.2	150	36.6	10.1	1.4	20	13	45	32	0.84	0.4	0.8	A	300	6	0.5	31	7	0.6	170	81	1.5
25	14	32	56.6	60	21.5	141	48.5	7.4	1.1	6	5	82	4	0.19	1.0	0.6	A	206	23	1.0	104	27	2.1	331	53	0.8
25	14	48	57.4	60	21.4	141	46.1	7.7	1.4	10	6	83	1	0.39	0.5	0.6	A	273	1	0.9	4	15	0.6	179	75	1.2
25	14	50	30.3	60	56.1	152	12.7	10.0	0.7A	4	4	178	29	0.32	3.9	25.0	D	14	0	0.5	284	0	7.3	0	90	99.0
25	15	35	1.7	60	26.2	143	42.4	16.4	2.2	20	6	97	33	0.48	0.6	0.9	A	284	4	0.5	17	30	0.8	187	60	1.9
25	15	52	16.5	60	21.2	141	45.9	6.6	1.5	11	5	84	1	0.59	0.5	0.7	A	12	8	0.7	280	15	0.9	129	73	1.3
25	22	26	13.2	60	36.3	148	50.6	32.5	1.8	28	13	112	31	0.44	0.5	0.6	A	209	3	0.6	117	23	0.9	306	67	1.2
26	6	44	11.0	61	1.4	149	42.9	11.6	1.0	16	12	60	26	0.75	0.5	0.8	A	206	17	0.5	302	19	0.7	77	64	1.7
26	9	7	22.6	62	26.9	151	59.0	0.1	2.2	13	10	183	57	0.66	1.5	1.2	B	36	19	2.8	140	35	1.8	283	49	2.3
26	12	59	53.6	59	57.3	140	46.7	0.6	0.8	7	3	194	26	0.29	1.2	2.0	B	290	0	0.9	201	20	2.0	20	70	3.9
26	14	22	34.9	60	33.2	141	36.1	23.1	1.6	15	9	103	23	0.67	0.5	0.8	A	33	11	0.9	126	13	0.8	264	73	1.6
26	15	5	59.0	60	32.7	141	35.4	15.6	0.8	6	4	107	22	0.26	0.6	1.2	A	283	4	1.1	14	17	0.8	180	73	2.3
26	18	9	40.0	60	11.0	141	31.4	7.3	1.2	9	6	125	23	0.67	0.6	1.0	A	210	4	1.1	120	12	0.7	318	77	2.0
26	21	1	35.2	61	29.6	149	53.8	39.4	1.7	15	9	63	18	0.42	0.6	1.1	A	112	4	0.7	203	4	1.1	338	84	2.0
27	3	26	55.0	62	4.2	150	27.4	52.6	2.2	16	8	187	56	0.36	1.3	2.4	B	352	3	2.5	82	5	1.2	231	84	4.4
27	4	49	24.5	60	10.9	141	9.9	15.4	0.8	8	4	134	8	0.24	1.2	0.7	A	287	13	0.7	192	20	2.3	48	66	1.2
27	5	50	45.8	59	51.0	141	27.1	3.6	1.7	16	7	184	30	0.52	0.9	1.2	A	121	8	0.9	216	30	1.2	18	59	2.6
27	10	53	50.5	60	28.3	142	58.3	2.3	1.2	12	6	93	7	0.41	0.5	2.1	B	341	4	0.6	261	6	0.9	108	78	4.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MARCH 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAR 28	1	30	13.6	60	14.0	153	35.8	173.0	3.5	22	5	186	44	0.31	2.3	2.0	B	319	6	2.1	81	19	3.9	216	53	3.1
28	11	23	16.5	61	37.5	149	56.2	44.5	2.0	21	10	112	4	0.39	0.6	0.7	A	93	1	0.6	183	24	1.1	1	66	1.3
28	14	0	38.0	61	30.7	150	3.9	45.9	1.6	15	9	88	18	0.44	0.5	0.8	A	277	4	0.6	186	14	0.9	23	75	1.5
28	15	28	28.4	60	8.4	141	8.2	0.9	0.4A	3	3	211	6	0.27	2.1	2.1	B	280	8	0.7	183	44	2.1	18	45	5.2
28	16	8	20.0	61	14.9	152	18.5	4.5	0.8	3	3	251	9	0.17	7.0	8.0	D	138	1	1.8	261	36	1.2	47	43	17.9
28	21	21	56.7	60	43.4	141	15.6	24.4	1.1	5	2	192	49	0.44	3.2	6.1	D	119	11	1.3	24	24	1.9	232	63	12.8
29	0	48	22.5	60	13.6	141	8.1	0.4	0.5A	8	5	130	10	0.55	0.9	1.4	B	312	7	0.5	46	25	1.3	208	64	2.8
29	5	6	49.5	61	18.2	151	56.4	10.7	0.0A	3	3	287	4	0.04	1.2	1.2	A	81	23	2.1	180	30	1.3	318	52	2.6
29	5	23	26.7	61	55.3	150	52.1	63.8	2.3	20	10	162	35	0.45	'0.8	1.1	A	82	4	0.8	351	12	1.5	190	77	2.1
29	5	25	45.3	63	6.6	150	25.8	80.3	2.6	13	7	123	138	0.36	5.4	12.8	D	300	5	2.8	32	20	4.9	197	69	25.5
29	6	8	34.4	61	18.3	146	49.9	26.9	2.1	24	9	58	33	0.68	0.4	0.7	A	283	5	0.5	192	5	0.8	58	83	1.4
29	11	2	56.2	61	56.8	149	47.0	44.3	2.3	19	10	103	33	0.44	0.9	1.2	A	274	0	0.6	4	26	1.5	184	64	2.4
29	11	37	53.7	61	57.1	150	0.6	42.8	2.2	17	9	171	34	0.40	0.8	1.7	B	93	3	0.7	`2	11	1.4	198	79	3.2
29	12	5	16.1	61	43.6	151	17.1	77.1	3.0	21	11	109	31	0.39	0.9	1.2	A	81	14	0.8	168	21	1.5	317	65	2.4
29	12	57	17.7	60	33.4	141	37.1	14.0	1.2	13	6	102	23	0.74	0.5	0.9	A	350	12	0.7	83	13	0.8	219	72	1.8
29	13	40	22.9	61	6.3	151	46.5	22.2	0.3A	3	3	239	17	0.07	5.4	5.1	D	184	14	1.0	288	43	13.5	80	44	4.2
29	16	52	30.1	62	14.1	149	31.4	45.1	2.4	16	9	120	68	0.63	1.1	2.5	B	81	9	1.0	343	16	1.4	198	70	4.9
29	18	52	4.3	60	6.8	148	32.9	4.3	3.0A	30	6	125	50	0.53	0.5	0.8	A	351	0	0.9	261	22	0.6	81	68	1.6
					3.4 ML ATWC																					
29	18	52	24.3	60	6.6	148	31.3	9.9	2.9	20	3	127	52	0.51	0.9	1.3	B	180	9	1.0	275	30	0.6	75	58	2.9
					3.7 ML ATWC																					
29	23	37	5.4	60	2.3	141	48.7	9.7	1.0	10	6	176	12	0.51	0.7	0.7	A	82	28	0.6	330	35	1.1	201	42	1.6
30	0	36	40.1	59	53.8	140	43.7	0.4	1.0A	4	2	263	33	0.07	2.6	5.0	C	81	1	1.2	351	18	3.9	174	72	9.8
30	0	40	0.4	60	13.7	141	39.4	11.3	0.7	4	1	243	15	0.00	4.3	2.5	C	193	19	1.3	92	28	8.9	313	55	2.7
30	2	50	9.7	62	4.7	150	17.6	0.3	1.8	11	5	204	52	0.55	3.0	1.7	B	280	6	0.7	261	45	1.6	12	13	4.0
30	3	49	48.6	60	7.3	141	16.8	9.3	0.6A	3	2	223	14	0.02	6.1	3.6	D	285	16	1.5	24	28	12.8	169	57	3.8
30	10	0	36.5	60	45.4	152	2.9	20.4	0.9A	7	6	136	28	0.58	2.0	4.9	C	2	0	0.6	92	21	1.2	272	69	9.8
30	12	42	59.7	61	5.9	152	11.8	10.4	0.7	4	4	176	12	0.33	2.0	1.5	B	199	22	0.6	93	33	4.3	316	48	2.1
30	13	8	42.8	58	55.8	152	23.3	58.8	2.9	16	5	168	76	0.47	1.8	2.5	B	210	13	1.3	306	26	2.7	96	61	5.1
30	13	59	41.5	60	13.3	140	57.4	8.3	1.5	11	5	123	9	0.40	0.9	0.8	A	81	25	0.8	328	34	0.6	198	44	2.2
30	15	4	13.6	61	39.8	149	47.1	39.3	2.0	15	7	142	5	0.48	0.8	1.0	A	116	4	1.1	207	13	1.5	9	76	1.9
30	16	29	49.0	60	11.9	140	56.8	10.7	1.0A	7	3	120	7	0.17	1.4	1.0	B	85	30	0.7	199	35	3.1	326	40	0.9
30	17	36	48.4	61	48.3	148	40.8	2.6	1.4	8	4	156	45	0.53	2.3	2.3	B	198	28	2.2	306	31	1.0	75	46	5.8
30	17	50	58.5	61	3.8	146	10.7	13.7	2.1	24	7	58	11	0.60	0.4	0.5	A	30	4	0.8	121	21	0.6	290	69	1.0
30	22	31	34.1	60	56.3	147	18.6	12.1	2.1	30	10	47	56	0.43	0.4	0.6	A	285	11	0.5	192	14	0.8	52	72	1.2
30	23	3	11.7	60	13.7	141	3.5	8.8	0.7	6	2	118	8	0.14	2.7	2.7	C	84	25	1.3	335	34	0.8	202	45	7.1
31	3	29	45.0	62	10.2	151	3.5	75.0	2.4	19	8	96	33	0.47	1.0	1.2	A	314	8	1.1	81	22	1.0	211	47	2.1
31	4	36	57.1	61	21.6	150	7.0	44.9	2.2	26	8	68	33	0.43	0.4	1.2	A	94	1	0.6	184	5	0.8	353	85	2.2
31	14	28	42.0	60	13.4	141	7.1	8.4	1.1A	10	2	121	9	0.48	1.2	0.9	A	308	17	0.8	206	33	2.5	61	52	1.3
31	14	32	8.0	60	39.3	140	39.8	6.9	1.3	10	5	189	50	0.35	0.9	2.4	B	139	4	0.6	261	8	1.2	31	57	3.9
31	23	33	43.7	59	6.3	136	51.7	4.7	1.7	5	3	179	121	0.42	15.0	4.9	D	199	16	29.3	102	20	3.8	325	64	4.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - APRIL 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
APR 1	5	59	41.4	60	14.2	141	28.1	9.0	1.0	9	6	117	20	0.24	1.1	1.0	A	119	3	0.6	210	16	2.1	19	74	1.9
1	6	29	23.0	61	1.1	147	32.8	8.9	1.9	28	16	86	46	0.77	0.4	0.5	A	173	5	0.7	264	14	0.4	64	75	1.0
1	9	10	50.7	59	35.3	138	5.8	17.5	1.2	6	4	315	47	0.39	8.0	10.9	D	282	20	3.2	23	29	2.1	162	54	25.2
1	9	56	3.6	60	28.5	140	22.6	12.9	1.4	13	8	186	43	0.86	0.7	1.3	A	41	5	1.2	310	7	0.7	166	81	2.5
1	10	5	39.3	60	35.2	147	23.2	28.0	2.1	26	14	130	53	0.57	0.4	0.7	A	187	1	0.8	277	5	0.4	86	85	1.4
1	12	44	57.0	59	39.4	151	2.7	48.0	1.7	14	7	104	2	0.24	0.8	0.7	A	218	4	1.2	124	44	1.8	312	46	1.0
1	15	29	28.4	60	16.8	140	40.7	11.6	0.6A	9	4	147	24	0.33	1.4	2.3	B	302	10	0.7	37	26	1.4	193	62	4.8
1	22	35	51.4	60	13.0	141	6.4	9.4	1.1	10	6	114	8	0.39	0.8	0.7	A	306	29	0.7	192	36	1.8	64	40	0.9
2	9	0	21.4	60	13.0	152	51.0	91.0	2.7	24	6	151	4	0.26	1.5	1.1	B	157	9	1.2	261	25	2.9	50	60	1.7
2	10	19	16.0	60	15.1	140	47.9	10.3	1.4	14	8	137	17	0.39	0.6	0.8	A	116	3	0.5	23	35	0.7	210	55	1.8
2	12	51	40.1	61	35.3	149	45.7	44.7	2.0	19	11	113	9	0.54	0.5	0.8	A	284	0	0.5	194	5	0.9	14	85	1.6
2	20	19	39.1	60	30.1	141	45.3	10.6	1.6	14	8	93	16	0.38	0.5	0.8	A	11	11	0.5	278	14	0.9	138	72	1.5
2	22	38	12.2	62	4.1	151	0.2	66.5	2.5	18	6	205	29	0.51	1.2	1.3	A	6	10	2.2	101	26	1.2	257	62	2.6
2	23	50	22.5	60	3.4	140	42.3	7.8	1.7	13	8	146	21	0.50	0.8	0.7	A	286	1	0.5	16	33	1.7	194	57	1.1
3	2	57	23.8	59	18.0	151	30.2	10.2	0.9	10	5	301	20	0.17	1.5	0.8	A	332	25	2.2	261	37	1.6	98	43	1.3
3	10	4	12.1	59	21.1	151	42.2	46.7	1.4	11	5	260	15	0.19	1.4	1.3	B	53	32	2.4	298	33	1.2	175	40	2.9
4	1	53	16.6	60	38.4	139	55.2	1.0	1.5A	8	4	220	63	0.38	2.0	2.0	B	334	4	1.2	261	40	3.0	69	47	4.1
4	1	59	29.5	60	11.3	141	1.8	10.4	0.9	9	4	114	4	0.25	1.8	1.0	B	203	28	3.8	92	34	0.9	323	43	0.8
4	9	32	26.2	60	41.6	144	59.6	28.3	1.1	13	6	79	21	0.36	0.8	0.8	A	156	5	0.8	81	42	0.8	251	46	1.9
4	10	24	45.0	60	20.8	152	11.0	79.0	2.5	26	9	82	28	0.42	1.0	1.6	B	164	3	0.9	81	21	1.5	262	68	3.1
4	12	13	47.7	61	37.6	146	23.6	21.1	2.9	24	8	85	55	0.61	0.5	1.0	A	117	1	0.7	27	3	0.9	225	87	1.9
4	15	7	46.5	60	4.6	140	51.0	8.4	1.8	14	7	146	13	0.41	0.8	0.6	A	117	14	0.6	22	16	1.6	246	68	1.0
4	19	56	15.8	60	38.2	144	49.9	17.1	0.8	10	4	104	24	0.53	1.1	1.4	B	164	1	0.9	81	35	1.3	255	54	3.0
4	23	14	26.0	60	3.4	140	52.5	5.7	0.7	9	6	172	14	0.46	1.4	1.0	B	112	7	0.6	17	30	2.9	214	59	1.5
5	0	3	9.0	60	57.6	149	39.7	37.1	2.1	21	7	56	32	0.50	0.5	1.0	A	218	3	1.0	309	13	0.9	115	77	1.8
5	0	53	24.1	60	14.6	141	8.4	9.3	1.3	13	10	115	12	0.38	0.7	0.7	A	299	14	0.5	197	42	1.6	43	45	0.8
5	0	58	47.8	60	13.9	141	13.2	5.6	0.6A	4	3	169	13	0.38	10.7	7.0	D	302	9	1.1	206	33	23.8	45	55	2.3
5	4	22	30.3	59	52.0	151	0.9	44.5	1.4	12	6	70	9	0.20	0.6	0.8	A	263	2	1.1	354	15	0.8	166	75	1.5
5	7	13	2.6	61	8.3	151	23.8	11.4	1.6	24	9	57	36	0.64	0.5	0.9	A	213	6	0.8	122	17	0.6	322	72	1.8
5	7	27	35.8	60	9.3	141	1.7	8.6	0.9	13	5	109	0	0.24	0.7	0.4	A	194	22	1.4	94	23	0.7	323	57	0.6
5	12	32	25.9	61	17.3	149	17.3	35.3	1.4	21	12	58	15	0.49	0.5	1.0	A	350	1	1.0	261	15	0.9	84	75	1.9
5	16	39	39.8	60	21.0	141	17.7	15.2	1.1	13	6	117	25	0.37	0.8	1.1	A	322	11	0.7	81	20	1.1	212	54	2.0
5	17	48	54.5	60	17.0	141	13.5	15.6	2.1	17	10	115	18	0.33	0.7	0.7	A	298	8	0.6	35	40	1.1	199	49	1.6
5	20	11	12.4	59	43.7	152	21.0	63.3	2.7	23	10	130	52	0.43	1.4	1.7	B	319	5	1.0	81	13	2.1	214	55	2.9
5	21	12	4.9	60	24.3	141	38.5	12.1	1.6	14	5	99	8	0.50	0.7	0.8	A	304	2	0.8	36	39	0.9	212	51	1.6
5	21	27	5.8	60	24.5	141	36.6	8.8	0.3	4	3	220	9	0.11	3.4	2.2	C	146	33	7.4	29	36	0.9	266	37	1.9
5	22	45	13.0	60	24.3	141	37.7	9.6	0.1	5	2	116	8	0.11	1.3	1.4	B	134	14	2.2	33	38	0.9	240	49	3.4
5	23	33	59.2	60	24.8	141	38.8	9.6	0.3	4	3	127	8	0.22	1.3	1.3	B	135	17	1.4	32	38	0.9	244	47	3.3
6	0	7	56.8	60	28.5	142	53.3	0.7	1.1	8	4	111	4	0.49	1.3	5.2	C	4	3	1.0	274	3	2.3	139	86	9.7
6	2	34	55.0	60	24.3	141	38.1	11.4	1.1	10	2	99	8	0.54	0.8	1.1	A	123	6	0.9	261	44	2.0	29	29	0.8
6	4	19	43.0	60	23.6	141	15.5	13.4	1.6	15	6	121	27	0.39	0.5	0.9	A	302	3	0.6	33	19	0.8	203	71	1.7
6	5	14	39.7	60	7.3	139	46.9	17.5	1.4	9	4	187	20	0.53	1.5	1.0	B	126	3	0.7	217	27	3.2	30	63	1.3
6	6	43	23.9	60	44.3	150	40.0	35.6	1.8	27	10	44	31	0.73	0.4	0.8	A	13	3	0.5	104	12	0.6	269	78	1.6
6	7	43	55.2	59	45.4	151	7.4	45.5	1.1	13	5	78	9	0.20	1.1	1.5	B	15	16	1.2	278	26	1.6	134	59	3.2
6	15	26	22.9	59	34.1	152	30.6	71.4	2.5	21	7	137	54	0.23	1.4	1.5	B	307	16	1.1	209	26	2.5	65	59	3.0
6	18	5	40.7	62	17.0	151	8.7	73.2	2.9	17	7	100	39	0.41	1.1	2.3	B	294	6	0.9	25	11	1.8	176	77	4.3
					3.4 ML	ATWC																				
6	18	49	16.3	60	7.8	141	7.0	8.3	0.7	11	3	94	5	0.26	0.9	0.5	A	15	0	1.6	105	8	0.7	285	82	1.0
6	23	47	11.7	60	59.7	149	44.4	39.6	1.8	27	10	50	29	0.48	0.3	0.9	A	310	2	0.6	220	3	0.6	74	86	1.6
7	0	53	47.0	59	51.0	152	43.5	81.3	2.9	24	11	136	37	0.50	1.0	1.5	B	325	5	0.9	261	18	1.6	70	58	2.7
					3.4 ML	ATWC																				

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - APRIL 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
APR 7	1	29	28.0	59	48.8	139	18.5	16.2	2.0	10	5	189	17	0.68	2.3	1.0	B	261	3	3.8	320	12	0.7	157	57	1.6
7	3	55	25.0	60	16.2	140	59.7	11.0	1.1	11	5	128	13	0.27	1.0	1.1	A	83	24	1.0	337	31	0.7	204	49	2.7
7	8	54	46.4	61	0.6	149	43.7	10.3	0.9	15	7	48	28	0.67	0.7	1.5	B	160	2	0.5	261	23	0.6	65	65	3.0
7	10	35	20.5	59	53.1	151	17.1	53.3	1.6	14	5	92	8	0.25	0.9	1.3	A	261	1	1.4	328	21	0.8	169	59	2.5
7	12	31	24.9	60	5.1	141	5.4	13.3	0.7A	3	2	222	8	0.08	4.6	1.7	C	107	11	0.9	14	18	9.0	227	69	1.7
7	12	40	42.0	61	32.6	150	54.4	54.3	2.5	25	10	80	12	0.50	0.5	0.8	A	90	7	0.7	181	10	0.9	325	78	1.6
7	16	32	6.3	61	11.9	152	0.9	98.9	2.7	28	8	49	3	0.42	0.8	0.9	A	169	20	1.0	81	33	1.2	289	52	1.9
7	22	8	46.9	60	28.2	140	56.8	11.0	1.1	10	5	149	36	0.45	0.8	1.4	B	126	1	0.7	36	5	1.4	227	85	2.7
8	5	19	10.6	60	42.8	143	4.5	3.8	1.6	15	10	122	58	0.59	0.6	9.3	D	294	0	0.6	24	1	1.1	204	89	17.5
8	12	8	35.5	59	49.2	152	46.2	83.6	2.6	22	8	138	40	0.27	1.5	1.2	A	144	3	0.9	81	8	2.4	256	62	1.9
8	20	24	34.6	59	38.9	152	37.7	82.9	3.0	23	12	138	60	0.30	1.1	1.2	A	315	7	0.8	261	31	1.5	56	43	2.1
						3.3 ML	ATWC																			
8	21	22	30.3	61	5.7	151	1.1	15.4	1.7	23	13	50	41	0.59	0.3	1.0	A	190	5	0.6	99	7	0.5	315	81	2.0
8	21	48	55.3	59	45.4	150	50.1	37.4	0.9	10	5	94	3	0.20	1.2	0.9	A	36	7	0.9	130	29	2.5	294	60	1.4
8	22	4	21.4	59	55.9	152	38.2	68.4	2.4	21	11	210	30	0.55	1.1	1.3	A	326	2	0.9	261	12	1.8	65	62	2.3
9	0	2	53.8	60	8.9	141	15.8	6.6	1.5	11	7	138	13	0.48	0.6	0.8	A	94	6	0.5	186	19	1.2	347	70	1.4
9	1	34	20.5	60	28.6	153	20.8	175.5	3.7	23	7	162	44	0.39	2.0	2.7	B	335	8	1.7	261	18	3.3	90	65	5.0
9	7	0	25.8	60	10.0	141	12.3	3.3	1.0	11	6	133	10	0.28	0.9	0.9	A	288	9	0.5	194	21	1.6	40	67	1.8
9	7	27	44.8	60	5.7	141	6.4	7.2	1.3	11	5	145	8	0.57	1.0	0.7	A	108	5	0.5	14	35	2.1	205	54	0.8
9	9	30	31.4	60	23.9	144	57.6	23.7	0.8	12	6	171	20	0.55	0.9	0.9	A	116	17	0.7	14	36	1.6	227	49	1.8
9	10	27	29.9	61	18.1	152	11.1	5.8	0.7	3	3	288	4	0.03	1.1	1.0	A	31	3	1.0	300	21	2.1	129	69	1.8
9	11	29	15.8	61	16.1	152	17.7	6.6	-0.4A	3	3	307	8	0.06	1.3	2.1	B	189	3	1.4	280	19	2.1	90	71	4.1
9	13	46	34.7	61	10.4	149	32.2	37.9	1.0A	13	7	53	8	0.29	0.7	0.9	A	276	2	1.2	186	15	1.1	13	75	1.6
9	20	21	55.3	60	18.3	141	12.8	9.5	1.2	9	3	118	20	0.32	0.7	1.5	B	81	6	1.0	334	18	0.6	187	65	2.9
10	2	23	50.4	62	12.6	151	14.4	77.0	2.4	14	6	254	30	0.66	1.6	1.7	B	81	14	1.8	175	33	2.9	331	54	3.3
10	3	20	50.8	62	45.4	150	45.3	94.2	2.8	15	3	114	95	0.25	1.5	5.4	D	278	5	1.8	9	12	1.6	166	77	10.4
						3.2 ML	ATWC																			
10	5	41	1.5	63	14.9	150	14.1	91.5	2.6	7	3	302	156	0.15	17.8	25.0	D	81	14	6.3	332	18	16.0	201	61	66.9
10	8	25	57.2	61	2.7	150	22.6	48.2	2.1	22	8	44	49	0.46	0.5	1.9	B	294	4	0.8	203	5	0.9	62	84	3.7
10	8	44	27.7	60	9.3	150	16.3	34.1	1.2	13	5	108	34	0.27	0.7	1.4	A	319	6	0.9	261	10	0.7	85	56	2.2
10	9	23	30.7	61	17.0	152	12.1	4.6	0.4	3	2	290	3	0.00	2.0	1.2	B	175	7	1.4	267	13	3.9	57	75	2.2
10	10	28	51.8	60	20.1	141	15.7	8.8	0.8	5	2	124	24	0.08	10.3	24.2	D	295	0	1.7	25	23	1.4	205	67	49.3
10	12	48	24.1	60	1.4	148	24.0	31.0	2.1	23	8	146	52	0.65	0.8	1.0	A	278	5	0.9	11	28	1.4	179	61	2.1
10	14	36	5.3	62	16.0	151	19.7	86.9	2.6	17	5	172	34	0.30	1.2	1.2	A	287	1	1.5	196	42	2.5	18	48	1.8
						2.6 ML	ATWC																			
10	17	29	58.5	61	37.9	149	47.4	33.8	2.2	22	8	79	5	0.42	0.7	0.9	A	268	4	0.7	177	7	1.4	27	82	1.6
10	19	15	44.1	61	59.0	147	31.8	38.4	2.0	21	8	167	20	0.73	1.1	0.7	A	342	19	2.2	86	35	0.7	229	49	1.2
11	9	0	56.7	58	38.0	136	51.5	27.1	1.8	6	3	205	132	0.74	25.0	11.8	D	205	22	53.8	308	30	5.0	84	51	11.6
11	12	47	10.7	61	11.5	149	53.6	15.4	1.0A	5	5	157	19	0.24	2.3	3.8	C	302	17	1.5	204	24	1.4	64	60	8.1
11	15	11	36.8	60	14.5	141	9.8	0.9	1.2	11	8	114	12	0.75	0.6	1.0	A	305	7	0.6	37	14	1.0	189	74	1.8
11	18	27	10.2	59	59.2	152	48.0	97.5	2.7	24	9	181	22	0.34	1.5	2.1	B	81	1	2.5	327	5	1.4	181	65	3.7
11	19	3	24.3	60	6.0	141	8.9	5.5	0.3	4	2	221	9	0.22	2.8	2.1	C	276	29	1.2	26	32	5.7	153	44	3.7
11	19	11	48.5	60	14.6	140	45.9	13.1	1.7	12	7	138	18	0.36	0.8	0.9	A	115	2	0.7	24	39	1.1	207	51	2.0
11	20	21	40.6	60	16.5	140	17.0	10.1	1.2	8	7	171	20	0.75	1.9	1.2	B	324	18	0.9	261	30	3.2	88	47	1.6
11	20	39	49.9	61	54.6	148	22.6	36.7	2.4	24	12	164	12	0.54	1.0	0.6	A	169	9	1.8	81	34	0.8	272	55	1.2
12	9	6	6.9	60	16.0	140	45.1	8.6	2.1	14	7	141	20	0.45	0.8	0.9	A	290	4	0.7	23	37	1.1	195	53	1.9
12	10	58	11.9	61	15.1	152	18.4	8.2	0.3A	3	3	309	8	0.04	2.4	2.8	C	187	8	2.5	283	35	3.4	86	54	6.0
12	14	23	59.7	60	21.9	141	25.7	14.7	3.0	16	6	109	18	0.58	0.7	0.9	A	103	2	0.7	13	13	1.2	202	77	1.7
			5.0 MB			4.2 ML	ATWC																			
12	15	25	46.3	60	22.0	141	26.7	16.3	1.3	11	7	109	17	0.44	0.7	0.9	A	102	4	0.9	11	20	1.2	203	70	1.7
12	16	3	24.7	60	21.5	141	22.9	13.0	0.7	7	3	112	20	0.38	1.0	1.3	A	173	17	1.9	81	18	1.4	305	65	2.5

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - APRIL 1984

1984	ORIGIN TIME HR MN SEC	LAT N DEG MIN	LONG W DEG MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
APR 12	18 42 33.6	62 34.4	149 31.5	15.0	2.1	18	14	139	104	0.85	1.6	2.0	B	168	14	2.3	268	34	1.1	59	52	4.6
12	22 36 36.9	62 9.6	147 53.0	40.6	2.3	22	15	187	46	0.63	1.1	2.4	B	81	3	0.9	347	6	2.1	197	82	4.5
13	10 47 54.2	61 5.7	149 30.3	36.6	1.0A	4	5	216	17	0.10	1.3	2.2	B	261	1	2.3	154	7	1.4	358	72	4.1
13	11 36 43.6	60 16.3	141 6.6	6.5	0.9	9	6	121	14	0.41	0.9	1.4	B	307	7	0.8	40	25	1.1	202	64	2.9
13	13 8 15.5	60 9.6	141 13.2	1.9	0.7	8	4	136	10	0.31	0.7	1.3	A	15	1	1.3	285	5	0.6	116	85	2.4
13	15 35 3.4	59 51.5	146 39.7	27.6	2.3	20	5	119	47	0.73	0.8	0.9	A	48	21	1.0	305	31	1.2	167	51	2.0
13	20 31 43.0	59 12.5	152 28.4	61.6	2.3	14	7	170	59	0.48	1.4	2.7	B	320	11	1.4	261	20	1.6	82	52	4.4
14	1 5 12.6	58 32.5	136 31.1	16.4	1.8	4	1	209	111	0.10	25.0	25.0	D	296	26	6.4	48	37	20.3	180	42	99.0
14	2 18 52.0	60 4.5	152 27.0	3.4	0.7A	4	4	291	24	0.21	1.1	1.8	B	81	6	1.0	339	6	1.9	210	75	3.3
14	3 2 8.5	59 29.6	151 27.7	2.4	0.0A	4	3	171	7	0.10	1.3	1.6	B	81	7	0.5	340	26	2.0	184	61	3.3
14	4 26 28.9	60 9.7	141 8.5	7.1	1.2	9	5	136	6	0.26	0.7	0.6	A	294	10	0.6	201	14	1.4	58	73	1.1
14	11 14 27.9	58 57.2	151 9.0	43.6	3.1	16	4	150	55	0.30	1.8	3.2	C	201	6	1.8	109	22	2.7	305	67	6.3
	3.9 MB		3.9 ML ATWC																			
14	17 57 56.0	61 1.4	149 44.9	16.0	1.6	8	3	103	27	0.53	1.4	5.1	C	188	7	0.7	280	10	1.6	64	78	9.9
14	19 15 48.2	62 37.9	150 37.9	85.8	2.6	17	7	108	86	0.45	1.2	3.9	C	84	1	1.6	354	15	1.3	178	75	7.5
14	20 50 27.0	60 43.0	143 5.3	2.2	1.7	14	6	161	33	0.65	0.9	25.0	D	303	0	0.6	33	1	1.5	213	89	49.0
15	2 10 55.7	59 45.5	141 38.0	12.1	1.2A	8	5	232	38	0.27	1.3	1.6	B	93	5	1.3	185	19	2.2	349	70	3.2
15	2 56 31.5	60 21.7	141 25.6	15.7	0.8A	8	4	110	18	0.32	0.8	1.2	A	132	12	1.3	38	19	1.0	253	67	2.5
15	7 15 20.1	60 16.1	144 51.9	28.7	1.2	13	6	144	34	0.53	1.2	0.8	A	27	8	2.3	121	20	0.8	276	68	1.6
15	7 46 49.8	60 16.5	141 13.6	17.3	1.6	12	7	114	17	0.33	0.5	0.7	A	300	14	0.5	36	22	0.8	180	63	1.5
15	10 21 19.0	60 14.1	141 3.0	11.3	2.2	14	7	120	9	0.18	0.6	0.6	A	81	24	0.7	309	25	0.6	194	38	1.2
15	11 3 28.0	59 48.3	150 42.0	37.3	1.0A	10	5	107	11	0.17	1.4	1.2	B	39	10	0.8	307	12	2.7	168	74	2.2
15	13 48 59.7	61 8.8	152 10.3	8.5	0.1A	4	4	172	7	0.39	1.4	1.3	B	193	30	0.9	303	31	2.0	69	44	3.2
15	16 59 35.2	60 41.6	148 21.5	32.2	3.2	40	10	72	19	0.32	0.4	0.6	A	296	6	0.6	28	20	0.6	190	69	1.1
	3.8 MB		3.9 ML ATWC			FELT AT ANCHORAGE.																
15	19 41 5.5	62 21.8	150 58.0	77.9	2.4	16	9	180	52	0.37	1.6	1.7	B	105	5	1.4	11	40	2.1	201	50	3.8
15	20 5 1.7	59 37.7	152 49.3	84.8	3.6	19	8	143	62	0.33	1.6	1.9	B	322	9	1.2	261	31	2.1	67	48	3.4
	4.0 MB		4.3 ML ATWC			FELT AT HOMER.																
15	22 54 40.7	61 24.9	150 59.7	68.0	2.2	19	10	90	15	0.46	0.6	1.0	A	88	4	0.7	179	16	1.0	344	73	1.9
16	4 50 22.8	60 0.4	152 7.0	72.9	2.5	25	14	144	44	0.51	1.0	1.3	A	332	5	0.8	81	17	1.6	228	64	2.4
16	10 34 56.6	62 10.0	149 38.6	4.0	1.7	13	7	192	59	0.40	0.9	1.1	A	172	11	1.7	269	31	0.9	65	57	2.3
16	14 52 2.9	61 39.2	150 55.9	57.7	2.2	20	8	122	23	0.49	1.2	1.9	B	81	7	0.9	172	20	1.9	332	69	3.8
16	14 58 39.0	60 2.2	152 4.7	78.5	2.5	22	13	136	44	0.45	1.0	1.3	A	328	4	0.9	81	11	1.7	222	64	2.3
16	17 7 47.4	62 11.0	150 8.7	1.9	1.8	18	12	197	61	0.94	1.1	1.1	A	267	28	0.8	159	30	1.5	31	47	2.7
16	18 52 33.2	60 15.3	141 15.4	12.4	1.0	8	4	110	17	0.28	0.8	1.2	A	300	11	0.8	35	21	1.3	184	66	2.3
17	1 4 36.5	60 45.1	139 36.2	0.1	2.4	11	6	239	81	0.97	1.8	1.5	B	146	5	1.2	81	34	3.3	243	48	2.2
17	3 48 4.6	60 16.9	141 25.9	13.4	0.8	9	7	109	19	0.39	0.7	0.9	A	285	6	0.9	16	9	1.2	162	79	1.8
17	11 45 15.4	59 34.2	150 54.0	40.1	1.2A	12	6	184	11	0.25	1.3	0.9	A	319	3	2.1	81	11	0.8	218	56	1.4
17	20 12 45.4	60 17.4	140 43.5	15.0	0.6	5	3	153	23	0.25	3.3	6.0	D	295	3	1.3	26	28	1.7	199	62	12.7
17	22 33 43.3	60 16.9	152 43.9	7.6	0.9A	4	4	177	12	0.38	1.9	1.0	B	22	17	0.8	285	22	3.8	147	62	1.4
18	2 11 13.3	60 22.8	145 2.8	7.3	0.6A	5	2	237	19	0.47	1.9	4.8	C	204	3	2.0	113	20	1.4	302	70	9.6
18	2 58 38.8	59 29.4	151 28.3	5.4	0.3A	5	3	156	7	0.20	1.1	1.7	B	81	14	0.6	338	19	1.6	202	63	3.4
18	10 57 13.1	59 52.8	146 37.7	13.5	2.8	25	8	107	49	0.74	0.5	0.7	A	261	1	0.8	346	7	1.0	163	81	1.3
	3.9 MB		3.6 ML ATWC																			
18	13 33 12.6	62 13.2	154 17.2	4.9	2.8	10	3	147	119	0.27	1.6	3.2	C	217	4	2.9	126	9	1.3	331	80	6.1
			3.5 ML ATWC																			
18	13 33 27.0	59 48.7	146 42.5	31.4	2.0	17	9	117	46	0.77	0.9	0.8	A	185	13	1.6	86	37	1.0	291	50	1.9
18	14 13 33.7	61 48.3	148 31.3	10.3	1.8	22	8	155	10	0.80	0.5	0.7	A	343	14	0.9	261	27	0.6	100	59	1.5
18	16 23 3.6	62 17.2	150 0.2	65.3	2.4	19	7	132	71	0.57	1.0	2.0	B	98	5	1.0	5	21	1.2	201	68	4.1
18	19 31 30.7	60 42.4	151 50.4	81.5	4.3	28	1	61	33	0.32	0.9	2.1	B	176	3	0.9	85	15	1.4	277	75	4.0
	5.1 MB		4.8 ML ATWC			FELT (IV) AT KASILOF, SKWENTNA AND SUTTON. FELT (III) AT ANCHOR POINT, HOMER, MOOSE PASS, NINILCHIK, SEWARD, TYONEK, WASILLA AND WHITTIER. ALSO FELT AT ANCHORAGE, KENAI, VALDEZ AND WILLOW.																

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - APRIL 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
APR 18	20	20	25.3	63	5.2	150	58.3	98.8	3.6	13	3	128	127	0.36	1.1	5.8	D	43	0	1.1	313	3	1.9	133	87	10.8
18	20	44	35.3	57	29.3	137	8.5	18.0	2.5	10	3	202	120	0.35	25.0	25.0	D	309	21	1.5	53	34	9.1	193	49	99.0
18	22	47	26.9	60	49.3	152	2.8	4.0	0.8	9	4	138	34	0.51	0.9	1.1	A	189	2	0.5	98	40	1.0	281	50	2.5
18	22	49	6.4	60	17.8	153	26.4	165.5	3.2	20	5	177	37	0.44	1.6	1.3	B	223	4	3.0	315	23	1.9	124	67	2.5
19	0	1	4.1	60	30.5	140	45.8	14.7	1.1	9	7	171	42	0.69	0.8	1.2	A	329	9	0.7	261	17	1.2	90	61	2.1
19	0	46	5.5	61	8.9	147	15.7	11.1	2.4	28	7	41	31	0.70	0.3	0.6	A	188	7	0.6	279	13	0.5	70	75	1.1
19	1	18	17.6	61	9.3	147	14.9	9.0	2.5	27	7	73	31	0.75	0.4	0.7	A	177	3	0.8	268	21	0.6	79	69	1.4
					3.0 ML	ATWC																				
19	3	0	6.9	60	26.5	141	27.3	9.9	0.9	9	5	113	19	0.39	0.6	0.9	A	81	12	0.9	340	12	1.1	211	70	1.7
19	4	15	22.3	60	27.0	141	30.9	12.9	1.6	15	5	107	16	0.43	0.4	0.7	A	106	9	0.7	13	15	0.5	226	72	1.4
19	9	24	58.4	59	52.2	140	18.9	27.2	1.3	10	4	162	25	0.58	2.3	1.9	B	298	4	0.9	31	39	5.4	203	51	1.1
19	10	33	23.2	61	10.1	152	9.5	4.3	-0.2	3	3	285	6	0.03	1.3	1.9	B	261	9	2.0	320	19	1.0	144	53	3.2
19	10	45	17.5	60	43.0	139	44.7	3.8	1.5A	7	4	232	75	0.64	2.4	2.7	B	335	4	1.4	261	37	3.0	70	50	5.8
19	14	35	23.4	60	56.4	147	25.2	12.0	2.1	26	11	52	50	0.43	0.4	0.7	A	189	3	0.8	280	19	0.5	90	71	1.3
19	15	56	15.6	60	10.0	140	58.3	8.7	0.3	6	3	127	4	0.22	1.6	1.1	B	104	25	1.0	212	34	3.6	346	46	0.8
19	19	59	7.1	59	52.3	140	18.2	32.3	1.0A	6	3	185	25	0.50	4.8	5.6	D	124	4	1.0	217	40	2.1	29	50	13.7
19	20	14	37.9	61	34.6	149	50.2	55.8	3.3A	29	7	86	9	0.39	0.7	1.4	B	269	4	0.7	179	12	1.2	17	77	2.7
					3.0 ML	ATWC																				
19	20	14	51.0	61	34.5	149	48.8	52.7	3.3	13	7	134	51	0.37	1.0	2.2	B	107	2	0.9	198	5	1.8	355	85	4.2
20	0	40	16.4	60	6.1	151	27.2	54.8	2.1	19	10	92	11	0.39	0.6	1.2	A	338	8	0.6	81	12	0.9	219	71	2.3
20	2	12	25.6	59	29.9	151	28.2	6.6	0.2A	7	4	139	7	0.13	0.9	1.2	A	81	12	0.6	340	26	1.2	193	60	2.5
20	2	34	47.2	60	21.4	140	44.9	9.9	0.3A	8	4	151	28	0.56	1.5	4.0	C	309	10	0.9	41	16	1.4	188	71	7.9
20	4	24	49.3	61	39.7	152	5.4	118.2	4.0	25	9	146	40	0.42	1.2	1.3	A	101	19	2.1	198	21	1.4	332	61	2.7
		4.5 MB			3.8 ML	ATWC																				
20	4	31	13.5	62	6.7	150	48.2	61.0	2.3	18	8	199	41	0.43	1.2	1.3	A	92	14	1.1	187	19	2.2	328	66	2.6
20	6	8	2.9	59	47.2	151	55.5	59.4	2.6	22	11	123	40	0.45	0.7	1.0	A	47	9	1.2	315	12	0.6	173	75	2.0
20	6	37	19.6	60	12.3	139	43.2	16.3	1.0	7	4	196	28	0.51	1.6	1.4	B	115	11	0.9	214	40	3.6	13	48	1.5
20	7	2	15.9	60	7.0	141	7.5	0.0	0.2	8	3	144	7	0.31	1.2	2.3	B	270	7	0.9	178	19	1.7	19	70	4.6
20	7	40	38.1	60	55.8	147	14.5	23.5	2.5	27	14	49	42	0.51	0.3	0.8	A	198	7	0.5	289	10	0.4	73	78	1.5
20	17	55	6.6	61	37.7	142	40.6	17.3	1.4	10	4	229	64	0.34	2.7	4.4	C	302	2	1.3	33	27	3.5	208	63	9.0
20	18	28	50.4	61	48.4	148	23.4	35.1	2.1	22	12	155	3	0.50	0.7	0.4	A	334	14	1.4	81	25	0.6	220	57	0.7
20	21	36	2.7	58	54.4	141	11.4	31.0	1.5A	10	7	268	133	0.39	4.4	25.0	D	299	0	4.6	209	1	8.1	29	89	99.0
20	22	10	35.2	58	26.4	153	38.6	63.1	2.5	11	6	235	103	0.39	6.2	13.2	D	358	11	1.4	264	21	4.8	114	66	27.0
20	23	52	33.3	59	58.0	140	44.0	0.8	1.3	4	4	190	27	0.22	1.1	1.2	A	284	2	0.6	193	36	1.5	17	54	2.7
21	0	29	38.5	59	30.0	151	28.9	6.3	0.2A	3	3	198	7	0.01	1.0	1.8	B	347	10	1.8	81	11	0.6	217	75	3.5
21	3	0	19.8	60	10.5	141	6.3	17.1	0.9	3	3	232	5	0.10	3.3	1.4	C	114	18	1.2	211	21	6.6	347	62	1.0
21	3	19	55.5	62	59.7	149	40.2	51.9	2.4	11	4	256	148	0.64	8.4	25.0	D	276	1	5.4	7	4	14.1	172	86	99.0
21	4	1	4.3	60	42.9	139	43.8	0.5	1.7	10	4	233	75	0.63	2.4	3.2	C	329	4	1.4	261	15	4.0	74	63	5.6
21	9	36	2.1	60	2.8	140	39.3	7.1	1.5	10	5	158	23	0.39	1.3	1.0	A	289	4	0.8	19	9	2.4	175	80	1.8
21	12	1	18.9	60	59.8	147	13.6	18.8	2.5	27	6	85	15	0.57	0.5	0.8	A	20	1	0.9	290	10	0.6	116	80	1.5
21	12	21	39.0	61	5.8	151	4.1	59.9	2.6	26	8	51	45	0.38	0.6	2.0	B	81	4	0.9	162	7	1.0	319	78	3.6
21	17	22	21.4	61	41.6	150	10.9	0.7	2.1	21	3	141	17	0.32	0.9	1.1	A	7	19	1.7	270	20	0.7	137	62	2.2
21	19	42	51.2	61	26.7	140	12.9	5.3	1.9	6	3	296	81	0.13	3.8	7.1	D	329	6	6.3	81	7	2.8	208	66	12.6
21	21	50	12.0	61	18.5	144	3.2	28.8	1.7	11	10	154	48	0.29	0.9	1.1	A	300	3	0.9	209	19	1.5	39	71	2.1
21	22	32	23.4	60	4.4	141	13.7	3.4	0.9A	3	3	231	14	0.11	2.5	3.6	C	283	3	1.5	191	33	2.2	18	57	7.8
22	1	15	23.9	61	18.3	149	15.8	37.6	2.2	30	7	59	17	0.55	0.5	0.7	A	191	10	0.9	99	11	0.8	322	75	1.3
22	4	34	11.5	60	14.3	152	26.7	77.2	2.2	20	5	103	22	0.31	1.4	1.7	B	160	3	1.0	81	29	2.1	255	59	3.5
22	9	8	42.1	60	26.7	141	28.8	6.4	1.2	12	3	110	18	0.40	0.8	1.6	B	325	1	1.0	81	21	0.7	233	57	2.9
22	13	4	26.5	60	32.4	145	7.6	16.6	1.2A	7	3	145	5	0.34	1.4	0.8	B	212	23	2.8	107	33	1.1	330	48	1.3
22	13	10	37.1	59	53.2	146	40.4	27.4	2.2	19	3	114	46	0.56	1.2	0.9	A	345	3	2.2	81	16	1.3	245	73	1.8
22	16	42	33.5	61	54.1	151	34.8	83.7	2.4	17	9	173	9	0.32	1.8	2.2	B	81	8	1.6	161	34	2.7	339	54	4.5

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - APRIL 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
APR 22	19	50	25.7	61	25.2	151	31.9	15.7	0.7A	4	5	144	28	0.40	0.7	8.7	D	134	1	1.2	44	2	0.6	251	88	16.3
23	10	13	28.8	61	15.4	152	10.8	2.7	-0.6A	3	3	266	2	0.03	1.4	1.2	B	187	18	1.2	291	37	3.0	76	47	1.6
23	15	32	5.3	62	36.6	149	27.6	39.7	2.0	16	11	139	107	0.59	2.6	14.5	D	335	4	2.0	81	7	1.8	220	72	26.5
23	18	20	59.8	57	47.0	137	33.9	12.7	2.7	7	2	210	157	0.43	20.5	23.5	D	133	7	4.2	37	40	11.8	231	49	57.3
23	21	18	40.5	60	12.5	139	44.3	15.6	0.8	5	3	230	29	0.37	3.0	2.5	C	114	3	1.4	206	38	6.7	20	52	2.8
23	21	20	25.1	60	12.7	139	39.5	9.1	2.4	10	4	199	29	0.64	2.1	1.3	B	309	9	0.9	215	25	4.2	57	63	1.8
23	21	58	45.7	60	6.8	139	49.3	16.9	1.1A	5	4	219	21	0.42	3.4	1.1	C	119	6	1.0	210	9	6.4	356	79	1.9
23	22	23	24.9	60	15.6	139	34.4	10.6	2.4	11	6	206	34	0.72	1.7	1.5	B	319	9	0.9	261	35	3.1	61	43	1.9
23	22	49	37.7	60	11.2	139	43.4	16.3	1.8	10	4	194	27	0.49	2.2	1.5	B	301	4	1.0	209	30	4.6	38	60	1.7
24	0	12	3.5	62	20.7	148	4.0	29.1	2.1	16	8	205	61	0.56	1.9	1.3	B	173	22	3.7	81	28	1.6	299	55	2.4
24	0	54	48.7	60	5.6	139	51.9	26.0	0.8A	4	2	214	20	0.11	10.5	2.8	D	297	13	1.6	204	13	20.2	71	71	2.8
24	2	10	19.6	59	30.2	151	28.4	5.4	0.2	8	6	145	7	0.17	1.0	1.8	B	328	14	1.0	81	16	0.6	207	59	3.5
24	2	51	8.5	61	27.0	151	55.4	89.7	2.5	25	9	168	17	0.36	1.2	1.8	B	197	3	1.6	106	24	1.9	294	66	3.7
24	4	11	38.2	61	22.8	150	13.2	7.9	1.0A	9	5	109	30	0.54	1.7	1.5	B	285	2	0.7	16	22	3.2	190	68	2.7
24	8	17	23.5	60	9.1	139	39.5	12.2	0.8	6	2	205	22	0.24	2.9	2.6	C	303	2	1.2	211	41	6.8	35	49	2.8
24	8	48	5.5	62	31.8	151	14.8	86.4	2.4	14	8	192	63	0.38	1.7	3.0	C	107	6	3.0	14	21	2.1	212	68	5.9
24	9	24	14.0	61	18.1	149	14.3	45.0	2.1	33	14	58	18	0.68	0.5	1.2	A	287	0	0.9	197	6	0.9	17	84	2.2
24	10	29	47.1	61	6.7	149	21.3	20.0	1.2A	7	5	108	19	0.30	1.3	3.8	C	86	1	1.5	176	17	1.1	353	73	7.4
24	16	24	35.6	59	44.5	136	41.6	2.3	1.6	5	3	330	128	0.46	6.2	7.2	D	89	18	4.8	348	29	9.7	206	55	15.4
24	23	25	48.8	60	23.0	141	17.4	11.5	0.9A	5	4	121	25	0.31	1.6	3.6	C	89	15	1.3	355	15	1.3	222	69	7.3
25	1	5	8.1	60	26.0	150	48.6	41.8	2.8	29	11	56	34	0.40	0.3	1.1	A	350	3	0.5	261	6	0.6	107	83	2.0
25	1	36	20.0	60	15.7	141	8.6	11.7	1.6	12	5	118	14	0.22	0.6	0.9	A	81	3	0.8	331	24	0.7	177	59	1.8
25	3	22	49.1	60	15.0	140	13.4	13.2	1.5	10	4	172	17	0.44	1.5	1.5	B	318	20	0.7	66	40	1.1	208	43	3.8
25	7	8	38.4	58	10.5	154	29.3	138.3	3.6	11	7	121	127	0.84	3.2	6.2	D	328	12	2.0	261	20	4.3	93	58	11.2
	3.8 MB					4.1 ML ATWC																				
25	16	46	44.7	60	19.5	141	41.3	17.4	1.3	9	6	92	5	0.26	0.7	0.6	A	268	22	1.4	12	31	0.9	149	50	1.0
25	17	13	42.5	60	19.5	141	41.3	17.7	1.1	11	5	92	5	0.28	0.7	0.6	A	264	29	1.4	18	36	0.9	146	40	1.0
26	2	11	40.1	59	30.6	151	28.6	4.5	0.4A	9	6	110	7	0.17	0.8	2.1	B	326	6	0.9	81	11	0.5	214	62	3.8
26	3	43	33.6	59	58.3	149	53.8	15.2	1.2	10	4	174	29	0.37	1.3	2.1	B	261	7	1.0	151	16	2.1	10	64	3.9
26	3	57	59.7	60	54.0	152	28.1	10.0	1.1A	9	8	189	36	0.64	1.8	2.0	B	192	1	0.5	101	38	2.8	283	52	4.2
26	6	7	38.2	61	16.2	152	17.4	6.7	0.1A	3	3	307	7	0.04	1.3	1.5	B	192	7	1.3	287	35	1.9	92	54	3.1
26	9	12	41.5	60	17.3	140	10.4	9.3	1.1	9	5	181	22	0.50	1.4	1.5	B	306	9	1.1	44	40	1.4	206	49	3.7
26	16	34	18.6	59	48.5	153	23.8	125.2	2.9	19	12	215	53	0.38	2.4	1.5	B	146	15	1.7	81	25	4.0	271	53	2.3
26	17	46	38.5	60	13.4	141	15.9	13.0	1.0	10	5	123	15	0.17	0.7	0.7	A	299	8	0.6	36	43	1.1	201	46	1.6
26	17	48	34.0	62	31.5	149	18.0	40.3	2.2	17	10	132	94	0.88	2.1	8.6	D	86	6	1.4	355	10	2.1	207	78	16.4
26	18	10	46.0	61	33.2	151	17.0	4.0	1.6	17	8	109	30	0.84	0.3	0.7	A	81	8	0.5	164	10	0.6	310	75	1.3
26	18	10	58.7	61	20.0	146	43.7	15.1	2.7	26	5	49	31	0.74	0.4	0.7	A	196	1	0.8	286	4	0.6	92	86	1.3
						3.4 ML ATWC						FELT (III) AT VALDEZ.														
27	13	7	48.6	60	16.0	141	42.0	9.8	1.0	7	4	116	11	0.36	1.1	0.7	A	81	24	1.6	144	26	0.8	297	47	1.1
27	16	55	25.1	60	10.2	141	4.4	8.5	1.4	13	7	125	3	0.41	0.8	0.4	A	203	11	1.5	295	13	0.5	74	73	0.7
27	19	36	41.4	61	39.3	149	43.3	39.0	2.5	24	9	145	8	0.52	0.5	0.6	A	357	15	1.0	94	27	0.5	241	59	1.3
27	23	28	14.9	60	16.7	141	2.8	10.2	2.0	14	6	126	14	0.26	0.5	0.7	A	81	14	0.7	328	24	0.5	194	55	1.4
27	23	33	40.4	61	32.2	152	5.0	8.1	1.4	18	10	195	26	0.86	0.8	0.6	A	287	10	1.6	21	21	0.5	173	67	1.1
28	2	5	28.6	61	0.9	147	16.2	16.4	1.9	22	12	82	49	0.60	0.4	0.8	A	5	3	0.8	274	15	0.4	106	75	1.5
28	3	19	53.5	60	17.1	140	54.9	2.4	1.1	7	5	136	16	0.16	0.8	2.3	B	83	4	0.9	352	17	0.6	186	73	4.6
28	9	16	44.6	61	16.7	152	12.0	4.3	-0.2	3	3	289	3	0.02	1.1	0.8	A	198	3	1.0	289	14	2.2	96	76	1.4
28	11	13	30.1	60	13.9	141	59.4	2.6	1.0	6	4	162	20	0.25	0.6	1.4	B	9	8	0.7	278	9	1.1	140	78	2.6
28	13	33	6.7	58	56.2	137	31.4	23.0	2.2	8	6	158	96	0.43	7.0	1.3	D	225	6	13.2	132	31	1.3	325	58	2.2
28	13	34	51.9	62	10.9	150	2.4	3.8	2.2	17	8	125	60	0.83	0.8	1.2	A	176	12	1.3	272	25	0.7	63	62	2.5
28	16	48	48.6	60	18.4	152	16.9	83.6	2.6	24	9	141	31	0.29	1.1	1.5	B	344	1	0.9	81	19	1.9	251	70	2.8
28	18	43	17.0	59	15.0	138	42.7	14.4	1.0	3	2	343	24	0.27	10.9	4.0	D	81	32	18.4	155	34	3.3	301	43	4.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - APRIL 1984

1984	DAY	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
APR	28	21	34	20.6	59	57.9	141	13.9	3.2	1.0	8	4	173	24	0.28	1.3	2.0	B	126	2	1.0	217	27	1.5	32	63	4.2
	28	21	48	27.3	60	1.0	141	29.1	7.8	1.0	12	6	162	29	0.54	0.7	0.9	A	89	6	0.6	182	22	1.2	345	67	1.7
	28	23	7	12.1	59	55.0	151	13.2	44.2	1.6	13	8	87	9	0.33	0.6	0.8	A	266	9	1.0	358	14	0.7	144	73	1.5
	29	0	29	38.6	60	20.4	153	5.7	129.3	3.1	18	6	164	24	0.27	1.9	2.8	C	155	3	1.8	81	11	3.2	261	70	5.1
	29	2	12	41.2	62	43.9	150	50.8	97.4	2.8	11	4	295	91	0.51	4.9	6.2	D	187	7	9.2	96	14	4.0	303	74	11.9
	29	2	27	17.2	60	5.9	140	27.1	21.6	0.6	3	2	190	11	0.13	16.1	4.9	D	18	6	30.3	283	38	1.6	116	51	11.0
	29	3	3	48.1	60	28.4	143	14.8	19.4	1.2A	6	2	132	38	0.18	3.1	5.7	D	215	8	1.9	309	25	3.0	109	64	11.8
	29	4	54	21.1	60	23.5	141	7.4	1.5	0.8	6	2	134	27	0.30	2.5	3.7	C	103	4	0.8	194	17	4.5	0	73	7.1
	29	5	0	4.5	60	12.0	141	11.6	1.9	0.3A	3	1	181	10	0.01	25.0	25.0	D	300	9	0.8	205	31	99.0	44	58	11.9
	29	8	58	4.4	60	8.6	139	48.4	23.9	0.4	3	2	247	23	0.04	8.4	4.7	D	300	6	1.8	208	26	17.2	42	63	5.1
	29	10	57	57.5	63	10.0	150	43.9	127.1	3.1	9	4	313	138	0.31	8.1	8.3	D	82	27	10.0	335	30	12.6	206	48	18.2
	29	11	22	11.4	60	11.2	141	8.2	14.7	0.9	9	6	130	7	0.72	0.8	0.7	A	298	18	0.8	198	27	1.7	57	57	1.1
	29	12	41	40.1	60	14.8	151	15.6	19.9	1.4A	12	5	81	23	0.44	0.6	1.2	A	37	2	1.1	306	6	0.7	145	84	2.3
	29	12	42	31.1	60	28.5	143	16.5	9.3	1.1A	6	2	134	39	0.27	1.0	4.0	C	339	2	1.3	261	9	1.5	82	75	7.4
	29	12	57	0.6	59	58.5	151	15.9	52.0	2.1	20	5	88	8	0.30	0.7	1.7	B	264	1	1.2	355	16	0.9	171	74	3.2
	29	17	24	40.0	60	16.5	141	4.9	7.6	0.9	9	2	123	14	0.09	2.1	1.8	B	347	27	0.8	101	39	2.7	232	39	4.6
	29	19	31	36.7	61	17.4	152	12.8	8.9	1.0	4	3	197	4	0.15	2.1	0.9	B	96	11	4.0	197	43	1.9	355	45	0.9
	30	0	34	40.8	60	38.1	142	42.0	18.1	1.6	12	9	78	48	0.65	0.6	1.1	A	359	4	0.8	268	16	1.1	103	73	2.1
	30	1	35	59.3	60	13.9	141	5.6	3.8	0.9	8	5	117	9	0.65	0.8	1.2	A	313	15	0.8	50	25	1.0	195	60	2.5
	30	2	9	18.3	60	14.1	141	5.8	2.4	1.6	11	8	117	10	0.32	0.7	1.2	A	300	9	0.7	32	14	1.3	178	73	2.3
	30	5	1	59.2	60	7.4	140	28.9	32.0	1.0A	5	4	173	13	0.72	6.7	2.1	D	29	13	12.9	126	28	2.3	277	59	3.0
	30	6	14	39.9	59	46.0	150	35.1	11.0	0.3A	5	3	228	8	0.15	0.9	1.1	A	12	11	0.8	277	26	1.6	123	62	2.2
	30	9	14	26.4	59	15.0	139	19.8	33.3	2.2	10	4	251	34	0.44	3.3	6.7	D	202	13	4.1	297	19	1.9	80	67	13.7
	30	11	10	46.7	61	24.0	140	39.8	18.5	1.6A	5	3	258	60	0.61	3.0	2.9	C	334	24	4.0	82	36	2.5	218	45	7.2
	30	12	4	26.5	60	22.2	152	41.1	13.5	0.8	13	9	181	22	0.51	1.4	1.1	B	17	1	0.9	286	37	3.1	108	53	1.0
	30	12	12	28.9	61	11.1	152	15.7	2.9	1.7	21	12	115	11	1.02	0.7	0.6	A	204	30	0.6	93	32	1.5	327	43	1.1
	30	12	13	39.9	60	17.7	141	17.4	13.9	1.2	9	6	112	21	0.40	0.9	1.3	A	81	13	1.3	325	16	0.9	199	57	2.5
	30	14	22	8.9	60	12.5	141	23.0	9.1	0.6	9	6	136	20	0.30	0.7	1.3	A	292	10	0.8	24	13	1.3	165	74	2.6
	30	16	14	16.1	59	36.4	152	41.0	75.0	2.8	19	11	140	64	0.37	1.9	2.4	B	317	8	1.3	261	17	2.8	74	52	3.8
						3.4 ML ATWC																					
	30	18	0	43.3	61	41.6	146	47.2	21.1	2.0	18	10	96	33	0.74	0.6	1.3	A	121	4	0.8	212	7	1.2	2	82	2.5
	30	18	54	59.7	59	37.2	151	7.1	7.1	0.4A	7	5	136	12	0.26	0.9	2.0	B	81	2	0.4	315	10	1.2	179	53	3.1

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MAY 1984

1984		ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAY	1	3	41	25.8	60	13.4	141	3.2	9.0	1.3	11	7	118	8	0.16	0.8	0.9	A	309	22	0.8	55	34	1.0	193	48	2.1
	1	4	23	44.2	60	29.2	141	21.3	22.2	0.9	8	4	120	26	0.36	1.1	2.1	B	105	12	1.7	12	17	1.1	229	69	4.2
	1	21	31	0.6	60	16.3	141	2.9	10.5	2.1	13	9	125	13	0.22	0.6	0.9	A	295	4	0.7	26	22	0.9	195	68	1.8
	1	23	28	17.0	60	28.4	152	7.8	14.2	1.6	18	11	135	19	0.51	1.4	1.4	B	145	18	0.7	39	42	1.1	253	43	3.5
	2	0	14	53.5	61	27.4	151	10.3	8.7	2.0	23	9	92	23	0.88	0.4	0.5	A	162	1	0.7	261	11	0.4	67	76	1.0
	2	0	22	53.6	61	20.0	146	50.1	30.3	2.9	26	7	48	35	0.57	0.4	0.5	A	120	5	0.6	29	7	0.7	245	81	1.0
						3.5 ML ATWC																					
	2	1	14	49.7	60	9.0	141	11.4	0.0	1.2	11	5	135	9	0.46	0.7	1.1	A	267	2	0.6	357	10	1.3	166	80	2.1
	2	2	38	9.6	60	10.4	141	11.5	1.6	1.3	11	3	132	9	0.46	0.7	1.0	A	275	0	0.5	185	5	1.3	5	85	1.9
	2	7	41	13.7	59	40.4	151	12.1	48.4	1.2	13	8	79	10	0.38	0.8	0.8	A	277	25	1.3	21	28	0.9	152	51	1.8
	2	9	15	48.5	59	59.4	141	37.0	14.6	0.8A	6	5	203	24	0.27	1.1	1.9	B	189	2	2.1	99	14	0.9	287	76	3.8
	2	9	56	30.4	58	57.4	152	31.1	64.5	2.2	13	8	174	79	0.28	1.7	2.8	B	324	6	2.3	261	23	1.7	68	55	5.1
	2	10	42	14.3	60	29.2	152	17.4	23.4	0.6A	7	3	106	12	0.24	1.4	1.1	B	172	32	1.1	53	37	1.4	289	36	3.1
	2	11	41	18.3	60	7.7	139	50.0	21.6	0.9	7	4	185	23	0.45	3.1	1.2	C	115	9	0.9	208	18	6.1	0	70	1.4
	2	12	0	48.5	60	37.8	142	43.4	21.2	1.8	15	8	79	48	0.59	0.6	1.1	A	323	9	0.6	261	15	0.8	89	57	1.9
	2	14	7	29.9	61	16.6	152	13.0	7.5	0.6	4	4	245	4	0.19	1.1	0.7	A	105	18	2.1	209	37	0.9	354	47	1.4
	2	15	26	44.8	61	15.2	150	45.7	57.0	2.1	26	12	58	24	0.43	0.4	1.0	A	96	5	0.6	187	12	0.7	344	77	1.8
	2	16	48	14.0	60	23.8	143	2.8	20.7	0.8A	4	4	186	72	0.09	3.8	7.0	D	178	12	2.2	274	25	1.5	65	62	14.8
	2	19	6	25.1	61	8.8	150	42.2	46.5	2.3	29	15	50	35	0.56	0.3	0.9	A	208	6	0.6	117	7	0.5	338	81	1.7
	3	0	40	35.1	61	26.5	140	46.3	0.3	2.0	11	6	245	61	0.43	1.6	8.6	D	315	0	1.4	45	2	3.0	225	88	16.2
	3	5	4	52.1	61	7.7	150	14.0	19.0	1.7A	7	6	105	38	0.64	1.4	3.5	C	176	11	1.4	270	17	0.7	55	69	6.9
	3	5	36	27.0	59	14.2	144	47.3	21.9	2.1	11	3	272	91	0.31	6.8	3.8	D	8	26	14.2	119	35	2.8	251	43	3.9
	3	6	25	5.0	62	18.7	149	33.6	59.4	2.4	20	8	125	76	0.70	1.5	2.4	B	94	1	0.9	4	29	1.7	186	61	5.1
	3	7	48	49.5	60	17.1	140	47.5	14.5	1.4	9	7	141	20	0.29	0.9	1.1	A	303	4	0.6	36	38	1.0	208	52	2.5
	3	9	14	58.4	60	13.2	151	6.2	40.4	2.0	27	14	60	23	0.42	0.4	1.3	A	94	2	0.7	4	7	0.6	200	83	2.5
	3	12	27	53.4	63	21.0	147	29.3	62.6	2.8	13	4	152	154	0.48	4.4	17.9	D	173	1	1.9	263	2	8.1	56	88	33.6
	3	17	18	14.9	59	43.2	139	12.9	15.3	1.1	3	2	283	12	0.05	3.2	1.5	C	261	3	5.9	339	25	1.4	165	62	2.9
	3	23	43	46.0	60	56.9	149	34.4	14.7	1.5	20	10	60	31	0.62	1.0	1.7	B	206	15	0.8	303	23	0.8	86	62	3.5
	4	4	53	26.8	60	7.1	141	9.3	6.0	0.4A	3	2	217	8	0.03	3.1	2.2	C	282	20	0.7	27	34	7.0	167	49	1.6
	4	5	17	49.0	60	38.6	140	40.2	6.5	0.9A	4	3	204	51	0.21	1.9	5.4	C	146	3	0.9	261	13	2.0	45	62	9.6
	4	21	21	28.3	60	6.3	141	6.8	0.4	0.5A	3	2	218	7	0.23	2.2	5.3	C	138	3	2.4	261	13	1.8	38	55	8.9
	4	23	2	43.4	61	2.9	147	2.5	11.6	2.4	22	6	60	40	0.37	0.4	0.9	A	7	0	0.8	277	10	0.6	97	80	1.7
	4	23	3	20.1	59	13.5	153	9.9	78.7	4.2	15	0	204	94	0.28	2.2	6.1	D	340	0	2.5	261	5	4.0	70	78	11.3
			4.8 MB			5.3 ML ATWC					FELT (IV) AT HOMER AND SELDOVIA. ALSO FELT AT ANCHORAGE AND SEWARD.																
	5	0	54	23.5	59	23.8	146	25.3	16.9	2.4	15	6	243	6	0.55	1.2	1.2	A	85	28	2.0	334	34	1.5	205	43	2.6
	5	1	0	40.8	63	29.0	149	46.3	40.6	2.4	11	5	255	190	0.97	4.4	15.1	D	280	2	5.2	10	10	6.7	179	80	28.7
	5	1	18	24.3	59	58.0	140	40.5	2.0	1.1	10	9	165	28	0.62	0.9	1.2	A	115	5	0.5	208	25	1.4	14	64	2.5
	5	5	30	48.6	61	16.4	152	10.7	2.9	-0.3A	3	3	281	1	0.03	1.1	0.8	A	18	1	0.9	287	19	2.2	111	71	1.3
	5	13	23	26.6	60	11.1	139	44.3	13.4	1.2	8	6	194	26	0.50	1.7	1.1	B	313	13	0.8	216	30	3.5	64	57	1.4
	5	20	39	52.1	60	13.6	141	1.7	12.7	1.3	11	7	120	8	0.29	0.7	0.6	A	114	2	0.5	205	37	1.5	21	53	0.9
	6	2	43	21.7	60	3.2	140	39.4	6.3	1.2	9	7	156	23	0.65	0.8	0.7	A	287	3	0.5	19	37	1.6	193	53	1.2
	6	2	45	57.0	61	16.0	152	16.9	7.8	-0.4A	3	3	305	7	0.05	1.3	1.3	A	191	8	1.3	288	41	1.9	92	48	2.9
	6	3	44	4.4	59	57.7	151	4.6	59.1	2.4	24	8	98	15	0.31	0.6	1.1	A	277	1	1.0	8	20	0.6	184	70	2.3
	6	3	52	27.5	61	36.1	146	17.4	34.8	2.8	26	9	90	23	0.72	0.5	0.4	A	296	11	0.7	32	32	1.0	189	56	0.8
						3.0 ML ATWC																					
	6	4	11	52.6	59	43.8	150	46.3	36.2	1.2	13	6	107	6	0.34	0.8	0.7	A	127	7	1.6	35	10	0.8	251	78	1.4
	6	6	16	46.2	60	12.7	140	17.9	14.7	1.4	11	8	161	13	0.46	1.0	0.7	A	311	18	0.6	210	30	2.1	68	54	0.9
	6	18	36	5.1	59	15.7	151	7.5	13.6	0.8	9	4	285	22	0.26	1.0	1.0	A	356	1	1.5	87	44	0.8	265	46	2.4
	7	0	44	18.5	62	22.7	150	15.3	62.4	2.1	12	8	245	80	0.56	1.9	3.1	C	106	3	1.9	15	17	3.1	206	73	6.1
	7	4	42	9.2	62	58.2	149	59.8	42.3	2.7	11	1	114	147	0.44	7.8	23.7	D	305	10	1.8	38	13	7.8	179	73	46.2
	7	6	26	39.2	61	20.7	146	44.6	21.6	2.0	21	11	64	32	0.59	0.5	0.9	A	21	5	0.9	290	12	0.7	133	77	1.7

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MAY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAY 7	10	4	20.6	60	43.6	152	9.3	10.5	1.2	14	4	141	22	0.53	1.4	2.2	B	13	1	0.8	104	31	1.3	281	59	4.7
7	11	13	40.7	60	15.2	141	2.0	9.9	1.0	10	7	123	11	0.33	1.2	1.0	A	96	33	0.9	340	34	0.7	217	39	2.9
7	11	50	37.5	61	32.8	141	10.0	1.5	1.2A	5	5	256	66	0.29	2.1	25.0	D	305	0	1.8	35	1	3.5	215	89	99.0
7	12	32	29.8	62	57.2	150	22.6	110.5	3.3	11	1	117	163	0.29	5.9	25.0	D	28	2	10.7	298	8	2.3	132	82	59.8
7	16	49	57.3	61	7.4	149	27.3	32.1	1.1A	9	7	99	15	0.29	1.6	1.5	B	317	3	1.1	261	41	1.9	50	39	3.1
7	19	0	0.7	60	48.9	152	24.3	0.1	0.2	4	4	201	27	0.48	3.7	2.7	C	11	5	0.6	279	27	7.5	111	63	4.1
7	20	54	49.3	61	8.6	148	45.1	21.5	2.0	37	18	46	34	0.75	0.4	1.2	A	207	3	0.6	298	11	0.7	102	79	2.2
7	21	56	17.7	59	58.7	138	56.0	1.4	0.9	4	4	274	39	0.35	2.0	3.7	C	333	1	1.9	261	17	3.0	66	65	6.8
7	22	46	24.2	60	9.5	140	48.1	8.4	0.8	6	3	143	13	0.18	2.7	1.5	C	98	13	0.7	194	25	5.6	343	61	1.7
8	0	30	23.9	60	45.2	152	46.9	1.4	0.5	8	3	148	29	0.28	1.9	1.8	B	3	17	0.8	109	42	4.2	256	43	2.7
8	1	50	57.9	60	35.0	145	6.8	16.0	1.1	8	7	153	8	0.42	1.0	1.3	A	124	6	1.9	30	32	1.0	223	57	2.8
8	4	39	26.3	60	30.0	143	0.3	2.5	0.9A	6	5	109	34	0.61	1.4	25.0	D	261	0	2.1	348	2	1.6	171	86	61.9
8	7	43	46.2	60	10.4	141	1.0	6.1	1.2	8	6	112	2	0.27	1.1	0.7	A	301	13	0.9	204	27	2.3	54	60	0.7
8	10	41	23.3	59	43.0	140	0.8	33.8	1.4	7	5	209	34	0.43	4.9	9.9	D	300	11	1.3	206	23	2.9	54	64	20.5
9	0	7	22.8	60	26.3	143	6.3	26.4	0.6A	5	5	170	30	0.19	1.4	2.2	B	261	19	2.2	343	22	1.3	127	60	4.4
9	1	33	29.6	61	35.6	140	57.0	12.9	1.2A	9	5	257	73	0.38	2.1	2.6	B	81	8	3.2	328	28	2.0	183	54	5.3
9	2	38	25.3	60	6.6	141	22.1	5.2	1.0	9	8	145	19	0.37	0.9	1.3	A	2	4	1.6	271	10	0.7	113	79	2.5
9	4	18	32.3	60	26.6	145	6.3	27.0	0.5A	6	5	266	12	0.12	4.6	1.9	C	170	10	4.0	264	19	9.2	54	68	1.9
9	8	6	46.5	60	11.2	141	6.9	13.5	1.0	9	6	144	6	0.20	1.4	0.7	B	301	16	0.6	205	19	2.8	68	65	0.9
9	9	6	9.2	61	18.6	146	47.2	23.6	2.4	26	11	46	31	0.54	0.3	0.6	A	264	7	0.4	355	9	0.5	137	79	1.2
9	14	35	36.3	59	44.9	152	45.0	78.0	2.8	21	6	139	48	0.25	1.8	1.6	B	326	0	1.0	81	28	3.2	236	53	2.5
9	15	25	32.4	61	17.5	152	14.9	7.8	1.9	25	6	121	6	0.95	0.8	0.5	A	111	25	1.6	7	28	0.7	236	51	0.6
9	16	10	44.1	60	27.8	152	34.3	13.2	1.0A	11	7	142	15	0.51	2.0	0.9	B	84	5	3.8	178	40	0.7	348	50	2.0
9	17	37	44.2	60	12.5	141	6.1	13.5	1.1	10	6	113	7	0.22	0.9	0.8	A	297	13	0.7	195	42	2.0	40	45	1.2
9	18	41	58.0	60	0.0	142	44.7	26.5	1.9	17	7	162	23	0.26	1.3	0.5	A	24	8	2.4	290	26	1.0	130	63	0.9
9	18	50	38.2	60	30.1	143	34.9	26.2	0.9A	10	5	145	53	0.60	2.5	2.6	B	88	17	1.0	343	39	0.9	196	46	6.8
9	20	8	7.9	59	30.2	151	28.5	5.4	0.1A	6	3	166	7	0.05	1.2	2.3	B	81	12	0.7	346	18	1.5	203	68	4.7
9	22	29	20.2	60	9.6	152	47.9	101.3	2.5	20	10	168	3	0.44	1.2	1.0	A	151	11	1.1	261	21	2.3	39	59	1.7
9	23	12	55.4	60	10.7	141	11.0	13.9	1.2	11	8	131	9	0.30	0.8	0.7	A	284	3	0.6	193	21	1.6	22	69	1.2
10	0	44	9.0	58	54.8	138	18.5	26.7	1.4	3	3	352	68	0.09	25.0	6.4	D	149	3	4.2	81	7	99.0	264	67	2.2
10	3	2	21.8	60	13.6	141	8.9	13.3	1.1	10	8	113	10	0.25	0.8	0.6	A	300	13	0.6	202	32	1.6	49	55	0.9
10	3	26	21.4	60	37.5	143	37.3	22.6	1.6	14	7	73	64	0.48	0.5	1.6	B	292	1	0.7	202	1	1.0	67	89	3.0
10	4	2	6.6	60	12.5	140	35.5	4.1	1.0	9	4	143	22	0.37	1.4	1.8	B	300	9	0.6	34	28	2.0	194	60	3.8
10	8	55	29.8	60	59.9	147	16.0	20.9	2.6	31	11	45	16	0.58	0.3	0.6	A	9	0	0.6	279	9	0.4	99	81	1.2
10	13	38	51.9	59	57.9	152	53.8	88.6	2.9	22	9	186	25	0.32	1.3	1.0	A	261	3	2.3	153	5	0.9	17	71	1.8
10	15	0	43.3	61	23.9	146	46.3	15.9	2.0	24	9	55	38	0.69	0.3	0.9	A	290	6	0.5	199	7	0.5	60	81	1.8
10	17	29	24.6	59	24.6	137	4.7	6.9	1.7	4	2	339	102	0.18	5.7	18.6	D	90	4	2.8	359	6	9.9	213	83	35.2
10	19	28	36.9	61	17.8	152	13.8	7.0	0.9	6	5	199	5	0.27	1.0	0.7	A	220	30	1.1	110	30	2.2	345	45	0.7
10	20	32	50.9	61	15.0	152	10.4	3.1	-0.4A	3	3	246	2	0.02	1.0	1.1	A	175	14	0.7	81	41	1.4	281	47	2.4
10	21	9	28.9	62	56.0	151	18.6	107.0	3.2	13	7	125	107	0.33	2.7	3.5	C	290	8	4.3	25	34	2.9	188	55	7.7
10	22	46	30.0	60	13.5	141	9.1	13.6	1.0	10	6	112	10	0.21	0.9	1.0	A	53	14	1.3	313	37	0.7	160	50	2.3
11	8	9	10.3	60	12.3	141	41.4	9.3	0.8	4	4	241	18	0.28	2.3	1.1	B	126	7	1.3	35	11	4.3	248	77	2.0
11	18	29	45.5	60	13.6	140	48.5	8.4	1.0	9	7	133	15	0.27	1.2	1.3	A	105	2	0.5	14	44	0.9	197	46	3.2
11	19	28	35.7	60	8.7	141	19.4	2.2	0.6	4	3	221	16	0.61	4.4	3.7	C	120	2	1.0	212	39	10.2	28	51	3.5
11	19	38	4.2	59	53.5	140	59.5	20.5	1.0	3	3	261	29	0.73	2.1	2.4	B	278	4	1.1	185	39	2.9	13	51	5.2
12	14	19	3.3	60	19.8	147	43.7	23.8	2.0	33	9	81	48	0.40	0.4	0.7	A	170	5	0.8	261	13	0.5	59	76	1.3
13	0	27	10.8	60	12.6	140	53.3	7.0	0.7	9	5	125	10	0.40	1.1	1.2	A	86	27	0.6	341	27	0.8	214	50	3.0
13	1	9	33.3	59	39.6	147	52.1	31.1	2.7	28	10	158	35	0.76	0.9	0.7	A	261	11	0.8	169	11	1.7	35	74	1.3
13	1	59	10.6	60	8.6	141	0.5	7.5	1.5	14	7	137	2	0.51	0.7	0.6	A	112	5	0.6	203	17	1.4	6	72	1.0
13	2	6	48.1	59	52.0	141	36.5	6.4	1.6	14	4	185	30	0.48	1.0	1.4	B	105	12	0.7	201	26	1.5	352	61	2.8
13	2	32	44.2	59	30.9	151	17.1	5.7	0.9	10	3	113	3	0.27	0.6	0.6	A	39	17	0.5	145	41	1.3	292	44	0.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MAY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAY 13	9	52	8.4	60	20.8	141	56.6	4.5	1.0	8	4	75	11	0.76	0.6	1.1	A	213	1	0.7	304	26	0.6	121	64	2.3
13	12	2	52.2	59	59.4	140	14.9	13.7	1.1	8	2	166	12	0.59	1.8	1.2	B	294	10	0.6	30	30	3.9	188	58	1.4
13	14	49	14.8	61	10.3	152	9.3	4.3	-0.2	3	3	281	6	0.07	1.3	1.8	B	261	6	2.0	321	19	0.9	154	55	3.0
13	18	20	0.5	61	4.3	150	55.7	11.3	1.8	25	12	48	40	0.70	0.4	0.9	A	134	1	0.5	225	11	0.6	39	79	1.7
14	2	47	23.9	59	41.8	141	17.8	0.4	1.5	12	4	194	53	0.60	1.1	1.5	B	114	7	0.9	207	27	1.8	11	62	3.0
14	18	10	50.6	60	8.9	141	14.7	14.0	0.9	9	4	138	12	0.85	0.8	0.7	A	280	25	0.7	173	32	1.5	40	47	1.3
14	20	40	7.0	60	19.2	141	12.6	15.9	1.0	10	5	120	21	0.39	0.7	0.8	A	304	8	0.6	41	38	1.0	204	51	1.8
14	21	41	57.3	61	42.6	149	47.3	41.2	2.2	22	10	152	41	0.54	0.6	1.8	B	8	0	1.1	98	4	0.7	278	86	3.3
14	22	43	31.7	61	31.4	149	33.3	31.2	1.8	17	8	114	22	0.69	0.5	0.7	A	178	3	0.9	268	5	0.6	57	84	1.3
15	1	11	38.7	59	46.9	150	54.4	18.4	0.7A	7	4	84	16	0.38	0.8	1.8	B	220	6	0.8	312	19	1.0	113	70	3.6
15	13	22	53.3	60	16.7	141	37.8	1.0	1.1	10	8	102	11	0.91	0.7	1.2	A	35	7	1.3	127	13	0.8	277	75	2.3
15	14	12	15.2	61	15.9	149	50.0	38.6	1.5	17	9	85	15	0.56	1.0	1.3	A	261	8	1.5	150	18	1.4	10	62	2.5
15	18	22	9.5	59	27.0	151	21.1	14.5	0.3	7	6	181	4	0.59	0.9	0.5	A	267	15	0.9	170	22	1.7	28	63	0.6
15	18	24	10.9	59	56.3	140	11.6	10.9	0.5	7	5	172	18	0.79	2.5	2.2	B	128	9	0.9	30	41	6.0	228	48	1.4
15	20	2	23.8	60	13.4	152	8.6	66.1	2.6	18	9	104	38	0.39	1.0	1.4	A	150	12	0.9	81	24	1.5	268	57	2.6
15	23	37	43.9	59	56.4	140	42.4	8.1	3.0	12	4	162	30	0.52	1.0	1.3	A	114	4	0.7	207	35	1.2	18	55	2.8
16	0	11	30.2	59	55.7	140	43.9	7.8	0.7	7	3	195	30	0.34	2.0	4.2	C	118	11	1.1	212	19	2.2	0	68	8.4
16	1	35	44.0	61	14.8	146	55.3	8.1	2.1	25	10	40	29	0.50	0.6	1.1	A	326	12	0.7	261	12	0.9	114	60	2.0
16	6	11	48.8	62	14.1	148	41.9	13.5	2.1	22	12	195	51	0.87	1.2	1.6	B	2	9	1.9	266	32	0.9	106	56	3.5
16	10	24	14.3	60	16.4	141	9.6	14.4	1.6	13	8	118	15	0.36	0.5	0.8	A	313	11	0.7	47	22	0.9	198	65	1.5
16	15	30	43.6	59	30.3	151	22.3	13.9	1.3	9	8	111	8	0.27	0.9	0.6	A	264	22	1.0	160	31	1.9	23	50	0.6
16	18	20	34.4	60	0.9	153	32.7	134.2	2.9	16	6	202	89	0.27	2.9	5.8	D	312	8	2.4	220	11	5.1	77	76	11.1
16	20	20	46.7	59	54.1	140	43.8	17.7	0.9A	3	2	262	33	0.08	4.0	5.5	D	278	5	1.6	185	34	3.9	15	56	12.2
16	21	33	16.4	60	8.3	139	46.0	16.5	0.8	6	2	200	22	0.43	4.1	2.3	C	300	6	1.4	207	26	8.5	42	63	2.3
17	0	14	33.8	61	26.3	151	14.4	61.6	2.1	13	6	182	27	0.35	1.6	1.7	B	261	3	1.2	155	40	2.5	354	47	3.5
17	1	16	18.5	60	17.1	141	9.1	12.5	1.0	10	5	120	16	0.30	0.8	1.1	A	296	2	0.6	27	30	1.1	203	60	2.3
17	5	48	28.3	60	15.1	141	3.2	9.1	2.9	15	6	122	11	0.45	0.4	0.6	A	281	0	0.5	11	11	0.7	191	79	1.1
17	9	46	26.1	60	7.1	152	26.9	94.7	3.2	23	10	158	51	0.36	0.9	1.1	A	339	7	0.9	261	14	1.7	97	70	2.0
17	14	0	39.7	60	2.3	140	43.0	3.6	1.4	12	10	149	22	0.43	0.9	0.9	A	108	1	0.4	198	44	1.2	17	46	2.0
17	14	45	38.4	61	14.9	149	13.5	35.8	1.8	24	12	51	18	0.49	0.5	0.7	A	81	3	0.8	168	5	0.7	319	83	1.4
17	15	14	5.0	60	19.1	141	16.0	16.0	0.5A	9	6	116	22	0.31	0.8	1.3	A	116	4	0.9	24	22	1.2	216	68	2.6
17	18	57	51.9	61	16.1	150	7.0	39.5	2.3	27	9	97	30	0.73	0.4	1.1	A	95	3	0.5	185	8	0.8	345	81	2.2
17	21	2	18.0	62	58.1	150	22.2	84.5	2.8	11	5	216	125	0.40	4.3	8.4	D	89	9	2.5	355	24	3.3	198	64	17.3
17	21	50	10.0	60	5.1	141	30.1	17.6	1.2A	8	7	172	27	0.26	0.6	0.8	A	86	2	0.6	356	26	1.1	180	64	1.5
17	21	52	6.8	60	38.8	143	4.6	28.5	1.0A	8	5	78	51	0.26	0.9	1.0	A	317	6	1.2	261	38	0.9	54	41	1.9
18	11	0	25.1	62	45.6	150	38.7	80.4	2.7	12	3	113	98	0.35	2.0	4.3	C	81	10	2.1	329	14	1.8	198	62	8.1
18	19	28	4.8	61	7.5	152	9.7	6.7	0.6	5	2	169	9	0.28	1.7	1.0	B	98	24	3.4	201	28	0.6	334	52	1.5
18	19	42	58.6	63	8.3	150	17.3	114.4	3.0	11	2	123	144	0.40	3.0	10.1	D	123	1	5.6	33	9	3.7	219	81	19.1
18	22	30	47.5	60	36.4	147	31.4	30.0	2.2	26	8	67	40	0.72	0.6	0.5	A	273	29	0.7	26	36	0.9	155	41	1.3
19	3	7	26.3	59	24.7	153	35.8	110.3	3.1	16	4	170	96	0.37	2.9	4.0	C	324	4	2.1	261	31	3.0	60	50	7.8
19	3	44	54.8	60	9.7	141	9.0	9.1	3.1	15	2	136	7	0.43	0.8	0.7	A	186	10	1.5	279	14	0.6	62	73	1.3
	4.2 MB					4.2 ML ATWC																				
19	3	47	29.2	60	7.9	141	13.1	9.2	1.2	9	2	141	11	0.44	1.2	0.7	A	21	16	2.3	284	24	0.8	142	61	1.2
19	3	50	30.3	60	9.8	141	8.6	9.4	1.0	10	6	136	6	0.34	0.7	0.5	A	195	5	1.4	286	12	0.5	83	77	0.9
19	3	59	19.1	60	10.1	141	7.5	10.1	1.9	14	9	135	5	0.57	0.6	0.4	A	189	9	1.2	282	17	0.5	72	71	0.8
19	4	7	18.5	60	9.4	141	8.5	10.9	1.8	13	8	137	6	0.46	0.5	0.4	A	284	16	0.5	184	30	0.9	38	55	0.8
19	4	51	0.2	61	48.9	150	34.5	51.3	2.2	22	10	157	40	0.39	0.7	1.0	A	190	5	1.2	100	7	0.7	315	81	1.9
19	5	8	53.7	60	11.7	141	7.0	7.7	1.3	11	7	117	6	0.46	0.8	0.6	A	297	17	0.6	198	28	1.6	55	57	1.0
19	8	24	4.1	60	15.1	141	11.8	8.2	1.0	11	8	113	14	0.51	0.6	0.7	A	305	12	0.5	43	32	0.9	197	55	1.5
19	10	1	3.2	60	9.7	141	8.1	8.9	1.2	10	8	136	6	0.69	0.6	0.4	A	186	17	1.1	282	20	0.5	58	63	0.8
19	13	24	17.2	60	15.6	141	12.4	6.2	0.8	10	6	114	15	0.45	0.7	0.9	A	298	5	0.6	30	25	1.1	197	64	1.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MAY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAY 19	14	9	51.7	60	10.2	141	8.7	8.9	1.1	11	7	135	6	0.55	0.6	0.5	A	283	27	0.5	172	35	1.2	41	43	0.9
19	15	37	25.2	60	17.6	140	57.2	6.2	0.8	10	6	132	16	0.50	0.8	1.4	B	305	6	0.5	38	26	0.7	203	63	2.8
19	15	55	24.6	60	13.9	140	56.7	10.2	1.1	10	5	126	10	0.44	1.0	1.0	A	296	6	0.7	31	44	0.9	200	45	2.4
19	17	33	41.6	60	42.7	142	48.0	17.1	1.7	17	9	68	44	0.89	0.4	1.0	A	170	2	0.6	261	6	0.7	62	84	1.8
19	18	10	44.1	59	53.7	153	25.9	127.4	2.9	19	10	217	47	0.33	1.8	1.2	B	81	20	3.3	166	26	1.4	313	57	2.3
19	21	44	50.5	60	13.3	141	5.7	4.8	1.0	11	6	115	8	0.62	0.9	0.8	A	312	18	0.6	206	42	2.0	60	43	0.9
20	2	33	58.0	59	58.6	140	7.5	10.5	1.3	8	4	152	15	0.66	2.0	1.5	B	295	6	0.6	29	35	4.4	197	54	1.5
20	4	7	18.7	60	12.6	141	5.5	0.2	1.4	9	4	271	0	0.65	1.2	1.3	A	39	16	1.4	299	32	2.2	152	53	2.5
20	6	27	37.5	60	16.8	141	11.6	0.1	0.9	4	3	279	32	0.42	2.3	1.7	B	81	10	1.6	161	31	4.6	334	56	2.6
20	6	53	42.2	60	38.5	141	46.3	9.0	1.7	11	7	95	32	0.87	0.5	1.1	A	359	2	0.6	268	15	0.9	96	75	2.0
20	7	55	57.9	61	58.5	149	28.0	36.4	2.2	16	11	186	42	0.55	0.9	0.8	A	85	6	0.7	180	37	2.0	347	52	1.1
20	9	40	10.5	60	24.6	147	36.7	26.7	2.2	22	11	102	0	0.49	0.5	0.7	A	261	6	0.7	340	26	0.9	159	61	1.4
20	13	6	8.6	60	17.3	141	48.9	12.6	1.0	7	4	100	9	0.63	1.2	0.7	A	19	8	0.9	112	20	2.3	268	68	1.2
20	14	6	38.4	60	35.5	141	17.5	14.3	1.0	10	4	130	36	0.95	0.7	1.5	B	81	4	1.2	161	6	0.7	314	78	2.7
20	15	52	31.6	60	23.2	151	57.3	77.1	2.5	17	8	109	53	0.87	0.8	1.8	B	81	7	1.5	349	9	0.9	208	78	3.5
20	16	4	2.8	60	10.1	141	8.8	9.9	0.7	7	3	149	7	0.38	1.1	0.6	A	192	12	2.1	287	21	0.6	74	65	1.0
20	21	11	45.0	60	37.1	148	48.3	31.9	2.0	31	12	75	30	0.51	0.5	0.6	A	161	7	0.9	81	17	0.6	274	69	1.2
21	0	49	22.5	61	5.9	152	19.7	9.8	0.3	3	3	329	18	0.04	1.7	0.7	B	287	0	3.2	197	6	2.0	17	84	1.3
21	13	29	8.4	60	13.1	141	4.7	7.6	1.0	10	5	116	8	0.63	0.7	1.0	A	299	17	0.8	38	26	1.1	180	58	2.0
21	18	47	6.7	58	20.7	155	48.5	168.7	3.6	11	2	299	266	0.26	25.0	25.0	D	301	1	10.9	210	33	28.9	33	57	99.0
		4.6 MB				4.5 ML ATWC																				
21	19	23	41.6	62	32.6	151	18.4	95.3	3.4	15	4	110	64	0.30	1.8	3.2	C	303	3	3.4	33	15	2.2	202	75	6.2
						4.0 ML ATWC																				
21	21	41	11.7	60	1.5	140	43.0	3.3	1.3	9	6	161	23	0.42	1.2	1.1	A	113	1	0.6	22	38	2.6	204	52	1.6
21	22	39	34.1	61	19.4	150	10.9	16.1	0.7A	4	3	167	34	0.21	16.5	20.8	D	286	4	0.7	193	38	2.4	21	52	49.7
21	22	59	6.5	60	20.9	140	42.9	7.1	2.4	14	5	152	28	0.54	0.8	1.1	A	319	12	0.6	81	12	1.0	200	54	2.0
21	23	54	20.1	60	23.1	140	43.5	10.9	0.9A	5	3	227	31	0.16	1.5	3.6	C	81	4	1.4	349	12	2.5	189	77	6.9
22	0	26	17.6	60	18.6	140	47.2	16.5	1.1	8	5	143	22	0.32	0.8	1.1	A	311	7	0.6	45	29	0.9	209	60	2.4
22	1	36	21.0	61	16.0	149	39.1	43.3	1.5	10	7	118	6	0.23	0.6	1.1	A	81	3	1.0	335	6	0.9	194	73	2.0
22	4	3	59.2	62	25.0	150	34.7	59.0	2.5	15	10	101	69	0.68	1.0	2.2	B	309	5	1.1	41	20	1.0	206	69	4.3
22	4	31	19.8	60	19.0	140	45.4	16.1	0.7A	8	6	146	24	0.37	0.9	1.3	A	316	7	0.6	50	29	1.0	214	60	2.8
22	5	54	51.7	61	6.5	152	3.2	11.5	0.1	3	3	336	8	0.05	1.7	1.1	B	265	2	3.3	355	12	2.0	166	78	2.1
22	12	35	47.3	61	37.5	150	28.8	10.2	1.1	11	7	133	23	0.69	0.5	0.8	A	176	1	0.9	266	6	0.5	77	84	1.5
22	13	21	59.6	61	27.6	151	50.6	17.8	0.7	4	4	184	19	0.62	2.8	2.4	C	292	3	5.2	23	23	0.6	195	67	4.8
22	14	16	8.4	60	31.4	142	57.2	16.5	2.0	25	12	62	36	0.77	0.3	0.8	A	41	6	0.6	310	7	0.4	171	81	1.5
22	14	27	41.8	60	29.6	142	58.0	13.9	1.2	12	6	90	33	0.61	0.4	1.6	B	261	4	0.7	351	7	0.7	141	82	3.0
22	18	21	25.6	60	15.4	140	56.7	5.5	0.8	12	6	129	13	0.60	0.7	1.1	A	292	0	0.6	22	30	0.9	202	60	2.3
22	19	14	17.1	60	27.9	142	53.7	18.3	0.9A	10	5	87	29	0.59	0.7	1.6	B	261	4	0.9	352	14	1.0	155	75	3.2
23	2	25	1.9	59	30.1	151	28.6	6.7	0.4A	5	4	177	7	0.04	1.0	1.8	B	81	14	0.7	342	17	1.4	207	66	3.7
23	2	39	17.7	59	51.4	151	0.6	45.3	1.1	13	8	58	9	0.30	0.8	0.8	A	28	18	0.8	281	42	1.2	135	43	1.7
23	17	42	8.4	59	57.0	140	39.6	34.5	1.1A	3	3	243	28	0.02	7.1	7.5	D	275	0	2.1	185	43	5.4	5	47	18.7
24	2	9	42.3	59	29.8	151	28.9	6.2	0.5A	5	3	141	6	0.11	1.2	2.4	B	85	9	0.8	352	20	1.4	198	68	4.9
24	2	22	16.4	60	2.3	141	4.4	4.3	0.6A	4	2	232	13	0.07	2.3	3.6	C	126	17	1.2	224	24	2.3	4	60	7.8
24	6	3	54.9	60	15.4	141	3.1	8.2	1.1	11	7	123	12	0.38	0.9	1.0	A	294	9	0.7	32	41	1.0	194	48	2.4
24	6	19	42.1	59	53.0	140	42.9	5.6	0.6	4	2	231	35	0.24	2.8	8.8	D	291	1	1.9	201	4	5.2	35	86	16.6
24	19	33	33.9	60	15.0	140	58.6	13.3	1.3	10	5	126	43	0.58	1.0	1.2	A	298	7	0.8	29	13	1.8	180	75	2.3
24	22	2	49.0	62	21.2	149	22.2	46.1	2.3	22	8	124	81	0.52	1.6	3.6	C	92	1	1.2	2	17	2.4	185	73	7.0
25	1	57	12.5	59	30.1	151	28.4	5.1	-0.2A	6	3	164	7	0.07	0.9	1.9	B	81	12	0.6	339	16	1.2	203	67	3.7
25	3	9	49.9	60	16.7	140	59.4	10.7	0.9	12	5	129	14	0.39	0.6	0.8	A	313	10	0.5	49	31	0.7	207	57	1.8
25	3	42	43.1	59	59.9	140	13.1	9.5	1.4	9	4	153	11	0.57	1.5	1.2	B	118	2	0.6	26	38	3.5	211	52	1.2
25	4	29	1.8	60	14.1	141	6.7	0.3	2.1	14	6	116	10	0.49	0.5	1.1	A	303	8	0.6	35	14	0.8	184	74	2.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MAY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAY 25	4	40	40.0	61	1.4	152	1.2	8.9	0.1	6	4	140	18	0.29	2.7	4.3	C	81	1	3.7	168	32	0.8	349	58	9.6
25	4	49	58.6	60	13.3	141	7.1	0.5	1.4	10	4	114	9	0.58	0.6	1.4	B	46	11	1.0	313	14	0.6	173	72	2.7
25	5	29	34.2	60	12.7	141	7.3	0.6	1.3	10	6	112	8	0.56	0.7	1.3	A	307	9	0.5	40	19	1.1	193	69	2.6
25	5	33	19.1	60	12.7	141	7.3	0.0	0.9	9	2	112	8	0.61	1.1	1.7	B	297	5	0.6	30	26	1.6	197	63	3.4
25	5	57	26.5	62	13.0	148	5.2	35.0	2.2	22	9	193	47	0.53	1.2	0.7	A	170	9	2.3	81	34	0.9	273	55	1.6
25	6	39	22.9	62	27.4	151	55.9	0.2	2.1	13	4	183	57	0.37	1.9	1.6	B	138	7	2.3	261	16	2.8	32	53	2.5
25	9	30	9.3	63	19.0	151	35.4	85.7	2.8	10	3	144	149	0.23	9.1	13.7	D	280	12	16.4	13	16	3.9	155	70	27.0
25	9	33	29.5	60	43.2	143	26.1	5.5	0.9A	5	2	114	62	0.24	2.0	25.0	D	280	1	1.0	190	3	1.7	28	87	58.8
25	10	58	42.5	60	8.3	139	47.3	18.2	0.9	6	3	199	22	0.50	2.0	0.9	B	119	12	0.7	213	19	4.0	358	67	1.2
25	14	52	17.1	59	32.1	153	9.0	96.7	2.8	18	7	154	75	0.40	1.9	3.1	C	304	10	2.2	211	15	3.2	66	72	6.1
		3.4 MB				3.3 ML ATWC																				
25	22	6	21.6	60	16.4	141	28.0	6.2	0.7	8	2	112	18	0.61	1.0	1.3	B	222	4	1.9	131	25	1.2	321	65	2.7
25	23	27	29.6	60	6.5	141	8.3	8.1	0.9	9	3	142	8	0.33	1.2	0.9	A	261	28	0.8	9	31	2.5	138	46	1.2
26	0	41	38.0	60	15.3	141	0.6	3.9	1.4A	3	2	187	11	0.16	2.5	3.7	C	104	16	1.0	5	29	1.0	219	56	8.3
26	5	10	56.3	60	4.8	141	11.0	4.9	0.9	8	8	198	12	0.53	1.0	0.8	A	295	8	0.8	30	33	2.1	193	56	1.3
26	14	45	55.7	59	44.2	150	46.6	39.1	2.4	21	9	101	7	0.48	0.6	1.0	A	304	17	1.0	40	18	0.7	174	65	2.1
26	20	54	22.1	60	17.7	140	57.3	7.8	1.1	9	7	132	16	0.48	0.8	1.0	A	317	7	0.7	51	35	0.9	217	54	2.3
27	1	59	52.1	59	30.0	151	29.0	6.4	0.5A	6	3	145	6	0.06	1.0	1.2	A	81	13	0.6	340	29	1.5	192	57	2.6
27	5	43	4.0	60	29.8	145	1.6	11.6	0.8A	6	4	150	46	0.70	1.3	2.5	B	121	8	1.1	30	9	2.2	252	78	4.8
27	8	30	2.4	62	3.7	148	22.3	37.8	2.3	25	8	97	28	0.45	1.1	0.9	A	179	23	2.2	81	31	0.9	301	51	1.8
27	20	27	14.2	60	1.5	141	26.7	4.9	1.3	10	7	164	27	0.56	0.9	0.9	A	90	4	0.7	184	44	1.4	356	46	1.9
27	21	46	3.1	59	34.9	151	24.1	45.4	1.1	10	5	91	11	0.23	1.3	1.4	B	261	8	1.5	342	43	1.1	162	46	3.4
28	2	11	49.3	62	6.8	149	34.0	13.5	2.0	15	9	201	54	0.70	1.1	1.6	B	272	21	0.6	173	24	1.0	39	57	3.5
28	5	17	57.5	59	12.7	153	32.2	95.9	3.9	16	3	173	115	0.39	2.4	4.9	C	179	6	3.1	271	16	3.8	69	73	9.4
		4.8 MB																								
28	5	36	53.4	62	30.0	151	9.2	89.1	2.7	16	7	107	61	0.28	1.3	1.7	B	81	21	1.8	338	24	1.6	206	56	3.7
28	7	49	24.4	60	1.8	152	50.8	93.7	3.0	21	13	179	17	0.52	0.9	1.0	A	329	6	0.8	81	12	1.6	218	64	1.8
28	8	30	52.7	60	32.8	144	54.7	17.2	1.5	12	10	142	16	0.59	0.7	0.9	A	124	13	0.6	26	31	0.8	234	56	2.0
28	13	8	26.3	59	7.1	137	28.5	14.4	1.8	5	3	347	88	0.40	11.7	3.5	D	211	15	22.7	115	23	2.6	331	62	3.5
28	14	38	37.3	63	16.0	150	48.9	77.9	3.3	12	5	133	148	0.45	5.0	16.3	D	293	3	1.6	24	13	6.0	190	77	31.4
28	16	7	30.0	60	14.9	141	6.6	1.0	0.4A	6	3	146	11	0.28	1.6	3.2	C	308	6	0.6	40	23	1.6	204	66	6.4
28	16	30	55.8	59	14.1	152	18.3	73.8	2.4	16	8	178	49	0.21	2.5	1.6	B	125	26	5.2	18	31	2.8	247	47	1.6
28	17	29	3.5	60	40.3	142	56.6	28.9	1.2	8	6	74	52	0.50	0.6	0.6	A	301	7	1.0	206	39	0.8	39	50	1.4
28	22	55	47.8	59	46.7	145	38.8	35.4	2.6	23	17	145	55	0.95	0.7	0.6	A	276	32	0.6	159	36	1.6	35	38	0.9
29	0	4	11.2	60	2.5	141	26.5	2.2	1.0	10	9	156	26	0.58	0.8	0.9	A	96	10	0.6	194	36	1.2	353	52	2.1
29	0	7	50.5	60	2.2	141	29.0	5.9	1.5	12	4	157	28	0.43	0.6	0.8	A	104	13	0.6	10	17	1.0	230	68	1.6
29	0	13	17.3	60	1.9	141	28.1	3.6	1.0	11	6	154	28	0.53	0.7	1.1	A	93	5	0.7	184	17	1.3	347	72	2.0
29	0	48	18.5	60	2.6	141	28.1	3.2	1.4	12	8	156	27	0.62	0.6	0.7	A	198	3	1.1	108	12	0.5	302	78	1.4
29	1	27	34.4	61	13.8	149	53.1	42.7	1.9	11	8	111	18	0.42	0.6	1.2	A	18	0	1.1	108	3	0.8	288	87	2.2
29	1	27	54.1	61	36.9	149	43.3	43.3	2.2	18	9	138	9	0.91	0.6	0.9	A	275	6	0.7	183	15	1.0	26	74	1.8
29	1	31	32.8	59	28.1	138	52.4	18.8	0.8	6	4	225	2	0.40	3.7	0.8	C	229	3	7.0	136	37	2.3	323	53	0.8
29	3	49	12.9	59	44.4	136	45.9	18.3	2.0	8	4	315	124	0.37	6.5	3.1	D	81	5	3.5	172	24	13.3	340	65	2.1
29	4	14	8.6	60	44.0	147	0.8	22.4	2.6	31	12	46	18	0.61	0.3	0.5	A	352	3	0.6	261	13	0.4	95	77	1.0
						3.0 ML ATWC																				
29	7	46	43.8	60	30.8	152	26.1	99.3	2.6	25	9	82	43	0.39	0.9	1.3	B	261	0	1.8	171	5	0.8	351	85	2.5
29	8	12	37.1	58	18.8	154	35.3	0.7	2.9	11	2	155	139	0.49	3.1	10.7	D	273	0	5.7	3	3	4.1	183	87	20.1
		4.3 MB				4.3 ML ATWC																				
29	9	6	48.0	63	11.8	149	39.8	63.8	2.8	10	6	117	166	0.66	3.6	8.2	D	81	2	3.2	316	16	2.0	176	52	13.8
29	9	38	44.4	60	42.1	148	9.7	29.5	2.7	40	11	70	20	0.34	0.4	0.6	A	347	1	0.8	261	3	0.4	96	85	1.1
29	10	52	44.6	60	31.5	141	44.4	2.2	0.8	10	6	95	19	0.76	0.6	1.0	A	275	5	1.1	6	8	0.5	153	81	2.0
29	12	18	13.2	61	19.3	141	54.0	3.5	1.4	8	5	224	40	0.50	1.2	7.6	D	301	1	0.9	31	3	2.1	193	87	14.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - MAY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
MAY 29	14	32	33.7	60	9.5	140	58.8	9.2	1.5	11	7	135	3	0.47	0.6	0.4	A	198	13	1.1	104	18	0.5	322	68	0.7
29	16	0	1.4	59	21.1	152	54.8	75.3	2.7	18	7	152	77	0.54	1.4	2.3	B	356	0	2.1	266	25	1.8	86	65	4.6
29	16	59	9.7	61	0.0	150	38.6	44.4	2.7	27	11	52	52	0.60	0.4	1.2	A	220	1	0.7	130	3	0.5	328	87	2.3
29	18	14	54.4	61	8.3	150	30.1	15.0	1.4	19	9	49	39	0.77	0.6	1.4	A	136	2	0.5	261	8	0.7	36	54	2.2
29	19	12	50.9	60	30.6	141	39.5	5.4	0.9	6	4	99	18	0.87	1.1	1.2	A	8	12	0.6	268	39	1.6	112	48	2.6
29	22	20	32.9	60	14.3	141	0.5	0.8	0.5	7	5	123	10	0.47	0.7	1.6	B	337	13	0.6	81	13	0.9	209	67	3.2
30	6	17	10.7	58	44.1	143	10.4	31.7	2.1A	10	4	262	150	0.77	3.9	25.0	D	295	0	2.7	205	1	7.1	25	89	99.0
30	12	17	53.8	60	19.4	141	11.7	5.6	0.6	9	7	121	21	0.78	0.5	1.2	A	314	10	0.6	46	12	0.9	185	74	2.3
30	13	47	21.6	61	15.6	141	7.8	0.2	1.0	7	4	279	35	0.41	1.5	3.2	C	261	2	2.7	337	3	1.3	133	76	5.8
30	15	8	20.0	61	58.0	151	40.7	92.5	2.5	15	6	241	8	0.43	1.2	1.1	A	114	33	1.7	356	36	2.5	233	37	1.9
30	16	23	16.1	60	14.1	140	55.5	6.7	0.8	8	6	127	11	0.34	0.8	1.0	A	116	3	0.5	23	37	0.9	210	53	2.3
30	19	53	37.4	60	32.4	143	46.5	24.0	1.5	18	7	83	35	0.28	0.4	0.5	A	358	5	0.7	89	14	0.6	249	75	1.0
31	1	1	23.0	59	29.8	151	28.5	6.1	0.4A	6	3	160	7	0.07	1.2	2.3	B	84	10	1.0	350	21	1.6	198	67	4.6
31	2	59	33.9	60	26.1	151	3.0	15.0	1.9	21	10	72	36	0.43	0.5	1.4	B	346	2	0.6	261	7	0.8	92	81	2.7
31	5	28	46.8	61	11.3	152	10.4	5.2	-0.4A	3	3	269	6	0.04	1.3	2.0	B	338	17	1.0	261	17	2.3	120	63	3.7
31	5	45	36.3	60	37.1	142	48.0	21.7	1.6	14	4	67	46	0.35	0.6	1.9	B	264	3	1.1	354	7	0.9	151	82	3.5
31	8	35	19.9	61	0.0	146	55.1	16.1	2.0	26	16	34	15	0.49	0.4	0.7	A	261	7	0.5	352	9	0.7	134	79	1.4
31	9	14	1.4	60	16.5	141	2.5	8.7	0.9	7	5	126	14	0.22	1.3	1.7	B	335	22	0.6	81	26	1.0	212	53	4.0
31	10	47	27.9	61	7.2	146	14.5	14.4	0.3	3	3	182	5	0.16	11.0	5.0	D	27	6	0.9	294	24	22.5	130	65	2.3
31	11	57	34.7	62	15.2	150	58.9	71.8	2.5	13	5	98	42	0.26	2.2	2.6	B	110	13	2.0	12	34	2.8	218	53	5.7
31	15	43	24.4	60	53.6	152	21.4	8.1	1.1	10	6	177	36	0.64	2.2	1.3	B	282	2	4.1	191	18	1.0	18	72	2.6
31	16	3	54.1	60	58.7	150	20.5	59.5	2.3	29	10	47	52	0.60	0.5	1.4	B	314	0	0.7	224	5	0.9	44	85	2.6

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JUNE 1984

1984		ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUN	1	0	36	16.3	59	47.2	152	57.4	98.0	2.5	19	5	143	45	0.30	2.0	2.3	B	261	7	3.0	320	16	1.5	146	55	3.8
	1	1	1	49.1	60	43.7	146	60.0	21.9	2.3	29	16	45	19	0.65	0.3	0.6	A	0	5	0.6	269	12	0.4	112	77	1.1
	1	3	46	11.5	61	10.5	152	9.1	4.5	0.9	3	2	277	5	0.04	2.1	2.2	B	316	17	0.9	81	39	5.0	212	38	2.5
	1	9	41	29.0	60	10.4	141	0.3	9.6	1.4	12	5	113	3	0.25	0.9	0.5	A	201	22	1.8	91	41	0.7	312	41	0.7
	1	19	23	58.9	61	9.1	146	31.3	11.8	1.1	9	7	148	11	0.23	0.9	0.9	A	34	5	0.6	128	42	2.1	299	48	1.3
	1	21	29	35.0	60	29.4	145	7.2	17.9	2.2	25	12	63	7	0.72	0.4	0.6	A	3	1	0.7	93	16	0.5	270	74	1.2
	1	22	0	39.5	59	18.3	151	27.8	13.7	0.8	7	6	296	19	0.21	1.5	0.6	A	261	13	1.4	325	15	2.4	120	58	0.9
	1	22	5	2.7	60	27.3	145	2.4	15.6	1.9	22	9	106	13	0.78	0.5	0.7	A	81	14	0.6	172	22	0.9	320	64	1.4
	1	22	10	56.0	60	27.7	145	6.8	16.9	1.8	19	10	105	10	0.88	0.4	0.6	A	193	2	0.7	102	15	0.5	290	75	1.1
	2	8	7	20.5	61	32.9	150	32.3	56.6	2.1	25	9	118	14	0.43	0.6	0.8	A	99	4	0.6	191	21	1.0	359	69	1.6
	2	8	49	16.3	60	16.7	147	0.2	10.7	2.7	34	9	56	31	0.42	0.4	0.6	A	169	7	0.7	261	16	0.5	56	72	1.1
							3.2 ML ATWC																				
	2	11	45	6.5	60	24.6	141	20.8	12.1	0.7A	7	4	119	23	0.40	0.8	1.7	B	109	7	1.1	16	20	0.8	217	69	3.4
	2	12	17	24.7	59	58.8	142	1.3	9.3	0.9A	8	6	207	6	0.74	1.0	0.7	A	353	14	1.6	261	31	2.1	105	56	0.8
	2	15	47	48.3	61	10.3	149	40.3	44.1	0.8A	6	5	104	10	0.13	3.5	1.7	B	81	21	5.0	139	32	1.5	313	42	2.8
	2	15	48	54.1	60	5.8	151	16.3	58.6	2.3	23	12	83	6	0.51	0.5	1.0	A	277	5	0.8	9	16	0.6	170	73	2.0
	2	16	47	58.8	60	18.8	141	12.5	12.7	0.6A	7	5	130	20	0.26	0.7	1.5	B	81	8	0.9	347	19	0.8	193	69	2.9
	2	17	53	36.0	59	23.1	152	24.7	62.1	2.2	15	9	164	48	0.39	1.1	1.5	B	301	11	1.0	206	23	1.8	55	64	2.9
	2	18	2	12.1	61	55.5	150	7.5	39.3	2.2	20	8	103	33	0.50	0.8	1.2	A	103	3	0.8	12	24	1.3	200	66	2.3
	2	22	35	24.5	60	23.0	144	51.0	5.8	2.5	25	14	64	26	0.87	0.4	0.6	A	19	11	0.7	113	19	0.4	261	68	1.1
	3	4	37	5.4	62	50.3	150	45.7	105.3	2.9	12	4	117	104	0.20	1.7	3.0	C	81	11	2.0	344	24	1.8	193	63	6.2
	3	12	16	23.8	63	22.6	149	52.4	53.7	2.5	10	3	181	177	0.61	2.6	25.0	D	3	1	2.2	273	3	3.6	111	87	61.7
	3	12	35	9.9	60	47.5	141	6.3	12.4	0.5	7	3	171	23	0.37	1.0	1.8	B	261	3	1.7	159	21	0.7	358	66	3.6
	3	13	56	8.1	61	30.8	150	45.8	75.0	3.1	20	6	136	6	0.39	1.3	2.2	B	261	12	1.8	148	17	1.0	18	59	4.2
			3.2 MB				3.4 ML ATWC																				
	3	15	16	59.7	60	3.3	139	21.7	16.6	0.9	5	3	213	19	0.29	2.6	1.8	B	124	3	0.9	215	21	5.2	26	69	3.0
	3	19	37	16.2	60	10.7	141	7.2	7.0	1.1	10	5	131	6	0.37	0.6	0.7	A	280	8	0.7	14	24	1.1	173	64	1.4
	3	23	20	8.9	60	1.3	137	8.3	0.4	1.6	6	4	304	117	0.15	1.5	7.2	D	313	0	2.8	43	2	2.5	223	88	13.4
	4	2	29	34.9	60	14.3	140	54.6	11.1	0.9A	10	2	129	12	0.31	1.2	1.3	A	109	3	1.0	16	43	0.8	202	47	3.3
	4	4	41	15.1	59	33.5	138	48.5	15.7	0.8	4	4	245	13	0.29	9.6	9.1	D	91	27	4.1	341	35	0.9	210	43	24.6
	4	4	42	51.4	60	1.2	141	39.7	9.3	1.5	14	9	165	21	0.70	0.5	0.6	A	109	18	0.5	10	26	0.9	230	58	1.2
	4	5	53	59.7	61	2.8	152	31.0	133.8	3.5	27	9	113	29	0.42	1.1	1.9	B	98	6	2.0	189	14	1.5	345	75	3.6
							3.5 ML ATWC																				
	4	11	27	19.2	60	16.3	140	55.6	9.1	1.2	11	5	132	14	0.42	0.5	0.8	A	82	3	0.7	350	26	0.6	178	64	1.7
	4	13	31	34.1	60	22.9	141	23.3	12.9	0.9	11	7	113	20	0.63	0.5	0.8	A	110	14	0.6	14	24	0.8	228	62	1.6
	4	23	9	9.0	63	17.6	149	39.3	45.5	2.5	9	4	120	175	0.63	3.5	11.9	D	205	3	2.1	295	9	5.6	97	81	22.5
	5	2	9	7.7	61	27.3	151	56.5	17.1	0.8A	3	3	343	17	0.02	3.3	1.8	C	99	1	6.1	8	24	2.3	191	66	3.6
	5	3	30	29.2	61	14.5	139	52.8	1.0	1.3A	3	4	325	84	0.32	2.3	25.0	D	319	0	1.5	81	1	2.8	229	58	99.0
	5	6	53	22.4	59	37.0	150	16.8	31.2	1.2	11	5	211	24	0.24	1.1	1.7	B	44	4	0.7	136	15	2.0	300	74	3.3
	5	9	54	29.2	60	3.2	141	27.8	8.9	1.3A	5	4	172	27	0.25	1.3	1.4	B	269	2	0.8	177	39	2.0	1	51	3.0
	5	13	24	13.2	60	12.6	152	47.2	114.5	2.8	22	15	97	0	0.39	1.2	1.3	A	341	8	1.0	81	9	2.2	214	74	2.5
	6	4	51	35.5	60	27.7	143	12.7	22.7	1.7	12	8	132	60	0.32	0.7	0.9	A	280	4	0.8	11	29	1.0	183	61	1.8
	6	6	24	35.9	61	17.0	152	12.2	5.3	0.5A	3	3	290	3	0.03	1.1	1.3	A	199	4	1.1	108	24	2.0	298	66	2.4
	6	10	41	34.0	60	12.3	139	43.0	13.7	0.7	5	4	231	29	0.33	2.2	2.3	B	306	5	1.2	40	42	2.7	211	48	5.4
	6	18	36	27.5	59	37.4	153	32.5	111.6	2.7	16	4	163	0	0.25	4.4	4.4	C	317	3	2.8	261	39	7.0	50	40	7.4
	6	19	26	2.3	61	24.8	140	21.5	0.4	1.4	5	3	253	72	0.22	2.4	25.0	D	271	0	3.0	1	1	4.1	181	89	99.0
	6	21	24	2.7	60	19.6	141	18.0	11.3	1.0	9	5	115	24	0.28	0.8	1.3	A	322	12	0.7	81	14	1.0	204	56	2.3
	7	5	36	4.7	59	25.4	146	16.2	6.7	2.2	10	4	211	4	0.66	1.2	0.9	A	199	33	2.4	316	35	1.6	79	38	0.9
	7	7	24	55.8	60	6.5	140	24.6	16.1	1.1	8	4	148	9	0.44	2.7	0.7	C	26	9	5.2	289	35	0.8	128	53	1.2
	7	7	56	34.5	60	40.9	143	33.3	13.6	0.9	6	4	116	55	0.26	0.6	1.8	B	261	1	0.8	348	6	1.1	162	83	3.5
	7	8	11	18.2	61	17.0	152	12.1	4.6	0.6	3	3	290	3	0.01	1.1	0.8	A	21	1	1.0	291	12	2.2	116	78	1.5

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JUNE 1984

1984	ORIGIN HR	TIME MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUN 8	3	8	27.4	60	37.0	143	41.5	5.0	1.8	11	8	101	44	0.52	0.5	4.1	C	351	0	1.0	81	2	0.8	261	88	7.7
8	22	10	17.8	61	30.9	147	24.1	18.4	2.1	23	15	62	36	0.51	0.4	1.1	A	205	6	0.8	296	11	0.6	87	77	2.1
9	9	59	15.4	61	29.8	151	11.3	8.3	1.1	8	7	97	24	0.61	0.6	0.9	A	354	13	1.1	261	17	0.5	120	69	1.8
9	12	2	44.8	60	13.4	141	40.0	7.7	0.8	5	2	123	16	0.26	2.2	2.1	B	197	8	1.1	293	40	4.8	98	49	3.0
9	18	20	46.2	60	9.3	141	9.0	9.5	1.0	7	6	137	7	0.30	1.3	0.6	A	12	8	2.4	279	20	0.7	123	68	1.1
9	21	37	1.8	60	23.2	141	29.6	13.0	1.4	8	3	107	14	0.71	0.9	1.4	B	103	15	1.2	6	26	0.9	220	60	2.9
10	4	14	16.6	62	14.4	149	20.1	36.1	3.0	21	6	117	70	0.48	0.9	1.0	A	184	6	1.7	92	19	1.1	291	70	1.9
				3.0 ML ATWC																						
10	8	32	58.4	61	1.6	147	6.9	14.3	2.2	27	15	61	15	0.53	0.3	0.5	A	2	1	0.5	271	17	0.4	95	73	1.0
10	13	45	22.2	60	26.8	140	31.9	6.5	1.6	13	7	174	42	0.49	0.6	1.1	A	81	6	0.9	327	10	0.5	195	63	1.9
10	14	15	21.1	61	17.1	152	12.7	5.0	0.4	3	3	293	4	0.03	1.1	0.9	A	20	0	1.1	290	2	2.1	110	88	1.7
10	16	8	57.5	59	50.2	153	40.7	142.8	3.8	18	10	161	62	0.42	2.2	1.5	B	309	6	1.9	42	24	4.3	206	65	2.4
				3.7 ML ATWC																						
10	18	27	7.4	60	20.6	141	20.7	15.3	1.4	11	6	113	22	0.50	0.7	1.0	A	4	17	1.0	101	21	0.8	238	62	2.1
10	21	56	44.9	60	31.8	143	0.8	25.4	0.6A	5	5	118	67	0.44	0.8	2.3	B	267	3	1.0	357	5	1.4	146	84	4.3
11	1	28	17.1	62	28.3	149	55.4	1.6	3.1	22	5	143	92	0.49	0.8	1.2	A	343	12	1.2	261	32	0.8	92	55	2.5
				4.0 ML ATWC						FELT (II) AT PALMER.																
11	10	35	4.3	60	27.9	141	20.5	25.6	0.6A	5	4	124	25	0.31	2.0	1.9	B	312	5	1.3	81	38	1.2	217	38	4.4
11	14	15	52.1	60	1.1	153	24.9	138.1	3.1	19	9	196	38	0.45	1.6	1.2	B	308	10	1.6	41	16	3.1	187	71	2.2
11	15	8	37.5	61	2.2	152	14.4	6.6	1.3	8	4	172	19	0.28	1.3	1.7	B	81	8	2.3	170	35	1.0	340	54	3.9
11	17	51	37.0	59	27.5	151	10.0	10.0	0.5	7	3	211	7	0.84	1.6	1.2	B	174	28	2.4	284	33	3.3	53	44	0.5
11	20	44	56.3	60	11.5	141	7.0	9.8	1.2A	11	8	120	6	0.39	0.7	0.5	A	297	11	0.5	203	22	1.4	52	65	0.8
11	20	45	11.1	60	12.0	141	7.9	2.5	2.4	15	12	118	8	0.75	0.4	0.6	A	287	0	0.4	17	17	0.7	197	73	1.2
11	22	42	56.0	59	55.8	150	50.8	49.5	1.3	8	4	139	11	0.24	1.5	1.4	B	81	14	1.6	327	42	1.5	184	41	3.4
12	6	22	56.7	59	27.2	145	5.8	25.4	2.2	17	9	199	65	0.60	1.2	1.0	A	157	4	2.2	81	20	1.3	258	65	1.9
12	8	48	26.5	61	2.7	143	34.1	4.5	1.3	9	3	107	46	0.54	0.7	11.9	D	103	1	0.8	193	2	1.0	346	88	22.3
12	11	38	6.7	59	58.4	139	28.3	13.2	1.8	9	6	192	9	0.86	1.8	0.8	B	311	5	0.7	219	15	3.4	59	74	1.1
12	21	42	0.3	60	4.4	141	40.4	8.7	0.2A	4	4	184	20	0.36	0.9	1.1	A	81	13	0.7	332	25	1.3	193	57	2.3
13	2	16	47.4	60	58.8	150	10.3	56.0	3.4	30	6	41	44	0.71	0.5	1.2	A	164	6	0.8	261	8	0.8	40	78	2.3
	3.3 MB			3.8 ML ATWC						FELT (III) AT ANCHORAGE.																
13	4	52	16.9	60	59.3	150	13.9	47.2	2.3	29	13	41	46	0.53	0.3	0.9	A	190	4	0.6	280	5	0.5	61	84	1.7
13	6	41	7.4	61	11.0	152	11.1	5.5	-0.5A	3	3	277	7	0.02	1.2	1.6	B	331	10	1.0	261	16	2.0	97	63	2.9
13	7	47	55.0	61	21.7	152	27.9	4.3	0.3A	3	2	332	20	0.31	2.5	25.0	D	279	2	1.9	9	2	3.2	144	87	77.5
13	10	40	43.3	61	3.9	152	16.0	9.7	0.5	4	4	178	17	0.33	1.8	0.7	B	113	7	3.4	206	28	0.7	10	61	1.3
13	11	16	10.7	60	18.2	142	2.7	0.9	0.7	6	5	94	18	0.69	0.4	1.1	A	12	4	0.6	282	7	0.8	132	82	2.1
13	13	5	1.0	61	57.3	147	46.2	29.0	2.4	27	7	106	27	0.69	0.6	0.8	A	261	0	0.9	351	0	1.1	0	90	1.5
13	16	17	2.6	61	16.0	146	57.7	21.8	2.2	23	12	41	37	0.60	0.3	0.8	A	303	8	0.5	212	9	0.6	74	78	1.5
13	20	26	13.6	60	7.0	141	35.0	12.1	1.0	6	4	140	26	0.16	0.5	0.9	A	81	2	0.6	350	12	0.9	180	78	1.8
13	22	10	3.6	61	31.3	151	41.9	88.8	2.5	19	6	179	29	0.75	1.3	1.4	B	81	11	1.2	162	30	2.2	332	57	2.8
14	1	11	11.4	60	55.5	149	28.5	32.7	1.4	14	5	67	26	0.55	0.5	0.8	A	356	3	0.7	265	10	1.0	102	80	1.6
14	3	37	13.0	61	6.4	141	17.4	12.9	2.2	13	5	216	16	0.69	1.0	1.2	A	134	2	0.9	43	32	1.6	227	58	2.4
14	6	26	30.1	62	25.5	149	21.0	40.2	3.1	16	6	128	87	0.34	4.1	17.2	D	317	3	1.5	81	9	1.3	214	55	27.8
	3.6 MB			3.9 ML ATWC						FELT (II) AT ANCHORAGE.																
14	7	17	1.2	60	7.8	141	9.3	3.5	0.1	6	3	188	7	0.01	3.4	2.6	C	268	27	1.1	20	37	7.8	151	41	2.1
14	16	35	45.6	59	48.2	150	52.1	18.1	0.7	9	5	101	5	0.31	0.7	0.6	A	35	3	0.8	304	25	1.2	131	65	1.2
14	20	17	35.4	59	58.9	141	58.8	5.7	0.6	6	2	245	7	0.34	2.1	2.0	B	18	22	2.1	127	38	1.0	265	44	5.3
14	23	26	33.5	59	59.6	141	50.8	5.4	1.0	9	4	187	12	1.04	0.7	1.1	A	22	11	1.2	117	23	0.7	268	64	2.3
15	0	6	59.0	60	10.3	152	42.4	94.4	2.8	20	10	141	6	0.60	0.9	0.9	A	160	6	0.9	81	39	1.5	257	49	1.8
15	3	47	30.4	60	1.0	142	7.8	3.3	0.8	7	4	187	6	0.32	1.2	0.7	A	1	3	2.3	270	15	0.7	102	75	1.3
15	7	19	12.0	61	39.3	146	52.8	21.4	2.7	24	6	86	31	0.59	0.5	1.0	A	309	3	0.7	219	6	1.0	66	83	1.8
				3.6 ML ATWC																						

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JUNE 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUN 15	7	31	18.3	59	18.5	151	31.7	10.4	1.0	10	5	277	19	0.58	1.1	0.8	A	81	5	1.3	342	17	2.2	186	70	1.3
15	13	35	39.8	59	18.4	144	53.2	21.8	2.0	10	5	269	74	0.39	2.1	1.3	B	11	0	4.0	280	34	2.7	101	56	2.4
15	18	17	10.2	61	3.2	149	42.1	13.3	0.8A	6	5	112	23	0.17	1.8	2.6	B	175	20	0.6	276	28	1.0	54	55	5.8
15	22	39	12.3	61	16.6	152	17.1	7.8	0.6	3	2	306	7	0.02	1.4	4.2	C	190	2	1.5	281	7	2.4	84	83	7.9
15	22	40	11.6	61	12.1	151	20.0	66.8	2.2	23	7	65	38	0.45	0.9	2.2	B	81	4	0.8	145	13	1.2	334	61	3.8
16	0	57	41.1	60	45.1	152	28.4	10.0	0.9A	6	4	185	20	0.66	2.5	1.1	B	107	17	4.9	9	25	0.5	228	59	1.8
16	1	7	56.6	60	16.4	141	5.4	8.2	1.1	11	8	122	14	0.44	0.5	0.7	A	299	6	0.4	32	28	0.7	198	61	1.5
16	2	0	48.6	60	41.0	148	20.9	31.1	2.2	38	13	73	20	0.46	0.4	0.4	A	81	6	0.5	170	10	0.8	320	78	0.8
16	2	46	16.8	61	39.3	151	19.7	3.8	1.7	21	12	118	38	1.10	0.4	0.8	A	261	1	0.5	152	8	0.6	357	69	1.4
16	2	58	57.9	59	58.7	141	11.5	1.1	0.9A	9	6	165	22	0.60	0.9	2.0	B	261	3	0.9	162	18	1.3	0	70	4.0
16	5	57	8.4	60	12.5	141	32.5	10.0	0.8	9	2	119	20	0.34	1.0	2.2	B	81	5	1.3	142	18	1.0	336	56	3.8
16	8	0	23.1	62	58.8	149	24.4	64.0	2.8	15	7	154	142	0.46	4.6	15.5	D	83	4	2.2	352	14	4.3	189	75	30.0
16	11	14	59.9	59	51.0	145	43.3	20.7	2.8	25	12	134	58	0.56	0.5	1.0	A	359	1	0.9	89	9	0.7	263	81	1.8
16	14	58	3.2	60	13.7	141	3.6	0.1	0.3A	5	4	118	8	0.14	1.0	2.7	C	312	7	0.6	44	13	1.3	194	75	5.3
16	15	37	52.8	60	57.9	151	33.1	5.9	0.6A	3	3	344	36	0.14	3.5	25.0	D	142	3	1.9	81	4	4.4	278	61	59.4
16	21	20	36.8	60	19.6	140	42.4	13.3	1.2	8	4	150	26	0.31	1.1	1.5	B	327	15	0.8	81	23	0.9	212	54	3.2
16	22	10	49.7	60	13.0	152	34.5	94.5	3.3	24	11	108	14	0.45	0.9	1.6	B	81	1	1.6	341	3	0.9	188	80	2.9
			3.7 MB			3.8 ML ATWC																				
16	23	7	57.0	60	2.9	152	39.8	77.6	2.8	23	7	171	17	0.31	1.1	1.3	A	332	7	0.9	81	25	1.9	229	58	2.5
16	23	20	22.4	60	12.3	141	3.9	5.7	0.5A	8	4	132	6	0.20	4.1	3.1	C	310	23	0.6	202	37	9.5	65	44	1.2
16	23	33	55.5	60	13.5	141	12.4	12.8	1.4	11	4	117	12	0.30	1.5	0.8	B	211	21	3.0	310	22	0.7	82	59	1.1
17	8	15	56.2	60	41.4	142	59.5	31.0	1.5	9	6	86	52	0.60	0.9	12.3	D	159	1	1.0	261	3	0.9	52	78	22.6
17	8	18	55.6	60	14.1	140	38.7	12.5	0.7A	8	4	143	23	0.25	1.2	1.8	B	300	13	0.6	37	28	1.3	188	59	3.9
17	8	38	51.9	60	10.7	139	40.3	15.6	1.1	8	6	196	25	0.64	1.5	1.2	B	305	4	0.8	212	35	3.3	41	55	1.2
17	9	30	49.9	59	55.5	151	14.1	37.8	1.4	13	6	87	10	0.39	0.6	0.8	A	108	4	1.2	17	7	0.6	227	82	1.5
17	9	53	11.7	61	9.0	149	30.3	42.0	1.7	22	10	41	11	0.42	0.6	0.9	A	322	3	0.7	261	10	0.9	69	59	1.4
17	15	11	4.5	60	19.9	141	12.7	17.1	1.7	11	7	120	22	0.36	0.5	0.8	A	302	1	0.5	33	23	0.7	210	67	1.5
17	15	12	30.9	60	18.2	141	16.4	21.5	0.3A	5	4	142	21	0.28	3.0	3.1	C	118	4	1.1	24	44	2.0	212	46	7.8
17	15	18	19.9	59	10.1	135	48.0	1.0	2.2	8	6	208	110	0.60	4.4	2.0	C	215	5	8.3	306	8	1.1	93	81	3.7
17	19	3	38.8	60	15.7	140	38.1	9.9	0.8A	7	7	147	25	0.22	1.4	1.9	B	296	8	0.7	31	32	1.6	194	57	4.1
18	0	17	36.5	60	15.2	141	2.1	6.5	1.0	8	8	151	11	0.43	1.1	1.1	A	304	8	0.6	207	43	2.8	42	46	0.8
18	1	37	17.2	60	20.0	141	20.5	13.9	1.6	12	9	113	22	0.68	0.5	0.7	A	112	2	0.6	21	24	0.8	206	66	1.3
18	1	38	54.7	60	48.4	151	43.5	78.2	2.4	27	11	55	27	0.44	0.6	1.0	A	169	11	0.6	81	11	1.1	305	74	1.8
18	3	6	26.4	60	6.5	153	8.8	116.3	2.7	23	6	182	20	0.29	1.8	1.3	B	150	6	1.4	81	14	3.2	265	64	2.2
18	3	24	46.0	60	12.9	140	26.9	20.2	0.9	7	3	170	17	0.23	2.9	0.9	C	207	12	5.5	302	23	0.8	91	64	1.5
18	3	51	2.2	63	8.5	150	42.8	121.6	3.6	12	2	127	136	0.25	6.8	9.8	D	309	12	2.5	46	31	5.4	200	56	21.8
18	4	51	9.2	61	18.9	152	19.5	0.3	1.0	4	4	254	11	0.44	1.2	1.1	A	105	30	2.0	350	37	1.4	223	39	2.5
18	5	31	58.3	59	55.6	150	20.7	14.3	1.0	10	3	148	17	0.40	0.9	0.9	A	81	17	0.6	312	41	1.5	184	34	1.8
18	8	54	2.7	60	13.7	152	22.4	79.5	2.3	21	10	114	25	0.53	0.8	1.3	A	169	2	0.8	81	9	1.4	272	81	2.4
18	12	47	42.9	57	23.4	154	35.3	96.0	3.1	10	3	306	132	0.21	25.0	25.0	D	345	23	8.7	261	28	25.4	116	54	91.0
18	13	16	4.2	59	49.0	141	31.3	2.8	1.7	12	7	188	38	0.58	0.7	1.3	A	101	10	0.7	194	15	1.1	339	72	2.6
18	14	50	26.5	60	25.7	147	43.2	19.0	1.9	25	9	75	59	0.41	0.6	1.0	A	156	6	0.8	261	21	0.5	52	64	2.0
18	16	45	22.9	59	54.7	150	55.5	16.4	1.3	15	6	58	15	0.43	0.5	0.8	A	261	18	0.7	357	19	0.6	130	63	1.6
18	17	21	30.7	60	12.9	141	0.2	2.3	1.2	8	6	119	7	0.57	0.7	1.0	A	89	20	0.8	349	25	0.6	213	57	2.2
19	0	23	9.4	60	50.2	151	40.4	81.6	2.6	27	9	52	26	0.40	0.8	1.6	B	172	14	0.9	81	15	1.2	304	70	3.2
19	6	6	15.2	60	0.6	139	55.8	12.1	0.6	6	5	159	18	0.54	3.4	1.1	C	301	0	0.9	31	12	6.5	211	78	1.5
19	8	36	13.6	62	35.6	151	12.5	86.9	2.6	12	5	272	0	0.23	4.1	3.8	C	314	17	6.9	81	33	4.0	208	40	7.5
19	10	9	43.2	61	37.8	150	19.4	9.8	1.7	16	6	136	24	0.77	0.7	1.2	A	172	16	1.1	268	21	0.6	47	63	2.4
19	10	51	25.9	60	14.9	140	37.7	11.8	1.4	11	5	146	25	0.35	1.0	1.3	A	302	8	0.8	38	34	1.4	201	55	2.7
19	14	26	2.5	61	24.0	146	51.8	38.4	2.1	23	8	53	41	0.56	0.6	0.5	A	261	8	0.9	140	9	0.8	19	57	0.8
19	16	27	10.6	60	55.3	150	31.3	62.3	2.6	32	11	50	48	0.47	0.5	1.2	A	261	4	0.8	162	6	0.7	22	78	2.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JUNE 1984

ORIGIN 1984	TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUN 19	22	53	31.3	59	32.8	152	9.1	54.6	2.3	17	5	98	33	0.29	1.4	2.2	B	285	14	1.1	19	17	2.3	157	68	4.4
20	3	31	26.5	62	24.1	149	53.8	56.0	2.3	16	3	138	84	0.37	1.4	5.2	C	81	7	1.5	346	7	2.2	214	79	9.8
20	5	50	58.0	60	12.9	141	0.9	1.6	1.1	10	6	119	7	0.53	0.8	1.4	B	81	15	0.8	328	18	0.6	201	58	2.7
20	7	15	42.4	59	51.4	153	15.3	112.9	3.1	21	3	93	44	0.31	1.3	1.8	B	123	5	1.7	32	12	2.3	235	77	3.4
20	11	34	4.8	61	2.2	146	33.9	23.5	2.6	25	5	37	3	0.52	0.4	0.7	A	210	4	0.7	301	7	0.8	91	82	1.2
20	14	6	24.4	59	55.5	141	28.0	7.2	1.3A	6	4	189	34	0.37	1.3	2.8	C	89	2	1.1	359	2	2.4	224	87	5.2
20	23	15	34.9	60	26.0	141	15.3	3.2	1.7	15	7	124	28	0.34	0.5	1.2	A	336	5	0.7	81	9	0.9	221	72	2.3
20	23	42	21.2	61	4.0	150	21.4	5.1	1.8	24	6	54	47	0.55	0.8	1.2	A	311	9	0.8	216	27	0.8	58	61	2.5
21	11	47	1.4	59	27.3	151	19.2	9.9	0.3	9	4	157	3	0.25	1.3	0.7	A	177	26	2.7	284	30	0.9	54	48	0.5
21	17	35	51.1	60	33.7	141	40.7	0.2	1.1	12	4	97	23	0.58	0.7	1.0	A	355	3	0.6	86	25	1.0	259	65	2.0
21	21	5	3.4	61	31.8	150	44.5	62.5	2.3	23	11	113	7	0.32	0.6	1.0	A	84	1	0.7	175	20	1.1	351	70	2.0
22	1	15	53.5	61	14.2	152	0.6	4.7	0.7	3	3	199	7	0.03	0.7	2.0	B	96	1	1.3	6	3	0.7	204	87	3.7
22	2	38	6.8	59	43.3	150	13.5	6.7	0.7A	5	4	243	25	0.12	1.0	1.0	A	81	26	1.5	185	34	1.0	320	46	2.4
22	5	37	18.8	59	5.7	136	12.9	1.8	1.9	5	5	193	121	0.18	11.9	5.1	D	301	1	3.7	211	5	22.4	42	85	9.4
22	5	40	19.8	60	56.1	149	22.4	28.1	1.5	19	10	68	21	0.59	0.5	0.8	A	196	16	0.7	291	17	0.6	65	66	1.6
22	7	35	4.4	60	56.2	149	23.0	35.4	1.1A	9	3	107	21	0.24	0.6	0.8	A	300	0	0.9	210	24	1.1	30	66	1.5
22	13	8	52.7	61	6.0	152	10.6	2.7	0.9	3	3	328	11	0.36	1.6	5.4	D	202	9	1.7	293	9	2.0	68	77	10.4
22	13	10	12.9	60	53.1	152	8.7	9.8	0.7A	4	3	194	34	0.50	5.7	3.8	D	14	0	0.8	104	28	11.8	284	62	5.2
23	10	22	4.0	59	44.0	139	21.8	27.4	2.8	11	4	170	8	0.62	2.5	1.2	B	49	17	4.8	309	31	1.0	164	54	2.2
23	11	36	38.5	59	58.6	152	54.9	100.9	2.7	22	12	128	24	0.35	1.0	1.1	A	140	7	1.0	261	11	1.5	28	57	1.8
23	11	50	17.1	58	50.4	139	35.6	17.8	1.6	7	5	284	80	0.34	2.1	1.9	B	345	5	2.8	81	42	5.0	250	47	1.8
23	14	13	42.8	62	12.6	149	37.0	37.5	2.2	20	14	212	64	0.70	0.9	1.0	A	88	28	0.6	341	29	1.3	214	48	2.3
23	15	27	52.7	61	29.4	151	49.6	103.7	3.4	27	14	116	23	0.37	0.9	1.0	A	219	6	1.0	124	39	1.3	316	50	2.1
23	17	21	30.8	61	51.4	149	59.5	47.0	2.3	24	10	169	24	0.52	0.7	1.1	A	180	1	1.3	90	6	0.6	279	84	2.1
23	23	7	48.8	61	42.9	147	21.0	26.0	2.7	28	9	83	13	0.72	0.4	0.7	A	281	3	0.6	191	7	0.8	34	82	1.3
24	11	10	32.9	60	21.5	141	17.7	3.8	1.5A	8	6	117	25	0.67	0.9	1.3	A	324	7	0.6	81	21	1.1	220	56	2.4
24	12	19	26.6	60	20.5	141	17.3	8.4	0.8	7	3	151	25	0.38	3.4	4.3	C	304	4	0.9	37	37	2.4	209	53	10.0
24	22	17	53.5	60	15.7	141	8.0	9.7	1.0	7	4	147	13	0.26	2.2	1.5	B	309	12	0.8	211	32	4.9	57	55	1.0
24	22	46	1.3	62	11.6	150	47.3	57.9	2.2	17	9	146	45	0.69	1.3	2.4	B	81	4	1.2	344	16	2.0	184	72	4.6
25	1	39	50.8	60	42.8	150	57.5	44.2	2.6	30	6	46	16	0.68	0.5	1.5	A	81	1	0.6	141	2	0.6	321	60	2.4
25	3	53	28.9	60	26.5	143	41.2	18.8	1.2	9	9	131	34	0.16	0.8	0.9	A	81	5	0.7	330	40	1.0	176	45	2.0
25	11	28	54.9	61	15.9	152	17.4	6.5	-0.2A	3	3	306	7	0.01	1.2	1.5	B	191	8	1.3	286	33	1.9	89	56	3.1
25	13	3	2.0	61	31.2	141	5.1	0.5	1.2A	6	4	256	63	0.31	1.6	25.0	D	305	0	1.6	35	0	3.0	0	90	99.0
25	14	7	51.5	59	54.7	140	54.2	0.2	0.8	7	4	204	28	0.32	0.7	1.7	B	122	3	0.6	212	9	1.1	14	81	3.1
25	14	20	30.5	60	7.7	141	7.0	1.4	0.7	8	5	159	6	0.34	1.8	1.6	B	110	3	0.7	17	41	4.4	203	49	1.2
26	1	30	56.4	60	7.6	141	25.0	8.5	1.1A	5	5	162	22	0.56	0.9	1.2	A	99	4	0.6	191	19	1.6	358	70	2.3
26	8	6	19.2	61	7.5	149	10.4	33.3	0.4A	7	6	88	25	0.44	0.6	1.3	A	113	1	1.1	203	17	0.9	20	73	2.6
26	11	21	50.0	60	1.9	152	41.7	93.5	2.5	22	13	118	18	0.49	0.7	0.9	A	328	1	0.8	261	2	1.2	88	67	1.6
26	15	53	8.4	60	9.0	151	15.1	52.4	3.0	28	11	66	12	0.44	0.6	0.8	A	16	13	0.6	282	14	1.0	147	71	1.6
26	16	26	45.5	60	2.9	141	27.2	9.2	1.0	6	4	155	26	0.29	1.5	1.7	B	290	2	0.9	198	40	1.6	22	50	3.9
26	17	10	57.7	60	16.2	141	11.7	9.0	1.1	8	4	146	16	0.33	1.0	1.0	A	104	3	0.6	11	45	1.6	197	45	2.2
26	22	2	56.9	60	24.8	152	19.3	15.6	1.1	16	9	119	19	0.64	0.6	1.0	A	171	8	0.5	81	25	0.8	278	64	2.1
27	1	32	42.1	60	1.6	141	18.6	4.8	1.4	10	6	158	21	0.34	1.1	1.4	B	88	4	0.8	180	26	1.8	350	64	2.8
27	9	39	18.0	61	0.5	150	12.8	43.7	2.5	34	12	43	44	0.46	0.4	1.6	B	261	0	0.7	345	1	0.8	171	84	3.0
					3.9 ML ATWC																					
27	11	36	31.8	61	9.1	149	13.2	40.8	0.9A	6	4	114	21	0.20	1.4	2.3	B	27	15	1.9	123	21	1.4	264	64	4.7
27	12	18	49.7	60	40.8	144	23.1	25.1	1.1A	7	7	81	39	0.31	0.7	0.9	A	104	2	1.3	13	31	0.9	197	59	2.0
27	14	20	18.0	60	12.3	152	49.8	110.1	3.4	21	4	76	3	0.37	1.3	2.9	B	326	0	1.5	81	7	1.9	236	64	5.0
					3.8 ML ATWC																					
27	18	59	31.8	60	49.1	147	39.9	26.9	2.0	32	11	57	33	0.33	0.6	0.9	A	272	2	0.6	182	15	1.0	9	75	1.6
28	2	13	43.4	61	18.4	149	7.9	34.2	1.7	26	12	54	24	0.52	0.7	0.7	A	261	7	0.9	133	25	0.9	1	45	1.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JUNE 1984

ORIGIN 1984	TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUN 28	6	49	27.0	61	45.3	151	2.5	69.2	2.1	18	11	132	36	0.32	1.0	1.1	A	350	2	1.8	81	7	1.0	244	83	2.2
28	8	18	17.5	61	13.5	150	32.2	5.2	0.9A	8	3	101	29	0.51	2.6	1.7	B	305	15	1.5	42	25	5.2	187	60	2.5
28	18	59	42.2	61	14.1	149	11.5	31.6	1.0	12	7	104	20	0.42	0.8	1.1	A	261	4	1.3	166	16	1.4	4	73	2.0
28	19	17	42.5	61	19.5	149	8.9	34.2	1.4A	15	9	69	24	0.33	0.9	0.9	A	81	13	1.0	327	37	1.9	185	45	1.4
29	0	39	10.9	60	1.1	141	32.0	3.3	1.1	10	5	163	28	0.43	0.8	1.0	A	189	11	1.6	96	12	0.5	320	74	1.9
29	7	28	33.0	61	23.4	147	29.1	18.6	2.0	28	13	59	28	0.51	0.4	0.7	A	192	5	0.7	283	12	0.5	80	77	1.3
29	11	54	9.4	59	57.2	139	57.5	7.9	1.6	10	4	140	18	0.62	1.4	0.8	B	303	7	0.6	36	25	2.8	198	64	1.1
29	17	52	48.7	61	28.3	140	31.6	2.6	1.3	8	5	250	71	0.41	1.9	25.0	D	307	0	1.9	37	2	2.6	217	88	70.9
29	22	58	41.8	59	54.7	139	16.6	35.3	1.0	4	3	225	21	0.48	4.4	2.3	C	135	2	1.4	225	8	8.3	31	82	4.3
30	1	19	24.2	60	29.2	142	22.9	17.3	1.3	6	4	157	40	0.70	1.0	2.6	B	17	1	0.8	286	5	1.8	118	85	4.8
30	5	54	5.7	60	32.0	152	34.3	19.6	0.4A	3	3	182	10	0.11	25.0	15.0	D	116	18	90.5	14	32	1.0	231	52	1.4
30	7	55	34.1	60	9.1	141	6.8	8.9	1.0	7	5	135	4	0.16	1.3	0.4	A	19	4	2.5	111	22	0.9	279	68	0.7
30	9	9	54.7	61	26.9	151	6.6	15.1	0.5A	4	4	155	20	0.58	1.7	8.9	D	261	7	0.8	336	9	1.4	128	71	16.3
30	21	2	55.6	61	16.5	152	10.3	3.4	0.4	3	1	279	1	0.00	2.1	2.1	B	176	3	1.2	83	44	2.3	269	46	5.1
30	21	22	51.4	62	37.5	149	42.9	8.8	2.0	18	7	146	109	0.49	1.1	1.3	A	353	14	1.2	261	37	1.0	101	51	3.0
30	23	4	13.6	60	59.2	150	8.1	43.2	2.5	26	10	42	42	0.51	0.4	1.5	B	90	1	0.6	0	2	0.8	207	88	2.9

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JULY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUL 1	10	20	52.5	58	38.9	142	30.0	30.0	2.3	11	7	258	157	0.60	5.1	25.0	D	297	0	4.6	27	0	9.5	0	90	99.0
1	12	27	20.7	60	10.1	141	4.4	6.0	0.9	9	4	131	3	0.77	1.9	0.7	B	182	1	3.6	92	7	0.8	280	83	1.3
1	14	51	4.3	60	2.7	141	39.6	7.0	0.8	11	7	156	21	0.63	1.1	0.8	A	88	18	0.5	185	21	2.2	321	62	1.5
1	14	55	13.0	60	29.8	145	5.1	14.6	1.5	19	11	113	8	0.75	0.5	0.6	A	12	4	0.9	104	16	0.5	268	73	1.1
2	10	24	59.7	60	15.0	141	9.9	11.0	1.0	10	5	115	13	0.39	0.7	0.7	A	290	4	0.7	24	43	1.0	196	47	1.7
2	12	13	19.5	61	12.4	151	27.6	73.9	2.1	17	11	75	31	0.36	0.6	1.0	A	81	12	0.7	165	22	0.9	322	64	1.9
2	13	19	26.7	60	8.9	141	1.1	12.6	1.6	13	5	136	1	0.42	0.6	0.4	A	184	9	1.2	280	31	0.7	80	57	0.8
2	16	41	39.6	62	3.7	149	50.0	44.6	2.2	20	14	182	46	0.78	1.0	1.6	B	97	2	0.8	6	22	1.6	192	68	3.1
3	0	0	50.0	60	3.1	139	8.7	20.0	1.8	8	4	224	30	0.63	3.0	2.1	B	320	10	1.3	261	34	5.5	65	44	1.9
3	6	29	50.3	60	23.1	147	37.0	18.6	2.2	29	8	81	53	0.44	0.5	0.7	A	286	8	0.6	193	19	0.8	38	69	1.3
3	9	36	18.2	60	15.7	140	57.7	7.3	0.5	8	7	129	13	0.44	0.8	1.0	A	342	25	0.6	86	27	0.7	216	52	2.4
3	16	17	45.0	61	25.5	149	55.0	40.1	0.9A	10	7	116	25	0.57	1.1	1.0	A	119	2	0.8	210,	38	2.2	26	52	1.6
3	16	55	50.0	60	30.4	143	0.8	16.7	1.3	5	5	132	35	0.55	0.9	2.6	B	34	0	0.9	304	13	1.2	124	77	5.1
4	4	31	0.7	61	21.3	150	9.0	12.2	1.3	13	8	78	34	0.48	0.6	0.7	A	290	12	0.5	196	17	1.1	53	69	1.5
4	5	34	37.3	60	7.5	137	34.0	1.7	1.6	8	6	289	105	0.32	1.5	4.1	C	307	3	2.7	37	8	2.3	197	81	7.7
4	6	4	40.3	61	21.9	146	40.8	27.2	2.9	28	8	53	32	0.59	0.4	0.9	A	23	1	0.7	293	4	0.5	127	86	1.6
4	9	2	35.1	60	28.7	147	18.8	29.5	2.4	29	11	80	46	0.72	0.4	0.4	A	81	8	0.5	346	15	0.7	198	72	0.8
4	10	25	32.2	60	44.5	140	29.2	13.1	0.9	9	5	209	52	0.68	2.8	1.8	B	261	0	4.3	137	5	0.8	351	56	2.8
4	11	10	57.7	60	6.2	140	30.5	6.2	0.6	7	3	151	14	0.65	4.1	2.1	C	281	3	1.1	12	26	8.5	185	64	1.7
4	11	37	39.0	61	31.3	151	18.7	70.7	2.7	21	10	90	31	0.42	0.8	1.1	A	175	17	1.3	81	18	0.8	306	65	2.3
4	16	53	50.9	58	45.6	153	0.9	84.6	2.8	11	6	166	114	0.44	1.5	4.2	C	7	1	1.3	277	14	2.2	101	76	8.1
4	22	37	24.6	60	37.1	142	59.1	20.4	1.1	6	3	77	47	0.41	0.8	1.6	B	131	6	1.4	222	8	0.9	5	80	3.1
4	23	51	29.3	60	18.8	140	42.1	8.7	0.8A	5	2	171	26	0.28	1.5	2.3	B	95	6	0.8	1	30	1.2	195	59	4.9
5	9	19	29.6	60	7.2	141	7.3	7.2	1.2	10	8	140	6	0.55	0.7	0.5	A	280	10	0.5	15	26	1.4	171	62	0.7
5	14	29	12.4	60	1.1	147	52.2	31.1	2.2	26	5	136	24	0.42	0.6	0.6	A	87	10	0.7	184	34	1.2	343	54	1.0
5	14	30	21.6	60	5.0	152	10.7	63.0	2.6	16	6	101	37	0.53	0.8	1.3	A	165	1	0.9	81	24	1.1	257	65	2.7
6	1	22	5.6	60	12.0	140	45.6	15.9	1.0	7	5	154	16	0.28	1.7	0.8	B	291	2	0.7	200	12	3.3	30	78	1.4
6	8	24	13.1	60	11.9	141	40.7	6.7	1.0	8	1	114	18	0.41	1.6	1.5	B	24	7	1.0	288	41	3.4	122	48	2.2
6	8	49	30.6	60	11.3	141	26.9	4.1	1.1	9	3	124	23	0.37	0.6	1.3	A	342	0	1.0	81	6	0.7	252	79	2.5
6	10	19	28.7	60	17.2	141	11.3	5.6	0.9	9	3	149	17	0.34	1.8	1.9	B	292	0	0.8	22	43	1.9	202	47	4.5
6	18	17	15.6	60	12.3	141	0.7	5.1	0.4	5	3	172	6	0.66	2.3	2.1	B	104	7	0.7	201	42	5.7	6	47	1.1
6	23	23	44.8	61	15.9	152	23.8	10.8	0.2A	3	3	320	13	0.08	1.9	2.2	B	327	6	2.0	261	34	2.2	66	49	4.4
7	1	27	12.8	60	23.5	151	30.5	55.3	3.0	19	9	66	53	0.47	0.5	1.6	B	155	5	0.9	81	10	0.8	274	71	2.9
7	3	36	48.9	60	17.0	141	25.4	6.2	1.2	13	7	108	20	0.60	0.6	0.8	A	114	8	0.5	21	21	0.9	224	67	1.6
7	4	0	53.0	60	34.0	141	29.5	12.1	0.9	10	4	116	27	0.55	1.0	1.7	B	18	5	0.6	110	23	1.4	276	66	3.4
7	6	56	3.1	61	21.6	148	58.3	36.4	2.5	28	7	50	28	0.51	0.5	0.5	A	191	11	0.8	95	27	0.7	301	60	1.0
7	7	13	59.4	60	7.1	141	31.2	8.9	1.4	14	8	137	27	0.41	0.4	0.7	A	90	6	0.5	359	9	0.8	213	79	1.4
7	9	58	49.9	58	54.2	152	43.6	62.8	2.2	10	5	147	91	0.34	1.6	4.7	C	178	7	2.3	269	14	1.7	62	74	9.1
7	13	28	29.7	62	23.7	148	19.8	33.8	2.2	20	6	126	65	0.67	1.3	1.0	A	294	26	1.7	183	36	2.8	51	43	1.0
7	13	39	19.9	60	18.9	141	16.4	17.2	1.1	10	7	116	22	0.53	0.6	0.9	A	303	7	0.7	36	26	1.0	199	63	1.8
7	15	26	52.7	61	29.2	141	40.6	11.1	1.8	9	4	240	61	0.24	1.7	4.9	C	299	4	1.8	30	13	2.4	192	76	9.5
7	16	39	48.9	61	31.5	140	39.3	1.8	2.0	14	6	249	72	0.41	1.3	11.3	D	313	0	1.5	43	2	2.4	223	88	21.1
7	17	9	37.8	60	12.3	139	43.2	19.6	0.8	4	2	262	29	0.27	2.9	2.5	C	106	11	1.2	205	39	6.7	3	49	2.8
7	17	36	52.2	60	48.9	152	2.1	11.0	1.5	13	7	135	34	0.53	0.9	1.2	A	11	4	0.5	104	32	1.0	275	58	2.5
7	19	12	28.5	60	8.4	141	16.6	0.3	1.7	15	9	136	14	0.70	0.4	0.7	A	280	7	0.4	11	12	0.7	160	76	1.3
7	19	38	45.5	60	21.5	141	16.7	15.4	1.4	11	4	118	26	0.37	0.6	1.0	A	339	12	0.6	81	13	0.9	212	69	1.9
7	19	40	26.5	60	9.0	139	37.8	15.6	0.9	7	4	206	22	0.58	1.9	1.3	B	302	1	0.8	211	31	4.1	34	59	1.3
7	22	1	12.1	60	21.2	141	16.2	18.0	1.0A	6	4	119	26	0.65	0.9	1.6	B	110	7	1.0	18	16	1.6	223	72	3.0
7	23	25	14.6	60	21.2	152	5.7	87.9	3.0	19	10	79	30	0.30	0.6	1.0	A	163	3	0.8	81	8	1.1	274	78	2.0
8	0	16	47.4	59	44.1	152	56.4	91.7	2.7	13	4	102	50	0.18	1.3	1.6	B	140	6	1.3	261	21	1.8	38	53	2.9
8	0	32	6.6	61	8.8	152	9.3	8.9	1.0	6	4	168	7	0.34	1.5	0.6	B	102	13	2.9	359	43	1.1	205	44	0.6

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JULY 1984

1984	ORIGIN TIME	HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUL	8	2	37	19.4	58	58.2	153	9.1	34.8	2.9	9	4	164	106	0.29	1.5	25.0	D	357	0	1.2	267	1	2.4	87	89	75.3
	8	4	48	19.4	60	22.6	153	2.9	122.3	3.0	16	6	83	25	0.29	1.1	1.1	A	4	14	1.4	104	35	2.1	256	52	2.0
	8	5	13	1.4	59	55.5	140	39.2	14.1	1.2	9	3	163	29	0.54	1.6	2.4	B	112	8	0.6	207	30	1.3	9	59	5.3
	8	10	16	11.0	61	15.0	146	46.3	21.2	2.5	27	12	42	24	0.51	0.3	0.7	A	17	4	0.6	286	10	0.4	128	79	1.3
	8	11	46	51.7	60	34.5	150	45.1	13.3	2.1	24	8	68	30	0.69	0.4	0.8	A	197	2	0.6	288	20	0.5	102	70	1.6
	8	19	55	31.7	60	6.4	136	59.8	7.0	1.7	5	3	323	128	0.06	3.6	5.8	D	81	10	4.7	335	16	5.4	198	66	11.3
	8	20	0	48.5	60	13.1	141	16.1	13.6	0.9	7	5	126	15	0.15	1.1	1.0	A	303	16	0.6	48	41	1.4	197	44	2.5
	8	20	7	4.2	59	59.9	141	39.6	14.1	1.1	9	6	172	21	0.43	0.7	1.1	A	193	7	1.3	101	19	0.6	302	70	2.3
	8	23	33	32.6	60	21.7	140	57.0	12.2	1.1	5	5	166	24	0.38	2.2	2.7	C	295	2	0.7	27	38	1.5	202	52	6.3
	8	23	50	7.8	60	21.8	140	56.3	6.6	1.1	7	4	167	45	0.47	2.1	2.9	C	113	1	0.7	22	28	3.1	205	62	5.9
	9	1	59	55.7	60	1.7	141	0.4	0.0	1.0	7	3	165	14	0.43	1.0	2.3	B	129	11	0.7	221	13	1.4	0	73	4.5
	9	10	15	30.5	61	32.9	152	5.6	109.5	2.6	18	12	197	27	0.34	1.3	1.6	B	261	1	1.1	135	24	1.8	353	48	2.7
	9	10	47	32.8	60	14.6	141	2.1	9.4	1.9	15	9	122	10	0.43	0.5	0.7	A	284	3	0.6	15	24	0.9	187	66	1.4
	9	22	56	46.1	60	3.7	140	58.6	5.3	1.0	5	4	189	11	0.25	1.7	1.2	B	121	10	0.8	25	29	3.6	228	59	1.5
	10	2	33	49.7	61	15.3	149	25.3	41.8	1.9	25	12	80	8	0.42	0.6	1.0	A	102	6	0.8	11	7	1.2	232	81	2.0
	10	5	7	11.6	60	59.9	147	18.9	23.4	2.2	25	7	84	18	0.47	0.5	0.9	A	194	10	0.9	286	12	0.5	65	74	1.7
	10	7	20	5.3	60	8.2	141	17.5	2.8	1.2	11	8	137	15	0.40	0.9	1.0	A	287	5	0.8	19	17	1.7	181	72	1.9
	10	7	49	51.0	60	42.3	150	15.6	49.9	2.4	25	15	48	21	0.51	0.5	1.2	A	277	4	0.8	7	6	0.9	153	83	2.3
	10	12	17	0.1	60	16.1	140	46.5	17.1	1.2	7	5	145	19	0.34	1.2	1.6	B	315	12	1.0	53	32	1.3	207	55	3.5
	10	14	56	57.6	60	59.2	147	14.1	21.4	2.1	25	7	46	14	0.51	0.5	0.9	A	5	2	0.9	274	9	0.6	107	81	1.7
	10	19	16	7.9	61	6.0	149	14.6	35.7	1.4	15	7	78	23	0.42	0.6	0.8	A	94	2	1.0	184	5	1.2	342	85	1.4
	10	23	10	32.5	61	40.3	150	19.0	7.6	0.8A	4	4	157	23	0.49	1.5	1.7	B	267	23	0.9	13	33	1.7	149	48	4.0
	11	11	49	43.5	59	58.0	140	50.4	4.5	0.8A	6	1	195	23	0.22	2.9	4.0	C	120	6	1.0	214	34	2.3	21	55	9.0
	11	15	45	49.7	60	8.1	140	58.2	3.4	0.3	3	2	284	4	0.01	2.0	1.1	B	10	0	1.0	280	10	3.8	100	80	1.9
	11	15	47	2.9	57	50.1	137	30.1	28.0	2.9	9	4	193	157	0.67	9.1	9.8	D	310	5	4.1	43	24	16.6	209	65	18.7
	11	20	3	42.9	60	27.9	152	27.2	19.8	0.4	3	3	198	12	0.39	16.0	1.1	D	112	2	30.0	22	18	1.0	208	72	1.8
	12	1	20	29.0	61	9.6	149	56.5	18.6	1.0A	5	2	233	23	0.55	2.4	3.2	C	123	4	4.5	215	28	1.8	26	62	6.8
	12	5	58	1.2	64	11.2	150	14.3	57.9	3.1	9	2	168	142	0.33	9.9	25.0	D	118	2	18.1	208	5	3.2	6	85	99.0
	12	7	56	36.4	60	46.0	143	8.1	16.9	1.3	10	4	80	52	0.61	0.7	4.9	C	145	1	0.7	261	2	1.0	35	64	8.3
	12	9	53	32.3	60	4.6	139	46.0	9.5	1.0	6	4	196	16	0.71	3.2	1.4	C	211	20	6.3	310	23	0.8	84	59	1.6
	12	16	6	35.3	61	15.7	152	25.9	4.0	1.8	14	5	125	15	1.08	0.9	1.2	A	317	20	1.4	217	24	0.8	82	58	2.5
	12	19	41	51.4	60	3.9	139	47.9	18.8	1.8	10	4	194	16	0.62	3.2	0.9	C	212	7	6.1	304	14	0.8	96	74	1.5
	12	22	29	29.5	60	15.6	141	3.3	8.8	1.7	12	6	123	12	0.46	0.7	0.8	A	298	3	0.7	30	34	1.0	204	56	1.7
	13	1	26	12.7	60	28.0	143	0.1	7.1	1.2	8	7	97	31	0.56	0.5	3.9	C	40	2	0.9	310	3	0.8	164	86	7.3
	13	9	0	4.9	61	2.0	147	4.7	14.3	2.8	26	16	62	16	0.50	0.4	0.5	A	15	6	0.7	283	16	0.4	125	73	1.0
	13	17	2	52.7	61	40.9	147	2.3	28.9	2.1	17	12	139	23	0.77	0.6	0.7	A	115	19	0.7	213	23	1.1	349	60	1.5
	14	0	4	59.6	61	0.6	147	12.3	23.3	1.9	22	14	65	15	0.57	0.3	0.6	A	217	2	0.6	308	10	0.4	116	80	1.0
	14	4	24	46.1	61	23.8	150	34.5	16.4	1.9	24	11	90	12	0.56	0.5	0.6	A	81	2	0.5	170	32	0.7	348	58	1.2
	14	6	37	19.9	60	13.9	144	51.7	31.8	1.5A	4	4	230	35	0.21	2.9	1.3	C	284	10	1.1	16	10	5.5	150	76	2.3
	14	11	40	9.0	59	47.3	153	3.8	100.7	3.6	14	4	65	46	0.48	1.0	1.9	B	81	15	1.3	154	17	1.6	303	62	3.6
	14	14	32	2.6	59	58.0	140	41.8	6.6	2.2	15	7	146	28	0.46	0.8	1.1	A	296	0	0.5	206	34	1.1	26	56	2.3
	14	15	36	41.6	60	0.4	145	33.6	24.3	1.5	15	6	203	61	0.51	1.2	1.3	A	96	20	1.1	196	25	2.1	332	57	2.6
	14	21	20	0.5	59	58.2	145	35.9	29.7	1.8	16	9	207	65	0.70	1.6	0.8	B	271	10	1.8	179	12	3.0	40	74	1.3
	15	0	12	43.5	61	13.8	149	27.3	40.9	1.1A	12	6	78	6	0.28	1.0	1.2	A	147	20	1.0	81	34	1.2	269	45	2.2
	15	4	51	11.5	60	17.8	141	8.4	15.4	1.4	13	10	122	17	0.35	0.5	0.6	A	289	1	0.5	19	33	0.8	197	57	1.2
	15	4	54	37.4	60	18.8	141	8.3	14.1	1.2	10	5	154	19	0.33	1.0	1.1	A	289	7	0.8	25	41	1.2	191	48	2.5
	15	13	51	15.4	59	48.5	153	14.4	121.1	3.1	13	7	99	0	0.32	1.2	1.3	A	81	18	1.5	164	38	1.8	327	48	2.7
	15	20	37	36.9	61	15.6	149	32.5	39.0	0.6A	5	3	223	2	0.13	3.3	1.7	C	357	25	3.0	261	26	6.7	128	54	1.6
	16	4	14	56.9	61	8.6	152	11.7	2.0	0.2A	3	2	308	9	0.01	3.1	12.0	D	10	1	2.4	280	14	1.8	104	76	23.2
	16	5	49	41.9	61	28.5	149	50.1	39.5	2.2	27	10	71	20	0.38	0.6	1.1	A	96	1	0.8	186	14	1.1	2	76	2.1
	16	16	37	54.0	59	2.3	142	5.3	17.7	1.7A	8	5	282	111	0.66	4.4	3.2	C	355	10	5.6	261	34	9.6	99	55	3.4

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JULY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUL 16	18	33	26.2	60	41.0	140	35.7	0.2	1.7	12	8	196	51	0.78	0.8	1.4	B	130	4	0.8	221	12	1.5	22	77	2.7
16	21	44	12.1	61	24.9	140	33.2	12.6	1.3A	4	3	286	65	0.34	4.2	16.6	D	94	7	2.8	2	10	4.5	218	78	31.9
16	21	44	54.0	61	26.3	140	32.3	5.0	1.3	4	3	288	68	0.15	4.2	25.0	D	129	1	5.5	39	5	4.1	230	85	75.2
17	5	51	27.7	60	26.9	144	54.8	20.0	0.8	11	7	181	19	0.44	1.0	1.1	A	114	16	0.9	12	35	1.4	224	50	2.5
17	6	44	2.6	60	7.8	141	4.3	0.0	0.4	4	2	105	3	0.19	2.0	5.0	C	210	1	0.8	120	12	3.2	305	78	9.5
17	11	59	34.1	61	50.1	147	3.8	27.7	2.1	28	17	141	14	0.80	0.6	0.8	A	94	1	0.6	184	24	1.1	2	66	1.6
18	5	0	20.2	60	5.2	140	56.5	8.3	1.5	10	9	145	9	0.54	0.9	0.6	A	111	9	0.5	16	29	1.8	217	59	0.9
18	6	59	8.1	60	20.2	141	21.1	13.8	0.8	6	4	148	22	0.35	1.1	1.2	A	111	11	0.6	12	39	1.4	214	49	2.8
18	9	0	52.1	61	18.4	141	10.2	3.8	0.9A	4	3	274	39	0.26	2.9	18.5	D	321	1	1.9	81	4	3.6	220	60	30.2
18	14	14	47.0	60	32.4	142	59.5	13.6	0.8A	4	4	140	38	0.27	0.8	4.9	C	261	0	0.9	337	4	1.3	171	75	8.9
18	15	58	56.6	59	55.3	141	30.5	3.0	1.4	12	7	180	32	0.64	0.7	1.1	A	265	1	0.6	175	16	1.2	358	74	2.2
18	19	21	5.1	60	1.3	141	34.0	8.7	2.0	16	10	156	26	0.54	0.5	0.6	A	3	3	0.9	93	10	0.4	256	80	1.2
19	3	37	45.5	59	57.2	148	53.2	32.2	3.2	25	4	141	0	0.61	1.1	0.9	A	92	18	1.1	193	32	2.2	337	52	1.6
19	7	12	27.4	59	59.4	139	17.6	18.7	1.2	6	5	212	20	0.65	1.9	1.2	B	130	11	0.9	225	27	4.0	20	61	1.5
19	9	53	13.5	60	21.4	141	13.5	2.8	1.8	15	8	121	25	0.77	0.5	0.8	A	111	5	0.5	20	17	0.9	217	72	1.6
19	10	40	48.0	59	58.5	143	8.6	15.8	1.1A	4	3	243	31	0.12	4.8	5.8	D	262	5	0.9	168	39	2.7	358	51	13.8
19	13	24	49.1	60	10.8	141	6.8	7.0	1.2	9	6	135	5	0.34	1.0	0.5	A	193	11	1.9	288	25	0.6	81	62	0.9
19	16	42	11.5	61	15.5	149	15.9	35.7	1.1A	6	4	163	16	0.09	0.7	1.2	A	87	3	1.0	178	18	1.2	348	72	2.3
19	17	7	21.4	61	0.7	150	12.6	22.1	1.4A	8	4	83	44	0.59	1.9	6.0	D	354	7	1.1	262	15	0.9	108	73	11.7
19	23	25	26.2	59	58.7	140	44.8	7.2	0.9A	6	2	190	25	0.53	2.2	3.6	C	117	10	0.8	213	27	1.8	9	61	7.7
20	4	9	0.4	61	16.3	149	28.4	44.7	1.3	9	4	123	6	0.68	0.7	0.9	A	356	7	1.4	88	12	1.0	236	76	1.7
20	7	33	4.6	59	37.5	138	51.6	13.0	1.3	7	2	232	19	0.43	3.2	2.9	C	335	21	0.7	85	41	3.5	225	41	7.6
20	9	23	17.1	59	59.3	141	23.9	15.3	0.7A	7	4	200	27	0.52	0.8	1.3	A	93	2	0.7	183	2	1.5	318	87	2.4
20	9	45	54.0	59	56.1	152	48.9	89.3	2.5	15	11	101	28	0.73	0.9	1.5	A	139	3	1.2	81	7	1.0	254	57	2.3
20	11	22	10.5	58	47.0	136	44.1	0.1	2.0	6	4	193	130	1.01	17.4	3.5	D	298	2	2.0	207	8	33.0	42	82	4.7
20	15	54	39.3	60	35.7	140	43.9	4.7	1.1A	4	3	200	61	0.21	1.0	2.7	C	313	6	0.7	44	11	1.7	195	77	5.2
20	16	5	32.3	60	20.1	141	18.2	13.2	0.7	8	5	133	25	0.47	0.7	1.0	A	311	6	0.5	45	32	0.8	212	57	2.2
20	17	9	6.8	60	17.2	141	40.1	7.6	1.4	15	11	97	9	0.89	0.5	0.5	A	223	14	0.8	125	27	0.6	337	59	1.0
20	17	35	5.2	60	17.0	140	36.4	14.7	0.6A	4	3	245	28	0.31	2.4	1.7	B	95	10	0.8	191	32	5.2	350	56	2.1
20	19	0	55.2	60	1.0	141	38.8	9.8	0.9	10	9	170	22	0.86	0.6	0.6	A	102	11	0.5	198	29	0.9	353	59	1.3
20	19	35	49.5	60	31.7	144	53.0	26.7	1.0A	6	5	151	18	0.25	3.0	2.1	C	116	11	0.7	213	34	6.8	11	54	1.3
20	20	21	29.9	60	26.0	143	7.0	14.3	1.0	20	12	75	15	1.05	0.3	0.5	A	25	7	0.5	293	11	0.4	147	77	1.0
21	0	57	3.2	61	6.8	152	12.5	12.3	0.9	4	3	171	11	0.42	25.0	25.0	D	306	27	2.2	198	31	0.6	69	47	76.1
21	1	2	30.0	61	6.8	152	11.3	12.2	1.4	7	3	167	10	0.85	1.1	0.7	A	106	1	2.0	196	32	0.5	14	58	1.4
21	7	15	36.4	61	6.3	151	12.2	63.5	2.2	15	12	52	47	0.55	0.5	1.0	A	193	6	0.9	102	9	0.7	316	79	2.0
21	10	36	45.8	59	57.1	141	45.6	12.7	1.7	16	13	162	18	1.08	0.5	0.5	A	98	6	0.5	192	35	0.8	0	54	1.1
21	12	7	39.4	60	4.7	141	9.1	2.2	0.6A	4	2	196	11	0.11	1.7	3.0	C	269	5	1.0	177	28	1.3	8	62	6.3
21	13	7	30.3	60	32.9	143	10.5	2.6	0.6	5	4	127	21	0.99	0.6	9.7	D	261	0	0.6	348	2	1.0	171	86	18.2
21	14	40	26.9	60	1.0	152	48.4	108.8	2.6	15	6	106	18	1.02	0.8	1.0	A	31	5	1.1	123	21	1.4	288	68	2.0
21	16	14	40.8	59	59.0	141	33.2	2.5	1.3A	9	6	173	27	0.59	0.9	1.1	A	95	13	0.5	195	36	1.0	348	51	2.4
21	16	25	28.0	61	0.8	147	17.7	30.0	1.9	21	16	67	18	0.64	0.3	0.4	A	105	1	0.4	15	14	0.6	199	76	0.7
21	16	33	52.8	61	0.2	147	17.7	28.3	1.9	21	16	67	17	0.70	0.3	0.4	A	96	2	0.4	6	3	0.6	220	86	0.8
21	16	55	42.1	61	33.3	141	20.5	0.8	1.4	6	4	254	66	0.18	1.6	25.0	D	306	0	1.3	36	1	2.5	216	89	99.0
21	22	55	24.0	60	19.9	141	18.4	13.7	1.1	11	7	115	24	0.70	0.5	0.7	A	110	1	0.7	20	18	0.8	203	72	1.4
22	1	33	37.1	61	15.3	152	20.7	5.3	0.1A	3	3	314	10	0.09	1.8	4.2	C	177	4	1.9	268	16	2.6	73	73	8.2
22	2	30	22.4	62	4.6	144	49.8	7.2	1.9	12	4	217	70	1.23	1.7	3.0	C	5	1	2.3	96	29	1.1	273	61	6.3
22	10	10	14.3	60	6.3	140	31.2	11.4	1.1	7	2	137	15	0.84	4.3	2.0	C	104	9	0.7	11	22	8.6	215	66	1.9
22	10	58	27.9	60	16.5	141	5.8	7.2	1.2	15	3	122	14	0.40	0.6	1.0	A	297	1	0.8	28	26	0.9	205	64	2.1
22	11	15	22.7	60	10.4	140	57.9	9.9	1.2	13	4	115	4	0.45	0.8	0.8	A	102	11	0.7	1	44	1.0	203	44	2.0
22	13	34	40.7	60	20.7	141	16.3	6.9	1.5	19	7	118	25	0.47	0.5	0.8	A	304	0	0.5	34	23	0.8	214	67	1.7
22	16	21	21.5	61	31.4	151	15.4	10.0	1.0	8	5	109	28	0.62	0.4	1.7	B	261	1	0.6	348	1	0.8	125	87	3.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JULY 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUL 22	18	2	31.2	60	45.4	143	58.0	8.5	1.1A	7	3	76	50	0.30	0.9	10.4	D	7	0	0.8	97	1	1.7	277	89	19.5
22	19	17	14.9	60	1.3	140	46.2	9.0	1.1	9	4	164	20	0.30	1.1	1.2	A	101	8	0.6	198	42	1.3	2	47	2.7
22	22	56	54.3	60	20.4	141	12.8	3.7	0.8	8	3	155	23	0.61	1.1	1.9	B	116	2	0.6	25	25	1.3	210	65	3.8
23	8	0	23.8	61	4.8	152	19.6	14.9	0.6	5	5	189	19	0.23	2.3	0.9	B	109	6	4.3	202	26	0.8	7	63	1.8
23	8	3	47.0	61	4.1	152	21.1	10.4	0.3	5	4	191	20	0.24	2.5	3.9	C	201	5	0.9	294	26	3.4	101	63	8.0
23	12	16	17.3	61	24.3	150	24.3	15.4	0.8	11	8	102	19	0.48	0.7	1.1	A	284	1	0.7	194	13	1.3	18	77	2.1
23	13	59	37.5	61	27.7	150	20.8	3.9	1.0A	6	5	166	21	0.35	1.4	1.6	B	114	8	0.8	210	33	2.2	12	56	3.4
23	14	22	40.0	60	8.8	141	9.2	8.1	1.2	12	6	89	7	0.37	0.8	0.7	A	277	5	0.6	185	23	1.5	19	66	1.2
23	16	13	41.8	60	1.9	141	42.0	6.7	1.4	15	10	162	18	0.65	0.7	0.7	A	267	6	0.6	172	43	1.2	3	46	1.3
23	17	0	33.9	59	27.2	152	30.6	67.3	2.9	11	7	112	0	0.14	1.1	2.1	B	195	2	2.0	285	5	1.2	83	85	3.9
23	17	17	29.3	60	17.0	140	46.5	10.9	0.9	10	6	141	20	0.32	1.0	1.8	B	101	3	0.7	10	24	1.3	198	66	3.7
23	22	40	19.4	61	4.6	145	53.9	2.2	0.8A	7	6	164	24	0.33	1.0	16.5	D	261	0	0.8	146	1	1.6	351	65	28.1
23	23	24	48.5	61	12.9	149	11.7	33.4	1.0A	6	4	115	20	0.11	1.2	1.7	B	261	4	1.1	146	25	1.5	358	55	3.2
24	1	35	57.9	60	13.3	143	10.9	24.4	1.3	8	7	188	20	1.19	2.1	1.3	B	81	20	1.0	177	32	4.5	322	52	1.0
24	4	49	18.9	59	51.3	141	30.0	6.3	0.9	9	4	205	31	0.39	1.1	2.0	B	136	6	1.4	227	13	1.9	22	76	3.8
24	5	18	50.5	60	14.1	151	58.7	80.8	3.0	19	6	84	0	0.38	0.9	1.6	B	352	4	1.1	83	18	1.4	250	72	3.2
24	10	5	40.1	59	46.1	152	46.1	91.6	2.7	16	7	60	46	0.44	0.9	1.7	B	128	4	1.7	38	9	1.5	242	80	3.2
24	12	25	12.3	60	28.2	141	24.2	7.6	0.7A	3	3	161	23	0.51	2.2	3.8	C	124	4	1.1	31	29	1.2	221	61	8.1
24	15	50	11.1	57	14.1	152	58.9	38.5	2.9	11	1	311	0	0.35	17.6	6.2	D	171	17	33.7	81	20	13.7	301	64	7.0
24	18	47	50.0	61	27.8	151	19.1	5.7	1.0	5	5	104	31	0.60	2.0	4.2	C	81	3	0.8	333	23	1.0	177	61	8.4
25	2	36	49.5	60	6.6	140	59.7	7.6	1.2	6	4	159	5	0.31	2.5	0.7	B	28	9	4.8	126	41	1.0	288	48	1.3
25	4	39	15.3	60	17.1	141	12.4	12.8	1.0	5	2	147	17	0.16	5.2	4.1	C	114	4	0.9	207	38	12.2	19	52	2.2
25	4	59	52.2	62	39.8	149	41.7	63.8	3.9	22	2	103	113	0.37	2.1	6.9	D	85	4	1.8	353	16	1.1	189	73	13.6
25	9	39	33.5	60	13.1	153	8.7	136.6	3.0	16	9	76	19	0.29	1.1	1.5	B	295	4	2.0	26	11	1.5	185	78	2.8
25	11	48	7.6	61	39.6	150	51.6	62.4	1.4	11	5	126	23	0.33	0.8	1.4	B	88	7	1.1	181	16	1.4	335	72	2.7
25	13	58	43.0	61	1.2	147	14.1	21.4	2.1	23	4	44	17	0.40	0.5	1.1	A	15	0	0.9	285	12	0.6	105	78	2.0
25	16	22	17.3	59	47.6	152	30.3	69.4	2.5	16	7	56	47	0.34	0.8	1.7	B	290	2	1.3	20	7	1.5	184	83	3.2
25	19	40	56.2	59	59.3	148	54.0	17.3	2.4	27	6	155	33	0.72	0.6	1.2	A	340	3	1.2	261	15	0.8	81	71	2.3
25	20	21	38.3	60	23.9	140	59.3	0.9	1.0	9	2	168	27	0.26	1.4	2.7	C	301	1	0.8	31	23	1.7	209	67	5.5
26	14	1	6.6	59	45.3	153	9.9	104.0	2.7	13	7	76	49	0.40	1.2	2.0	B	85	6	1.5	352	23	1.6	189	66	4.1
26	16	24	46.9	61	30.3	146	38.4	29.2	2.9	32	8	69	38	0.64	0.4	0.5	A	113	4	0.5	23	12	0.8	221	77	1.0
26	16	48	49.8	59	48.4	152	56.0	89.2	3.1	14	2	95	42	0.20	1.5	3.0	C	102	8	2.0	11	13	2.6	223	75	5.9
26	17	44	21.3	63	13.0	149	16.9	42.4	2.5	9	2	160	180	0.50	4.3	25.0	D	20	0	3.0	110	3	7.1	290	87	74.8
27	0	31	15.9	60	8.0	141	2.3	8.7	1.9	15	7	139	2	0.62	1.0	0.4	A	16	13	1.8	111	22	0.5	258	64	0.7
27	0	31	55.3	60	9.0	140	59.1	2.7	2.0	8	4	138	60	0.76	0.9	1.7	B	297	8	0.9	29	15	1.4	180	73	3.3
27	5	10	52.4	60	13.4	141	2.5	10.3	0.6	10	3	145	8	0.39	1.0	0.7	A	193	32	2.2	307	33	0.7	71	41	0.9
27	5	53	11.2	60	7.3	152	47.3	90.2	2.8	16	7	109	7	0.37	0.9	1.2	A	148	6	1.4	81	14	1.0	263	63	2.1
27	7	39	53.3	60	6.1	152	54.7	91.8	3.4	15	7	112	11	0.38	0.9	1.2	A	326	8	1.3	81	19	1.3	218	58	2.2
27	13	5	41.0	61	21.8	140	2.7	0.0	2.0	12	5	249	82	0.65	1.3	3.1	C	294	5	1.4	25	10	2.3	178	79	5.8
27	14	32	28.2	59	55.1	140	13.3	8.1	1.7	9	4	160	20	0.72	1.2	1.7	B	291	3	0.6	199	31	1.4	26	59	3.6
27	14	49	44.3	61	46.7	150	28.6	10.9	1.3	9	7	155	35	0.44	0.7	1.1	A	359	5	1.2	267	15	0.7	107	74	2.2
27	20	8	1.1	61	23.1	140	2.4	15.2	1.7	5	3	271	84	0.45	2.8	2.5	C	98	31	1.7	211	33	4.5	336	41	5.9
28	0	33	24.8	60	30.3	143	18.5	23.0	1.0A	5	5	147	26	0.62	1.7	3.3	C	261	6	0.9	351	22	2.0	156	67	6.6
28	4	10	41.1	60	43.6	147	2.6	29.0	2.5	33	16	55	18	0.59	0.4	0.5	A	281	6	0.6	12	12	0.8	165	77	0.9
28	6	32	2.9	60	11.2	140	56.4	5.7	1.3	10	8	143	6	0.67	1.1	0.7	A	98	18	0.6	195	21	2.3	331	62	1.1
28	8	25	56.8	61	7.2	152	14.9	8.4	0.4A	3	3	321	13	0.03	2.8	4.2	C	177	4	2.6	269	30	3.3	80	60	8.9
28	10	0	38.0	61	31.4	150	25.9	13.2	0.8A	6	5	144	18	0.35	0.9	0.8	A	105	3	0.9	197	34	1.9	11	56	1.4
28	10	20	41.6	60	16.4	140	45.3	11.2	1.0	7	6	164	20	0.26	1.8	1.8	B	106	3	0.8	198	44	4.4	13	46	1.7
28	13	32	56.5	60	34.8	140	1.9	2.4	1.1A	5	5	211	55	0.49	1.9	2.4	B	329	6	1.0	261	15	3.2	82	63	4.2
28	14	33	52.4	61	28.8	149	41.3	31.7	2.0	25	14	90	22	0.65	0.7	0.9	A	267	13	0.7	173	17	1.2	33	68	1.7
28	19	32	18.4	61	11.6	151	14.6	5.4	1.8	17	7	63	40	0.53	0.7	1.0	A	183	4	1.4	91	15	0.8	287	74	1.9

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - JULY 1984

1984	ORIGIN HR	TIME MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
JUL 28	22	48	41.9	60	1.3	141	36.1	0.1	0.9	5	4	210	24	0.27	1.1	1.9	B	261	3	1.2	341	5	2.1	138	78	3.4
29	4	32	40.2	59	59.8	140	45.8	5.0	1.6	13	10	155	23	0.46	1.1	1.2	A	288	1	0.6	197	43	1.3	19	47	2.8
29	9	18	34.4	60	24.7	152	51.8	118.8	2.7	14	9	154	26	0.26	1.5	1.6	B	34	4	1.6	303	7	2.7	153	82	3.0
29	10	34	38.5	60	17.3	144	36.2	1.4	0.9	7	3	231	12	0.68	1.8	2.6	B	112	10	1.0	205	18	3.0	354	69	5.1
29	10	37	14.1	61	15.0	146	51.8	26.5	2.8	29	18	46	27	0.60	0.4	0.8	A	293	1	0.5	23	7	0.7	195	83	1.4
29	11	53	37.3	60	11.8	141	6.2	8.0	1.2	11	7	138	6	0.56	1.1	0.6	A	288	3	0.6	197	13	2.1	31	77	1.1
29	13	45	5.7	62	9.8	150	55.4	67.1	2.4	17	5	95	38	0.32	1.1	1.6	B	349	2	2.1	81	29	1.4	255	61	3.4
29	16	36	49.3	60	38.5	152	10.1	103.8	3.0	19	10	74	15	0.37	1.1	1.5	B	17	2	1.2	108	26	1.9	283	64	2.9
29	23	35	52.4	62	24.7	149	22.5	37.7	2.2H	16	10	212	89	0.51	1.9	2.1	B	345	27	2.3	91	29	1.5	220	49	4.9
29	23	59	21.1	60	26.5	152	50.2	126.7	3.0	16	7	84	28	0.28	1.4	2.0	B	32	4	1.7	302	5	2.6	161	84	3.8
30	2	31	41.6	59	49.6	141	34.1	3.0	2.3	18	5	187	35	0.66	1.1	1.5	B	102	4	0.8	194	30	1.7	5	60	3.1
30	9	7	49.4	59	49.5	152	26.6	67.8	3.4	16	3	88	45	0.25	1.3	2.1	B	81	7	1.8	319	12	1.1	192	55	3.6
30	10	20	2.7	59	32.8	149	17.3	38.0	2.2	18	4	200	63	0.53	3.1	3.1	C	81	12	1.5	315	36	7.2	182	40	2.9
30	13	38	32.0	60	53.1	151	30.0	69.6	3.1	23	6	43	45	0.40	0.9	1.9	B	39	3	0.9	130	20	1.1	301	70	3.8
30	15	15	0.9	60	22.5	141	26.4	13.8	1.9	18	11	109	17	0.72	0.4	0.8	A	98	1	0.7	8	10	0.6	194	80	1.6
30	16	32	19.3	57	54.1	156	9.6	124.1	3.5	10	1	272	219	0.26	13.1	25.0	D	329	5	4.7	81	6	21.9	209	67	45.3
30	19	1	36.2	60	11.7	139	43.3	15.7	0.7	5	3	230	27	0.47	2.3	2.0	B	115	2	0.9	207	41	5.6	23	49	1.6
30	20	19	55.5	60	13.6	141	0.4	9.8	1.6	15	5	121	8	0.39	0.6	0.7	A	84	16	0.8	342	36	0.6	194	50	1.5
30	20	44	24.3	61	34.7	149	50.9	53.5	2.2	24	10	83	8	0.40	0.7	1.1	A	187	2	1.3	97	3	0.6	311	86	2.0
31	0	54	26.3	60	30.6	140	45.6	13.6	2.5	18	7	166	42	0.51	0.5	0.8	A	310	2	0.5	219	15	0.8	47	75	1.5
31	0	56	19.2	60	31.6	140	45.6	13.1	1.9	17	9	168	44	0.56	0.6	0.9	A	138	1	0.5	261	1	0.8	20	57	1.5
31	1	1	2.7	60	30.9	140	47.2	17.6	1.7	14	7	164	42	0.44	0.6	1.0	A	261	5	0.9	317	6	0.5	119	55	1.5
31	1	41	35.9	60	30.6	140	47.3	12.5	1.2	11	6	188	42	0.58	0.8	1.4	B	294	3	0.6	25	14	1.3	192	76	2.7
31	2	16	18.5	59	56.9	152	18.1	76.1	2.7	17	7	119	39	0.25	0.8	1.1	A	131	2	0.9	40	11	1.4	231	79	2.1
31	8	42	12.7	61	12.8	149	21.9	36.5	1.5	18	9	116	11	0.53	0.5	0.6	A	307	3	0.6	217	7	0.9	60	82	1.2
31	14	2	28.3	60	31.4	140	46.2	12.4	0.9A	12	7	190	44	0.53	0.8	1.4	B	306	6	0.7	37	13	1.4	192	76	2.7
31	14	3	36.5	61	37.9	141	20.5	5.2	1.3	8	5	253	74	0.38	1.8	8.8	D	311	2	1.6	41	4	3.1	194	86	16.6
31	15	6	13.4	60	57.4	147	8.5	25.2	2.2	31	17	44	8	0.69	0.4	0.5	A	291	4	0.3	21	7	0.7	171	82	0.9
31	15	54	16.1	60	10.7	141	42.6	13.6	0.9	9	4	113	20	0.28	1.0	1.3	A	197	5	1.1	104	26	1.7	297	63	2.7
31	18	37	23.6	60	14.8	140	59.0	9.6	0.8	9	5	125	11	0.19	1.7	1.7	B	308	14	0.7	52	43	0.8	204	44	4.4
31	23	13	50.1	59	57.1	141	20.6	0.1	0.8A	7	3	179	28	0.29	1.5	3.8	C	261	5	1.3	353	13	2.3	151	76	7.4
31	23	31	28.9	60	15.3	141	17.3	11.4	1.8	15	7	111	18	0.35	0.4	0.7	A	300	5	0.5	31	16	0.7	193	73	1.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - AUGUST 1984

1984	ORIGIN	HR	MN	TIME SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
AUG	1	3	8	22.7	58	47.8	154	1.7	5.8	2.3	8	2	214	111	0.41	2.7	4.2	C	344	5	1.7	81	23	4.1	243	66	8.3
	1	3	20	27.4	58	16.1	138	1.1	7.2	1.7	4	1	244	141	0.21	15.5	6.2	D	81	16	27.9	161	33	4.9	326	53	12.3
	1	12	14	32.8	61	5.2	152	10.3	8.9	0.6A	3	4	332	12	0.41	2.2	2.0	B	198	25	0.9	308	37	2.7	82	43	5.1
	1	12	15	44.2	61	3.6	152	9.8	4.6	0.1	3	4	338	15	0.40	3.2	7.1	D	196	2	0.6	287	19	4.1	100	71	14.1
	1	14	23	24.9	59	49.0	152	25.0	63.0	2.5	15	9	88	46	0.52	0.7	1.2	A	301	0	0.9	211	7	1.3	31	83	2.3
	1	15	24	4.3	60	22.6	139	33.6	5.7	0.8A	6	1	222	47	0.26	4.2	5.5	D	102	11	2.5	6	28	6.4	211	60	11.4
	1	20	46	11.4	61	8.8	146	28.0	16.0	1.0	11	2	123	8	0.34	0.7	1.4	B	42	5	0.7	311	9	1.3	161	80	2.6
	2	0	10	57.1	60	4.6	139	27.0	13.1	0.3	4	3	242	17	0.33	2.6	1.8	B	116	20	1.1	218	31	5.4	358	52	2.2
	2	4	50	34.0	60	45.9	146	53.1	16.5	2.8	34	11	44	16	0.48	0.5	0.7	A	285	4	0.5	195	7	0.8	45	82	1.4
						3.7 ML ATWC																					
	2	8	6	42.0	61	13.2	150	9.1	13.1	1.6	23	16	78	32	0.64	0.5	0.7	A	279	10	0.6	186	15	0.9	41	72	1.4
	2	9	1	12.8	61	48.6	148	32.8	6.6	1.9	25	11	156	11	0.62	0.6	0.8	A	261	17	0.6	357	17	1.1	129	65	1.5
	2	12	44	53.8	60	27.6	143	11.2	19.6	1.2A	9	7	112	19	0.41	1.0	1.6	B	13	16	1.3	277	20	1.0	139	64	3.3
	2	15	5	44.7	60	16.6	141	37.0	7.6	1.0	8	2	103	12	0.55	1.1	1.3	A	35	8	2.0	131	34	1.1	294	55	2.8
	2	17	58	51.4	60	35.2	141	32.4	6.6	1.2	11	7	108	28	0.85	0.7	1.3	A	14	2	0.8	284	4	1.3	131	86	2.4
	2	18	35	12.8	60	10.8	141	41.8	11.7	0.9	5	5	227	20	0.37	2.7	1.5	C	34	20	5.4	136	28	1.0	274	54	2.4
	2	22	59	45.7	58	52.8	136	49.7	31.2	2.2	6	5	187	133	0.67	19.5	25.0	D	298	0	2.1	28	2	36.3	208	88	99.0
	3	15	38	17.4	59	15.2	144	56.6	17.0	2.1	19	12	262	81	0.65	2.1	1.1	B	201	3	3.9	294	43	2.5	108	47	1.5
						3.7 ML ATWC																					
	3	18	49	30.5	59	38.1	146	16.6	22.9	2.6	25	6	111	23	0.61	1.0	1.0	A	81	12	1.2	323	27	1.5	188	50	1.9
	4	12	45	28.0	61	39.5	150	20.1	7.2	0.8A	5	5	152	24	0.55	1.4	1.6	B	264	22	0.8	10	33	1.6	147	48	3.7
	4	13	29	35.5	59	51.1	151	3.6	45.4	2.5	20	6	80	14	0.43	0.7	1.2	A	297	7	1.3	29	17	1.2	185	72	2.3
	4	19	15	10.3	60	7.5	141	15.1	3.0	1.2	12	5	139	13	0.49	1.7	1.5	B	281	5	0.8	15	40	3.8	185	50	1.8
	4	23	5	19.2	61	49.1	149	31.5	37.3	2.1	26	13	158	26	0.75	0.8	0.6	A	102	8	0.8	193	8	1.5	328	79	1.1
	5	1	11	31.0	59	19.9	144	59.5	19.9	2.2	22	7	259	74	0.63	1.6	1.1	B	216	23	3.2	321	32	2.5	97	49	1.4
	5	12	7	22.3	61	16.8	152	13.2	8.2	0.8	5	4	197	4	0.33	1.4	0.6	B	103	19	2.8	4	24	1.0	227	59	0.6
	5	14	11	4.3	61	38.1	149	44.0	39.3	2.9	27	5	81	32	0.45	0.6	1.2	A	100	3	0.6	10	8	1.1	210	81	2.4
						3.0 ML ATWC					Felt at Anchorage, Eagle River and Palmer.																
	5	14	12	48.4	61	38.7	149	44.2	40.0	2.1	19	4	147	38	0.45	0.9	1.6	B	103	5	0.7	12	10	1.6	219	79	3.1
	5	16	43	22.8	60	29.0	143	12.0	10.9	0.6	8	3	153	20	0.42	1.2	2.3	B	262	8	0.6	355	22	1.4	153	66	4.7
	5	17	34	31.8	62	42.3	149	10.1	72.8	3.1	21	5	97	109	0.37	1.2	6.4	D	262	1	1.8	352	9	1.0	166	81	12.2
						3.0 ML ATWC																					
	5	17	43	38.9	60	48.2	151	7.2	59.8	2.4	23	7	60	66	0.55	0.6	2.1	B	175	6	0.9	84	10	0.7	296	78	4.1
	5	17	54	4.4	59	18.8	144	57.0	21.3	2.0	19	7	269	75	0.39	1.6	1.1	B	261	18	2.4	354	31	3.0	143	54	1.7
	6	12	20	9.7	61	33.8	146	20.4	30.3	2.3	29	7	86	48	0.60	0.5	0.6	A	116	13	0.7	210	17	0.9	350	68	1.1
	6	13	14	52.4	59	2.1	152	44.6	61.1	2.2	10	6	137	51	0.31	1.2	1.7	B	358	4	2.3	90	17	1.3	255	72	3.3
	6	16	1	21.9	60	32.2	152	28.3	14.6	0.0	3	3	172	6	0.65	25.0	7.3	D	112	8	99.0	207	33	0.7	10	56	0.8
	6	18	46	54.7	58	38.1	136	49.3	7.6	1.8	3	2	355	149	0.05	25.0	3.3	D	218	1	99.0	128	26	4.0	310	64	6.5
	7	1	37	49.8	61	10.8	145	37.2	26.2	2.3	33	16	56	16	0.79	0.3	0.4	A	6	2	0.5	97	4	0.4	250	85	0.7
	7	5	32	49.5	60	29.0	145	21.0	18.0	2.4	34	10	66	10	0.61	0.3	0.5	A	194	2	0.6	103	18	0.5	290	72	1.0
	7	5	54	25.6	60	27.0	145	20.1	19.2	1.3	12	4	206	12	0.64	1.4	0.8	B	173	2	2.6	83	15	0.9	270	75	1.5
	7	6	4	39.4	60	12.6	141	0.8	12.0	1.5	13	7	118	6	0.35	0.7	0.5	A	293	1	0.6	202	30	1.4	25	60	0.7
	7	6	32	52.6	58	51.7	137	17.3	14.0	1.5	3	3	353	112	0.24	25.0	4.4	D	217	4	82.5	124	42	4.4	311	48	7.6
	7	8	35	23.5	61	45.9	149	32.2	44.0	3.1	27	8	63	22	0.50	0.6	0.8	A	281	0	0.6	11	10	1.0	191	80	1.5
						3.4 ML ATWC					Felt (III) at Anchorage, Eagle River and Palmer.																
	7	9	27	33.9	60	14.8	140	49.7	13.1	1.1	10	6	135	15	0.30	1.2	1.0	A	105	3	0.6	198	38	2.9	11	52	0.9
	7	11	1	4.6	61	16.3	152	11.5	4.0	0.6	3	3	285	2	0.02	1.2	0.7	A	192	15	0.9	288	19	2.3	66	65	1.2
	7	11	16	19.2	60	6.6	152	16.1	77.3	2.6	19	12	66	32	0.35	0.5	1.2	A	20	4	0.8	111	5	1.0	252	84	2.3
	7	13	52	23.0	60	10.3	141	34.4	9.0	0.5A	5	2	146	23	0.39	0.9	2.4	B	187	5	1.1	96	11	1.5	301	78	4.6
	7	14	8	53.3	60	21.0	140	45.0	11.6	0.2A	8	4	150	27	0.22	1.8	3.5	C	95	8	0.9	2	23	1.6	203	66	7.2
	7	14	15	31.1	58	14.0	153	57.1	87.7	3.3	9	3	223	102	0.27	3.4	8.4	D	81	6	6.0	342	8	2.0	204	77	15.9
						3.7 ML ATWC																					

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - AUGUST 1984

ORIGIN 1984	TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
AUG 7	17	57	23.3	59	51.7	139	6.1	19.8	0.9	5	4	232	27	0.54	1.8	1.8	B	322	0	0.7	81	41	1.6	232	41	4.2
8	7	28	30.4	60	17.1	152	6.8	87.3	2.4	19	10	55	0	0.36	0.7	1.0	A	23	0	0.9	113	28	1.1	293	62	2.0
8	8	26	20.5	59	50.2	143	27.3	24.7	1.1A	10	7	216	54	0.35	1.6	0.9	B	265	2	1.1	356	12	3.0	166	78	1.7
8	12	0	8.9	60	14.6	141	41.3	8.4	1.4	12	5	115	13	0.87	0.6	0.9	A	101	1	0.8	191	23	1.0	9	67	1.8
8	13	37	18.6	61	21.9	151	41.1	84.3	3.2	23	8	103	0	0.41	1.1	1.4	A	81	13	0.9	151	34	1.4	331	49	2.7
					3.3 ML ATWC																					
8	18	44	43.9	61	3.9	152	16.6	15.2	0.6	4	5	189	18	0.21	3.5	2.8	C	197	4	0.6	105	35	7.5	293	55	3.8
8	22	36	12.5	59	54.2	152	37.3	79.6	2.7	18	7	90	33	0.36	0.9	1.2	A	166	13	1.1	81	17	1.6	295	68	2.3
9	4	31	20.9	60	10.8	141	2.1	11.6	1.4	12	6	138	3	0.54	0.9	0.4	A	204	14	1.7	301	26	0.6	88	60	0.7
9	6	46	37.7	60	8.9	141	3.7	11.9	1.3	12	5	136	2	0.50	1.0	0.4	A	25	1	1.9	295	12	0.6	120	78	0.7
9	8	14	53.7	60	18.6	152	5.8	70.4	2.8	18	6	82	34	0.61	0.9	1.3	A	180	4	1.1	88	27	1.3	278	63	2.6
9	14	43	43.9	62	1.8	149	44.2	40.0	3.0	23	6	86	43	0.48	1.1	2.4	B	272	1	1.0	2	20	1.5	179	70	4.7
					3.2 ML ATWC																					
10	0	13	50.1	60	14.5	141	43.0	8.2	1.4	15	8	107	13	0.65	0.6	0.8	A	99	16	0.8	195	22	0.9	336	62	1.6
10	2	37	5.3	61	12.8	149	52.3	40.5	1.3A	7	4	140	17	0.37	1.2	1.3	A	167	3	1.5	81	30	2.1	262	60	2.5
10	11	59	34.8	60	16.1	141	24.2	10.1	1.0	8	5	137	21	0.28	1.3	1.2	A	292	0	0.8	202	27	2.6	22	63	2.2
10	13	4	54.1	60	27.0	145	8.3	17.2	1.0	13	7	183	10	0.66	0.9	0.9	A	113	17	0.9	214	31	1.7	359	54	1.8
10	18	48	31.5	60	16.9	141	23.0	7.8	1.5	15	8	107	22	0.66	0.6	0.8	A	298	0	0.6	28	21	1.0	208	69	1.6
10	21	14	55.5	59	45.1	152	5.7	50.9	1.9	14	6	102	43	0.39	0.9	2.5	B	30	7	1.6	299	10	1.1	155	78	4.7
11	1	57	26.9	59	34.9	152	25.2	60.2	2.9	15	6	77	49	0.46	0.9	2.3	B	266	4	1.1	356	9	1.5	152	80	4.3
11	2	9	56.7	59	45.5	151	51.0	46.0	2.2	14	9	88	35	0.45	0.7	1.9	B	283	8	0.9	15	9	1.2	152	78	3.6
11	7	17	15.0	59	56.6	153	21.1	128.0	3.0	11	6	137	40	0.20	1.3	1.6	B	42	14	1.8	136	17	2.4	274	68	3.1
11	7	30	9.7	59	0.7	136	48.0	5.8	3.1	8	3	174	128	0.37	5.8	2.2	D	299	3	1.2	209	5	11.0	60	84	3.9
			4.1 MB			4.2 ML ATWC				Felt in parts of Glacier Bay National Park and on a tour boat in Glacier Bay.																
11	13	55	46.2	62	28.0	148	5.4	34.5	2.7	22	7	108	75	0.54	1.4	0.8	A	343	11	2.5	261	42	1.8	85	46	1.3
11	14	38	4.0	61	24.6	149	59.9	39.0	1.9	19	7	65	28	0.36	0.7	1.1	A	12	2	1.4	102	5	0.8	260	85	2.1
11	15	18	25.0	60	15.6	145	12.0	15.9	0.8	6	5	279	31	0.20	2.2	1.4	B	22	21	4.4	123	25	1.4	257	56	2.5
11	15	47	32.6	60	53.6	151	1.4	8.6	2.2	23	8	55	64	0.59	0.7	1.4	A	142	2	1.0	261	11	0.8	44	59	2.3
11	15	50	44.0	61	0.9	147	17.1	28.5	2.3	29	13	83	18	0.65	0.5	0.5	A	103	5	0.5	10	33	0.9	201	57	1.0
11	15	51	32.8	59	55.6	152	40.9	91.9	2.6	10	5	85	29	0.22	1.4	3.4	C	81	8	1.6	144	11	2.1	307	60	5.7
11	18	3	8.1	58	26.7	146	27.4	0.5	2.0A	10	5	316	239	0.60	10.9	8.1	D	166	6	15.8	261	34	24.0	67	55	8.3
11	19	26	17.8	60	15.5	141	3.7	9.4	1.7	15	10	122	12	0.37	0.7	0.8	A	299	3	0.7	32	42	1.0	206	48	1.7
11	19	44	48.2	60	58.2	147	15.1	30.0	2.1	25	12	100	13	0.51	0.5	0.5	A	97	4	0.5	4	34	1.0	193	56	0.9
11	20	33	49.7	60	20.9	140	31.0	6.7	1.7	12	4	164	32	0.77	1.1	1.4	B	313	7	0.8	46	21	2.0	206	68	2.7
12	0	55	40.3	60	8.6	141	9.0	12.2	1.0	9	5	137	7	0.55	1.9	0.6	B	19	12	3.7	284	23	0.7	135	64	1.0
12	6	6	56.8	59	57.0	153	10.6	103.1	2.7	18	4	72	33	0.34	1.1	2.0	B	261	0	1.5	340	13	1.8	171	73	3.8
12	10	14	26.7	60	55.0	143	31.1	24.8	1.1A	7	1	93	59	0.44	0.9	1.2	A	310	8	1.0	218	14	1.6	69	74	2.4
12	13	35	2.3	60	17.4	142	32.0	4.1	1.0	14	6	74	19	0.56	0.4	2.9	C	282	0	0.6	12	2	0.8	192	88	5.5
12	17	49	9.0	60	2.2	140	52.1	5.1	0.7	6	3	205	16	0.19	1.8	3.0	C	121	16	0.6	219	25	1.5	2	60	6.4
12	19	12	53.9	59	53.3	145	44.5	30.5	1.9	25	8	127	61	0.75	0.5	0.5	A	268	11	0.7	4	26	1.0	157	61	0.9
12	20	11	4.7	60	15.3	141	18.3	8.9	1.0	5	1	160	19	0.07	1.5	1.4	B	302	13	1.0	201	39	3.2	47	48	2.3
12	21	18	51.6	62	21.5	148	47.3	43.3	2.6	25	6	115	66	0.37	1.2	4.2	C	87	4	1.3	356	9	1.9	201	80	8.0
12	22	42	35.2	61	4.9	152	28.8	3.9	1.5	12	5	172	26	0.76	0.8	0.8	A	201	1	0.6	291	23	1.6	109	67	1.5
12	22	49	35.5	61	20.6	152	22.9	0.3	0.4	4	4	325	15	0.39	1.0	2.5	B	221	3	1.8	311	6	1.6	104	83	4.7
12	23	7	36.1	60	16.9	141	11.8	13.8	1.3	12	4	117	17	0.48	0.8	0.9	A	305	18	0.7	49	36	1.1	194	48	2.0
13	0	3	7.6	60	7.6	141	18.4	9.3	2.2	18	5	139	15	0.46	0.7	0.7	A	282	1	0.5	13	44	1.4	191	46	1.2
13	0	29	47.8	57	17.2	151	7.2	40.4	2.8	11	3	268	97	0.33	11.0	11.5	D	81	21	4.3	316	26	10.5	195	43	26.5
13	2	21	23.2	60	56.8	149	23.0	9.8	1.1	11	6	79	35	0.46	1.1	2.3	B	323	14	0.8	261	25	0.5	85	51	4.0
13	3	5	47.7	59	46.4	142	13.0	16.0	1.7A	12	5	198	31	0.53	1.1	1.1	A	108	11	1.1	9	39	2.3	211	49	1.8
13	4	13	13.5	60	52.6	149	59.7	46.9	2.2	28	11	37	42	0.76	0.4	1.0	A	264	2	0.5	354	7	0.7	158	83	1.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - AUGUST 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
AUG 13	7	10	59.6	63	40.8	149	20.2	118.0	3.3	10	3	113	155	0.24	5.1	18.1	D	340	5	2.5	261	14	4.3	90	72	34.3
13	9	37	41.7	60	21.3	152	40.4	99.1	2.4	18	5	141	21	0.43	1.0	1.0	A	22	12	1.3	281	43	2.1	124	45	1.5
13	11	20	50.9	60	14.9	140	29.9	2.9	0.7	4	2	204	22	0.19	3.9	4.7	C	291	3	0.9	23	39	3.0	197	51	11.1
13	11	25	27.7	60	19.6	150	45.8	42.1	2.4	27	9	78	36	0.47	0.4	1.7	B	270	2	0.7	1	6	0.8	162	84	3.1
13	15	9	37.1	62	47.0	151	40.5	0.4	2.1	11	5	204	90	0.76	2.6	2.7	C	88	1	3.4	179	43	2.6	357	47	6.5
13	15	10	20.8	59	59.0	141	13.2	1.5	0.9	6	3	209	22	0.48	1.2	1.8	B	276	0	0.8	186	26	1.7	6	64	3.7
13	15	10	54.1	60	16.5	140	55.1	4.1	0.9	4	3	194	15	0.33	1.6	3.2	C	94	10	0.9	0	23	1.4	206	65	6.6
14	0	56	21.9	61	37.5	151	16.7	0.2	2.5	22	15	100	34	0.82	0.3	0.5	A	223	12	0.6	129	17	0.5	346	69	0.9
14	1	2	9.1	61	48.2	148	56.2	18.8	5.7B	34	1	81	20	0.62	0.7	0.7	A	261	15	0.7	1	39	1.0	154	48	1.6
	5.7 MB 5.2 MS 5.7 ML ATWC											Slight damage (VI) at Palmer, Willow and Sutton. Felt (V) at Anchorage, Skwentna, Talkeetna, and Valdez. Felt throughout much of Southern Alaska from Fairbanks to Homer.														
14	1	6	50.9	61	47.5	148	56.6	11.4	1.3	12	8	167	19	0.61	0.7	0.9	A	1	9	1.3	267	26	0.7	109	62	1.9
14	1	8	46.8	61	48.9	148	58.0	10.1	2.0	25	23	157	21	0.87	0.5	0.7	A	336	4	0.9	261	19	0.6	78	66	1.4
14	1	14	11.3	61	48.4	149	1.3	13.3	1.5	21	18	168	20	0.88	0.5	0.6	A	11	19	0.8	270	28	0.5	131	55	1.2
14	1	15	25.7	61	49.0	148	56.2	9.5	1.6	22	22	158	21	1.03	0.4	0.4	A	261	26	0.4	6	32	0.6	139	47	1.0
14	1	16	31.3	61	46.5	149	0.7	11.3	1.6	19	16	163	16	0.73	0.5	0.5	A	24	5	0.9	291	28	0.6	123	61	1.1
14	1	17	57.6	61	48.3	148	59.1	13.4	1.5	21	20	157	19	0.93	0.5	0.6	A	261	24	0.4	2	24	0.7	132	55	1.3
14	1	24	53.0	61	48.3	148	59.5	9.9	1.4	20	18	157	19	0.72	0.6	0.7	A	13	5	1.0	280	33	0.6	111	57	1.6
14	1	28	48.1	61	48.6	149	0.4	9.4	1.5	21	17	157	20	0.83	0.6	0.7	A	29	19	0.8	285	35	0.6	142	49	1.5
14	1	42	46.0	61	48.5	148	57.3	10.3	1.9	24	20	157	20	0.94	0.4	0.6	A	3	6	0.7	270	21	0.5	108	68	1.2
14	1	46	1.1	61	39.7	151	10.3	4.1	0.9	4	3	162	32	0.47	1.8	1.9	B	145	4	0.6	261	39	1.5	51	44	4.4
14	1	53	6.3	61	48.9	149	0.8	10.0	1.8	24	22	157	20	0.83	0.4	0.6	A	3	3	0.7	272	18	0.4	102	72	1.2
14	1	54	37.8	61	48.2	149	0.8	10.0	4.2B	28	8	90	19	0.68	0.5	0.7	A	17	7	0.8	282	34	0.6	117	55	1.6
	4.2 ML ATWC											Felt (IV) at Anchorage and in the Palmer-Wasilla area.														
14	1	56	37.8	61	47.3	148	58.0	11.9	1.9	19	15	166	18	0.58	0.4	0.6	A	7	17	0.7	268	27	0.6	125	57	1.2
14	1	57	24.9	61	48.3	149	0.6	11.0	1.5	14	14	170	19	0.64	0.4	0.6	A	191	3	0.8	282	26	0.6	95	64	1.2
14	2	7	14.4	61	48.6	148	58.4	10.1	1.5	20	19	168	20	0.80	0.4	0.7	A	359	9	0.7	265	22	0.5	110	66	1.4
14	2	21	21.7	60	45.4	137	59.9	8.7	1.8	9	7	273	127	0.54	2.0	1.8	B	224	11	3.2	124	41	4.5	326	47	1.9
14	2	33	40.5	61	48.1	148	56.9	13.4	1.9	23	20	156	19	0.71	0.5	0.6	A	263	24	0.4	5	26	0.7	136	53	1.2
14	2	37	51.8	61	49.7	148	55.2	9.9	1.9	23	20	158	23	0.83	0.4	0.5	A	1	19	0.7	261	31	0.4	118	53	1.1
14	2	55	58.4	61	48.5	148	59.0	10.0	1.7	20	19	157	20	0.98	0.4	0.5	A	0	12	0.7	263	32	0.4	108	55	1.0
14	3	17	19.6	61	48.3	148	55.8	10.0	1.4	19	15	168	20	0.83	0.5	0.6	A	2	13	0.9	265	30	0.5	113	57	1.2
14	3	35	15.4	61	47.7	148	59.5	10.0	1.9	24	17	156	18	0.79	0.5	0.6	A	168	7	0.8	263	34	0.5	68	55	1.4
14	4	12	23.5	61	48.3	148	54.1	12.5	2.0	24	17	157	21	0.88	0.5	0.6	A	354	4	0.9	262	27	0.5	92	63	1.3
14	4	26	15.3	61	49.6	150	14.3	49.4	2.3	26	15	155	27	0.40	0.8	1.1	A	271	0	0.8	181	5	1.5	1	85	2.0
14	5	15	59.3	61	47.0	148	59.2	10.9	1.6	18	14	165	17	0.70	0.5	0.7	A	16	16	0.8	276	31	0.6	129	54	1.5
14	5	21	29.2	61	48.8	148	56.5	13.1	1.5	20	16	157	21	0.79	0.6	0.6	A	261	25	0.6	4	35	0.9	142	46	1.4
14	6	13	2.5	61	48.0	148	58.3	10.6	1.8	23	22	156	19	0.80	0.4	0.6	A	357	13	0.7	261	22	0.5	115	64	1.2
14	7	33	53.7	61	47.8	149	0.3	14.1	1.9	25	22	156	19	0.76	0.4	0.5	A	13	17	0.7	273	31	0.4	128	54	1.0
14	7	41	8.8	61	47.0	148	58.9	9.9	3.0	33	22	66	17	0.88	0.3	0.5	A	14	6	0.6	280	30	0.4	114	59	1.0
	3.7 ML ATWC											Felt (III) at Palmer and Wasilla.														
14	7	59	52.9	61	48.1	149	6.1	6.6	1.6	20	17	156	19	0.71	0.5	0.6	A	25	13	0.9	288	26	0.6	139	60	1.3
14	8	37	8.6	58	27.6	136	45.8	15.0	1.9A	3	1	356	164	0.11	25.0	25.0	D	44	1	99.0	313	34	17.3	135	56	99.0
14	9	24	27.8	61	48.5	149	3.8	10.0	1.6	20	16	157	20	0.71	0.5	0.6	A	5	2	0.9	274	38	0.6	98	52	1.3
14	10	6	49.6	61	49.8	148	54.8	11.3	1.6	22	18	159	23	0.62	0.6	0.8	A	261	16	0.5	349	28	0.8	142	58	1.8
14	15	56	0.3	61	48.4	148	57.0	13.4	1.7	22	14	157	20	0.69	0.7	0.8	A	8	23	1.0	266	27	0.6	133	53	1.8
14	16	37	52.0	60	20.7	141	16.3	9.0	1.0	7	5	125	25	0.32	1.2	1.9	B	329	11	0.6	81	23	1.0	219	57	3.8
14	17	27	26.8	61	10.2	151	57.6	0.0	-0.2A	3	2	293	5	0.21	1.6	25.0	D	261	0	1.0	317	0	2.4	0	90	99.0
14	19	1	55.4	60	31.0	141	43.7	14.5	1.1	9	6	120	18	0.33	0.4	0.8	A	291	5	0.8	22	12	0.6	179	77	1.5
14	20	33	28.4	59	59.2	141	12.4	5.5	1.3	13	9	164	10	0.49	1.1	1.0	A	113	8	0.7	15	42	2.7	212	47	1.1

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - AUGUST 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
AUG 14	21	41	21.1	60	40.9	143	32.9	21.2	1.3A	4	3	133	46	0.38	1.7	2.7	B	328	9	1.0	261	18	2.7	87	60	4.8
14	23	28	3.1	61	48.7	148	59.1	12.8	0.9	19	12	169	20	0.67	0.6	0.7	A	15	22	0.8	272	29	0.6	136	52	1.5
15	1	44	4.6	61	49.1	149	1.2	7.9	1.5	20	14	158	21	0.77	0.5	0.6	A	25	15	0.7	285	32	0.5	136	54	1.4
15	4	59	14.1	61	49.2	149	2.0	10.0	1.6	21	16	158	21	0.64	0.5	0.7	A	359	0	0.9	268	34	0.6	89	56	1.6
15	5	43	58.2	61	49.6	148	56.4	12.0	2.0	24	19	158	22	0.61	0.6	0.8	A	264	22	0.6	5	25	0.8	138	56	1.7
15	12	45	44.3	59	34.5	137	42.3	22.9	1.3A	3	2	327	68	0.08	7.0	3.4	D	110	3	3.6	201	25	14.4	14	65	2.1
15	13	9	12.6	60	20.6	140	8.2	6.9	0.7	5	2	257	28	0.25	2.5	3.7	C	81	14	2.0	334	19	3.5	201	61	7.4
15	13	30	37.4	61	12.0	149	29.9	38.0	1.5	18	10	64	6	0.39	0.7	0.5	A	183	5	1.4	277	41	1.1	87	49	0.9
15	14	17	53.0	58	9.4	154	43.0	87.6	2.6	9	7	243	139	0.33	3.2	7.4	D	339	2	3.0	261	8	5.7	83	75	13.7
15	14	28	37.6	61	48.4	148	58.1	10.0	1.6	20	13	157	20	0.59	0.5	0.7	A	358	8	0.9	262	32	0.5	100	57	1.5
15	15	17	50.8	60	23.9	140	45.3	0.1	1.6	14	11	154	31	0.71	0.6	1.1	A	320	6	0.5	81	7	0.9	203	58	1.8
15	15	50	10.1	60	4.9	141	11.5	6.1	0.5	5	4	217	12	0.12	1.9	1.6	B	284	10	1.0	22	40	4.4	183	48	1.3
15	21	13	52.0	60	7.5	141	16.4	9.5	0.9	9	7	139	14	0.25	0.9	0.7	A	276	4	0.6	9	33	2.0	180	57	1.0
16	0	13	25.9	60	33.8	144	54.5	16.8	0.6	8	3	112	11	0.36	0.7	0.7	A	141	31	0.9	261	37	1.5	25	36	1.2
16	0	44	36.9	61	23.8	150	51.5	9.0	0.5A	4	3	121	10	0.42	1.7	1.2	B	333	9	0.9	81	33	3.8	231	52	0.7
16	4	19	55.7	61	29.3	151	11.6	4.0	2.1	24	8	93	24	0.79	0.4	0.5	A	270	2	0.5	179	20	0.6	5	70	1.0
16	7	6	28.8	61	26.8	151	10.4	1.3	0.5A	5	4	103	23	0.51	0.7	1.1	A	261	9	0.5	164	26	0.9	8	62	2.3
16	7	33	44.6	61	37.2	150	55.9	70.2	2.7	23	8	118	20	0.34	0.9	1.5	B	81	12	0.7	171	19	1.4	319	68	3.0
16	12	30	11.8	61	47.2	149	1.3	14.6	1.8	25	8	155	17	0.69	0.5	0.6	A	21	11	0.9	284	32	0.5	128	56	1.4
16	12	35	1.4	60	21.0	141	19.8	12.6	0.8	10	3	115	23	0.39	0.7	1.4	B	169	3	1.2	81	18	1.0	268	72	2.8
16	13	29	7.5	60	18.1	141	11.0	12.7	1.5	16	8	120	19	0.63	0.4	0.7	A	294	5	0.6	25	14	0.7	185	75	1.4
17	1	27	42.8	60	17.3	140	52.0	0.1	0.8	7	3	162	18	0.65	0.7	1.7	B	89	7	0.7	357	11	1.0	211	77	3.3
17	17	29	38.2	60	20.9	141	12.8	9.3	1.3	11	4	154	24	0.54	0.8	1.2	A	105	5	0.6	13	25	1.3	206	64	2.4
17	17	30	42.0	60	20.4	141	12.6	12.6	0.8	9	1	121	23	0.33	1.2	1.6	B	118	6	0.8	25	32	1.4	217	57	3.5
17	22	11	38.3	61	22.1	142	37.5	35.3	1.7	6	3	204	40	0.52	8.9	10.2	D	297	2	0.9	28	41	2.5	205	49	25.1
18	1	30	15.4	61	41.2	142	24.0	0.5	1.9	23	7	236	73	0.66	1.8	4.7	C	289	0	0.7	19	3	3.3	199	87	8.9
18	2	27	10.1	59	53.3	141	20.4	1.1	1.4	11	6	180	34	0.94	0.7	1.2	A	107	12	0.6	201	14	1.2	338	71	2.3
18	5	17	42.2	61	39.8	142	23.8	0.5	1.5	13	5	238	70	0.40	1.6	25.0	D	296	0	1.1	26	0	3.1	0	90	99.0
18	6	17	9.0	59	52.0	152	43.5	82.9	2.4	17	11	53	36	0.29	0.9	1.3	A	81	8	1.0	144	17	1.3	324	58	2.3
18	9	50	4.3	60	14.6	141	12.5	3.5	1.2	14	7	141	14	0.53	0.9	0.9	A	297	8	0.4	200	44	2.0	35	45	1.1
18	12	6	22.4	58	53.4	154	46.0	124.1	3.1	10	6	217	91	0.32	2.4	2.5	B	293	27	4.2	187	28	3.1	59	49	5.3
18	14	6	48.6	59	48.2	153	26.3	116.3	2.8	16	4	89	42	0.18	1.3	1.5	B	106	15	2.2	205	32	1.9	354	54	3.2
18	14	41	18.2	60	14.9	141	30.3	6.9	1.2	12	8	111	18	0.70	0.5	0.7	A	116	9	0.5	25	12	0.9	242	75	1.3
18	14	48	3.9	60	15.1	141	27.6	7.5	0.7	12	5	113	20	0.34	1.1	0.8	A	120	5	0.5	211	9	2.1	1	80	1.4
18	15	18	8.0	61	48.0	149	0.3	9.8	1.3	19	9	156	19	0.88	0.5	0.5	A	15	18	0.8	272	35	0.5	127	49	1.2
18	19	51	43.2	60	39.6	143	2.5	2.1	1.0	7	3	86	26	0.59	0.7	14.4	D	261	1	1.1	339	2	0.6	142	78	26.3
18	20	31	12.1	60	0.4	141	13.3	4.3	1.2	11	6	161	19	0.54	0.9	1.3	B	123	9	0.7	218	29	0.9	17	59	2.9
19	0	4	3.8	61	25.3	142	37.0	9.9	1.2	4	3	222	45	0.36	4.3	7.5	D	305	2	1.0	36	25	5.1	211	65	15.3
19	0	29	1.4	61	23.9	140	20.6	4.3	2.0	13	5	246	72	0.63	1.2	2.7	C	101	1	1.5	10	14	1.9	195	76	5.2
19	1	46	3.9	60	23.9	151	7.9	44.0	2.0	18	8	84	39	0.48	0.5	2.1	B	82	3	0.7	352	4	1.0	209	85	3.9
19	2	23	36.2	60	4.9	153	9.2	119.0	2.6	15	7	114	22	0.20	1.4	1.2	A	81	14	1.6	321	22	2.5	193	51	2.0
19	2	52	32.1	59	59.2	148	53.9	16.7	2.5	28	10	155	33	0.72	0.5	0.8	A	350	0	0.9	261	8	0.6	80	82	1.4
19	4	31	31.2	60	31.9	150	28.3	43.2	3.6	28	2	78	14	0.41	0.6	0.8	A	269	8	0.8	2	19	1.0	157	69	1.6
		3.6 MB				4.0 ML ATWC						Felt at Anchorage, Kenai, Palmer, and Wasilla.														
19	4	42	22.7	61	48.3	149	0.4	14.4	1.8	25	8	184	19	0.75	0.6	0.6	A	10	23	0.9	266	29	0.6	132	51	1.4
19	6	54	40.4	59	58.3	141	48.9	9.2	1.3	12	6	187	14	0.53	1.3	0.7	A	202	11	2.5	106	26	0.5	313	61	1.3
19	9	55	24.4	59	9.2	137	27.4	16.3	1.6	4	4	346	88	0.15	12.5	3.8	D	206	15	24.3	103	39	2.2	313	47	3.5
19	14	20	28.9	61	5.7	141	14.4	9.6	1.3	7	5	218	15	0.14	1.9	2.4	B	81	18	2.1	321	21	1.1	198	50	5.0
19	20	26	45.7	59	44.4	139	21.7	28.6	1.4	7	4	172	8	0.18	2.6	1.0	B	261	5	4.2	321	21	1.0	158	54	1.6
20	0	12	36.8	61	40.8	142	23.0	1.9	1.5	5	4	241	72	0.47	2.5	25.0	D	291	0	1.0	21	1	4.3	201	89	99.0
20	1	45	24.6	58	47.9	139	43.3	18.8	1.4	3	3	315	87	0.43	7.9	5.6	D	17	12	3.8	116	35	18.0	271	52	1.9

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - AUGUST 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
AUG 20	5	43	26.3	59	58.7	140	41.3	0.3	1.5	9	5	164	27	0.54	1.2	1.4	B	291	0	0.6	201	40	1.4	21	50	3.2
20	8	37	53.7	61	47.4	149	1.6	14.0	1.6	21	10	166	18	0.72	0.5	0.5	A	35	11	0.9	296	37	0.6	139	51	1.2
20	8	47	42.8	61	38.3	151	22.5	4.0	0.9	5	4	132	39	0.55	0.6	1.3	A	266	0	1.1	176	6	0.6	356	84	2.5
20	15	48	28.9	60	21.9	141	14.2	9.6	1.0	11	6	121	26	0.75	0.6	1.0	A	331	14	0.7	81	14	0.8	206	62	2.0
20	17	35	41.1	61	47.5	148	59.5	14.9	1.7	22	9	155	18	0.71	0.5	0.5	A	11	27	0.8	261	35	0.6	130	43	1.1
21	2	13	18.4	62	20.9	150	54.4	77.8	2.7	18	10	125	52	0.44	1.2	1.5	B	340	19	1.9	81	22	1.5	214	59	3.2
21	3	5	46.4	60	19.0	140	56.6	6.9	1.6	15	11	135	19	0.39	0.5	0.8	A	306	5	0.5	38	24	0.7	205	65	1.6
21	13	34	6.7	59	56.5	140	50.8	3.4	1.5	12	6	164	26	0.42	0.8	1.2	A	118	4	0.6	210	28	1.1	21	62	2.6
21	16	21	12.3	60	8.5	140	57.4	8.3	0.9	8	4	165	5	0.19	2.4	0.8	B	199	1	4.4	109	18	0.8	292	72	1.5
21	18	18	32.7	57	29.3	151	17.1	42.0	2.5	29	8	232	78	0.83	2.8	3.5	C	81	9	1.5	337	33	3.0	184	53	7.7
21	21	24	11.3	60	39.9	143	1.0	10.8	0.9	7	5	83	26	0.66	0.9	3.9	C	261	7	1.1	350	9	0.8	133	79	7.4
21	21	36	39.9	59	19.7	145	28.6	21.9	2.3	22	13	217	50	0.69	1.2	1.0	A	357	28	2.3	106.	31	1.5	234	46	2.0
22	0	9	40.0	59	29.9	144	6.5	22.4	1.4A	11	4	246	94	0.20	2.5	1.7	B	261	27	2.7	117	38	1.4	5	24	4.9
22	3	21	20.4	59	46.3	151	36.3	47.9	2.0	13	9	127	33	0.33	0.9	1.3	A	81	14	1.0	323	19	0.9	197	54	2.6
22	4	24	9.4	59	17.6	145	38.5	8.7	1.8	16	6	235	42	0.40	1.5	1.8	B	81	7	2.1	163	35	1.9	341	54	3.8
22	9	6	9.3	60	6.6	137	30.6	13.9	1.7	7	3	294	106	0.28	3.2	2.1	C	212	24	6.3	107	29	4.9	335	51	2.5
22	11	33	27.1	60	34.7	152	38.4	10.0	0.6	5	4	190	13	0.65	1.4	1.4	B	20	12	0.7	279	43	1.0	122	45	3.7
22	17	29	15.8	60	14.9	142	1.6	14.8	1.0	4	3	129	20	0.40	1.3	2.0	B	261	23	1.2	351	25	0.8	129	57	4.2
22	18	30	48.8	61	13.2	149	47.8	43.0	1.0A	11	6	96	13	0.31	0.8	1.4	A	145	4	1.1	81	9	1.0	261	62	2.3
23	1	3	17.2	60	11.8	140	44.6	12.3	1.0	7	2	155	17	0.24	2.8	1.3	C	192	12	5.4	98	21	0.9	310	66	2.3
23	1	16	15.4	60	9.6	141	9.0	8.9	0.6	7	3	151	7	0.28	1.3	0.6	A	16	8	2.5	283	24	0.6	123	65	1.1
23	6	11	52.1	62	57.8	150	47.5	82.5	2.5	11	5	223	116	0.33	5.6	7.7	D	325	17	4.3	81	23	3.0	209	52	16.7
23	8	31	44.2	58	56.5	136	41.3	3.2	2.0	7	3	179	134	0.34	25.0	6.8	D	299	13	2.1	206	13	54.5	73	71	3.3
23	9	44	28.0	60	9.8	141	9.9	2.2	2.1	16	4	134	7	0.70	0.6	0.9	A	283	8	0.6	15	15	1.1	166	73	1.8
					3.2 ML ATWC																					
23	11	27	58.3	61	1.2	149	41.6	40.3	1.3	6	5	169	26	0.20	0.8	1.0	A	189	8	0.9	97	14	1.4	308	74	1.9
23	12	41	9.1	60	37.7	142	59.1	16.1	0.8	9	4	86	21	0.63	0.5	1.1	A	27	1	0.8	297	13	0.9	121	77	2.2
23	13	40	35.0	59	32.9	144	6.8	24.5	1.6A	12	4	251	88	0.28	2.1	1.4	B	192	4	3.9	100	32	1.3	288	58	3.0
23	16	19	57.8	60	25.5	141	18.5	8.3	1.5	14	8	120	25	0.50	0.4	0.9	A	120	1	0.5	30	16	0.7	213	74	1.8
23	16	31	38.2	60	25.5	141	19.4	10.2	1.2	14	7	119	24	0.58	0.5	0.8	A	108	4	0.5	17	20	0.8	209	70	1.6
23	18	38	55.2	60	0.1	140	47.0	2.7	0.7	6	3	202	22	0.37	1.1	2.1	B	116	9	0.6	210	20	1.4	3	68	4.2
23	19	9	41.8	60	42.2	139	58.8	2.7	1.3A	5	3	223	69	0.44	4.0	2.5	C	261	2	6.7	143	7	1.1	3	61	4.2
24	16	46	51.3	60	29.2	144	10.3	0.2	0.8	9	8	104	17	1.05	0.5	25.0	D	261	0	0.7	350	0	1.0	0	90	99.0
24	18	28	33.2	59	30.7	144	6.9	28.5	3.1	26	10	195	49	0.38	1.4	0.9	B	2	1	2.7	92	24	1.2	270	66	1.8
	3.9 MB				4.0 ML ATWC																					
24	20	6	54.2	61	39.1	142	25.8	0.5	1.9	10	4	236	69	0.45	2.7	5.9	D	16	0	5.0	106	1	1.3	286	89	11.0
24	23	22	54.2	60	13.8	141	10.7	5.5	1.3	7	5	112	12	0.27	1.3	1.1	A	278	6	0.9	184	36	2.7	16	53	1.4
25	9	4	5.9	61	45.2	151	38.2	88.7	2.7	19	10	165	26	0.49	1.2	1.5	B	81	11	1.3	164	23	2.0	325	64	3.0
25	9	13	23.4	60	30.5	145	9.8	20.8	1.9	24	8	114	4	0.54	0.5	0.6	A	113	5	0.7	21	29	0.9	212	61	1.2
25	13	5	55.4	61	14.2	151	59.8	86.7	2.1	16	8	85	7	0.42	1.3	2.0	B	81	12	1.7	148	17	1.8	310	59	3.6
25	14	37	2.0	58	45.8	152	51.3	12.4	2.0	10	5	158	72	0.33	1.7	2.4	B	166	1	1.3	81	6	3.2	266	82	4.6
25	19	6	36.2	60	13.2	141	8.0	7.3	1.6	12	8	113	9	0.59	0.9	0.9	A	81	23	0.9	319	28	0.6	196	44	2.2
25	19	56	17.9	60	16.4	149	47.8	51.1	2.0	13	6	119	27	0.32	0.9	1.3	A	261	6	1.5	354	19	1.6	154	70	2.6
25	22	29	4.2	60	22.0	141	15.7	1.0	1.3	11	6	121	27	0.70	0.6	1.7	B	261	3	1.1	344	12	0.6	157	76	3.2
26	2	41	14.3	61	13.9	141	13.4	0.2	1.1	5	3	271	30	0.13	2.8	25.0	D	301	0	1.8	31	0	5.2	0	90	99.0
26	3	32	48.1	60	44.6	151	29.9	66.8	3.1	23	10	63	14	0.39	0.6	1.3	A	173	1	0.8	83	17	0.8	266	73	2.6
					3.4 ML ATWC							Felt on the Kenai Peninsula.														
26	6	13	35.1	60	33.3	145	9.3	28.3	0.7	11	9	114	4	0.47	0.5	0.6	A	109	4	0.7	18	14	0.9	215	75	1.2
26	8	42	26.5	60	30.1	145	8.8	13.8	0.6	5	4	169	5	0.49	1.2	0.8	A	99	23	0.7	355	28	2.4	222	52	1.3
26	12	36	6.0	60	37.8	145	1.4	28.8	1.4	13	7	79	10	0.33	0.5	0.7	A	103	19	0.7	5	22	0.8	230	60	1.5
26	14	3	52.4	60	59.3	147	16.5	27.8	2.1	24	7	97	16	0.92	0.5	0.7	A	6	8	1.0	274	11	0.5	131	76	1.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - AUGUST 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
AUG 26	18	2	45.7	60	32.2	141	35.1	3.8	1.3	8	6	111	22	0.51	0.6	1.3	A	357	2	0.5	87	9	1.0	255	81	2.4
26	22	51	46.9	60	15.2	140	46.3	9.6	1.4	10	4	165	18	0.43	1.2	1.3	A	100	7	0.8	4	42	1.3	198	47	3.0
26	23	31	26.6	60	30.7	142	50.7	12.3	1.2	3	3	151	7	0.14	1.0	14.0	D	358	0	1.8	268	2	1.0	88	88	26.2
27	0	17	28.0	59	58.8	141	40.6	3.5	2.0	16	6	174	21	0.79	0.9	0.8	A	270	5	0.4	3	30	1.9	171	59	1.3
27	0	27	22.8	61	9.7	142	57.0	18.0	1.7	3	3	177	36	0.16	8.6	11.6	D	296	1	0.9	205	36	5.4	27	54	26.5
27	6	38	15.7	59	0.2	151	15.5	42.0	2.8	13	5	169	55	0.35	1.2	2.8	C	202	7	1.8	111	8	2.2	333	79	5.4
					4.0 ML ATWC																					
27	8	48	32.0	58	41.4	140	11.4	23.5	2.3	8	2	285	114	0.20	8.6	25.0	D	280	0	3.4	10	6	14.9	190	84	61.8
27	12	33	9.0	60	2.8	141	20.6	0.1	1.0	6	3	187	13	0.58	0.8	2.1	B	274	5	0.6	5	11	1.2	160	78	4.0
27	13	53	7.9	60	0.8	141	44.0	0.4	0.8	7	6	205	21	0.68	0.8	1.4	B	5	0	1.5	275	14	0.8	95	76	2.6
27	20	41	17.1	59	54.0	153	18.4	117.6	3.5	17	5	70	42	0.25	1.2	1.2	A	44	12	1.6	144	40	2.0	301	48	2.6
		4.5 MB																								
27	22	58	58.4	59	58.6	137	20.3	12.7	2.0	10	5	298	105	0.58	3.2	2.7	C	81	1	4.5	155	38	7.3	350	49	2.0
27	23	23	20.3	60	21.2	145	9.6	10.5	0.6A	5	3	261	20	0.41	1.9	1.8	B	140	18	1.2	261	38	3.2	34	40	3.7
28	6	40	12.3	61	27.7	142	34.1	1.9	1.2	6	4	216	49	0.72	2.0	25.0	D	302	0	0.7	32	2	2.2	212	88	84.8
28	7	45	9.9	60	54.5	152	12.6	12.1	0.7A	5	5	168	32	0.45	2.5	3.1	C	185	7	0.5	89	38	1.0	284	51	7.4
28	14	44	47.1	61	28.0	149	47.7	41.3	2.2	28	9	76	21	0.44	0.5	1.0	A	98	3	0.6	189	11	0.9	353	79	1.9
28	21	13	7.9	61	27.8	146	39.1	30.5	2.1	29	10	66	39	0.74	0.4	0.4	A	99	1	0.4	189	10	0.7	3	80	0.8
28	21	22	20.5	58	40.0	138	14.6	7.1	1.3	5	4	337	95	0.23	8.0	2.9	D	334	2	3.3	81	13	14.9	236	69	3.8
29	0	3	1.9	60	2.0	152	9.7	64.2	2.7	10	4	235	62	0.29	1.9	2.6	B	144	1	1.3	81	18	3.0	237	58	4.5
29	7	20	48.3	60	27.1	152	57.7	142.0	3.7	21	4	86	31	0.36	1.0	1.3	A	11	0	1.4	281	20	1.9	101	70	2.4
					3.6 ML ATWC																					
29	7	57	7.8	60	3.9	141	42.0	7.8	0.7	10	8	166	16	0.30	0.6	0.7	A	263	1	0.5	354	28	1.0	171	62	1.3
29	12	44	53.7	60	30.1	143	2.3	0.6	0.9	8	5	135	12	0.50	0.8	24.3	D	44	0	1.5	314	1	0.8	134	89	45.6
29	13	21	9.4	60	57.9	147	9.0	15.1	2.2	33	8	44	9	0.79	0.4	0.7	A	189	2	0.7	280	11	0.4	89	79	1.3
29	14	12	7.4	60	45.1	150	26.6	27.7	2.1	27	12	37	29	0.62	0.4	1.4	A	327	1	0.6	81	2	0.6	216	66	2.4
29	15	18	38.3	60	57.0	152	17.3	3.1	0.4	5	5	183	29	0.47	1.8	2.4	B	184	4	0.6	91	35	1.3	280	55	5.5
29	16	30	1.8	60	0.3	141	40.0	10.8	1.5	17	8	170	19	0.37	0.7	0.6	A	98	11	0.6	3	24	1.4	211	63	1.1
29	23	53	17.9	61	5.7	149	22.4	35.2	1.2	15	7	85	19	0.27	0.6	0.8	A	148	7	0.9	261	15	0.8	38	62	1.4
29	23	57	36.4	60	15.2	146	57.4	15.3	2.1	29	11	59	30	0.57	0.4	0.7	A	218	2	0.5	308	6	0.7	110	84	1.2
30	1	8	47.7	61	38.8	147	0.4	27.6	2.1	28	15	80	27	0.65	0.4	0.7	A	104	3	0.6	195	10	0.8	358	80	1.4
30	1	40	11.7	60	1.9	141	37.9	0.9	0.9A	6	4	189	16	0.59	1.0	3.0	C	273	0	0.8	3	11	1.7	183	79	5.8
30	5	31	31.8	60	17.9	152	57.6	125.4	2.9	19	8	79	15	0.46	1.0	1.9	B	31	4	1.4	301	4	1.8	166	84	3.7
30	5	50	23.3	59	45.1	150	40.7	31.9	2.0	18	6	179	12	0.45	1.5	1.0	A	81	35	1.3	286	36	1.8	183	16	2.8
30	10	10	50.9	61	1.9	149	0.9	31.0	2.2	30	10	64	19	0.32	0.5	0.7	A	215	6	0.7	306	12	0.8	99	77	1.4
30	15	46	11.6	59	47.3	152	40.6	76.6	2.3	15	4	101	45	0.28	0.9	2.3	B	85	4	1.3	355	4	1.6	220	84	4.4
30	18	33	58.5	62	7.7	151	16.2	80.0	2.6	15	9	242	21	0.48	1.8	1.6	B	81	10	1.6	172	20	3.5	325	68	3.0
30	21	36	50.1	61	50.1	148	57.5	8.3	2.1	27	6	159	23	0.61	0.9	1.1	A	26	18	1.5	285	31	0.8	142	53	2.4
31	3	25	35.8	60	30.7	145	7.7	15.2	0.6	9	5	168	5	0.39	1.1	0.9	A	231	30	2.3	115	37	1.1	348	38	1.6
31	9	43	2.5	60	13.6	146	24.4	11.9	2.2	29	9	72	20	0.54	0.6	0.8	A	108	4	0.7	199	19	1.1	7	71	1.6
31	14	35	10.2	61	49.1	148	56.5	9.9	1.7	22	9	184	27	0.80	0.9	1.3	A	168	2	1.4	261	31	0.7	75	59	2.9
31	18	24	3.4	60	50.0	151	2.3	59.8	2.3	23	11	56	57	0.51	0.6	1.8	B	23	1	1.1	113	3	0.9	275	87	3.3
31	20	2	9.2	62	18.2	148	32.2	32.6	2.2	23	11	201	56	0.61	1.2	0.9	A	91	16	1.5	189	25	2.4	332	60	1.4
31	22	3	30.7	58	19.2	133	31.4	7.1	3.3A	3	2	284	66	0.05	25.0	25.0	D	261	17	5.9	145	35	2.5	9	45	69.9
31	22	40	59.6	60	24.7	147	37.6	28.1	2.2	28	11	159	61	0.57	0.7	0.8	A	264	5	0.6	171	27	1.2	4	62	1.7

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - SEPTEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
SEP 1	0	48	53.6	60	14.6	140	47.8	10.3	1.2	14	9	136	16	0.36	0.7	1.0	A	103	6	0.6	10	31	0.8	203	58	2.2
1	1	22	45.8	59	16.8	135	39.5	23.1	2.1	4	1	346	184	0.10	25.0	25.0	D	8	2	99.0	276	34	8.8	101	56	99.0
1	1	46	43.6	60	0.3	141	46.1	8.9	1.3	18	8	174	15	0.66	0.8	0.7	A	93	6	0.6	359	34	1.6	192	55	1.2
1	1	53	49.3	61	24.0	140	12.4	15.0	1.0A	3	2	290	122	0.20	6.1	12.2	D	24	11	9.3	118	17	6.5	263	69	24.3
1	5	29	7.3	61	48.1	148	59.7	10.0	2.1	30	11	90	19	0.61	0.5	0.8	A	356	2	0.9	265	32	0.6	89	58	1.6
1	15	29	53.4	59	56.7	141	19.2	3.0	1.1	12	4	174	17	0.32	1.0	1.2	A	112	11	0.7	210	36	1.4	8	52	2.7
1	15	43	46.0	60	11.6	140	20.0	14.0	1.3	10	7	156	12	0.95	1.3	0.6	A	298	7	0.6	206	14	2.4	54	74	1.0
1	16	32	2.4	60	37.9	143	30.5	22.4	0.9A	4	3	118	41	0.29	1.7	4.6	C	81	3	1.0	319	12	1.6	181	56	7.7
1	18	21	59.8	60	12.0	141	36.6	15.1	1.2	11	3	105	10	0.36	0.7	0.9	A	295	15	0.6	30	17	1.2	166	67	1.8
1	19	31	39.4	61	42.2	149	39.6	43.1	2.3	28	7	147	13	0.54	0.8	1.1	A	99	2	0.8	190	8	1.4	355	82	2.1
1	20	31	55.3	60	4.6	152	55.1	102.3	2.5	18	6	68	62	0.28	1.0	2.0	B	122	4	1.9	32	7	1.3	242	82	3.8
1	21	32	31.0	59	54.0	141	36.5	9.2	1.1A	6	5	230	28	0.67	1.3	1.5	B	278	3	1.0	10	34	2.2	184	56	3.0
1	21	55	42.2	59	55.7	141	40.5	13.6	1.0A	5	3	279	27	0.34	1.4	2.2	B	104	5	1.5	196	26	2.0	4	63	4.4
1	22	51	20.4	60	11.5	141	49.2	6.4	0.6	6	2	167	19	0.16	0.9	1.9	B	198	6	1.6	289	15	0.6	87	74	3.7
1	23	33	11.3	58	23.6	133	28.4	5.0	3.2A	4	2	282	68	0.23	22.1	23.7	D	261	8	8.1	159	41	3.3	0	47	60.5
2	5	53	26.3	60	14.6	141	16.4	13.2	1.1	15	8	108	15	0.22	0.7	0.9	A	83	15	0.8	344	33	0.6	194	53	2.0
2	6	41	51.4	58	50.0	137	10.2	13.9	1.6	4	4	353	120	0.11	25.0	3.4	D	216	4	60.7	309	38	6.2	121	52	3.6
2	7	34	46.3	60	30.3	143	4.4	0.9	0.1	4	3	139	14	0.63	0.9	17.0	D	313	1	1.1	43	1	1.5	178	89	31.8
2	9	59	3.6	60	57.0	151	3.7	13.3	1.6	24	11	55	25	0.61	0.5	0.9	A	261	1	0.7	328	8	0.6	164	66	1.5
2	10	24	45.8	59	55.3	153	18.5	119.2	2.8	15	6	129	40	0.24	1.4	1.2	B	215	3	1.5	306	37	2.8	121	53	1.9
2	10	33	37.7	60	6.5	141	20.0	10.1	0.9	9	7	145	9	0.28	0.6	0.5	A	274	2	0.5	5	17	1.2	177	73	1.0
2	10	37	25.0	59	42.8	152	17.9	57.2	2.3	17	7	60	49	0.38	0.8	1.8	B	27	11	1.3	295	13	1.0	156	73	3.5
2	11	8	40.3	60	15.9	141	40.2	7.8	1.2	17	7	90	11	0.53	0.5	0.6	A	44	5	0.9	313	10	0.5	160	79	1.1
2	13	24	15.0	60	3.4	141	23.2	4.0	1.0	11	4	171	11	0.22	0.7	0.8	A	277	0	0.6	187	29	1.1	7	61	1.6
3	0	55	36.2	61	3.3	152	12.9	11.2	0.6	5	4	169	17	0.35	2.6	2.5	B	198	19	0.6	306	42	3.8	90	42	5.8
3	5	54	49.2	60	39.2	143	9.2	0.4	0.9A	7	3	80	28	0.34	1.2	25.0	D	350	0	1.1	261	0	2.2	0	90	99.0
3	7	18	4.1	60	59.1	152	11.4	14.3	0.4A	3	4	345	23	0.48	4.3	0.9	C	284	2	8.1	193	15	1.1	21	75	1.7
3	10	4	5.0	57	59.1	148	27.6	40.6	3.0	10	6	229	202	0.31	6.5	16.8	D	261	2	4.6	329	9	10.4	158	66	29.5
					3.4 ML ATWC																					
3	13	16	52.3	61	25.4	145	58.5	36.3	2.5	32	8	58	8	0.60	0.4	0.4	A	340	3	0.8	261	26	0.6	76	62	0.7
3	14	48	47.9	61	7.6	151	24.1	7.8	1.2	11	7	79	36	0.79	0.5	0.8	A	216	6	1.0	124	19	0.7	323	70	1.6
3	17	44	59.8	60	16.1	141	4.3	3.5	0.9	8	5	151	13	0.44	0.7	1.6	B	317	10	0.6	50	15	0.9	195	72	3.2
3	22	25	35.7	60	12.4	140	58.4	4.3	1.4	18	5	120	7	0.37	0.9	0.8	A	311	19	0.6	81	30	0.7	203	39	1.9
4	0	15	20.6	61	27.1	149	20.8	38.9	0.7A	3	3	248	26	0.06	2.5	0.9	B	261	17	1.6	334	23	4.6	130	57	0.9
4	1	3	9.4	60	6.4	140	54.8	11.0	0.6	8	4	128	8	0.34	0.9	0.9	A	96	25	0.5	206	37	1.3	340	43	2.0
4	2	29	34.0	58	13.5	150	50.3	78.2	2.7	10	2	222	111	0.26	7.0	10.3	D	197	7	4.0	104	27	9.9	300	62	21.3
4	3	54	52.9	60	2.7	142	8.0	4.3	0.9	12	6	178	6	0.51	0.7	0.7	A	292	19	0.7	187	38	1.5	43	46	1.2
4	9	13	52.3	60	39.8	145	19.8	29.9	0.7	15	9	85	16	0.41	0.5	0.6	A	135	10	0.6	261	41	1.1	37	37	0.8
4	13	21	50.7	60	29.6	152	13.1	79.7	2.3	22	7	62	14	0.32	0.6	0.9	A	23	6	1.0	115	15	1.1	272	74	1.8
4	14	6	53.5	60	13.1	148	29.2	29.7	1.9	30	9	124	55	0.60	0.5	0.6	A	81	2	0.6	339	12	0.9	180	73	1.1
4	16	6	11.2	63	5.0	150	37.0	109.4	3.0	12	3	124	132	0.14	7.9	9.0	D	320	18	2.2	81	28	3.6	208	46	21.2
4	17	52	24.1	62	0.2	152	0.8	106.7	2.9	20	6	154	26	0.35	1.8	1.6	B	261	2	1.8	333	15	3.2	164	67	2.9
4	18	0	24.2	62	9.2	150	58.2	62.2	2.5	17	7	95	35	0.48	1.0	1.3	A	298	13	1.2	35	27	1.6	185	60	2.7
4	19	18	29.5	60	9.4	141	9.8	0.2	0.5	5	3	147	7	0.15	1.2	1.6	B	81	1	1.0	322	19	1.9	173	56	2.7
4	20	30	28.7	61	16.0	150	40.6	49.8	0.9A	8	4	101	22	0.31	1.1	2.8	B	261	4	1.5	136	5	1.0	15	54	4.4
4	20	56	26.6	58	9.4	153	4.5	66.2	2.6	11	3	198	57	0.29	3.2	3.6	C	342	10	1.5	81	36	4.8	239	52	7.8
4	22	6	20.2	60	15.6	141	13.6	12.4	0.8	8	4	143	16	0.29	0.9	1.1	A	298	8	0.6	34	36	0.9	197	53	2.5
5	5	13	16.3	59	56.2	140	53.4	8.3	1.2	11	6	170	19	0.62	0.9	1.2	A	116	18	0.6	217	31	1.1	0	53	2.6
5	6	17	47.0	60	2.1	140	47.5	6.3	1.6	19	5	150	18	0.71	0.8	0.7	A	106	12	0.5	5	42	1.7	209	46	1.0
5	10	27	33.9	59	56.7	140	51.5	4.9	1.0	9	4	182	20	0.44	0.9	1.3	A	123	13	0.6	219	25	1.3	8	61	2.6
5	10	56	20.0	61	25.0	140	29.6	14.4	1.1A	8	4	249	68	0.28	2.1	2.6	B	7	12	3.3	105	33	1.8	260	54	5.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - SEPTEMBER 1984

1984	DAY	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
SEP	5	12	37	15.4	60	51.9	152	16.9	0.2	0.4A	4	5	177	33	0.54	5.0	5.0	C	14	0	0.5	104	45	2.7	284	45	12.9
	5	13	0	32.9	60	3.9	139	35.8	15.0	1.0	7	4	202	13	0.74	2.3	1.3	B	128	9	0.9	221	19	4.5	14	69	2.0
	5	13	48	55.5	60	8.0	139	32.7	0.2	0.7	6	3	226	21	0.44	2.1	2.7	B	308	8	1.1	43	32	2.9	206	57	5.6
	5	14	29	35.2	60	20.4	141	19.6	15.5	1.4	19	9	114	23	0.59	0.4	0.7	A	53	14	0.7	318	20	0.5	176	65	1.4
	5	18	24	2.8	59	21.6	145	25.4	25.7	3.6	25	4	212	53	0.76	1.1	1.0	A	81	26	0.8	330	33	2.1	200	45	1.8
			4.6 MB				4.2 ML ATWC																				
	5	19	23	51.4	60	13.1	140	58.3	10.0	0.8	13	7	124	8	0.38	0.7	0.7	A	106	12	0.8	5	42	0.6	209	46	1.8
	5	20	27	3.3	59	59.8	148	55.8	14.4	2.0	28	10	154	31	0.75	0.6	0.7	A	277	19	0.6	15	22	1.0	150	60	1.5
	6	5	18	23.6	60	14.3	140	56.5	10.1	0.9	13	7	152	11	0.44	0.9	1.0	A	284	0	0.5	14	43	0.9	194	47	2.4
	6	8	30	0.9	59	9.7	152	25.7	54.0	2.6	15	4	125	59	0.37	1.0	1.7	B	349	0	1.8	81	10	1.1	259	80	3.2
	6	11	57	30.3	60	20.1	142	23.4	12.4	0.8A	9	5	84	28	0.62	0.6	3.0	C	97	4	0.8	7	4	1.0	232	84	5.7
	6	13	27	55.7	60	11.8	141	5.6	3.0	0.6	8	4	139	6	0.20	0.8	1.3	A	81	7	1.0	322	20	0.6	185	55	2.4
	6	14	8	25.6	61	38.0	147	1.3	26.8	2.1	30	9	76	28	0.57	0.5	0.7	A	277	2	0.5	186	7	0.9	23	83	1.3
	6	14	34	16.4	59	57.6	141	40.8	2.1	0.9A	11	7	179	21	0.63	0.6	1.0	A	272	1	0.6	182	14	1.2	6	76	1.8
	6	15	39	24.1	62	18.5	153	12.3	16.8	2.1	12	5	170	95	0.38	1.4	4.4	C	110	7	1.4	201	10	2.2	345	78	8.5
	6	17	34	15.7	60	33.4	141	37.0	16.9	2.1	23	8	102	23	0.53	0.5	1.0	A	324	2	0.4	81	3	0.7	209	63	1.7
	6	17	34	28.4	60	58.3	152	24.5	10.5	0.2A	4	4	203	30	0.07	4.5	25.0	D	16	0	0.6	286	5	3.9	106	85	86.8
	7	2	0	38.8	59	55.3	140	11.0	10.6	1.5	10	3	162	20	0.85	2.0	2.1	B	121	5	0.8	215	43	1.5	26	47	5.2
	7	2	51	46.0	60	14.2	141	16.5	15.7	0.7	8	4	138	15	0.43	1.0	1.4	B	28	5	1.8	297	10	0.8	144	79	2.7
	7	2	56	26.7	60	17.0	141	13.4	16.1	1.5	15	11	115	18	0.34	0.6	0.8	A	321	20	0.6	60	23	0.8	194	59	1.8
	7	6	4	25.0	60	18.3	141	14.1	22.3	1.0A	4	4	224	20	0.36	2.7	3.7	C	300	8	2.0	34	28	4.1	195	61	7.6
	7	7	34	56.3	60	18.8	141	17.8	15.6	1.6	19	12	114	21	0.42	0.5	0.8	A	312	15	0.6	48	21	0.9	189	64	1.5
	7	7	51	13.1	60	17.0	140	45.8	5.8	1.3	8	3	142	21	0.28	2.3	4.0	C	285	2	1.0	16	28	1.7	191	62	8.5
	7	8	35	58.8	60	3.9	153	31.4	141.4	3.0	16	5	85	41	0.46	2.2	2.2	B	81	11	2.1	155	36	3.5	335	50	4.2
	7	11	39	4.2	60	22.3	141	18.5	9.0	0.6	9	6	118	24	0.23	1.8	4.7	C	4	13	0.8	97	15	1.1	235	70	9.3
	7	12	9	17.4	59	10.9	144	43.1	18.5	2.2	16	3	262	85	0.54	3.9	2.4	C	31	14	7.5	133	41	2.5	286	46	5.1
	7	16	44	23.2	59	55.6	141	19.3	2.9	0.5	5	3	262	19	0.23	1.4	4.0	C	0	3	2.6	270	4	1.4	127	85	7.5
	7	19	30	19.1	61	30.4	151	13.4	6.7	0.5A	5	5	117	26	0.49	0.6	0.9	A	351	2	1.2	261	6	0.8	99	84	1.7
	7	21	50	49.8	61	28.5	146	22.0	23.2	2.3	33	10	77	24	0.61	0.4	0.9	A	282	5	0.6	13	6	0.7	153	82	1.7
	8	2	27	40.0	60	23.9	152	23.1	80.9	2.5	18	11	69	20	0.36	0.7	1.1	A	17	9	1.0	109	16	1.2	259	72	2.2
	8	9	29	19.9	60	36.6	142	45.2	17.8	1.1	9	8	87	19	0.52	0.6	1.1	A	97	6	1.0	6	8	0.8	223	80	2.1
	8	9	59	57.5	58	1.7	152	37.5	46.4	2.6	10	5	170	32	0.40	6.3	8.9	D	267	2	8.6	358	35	1.7	174	55	20.3
	8	13	13	31.6	60	5.1	152	33.2	88.0	2.4	18	12	110	18	0.59	0.8	1.5	B	158	2	1.5	81	5	1.3	271	76	2.7
	9	0	44	47.6	60	26.3	141	11.4	9.2	0.9	11	6	129	32	0.38	0.9	1.9	B	301	3	0.6	33	24	0.9	204	66	3.8
	9	0	51	24.9	60	25.7	141	10.9	10.3	1.0	16	9	129	32	0.34	0.5	1.1	A	312	1	0.5	42	15	0.7	218	75	2.0
	9	2	14	30.9	61	13.0	150	52.6	65.6	2.6	28	10	58	28	0.36	0.6	1.2	A	81	7	0.6	170	15	0.9	326	73	2.4
	9	3	1	23.4	61	15.8	152	12.5	3.4	-0.5	3	3	288	3	0.07	1.1	0.9	A	190	10	0.9	98	13	2.2	317	74	1.8
	9	6	17	49.0	58	51.3	140	26.0	9.5	1.5A	10	6	271	108	0.30	1.8	3.1	C	271	8	1.3	178	15	3.1	28	73	6.1
	9	10	0	34.2	60	40.5	142	0.2	31.6	0.9	6	5	84	38	0.32	1.4	2.0	B	151	9	0.9	81	25	2.1	261	57	3.7
	9	13	28	54.8	59	56.2	141	38.3	8.7	0.7	9	6	209	25	0.35	0.7	1.3	B	177	2	1.2	267	6	0.8	69	84	2.5
	9	13	41	34.8	60	1.3	153	8.1	122.4	2.9	19	7	68	25	0.21	1.1	1.2	A	81	15	1.2	305	41	2.3	181	30	1.7
	9	13	50	7.2	60	9.7	139	33.6	14.4	0.8	6	6	210	24	0.54	2.2	1.4	B	324	19	1.0	261	36	3.9	82	43	1.5
	9	14	38	58.8	60	9.7	141	3.2	1.6	0.1	4	3	159	1	0.29	1.0	0.9	A	81	10	1.0	324	44	1.5	180	39	1.9
	9	14	55	5.6	60	59.4	151	27.7	66.2	2.7	26	9	46	30	0.64	0.5	1.1	A	81	11	0.8	151	12	0.8	300	64	2.0
	9	15	40	46.4	61	3.7	152	26.3	0.3	0.8	6	6	201	25	0.69	1.3	1.3	A	201	14	0.5	97	43	2.1	305	44	2.7
	9	17	34	4.3	60	0.6	141	12.1	4.2	0.9	9	7	184	7	0.47	0.7	0.7	A	281	7	0.5	18	44	1.6	184	45	0.8
	9	21	57	2.6	60	0.7	141	33.2	10.9	0.8	12	8	165	16	0.37	0.7	0.7	A	273	3	0.6	180	43	1.0	6	47	1.7
	9	23	4	44.7	60	32.4	150	59.5	44.1	2.3	26	11	57	26	0.59	0.4	1.3	A	280	0	0.6	10	5	0.7	190	85	2.5
	10	1	0	1.5	59	37.9	138	47.7	0.1	1.9	6	2	319	34	0.36	2.6	1.7	B	172	4	4.9	81	10	1.7	283	79	3.3
	10	3	51	29.0	59	26.8	146	24.3	18.2	2.6	24	3	182	4	0.56	1.2	0.9	A	88	23	1.2	193	30	2.5	327	50	1.4
	10	4	55	34.8	59	59.3	140	8.4	11.9	0.8	8	3	160	14	0.76	2.9	1.8	C	133	21	0.7	30	31	6.3	252	51	1.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - SEPTEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
SEP 10	5	52	23.7	60	5.2	140	48.4	6.7	1.0	10	4	158	15	0.54	1.6	1.1	B	106	9	0.5	11	30	3.3	211	58	1.3
10	6	48	31.4	59	18.3	146	30.2	28.4	2.6	23	2	245	17	0.67	3.0	0.9	C	198	9	5.6	292	25	1.9	90	63	1.3
10	8	53	46.8	59	31.5	138	48.1	25.0	1.3	4	2	252	9	0.13	5.3	2.8	D	219	19	10.4	113	38	6.3	330	46	1.4
10	14	27	51.4	61	15.6	152	13.1	7.6	0.2	4	3	238	3	0.23	1.7	1.3	B	121	10	3.1	217	28	1.1	13	60	2.8
10	15	6	55.0	61	30.4	146	21.9	20.4	2.2	33	8	80	24	0.69	0.4	0.8	A	125	1	0.5	35	2	0.7	242	88	1.4
10	16	42	25.3	60	29.6	145	16.0	14.5	0.6	16	4	152	6	0.40	0.6	0.6	A	119	7	0.8	26	22	1.1	226	67	1.0
10	19	22	32.5	60	55.7	151	3.1	14.1	2.7	28	7	56	23	0.44	0.4	0.8	A	261	3	0.6	325	5	0.6	135	63	1.4
										Felt (III) at Anchorage.																
10	19	42	31.3	60	19.9	140	44.7	12.5	1.1	10	5	148	25	0.28	0.9	1.5	B	329	13	0.7	81	19	0.9	213	59	3.0
10	20	3	47.7	59	50.6	141	19.3	0.2	0.7	9	3	190	27	0.33	1.0	1.8	B	311	3	1.0	220	8	1.7	61	81	3.5
10	20	9	35.5	60	17.1	140	37.6	6.8	0.8	7	4	171	27	0.23	1.0	2.4	B	287	7	0.6	20	18	1.1	177	71	4.8
11	2	19	17.3	60	11.5	140	59.3	12.0	1.1	15	4	142	5	0.18	1.2	0.7	A	199	23	2.5	98	24	0.9	327	56	0.9
11	3	16	42.6	60	56.5	147	30.3	29.9	2.0	32	12	50	24	0.46	0.4	0.5	A	109	5	0.5	201	20	0.8	6	69	1.0
11	5	22	43.0	60	9.9	141	56.0	6.0	0.8	14	8	88	15	0.45	0.5	0.9	A	285	8	0.5	18	17	0.9	171	71	1.7
11	10	15	29.4	61	46.5	149	7.8	15.1	1.8	26	14	129	11	0.52	0.5	0.7	A	179	3	0.8	270	27	0.6	83	63	1.5
11	15	2	29.7	60	27.3	142	16.6	1.9	1.1	14	4	67	31	0.77	0.5	16.9	D	271	0	0.6	1	0	0.9	0	90	31.6
11	17	54	37.8	59	13.0	152	10.0	62.6	2.6	15	4	131	44	0.22	1.0	2.7	C	347	1	1.9	261	4	1.4	91	84	5.0
11	20	33	51.4	61	57.0	148	52.5	8.0	0.3A	7	6	237	13	0.22	1.2	0.7	A	324	1	2.1	81	42	1.0	233	41	1.2
11	21	58	41.9	61	46.2	149	11.5	13.5	0.3	5	5	169	14	0.17	1.3	1.7	B	316	8	1.3	261	32	0.9	58	43	3.1
11	22	19	3.5	61	53.0	149	17.8	11.1	0.7	5	5	220	18	0.61	2.0	4.3	C	180	6	2.3	273	24	0.8	77	65	8.8
12	0	57	59.3	61	11.0	149	44.9	40.1	2.3	31	7	38	12	0.42	0.5	1.3	A	261	2	0.7	332	2	0.8	117	71	2.4
12	7	24	58.0	61	56.6	150	4.2	42.8	2.4	28	10	104	34	0.40	0.8	1.4	B	89	2	0.8	359	8	1.5	193	82	2.7
12	8	56	8.4	61	50.3	148	59.7	17.7	0.4A	5	6	253	1	0.29	1.0	1.0	A	81	23	1.5	317	35	2.2	192	39	1.4
12	9	47	9.9	61	52.4	149	15.8	8.1	0.3A	8	8	218	16	0.40	1.0	1.0	A	335	8	1.7	261	42	0.8	74	45	2.4
12	11	36	16.4	60	28.2	142	56.0	0.2	1.0	14	8	90	5	0.75	0.6	24.6	D	344	0	0.9	261	0	1.1	0	90	46.0
12	11	42	34.5	60	27.6	143	0.9	3.8	0.7A	4	3	229	9	0.40	1.5	4.4	C	358	4	1.1	267	4	2.7	133	84	8.3
12	15	7	6.2	59	17.5	136	54.6	16.1	1.6	4	4	343	113	0.17	15.4	4.4	D	285	13	8.3	191	14	29.8	56	71	3.6
12	16	5	46.0	61	50.9	148	56.9	19.4	0.6	4	4	239	2	0.11	1.2	1.2	A	4	7	2.1	100	42	1.4	266	47	2.7
12	16	50	54.5	59	35.5	136	42.5	0.8	1.9	7	3	224	124	0.24	7.6	5.0	D	204	25	15.3	314	36	7.7	88	44	7.3
12	19	27	35.4	61	51.1	148	55.1	17.0	0.4A	4	4	218	3	0.21	1.1	1.4	B	359	4	2.0	92	34	1.3	263	56	3.0
13	4	8	20.5	58	17.3	152	44.0	49.7	3.0	10	3	167	62	0.52	3.3	12.8	D	83	6	4.0	351	12	1.4	199	76	24.7
13	5	11	33.4	61	27.8	149	19.5	17.7	1.0A	12	11	98	18	0.39	0.4	0.8	A	299	3	0.7	208	10	0.5	45	80	1.5
13	5	21	28.5	61	48.3	150	0.7	45.8	2.4	25	15	155	19	0.56	0.6	0.7	A	270	2	0.5	0	2	1.2	135	87	1.3
13	9	29	21.0	60	7.5	141	33.9	6.3	0.4A	9	4	144	6	0.46	0.6	1.1	A	7	2	1.1	277	4	0.7	124	86	2.1
13	11	53	16.7	60	15.5	141	10.6	16.1	1.0	16	10	115	14	0.28	0.4	0.6	A	304	11	0.5	41	28	0.6	195	59	1.4
13	21	46	22.8	59	57.6	140	40.3	4.7	0.6A	7	2	176	27	0.31	1.8	4.6	C	263	1	1.3	173	18	2.0	356	72	8.9
13	21	47	21.5	60	14.4	140	34.5	20.1	0.8A	7	4	148	24	0.45	2.2	1.3	B	97	3	1.0	188	21	4.3	359	69	2.0
14	7	47	18.5	60	15.0	140	57.5	8.7	1.0	10	7	128	12	0.24	0.8	1.2	A	91	13	0.6	354	28	0.7	203	59	2.6
14	11	7	53.5	60	16.5	140	49.4	7.1	1.0	8	6	162	18	0.12	0.8	1.5	B	81	11	0.7	347	20	1.0	198	67	3.0
14	12	21	14.2	61	20.8	150	39.0	65.4	2.6	28	6	71	14	0.30	0.6	1.0	A	81	7	0.6	171	19	0.9	331	70	1.9
14	12	39	24.8	61	51.8	149	33.8	48.5	2.0	21	10	162	29	0.35	0.6	0.8	A	281	8	0.7	13	12	1.2	158	75	1.5
14	18	19	19.0	60	31.5	143	0.8	2.9	1.5	14	9	90	12	0.69	0.5	3.6	C	261	0	0.7	325	3	0.5	171	64	6.1
14	22	57	21.1	61	52.7	149	55.0	50.0	2.7	26	8	163	25	0.36	0.9	1.1	A	278	4	0.7	187	12	1.6	26	77	2.1
15	12	51	59.7	61	40.8	151	12.3	77.4	3.2	27	6	76	34	0.39	1.0	1.6	B	81	10	1.0	169	19	1.6	323	69	3.1
					3.2 ML ATWC																					
15	20	31	32.2	59	53.9	139	14.3	14.8	1.2	6	5	210	23	0.54	2.1	1.9	B	142	1	1.0	261	35	4.2	51	46	2.3
16	3	7	20.1	59	56.1	140	37.1	2.7	1.0	8	3	179	27	0.53	1.3	3.5	C	103	1	0.9	193	15	1.8	9	75	6.7
16	3	10	46.5	59	5.1	153	14.2	81.9	2.2	11	6	162	30	0.27	1.5	1.9	B	193	9	2.9	101	12	1.8	319	75	3.6
16	3	44	11.2	61	11.4	152	11.8	4.8	0.0A	3	3	277	8	0.05	1.4	2.3	B	261	7	2.6	349	8	1.3	129	79	4.4
16	4	2	5.0	59	57.7	140	43.2	8.7	0.9	7	3	178	28	0.86	2.6	4.2	C	105	1	0.9	196	30	1.9	13	60	9.1
16	8	59	38.0	61	48.9	148	53.0	14.7	2.2	31	12	147	5	0.66	0.5	0.4	A	156	12	0.9	261	22	0.5	42	61	0.7

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - SEPTEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
SEP 16	10	44	45.9	61	48.0	148	57.6	17.7	1.2	14	7	102	4	0.47	1.0	0.9	A	261	26	1.0	119	26	1.4	10	30	1.8
16	12	38	27.2	59	52.3	152	37.7	82.3	2.4	18	7	91	36	0.40	1.0	2.2	B	343	3	1.8	81	6	1.3	228	80	4.1
16	15	29	16.1	60	29.8	153	5.7	141.8	3.1	17	4	89	38	0.33	1.6	2.8	C	310	5	3.0	41	7	1.7	185	81	5.3
16	16	47	26.9	61	10.1	149	8.0	36.0	2.2	29	7	41	24	0.47	0.5	0.6	A	178	3	0.9	268	4	0.7	51	85	1.2
16	16	51	58.1	62	13.0	151	6.6	78.3	2.7	18	5	240	34	0.35	1.8	1.6	B	85	10	1.5	181	28	3.4	337	60	3.0
16	17	50	1.5	62	14.4	151	4.4	76.3	2.7	16	4	248	38	0.33	2.0	2.0	B	84	21	2.0	188	32	3.7	327	50	4.0
16	22	28	16.0	61	22.6	140	40.7	0.6	2.0	17	7	241	58	0.50	1.4	10.3	D	302	0	1.5	32	1	2.7	212	89	19.2
16	23	36	14.2	61	42.5	151	36.9	82.3	2.5	22	9	158	31	0.39	1.4	1.6	B	81	4	1.3	158	35	2.1	345	53	3.1
17	3	0	13.1	62	16.9	149	40.1	57.3	2.4	19	8	203	71	0.41	1.4	2.6	B	97	1	0.9	7	21	2.0	190	69	5.1
17	3	12	59.4	59	32.4	152	43.3	69.2	2.6	16	6	80	46	0.28	0.9	2.3	B	344	2	1.6	81	7	1.5	239	80	4.3
17	9	48	0.2	60	14.6	140	36.4	3.3	1.0A	8	3	167	25	0.65	2.1	1.8	B	292	4	0.6	199	38	4.8	27	52	2.0
17	9	56	29.0	60	26.0	140	16.9	12.4	1.0	12	5	187	38	0.77	0.8	1.6	B	313	10	0.8	46	13	1.4	187	73	3.0
17	10	46	0.1	62	3.5	149	41.8	42.6	2.4	23	6	110	46	0.36	1.1	1.8	B	285	3	0.9	16	25	1.6	189	65	3.7
17	12	9	39.2	60	54.8	151	11.2	55.4	2.2	18	7	45	19	0.39	0.5	1.5	B	176	5	0.8	85	10	0.9	292	79	2.8
17	12	22	13.0	60	16.5	141	6.5	9.6	1.1	15	7	121	14	0.26	0.6	0.8	A	317	21	0.5	56	23	0.8	189	58	1.8
17	17	41	19.9	60	16.5	140	41.2	10.5	0.8A	7	2	145	23	0.28	1.2	1.5	B	302	1	0.9	33	35	1.5	211	55	3.3
18	0	39	28.4	60	46.3	140	38.3	11.9	0.8A	4	2	236	76	0.43	3.8	3.8	C	320	1	0.9	261	40	4.4	51	41	8.1
18	5	39	51.7	60	13.7	139	39.2	10.0	1.6	13	5	201	31	0.66	0.8	0.9	A	296	10	0.7	33	37	1.2	193	51	2.0
18	5	47	50.6	60	13.6	141	50.6	7.8	0.9	8	3	93	16	0.24	0.5	0.8	A	201	2	0.6	292	7	0.9	95	83	1.5
18	7	55	45.5	60	9.9	141	13.7	0.8	1.0	15	3	102	11	0.32	0.7	1.0	A	292	1	0.5	22	29	1.0	200	61	2.1
18	8	38	45.0	60	19.9	141	15.7	7.0	0.6	9	4	151	23	0.23	0.8	1.5	B	117	3	0.6	25	23	1.0	214	67	3.1
18	10	45	11.9	59	30.7	138	55.1	24.2	1.0	5	4	199	7	0.37	6.7	1.7	D	261	14	10.8	321	43	0.9	156	38	3.2
18	10	51	36.6	60	13.2	141	29.6	11.6	0.1	5	3	146	8	0.03	3.5	2.4	C	320	2	0.7	261	30	6.9	53	48	1.8
18	11	21	7.0	60	19.1	143	2.8	2.8	0.8	13	4	100	17	0.82	0.5	4.5	C	21	1	0.9	291	3	0.6	129	87	8.4
18	13	22	3.8	60	29.1	145	26.3	13.3	0.1	4	2	267	14	0.07	2.1	1.8	B	34	24	2.8	146	39	4.7	281	41	1.7
18	15	53	24.0	60	15.1	139	43.8	18.7	0.6A	5	2	234	34	0.32	2.2	2.1	B	116	3	1.0	208	44	5.6	23	46	1.3
18	20	24	45.2	60	15.1	140	59.0	9.8	0.9	13	5	126	11	0.25	0.7	1.0	A	106	6	0.6	12	32	0.7	205	57	2.1
18	22	32	31.8	61	31.0	146	31.7	26.8	2.1	31	9	74	33	0.56	0.3	0.8	A	298	0	0.5	208	8	0.6	28	82	1.6
18	23	44	30.8	60	9.8	141	0.9	9.6	0.9	14	6	110	1	0.35	0.7	0.4	A	98	8	0.5	192	22	1.4	349	66	0.7
19	1	2	49.4	59	57.4	141	43.0	6.2	0.8	9	7	219	20	0.57	0.7	1.1	A	94	2	0.7	4	4	1.3	211	86	2.0
19	3	17	18.0	60	11.0	141	4.5	10.4	1.3	17	9	111	4	0.26	0.6	0.4	A	285	7	0.5	191	28	1.2	28	61	0.6
19	4	1	20.5	60	22.1	140	56.5	0.2	1.7	21	9	140	24	0.76	0.4	1.0	A	81	2	0.6	324	9	0.5	181	62	1.6
19	4	32	50.2	60	35.4	142	37.5	18.8	1.7	26	12	53	20	0.48	0.4	0.7	A	297	3	0.6	27	8	0.6	187	81	1.3
19	6	46	35.0	61	13.1	150	33.2	50.7	2.5	29	12	57	29	0.52	0.3	1.0	A	94	5	0.4	185	5	0.6	320	83	1.8
19	9	28	19.5	60	6.8	141	11.8	0.8	0.5	9	4	119	7	0.19	0.5	1.4	B	294	7	0.5	25	7	0.8	160	80	2.7
19	19	7	45.1	62	8.8	150	38.0	65.4	2.6	21	11	200	50	0.43	1.1	1.4	B	82	3	0.9	350	26	1.9	178	64	2.8
19	19	51	5.6	61	18.5	146	26.4	24.1	2.3	35	10	47	21	0.65	0.4	0.6	A	276	5	0.4	8	19	0.7	172	70	1.1
19	20	52	45.5	60	11.2	141	43.6	11.1	1.0	13	5	110	19	0.33	0.5	0.9	A	295	1	0.8	25	11	1.0	200	79	1.6
19	23	32	23.1	61	12.2	150	44.0	14.8	1.6	16	11	58	29	0.54	0.4	0.7	A	178	8	0.8	269	10	0.5	50	77	1.4
19	23	34	23.7	61	49.7	149	6.4	3.5	1.2	15	10	163	7	0.75	0.7	1.0	A	174	1	0.8	265	36	0.5	83	54	2.2
20	0	59	32.0	59	59.0	152	38.9	89.7	2.7	18	9	79	24	0.40	0.9	1.3	A	42	8	0.9	135	20	1.5	291	68	2.6
20	2	20	23.6	61	51.3	149	18.8	1.3	1.0	13	8	173	18	0.62	0.5	0.7	A	8	15	0.9	274	16	0.4	139	68	1.3
20	4	17	25.7	60	15.0	145	54.5	13.9	4.2	40	6	82	34	0.61	0.4	0.6	A	276	1	0.6	186	10	0.8	12	80	1.1
	5.5 MB 5.2 MS 5.2 ML ATWC									Felt (IV) at Cordova, Anchorage and Sutton; (III) at Chitina, Chugiak, Palmer, Seward and Valdez; and (II) at Eagle River.																
20	4	28	4.8	60	17.0	145	54.9	11.7	3.9	41	8	79	31	0.71	0.4	0.6	A	195	3	0.8	104	5	0.6	316	84	1.1
	5.1 MB 4.7 MS 4.7 ML ATWC									Felt at Cordova and (III) at Anchorage, Chitina, Palmer, Seward and Valdez.																
20	5	11	39.0	60	0.7	151	52.2	57.1	2.8	21	5	65	32	0.37	0.8	1.4	B	335	2	0.8	81	17	1.1	239	67	2.7
20	12	11	38.7	60	24.7	143	52.5	22.7	0.8A	8	6	77	23	0.30	1.0	1.2	A	318	18	0.9	81	23	0.8	204	47	2.5
20	14	22	8.7	60	48.8	152	24.5	4.6	1.4	15	5	177	27	0.92	1.1	0.7	A	194	4	0.4	103	12	2.1	302	77	1.2
21	0	20	11.8	62	14.7	148	30.6	40.1	2.4	22	9	195	49	0.54	1.0	1.7	B	339	9	1.6	81	14	1.0	220	70	3.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - SEPTEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
SEP 21	3	27	20.7	60	2.8	140	4.0	17.2	1.5	9	6	161	12	0.96	1.9	0.7	B	122	14	0.5	29	14	3.6	256	70	1.0
21	6	37	38.3	60	14.5	140	18.5	10.5	0.9	8	4	181	16	0.51	2.4	1.9	B	294	10	0.9	196	37	5.4	37	51	1.7
21	7	21	46.9	60	17.5	142	45.1	17.7	1.0A	6	5	189	11	0.30	1.5	1.2	B	1	11	1.1	96	25	3.0	249	62	2.0
21	9	34	57.7	60	9.1	141	8.6	2.0	0.3	4	4	142	6	0.26	0.8	5.0	C	0	0	0.9	270	9	0.6	90	81	9.5
21	17	45	58.6	61	46.8	149	2.0	14.2	1.1	17	11	108	6	0.39	0.4	0.4	A	334	9	0.7	261	43	0.4	74	44	0.9
21	18	33	56.6	60	19.3	153	38.1	181.3	3.7	18	6	102	48	0.30	1.8	2.5	B	261	1	2.5	148	3	2.7	6	67	4.3
21	18	54	58.8	60	1.5	152	5.8	76.3	2.5	20	9	104	44	0.40	0.6	1.2	A	8	3	1.1	99	13	0.9	265	77	2.3
21	20	7	48.5	61	49.7	150	37.6	50.2	2.5	26	11	151	41	0.40	0.6	0.9	A	86	3	0.6	176	7	1.2	333	82	1.6
21	22	48	40.7	59	58.9	141	8.1	4.8	1.8	18	12	161	9	0.56	0.5	0.6	A	109	7	0.4	203	32	0.7	8	57	1.3
22	0	31	40.4	59	58.0	141	46.3	12.9	1.0	16	6	179	16	0.51	1.0	0.8	A	99	1	0.6	8	32	2.0	191	58	1.3
22	1	8	34.8	59	56.7	141	45.5	10.8	1.5	16	8	181	18	0.54	0.9	0.8	A	275	2	0.6	6	35	1.8	182	55	1.2
22	1	57	58.8	61	21.0	149	27.1	45.7	2.0	30	12	59	13	0.51	0.3	0.7	A	295	0	0.6	205	8	0.6	25	82	1.4
22	2	46	38.5	59	53.9	139	10.5	16.4	1.2	10	4	214	26	0.53	2.6	1.5	B	133	5	0.9	225	24	5.3	32	65	1.9
22	14	14	37.0	61	48.1	148	59.7	15.4	1.8	28	9	101	4	0.85	0.5	0.5	A	166	19	0.9	267	27	0.5	46	56	1.1
22	18	2	26.2	60	9.9	152	20.9	84.4	3.3	20	8	98	26	0.32	0.8	1.1	A	358	12	1.0	94	25	1.3	245	62	2.3
					3.9 ML ATWC																					
22	19	15	53.3	58	35.5	137	39.0	10.8	2.1	10	6	170	119	0.70	5.7	2.3	C	81	3	9.1	137	21	1.9	344	51	3.5
22	21	17	2.2	60	51.2	143	15.4	12.6	1.4	22	8	91	50	0.99	0.3	1.5	B	348	1	0.6	261	2	0.5	105	86	2.8
23	4	1	2.8	61	13.6	145	22.0	25.9	2.8	40	8	53	2	0.67	0.4	0.5	A	31	0	0.7	301	2	0.6	121	88	0.9
23	4	13	45.6	61	47.3	149	5.4	10.3	0.8	22	10	129	8	0.64	0.5	0.7	A	347	5	0.7	261	35	0.5	84	54	1.5
23	4	59	57.2	60	11.4	141	8.8	2.1	0.7	13	5	108	7	0.36	0.6	0.9	A	294	5	0.5	26	29	0.8	195	61	1.9
23	12	11	44.3	60	11.7	139	35.7	12.1	1.9	14	5	201	27	0.54	1.4	1.4	B	316	11	0.8	56	42	1.4	214	46	3.5
23	12	42	47.7	60	30.3	144	42.1	15.8	0.8	15	9	101	13	0.44	0.8	0.7	A	108	24	0.6	358	37	0.9	223	43	1.8
23	13	38	14.3	60	17.5	152	54.5	132.6	3.4	19	4	78	13	0.47	1.2	1.6	B	312	4	2.2	221	11	1.6	62	78	3.0
23	19	10	16.2	58	50.6	142	38.6	32.6	1.8A	9	5	266	138	0.78	4.2	25.0	D	310	0	4.1	220	1	7.6	40	89	99.0
23	19	57	22.7	60	12.1	144	54.5	26.0	0.7	10	9	227	24	0.53	1.0	0.7	A	111	19	0.7	12	24	1.9	235	59	1.1
23	22	19	38.8	61	46.3	149	9.6	14.5	0.7	15	11	132	12	0.55	0.5	0.7	A	169	3	0.8	261	37	0.5	75	53	1.6
24	1	55	15.8	61	14.9	152	18.0	10.1	0.1A	3	3	308	8	0.08	2.2	2.2	B	184	6	2.6	279	41	3.8	87	48	4.5
24	3	39	14.8	59	55.5	141	0.6	5.5	1.9	17	6	170	17	0.38	0.9	1.2	A	120	11	0.6	217	31	1.2	13	57	2.6
24	5	53	1.0	61	31.0	152	1.7	8.0	0.8	8	7	193	23	0.88	1.6	1.0	B	284	16	3.1	20	22	0.8	161	62	1.9
24	5	58	18.9	60	44.1	147	31.0	35.2	2.3	32	13	58	28	0.46	0.5	0.4	A	97	10	0.5	195	43	0.9	357	45	0.8
24	8	24	52.7	60	40.2	145	2.7	24.3	0.7A	8	5	135	10	0.43	1.0	1.1	A	8	9	1.2	105	37	1.6	267	52	2.2
24	10	20	32.4	60	5.6	152	59.9	122.6	2.7	14	8	135	14	0.24	1.3	1.7	B	35	3	1.8	125	13	2.3	292	77	3.2
24	12	23	21.7	60	28.7	143	16.5	4.9	0.4	4	3	145	24	0.38	2.5	13.9	D	358	3	1.5	268	8	2.6	108	81	26.3
24	13	48	39.8	61	29.5	149	54.2	40.5	3.0	32	4	61	18	0.32	0.6	1.2	A	83	2	0.7	173	12	1.0	344	78	2.2
					3.3 ML ATWC					Felt (II) at Anchorage.																
24	16	59	55.3	61	14.3	149	21.0	29.0	0.6A	6	4	117	11	0.55	1.0	2.1	B	215	3	1.9	125	12	1.6	319	78	4.1
24	17	1	40.2	61	4.9	152	21.7	15.3	0.6	4	4	206	20	0.23	3.1	4.5	C	200	4	1.1	292	30	3.8	103	60	9.6
24	18	53	33.8	61	34.0	140	34.8	4.3	1.4	6	3	267	78	0.17	3.7	25.0	D	110	1	3.0	20	2	5.9	227	88	99.0
24	18	58	13.0	60	22.2	145	7.9	6.7	0.6	7	3	206	19	0.48	1.6	2.9	C	121	1	1.3	211	8	2.9	24	82	5.4
24	21	40	24.0	61	26.1	150	26.4	13.9	1.0A	6	6	102	16	0.42	0.9	0.8	A	107	12	0.9	12	20	1.8	226	66	1.4
24	21	48	11.9	61	49.3	148	59.8	18.8	0.7	10	8	121	2	0.40	1.2	1.0	A	134	1	1.4	81	33	2.1	225	42	1.0
24	21	53	0.8	60	13.3	140	39.3	14.9	1.0	6	2	167	22	0.19	2.9	2.4	C	283	1	1.2	192	37	6.7	14	53	2.2
24	22	21	47.8	61	8.0	152	16.5	20.7	0.5A	3	3	318	13	0.42	3.4	3.2	C	197	2	2.7	105	40	7.1	289	50	5.0
25	1	18	59.4	61	48.5	149	1.3	19.7	0.7	6	6	122	4	0.26	0.9	1.1	A	308	8	1.1	81	40	2.1	212	34	1.0
25	4	31	58.7	61	32.4	151	16.6	68.2	2.2	19	11	108	30	0.44	0.9	1.6	B	81	16	0.8	165	18	1.5	307	65	3.1
25	17	35	18.6	61	23.4	146	30.6	22.0	2.0	27	18	111	30	0.71	0.4	0.6	A	273	8	0.5	5	10	0.7	145	77	1.1
25	17	49	56.6	59	47.0	152	33.3	76.1	2.1	14	8	149	47	0.29	0.8	1.3	A	95	7	1.0	186	7	1.4	321	80	2.5
25	18	54	27.2	60	13.5	141	0.5	9.7	1.6	16	12	121	8	0.30	0.7	0.5	A	307	17	0.6	81	41	0.6	206	31	1.4
25	21	37	55.8	60	21.7	141	18.8	16.0	1.3	11	7	116	24	0.34	0.7	0.9	A	326	12	0.6	81	23	0.8	215	55	1.8
25	23	47	26.5	61	46.5	149	3.9	12.2	1.3	23	15	115	7	0.09	0.4	0.4	A	344	3	0.6	261	39	0.4	78	50	1.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - SEPTEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
SEP 26	0	19	52.0	61	47.3	149	2.7	14.9	0.7	8	6	144	7	0.46	0.9	0.9	A	116	1	1.5	25	44	2.2	207	46	0.8
26	1	41	58.1	60	16.6	141	9.7	15.9	0.9	9	6	118	15	0.32	1.0	1.4	B	318	14	0.8	56	29	1.0	205	57	3.1
26	3	21	23.8	61	5.7	152	16.5	10.6	0.7	6	4	182	15	0.34	2.4	2.7	C	201	20	0.8	304	32	3.1	84	51	6.1
26	3	55	2.2	61	7.3	152	15.1	7.8	0.4A	3	3	320	13	0.04	3.1	4.5	C	342	6	2.5	261	32	2.7	82	56	9.7
26	4	18	33.0	62	38.8	151	14.4	75.9	2.6	18	2	193	76	0.29	5.2	5.6	D	326	21	6.6	81	29	3.3	210	48	12.9
26	6	40	17.5	60	32.0	145	19.2	13.4	1.3	16	6	160	6	0.40	0.6	0.6	A	281	10	0.8	182	40	1.3	22	48	1.0
26	7	34	37.7	59	35.7	152	51.4	98.5	2.7	16	5	128	43	0.33	1.3	2.6	B	81	12	1.7	161	13	2.2	304	70	4.9
26	8	29	41.8	60	22.5	140	47.6	12.5	1.0	7	6	160	28	0.43	1.2	3.9	C	81	5	1.2	337	12	1.0	191	71	7.3
26	13	7	8.4	61	10.4	152	8.3	5.0	0.3A	3	3	277	5	0.05	1.4	1.9	B	261	19	2.2	331	29	1.1	134	51	3.6
26	13	32	13.5	60	27.9	149	47.0	55.0	2.7	34	9	63	23	0.63	0.7	1.1	A	81	6	0.8	329	12	1.0	192	64	2.1
26	14	58	27.7	63	11.4	149	55.5	82.3	3.6	16	2	120	158	0.30	3.3	12.4	D	303	7	2.0	34	10	4.2	178	78	23.7
26	16	50	13.8	61	36.9	150	50.0	9.8	1.3	10	9	117	17	0.59	0.7	0.7	A	324	21	0.8	81	28	1.0	208	47	1.4
26	16	59	26.8	62	38.0	148	44.3	40.0	2.4	25	7	125	89	0.51	1.3	5.5	D	110	4	2.1	20	9	1.6	224	80	10.4
26	19	19	2.0	61	46.8	149	0.4	13.5	1.2	15	10	98	5	0.16	0.5	0.5	A	320	28	0.9	208	35	0.6	79	42	1.0
26	20	54	59.5	61	34.8	151	8.8	69.3	2.6	21	7	99	25	0.32	1.1	2.0	B	81	14	1.1	163	23	1.5	319	62	4.1
26	22	36	50.3	60	19.8	141	23.0	16.9	1.6	16	9	110	20	0.33	0.7	0.9	A	326	13	0.7	81	20	0.9	212	56	1.9
27	1	53	7.7	61	22.9	151	36.1	10.1	1.6	18	8	114	23	1.08	0.5	0.7	A	81	7	0.4	153	8	0.8	302	69	1.3
27	4	13	6.4	61	56.6	148	54.5	10.2	0.3	5	3	234	12	0.12	1.2	1.2	A	81	16	1.4	318	32	1.3	188	43	2.6
27	6	17	27.7	60	6.2	139	32.2	12.8	0.9	7	4	208	18	0.58	1.7	1.1	B	311	0	0.8	221	30	3.7	41	60	1.1
27	9	2	56.3	59	52.2	153	2.1	96.1	3.2	18	7	62	37	0.57	0.8	1.1	A	31	0	1.1	120	12	1.4	301	78	2.1
					3.5 ML ATWC																					
27	11	24	9.3	61	20.6	151	35.3	20.1	0.6A	6	2	102	23	0.45	1.0	4.4	C	129	4	1.8	38	6	0.8	252	83	8.2
27	11	26	13.5	60	32.5	143	4.7	4.0	0.8	9	2	91	16	0.45	0.7	7.6	D	261	1	0.8	329	3	1.0	152	68	13.2
27	11	51	58.5	60	57.8	147	15.9	17.2	2.1	32	11	86	13	0.49	0.4	0.5	A	184	3	0.8	275	12	0.4	80	78	1.0
27	12	0	5.7	61	30.7	142	16.6	8.0	1.0	5	2	228	53	0.14	2.5	16.0	D	111	1	1.5	20	8	2.1	208	82	30.3
27	16	24	25.4	62	2.5	142	2.5	33.8	1.8	9	4	267	113	0.48	4.3	25.0	D	100	1	1.8	10	4	3.7	204	86	99.0
27	17	47	31.6	60	24.9	142	58.2	30.2	1.2A	5	5	169	68	0.31	0.7	25.0	D	269	0	0.8	359	0	1.2	0	90	99.0
27	21	6	42.2	60	10.1	140	55.8	10.3	1.1	17	5	116	6	0.22	0.8	0.5	A	102	15	0.5	200	26	1.5	345	59	0.7
27	21	14	49.5	60	18.8	141	9.7	16.3	1.4	16	6	122	19	0.42	0.6	0.7	A	318	17	0.5	59	31	0.8	204	54	1.6
28	0	40	45.1	60	17.7	153	25.0	166.2	3.2	13	4	90	36	0.29	1.8	2.5	B	261	9	3.1	341	12	2.5	131	72	4.7
28	4	14	42.5	60	32.4	141	40.0	10.6	0.7	8	4	98	21	0.38	0.5	1.0	A	81	3	0.9	343	12	0.5	184	75	1.9
28	9	20	18.3	61	17.3	152	12.5	2.3	1.3	4	2	294	4	0.27	2.1	1.7	B	10	26	1.4	121	37	4.7	254	42	1.8
28	9	22	19.7	61	16.6	152	11.6	4.0	-0.3A	3	3	286	2	0.02	1.3	0.8	A	185	5	1.1	276	5	2.5	51	83	1.5
28	9	49	51.1	60	14.2	141	33.4	9.3	0.5	6	2	139	11	0.13	1.9	1.3	B	324	13	0.6	81	22	3.8	212	54	1.6
28	10	24	8.3	62	15.6	151	10.1	74.3	3.2	23	4	99	37	0.41	1.0	1.7	B	324	12	1.3	81	13	1.1	204	58	3.1
					2.7 ML ATWC																					
28	11	43	7.4	60	9.3	151	54.0	65.5	2.2	21	5	87	36	0.33	0.6	1.2	A	100	9	0.9	9	9	1.0	235	77	2.3
28	15	9	42.0	59	55.6	140	44.6	3.0	0.9	8	3	191	26	0.31	0.8	1.8	B	102	7	0.6	194	14	1.4	346	74	3.6
28	16	35	16.6	59	31.4	138	51.3	20.9	1.0	4	2	231	8	0.09	6.4	2.9	D	216	23	13.0	108	36	3.1	331	45	1.0
28	23	24	39.0	58	4.8	151	26.0	91.1	3.0	10	1	214	73	0.13	5.5	15.5	D	289	5	6.9	21	18	2.7	184	71	30.6
29	8	2	24.2	61	48.9	150	50.4	85.1	3.1	30	13	85	39	0.40	0.8	1.0	A	261	1	0.8	169	17	1.5	354	73	1.8
					3.0 ML ATWC																					
29	8	23	29.5	60	7.6	139	42.5	15.2	1.6	10	5	202	20	0.51	1.9	1.1	B	303	5	0.7	211	26	4.0	43	63	1.2
29	10	19	21.7	62	0.3	149	31.7	45.7	2.3	30	11	105	35	0.55	0.6	0.9	A	278	2	0.7	8	19	0.9	182	71	1.8
29	14	19	16.1	60	57.2	149	49.4	43.5	3.7	33	4	37	35	0.43	0.5	1.7	B	261	0	0.7	154	1	0.8	351	73	3.0
		4.6 MB			4.2 ML ATWC									Felt (III) at Anchorage and (II) at Palmer, Wasilla and Willow.												
29	15	12	49.0	62	9.6	150	17.7	50.3	2.5	29	8	128	61	0.50	0.8	1.4	B	90	2	0.7	359	11	1.5	190	79	2.7
29	16	13	6.1	60	28.1	141	18.1	9.1	1.4	16	9	123	27	0.40	0.4	1.0	A	355	7	0.5	86	7	0.7	221	80	1.9
29	21	11	57.7	60	57.9	149	50.1	41.3	3.2	32	8	63	46	0.41	0.4	1.7	B	166	1	0.7	81	2	0.6	284	85	3.1
30	3	41	44.4	58	32.5	154	33.8	19.9	2.5	9	5	224	110	0.56	3.7	7.5	D	347	13	2.3	82	19	4.1	225	67	15.1
30	7	38	56.8	60	17.6	140	46.7	10.1	2.5	15	9	142	21	0.47	0.4	0.7	A	93	1	0.6	3	27	0.5	185	63	1.5

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - SEPTEMBER 1984

1984	ORIGIN TIME HR MN SEC	LAT N DEG MIN	LONG W DEG MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
SEP 30	7 55 36.4	60 18.3	140 47.3	8.7	2.2	15	7	143	22	0.36	0.6	0.8	A	81	16	0.6	328	24	0.6	196	54	1.8
30	8 16 22.9	60 17.6	140 49.6	13.9	1.1	11	8	164	19	0.35	0.9	1.1	A	98	7	0.5	4	36	0.8	197	53	2.5
30	10 10 27.6	61 19.5	146 39.0	21.3	2.0	29	17	48	27	0.69	0.3	0.6	A	21	2	0.5	290	9	0.3	123	81	1.1
30	10 51 12.1	61 18.8	146 39.0	21.8	2.1	32	19	47	27	0.69	0.2	0.5	A	4	5	0.4	274	9	0.3	123	80	1.0
30	14 23 59.7	60 51.6	152 28.9	3.9	1.9	22	10	101	32	1.08	0.6	0.6	A	198	5	0.4	106	17	1.2	304	72	1.1
30	14 53 24.8	60 51.9	152 31.5	3.8	1.9	22	9	102	33	1.03	0.8	0.6	A	196	4	0.4	287	15	1.5	91	74	1.1
30	17 56 23.5	59 40.3	152 11.2	57.2	2.5	15	4	93	41	0.38	0.9	1.6	B	300	1	0.9	210	6	1.7	39	84	3.1
30	21 25 39.1	61 47.3	148 59.5	14.8	1.2	15	8	93	4	0.26	0.5	0.4	A	340	18	0.8	82	32	1.1	225	52	0.6

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - OCTOBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
OCT 1	1	37	13.0	60	19.5	140	50.0	8.6	1.1	5	4	174	22	0.43	2.0	3.4	C	286	0	0.8	16	28	1.6	196	62	7.2
1	2	4	25.0	61	47.0	148	59.9	12.4	1.9	15	6	94	4	0.37	0.7	0.6	A	222	29	0.8	108	36	1.3	340	40	1.1
1	2	9	7.1	60	2.8	152	41.8	77.4	2.5	12	5	116	16	0.36	1.0	1.7	B	261	0	1.8	169	8	1.8	351	82	3.3
1	9	55	59.3	60	11.0	141	8.9	4.6	0.7	6	5	135	7	0.27	0.8	1.1	A	287	6	0.6	20	30	1.1	187	59	2.3
1	15	48	39.6	63	1.8	151	9.6	134.9	3.2	11	4	127	119	0.34	3.0	5.8	D	113	3	5.5	22	19	2.7	212	71	11.5
1	17	47	1.5	60	11.9	153	21.9	141.6	3.0	13	7	160	30	0.29	2.6	2.2	B	81	4	2.0	315	23	4.4	178	48	3.1
1	18	23	24.3	60	19.1	141	15.8	13.4	1.7	12	6	116	22	0.35	0.8	1.4	A	81	3	1.1	328	16	0.9	180	62	2.5
1	21	39	12.4	60	58.6	146	57.9	26.5	2.2	31	15	55	13	0.58	0.4	0.7	A	8	3	0.7	278	6	0.5	125	83	1.4
2	2	27	49.8	61	50.8	149	10.5	4.1	0.9	11	6	177	11	0.56	0.8	1.4	B	177	1	1.3	268	28	0.8	85	62	3.0
2	3	41	52.9	60	42.3	140	31.1	21.8	1.3	5	4	224	53	0.38	3.0	2.9	C	144	1	1.0	81	40	6.5	235	43	3.5
2	4	8	20.4	60	1.4	152	45.3	100.1	2.5	18	10	74	18	0.41	0.9	1.5	B	45	3	1.2	135	12	1.7	301	78	2.9
2	15	30	25.1	60	54.0	152	28.2	0.3	1.8	18	12	103	36	0.68	1.1	0.8	A	193	7	0.7	286	23	2.1	87	66	1.4
2	17	51	24.5	59	44.8	139	26.8	30.0	1.0	6	2	160	9	0.52	4.7	2.3	C	81	1	7.2	317	3	1.2	184	56	3.6
2	18	5	34.8	62	16.0	151	4.0	74.9	2.7	19	3	99	40	0.64	1.3	1.9	B	81	13	1.7	337	16	2.2	204	65	3.7
2	19	24	37.3	60	39.7	151	48.8	14.0	1.2	9	8	126	33	0.71	0.6	0.9	A	343	8	1.1	81	13	0.8	224	73	1.7
3	1	4	33.5	61	32.0	151	52.5	7.8	1.0A	5	4	173	33	0.50	2.6	1.1	B	289	9	5.0	22	15	0.7	169	72	2.0
3	1	5	59.1	61	48.5	148	57.2	8.1	-0.1	4	4	190	3	0.20	1.2	0.9	A	145	33	1.0	261	34	2.6	24	39	1.3
3	1	39	23.7	62	15.2	151	18.3	96.4	2.9	20	7	172	33	0.57	1.2	1.6	B	276	3	1.2	8	29	2.0	181	61	3.2
3	3	51	39.3	61	41.3	151	2.9	63.6	2.5	23	11	118	30	0.52	0.6	0.9	A	81	13	0.7	174	18	1.1	317	68	1.8
3	6	53	10.2	59	56.2	153	42.3	143.0	3.0	12	4	126	32	0.14	1.7	1.7	B	122	30	3.2	261	36	2.5	14	27	3.1
3	7	14	34.8	61	31.3	146	27.6	25.7	2.5	32	8	77	29	0.85	0.4	0.8	A	18	2	0.8	288	4	0.5	135	86	1.5
3	7	16	0.0	61	32.5	146	21.7	35.7	2.1	25	9	83	24	0.59	0.4	0.4	A	261	16	0.6	155	33	0.7	12	51	0.9
3	9	46	45.1	60	19.0	140	43.7	13.1	1.1	12	6	148	25	0.44	0.7	1.0	A	313	13	0.5	50	26	0.7	199	60	2.2
3	12	9	3.5	60	16.1	141	48.0	8.2	0.9	7	3	85	11	0.21	0.7	1.0	A	309	9	0.7	213	31	0.8	53	57	2.1
3	12	58	21.4	59	45.3	139	20.7	16.0	0.8	5	3	178	10	0.32	2.4	1.2	B	321	14	0.6	261	26	3.9	82	49	1.2
3	14	56	2.4	60	4.1	152	40.5	93.3	2.6	18	8	71	15	0.49	0.6	1.2	A	35	2	0.9	126	4	1.1	279	85	2.2
3	17	39	33.3	60	16.2	141	34.3	8.9	1.4	16	4	95	14	0.45	0.6	0.7	A	144	5	0.6	81	37	0.7	240	45	1.4
3	19	17	24.2	62	44.2	143	47.5	15.8	2.6	16	8	93	89	0.45	2.9	3.4	C	261	21	3.0	154	31	1.3	18	50	8.1
				3.0 ML ATWC						FELT (II) AT SLANA AND NABESNA.																
3	20	43	51.9	61	16.7	152	11.9	3.8	0.4	3	3	288	3	0.04	1.4	0.9	B	186	2	1.2	96	3	2.5	310	86	1.6
3	21	2	2.2	61	50.9	149	19.3	5.4	2.2	31	7	94	19	0.60	0.4	0.6	A	185	3	0.8	276	27	0.5	89	63	1.2
3	21	29	14.5	60	18.0	141	17.1	18.5	1.4	15	5	113	20	0.24	0.6	0.9	A	41	11	0.8	305	27	0.6	151	60	1.9
3	23	1	25.9	60	27.5	141	8.8	13.4	0.9A	7	5	168	35	0.40	0.5	1.5	B	84	7	0.9	353	9	0.7	211	79	2.8
4	0	33	46.0	60	14.3	140	58.2	12.3	1.3	17	6	125	10	0.18	0.6	0.7	A	297	8	0.6	35	41	0.8	198	48	1.5
4	1	32	47.6	61	28.2	151	10.5	14.9	0.9A	4	2	144	23	0.30	7.7	11.6	D	224	15	0.9	323	29	1.1	110	57	26.1
4	5	5	21.5	61	50.3	149	13.1	5.0	0.0A	3	2	335	13	0.28	3.6	10.3	D	291	13	1.9	198	13	2.6	65	71	20.2
4	5	24	12.1	61	3.1	140	38.3	9.4	0.9A	5	4	246	39	0.17	1.7	5.9	D	121	5	1.0	30	10	2.4	237	79	11.2
4	6	41	58.6	58	4.4	139	39.6	13.4	2.5	9	5	313	160	0.47	25.0	25.0	D	292	16	8.6	31	30	5.6	178	55	99.0
4	9	53	47.0	61	49.5	148	57.4	11.4	0.1A	3	3	175	2	0.07	1.8	1.3	B	351	8	1.9	261	34	3.8	93	55	1.4
4	13	13	39.5	60	9.7	153	1.0	121.2	2.8	16	4	105	11	0.21	1.2	2.0	B	151	7	2.1	81	19	1.3	262	62	3.6
4	16	3	4.0	61	50.0	148	56.0	15.4	1.9	28	9	150	2	0.83	0.6	0.6	A	173	7	1.0	265	15	0.6	59	73	1.1
4	16	30	46.6	61	49.4	148	51.1	13.6	0.1A	4	4	168	6	0.09	1.0	2.1	B	28	8	1.6	121	19	1.1	276	69	4.1
4	16	38	13.2	60	50.9	152	36.3	7.4	0.6	5	2	198	32	0.57	1.5	1.5	B	7	16	0.6	264	39	2.1	115	47	3.4
4	18	15	9.0	60	9.8	141	45.7	8.7	0.7	5	3	131	16	0.20	2.1	2.1	B	322	9	1.2	261	43	2.6	61	39	4.1
4	18	43	31.8	59	36.5	138	48.9	7.6	1.1	6	1	241	18	0.32	3.6	5.2	C	342	18	1.0	81	24	4.6	219	59	11.1
4	19	33	50.5	60	14.7	141	36.1	7.7	1.3	20	5	92	13	0.59	0.4	0.6	A	285	3	0.5	16	10	0.7	179	80	1.2
4	22	41	4.9	59	8.4	151	48.1	52.2	3.5	16	2	145	39	0.24	1.5	2.7	B	261	4	1.6	328	4	2.4	115	66	4.6
		4.6 MB			4.3 ML ATWC					FELT (III) AT HOMER.																
5	2	53	16.9	60	5.2	141	39.2	12.0	0.8	12	7	167	12	0.48	0.6	0.6	A	261	11	0.6	355	42	1.0	159	47	1.1
5	7	53	25.7	61	15.4	152	11.2	2.8	-0.1	3	3	275	2	0.04	1.1	0.9	A	183	14	0.8	281	27	2.2	69	59	1.6
5	8	19	59.8	60	2.8	141	47.5	8.8	0.8	10	8	172	13	0.68	0.5	0.6	A	182	3	1.0	91	5	0.6	303	84	1.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - OCTOBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
OCT 5	13	33	4.1	60	58.8	150	12.5	45.8	2.1	30	13	41	46	0.49	0.4	1.2	A	263	0	0.5	173	2	0.7	353	88	2.3
5	23	38	37.5	61	55.0	149	6.6	10.3	0.9	13	8	192	12	0.57	0.8	1.2	A	12	2	1.4	281	32	0.6	105	58	2.7
6	1	35	58.5	62	19.4	149	5.5	45.0	2.7	27	7	118	55	0.48	0.8	1.6	B	81	11	1.0	331	13	0.9	203	64	3.1
6	12	56	49.6	60	20.4	141	16.2	18.6	1.1	10	7	118	24	0.70	0.6	0.9	A	325	13	0.5	81	21	0.8	212	55	1.7
7	1	40	14.1	59	58.7	151	14.9	50.2	2.2	22	10	159	8	0.41	1.2	0.9	A	86	7	0.9	180	28	2.4	343	61	1.4
7	3	23	33.2	59	13.4	153	35.0	98.9	2.8	11	4	173	15	0.19	1.4	1.3	B	15	21	2.1	268	39	2.9	127	44	1.9
7	6	42	14.3	59	52.1	153	15.2	117.6	3.0	16	5	75	43	0.27	1.4	1.4	B	81	13	1.3	315	32	2.9	185	42	1.9
7	13	38	23.5	61	23.9	140	9.3	0.5	1.0A	6	4	269	80	0.47	1.8	25.0	D	289	0	2.3	19	0	3.3	0	90	99.0
7	22	3	8.2	60	23.4	141	25.5	16.9	1.8	19	9	111	18	0.50	0.5	0.9	A	81	4	0.7	330	14	0.6	184	65	1.6
7	22	35	12.0	62	16.8	151	3.7	74.7	2.6	21	6	171	41	0.46	1.3	1.4	B	171	10	2.5	81	20	1.1	287	68	2.7
7	23	42	46.0	59	57.8	140	5.6	11.6	2.1	14	8	145	17	0.70	1.1	0.7	A	296	5	0.6	29	26	2.2	196	63	1.1
8	0	51	47.6	60	15.9	140	53.4	10.5	1.2	8	4	158	15	0.15	1.3	1.3	B	305	19	1.0	50	37	0.8	193	47	3.3
8	3	50	26.9	60	8.8	141	34.6	7.3	1.3	5	3	227	6	0.43	2.9	0.9	C	45	10	5.6	306	40	0.7	146	48	1.8
8	17	47	27.3	60	1.6	142	42.0	26.6	1.5	17	5	159	48	0.29	0.9	0.7	A	359	9	1.8	266	20	0.9	112	68	1.3
8	17	55	33.1	59	51.8	153	24.1	124.6	2.7	14	5	92	45	0.14	1.8	1.3	B	326	20	3.5	81	24	1.5	207	51	2.2
8	21	10	10.6	61	40.7	150	48.5	57.7	2.9	26	7	131	24	0.41	0.6	0.9	A	89	7	0.7	182	21	1.1	342	68	1.8
					3.5 ML ATWC																					
9	1	36	45.3	59	59.6	140	41.3	4.7	1.0	9	3	169	25	0.34	1.0	2.2	B	276	0	0.6	186	16	1.6	6	74	4.3
9	2	29	9.3	59	46.6	152	38.1	76.3	2.2	17	8	88	46	0.38	0.8	1.5	B	81	7	1.0	150	14	1.3	322	64	2.6
9	6	0	14.6	60	16.2	140	58.6	7.0	0.9	13	6	129	13	0.33	0.8	1.3	A	106	2	0.5	14	28	0.7	200	62	2.8
9	11	21	23.0	61	11.7	149	46.4	43.0	0.8A	10	5	120	13	0.29	1.2	1.4	B	208	1	1.0	118	29	2.0	300	61	2.7
9	12	18	47.3	60	40.4	140	37.2	10.8	1.3	11	5	193	51	0.51	1.3	2.0	B	143	4	0.6	261	13	1.9	40	59	3.5
9	18	40	37.3	60	11.4	141	34.2	5.6	0.4	7	3	106	7	0.29	0.9	2.0	B	322	15	0.6	261	16	1.2	108	54	3.3
9	22	55	19.0	60	36.4	143	15.5	15.0	1.0	10	8	90	28	0.58	0.7	2.8	C	14	8	0.8	283	9	0.8	145	78	5.4
10	2	31	52.2	61	57.2	151	29.2	84.6	2.4	14	8	134	4	0.40	1.1	1.1	A	81	8	1.3	173	43	1.8	342	46	2.4
10	6	32	38.6	61	19.5	139	56.0	0.4	1.9	13	4	249	85	0.59	1.9	4.8	C	282	0	1.6	12	7	3.4	192	83	9.1
10	9	16	52.2	59	35.0	151	57.4	43.7	2.1	13	8	181	63	0.51	0.8	3.0	C	359	3	1.5	268	7	0.9	112	82	5.8
10	12	6	49.2	60	24.3	141	15.6	21.0	0.5A	4	3	138	27	0.38	2.4	4.2	C	326	2	1.9	81	25	1.5	232	55	8.3
10	12	26	55.7	60	25.3	140	34.0	13.2	1.5	16	6	169	39	0.76	1.0	2.1	B	316	9	0.7	81	9	1.1	199	53	3.5
10	12	35	50.8	61	18.8	139	59.3	9.1	0.9A	5	4	271	82	0.48	3.0	17.6	D	109	4	3.6	18	5	4.3	237	84	33.2
10	13	59	19.5	59	57.9	140	49.1	5.4	1.1	13	5	167	20	0.39	0.9	1.0	A	114	4	0.6	208	43	1.5	20	47	2.0
10	14	10	11.9	61	41.1	150	23.8	7.1	2.2	17	6	165	31	0.44	0.5	0.7	A	27	20	0.9	287	25	0.6	151	57	1.4
10	14	25	13.0	60	39.1	143	6.4	1.5	1.0	9	6	79	27	0.58	0.6	22.5	D	261	0	1.0	343	1	0.8	171	82	41.8
10	15	35	49.3	60	12.6	140	59.4	10.0	0.8	12	6	119	7	0.20	0.9	0.8	A	290	1	0.6	199	39	2.2	21	51	0.7
10	17	40	48.8	60	41.2	151	42.7	71.4	2.8	27	8	56	27	0.37	0.7	1.2	A	33	8	0.8	126	20	0.9	282	68	2.4
10	21	17	18.2	59	46.5	152	44.3	78.7	2.5	16	5	129	46	0.18	1.1	1.6	B	81	10	1.1	158	26	1.5	330	60	3.2
10	21	46	40.3	60	16.7	141	27.0	13.5	0.5	7	4	114	15	0.10	1.6	1.7	B	327	8	0.7	81	38	1.0	228	45	4.2
10	22	11	27.8	60	6.9	141	7.5	8.1	1.1	14	12	86	6	0.58	0.5	0.4	A	284	20	0.5	180	33	1.0	40	50	0.7
10	23	18	25.6	60	5.9	147	10.9	27.6	2.0	32	17	125	27	0.99	0.4	0.5	A	81	5	0.5	335	27	0.7	180	59	0.9
11	1	38	13.4	60	39.9	143	7.0	1.3	0.8	6	4	91	28	0.38	0.9	25.0	D	261	0	0.8	326	1	0.9	171	65	57.5
11	4	5	23.2	61	47.9	148	57.8	15.4	0.3	6	5	150	4	0.24	0.7	1.2	A	95	8	1.2	189	26	0.8	349	63	2.5
11	4	17	0.6	61	38.1	150	20.7	16.6	0.5A	4	3	190	28	0.18	10.7	25.0	D	154	14	11.2	81	17	0.8	290	63	54.4
11	6	31	53.8	59	57.3	141	35.1	11.6	1.3	13	5	183	22	0.40	0.9	0.9	A	265	3	0.8	172	41	1.4	358	49	2.0
11	6	56	53.7	61	22.4	150	23.8	8.1	0.5A	5	3	206	21	0.91	2.0	1.1	B	339	24	4.1	81	25	0.8	211	54	1.6
11	7	7	46.3	61	34.1	150	11.3	1.8	1.1A	5	3	177	32	0.23	8.3	1.4	D	160	3	15.2	81	14	0.5	262	72	2.7
11	9	56	55.1	59	58.1	140	7.1	14.8	1.6	13	4	152	16	0.74	1.1	0.8	A	299	3	0.6	31	26	2.3	203	64	1.2
11	10	8	48.9	61	33.1	146	20.5	26.6	2.1	37	9	85	23	0.60	0.4	0.9	A	292	6	0.5	201	6	0.8	67	81	1.7
11	11	19	33.8	60	9.7	140	47.9	3.2	0.7	6	2	163	13	0.23	2.2	2.4	B	97	1	0.8	6	41	2.3	188	49	5.6
11	16	4	2.1	61	48.3	148	52.6	12.0	-0.1A	4	3	142	4	0.10	2.1	1.7	B	136	34	1.0	261	34	4.8	19	34	1.9
11	17	40	2.3	61	27.2	149	30.7	40.9	1.5	10	7	94	23	0.44	0.8	1.2	A	261	0	0.8	140	7	1.1	351	58	1.9
11	21	18	38.2	61	19.0	150	53.6	58.8	2.8	30	10	66	18	0.50	0.5	1.0	A	81	2	0.6	153	12	0.8	342	68	1.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - OCTOBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
OCT 12	6	3	19.8	59	30.7	152	43.3	79.5	2.7	16	6	102	45	0.30	1.3	2.6	B	141	9	1.9	81	13	1.3	273	56	4.3
12	12	39	57.9	60	2.0	141	57.9	7.3	1.5	24	7	157	4	0.72	0.6	0.5	A	92	15	0.4	189	25	1.2	334	60	0.8
12	12	53	9.5	61	35.3	150	42.8	62.5	2.4	29	12	117	14	0.43	0.6	0.8	A	81	4	0.5	170	26	1.0	343	64	1.5
12	14	23	32.3	60	16.7	141	26.1	11.8	0.3	6	4	118	15	0.15	1.5	1.5	B	318	7	0.7	81	39	1.0	221	40	3.6
12	14	34	25.8	60	17.8	141	25.5	9.9	1.2	19	8	105	17	0.34	0.4	0.7	A	304	8	0.5	36	17	0.6	190	71	1.3
12	15	29	25.0	60	17.9	141	25.1	10.1	1.3	18	7	105	17	0.30	0.5	0.6	A	322	13	0.5	81	22	0.6	211	52	1.2
12	15	34	17.8	60	16.6	141	26.9	13.7	0.3	6	4	114	15	0.12	1.2	1.4	B	335	18	0.6	81	35	0.9	223	48	3.3
12	17	3	38.2	60	16.2	141	5.1	11.2	1.1	16	6	122	13	0.52	0.6	0.8	A	311	17	0.6	50	30	0.7	195	55	1.8
12	19	41	43.4	60	16.7	152	11.4	81.8	2.4	22	5	87	35	0.24	0.7	1.2	A	183	7	1.1	91	16	1.2	296	72	2.3
13	0	3	14.6	59	57.8	140	12.4	8.6	1.2	8	5	168	15	0.89	1.0	0.9	A	124	2	0.6	33	43	2.3	216	47	0.9
13	3	29	30.3	60	35.1	152	49.9	127.1	3.0	21	5	91	23	0.48	1.0	1.5	B	225	8	1.5	317	11	1.8	100	76	2.8
13	5	34	44.9	60	8.7	141	6.7	0.3	1.4	13	7	84	4	0.37	0.3	0.7	A	279	9	0.4	12	16	0.5	161	71	1.3
13	5	54	53.0	60	14.1	141	33.4	8.9	0.6	5	4	168	11	0.41	2.2	1.8	B	329	11	0.6	261	41	4.8	72	43	1.1
13	8	54	17.8	61	38.3	150	45.5	61.2	2.8	31	9	122	20	0.43	0.8	1.2	A	261	1	0.8	163	14	1.3	355	74	2.2
13	12	9	56.2	61	16.2	140	31.4	6.0	1.8	14	6	242	55	0.62	1.1	4.0	C	117	3	1.1	27	6	1.8	234	83	7.5
13	23	30	5.6	60	25.6	141	19.8	12.7	0.7	8	6	121	24	0.36	0.6	1.4	B	0	13	0.6	93	15	0.8	231	70	2.7
14	0	17	27.8	61	48.7	148	58.0	15.7	0.0A	4	3	207	3	0.04	1.7	1.7	B	231	10	2.2	132	43	1.3	331	45	4.3
14	1	49	6.8	61	6.4	143	33.0	3.3	1.1	9	4	117	40	0.96	1.0	17.9	D	279	0	0.8	189	1	1.7	9	89	33.5
14	4	49	40.3	62	16.5	149	26.0	51.9	3.3	33	6	121	54	0.36	0.8	2.2	B	276	3	1.3	6	11	1.3	171	79	4.2
			3.8 MB																							
14	10	19	49.4	60	59.1	147	13.7	18.3	2.5	39	10	45	10	0.49	0.4	0.6	A	189	4	0.7	280	12	0.4	81	77	1.1
			3.2 MB			3.4 ML ATWC																				
14	10	43	15.2	61	54.3	149	15.0	8.2	0.3A	4	4	320	17	0.22	1.9	3.0	B	330	15	1.7	261	27	2.4	91	53	5.6
14	18	3	36.7	59	56.2	140	53.7	0.4	0.9	7	2	192	25	0.30	1.3	2.2	B	282	1	1.1	192	17	2.2	15	73	4.3
14	18	45	55.8	60	29.4	151	58.3	73.5	3.0	25	4	70	26	0.36	0.8	1.2	A	348	5	0.9	81	25	1.1	247	64	2.4
14	19	41	32.8	60	11.2	139	45.4	20.8	1.0	6	3	193	27	0.39	3.2	1.7	C	115	15	1.2	212	26	6.6	358	60	1.6
14	19	46	45.0	61	37.3	151	12.7	15.6	1.1A	5	4	148	31	0.64	0.8	11.3	D	193	1	1.3	283	2	1.2	76	88	21.1
14	20	12	34.3	61	47.0	149	3.6	10.6	1.7	26	8	118	7	0.82	0.5	0.7	A	174	8	0.9	269	31	0.5	71	58	1.5
14	21	15	8.1	60	33.1	143	9.4	27.3	0.6A	3	1	150	65	0.02	8.8	21.4	D	192	14	2.3	287	16	5.7	63	68	43.0
14	21	35	31.6	60	17.1	140	57.5	13.1	1.8	18	7	131	15	0.23	0.5	0.8	A	315	15	0.6	50	19	0.8	189	65	1.6
14	22	58	17.1	60	30.5	141	12.6	10.6	0.9	6	3	177	34	0.41	1.4	2.8	C	115	5	1.0	23	23	1.5	217	66	5.7
14	23	7	2.9	61	48.8	148	54.2	13.2	-0.1A	4	4	142	4	0.14	1.3	1.7	A	81	14	1.6	135	32	0.9	328	42	2.9
15	0	51	53.0	60	59.2	147	13.4	21.3	2.1	35	17	45	9	0.50	0.4	0.6	A	190	5	0.8	281	13	0.4	79	76	1.2
15	4	15	20.8	62	9.9	149	31.3	62.5	2.7	30	7	115	47	0.37	1.1	1.8	B	280	3	1.1	11	22	1.7	183	68	3.7
15	4	35	35.0	61	7.2	149	8.0	27.7	0.7A	5	5	106	27	0.11	0.7	2.0	B	111	1	1.0	202	10	1.2	15	80	3.8
15	7	2	23.6	60	5.7	152	26.2	90.4	2.6	20	11	101	23	0.46	0.9	1.5	B	150	1	1.5	81	7	1.1	248	68	2.6
15	7	44	27.8	61	36.9	150	16.4	8.3	1.2A	7	5	158	21	0.52	1.6	1.2	B	81	8	0.7	162	36	3.5	340	52	1.3
15	7	48	24.5	61	6.6	146	30.5	9.2	0.7	5	3	136	6	0.10	5.8	3.5	C	81	12	1.4	144	32	10.8	331	48	2.6
15	8	57	32.0	60	15.1	140	48.5	9.5	1.0	11	7	136	17	0.36	1.0	1.4	B	106	1	0.7	15	33	1.0	198	57	3.2
15	14	24	16.3	61	6.4	152	13.8	12.1	0.6	4	4	184	13	0.28	2.2	1.9	B	199	23	0.9	89	39	4.7	312	42	3.0
15	14	42	9.0	61	22.5	150	20.7	51.7	2.4	27	9	81	24	0.43	0.6	1.5	B	269	0	0.8	179	7	1.0	359	83	2.9
15	18	40	51.8	60	57.8	146	44.7	1.3	2.4	36	8	39	15	0.63	0.4	0.7	A	4	1	0.7	274	4	0.5	108	86	1.4
15	19	11	41.6	57	53.2	137	59.2	14.4	2.2	6	3	214	182	0.35	12.9	12.2	D	317	2	4.2	81	41	11.3	225	39	28.3
15	20	34	40.2	57	53.0	138	0.2	20.1	2.3	6	3	215	182	0.40	10.1	10.0	D	316	2	3.4	81	39	8.8	224	40	22.5
15	21	34	33.5	60	14.3	140	45.6	13.4	1.5	12	7	137	18	0.45	0.9	1.0	A	108	7	0.6	12	41	1.1	206	48	2.2
15	22	24	32.0	61	46.6	149	2.2	13.8	1.2	16	12	107	6	0.52	0.7	0.7	A	330	18	1.0	261	37	0.7	85	45	1.5
15	23	51	20.6	61	4.5	152	18.9	13.4	0.4A	4	3	197	18	0.11	3.7	4.3	C	203	23	1.4	307	29	4.5	81	51	9.9
16	0	34	41.7	61	25.3	150	48.0	58.4	2.7	30	9	69	6	0.44	0.5	1.1	A	81	3	0.7	170	8	0.9	330	81	2.2
16	5	1	36.7	61	9.1	146	33.8	15.4	0.0A	6	5	178	10	0.48	1.2	1.2	A	223	8	0.6	321	44	1.2	125	45	2.9
16	6	2	35.6	60	25.8	142	47.9	21.6	0.6	10	8	79	4	0.45	0.6	0.5	A	336	33	0.7	91	34	0.9	214	39	1.2
16	7	11	44.2	59	56.3	152	48.0	88.8	2.7	18	6	76	27	0.34	1.2	1.1	A	216	3	1.3	310	42	2.6	123	48	1.7

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - OCTOBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
OCT 16	7	41	27.8	60	9.9	139	37.3	15.0	0.9	9	4	198	24	0.61	1.8	1.3	B	313	12	0.9	215	32	3.9	61	55	1.4
16	14	22	17.2	62	0.1	148	54.2	42.0	2.5	29	9	99	19	0.46	0.7	0.9	A	90	12	0.8	354	23	1.1	205	64	1.8
16	16	28	46.5	61	46.2	149	2.1	9.9	0.2A	3	3	243	6	0.12	7.6	2.9	D	81	26	14.9	175	32	1.0	315	49	1.9
16	21	27	20.6	59	59.4	153	40.0	154.4	3.0	14	5	157	37	0.21	2.4	2.2	B	40	17	2.1	295	40	5.0	148	45	3.6
17	5	20	4.4	60	29.1	144	56.3	14.4	1.0A	10	7	166	16	0.64	1.2	1.0	A	109	15	0.6	209	35	2.6	0	51	1.5
17	5	36	55.9	60	6.5	141	5.8	7.4	0.9	9	5	101	5	0.45	0.6	0.5	A	178	5	1.1	270	23	0.6	76	66	0.9
17	11	10	19.6	60	15.6	140	36.9	9.6	0.6	7	4	158	26	0.25	1.3	2.5	B	299	13	0.6	35	23	0.9	182	63	5.2
17	12	48	14.5	59	21.7	144	43.0	15.2	1.9	21	8	227	95	0.51	1.2	1.5	B	23	2	2.2	114	38	1.2	290	52	3.3
17	16	10	13.3	61	48.4	148	51.5	14.8	1.3	21	9	133	5	0.55	0.5	0.4	A	342	8	0.9	261	33	0.6	84	55	0.8
17	19	13	11.6	58	34.2	151	4.4	84.9	2.6	9	4	195	124	0.70	4.8	5.6	D	22	3	1.7	114	26	8.4	286	64	11.0
17	19	13	37.8	60	18.8	140	20.0	15.0	0.8	6	5	207	25	0.52	2.1	3.9	C	81	3	1.6	331	25	0.7	177	58	7.9
18	3	18	36.5	59	48.5	153	12.2	104.4	2.6	14	3	111	47	0.17	1.9	1.8	B	261	0	1.7	317	35	3.7	171	43	2.2
18	3	27	3.4	60	1.6	152	48.7	102.0	2.9	19	6	100	17	0.64	1.2	1.1	A	220	5	1.4	315	41	2.4	124	49	1.8
18	6	27	1.4	60	10.7	141	3.2	5.0	0.3A	4	3	200	3	0.12	1.5	0.9	B	180	17	2.9	285	40	1.1	72	45	1.7
18	6	57	43.9	60	24.1	144	54.3	20.5	1.7	25	13	150	13	0.75	0.4	0.5	A	114	14	0.5	209	21	0.8	353	64	0.9
18	7	37	57.8	61	9.4	146	35.0	15.0	0.5A	6	5	181	11	0.36	2.2	1.7	B	37	3	0.8	129	37	5.0	303	53	1.3
18	9	17	50.8	60	6.2	152	31.5	83.9	2.6	20	7	99	18	0.23	0.9	1.1	A	81	14	1.0	156	29	1.4	325	55	2.1
18	13	43	18.3	59	55.6	149	5.7	7.8	2.1	34	12	170	28	0.67	0.6	0.6	A	263	9	0.7	359	34	1.3	160	55	0.9
19	1	0	27.6	61	53.0	148	20.9	41.8	1.2	8	6	180	8	0.37	1.1	0.9	A	97	26	0.8	353	27	2.2	224	51	1.8
19	4	44	46.2	61	34.2	150	56.8	70.0	3.7	22	0	83	16	0.32	0.9	1.9	B	81	4	1.0	156	13	1.5	333	70	3.5
	4.5 MB					4.0 ML ATWC						FELT (II) AT ANCHORAGE AND PALMER.														
19	9	27	28.3	61	31.8	149	59.1	44.6	2.1	29	17	80	15	0.42	0.6	0.8	A	261	1	0.5	170	19	1.0	354	71	1.5
19	9	44	47.3	61	47.5	148	59.3	14.7	0.6	12	9	92	4	0.30	0.6	0.5	A	140	3	1.0	261	44	0.6	47	38	1.0
19	11	49	10.4	60	8.1	141	14.5	8.7	1.5	16	8	117	11	0.34	0.5	0.4	A	278	0	0.5	188	11	1.0	8	79	0.7
19	19	23	2.1	61	58.8	151	4.8	9.1	2.0	23	8	183	24	0.59	1.1	0.9	A	97	23	0.5	348	37	2.5	211	44	1.1
19	19	56	57.3	60	10.3	140	59.2	8.1	0.9A	3	3	307	3	0.12	1.3	0.9	A	36	17	2.5	139	36	2.0	285	49	1.1
19	20	43	8.9	60	12.2	151	1.5	67.1	3.1	23	11	73	24	0.43	0.9	1.9	B	87	1	0.9	357	18	1.4	180	72	3.7
	3.7 MB					3.7 ML ATWC						FELT (I) AT ANCHORAGE.														
20	0	45	13.9	61	13.4	149	12.2	41.0	1.1A	11	9	65	19	0.47	0.6	1.1	A	81	5	0.8	142	7	0.8	307	60	1.9
20	5	38	7.6	61	8.8	152	16.0	0.7	0.8	6	6	188	12	0.50	0.7	1.0	A	108	15	1.2	202	16	0.4	337	68	2.0
20	7	45	11.5	62	4.9	148	34.4	40.3	2.3	18	16	205	33	0.75	0.7	0.8	A	278	0	0.9	8	33	1.3	188	57	1.6
20	10	29	30.9	62	15.0	151	28.4	91.5	2.6	19	12	100	30	0.49	1.3	1.2	A	81	13	1.2	172	26	2.4	326	61	2.3
20	12	33	37.6	61	47.6	148	59.3	13.2	1.4	15	14	92	4	0.79	0.4	0.4	A	332	4	0.7	81	40	0.9	238	46	0.4
20	15	49	45.9	60	17.5	140	42.1	11.7	1.3	13	7	147	24	0.37	0.7	1.1	A	297	4	0.5	29	26	0.7	199	64	2.4
20	16	55	56.9	60	31.4	141	43.4	13.1	1.6	17	11	95	18	0.59	0.4	0.7	A	359	8	0.5	91	15	0.7	242	73	1.3
20	19	26	42.2	62	47.6	148	13.8	39.0	2.1	11	11	272	110	0.63	2.1	8.9	D	331	1	2.5	81	9	2.0	235	68	16.0
20	20	39	22.5	61	4.2	152	17.2	15.0	0.6A	4	4	191	18	0.14	1.7	0.6	B	107	3	3.3	199	33	0.9	12	57	1.2
21	10	4	7.7	61	27.5	150	14.4	13.7	0.7A	8	6	112	27	0.56	1.1	1.0	A	96	10	0.7	194	41	2.5	355	47	1.5
21	11	7	22.9	60	23.8	151	45.8	72.9	2.6	18	9	98	40	0.49	0.6	1.5	B	133	2	1.1	43	9	1.1	235	81	2.9
21	18	50	45.4	61	41.5	150	21.3	7.7	1.4	12	8	145	26	0.61	0.7	0.7	A	266	11	0.7	6	43	1.1	165	45	1.6
21	20	18	30.3	61	47.3	148	57.6	11.1	1.4	14	8	137	3	0.42	0.8	0.7	A	321	28	1.1	81	35	1.8	206	39	0.8
21	23	10	20.1	61	21.7	149	52.4	40.0	2.2	29	7	51	21	0.51	0.5	1.3	A	94	1	0.9	184	6	1.0	355	84	2.4
22	4	27	23.1	62	14.0	148	18.7	40.4	2.3	22	8	103	56	0.56	1.0	2.5	B	357	3	2.0	87	7	1.0	244	82	4.7
22	12	42	54.9	61	17.0	149	12.9	34.3	1.2A	14	9	64	19	0.38	0.5	0.8	A	193	5	0.6	285	15	0.9	85	74	1.5
22	17	49	14.0	60	23.5	150	32.8	40.1	2.6	25	7	110	22	0.55	0.7	1.5	B	276	1	0.7	6	8	1.2	179	82	2.8
22	22	43	8.0	63	16.0	148	55.3	42.4	2.4	14	9	152	159	0.77	2.1	10.1	D	6	1	2.5	96	1	4.0	231	89	19.0
23	2	30	22.9	59	59.7	140	47.4	0.1	1.0	11	7	174	20	0.46	0.8	1.0	A	109	4	0.4	199	10	1.5	357	79	1.9
23	4	43	39.2	60	27.8	142	15.1	0.2	1.0	9	5	151	30	0.70	0.6	25.0	D	261	0	0.7	351	0	1.1	0	90	99.0
23	8	27	41.5	59	56.0	141	5.5	7.4	1.0A	12	5	171	15	0.43	1.0	1.2	A	126	15	0.7	226	35	1.1	17	51	2.8
23	9	54	13.2	61	3.6	146	19.8	14.9	2.3	37	11	37	8	0.67	0.2	0.4	A	305	6	0.4	214	7	0.4	75	81	0.7
23	11	43	37.1	59	56.7	140	48.9	0.3	0.8	11	5	181	21	0.56	0.6	1.1	A	111	4	0.5	202	12	1.1	3	77	2.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - OCTOBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
OCT 23	16	39	58.3	55	23.4	135	25.9	10.0	2.8	10	3	317	186	0.34	25.0	25.0	D	261	0	10.4	348	35	52.8	171	55	99.0
23	20	28	47.4	61	28.7	150	4.6	51.1	2.3	33	13	82	22	0.45	0.4	0.7	A	261	5	0.5	162	17	0.7	6	70	1.3
24	2	27	47.3	60	14.2	141	5.2	6.9	2.3	21	11	118	10	0.38	0.4	0.6	A	289	11	0.4	24	26	0.6	178	62	1.1
24	4	36	36.7	60	12.4	141	5.5	10.2	0.8	14	6	113	7	0.26	0.8	0.7	A	298	12	0.5	198	40	1.9	41	48	0.8
24	4	38	22.1	60	13.8	141	4.1	8.3	2.2	19	14	118	9	0.31	0.4	0.4	A	323	25	0.4	68	29	0.5	199	50	1.0
24	7	20	32.3	60	19.2	140	51.5	24.9	0.7A	10	5	140	21	0.76	1.5	2.7	B	305	8	0.9	39	26	1.5	199	63	5.6
24	10	10	32.3	60	6.7	141	10.0	8.9	0.9	14	3	107	6	0.25	0.7	0.5	A	185	11	1.4	278	15	0.6	60	71	1.0
24	12	9	35.1	60	58.0	147	17.5	30.8	2.1	35	21	46	14	0.55	0.3	0.3	A	286	6	0.3	190	44	0.5	22	45	0.6
24	13	13	16.8	61	7.1	152	14.0	10.6	0.5A	6	4	177	12	0.31	1.5	1.4	B	203	24	0.6	311	36	1.8	87	45	3.5
24	13	47	4.3	60	13.7	151	56.3	63.6	2.4	23	13	63	41	0.48	0.6	1.0	A	351	2	1.1	82	9	0.7	249	81	1.9
24	14	14	23.7	60	20.2	145	4.9	24.2	1.0	12	6	209	23	0.45	1.2	1.0	A	121	2	1.0	30	30	2.4	214	60	1.6
24	20	1	31.4	60	10.6	141	31.2	11.6	1.0	10	6	100	4	0.42	0.6	0.7	A	19	24	0.9	275	29	0.7	142	51	1.5
24	21	17	53.9	60	47.2	150	50.9	45.1	2.7	28	10	47	22	0.62	0.3	1.1	A	81	1	0.6	341	4	0.6	184	79	2.1
24	22	43	58.0	59	59.9	142	4.5	6.7	1.3	13	10	205	5	0.38	0.7	0.4	A	14	7	1.3	281	23	0.6	120	66	0.8
25	2	35	10.8	60	56.4	146	50.6	35.9	2.2	31	24	53	15	0.81	0.3	0.2	A	186	9	0.6	279	17	0.4	69	71	0.5
25	9	39	11.0	60	16.2	141	23.0	4.7	1.0	13	9	105	15	0.33	0.3	0.6	A	292	6	0.4	24	20	0.5	186	69	1.2
25	10	5	49.3	60	4.1	140	39.9	0.4	1.4	13	6	146	23	0.50	0.7	0.7	A	279	4	0.4	186	40	1.4	14	50	1.3
25	12	44	26.6	60	22.6	141	15.8	16.3	1.7	14	12	120	27	0.44	0.4	0.6	A	301	10	0.5	35	22	0.6	188	66	1.3
25	12	46	51.7	60	22.0	141	16.6	15.4	1.3	14	10	119	26	0.33	0.4	0.7	A	300	4	0.5	31	17	0.6	197	73	1.3
25	13	25	6.3	60	22.2	141	17.1	16.5	1.0A	7	6	120	25	0.32	0.8	1.9	B	95	14	0.8	1	16	0.6	224	69	3.9
25	15	21	16.6	60	22.3	141	17.6	17.9	1.3A	8	6	119	25	0.29	0.8	1.4	B	344	17	0.6	81	20	0.8	217	63	2.9
25	15	31	42.1	60	5.6	140	31.3	0.0	1.3	14	10	138	15	0.55	0.7	0.7	A	282	7	0.3	16	36	1.2	183	53	1.5
25	17	46	9.0	59	19.7	144	56.7	12.2	1.9	19	10	220	73	0.72	1.1	1.0	A	83	26	0.8	192	35	1.6	325	44	2.4
25	18	26	10.1	60	2.1	140	32.2	1.5	0.8	7	3	176	17	0.32	2.2	3.0	C	267	6	0.6	359	19	3.8	160	70	5.8
26	0	18	26.4	61	46.2	149	4.6	10.8	1.5	13	13	116	8	0.70	0.5	0.6	A	327	8	0.7	261	35	0.4	68	48	1.1
26	2	6	23.8	59	54.8	142	51.0	1.2	1.5A	15	10	185	33	0.94	0.7	18.4	D	292	0	0.6	202	1	1.1	22	89	34.4
26	9	34	13.1	61	13.0	143	40.4	0.0	1.2	8	7	118	26	0.48	0.7	25.0	D	295	0	0.6	25	0	1.3	0	90	99.0
26	13	33	24.0	61	47.1	148	59.6	14.2	1.1	12	10	93	4	0.61	0.5	0.5	A	325	11	0.8	81	33	1.1	222	48	0.5
26	15	54	56.2	59	41.6	153	0.7	93.3	2.2	12	9	125	46	0.39	0.9	1.5	B	261	4	1.3	160	13	1.6	7	73	2.8
26	15	55	14.8	59	33.2	140	13.4	0.8	1.0A	6	3	281	56	0.46	2.3	2.7	C	5	13	3.0	265	36	2.2	112	51	6.2
26	16	17	41.8	62	29.3	149	50.6	81.3	2.5	15	11	240	86	0.48	1.5	2.0	B	283	6	1.0	17	31	2.0	183	58	4.2
26	16	30	38.5	60	26.7	143	58.5	19.4	0.7A	5	2	130	20	0.24	1.4	1.3	B	318	25	2.0	81	30	0.9	203	41	3.1
26	19	59	21.8	60	19.0	140	45.2	16.0	0.7A	8	5	146	24	0.30	1.2	2.0	B	309	11	0.9	45	28	1.0	200	60	4.3
26	20	32	53.4	61	47.6	149	58.3	48.1	2.3	23	15	92	17	0.48	0.5	0.8	A	358	3	0.9	268	5	0.5	119	84	1.5
26	22	33	2.7	60	16.6	140	56.8	9.1	1.1	11	9	131	14	0.25	0.6	0.8	A	292	5	0.5	25	33	0.6	194	57	1.7
26	23	14	2.1	60	24.7	142	57.5	1.3	0.9	8	5	101	7	0.54	0.7	5.7	D	192	1	0.9	282	3	1.2	84	87	10.7
27	1	49	38.7	61	16.4	150	0.9	41.1	2.2	30	14	55	25	0.49	0.4	1.4	B	160	1	0.7	261	3	0.6	53	79	2.7
27	2	58	13.7	60	13.8	141	37.0	10.9	0.7	6	1	195	12	0.10	2.7	1.1	B	261	25	4.5	328	26	0.7	116	49	1.8
27	6	40	24.5	60	21.8	141	14.2	9.6	0.8	10	6	121	26	0.42	0.7	1.2	A	327	11	0.6	81	15	0.8	210	60	2.4
27	6	42	49.4	60	21.3	141	16.5	14.8	2.0	17	9	118	26	0.40	0.4	0.9	A	81	8	0.7	346	15	0.6	198	72	1.8
27	16	57	43.5	60	6.9	152	9.5	66.8	2.4	18	13	102	37	0.71	0.5	1.0	A	85	1	0.9	355	3	0.9	193	87	2.0
27	17	32	0.1	61	10.6	152	9.7	6.6	0.4A	3	3	277	6	0.05	1.3	1.9	B	345	14	1.4	261	16	2.2	119	68	3.6
28	10	55	12.6	61	47.5	148	59.8	13.7	1.7	24	18	96	4	0.73	0.4	0.4	A	358	7	0.7	262	40	0.5	96	49	0.9
28	14	44	26.2	60	17.8	141	19.2	6.9	0.8	7	5	111	22	0.32	0.6	1.1	A	81	8	0.9	337	11	0.7	202	71	2.1
28	15	0	42.3	61	32.0	147	22.9	23.2	2.5	28	14	85	34	0.61	0.4	0.7	A	19	1	0.8	288	11	0.4	114	79	1.3
28	15	39	24.3	60	6.4	141	4.8	7.3	0.8	11	6	86	5	0.51	0.7	0.6	A	14	1	1.3	104	6	0.7	275	84	1.0
28	15	50	50.2	60	59.2	152	23.2	5.4	1.3	9	8	187	28	0.69	1.0	0.6	A	107	1	1.9	197	13	0.4	13	77	1.2
28	21	7	28.4	61	48.0	148	59.7	17.5	0.7	8	7	131	4	0.27	0.8	0.7	A	208	24	0.8	319	39	1.5	95	42	1.3
29	7	41	20.6	61	16.6	152	11.5	4.6	0.1	3	3	286	2	0.04	1.6	1.2	B	198	2	1.4	289	21	3.2	103	69	2.0
29	16	8	35.9	60	17.5	140	39.3	7.6	1.0	6	6	149	26	0.41	1.1	2.1	B	303	8	0.8	37	23	1.3	195	65	4.3
29	17	21	15.6	60	40.4	139	53.6	0.0	1.4	8	4	237	67	0.44	2.8	4.2	C	318	19	1.4	261	27	3.4	90	45	6.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - OCTOBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
OCT 29	17	37	54.5	60	15.1	140	50.1	11.7	1.0	5	4	161	15	0.27	5.8	5.6	D	290	7	0.9	193	44	15.0	27	45	1.3
30	1	44	28.3	60	46.0	151	29.8	65.2	2.2	25	12	57	14	0.46	0.4	1.1	A	188	1	0.7	98	10	0.6	284	80	2.0
30	4	35	28.8	61	3.1	152	11.3	7.8	0.0A	3	3	338	16	0.02	3.4	3.5	C	197	16	2.1	300	39	4.1	89	47	8.2
30	4	46	13.4	60	15.2	140	46.5	11.7	1.3	17	5	138	18	0.27	0.6	0.9	A	116	2	0.6	25	33	0.7	209	57	2.0
30	5	12	46.4	60	10.0	141	4.5	1.7	0.4A	4	4	159	3	0.51	0.6	0.9	A	3	16	1.0	267	19	0.8	130	65	1.9
30	5	15	35.2	61	37.3	142	19.3	7.5	1.4	11	4	237	65	0.35	1.4	6.9	D	297	0	0.8	27	7	2.0	207	83	13.1
30	6	33	24.6	60	7.2	141	2.0	9.3	0.8	12	5	113	4	0.49	0.5	0.4	A	81	26	0.7	185	31	1.1	318	48	0.6
30	11	42	57.0	61	9.5	150	6.6	14.8	1.4	17	11	77	31	0.53	0.3	0.9	A	10	5	0.6	279	8	0.5	132	81	1.7
30	11	56	12.7	60	17.6	142	44.1	16.2	0.9A	6	5	194	11	0.45	1.2	1.1	A	2	12	1.0	102	38	2.5	258	49	1.8
30	14	54	49.1	61	21.3	149	20.2	40.6	1.3A	25	14	78	17	0.49	0.5	0.8	A	198	5	0.7	107	19	0.9	302	70	1.5
30	15	19	37.0	60	16.5	148	12.4	16.9	2.2	34	11	120	57	0.46	0.5	0.8	A	153	6	0.9	261	14	0.6	43	67	1.6
30	16	39	0.8	60	42.9	140	34.1	8.6	1.0A	12	7	201	50	0.91	1.3	1.4	A	139	1	0.6	261	38	1.7	48	42	2.8
30	23	0	55.2	60	44.8	147	24.5	6.8	2.0	34	14	55	23	0.71	0.3	0.6	A	183	9	0.6	276	19	0.4	69	69	1.2
31	4	0	7.6	60	19.8	142	59.2	0.1	1.0	15	11	123	15	1.34	0.5	25.0	D	301	0	0.6	31	0	1.0	0	90	99.0
31	10	17	35.4	61	7.0	150	16.6	10.6	1.1A	9	8	102	41	0.65	1.1	1.7	B	290	5	0.8	197	29	1.2	29	60	3.7
31	14	41	29.0	60	25.0	140	39.5	1.9	1.3	11	4	163	36	0.46	0.8	2.5	B	81	1	1.3	328	7	0.8	178	66	4.4
31	18	38	36.5	60	13.9	141	4.3	8.6	1.4	13	7	118	9	0.23	0.9	1.0	A	312	16	0.7	55	38	0.9	204	48	2.3
31	23	11	32.7	60	6.6	139	40.6	15.8	1.0	6	4	202	18	0.59	2.7	1.1	C	304	1	0.9	214	17	5.3	37	73	1.5
31	23	50	59.3	60	10.1	141	6.8	7.8	1.6	8	4	152	5	0.31	2.8	0.7	C	203	3	5.2	293	12	0.8	99	78	1.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - NOVEMBER 1984

1984		ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
NOV	1	0	23	53.5	60	17.6	139	59.0	14.9	0.7	4	2	291	27	0.45	2.2	2.3	B	330	24	2.8	81	31	1.1	211	47	5.5
	1	4	10	20.5	60	15.1	141	2.3	11.9	0.8	8	6	123	11	0.15	0.9	0.9	A	106	19	0.8	0	39	0.7	216	45	2.2
	1	4	52	21.3	60	32.5	146	32.8	20.9	2.1	30	19	72	16	0.71	0.3	0.6	A	355	1	0.6	265	6	0.5	94	84	1.1
	1	5	37	38.7	60	37.0	142	37.3	12.3	1.0	9	8	95	23	0.66	0.5	1.9	B	112	4	0.9	21	6	0.7	235	83	3.5
	1	8	18	1.8	60	37.5	150	34.9	53.3	2.9	28	12	79	23	0.51	0.6	1.7	B	81	3	0.7	349	10	0.9	187	79	3.2
						3.5	ML	ATWC																			
	1	12	17	19.8	60	6.0	141	11.1	9.7	0.7	8	7	151	6	0.38	0.8	0.5	A	190	7	1.4	282	12	0.6	70	76	1.0
	1	13	37	0.1	61	47.3	148	56.4	12.7	0.8	10	9	100	2	0.34	0.5	0.5	A	165	3	0.8	81	42	1.1	258	48	0.8
	1	14	39	42.3	60	6.5	141	13.1	0.2	0.4	8	4	156	8	0.54	0.7	1.2	A	276	3	0.6	6	11	1.2	171	79	2.3
	1	17	16	56.5	60	10.2	140	52.1	6.9	0.4	6	3	126	9	0.29	1.3	1.0	A	90	11	0.6	187	32	2.7	343	56	1.4
	1	17	31	6.5	61	16.5	152	11.6	4.2	-0.2	3	3	286	2	0.02	1.2	0.8	A	197	5	1.0	289	18	2.2	92	71	1.3
	1	22	13	19.1	60	40.3	142	18.5	31.8	1.4	4	3	246	41	0.10	4.1	6.1	D	97	1	1.7	188	32	3.4	5	58	13.4
	1	22	22	41.3	60	42.4	140	23.1	17.9	1.1A	3	2	234	59	0.13	4.8	5.0	C	147	2	1.1	261	38	7.3	55	46	9.9
	2	0	32	15.3	60	16.7	140	59.0	9.1	2.2	18	11	129	14	0.27	0.6	0.8	A	305	17	0.6	44	26	0.8	186	58	1.7
	2	1	44	2.1	59	58.4	140	49.6	2.4	1.2	8	6	217	19	0.42	1.3	1.4	B	279	0	0.8	188	28	2.4	9	62	2.7
	2	1	46	35.9	60	28.7	145	1.6	16.4	2.6	34	11	62	12	0.50	0.5	0.6	A	9	14	0.9	103	17	0.5	241	68	1.1
	2	2	38	57.2	60	18.1	140	58.6	1.7	1.1	10	3	134	17	0.35	0.7	2.3	B	268	2	1.0	359	14	0.7	170	76	4.4
	2	2	43	36.2	60	18.0	140	59.1	3.8	1.0	10	8	133	16	0.45	0.7	1.7	B	81	8	0.8	336	14	0.6	196	68	3.3
	2	11	12	39.7	61	4.5	152	19.7	14.8	0.6	5	4	188	19	0.20	2.4	0.9	B	107	5	4.4	200	26	1.0	7	63	1.8
	2	14	8	34.1	61	17.5	152	11.8	8.8	0.5	6	4	189	3	0.22	1.3	1.3	B	112	21	3.1	261	38	1.0	12	22	0.7
	2	14	9	43.9	61	17.4	152	12.6	5.0	-0.5A	3	3	294	4	0.01	1.9	1.6	B	16	9	1.7	108	11	3.6	248	76	3.0
	2	16	3	28.9	61	54.7	149	7.8	8.6	1.0	13	11	190	12	0.52	0.8	0.9	A	7	1	1.3	277	42	0.7	98	48	2.1
	2	16	33	57.3	60	10.4	141	3.8	4.7	0.3A	5	2	162	3	0.13	1.2	0.9	A	178	24	2.4	287	37	0.9	63	44	1.8
	2	16	33	58.8	61	13.2	149	15.8	31.7	0.8A	8	8	90	16	0.31	0.8	1.6	B	1	2	1.0	270	4	1.5	117	85	3.0
	2	16	35	48.3	61	26.4	151	4.2	2.5	1.2	12	7	89	18	0.72	0.4	1.0	A	355	2	0.8	265	10	0.6	96	80	2.0
	2	17	45	46.0	58	58.9	152	48.1	71.7	3.5	10	3	146	53	0.12	1.7	4.3	C	4	6	2.9	95	14	2.2	251	75	8.3
			4.0	MB		4.2	ML	ATWC																			
	2	22	13	22.5	61	7.2	149	44.4	18.7	1.0A	12	7	105	17	0.42	1.0	1.2	A	203	15	0.8	301	28	1.5	88	58	2.5
	2	22	16	19.5	60	11.1	139	46.0	11.4	1.2	8	4	203	27	0.54	2.3	1.6	B	303	12	1.0	206	31	4.9	52	56	1.9
	3	1	6	13.6	60	10.8	141	4.5	13.6	0.8	13	7	110	4	0.55	0.9	0.6	A	287	2	0.5	196	27	1.8	21	63	0.7
	3	3	27	9.8	60	18.5	141	23.2	11.1	1.3	19	10	108	19	0.53	0.5	0.7	A	81	9	0.6	321	20	0.4	188	53	1.4
	3	4	29	2.5	61	0.7	151	17.3	65.0	2.4	26	14	63	30	0.58	0.4	0.8	A	42	4	0.6	133	7	0.7	283	82	1.5
	3	4	53	14.3	60	28.7	143	16.7	3.3	1.1	14	7	113	24	0.68	0.6	6.2	D	271	2	0.5	1	2	0.9	136	87	11.6
	3	10	58	43.3	61	8.3	151	12.3	64.6	2.3	28	17	56	44	0.62	0.4	0.8	A	81	11	0.5	164	11	0.7	303	73	1.6
	3	14	31	16.0	61	47.9	148	57.8	15.2	0.4A	10	7	105	4	0.26	0.6	0.8	A	112	20	1.0	213	27	0.7	350	55	1.6
	3	15	40	18.0	60	15.0	140	56.2	13.4	1.1	12	7	129	12	0.17	0.8	0.9	A	309	5	0.6	43	42	0.9	214	48	2.0
	3	17	50	51.3	60	14.7	141	0.5	9.0	1.3	13	7	124	10	0.36	0.8	0.8	A	301	2	0.5	209	44	2.0	33	46	0.7
	3	23	49	22.5	60	19.3	141	12.8	14.3	1.1	13	8	120	21	0.33	0.6	0.8	A	304	8	0.6	38	28	0.9	199	61	1.7
	3	23	50	3.2	60	6.1	141	11.4	0.0	0.3A	3	3	223	10	0.15	1.2	3.2	C	277	8	1.1	186	12	1.9	40	76	6.2
	4	1	10	19.0	61	47.9	149	1.5	15.2	1.0	17	14	114	5	0.46	0.5	0.6	A	152	9	0.8	261	32	0.5	50	52	1.3
	4	4	19	27.8	61	50.4	149	0.7	7.3	-0.3A	3	2	305	2	0.03	2.8	1.0	C	81	4	5.3	171	31	1.5	344	59	2.0
	4	4	31	44.6	60	18.4	141	19.0	17.8	0.8	10	7	112	20	0.23	0.8	1.0	A	338	23	0.7	81	24	0.9	211	55	2.3
	4	6	23	42.8	59	49.9	141	37.9	13.6	0.8A	9	6	212	32	0.32	1.0	2.2	B	266	6	1.4	175	6	1.9	41	81	4.1
	4	6	55	44.8	60	36.0	142	38.3	16.5	0.9	10	9	59	21	0.65	0.6	1.9	B	13	3	0.7	103	4	1.1	246	85	3.5
	4	7	32	7.3	59	56.7	140	52.4	4.1	0.5A	6	4	225	19	0.42	1.1	2.9	C	13	4	2.0	103	8	0.8	257	81	5.4
	4	9	27	4.3	60	23.1	147	52.6	23.8	2.9	39	10	91	57	0.55	0.4	0.7	A	349	3	0.7	261	8	0.5	100	81	1.2
	4	10	55	58.0	61	34.6	150	23.1	51.3	3.0	32	16	121	23	0.49	0.5	0.8	A	262	0	0.4	172	16	0.8	352	74	1.6
	4	11	20	10.9	60	1.3	141	41.3	9.7	0.7	14	6	170	18	0.40	0.9	0.9	A	266	16	0.7	164	37	1.2	15	49	2.0
	4	11	32	31.9	60	1.1	141	38.6	10.6	0.7	11	8	193	17	0.51	0.7	0.8	A	261	2	0.6	343	12	1.3	162	75	1.5
	4	12	34	21.5	59	29.2	136	0.7	2.7	1.8	5	3	219	146	0.86	6.5	3.6	D	296	9	2.0	203	20	12.8	49	68	5.5
	4	16	41	39.5	59	58.3	141	45.9	0.3	0.5A	6	3	271	25	0.38	1.0	2.6	B	15	2	1.9	285	6	1.5	123	84	4.9

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - NOVEMBER 1984

1984		ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
NOV	4	16	49	8.7	60	9.2	141	1.5	9.2	0.7	12	5	108	1	0.25	0.7	0.4	A	95	17	0.6	190	18	1.4	324	65	0.7
	4	17	59	11.7	60	3.0	141	13.8	6.0	0.9	14	7	153	6	0.50	0.8	0.8	A	268	25	0.6	10	25	1.4	139	53	1.6
	4	18	16	32.3	60	52.3	138	49.6	0.1	1.0A	8	5	264	112	0.65	5.7	4.8	D	306	26	4.6	57	36	12.3	189	43	7.0
	4	19	15	51.9	60	32.7	144	47.2	16.5	0.5	10	8	138	13	0.34	0.7	1.0	A	31	6	1.3	123	23	0.8	287	66	2.0
	4	19	50	15.3	60	19.1	153	25.2	170.6	3.5	16	6	102	37	0.31	1.8	1.8	B	270	17	2.7	12	33	3.0	157	52	3.7
	4	21	56	27.9	60	24.4	140	42.6	8.2	0.8	11	5	158	33	0.78	0.9	2.2	B	325	7	0.6	81	10	1.1	209	61	3.8
	4	23	11	10.1	60	1.7	141	38.6	9.9	0.5A	10	5	185	16	0.59	0.8	1.0	A	261	1	0.6	165	17	1.5	354	72	1.9
	4	23	26	57.5	59	38.6	152	50.4	75.4	2.4	14	8	92	48	0.33	1.0	1.7	B	81	9	1.0	145	14	1.5	313	59	3.0
	5	1	9	14.6	61	10.9	149	30.2	32.8	1.7	24	13	42	8	0.59	0.4	0.6	A	261	3	0.8	171	6	0.7	18	83	1.1
	5	3	4	43.5	60	9.5	151	52.8	64.0	2.9	21	9	96	35	0.41	0.6	1.3	A	127	6	0.9	36	10	1.1	248	78	2.4
	5	4	46	44.3	61	17.2	152	12.8	5.7	-0.2A	3	3	294	4	0.07	1.1	0.9	A	21	0	1.1	291	0	2.1	0	90	1.8
	5	13	28	12.9	62	9.9	153	4.9	7.5	2.2	12	5	157	84	0.51	1.1	1.7	B	4	0	2.0	274	3	1.0	94	87	3.3
	5	14	3	43.4	61	17.7	152	15.1	6.4	2.0	19	11	121	6	1.16	0.6	0.4	A	211	13	0.6	114	29	1.3	322	58	0.5
	5	19	29	30.9	61	9.8	152	11.6	8.1	0.0A	3	3	296	8	0.06	1.4	1.6	B	330	14	1.3	261	35	1.9	81	48	3.2
	6	0	18	29.6	59	52.5	153	6.7	106.1	2.6	14	5	117	38	0.19	2.0	2.1	B	81	13	1.8	160	41	3.0	336	46	4.3
	6	2	23	32.6	61	7.4	150	29.1	15.0	1.5	17	9	72	40	0.68	0.5	1.2	A	195	3	0.9	285	4	0.7	68	85	2.3
	6	4	45	52.6	59	2.0	152	36.0	71.9	2.4	10	5	251	58	0.20	3.1	6.9	D	356	7	5.6	87	9	2.5	229	79	13.2
	6	6	17	25.1	59	57.4	140	42.8	2.0	1.2	9	5	178	28	0.44	1.2	1.3	A	287	4	1.0	194	38	2.0	22	52	2.7
	6	10	30	45.2	61	51.7	149	17.2	6.1	1.0	15	11	179	17	0.74	0.8	1.1	A	174	7	1.3	268	31	0.6	73	58	2.5
	6	11	43	11.4	60	29.2	143	2.4	1.9	0.8	5	3	144	11	0.63	1.1	8.8	D	31	2	1.7	300	4	1.4	147	85	16.5
	6	16	51	38.7	60	38.0	152	23.6	14.6	0.5	6	5	169	7	0.58	14.6	2.3	D	111	8	27.6	14	37	0.8	211	52	1.6
	6	22	27	44.0	61	38.3	151	18.1	4.0	1.6	14	9	117	36	0.67	0.8	1.2	A	81	9	1.0	133	16	0.8	318	48	1.8
	7	0	56	3.7	60	50.9	152	15.1	6.9	0.4A	3	3	180	32	0.29	25.0	3.4	D	106	3	99.0	15	7	0.8	219	82	3.5
	7	4	22	52.0	61	29.8	151	11.4	6.7	0.6A	5	4	135	24	0.57	0.8	1.2	A	261	9	0.8	352	25	1.2	152	64	2.3
	7	7	5	34.3	60	18.4	143	7.6	11.0	1.4	11	8	149	20	0.79	0.6	1.4	B	6	8	1.1	275	9	0.7	137	78	2.8
	7	8	26	8.6	61	59.5	150	3.4	40.8	2.4	30	15	108	39	0.67	1.0	1.5	B	271	0	0.8	1	18	1.6	181	72	2.8
	7	12	26	15.0	61	18.0	152	11.5	3.8	0.3	3	3	293	4	0.10	1.6	1.9	B	28	11	1.4	295	15	2.9	153	71	3.7
	7	20	33	20.4	60	30.9	142	59.0	2.3	1.3	11	4	89	10	0.43	1.2	5.6	D	355	4	0.9	264	4	2.1	130	84	10.5
	7	22	28	16.8	59	41.6	150	57.5	35.1	2.3	18	6	194	9	0.49	1.3	1.4	B	261	1	1.2	348	40	2.1	170	50	2.9
	8	0	27	20.1	61	17.6	152	11.5	8.2	0.6	4	4	235	4	0.16	1.3	0.7	A	98	12	2.4	357	42	0.6	201	46	1.7
	8	1	11	21.9	59	37.6	152	20.6	81.5	2.8	18	6	104	67	0.32	0.9	1.4	B	81	7	0.9	341	14	1.5	195	72	2.8
	8	1	55	48.7	58	42.8	137	26.5	27.5	1.6	4	3	356	116	0.32	25.0	25.0	D	261	0	99.0	315	34	9.0	171	42	99.0
	9	0	59	36.1	59	7.3	144	25.5	24.3	2.0	18	8	264	90	0.34	1.8	1.1	B	106	4	2.0	197	18	3.5	4	72	2.0
	9	4	10	26.0	60	15.2	140	44.7	13.8	1.1	9	7	140	19	0.26	0.7	0.9	A	299	3	0.5	31	37	0.7	205	53	2.1
	9	8	41	45.2	59	49.0	138	57.1	29.5	0.9	8	4	219	30	0.59	2.7	1.7	B	328	17	0.9	261	29	4.8	91	50	2.3
	9	10	31	27.9	61	10.3	152	9.1	4.7	0.0A	3	3	281	5	0.04	1.3	1.7	B	261	11	2.0	322	20	1.0	139	54	2.9
	9	12	35	12.2	61	8.4	152	16.7	6.9	0.1	3	3	316	13	0.02	1.5	2.9	C	335	6	1.6	261	22	1.9	80	62	5.6
	9	16	20	54.7	61	9.9	152	11.8	8.2	-0.1	3	4	295	8	0.37	1.3	1.2	A	194	30	0.9	306	33	1.4	72	42	3.0
	9	18	1	23.6	61	9.9	152	11.7	8.0	-0.1	3	4	294	8	0.32	1.3	1.2	A	193	29	0.9	305	33	1.3	72	43	3.0
	9	18	5	22.2	60	15.3	141	35.8	9.4	1.0	12	5	116	14	0.29	0.6	0.7	A	221	12	0.9	126	25	0.8	335	62	1.5
	9	20	16	46.9	60	30.5	143	1.7	3.2	0.4	8	4	93	12	0.37	0.9	3.6	C	279	5	0.8	10	8	1.3	157	81	6.9
	9	21	27	20.5	59	58.0	140	7.9	14.3	0.6	8	4	164	16	0.84	2.7	1.4	C	303	0	0.6	33	26	5.6	213	64	1.3
	9	21	32	44.0	60	17.5	140	40.3	14.6	1.0	10	6	148	25	0.33	0.9	1.0	A	304	6	0.6	38	37	1.1	206	52	2.3
	10	7	53	7.9	61	4.7	152	25.6	1.1	1.1	12	8	113	23	0.97	0.8	0.8	A	204	15	0.5	303	28	1.5	89	57	1.5
	10	9	21	45.7	60	6.9	139	40.7	21.2	0.6	7	5	191	18	0.65	2.4	1.0	B	314	13	0.9	219	19	4.7	76	67	1.3
	10	11	19	39.0	59	56.7	141	46.9	8.4	1.1A	15	7	181	17	0.53	0.6	0.9	A	95	2	0.7	185	21	1.1	0	69	1.7
	10	15	10	45.3	60	16.4	140	39.1	13.4	1.3	14	9	147	25	0.48	0.7	0.8	A	295	4	0.5	29	38	0.7	200	52	1.8
	10	20	26	55.1	60	6.4	141	11.1	0.1	0.2	10	4	119	6	0.45	0.6	1.2	A	6	2	1.0	276	3	0.5	130	86	2.3
	10	21	16	12.0	61	11.4	152	12.1	7.1	-0.1A	3	3	280	8	0.01	1.2	1.4	B	337	7	1.1	261	29	2.0	80	57	2.8
	10	23	24	22.6	60	40.8	152	48.6	132.0	3.3	24	8	96	25	0.31	1.1	1.3	A	114	4	2.0	205	13	1.4	7	76	2.5
	11	0	45	13.1	60	15.3	140	47.6	9.3	0.9A	7	5	137	28	0.30	0.9	1.4	B	305	8	0.6	39	25	1.2	199	64	2.9

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - NOVEMBER 1984

ORIGIN	TIME			LAT N		LONG W		DEPTH	MAG	NP	NS	GAP	DI	RMS	SEH	SEZ	Q	AZ1	DIP1	SE1	AZ2	DIP2	SE2	AZ3	DIP3	SE3
1984	HR	MN	SEC	DEG	MIN	DEG	MIN	KM				DEG	KM	SEC	KM	KM		DEG	DEG	KM	DEG	DEG	KM	DEG	DEG	KM
NOV 11	2	56	20.6	60	28.3	140	2.8	6.5	1.3A	7	5	201	43	0.50	0.9	1.5	B	334	7	0.7	81	15	1.5	223	66	2.8
11	5	45	42.9	61	20.5	147	19.4	25.8	3.3	29	13	77	30	0.48	0.4	0.6	A	294	0	0.5	204	7	0.8	24	83	1.2
					4.2 ML ATWC																					
11	11	11	16.6	60	1.1	141	41.9	6.7	0.7	9	7	171	19	0.38	0.7	0.6	A	82	7	0.7	347	34	1.4	182	55	1.1
11	13	27	45.6	60	14.9	141	2.0	10.6	0.8	9	5	122	10	0.18	0.8	0.9	A	94	14	0.8	353	37	0.6	201	50	2.2
11	21	3	31.8	59	43.1	138	59.4	12.5	2.1	9	2	210	24	0.85	2.4	1.3	B	323	16	0.8	261	23	4.0	94	51	1.9
12	0	41	8.1	60	25.3	141	12.3	16.7	0.7	11	7	127	31	0.42	0.8	1.5	B	336	10	0.6	81	15	1.0	217	67	3.0
12	2	30	6.0	61	18.7	152	18.7	4.1	0.9	6	7	205	10	0.83	0.8	1.0	A	261	26	0.9	345	27	0.7	124	53	2.2
12	5	4	16.7	58	10.0	137	23.0	1.5	1.9	6	3	182	167	0.47	25.0	2.7	D	81	5	66.7	152	21	6.9	338	62	3.8
12	8	16	42.6	57	54.9	140	39.7	16.6	2.3	11	4	287	200	0.34	25.0	25.0	D	317	23	9.0	81	24	5.5	200	44	87.5
12	20	15	20.8	59	29.6	152	38.3	84.6	2.7	16	6	105	48	0.26	1.1	1.5	B	81	12	1.1	329	12	1.7	205	63	2.9
13	0	37	49.5	61	59.5	150	47.1	68.8	3.0	25	10	177	39	0.51	1.1	1.3	A	81	1	0.8	169	21	1.9	348	69	2.5
					3.0 ML ATWC																					
13	0	41	9.9	60	42.6	143	7.0	7.2	0.7	6	4	84	33	0.36	0.6	4.8	C	20	2	0.7	290	4	0.9	137	86	9.1
13	0	50	31.5	60	31.8	144	45.5	27.5	0.6A	7	6	107	16	0.38	1.2	0.7	A	355	31	1.2	261	35	2.2	124	44	0.9
13	1	46	42.2	59	21.5	152	50.3	88.7	2.4	13	3	107	34	0.33	1.4	3.0	C	35	3	1.7	126	16	2.1	295	74	5.9
13	7	39	45.0	60	0.6	141	55.6	5.8	1.0	13	8	201	7	0.48	0.8	0.5	A	353	11	1.5	86	17	0.5	231	70	1.0
13	8	1	17.5	60	4.0	152	46.2	100.8	2.7	17	6	98	13	0.31	0.8	1.0	A	225	3	1.3	135	3	1.6	0	86	1.8
13	8	31	10.1	61	17.3	152	16.8	5.6	0.9	7	8	202	7	0.64	0.9	0.7	A	218	25	0.7	107	36	2.0	334	43	0.6
13	8	58	50.3	60	27.5	147	44.1	18.5	2.4	35	14	80	55	0.54	0.4	0.7	A	349	8	0.7	261	14	0.4	109	74	1.3
13	11	19	35.9	60	18.2	140	57.4	12.0	1.0	12	7	133	17	0.31	0.6	1.1	A	81	12	0.7	339	20	0.6	198	64	2.2
13	19	11	48.6	60	14.5	141	0.2	8.5	0.8	5	4	150	10	0.19	2.3	2.3	B	75	29	1.0	324	32	0.7	197	44	6.0
13	21	38	43.8	59	55.3	141	30.7	9.9	0.9	11	6	214	25	0.50	0.6	1.1	A	166	10	1.1	261	12	0.7	38	74	2.2
13	22	11	31.3	62	5.2	149	42.1	48.5	2.4	28	12	184	47	0.51	0.9	1.1	A	279	9	0.7	14	29	1.5	173	59	2.2
13	23	29	44.5	61	52.2	149	40.6	5.5	2.1	30	15	162	38	0.87	0.6	1.0	A	178	7	1.0	271	25	0.4	73	64	2.1
					3.8 ML ATWC																					
14	0	12	39.9	61	47.8	149	2.6	14.6	1.1	24	15	121	6	0.70	0.6	0.5	A	148	8	0.7	81	42	1.1	247	43	0.5
14	1	29	9.5	61	30.6	140	26.2	3.8	1.4A	7	4	267	77	0.51	3.7	25.0	D	115	1	2.4	25	3	4.5	223	87	99.0
14	3	56	38.5	61	46.7	148	59.7	13.3	0.8	18	10	91	4	0.43	0.6	0.5	A	309	6	0.8	261	44	0.5	44	32	0.9
14	5	59	50.2	60	14.2	140	58.2	10.1	0.9	12	5	125	10	0.19	0.9	0.9	A	310	24	0.6	58	35	0.7	193	45	2.3
14	7	0	52.4	59	49.1	141	24.1	9.9	1.5	14	7	186	43	0.72	0.6	1.1	A	94	2	0.6	184	15	1.1	357	75	2.1
14	9	26	6.3	61	19.7	149	18.1	36.3	0.9A	15	8	75	17	0.37	0.8	0.8	A	34	4	0.9	128	42	1.4	300	48	1.7
14	11	57	58.8	60	31.0	153	0.9	162.8	3.5	18	7	89	34	0.25	1.4	1.2	B	134	5	2.6	43	11	1.3	248	78	2.3
14	21	22	44.5	60	18.0	141	18.1	16.3	0.9	18	6	112	19	0.26	0.5	0.6	A	308	9	0.5	43	28	0.7	202	60	1.3
15	2	5	24.3	60	18.6	140	31.7	8.7	0.3A	7	4	159	28	0.71	1.5	2.9	C	290	9	0.8	23	19	2.0	176	69	5.7
15	7	10	7.3	60	31.3	142	59.6	0.8	0.2A	6	6	106	11	0.65	1.2	18.8	D	357	1	0.7	267	2	1.8	114	88	35.3
15	10	39	52.8	59	28.6	138	43.4	11.1	1.1	4	4	296	9	0.40	6.0	3.9	D	105	19	2.4	208	33	13.4	350	51	1.0
15	10	57	41.5	60	22.6	141	17.3	14.1	1.7	22	16	119	25	0.48	0.4	0.6	A	81	12	0.6	330	14	0.5	202	62	1.1
15	11	6	10.9	60	22.5	141	15.5	10.9	0.3A	10	6	120	27	0.35	0.8	1.7	B	322	5	0.8	81	13	0.9	216	58	2.9
15	12	53	30.6	61	31.4	151	13.7	8.0	0.5A	4	4	136	27	0.50	1.2	2.5	B	1	10	0.9	267	22	0.7	114	66	5.2
15	13	53	34.2	61	7.5	146	29.5	15.4	0.6A	6	6	166	8	0.34	1.2	0.7	A	32	3	0.6	123	18	2.3	293	72	1.3
15	15	4	28.4	60	6.5	141	18.2	2.9	1.5	16	10	142	10	0.47	0.5	0.5	A	282	4	0.3	189	31	0.9	19	59	0.9
15	21	22	30.6	60	26.0	144	23.3	26.1	2.6	32	11	70	13	0.38	0.4	0.3	A	83	25	0.5	190	32	0.9	323	47	0.5
15	22	34	4.6	61	1.2	152	30.3	18.4	0.5A	4	4	220	30	0.03	3.0	6.0	D	198	4	0.6	290	23	3.2	99	67	12.1
15	23	51	3.8	60	37.5	144	40.0	0.2	1.1A	8	7	106	31	0.44	1.0	3.0	C	33	7	1.5	125	12	0.6	273	76	5.9
16	2	17	37.5	60	58.3	152	6.8	9.2	0.3A	4	3	191	24	0.40	7.8	0.8	D	284	0	14.6	194	15	0.6	14	75	1.6
16	4	22	59.0	61	48.8	148	55.1	15.6	1.6	26	14	118	4	0.60	0.6	0.5	A	136	10	0.8	261	44	0.7	38	35	1.1
16	7	0	47.8	61	48.6	148	53.8	16.4	1.7	27	16	124	4	0.60	0.4	0.4	A	137	25	0.7	261	34	0.6	25	39	0.9
16	9	33	4.2	59	57.4	141	31.7	21.4	0.5A	7	4	235	29	0.34	1.7	1.9	B	261	2	1.5	351	28	3.1	167	62	3.7
16	10	7	29.9	60	11.2	141	7.8	11.0	1.3	15	6	129	6	0.39	0.8	0.6	A	194	21	1.6	296	29	0.6	73	53	1.0
16	13	56	22.7	61	16.0	152	12.1	3.1	0.7	3	3	287	3	0.05	1.1	0.9	A	192	8	0.9	101	8	2.2	327	79	1.7

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - NOVEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
NOV 16	17	1	50.8	61	55.4	148	56.0	8.4	2.0	30	17	167	10	0.69	0.5	0.4	A	34	28	0.6	147	36	1.0	276	41	0.5
16	17	59	32.0	60	12.4	141	2.3	13.8	1.1	11	4	116	6	0.35	1.3	0.8	B	311	28	0.7	204	28	2.8	78	48	0.9
16	18	57	2.6	59	35.6	151	8.6	39.0	2.1	15	6	143	24	0.32	1.6	1.5	B	278	9	1.2	184	25	3.2	26	63	2.7
16	21	45	14.0	59	41.4	148	42.2	36.1	2.3	27	6	205	62	0.50	0.9	0.9	A	277	13	0.8	178	33	1.9	25	54	1.5
17	0	39	31.9	58	51.3	152	29.8	72.3	2.7	9	4	136	75	0.34	1.7	3.7	C	347	0	1.7	81	18	2.3	257	72	7.3
17	2	3	25.9	60	54.7	152	30.9	3.4	2.4	24	13	105	38	0.80	0.8	0.6	A	193	19	0.6	293	29	1.6	74	55	0.9
17	5	35	14.1	60	15.2	141	0.2	6.7	0.6	6	4	125	11	0.41	0.9	1.2	A	81	13	1.1	340	30	0.6	191	56	2.7
17	6	31	1.3	60	11.9	141	11.9	2.1	0.8	9	3	130	10	0.46	'1.2	1.3	B	297	5	0.5	31	36	1.6	200	54	2.9
17	14	30	47.2	62	16.8	148	5.2	43.2	2.4	25	15	199	54	0.50	1.0	1.9	B	81	9	0.8	349	13	1.6	205	74	3.6
17	15	17	16.2	61	46.9	149	2.7	13.9	0.9	16	11	112	6	0.56	0.4	0.4	A	350	14	0.6	93	42	1.0	246	45	0.5
17	18	35	37.4	60	7.1	141	5.7	8.5	1.1	11	4	141	5	0.50	1.1	0.6	A	294	2	0.6	25	17	2.2	197	73	1.0
17	23	36	28.8	61	27.8	147	59.5	27.1	2.2	26	14	65	25	0.49	0.4	0.7	A	25	0	0.8	115	2	0.5	295	88	1.2
18	7	14	46.0	60	14.8	141	4.5	1.1	1.0	10	5	120	11	0.48	0.8	1.4	B	310	11	0.7	44	20	1.1	193	67	2.7
18	7	24	52.5	60	5.2	141	10.7	3.2	0.7A	4	2	226	11	0.10	2.5	3.6	C	278	16	1.2	180	27	2.8	35	58	7.9
18	7	26	18.7	58	13.6	151	17.3	45.0	2.5	10	4	208	89	0.52	5.5	7.9	D	301	12	9.9	33	13	1.8	169	72	15.5
18	10	34	12.6	61	16.0	152	18.6	6.0	0.1A	3	3	310	8	0.01	2.2	3.1	C	193	7	2.4	286	26	3.3	89	63	6.3
18	11	24	54.4	61	37.9	146	33.1	26.1	2.3	34	19	81	37	0.71	0.4	0.9	A	287	2	0.5	197	7	0.7	33	83	1.7
18	13	28	12.3	61	12.4	141	10.9	1.6	1.8	12	4	228	28	0.47	1.8	4.4	C	81	1	2.7	318	3	1.5	184	57	6.9
18	14	59	5.3	60	12.7	140	56.2	9.0	1.0	8	2	123	8	0.13	1.6	1.6	B	110	6	1.2	14	43	1.0	206	46	4.1
18	18	21	34.3	61	6.3	146	31.9	17.7	-0.1	3	2	204	5	0.31	25.0	18.3	D	145	10	99.0	261	27	1.9	40	52	3.1
18	19	10	54.5	61	21.6	148	55.5	28.9	1.0	16	14	45	26	0.62	0.6	1.1	A	177	5	0.7	268	16	0.9	70	73	2.1
19	2	17	47.7	61	40.2	149	38.8	37.5	2.5	31	19	132	12	0.66	0.6	0.5	A	266	1	0.6	357	37	1.2	175	53	0.8
19	3	36	54.7	60	14.6	140	53.0	12.6	1.5	14	8	131	13	0.21	0.8	0.8	A	290	0	0.7	20	44	1.0	200	46	1.8
19	5	24	15.7	60	36.2	141	44.7	17.4	0.4A	3	2	158	27	0.13	14.1	11.9	D	341	13	1.2	261	43	33.1	85	45	3.0
19	17	22	49.4	59	60.0	141	35.8	4.7	1.3	11	8	174	25	0.60	0.7	1.0	A	272	3	0.7	182	6	1.4	29	83	1.9
19	19	3	51.9	61	18.6	150	33.0	13.2	1.3	19	10	85	20	0.70	0.5	0.7	A	298	0	0.6	208	24	0.8	28	66	1.3
20	0	12	14.5	59	56.7	141	34.7	4.5	1.0A	6	3	216	23	0.41	1.2	3.0	C	175	5	2.3	265	7	1.6	50	81	5.7
20	0	24	2.0	59	55.7	141	35.1	4.0	0.9A	4	4	260	25	0.26	1.3	3.0	C	174	2	2.5	264	11	1.6	74	79	5.8
20	1	28	44.7	60	16.3	141	6.9	8.8	1.4	15	8	121	14	0.27	0.6	0.8	A	305	15	0.6	43	30	0.8	192	56	1.8
20	2	7	14.1	61	33.5	151	17.0	2.0	0.4A	5	5	115	31	0.58	0.7	2.4	B	261	6	0.9	333	10	1.1	136	69	4.3
20	3	7	43.4	61	41.0	151	0.5	4.5	1.3	5	5	124	28	0.72	0.9	1.3	A	81	4	1.4	139	13	0.7	334	56	2.1
20	3	28	8.2	61	31.6	151	10.0	16.3	0.5A	4	4	128	24	0.47	2.4	14.9	D	261	6	1.3	331	8	1.5	128	68	26.5
20	3	57	4.6	59	58.5	141	32.5	3.9	1.1A	7	4	206	20	0.54	0.9	1.8	B	261	4	0.9	160	13	1.4	7	73	3.4
20	4	4	24.3	61	10.1	150	7.6	15.8	1.0A	11	10	88	32	0.65	0.5	1.4	B	190	5	0.9	281	7	0.8	65	81	2.7
20	5	1	38.7	59	58.5	141	36.1	2.2	1.0	7	4	229	20	0.32	1.2	1.8	B	160	9	2.1	261	17	1.2	45	68	3.5
20	5	8	13.3	59	56.9	141	31.5	8.7	1.2	10	5	211	22	0.54	1.0	1.3	B	264	9	0.9	170	24	1.7	13	64	2.7
20	6	32	10.4	60	1.6	141	18.1	4.0	0.9	11	7	190	11	0.59	1.0	1.1	A	267	15	0.7	167	32	1.5	18	54	2.4
20	9	23	18.4	59	57.9	141	31.4	11.3	1.1A	6	4	208	20	0.50	1.3	2.0	B	261	3	1.2	166	14	2.3	3	75	3.7
20	9	23	42.7	59	58.3	141	33.0	6.1	0.6	7	4	207	20	0.62	1.0	2.2	B	270	3	1.2	180	8	1.8	20	81	4.1
20	9	25	4.2	61	4.9	149	41.1	41.0	1.0A	9	8	104	19	0.38	1.2	1.5	B	189	1	1.2	98	24	2.0	281	66	3.0
20	11	31	53.7	60	0.5	148	54.1	13.0	2.3	33	11	175	32	0.69	0.9	0.9	A	279	11	0.8	20	44	1.3	178	44	2.0
20	12	17	29.8	62	23.5	149	39.4	47.2	2.4	26	6	132	71	0.49	1.0	4.0	C	275	2	1.3	5	4	1.9	158	86	7.6
20	14	15	20.8	60	21.7	141	1.0	1.5	1.8	11	3	139	23	0.56	1.8	3.2	C	317	6	1.4	81	14	2.2	211	53	5.5
20	14	54	10.1	61	47.1	148	58.9	14.0	1.1	12	9	87	3	0.47	0.6	0.6	A	339	2	1.1	81	43	1.3	247	46	0.7
20	17	48	30.8	61	49.8	149	9.9	2.8	-0.1A	3	3	328	10	0.06	2.6	8.4	D	335	4	2.9	261	16	2.0	79	67	15.6
20	19	31	28.2	60	35.1	141	30.9	16.4	1.0	6	3	114	28	0.40	0.9	1.8	B	14	7	0.9	282	12	1.6	134	76	3.5
20	23	4	38.8	60	34.9	143	55.3	24.1	1.5	15	11	90	33	0.33	0.5	0.8	A	294	18	0.7	30	18	0.9	162	64	1.5
21	3	30	5.8	60	10.8	141	6.1	6.7	0.5	4	4	201	5	0.18	1.1	0.8	A	275	15	0.8	179	22	2.0	37	63	1.4
21	3	40	56.2	60	23.9	143	19.6	16.0	2.3	21	12	135	27	0.75	0.6	0.9	A	283	6	0.6	14	9	1.0	160	79	1.8
21	4	3	34.7	60	26.9	147	47.3	19.4	2.0	25	6	101	55	0.41	0.7	1.0	A	262	13	0.8	169	13	1.3	36	71	2.0
21	7	43	26.0	60	9.1	141	41.8	11.8	1.3	8	4	142	23	0.41	0.7	1.1	A	131	3	1.2	40	18	1.1	230	72	2.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - NOVEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
NOV 21	8	41	31.0	59	11.9	139	38.7	18.1	1.4	5	5	267	52	0.57	2.7	2.6	C	168	28	2.8	279	34	1.9	48	43	6.6
21	16	38	3.0	57	37.2	154	42.3	97.1	3.0	10	6	284	133	0.18	7.4	15.7	D	261	13	7.5	315	24	4.0	140	46	25.3
21	19	3	55.0	60	11.3	141	5.3	16.5	1.3	6	2	165	5	0.13	3.0	1.6	C	222	22	5.9	117	34	3.2	339	48	1.1
21	20	6	26.0	60	5.2	152	17.4	77.8	3.1	21	13	104	31	0.34	0.9	1.4	A	144	1	1.3	81	6	1.0	243	62	2.4
21	20	35	25.8	61	10.5	152	31.7	16.9	0.7	5	4	216	22	0.10	2.3	3.6	C	311	14	3.9	216	21	1.0	72	64	7.4
21	23	46	14.3	61	1.6	149	30.9	35.0	0.7A	6	6	140	24	0.14	0.9	2.7	C	313	0	1.7	223	13	1.3	43	77	5.2
22	14	36	45.0	60	15.9	141	3.2	6.3	1.1	6	5	124	12	0.22	1.4	2.1	B	81	20	1.2	338	24	0.6	205	57	4.6
22	15	36	40.8	60	13.8	140	59.7	9.6	1.4	10	7	122	9	0.28	1.0	1.0	A	84	28	0.8	335	33	0.7	205	44	2.5
22	18	34	15.4	60	7.5	152	25.1	97.8	2.5	18	11	99	23	0.32	0.9	1.6	B	141	4	1.3	81	9	0.9	257	59	2.6
22	22	3	47.7	62	0.9	150	48.1	65.0	2.3	21	14	181	38	0.50	1.1	1.2	A	86	8	0.7	182	39	1.7	346	50	2.5
23	7	27	45.0	59	51.0	141	24.9	5.9	1.9	15	6	184	40	0.48	0.9	1.0	A	104	8	0.8	198	27	1.4	359	62	2.1
23	9	19	40.4	61	6.9	152	16.3	0.9	1.3	6	4	193	14	0.57	0.9	1.2	A	203	12	0.5	296	14	1.6	74	71	2.4
23	11	56	24.2	62	41.7	143	32.3	8.6	2.9	12	9	199	103	0.35	1.5	1.8	B	157	6	1.0	81	19	2.5	265	66	3.4
23	12	17	58.5	61	8.1	152	12.8	7.9	-0.1A	3	3	313	10	0.02	1.6	2.2	B	327	14	1.6	261	30	1.9	83	50	4.1
23	15	38	50.6	59	3.1	136	46.9	11.2	1.8	5	4	348	128	0.21	25.0	5.7	D	122	1	10.2	212	10	56.2	26	80	4.2
23	20	26	11.9	61	17.0	150	16.7	19.0	0.8A	8	8	88	32	0.57	0.6	1.0	A	183	1	1.2	273	2	0.7	66	88	1.9
23	20	55	30.0	59	40.7	148	39.7	35.0	2.0	17	12	208	65	0.66	1.0	0.9	A	93	3	1.0	185	30	2.1	358	60	1.5
24	2	14	41.9	59	39.9	152	47.9	78.0	2.7	14	4	92	51	0.29	1.1	2.2	B	140	9	1.7	81	16	1.0	263	54	3.6
24	5	12	33.8	60	13.3	141	7.2	13.9	1.4	13	6	114	9	0.56	0.8	0.7	A	65	33	1.1	308	35	0.6	185	38	1.8
24	7	19	20.3	61	36.7	151	17.3	7.6	0.7A	9	7	114	33	0.75	0.6	1.2	A	282	13	0.7	188	19	0.6	45	67	2.5
24	8	52	40.0	60	24.3	140	4.0	11.3	1.0	11	6	195	36	0.71	1.2	1.5	B	325	10	0.6	81	23	1.8	217	55	2.8
24	9	15	4.5	60	22.0	140	18.8	3.3	1.0A	9	4	180	30	0.75	0.9	2.0	B	309	9	0.8	41	9	1.5	175	77	3.9
24	10	42	28.3	60	2.7	153	11.0	128.4	3.5	16	9	138	25	0.49	1.3	1.3	A	42	17	1.1	137	17	2.4	270	66	2.5
			4.1 MB			3.4 ML ATWC																				
24	11	30	40.2	62	39.1	143	31.5	14.0	2.3	12	8	260	136	0.32	1.6	1.4	B	195	30	2.7	309	36	1.5	76	40	3.3
24	13	31	39.9	61	21.7	150	5.6	42.1	2.0	30	13	67	31	0.52	0.4	0.9	A	104	6	0.5	195	12	0.7	348	77	1.6
24	19	41	10.2	61	38.5	149	54.6	44.0	2.8	33	14	81	42	0.57	0.4	0.9	A	269	0	0.5	179	8	0.7	359	82	1.6
24	20	21	23.4	62	1.1	149	33.7	46.3	2.6	31	11	106	37	0.52	0.8	0.7	A	284	7	0.7	190	30	1.5	26	59	1.3
25	1	51	18.2	60	25.7	141	13.9	12.1	2.2	21	10	125	29	0.56	0.5	0.8	A	15	2	0.9	285	5	0.5	127	85	1.5
25	1	52	56.2	60	24.5	141	15.2	12.4	0.6A	8	4	123	28	0.36	1.1	2.2	B	99	13	0.9	4	20	1.1	220	66	4.5
25	2	59	22.9	60	17.5	140	57.5	13.6	1.4	16	5	132	16	0.19	0.6	0.9	A	81	6	0.9	342	28	0.6	182	60	1.8
25	4	30	32.5	60	39.6	140	38.5	7.8	0.9A	10	6	191	51	0.67	1.3	2.0	B	141	3	0.6	261	18	1.8	44	55	3.5
25	4	41	29.3	61	37.4	142	12.4	0.6	1.7	15	6	241	66	0.29	1.1	8.9	D	295	0	0.9	25	1	2.1	205	89	16.8
25	4	58	13.2	61	17.0	152	14.1	8.1	0.6	5	3	199	5	0.24	1.3	1.7	B	92	17	3.0	261	42	1.6	359	8	0.9
25	7	34	11.8	60	13.3	141	24.2	10.6	0.3A	9	5	130	22	0.18	0.9	1.2	A	205	4	1.6	296	5	0.6	77	84	2.3
25	7	43	9.5	59	20.2	152	36.5	67.1	2.9	13	4	122	95	0.17	1.1	3.5	C	94	6	1.2	185	8	1.9	328	80	6.6
25	8	49	52.9	58	15.4	155	6.4	0.5	2.9	10	2	149	165	0.66	4.2	2.3	C	336	8	2.6	261	16	7.7	94	67	3.7
			4.2 MB			4.5 ML ATWC																				
25	9	54	56.1	61	52.4	149	19.1	2.7	1.6	27	13	163	19	0.67	0.5	0.8	A	178	8	0.8	271	23	0.4	70	66	1.6
25	12	35	57.7	59	56.3	141	13.0	9.0	1.9	16	6	173	26	0.48	0.6	0.8	A	287	0	0.6	17	11	1.1	197	79	1.5
25	12	40	23.3	59	56.2	141	15.0	4.9	0.7A	12	3	174	27	0.24	1.0	2.1	B	291	2	1.3	201	17	1.6	28	73	4.1
25	18	16	33.4	60	25.5	141	27.9	13.1	1.3	15	7	110	17	0.37	0.7	1.1	A	343	8	0.7	81	23	0.9	236	65	2.3
25	19	11	57.6	60	3.9	139	38.3	12.8	0.9A	7	5	190	12	0.59	2.7	1.4	B	302	0	0.9	212	14	5.1	32	76	2.3
25	19	29	29.5	61	24.7	146	22.5	25.4	2.1	33	14	61	26	0.60	0.3	0.7	A	349	4	0.5	261	10	0.4	101	79	1.3
25	20	9	53.7	60	29.8	143	22.4	26.9	0.4A	8	6	113	44	0.92	1.0	1.8	B	81	8	0.9	339	9	1.8	207	73	3.5
25	21	9	27.0	61	5.2	152	3.7	10.5	0.0A	3	3	339	11	0.06	2.8	1.2	C	273	3	5.2	182	31	2.3	8	59	2.2
25	21	27	31.2	61	23.8	146	25.4	25.5	2.2	36	15	59	29	0.56	0.3	0.5	A	186	2	0.5	276	5	0.4	74	85	0.9
25	21	36	29.3	59	57.3	140	38.5	6.5	0.8	8	6	188	27	0.43	1.3	2.2	B	106	6	0.7	199	26	1.4	4	63	4.5
25	21	36	44.7	61	4.8	152	2.0	10.3	0.1A	3	3	339	11	0.08	2.8	1.3	C	270	10	5.4	7	36	2.3	167	52	2.3
26	3	7	10.7	60	23.0	152	42.3	9.0	0.5	5	4	185	23	0.59	2.1	0.9	B	114	4	3.9	23	14	0.8	220	75	1.7
26	6	13	11.8	59	40.0	152	54.8	93.1	3.2	14	8	108	58	0.40	1.3	2.0	B	81	10	1.6	173	15	2.4	318	72	4.0
			4.0 MB			3.9 ML ATWC																				

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - NOVEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
NOV 26	10	32	54.0	60	28.5	144	46.1	12.4	1.3	17	9	113	11	0.46	0.6	0.7	A	124	11	0.8	26	36	1.0	228	52	1.5
26	12	24	19.9	60	2.8	141	38.4	0.3	0.6A	5	2	256	35	0.34	2.4	4.4	C	310	4	1.8	219	10	4.3	61	79	8.3
26	12	54	57.4	60	15.4	140	58.3	10.2	0.9	10	5	128	12	0.20	1.1	1.4	B	306	10	0.8	43	36	1.1	203	52	3.2
26	15	13	11.2	61	49.8	148	45.2	4.0	0.2A	4	3	182	11	0.17	1.2	9.0	D	3	0	2.2	273	1	0.9	93	89	16.9
26	21	49	53.9	60	8.7	141	40.8	11.3	1.7	14	7	162	24	0.53	1.0	1.0	A	120	10	0.9	219	43	1.4	20	45	2.4
27	3	21	0.8	60	58.3	147	59.8	27.9	1.6	21	12	93	22	0.42	0.3	0.9	A	105	1	0.5	195	7	0.6	7	83	1.6
27	9	50	35.0	59	31.1	138	47.3	19.2	1.1	5	2	258	9	0.20	5.7	3.0	D	222	24	11.5	118	28	5.9	346	52	1.0
27	15	52	4.0	61	10.9	149	24.3	36.3	1.2A	10	8	99	11	0.37	0.6	0.8	A	192	2	0.6	282	4	1.1	75	86	1.5
28	0	22	3.7	61	51.4	151	55.8	116.4	2.6	19	15	168	25	0.38	1.7	1.4	A	261	0	1.4	315	18	2.5	171	50	2.0
28	0	31	31.6	60	30.6	142	57.9	16.2	1.2A	14	8	88	35	0.60	0.4	1.1	A	1	0	0.8	271	1	0.6	91	89	2.1
28	3	52	46.7	59	0.2	152	36.5	67.1	2.7	11	6	138	125	0.18	1.4	7.3	D	173	2	1.6	83	5	2.2	285	85	13.8
28	4	28	40.8	59	52.9	140	41.4	14.6	0.9A	3	2	267	34	0.31	3.2	5.7	D	275	7	1.6	182	24	3.8	20	65	11.7
28	14	56	9.0	59	56.6	141	50.0	12.8	1.1	8	5	235	15	0.49	1.6	1.0	B	191	6	3.0	100	13	0.8	305	76	1.8
29	0	7	4.5	61	9.6	152	12.3	10.0	0.4	7	5	183	8	0.37	1.2	0.6	A	103	10	2.4	196	17	0.7	344	70	1.0
29	1	43	8.0	60	15.1	140	58.9	10.4	0.8	13	9	126	11	0.22	0.7	0.7	A	300	3	0.6	32	43	0.8	207	47	1.6
29	12	36	24.7	59	59.0	141	32.4	9.2	0.9	11	6	177	28	0.42	0.9	1.2	A	271	2	0.8	181	16	1.7	8	74	2.2
29	16	22	9.9	60	53.8	138	51.9	0.0	1.8A	9	5	264	113	0.81	3.3	3.3	C	330	9	1.8	81	42	8.4	231	43	2.3
29	19	28	57.5	61	17.0	150	30.2	44.6	1.6	19	14	85	24	0.56	0.4	1.3	A	190	1	0.7	100	5	0.6	291	85	2.4
30	1	49	25.0	60	15.8	140	53.7	7.1	0.8	11	7	133	14	0.47	0.6	1.0	A	307	4	0.5	39	30	0.6	210	60	2.1
30	4	57	28.1	61	15.7	150	24.8	39.1	1.1A	16	10	85	29	0.48	0.5	1.1	A	197	6	0.9	106	9	0.6	320	79	2.2
30	5	0	6.0	61	33.4	150	3.7	45.1	1.6	21	12	101	14	0.44	0.5	0.8	A	261	5	0.5	169	22	0.8	3	67	1.6
30	10	46	36.6	61	44.3	150	2.3	9.9	1.0A	15	8	149	13	0.86	0.5	0.5	A	265	15	0.4	0	17	0.9	136	67	1.0
30	14	17	48.5	60	30.2	143	5.5	0.9	0.8	11	4	98	15	0.59	0.6	15.1	D	267	1	0.7	357	1	0.9	132	89	28.3
30	15	35	39.0	59	58.0	141	42.0	12.4	1.4	18	9	179	20	0.48	0.7	0.6	A	97	12	0.5	0	29	1.4	207	58	1.0
30	18	39	2.3	61	49.0	148	54.3	14.8	0.0A	5	4	145	4	0.10	1.1	1.3	B	197	11	1.9	101	27	1.0	307	60	2.8
30	21	16	14.3	60	16.8	141	33.8	10.1	0.8	10	6	109	13	0.33	0.8	0.9	A	119	8	0.8	24	33	1.2	221	56	1.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - DECEMBER 1984

1984	ORIGIN TIME	HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
DEC	1	7	52	2.7	61	48.4	149	37.5	42.2	1.2	25	11	156	22	0.51	0.7	0.7	A	96	1	0.6	186	29	1.2	4	61	1.4
	1	8	12	29.5	59	42.2	152	51.1	88.8	2.4	13	7	103	53	0.34	1.6	2.0	B	81	14	1.3	164	31	2.2	328	56	4.2
	1	8	21	46.0	59	45.9	141	25.6	0.5	0.8A	5	3	254	68	0.40	3.9	3.3	C	286	6	1.8	19	32	8.1	187	57	5.2
	1	10	59	42.3	60	21.1	141	57.8	10.3	0.5	9	6	73	12	0.69	0.5	0.7	A	12	7	0.9	279	22	0.6	119	67	1.5
	1	11	37	15.0	61	3.3	152	17.8	13.7	0.6A	4	4	191	19	0.20	2.2	2.6	B	198	24	0.6	301	27	3.0	73	52	5.8
	1	16	7	1.0	61	52.2	149	36.2	45.3	1.9	28	14	162	28	0.69	0.8	0.7	A	358	1	1.5	268	7	0.6	96	83	1.4
	1	17	19	49.8	61	3.7	149	53.2	45.5	1.0A	13	11	81	52	0.31	0.6	2.4	B	81	1	0.8	351	9	1.0	177	81	4.5
	1	18	25	53.2	60	39.0	150	17.7	46.3	3.3	31	6	55	16	0.49	0.5	1.3	A	104	2	0.7	14	8	0.9	208	82	2.4
				3.8 MB			4.1 ML ATWC						Felt (II) at Anchorage and Soldotna.														
	1	20	20	50.6	61	47.0	149	1.8	9.9	1.1	25	13	108	6	0.72	0.4	0.4	A	171	7	0.7	268	44	0.4	74	45	0.9
	1	21	9	11.7	61	41.6	149	28.5	47.0	0.9A	12	10	131	21	0.36	1.0	1.2	A	269	21	0.8	167	29	1.4	30	53	2.7
	2	0	27	0.7	61	59.0	149	12.9	0.0	1.1	24	13	173	21	0.71	0.5	0.8	A	197	4	0.9	289	28	0.5	100	62	1.7
	2	1	3	29.2	61	49.2	148	31.4	9.4	0.9	22	10	170	10	0.79	0.6	0.4	A	278	5	0.4	11	29	1.2	179	60	0.6
	2	1	11	58.8	60	38.4	143	20.5	5.0	1.3	17	9	87	34	0.66	0.4	5.7	D	281	1	0.5	11	1	0.8	146	89	10.8
	2	4	51	52.0	61	39.4	150	58.0	59.4	2.5	27	13	117	24	0.58	0.7	0.8	A	81	5	0.6	166	23	1.3	339	66	1.5
	2	6	7	56.0	60	2.4	141	39.6	10.3	1.2	16	8	158	21	0.46	0.6	0.6	A	91	16	0.5	351	31	1.0	204	54	1.3
	2	6	42	40.2	61	29.6	149	56.4	43.8	0.8A	7	4	147	43	0.26	1.3	2.7	B	81	4	1.0	170	20	1.6	340	70	5.3
	2	7	45	25.6	60	3.8	139	34.2	14.2	1.7	11	6	193	13	0.73	2.3	1.0	B	319	21	0.8	261	25	3.5	100	46	1.3
	2	9	43	6.4	59	48.0	153	18.4	114.6	3.1	15	7	101	50	0.28	1.5	1.4	B	81	21	1.4	319	30	3.2	194	43	2.1
							3.5 ML ATWC																				
	2	17	55	7.5	60	9.3	141	8.9	6.6	1.0	13	8	98	6	0.38	0.5	0.5	A	101	4	0.4	194	37	1.2	6	53	0.7
	2	21	26	24.6	61	14.9	152	2.5	0.1	-0.6A	3	3	169	6	0.02	0.5	25.0	D	6	0	0.6	276	0	0.9	0	90	99.0
	2	22	34	29.8	61	28.3	149	57.0	39.2	1.1A	18	12	66	20	0.45	0.5	1.3	A	97	5	0.5	188	7	0.9	332	81	2.5
	3	0	24	0.9	62	20.5	149	42.3	57.5	2.5	25	9	209	68	0.56	1.2	2.0	B	276	3	0.8	8	28	1.4	180	62	4.1
	3	0	50	58.1	60	14.4	139	34.3	5.2	2.0	11	5	205	32	0.69	1.0	1.4	B	303	8	0.8	38	28	1.3	199	61	2.8
	3	2	42	2.8	60	10.7	140	6.7	0.4	0.9	6	3	184	12	0.27	1.1	2.9	C	359	4	2.0	89	8	0.7	243	81	5.5
	3	5	51	31.0	61	10.8	152	9.4	6.8	-0.1A	3	3	272	5	0.05	1.2	1.4	A	332	16	1.0	261	25	2.0	98	55	2.5
	3	11	20	34.1	60	24.8	150	16.0	47.8	2.2	29	8	79	11	0.41	0.6	1.3	A	261	5	0.7	342	15	0.9	152	72	2.5
	3	22	16	57.4	60	39.7	151	8.7	59.7	2.7	27	11	57	10	0.46	0.5	1.2	A	282	0	0.6	12	9	0.8	192	81	2.3
	3	23	18	15.9	60	12.1	141	5.3	4.8	0.8	9	7	113	6	0.50	0.6	0.8	A	299	17	0.5	38	28	0.7	181	57	1.8
	3	23	19	31.8	60	12.3	141	6.1	4.6	0.4A	5	5	168	7	0.22	0.7	1.1	A	288	9	0.6	22	25	0.9	180	63	2.2
	4	3	45	14.8	60	6.3	141	8.5	4.7	0.3A	5	2	195	8	0.12	3.0	2.9	C	271	24	1.0	162	37	1.4	26	44	7.7
	4	4	53	58.9	60	12.2	141	3.8	6.6	0.3A	5	2	170	6	0.22	6.1	3.9	D	204	32	13.5	319	34	0.9	83	40	1.5
	4	8	36	21.8	59	57.6	152	57.4	114.1	2.9	16	5	155	26	0.33	1.3	1.2	A	81	20	1.3	317	35	2.6	189	40	1.9
	4	11	38	50.8	60	43.2	143	40.7	16.7	0.8A	12	7	116	57	0.65	0.5	2.9	C	25	0	1.0	115	4	0.7	295	86	5.5
	4	12	58	39.4	61	7.8	151	10.9	61.8	2.3	24	12	55	44	0.42	0.6	1.1	A	81	7	0.6	157	21	0.9	332	64	2.2
	4	14	56	36.0	61	10.1	146	33.6	18.0	0.9A	8	7	156	12	0.50	1.0	1.0	A	261	3	0.6	136	38	2.2	354	40	1.1
	4	15	7	26.7	61	1.1	149	41.6	39.6	2.4	32	11	48	40	0.49	0.3	1.4	B	261	0	0.5	337	1	0.6	171	76	2.6
	4	17	46	17.3	60	20.5	141	7.7	14.6	1.0	10	5	128	22	0.26	0.9	2.2	B	314	6	0.7	46	20	0.8	208	69	4.5
	4	19	42	29.5	60	7.4	152	39.0	101.3	3.5	18	14	69	11	0.71	0.6	0.8	A	205	5	0.8	114	12	1.0	317	77	1.6
							3.4 ML ATWC																				
	4	19	53	59.4	62	10.6	150	9.3	65.9	2.4	24	10	197	60	0.48	1.1	1.7	B	90	4	0.8	359	18	1.9	192	72	3.3
	4	20	14	12.2	60	17.8	141	14.3	9.9	1.1	8	3	116	20	0.19	0.8	1.7	B	94	9	0.9	0	22	0.6	205	66	3.4
	4	23	3	28.5	60	10.9	141	6.8	3.8	-0.1A	4	3	171	5	0.04	1.5	1.1	A	81	12	1.0	140	32	2.5	332	45	1.4
	4	23	43	47.0	60	10.2	141	4.2	4.4	0.6A	8	7	109	3	0.34	0.5	0.5	A	283	9	0.5	21	40	0.6	183	49	1.2
	5	3	8	22.6	61	27.9	146	33.8	22.4	2.0	29	22	69	34	0.59	0.3	0.7	A	11	2	0.5	280	11	0.4	111	79	1.3
	5	7	51	46.3	61	42.1	150	23.3	5.5	1.3	9	9	140	33	0.69	0.8	1.1	A	81	6	0.6	340	31	0.8	180	57	2.3
	5	7	52	43.1	62	32.8	152	21.5	0.0	2.1	14	9	123	76	0.72	2.8	1.8	C	81	15	3.8	322	19	5.3	197	53	1.7
							2.9 ML ATWC																				
	5	11	39	27.8	60	10.7	139	47.5	17.5	1.1	6	3	191	27	0.53	2.2	1.5	B	123	6	1.0	217	31	4.7	23	58	1.5
	5	13	58	55.6	61	50.1	149	34.2	46.1	2.6	27	16	159	26	0.60	0.7	0.8	A	271	6	0.7	176	36	1.2	9	53	1.6
							3.0 ML ATWC																				

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - DECEMBER 1984

1984	ORIGIN TIME				LAT N		LONG W		DEPTH	MAG	NP	NS	GAP	DI	RMS	SEH	SEZ	Q	AZ1	DIP1	SE1	AZ2	DIP2	SE2	AZ3	DIP3	SE3
		HR	MN	SEC	DEG	MIN	DEG	MIN	KM				DEG	KM	SEC	KM	KM		DEG	DEG	KM	DEG	DEG	KM	DEG	DEG	KM
DEC	6	0	44	45.2	62	16.3	148	2.5	37.7	2.5	25	15	101	54	0.52	0.6	0.5	A	177	26	1.0	81	35	0.7	300	47	1.2
	6	5	12	21.5	61	50.3	148	51.2	14.7	0.6	8	4	179	6	0.71	0.7	0.5	A	25	6	1.4	290	41	1.1	122	48	0.8
	6	6	14	51.1	61	8.2	150	30.5	12.1	1.4	22	14	49	39	0.66	0.3	0.6	A	290	2	0.5	199	11	0.6	30	79	1.2
	6	8	58	8.4	59	46.6	153	20.6	114.7	2.6	11	6	182	48	0.28	1.7	1.7	B	81	21	1.5	178	39	2.4	327	46	3.8
	6	15	21	56.1	60	41.6	140	35.8	0.4	1.0A	8	6	197	50	0.83	1.4	1.7	B	137	3	0.6	261	31	1.7	43	45	3.3
	6	23	44	32.5	61	40.6	150	20.1	7.5	1.3	12	11	137	24	0.69	0.7	0.6	A	263	15	0.5	161	39	1.5	10	47	0.9
	7	3	40	33.7	60	6.7	141	5.6	0.9	0.4	6	3	191	6	0.51	1.3	2.3	B	285	4	1.0	193	27	1.2	23	63	4.8
	7	4	48	19.8	60	10.9	139	40.8	14.7	0.5	7	4	196	25	0.37	2.3	1.9	B	304	1	1.1	213	39	5.4	35	51	1.6
	7	7	3	19.0	60	31.0	143	17.4	23.5	0.6A	8	6	116	43	0.48	0.8	2.8	B	261	3	1.0	335	8	1.2	149	72	5.0
	7	13	59	16.7	61	30.8	141	7.0	4.2	1.4	10	5	251	62	0.39	1.4	9.8	D	307	1	1.4	37	5	2.1	206	85	18.4
	7	14	20	30.8	61	30.6	141	3.5	2.3	1.5	15	6	243	62	0.34	1.2	11.3	D	315	1	1.2	45	2	2.0	198	88	21.1
	7	15	39	24.6	60	41.1	145	16.5	0.0	0.2	4	3	189	17	0.85	1.5	25.0	D	20	0	1.4	290	0	2.9	0	90	99.0
	7	15	40	24.8	62	10.9	149	21.5	45.7	2.2	26	14	114	43	0.55	0.9	1.0	A	281	5	0.8	14	35	1.5	184	55	2.1
	7	16	22	30.2	59	14.8	151	19.6	49.4	2.9	16	9	133	63	0.61	1.3	2.7	B	150	5	1.8	261	13	1.5	43	65	4.9
	7	19	14	51.3	61	4.5	152	0.2	9.9	0.2A	3	3	340	12	0.09	3.1	0.9	C	347	0	2.0	261	14	6.0	77	75	1.0
	7	19	25	13.0	61	4.4	152	1.2	10.2	0.2A	3	3	340	12	0.10	2.0	1.3	B	262	3	3.7	171	4	2.0	28	85	2.3
	7	19	28	24.7	60	16.8	141	0.4	10.7	1.3	13	7	128	14	0.21	0.6	0.8	A	315	20	0.6	56	26	0.8	192	56	1.6
	7	22	9	43.3	60	1.0	141	35.8	1.1	0.5A	7	7	193	24	0.55	0.8	1.4	B	81	6	0.7	339	12	1.3	195	72	2.6
	7	22	29	9.3	60	43.3	143	12.7	28.1	0.4A	7	3	86	59	0.14	1.4	1.5	B	313	5	1.4	81	40	3.3	219	37	1.1
	8	2	47	55.0	59	48.9	141	14.4	7.3	1.1A	11	6	199	40	0.30	1.0	1.7	B	107	5	1.0	198	14	1.7	358	75	3.3
	8	3	18	22.1	59	49.3	141	15.4	7.2	0.9A	10	8	193	39	0.73	1.2	1.7	B	114	8	1.1	207	18	2.2	1	70	3.3
	8	8	1	43.2	61	57.2	144	3.3	1.2	1.6	15	8	218	58	0.41	1.0	14.7	D	283	0	0.9	13	1	1.7	193	89	27.5
	8	23	2	54.4	59	55.5	141	28.1	34.3	0.9A	5	4	252	51	0.18	4.7	14.2	D	119	5	1.2	210	14	5.7	10	75	27.6
	9	0	25	41.4	62	45.3	149	34.8	62.2	2.5	18	15	149	107	0.67	0.9	4.5	C	294	2	1.5	24	8	1.2	190	82	8.5
	9	2	43	35.1	60	11.8	141	0.1	13.2	1.4	10	8	117	16	0.35	0.8	1.0	A	111	1	0.5	21	37	0.7	202	53	2.2
	9	5	40	54.0	60	9.6	140	53.1	14.4	1.0A	5	3	171	36	0.29	5.8	3.1	D	200	4	11.0	290	6	1.1	76	83	5.9
	9	6	10	29.2	62	35.6	150	55.2	2.6	2.1	18	13	185	75	0.73	1.5	1.2	B	261	10	1.3	354	34	3.2	157	55	1.6
	9	6	29	3.2	61	9.6	152	11.1	5.7	0.5A	4	3	177	7	0.05	1.3	2.1	B	322	16	1.2	261	21	1.9	98	52	3.5
	9	6	30	56.6	60	15.3	140	49.8	11.8	1.6	11	7	135	36	0.29	0.6	1.2	A	304	7	0.6	35	9	1.1	177	79	2.3
	9	7	55	0.7	60	19.8	141	12.6	9.2	0.7	6	5	120	25	0.32	1.1	2.0	B	304	0	0.9	34	25	1.1	214	65	4.1
	9	9	6	42.0	61	31.8	151	12.6	9.8	0.0A	4	4	125	26	0.49	1.6	3.1	C	228	16	0.9	324	20	1.1	102	64	6.5
	9	10	6	7.6	60	5.0	153	29.1	156.2	2.9	13	7	155	39	0.37	2.2	2.7	B	81	14	2.2	147	15	3.5	297	59	4.7
	9	11	42	10.2	61	4.1	152	17.1	15.0	0.9A	4	4	190	18	0.16	1.7	0.6	B	107	3	3.3	198	24	0.6	10	66	1.2
	9	11	46	46.5	60	11.8	153	12.4	131.8	2.8	13	5	153	22	0.34	2.2	2.5	B	261	4	2.2	138	19	3.1	0	52	4.3
	9	15	7	24.4	61	39.7	149	34.9	37.8	2.4	28	13	128	16	0.68	0.6	0.5	A	270	5	0.6	4	34	1.2	173	55	0.8
	9	16	54	52.2	59	52.4	152	55.3	92.9	2.4	12	8	168	35	0.22	1.2	1.3	A	81	12	1.2	166	38	1.9	335	50	2.7
	9	19	43	47.3	60	41.3	140	36.1	3.8	1.8	11	9	196	50	0.68	1.1	1.5	B	140	5	0.6	261	14	1.6	36	56	2.6
	9	19	47	23.4	60	46.6	140	19.4	14.6	1.5	4	3	246	59	0.58	25.0	25.0	D	140	4	1.3	261	27	4.7	44	50	79.0
	9	22	25	21.3	61	48.6	148	52.7	14.3	1.0	12	9	145	5	0.56	0.5	0.4	A	169	14	1.0	271	41	0.6	64	46	1.0
	9	23	5	25.3	60	17.8	141	13.3	0.6	0.9	9	6	117	22	0.61	0.5	1.4	B	97	6	0.6	6	13	0.6	211	76	2.8
	10	5	47	0.4	60	15.2	140	59.3	0.2	0.9	4	3	173	43	0.24	2.0	4.3	C	294	1	1.0	24	16	3.0	201	74	8.3
	10	6	50	28.6	60	22.3	141	4.1	12.2	1.4	6	5	139	37	0.26	1.0	2.1	B	306	2	0.8	37	19	1.4	210	71	4.1
	10	8	33	8.7	60	26.3	145	9.9	18.1	1.5	17	8	165	11	0.81	0.9	0.7	A	264	3	0.8	174	8	1.7	14	81	1.3
	10	12	14	33.7	61	45.4	149	17.8	7.5	0.8	8	8	139	20	0.38	0.8	1.2	A	6	18	1.3	270	19	0.7	137	63	2.4
	10	14	3	39.5	61	32.4	151	58.8	15.1	0.9	4	3	189	26	0.25	6.1	25.0	D	18	1	1.1	288	5	7.9	119	85	93.3
	10	18	50	21.4	62	31.5	149	21.0	74.2	3.0	24	8	133	79	0.49	1.5	3.0	C	82	1	1.8	352	22	1.7	174	68	6.0
							2.9 ML ATWC																				
	10	19	28	16.3	58	38.9	153	11.1	87.7	2.7	10	3	209	108	0.57	7.5	10.2	D	173	3	4.6	82	15	13.5	274	75	19.5
	10	20	31	8.5	60	22.9	140	44.8	4.8	0.9A	4	3	189	30	0.18	1.4	5.1	C	283	0	1.2	13	8	2.3	193	82	9.6
	10	20	59	51.3	61	33.3	151	59.9	3.8	1.5	12	7	193	28	0.69	1.2	1.4	B	23	0	0.6	113	33	2.0	293	57	2.8
	11	1	28	5.3	61	20.1	147	7.3	22.8	2.0	28	16	85	31	0.43	0.4	0.9	A	27	2	0.8	297	9	0.5	129	81	1.6

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - DECEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
DEC 11	4	40	36.0	61	29.3	151	13.7	6.1	1.4	9	6	99	26	0.59	0.7	0.9	A	261	4	0.7	349	10	1.2	149	79	1.7
11	5	3	38.3	61	55.8	149	27.9	46.3	2.3	28	10	168	28	0.49	1.0	1.0	A	282	6	0.9	17	42	2.1	185	47	1.7
11	15	43	47.0	60	27.9	148	23.6	14.7	2.1	35	10	143	44	0.89	0.6	0.7	A	156	7	1.1	261	14	0.6	43	68	1.4
11	16	4	17.5	60	32.8	141	39.1	11.6	1.3	14	7	99	22	0.45	0.7	1.3	A	3	6	0.7	273	7	1.2	134	81	2.4
11	19	47	55.6	61	1.5	150	49.7	15.0	1.9	20	11	45	49	0.80	0.5	1.3	A	282	0	0.7	192	6	0.9	12	84	2.4
11	20	19	46.8	60	0.9	141	36.0	3.1	0.9	6	4	258	16	0.45	1.6	2.0	B	135	1	1.4	226	33	2.2	43	57	4.3
12	1	31	34.2	61	9.8	151	23.4	65.2	2.1	21	12	59	36	0.32	0.7	1.2	A	208	7	0.9	116	18	1.1	318	71	2.4
12	3	21	57.7	60	15.2	152	57.5	119.2	3.2	17	9	98	11	0.34	1.4	1.5	A	81	4	1.5	322	13	2.1	184	58	2.5
12	4	50	56.6	61	41.5	150	49.2	61.0	3.5	24	12	74	26	0.39	0.6	0.9	A	81	11	0.7	172	12	1.2	309	74	1.7
	3.8 MB																									
12	6	7	15.7	61	19.7	150	31.7	10.2	0.6A	3	3	295	19	0.39	1.9	1.6	B	200	29	1.4	90	31	3.9	323	45	3.0
12	11	33	53.1	60	58.3	152	3.9	13.1	0.6A	4	4	198	23	0.43	3.6	3.5	C	192	20	0.6	298	37	6.3	80	46	7.3
12	21	57	36.1	60	7.2	141	8.1	3.7	0.8A	3	2	216	7	0.20	3.4	2.7	C	122	24	1.5	11	38	8.0	236	42	1.3
13	4	52	26.5	62	1.7	149	19.0	45.2	2.4	30	8	104	28	0.69	1.0	0.8	A	280	5	0.8	187	26	1.9	20	63	1.4
13	8	8	40.0	60	12.6	141	2.7	0.1	0.8	6	4	119	6	0.44	1.2	2.5	B	325	10	0.6	81	16	0.8	211	58	4.7
13	8	52	23.7	60	1.0	140	56.1	4.7	1.0	9	3	155	16	0.25	1.2	1.8	B	128	12	0.7	225	29	1.4	18	58	3.8
13	9	19	14.7	60	11.5	141	4.4	1.3	-0.1A	5	3	146	5	0.42	2.7	3.6	C	307	9	0.6	43	35	1.0	205	54	8.4
13	12	40	7.7	60	21.1	140	45.5	12.1	0.2A	7	2	149	27	0.29	2.4	4.3	C	94	5	1.4	1	26	2.2	194	63	9.0
13	16	2	1.2	60	15.4	141	35.2	9.7	1.3	13	5	108	14	0.37	0.5	0.8	A	121	1	0.7	31	15	1.0	215	75	1.5
13	16	29	55.7	60	15.6	141	14.0	10.8	0.9	10	9	112	16	0.37	0.6	0.8	A	289	8	0.6	24	35	0.7	188	54	1.8
13	19	42	48.6	59	49.7	141	2.2	1.6	1.0A	12	5	188	27	0.43	0.8	1.8	B	306	4	1.2	215	5	1.4	74	84	3.4
13	20	7	12.1	59	48.8	141	4.9	0.1	1.0A	10	5	196	28	0.43	1.0	1.8	B	295	2	1.0	25	7	1.9	189	83	3.4
13	20	53	20.6	60	8.9	141	4.7	4.1	0.3A	5	2	133	3	0.17	1.1	1.0	A	146	26	1.7	261	31	0.8	27	44	2.3
13	22	7	57.5	61	33.3	151	16.6	1.5	0.7A	8	7	108	30	0.66	0.3	0.8	A	339	2	0.6	261	7	0.5	85	76	1.5
13	22	39	54.3	61	10.7	152	9.7	2.1	-0.5A	3	3	276	6	0.00	1.2	4.6	C	261	6	1.9	318	10	0.9	134	55	7.2
14	0	58	33.5	60	39.6	142	50.9	14.1	0.8A	4	3	146	50	0.24	1.3	4.9	C	192	1	1.0	282	10	1.8	96	80	9.4
14	1	27	23.4	60	6.1	152	55.4	121.4	2.9	17	5	70	11	0.37	1.3	1.2	A	50	18	1.6	304	40	2.8	159	44	1.9
14	1	55	51.8	60	7.3	141	12.3	0.6	0.0A	3	2	148	8	0.06	2.2	25.0	D	269	2	0.6	359	4	1.4	152	86	50.3
14	3	42	17.4	61	25.2	150	48.1	57.7	2.3	23	14	69	6	0.42	0.6	0.9	A	81	6	0.5	169	21	0.9	336	68	1.7
14	3	42	52.1	60	11.0	141	1.5	8.7	0.3A	3	3	287	3	0.10	1.2	1.1	A	180	2	1.8	88	41	2.8	272	49	1.3
14	4	28	18.3	59	55.3	140	7.7	5.5	0.9	6	5	173	21	0.44	1.1	1.7	B	125	1	0.6	215	30	1.2	33	60	3.7
14	10	50	49.8	59	26.0	152	59.1	100.0	2.8	11	5	129	79	0.25	1.6	2.6	B	192	18	1.8	95	22	1.5	318	61	5.5
14	12	39	34.1	61	35.0	150	16.5	10.4	0.7A	5	4	175	28	0.46	8.7	3.0	D	81	13	0.7	160	14	16.0	303	68	4.7
14	14	50	53.5	61	51.5	149	7.6	1.2	0.8	7	6	180	9	0.50	0.9	2.2	B	4	10	1.1	270	17	0.8	123	70	4.3
14	15	43	27.0	62	38.8	149	28.5	60.3	2.7	21	9	141	94	0.47	1.9	4.1	C	286	6	1.3	18	22	1.8	182	67	8.3
14	18	27	34.0	59	47.1	152	20.1	80.0	2.9	15	6	91	52	0.31	0.9	1.2	A	95	4	0.9	186	8	1.6	339	81	2.3
14	22	13	26.9	61	48.2	149	3.1	12.3	0.2A	4	4	264	6	0.12	1.4	0.9	B	261	2	2.7	166	31	1.0	354	59	1.9
15	1	44	34.3	59	49.5	151	50.2	46.4	2.1	14	9	172	39	0.67	0.8	1.4	B	285	6	0.8	16	9	1.4	162	79	2.7
15	2	56	11.4	61	33.8	150	12.3	9.9	0.9A	6	6	178	20	0.34	1.4	0.7	B	160	2	2.6	261	22	0.6	65	65	1.3
15	4	46	53.8	62	11.7	147	30.2	38.2	2.6	22	16	192	41	0.70	0.8	0.5	A	182	5	1.4	90	25	0.7	283	64	0.9
15	11	25	24.4	59	10.1	140	0.6	12.3	1.7A	6	4	293	66	0.13	1.9	2.8	C	343	3	3.5	261	27	1.9	79	62	5.7
15	16	29	16.0	59	10.2	139	57.8	19.6	1.4	8	7	248	64	0.22	2.3	2.4	B	179	28	2.2	287	31	1.4	56	46	6.0
15	21	21	43.1	62	19.0	150	36.2	12.1	1.9	20	11	221	61	0.69	1.7	1.2	B	265	5	0.8	358	30	3.4	166	59	1.9
16	2	54	32.7	58	50.0	153	40.1	65.2	2.3	10	5	195	110	0.20	4.0	11.1	D	27	2	5.5	118	18	3.3	291	72	21.9
16	8	18	38.3	60	10.0	150	22.8	45.2	2.5	30	15	114	40	0.53	0.7	1.5	B	261	1	0.8	339	14	1.1	167	72	2.8
16	13	22	37.7	62	3.6	150	21.7	58.4	2.4	23	10	119	52	0.62	1.2	1.7	B	92	2	1.0	2	12	2.2	191	78	3.2
16	14	15	43.8	61	39.8	148	33.6	7.2	1.1	15	10	84	20	0.56	0.6	0.8	A	143	14	0.6	261	17	0.8	25	55	1.5
16	18	33	10.4	59	15.5	153	32.6	110.5	2.6	9	5	169	69	0.18	3.0	3.8	C	86	17	2.9	186	29	3.6	330	55	8.4
16	18	59	48.7	60	32.2	143	6.6	16.8	1.2	7	6	121	40	0.23	1.1	2.9	C	81	1	2.0	340	4	1.0	184	78	5.3
16	21	37	46.3	59	48.1	151	53.1	55.1	2.1	14	8	176	56	0.50	1.0	2.1	B	281	3	1.1	11	5	1.9	160	84	4.0
16	22	55	4.8	60	31.5	143	2.7	12.8	0.9A	5	3	155	37	0.41	1.2	10.9	D	331	2	1.4	261	2	2.1	116	70	19.3

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - DECEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
DEC 16	23	29	25.2	60	30.4	141	15.4	11.4	1.3	14	7	128	32	0.48	0.8	2.1	B	167	2	0.8	81	18	0.9	263	71	4.0
17	0	25	20.7	60	30.6	141	21.4	17.5	0.8A	7	5	121	27	0.54	1.5	3.3	C	14	9	0.7	108	20	1.3	261	68	6.7
17	6	24	25.5	61	51.5	149	13.8	0.8	1.0	13	9	179	14	0.84	0.6	0.8	A	263	7	0.5	355	8	1.1	133	79	1.6
17	6	46	31.2	60	35.3	147	22.1	28.3	2.6	36	17	60	36	0.71	0.3	0.4	A	278	1	0.4	8	3	0.5	170	87	0.8
17	6	49	36.6	60	0.0	140	4.6	16.6	2.0	12	5	139	15	0.70	1.3	0.7	A	297	4	0.5	28	21	2.5	197	69	1.1
17	6	58	32.5	60	0.2	141	40.2	5.5	0.6A	10	7	175	19	0.52	0.5	0.8	A	268	0	0.6	178	2	1.0	358	88	1.6
17	11	31	30.2	60	3.4	137	11.6	9.9	1.6	7	3	299	116	0.12	3.4	3.6	C	34	22	2.7	288	35	4.1	150	47	8.4
17	13	53	33.3	60	27.8	145	9.7	18.5	2.0	30	15	101	8	0.82	0.4	0.4	A	81	5	0.5	346	33	0.8	179	56	0.8
17	15	37	31.4	61	11.7	146	33.4	6.2	0.2A	3	3	226	14	0.11	3.9	10.7	D	16	10	1.1	283	17	1.8	135	70	21.3
17	17	44	49.6	61	16.9	152	11.3	23.5	0.6	3	3	286	2	0.12	2.1	1.4	B	96	15	4.0	194	29	2.4	342	57	2.4
17	18	36	25.2	59	31.9	152	21.3	71.2	3.3	13	3	110	77	0.23	1.2	2.5	B	90	10	1.3	182	15	1.7	327	72	5.0
				3.8 ML ATWC						Felt (III) at Homer.																
17	19	57	32.1	60	6.8	141	14.8	4.3	1.0	15	6	132	9	0.25	0.5	0.6	A	291	7	0.4	26	39	0.9	193	50	1.1
17	21	31	30.7	61	40.2	151	21.2	77.4	3.1	26	11	95	36	0.39	0.8	0.9	A	81	12	0.7	169	33	1.2	333	55	1.8
17	22	52	6.5	60	25.5	143	5.0	23.5	2.6	27	10	84	28	0.36	0.4	0.5	A	42	17	0.6	305	23	0.4	165	61	1.0
17	23	13	24.6	60	25.9	143	5.6	20.6	1.7	23	14	118	29	0.41	0.4	0.7	A	35	6	0.7	304	9	0.4	158	79	1.4
17	23	46	28.7	60	4.8	139	22.5	20.5	0.7	6	4	213	20	0.55	2.2	1.6	B	124	25	0.9	232	34	4.9	6	46	1.7
18	1	15	40.1	60	25.1	143	0.9	25.9	0.7A	7	3	112	26	0.52	4.2	4.5	C	353	28	1.0	261	37	2.2	118	45	11.0
18	1	26	35.3	60	23.8	142	54.8	27.9	0.6A	8	6	103	22	0.33	3.6	3.3	C	261	16	1.4	151	41	9.0	7	43	0.8
18	3	44	21.0	61	48.0	148	56.0	14.0	1.0	15	10	111	3	0.40	0.5	0.5	A	128	22	0.8	261	34	0.7	21	34	0.9
18	3	46	21.8	60	9.5	140	59.7	9.9	0.1	11	5	111	2	0.35	0.8	0.5	A	94	19	0.5	191	20	1.5	324	62	0.8
18	6	31	43.2	60	8.4	141	11.1	5.4	1.8	17	10	101	9	0.34	0.4	0.4	A	281	5	0.4	187	43	0.8	16	47	0.6
18	6	50	59.3	60	6.3	141	11.2	2.4	0.9	12	4	121	6	0.28	0.5	0.8	A	8	1	0.9	278	4	0.5	112	86	1.4
18	9	42	37.2	60	7.3	141	13.6	2.7	0.8	12	3	122	9	0.40	0.7	0.9	A	176	5	1.3	266	7	0.6	51	81	1.6
18	13	5	43.1	60	20.6	140	46.5	13.2	1.4	15	9	147	25	0.47	0.6	0.9	A	296	3	0.5	28	26	0.7	200	64	1.9
18	13	51	14.1	61	47.9	148	59.6	13.0	1.2	18	13	97	5	0.55	0.4	0.4	A	157	16	0.7	261	39	0.5	49	46	0.9
18	16	40	36.1	59	38.9	152	6.2	45.2	2.3	15	6	107	63	0.53	0.8	1.6	B	280	0	0.8	190	4	1.6	10	86	3.0
19	1	5	41.5	61	37.7	151	15.7	4.1	0.9	10	6	112	33	0.72	0.6	1.4	A	149	4	0.6	261	7	0.9	35	67	2.4
19	2	3	21.2	61	11.1	152	12.2	5.1	-0.3A	3	3	283	8	0.04	1.7	2.6	B	333	7	1.4	261	14	2.9	92	66	4.7
19	4	42	11.0	59	59.2	141	39.4	4.4	0.8	10	8	176	21	0.61	0.9	1.0	A	122	12	0.9	220	34	1.5	15	53	2.1
19	6	21	7.3	60	11.5	141	28.5	1.6	0.6	6	3	126	5	0.46	1.6	3.1	C	332	13	0.9	81	17	1.5	212	62	6.2
19	6	59	46.5	60	24.0	140	34.4	18.7	0.9A	5	2	270	37	0.41	4.6	4.4	C	81	17	2.1	332	41	3.4	188	43	11.4
19	9	37	35.1	59	59.6	141	40.2	6.1	0.6	7	6	203	20	0.73	1.4	1.6	B	123	5	1.3	217	34	2.1	26	55	3.3
19	9	48	13.2	60	2.1	141	40.5	8.5	2.1	11	9	164	17	0.45	0.8	0.7	A	87	13	0.7	347	36	1.6	194	51	1.3
19	12	57	30.6	60	36.2	150	28.5	43.0	2.2	28	15	60	17	0.67	0.5	1.1	A	261	0	0.7	346	12	0.9	171	77	2.2
19	16	49	1.9	61	56.1	149	21.6	2.8	1.8	25	13	169	23	0.67	0.8	1.0	A	274	23	0.6	173	25	1.2	41	55	2.2
19	16	51	41.7	61	33.4	140	39.8	4.9	1.8	8	5	261	75	0.34	3.4	25.0	D	323	1	2.2	81	3	3.6	219	62	58.1
19	20	33	45.0	60	16.3	141	36.0	8.4	1.3	10	3	94	13	0.34	1.6	1.2	B	332	9	0.8	261	34	3.3	76	51	1.3
19	21	13	45.6	61	47.4	148	58.8	10.3	0.8	13	11	87	4	0.65	0.8	0.8	A	304	5	0.9	261	35	0.6	39	34	1.3
19	21	56	18.1	58	6.3	151	20.8	82.1	2.9	9	3	218	79	0.58	5.9	5.6	D	30	17	1.8	283	42	12.8	136	43	8.8
20	0	43	39.1	61	55.4	147	23.9	40.2	2.3	25	12	158	11	0.62	0.7	1.0	A	85	5	0.6	176	16	1.2	338	73	2.0
20	5	41	5.1	60	9.2	141	30.8	9.1	0.8	9	7	132	2	0.50	0.6	0.5	A	281	7	0.7	188	25	1.2	26	64	0.8
20	6	16	27.2	60	1.7	141	31.8	8.8	1.1	11	8	165	14	0.32	0.6	0.6	A	272	7	0.7	9	44	1.2	175	45	1.0
20	7	12	58.0	59	58.9	140	37.3	2.7	1.0	8	4	175	24	0.28	1.4	1.7	B	290	2	0.9	199	33	2.1	23	57	3.5
20	10	46	33.1	60	8.1	141	12.8	0.2	1.0	8	7	141	10	0.25	0.8	1.2	A	271	1	0.4	1	19	1.3	178	71	2.3
20	12	14	30.8	61	40.4	148	35.3	8.4	0.6A	12	7	89	20	0.56	0.5	0.8	A	151	10	0.5	261	14	0.7	33	64	1.5
20	15	14	9.6	60	7.5	141	12.3	7.2	0.6	7	3	135	8	0.46	1.1	0.9	A	290	3	0.8	198	31	2.3	25	59	1.3
20	18	24	29.0	60	20.6	140	45.9	5.7	1.4	16	8	148	26	0.49	0.5	0.8	A	291	10	0.6	24	17	0.7	172	70	1.6
20	20	29	45.0	60	6.5	141	16.3	9.7	0.7	12	7	140	10	0.25	0.6	0.5	A	278	0	0.5	188	13	1.1	8	77	0.9
20	23	22	53.6	61	9.6	146	16.7	16.1	0.4A	5	4	154	4	0.16	2.2	0.9	B	33	11	0.8	301	11	4.2	167	74	1.6
20	23	24	7.3	61	9.3	146	16.0	18.2	0.4	4	5	183	4	0.20	2.0	1.5	B	35	5	0.8	302	34	4.4	132	56	1.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - DECEMBER 1984

ORIGIN TIME 1984	HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	D1 KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
DEC 21	3	26	29.1	59	56.7	140	36.7	0.6	0.4A	5	1	188	26	0.23	2.1	3.5	C	107	2	1.0	198	28	1.9	13	62	7.5
21	6	53	42.8	60	8.8	141	6.0	3.5	-0.2	4	3	167	4	0.21	0.5	0.8	A	351	4	0.9	261	14	0.6	97	75	1.6
21	8	40	20.3	60	35.1	152	25.9	12.3	0.6	3	3	172	2	0.51	25.0	8.2	D	111	9	99.0	207	34	1.6	8	55	0.7
21	18	42	14.0	61	12.3	151	51.3	7.6	-0.1	3	3	292	11	0.22	1.4	2.8	C	25	15	1.4	120	16	2.0	254	68	5.6
21	19	16	58.2	59	49.0	141	4.8	5.2	1.2	16	8	182	27	0.53	0.8	1.2	A	121	8	0.6	215	26	1.2	15	63	2.5
21	19	25	57.4	59	50.9	141	1.8	5.3	0.9A	13	6	179	24	0.54	1.2	1.5	B	120	4	0.9	212	30	1.7	23	60	3.2
21	19	32	4.3	59	51.5	141	4.4	10.4	1.3	13	7	179	33	0.58	1.3	1.5	B	126	14	0.8	225	33	2.1	16	53	3.2
21	19	34	16.3	60	52.6	152	14.2	5.4	0.4A	4	4	179	35	0.30	25.0	2.6	D	285	0	47.0	15	1	0.5	195	89	4.8
22	3	13	6.3	59	43.9	138	49.9	28.3	1.0	4	4	246	31	0.27	2.2	2.0	B	333	26	1.2	86	38	1.9	218	41	5.3
22	5	34	23.6	60	33.5	143	0.3	14.6	1.1	19	12	93	41	0.59	0.6	1.3	A	261	2	0.9	331	5	0.7	148	69	2.4
22	10	27	41.2	61	3.2	146	31.2	13.8	2.8	35	14	35	2	0.71	0.3	0.5	A	181	4	0.5	271	12	0.4	73	77	1.0
				3.0 ML ATWC																						
23	4	40	15.5	61	36.1	146	31.2	27.2	2.0	30	18	78	34	0.70	0.5	0.9	A	289	2	0.6	199	7	0.9	35	83	1.8
23	5	50	17.6	60	24.2	142	57.4	22.3	1.2A	5	2	223	23	0.41	2.6	4.0	C	104	10	4.4	9	26	1.9	213	62	8.4
23	9	59	46.1	60	12.3	140	59.2	9.9	1.4	13	7	119	6	0.18	1.0	0.9	A	107	2	0.8	199	43	2.3	15	47	0.9
23	13	10	6.3	60	12.5	141	35.0	7.2	1.3	14	9	95	9	0.46	0.7	0.9	A	38	5	1.3	129	10	0.9	282	79	1.7
23	22	2	0.8	62	13.5	150	58.8	75.6	3.4	23	8	97	40	0.39	1.0	1.6	B	91	2	1.1	0	20	1.6	186	70	3.1
23	22	18	9.7	60	26.4	143	18.1	8.4	0.9A	4	2	188	37	0.29	3.0	11.8	D	359	4	1.4	268	8	4.5	115	81	22.3
23	23	9	29.6	61	14.8	150	37.5	8.2	0.6A	3	3	280	25	0.11	2.7	1.4	C	108	14	5.1	210	38	1.4	2	48	2.9
23	23	9	39.8	62	10.5	149	20.5	51.3	1.2	6	5	264	42	0.24	3.8	3.0	C	275	19	2.2	173	31	7.7	32	52	4.9
24	1	47	39.3	60	20.4	141	57.3	2.8	0.9	11	4	66	12	0.53	0.5	1.2	A	4	2	0.6	274	15	0.7	101	75	2.3
24	3	30	13.9	61	43.6	150	38.9	10.1	0.9A	9	8	139	30	0.82	0.4	0.9	A	357	0	0.8	267	4	0.6	87	86	1.6
24	5	42	22.0	61	48.2	148	55.2	10.2	2.4	31	9	108	5	0.65	0.4	0.5	A	173	3	0.7	264	21	0.5	75	69	1.0
24	6	16	14.0	61	36.2	150	5.5	48.1	2.5	30	16	125	13	0.45	0.5	0.8	A	266	1	0.5	176	18	0.9	359	72	1.6
24	7	13	46.1	58	16.3	153	4.8	55.9	2.9	9	3	191	68	0.16	3.8	9.6	D	341	10	1.4	81	14	4.6	219	70	18.7
24	9	26	11.0	60	12.6	141	32.8	6.4	0.9	9	5	92	8	0.68	1.0	0.9	A	328	14	0.6	261	41	2.0	75	42	1.1
24	11	44	0.2	60	21.2	141	23.8	15.4	0.7	7	5	111	19	0.19	0.7	1.3	A	359	16	0.7	95	18	1.0	230	65	2.5
24	11	51	52.8	60	35.5	142	46.1	25.3	0.8A	8	6	90	43	0.50	1.2	1.5	B	358	4	0.9	265	35	1.4	94	55	3.2
24	12	49	56.4	60	11.4	143	9.3	14.7	0.6A	9	5	207	18	0.74	2.3	1.8	B	286	21	1.5	185	28	4.5	48	54	3.2
24	13	29	57.2	58	41.7	154	22.1	23.4	2.8	9	4	213	122	0.51	5.9	12.0	D	341	2	1.5	81	23	5.6	246	65	24.2
				3.4 ML ATWC																						
24	15	44	37.4	62	11.3	150	23.9	57.4	2.4	23	7	133	64	0.48	1.0	1.5	B	94	7	0.9	1	20	1.7	202	69	3.0
24	16	16	0.1	59	31.5	153	17.9	104.4	2.8	13	6	134	58	0.26	1.5	1.8	B	187	21	2.0	85	28	1.6	309	54	4.0
24	23	6	57.0	61	51.8	149	24.0	5.1	1.1	19	12	162	23	0.69	0.5	0.6	A	1	9	1.0	268	17	0.4	118	71	1.2
25	3	25	48.2	60	2.0	141	13.9	5.1	1.1	12	3	160	7	0.38	0.8	1.0	A	262	11	0.7	165	32	1.2	9	56	2.1
25	5	2	46.0	60	2.7	141	13.2	6.3	1.5	13	7	158	6	0.42	0.6	0.6	A	268	12	0.6	167	43	1.2	10	45	1.0
25	5	49	8.0	61	58.6	148	48.2	10.0	1.6	25	9	172	18	0.56	0.6	0.5	A	28	25	0.9	141	39	1.2	275	40	0.7
25	6	11	5.7	60	6.6	141	11.3	0.4	0.8	11	3	119	7	0.24	0.7	1.6	B	287	5	0.6	18	11	1.3	173	78	3.1
25	7	2	30.2	60	40.7	143	1.5	21.0	0.8A	8	3	95	54	0.33	1.0	2.8	C	310	6	1.1	218	15	1.3	61	74	5.4
25	7	8	44.0	60	1.8	139	54.7	10.7	0.5	6	3	168	18	0.23	2.8	0.9	C	297	7	0.6	28	7	5.3	163	80	1.5
25	9	58	47.2	60	0.9	140	39.8	12.5	1.2	9	4	164	24	0.52	1.7	1.3	B	111	6	0.7	17	35	3.6	209	54	1.8
25	10	2	16.2	60	1.1	141	14.2	3.0	1.0	12	6	163	8	0.47	0.7	0.8	A	108	4	0.6	201	36	1.1	13	54	1.7
25	11	17	25.1	60	1.7	141	13.9	2.9	0.8	10	6	161	7	0.36	0.7	0.9	A	104	7	0.5	199	33	0.9	4	56	1.8
25	12	24	28.8	60	9.5	141	1.2	5.5	0.2A	5	3	160	1	0.30	1.3	0.7	A	261	12	1.8	347	12	2.5	124	73	1.2
25	16	41	3.7	60	12.3	141	2.5	12.8	1.0	14	6	116	6	0.14	0.6	0.5	A	93	21	0.6	343	40	0.6	203	42	1.3
25	17	12	40.0	60	11.6	141	2.2	10.5	0.7	12	5	114	4	0.20	0.7	0.6	A	293	15	0.6	191	36	1.6	42	50	0.7
25	19	20	50.5	60	14.9	140	56.1	10.1	2.0	19	9	129	12	0.32	0.5	0.7	A	288	3	0.5	20	33	0.6	193	57	1.5
25	19	28	33.3	60	13.3	140	58.5	9.4	0.7	14	7	122	8	0.22	0.8	0.8	A	97	3	0.5	4	43	0.7	190	47	2.0
25	20	11	9.6	59	59.5	152	45.3	87.7	2.4	17	6	152	21	0.32	1.1	1.1	A	81	14	1.0	163	38	1.6	333	49	2.4
25	22	51	6.6	58	3.5	151	42.0	28.1	2.7	10	4	205	58	0.32	13.9	25.0	D	303	9	6.5	35	12	1.4	177	75	99.0
26	3	28	47.9	60	27.3	145	13.7	14.5	0.1A	3	3	264	9	0.34	2.2	2.8	C	46	13	3.6	144	32	2.5	297	55	6.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA - DECEMBER 1984

1984	ORIGIN TIME HR	MN	SEC	LAT N DEG	MIN	LONG W DEG	MIN	DEPTH KM	MAG	NP	NS	GAP DEG	DI KM	RMS SEC	SEH KM	SEZ KM	Q	AZ1 DEG	DIP1 DEG	SE1 KM	AZ2 DEG	DIP2 DEG	SE2 KM	AZ3 DEG	DIP3 DEG	SE3 KM
DEC 26	3	30	12.7	60	5.6	141	9.6	7.0	0.2A	4	3	143	4	0.08	1.3	2.4	B	21	12	1.7	286	21	1.0	139	65	4.9
26	5	53	33.0	61	42.5	150	52.2	63.9	2.3	24	11	130	28	0.48	1.0	1.4	B	81	7	0.8	172	20	1.7	332	69	2.7
26	6	52	57.5	59	29.8	138	49.9	10.9	1.4	8	4	247	6	0.57	4.6	2.2	C	223	22	9.3	117	34	3.6	339	48	0.9
26	6	55	43.9	61	4.5	152	18.2	15.0	0.5A	3	3	195	18	0.17	19.6	25.0	D	305	19	4.0	204	31	0.9	62	53	60.4
26	8	50	42.8	61	49.0	148	57.1	1.1	-0.1A	4	4	149	2	0.32	1.1	3.6	C	162	7	0.8	81	9	1.7	293	76	6.8
26	9	36	56.1	58	35.3	154	48.3	24.8	2.5	7	4	228	138	0.38	17.3	25.0	D	151	4	2.5	81	21	8.2	251	61	81.2
26	19	54	23.5	59	59.8	152	57.4	108.4	2.7	13	10	150	22	0.52	1.6	1.8	B	81	11	1.6	155	31	2.5	332	54	3.4
27	7	30	42.5	61	33.3	149	52.0	51.4	1.0A	13	9	117	39	0.36	0.7	1.3	A	101	2	0.6	191	7	1.3	355	83	2.4
27	8	11	12.4	59	57.8	139	42.0	18.8	0.7	5	5	155	4	0.42	2.7	1.0	C	46	16	5.3	305	34	0.9	157	51	1.3
27	9	3	55.0	60	7.8	139	49.2	13.3	0.9	7	2	193	22	0.41	2.7	1.3	B	312	13	0.9	218	16	5.2	79	69	2.0
27	19	39	50.2	60	10.9	141	7.0	13.6	0.7	13	8	109	6	0.19	0.6	0.5	A	295	21	0.6	192	29	1.2	55	53	0.7
28	0	58	10.8	59	22.0	154	38.7	0.7	2.1	9	6	201	53	0.65	2.2	1.4	B	295	24	4.4	187	35	1.8	52	45	2.1
28	4	29	54.4	59	21.5	151	20.0	33.9	2.4	16	6	150	52	0.71	1.2	3.2	C	267	4	1.1	176	5	2.3	35	84	6.1
28	5	36	7.0	61	8.5	146	26.2	15.5	0.6	12	6	88	6	0.84	0.7	0.6	A	225	3	0.6	134	33	1.4	320	57	0.9
28	6	14	46.4	61	46.8	149	4.3	9.4	-0.3A	4	4	228	8	0.12	1.7	1.2	B	169	24	1.3	81	27	3.2	301	54	2.0
28	13	21	8.6	60	20.1	140	0.4	0.4	0.5	7	4	199	30	0.57	0.9	1.7	B	316	3	0.7	81	10	1.2	214	54	2.7
28	13	34	13.1	60	18.3	140	0.6	7.2	0.7	7	3	196	27	0.27	1.4	2.7	C	331	10	0.8	81	20	1.1	220	60	5.4
28	18	35	8.3	61	9.5	150	9.2	51.0	1.0A	9	9	89	46	0.59	0.6	2.0	B	336	1	0.9	81	5	0.9	236	74	3.6
28	20	3	9.8	61	27.8	149	43.6	33.8	1.5	25	12	64	22	0.83	0.4	0.6	A	92	3	0.5	184	27	0.6	356	63	1.1
28	22	56	25.0	61	38.6	142	25.7	0.0	1.2	11	4	237	68	0.57	2.2	6.7	D	292	0	0.8	22	4	4.1	202	86	12.6
28	22	56	46.0	61	43.3	142	26.3	0.5	1.2	6	4	243	77	0.73	3.0	3.8	C	280	0	1.2	10	7	5.6	190	83	7.2
29	3	2	14.6	60	3.4	153	18.8	150.7	3.9	16	8	75	31	0.42	1.2	1.4	B	206	8	1.7	111	29	2.2	310	60	2.7
		4.0 MB				3.5 ML ATWC																				
29	4	32	57.0	61	20.4	146	58.9	21.5	2.2	32	14	46	33	0.44	0.3	0.9	A	209	2	0.6	300	7	0.5	103	83	1.7
29	6	23	11.9	62	38.6	149	29.2	43.5	2.4	21	5	142	94	0.50	1.6	6.2	D	309	5	2.2	40	10	2.0	193	79	11.8
29	9	4	19.3	61	51.5	149	16.4	4.9	1.1	14	11	178	16	0.67	0.7	1.1	A	358	1	1.3	267	24	0.7	90	66	2.1
29	17	9	43.4	62	35.5	151	15.9	93.9	2.8	18	4	194	69	0.36	4.1	3.5	C	85	16	2.8	188	39	9.2	337	47	4.4
29	18	2	18.9	61	6.4	152	12.4	9.1	0.5	4	4	179	12	0.27	2.4	2.7	C	197	26	1.0	301	28	2.9	71	50	6.4
29	20	8	30.3	61	11.2	152	13.0	8.2	1.7	10	10	164	9	0.88	1.0	0.5	A	285	5	1.9	20	43	1.2	190	47	0.7
30	2	3	28.5	61	4.6	152	19.3	14.9	0.6	4	4	198	19	0.19	2.4	0.9	B	107	5	4.5	199	27	1.0	7	63	1.8
30	2	20	2.8	61	33.2	151	13.8	5.2	1.1	11	8	104	28	0.69	0.6	1.1	A	81	5	0.8	161	10	1.1	323	75	2.0
30	2	28	0.7	62	10.6	151	8.9	80.2	2.9	22	9	168	30	0.41	1.7	1.3	B	81	18	1.1	337	23	3.3	203	58	2.3
30	6	34	47.7	62	9.8	149	32.7	15.8	2.5	26	7	191	47	0.56	1.1	2.8	C	189	4	1.9	280	17	0.9	86	73	5.5
30	7	42	48.2	61	1.3	152	13.0	10.1	0.3	3	3	175	20	0.23	15.0	25.0	D	194	2	1.8	284	16	6.2	97	74	99.0
30	8	30	11.8	60	25.0	141	27.2	17.6	0.7	5	4	112	17	0.27	2.6	3.8	C	139	7	1.7	81	32	1.0	240	46	7.3
30	9	42	10.3	61	26.0	140	12.0	0.2	1.6	8	4	255	80	0.42	2.4	18.9	D	349	0	4.5	81	1	3.5	259	88	35.4
30	10	27	30.5	60	26.3	141	24.5	11.3	0.8	6	3	116	21	0.27	3.3	7.3	D	20	15	0.9	115	18	1.6	253	66	14.9
30	11	5	14.9	58	36.8	137	43.4	16.1	1.7	5	3	347	114	0.31	25.0	9.1	D	81	5	99.0	149	45	4.3	346	41	7.2
30	11	26	26.8	60	9.5	141	5.0	11.7	1.0	9	4	107	3	0.22	1.0	0.8	A	94	3	1.0	186	35	2.1	0	55	1.2
30	16	37	36.2	60	4.9	139	17.6	26.4	0.9A	6	3	238	24	0.45	6.4	3.8	D	127	11	2.4	222	25	13.0	15	62	5.1
30	18	16	38.1	58	55.6	154	19.0	115.7	2.9	9	3	244	163	0.19	19.6	15.3	D	185	8	3.7	89	37	45.0	285	52	11.6
30	18	29	9.8	60	26.5	145	18.0	9.9	0.8	8	4	229	12	0.45	2.5	1.2	B	261	6	1.1	347	19	4.8	154	70	1.7
31	0	4	24.2	61	34.0	150	43.1	54.7	2.5	23	16	114	12	0.53	0.5	0.8	A	82	4	0.6	174	18	0.9	340	71	1.5
31	8	19	52.0	61	42.3	142	25.8	0.2	1.8	12	3	220	75	0.59	2.4	5.4	D	293	0	1.1	23	9	4.3	203	81	10.2
31	11	18	54.0	61	40.0	142	26.9	4.0	0.9A	4	2	238	70	0.19	4.7	25.0	D	105	1	1.3	15	4	5.4	209	86	99.0
31	13	19	38.8	60	8.9	139	44.4	20.3	0.9	6	3	191	23	0.46	2.5	1.5	B	120	15	1.1	218	26	5.1	3	59	1.8
31	17	46	3.7	59	58.6	140	42.8	0.5	0.7	5	3	232	27	0.37	1.2	1.9	B	277	4	0.7	187	5	2.2	46	84	3.5
31	23	29	8.8	61	48.3	148	60.0	13.6	1.0	17	13	105	4	0.61	0.4	0.4	A	147	7	0.8	261	40	0.5	50	44	0.9
31	23	46	26.7	61	13.2	141	40.9	8.2	1.2	6	3	223	34	0.37	2.1	2.7	C	301	11	0.9	38	33	2.5	195	55	6.0

Appendix B

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