UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Evaluation of the National Earthquake Information Center's Quick Epicenter Determinations

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ABSTRACT

An evaluation of the U.S. Geological Survey's (USGS) Quick Epicenter Determination (QED) bulletin has been completed by the United States Geological Survey National Earthquake Information Center (NEIC). The QED provides hypocenter information to the international scientific community within two to seven days after the occurrence of an earthquake. The methods used to evaluate the QED reliability were to directly compare the QED reported location, depth and magnitude to the NEIC Preliminary Determination of Epicenters' (PDE) reported location, depth, and magnitude. The QED bulletin was also compared to other bulletins of somewhat similar function as the QED for the same parameters of location, depth, and magnitude. These other bulletins were obtained from a test conducted by the Committee on Disarmament Group on Scientific Experts (GSE) during the same time period of the QED evaluation.

The results of these evaluations are as follows: (1) The QED list of events reported 44 percent of the events reported on the PDE which compares quite favorably with the other GSE data centers evaluated. (2) The QED average location differences from the PDE locations were three times smaller than the best of the GSE data centers. (3) The scatter of the QED m_b's about the PDE m_b for the majority of the events was .2 or less compared to the worst cases of the GSE scatter of approximately 1.2. (4) The 50-percent and 90-percent reporting thresholds for the QED were high compared to 2 of the GSE centers, but these differences can be explained by the difference in reporting times and use of acceptance criteria. (5) The spread of the QED depth to the PDE depth is from +60 km to -150 km compared to the GSE depth spread of between +600 kms and -600 km.

INTRODUCTION

The U.S. Geological Survey National Earthquake Information Center (NEIC) initiated a Quick Epicenter Determination bulletin (QED) as an operational publication on 22 October 1984. This bulletin provides hypocenter information for world-wide earthquakes within two to seven days of their occurrence. The QED bulletin is available to the international scientific community through both world meterological organization channels (WMO) and telephone dial-up to the NEIC computers.

The QED bulletin was compared to the Preliminary Determination of Epicenters (PDE) for the period of 22 October through 21 November 1984, to evaluate the reliability of the QED reported parameters of epicenter, depth and magnitude. The PDE includes data received up to four weeks after an event and includes reports from seismic stations located around the world. The good azimuthal and distance coverage provided by these stations results in very reliable earthquake epicenter determinations. The PDE is thus an excellent reference bulletin against which the QED can be compared. To obtain a performance comparison of the QED relative to bulletins of somewhat similar reliability and function to the QED, three other data centers final event bulletins (FEB) were compared both to the QED and to the PDE for the same time interval. FEB's from these three data centers: U.S. data center (SEUS), Swedish data center (SESN), and Soviet data center (SERS) were part of a technical test conducted by the Committee on Disarmament Group of Scientific Experts (GSE) during the time period of 15 October to 15 December 1984.

PDE EVENT LIST

A total of 403 earthquake epicenters were published on the USGS PDE event lists for the period of 22 October to 21 November 1984, inclusive.

It is important to note that all of these events met the NEIC acceptance criteria for publication. A summary of these acceptance criteria is shown on table 1.

SUMMARY OF NEIC EVENT ACCEPTANCE CRITERIA	
1	EVENT CONTAINS FIVE OR MORE STATIONS WHICH ARE USED IN THE SOLUTION.
2	THE EVENT IS LOCATED AT A REASONABLE DEPTH WITHIN A REASONABLE SEISMIC ZONE.
3	THE STATIONS USED IN THE SOLUTION SHOULD HAVE A SUFFICIENT DISTRIBUTION OF AZIMUTH AND DISTANCE WITH RESPECT TO THE HYPOCENTER.
4	THE STANDARD ERROR FOR THE SOLUTION IS 1.5 OR LESS.
5	UNLESS NEEDED FOR AZIMUTHAL CONTROL, NO INDIVIDUAL STATION RESIDUAL USED IN THE COMPUTATION SHOULD HAVE AN ABSOLUTE VALUE GREATER THAN 3.0 SEC.

Table 1.--Summary of NEIC event acceptance criteria

The QED bulletin has a delay of up to 7 days from the occurrence of the event to time of report while the GSE data centers have an average of 14 days delay from occurrence to the publication date of their FEB. The PDE list, a 7-day report, has a delay of approximately 27 days for the earliest events to 20 days for the most current events. The longer the delay time, the more data will generally be available for the epicenter determination.

COMPARISON TO THE PDE LIST OF EVENTS

The parameters compared between the QED and GSE data centers to the PDE lists are: number of events in common, location differences, magnitude differences, and depth differences. Appendix I of this report is comprised of tables showing all of the PDE reported events including all of the QED and GSE data center events in common to the PDE events. These tables also show location differences, magnitude differences, depth differences, number of reporting stations, and a comments column.

EVENTS IN COMMON BETWEEN DATA CENTERS AND PDE LISTS

The QED bulletin reported 179 of the 403 PDE events, or 44 percent of the PDE events. Table 2 shows the number of events in common to the PDE list for

each data center. This table also shows the average location difference and average number of stations used which will be explained later in this report.

COMPARISON OF DATA CENTER EPICENTERS TO THE LIST OF 403 PDE EPICENTERS

DATA CENTER	NUMBER EVENTS	% OF PDE LIST	AVG. LOCATION DIFFERENCES	AVG. NUMBER STATIONS
QED	179	44	.146	19.2*
SEUS	251	62	.450**	12.4
SERS	161	41	.709**	11.5
SESN	261	65	.703**	11.4

* NUMBER OF STATIONS HELD TO NOT EXCEED 40
** LOCATION DIFFERENCES > 10 DEGREES NOT USED IN AVERAGE

Table 2.--Comparison of data centers' epicenters to the list of 403 PDE epicenters

NUMBER OF EVENT DIFFERENCES TO PDE

As seen on this table, the 7-day QED bulletin compares quite favorably for the number of events reported with the number of events reported by the 14-day SERS FEB and is approximately 20 percent lower than the number of events reported by the 14-day SEUS and SESN FEB's. There is no way to compare a 14-day QED to the 14-day GSE data center FEB's, but this author believes a 14-day QED would compare quite favorably with the GSE 14-day FEB's.

LOCATION DIFFERENCE TO PDE LOCATIONS

The average location difference between the QED and the PDE lists is .146°. Table 2 shows the average location differences of all of the data centers as well as the average number of stations which were used by each data center for their locations. The QED average location difference is three times nearer the PDE location than the next nearest GSE data center, SEUS. The * on the QED number of stations on table 2 denotes the fact that, for computing the average location difference, events for which the QED had more than 40 stations were not used. This choice was made since the GSE data centers never had more than 40 stations in a location solution. If the QED events selected for this location comparison had not been limited to events with 40 stations or less, the average location difference would have been slightly lower. The ** on table 2 denotes that events reported by the GSE data centers with location differences greater than 10° were deleted for these comparisons. Never more than one GSE data center exceeded this 10° location difference for any given event. If these large location differences had not been deleted, the average location differences would be higher. These events with greater differences than 10° may, in fact, be a different event from the PDE event even though they have the same origin time and are located in approximately the same geographic area.

Figures 1 through 4 show the average PDE minus data center location differences (in degrees) plotted as a function of the number of reporting stations. The reason for plotting the location differences versus the number of stations instead of magnitude is that an increase in number of stations is not necessarily linear with respect to magnitude. Some 4.8 magnitude events may have 25 stations used while a magnitude 5.5 event may have only 5 stations used. There does not seem to be a significant improvement in QED location with increasing numbers of QED reporting stations (fig. 1). This could be due to the fact that all of the stations used in the location by the QED were also used by the PDE. A small improvement of approximately .03° can be seen for the number of stations greater than 20, if the large spike at 30 stations is not used. This spike is an anomaly caused by only two events used in this average and one of these had a difference of .804°.

Figures 2, 3, and 4 show the number of stations versus average PDE minus data center location differences for the GSE data centers. It is quite apparent from these figures that the location difference is quite large if less than approximately 13 stations are used in the location solution. The approximate mislocation average for data centers SERS and SESN would decrease about .4°, and for data center SEUS about .15° if 13 or more stations were used.

Appendix II of this report contains azimuthal equa-distant plots of the location difference for all events occurring between 22 October and 29 October 1984.

MAGNITUDE COMPARISONS TO THE PDE LIST

The scatter in average magnitude observed by comparing the QED magnitudes with the PDE magnitudes is shown in figures 5 and 6. Figure 6 shows that the majority of the QED magnitudes are within .2 magnitude units of the PDE estimates. Figure 7 shows that the scatter in PDE minus QED m_b residual increases as the number of QED observations decreases, as one would expect.

Figures 8 and 9 show that SEUS m_b's are smaller on the average than the PDE m_b's. This relative bias is probably due to the use of a maximum likelihood procedure at the SEUS data center as opposed to the trimmed mean used at the NEIC. Figure 10 shows the same phenomena as figure 7 for the QED. However, the worst-case SEUS m_b residual scatter about the mean is nearly twice that of the QED.

Figures 11, 12, and 13 show corresponding results for the SERS data center and figures 14, 15, and 16 show corresponding results for the SESN data center. SERS m_b's are slightly higher on the average than the PDE. SESN m_b's are noticably smaller on the average than the PDE, showing a relative bias which is very similar to that of SEUS and can be attributed to the same cause. SERS m_b's do not indicate that the maximum likelihood estimator was used at that data center. Both SERS and SESN show a worst-case scatter about the mean which is comparable to that of SEUS and nearly twice that of the PDE.

Figure 1.--Comparison of the average PDE-QED location differences to the number of QED stations.

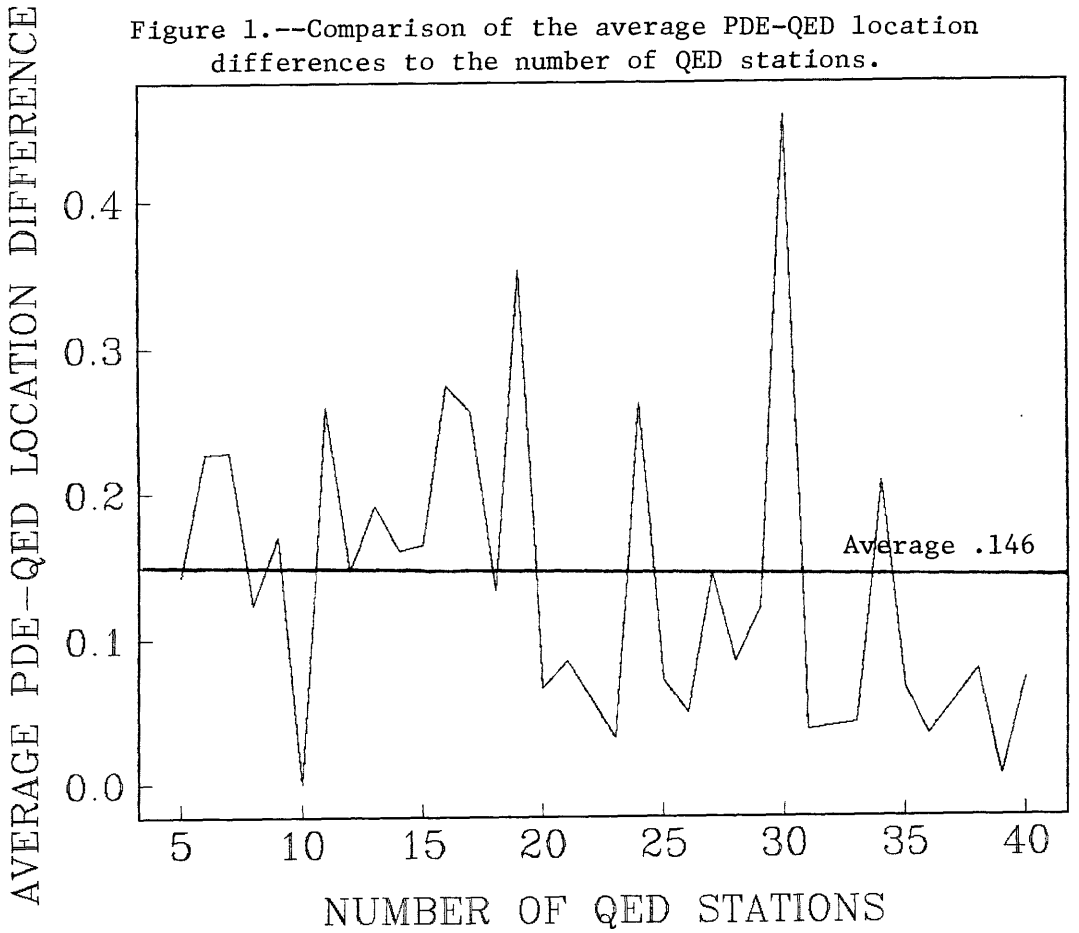


Figure 2.--Comparison of the average PDE-SEUS location differences to the number of SEUS stations.

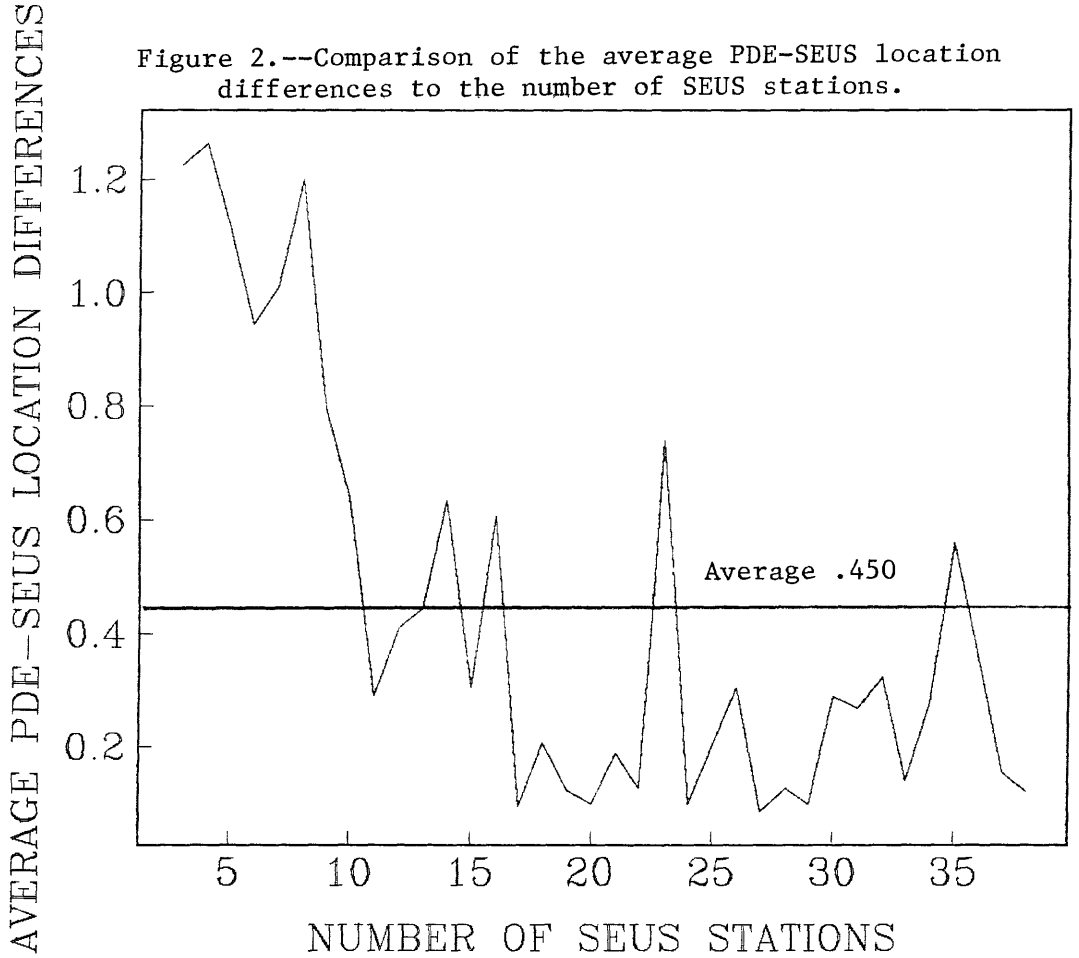


Figure 3.--Comparison of the average PDE-SERS location differences to the number of SERS stations.

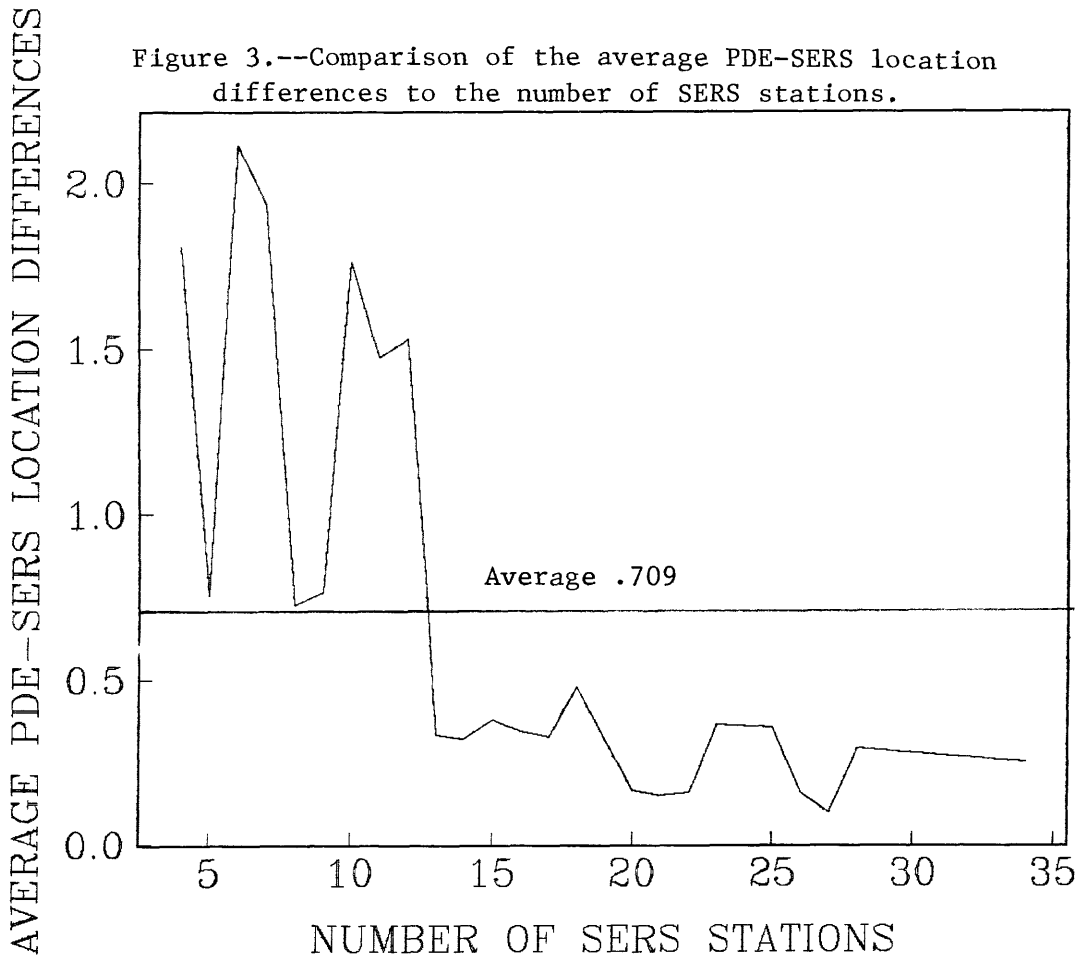


Figure 4.--Comparison of the average PDE-SESN location differences to the number of SESN stations.

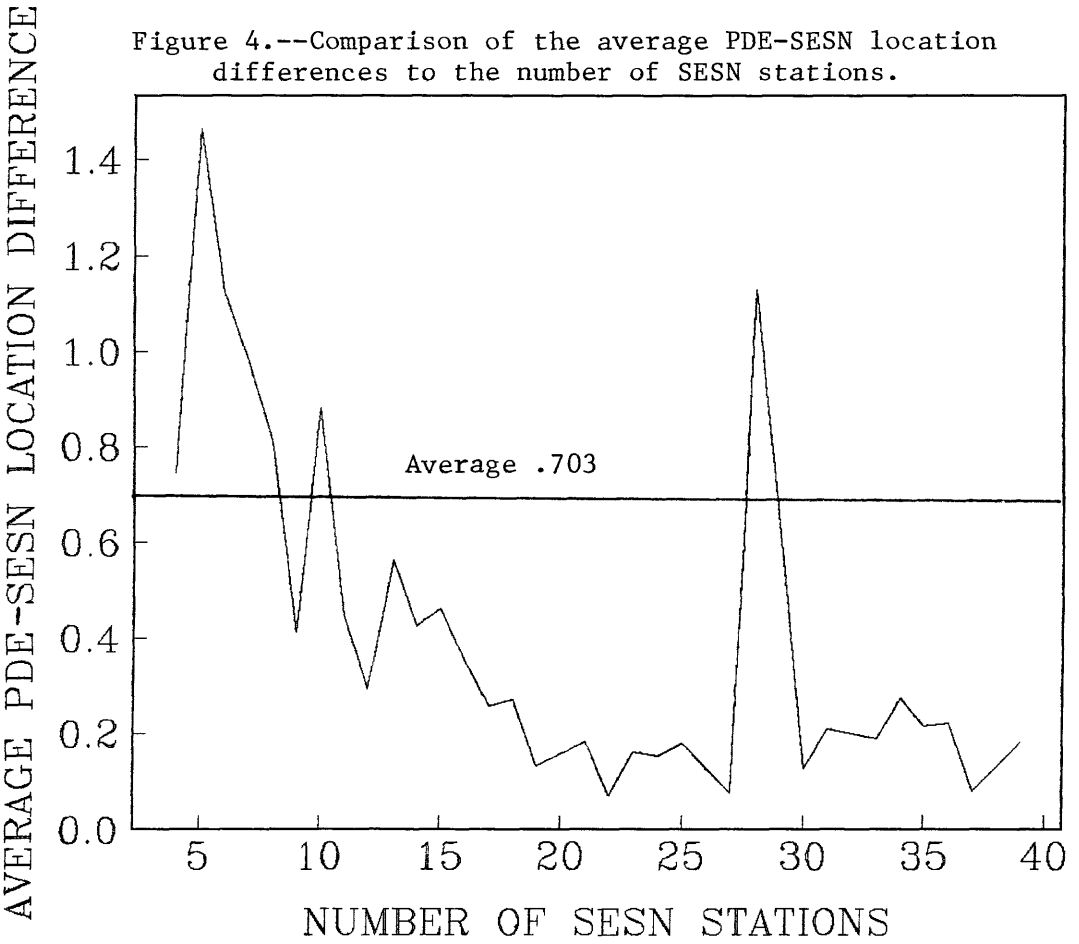


Figure 5.--Comparison of QED and PDE m_b magnitudes.

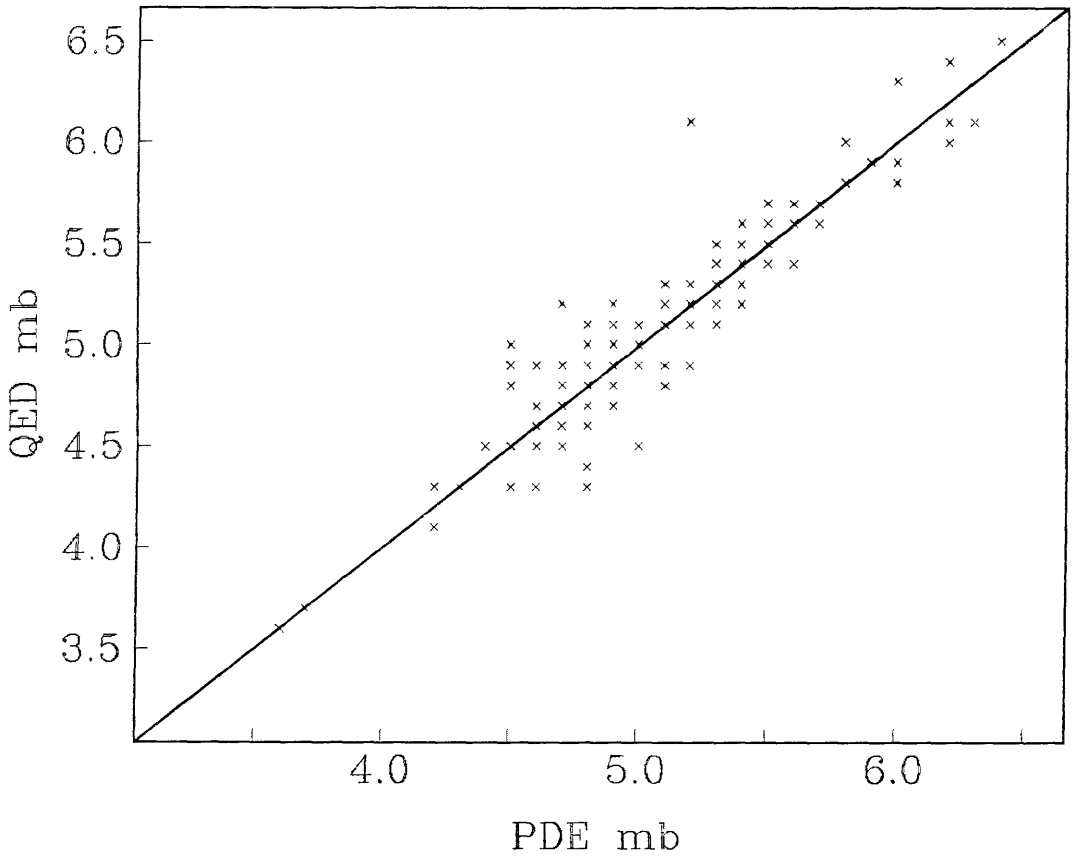


Figure 6.--Comparison of QED-PDE m_b residuals to PDE m_b magnitude.

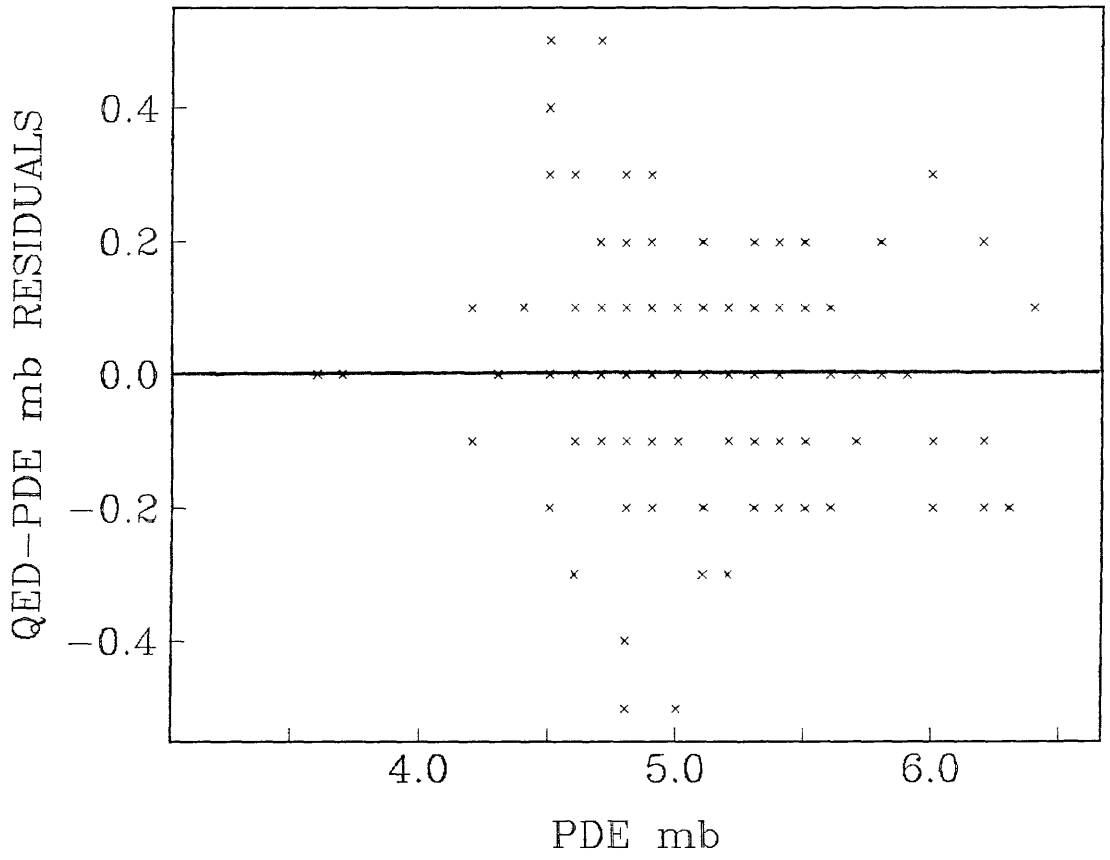


Figure 7.--Comparison of QED-PDE m_b residuals to the number of QED stations.

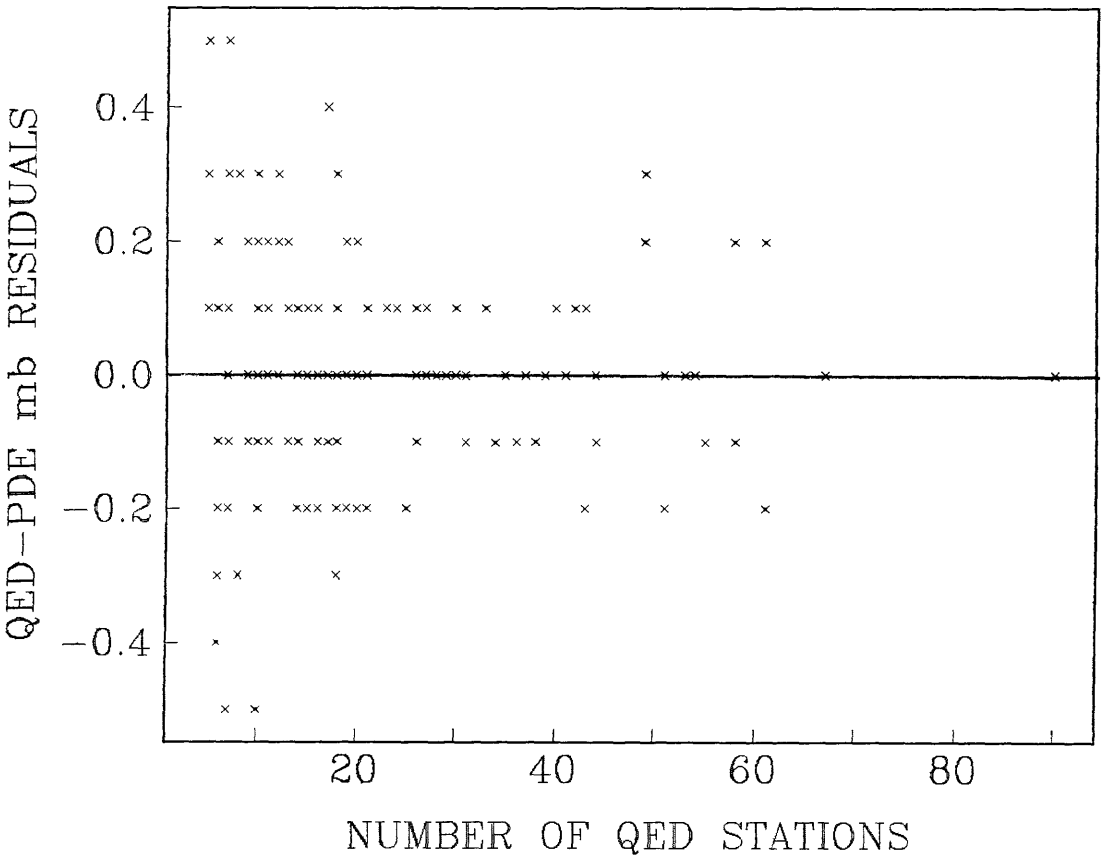


Figure 8.--Comparison of SEUS and PDE m_b magnitudes.

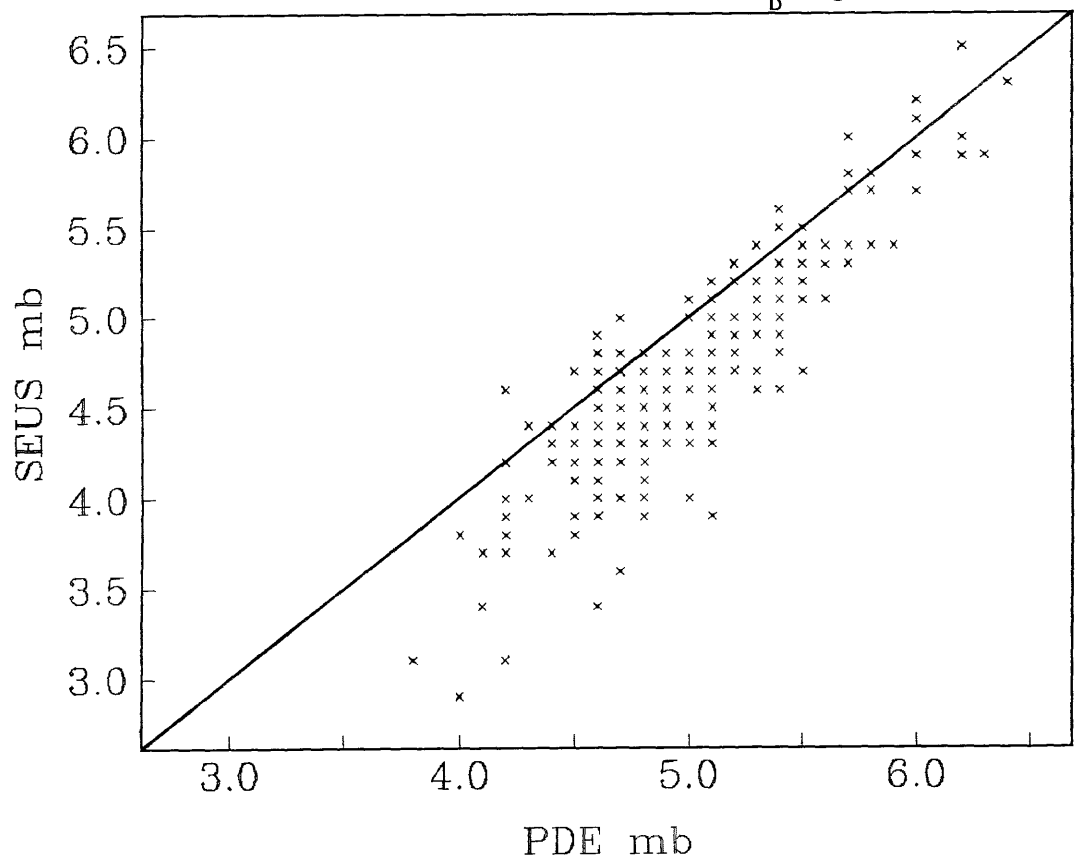


Figure 9.--Comparison of SEUS-PDE m_b residuals to PDE m_b magnitude.

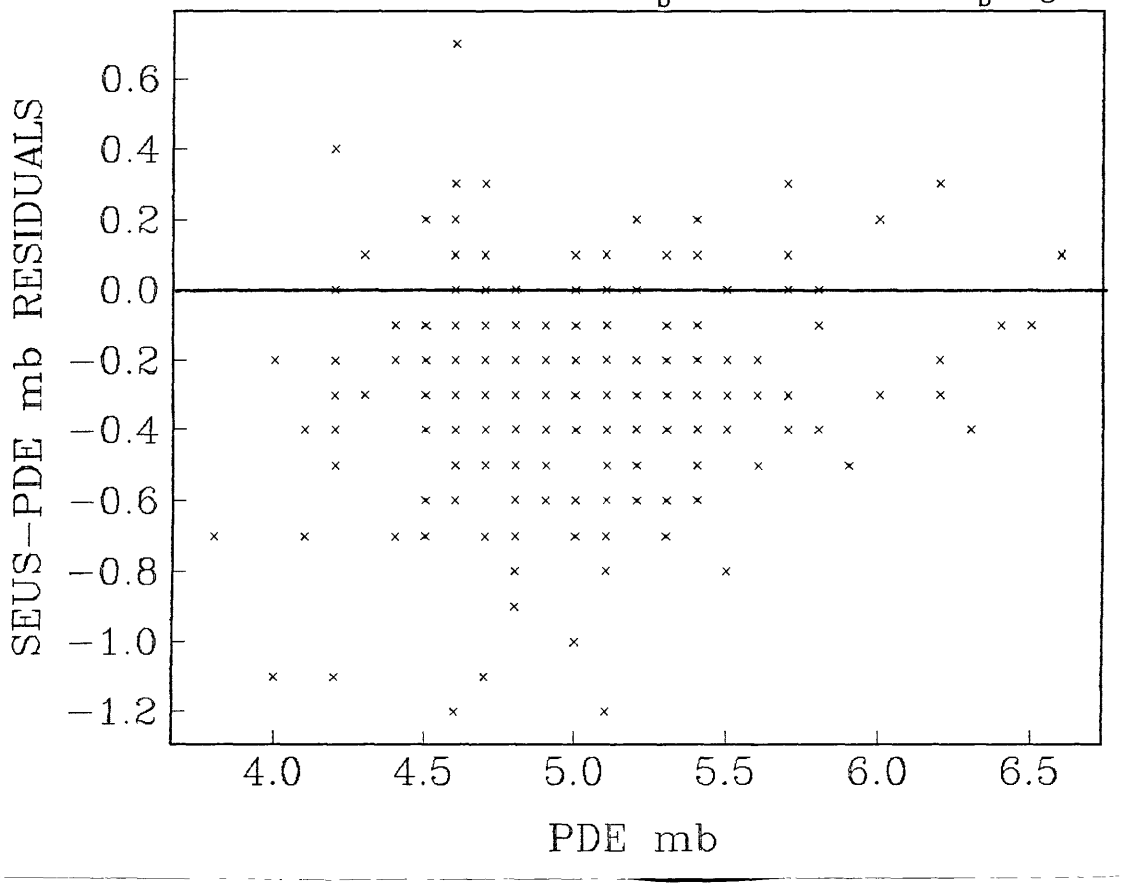


Figure 10.--Comparison of SEUS-PDE m_b residuals to the number of SEUS stations.

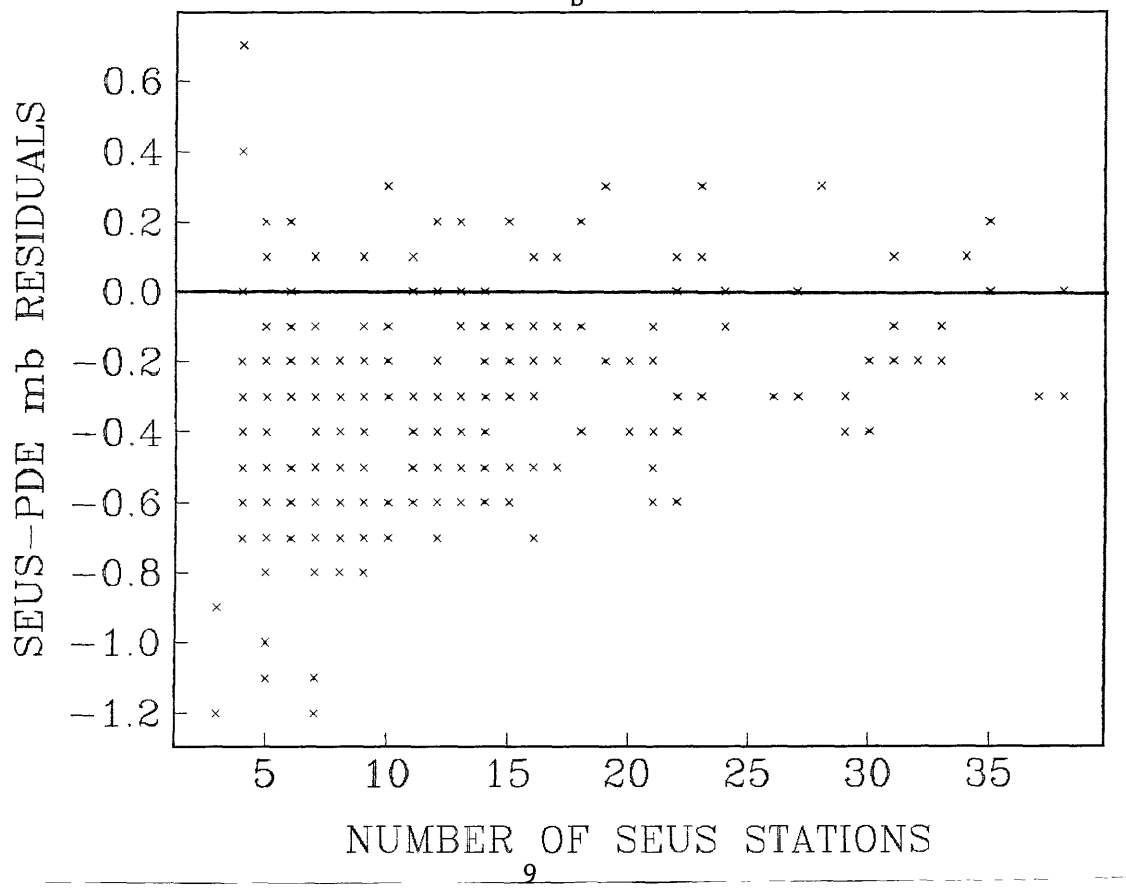


Figure 11.--Comparison of SERS and PDE m_b magnitudes.

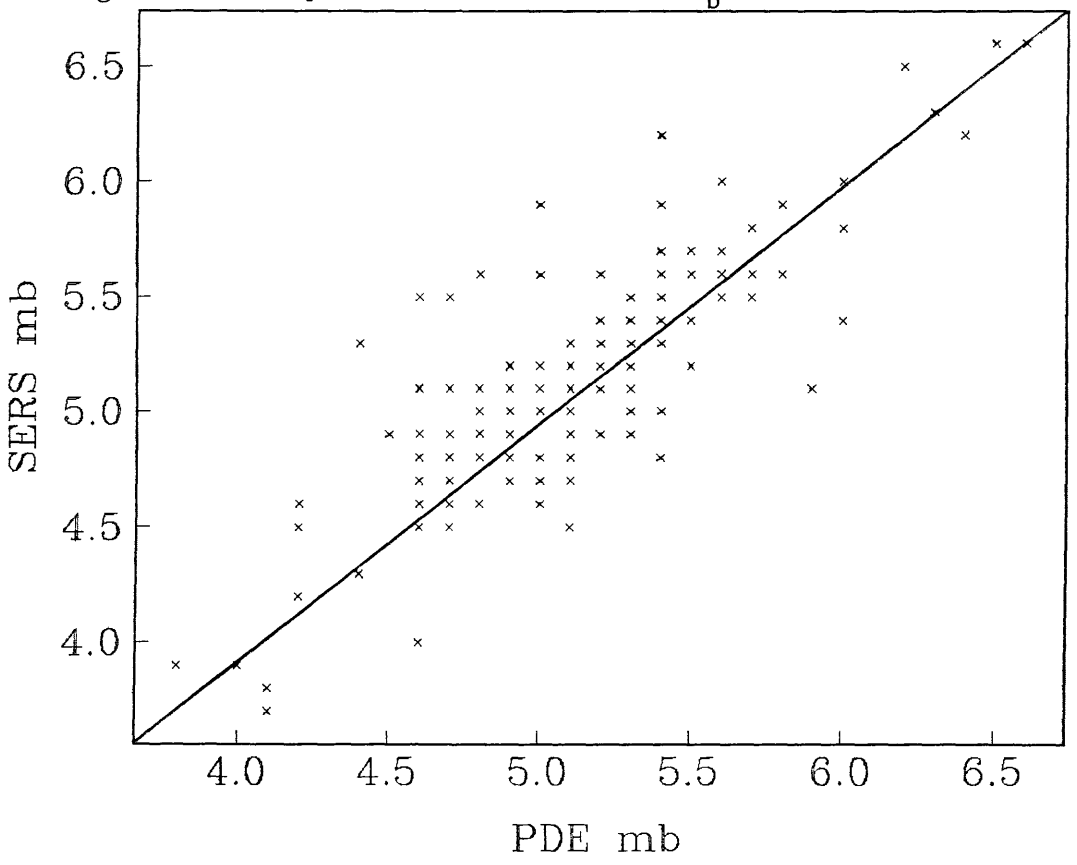


Figure 12.--Comparison of SERS-PDE m_b residuals to PDE m_b magnitudes.

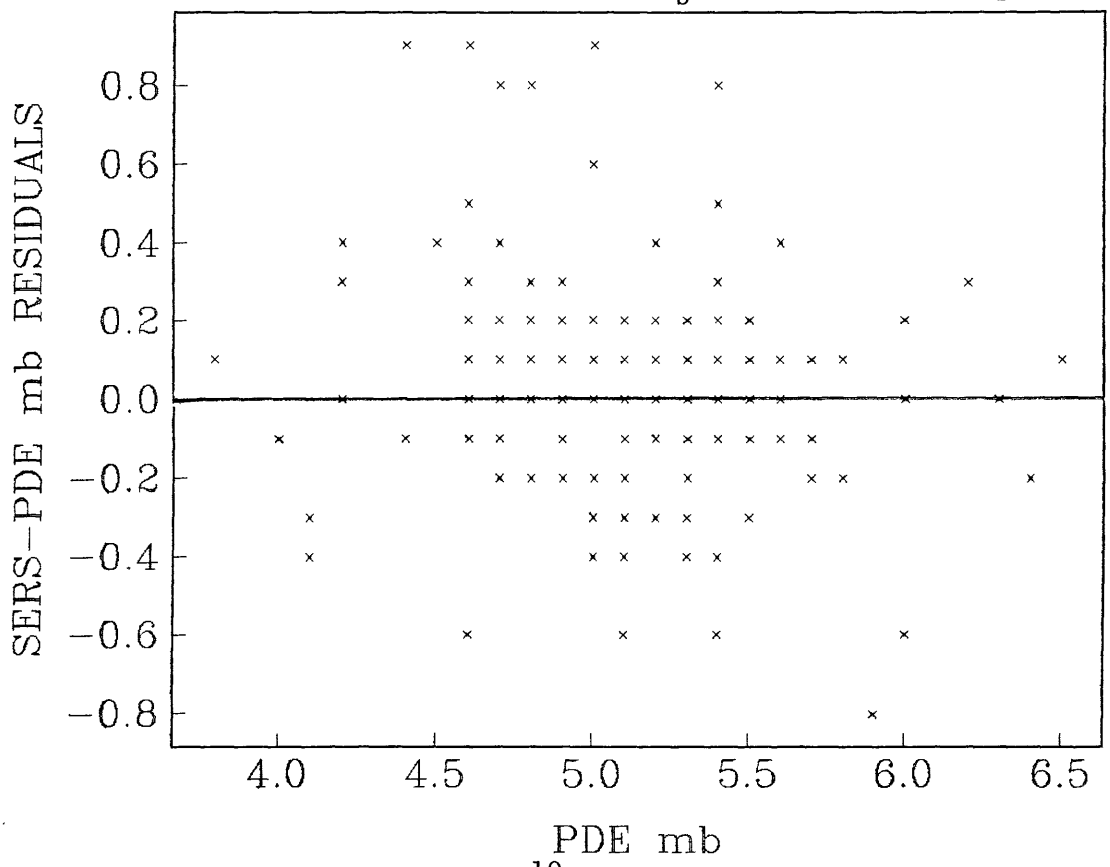


Figure 13.--Comparison of SERS-PDE m_b residuals to the number of SERS stations.

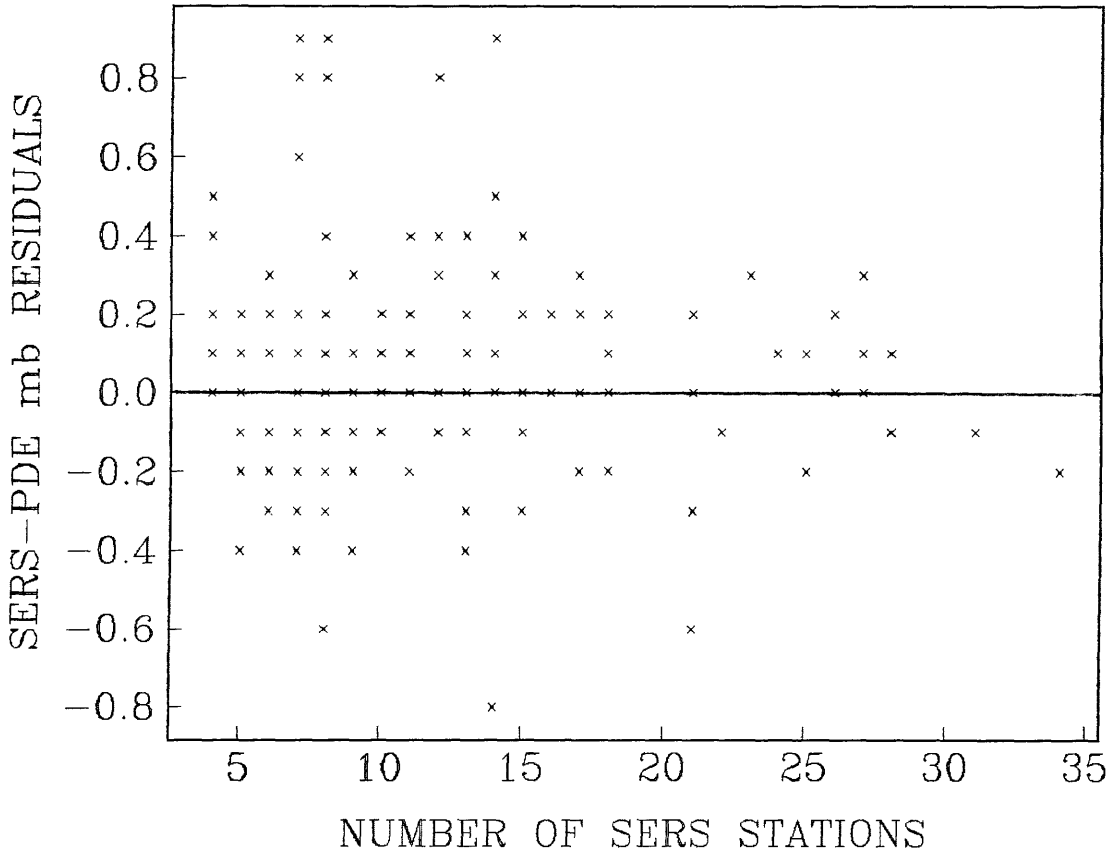


Figure 14.--Comparison of SESN and PDE m_b magnitudes.

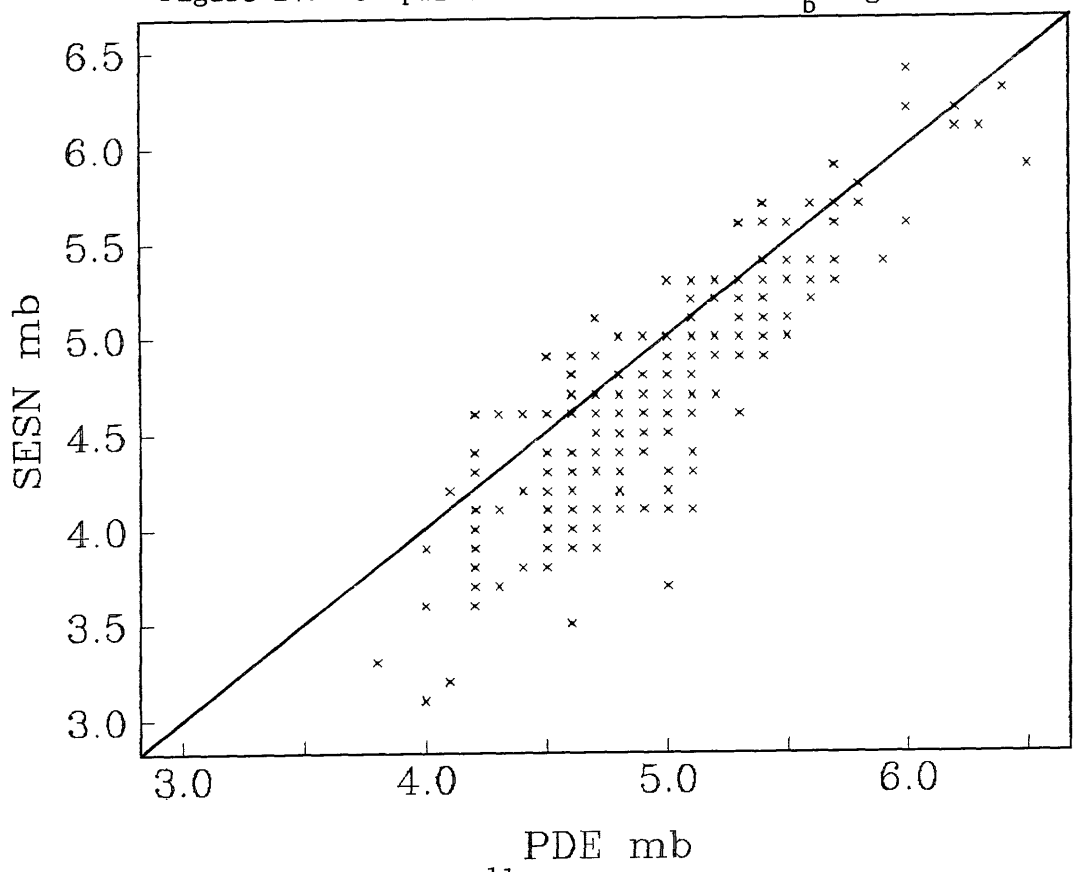


Figure 15.--Comparison of SESN-PDE m_b residuals to PDE m_b magnitudes.

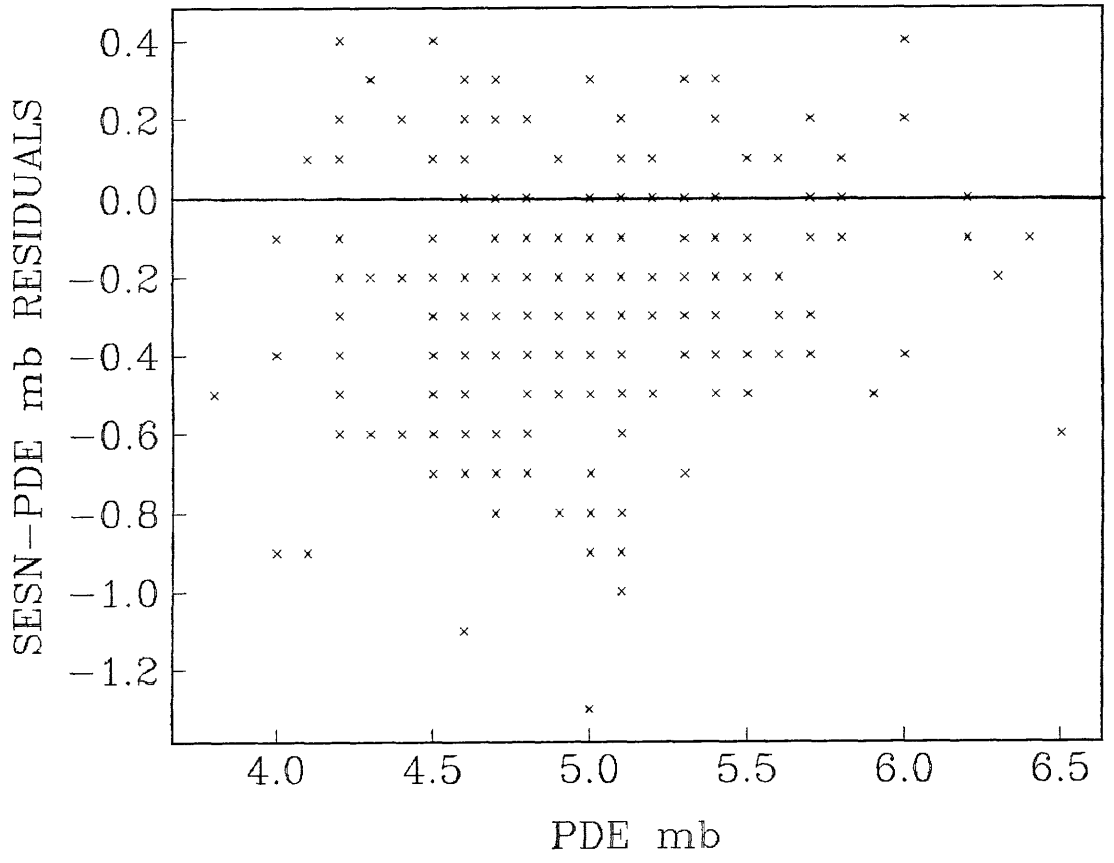
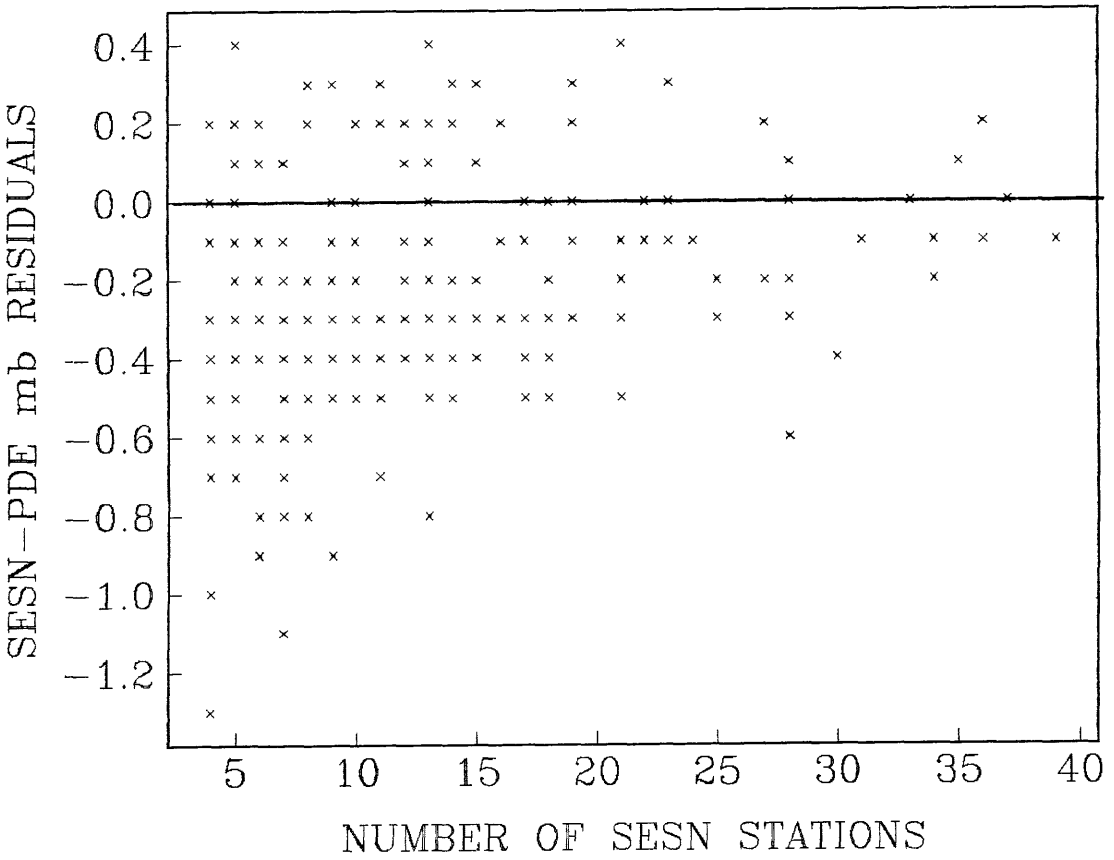


Figure 16.--Comparison of SESN-PDE m_b residuals to the number of SESN stations.



A comparison of the PDE m_b's at one-tenth magnitude intervals to the QED and GSE data centers m_b's is shown on table 3. At each 0.1 magnitude unit for magnitudes from 3.0 to 6.5, the number of the data center's events in common to the PDE and the percentage of the total PDE events has been computed. From data extracted from this table, a data center's 50- and 90-percent reporting thresholds can be plotted. Figures 17, 18, 19, and 20 are these plots for QED, SEUS, SERS, and SESN, respectively. The lower thresholds for data centers SEUS and SESN can be explained by the difference in delay time of the GSE data centers and the QED and by the QED adhering to the USGS acceptance criteria while the GSE data centers did not.

DEPTH COMPARISON TO THE PDE LIST

Depth reported by the QED and the GSE data centers appears to be the weakest parameter reported. Figure 21 shows the QED minus PDE depth residuals versus the reported PDE depth. A scatter of approximately 200 km is shown with the greatest discrepancy being for events restrained at 33 km (normal depths) on the QED, and reported as a deeper depth on the PDE. This scatter is smaller than the scatter of the GSE data centers as the acceptance criteria that the event have a reasonable depth within a reasonable seismic zone was applied for the QED reports. If the free depth is considered unreasonable or numerically unreliable by the reviewing NEIC geophysicist, he will restrain the depth.

Figures 22, 23, and 24 show the SEUS minus PDE, SERS minus PDE, and SESN minus PDE depth residuals versus PDE depth, respectively. SEUS and SESN depths show a scatter of $\pm$600 km, while SERS depths scatter between =200 km and -600 km relative to the PDE. Note that vertical lineations in figures 21-24 are due to restrained PDE depths versus free depths in other bulletins, while diagonal lineations are due to free PDE depths for events published at a restrained depth in another bulletin. Excluding events with restrained depths, the QED and the SERS FEB's show little depth bias relative to the PDE. The SEUS and SESN FEB's show a bias towards deeper solutions for shallow events and shallower solutions for deeper events relative to the PDE. This effect is presumably due to differences in location algorithms.

COMPOSITE EVENT LIST

A composite event list, comprised of the 403 PDE events and all new events listed by the QED and 3 GSE data centers is presented as Appendix III. This list reports a total of 704 events of which 301 events are non-PDE events. The different data centers' contribution to this composite list is shown in table 4. Table 4 also shows the contribution and percentage for each data center to the 301 non-PDE events.

NON-PDE EVENT LIST

None of the 301 events of the composite event list, that did not appear on the PDE list, met the USGS acceptance criteria (table 1) even though the data used by the QED and GSE data centers to locate these events were available to the NEIC at the time of the PDE publication.

Table 3.--Comparisons by magnitude of the PDE list of events to the QED, SEUS, SERS, and SESN list of events.

COMPARISIONS BY MAGNITUDE OF THE PDE LIST OF EVENTS TO THE QED, SEUS, SERS, AND SESN LIST OF EVENTS									
PDE mb	# PDE EVENTS	# QED EVENTS	% PDE EVENTS	# SEUS EVENTS	% PDE EVENTS	# SERS EVENTS	% PDE EVENTS	# SESN EVENTS	% PDE EVENTS
no mb	96	13	14	4	4	0	0	7	7
3.0	2	2	100	0	0	0	0	0	0
3.1	-	-	-	-	-	-	-	-	-
3.2	1	1	100	0	0	0	0	0	0
3.3	-	-	-	-	-	-	-	-	-
3.4	-	-	-	-	-	-	-	-	-
3.5	-	-	-	-	-	-	-	-	-
3.6	1	1	100	0	0	0	0	0	0
3.7	2	2	100	0	0	0	0	0	0
3.8	1	0	0	1	100	1	100	1	100
3.9	3	0	0	0	0	0	0	0	0
4.0	3	0	0	2	66	1	33	2	66
4.1	5	0	0	2	40	2	40	2	40
4.2	15	3	20	9	60	3	20	7	47
4.3	6	1	17	2	33	0	0	5	83
4.4	9	3	33	4	44	3	33	5	56
4.5	17	6	35	11	65	1	6	12	71
4.6	24	10	42	19	79	11	46	22	92
4.7	32	14	44	25	78	17	47	27	84
4.8	33	16	48	29	88	15	45	27	82
4.9	26	14	54	22	85	16	62	23	88
5.0	26	13	50	24	92	19	73	24	92
5.1	26	14	54	24	92	16	62	25	96
5.2	11	10	91	11	100	8	73	11	100
5.3	17	11	65	15	88	13	76	15	88
5.4	17	17	100	17	100	15	88	17	100
5.5	6	5	83	6	100	6	100	6	100
5.6	5	4	80	5	100	4	80	5	100
5.7	5	5	100	5	100	4	80	5	100
5.8	3	3	100	3	100	2	66	3	100
5.9	1	1	100	1	100	1	100	1	100
6.0	4	4	100	4	100	4	100	3	75
6.1	-	-	-	-	-	-	-	-	-
6.2	3	3	100	3	100	2	66	3	100
6.3	1	1	100	1	100	1	100	1	100
6.4	1	1	100	1	100	1	100	1	100
6.5	1	1	100	1	100	1	100	1	100
TOTAL	403	179	44	251	62	167	41	261	65

Figure 17.--QED 50-percent and 90-percent reporting thresholds.

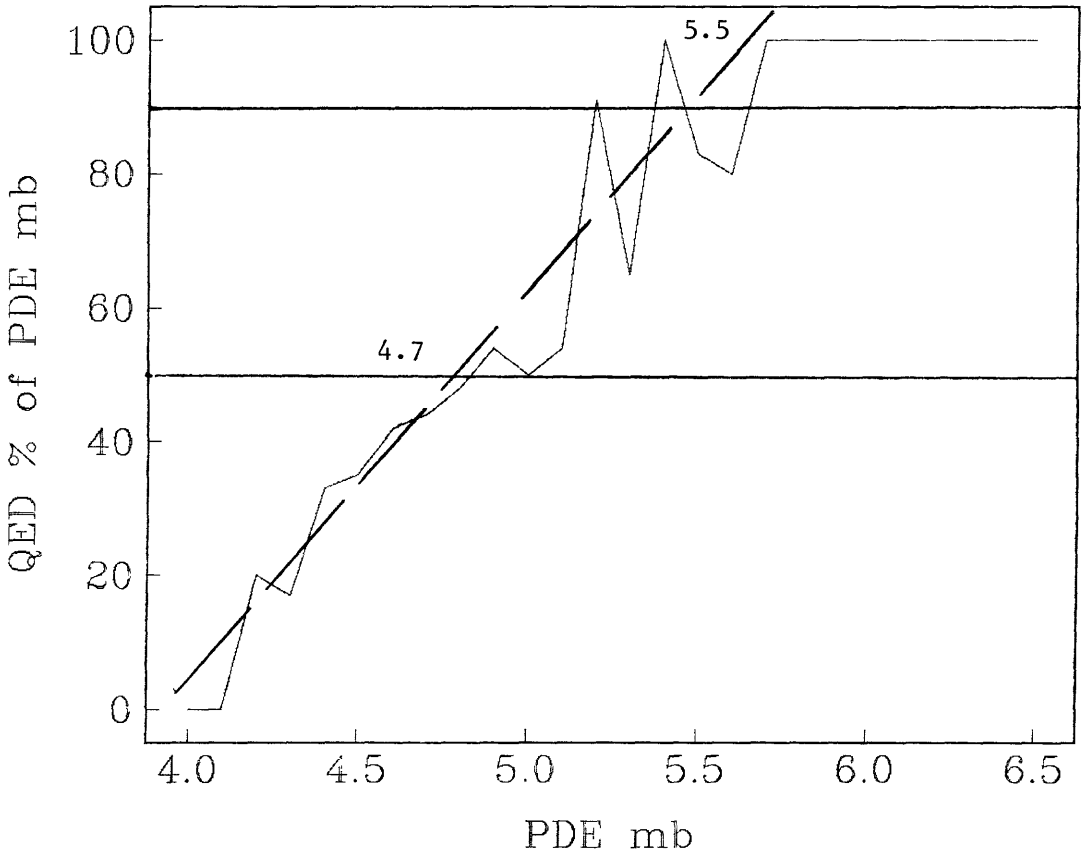


Figure 18.--SEUS 50-percent and 90-percent reporting thresholds.

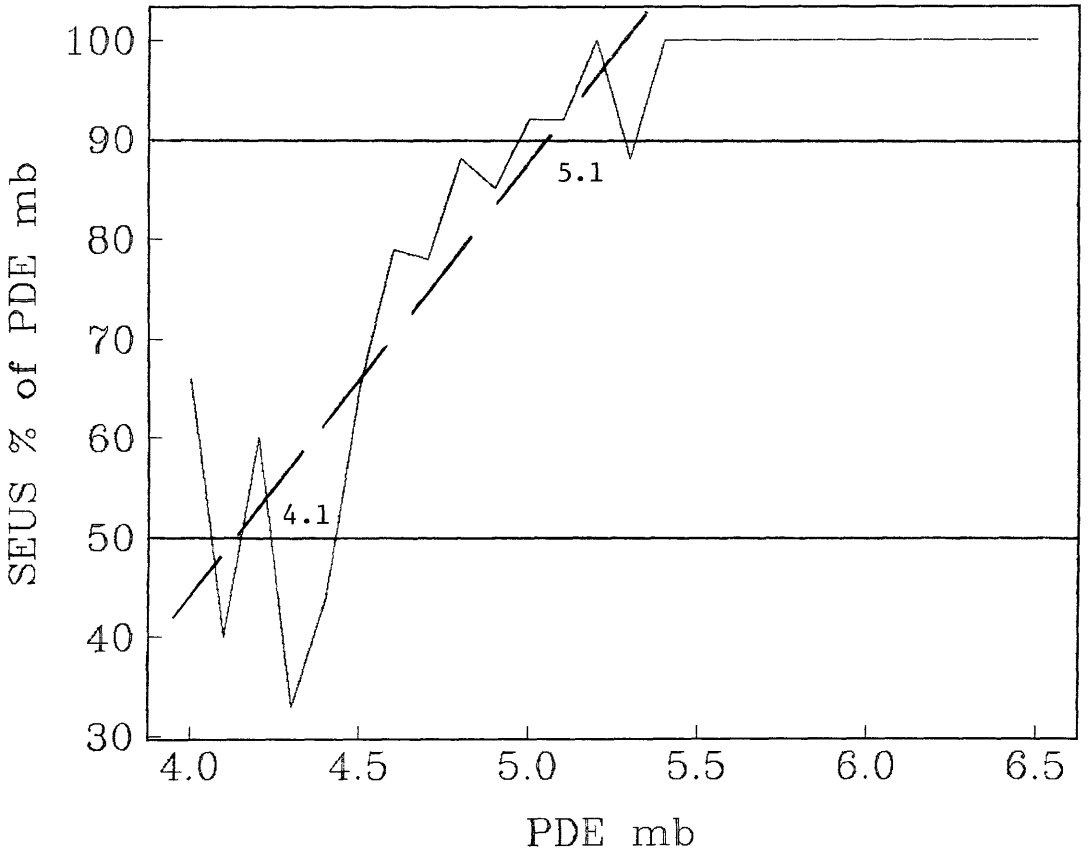


Figure 19.--SERS 50-percent and 90-percent reporting thresholds.

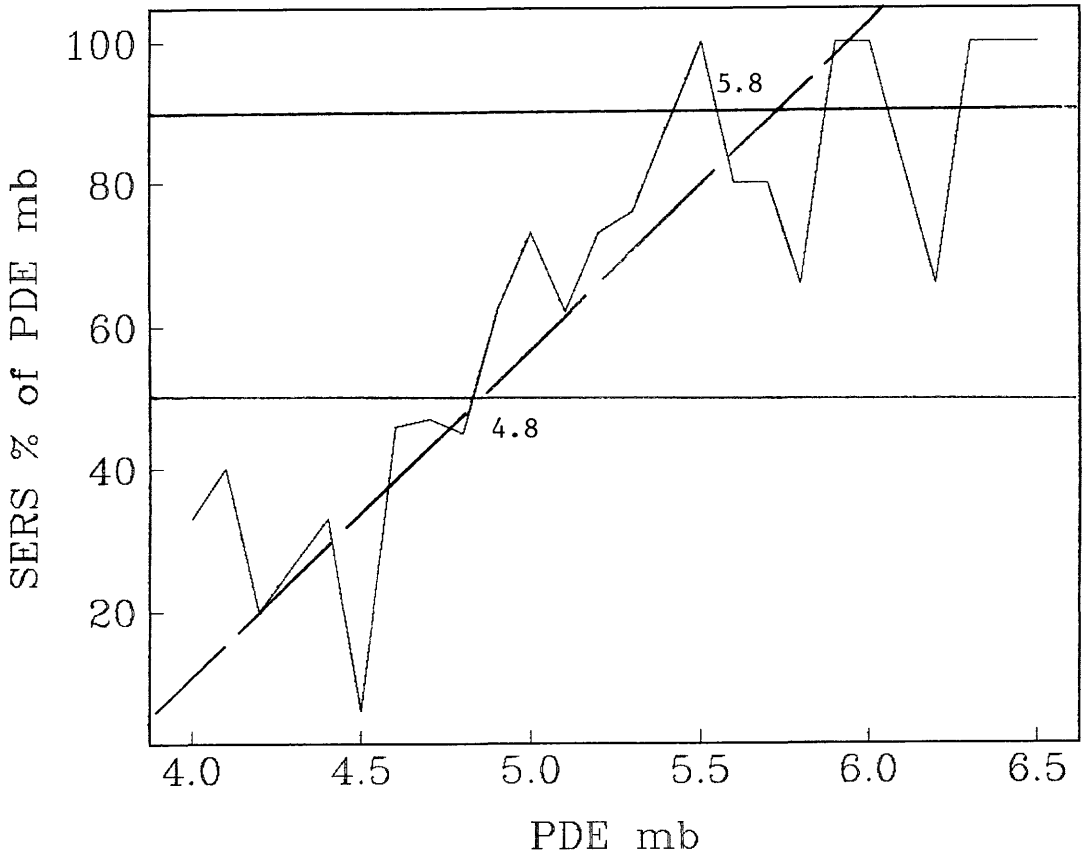


Figure 20.--SESN 50-percent and 90-percent reporting thresholds.

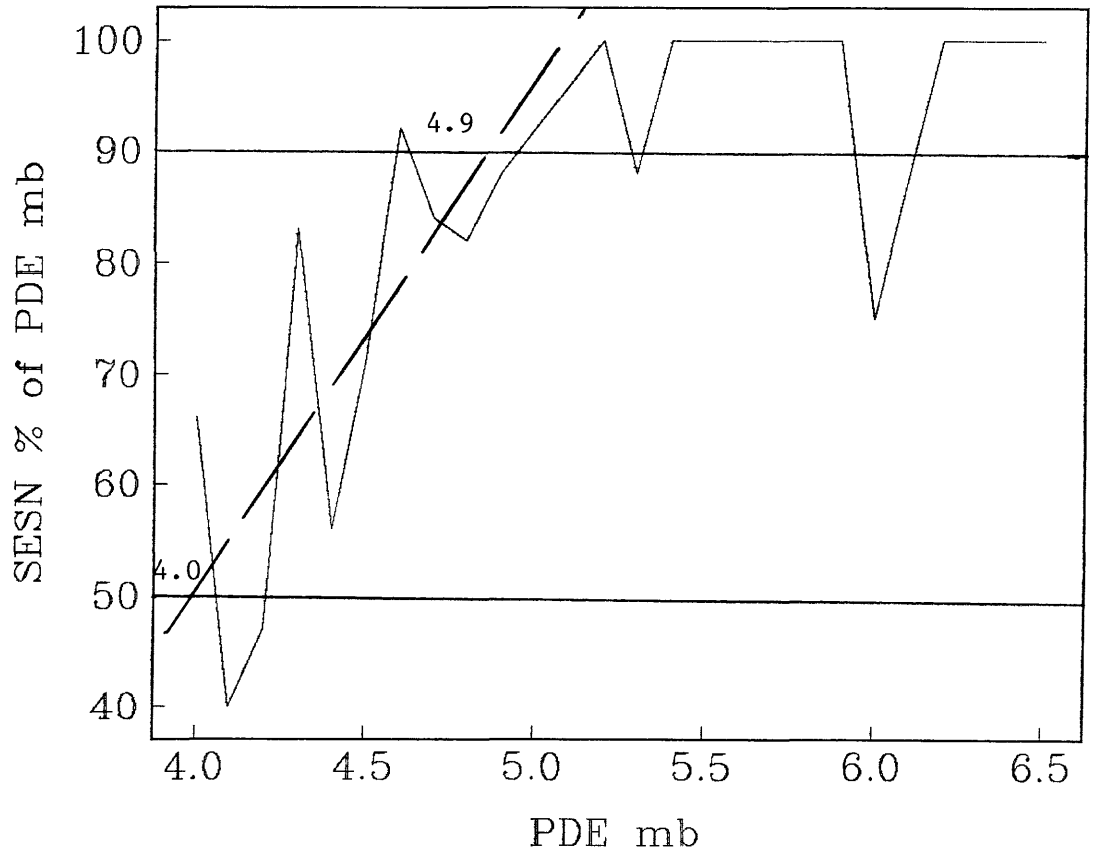


Figure 21.--Comparison of the QED-PDE depth residuals to the PDE depth.

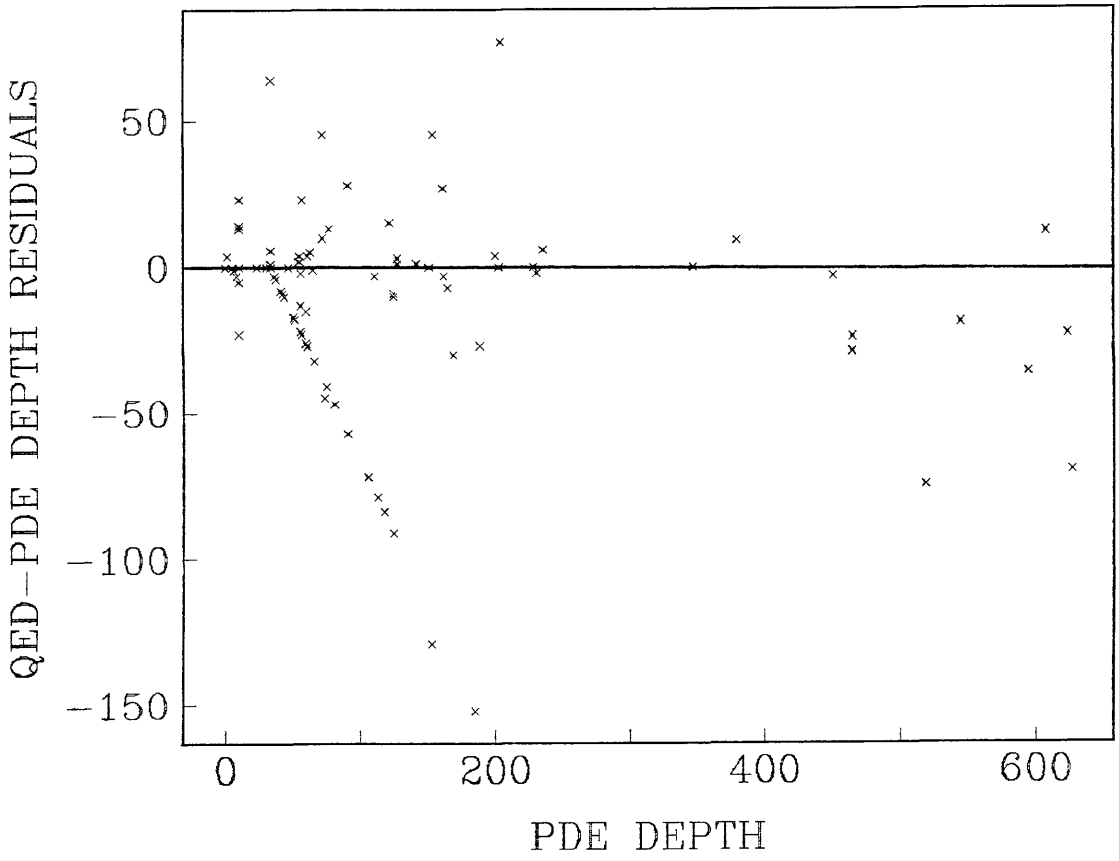


Figure 22.--Comparison of the SEUS-PDE depth residuals to the PDE depth.

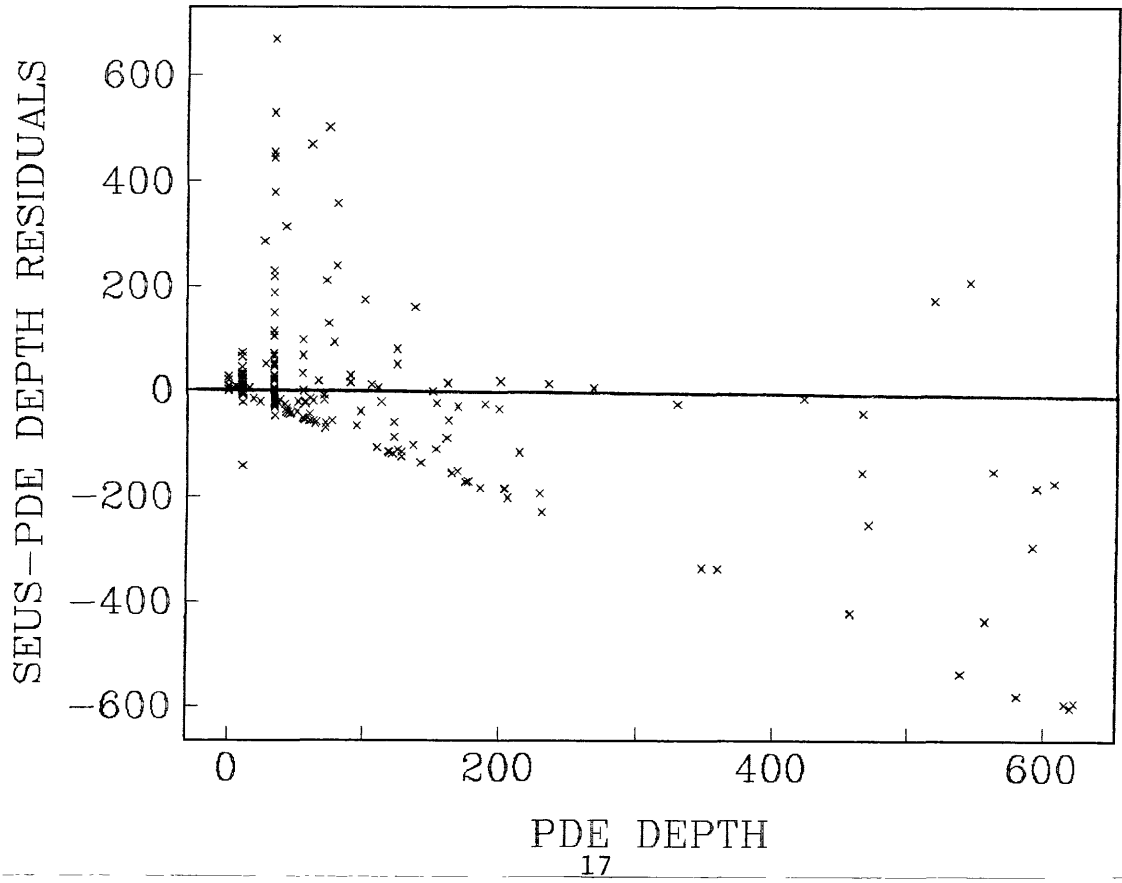


Figure 23.--Comparison of the SERS-PDE depth residuals to the PDE depth.

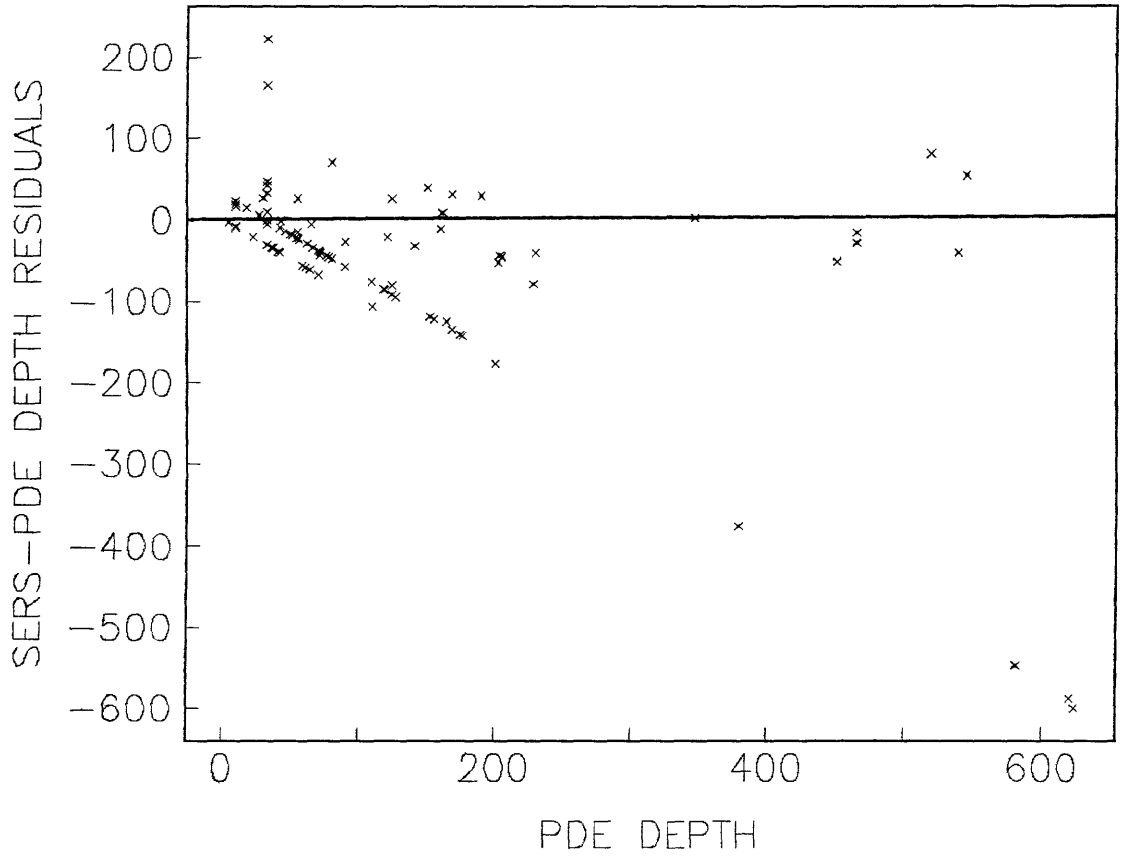
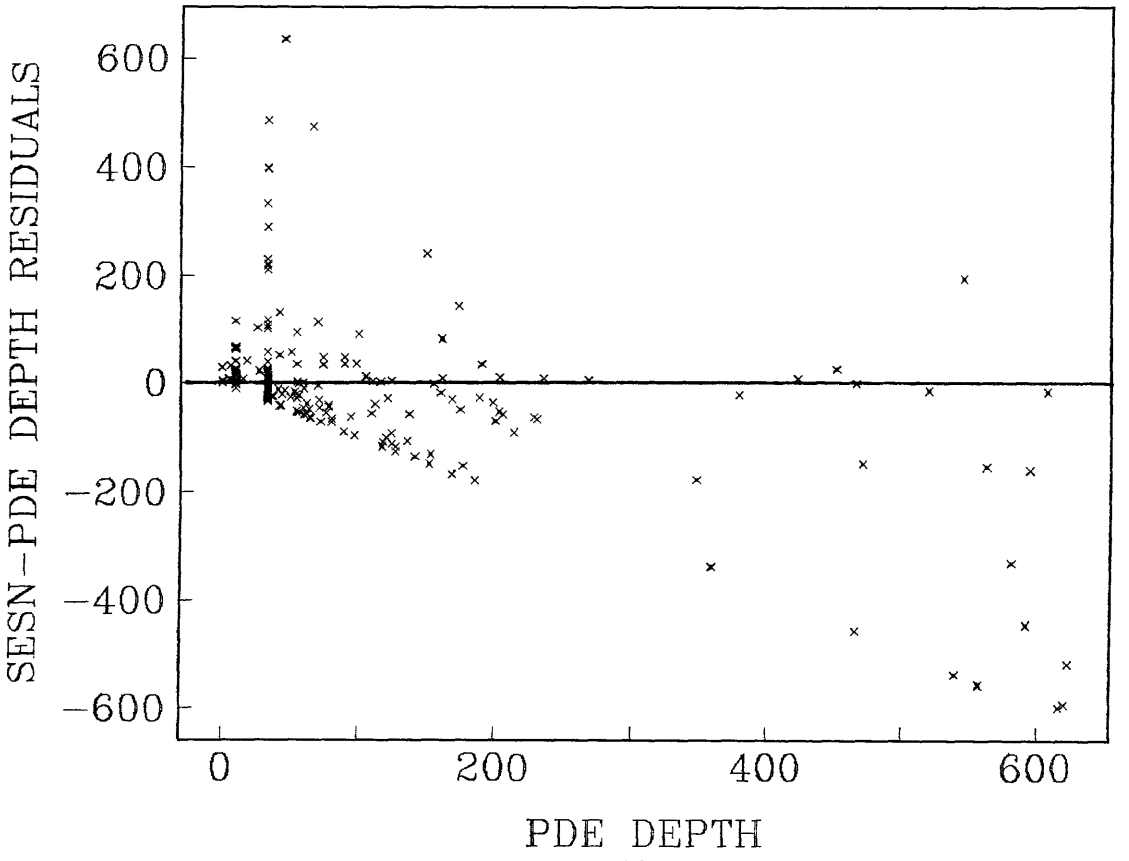


Figure 24.--Comparison of the SESN-PDE depth residuals to the PDE depth.



DATA CENTER CONTRIBUTION TO EVENT LIST				
DATA CENTER	# EVENTS	% TOTAL	# NON PDE EVENTS	% NON PDE EVENTS
PDE	403	57		
QED	6	1	6	2
SEUS	185	27	185	61
SERS	24	3	24	8
SESN	86	12	86	29
TOTAL	704		301	

Table 4.--Data center contribution to event list

Table 5 shows the number of data centers that reported each of these 301 events and a classification of these events by seismicity and acceptance criterion that at least 5 stations be used in the solution.

The classifications used on this table are:

ASA	Aseismic Area. Location is greater than 10° from known seismicity.
NA. USGS	Not acceptable by USGS because less than five stations reported the event.
Poor	Location is between 5° and 10° from known seismicity.
Good	Location is less than 5° from known seismicity.

NUMBER OF DATA CENTERS USED AND CLASSIFICATION OF NON PDE EVENTS										
DATA CENTERS	# EVENTS	% TOTAL	ASA.	% TOTAL	NA. USGS	% TOTAL	POOR LOC.	% TOTAL	GOOD LOC.	% TOTAL
1	160	53	64	40	42	26	34	21	21	13
2	109	36	26	24	34	31	21	19	27	25
3	31	10	2	6	4	13	5	16	20	65
4	1	1							1	100
TOTAL	301		92	30	80	27	60	20	69	23

Table 5.--Number of data centers used and classification of non-PDE events

It is not known at this time how many, if any, of these events will appear in the later publications of the USGS (PDE Monthly) and the Bulletin of the International Seismological Centre (ISC). The time delay for the USGS PDE Monthly Listing is approximately four months and the ISC Bulletin is approximately two years.

The average number of stations used by each data center for the events of the non-PDE list was 5.5. By reviewing figures 2, 3, and 4, one notes that 5.5 stations is in the area of the largest location difference compared to PDE locations.

CONCLUSIONS

The QED list of events reported 179, or 44 percent of the 403 events, reported on the PDE list. This compares quite favorably to the GSE data center's FEB which reported 251, or 62 percent (SEUS); 161, or 41 percent (SERS); and 261, or 65 percent. This comparison becomes even more favorable when one recognizes that the QED list has a time delay of 7 days, while the GSE FEB's have a time delay of 14 days, and the QED list adhered to the USGS acceptance criteria while the GSE data centers did not.

Perhaps even more important, the QED average location differences from the PDE locations were three times smaller than the best of the GSE data centers. The QED used an average of 19 stations compared to approximately 12 stations used by the GSE data centers to compute the location from which these differences are extracted.

The QED has a fairly tight m_b scatter about the PDE m_b with the majority of the m_b differences being $\pm$.2 or less. The SERS data center shows a slight positive bias with a fairly random scatter and with the m_b differences as much as .8. SEUS and SESN data centers show a definite negative bias which is probably caused by a maximum liklihood procedure used by these data centers. This bias for SEUS and SESN shows a negative m_b difference of approximately 1.2.

The 50- and 90-percent reporting thresholds for the QED compare quite favorably with data center SERS, but they are high compared to data centers SEUS and SESN. These differences can be explained by the longer reporting time of the SEUS and SESN and by the QED use of the more critical USGS acceptance criteria.

Depth is the weakest parameter reported by the QED and the GSE data centers. The comparisons of the QED depth to the PDE depth shows a spread of the depth to be from +60 km to -150 km, while the SEUS and SESN data centers spread of the depth is from +600 km to -600 km. The SERS data center spread of the depth is +200 km to -600 km.

For the QED, there does not seem to be the large difference in locations when compared to the PDE locations for small number of stations as is the case for the GSE data centers.

The rapid reporting and accurate locations of the QED should provide a valuable source of information not only to the international scientific community, but also to data centers such as those of the GSE. Moreover, the

QED should continue to improve in accuracy and reliability as additional seismic data becomes available in shorter periods of time from seismic stations around the world. The hypocentral information from the QED are available worldwide through the WMO channels and through telephone dial-up to the NEIC computers.

ACKNOWLEDGMENTS

I wish to acknowledge Bruce Presgrave for his computer programming effort which made the QED possible, and Dr. Robert Massé and Dr. Ray Buland for their technical assistance.

APPENDIX I

Tables of this Appendix show all of the 403 PDE-reported events with all of the QED and GSE data centers' events in common. These tables also list the location differences, magnitude differences, depth differences, number of reporting stations, and comments. The differences for these tables are PDE minus data center computations. The NAUSGS abbreviation used in the comments pertain only to events not acceptable by the USGS acceptance criteria of minimum number of stations only. Poor denotes location differences of between 5° and 10°. Mislocated means the location difference is equal to or greater than 10°. Good denotes the location difference is less than 5°.

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
10/22	04:06:29.9	PDE	10						
		QED	5	.010	208.3	5	-	-	
10/22	04:30:50.6	PDE	18						
		QED	7	.276	93.2	-9	-0.1	-	
10/22	07:59:34.4	PDE	37						
		QED	26	.081	154.6	0	0.0	-	
		SEUS	9	.400	351.5	9	0.4	-	
		SESN	9	.400	351.5	9	0.1	0.0	
10/22	11:27:40.7	PDE	11						
		QED	11	.0	0.0	0	-	-	
10/22	11:43:51.9	PDE	19						
		QED	7	.109	206.2	0	0.5	-	
		SESN	5	.332	59.0	-56	0.3	-	
10/22	15:26:54.8	PDE	41						
		QED	6	.162	82.3	0	0.3	-	
		SEUS	12	.634	218.3	32	0.0	-	
		SERS	15	.758	306.3	0	-0.2	-0.1	
		SESN	12	.746	226.0	27	-0.1	-	
10/22	16:51:19.4	PDE	38						
		QED	11	.947	1.7	36	0.1	-	
		SEUS	5	1.346	145.8	184	-0.1	-	DEPTH TOO SHALLOW
		SERS	4	2.705	126.6	561	-0.5	-	DEPTH TOO SHALLOW-NAUSGS
		SESN	4	2.705	126.6	561	-0.5	-	DEPTH TOO SHALLOW
10/22	18:24:36.1	PDE	85						
		QED	40	.100	345.3	-9	-0.1	-	
		SEUS	12	.620	111.3	27	0.5	-	
		SERS	10	7.484	208.7	376	-0.2	-	POOR LOCATION.
		SESN	16	.421	74.4	21	0.3	-	
10/22	18:58:41.9	PDE	6						
		QED	6	.036	5.1	3	-	-	
10/22	19:46:03.2	PDE	15						
		SEUS	8	3.543	80.8	-21	0.6	-	
		SERS	9	2.191	77.3	-42	0.1	-	
		SESN	11	1.756	110.1	32	0.4	-	
10/22	20:57:45.8	PDE	54						
		QED	13	.391	274.9	17	-0.1	-	
		SEUS	14	.431	306.4	40	0.0	-	
		SERS	7	2.871	145.4	17	-0.1	-	
		SESN	16	.117	24.8	27	0.1	-	
10/22	22:25:58.6	PDE	12						
		SERS	6	8.894	146.5	-23	-0.2	-	POOR LOCATION
10/23	03:59:53.4	PDE	15						
		SEUS	4	12.173	126.8	88	0.4		MISLOCATED-NAUSGS.
		SESN	6	8.455	119.5	88	-0.1		POOR LOCATION
10/23	04:18:02.6	PDE	20						
		SEUS	5	0.61	228.2	18	0.6		
		SESN	5	0.169	283.3	-144	0.3		DEPTH TOO DEEP
10/23	06:26:21.5	PDE	7						

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SESN	9	0.972	10.4	456	0.1		DEPTH TOO SHALLOW
10/24	03:12:38.9	PDE	9						DEPTH TOO SHALLOW
		QED	6	0.303	201.3	-64	0.2		
		SEUS	5	0.877	181.7	-214	0.6		
		SESN	6	0.496	269.6	-211	0.4		
10/24	09:51:17.5	PDE	13						
		SEUS	10	1.241	231.9	-198	0.3		DEPTH TOO DEEP
		SERS	10	0.730	226.4	0	-0.1		
		SESN	9	0.659	225.4	32	0.5		
10/24	19:17:48.2	PDE	12						
		SEUS	7	1.336	326.1	-23	1.1		
		SESN	8	1.435	137.9	-18	0.8		
10/24	21:18:04.2	PDE	21						
		SEUS	5	0.722	256.0	32	0.2		
		SESN	5	2.317	90.9	-108	0.2		DEPTH TOO DEEP
10/25	00:28:09.8	PDE	42						
		QED	19	0.601	303.5	67	-0.2		DEPTH TOO SHALLOW
		SEUS	10	0.061	37.1	-10	0.1		
10/25	01:12:08.7	PDE	15						
		SERS	8	1.220	198.9	66	0.1		DEPTH TOO SHALLOW
		SESN	8	1.000	335.9	-35	0.6		
10/25	06:29:57.6	PDE	163						
		QED	49	0.054	295.5	0	-0.2		
		SEUS	30	0.058	64.1	-1	0.4		
		SESN	28	0.073	60.9	-2	0.1		
10/25	08:15:45.5	PDE	27						
		QED	15	0.128	165.3	0	0.2		
		SEUS	9	0.548	345.7	-5	0.8		
		SESN	9	0.526	339.0	-5	0.8		
10/25	09:49:18.6	PDE	94						
		QED	18	0.167	67.2	3	-0.3		
		SEUS	30	0.517	60.3	24	0.2		
		SERS	18	0.243	88.7	33	-0.2		
		SESN	25	0.137	56.8	24	0.2		
10/25	10:15:07.9	PDE	15						
		QED	10	0.078	109.3	0	0.0		
		SEUS	11	0.178	64.7	25	0.5		
		SERS	8	1.555	175.7	30	-0.2		
		SESN	10	0.519	20.8	23	0.5		
10/25	10:36:02.2	PDE	30						
		QED	14	0.034	325.9	1	0.0		
		SESN	5	0.637	45.0	-32	0.7		
10/25	12:37:12.7	PDE	122						
		QED	27	0.186	176.1	0	-0.1		
		SEUS	29	0.196	1.4	29	0.3		
		SERS	17	0.090	32.5	0	0.0	0.1	
		SESN	28	0.179	349.6	28	0.3	0.1	

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
10/25	12:53:26.5	PDE	13						
		SESN	4	0.634	62.6	9	1.3		NAUSGS.
10/25	13:18:39.4	PDE	13						
		SEUS	5	0.290	131.5	12	0.3		
		SESN	4	21.739	310.9	32	0.4		MISLOCATED-NAUSGS.
10/25	14:38:29.9	PDE	118						
		QED	18	0.047	50.2	4	0.0		
		SEUS	32	0.321	53.4	18	0.2		
		SERS	15	0.604	163.1	34	0.1	1.4	
		SESN	28	0.233	77.3	24	0.2		
10/25	14:49:11.6	pDE	14						
		SEUS	7	1.478	121.2	-23	1.2		
		SERS	8	1.495	142.7	7	0.6		
		SESN	7	1.175	45.2	-115	1.1		DEPTH TOO DEEP
10/25	18:14:52.9	PDE	19						
		SEUS	8	0.474	183.1	32	0.3		
		SESN	7	0.407	194.5	32	0.3		
10/25	22:32:01.1	PDE	13						
		SEUS	4	0.577	203.3	32	0.7		NAUSGS.
		SERS	4	23.046	330.1	0	-0.1		MISLOCATED-NAUSGS.
		SESN	5	0.295	189.4	32	0.4		
10/26	03:01:39.3	PDE	24						
		SEUS	9	0.059	156.4	-53	0.4		
		SESN	10	0.074	77.5	32	0.3		
10/26	04:02:13.8	PDE	35						
		QED	13	0.126	55.9	-2	0.2		
		SEUS	11	2.039	269.9	-3	0.5		
		SERS	7	0.928	255.9	21	0.2		
10/26	06:39:01.1	PDE	81						
		QED	18	0.137	356.7	-45	0.1		
		SEUS	15	0.257	315.6	62	0.2		
		SERS	12	0.271	292.6	43	0.1		
		SESN	16	0.181	322.6	32	0.1		
10/26	08:07:36.3	PDE	53						
		QED	11	0.137	46.1	-13	0.1		
		SEUS	13	0.169	323.4	57	0.3		
		SERS	6	0.114	327.7	43	0.1		
		SESN	12	-1.60	38.3	54	0.3		
10/26	08:49:23.4	PDE	137						
		QED	28	0.085	302.4	10	0.0		
		SEUS	18	0.211	8.5	42	0.1		
		SERS	17	0.023	64.7	1	0.2		
		SESN	17	0.082	346.6	42	0.1		
10/26	09:12:17.0	PDE	42						
		QED	10	0.196	50.3	0	0.2		
		SEUS	9	0.049	100.6	-70	0.4		
		SERS	5	0.103	210.5	0	0.2		
		SESN	9	0.142	266.4	-27	0.3		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MS	COMMENTS
10/26	15:07:55.4	PDE	33						
		QED	11	0.199	263.2	0	0.1		
		SEUS	12	0.484	178.2	-8	0.4		
		SERS	11	0.173	237.2	-23	-0.1		
		SESN	13	0.563	158.3	3	0.4		
10/26	15:54:56.7	PDE	27						
		SEUS	9	0.262	62.4	153	0.3		DEPTH TOO SHALLOW
		SERS	6	5.809	149.3	-32	-0.1		POOR LOCATION
		SESN	9	0.321	69.7	167	0.3		DEPTH TOO SHALLOW
10/26	16:12:49.7	PDE	10						
		SESN	5	4.530	90.0	-36	0.3		POOR LOCATION
10/26	16:32:26.2	PDE	10						
		QED	7	0.106	87.3	0	-0.1		
		SESN	4	0.482	47.2	-68	0.5		NAUSGS.
10/26	17:20:40.4	PDE	15						
		QED	7	0.106	87.3	0	-0.1		
		SESN	4	0.482	47.2	-68	0.5		NAUSGS.
10/26	17:24:12.4	PDE	11						
		QED	5	0.088	217.7	84	-0.1		DEPTH TOO SHALLOW
		SUS	4	0.329	222.8	116	0.4		DEPTH TOO SHALLOW-NAUSGS
		SESN	4	0.414	209.4	116	0.5		DEPTH TOO SHALLOW-NAUSGS
10/26	20:22:22.6	PDE	183						
		QED	34	0.066	64.2	0	0.1		
		SEUS	27	0.162	54.5	28	0.3		
		SERS	26	0.177	61.6	30	0.0		
		SESN	30	0.127	79.0	32	0.4		
10/26	21:33:35.4	PDE	29						
		QED	9	0.152	109.2	0	0.0		
		SEUS	11	0.753	0.2	14	0.4		
		SERS	10	0.626	354.4	30	0.0		
		SESN	12	0.271	37.8	28	0.4		
10/27	00:47:31.7	PDE	7						
		SEUS	5	2.615	313.4	-668	0.3		DEPTH TOO DEEP
		SESN	7	0.781	174.2	27	0.2		
10/27	00:57:31.6	PDE	25						
		SEUS	8	0.113	142.0	-18	0.7		
		SESN	7	0.170	177.4	-13	0.6		
10/27	01:50:10.6	PDE	195						
		QED	55	0.013	103.7	0	0.1	0.0	
		SEUS	33	0.111	43.5	0	0.2		
		SESN	34	0.492	83.9	-4	0.1	0.1	
10/27	04:32:01.4	PDE	52						
		QED	15	0.052	345.0	0	-0.1		
		SEUS	11	0.090	8.0	9	0.4		
		SERS	7	1.531	35.9	7	-0.1		
		SESN	11	0.136	257.3	9	0.4		
10/27	05:59:58.6	PDE	76						
		QED	24	0.262	107.4	0	-0.1		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SEUS	22	0.218	121.5	-5	0.0		
		SESN	19	0.200	73.6	-3	0.1		
10/27	06:04:57.1	PDE	65						
		QED	21	0.066	59.1	0	-0.1		
		SEUS	17	0.060	92.8	-7	0.2		
		SESN	13	0.180	29.0	-1	0.3		
10/27	06:55:20.3	PDE	20						
		QED	12	0.319	58.6	32	-0.3		
		SERS	5	0.253	179.6	5	0.0		
		SESN	4	29.810	83.8	64	0.7		MISLOCATED-NAUSGS.
10/27	08:10:11.7	PDE	23						
		QED	10	0.322	344.7	15	-0.3		
		SEUS	7	0.157	44.5	45	0.2		
		SERS	5	0.291	266.7	56	-0.2		
		SESN	8	0.163	354.2	46	0.2		
10/27	09:02:29.8	PDE	33						
		QED	124	0.518	182.4	8	0.1		
		SEUS	7	0.203	73.5	27	0.5		
		SERS	7	0.286	263.7	38	-0.1		
		SESN	9	0.197	56.9	11	0.5		
10/27	09:55:42.1	PDE	70						
		QED	15	0.051	264.4	0	0.0	0.0	
		SEUS	19	1.220	271.4	9	0.2		
		SERS	11	1.488	347.6	-7	0.0		
		SESN	21	0.319	69.4	4	0.3	0.2	
10/27	11:11:48.9	PDSE	111						
		QED	31	0.063	330.6	0	0.1	0.0	
		SEUS	27	0.053	293.1	42	0.3		
		SERS	21	0.090	108.6	13	0.6		
		SESN	27	0.019	184.8	14	0.2	0.5	
10/27	18:31:04.3	PDE	27						
		SEUS	8	3.775	152.4	-501	0.2		DEPTH TOO DEEP
		SESN	5	6.388	106.0	-47	0.4		POOR LOCATION
10/27	18:32:40.5	PDE	21						
		SESN	4	18.189	156.8	21	0.0		MISLOCATED-NAUSGS.
10/28	02:45:00.6	PDE	41						
		QED	19	0.751	58.9	0	0.0		
		SEUS	13	0.293	45.2	9	0.6		
		SERS	13	0.405	40.6	7	0.0		
		SESN	13	0.399	55.2	9	0.4		
10/28	10:55:19.9	PDE	13						
		QED	6	0.307	91.6	0	-0.1		
		SERS	4	0.422	240.6	0	0.0		NAUSGS.
		SESN	4	0.328	84.6	30	0.4		NAUSGS.
10/28	18:35:51.3	PDE	18						
		QED	11	0.016	136.4	0	-0.1		
		SEUS	7	13.722	61.6	-113	0.3		MISLOCATED
		SESN	5	2.940	355.3	-486	0.3	0.3	

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
10/28	19:49:41.1	PDE	12						
		SEUS	6	2.837	254.3	-453	0.1		DEPTH TOO DEEP
		SERS	4	32.692	201.3	0	-0.4		MISLOCATED-NAUSGS
		SESN	5	2.603	251.7	-399	0.2		DEPTH TOO DEEP
10/29	02:05:39.1	PDE	17						
		QED	10	0.265	199.9	0	-0.1		
		SEUS	5	2.345	349.3	-12	1.1		
		SERS	8	0.302	147.3	7	0.0		
		SESN	8	1.293	344.2	-65	0.6		
10/29	03:04:38.7	PDE	12						
		SESN	4	0.609	254.1	-13	0.6		NAUSGS.
10/29	09:25:36.5	PDE	36						
		QED	11	0.053	20.1	0	0.0		
		SEUS	13	0.126	14.2	-1	0.4		
		SERS	11	0.207	50.1	0	-0.2		
		SESN	14	0.149	35.0	-22	0.3		
10/29	13:29:26.7	PDE	18						
		QED	6	0.137	273.8	0			
10/29	15:47:49.6	PDE	10						
		SEUS	8	0.024	314.3	10	0.5		
		SESN	7	0.169	300.9	32	0.6		
10/29	17:47:46.4	PDE	12						
		SEUS	6	0.899	177.2	172	0.3		DEPTH TOO SHALLOW
		SERS	6	2.939	303.4	143	-0.3		DEPTH TOO SHALLOW
		SESN	7	0.829	134.9	150	0.1		DEPTH TOO SHALLOW
10/29	20:04:10.5	PDE	13						
		SEUS	7	0.174	54.6	35	0.3		
		SERS	6	0.326	297.5	39	0.1		
		SESN	8	0.177	105.9	-52	0.2		
10/29	22:43:13.5	PDE	49						
		QED	9	0.266		18	-0.2		
		SEUS	15	0.237		22	0.5		
		SERS	11	1.151		18	-0.1		
		SESN	10	7.836		-56	0.4		POOR LOCATION
10/29	23:04:43.4	PDE	102						
		QED	43	0.069	191.5	0	-0.1		
		SEUS	23	0.093	349.8	22	0.3		
		SERS	21	0.231	123.9	0	-0.2		
10/29	23:18:06.2	PDE	226						
		QED	58	0.066	183.5	7	0.1		
		SEUS	26	0.329	341.3	157	0.1		DEPTH TOO SHALLOW
		SERS	26	0.238	328,7	124	0.0		DEPTH TOO SHALLOW
10/29	23:50:46.7	PDE	80						
		QED	16	0.066		0	0.0		
		SEUS	21	0.240		-44	0.5		
		SERS	16	0.026		-23	0.0		
		SESN	18	0.203		9	0.3		
10/30	01:05:49.9	PDE	249						

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MS	COMMENTS
		QED	25	0.089	0.6	-1	0.2		
		SEUS	34	0.277	343.1	137	-0.1		DEPTH TOO SHALLOW
		SERS	21	0.213	293.9	31	0.2		
		SESN	36	0.315	1.0	135	-0.2		DEPTH TOO SHALLOW
10/30	03:13:54.3	PDE	52						
		QED	17	0.234	56.7	-28	0.0		
		SEUS	11	0.237	75.9	-27	-0.1		
		SERS	4	1.093	75.7	67	-0.2		NAUSGS.
		SESN	9	0.072	260.4	-35	-0.3		
10/30	13:06:46.6	PDE	39						
		SERS	4	0.156	335.5	122	-0.1		DEPTH TOO SHALLOW-NAUSGS
		SESN	10	0.043	6.7	1	0.1		
10/30	14:39:43.3	PDE	96						
		SEUS	24	0.041	264.4	-4	0.0		
		SESN	22	0.036	158.9	-5	0.0		
10/30	15:12:27.8	PDE	12						
		SEUS	8	2.832	142.2	254	0.4		DEPTH TOO SHALLOW
		SESN	7	2.092	142.7	147	0.3		DEPTH TOO SHALLOW
10/30	17:20:31.5	PDE	39						
		QED	11	0.671	287.6	0	0.0	-0.1	
		SEUS	13	0.319	227.9	10	0.1		
		SERS	9	2.578	341.4	0	-0.1		
		SESN	10	0.358	231.3	32	0.0	0.1	
10/30	20:33:41.0	PDE	56						
		QED	14	0.077	39.2	0	0.2		
		SEUS	11	0.130	39.8	32	0.3		
		SERS	11	0.692	234.6	-47	-0.1		
		SESN	14	1.341	234.7	-222	0.2		
10/30	20:50:06.6	PDE	9						
		QED	6	0.037	123.1	-1			
10/30	22:51:57.3	PDE	18						
		SESN	4	3.801	226.7	183	0.3		DEPTH TOO SHALLOW-NAUSGS
10/30	23:05:30.6	PDE	6						
		QED	7	0.058	4.2	0			
10/30	23:44:00.0	PDE	11						
		QED	8	0.077	105.7	0			
10/31	01:17:37.4	PDE	60						
		QED	7	1.793	133.9	152	-0.5		DEPTH TOO SHALLOW
		SEUS	7	0.297	282.0	184	0.4		DEPTH TOO SHALLOW
		SESN	7	0.201	290.9	177	0.3		DEPTH TOO SHALLOW
10/31	03:05:12.1	PDE	18						
		QED	9	0.123	216.6	0			
10/31	04:40:04.6	PDE	109						
		QED	17	0.191	331.1	-4	0.0		
		SEUS	20	0.146	302.0	52	0.4		
		SERS	16	0.328	283.8	21	-0.2		
		SESN	17	0.216	306.2	52	-0.4		
10/31	14:12:27.1	PDE	22						

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		QED	11	0.142	215.4	2			
10/31	21:36:31.0	PDE	22						
		SEUS	8	0.459	275.8	119	0.6		DEPTH TOO SHALLOW
		SERS	8	2.674	318.6	87	0.0		
		SESN	6	0.466	269.6	100	0.3		DEPTH TOO SHALLOW
11/01	04:48:49.9	PDE	197						
		QED	90	0.077	16.5	0	0.0	-0.1	
		SEUS	33	0.091	335.5	7	0.1		
		SERS	28	0.555	342.6	7	-0.1		
		SESN	28	3.923	177.9	4	0.6		
11/01	06:49:21.4	PDE	8						
		QED	6	0.125	297.6	0	0.2		
		SEUS	8	0.133	125.4	-17	0.6		
		SERS	7	0.986	350.6	0	-0.1		
		SESNB	10	0.115	323.7	-7	0.4		
11/01	08:17:59.6	PDE	8						
		QED	8	0.000	0.0	0	0.0		
11/01	09:27:36.6	PDE	197						
		QED	44	0.061	243.8	-28	-0.1		
		SEUS	23	0.142	17.8	36	-0.3		
		SERS	17	0.842	320.7	-22	0.2		
		SESN	19	0.145	21.3	35	-0.2		
11/01	12:02:25.5	PDE	6						
		SEUS	4	0.046	16.2	1			NAUSGSS.
11/01	18:43:42.5	PDE	216						
		QED	54	0.046	231.2	0	0.0	-0.1	
		SEUS	35	0.205	274.1	26	0.0		
		SERS	27	0.134	119.5	30	-0.1	0.0	
		SESN	37	0.080	36.5	24	0.0		
11/01	20:42:50.1	PDE	20						
		QED	9	0.144	315.4	0	0.0		
		SEUS	12	0.070	83.3	28	0.4		
		SERS	8	0.438	150.7	30	-0.1		
		SESN	11	0.058	91.9	10	0.3		
11/01	21:02:29.7	PDE	12						
		SESN	4	25.695	141.7	44	-0.2		MISLOCATED-NAUSGS.
11/02	03:38:41.3	PDE	43						
		QED	16	0.244	169.5	0	0.1	0.0	
		SEUS	12	0.709	254.1	3	0.7		
		SERS	10	1.265	259.3	7	0.0		
		SESN	11	0.297	141.8	-62	0.7		
11/02	03:48:01.4	PDE	130						
		QED	50	0.069	57.8	47	-0.2		
		SEUS	23	1.982	3.4	-358	-0.1		DEPTH TOO DEEP
		SERS	18	1.618	107.7	47	-0.1		
		SESN	17	0.402	235.5	71	0.2		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
11/02	04:50:08.4	PDE	68						
		QED	25	0.141	294.5	0	-0.2	0.0	
		SEUS	20	0.052	81.2	27	0.1		
		SERS	18	0.069	303.3	0	-0.1	0.1	
		SESN	9	0.180	87.5	-16	0.4	0.1	
11/02	06:33:30.6	PDE	55						
		QED	19	0.056	67.0	0	0.0	-0.1	
		SEUS	17	0.077	36.0	20	0.2		
		SERS	16	0.046	20.3	0	0.0	0.0	
		SESN	16	0.182	1.9	25	0.2	0.1	
11/02	10:08:07.8	PDE	15						
		SEUS	4	0.311	285.2	32	0.3		NAUSGS.
		SESN	4	0.225	260.3	12	0.3		NAUSGS.
11/02	12:02:38.4	PDE	6						
		SEUS	4	0.032	145.4	-243			NAUSGS.
11/02	16:50:17.9	PDE	52						
		QED	17	0.505	115.4	10	0.0		
		SEUS	15	0.640	335.6	112	0.3		DEPTH TOO SHALLOW
		SERS	12	1.602	339.9	91	-0.3		DEPTH TOO SHALLOW
		SESN	16	0.746	336.3	111	0.1		DEPTH TOO SHALLOW
11/02	17:45:44.2	PDE	16						
		SEUS	4	4.974	354.2	67	0.2		NAUSGS.
		SESN	5	4.148	66.3	62	0.1		
11/02	20:44:58.3	PDE	79						
		QED	35	0.066	340.1	0	0.0		
		SEUS	18	0.237	340.0	-19	0.4		
		SESN	11	0.316	343.4	-4	0.4		
11/03	02:33:16.0	PDE	67						
		QED	31	0.033	358.4	0	0.0	0.0	
		SEUS	16	0.040	346.3	4	0.3		
		SERS	11	0.042	296.5	7	0.2		
		SESN	15	0.056	30.2	-27	0.4		
11/03	04:23:05.7	PDE	9						
		QED	9	0.001	270.0	0			
11/03	06:33:55.9	PDE	18						
		QED	16	0.023	77.3	0	-0.1		
		SESN	4	2.927	358.8	-397	0.6		DEPTH TOO DEEP-NAUSGS.
11/03	09:30:08.6	PDE	33						
		QED	11	0.107	239.1	0	-0.1		
		SEUS	10	0.429	72.8	-8	0.7		
		SERS	7	2.155	33.0	2	0.0		
		SESN	8	0.349	80.6	-8	0.8	0.4	
11/03	13:18:52.0	PDE	41						
		QED	18	0.075	62.9	0	-0.1		
		SEUS	12	0.271	66.5	22	0.2		
		SESN	6	0.093	255.7	32	0.6		
11/03	14:43:31.0	PDE	40						
		SEUS	9	0.451	32.2	17	0.1		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SERS	5	0.779	302.7	-15	-0.2		
		SESN	9	0.580	299.1	-42	0.2		
11/03	15:43:45.4	PDE	12						
		SEUS	6	35.545	158.5	21	-0.2		MISLOCATED
		SESN	5	1.756	261.3	32	-0.1		
11/03	15:50:32.0	PDE	30						
		QED	17	0.133	302.7	-15	0.1		
		SEUS	13	0.699	340.9	59	0.3		
		SERS	9	0.466	345.2	20	0.0		
		SESN	9	0.058	314.9	29	0.4		
11/03	19:31:42.5	PDE	16						
		SEUS	4	0.513	202.9	-159	0.4		DEPTH TOO DEEP-NAUSGS.
11/03	20:05:06.0	PDE	8						
		SEUS	4	0.237	48.2	-49	-0.4		NAUSGS.
11/04	12:43:46.5	PDE	13						
		SEUS	6	18.303	158.4	-103	0.1		MISLOCATED
		SESN	6	18.541	148.3	-105	-0.1		MISLOCATED
11/04	13:14:19.4	PDE	139						
		QED	51	0.083	283.2	3	0.0		
		SEUS	22	0.107	346.1	-13	-0.1		
		SERS	21	0.243	331.7	-9	0.3		
		SESN	27	0.143	323.2	-10	-0.2		
11/04	17:35:28.8	PDE	84						
		QED	30	0.053	107.3	0	0.0		
		SEUS	19	0.065	60.8	6	0.2		
		SERS	18	0.392	6.9	7	0.0		
		SESN	25	0.048	99.6	4	0.2		
11/04	19:49:31.5	PDE	19						
		QED	11	0.046	281.2	0	-0.1		
		SEUS	5	0.524	283.7	9	0.2		
		SESN	5	0.525	288.2	9	0.2		
11/04	22:31:35.3	PDE	26						
		QED	17	0.645	328.3	0	0.1		
		SEUS	9	0.667	359.3	32	0.6		
		SERS	9	0.696	9.1	0	0.2		
		SESN	7	17.938	242.0	26	0.8		MISLOCATED
11/05	04:17:32.9	PDE	62						
		SEUS	16	0.421	25.5	-9	0.7		
		SERS	11	9.133	97.1	7	-0.2		POOR LOCATION
		SESN	13	0.156	58.4	-7	0.8		
11/05	05:57:55.4	PDE	42						
		QED	12	0.183	99.7	67	-0.2		
		SEUS	11	0.363	280.3	-15	0.3		
		SERS	6	3.851	28.9	26	0.0		
		SESN	12	0.164	353.3	-48	0.2		
11/05	06:06:17.1	PDE	73						
		QED	29	0.112	184.9	0	0.0		
		SEUS	16	0.491	20.7	22	0.5		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SERS	16	0.374	55.8	20	-0.2		
		SESN	17	0.647	13.4	22	0.2		
11/05	11:41:47.5	PDE	56						
		QED	17	0.081	51.5	-12	0.0		
		SEUS	7	0.372	334.6	174	0.5		DEPTH TOO SHALLOW
		SESN	10	0.169	332.9	15	0.1		
11/05	14:23:52.6	PDE	48						
		SEUS	5	2.231	298.6	41	0.3		
		SESN	7	0.861	320.3	96	0.1		
11/05	15:01:12.9	PDE	11						
		QED	8	0.115	221.5	0			
11/05	16:37:03.1	PDE	28						
		QED	7	0.166	168.4	0	0.0		
		SEUS	9	0.305	279.1	32	0.5		
		SERS	8	0.446	261.5	0	0.0		
		SESN	10	0.579	269.4	21	0.4		
11/05	21:11:03.7	PDE	8						
		SEUS	4	0.157	332.3	-23	0.3		NAUSGS.
11/06	04:31:21.6	PDE	15						
		SEUS	1.371	277.1	32	0.5			
		SESN	0.418	240.1	9	0.4			
11/06	06:21:05.4	PDE	26						
		SEUS	10	0.409	76.0	117	-0.3		DEPTH TOO SHALLOW
		SERS	8	22.318	318.0	85	-0.9		MISLOCATED
		SESN	10	0.390	75.3	108	-0.2		DEPTH TOO SHALLOW
11/06	07:58:51.3	PDE	211						
		QED	61	0.108	19.5	0	0.2		
		SEUS	29	0.004	25.5	7	0.4		
		SERS	27	0.102	35.1	7	0.0		
		SESN	34	0.055	274.1	-5	0.2		
11/06	09:44:21.0	PDE	135						
		QED	21	0.030	38.5	0	0.2		
		SEUS	17	0.157	55.3	195	-0.1		DEPTH TOO SHALLOW
		SERS	14	0.670	164.8	78	-0.5		
		SESN	14	0.266	333.7	62	-0.3		
11/06	12:40:58.2	PDE	36						
		SEUS	4	0.671	274.5	-175	0.5		DEPTH TOO DEEP-NAUSGS.
		SESN	6	0.367	277.9	-90	0.3		
11/06	23:51:32.1	PDE	36						
		QED	11	0.075	27.6	-45	0.0		
		SEUS	6	0.385	47.8	24	0.5		
		SESN	5	0.508	3.0	130	0.5		DEPTH TOO SHALLOW
11/07	02:14:42.0	PDE	65						
		QED	20	0.039	244.2	0	0.2		
		SEUS	15	0.075	182.9	9	0.5		
		SERS	13	0.037	200.8	7	0.4		
		SESN	18	0.166	235.2	-14	0.5		
11/07	07:21:05.2	PDE	11						

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SEUS	5	3.674	9.0	-34	1.1		
		SERS	5	0.472	40.1	-23	0.1		
		SESN	6	2.549	8.9	-66	0.9		
11/07	11:39:42.4	PDE	43						
		SEUS	7	0.879	158.4	9	0.7		
		SERS	8	1.369	147.4	-23	0.3		
		SESN	7	0.771	169.3	-15	-0.1		
11/07	12:13:14.0	PDE	8						
		SESN	4	0.100	59.9	9			NAUSGS.
11/07	15:09:07.1	PDE	47						
		SEUS	11	0.152	274.6	32	0.6		
		SERS	8	0.093	231.3	0	0.1		
		SESN	15	0.140	291.8	9	0.4		
11/07	21:43:41.5	PDE	16						
		QED	7	0.098	99.4	0	0.0		
		SEUS	4	0.164	206.8	-23	0.7		NAUSGS.
		SESN	4	0.303	236.7	-23	0.7		NAUSGS.
11/08	03:07:24.3	PDE	28						
		QED	6	0.325	201.1	41	-0.2		
		SEUS	6	0.631	298.8	-129	0.7		DEPTH TOO DEEP
		SESN	5	0.887	285.4	-34	0.7		
11/08	05:30:17.1	PDE	75						
		QED	11	0.407	302.6	0	-0.1	0.4	
		SEUS	12	0.346	314.7	32	0.4		
		SERS	7	0.166	208.3	30	0.1		
		SESN	14	0.435	7.1	33	0.5		
11/08	05:54:53.3	PDE	10						
		SESN	4	0.327	111.7	1	0.6		NAUSGS.
11/08	06:32:55.9	PDE	39						
		QED	15	0.374	183.2	9	0.2		
		SEUS	6	4.812	340.8	-313	0.3		DEPTH TOO DEEP
		SESN	9	0.578	102.7	-131	0.0		DEPTH TOO DEEP
11/08	07:12:58.4	PDE	46						
		QED	9	0.162	9.0	26	-0.2		
		SEUS	10	0.332	89.5	58	0.1		
		SERS	8	0.153	92.6	56	-0.1		
		SESN	12	0.233	91.7	0	0.2		
11/08	09:37:32.1	PDE	27						
		QED	10	0.536	171.0	0	0.0		
		SEUS	14	0.737	349.0	32	0.5		
		SERS	12	0.627	334.1	0	0.0		
		SESN	15	0.763	347.1	32	0.3		
11/08	12:01:25.2	PDE	21						
		SEUS	4	0.482	265.5	9	0.5		NAUSGS.
		SESN	6	0.516	261.3	-23	0.4		
11/08	12:05:35.3	PDE	7						
		SEUS	4	0.103	116.6	-4			NAUSGS.
11/08	12:49:27.5	PDE	40						

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MS	COMMENTS
		SEUS	5	0.472	303.2	-25	0.6		
		SESN	7	0.376	59.9	-23	0.3		
11/08	13:16:47.8	PDE	23						
		SEUS	8	2.200	282.7	-468	0.8		DEPTH TOO DEEP
		SERS	7	82.270	213.1	58	-0.8		MISLOCATED
		SESN	8	1.125	250.5	54	0.4		
11/08	14:17:47.0	PDE	59						
		QED	16	0.359	68.9	3	0.0		
		SEUS	15	0.588	76.4	-4	-0.2		
		SERS	6	0.876	74.4	-107	-0.3		DEPTH TOO SHALLOW
		SESN	13	0.109	79.5	-3	-0.2		
11/08	14:53:56.3	PDE	10						
		SEUS	5	0.367	102.0	32	0.8		
		SESN	5	7.359	290.6	32	0.6		POOR LOCATION
11/08	17:48:03.7	PDE	24						
		QED	8	0.447	164.4	-1	0.3		
		SEUS	8	0.290	339.1	27	0.5		
		SERS	5	1.449	295.3	0	-0.2		
		SESN	9	0.318	336.3	28	0.3		
11/09	02:23:38.3	PDE	37						
		QED	10	0.023	43	0	0.1		
		SEUS	6	0.103	70.9	1	0.6		
		SERS	8	0.182	66.1	30	0.0		
		SESN	10	0.141	76.1	1	0.3		
11/09	06:58:07.9	PDE	16						
		QED	10	0.077	252.5	0	0.0		
11/09	09:23:10.9	PDE	28						
		QED	5	0.202	122.5	27	-0.5		
		SEUS	6	0.625	260.0	27	0.0		
		SESN	6	0.579	255.2	27	-0.2		
11/09	11:22:18.5	PDE	7						
		SEUS	5	0.078	350.1	-29			
		SESN	4	0.093	316.0	-20			NAUSGS.
11/09	12:26:43.3	PDE	6						
		SESN	4	1.617	127.0	-3			NAUSGS.
11/09	13:19:50.3	PDE	21						
		SEUS	5	0.444	61.8	3	0.2		
		SESN	4	0.306	49.2	-39	0.4		NAUSGS.
11/09	19:49:59.0	PDE	28						
		SEUS	9	0.267	77.3	32	-.3		
		SERS	7	0.053	56.9	30	-0.2		
		SESN	9	0.123	66.7	32	0.3		
11/09	19:51:40.2	PDE	9						
		QED	7	0.006	212.5	0			
11/10	01:40:08.6	PDE	16						
		SERS	4	4.658	176.0	86	-0.1		NAUSGS
		SESN	7	4.936	2.4	-615	0.4		DEPTH TOO DEEP
11/10	06:21:06.0	PDE	58						

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MS	COMMENTS
		QED	11	0.208	31.3	-27	-0.2		
		SEUS	15	0.259	81.4	91	0.1		
		SERS	9	0.041	169.0	10	0.4		
		SESN	14	0.181	200.0	18	0.3		
11/10	07:55:31.6	PDE	109						
		QED	21	0.150	176.0	0	0.0		
		SEUS	22	0.114	90.0	-7	0.6		
		SERS	13	0.426	43.7	7	0.1		
		SESN	21	0.057	90.0	9	0.5		
11/10	08:30:57.8	PDE	32						
		SEUS	12	1.273	257.6	-104	0.5		DEPTH TOO DEEP
		SERS	11	0.420	105.7	30	-0.1		
		SESN	15	0.092	99.3	14	0.2		
11/10	08:40:30.4	PDE	96						
		QED	39	0.005	164.1	0	0.0		
		SEUS	21	0.062	304.6	9	0.4		
		SERS	17	0.451	8.0	7	0.0		
		SESN	23	0.121	342.4	9	0.2		
11/10	11:12:17.2	PDE	6						
		SEUS	5	0.034	331.9	-13			
		SESN	5	0.091	353.9	-18			
11/10	14:40:04.3	PDE	15						
		SEUS	5	4.810	331.6	-380	0.7		DEPTH TOO DEEP
		SERS	6	0.243	129.4	0	-0.1		
		SESN	5	11.394	356.1	0	0.5		MISLOCATED
11/10	16:29:08.2	PDE	31						
		QED	10	0.372	299.7	45	-		
		SEUS	7	6.235	334.2	-92	0.4		POOR LOCATION
		SERS	7	0.149	38.0	45	0.4		
		SESN	9	0.228	353.0	41	0.4		
11/10	16:40:00.0	PDE	29						
		QED	17	0.039	200.3	0	-0.4		
		SEUS	7	0.142	45.5	-25	0.7		
		SESN	7	0.177	304.3	-28	0.6		
11/10	23:08:21.7	PDE	36						
		QED	14	0.058	33.3	22	0.0		
		SEUS	11	0.256	268.7	-66	0.4		
		SERS	7	1.667	20.2	22	0.0		
		SESN	12	0.390	258.9	-94	0,3		
11/11	00:42:00.1	PDE	22						
		QED	14	0.066	261.3	0	0.0		
		SEUS	11	0.250	76.1	32	0.3		
		SERS	13	0.288	93.9	0	0.0		
		SESN	16	0.302	78.5	21	0.1		
11/11	02:29:23.9	PDE	13						
		QED	11	0.012	174.0	0			
		SEUS	5	0.857	45.9	-64			
		SESN	5	0.839	46.6	9			

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
11/11	03:11:14.7	PDE	12						
		QED	9	0.426	136.3	0	-0.2		
11/11	04:33:57.3	PDE	86						
		QED	43	0.468	23.8	79	0.1		
		SEUS	15	0.243	162.7	22	0.3		
		SERS		1.540	171.5				
		SESN	18	0.157	56.5	38	0.2		
11/11	09:42:43.8	PDE	82						
		QED	40	0.077	69.4	0	-0.1	0.0	
		SEUS	21	0.226	42.8	32	0.2		
		SESN	21	0.196	41.9	32	0.1		
11/11	20:31:08.4	PDE	9						
		SEUS	7	1.204	17.8	596	-0.1		DEPTH TOO SHALLOW
		SESN	8	1.243	15.8	597	-0.3		DEPTH TOO SHALLOW
11/11	23:07:25.1	PDE	83						
		QED	36	0.034	29.3	0	0.1	0.3	
		SEUS	21	0.076	340.3	24	0.2		
		SESN	18	0.097	317.8	5	0.2		
11/12	00:42:35.3	PDE	12						
		SEUS	5	0.231	232.1	16	0.7		
		SESN	4	0.220	298.9	-9	0.7		NAUSGS.
11/12	01:06:24.1	PDE	81						
		QED	38	0.078	276.6	0	0.1	0.1	
		SEUS	24	0.159	54.3	3	0.1		
		SERS	21	0.063	351.9	0	0.0	0.1	
		SESN	22	0.105	28.5	3	0.1		
11/12	02:42:15.8	PDE	42						
		QED	18	0.093	98.6	0	0.3		
		SEUS	11	0.145	82.1	32	0.6		
		SERS	7	0.380	88.5	0	0.2		
		SESN	7	0.182	145.0	-102	0.5	0.4	DEPTH TOO DEEP
11/12	03:32:45.6	PDE	20						
		QED	7	0.110	197.1	0	0.2	0.0	
		SEUS	9	0.139	173.9	-46	0.5		
		SERS	6	0.214	218.4	0	0.1		
		SESN	7	0.111	192.8	3	0.4	-0.5	
11/12	04:49:17.7	PDE	10						
		SEUS	5	0.344	240.4	-218	0.3		DEPTH TOO DEEP
		SESN	5	0.304	246.6	-218	0.3		DEPTH TOO DEEP
11/12	05:43:29.0	PDE	16						
		QED	6	0.335	241.4	19	0.2		
		SEUS	7	0.647	296.3	-208	0.1		DEPTH TOO DEEP
		SERS	6	0.452	108.2	-55	0.1		
		SESN	7	0.552	290.9	-196	-0.1		DEPTH TOO DEEP
11/12	10:51:47.0	PDE	72						
		QED	41	0.184	6.8	75	0.0		
		SEUS	11	0.439	271.6	-172	0.0		DEPTH TOO DEEP
		SERS	9	0.549	341.3	-81	0.2		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SESN	13	0.228	48.2	13	-0.1		
11/12	12:04:56.9	PDE	18						
		SEUS	9	0.548	75.2	153	0.2		DEPTH TOO SHALLOW
		SESN	9	0.519	75.4	153	0.0		DEPTH TOO SHALLOW
11/12	12:31:13.9	PDE	23						
		QED	7	0.188	310.2	0	0.0		
		SEUS	6	0.396	46.4	32	0.2		
		SESN	5	0.515	308.8	32	0.3		
11/12	13:07:58.7	PDE	56						
		QED	34	0.348	333.5	0	0.1	0.1	
		SEUS	14	0.672	316.9	30	0.1		
		SERS	11	1.143	267.0	30	-0.2		
		SESN	9	0.407	320.2	14	0.2	0.1	
11/12	18:47:42.5	PDE	45						
		QED	16	1.090	286.9	-23	0.2		
		SEUS	14	0.136	353.8	22	0.4		
		SERS	13	0.186	107.1	23	0.1		
		SESN	13	0.114	72.0	22	0.2		
11/12	22:56:29.8	PDE	9						
		QED	6	0.003	72.7	0	0.1		
		SEUS	6	1.363	223.3	32	0.3		
		SERS	7	1.211	257.3	0	-0.2		
		SESN	6	1.352	222.8	32	0.2		
11/13	02:02:19.2	PDE	25						
		QED	15	0.315	222.7	-4	0.0		
		SEUS	6	0.864	65.6	16	0.5		
		SESN	7	0.211	21.1	10	0.6		
11/13	03:11:14.4	PDE	7						
		QED	7	0.007	342.9	0			
11/13	06:40:34.7	PDE	39						
		QED	8	0.029	292.7	0	-0.3		
		SEUS	7	0.312	66.7	19	0.6		
		SERS	14	0.198	51.6	30	-0.1		
		SESN	7	0.100	51.1	-117	0.7		DEPTH TOO DEEP
11/13	07:20:25.8	PDE	18						
		SEUS	5	0.397	40.7	62	0.2		
		SESN	5	0.3012	0.0	48	0.0		
11/13	09:18:09.2	PDE	13						
		SEUS	6	0.186	66.3	-17	0.5		
		SERS	8	0.138	62.0	33	0.0		
		SESN	5	1.216	205.5	-474	0.4		DEPTH TOO DEEP
11/13	13:08:26.4	PDE	9						
		SEUS	6	0.667	240.6	32	0.7		
		SERS	7	4.317	332.2	0	0.1		
		SESN	7	5.606	16.8	-231	0.6		POOR LOCATION
11/13	14:03:17.1	PDE	45						
		SEUS	14	0.894	246.4	-50	0.4		
		SERS	11	1.373	261.7	-6	-0.2		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SESN	13	0.805	246.7	-23	0.3		
11/13	16:23:44.1	PDE	11						
		SEUS	5	4.861	43.6	-10			
		SESN	5	4.849	43.1	9			
11/14	04:08:15.2	PDE	23						
		SEUS	7	1.257	220.8	-230	0.8		DEPTH TOO DEEP
		SERS	8	1.407	217.3	-217	0.6		DEPTH TOO DEEP
		SESN	8	0.552	37.3	26	0.7		
11/14	05:50:14.4	PDE	139						
		QED	37	0.188	36.5	91	0.0		
		SEUS	27	0.044	213.0	-79	0.0		
		SERS	28	0.023	11.8	26	0.1		
		SESN	28	0.192	42.2	3	0.0		
11/14	10:01:33.6	PDE	20						
		SEUS	10	1.449	337.4	-211	0.6		DEPTH TOO DEEP
		SERS	9	2.041	160.5	39	0.1		
		SESN	11	0.437	114.3	71	0.3		
11/14	10:38:52.2	PDE	14						
		SEUS	8	0.724	251.9	41	0.6		
		SERS	8	0.345	244.8	9	0.2		
11/14	10:55:36.7	PDE	57						
		QED	10	0.174	354.1	119	-0.2		DEPTH TOO SHALLOW
		SEUS	21	0.211	289.0	110	0.1		DEPTH TOO SHALLOW
		SERS	17	0.128	250.8	119	-0.2		DEPTH TOO SHALLOW
		SESN	23	0.232	287.2	148	0.0		DEPTH TOO SHALLOW
11/14	11:58:21.4	PDE	11						
		SEUS	4	0.147	226.9	32	0.7		NAUSGS.
		SESN	5	0.040	343.5	32	0.5		
11/14	12:55:37.9	PDE	17						
		SEUS	8	0.157	296.0	24	0.4		
		SERS	8	0.321	84.7	30	-0.2		
		SESN	9	0.434	89.9	25	0.3		
11/14	14:53:50.5	PDE	41						
		SEUS	9	0.314	5.12	-27	0.4		
		SERS	7	0.781	12.6	-23	0.4		
		SESN	9	0.337	22.0	-23	0.3		
11/14	19:14:06.6	PDE	18						
		SEUS	5	0.237	92.6	-96	1.0		
		SERS	5	0.153	90.3	22	0.4		
		SESN	6	0.102	73.5	36	0.9		
11/14	19:40:07.6	PDE	5						
		SEUS	4	1.022	179.2	-27	0.7		NAUSGS.
		SESN	5	0.995	175.6	-39	0.6		
		SEUS	8	0.157	296.0	25	0.4		
11/15	02:06:30.2	PDE	10						
		QED	10	0.283	269.7	0			
11/15	02:46:22.4	PDE	248						
		QED	51	0.033	233.5	-3	0.2		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SEUS	28	0.126	157.1	116	-0.3		DEPTH TOO SHALLOW
		SERS	23	0.363	112.1	94	-0.3		DEPTH TOO SHALLOW
		SESN	33	0.190	83.1	117	0.0		DEPTH TOO SHALLOW
11/15	05:52:30.3	PDE	142						
		QED	44	0.165	321.2	0	0.0		
		SEUS	16	0.125	65.5	337	-0.1		DEPTH TOO SHALLOW
		SERS	25	0.540	287.3	-3	0.2		
		SESN	8	1.439	63.0	76	0.3		
10/15	07:40:26.8	PDE	15						
		SEUS	10	0.100	115.9	10	0.2		
		SERS	9	0.180	117.6	37	0.0		
		SESN	12	0.151	123.7	6	-0.2		
10/15	08:00:27.2	PDE	19						
		SEUS	4	7.554	30.0	20	0.7		POOR LOCATION-NAUSGS.
		SESN	6	0.819	162.8	38	0.4		
11/15	10:15:07.7	PDE	11						
		SEUS	8	1.574	76.4	538	0.4		DEPTH TOO SHALLOW
		SERS	6	4.172	325.2	39	0.3		
		SESN	10	1.231	80.0	538	0.2		DEPTH TOO SHALLOW
11/15	12:03:47.0	PDE	6						
		SEUS	5	0.044	50.0	3			
		SESN	5	0.062	39.6	3			
11/15	17:24:05.9	PDE	21						
		SEUS	11	0.194	285.8	-3	0.4		
		SESN	13	0.218	289.4	-8	0.5		
11/15	20:20:19.2	PDE	10						
		SEUS	9	0.647	18.3	295	0.1		DEPTH TOO SHALLOW
		SESN	11	0.929	31.4	446	-0.2		DEPTH TOO SHALLOW
11/16	03:54:13.8	PDE	76						
		QED	26	0.014	352.4	23	0.1		
		SEUS	18	0.169	35.0	593	-0.1		DEPTH TOO SHALLOW
		SERS	12	2.069	123.6	620	-0.4		DEPTH TOO SHALLOW
		SESN	13	2.908	299.7	518	0.0		DEPTH TOO SHALLOW
11/16	04:31:55.7	PDE	26						
		SEUS	13	1.627	66.9	338	-0.2		DEPTH TOO SHALLOW
		SESN	13	1.643	65.7	338	-0.4		DEPTH TOO SHALLOW
11/16	05:01:57.9	PDE	13						
		SEUS	5	2.076	246.5	117	0.5		DEPTH TOO SHALLOW
		SESN	4	2.309	244.4	90	0.5		DEPTH TOO SHALLOW-NAUSGS
11/16	06:55:00.5	PDE	54						
		QED	19	0.188	4.7	2	0.0		
		SEUS	15	0.237	35.3	2	0.3		
		SERS	8	0.145	4.2	15	-0.1		
		SESN	13	0.275	45.2	2	0.2		
11/16	08:56:02.6	PDE	24						
		QED	9	0.089	78.9	-6	0.1		
		SEUS	12	0.151	342.8	-12	-0.2		
		SESN	11	0.137	24.9	-10	-0.3		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MS	COMMENTS
11/16	09:30:24.9	PDE	23						
		SEUS	9	0.171	62.7	-2	-1.0		
		SERS	5	1.863	18.5	0	0.1		
		SESN	6	16.881	221.3	11	0.4		MISLOCATED
11/16	20:08:34.4	PDE	16						
		SEUS	9	0.252	321.9	29	0.5		
		SERS	8	1.026	302.7	-10	0.0		
		SESN	9	0.320	318.2	20	0.4		
11/17	00:27:55.5	PDE	52						
		QED	20	0.046	298.4	-1	0.0		
		SEUS	12	0.093	41.5	126	0.2		DEPTH TOO SHALLOW
		SESN	12	0.240	65.5	126	0.1		DEPTH TOO SHALLOW
11/17	01:31:34.5	PDE	21						
		SEUS	4	12.790	274.7	18	0.7		MISLOCATED-NAUSGS.
		SERS	5	0.397	41.4	67	-0.2		
		SESN	7	0.132	191.8	-113	0.5		DEPTH TOO DEEP
11/17	02:36:01.9	PDE	19						
		SEUS	4	0.562	290.5	-186	0.6		DEPTH TOO DEEP-NAUSGS
		SESN	5	0.182	306.2	-103	0.2		DEPTH TOO DEEP
11/17	04:38:02.2	PDE	7						
		SEUS	5	0.244	214.6	9	0.2		
		SESN	5	0.233	188.6	9	0.2		
11/17	06:49:30.0	PDE	232						
		QED	61	0.040	24.8	0	-0.2	0.1	
		SEUS	38	0.105	52.6	8	0.3		
		SERS	27	0.038	160.0	5	-0.3		
		SESN	36	0.130	29.1	10	0.1		
11/17	07:27:11.1	PDE	53						
		QED	18	0.222	35.5	0	0.2		
		SEUS	15	0.209	49.7	32	0.6		
		SERS	10	0.344	51.5	0	0.1		
		SESN	14	0.315	49.4	14	0.4		
11/17	09:03:20.7	PDE	49						
		QED	16	0.048	321.3	-14	0.1		
		SEUS	22	0.176	22.3	-1	0.3		
		SERS	9	0.383	41.7	-20	-0.3		
		SESN	23	0.158	43.3	-4	0.1		
11/17	10:20:59.6	PDE	155						
		QED	53	0.066	352.3	9	0.0	0.0	
		SEUS	37	0.155	332.0	41	0.3		
		SERS	24	0.065	305.0	9	-0.1	0.0	
		SESN	31	0.228	330.1	41	0.1	0.1	
11/17	11:12:28.8	PDE	122						
		QED	40	0.038	259.4	23	-0.1		
		SEUS	29	0.096	319.5	55	0.4		
		SERS	18	0.335	145.6	23	0.0		
		SESN	24	0.154	354.5	53	0.1		
11/17	11:45:10.8	PDE	17						

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SEUS	8	0.277	96.0	173	0.8		DEPTH TOO SHALLOW
		SERS	7	65.420	80.9	141	0.3		MISLOCACATED
		SESN	8	0.623	216.8	47	0.5		
11/17	12:12:59.1	PDE	111						
		QED	16	0.011	270.0	1	-0.1		
		SEUS	21	0.147	323.7	59	0.6		
		SERS	17	0.420	318.9	61	-0.3		
		SESN	17	0.173	286.3	63	0.3		
11/17	13:45:49.1	PDE	245						
		QED	49	0.098	317.9	3	-0.3		
		SEUS	35	0.912	301.2	422	-0.2		DEPTH TOO SHALLOW
		SERS	21	0.037	80.8	51	0.6		
		SESN	21	0.123	238.8	-27	-0.4		
11/17	18:27:50.9	PDE	177						
		QED	67	0.044	291.1	29	0.0		
		SEUS	31	0.076	347.2	42	-0.1		
		SERS	20	0.161	81.4	28	-0.1		
		SESN	23	0.134	84.0	0	-0.3		
11/17	18:59:14.6	PDE	80						
		QED	23	0.032	284.3	0	-0.1		
		SEUS	16	0.219	52.6	11	0.3		
		SERS	15	0.073	300.5	-33	-0.4		
		SESN	13	0.126	2.7	11	0.2		
11/17	19:19:58.8	PDE	69						
		QED	21	0.095	288.4	0	-0.1		
		SEUS	13	0.246	48.9	24	0.5		
		SERS	9	0.113	25.5	0	0.0		
		SESN	10	0.359	327.0	32	0.3		
11/177	20:58:01.8	PDE	16						
		QED	5	0.140	341.2	-23	-0.3		
		SEUS	7	0.505	35.4	-2	0.4		
		SESN	6	0.284	7.7	1	0.4		
11/17	22:43:38.9	PDE	57						
		QED	16	0.436	317.4	0	0.0	0.1	
		SEUS	16	0.852	232.1	32	0.6		
		SERS	11	0.846	232.6	0	-0.4		
		SESN	10	0.441	335.8	24	0.0		
11/18	00:49:11.7	PDE	154						
		QED	27	0.076	299.7	2	0.0		
		SEUS	21	0.315	62.2	229	0.2		DEPTH TOO SHALLOW
		SERS	22	0.158	4.8	40	0.1		
		SESN	16	0.117	1.8	65	0.3		
11/18	04:35:57.7	PDE	65						
		QED	17	0.220	124.1	70	0.1		
		SEUS	16	2.286	2.5	602	-0.1		DEPTH TOO SHALLOW
		SERS	7	7.908	19.7	587	-0.6		DEPTH TOO SHALLOW-POOR
		SESN	15	1.458	348.3	593	-0.3		DEPTH TOO SHALLOW
11/18	07:50:36.7	PDE	33						

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		QED	7	0.101	9.1	-0.4	0.0		
10/23	08:04:48.3	PDE	67						
		QED	27	0.124	337.7	0	-0.1	1.5	
		SEUS	22	0.014	152.6	13	0.4		
		SESN	19	0.829	309.3	25	0.3	1.7	
10/23	08:43:10.5	PDE	40						
		QED	11	1.030	240.6	0	0.0		
		SEUS	14	0.267	48.7	8	0.6		
		SERS	7	4.474	135.8	0	0.3		
		SESN	18	0.826	248.8	5	0.4		
10/23	11:12:32.7	PDE	19						
		SEUS	4	1.157	274.7	-142	0.6		DEPTH TOO DEEP-NAUSGS.
		SESN	5	1.140	276.2	-42	0.4		
10/23	13:41:08.0	PDE	16						
		QED	7	0.055	280.5	0	-0.3		
		SEUS	9	0.290	3.4	29	0.4		
		SESN	9	0.151	329.0	25	0.2		
10/23	18:53:11.4	PDE	15						
		SEUS	5	0.234	221.6	-49	-0.2		
		SESN	4	0.174	295.9	32	0.5		NAUSGS.
10/23	19:27:16.3	PDE	10						
		SEUS	4	2.842	133.7	580	0.0		DEPTH TOO SHALLOW-NAUSGS
		SERS	8	31.453	321.7	548	-0.4		MISLOCATED
		SESN	5	1.681	12.3	330	-0.2		DEPTH TOO SHALLOW
10/23	20:49:27.9	PDE	12						
		SESN	6	0.495	11.2	-14	0.4		
10/23	21:36:38.9	PDE	18						
		QED	6	0.1239	45.6	0	0.4		
		SEUS	5	2.093	177.6	32	0.1		
		SERS	5	1.718	192.9	0	0.0		
		SESN	5	0.129	129.3	32	0.2		
10/23	22:07:17.8	PDE	35						
		QED	19	0.169	79.4	0	0.0		
		SEUS	12	0.100	309.8	-25	0.4		
		SERS	7	0.345	279.1	-165	0.2		DEPTH TOO DEEP
		SESN	11	0.166	110.5	-12	0.4		
10/23	22:28:59.6	PDE	91						
		QED	16	0.346	334.4	9	-0.1		
		SEUS	17	0.027	163.2	-49	0.1		
		SERS	13	0.194	5.2	80	-0.2		
		SESN	18	0.276	9.7	93	0.0		
10/24	02:04:01.5	PDE	14						
		SEUS	5	1.427	47.8	32	0.2		
		SESN	5	1.979	60.8	-290	0.1		DEPTH TOO DEEP
10/24	02:28:58.4	PDE	45						
		QED	10	0.039	222.5	24	0.5		
		SEUS	7	0.988	184.7	154	0.4		
		SERS	8	0.919	239.3	15	-0.1		

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		QED	12	0.105	351.8	-23	0.0	0.0	
		SEUS	10	1.080	88.3	6	0.3		
		SERS	7	1.302	255.6	-23	-0.9		
		SESN	10	0.577	86.7	9	0.2		
11/18	08:29:19.9	PDE	28						
		SEUS	9	5.717	127.7	15	0.2		POOR LOCATION
		SERS	12	3.079	2.3	0	-0.8		
		SESN	7	0.200	27.6	16	0.2		
11/18	14:47:39.6	PDE	37						
		QED	15	0.072	175.1	0	-0.1		
		SEUS	16	0.503	17.5	-7	0.1		
		SERS	14	0.248	49.9	-23	-0.9		
		SESN	16	0.426	127.4	-7	-0.2		
11/18	20:20:32.9	PDE	10						
		QED	6	0.056	254.5	0	0.1		
		SEUS	8	0.272	99.4	3	0.2		
		SERS	8	0.235	281.1	-40	-0.8		
		SESN	8	0.093	292.1	-241	-0.2		DEPTH TOO DEEP
11/18	23:00:04.6	PDE	68						
		QED	16	0.156	238.9	30	-0.1		
		SEUS	19	0.128	271.8	31	-0.3		
		SERS	13	0.938	8.5	135	-0.4		DEPTH TOO SHALLOW
		SESN	19	0.168	274.8	30	-0.4		
11/18	23:18:53.7	PDE	28						
		QED	6	0.267	103.9	27	-0.1		
		SEUS	6	0.606	274.1	57	0.1		
		SESN	6	0.584	277.3	58	-0.1		
11/19	00:44:27.2	PDE	38						
		QED	14	0.211	348.5	-4	-0.1		
		SEUS	14	0.270	339.1	-16	0.1		
		SERS	10	1.338	217.4	167	0.0		DEPTH TOO SHALLOW
		SESN	14	0.490	250.1	69	-0.2		
11/19	04:10:41.8	PDE	162						
		QED	43	0.132	339.7	0	0.2	0.1	
		SEUS	33	0.222	357.7	32	0.2		
		SERS	25	0.163	21.7	0	-0.1	0.0	
11/19	04:54:48.3	PODE	23						
		QED	7	0.245	89.3	-13	0.0		
		SEUS	6	0.130	266.0	-13	0.5		
		SESN	7	0.095	313.8	-67	0.4		
11/19	12:06:37.7	PDE	157						
		QED	42	0.040	278.8	-5	-0.1		
		SEUS	38	0.136	57.0	58	0.0		
		SERS	26	0.065	351.2	29	-0.2		
		SESN	35	0.185	43.2	57	-0.1		
11/19	19:00:48.4	PDE	40						
		SEUS	8	1.125	77.9	437	0.3		DEPTH TOO SHALLOW
		SESN	9	1.383	77.3	556	0.0		DEPTH TOO SHALLOW

FEB DIFFERENCES TO PDE

DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MS	COMMENTS
11/19	19:45:38.2	PDE	56						
		QED	13	0.142	50.8	13	-0.1		
		SEUS	21	0.222	75.9	53	0.4		
		SERS	18	0.202	80.3	-26	0.2		
		SESN	21	0.220	74.7	28	0.2		
11/19	20:45:42.4	PDE	8						
		SEUS	3	0.732	346.3	32	0.9		NAUSGS.
11/19	23:08:35.9	PDE	63						
		QED	13	0.106	240.7	-10	0.2		
		SEUS	14	0.526	350.0	70	0.6		
		SERS	15	0.255	303.2	38	0.0		
		SESN	15	0.560	230.3	46	0.3		
11/20	02:54:19.0	PDE	10						
		SEUS	5	0.052	167.1	-34	0.5		
11/20	08:15:16.0	PDE	273						
		QED	33	0.042	146.6	0	-0.1		
		SEUS	31	0.371	327.9	186	0.1		DEPTH TOO SHALLOW
		SERS	34	0.249	34.6	52	0.2		
		SESN	31	0.191	345.5	52	0.1		
11/20	08:37:56.6	PDE	16						
		SESN	10	0.831	33.6	32	-0.2		
11/20	09:56:27.3	PDE	35						
		SEUS	12	0.523	316.6	204	0.3		DEPTH TOO SHALLOW
		SERS	9	0.247	53.8	76	0.1		
		SESN	15	0.166	358.7	55	-0.1		
11/20	11:31:39.6	PDE	57						
		QED	10	0.529	357.4	-77	-0.1		
		SEUS	16	0.525	324.8	186	0.2		DEPTH TOO SHALLOW
		SERS	15	0.192	352.6	43	0.3		
		SESN	19	0.192	7.7	-11	0.0		
11/20	14:26:28.0	PDE	16						
		SEUS	5	0.629	238.9	32	0.8		
		SESN	5	0.260	230.3	26	0.7		
11/20	15:41:48.3	PDE	12						
		SEUS	8	2.516	193.4	88	0.2		
11/20	17:22:08.3	PDE	16						
		QED	10	0.702	349.4	0	-0.1		
		SEUS	9	1.510	295.2	-529	0.2		DEPTH TOO DEEP
		SERS	5	1.568	331.9	0	0.2		
		SESN	8	1.089	303.3	-334	0.2		DEPTH TOO DEEP
11/20	19:29:57.5	PDE	26						
		QED	6	0.171	98.7	0	-0.1		
		SEUS	14	1.759	10.4	-148	0.2		DEPTH TOO DEEP
		SERS	14	0.402	16.8	-27	-0.3		
		SESN	17	0.130	249.2	26	0.0		
11/20	19:39:11.9	PDE	14						
		SEUS	6	0.284	208.7	26	0.3		
		SERS	5	0.316	249.6	0	0.0		

FEB DIFFERENCES TO PDE

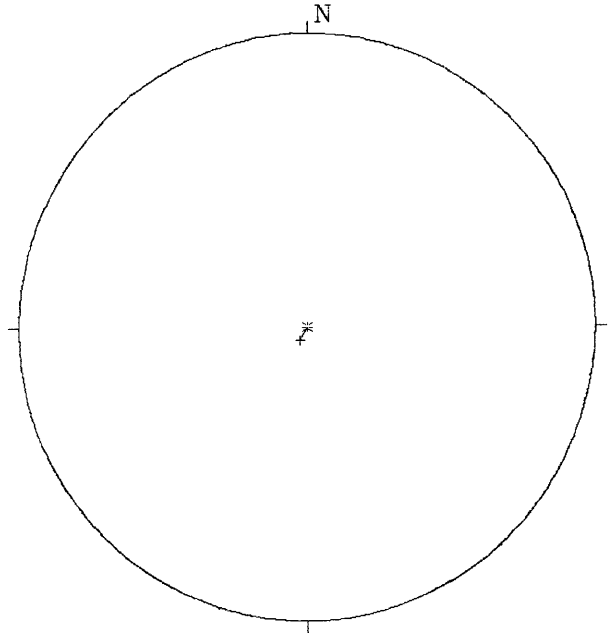
DATE	O.TIME	FEB	# STA.	DIST. DIFF.	AZ. DIFF.	DEP. DIFF.	MAG. DIFF. mb	MAG. DIFF. MS	COMMENTS
		SESN	4	0.332	243.1	-18	0.4		NAUSGS.
11/21	04:53:10.2	PDE	14						
		SESN	5	0.294	312.4	-2	-0.4		
11/21	07:54:07.3	PDE	13						
		SEUS	8	0.179	253.6	16	0.7		
		SERS	6	2.292	116.4	0	0.2		
		SESN	6	0.244	301.7	-20	0.7		
11/21	14:33:21.5	PDE	121						
		QED	31	0.015	113.7	0	0.0	0.0	
		SEUS	17	0.152	201.3	18	0.5		
		SERS	14	0.324	202.3	0	0.8	0.1	
		SESN	17	0.159	303.4	15	0.5		
11/21	14:47:40.5	PDE	11						
		SEUS	11	0.586	119.5	-239	0.0		
		SERS	10	0.559	90.1	-70	0.1		
		SESN	9	1.014	62.0	66	0.0		
11/21	16:03:43.2	PDE	52						
		QED	7	0.423	23.8	0	0.0		
		SEUS	6	0.330	16.4	1	0.3		
		SERS	7	0.442	326.1	0	0.1		
		SESN	6	0.318	4.5	0	0.2		
11/21	18:17:52.9	PDE	115						
		QED	26	0.052	38.9	0	-0.1		
		SEUS	12	0.250	6.7	23	0.5		
		SERS	14	0.063	342.0	0	0.0		
		SESN	14	0.240	7.0	-8	0.4		
11/21	19:16:58.3	PDE	15						
		SEUS	5	1.009	271.7	-444	0.4		DEPTH TOO DEEP
		SERS	5	0.205	69.5	0	0.0		
		SESN	4	0.039	72.0	10	0.5		NAUSGS.

APPENDIX II

The plots in Appendix II are azimuthal equa-distant projections of the PDE location with the QED and GSE data centers' locations plotted for the first seven days of this evaluation. These plots are presented as a pair of plots per event. The first plot has a 20° radius to show geography of the area. The second plot has a small radius to show the location differences. The center of these plots is the PDE location and is plotted with the symbol *. QED location uses the symbol +, SEUS symbol is X, SERS symbol is <>, and SESN symbol is □ .

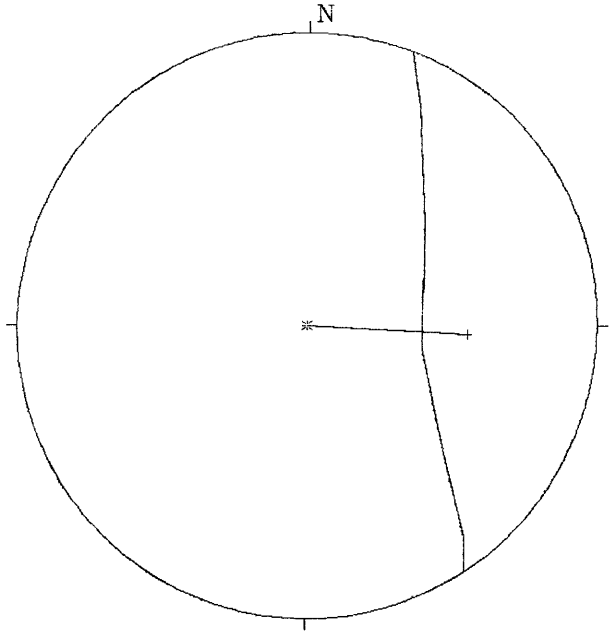
10220406 EVENT
CENTRAL CALIFORNIA
RAD.=10 deg. PDE LOC.

10220406 EVENT
CENTRAL CALIFORNIA
RADIUS=.2 deg.

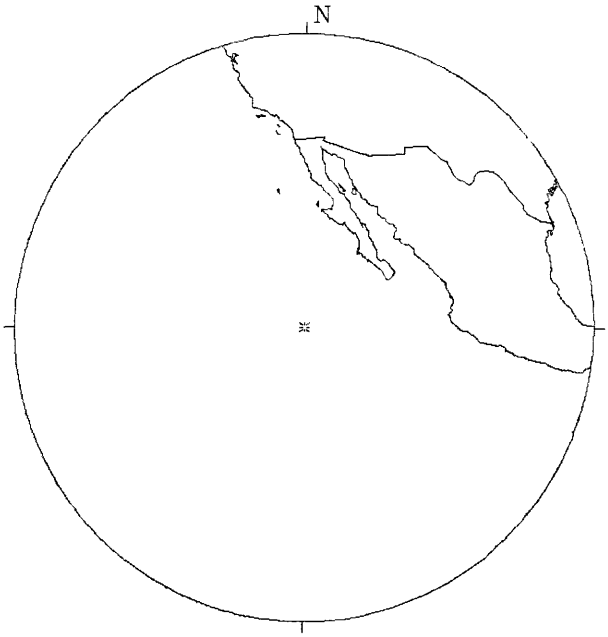


10220430 EVENT
NEAR COAST OF CENTRAL CHILE
RAD.=20 deg. PDE LOC.

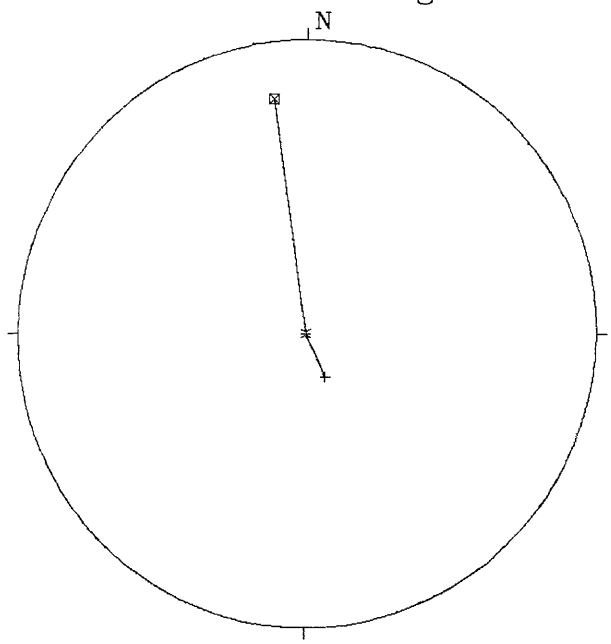
10220430 EVENT
NEAR COAST OF CENTRAL CHILE
RADIUS=.5 deg.



10220759 EVENT
EAST CENTRAL PACIFIC OCEAN
RAD.=20 deg. PDE LOC.

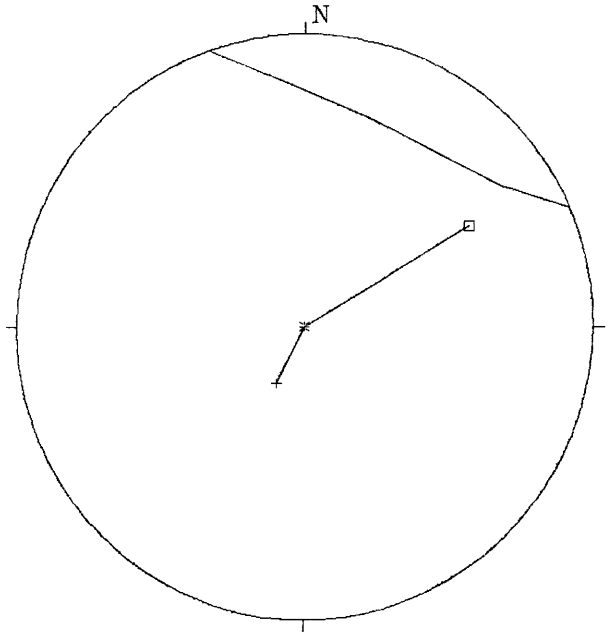


10220759 EVENT
EAST CENTRAL PACIFIC OCEAN
RADIUS=.5 deg.

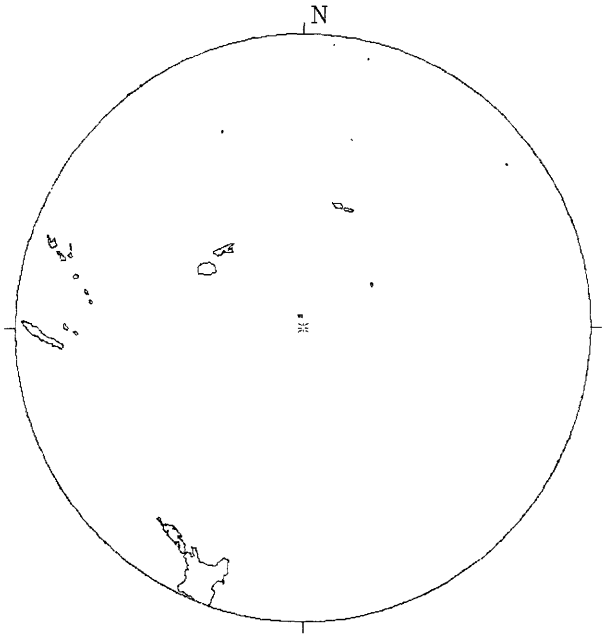


10221143 EVENT
NEAR COAST OF PERU
RAD.=20 deg. PDE LOC.

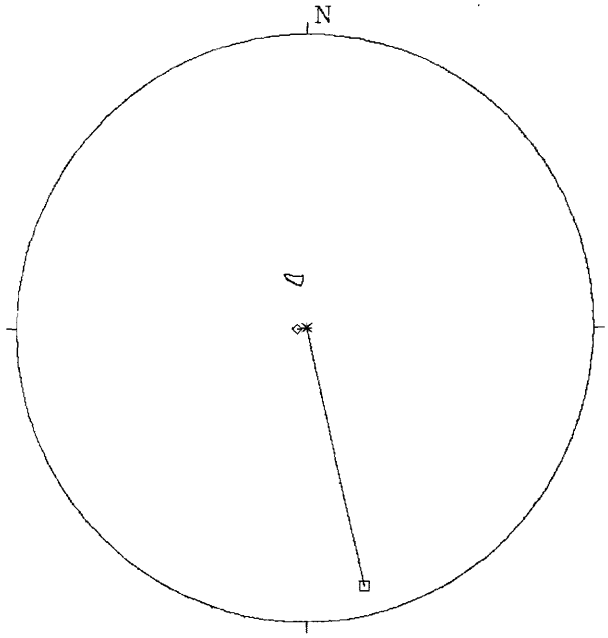
10221143 EVENT
NEAR COAST OF PERU
RADIUS=.5 deg.



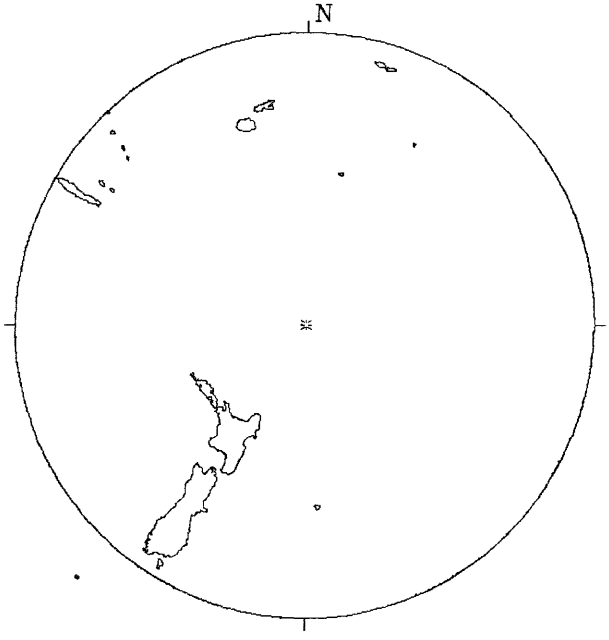
10221447 EVENT
TONGA ISLANDS REGION
RAD.=20 deg. SEUS LOC.



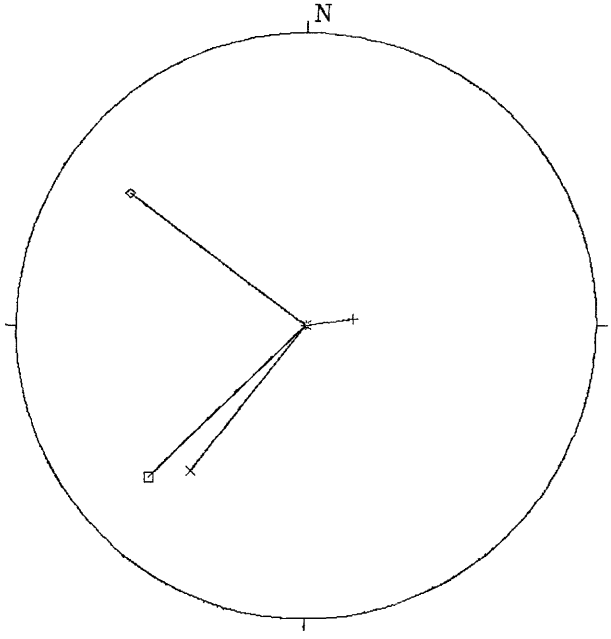
10221447 EVENT
TONGA ISLANDS REGION
RADIUS=5 deg.



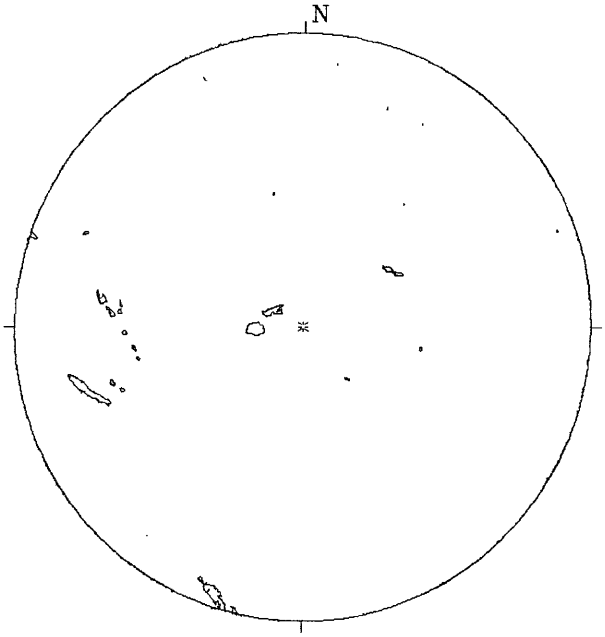
10221526 EVENT
KERMADEC ISLANDS REGION
RAD.=20 deg. PDE LOC.



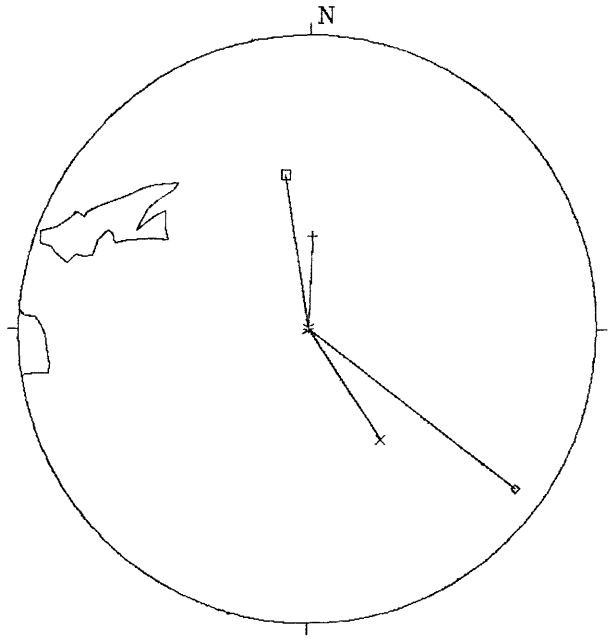
10221526 EVENT
KERMADEC ISLANDS REGION
RADIUS=1 deg.



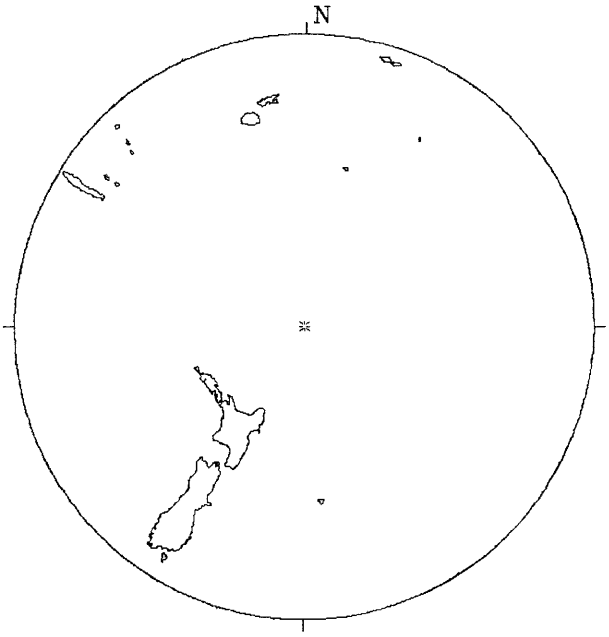
10221651 EVENT
FIJI ISLANDS REGION
RAD.=20 deg. PDE LOC.



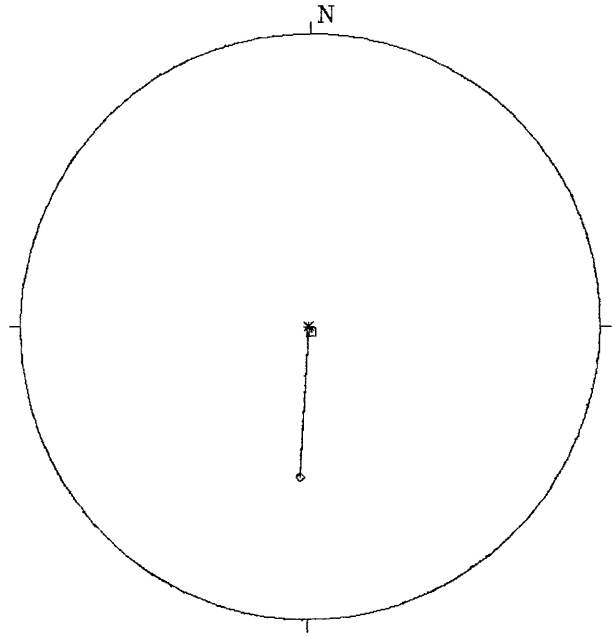
10221651 EVENT
FIJI ISLANDS REGION
RADIUS=3 deg.



10221801 EVENT
KERMADEC ISLANDS REGION
RAD.=20 deg. SEUS LOC.



10221801 EVENT
KERMADEC ISLANDS REGION
RADIUS=2 deg.

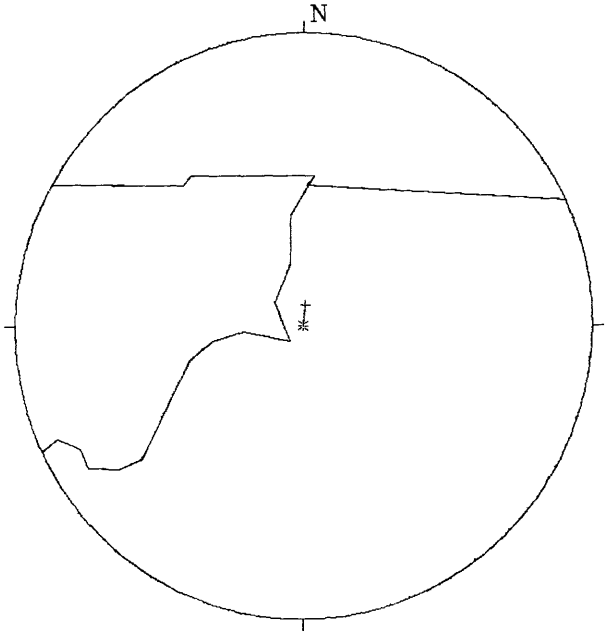


10221824 EVENT
TYRRHENIAN SEA
RAD.=20 deg PDE LOC.

10221824 EVENT
TYRRHENIAN SEA
RADIUS=8 deg.

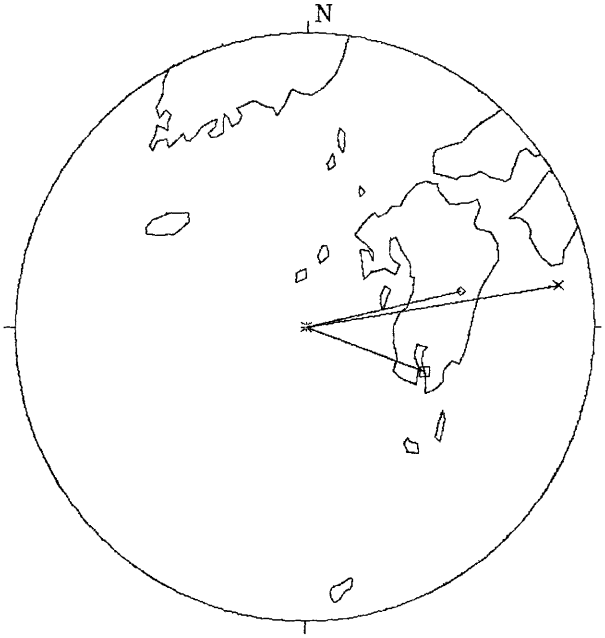
10221858 EVENT
NORTH CAROLINA
RAD.=20 deg. PDE LOC.

10221858 EVENT
NORTH CAROLINA
RADIUS=.5 deg.

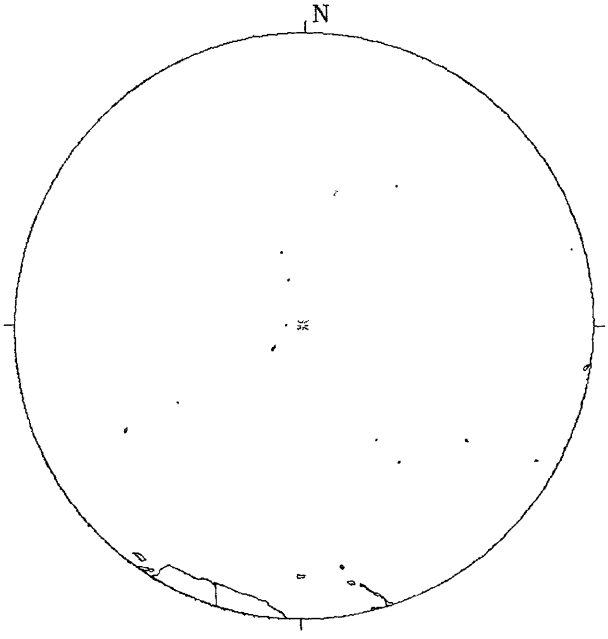


10221946 EVENT
EAST CHINA SEA
RAD.=20 deg. PDE LOC.

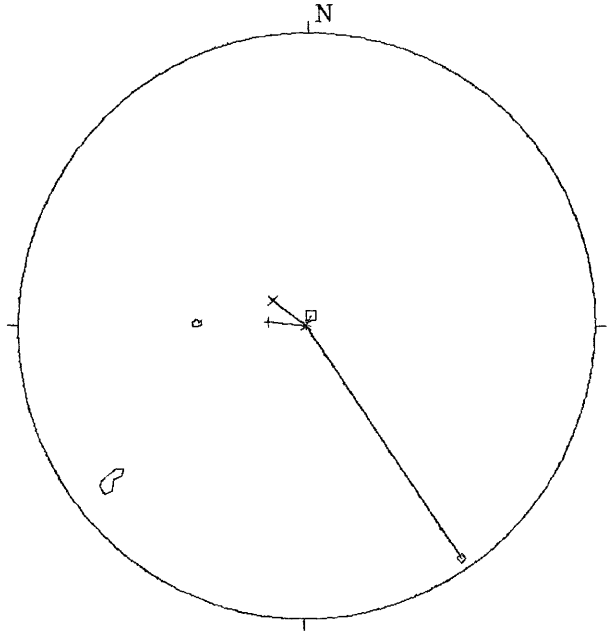
10221946 EVENT
EAST CHINA SEA
RADIUS=4 deg.



10222057 EVENT
MARIANA ISLANDS
RAD.=20 deg. PDE LOC.

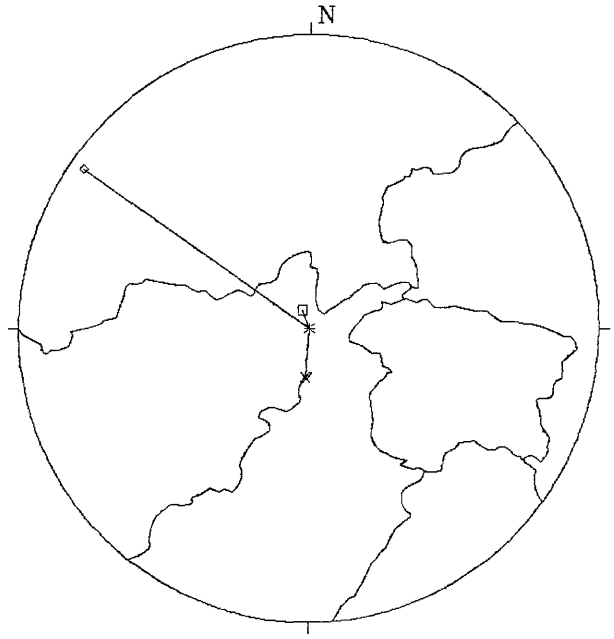


10222057 EVENT
MARIANA ISLANDS
RADIUS=3 deg.

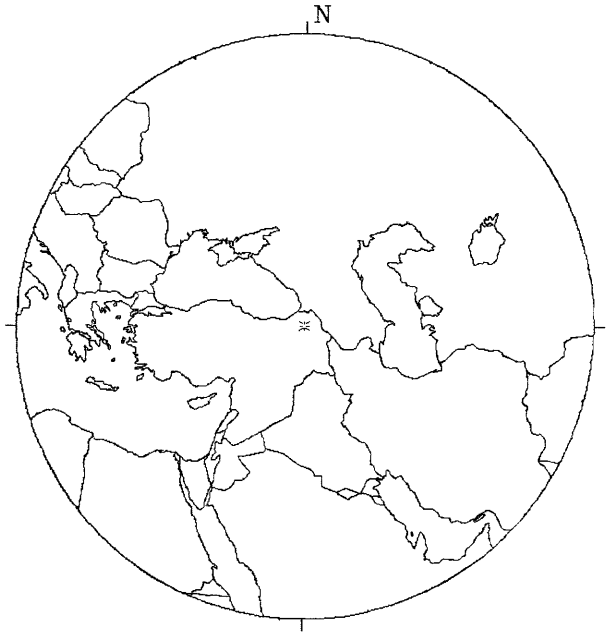


10222121 EVENT
AFGHANISTAN–USSR BORDER REG.
RAD.=20 deg. QED LOC.

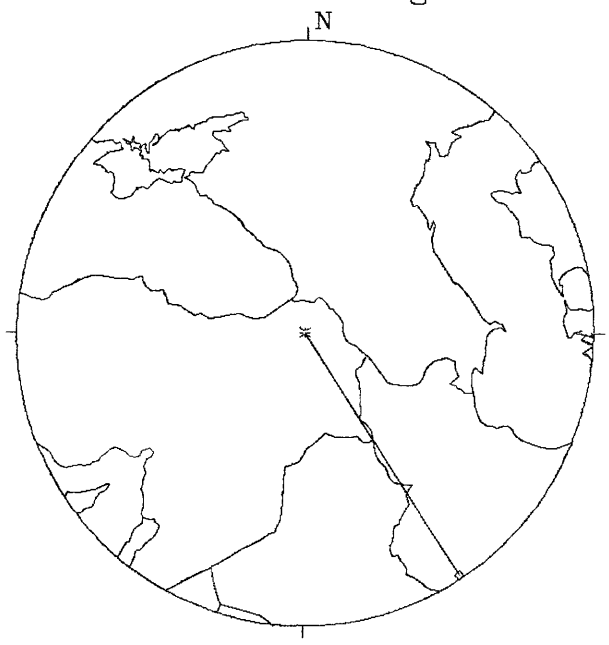
10222121 EVENT
AFGHANISTAN–USSR BORDER REG.
RADIUS=8 deg.



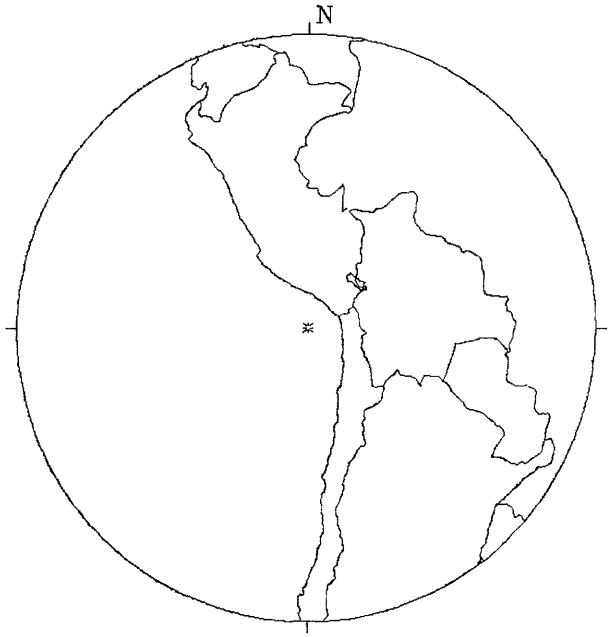
10222225 EVENT
TURKEY
RAD.=20 deg. PDE LOC.



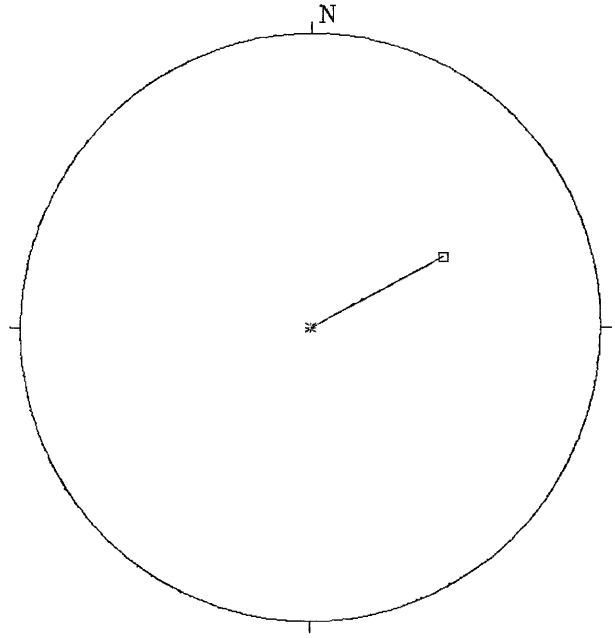
10222225 EVENT
TURKEY
RADIUS=9 deg.



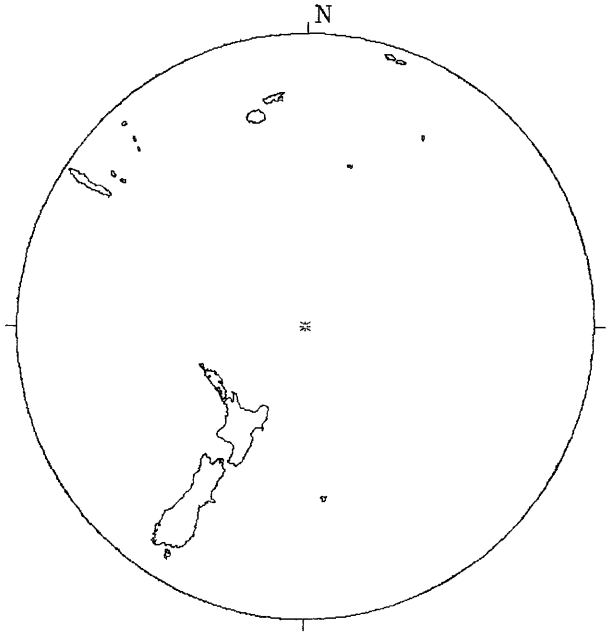
10230025 EVENT
OFF COAST OF N. CHILE
RAD.=20 deg. SEUS LOC.



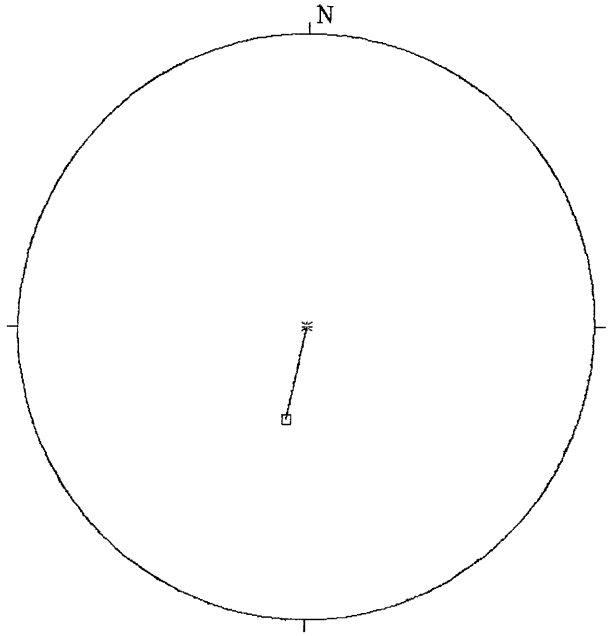
10230025 EVENT
OFF COAST OF N. CHILE
RADIUS=.5 deg.



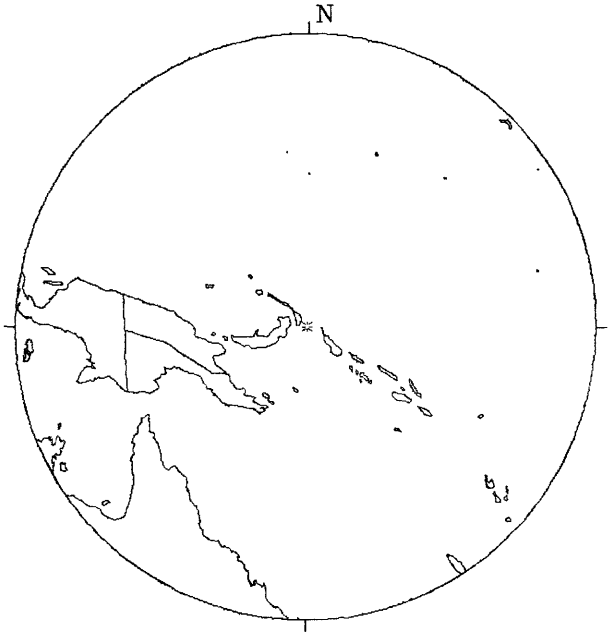
10230209 EVENT
SOUTH OF KERMADEC ISLANDS
RAD.=20 deg. SEUS LOC.



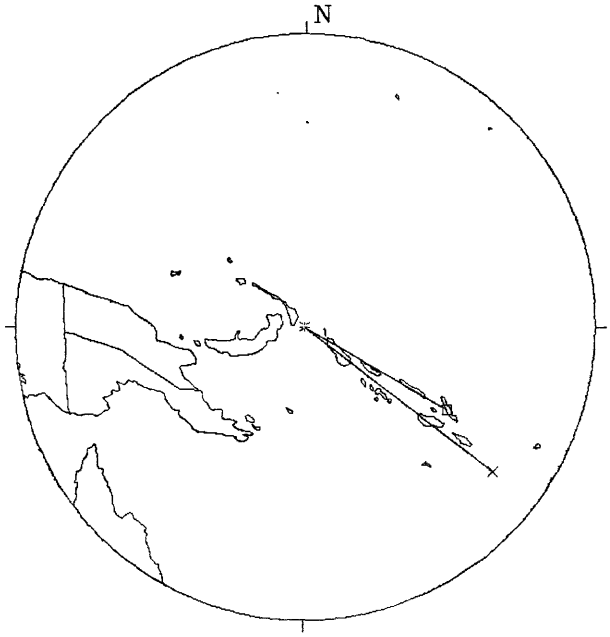
10230209 EVENT
SOUTH OF KERMADEC ISLANDS
RADIUS=.5 deg.



10230359 EVENT
NEW IRELAND REGION
RAD.=20 deg. PDE LOC.

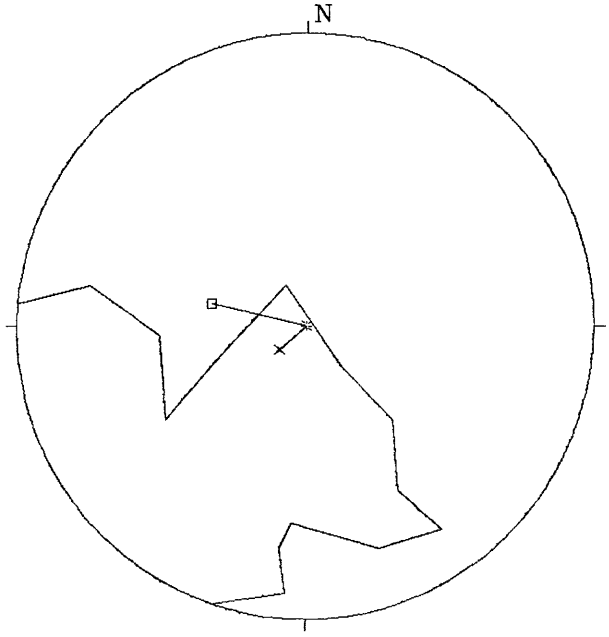


10230359 EVENT
NEW IRELAND REGION
RADIUS=15 deg.

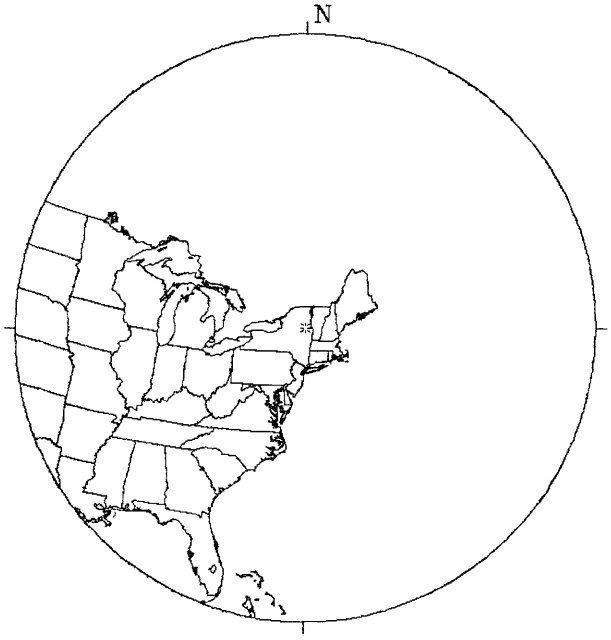


10230418 EVENT
SUMBAWA ISLANDS REGION
RAD.=20 deg. PDE LOC.

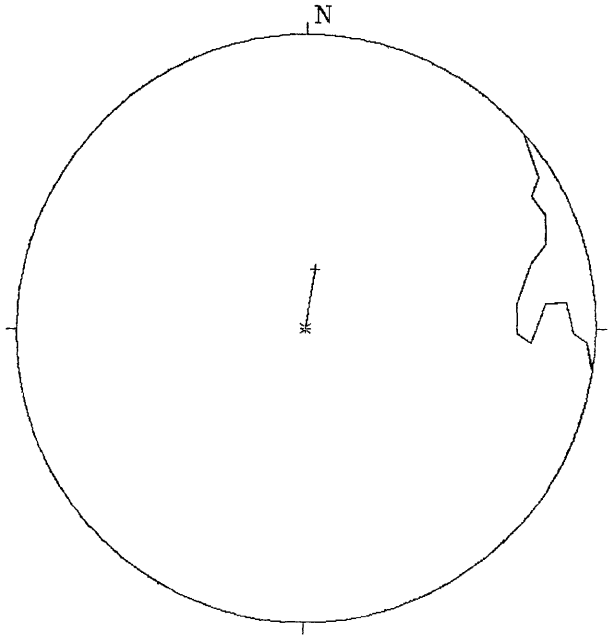
10230418 EVENT
SUMBAWA ISLANDS REGION
RADIUS=.5 deg.



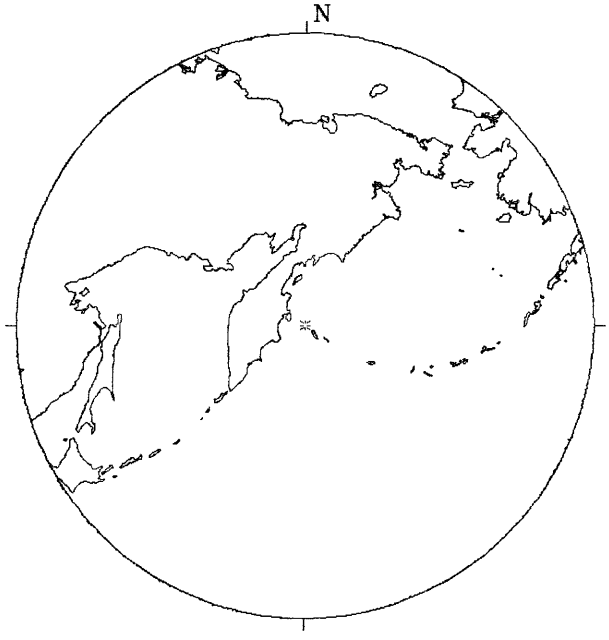
10230626 EVENT
NEW YORK
RAD.=20 deg. PDE LOC.



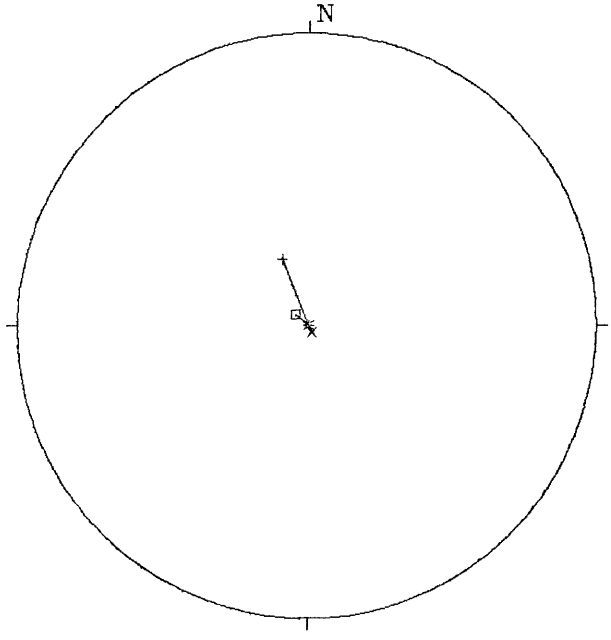
10230626 EVENT
NEW YORK
RADIUS=.5 deg.



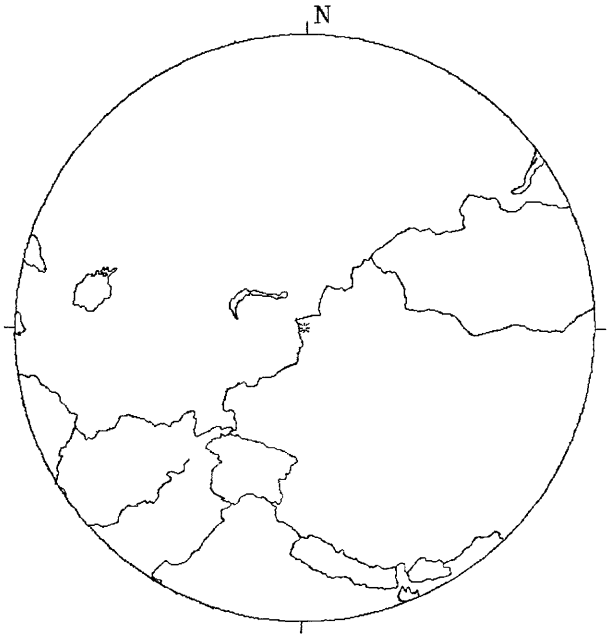
10230804 EVENT
KOMANDORSKY ISLANDS REGION
RAD.=20 deg. PDE LOC.



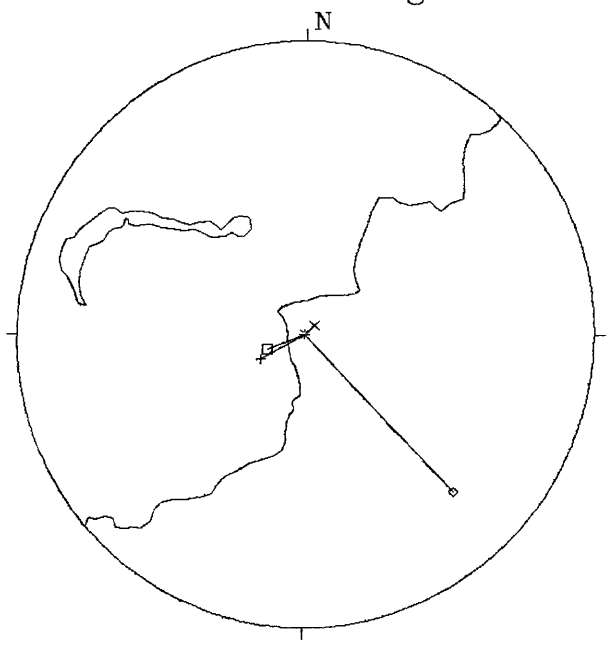
10230804 EVENT
KOMANDORSKY ISLANDS REGION
RADIUS=.5 deg.



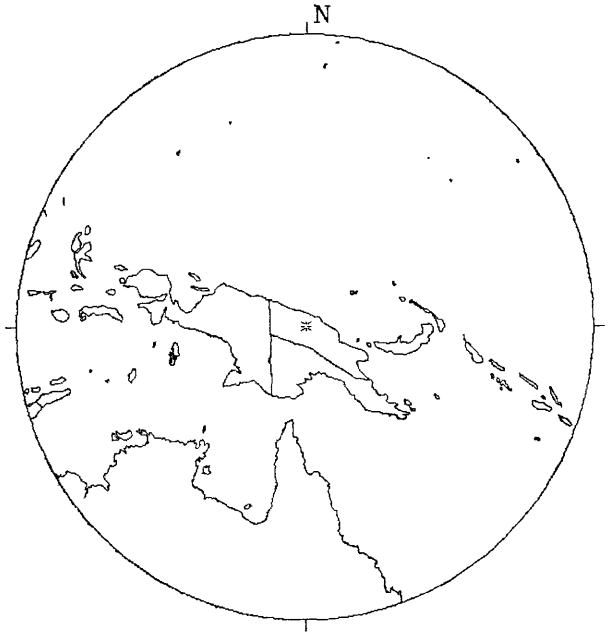
10230843 EVENT
KAZAKH–XINJIANG BORDER REG.
RAD.=20 deg. PDE LOC.



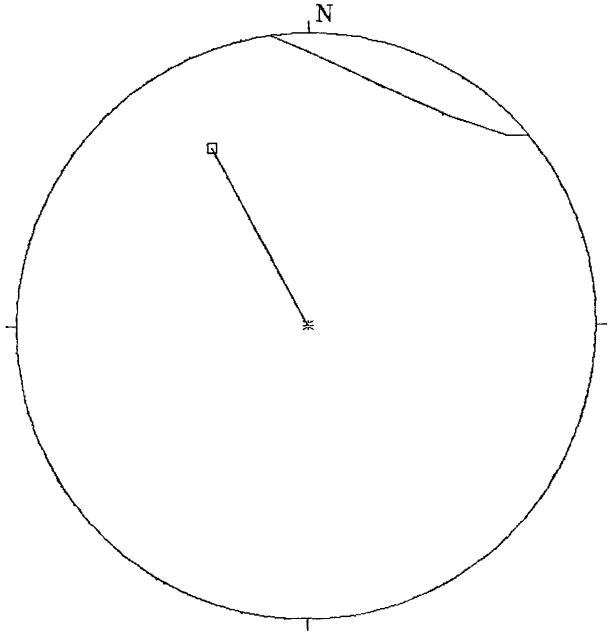
10230843 EVENT
KAZAKH–XINJIANG BORDER REG.
RADIUS=6.deg.



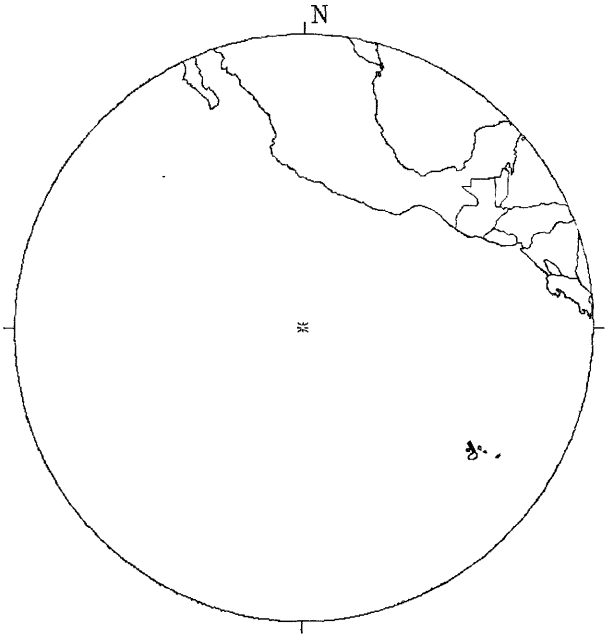
10231007 EVENT
PAPUA NEW GUINEA
RAD.=20 deg. PDE LOC.



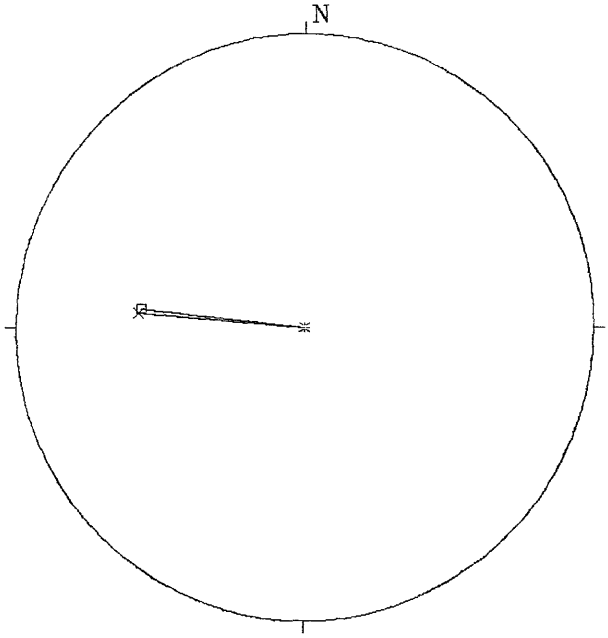
10231007 EVENT
PAPUA NEW GUINEA
RADIUS=1 deg.



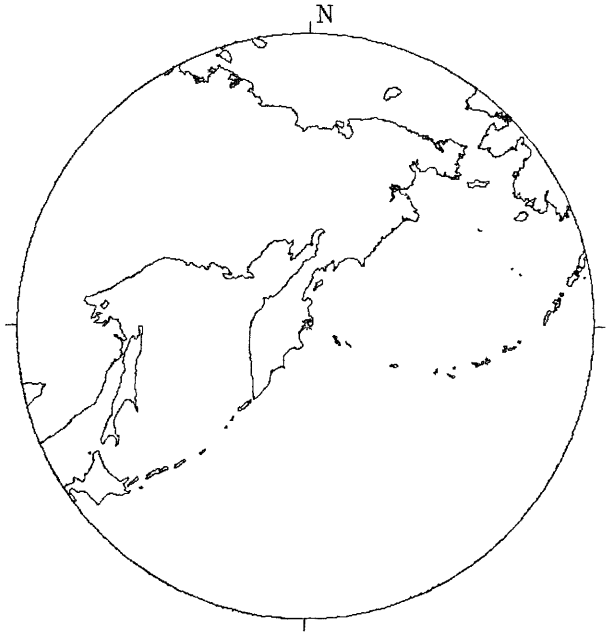
10231112 EVENT
OFF COAST OF MEXICO
RAD.=20 deg. PDE LOC.



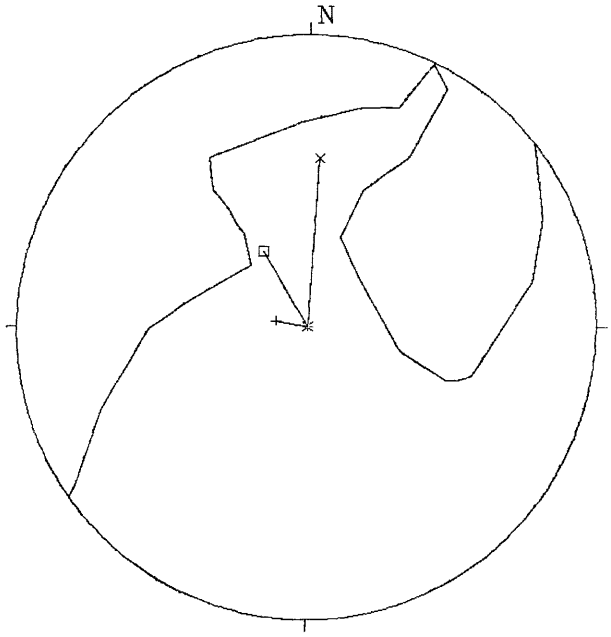
10231112 EVENT
OFF COAST OF MEXICO
RADIUS=2 deg.



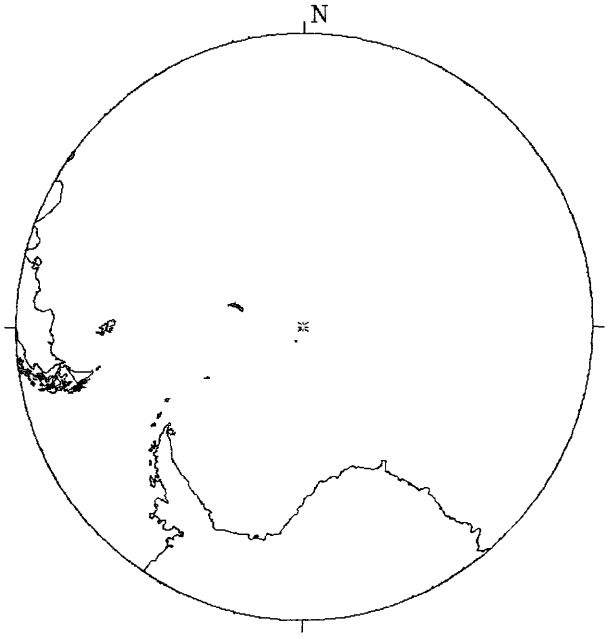
10231341 EVENT
NEAR E. COAST OF KAMCHATKA
RAD.=20 deg. PDE LOC.



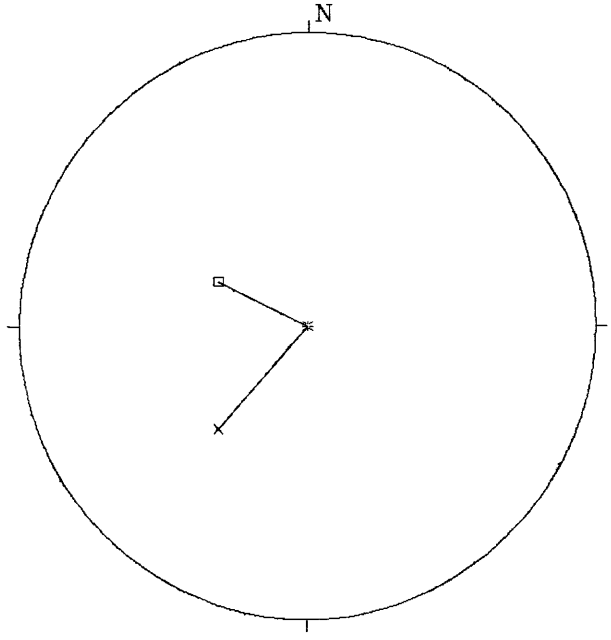
10231341 EVENT
NEAR E. COAST OF KAMCHATKA
RADIUS=.5 deg.



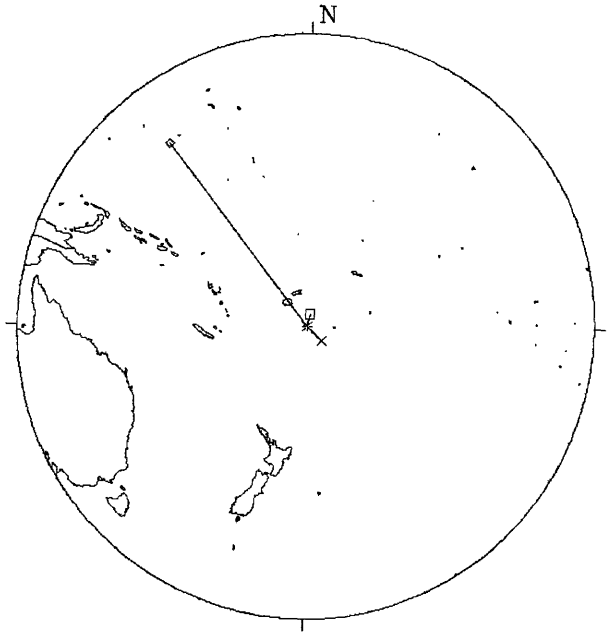
10231853 EVENT
SOUTH SANDWICH ISLANDS REG.
RAD.=30 deg. PDE LOC.



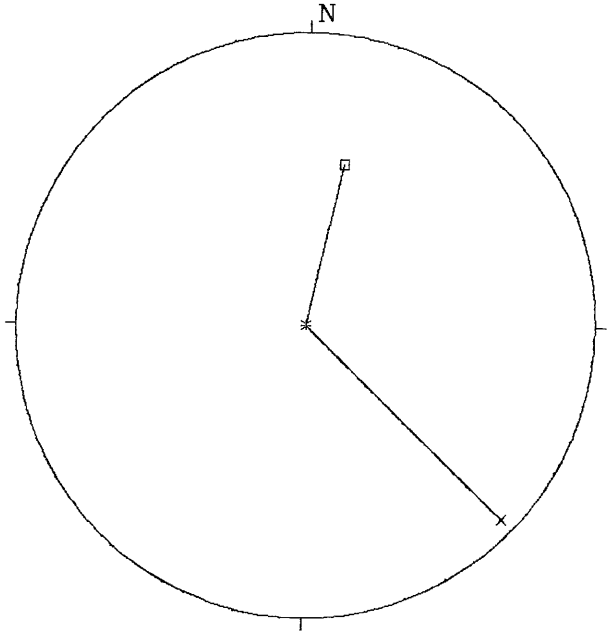
10231853 EVENT
SOUTH SANDWICH ISLANDS REG.
RADIUS=.5 deg.



10231927 EVENT
FIJI ISLANDS REGION
RAD.=40 deg. PDE LOC.

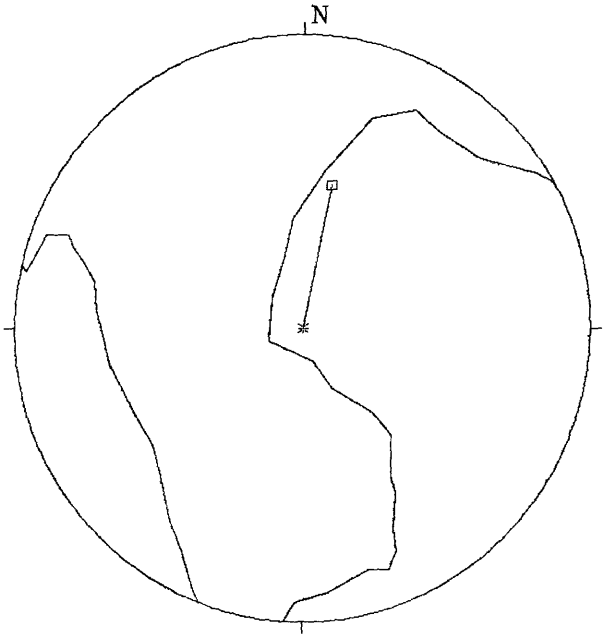


10231927 EVENT
FIJI ISLANDS REGION
RADIUS=3 deg.

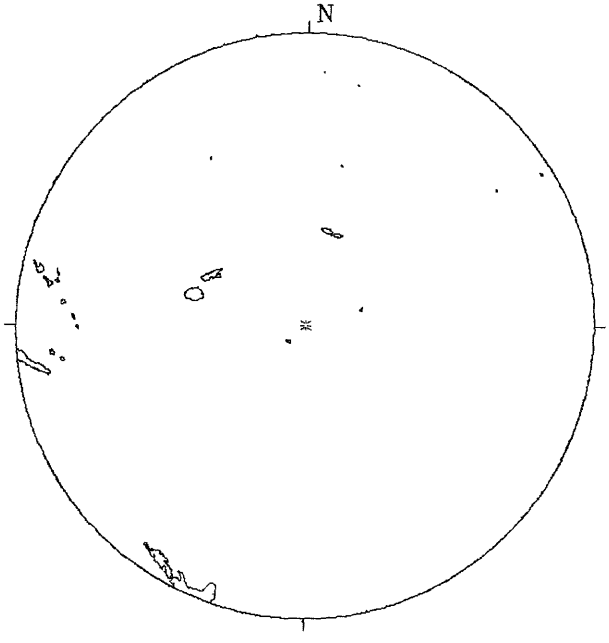


10232049 EVENT
SOUTHERN ITALY
RAD.=20 deg. PDE LOC.

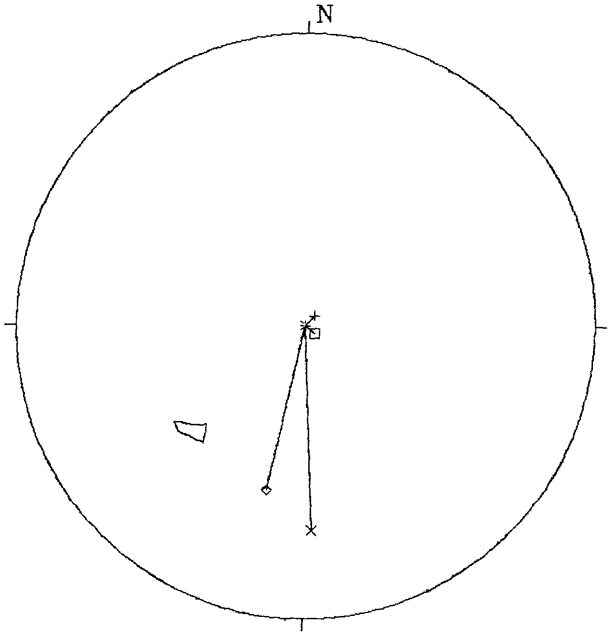
10232049 EVENT
SOUTHERN ITALY
RADIUS=1 deg.



10232136 EVENT
TONGA ISLANDS
RAD.=20 deg. PDE LOC.

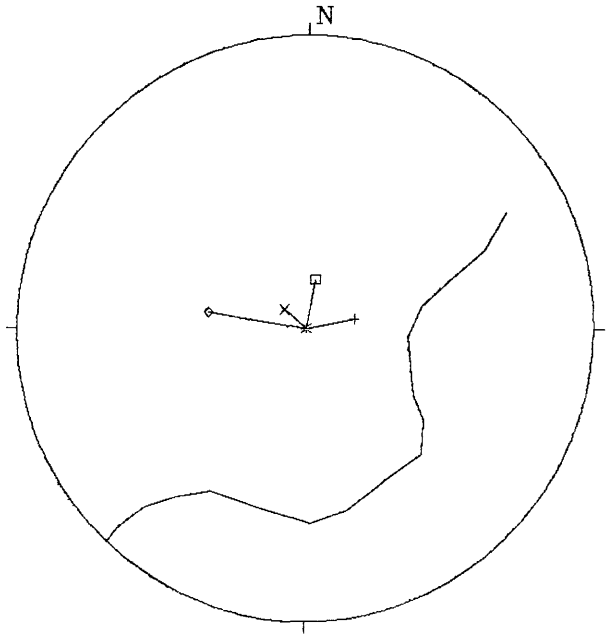


10232136 EVENT
TONGA ISLANDS
RADIUS=3 deg.

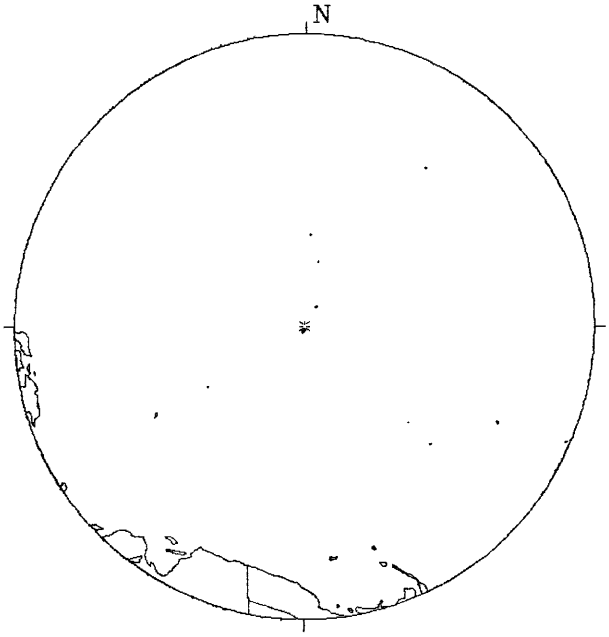


10232207 EVENT
AFGHANISTAN
RAD.=20 deg. PDE LOC.

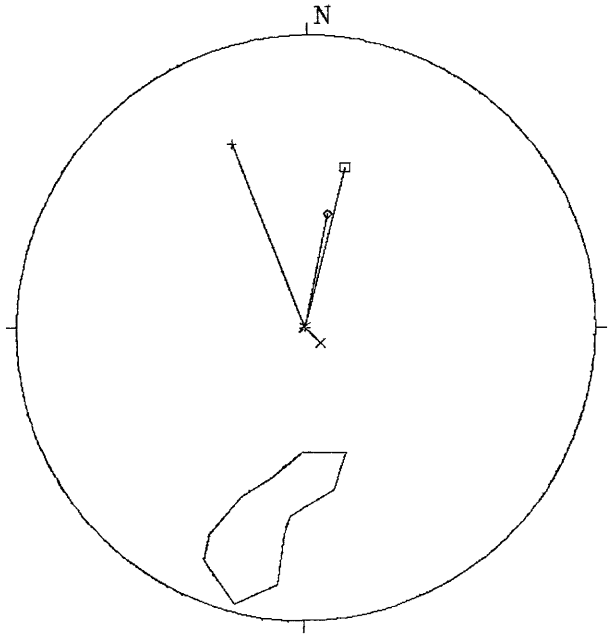
10232207 EVENT
AFGHANISTAN
RADIUS=1 deg.



10232228 EVENT
MARIANA ISLANDS
RAD.=20 deg. PDE LOC.

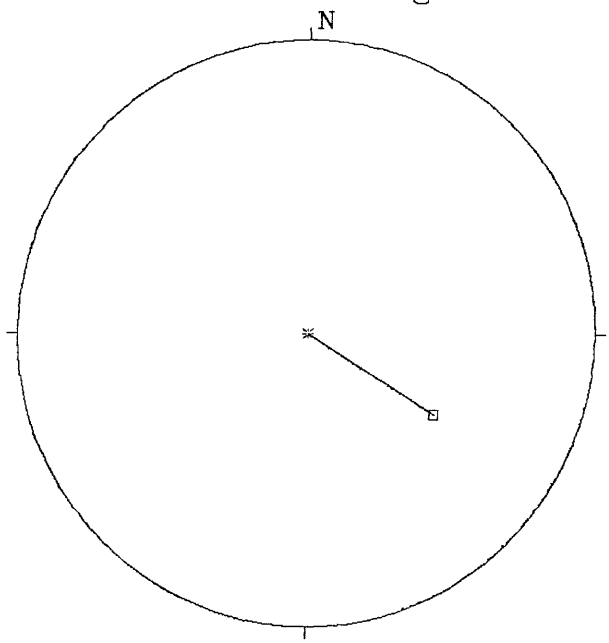


10232228 EVENT
MARIANA ISLANDS
RADIUS=.5 deg.



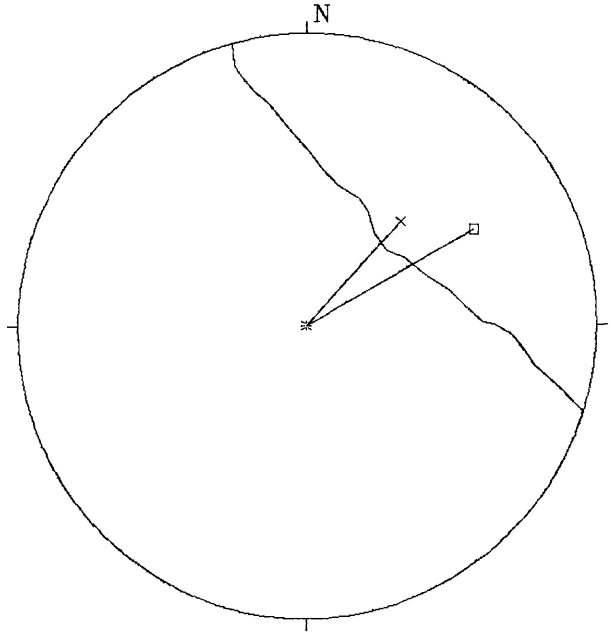
10232252 EVENT
EASTERN KAZAKH
RAD.=20 deg. SEUS LOC.

10232252 EVENT
EASTERN KAZAKH
RADIUS=2 deg.

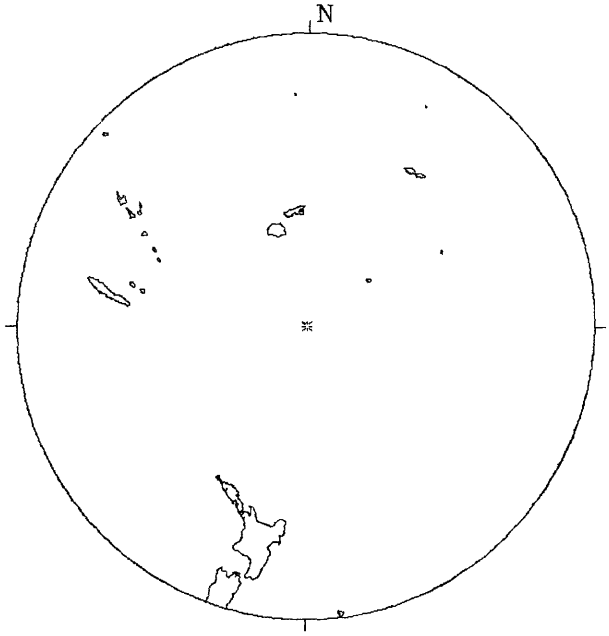


10240204 EVENT
SOUTHERN SUMATERA
RAD.=20 deg. PDE LOC.

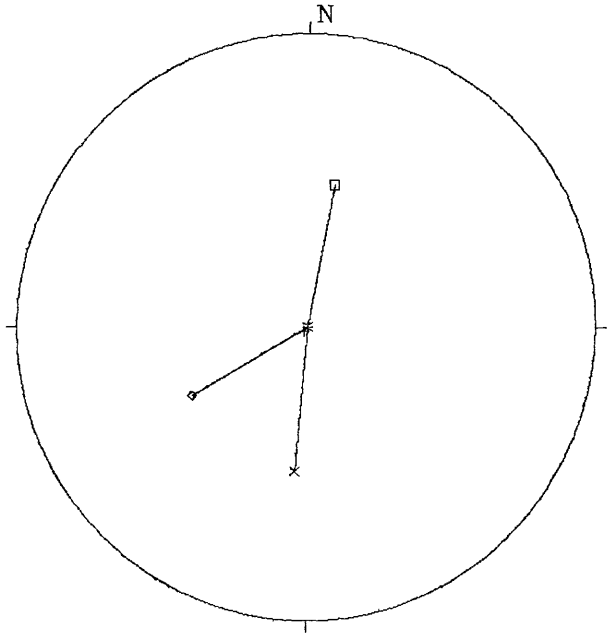
10240204 EVENT
SOUTHERN SUMATERA
RADIUS=3 deg.



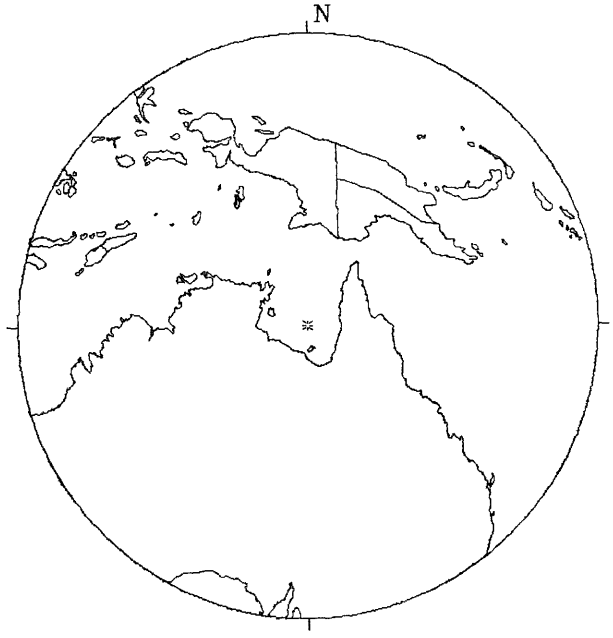
10240228a
SOUTH OF FIJI ISLANDS
RAD.=20 deg. PDE LOC.



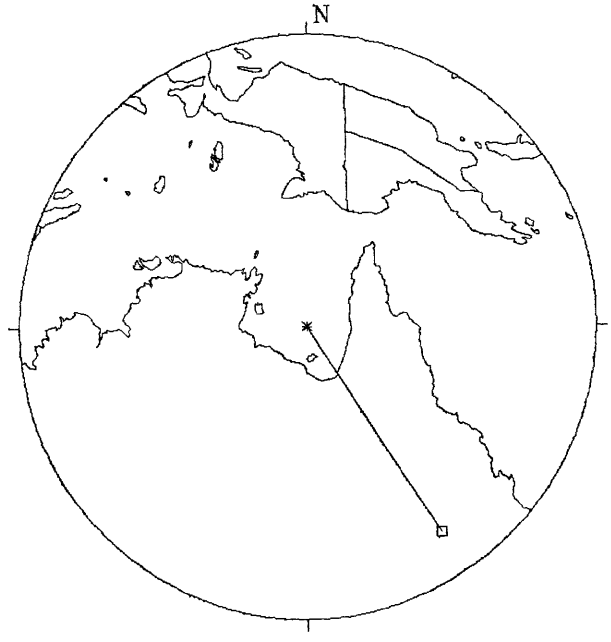
10240228a
SOUTH OF FIJI ISLANDS
RADIUS.=2 deg.



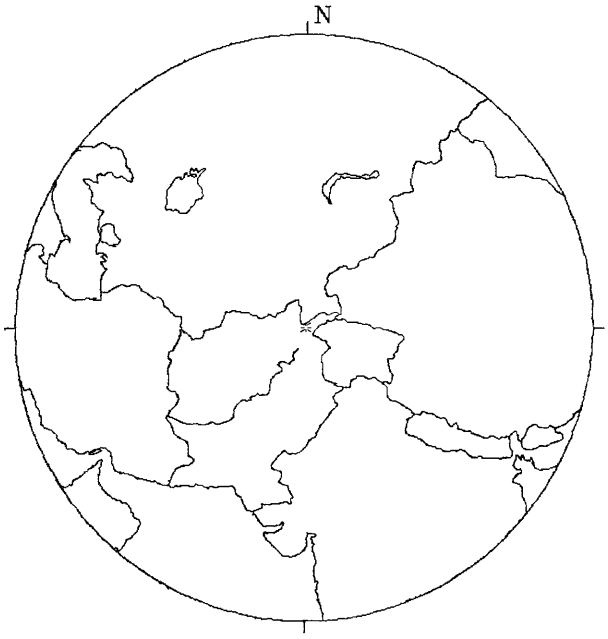
10240228b EVENT
GULF OF CARPENTERIA
RAD.=20 deg. SEUS LOC.



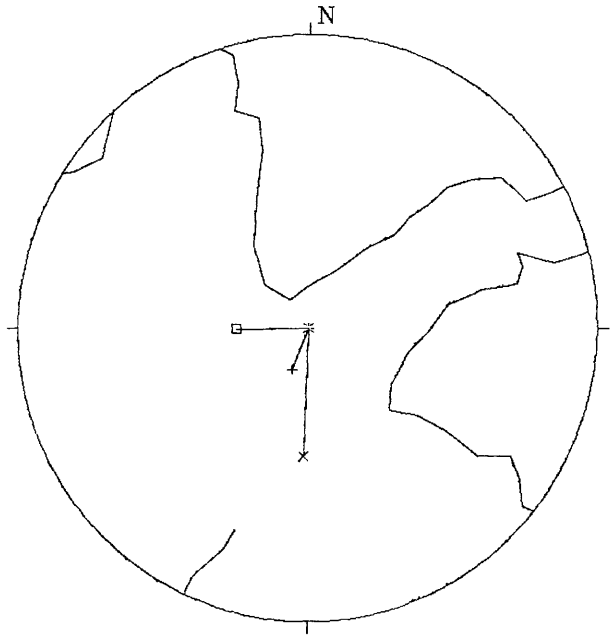
10240228b EVENT
GULF OF CARPENTERIA
RADIUS=15 deg.



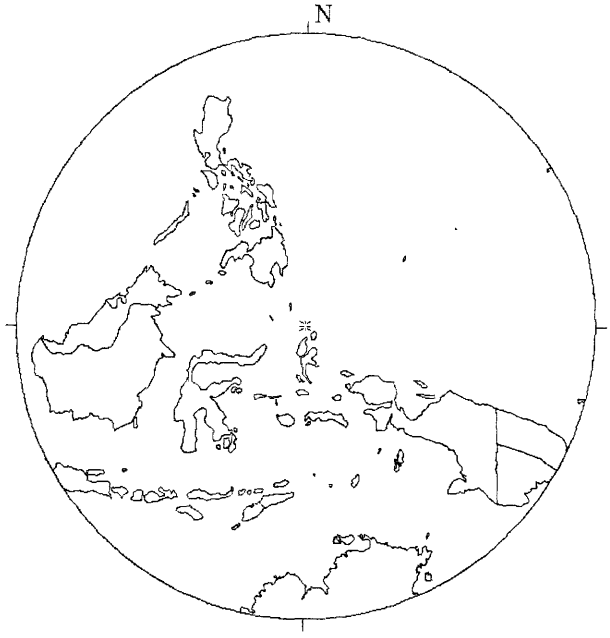
10240312 EVENT
AFGHANISTAN–USSR BORDER REG.
RAD.=20 deg. PDE LOC.



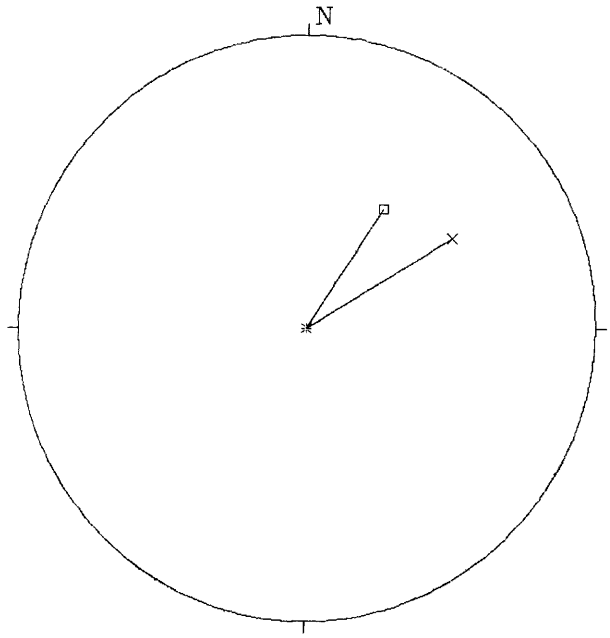
10240312 EVENT
AFGHANISTAN–USSR BORDER REG.
RADIUS=2 deg.



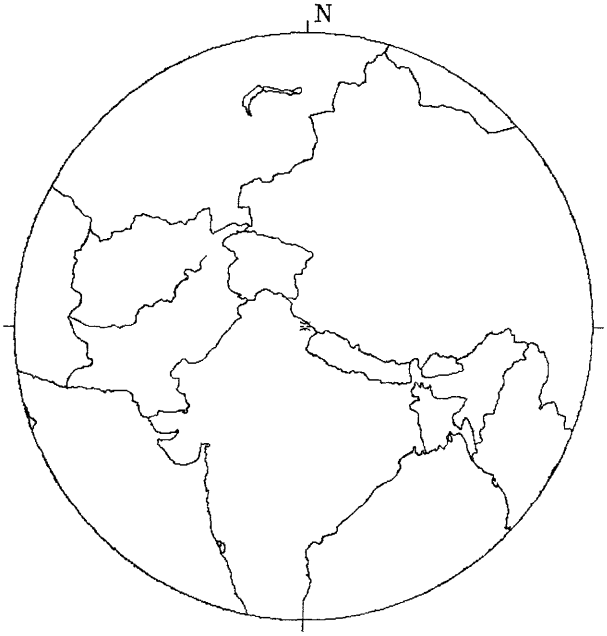
10240530 EVENT
MOLUCCA PASSAGE
RAD.=20 deg. PDE LOC.



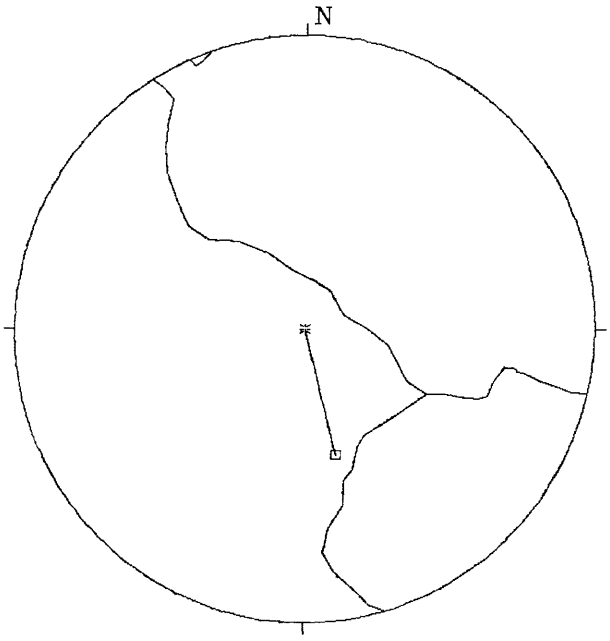
10240530 EVENT
MOLUCCA PASSAGE
RADIUS=.5 deg.



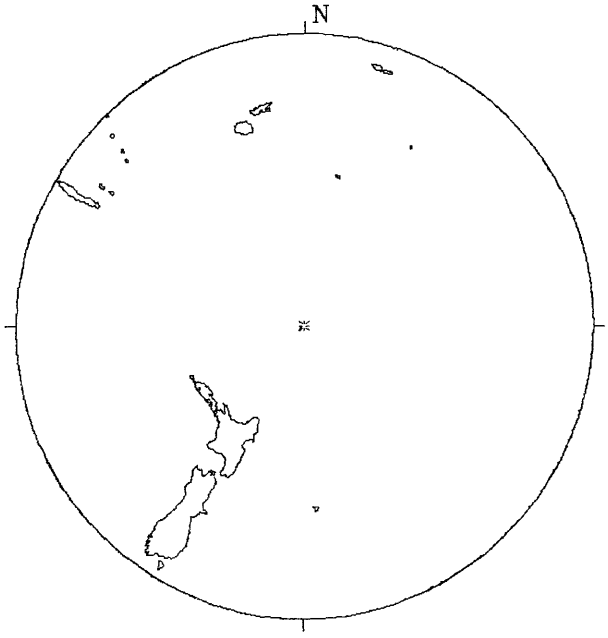
10240819 EVENT
TIBET–INDIA BORDER REG.
RAD.=20 deg. SEUS LOC.



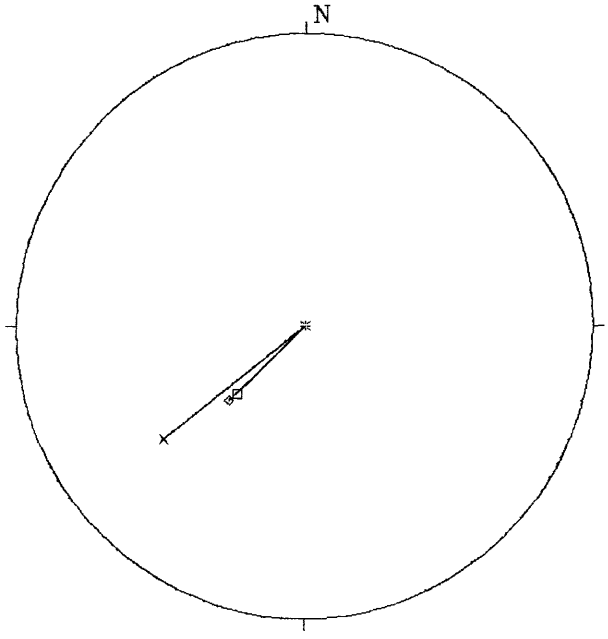
10240819 EVENT
TIBET–INDIA BORDER REG.
RADIUS=2 deg.



10240951 EVENT
KERMADEC ISLANDS REGION
RAD.=20 deg PDE LOC.

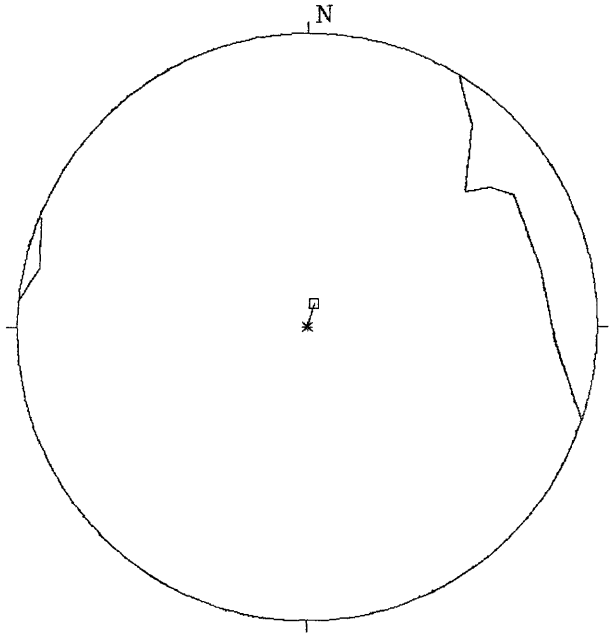


10240951 EVENT
KERMADEC ISLANDS REGION
RADIUS=2 DEG.



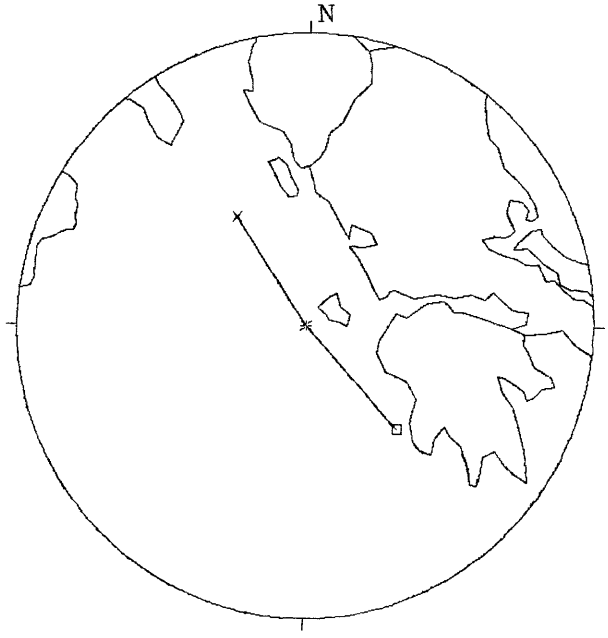
10241034 EVENT
SWEDEN
RAD.=20 deg. SEUS LOC.

10241034 EVENT
SWEDEN
RADIUS=.5 deg.

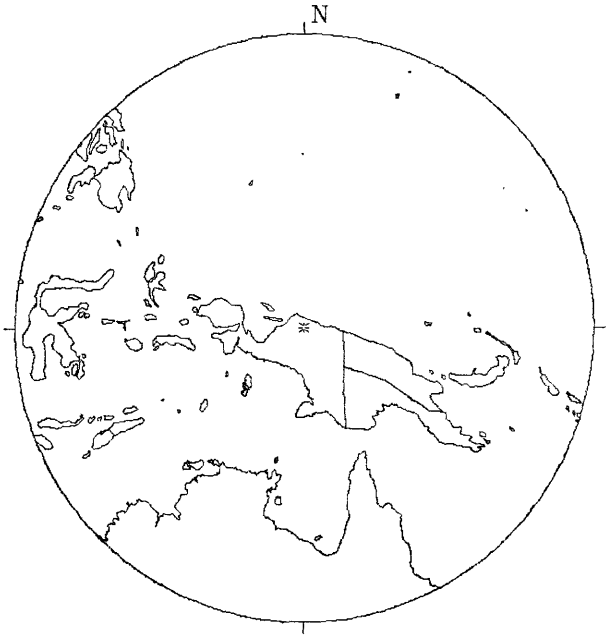


10241917 EVENT
GREECE
RAD.=20 deg. PDE LOC.

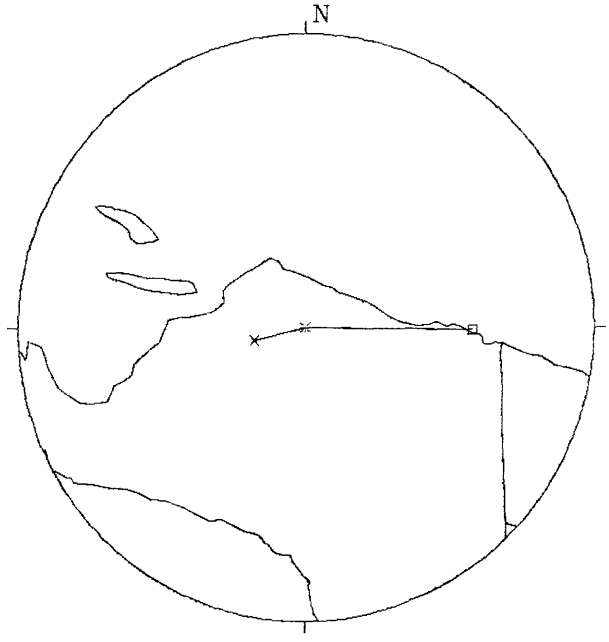
10241917 EVENT
GREECE
RADIUS=3 deg.



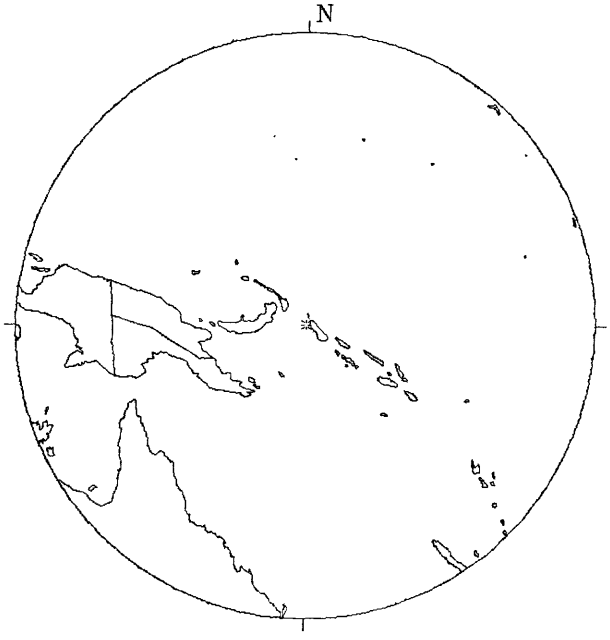
10242118 EVENT
WEST IRIAN
RAD.=20 deg. PDE LOC.



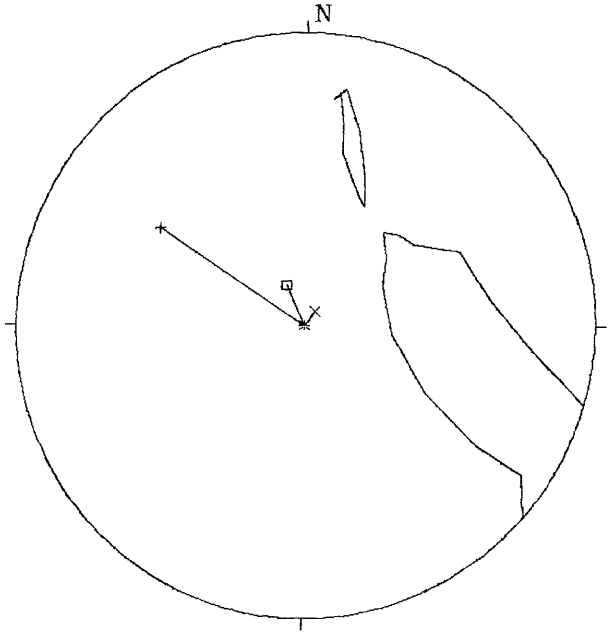
10242118 EVENT
WEST IRIAN
RADIUS=4 deg.



10250028 EVENT
SOLOMON ISLANDS
RAD.=20 deg. PDE LOC.

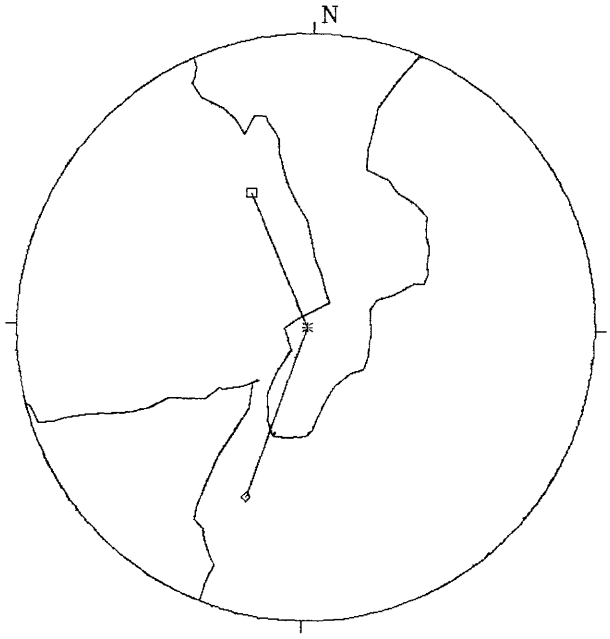


10250028 EVENT
SOLOMON ISLANDS
RADIUS=1 deg.

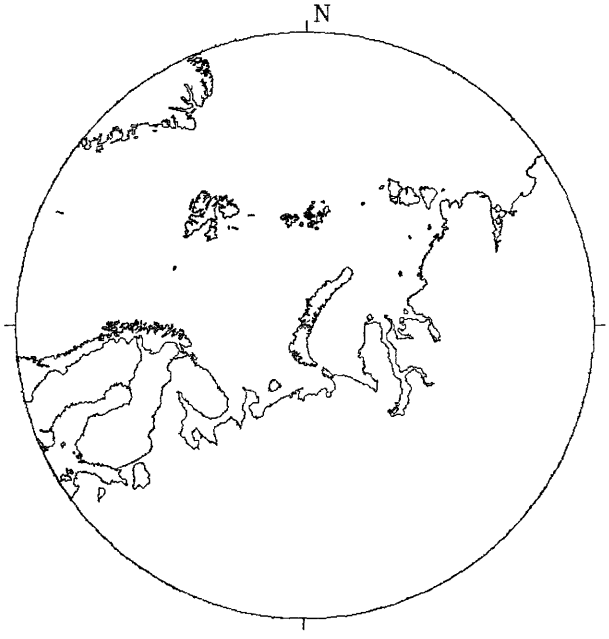


10250112 EVENT
SOUTHERN ITALY
RAD.=20 deg. PDE LOC.

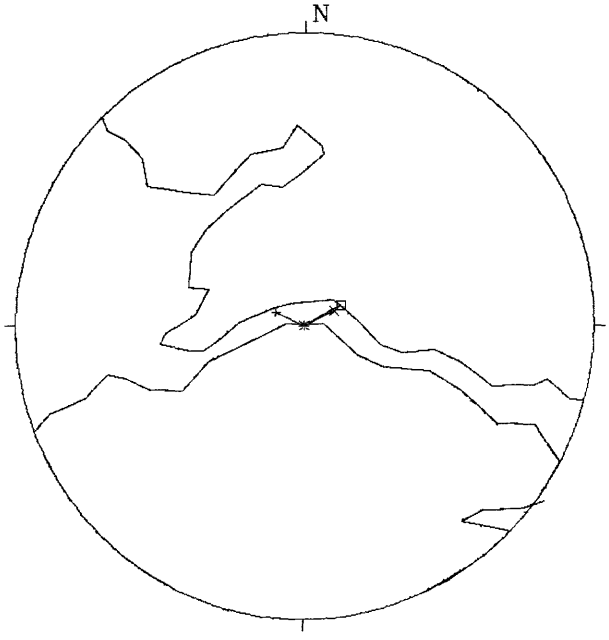
10250112 EVENT
SOUTHERN ITALY
RADIUS=2 deg.



10250629 EVENT
NOVAYA ZEMLA
RAD.=20 deg. PDE LOC.

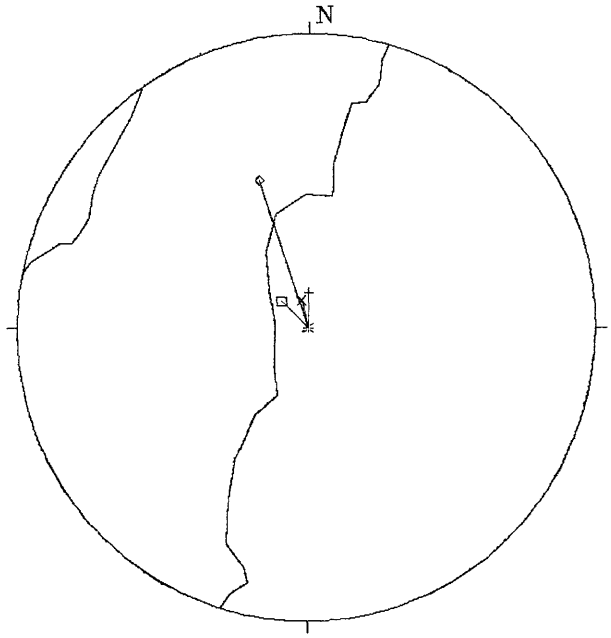


10250629 EVENT
NOVAYA ZEMLA
RADIUS=.5 deg.

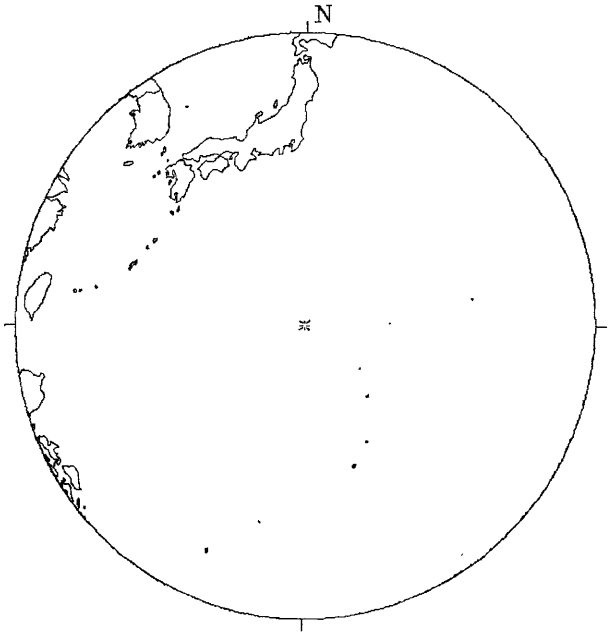


10250657 EVENT
NEAR E. COAST OF HONSHU,JAPAN
RAD.=20 deg. PDE LOC.

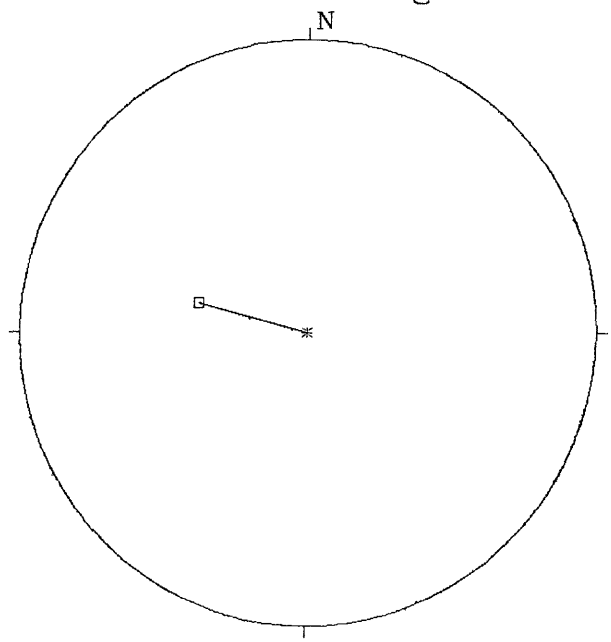
10250657 EVENT
NEAR E. COAST OF HONSHU,JAPAN
RADIUS=2 deg.



10250719 EVENT
VOLCANO ISLANDS REGION
RAD.=20 deg. SEUS LOC.

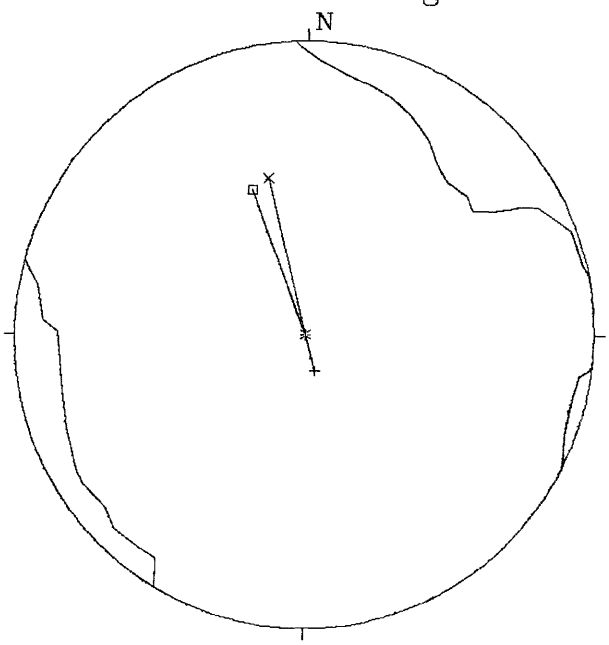


10250719 EVENT
VOLCANO ISLANDS REGION
RADIUS=2 deg.



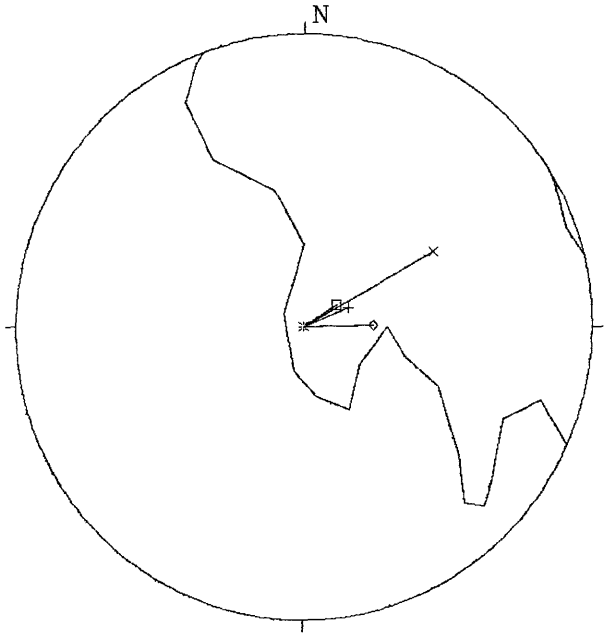
10250815 EVENT
GULF OF CALIFORNIA
RAD.=20 deg. PDE LOC.

10250815 EVENT
GULF OF CALIFORNIA
RADSIUS=1 deg.



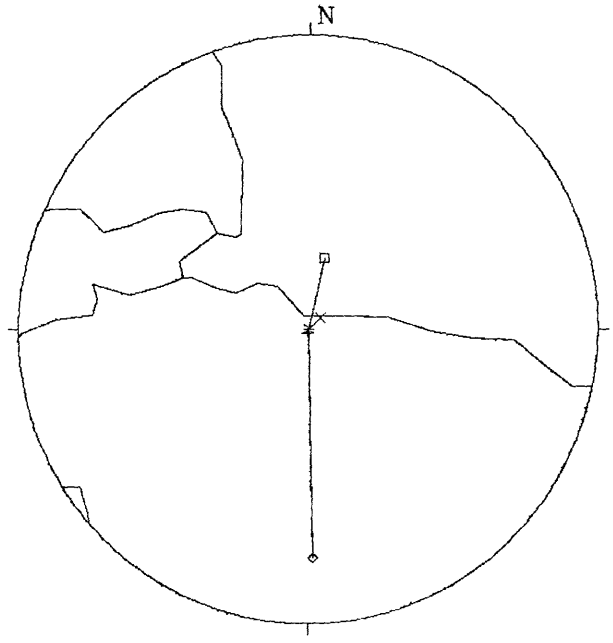
10250949 EVENT
SOUTHERN GREECE
RAD.=20 deg. PDE LOC.

10250949 EVENT
SOUTHERN GREECE
RADIUS=1 deg.



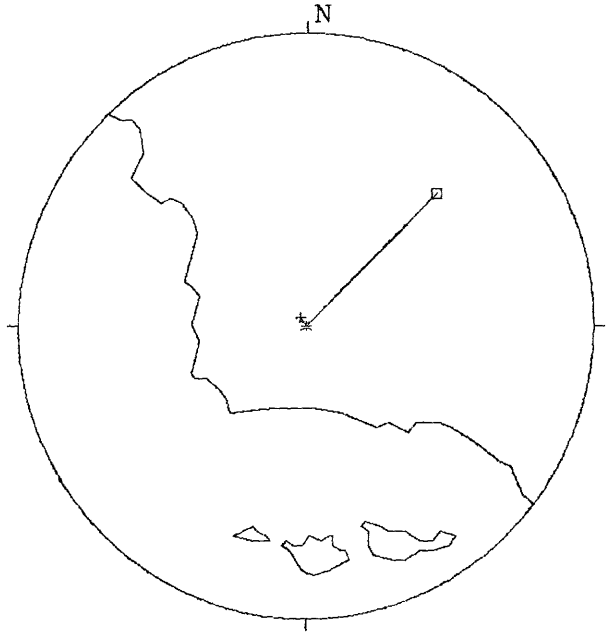
10251015 EVENT
KASMIR–XINJIANG BORDER REG.
RAD.=20 deg. PDE LOC.

10251015 EVENT
KASMIR–XINJIANG BORDER REG.
RADIUS=2 deg.

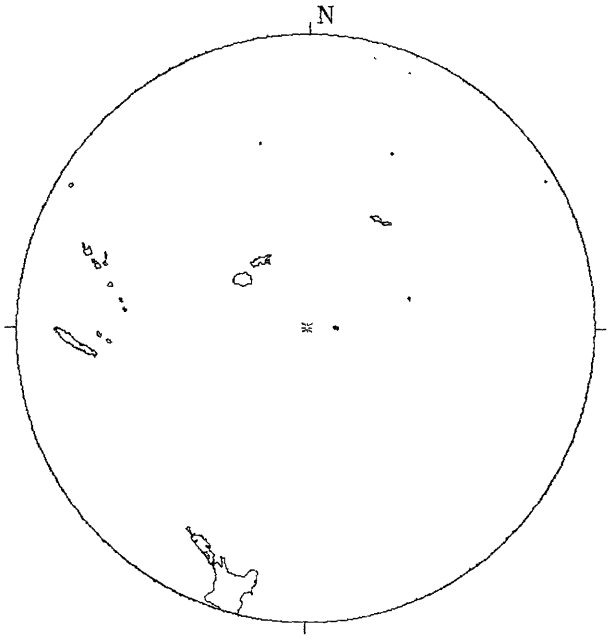


10251036 EVENT
SOUTHERN CALIFORNIA
RAD.=10 deg. PDE LOC.

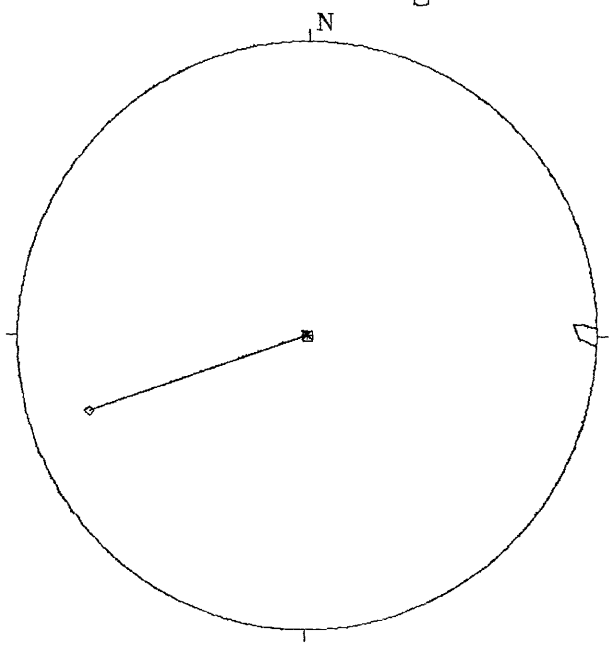
10251036 EVENT
SOUTHERN CALIFORNIA
RADIUS=1 deg.



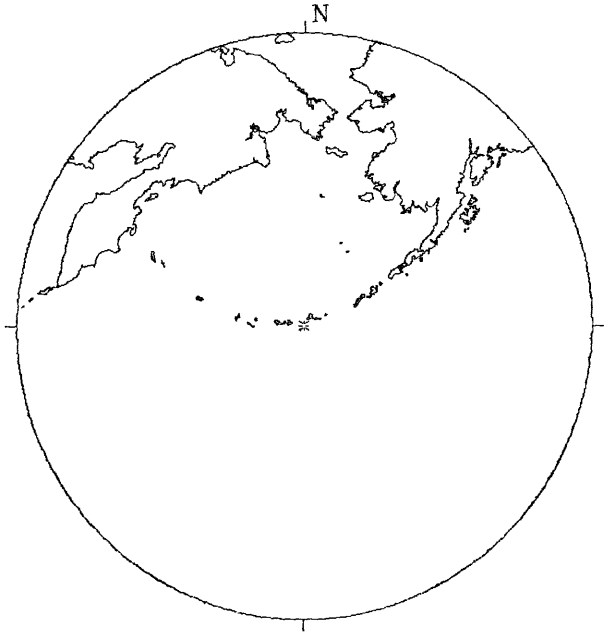
10251122 EVENT
FIJI ISLANDS REGION
RAD.=20 deg. SEUS LOC.



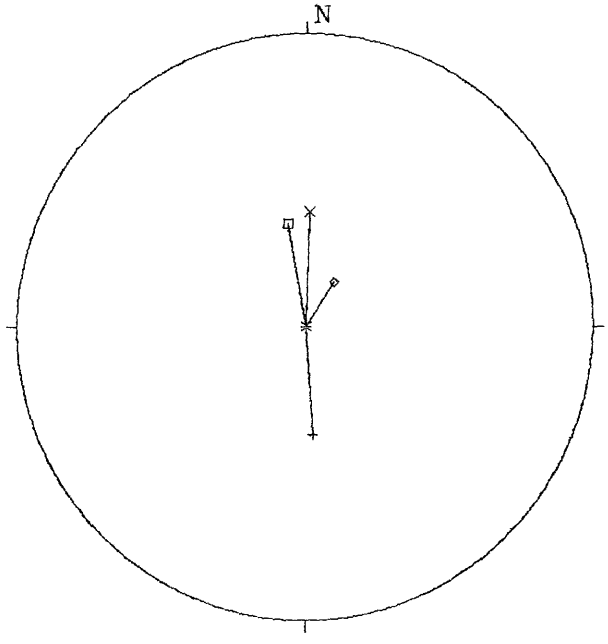
10251122 EVENT
FIJI ISLANDS REGION
RADIUS=2 deg.



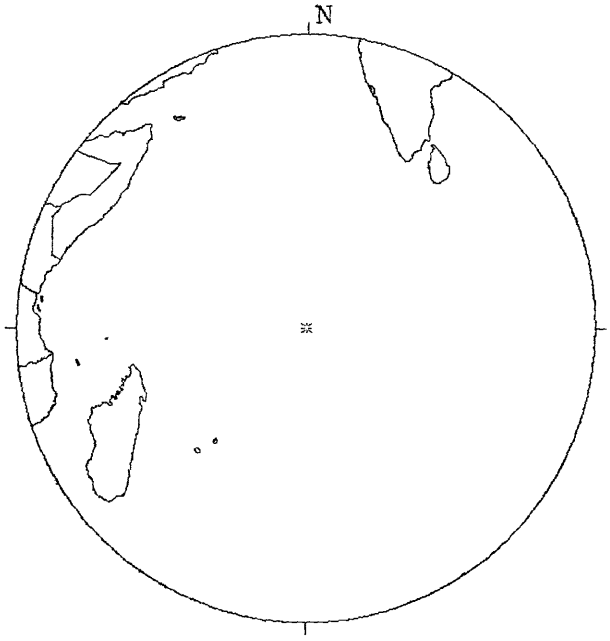
10251237 EVENT
ANDREANOFF ISLANDS
RAD.=20 deg. PDE LOC.



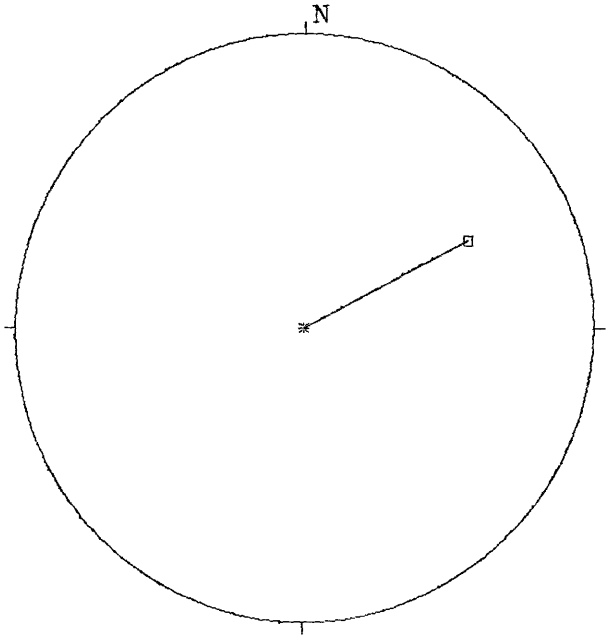
10251237 EVENT
ANDREANOFF ISLANDS
RADIUS=.5 deg.



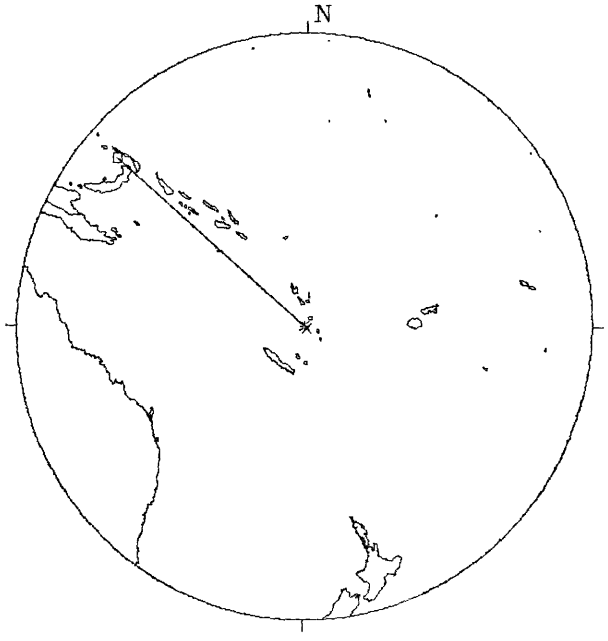
10251253 EVENT
MID-INDIAN RISE
RAD.=30 deg. PDE LOC.



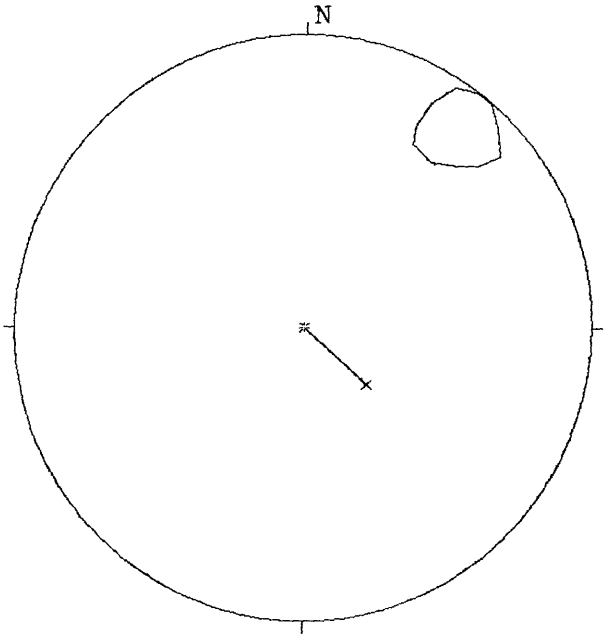
10251253 EVENT
MID-INDIAN RISE
RADIUS=1 deg.



10251318 EVENT
VANUATU ISLANDS
RAD.=25 deg. PDE LOC.

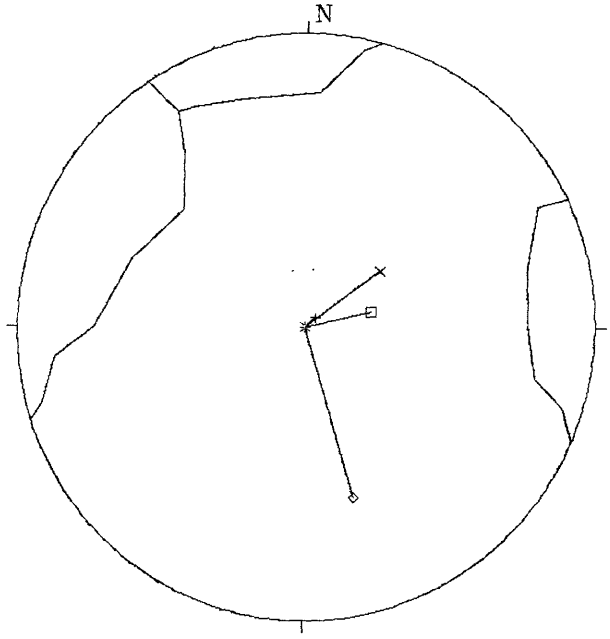


10251318 EVENT
VANUATU ISLANDS
RADIUS=1 deg.



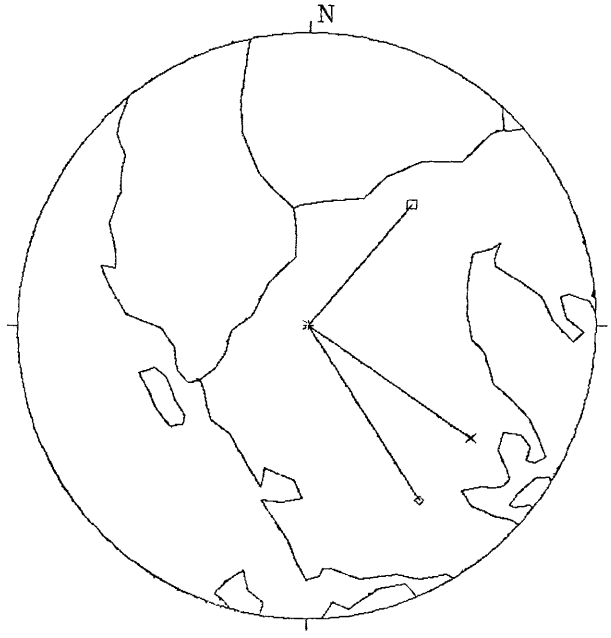
10251438 EVENT
GREECE
RAD.=20 deg. PDE LOC.

10251438 EVENT
GREECE
RADIUS=1 deg.

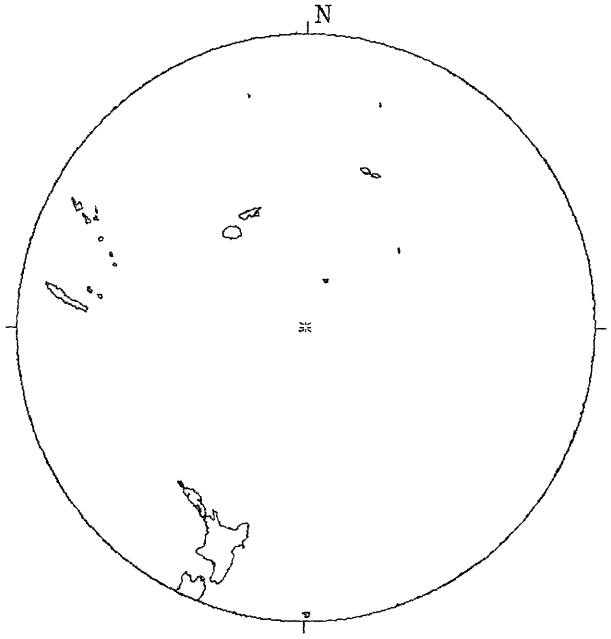


10251449 EVENT
GREECE
RAD.=20 deg. PDE LOC.

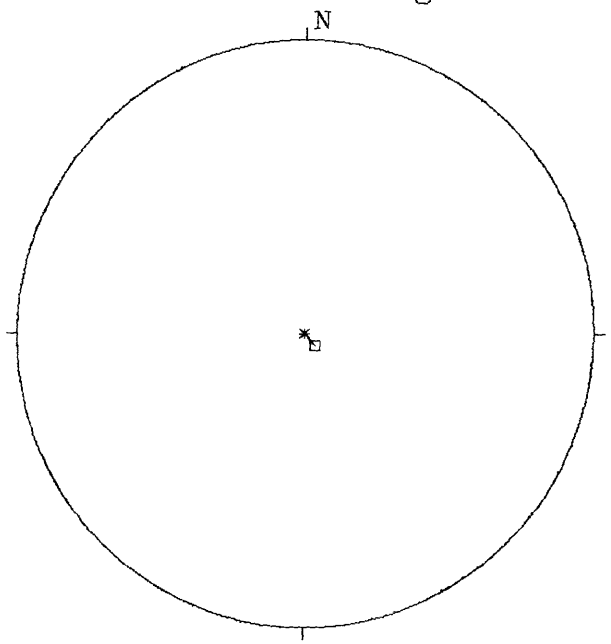
10251449 EVENT
GREECE
RADIUS=2 deg.



10251624 EVENT
SOUTH OF FIJI ISLANDS
RAD.=20 deg. SEUS LOC.

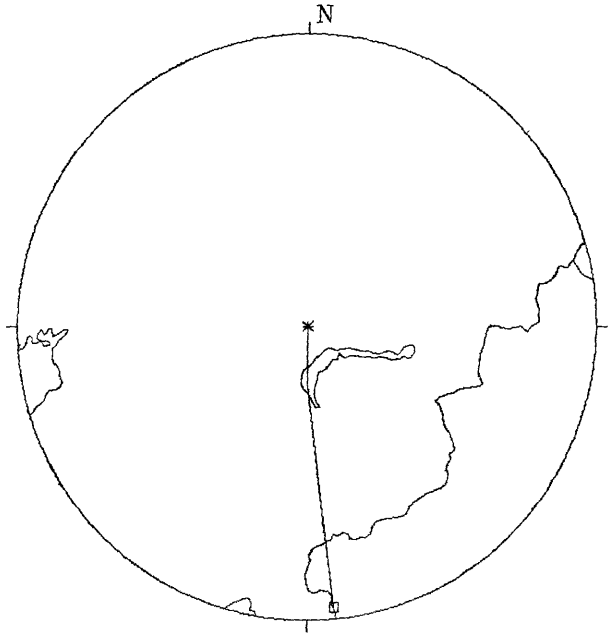


10251624 EVENT
SOUTH OF FIJI ISLANDS
RADIUS=.5 deg.

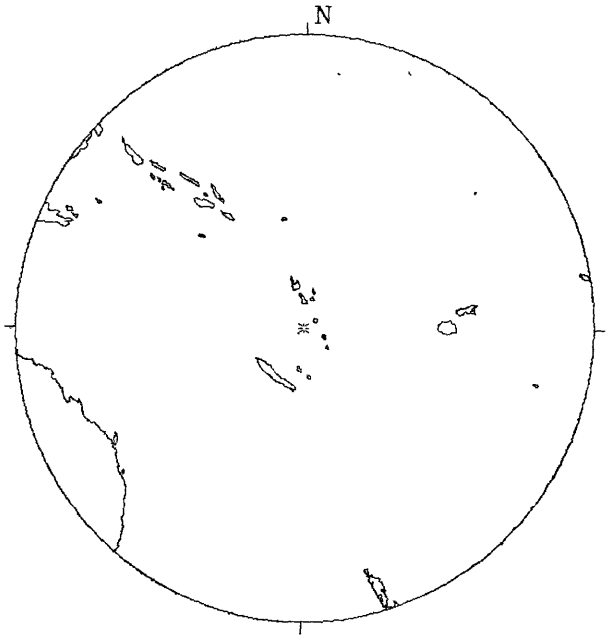


10251630 eVENT
CENTRAL KAZAKH
RAD.20 deg. SEUS LOC.

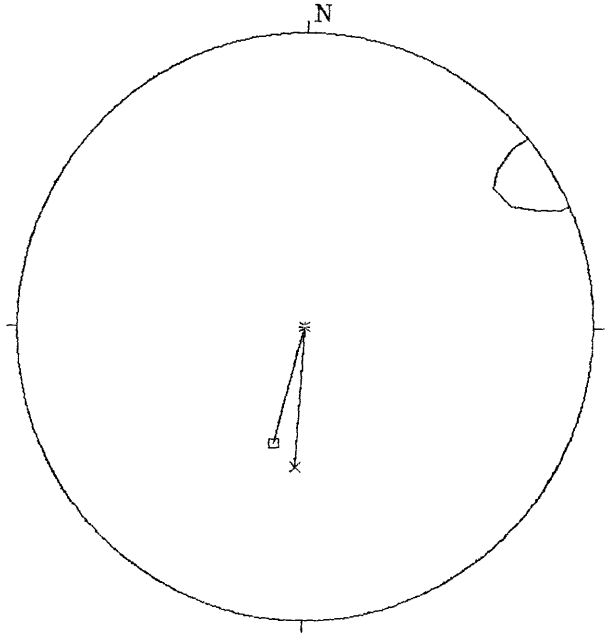
10251630 EVENT
CENTRAL KAZAKH
RADIUS=10 deg. SEUS LOC.



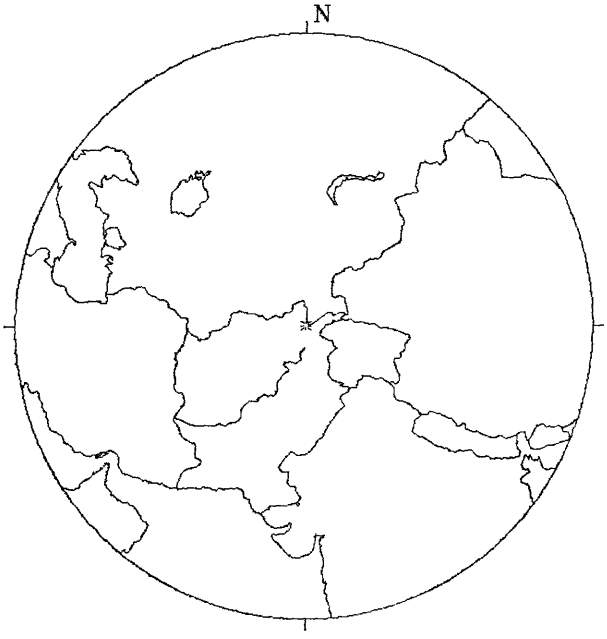
10251814 EVENT
VANUATU ISLANDS
RAD.=20 deg. PDE LOC.



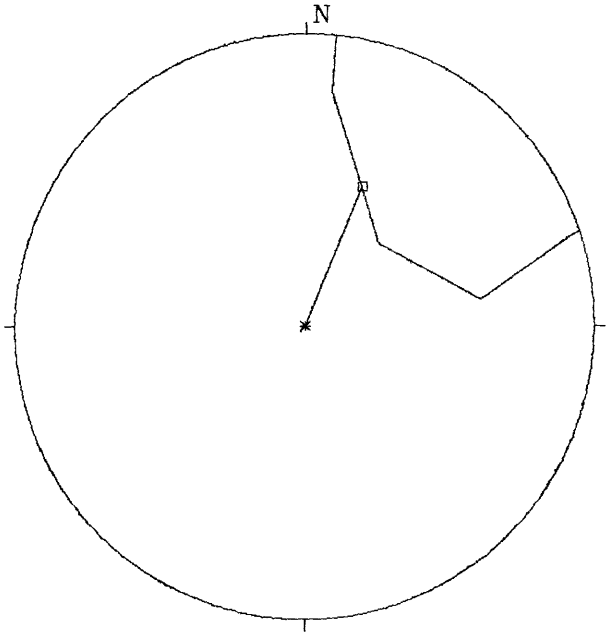
10251814 EVENT
VANUATU ISLANDS
RADIUS=1 deg.



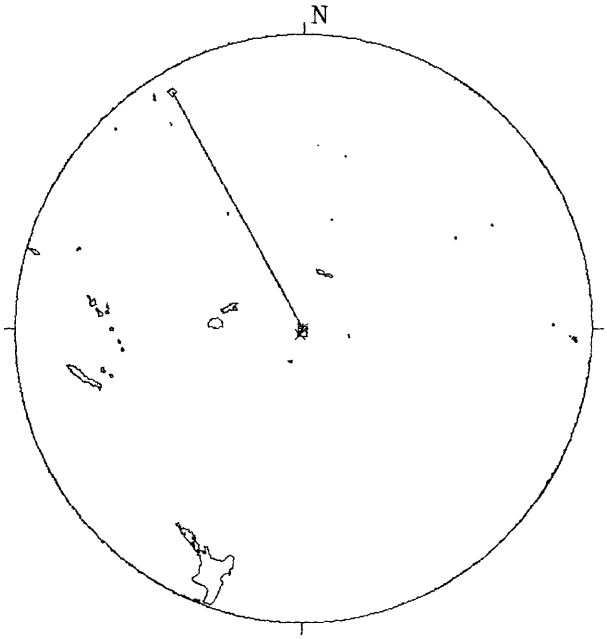
10252114 EVENT
AFGHANISTAN–USSR BRD. REG.
RAD.=20 deg. SEUS LOC.



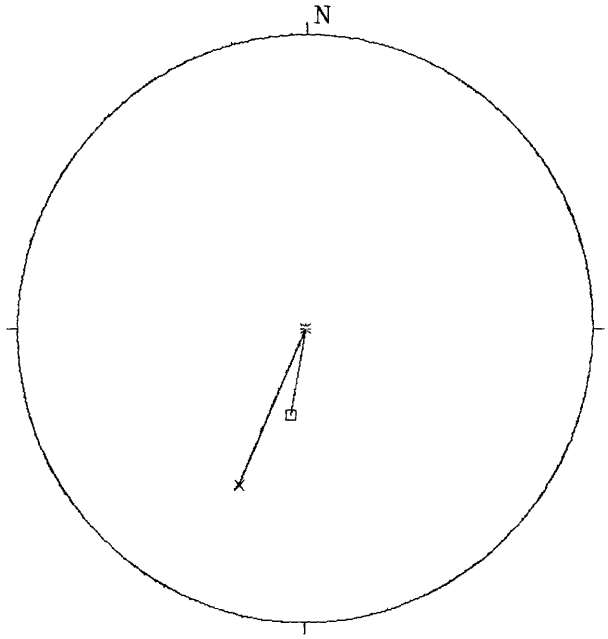
10252114 EVENT
AFGHANISTAN–USSR BRD. REG.
RADIUS=.5 deg.



10252232 EVENT
TONGA ISLANDS
RAD.=25 deg. PDE LOC.

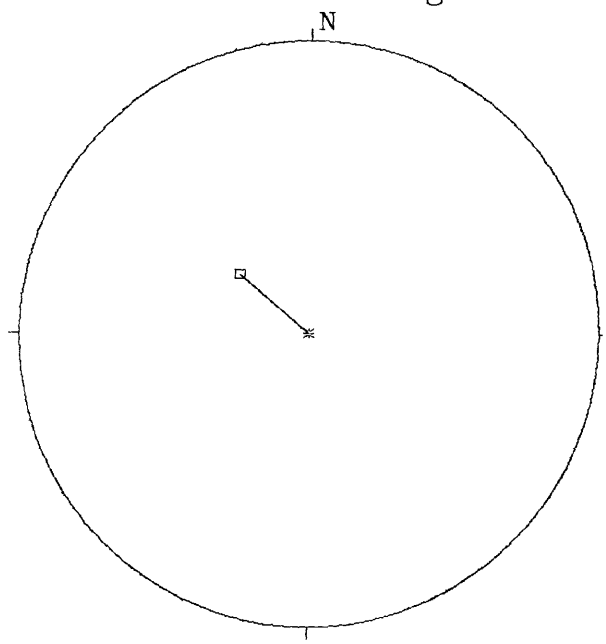


10252232 EVENT
TONGA ISLANDS
RADIUS=1 deg.



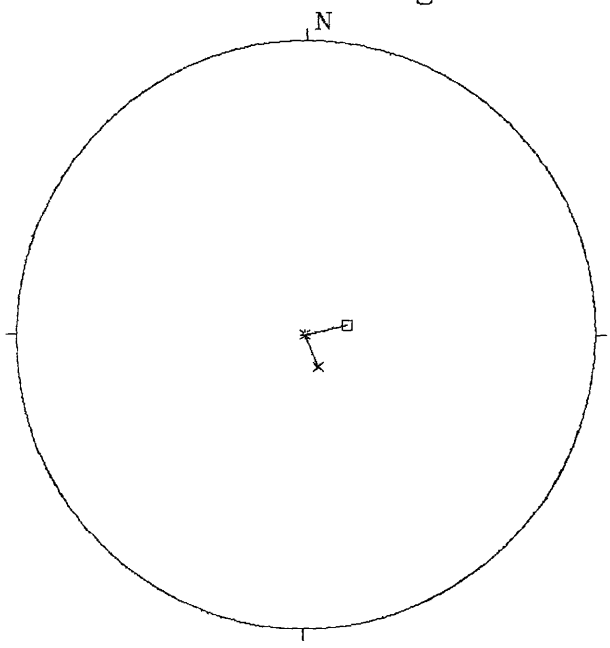
10260205 EVENT
WEST IRIAN
RAD.=20 deg. SEUS LOC.

10260205 EVENT
WEST IRIAN
RADIUS=.5 deg



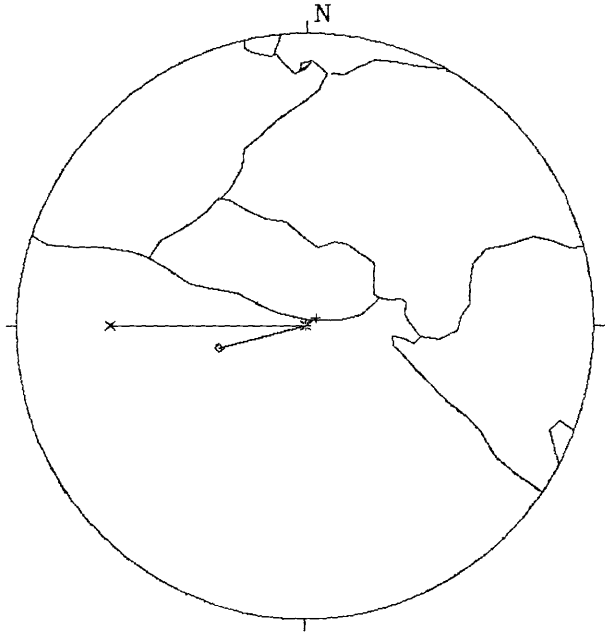
10260301 EVENT
NEAR COAST OF GUATEMALA
RAD.=20 deg. PDE LOC.

10260301 EVENT
NEAR COAST OF GUATEMALA
RADIUS=.5 deg.



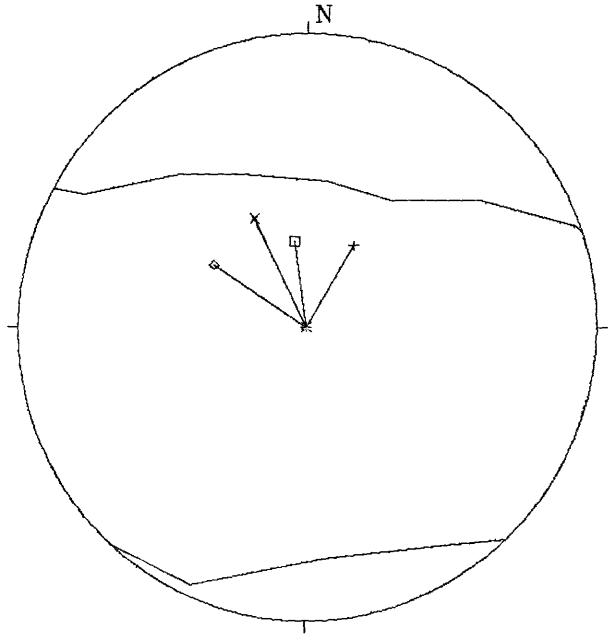
10260402 EVENT
EL SALVADOR
RAD.=20 deg. PDE LOC.

10260402 EVENT
EL SALVADOR
RAD.=3 deg. PDE LOC.



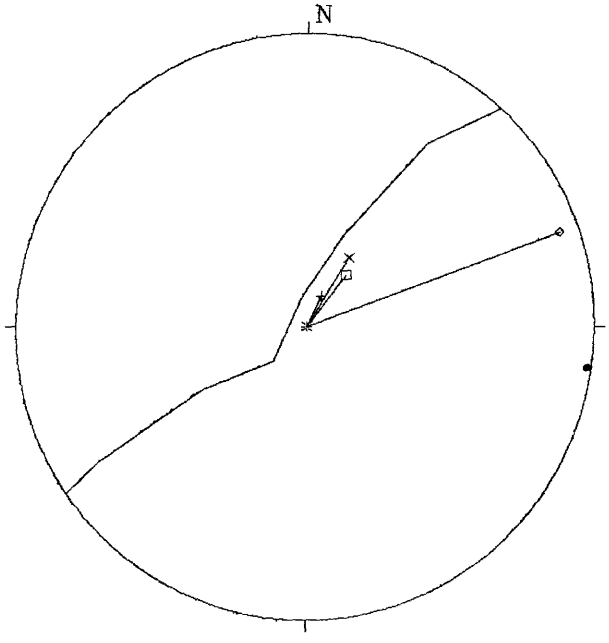
10260639 EVENT
MINAHASSA PENINSULA
RAD.=20 deg. PDE LOC.

10260639 EVENT
MINAHASSA PENINSULA
RADIUS=.5 deg.

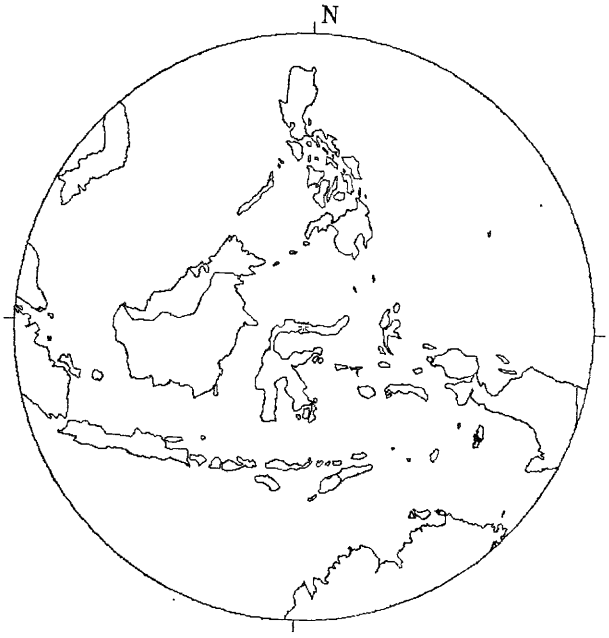


10260744 EVENT
ZAMBIA
RAD.=20 deg. PDE LOC.

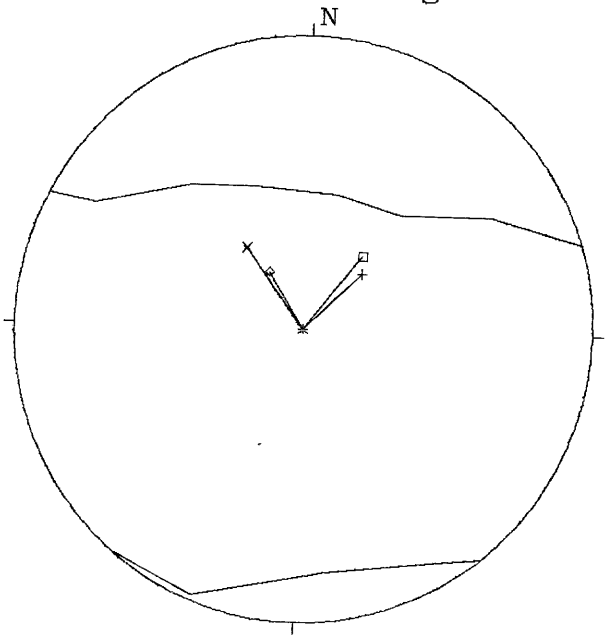
10260744 EVENT
ZAMBIA
RADIUS=1 deg.



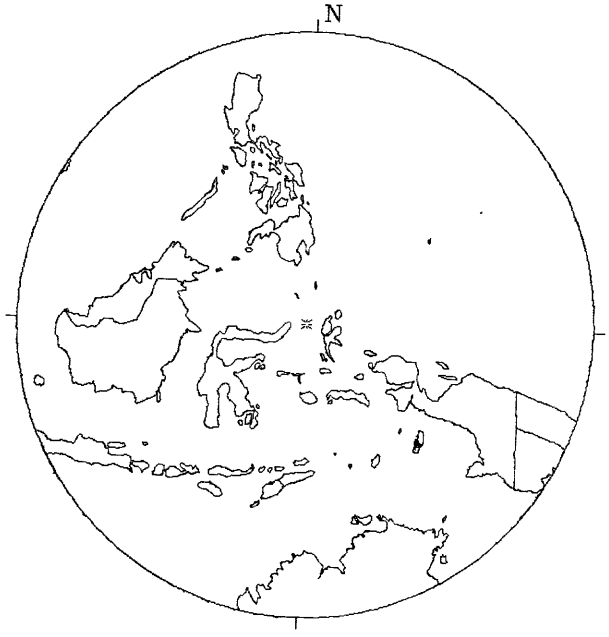
10260807 EVENT
MINAHASSA PENINSULA
RAD.=20 deg. PDE LOC.



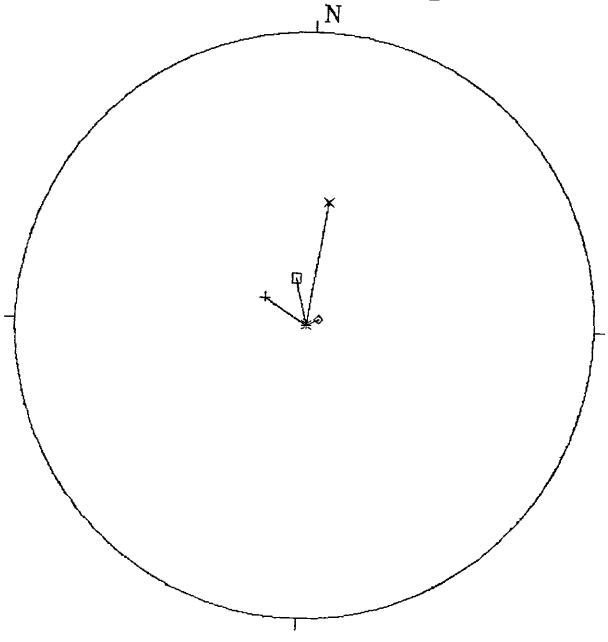
10260807 EVENT
MINAHASSA PENINSULA
RADIUS=.5 deg.



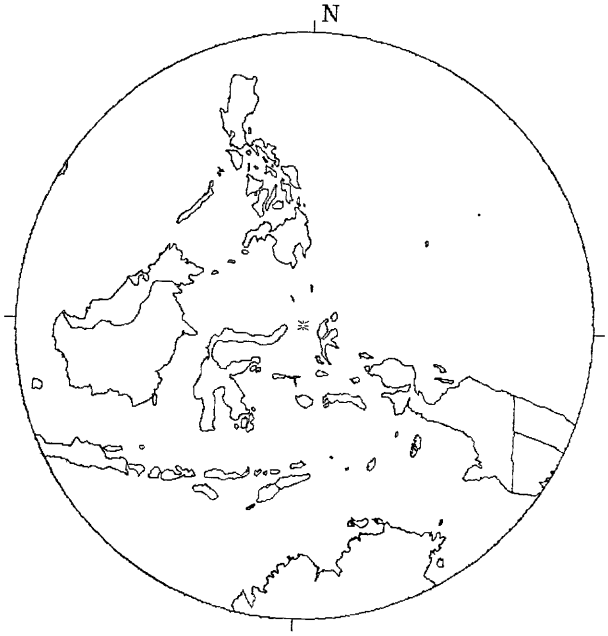
10260849 EVENT
MOLUCCA PASSAGE
RAD.=20 deg. PDE LOC.



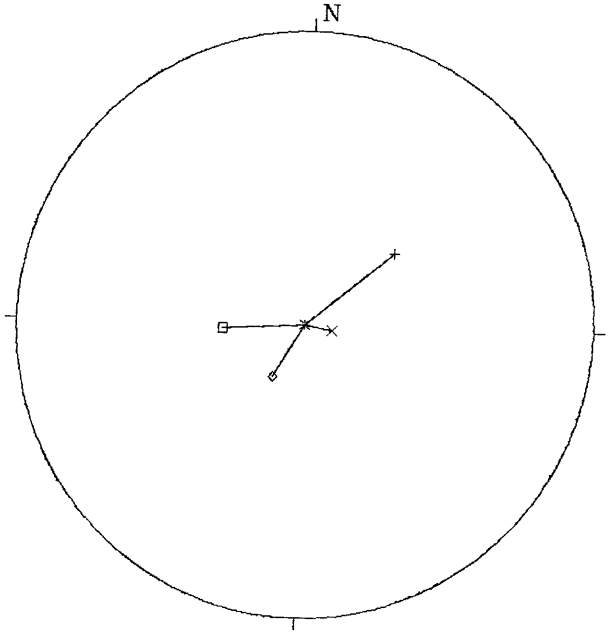
10260849 EVENT
MOLUCCA PASSAGE
RADIUS=.5 deg.



10260912 EVENT
MOLUCCA PASSAGE
RAD.=20 deg. PDE LOC.

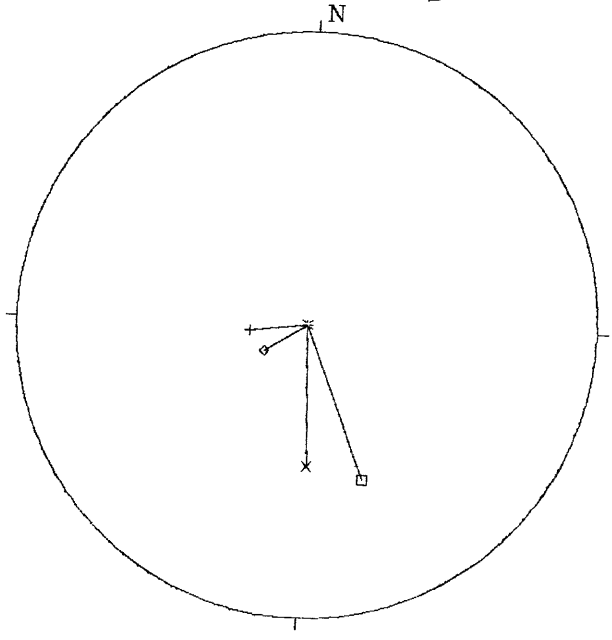


10260912 EVENT
MOLUCCA PASSAGE
RADIUS=.5 deg.

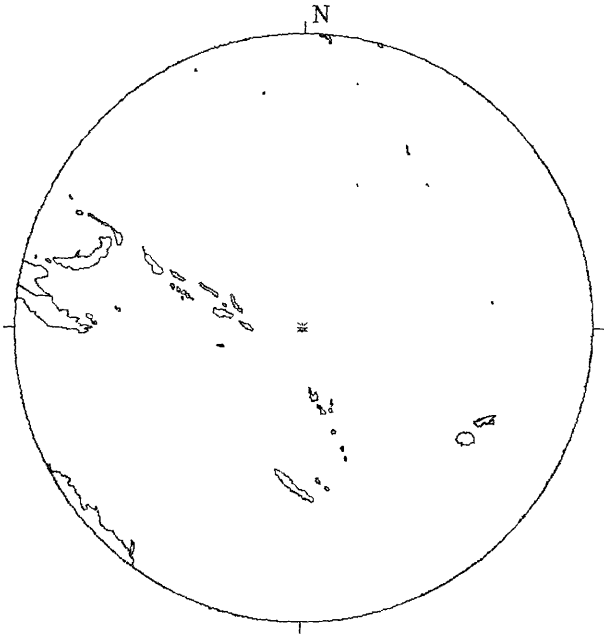


10261507 EVENT
TURKEY
RAD.=20 deg. PDE LOC.

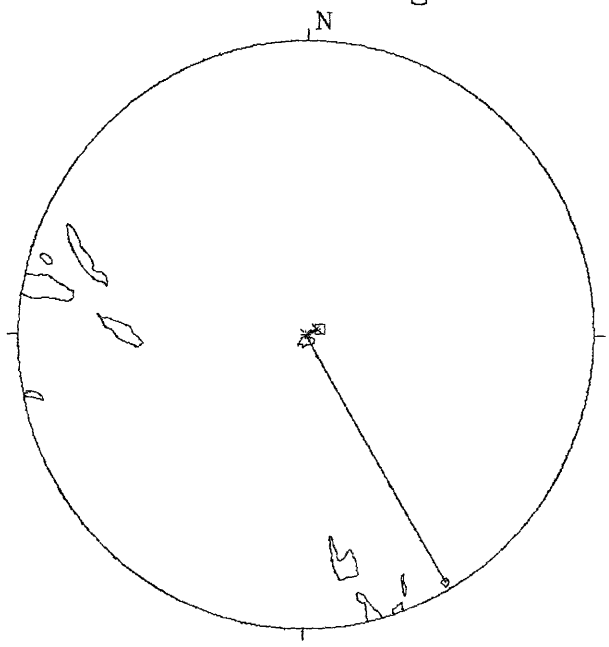
10261507 EVENT
TURKEY
RADIUS=1 deg.



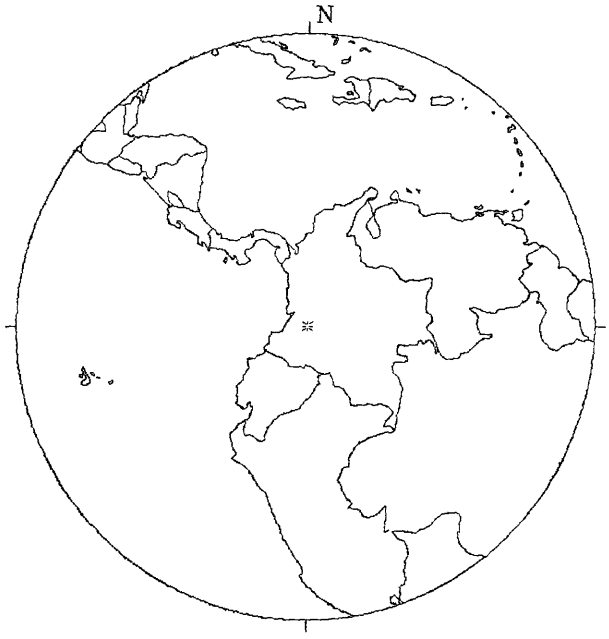
10261554 EVENT
SANTA CRUZ ISLANDS
RAD.=20 deg. PDE LOC.



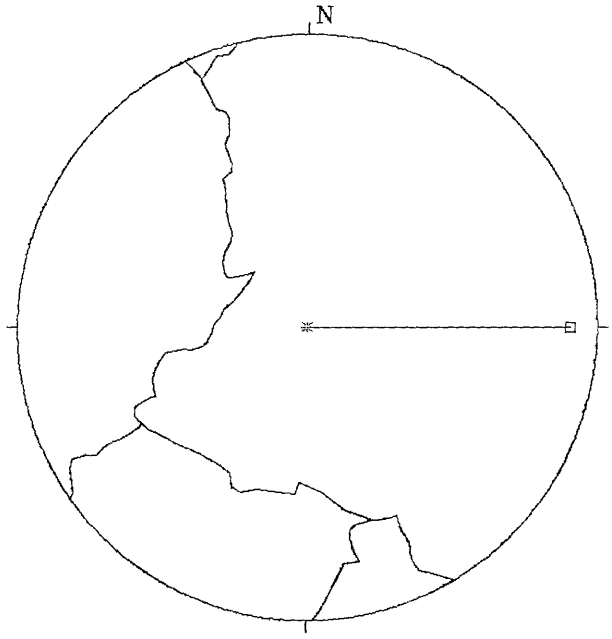
10261554 EVENT
SANTA CRUZ ISLANDS
RADIUS=6 deg.



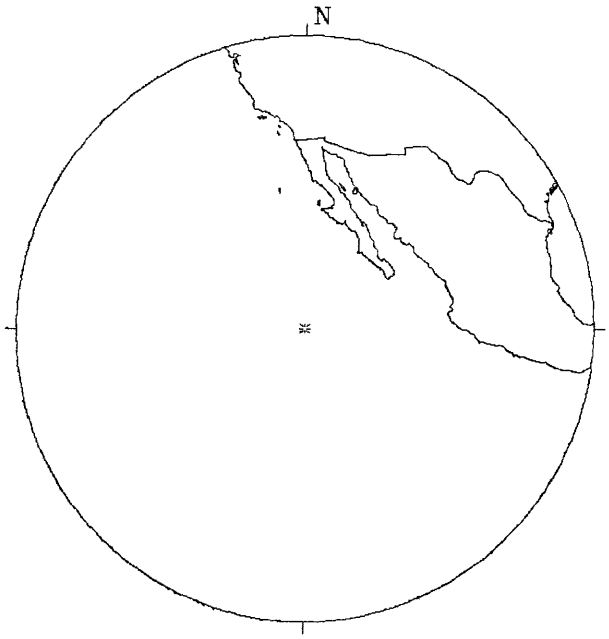
10261612 EVENT
COLOMBIA
RAD.=20 deg. PDE LOC.



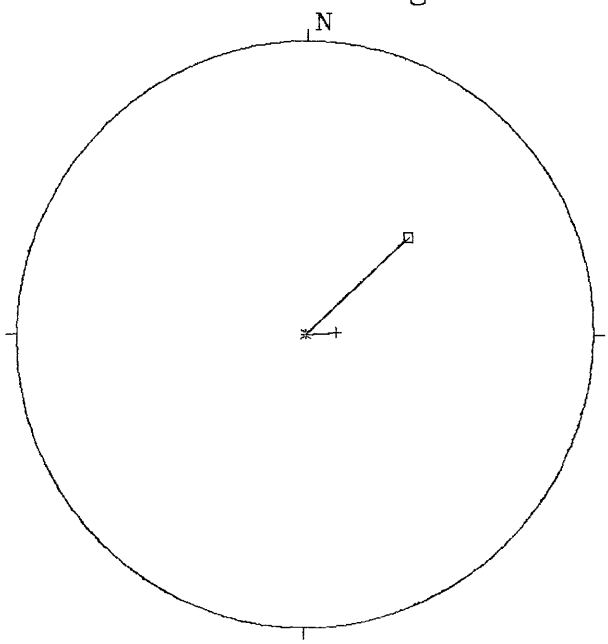
10261612 EVENT
COLOMBIA
RADIUS=5 deg.



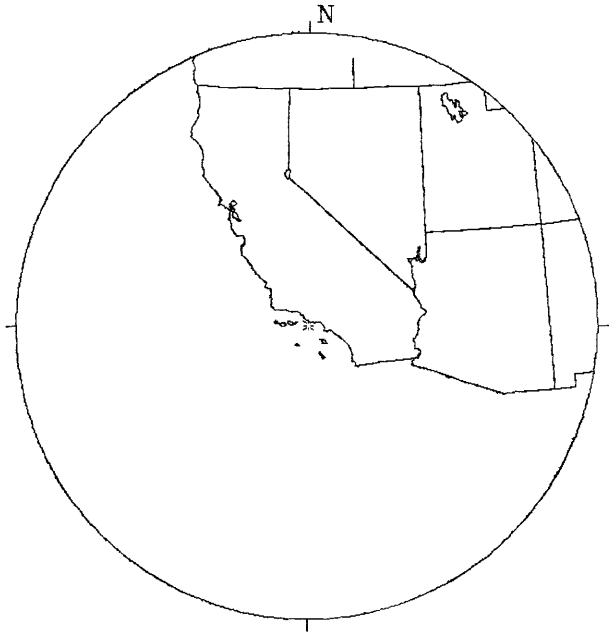
10261632 EVENT
E. CENTRAL PACIFIC OCEAN
RAD.=20 deg. PDE LOC.



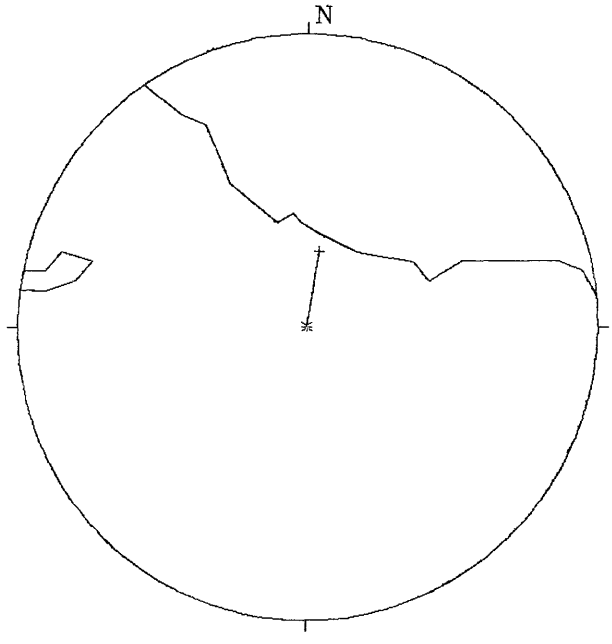
10261632 EVENT
E. CENTRAL PACIFIC OCEAN
RADIUS=1 deg.



10261720 EVENT
SOUTHERN CALIFORNIA
RAD.=10 deg. PDE LOC.

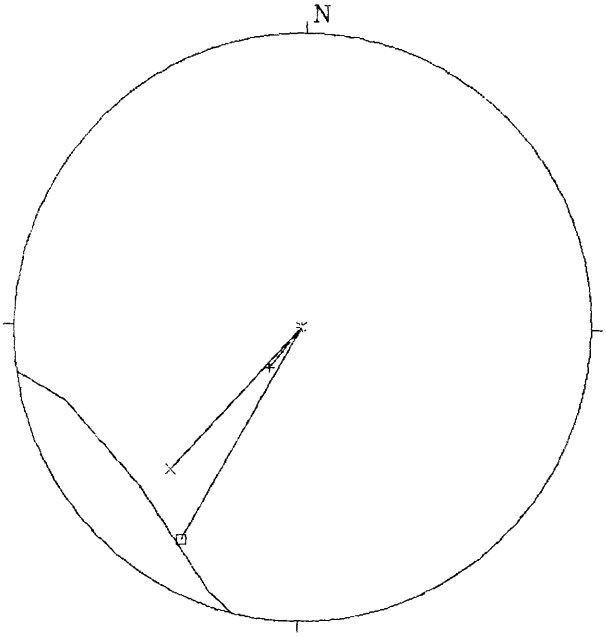


10261720 EVENT
SOUTHERN CALIFORNIA
RADIUS=.5 deg.



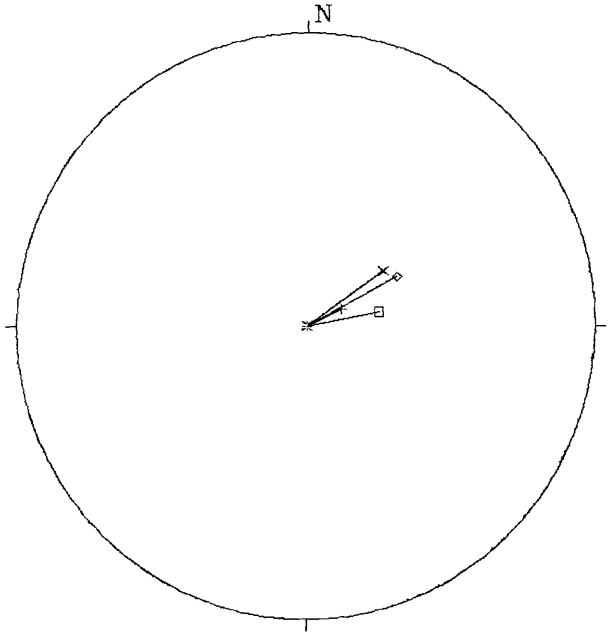
10261724 EVENT
SOUTHERN SUMATERA
RAD.=20 deg. PDE LOC.

10261724 EVENT
SOUTHERN SUMATERA
RADIUS=.5 deg.

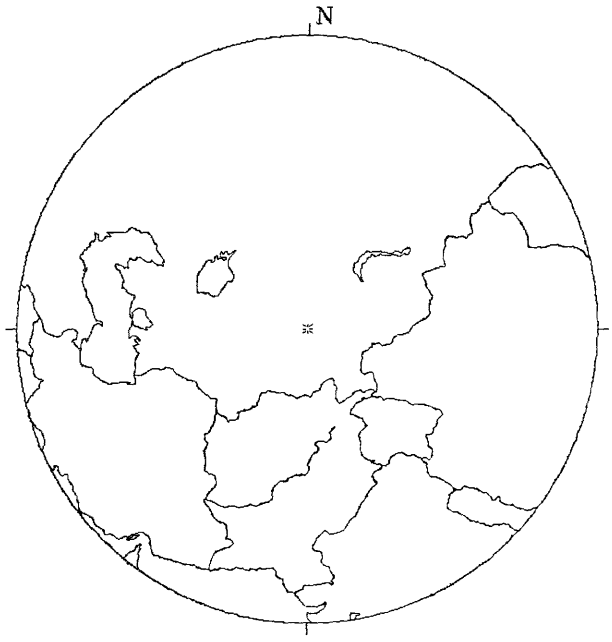


10262022 EVENT
TAJIK USSR
RAD.=20 deg. PDE LOC.

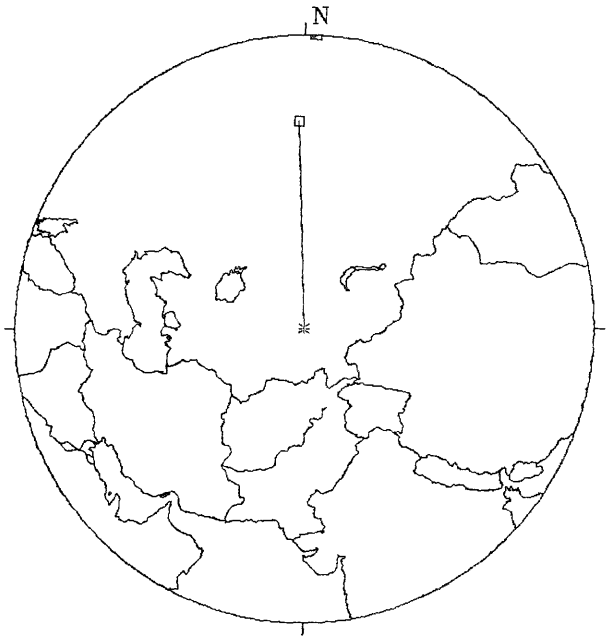
10262022 EVENT
TAJIK USSR
RADIUS=.5 deg.



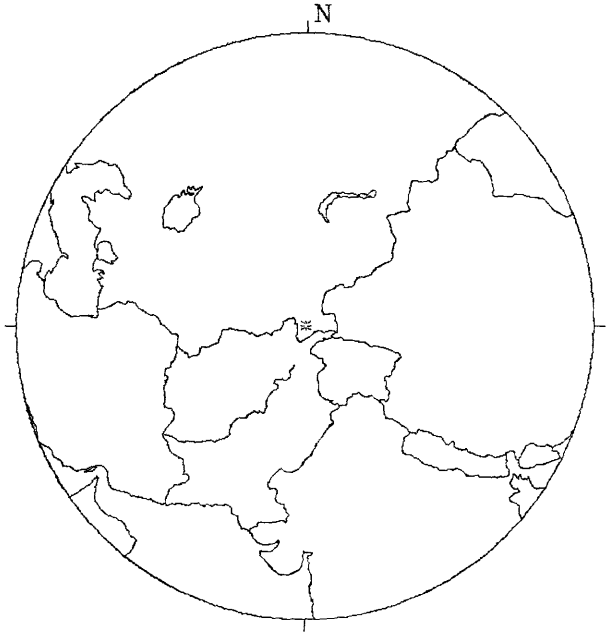
10262114 EVENT
CENTRAL KAZAKH
RAD.=20 deg. SEUS LOC.



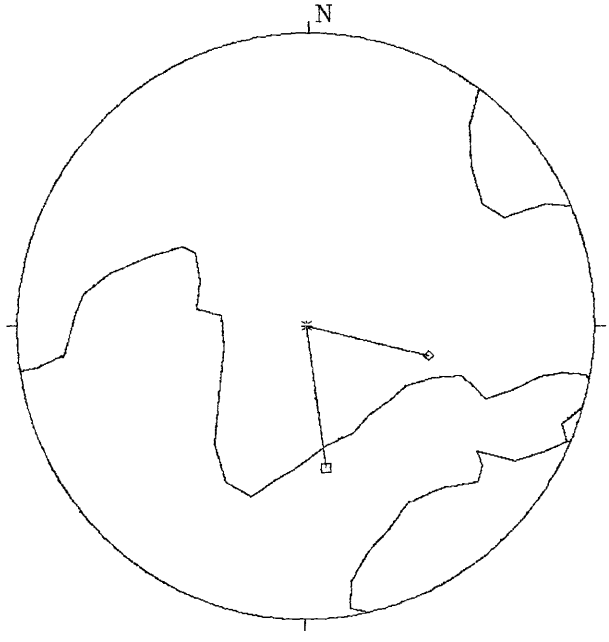
10262114 EVENT
CENTRAL KAZAKH
RADIUS=25 deg.



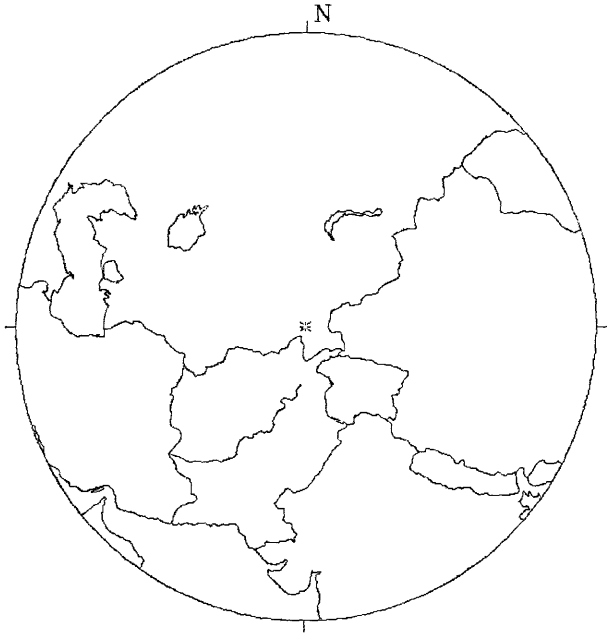
10262224 EVENT
TADJIK–XINJIANG BORDER REG.
RAD.=20 deg. SEUS LOC.



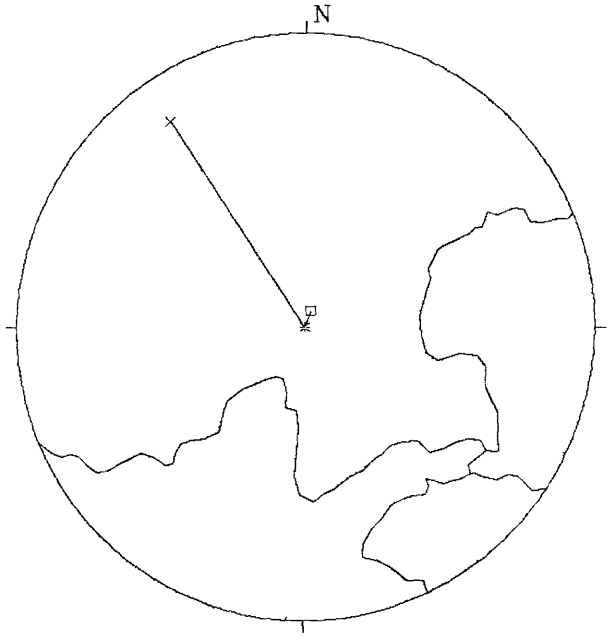
10262224 EVENT
TADJIK–XINJIANG BORDER REG.
RADIUS=2 deg.



10270047 EVENT
AFGHANISTAN–USSR BORDER REG.
RAD.=20 deg. PDE LOC.

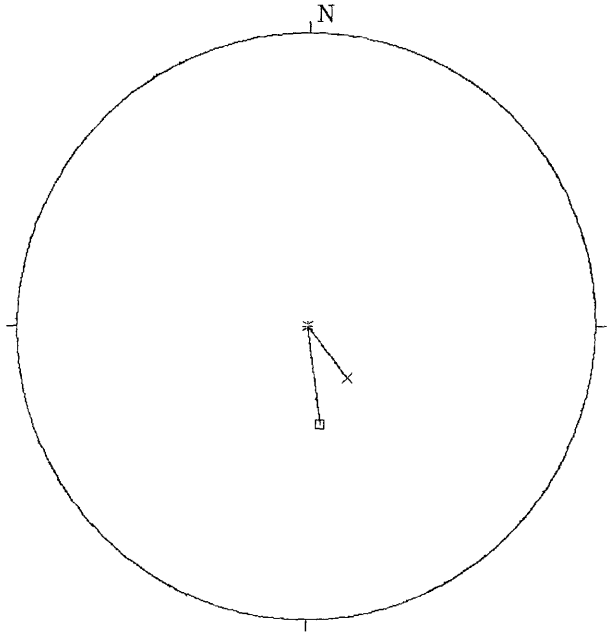


10270047 EVENT
AFGHANISTAN–USSR BORDER REG.
RADIUS=4 deg.

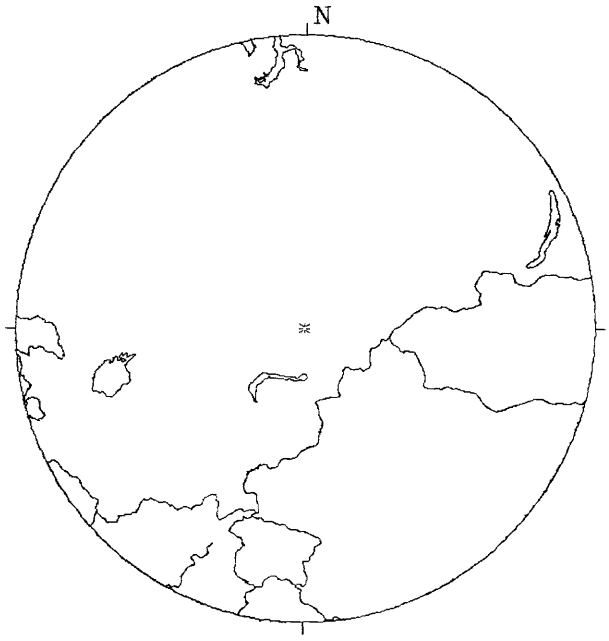


10270057 EVENT
AEGEAN SEA
RAD.=20 deg. PDE LOC.

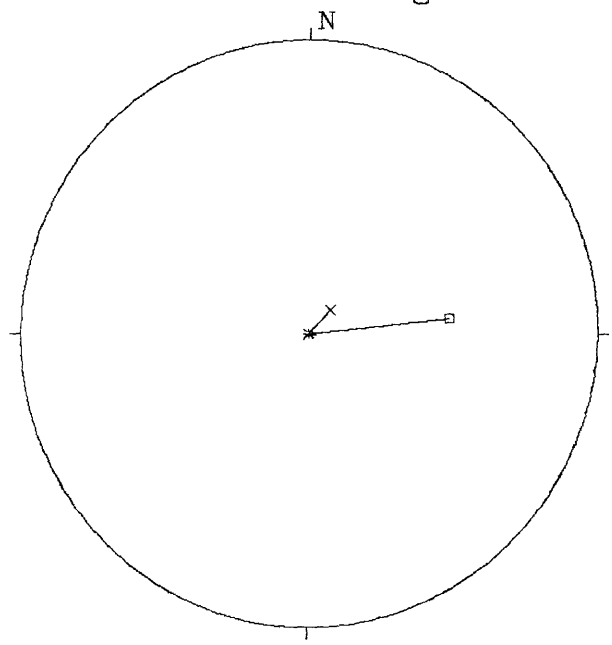
10270057 EVENT
AEGEAN SEA
RADIUS=.5 deg. PDE LOC.



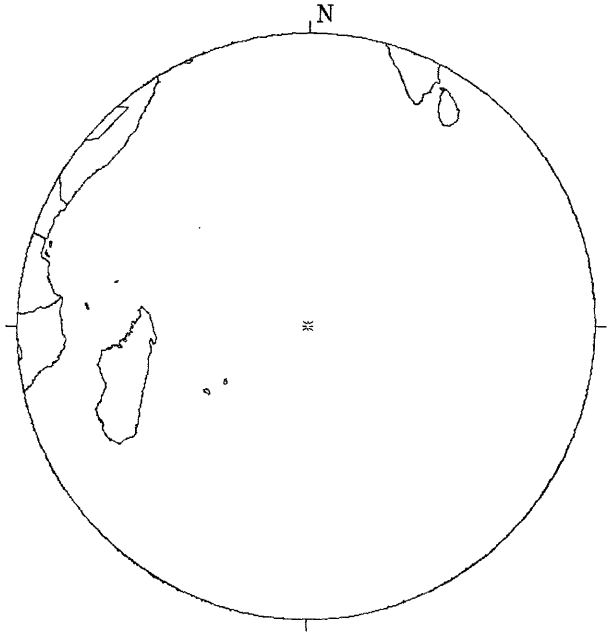
10270150 EVENT
EASTERN KAZAKH
RAD.=20 deg. PDE LOC.



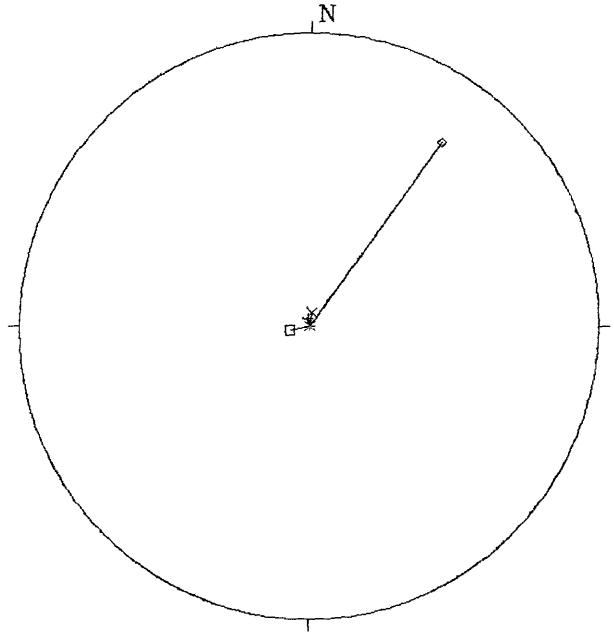
10270150 EVENT
EASTERN KAZAKH
RADIUS=1 deg.



10270432 EVENT
MID INDIAN RISE
rad.=20 deg. PDE LOC.

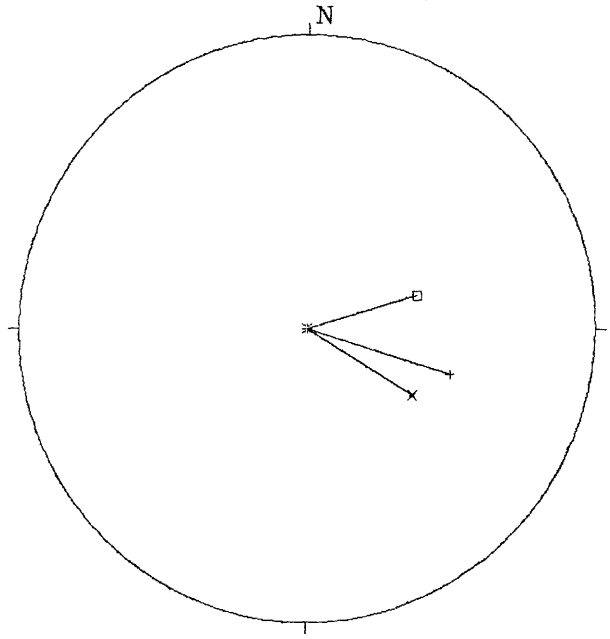


10270432 EVENT
MID INDIAN RISE
RADIUS=2 deg.



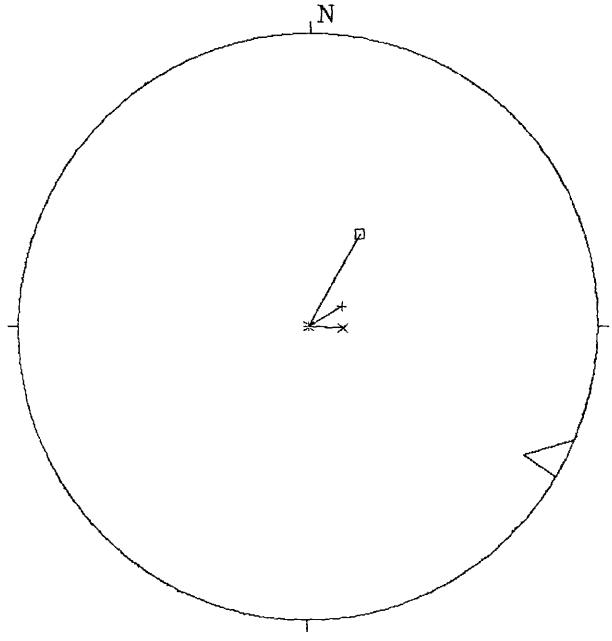
10270559 EVENT
SOUTHWESTERN USSR
RAD.=20 deg. PDE LOC.

10270559 EVENT
SOUTHWESTERN USSR
RADIUS=.5 deg.



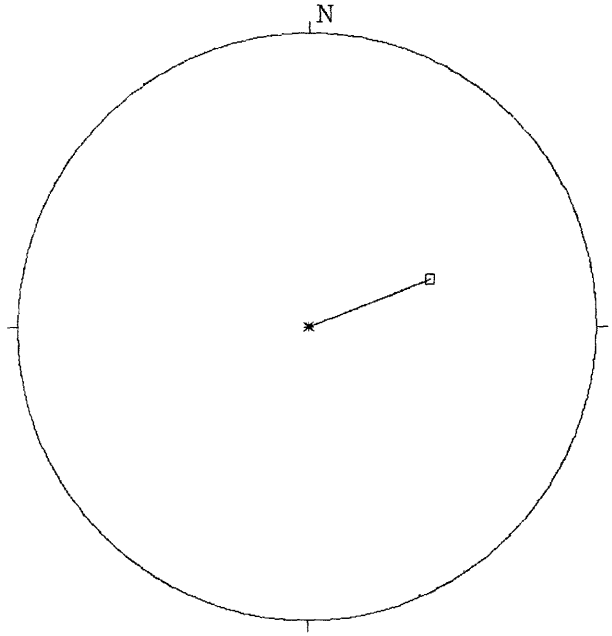
10270604 EVENT
SOUTHWESTERN USSR
RAD.=20 deg. PDE LOC.

10270604 EVENT
SOUTHWESTERN USSR
RADIUS=.5 deg.



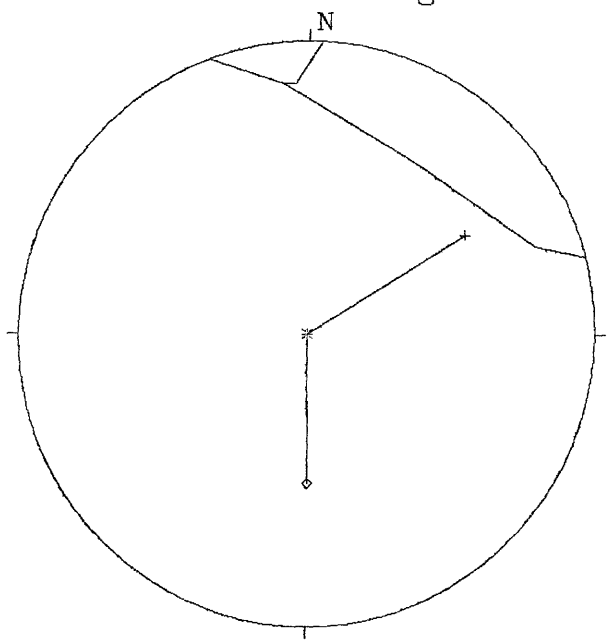
10270653 EVENT
EAST CENTRAL PACIFIC OCEAN
RAD.=20 deg. SEUS LOC.

10270653 EVENT
EAST CENTRAL PACIFIC OCEAN
RADIUS=.5 deg.

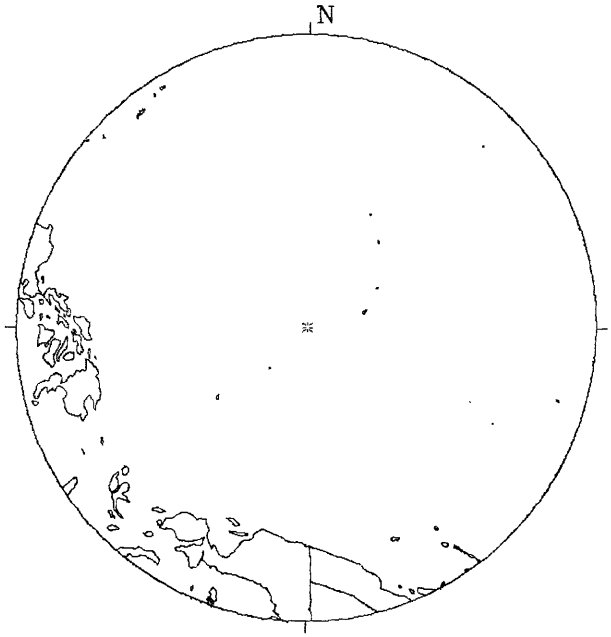


10270655 EVENT
NEAR COAST OF GUATEMALA
RAD.=35 deg. PDE LOC.

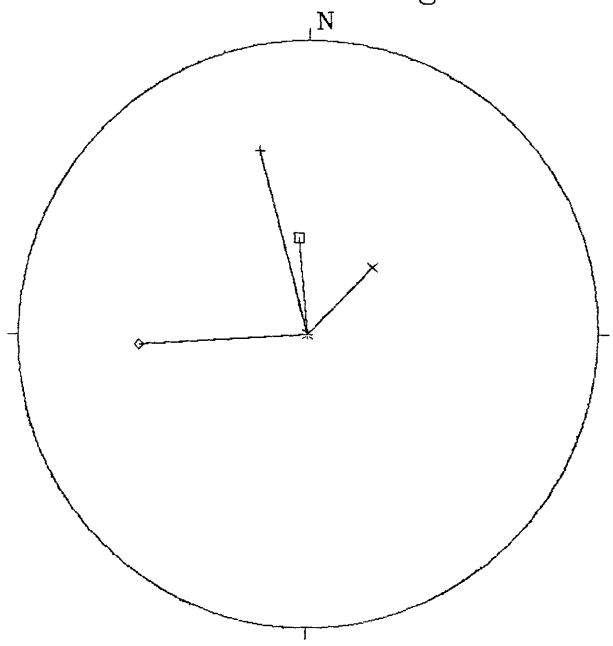
10270655 EVENT
NEAR COAST OF GUATEMALA
RADIUS=.5 deg.



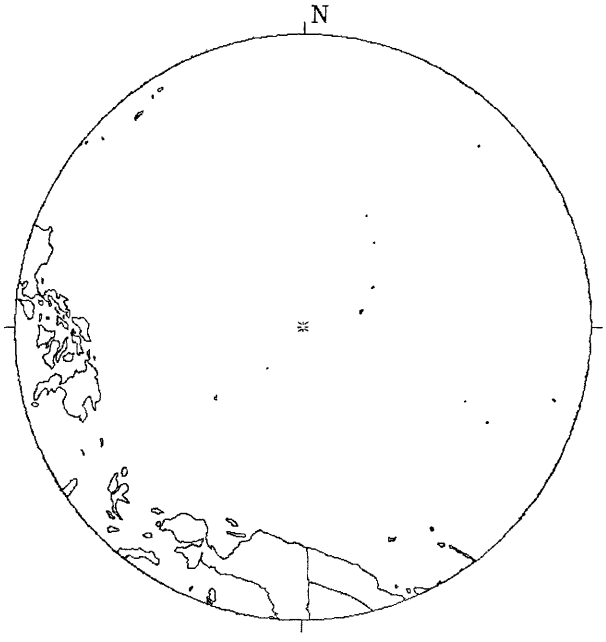
10270810 EVENT
WEST CAROLINE ISLANDS
RAD.=20 deg. PDE LOC.



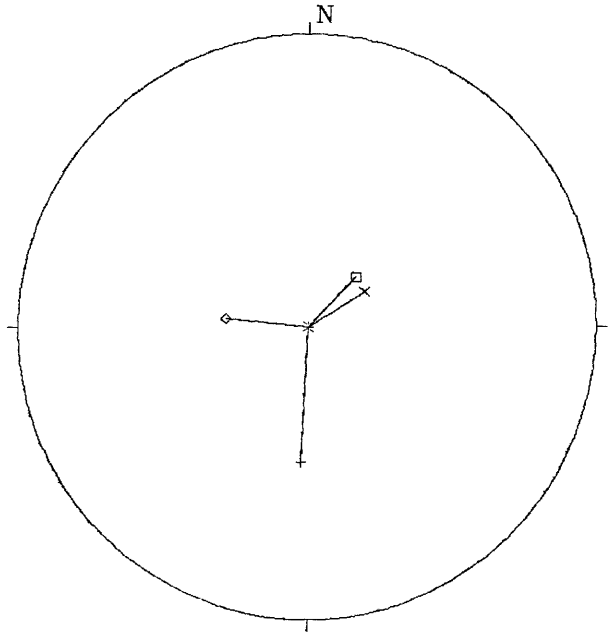
10270810 EVENT
WEST CAROLINE ISLANDS
RADIUS=.5 deg.



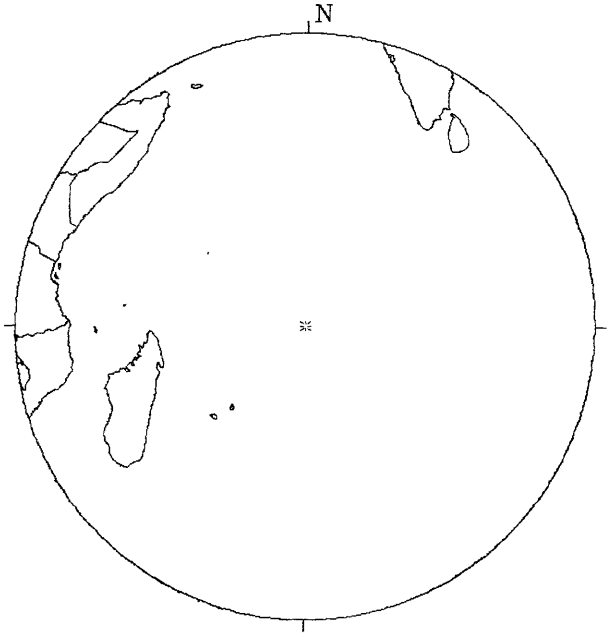
10270902 EVENT
WEST CAROLINE ISLANDS
RAD.=20 deg. PDE LOC.



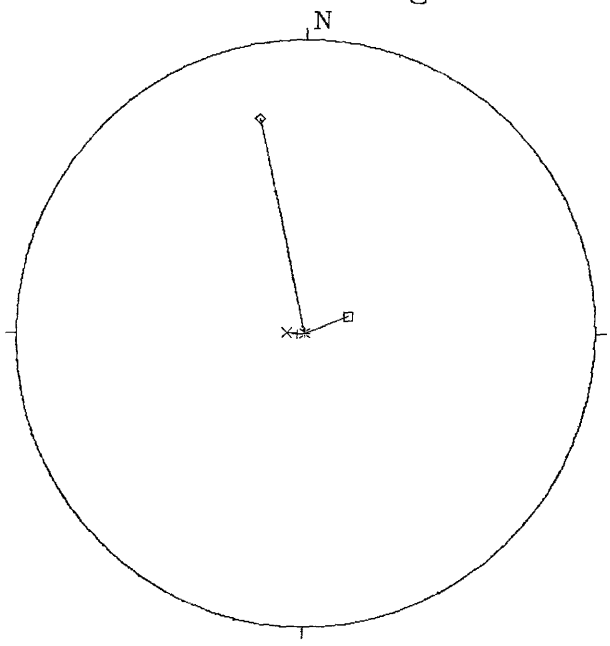
10270902 EVENT
WEST CAROLINE ISLANDS
RADIUS=1 deg.



10270955 EVENT
MID INDIAN RISE
RAD.=30 deg. PDE LOC.

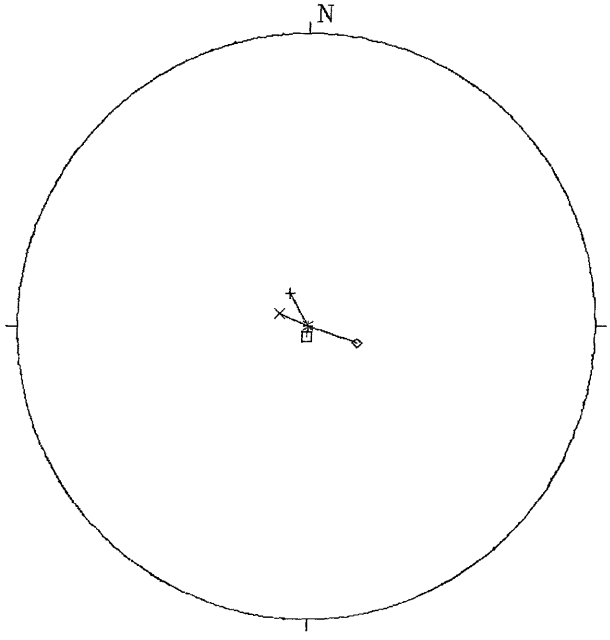


10270955 EVENT
MID INDIAN RISE
RADIUS=2 deg.



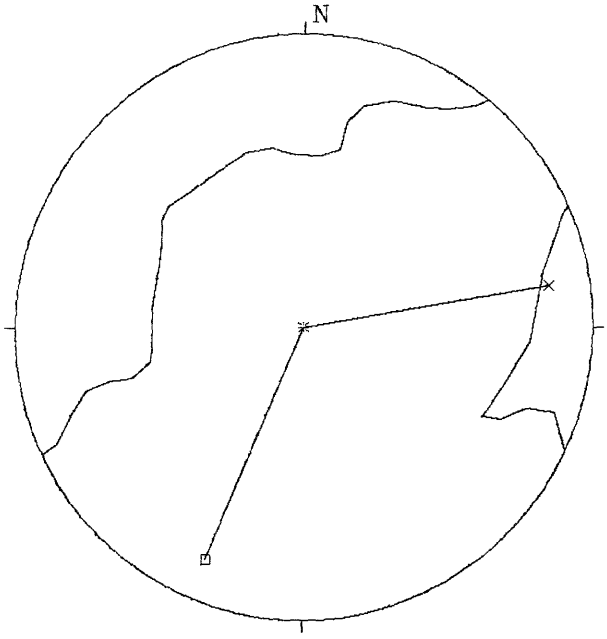
10271111 EVENT
NEAR E. COAST OF HONSHU,JAPAN
RAD.=20 deg. PDE LOC.

10271111 EVENT
NEAR E. COAST OF HONSHU,JAPAN
RADIUS=.5 deg.

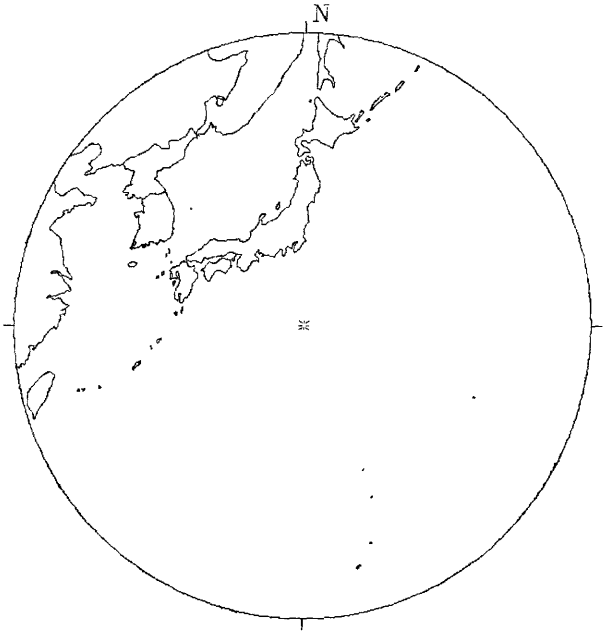


10271156 EVENT
NORTHERN COLOMBIA
RAD.=20 deg. PDE LOC.

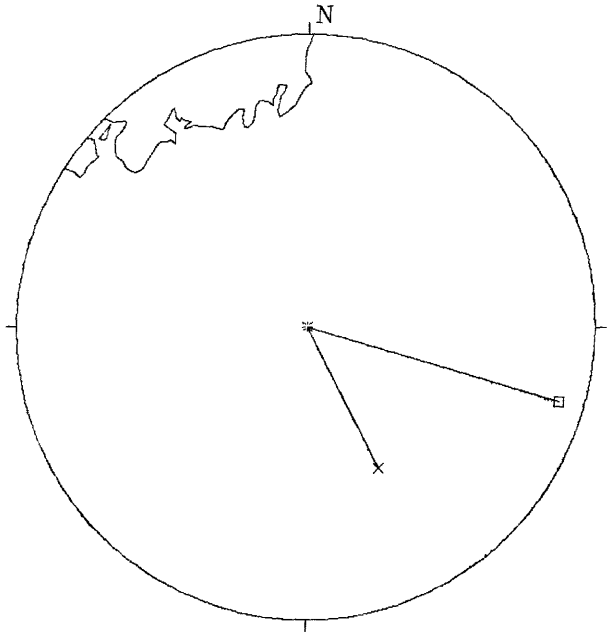
10271156 EVENT
NORTHERN COLOMBIA
RADSIUS=2 deg.



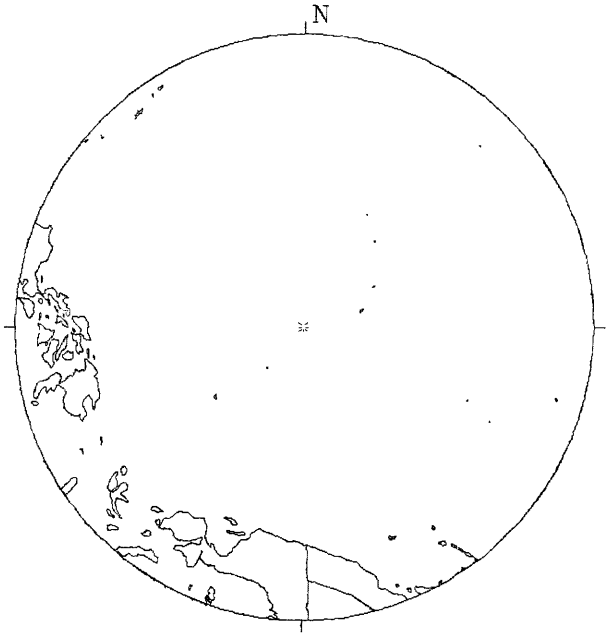
10271831 EVENT
SOUTH OF HONSHU,JAPAN
RAD.=20 deg. PDE LOC.



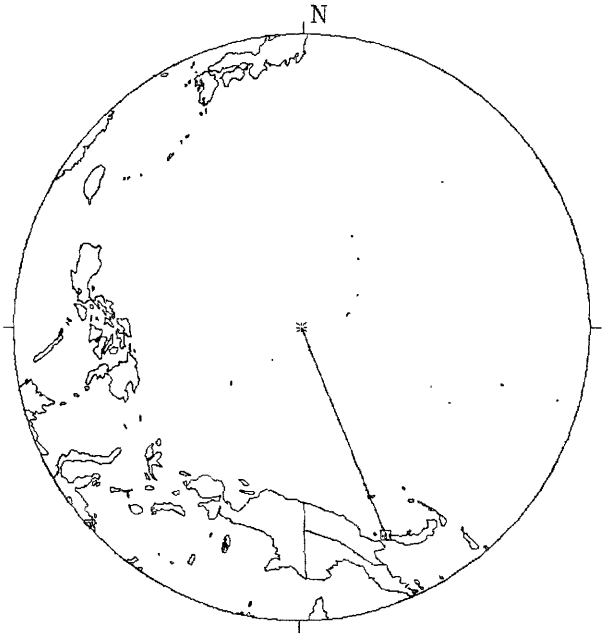
10271831 EVENT
SOUTH OF HONSHU,JAPAN
RADIUS=7 deg.



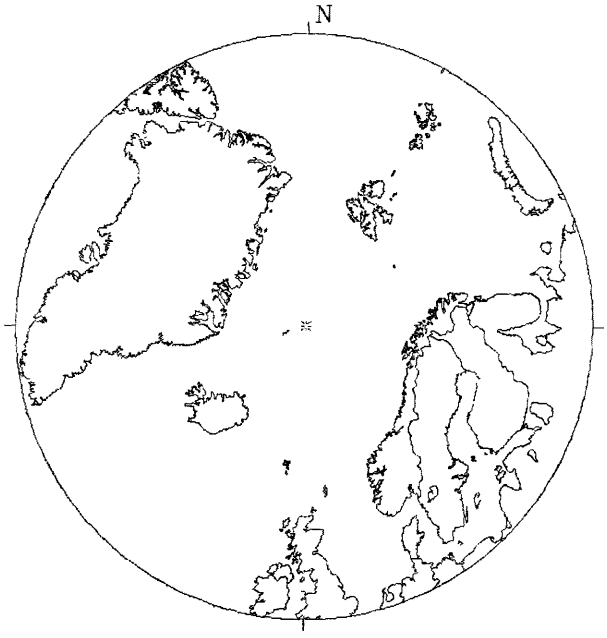
10271832 EVENT
WEST CAROLINE ISLANDS
RAD.=20 deg. PDE LOC.



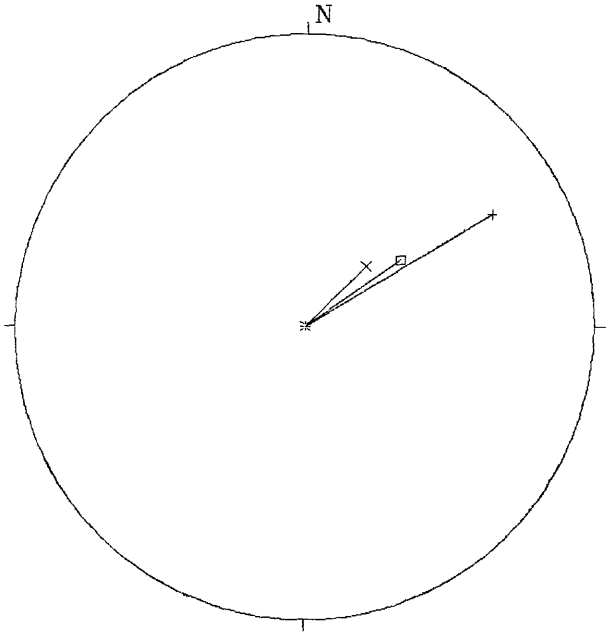
10271832 EVENT
WEST CAROLINE ISLANDS
RADIUS=25 deg.



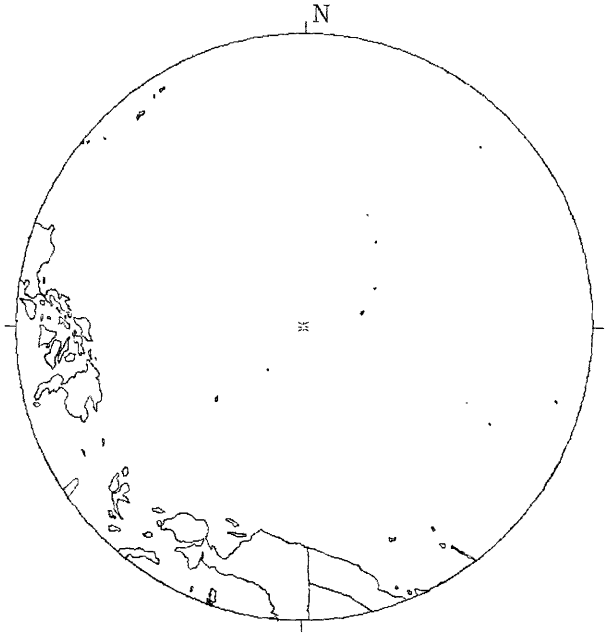
10280245 EVENT
JAN MAYEN ISLANDS REG.
RAD.=20 deg. PDE LOC.



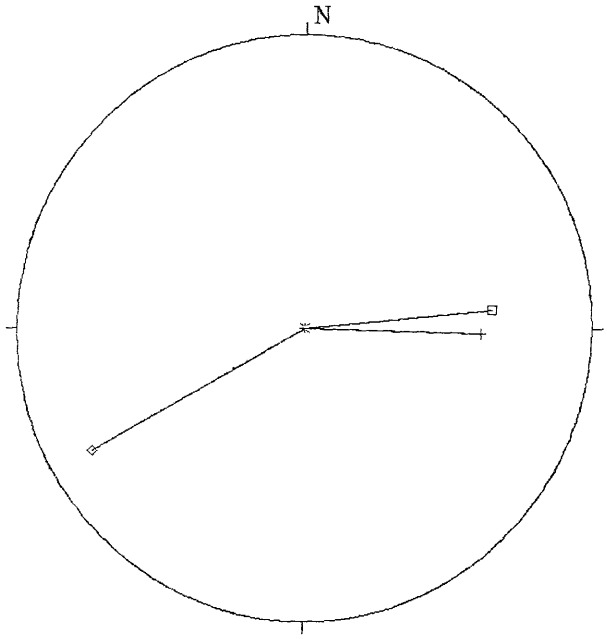
10280245 EVENT
JAN MAYEN ISLANDS REG.
RADIUS=1 deg.



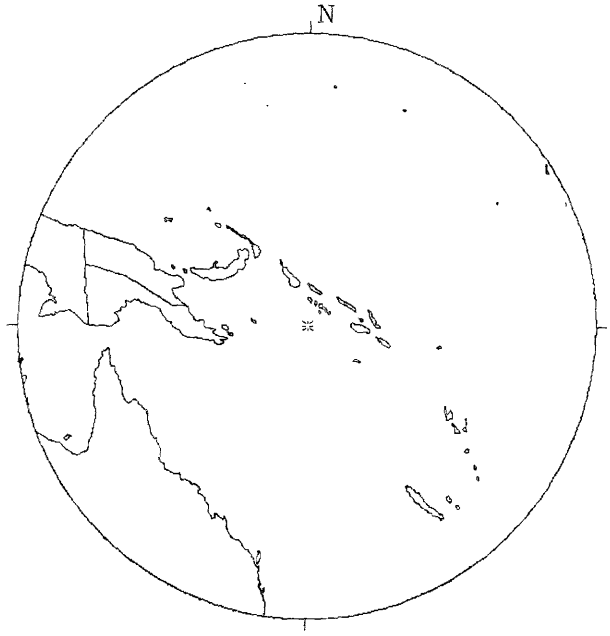
10281055 EVENT
WEST CAROLINE ISLANDS
RAD.=20 deg. PDE LOC.



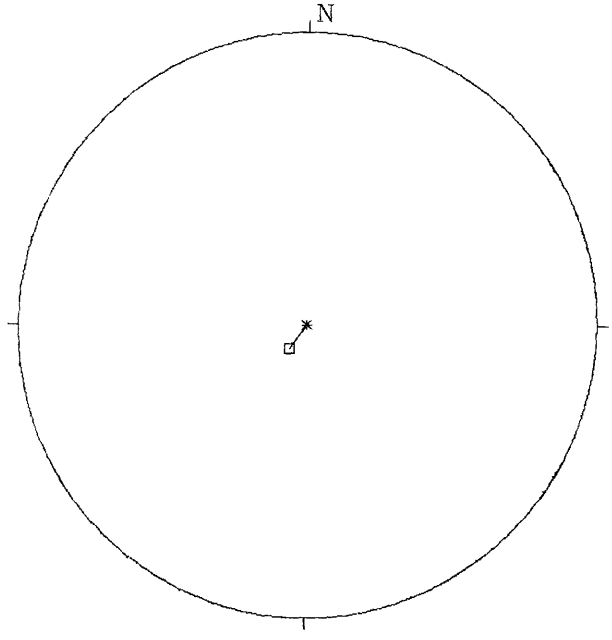
10281055 EVENT
WEST CAROLINE ISLANDS
RADIUS=.5 deg.



10281330 EVENT
SOLOMON ISLANDS
RAD.=20 deg. SEUS LOC.

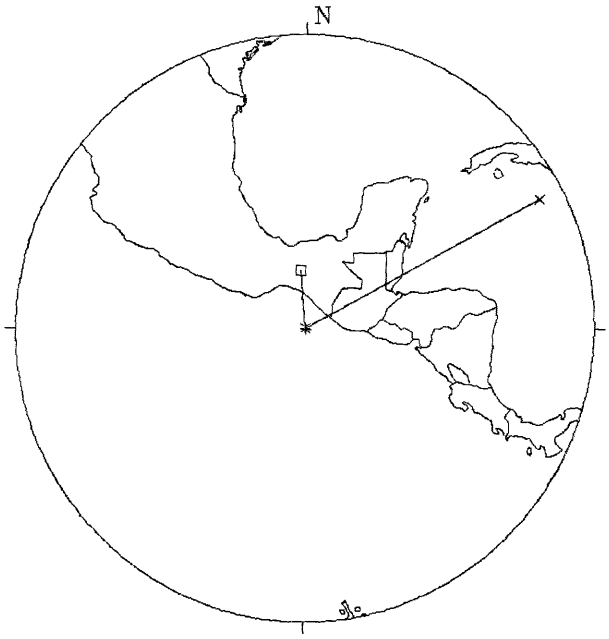


10281330 EVENT
SOLOMON ISLANDS
RADIUS=.5 deg.

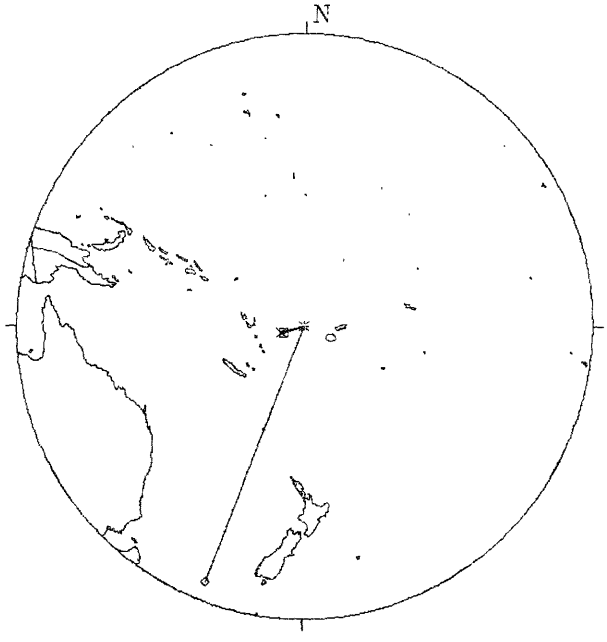


10281835 EVENT
NEAR COAST CHIAPAS,MEXICO
RAD.=20 deg. PDE LOC.

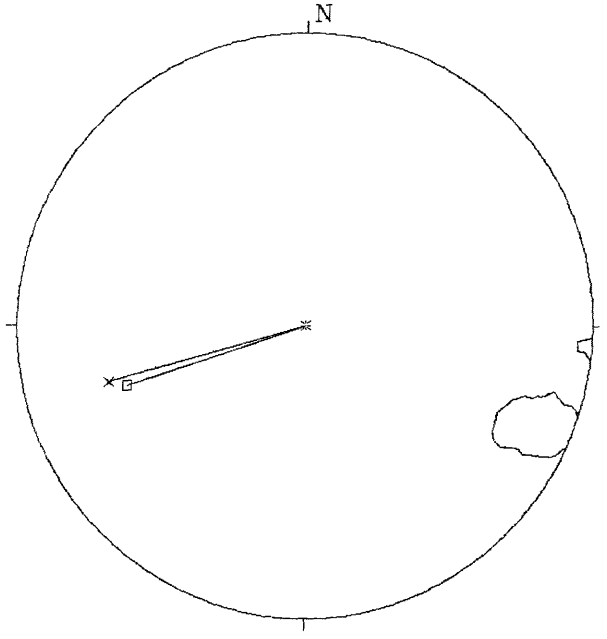
10281835 EVENT
NEAR COAST CHIAPAS,MEXICO
RADIUS=15 deg.



10281949 EVENT
FIJI ISLANDS REGION
RAD.=35 deg. PDE LOC.



10281949 EVENT
FIJI ISLANDS REGION
RADIUS=4.deg



APPENDIX III

Appendix III is a composite list of 704 events with the PDE, QED, SEUS, SERS, and SESN data centers being the source of these events.

EVENT LIST
OCTOBER 22 - NOVEMBER 21, 1984
SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
10/22	00:13:49.0	86.800	50.000	1	3.9	3.7	6	SESN
10/22	04:06:29.9	36.525	-121.336	10	3.7		11	PDE
10/22	04:30:50.6	-37.124	-71.854	33	4.4		18	PDE
10/22	04:44:55.0	-31.145	-69.314	111			15	PDE
10/22	04:56:11.2	-32.076	-71.623	33			8	PDE
10/22	07:59:34.4	19.702	-116.037	10	4.9	4.1	37	PDE
10/22	11:27:40.7	39.958	-119.464	5			11	PDE
10/22	11:43:51.5	-16.872	-73.197	33	4.8		19	PDE
10/22	14:47:28.0	-22.020	-175.120	1	4.4		5	SEUS
10/22	15:03:33.4	38.400	140.500	10	4.1		6	SESN
10/22	15:26:54.8	-31.482	-177.768	33	5.2	5.3	41	PDE
10/22	16:51:19.4	-17.682	-178.739	594	4.6		38	PDE
10/22	18:01:56.5	-31.960	-178.220	1	4.7		9	SEUS
10/22	18:18:17.3	65.300	-4.600	33	3.7		4	SESN
10/22	18:24:36.1	39.688	14.174	379	4.8		85	PDE
10/22	18:39:12.2	-38.300	157.370	43	4.6		5	SEUS
10/22	18:42:15.6	-31.400	-179.600	364	4.3		5	SESN
10/22	18:58:41.9	36.360	-81.672	8			6	PDE
10/22	19:46:03.2	31.921	128.874	33	4.9		15	PDE
10/22	20:57:45.8	14.993	146.949	50	5.0		54	PDE
10/22	21:21:08.2	36.210	71.250	33	4.6		8	QED
10/22	22:25:58.6	40.597	42.106	10	4.2		12	PDE
10/22	22:28:43.8	50.400	1.100	33	3.5		5	SESN
10/22	22:51:39.7	-33.083	-70.820	33			8	PDE
10/23	00:25:38.7	-19.020	-72.840	29	4.5		4	SEUS
10/23	01:42:34.6	35.969	27.159	33	4.1		13	PDE
10/23	02:09:09.7	-32.140	-178.460	48	4.4		5	SEUS
10/23	03:59:53.4	-4.861	153.657	89	4.2		15	PDE
10/23	04:18:02.6	-8.339	118.966	173	5.1		20	PDE
10/23	04:41:54.7	42.500	13.200	34	2.8		4	SESN
10/23	06:26:21.5	43.592	-73.937	1	3.2		7	PDE
10/23	07:08:19.3	30.800	57.400	78	4.0		5	SESN
10/23	08:04:48.3	55.682	165.039	33	5.2	5.8	67	PDE
10/23	08:43:10.5	44.404	80.769	33	5.0	4.3	40	PDE
10/23	10:07:22.6	-4.409	143.634	137	4.7		16	PDE
10/23	11:12:32.7	7.977	-102.955	10	4.8		19	PDE
10/23	12:06:01.2	45.759	26.478	117			6	PDE
10/23	12:24:04.6	70.200	-66.300	36	3.9		4	SESN
10/23	13:00:14.7	-32.810	-70.499	33			6	PDE
10/23	13:41:08.0	56.071	162.539	33	4.5		16	PDE
10/23	14:07:38.3	42.231	26.049	10			5	PDE
10/23	16:39:53.9	54.984	-135.167	10	3.9		11	PDE
10/23	18:53:11.4	-56.976	-24.915	33	4.6		15	PDE
10/23	19:25:31.7	-72.000	157.900	23	4.4		5	SESN
10/23	19:27:16.3	-21.151	-179.281	581	4.2		10	PDE
10/23	19:43:25.2	-2.000	-148.500	12	3.9		4	SESN

EVENT LIST
OCTOBER 22 - NOVEMBER 21, 1984
SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
10/23	20:24:33.2	-33.283	-70.747	33			8	PDE
10/23	20:49:27.9	39.814	16.674	10	4.0		12	PDE
10/23	21:20:39.5	-17.003	-173.740	33	4.4		8	PDE
10/23	21:36:38.9	-20.118	-174.106	33	4.8		18	PDE
10/23	22:07:17.8	34.636	70.463	33	4.8		35	PDE
10/23	22:28:59.6	13.726	144.932	124	5.4		91	PDE
10/23	22:48:04.4	34.210	25.400	3	4.6		4	SERS
10/23	22:52:14.5	49.660	82.650	4	4.1		7	SEUS
10/24	02:04:01.5	-4.875	101.769	33	4.5		14	PDE
10/24	02:28:58.4	-24.361	-179.891	465	5.0		45	PDE
10/24	02:28:48.6	-15.000	139.190	46	4.3		5	SEUS
10/24	03:12:38.9	36.408	71.915	33	4.5		9	PDE
10/24	03:21:43.5	-33.969	-70.501	99			5	PDE
10/24	05:09:44.1	37.716	21.134	10			5	PDE
10/24	05:30:19.4	2.998	127.868	161	4.9		26	PDE
10/24	06:05:29.0	-17.209	177.668	33			7	PDE
10/24	06:32:56.6	38.800	25.707	10			9	PDE
10/24	07:31:16.5	44.400	147.400	46	4.0		4	SESN
10/24	08:19:34.0	30.560	79.750	33	3.5		3	SEUS
10/24	08:37:56.8	8.583	-82.850	33	4.7		18	PDE
10/24	09:24:36.2	-40.479	-72.911	33	4.3		9	PDE
10/24	09:51:17.5	-31.437	-177.748	33	5.0		13	PDE
10/24	10:34:33.0	57.160	11.280	1	3.2		5	SEUS
10/24	10:36:52.4	44.296	-129.554	10	3.9		12	PDE
10/24	11:38:55.9	57.500	13.100	1	2.9		4	SESN
10/24	12:29:02.4	-32.834	-70.506	33			7	PDE
10/24	12:57:50.7	-33.303	-71.319	33			9	PDE
10/24	13:45:45.9	-7.737	116.953	303	4.7		13	PDE
10/24	17:25:32.7	-19.930	178.230	656	4.5		6	SEUS
10/24	17:32:46.5	-1.200	-25.300	33	5.4		5	SERS
10/24	19:04:56.6	-33.459	-71.016	33			6	PDE
10/24	19:17:48.2	38.073	20.199	10	4.7		12	PDE
10/24	22:07:54.5	40.600	26.300	153	3.3		4	SESN
10/25	00:28:09.8	-5.739	154.563	105	5.1		42	PDE
10/25	01:12:08.7	38.689	16.028	98	4.4		15	PDE
10/25	03:34:41.1	-34.115	-70.864	33			7	PDE
10/25	06:29:57.6	73.365	54.979	0	5.8	5.3	163	PDE
10/25	06:57:58.1	37.421	141.430	56	4.9		34	PDE
10/25	07:19:04.1	23.000	141.220	1	4.0		4	SEUS
10/25	08:15:45.5	26.207	-110.289	10	5.1	5.0	27	PDE
10/25	08:18:15.6	26.589	-110.439	10	5.3		8	PDE
10/25	08:25:02.2	-30.257	-70.896	33			8	PDE
10/25	09:36:49.5	-34.003	-70.108	33			6	PDE
10/25	09:49:18.6	37.025	21.657	36	4.9		94	PDE
10/25	10:14:26.9	36.774	21.390	33	4.5		9	PDE
10/25	10:15:07.9	36.614	75.570	33	4.8		15	PDE
10/25	10:36:02.2	34.750	-120.150	6	4.5		30	PDE

EVENT LIST
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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
10/25	11:22:35.5	-21.190	-177.510	9	4.6		7	SEUS
10/25	12:10:36.3	44.349	-114.182	10	3.6		7	PDE
10/25	12:17:33.4	-32.648	-70.926	33			9	PDE
10/25	12:37:12.7	51.624	-175.148	33	5.3	4.9	122	PDE
10/25	12:53:26.5	-8.994	67.331	10	5.0		13	PDE
10/25	13:18:39.4	-18.357	167.701	33	4.8		13	PDE
10/25	14:38:29.9	40.149	21.603	37	5.2	6.1	118	PDE
10/25	14:49:11.6	40.077	21.160	10	4.6		14	PDE
10/25	16:24:24.3	-24.380	-176.820	37	4.6		6	SEUS
10/25	16:25:16.5	-12.230	63.820	3	5.1		4	SERS
10/25	16:30:39.8	47.570	73.720	33	3.8		4	SEUS
10/25	17:21:46.7	27.950	46.160	1	3.8		4	SEUS
10/25	18:14:52.9	-18.204	167.407	33	4.9		19	PDE
10/25	20:33:32.7	0.867	100.120	206			6	PDE
10/25	21:14:22.5	36.560	71.380	98	4.2		8	SEUS
10/25	22:32:01.1	-18.407	-174.249	33	5.0		13	PDE
10/26	02:05:38.4	-4.500	139.620	17	4.5		3	SEUS
10/26	03:01:39.3	13.184	-90.674	33	4.7	4.0	24	PDE
10/26	04:02:13.8	13.139	-88.557	54	5.0		35	PDE
10/26	06:39:01.1	0.855	122.121	71	5.5		81	PDE
10/26	06:49:56.5	-27.820	-69.110	52	5.4		6	SEUS
10/26	07:44:27.9	-16.477	28.659	10	5.4		96	PDE
10/26	07:48:49.4	-21.170	-175.330	143	4.6		6	SEUS
10/26	08:07:36.3	0.873	122.101	76	5.3		53	PDE
10/26	08:49:23.4	1.620	126.319	43	5.8	6.0	137	PDE
10/26	09:12:17.0	1.709	126.342	33	5.3		42	PDE
10/26	09:34:58.4	-35.100	-130.650	33	4.5		3	SEUS
10/26	12:32:48.8	63.500	5.000	33	3.7		5	SESN
10/26	15:07:55.4	40.224	41.930	10	4.7		33	PDE
10/26	15:54:56.7	-10.612	165.894	168	5.0		27	PDE
10/26	16:12:49.7	3.011	-76.036	190	4.2		10	PDE
10/26	16:32:26.2	19.571	-116.076	10	4.2		10	PDE
10/26	17:20:40.4	33.922	-119.070	5	4.2		15	PDE
10/26	17:24:12.4	-4.837	104.304	117	4.6		11	PDE
10/26	20:22:22.0	39.176	71.340	33	6.0	6.1	183	PDE
10/26	21:11:27.5	34.930	87.111	33	4.9		7	SERS
10/26	21:14:13.7	41.700	68.940	724	4.2		8	SEUS
10/26	21:33:35.4	39.086	71.486	33	4.8		29	PDE
10/26	22:24:03.2	37.770	72.220	107	4.2		9	SEUS
10/27	00:28:35.5	-33.608	-70.732	33			7	PDE
10/27	00:47:31.7	38.978	71.598	33	4.3		7	PDE
10/27	00:57:31.6	39.069	25.171	10	4.7		25	PDE
10/27	01:50:10.6	49.950	78.842	0	6.2	4.4	195	PDE
10/27	04:32:01.4	-14.770	66.537	10	5.0	4.9	52	PDE
10/27	05:59:58.6	47.041	47.919	0	4.8		76	PDE
10/27	06:04:57.1	46.843	48.073	0	4.8		65	PDE
10/27	06:53:56.2	3.620	-90.410	17	4.4		7	SEUS

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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
10/27	06:55:20.3	13.415	-90.212	65	4.6		20	PDE
10/27	08:10:11.7	12.337	140.817	59	4.9		23	PDE
10/27	09:02:29.8	12.332	140.731	41	5.2		33	PDE
10/27	09:55:42.1	-12.113	65.395	10	5.1	5.0	70	PDE
10/27	11:11:48.9	37.719	141.802	46	5.4	5.2	111	PDE
10/27	11:56:12.2	9.784	-74.621	45	5.1		14	PDE
10/27	17:16:04.4	-21.600	-139.400	31	4.7		4	SEUS
10/27	18:31:04.3	29.853	140.861	74	4.8		27	PDE
10/27	18:32:40.5	12.317	140.739	44	5.1		21	PDE
10/27	23:03:55.6	-20.300	-175.300	228	4.5		6	SESN
10/27	23:11:00.9	-33.466	-72.169	33			6	PDE
10/28	02:45:00.6	71.476	-4.237	10	4.8	4.3	41	PDE
10/28	03:53:25.0	-21.700	-175.910	1	4.4		4	SEUS
10/28	06:01:23.1	-55.200	110.600	28	4.2		4	SESN
10/28	06:04:20.9	1.300	126.600	198	4.3		4	SESN
10/28	10:55:19.9	12.469	140.666	33	4.7		13	PDE
10/28	13:30:17.8	-9.460	156.630	551	4.8		4	SEUS
10/28	14:28:49.8	-32.876	-70.963	33			5	PDE
10/28	14:41:19.1	-18.200	-177.000	1	4.8		4	SESN
10/28	15:41:49.5	-6.706	130.258	122	4.6		9	PDE
10/28	15:49:17.8	-32.892	-70.845	33			5	PDE
10/28	16:31:41.8	40.769	25.814	10			6	PDE
10/28	18:35:51.3	14.053	-93.549	33	4.6	4.3	18	PDE
10/28	19:49:41.1	-16.496	174.388	33	4.5	4.6	12	PDE
10/28	20:30:27.2	-33.303	-70.323	33			7	PDE
10/29	01:39:11.4	64.714	-143.625	33			10	PDE
10/29	01:59:14.7	36.700	-104.900	1	4.0		4	SEUS
10/29	02:05:39.1	39.155	21.9612	10	4.2		17	PDE
10/29	03:04:38.7	43.570	-126.896	10	4.3		12	PDE
10/29	04:52:28.8	-11.800	167.040	33	4.2		7	SEUS
10/29	05:47:01.6	-32.527	-72.011	33	4.5		11	PDE
10/29	09:25:36.5	24.277	125.106	33	5.0	5.0	36	PDE
10/29	11:37:31.7	4.440	27.290	3	3.,9		4	SERS
10/29	12:45:10.2	18.030	60.930	1	3.9		6	SEUS
10/29	12:50:58.2	-19.29	169.00	1	4.5		7	SEUS
10/29	13:30:56.3	-15.500	-178.200	276	4.6		5	SESN
10/29	14:03:53.2	58.940	9.560	1	3.1		4	SEUS
10/29	13:29:26.7	46.226	12.571	10			18	PDE
10/29	15:47:49.6	24.313	125.259	33	4.7		10	PDE
10/29	17:47:46.4	42.912	138.410	176	4.2		12	PDE
10/29	18:19:10.3	40.300	138.600	50	4.4		5	SERS
10/29	19:19:53.5	-33.792	-72.281	33			6	PDE
10/29	19:50:13.2	-33.771	-71.944	33			5	PDE
10/29	20:04:10.5	16.949	147.122	42	4.6		13	PDE
10/29	21:35:28.9	-33.777	-72.060	33			6	PDE
10/29	22:41:34.7	24.700	153.200	21	4.7	5.3	8	SESN
10/29	22:43:13.5	44.164	147.125	51	4.9		49	PDE

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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
10/29	22:55:43.8	-50.500	162.800	33	4.1		6	SESN
10/29	22:59:17.7	60.39	9.59	1	3.1		5	SEUS
10/29	23:04:43.4	51.189	179.486	33	5.1	5.2	102	PDE
10/29	23:18:06.2	5.696	125.646	164	6.0		226	PDE
10/29	23:50:46.7	-18.870	67.365	10	5.4		80	PDE
10/30	00:41:00.1	75.400	5.900	19	3.6		5	SESN
10/30	01:05:49.9	-17.117	-174.106	141	6.0		249	PDE
10/30	01:05:49.7	-10.800	-178.120	121	4.6		9	SEUS
10/30	01:23:35.8	53.000	22.300	33	3.6		5	SESN
10/30	03:13:54.3	-33.588	-70.5.5	90	5.3		52	PDE
10/30	05:58:19.7	-33.692	-70.113	33			5	PDE
10/30	06:31:01.4	-29.100	-177.000	32	4.4		4	SESN
10/30	13:06:46.6	5.657	125.795	155	4.9		39	PDE
10/30	14:39:49.3	39.634	15.583	268	4.8		96	PDE
10/30	15:12:27.8	-24.535	-179.710	470	5.1		12	PDE
10/30	15:44:59.7	-33.434	-70.937	12			9	PDE
10/30	16:12:10.8	-33.108	-70.608	33			7	PDE
10/30	16:15:08.2	38.200	139.100	16	4.4		8	SESN
10/30	16:19:09.6	42.830	72.340	33	4.9		5	SERS
10/30	17:20:31.5	-31.576	-177.572	33	5.1	5.9	39	PDE
10/30	17:21:13.7	-30.900	176.500	12	4.8		5	SESN
10/30	20:33:41.0	-31.530	-177.707	33	5.4	5.7	56	PDE
10/30	20:43:32.9	48.530	124.420	1	4.5		9	SEUS
10/30	20:50:06.6	39.495	-122.710	4			9	PDE
10/30	22:51:57.3	-5.485	146.994	229	5.0		18	PDE
10/30	22:55:46.1	42.300	71.100	33	3.9		4	SESN
10/30	23:05:30.6	44.437	-114.111	10			6	PDE
10/30	23:40:47.3	8.071	-104.131	33	4.5		8	PDE
10/30	23:44:00.0	38.500	-122.705	5			11	PDE
10/31	01:17:37.4	52.889	-174.490	185	4.5		60	PDE
10/31	03:05:12.1	37.293	-121.683	5			18	PDE
10/31	04:31:21.7	-27.900	166.000	1	4.3		5	SESN
10/31	04:33:26.0	-9.670	156.600	660	4.6		4	SEUS
10/31	04:40:04.6	51.173	179.577	54	5.0		109	PDE
10/31	04:53:14.7	4.676	-73.992	10			5	PDE
10/31	05:59:35.5	-32.995	-70.658	33			7	PDE
10/31	08:23:52.3	-33.643	-71.443	33			7	PDE
10/31	13:09:20.1	42.280	25.948	10			6	PDE
10/31	13:16:04.8	-34.072	-70.955	71			7	PDE
10/31	13:40:08.8	42.552	24.016	10			8	PDE
10/31	13:54:55.5	-10.800	-56.470	3	4.7		5	SERS
10/31	14:09:09.1	34.400	74.700	42	4.2		6	SESN
10/31	14:12:27.1	37.383	-121.652	7			22	PDE
10/31	14:1^;29.5	59.890	22.280	33	3.0		4	SEUS
10/31	17:02:16.2	-5.990	147.309	33			5	PDE
10/31	19:13:04.5	-31.52	-179.75	409	4.6		4	SEUS
10/31	19:44:03.7	1.013	122.200	87	3.9		5	PDE

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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
10/31	19:58:21.3	-38.83	-178.64	9	4.6		6	SEUS
10/31	20:42:24.6	2.540	98.400	3	4.7		6	SERS
10/31	20:48:50.3	59.600	-65.400	33	3.7		5	SEUS
10/31	21:36:31.0	-16.897	-173.713	120	5.1		22	PDE
10/31	21:56:50.6	-32.638	-71.148	33			7	PDE
11/01	04:48:49.9	8.147	30.758	10	6.5	7.1	197	PDE
11/01	04:48:48.3	10.300	42.000	1	4.4		7	SESN
11/01	06:49:21.4	42.907	144.193	33	4.8		8	PDE
11/01	07:41:05.4	-5.910	149.103	128	4.7		19	PDE
11/01	08:17:59.6	60.542	-150.513	33			8	PDE
11/01	09:27:36.6	-19.736	-175.856	198	5.7		179	PDE
11/01	09:43:21.4	50.500	29.200	33	3.7		6	SESN
11/01	11:25:04.3	-32.010	-179.300	21	4.4		5	SEUS
11/01	12:02:25.5	50.276	12.690	10			6	PDE
11/01	18:43:42.5	55.236	163.817	33	5.8	6.3	216	PDE
11/01	19:05:01.6	49.000	165.200	52	4.0		4	SESN
11/01	19:05:32.5	54.210	165.010	1	4.1		7	SEUS
11/01	20:06:51.7	-26.990	-177.280	287	4.3		4	SEUS
11/01	20:42:50.1	55.302	163.699	33	4.7		20	PDE
11/01	21:02:29.7	-6.151	148.553	78	4.4		12	PDE
11/01	23:00:22.9	-6.632	147.894	31	4.9		43	PDE
11/02	02:18:18.0	-23.390	-178.860	158	4.7		7	SEUS
11/02	03:38:41.3	-10.165	-13.287	10	5.3	4.9	43	PDE
11/02	03:48:01.4	13.229	-89.960	80	5.3		130	PDE
11/02	03:49:13.9	33.100	136.900	613	3.9		5	SESN
11/02	03:57:42.4	-29.900	-71.800	21	3.9		5	SESN
11/02	03:59:19.3	54.540	-113.670	42	3.8		4	SEUS
11/02	04:43:52.6	-44.200	163.800	52	4.7		7	SESN
11/02	04:50:08.4	8.292	126.018	33	5.5	5.2	68	PDE
11/02	06:31:45.3	78.600	121.900	33	3.9		4	SESN
11/02	06:33:30.6	8.217	126.094	33	5.4	5.4	55	PDE
11/02	09:54:22.2	4.930	166.710	35	4.1		4	SEUS
11/02	10:08:07.8	11.462	119.426	33	4.7		15	PDE
11/02	10:24:47.0	37.267	-121.668	5			9	PDE
11/02	12:02:38.4	50.256	12.682	10			6	PDE
11/02	12:45:35.1	18.430	147.500	1	4.2		4	SEUS
11/02	13:13:37.9	0.000	79.490	3	4.7		4	SERS
11/02	13:25:32.3	60.420	14.200	25	1.3		4	SEUS
11/02	14:35:13.4	30.780	59.500	3	4.3		5	SERS
11/02	14:40:40.5	61.820	-6.990	1	3.3		5	SEUS
11/02	14:42:04.4	62.500	21.600	65	3.0		5	SESN
11/02	16:50:17.9	42.417	143.510	124	4.8		52	PDE
11/02	17:45:44.2	58.954	-152.664	94	4.0		16	PDE
11/02	20:25:48.9	-26.080	-177.610	24	4.3		5	SEUS
11/02	20:44:58.3	-21.904	-139.003	0	5.7		79	PDE
11/02	20:46:06.5	6.600	146.800	15	4.8		6	SESN

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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
11/03	02:33:16.0	-18.949	67.370	10	5.1	5.2	67	PDE
11/03	02:56:33.7	55.360	163.418	33	4.4	4.0	8	QED
11/03	03:01:39.9	20.326	-115.655	10	4.7		12	QED
11/03	04:23:05.7	43.580	-110.798	5			9	PDE
11/03	06:32:07.0	-23.937	-179.909	538	5.1		14	QED
11/03	06:33:55.9	16.257	-98.333	33	4.6		18	PDE
11/03	08:16:44.6	40.300	-117.300	33	4.5		5	SERS
11/03	08:23:06.0	38.320	20.090	17	3.9		8	QED
11/03	08:51:46.8	40.415	-125.187	5			9	PDE
11/03	09:11:11.2	37.267	-121.663	6			10	PDE
11/03	09:30:08.6	42.544	-108.866	5	5.0	4.1	10	PDE
11/03	09:34:50.1	37.272	-121.658	7			9	PDE
11/03	11:31:20.3	-8.410	156.178	33	4.5		8	PDE
11/03	13:18:52.0	54.423	-154.346	33	4.6		41	PDE
11/03	13:21:12.8	74.300	-172.300	33	4.1		5	SESN
11/03	14:43:31.0	-5.984	153.009	18	4.9		40	PDE
11/03	15:43:45.4	-1.532	138.036	33	4.5		12	PDE
11/03	15:50:32.0	38.059	140.752	121	4.8		30	PDE
11/03	16:51:54.0	60.870	34.470	33	3.5		4	SEUS
11/03	19:31:42.5	-7.684	127.502	137	5.0		16	PDE
11/03	20:05:06.0	-4.499	145.943	33	4.2		8	PDE
11/03	23:00:19.7	71.900	-25.300	1	3.6		4	SESN
11/04	00:29:50.2	49.080	61.060	1	3.9		4	SEUS
11/04	01:31:11.9	-32.000	179.75	575	4.5		4	SEUS
11/04	02:57:08.0	48.350	157.250	1	3.9		5	SEUS
11/04	07:16:10.9	-1.230	104.090	579	4.0		4	SEUS
11/04	08:00:56.2	18.530	145.500	168	4.5		9	SEUS
11/04	10:53:29.2	40.400	-124.932	13			4	PDE
11/04	11:20:19.7	36.553	-121.172	5			8	PDE
11/04	12:18:06.3	-19.910	-177.440	8	4.6		6	SEUS
11/04	12:43:46.5	16.823	-95.139	135	4.5		13	PDE
11/04	13:11:38.4	-22.510	-175.780	27	4.4		5	SEUS
11/04	13:14:19.4	6.785	-73.014	161	5.1		139	PDE
11/04	13:27:08.2	-26.690	179.260	54	4.4		5	SEUS
11/04	17:35:28.8	11.008	-43.448	10	5.2		84	PDE
11/04	18:42:12.5	36.020	74.530	1	3.9		5	SEUS
11/04	19:49:31.5	20.236	-115.768	10	4.4		19	PDE
11/04	21:45:46.8	-32.783	-70.052	113	4.7		18	PDE
11/04	22:31:35.3	24.080	122.429	33	4.9		26	PDE
11/04	22:35:31.8	-10.100	-75.200	1	4.2		4	SESN
11/05	00:17:46.8	25.670	130.650	1	3.9		4	SEUS
11/05	04:08:11.4	6.400	72.900	19	3.9		5	SESN
11/05	04:08:42.4	-15.600	-170.200	1	4.5		7	SESN
11/05	04:10:06.9	-15.800	-152.200	26	3.6		4	SESN
11/05	04:13:04.3	53.270	70.550	29	4.0		6	SEUS
11/05	04:17:32.9	-11.882	-13.735	10	5.1	5.7	62	PDE
11/05	05:57:55.4	14.135	-91.192	90	4.7		42	PDE

EVENT LIST
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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
11/05	06:06:17.1	37.500	70.210	23	5.2		73	PDE
11/05	06:53:02.7	-8.400	128.400	156	3.7		4	SESN
11/05	11:41:47.5	-5.998	111.750	607	5.4		56	PDE
11/05	11:55:50.1	41.930	-61.500	61	3.8		5	SEUS
11/05	13:23:51.0	61.150	15.280	12	2.1		4	SEUS
11/05	14:18:09.2	42.680	17.030	236	3.2		5	SEUS
11/05	14:23:52.6	-4.467	152.652	97	5.0		48	PDE
11/05	14:49:24.6	0.000	-13.110	3	5.1		4	SERS
11/05	14:59:34.6	59.100	14.180	1	2.2		4	SEUS
11/05	15:01:12.9	41.581	20.060	10			11	PDE
11/05	16:37:03.1	23.007	121.628	33	4.7	5.0	28	PDE
11/05	17:15:53.2	10.313	125.651	33	4.9		12	PDE
11/05	21:11:03.7	20.130	-115.712	10	4.2		8	PDE
11/05	22:58:16.9	51.540	13.110	34	3.5		6	SEUS
11/05	23:12:44.3	-7.600	129.400	1	4.1		4	SESN
11/06	04:31:21.6	10.510	125.568	33	4.8		15	PDE
11/06	06:21:05.4	020.700	169.696	118	4.6		26	PDE
11/06	07:58:51.3	-18.904	67.358	10	6.3	5.8	211	PDE
11/06	08:02:08.4	-3.500	13.840	3	4.6		6	SERS
11/06	08:53:49.5	45.100	73.300	10	3.9		6	SESN
11/06	09:44:05.4	-12.600	162.100	32	4.0		5	SESN
11/06	09:44:21.0	-18.640	-175.476	228	5.4		135	PDE
11/06	11:40:30.7	58.300	14.200	1	2.6		4	SESN
11/06	12:40:58.2	-10.051	161.469	100	5.1		36	PDE
11/06	21:39:32.7	-72.600	-38.500	20	4.1		5	SESN
11/06	21:47:30.4	17.900	-92.500	502	4.1		5	SESN
11/06	23:51:32.1	-6.411	130.173	153	5.2		36	PDE
11/07	00:06:19.6	-21.800	-177.600	52	4.7		8	SESN
11/07	00:15:04.8	40.750	124.400	3	4.5		5	SERS
11/07	02:14:42.0	-18.905	67.344	10	5.1		65	PDE
11/07	05:34:01.7	2.990	177.260	3	5.3		4	SERS
11/07	06:05:53.3	-17.540	-173.940	48	4.4		5	SEUS
11/07	06:24:52.0	-6.500	129.800	231	3.9		5	SESN
11/07	07:21:05.2	38.679	19.980	10	4.0		11	PDE
11/07	07:24:22.5	-0.730	-65.750	13	4.0		4	SEUS
11/07	11:08:07.1	57.020	4.290	28	3.2		4	SEUS
11/07	11:10:31.0	57.210	-10.700	16	3.2		5	SEUS
11/07	11:25:14.6	-15.500	159.700	732	4.7		5	SESN
11/07	11:39:42.4	38.959	27.919	10	4.1		43	PDE
11/07	12:13:14.0	50.250	12.665	10			8	PDE
11/07	12:54:54.5	20.490	-116.290	1	3.8		4	SEUS
11/07	13:22:07.3	59.600	10.600	38	2.7		4	SESN
11/07	15:09:07.1	43.848	150.880	33	4.9		47	PDE
11/07	16:55:11.2	-22.800	-176.800	43	4.6		6	SESN
11/07	17:54:21.8	35.600	21.260	55	3.9		6	SEUS
11/07	21:43:41.5	-18.833	67.168	10	4.7		16	PDE

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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
11/08	01:16:29.0	38.350	71.780	244	4.4		12	SEUS
11/08	02:17:31.2	20.270	-116.030	8	4.2		7	SEUS
11/08	03:07:24.3	13.565	-90.620	74	4.8		28	PDE
11/08	05:30:17.1	-2.135	150.546	33	5.4	5.3	75	PDE
11/08	05:31;45.4	-30.700	152.400	8	3.9		5	SESN
11/08	05:54:53.3	10.422	125.091	33	4.8		10	PDE
11/08	06:32:55.9	-30.674	-71.355	42	5.3	5.2	39	PDE
11/08	07:12:58.4	-6.093	148.666	59	5.3		46	PDE
11/08	07:47:00.9	4.261	-76.810	59	4.6		9	PDE
11.08	09:37:32.1	52.158	-171.019	33	4.8	4.5	27	PDE
11/08	12:01:25.2	43.380	-126.801	10	4.2	3.9	21	PDE
11/08	12:05:35.3	50.266	12.607	33			7	PDE
11/08	12:26:05.8	50.282	12.694	10			5	PDE
11/08	12:49:27.5	-1.890	149.475	33	5.1		40	PDE
11/08	13:02:00.1	52.123	-170.940	33	5.4	5.3	147	PDE
11/08	13:16:47.8	-32.829	-178.635	61	5.4		23	PDE
11/08	13:22:32.5	-33.550	-179.850	1	4.5		7	SEUS
11/08	13:57:52.5	-23.900	-64.600	1	4.5		4	SEUS
11/08	14:17:47.0	-31.420	-68.625	110	5.4		59	PDE
11/08	14:53:56.3	52.288	-171.094	33	4.8		10	PDE
11/08	15:33:04.0	0.653	126.478	81	4.8		10	PDE
11/08	16:22:55.9	-26.220	178.890	147	4.5		6	SESN
11/08	17:17:22.8	14.290	145.540	31	4.3		4	SEUS
11/08	17:36:48.8	43.140	-128.000	33	3.6		5	SEUS
11/08	17:48:03.7	52.010	-170.892	33	4.6		24	PDE
11/08	19:02:39.8	-30.330	-177.630	1	4.1		3	SEUS
11/08	20:04:42.2	40.300	137.800	88	4.0		5	SESN
11/08	20:06:32.9	53.450	137.080	408	3.9		5	SEUS
11/08	23:03:02.1	-9.420	107.670	1	4.3		4	SEUS
11/09	02:22:24.6	6.070	143.560	409	4.8		5	SEUS
11/09	02:23:38.3	10.366	125.261	33	5.0		37	PDE
11/09	02:54:49.3	10.250	125.190	6	5.0		17	SEUS
11/09	05:13:56.0	41.042	19.916	10			15	PDE
11/09	06:58:07.9	63.925	-148.028	30	3.7		16	PDE
11/09	08:05:42.1	24.580	125.420	1	4.3		6	SEUS
11/09	09:23:10.9	-24.153	-66.786	188	4.7		28	PDE
11/09	09:51:21.3	38.371	22.151	10			10	PDE
11/09	10:26:26.7	50.710	14.660	49	2.8		5	SEUS
11/09	11:22:18.5	50.233	12.601	10			7	PDE
11/09	11:39:05.0	60.100	9.960	1	2.4		5	SEUS
11/09	12:26:43.3	50.289	12.727	10			6	PDE
11/09	12:40:51.8	-21.000	-175.290	122	4.5		6	SEUS
11/09	13:19:50.3	-4.101	140.568	33	4.9		21	PDE
11/09	14:45:17.6	-46.250	123.020	16	4.4		6	SEUS
11/09	16:10:37.2	-32.260	-179.540	158	4.7		5	SEUS
11/09	16:52:59.9	2.600	140.900	1	4.4		4	SESN
11/09	16:58:02.6	42.937	-126.795	10	4.1		8	PDE

EVENT LIST
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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
11/09	16:58:51.3	38.346	22.138	10			6	PDE
11/09	17:46:40.6	-8.810	107.710	1	4.5		5	SEUS
11/09	19:49:59.0	10.351	125.185	33	4.9	4.6	28	PDE
11/09	19:51:40.2	63.015	-150.068	33			9	PDE
11/09	20:58:55.5	38.315	22.112	10			9	PDE
11/09	21:04:01.8	11.200	-84.280	12	4.2		6	SEUS
11/10	00:30:42.6	-21.240	-178.970	33	4.8		4	SERS
11/10	01:40:08.6	35.266	139.832	119	4.6		16	PDE
11/10	04:25:71.5	-18.980	-178.410	13	5.4		13	SEUS
11/10	05:33:32.3	12.200	-87.670	223	4.0		6	SEUS
11/10	06:21:06.0	-7.329	128.562	160	5.4		58	PDE
11/10	07:55:31.6	-18.900	-18.900	10	5.4	5.3	109	PDE
11/10	08:30:57.8	40.415	142.281	33	4.8		32	PDE
11/10	08:40:30.4	61.685	-27.223	10	5.0	5.3	96	PDE
11/10	08:44:48.4	51.300	6.200	1	2.0		5	SESN
11/10	11:12:17.2	50.210	12.615	10			6	PDE
11/10	11:47:07.6	0.000	67.180	3	4.2		4	SERS
11/10	11:54:27.1	50.990	-13.720	1	3.3		5	SEUS
11/10	14:03:39.8	-16.290	-179.300	298	4.4		5	SEUS
11/10	14:40:04.3	34.725	25.012	33	3.8		15	PDE
11/10	14:47:25.9	-13.030	-75.760	4	4.7		9	SEUS
11/10	14:54:19.9	-31.830	-179.200	1	4.3		6	SEUS
11/10	16:08:40.5	33.300	141.500	4	4.0		5	SESN
11/10	16:29:08.2	-6.228	148.728	78	5.3		31	PDE
11/10	16:40:00.0	37.000	-116.017	0	4.5		29	PDE
11/10	18:38:56.0	31.800	-107.900	25	3.6		3	SEUS
11/10	19:03:23.4	-32.542	-70.336	108			14	PDE
11/10	23:08:21.7	13.976	-91.206	55	4.7		36	PDE
11/11	00:04:00.1	27.440	142.667	33	4.7		22	PDE
11/11	02:29:23.9	51.229	15.718	10			13	PDE
11/11	02:57:12.0	-29.304	-70.761	33			12	PDE
11/11	03:11:14.7	-11.432	118.113	33	4.9		12	PDE
11/11	04:33:57.3	-12.687	166.766	112	5.6		86	PDE
11/11	04:35:12.4	-13.300	161.600	564	4.6	4.9	5	SESN
11/11	05:45:42.2	61.308	-147.486	33			13	PDE
11/11	06:03:28.4	30.536	-116.493	5			8	PDE
11/11	08:33:21.6	-18.640	176.070	63	4.3		5	SEUS
11/11	08:45:49.9	56.900	-41.300	1	3.7		4	SESN
11/11	09:42:43.8	40.454	63.328	33	4.9	3.8	82	PDE
11/11	13:37:00.9	-7.971	128.580	127	4.3		12	PDE
11/11	16:51:38.1	41.98	78.82	33	3.7		4	SEUS
11/11	19:45:07.6	-33.580	-179.850	33	4.5		7	SEUS
11/11	20:03:48.2	-31.751	-70.095	145			11	PDE
11/11	20:31:08.4	-17.603	-178.453	616	4.3		9	PDE
11/11	22:25:41.0	12.930	-87.300	28	3.8		4	SEUS
11/11	22:27:22.6	18.000	-90.900	727	3.9		5	SESN

EVENT LIST
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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
11/11	23:18:39.4	62.900	26.200	33	4.2		4	SESN
11/12	00:42:35.3	-6.707	127.394	422	5.0		12	PDE
11/12	01:06:24.1	10.407	125.249	33	5.3	5.3	81	PDE
11/12	02:42:15.8	10.450	125.294	33	5.1	4.4	42	PDE
11/12	03:32:45.6	10.509	125.325	33	4.9	4.0	20	PDE
11/12	03:50:34.8	-33.682	-70.250	119			10	PDE
11/12	04:49:17.7	10.441	125.374	33	4.5		10	PDE
11/12	05:43:29.0	-23.599	-179.939	545	4.9		16	PDE
11/12	08:45:41.5	-21.290	-175.820	51	4.4		4	SEUS
11/12	09:20:36.6	36.600	70.170	56	3.6		3	SEUS
11/12	09:21:30.8	38.490	75.810	540	4.0		6	SEUS
11/12	09:23:42.0	52.900	-26.860	3	4.5		5	SERS
11/12	10:51:47.0	-24.953	179.613	519	5.1		72	PDE
11/12	12:04:02.2	50.173	12.559	10			7	PDE
11/12	12:04:56.9	-25.232	179.946	562	5.0		18	PDE
11/12	12:31:13.9	-10.825	164.908	33	4.7		23	PDE
11/12	13:07:58.7	-20.314	-173.523	33	5.3	5.4	56	PDE
11/12	13:30:05.3	0.000	64.930	33	4.6		4	SERS
11/12	14:24:15.6	62.100	-10.450	1	3.2		3	SEUS
11/12	15:35:12.5	57.210	14.010	33	3.4		6	SEUS
11/12	16:58:10.8	32.460	153.780	32	4.2		6	SEUS
11/12	18:47:42.5	40.065	142.850	56	4.9		45	PDE
11/12	21:13:28.8	70.340	10.820	23	3.3		5	SEUS
11/12	22:56:29.8	-37.613	179.073	33	4.7		9	PDE
11/12	23:55:41.4	-33.755	-70.586	107			9	PDE
11/13	00:04:13.2	36.375	-120.361	5			8	PDE
11/13	00:37:48.8	62.076	-150.845	32			6	PDE
11/13	02:02:19.2	12.902	-88.178	60	4.6		25	PDE
11/13	03:11:14.4	44.317	-114.280	10			7	PDE
11/13	05:10:38.8	-46.450	143.930	15	4.0		5	SEUS
11/13	06:24:04.6	36.530	76.280	1	3.8		4	SEUS
11/13	06:35:22.2	20.900	145.700	1	4.5		6	SESN
11/13	06:40:34.7	39.531	73.999	33	4.8		39	PDE
11/13	06:42:01.3	43.210	69.200	559	4.4		12	SEUS
11/13	07:20:25.8	-6.003	151.200	63	4.6		18	PDE
11/13	08:22:49.3	5.300	120.300	27	4.2		3	SESN
11/13	08:33:38.6	11.210	-67.990	1	3.8		3	SEUS
11/13	09:11:40.3	-23.930	-113.190	23	4.7		5	SEUS
11/13	09:18:09.2	13.505	120.335	66	4.7		13	PDE
11/13	10:38:14.3	-3.130	138.140	449	4.3		4	SEUS
11/13	10:39:22.1	41.900	-20.290	33	4.3		6	SEUS
11/13	10:56:23.7	-30.480	-68.840	1	4.3		4	SEUS
11/13	12:07:57.5	59.600	10.260	1	2.6		4	SEUS
11/13	13:08:26.4	52.081	-173.896	33	4.7		9	PDE
11/13	14:03:17.1	1.921	-76.061	27	5.0		45	PDE
11/13	14:31:39.5	19.730	-83.460	1	4.1		6	SEUS
11/13	15:22:32.9	59.010	11.110	27	2.6		4	SEUS

EVENT LIST
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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
11/13	16:04:12.2	-1.570	122.060	150	4.3		4	SEUS
11/13	16:23:44.1	51.198	15.701	10			11	PDE
11/13	16:24:32.0	3.960	-75.320	227	4.0		5	SEUS
11/13	23:29:44.2	61.783	-149.770	33			5	PDE
11/14	04:08:15.2	4.758	95.864	33	5.1		23	PDE
11/14	05:50:14.4	16.957	120.865	124	5.7		139	PDE
11/14	07:27:57.6	59.720	80.020	38	3.8		4	SEUS
11/14	09:52:12.2	59.250	17.010	12	2.9		5	SEUS
11/14	10:01:33.6	36.081	31.009	72	4.6		20	PDE
11/14	10:31:43.3	-41.000	62.100	8	4.3		9	SESN
11/14	10:38:57.2	24.258	126.492	42	4.8		14	PDE
11/14	10:43:37.1	-36.900	146.000	1	3.7		4	SESN
11/14	10:55:36.7	55.732	160.693	152	4.7		53	PDE
11/14	11:58:21.4	17.161	73.812	33	4.5		11	PDE
11/14	12:55:37.9	41.001	61.527	33	4.6		17	PDE
11/14	13:31:30.4	33.300	116.740	2	4.2		6	SEUS
11/14	14:53:50.5	40.787	23.233	10	4.1		41	PDE
11/14	15:23:15.4	-0.344	123.216	113	4.4		10	PDE
11/14	18:21:09.5	-10.080	150.510	134	4.4		4	SEUS
11/14	19:14:06.6	21.871	121.195	55	5.0		18	PDE
11/14	19:40:07.6	52.990	168.523	33	4.4		5	PDE
11/14	23:49:42.7	34.950	71.380	23	4.0		6	SEUS
11/15	02:06:30.2	40.250	-124.352	10	3.0		10	PDE
11/15	02:13:46.6	59.000	158.580	0	4.1		7	SEUS
11/15	02:35:05.5	-6.980	-76.690	1	4.1		5	SEUS
11/15	02:46:01.7	-21.800	172.400	33	4.6		8	SESN
11/15	02:46:22.4	-22.023	170.897	127	6.2		248	PDE
11/15	03:28:41.6	36.920	36.070	10	4.2		12	SEUS
11/15	04:19:06.3	21.380	94.090	56	4.1		7	SEUS
11/15	05:52:30.3	-20.362	-177.461	347	5.7		142	PDE
11/15	05:52:32.8	-20.300	-177.500	367	6.0		13	SESN
11/15	06:19:15.4	28.320	57.240	33	4.3		8	SEUS
11/15	07:40:26.8	29.884	140.956	70	4.7		15	PDE
11/15	08:00:27.2	13.877	91.949	62	4.6		19	PDE
11/15	10:15:07.7	-17.319	-179.068	539	5.2		11	PDE
11/15	12:03:47.0	50.252	12.638	10			6	PDE
11/15	12:17:20.7	60.380	10.550	1	2.9		6	SEUS
11/15	12:25:00.4	50.260	12.710	1	2.5		5	SEUS
11/15	12:43:38.0	52.990	-8.882	33	3.6		6	SEUS
11/15	13:04:57.9	46.540	19.790	1	3.1		6	SEUS
11/15	13:08:01.0	59.100	13.400	11	1.9		5	SESN
11/15	13:19:35.1	-6.660	130.249	129	4.9		7	PDE
11/15	15:24:16.7	-33.296	-70.996	73			7	PDE
11/15	17:24:05.9	-16.173	178.114	15	5.2		21	PDE
11/15	20:01:20.1	61.020	-18.970	33	3.7		4	SEUS
11/15	20:19:38.3	-7.500	-126.900	12	4.6		12	SESN
11/15	20:20:19.2	-21.298	-179.017	592	4.6		10	PDE

EVENT LIST
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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
11/15	20:24:18.4	20.077	-115.806	10	4.1		9	PDE
11/15	20:26:14.7	29.360	-110.620	33	4.1		7	SEUS
11/15	20:59:43.7	-20.020	-177.270	0	4.8		7	SEUS
11/15	21:08:53.8	-26.470	91.930	1	4.2		7	SEUS
11/15	21:12:39.1	59.060	77.630	33	3.9		4	SEUS
11/15	21:14:02.5	2.303	128.754	70	4.7		19	PDE
11/16	03:54:13.8	-21.464	-179.414	623	5.2		76	PDE
11/16	-4:00:22.5	17.030	134.170	534	4.6		8	SEUS
11/16	04:31:55.7	-30.291	-179.616	359	4.5		26	PDE
11/16	04:39:57.8	39.020	128.530	3	5.7		12	SERS
11/16	05:01:57.9	-5.298	129.994	213	5.1		13	PDE
11/16	06:55:00.5	-13.895	-76.101	44	5.5		54	PDE
11/16	08:56:02.6	-21.425	-66.662	235	4.6		24	PDE
11/16	09:30:24.9	2.121	96.648	33	4.7	4.5	23	PDE
11/16	10:07:52.3	50.150	12.650	37	2.7		5	SEUS
11/16	12:24:00.3	50.300	12.670	31	2.7		5	SEUS
11/16	16:04:38.4	37.620	68.050	24	3.6		3	SEUS
11/16	20:08:34.4	43.962	147.496	33	4.7		16	PDE
11/16	20:14:53.2	-20.000	-174.950	182	4.3		4	SEUS
11/17	00:27:55.5	-23.300	-68.037	127	5.4		52	PDE
11/17	01:31:34.5	2.233	128.727	70	5.0		21	PDE
11/17	02:36:01.9	-3.708	119.247	26	4.9		19	PDE
11/17	04:38:02.2	20.032	-115.863	10	4.2		7	PDE
11/17	05:15:14.9	47.270	145.470	27	4.2		10	SEUS
11/17	06:49:30.0	0.186	98.037	33	6.2	7.2	232	PDE
11/17	06:53:09.4	47.900	105.600	12	3.3		7	SESN
11/17	07:27:11.1	0.194	97.961	33	5.3		53	PDE
11/17	08:02:52.8	38.040	71.260	46	3.8		5	SEUS
11/17	08:35:03.2	37.110	71.090	30	4.1		8	SEUS
11/17	09:03:20.7	63.286	-152.740	10	4.9		49	PDE
11/17	09:56:47.9	59.590	10.880	27	2.2		5	SEUS
11/17	10:20:59.6	47.503	154.568	42	5.7		155	PDE
11/17	11:12:28.8	47.547	154.552	56	5.5		122	PDE
11/17	11:27:36.8	48.490	136.560	15	4.0		6	SEUS
11/17	11:45:10.8	-32.501	-179.956	174	5.5		17	PDE
11/17	11:45:14.4	-6.180	97.900	1	4.4		6	SEUS
11/17	12:12:59.1	-4.749	153.167	64	5.4		111	PDE
11/17	13:45:49.1	-18.736	-178.089	451	6.0		245	PDE
11/17	13:55:14.6	68.100	-172.700	610	5.5	4.9	9	SESN
11/17	17:33:50.9	47.280	140.580	44	3.8		4	SEUS
11/17	18:27:13.1	28.286	139.849	465	5.3		177	PDE
11/17	18:59:14.6	12.273	140.794	33	5.6		80	PDE
11/17	19:19:58.8	12.297	140.800	33	5.4		69	PDE
11/17	20:58:01.8	20.117	-116.042	10	4.6		16	PDE
11/17	22:43:38.9	-18.505	-175.610	33	5.2	6.2	57	PDE
11/17	22:44:21.8	-17.700	-178.000	320	4.8		11	SESN

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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
11/18	00:49:11.7	-18.718	-175.604	230	5.6		154	PDE
11/18	00:50:02.5	21.220	60.580	1	4.2		9	SEUS
11/18	00:54:25.1	9.440	139.430	51	4.5		5	SEUS
11/18	01:06:41.2	58.000	5.400	1	3.0		5	SESN
11/18	01:26:52.5	40.740	25.680	10			6	QED
11/18	01:25:23.8	25.750	-91.660	52	3.5		3	SEUS
11/18	01:30:56.3	36.180	83.520	34	4.0		5	SEUS
11/18	01:37:38.5	-4.616	151.225	260	4.7		19	PDE
11/18	01:55:58.6	20.300	-116.100	61	4.1		6	SEUS
11/18	04:25:33.0	11.850	-96.840	178	4.1		6	SEUS
11/18	04:35:57.7	-21.636	-179.486	620	5.0		65	PDE
11/18	04:36:30.4	63.117	-148.179	103			9	PDE
11/18	07:04:35.6	39.452	24.273	10			10	PDE
11/18	07:50:36.7	0.067	74.831	10	5.0	5.1	33	PDE
11/18	07:57:58.2	25.930	136.760	1	4.2		5	SEUS
11/18	08:28:28.4	49.300	-151.600	1	4.8		8	SESN
11/18	08:29:19.9	56.623	152.269	33	4.8		28	PDE
11/18	08:32:06.4	-33.523	-71.074	64			8	PDE
11/18	12:20:55.3	20.770	-116.160	5	4.0		5	SEUS
11/18	13:43:30.7	0.000	57.460	3	6.3		4	SERS
11/18	14:47:39.6	39.760	20.363	10	4.4		37	PDE
11/18	15:05:16.7	43.325	21.123	10			5	PDE
11/18	20:20:32.9	36.565	71.107	150	4.7		10	PDE
11/18	21:06:47.7	27.620	87.330	46	4.0		4	SEUS
11/18	22:04:32.1	28.773	84.069	33	5.3		6	PDE
11/18	23:00:04.6	8.686	-73.231	168	4.7		68	PDE
11/18	23:18:53.7	-32.376	-71.616	60	4.9		28	PDE
11/19	00:44:27.2	58.569	-156.625	200	4.8		38	PDE
11/19	02:06:04.0	52.130	-115.100	5	4.2		18	PDE
11/19	04:10:41.8	51.159	179.064	33	5.6	5.5	162	PDE
11/19	04:54:48.3	20.234	-115.927	10	4.8		23	PDE
11/19	10:17:20.1	20.440	129.830	1	3.9		4	SEUS
11/19	12:06:37.7	51.766	-175.304	62	5.5		157	PDE
11/19	12:35:46.9	-31.583	-67.630	49			13	PDE
11/19	14:40:31.6	-30.400	152.760	6	4.0		4	SEUS
11/19	14:45:21.3	58.880	11.970	33	2.3		4	SEUS
11/19	17:08:03.3	41.590	84.330	1	4.1		10	SEUS
11/19	19:00:48.4	-17.911	-179.014	557	5.0		40	PDE
11/19	19:45:38.2	37.006	141.451	55	5.1		56	PDE
11/19	20:45:42.4	10.194	125.396	33	4.8		8	PDE
11/19	23:08:35.9	30.560	139.998	71	5.1		63	PDE
11/20	00:34:50.8	40.065	24.850	10			20	PDE
11/20	00:38:44.4	30.000	140.250	30	3.8		4	SEUS
11/20	00:59:47.1	40.142	24.756	10			13	PDE
11/20	02:54:19.0	-26.199	-71.317	10	4.8		10	PDE
11/20	08:03:11.2	40.148	24.859	10			26	PDE
11/20	08:15:16.0	5.214	125.248	202	6.4		273	PDE

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SOURCES = PDE, QED, SEUS, SERS, AND SESN

DATE	O.TIME	LAT.	LON.	DEPTH	MAG.		#	SOURCE
					mb	MS	STA.	
11/20	08:18:19.4	33.900	144.600	414	4.6		7	SESN
11/20	08:37:56.6	-7.697	106.437	33	5.1		16	PDE
11/20	09:12:46.3	55.000	38.900	26	3.7		6	SESN
11/20	09:28:31.2	47.400	49.300	33	3.5		8	SESN
11/20	09:49:34.4	40.162	24.812	10			20	PDE
11/20	09:52:22.8	-14.130	-173.400	16	4.5		5	SEUS
11/20	09:56:51.7	5.018	125.391	205	5.1		35	PDE
11/20	10:03:59.2	-14.967	167.104	109	5.1		53	PDE
11/20	10:57:32.0	34.711	-97.414	5			11	PDE
11/20	11:31:39.6	5.108	125.274	203	5.3		57	PDE
11/20	11:57:19.1	2.790	-178.390	33	4.5		4	SEUS
11/20	12:03:28.9	47.110	27.750	1	3.2		5	SEUS
11/20	13:53:56.3	-17.858	178.440	655	4.4		7	PDE
11/20	14:16:36.2	59.640	9.830	0	2.6		5	SEUS
11/20	14:26:28.0	-3.033	-80.400	33	4.8		16	PDE
11/20	15:41:48.3	35.386	26.594	121	4.2		12	PDE
11/20	15:46:26.4	60.600	19.700	43	2.6		4	SESN
11/20	16:05:06.4	0.000	-25.890	3	4.4		4	SERS
11/20	16:09:41.5	71.400	-64.740	5	3.7		5	SEUS
11/20	16:22:06.7	5.252	125.672	203	4.8		13	PDE
11/20	16:58:22.9	28.500	-107.100	41	4.0		5	SESN
11/20	17:22:08.3	-22.303	-174.221	33	5.0		16	PDE
11/20	17:40:41.6	46.040	9.400	1	3.3		5	SEUS
11/20	18:15:15.6	14.870	64.470	1	3.7		4	SEUS
11/20	18:17:15.9	28.330	56.380	33	4.1		5	SERS
11/20	19:17:43.0	-6.439	128.552	321	4.8		9	PDE
11/20	19:29:57.5	55.546	161.613	33	4.6		26	PDE
11/20	19:32:42.1	-33.143	-70.489	91			8	PDE
11/20	19:39:11.9	-3.944	133.897	33	4.9		14	PDE
11/20	22:52:54.6	59.570	10.170	1	2.5		4	SEUS
11/20	23:37:21.6	-3.349	129.836	33	4.5		6	PDE
11/21	00:19:17.1	-6.526	146.724	11			5	PDE
11/21	01:14:53.2	19.880	-115.820	33	3.8		4	SEUS
11/21	01:22:08.2	15.340	125.580	47	4.1		6	SEUS
11/21	03;00:26.0	17.400	24.500	44	3.8		4	SESN
11/21	04:53:10.2	-32.099	-70.245	116	4.2		14	PDE
11/21	04:55:00.9	-21.59	-70.56	708	4.6		5	SEUS
11/21	04:58:17.0	14.960	-78.100	33	4.4		4	SERS
11/21	07:54:07.3	25.371	96.630	33	4.7		13	PDE
11/21	08:06:33.7	30.200	140.830	23	3.8		4	SEUS
11/21	14:33:21.5	-14.488	171.137	33	5.9	6.3	121	PDE
11/21	14:47:40.5	8.121	125.295	80	4.6		11	PDE
11/21	15:19:37.1	-32.912	-70.921	68			10	PDE
11/21	16:03:43.2	-14.619	171.174	33	5.1	5.4	52	PDE
11/21	18:17:52.9	-14.540	171.070	33	5.6	6.2	115	PDE
11/21	19:16:58.3	-14.712	170.962	33	4.9		15	PDE
11/21	22:02:47.1	39.887	23.490	17			19	PDE