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VELA NETWORK EVALUATION AND AUTOMATIC PROCESSING
RESEARCH

David G. Lambert, et al

Texas Instruments, Incorporated

Prepared for:

Air Force Technical Applications Center
Advanced Research Projects Agency

9 December 1974

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**SEISMIC DETECTION AND DISCRIMINATION CAPABILITIES OF THE VERY LONG
PERIOD EXPERIMENT - FINAL REPORT**

TECHNICAL REPORT NO. 7

VELA NETWORK EVALUATION AND AUTOMATIC PROCESSING RESEARCH

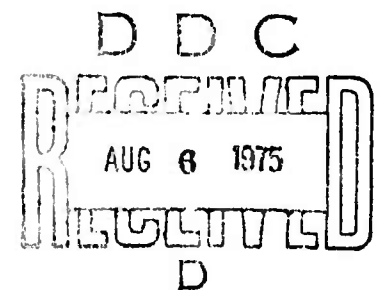
Prepared by
D. G. Lambert, A. I. Tolstoy, and E. S. Becker

TEXAS INSTRUMENTS INCORPORATED
Equipment Group
Post Office Box 6015
Dallas, Texas 75222

Prepared for
AIR FORCE TECHNICAL APPLICATIONS CENTER
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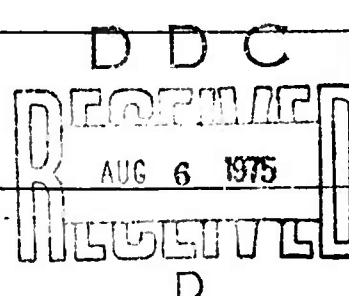


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ABSTRACT

This report presents the final results of the continued evaluation of the capability of the single Very Long Period Experimental (VLPE) station, the VLPE network, and the VLPE-ALPA-NORSAR combined network to detect and discriminate between presumed underground explosions and shallow earthquakes located in Eurasia. Further, we present a summary of the important results pertaining to the studies of long-period earth noise, and the application of matched filters and the Three-Component Adaptive processor to VLPE data. This evaluation was conducted by Texas Instruments Incorporated at the Seismic Data Analysis Center over the period 1 November 1973 to 30 November 1974.

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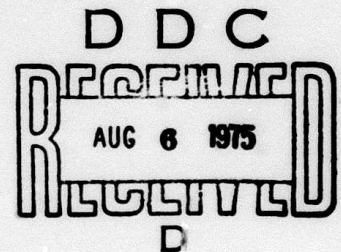
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SECTION I INTRODUCTION

This report presents a final evaluation of the discrimination and detection capabilities of the Very Long Period Experiment (VLPE) single stations, the VLPE network, and the VLPE-ALPA-NORSAR combined network. Further, we present a summary of the important results pertaining to the studies of long-period earth noise, and the application of matched filters and the Three-Component Adaptive processor to VLPE data. The purpose of the VLPE is to improve discrimination and detection capabilities with the use of a network of high-gain, long-period digital seismographs at various locations throughout the world.

The VLPE instrumentation has been described in detail by Pomeroy, et al., (1969), and studies of the data from the station at Ogdensburg, New Jersey have been presented by Savino, et al., (1971). A general review of eight of the long-period stations with their capabilities and the application of various filter techniques on digitally recorded data have been given by Savino, et al., (1972). Two reports, one by Benno (1972) and the other by Harley (1972), have presented a preliminary evaluation of the VLPE network.

A more recent report by Lambert and Becker (1973) presented the preliminary detection and discrimination capabilities of nine VLPE stations, the VLPE network, and the VLPE-ALPA-NORSAR combined network. Further, Lambert, et al., (1973) expanded the data base and presented a preliminary evaluation for eleven VLPE stations and various VLPE networks.

The data base for this report includes and expands upon the VLPE data base given in the latter report and now consists of 1280 Eurasian events for a total of 5962 event-station combinations. This large data base covers the following periods of time: 1 January - 20 March, 1 June - 31 August, 1 November - 31 December of 1972, and 1 January - 30 April, 1973. The ALPA and NORSAR data base was also expanded to cover the corresponding 1280 Eurasian events for a total of 2520 event-station combinations. Those data are used in this report and will be published by Strauss and Laun (1975).

The specific goals of this study are:

- Discrimination capability of single VLPE stations, the VLPE network, and the VLPE-ALPA-NORSAR combined network as functions of M_s versus m_b , Love to Rayleigh wave amplitude ratios, and discrimination based on negative evidence.
- Maximum likelihood estimates of detection based on m_b for VLPE single stations, the VLPE network, and the VLPE-ALPA-NORSAR combined network.
- Maximum likelihood estimates of detection for VLPE single stations and the VLPE network based on M_s for surface-wave detections at ALPA and NORSAR, and ALPA and NORSAR M_s values corrected for station-path effects.

In Section II, the data base is presented in detail with a complete listing of all event parameters, data, and the calibration curves for all VLPE stations. Section III reports the evaluation of discrimination capabilities of the VLPE single stations, the VLPE network and the VLPE-ALPA-NORSAR combined network. In Section IV we present the detection capabilities of the VLPE single stations and in Section V the VLPE network and the VLPE-ALPA-NORSAR combined network. In this report, we discuss the discrimination capabilities before the detection capabilities since some of

the discriminant results are utilized in Sections IV and V. Finally, conclusions based on this analysis and a brief summary of the important results from the studies of earth noise and the application of the Three-Component Adaptive processor and matched filters to VLPE data, are given in Section VI.

SECTION II DATA BASE

A. GENERAL DESCRIPTION

The data base for the signal analysis utilizes all available VLPE digital recordings for Eurasian events during the following time periods: January 1 - March 20, June 1 - August 31, November 1 - December 31 of 1972, and January 1 - April 30, 1973. Station data were available from Australia (CTA), Thailand (CHG), Alaska (FBK), Spain (TLO), Israel (EIL), Norway (KON), New Jersey (OGD), Hawaii (KIP), New Mexico (ALQ), Bolivia (ZLP), and Japan (MAT) for varying portions of the event time periods indicated above. Station tapes that were available for processing are listed in Table II-1. The geographic location of each station is given in Table II-2 and shown in Figure II-1. Further, Figure II-1, shows 50° radii circles about each station and the seismic source regions.

Figure II-2 presents the distribution of event-station combinations as a function of distance. These data show some evidence of two main distance ranges for the event-station combinations, one at less than 55° and the other at distances greater than 55°.

Attempts were made to process and analyze all available data. Table II-3 summarizes the number of events processed at each station. A considerable amount of data was lost the first half of 1972 (January through June) due to operational and recording problems (see Lambert and Becker, 1973, for details). The quality of data improved significantly during the latter part of 1972.

TABLE II-1
 VLPE DIGITAL DATA AVAILABLE AT SDAC
 (PAGE 1 OF 2)
 * Test Tape

Year 1972	CTA	CHG	FBK	TLO	EIL	KON	OGD	KIP	ALQ	ZLP	MAT
January		1-31	1-31	1-31		1-31	1-31				
February	19-20*	1-29	1-29	1-24 28-29	24-25	1-29	1-29				
March		1-4 15-26	1-31	1-28	10-31	1-3 6-31	1-14	15-31	31		
April	24-30	1-27	1-25	1-26	1-5 9-24	1-12 17-30	6-30	1-30	1-30		
May	1-31	30-31		11-26	5-31	1-31	1-4 30-31	1-11 14-31	1-19 30-31		
June	1-30	1-12		10-30	1-30	1-30	1 6-30	1-30	1-30		
July	1-31			1-31	1-31	1-31	1-31	1-31	1-31		
August	1-31	17-18 25-30		1-31	1-31	1-31	1-21 24-28 30-31	1-31	1-7 31		
September	1-30	22-28		1-30	1-2 15-18	1-30	1-21 29-30	1-30	1-31		
October	1-31			1-26	11-23	1-31	1-6	1-31	1-31		
November	1-30	3-30				1-30	7-10 18-27 30	1-30	1-5 10-30	4-24 26-30	
December	1-7 11-31	1-31			3-31	1-31	1-31	1-31	1-31	1-31	22-31

TABLE II-1

VLPE DIGITAL DATA AVAILABLE AT SDAC
(PAGE 2 OF 2)

Year 1973	CTA	CHG	TLO	EIL	KON	OGD	KIP	ALQ	ZLP	MAT
January		1-31	14-15 29-31	1-13 15-31	1-18 20-31	1-31	1-31	1-31	1-24 3-31	1-6 11-31
February	19-28	1-2	1 12-13 28	1-10 18-28	1-28	1-22 24-28	1-28	1-28	1-28	1-14 18-28
March	1-31	7-28 31	1 15-16 30-31	1-15	1-15 21-31	2-31	1-13 29-31	1-21	1-31	1-19 21-31
April	1-30	1-30	1-6 29-30	13-27	1-2 4-30	1-30	1-30	8-30	1-10 12-22	1-22 25-30
May	1-31	1-29	1-8 14-31		1 19-31	1-11 14-31	2-31	1-24		1-31
June	1-30		1-25		1-30	1-30	1-19	19-30	28-30	11-20 26-30

TABLE II-2
 VERY LONG PERIOD EXPERIMENT (VLPE)
 STATIONS AND LOCATIONS

Station	Designator	Latitude	Longitude
Charters Towers, Australia	CTA	20.09 S	146.26 E
Chiang Mai, Thailand	CHG	18.79 N	98.98 E
Fairbanks, Alaska	FBK	64.90 N	148.01 W
Toledo, Spain	TLO	39.86 N	4.02 W
Eilat, Israel	EIL	29.55 N	34.95 E
Kongsberg, Norway	KON	59.65 N	9.59 E
Ogdensburg, New Jersey	OGD	41.07 N	74.62 W
Kipapa, Hawaii	KIP	21.42 N	158.02 W
Albuquerque, New Mexico	ALQ	34.94 N	106.46 W
La Paz, Bolivia	ZLP	16.50 S	68.13 W
Matsushiro, Japan	MAT	36.54 N	138.21 E

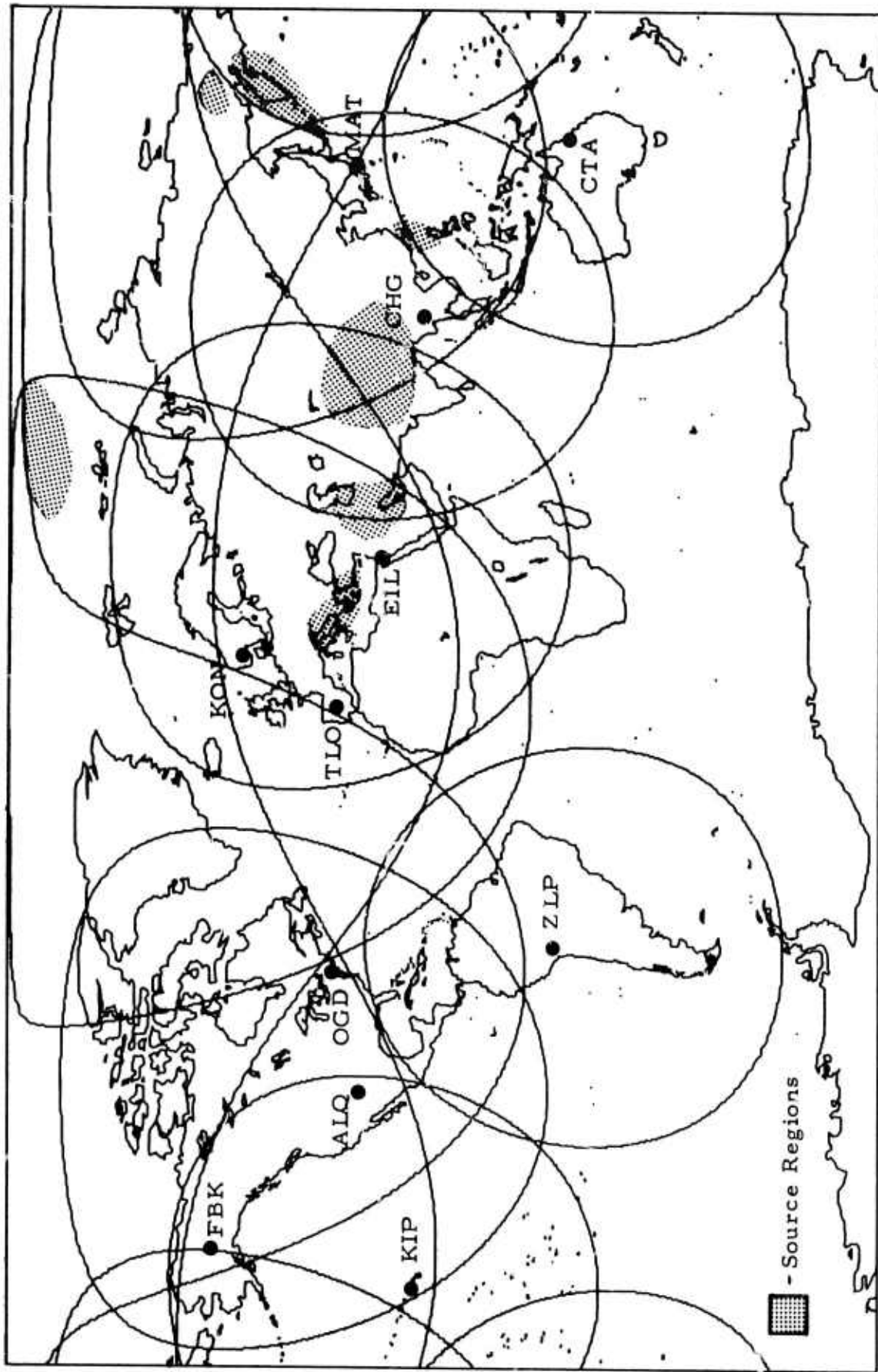


FIGURE II-1

MAP OF VLPE STATIONS AND CIRCLES AROUND EACH SITE WITH RADIi OF 50° DISTANCE

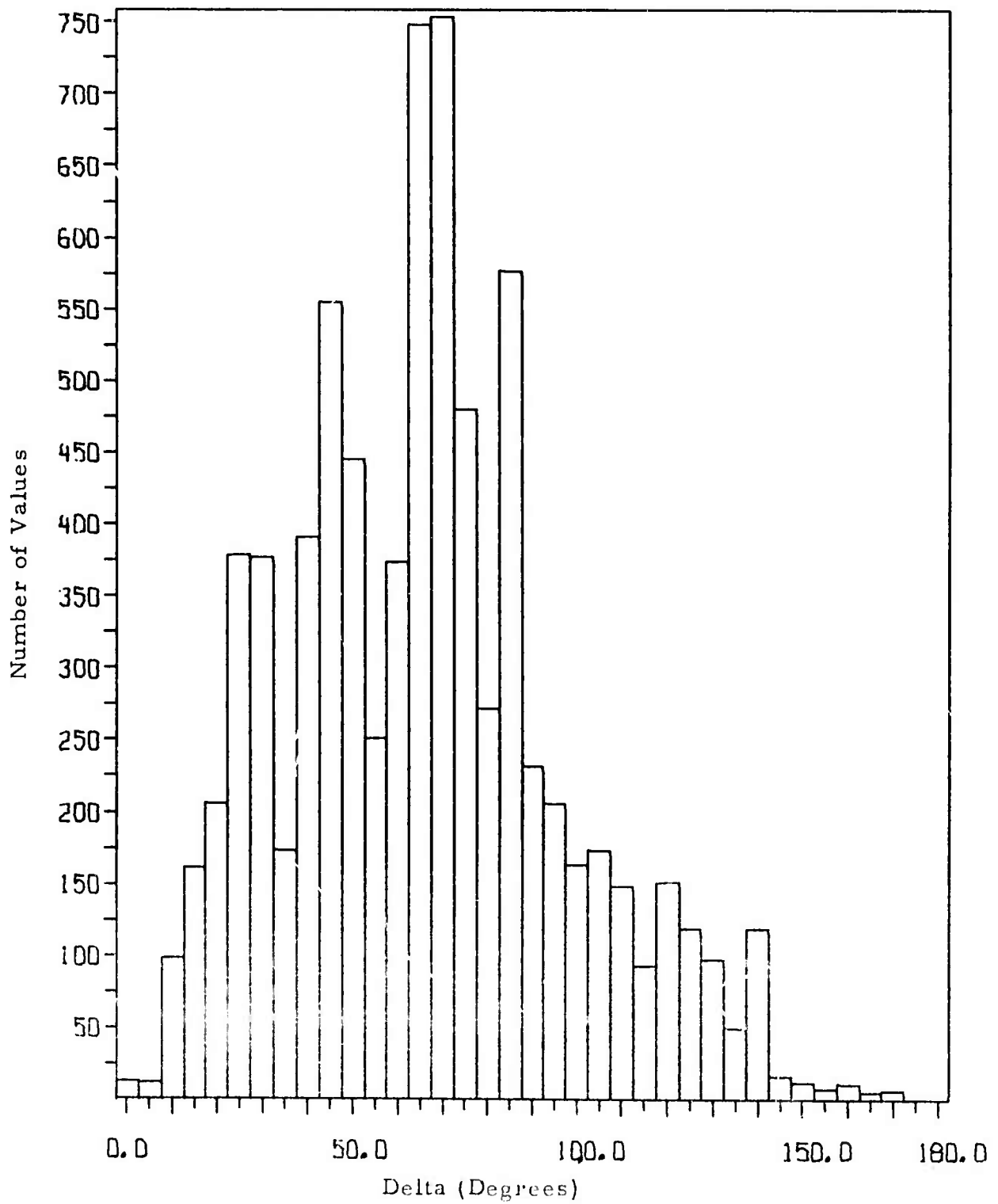


FIGURE II-2
 NUMBER OF STATION-EVENTS AS A FUNCTION
 OF DELTA (DEGREES)

TABLE II-3a
 SUMMARY OF VLPE EVENTS
 PROCESSED FOR 1 JANUARY 1972 - 30 APRIL 1973

Station Number	Station Code	Events Processed	Events Detected	Events Not Detected	Mixed Events	System Clipping Spikes, Etc.
1	CTA	594	102	312	122	58
2	CHG	653	201	260	137	55
3	FBK	298	67	186	40	5
4	TLO	539	138	247	106	48
5	EIL	584	133	263	65	123
6	KON	817	214	379	156	68
7	OGD	371	69	124	49	129
8	KIP	803	179	325	164	135
9	ALQ	586	79	267	110	130
10	ZLP	396	29	80	46	241
11	MAT	321	116	119	32	54
TOTALS		5962	1327	2562	1027	1046

TABLE II-3b
 ALPA AND NORSAR SUMMARY

12	ALPA	1243	531	339	223	150
13	NORSAR	1277	599	317	125	236
TOTALS		2520	1130	656	348	386

A total of 1280 Eurasian events or 1253 earthquakes and 27 presumed explosions are tabulated in Appendix II-A. Information for each event includes the date, origin time, epicenter location, m_b , the seismic source region, and a code indicating the source bulletin for the event. Event numbers 116, 260, 339, 456, 626, 652, 672, 679, 699, 755, 797, 865, 1236, and 1266 through 1280 refer to presumed explosions and aftershocks. Further, events 1266 through 1280 occurred after 30 April, 1973 but during 1973.

B. STATION CALIBRATIONS

The instrument calibration and system response data were originally supplied by Lamont Doherty Geological Observatory and from about mid-year of 1972 to the present time, by the Albuquerque Seismological Center, Environmental Research Laboratories of NOAA. These data for all of the VLPE stations are shown in Appendix II-B.

C. SIGNAL ANALYSIS

In order to evaluate the capability of each station to detect and discriminate by surface waves (both Rayleigh and Love), the horizontal instruments were rotated analytically to form vertical, transverse, and radial components. At each station the horizontal seismograms were rotated assuming that the system responses of these instruments were matched. This was true at most stations, but not all (see Appendix II-B), hence some of the rotations contain this source of error. However, various authors have shown that lateral structural variations along the propagation path can cause large deviations in the expected direction of the arriving surface-waves. These path effects can result in greater inaccuracies than those due to errors in the rotation process.

The seismograms were filtered in the frequency domain with a filter having a bandpass of 18 to 42 second periods, and then transformed to the time domain for visual analysis that included detection of surface-wave

phases and amplitude and period measurements. The criteria for picking surface-wave signals has been previously described by Lambert and Becker (1973).

The results of the basic VLPE analysis are tabulated in Appendixes II-C through II-M for each station with appropriate comments. A total of 5962 event-station combinations are listed; many events were recorded at several stations.

These tables (Appendixes II-C through II-M) include epicenter-station distance (degrees), m_p , M_s at 20 second period, M_s at 30 second period, M_s at 40 second period when possible, Love wave/Rayleigh wave amplitude ratios when possible, and appropriate comment in the "comment" column. The first two numbers in this column are comment key numbers, and the third and fourth columns are the station numbers. The keys are as follows:

- (1) Signal detected
- (2) No signal detected
- (3) Mixed signals
- (5) System malfunction, clipping, spikes, erratic static gain variations, etc.
- (6) Threshold event (i. e., questionable detection due to low S/N).

The column labeled Event No. identifies the event for cross referencing with the epicenter data listed in Appendix II-A. Event numbers missing from any given station appendix indicates that either no data were available or that data available were not usable. Totals for the number of events detected, not detected and mixed, and for system malfunction for each station are given in Table II-3a.

All detections (comment key numbers 1 and 6) are included in the detection totals for each station.

In Table II-3b a similar summary for the ALPA-NORSAR is presented. However, this data base will be published separately by Strauss and Laun (1975).

The detection capability based on the presence of Love waves was not attempted. Erratic static gains were encountered from time to time on the horizontal components at most stations and especially during the first half of 1972. However, Love wave amplitudes were measured when possible.

We reviewed the m_b determinations for all events where possible to determine whether any regional or near regional m_b values were included in the average m_b . It was found that the PDE lists several events from Italy where near station values of m_b had been included. The reported m_b values for these events were from 0.2 to 0.6 magnitude units larger than the average of the teleseismic values. We accepted only the teleseismic m_b values as valid estimates. Those values of m_b which were changed, are recorded and noted with an asterisk in Appendixes II-C through II-M. The original m_b values are listed in Appendix II-A. All analysis in this report involving the m_b parameter utilize the revised teleseismic m_b values.

SECTION III

VLPE DISCRIMINATION CAPABILITY

A. INTRODUCTION

This section presents the capability of the single VLPE stations, the VLPE network, and the VLPE-ALPA-NORSAR combined network to discriminate between presumed underground explosions and shallow earthquakes located in Eurasia.

In attempting to assess the discrimination capabilities of the VLPE stations and networks, we faced several important experimental problems:

- The lack of reliable station data (see Section II) limits both the quantity and quality of the surface-wave measurements obtainable from any given station.
- A fixed set of VLPE stations recording reliable seismic data was not available.
- The event ensemble is comprised of events from several large seismic regions in Eurasia, each of which includes many different source mechanisms and propagation paths. Consequently, significant radiation pattern and path effects are present. Lambert (1974) discusses these effects observed by several VLPE stations from several source regions.
- Few presumed explosions were available for a direct comparison with earthquakes.

The experimental realities prevented the assessment of specific station-region and network-region discrimination capabilities. We attempted to circumvent these problems primarily by expanding the data base (see Section II for details) for the purpose of obtaining average capability estimates. Specifically, the determination of M_s versus m_b relationships for a large number of earthquakes from all regions in Eurasia tends to average source and path effects and provides a basis upon which to compare with other such estimates.

Further, meaningful comparison of observed LQ/LR ratios to average theoretical values and comparison of average observed LQ/LR ratios per event from central Asia to the few events observed from east Kazakh were achieved within this framework.

In part B of this section we discuss M_s versus m_b and the discrimination capability for single VLPE stations. Part C discusses M_s versus m_b for the VLPE network and the VLPE-ALPA-NORSAR combined network. Part D includes LQ/LR ratios and compares these to theoretical values. Part E discusses the negative evidence concept. Part F summarizes the results of this section.

B. M_s VERSUS m_b FOR VLPE STATIONS

For the analysis of the single VLPE station $M_s - m_b$ discrimination capabilities, several additional problems are present.

- The only source of m_b estimates are the bulletins from which the Eurasian event ensemble was compiled. Thus, we have no estimates of this parameter at individual VLPE stations.
- The smaller the event, the smaller the signal-to-noise ratio (S/N) at each station. Hence, the M_s estimates are biased high and will in turn bias the $M_s - m_b$ relationship.

- Theoretical and observed $M_s - m_b$ relationships are not linear over a large range of magnitudes.
- Surface-wave magnitude (M_s) is period dependent. In most cases for this analysis, M_s determined at 20 seconds period is the largest value. However, in some instances M_s determined at 30 seconds period is either the largest or the only M_s measurable.

We have attempted to nullify and circumvent these problems in the following ways:

- Average teleseismic estimates of m_b are utilized when possible (Section II). This should minimize bodywave radiation and path effects to some extent. However, many small events were detected at only LASA and NORSAR, and only those station m_b estimates are available.
- We partially compensate for the bias due to low S/N by setting a magnitude threshold ($m_b = 4.2$) above which we determine the $M_s - m_b$ relationship. Since this threshold corresponds to the 50 percent detection threshold of the VLPE network (Lambert, et al., 1973), some bias remains in the M_s estimates.
- Theoretical earthquake source spectra show that for $4.2 \leq m_b \leq 5.5$, we should expect a linear relationship between M_s and m_b (Aki, 1967, and Tsai, 1972). Thus, upper limits are also imposed on the analysis.
- The method used to determine the best linear fit to the $M_s - m_b$ data considers both parameters to be independent of each other and minimizes the distances normal to the line and the data points (for specific details see Lambert, et al., 1973).

- Finally, since M_s is period dependent, we used only M_s values determined at 20 seconds period.

The surface-wave magnitude is defined as (Harley, 1972):

$$M_s = \log A/T + \log \Delta + 1.12$$

where:

- M_s = surface-wave magnitude,
- A = Peak-to-peak displacement in $m\mu$,
- T = period in seconds for A,
- Δ = epicentral distance in degrees.

Figures III-1 through III-13 show M_s (T = 20 seconds) versus m_b for CTA, CHG, FBK, TLO, EIL, KON, OGD, KIP, ALQ, ZLP, MAT, ALPA, and NORSAR. Best fit straight lines are shown in these figures, estimated over the full range of magnitudes for the earthquake populations. These lines are described in Table III-1 in the form $M_s(20) = \alpha m_b + b$ along with the variance (σ^2) and the number of data points. The best linear fits for the restricted (R) m_b range ($4.2 \leq m_b \leq 5.5$) are also listed with corresponding information.

On first inspection of these figures, separation between presumed explosions and earthquakes is not distinct. However, on closer inspection of the stations which detect presumed explosions and show some overlap of the two populations, we find the following:

- Events 755, 1273, and 1275 (detected at stations CTA, OGD, and ALPA) occurred in the Ural region. Marshall and Basham (1972) observed that the Ural presumed explosions were statistically closer to the earthquake population than to the explosion population. They compared them with a small group of regional earthquakes, and separation of the populations was clear. We observe that each presumed explosion was about

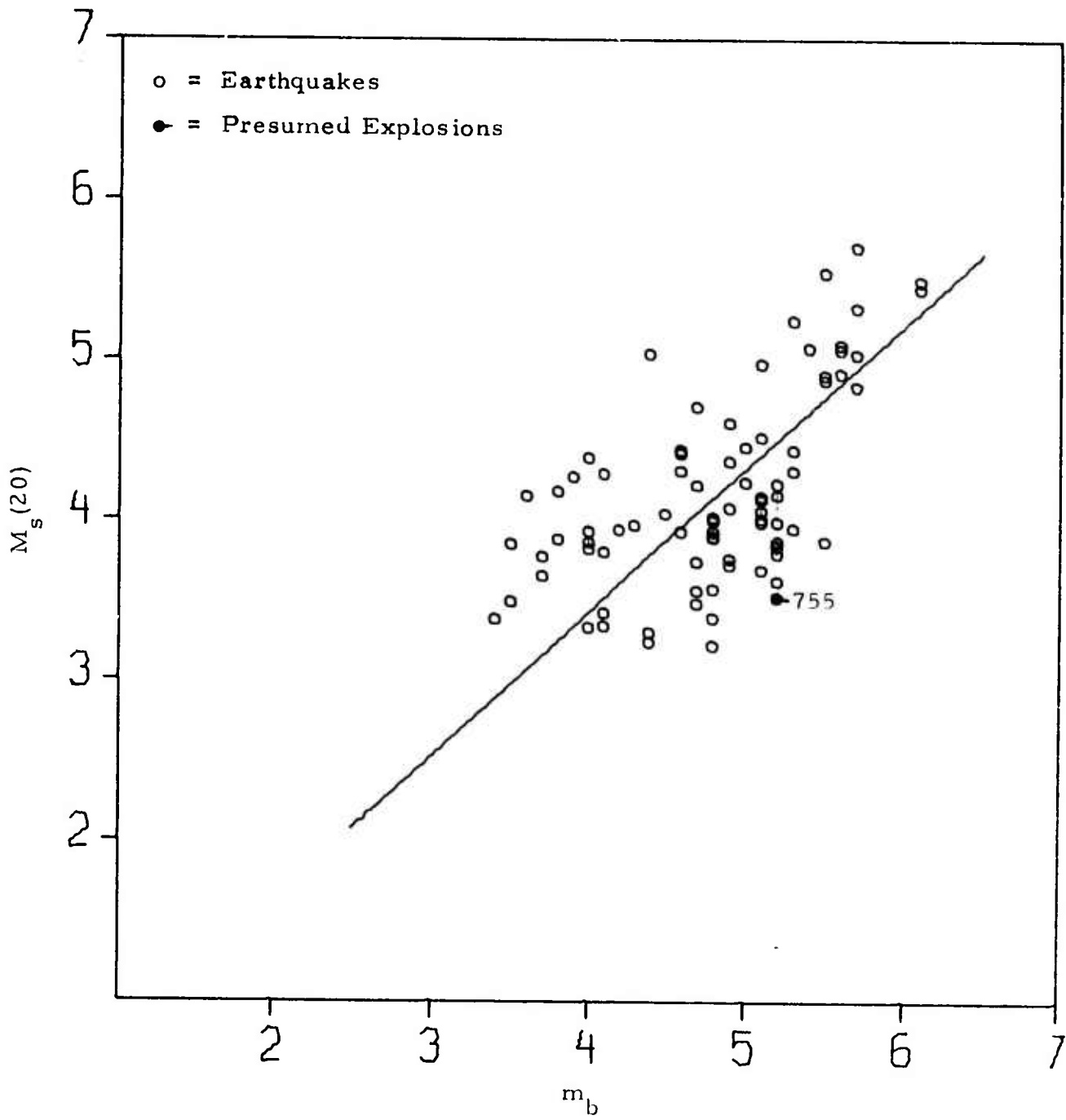


FIGURE III-1
 M_s VERSUS m_b AT CTA

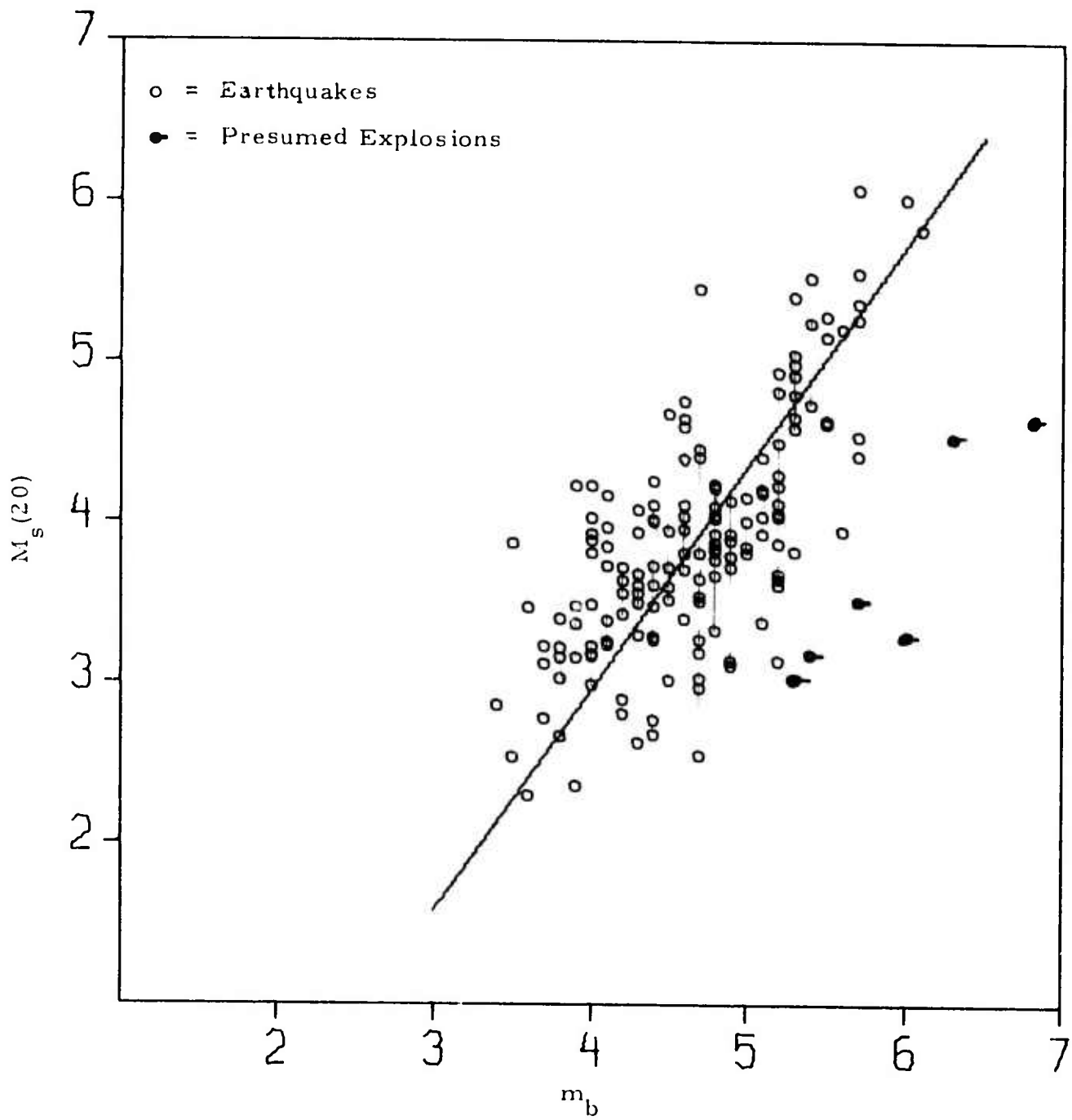


FIGURE III-2
 M_s VERSUS m_b AT CHG

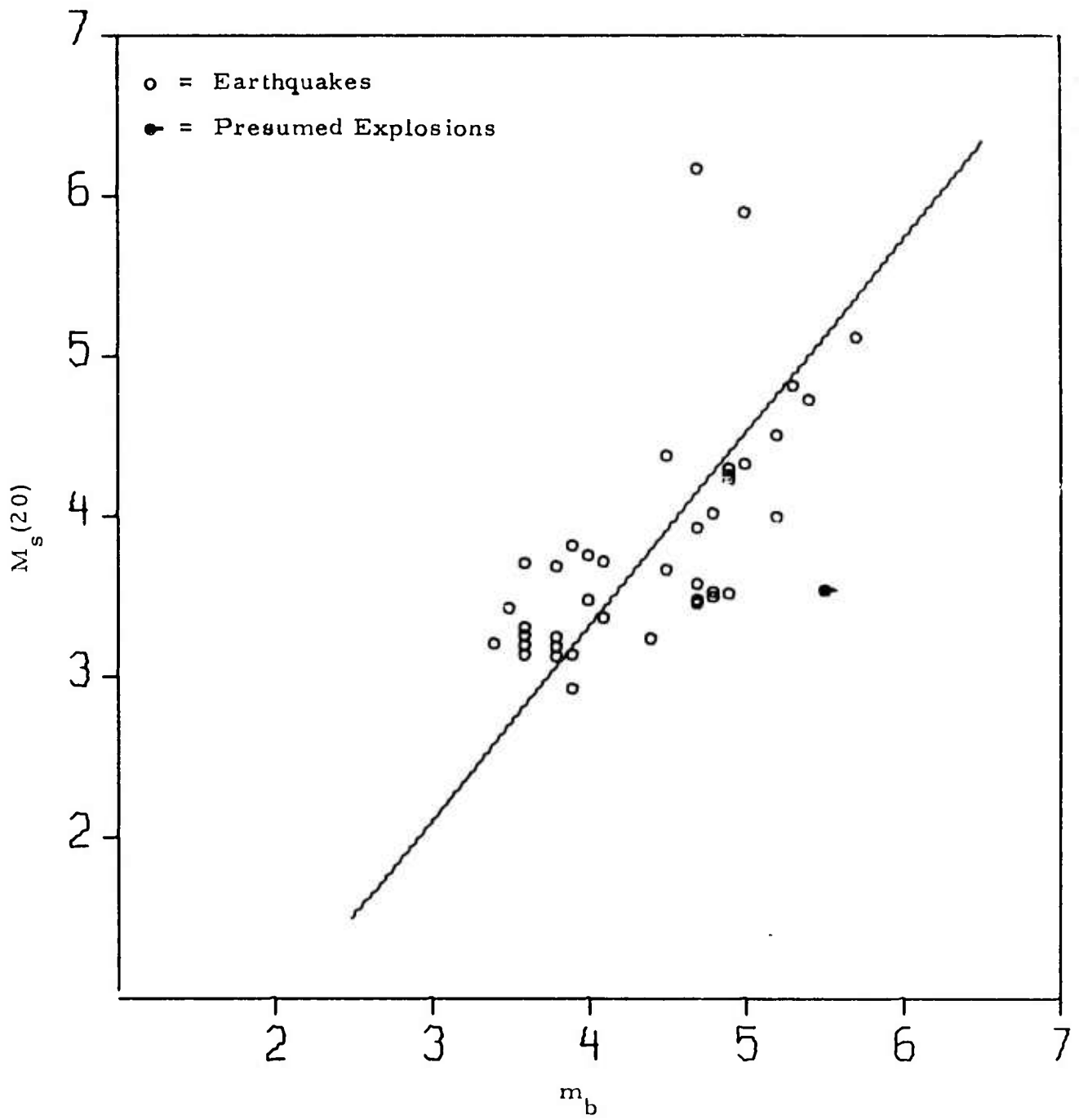


FIGURE III-3
 M_s VERSUS m_b AT FBK

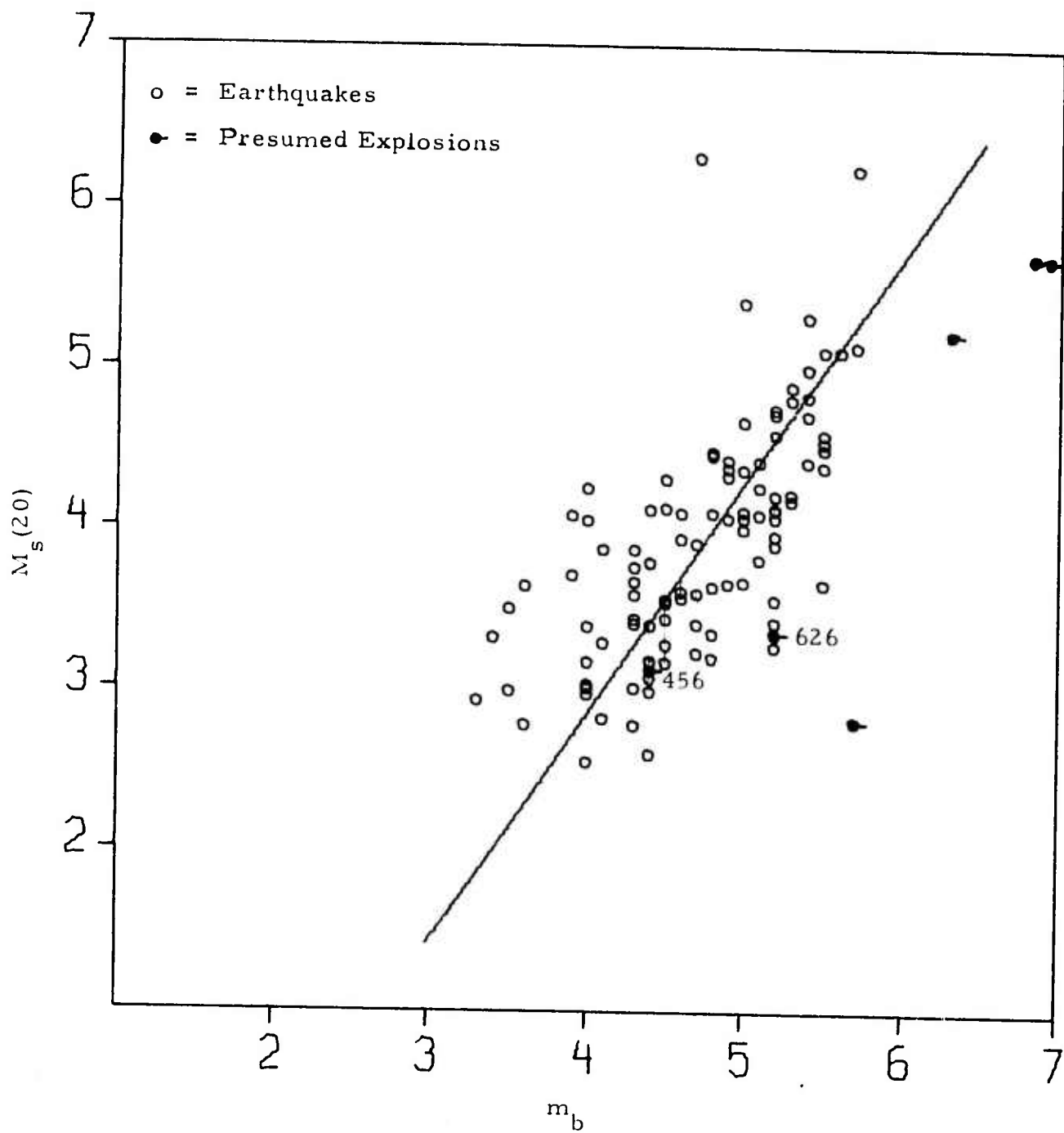


FIGURE III-4
 M_s VERSUS m_b AT TLO

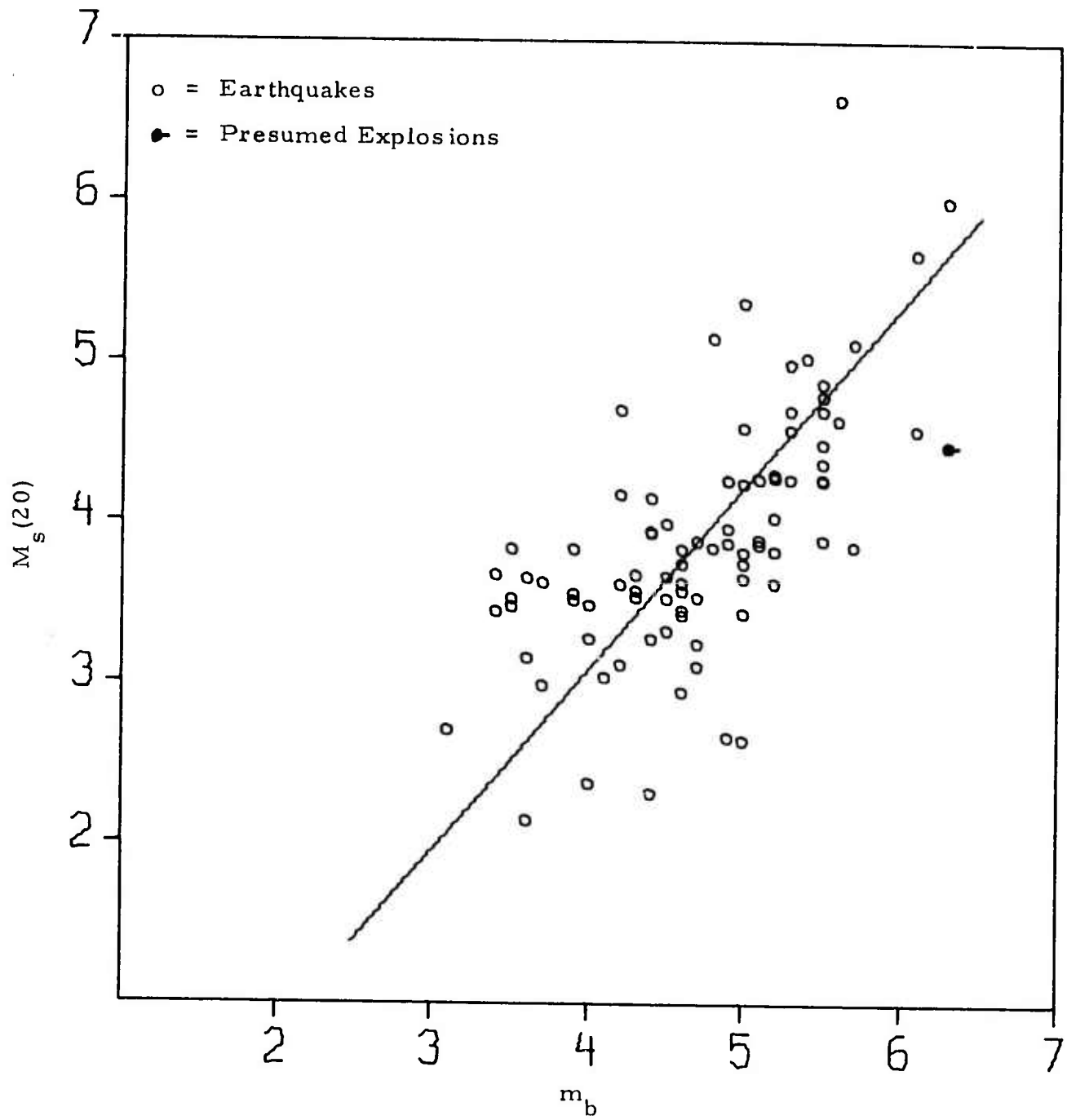


FIGURE III-5
 M_s VERSUS m_b AT EIL

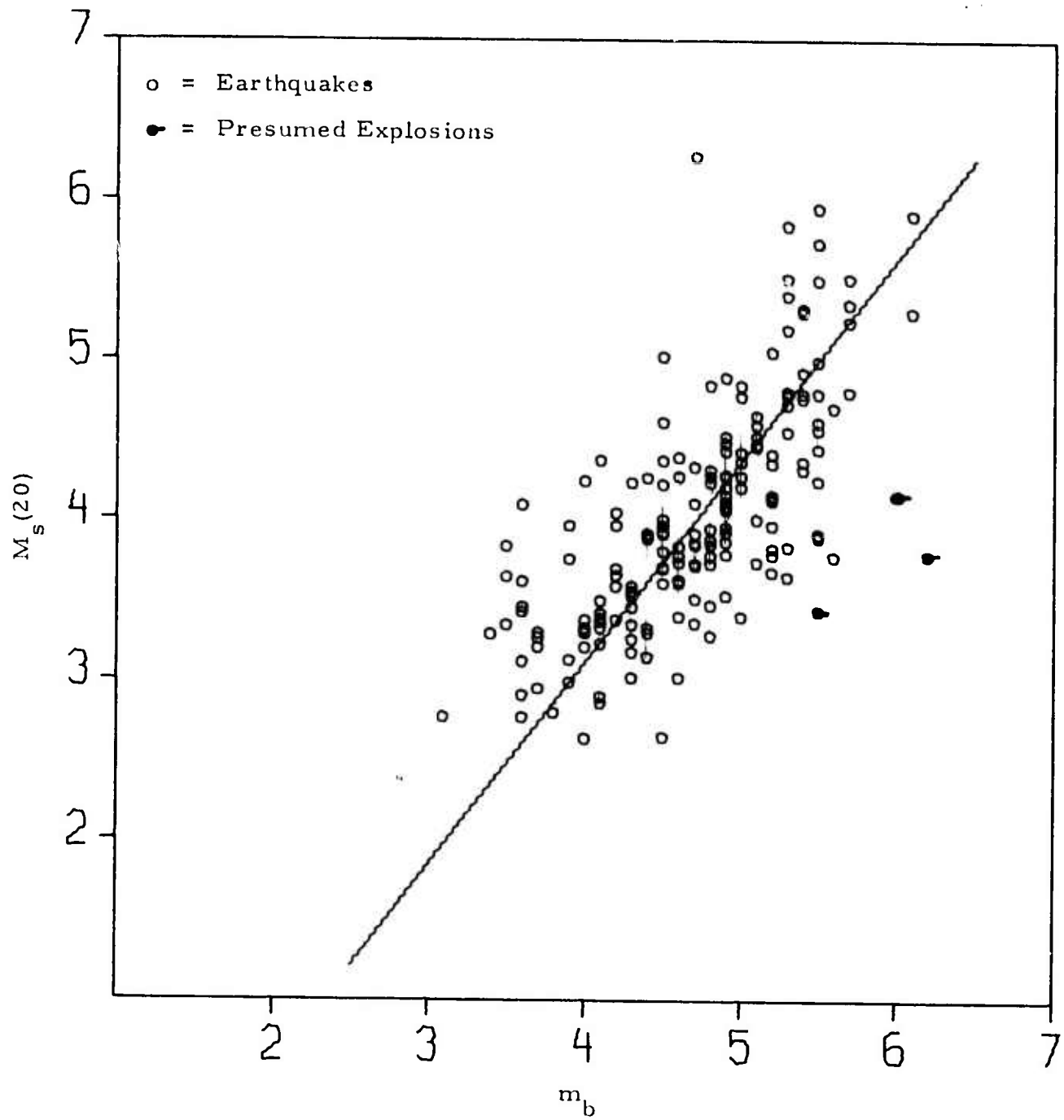


FIGURE III-6
 M_s VERSUS m_b AT KON

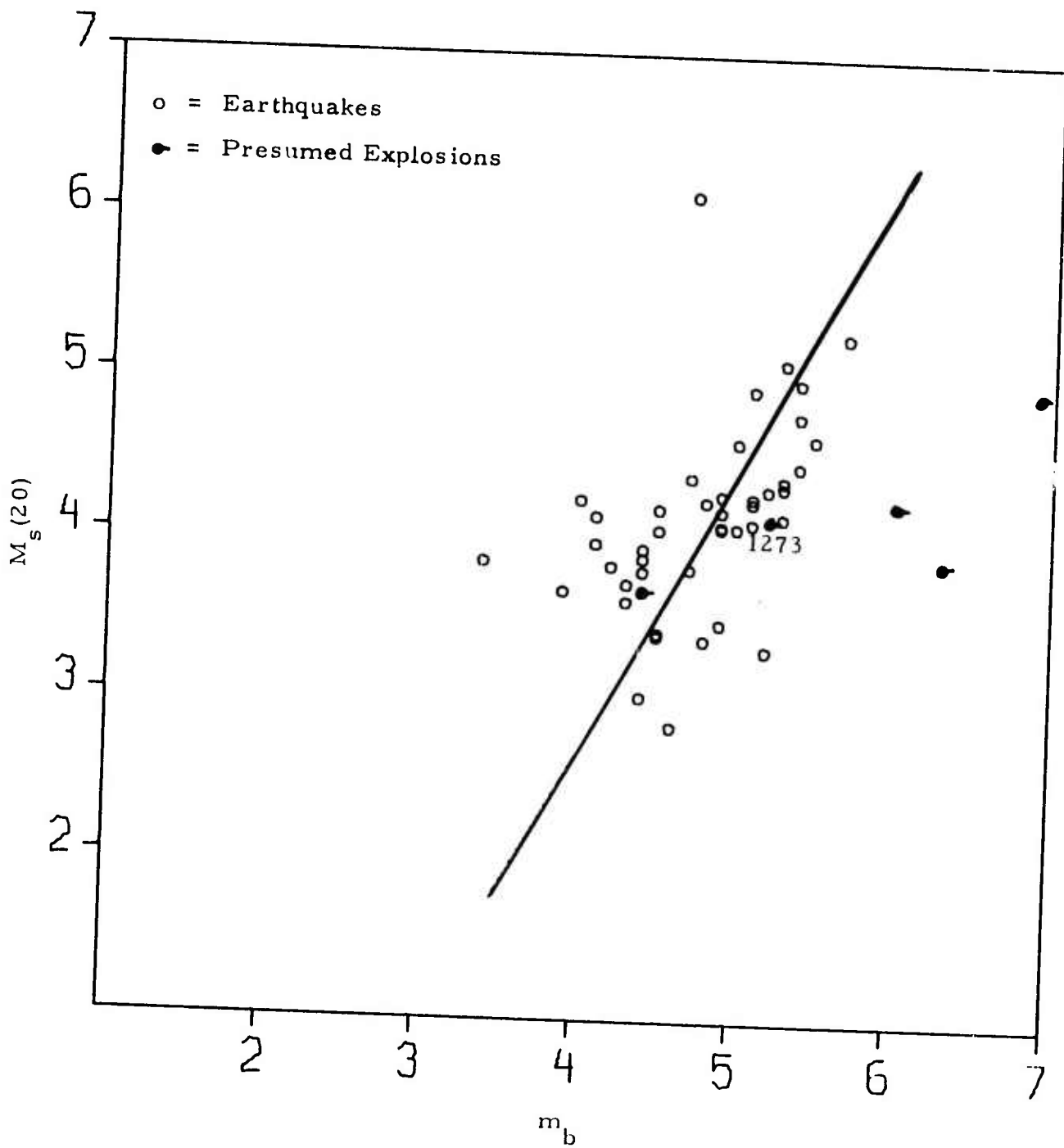


FIGURE III-7
 M_s VERSUS m_b AT OGD

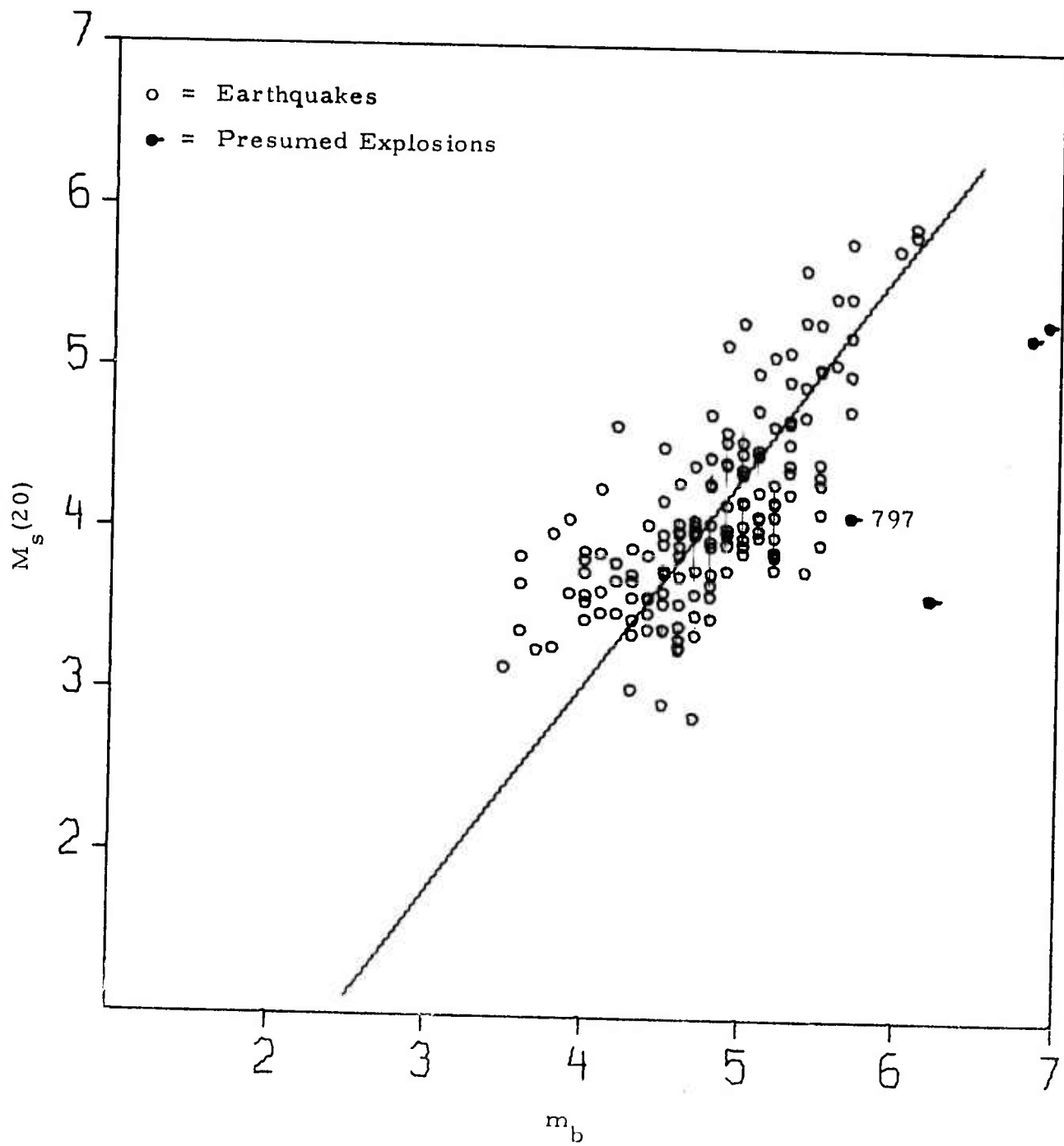


FIGURE III-8
 M_s VERSUS m_b AT KIP

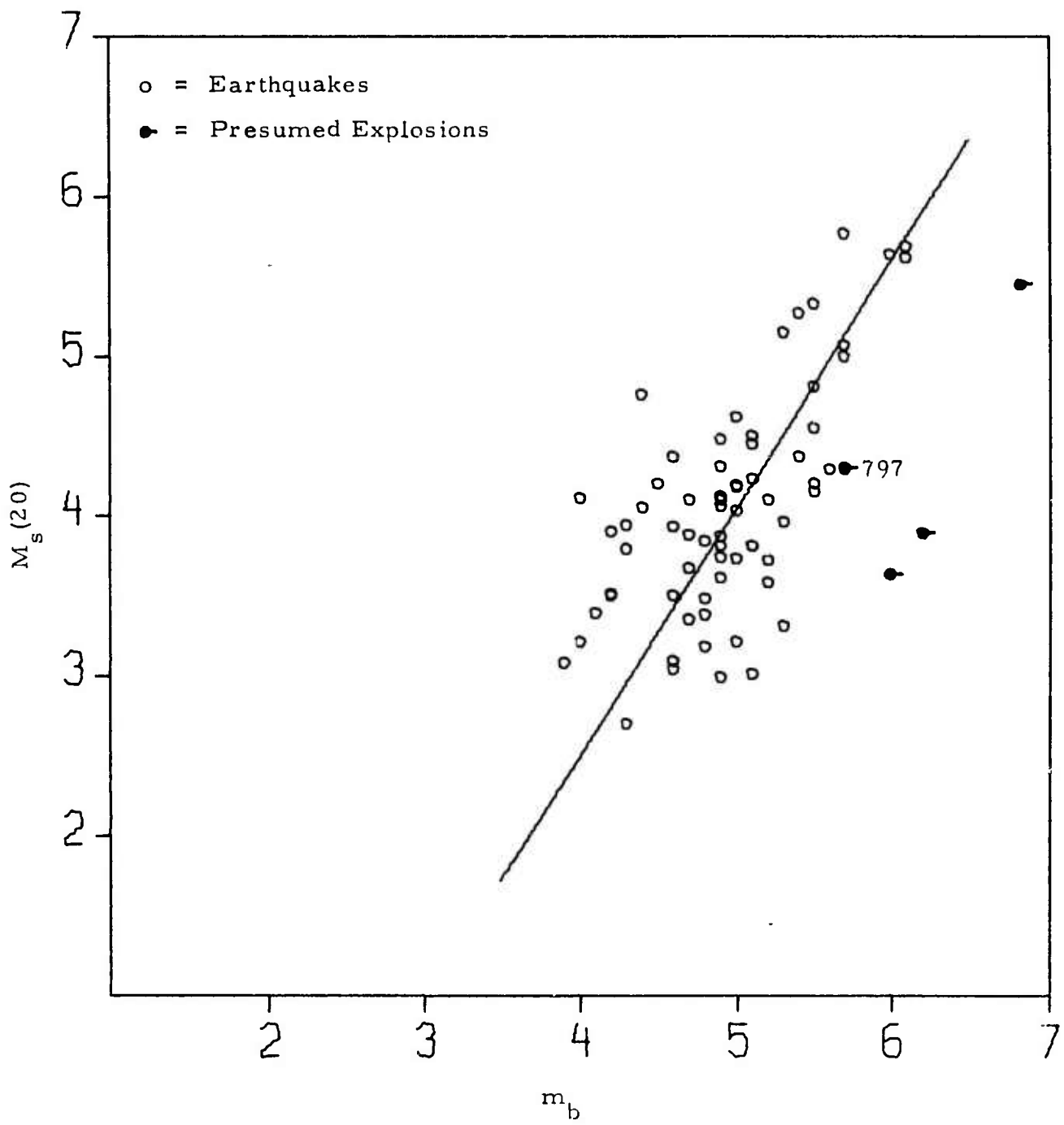


FIGURE III-9
Ms VERSUS mb AT ALQ

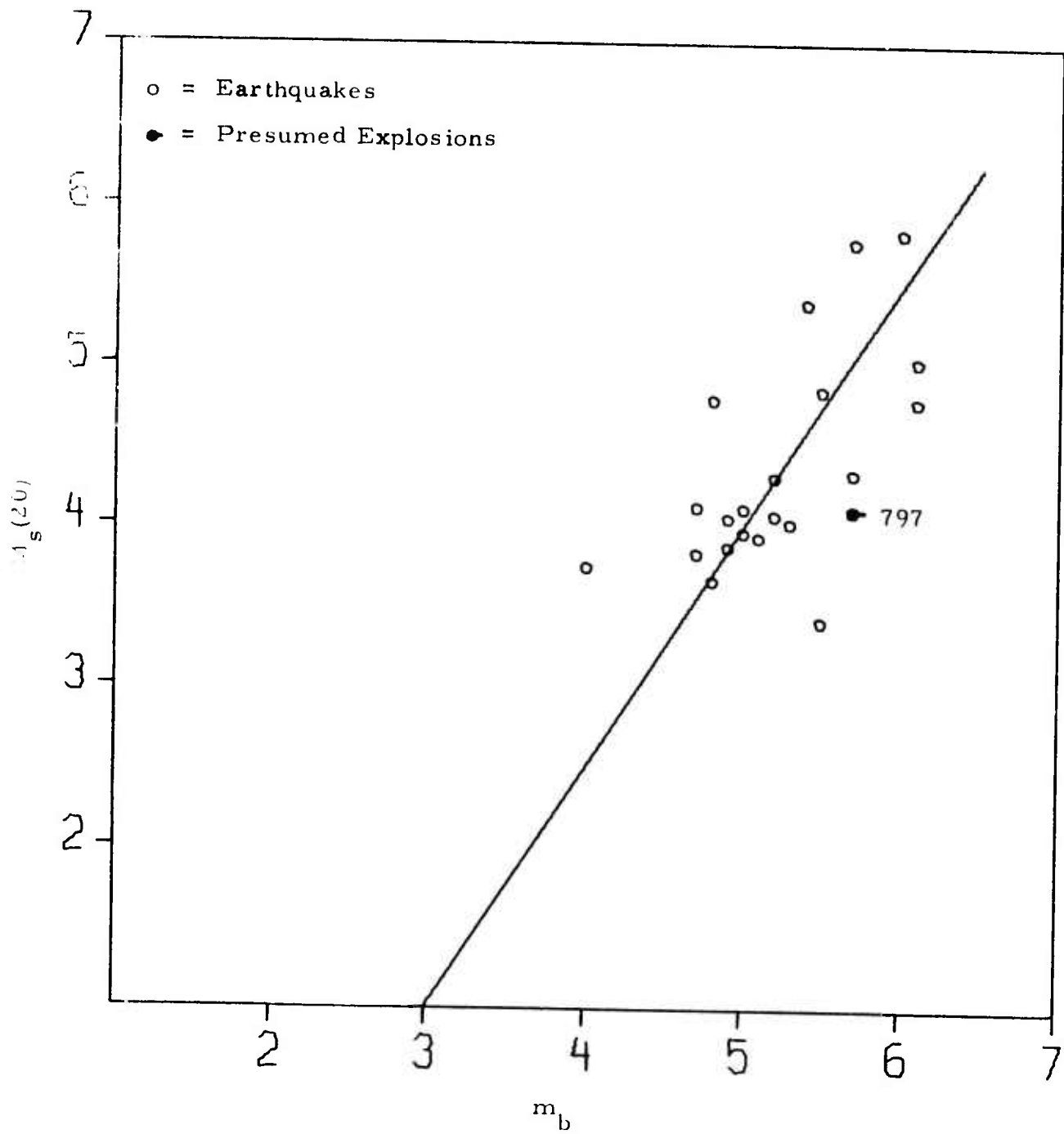


FIGURE III-10
 Ms VERSUS mb AT ZLP

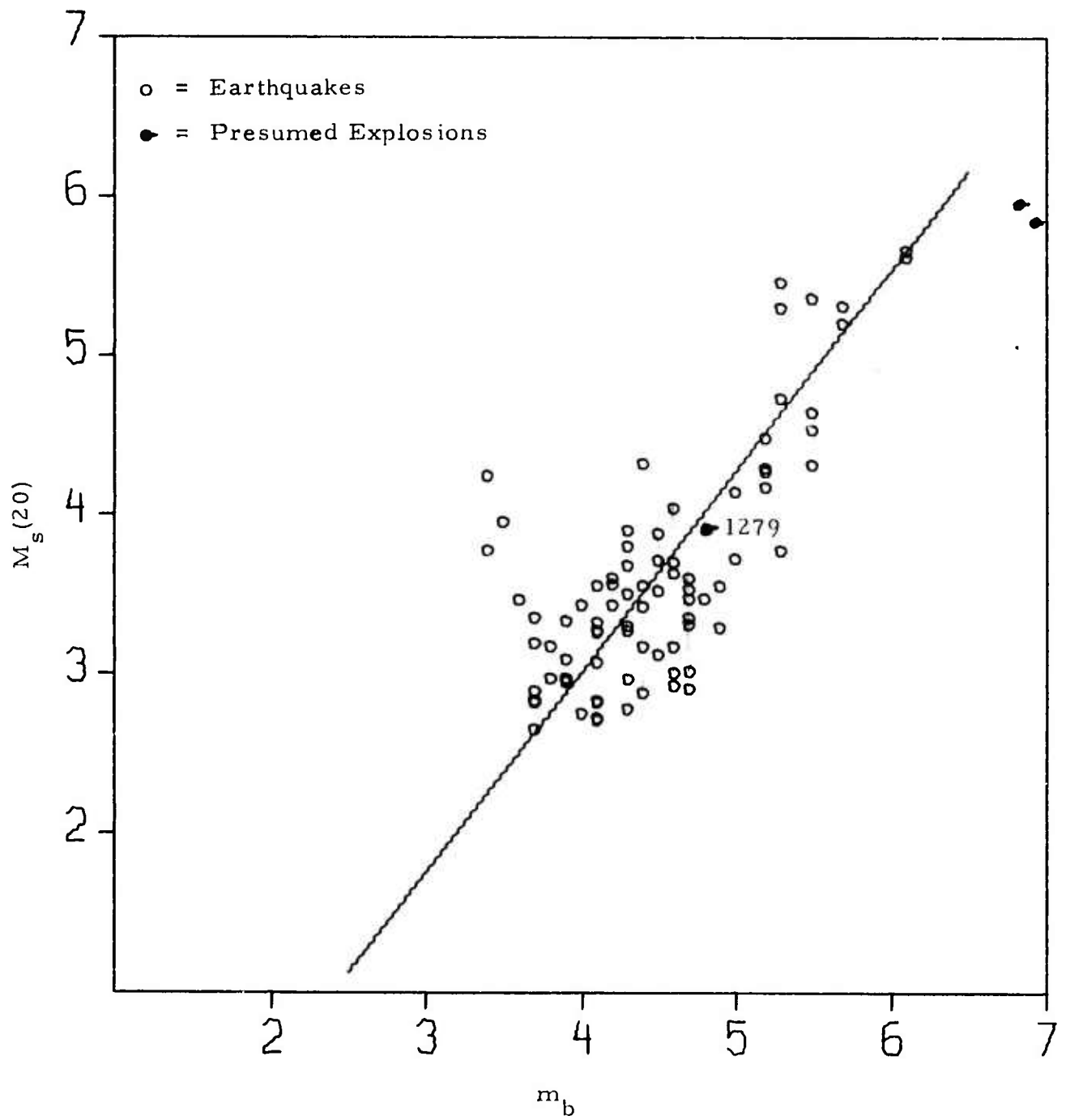


FIGURE III-11
 M_s VERSUS m_b AT MAT

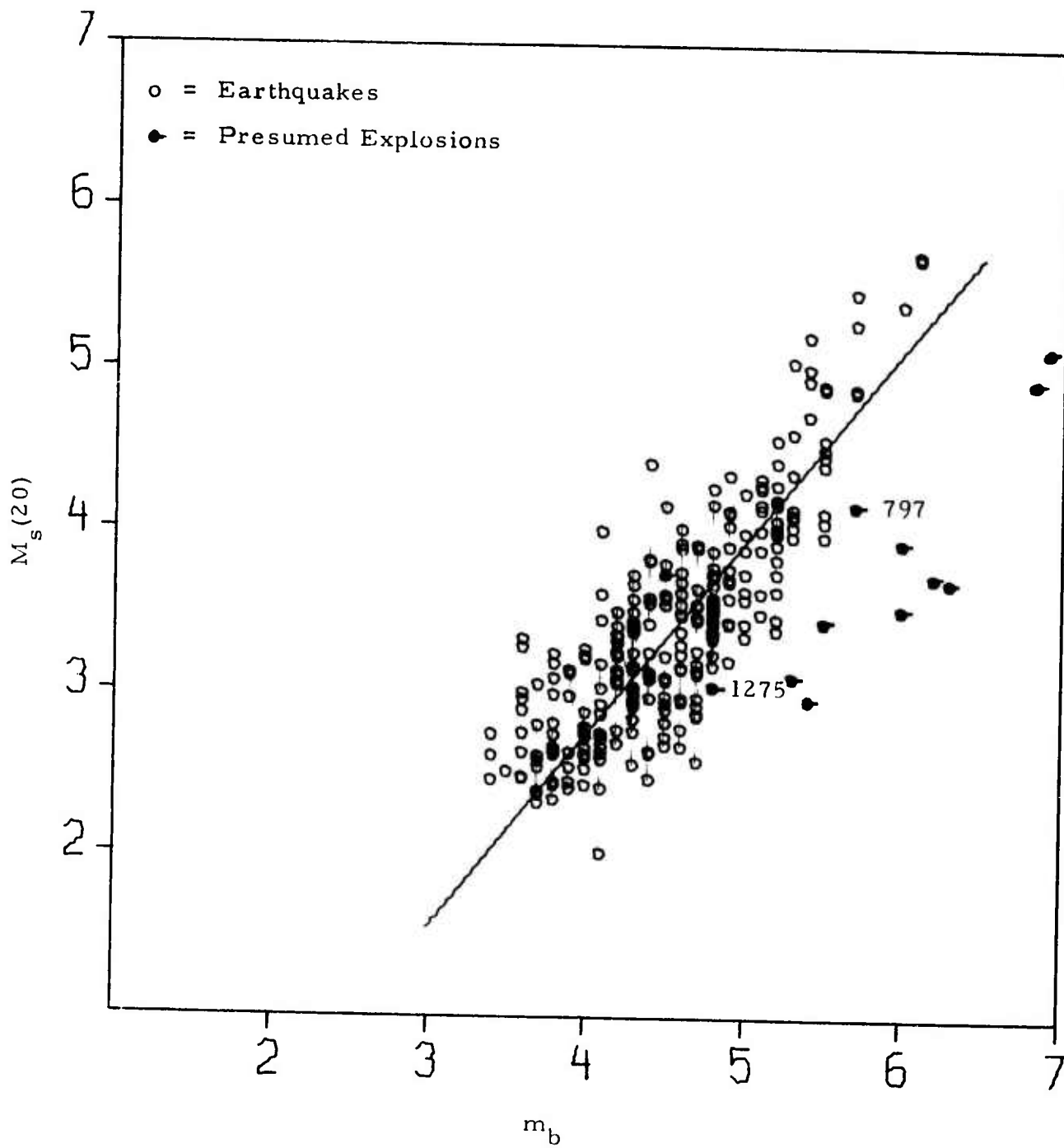


FIGURE III-12
 M_s VERSUS m_b AT ALPA

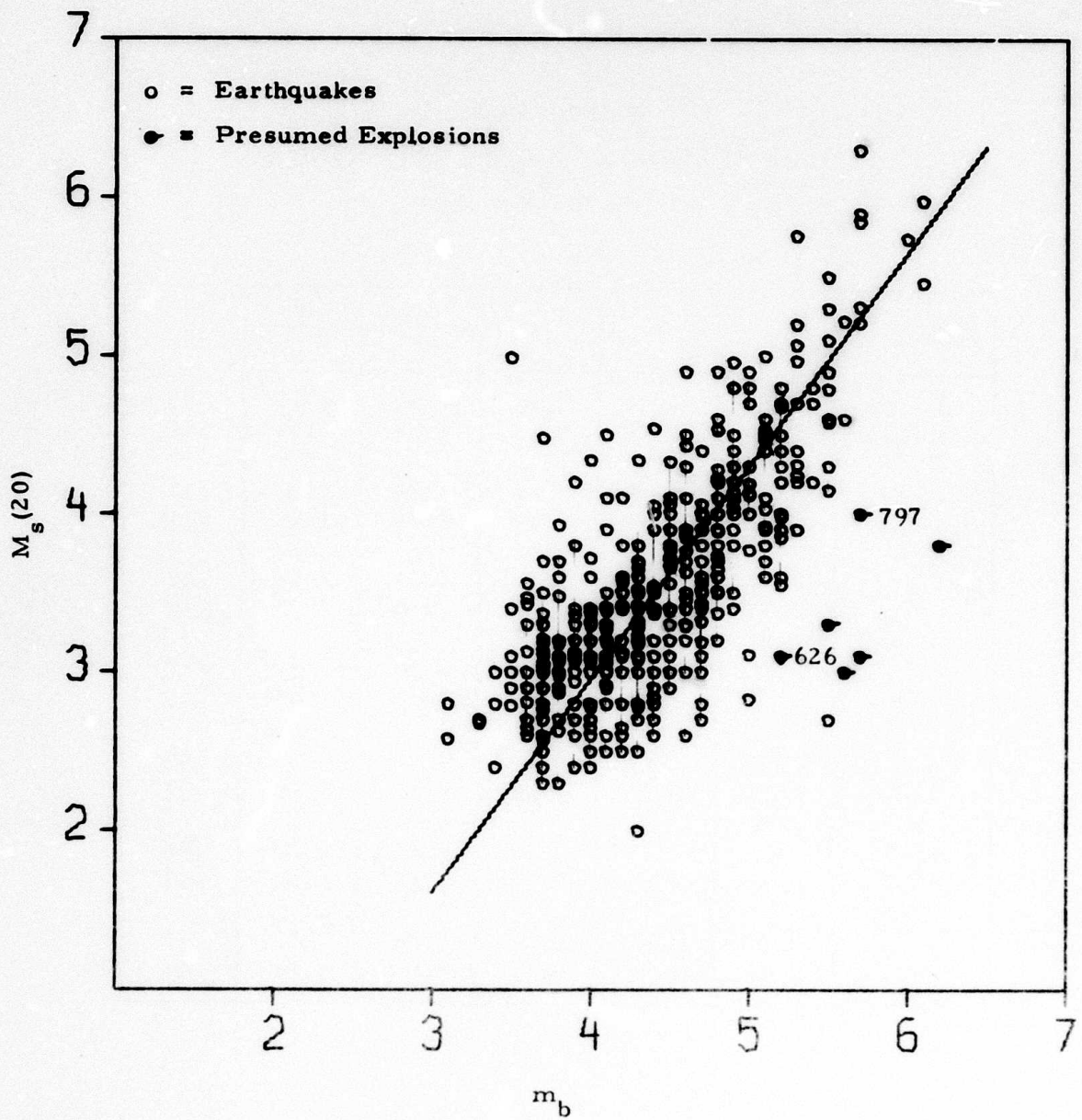


FIGURE III-13
 M_s VERSUS m_b AT NORSAR

TABLE III-1
 VLPE STATION $M_s - m_b$ RELATIONSHIPS
 (PAGE 1 OF 2)

Station	α	b	σ^2	Center of Mass		n
				m_b	M_s	
1	0.90	-0.17	0.17	4.81	4.16	85
1 (R)	-0.42	6.08	0.13	4.83	4.03	58
2	1.38	-2.58	0.14	4.68	3.90	161
2 (R)	1.28	-2.12	0.15	4.74	3.95	121
3	1.21	-1.52	0.17	4.43	3.84	42
3 (R)	1.09	-1.26	0.11	4.80	3.97	23
4	1.43	-2.88	0.15	4.73	3.89	110
4 (R)	1.24	-2.06	0.13	4.80	3.91	86
5	1.14	-1.46	0.19	4.72	3.91	89
5 (R)	1.23	-2.06	0.12	4.86	3.93	57
6	1.26	-1.94	0.15	4.71	4.00	186
6 (R)	0.99	0.71	0.13	4.85	4.07	132
7	1.76	-4.40	0.24	4.82	4.08	46
7 (R)	0.95	-0.53	0.21	4.80	4.01	44

TABLE III-1
 VLPE STATION $M_s - m_b$ RELATIONSHIPS
 (PAGE 2 OF 2)

Station	α	b	σ^2	Center of Mass		n
				m_b	M_s	
8	1.30	-2.14	0.13	4.82	4.14	163
8 (R)	0.90	-0.25	0.11	4.80	4.05	139
9	1.55	-3.71	0.15	5.00	4.04	72
9 (R)	0.91	-0.57	0.16	4.90	3.87	62
10	1.50	-3.49	0.14	5.24	4.36	22
10 (R)	0.21	2.98	0.10	5.03	4.02	16
11	1.26	-2.03	0.12	4.48	3.62	82
11 (R)	0.94	-0.65	0.13	4.63	3.70	47
12	1.19	-2.03	0.08	4.57	3.42	282
12 (R)	1.04	-1.37	0.08	4.75	3.56	192
13	1.35	-3.44	0.11	4.43	3.54	460
13 (R)	1.45	-2.98	0.13	4.71	3.86	263

where:

$$M_s = \alpha m_b + b$$

σ^2 = variance normal to the $M_s - m_b$ estimate.

R = $M_s - m_b$ linear relationship restricted to
 $4.2 \leq m_b \leq 5.5$.

0.7 M_s units lower than the mean of the earthquakes. This difference corresponds to that observed for western United States earthquakes and explosions (Basham, 1969; Lambert and Alexander, 1971).

- Event 456 from east Kazakh as observed at TLO was not detected at either ALPA or NORSAR. We believe this detection to be caused by an unidentified event. It may be classified as a false alarm.
- Although event 626 from east Kazakh as observed at TLO and NORSAR is in or close to the earthquake populations, it does show good separation from the means of the earthquake populations.
- Event 797 from east Kazakh as observed at KIP, ALQ, ZLP, MAT, ALPA, and NORSAR is a presumed large double explosion. NOAA lists another event having an origin time 8 seconds later and with identical epicenter parameters relative to event 797. This event is numbered 798 and listed in Appendix II-A.
- Event 1279 from Novaya Zemlya as observed at MAT is presumed to be an aftershock of event 1276 and therefore, is a natural seismic event.
- The $M_s - m_b$ values for all other unnumbered presumed explosions (east Kazakh and Novaya Zemlya) show good separation from the earthquake populations.

All of the presumed explosions, with the exception of possible false alarms or aftershocks previously described, show the expected separation between the population means. These means are represented by the best fit straight lines.

The results of fitting straight lines, tabulated in Table III-1, show on the average a slope (α) greater than 1.00 over the full range of bodywave magnitudes (m_b). For the restricted (R) range ($4.2 \leq m_b \leq 5.5$), the slope is approximately 1.00 with the exception of station CTA. Here the slope is negative due to the large data scatter within this restricted m_b range. In general the variances (σ^2) for the VLPE stations are greater than those for ALPA and NORSAR. We believe this result is primarily due to inherent VLPE instrumental gain variations.

C. M_s VERSUS m_b FOR NETWORKS

One purpose of this study is to determine the capability of the VLPE network and the VLPE-ALPA-NORSAR combined network to distinguish between earthquakes and presumed explosions.

Figures III-14 and III-15 show all M_s ($T = 20$ seconds) values determined by one or more station estimates for the VLPE network, and the VLPE-ALPA-NORSAR combined network, respectively. The presumed explosions discussed previously which overlapped the earthquake populations will overlap in these figures since most of these events were detected only by one station.

Figures III-16 and III-17 show all M_s values determined by two or more station M_s estimates for the VLPE network and the VLPE-ALPA-NORSAR combined network. Virtually all the problem events, previously discussed, are removed by requiring two station M_s estimates. Only events 626 and 797 remain close to the earthquake population. As previously stated, we presume that 797 is a double explosion from east Kazakh. We have no explanation or assumption concerning event 626, a presumed explosion from east Kazakh. Further, in Figure III-17, several Yugoslavian earthquakes detected at EIL and NORSAR overlap into the presumed explosion population. We believe that regional and depth effects on these event M_s estimates are the major factors causing low M_s values relative to m_b .

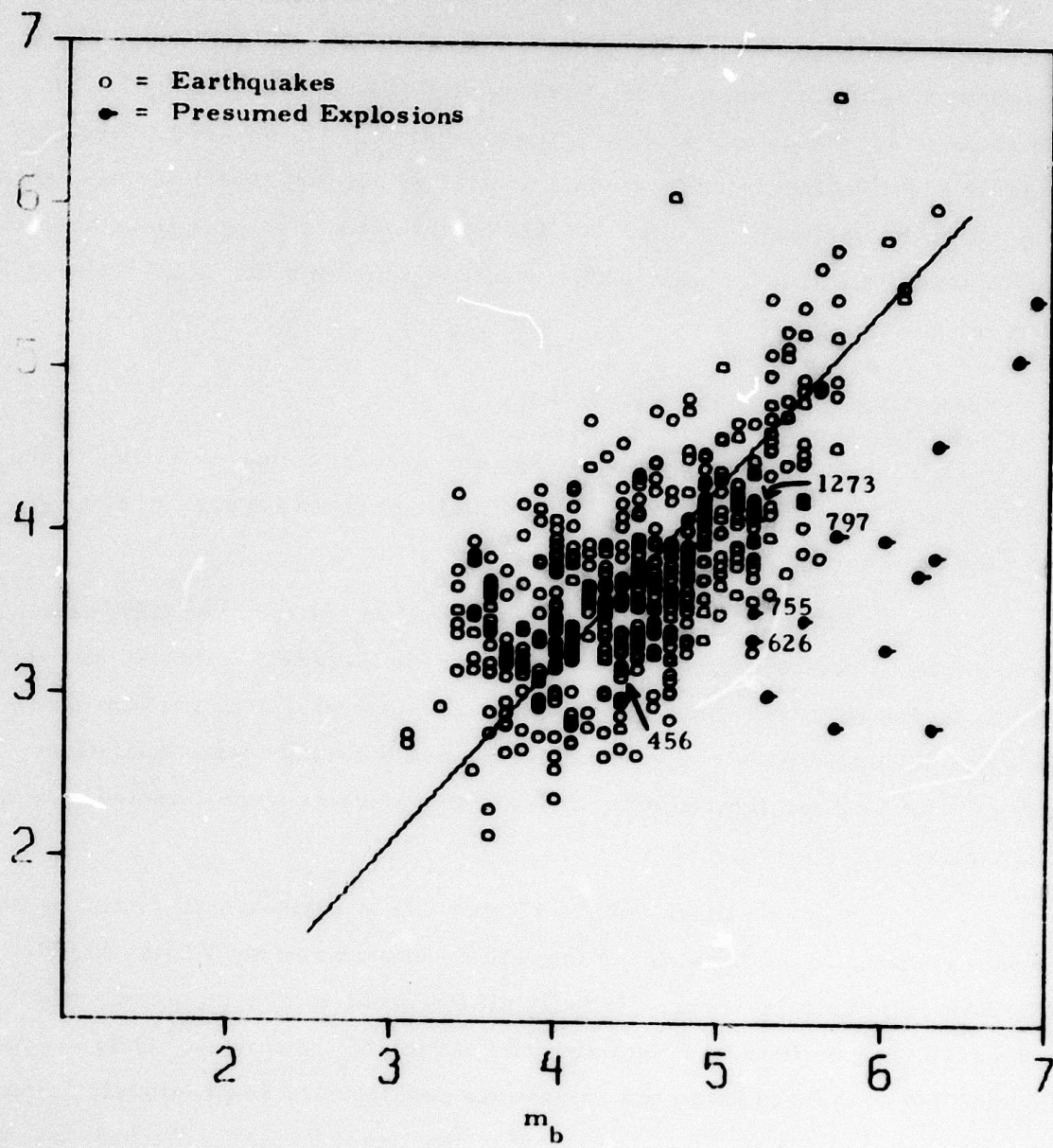


FIGURE III-14
 M_s VERSUS m_b AT VLPE NETWORK

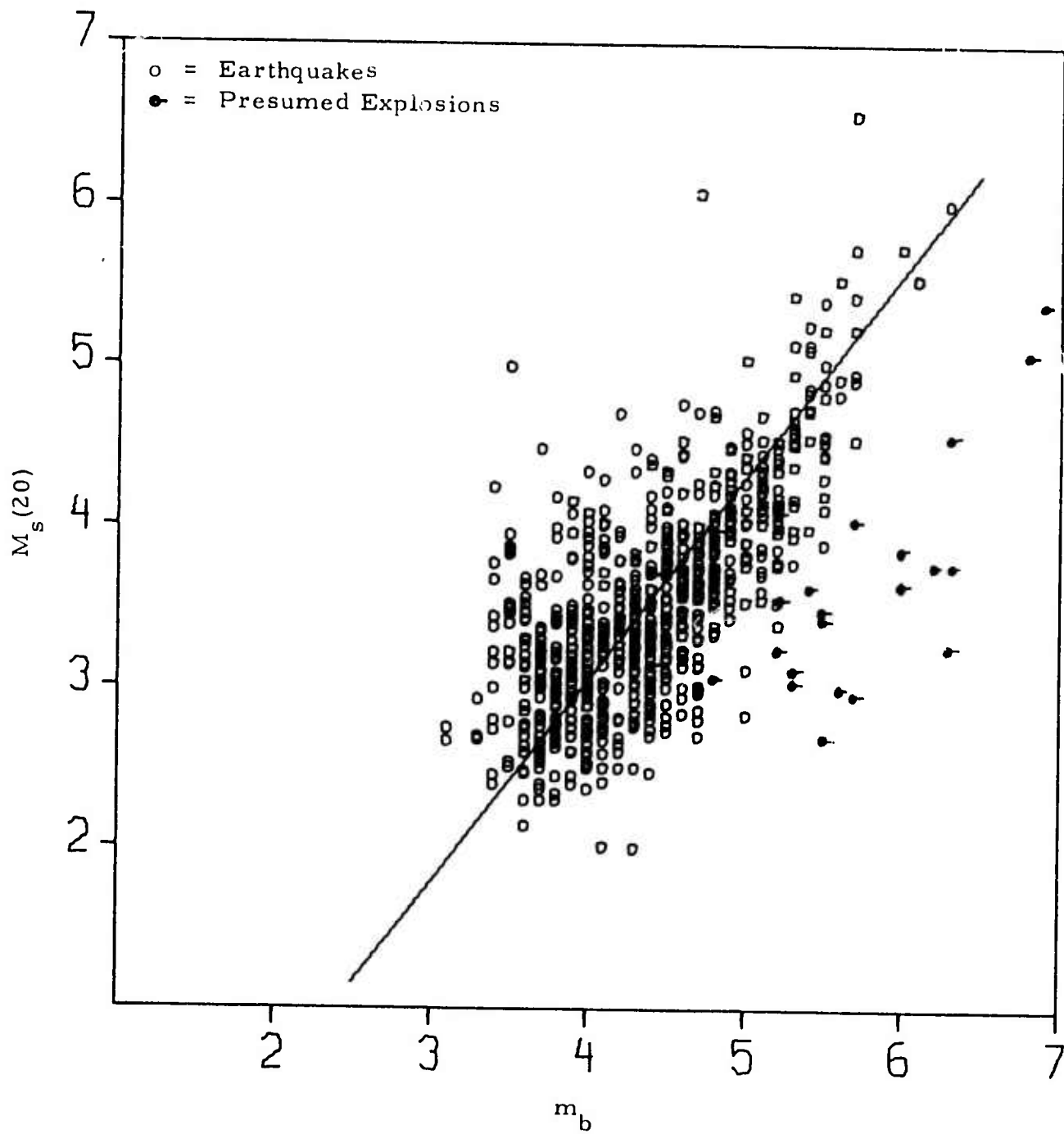


FIGURE III-15
 M_s VERSUS m_b AT VLPE, ALPA, AND NORSAR COMBINED NETWORK

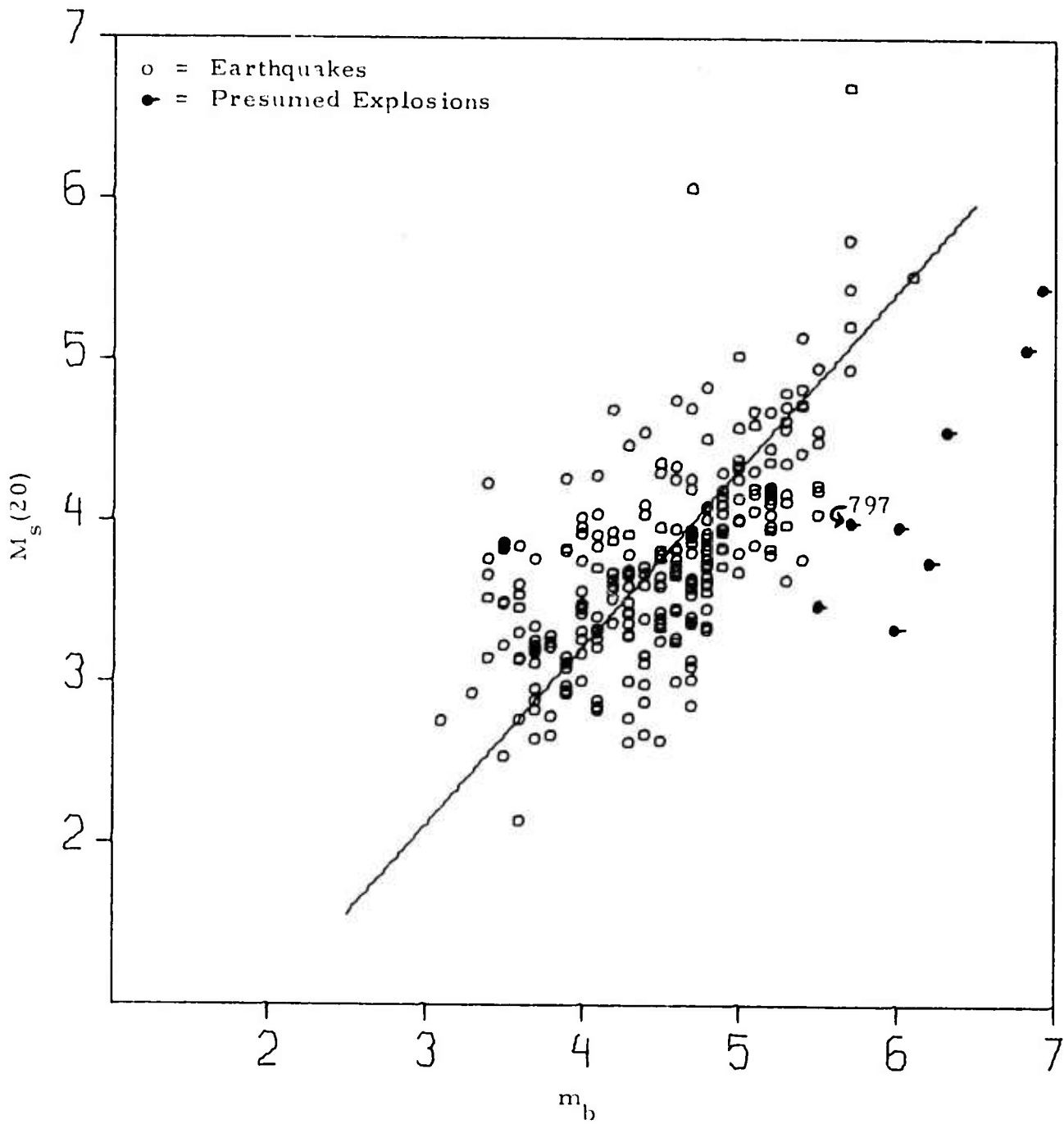


FIGURE III-16
 M_s VERSUS m_b AT VLPE NETWORK
 (2 OR MORE M_s VALUES)

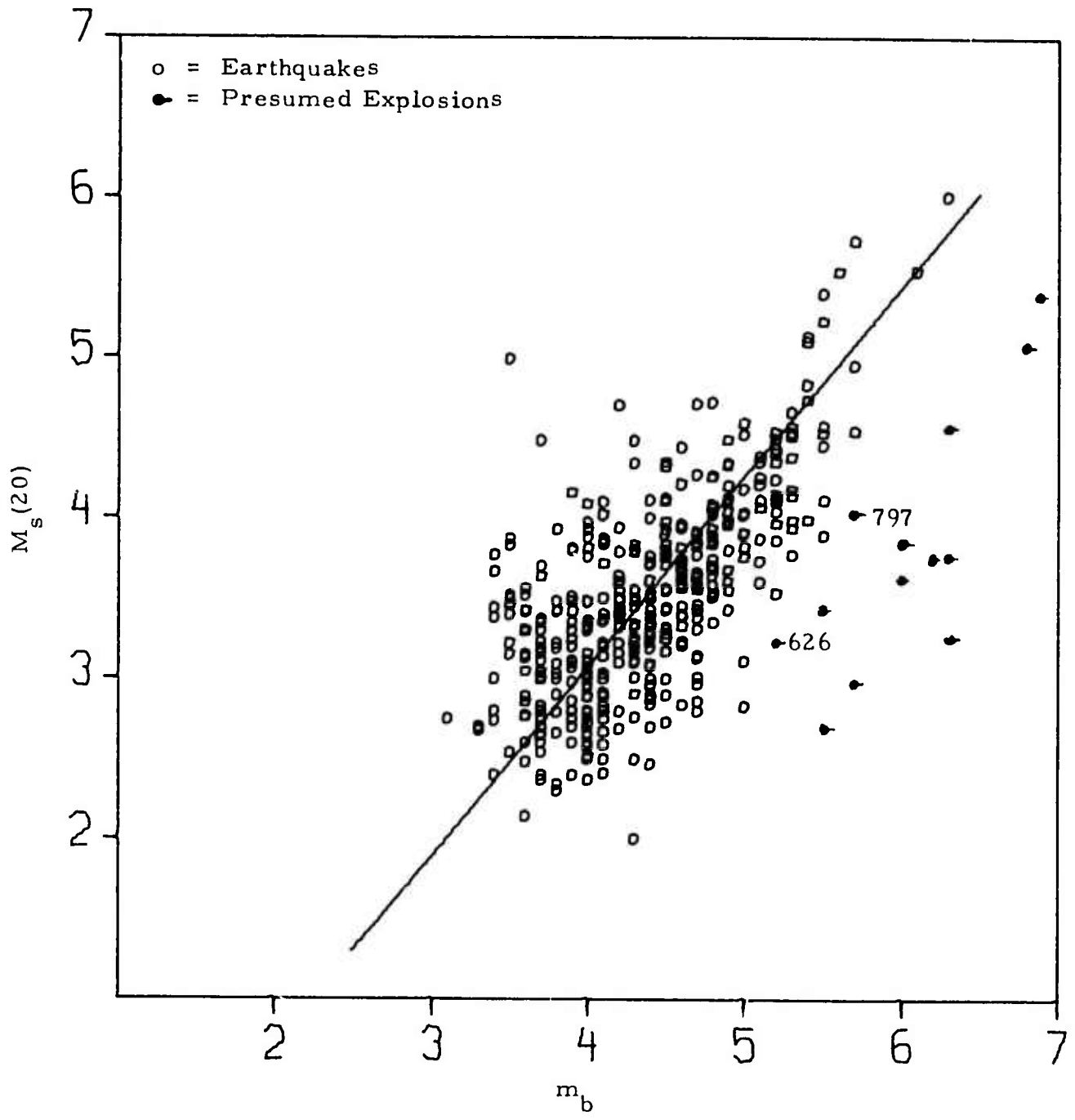


FIGURE III-17
 M_s VERSUS m_b AT VLPE, ALPA, AND NORSAR COMBINED NETWORK
 (2 OR MORE M_s VALUES)

Table III-2 lists the best fit straight lines to these data. Based on these best fit line estimates we find that the network responses for various m_b ranges are as follows:

- VLPE network:

$M_s = 1.11 m_b - 1.21$ for the $3.2 \leq m_b \leq 5.7$ interval which encompasses the majority of the data as seen in Figure III-14.

- VLPE-ALPA-NORSAR network:

$M_s = 1.18 m_b - 1.66$ for the $3.2 \leq m_b \leq 5.7$ interval. We consider only the M_s based on two-station estimates since many small relatively close events were detected by either ALPA or NORSAR. Thus, some regional effects on the M_s magnitude bias the $M_s - m_b$ relationship. Estimates of M_s by two or more stations tend to reduce this effect. Regional effects will also be present in the m_b estimates for those events detected only at NORSAR.

- All networks where $4.2 \leq m_b \leq 5.5$ (see Table III-2):

$$M_s = m_b - 0.80.$$

These relationships are summarized in Figure III-18. The slope for the VLPE network determined over the large m_b range (line 1) is greater than 1.00 because of the predominance of the large magnitude events. The VLPE-ALPA-NORSAR slope determined over the large m_b range (line 2) is greater than the VLPE slope, 1.11, because of the introduction of an increased number and possibly biased low M_s and relatively higher m_b values. The estimate for the magnitude range $4.2 \leq m_b \leq 5.5$ is a valid and unbiased relationship. This is thought to be true since all restricted network line estimates are essentially equal (Table III-2). The consistency shown for the four restricted networks with respect to the $M_s - m_b$ relationship is remarkable.

TABLE III-2
NETWORK $M_s - m_b$ RELATIONSHIPS

Network	$M_s = \alpha m_b + b$			Center of Mass		n		
	α	b	σ^2	m_b	M_s			
VLPE (1)	1.11	-1.23	0.12	4.50	3.76	492		
VLPE (2)	1.11	-1.21	0.12	4.50	3.78	262		
VLPE, A, & N (1)	1.26	-2.00	0.11	4.37	3.51	733		
VLPE, A, & N (2)	1.18	-1.66	0.11	4.36	3.50	418		
VLPE (1) R	}	*	0.98	-0.68	0.10	4.71	3.91	321
VLPE (2) R			0.97	-0.65	0.10	4.73	3.95	176
VLPE, A, & N (1) R			1.05	-1.04	0.11	4.66	3.84	399
VLPE, A, & N (2) R			0.99	-0.80	0.10	4.67	3.83	229

where:

- VLPE = VLPE network only.
- VLPE, A, & N = VLPE-ALPA-NORSAR combined network.
- (1) = One or more station M_s estimate required.
- (2) = Two or more station M_s estimates required.
- R = $M_s - m_b$ linear relationship restricted between $4.2 \leq m_b \leq 5.5$.
- σ^2 = Variance normal to the $M_s - m_b$ estimate.
- n = Total number of values.

* We note that for the restricted networks the slopes are all essentially 1.0. Hence, if we consider $\alpha = 1.0$ then b is the difference between the m_b and M_s center of mass: $b \approx -0.80$.

Thus, the relationship $M_s = m_b - 0.80$ is representative of the restricted data sets.

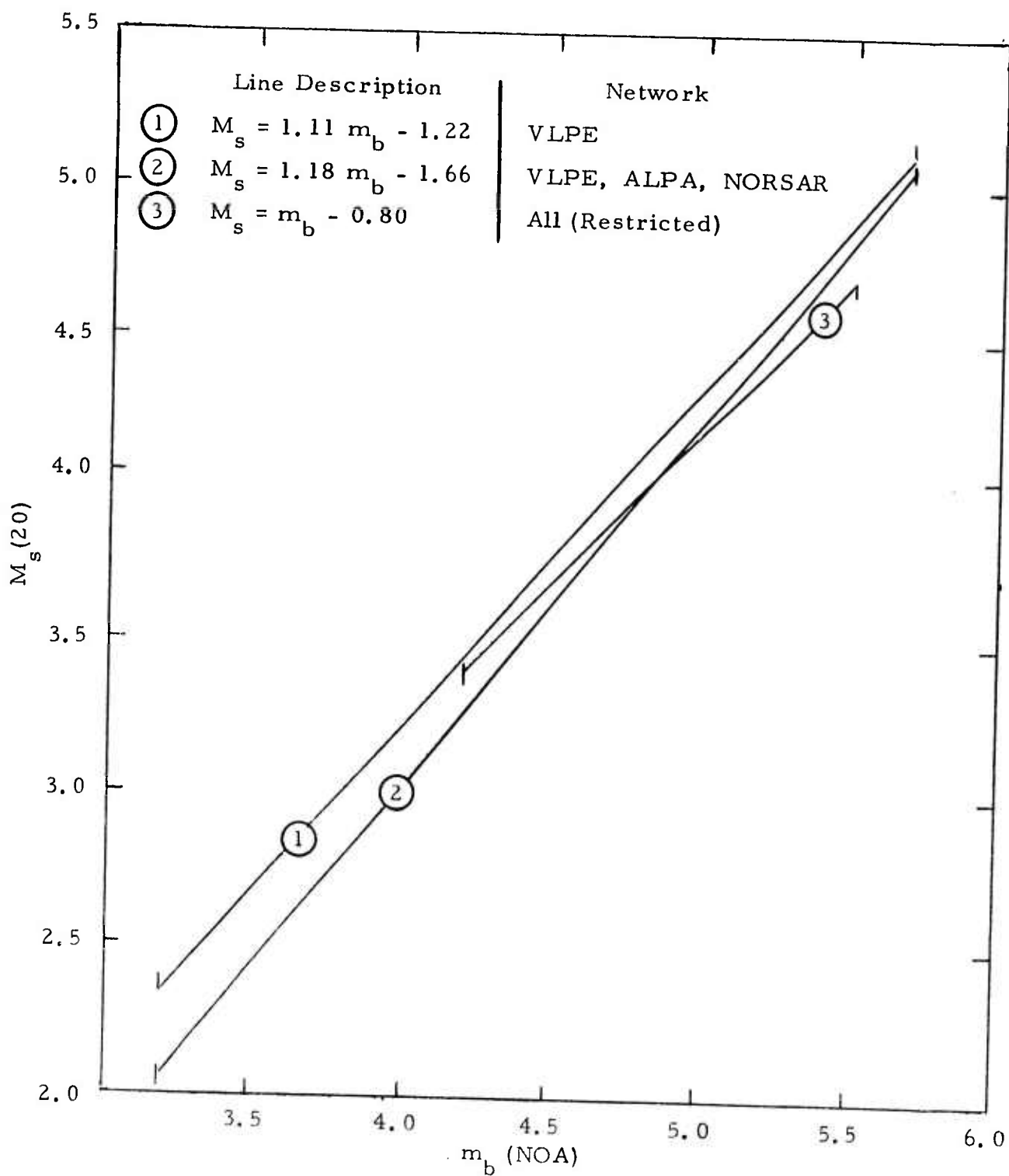


FIGURE III-18
 VLPE, VLPE-ALPA-NORSAR COMBINED NETWORK
 MEAN $M_s - m_b$ RELATIONSHIPS

We now compare these mean results with those determined by others. To make this comparison requires that we have a standardized body- and surface-wave magnitude scale. For this purpose we used as standards the bodywave estimate by the National Oceanic and Atmospheric Administration, m_b (NOA), and the improved surface-wave formula introduced by Marshall and Basham (1972). This was convenient since most of the m_b values used in this study are m_b (NOA). Further, for the teleseismic distances and Rayleigh wave periods of 20 seconds, the Rayleigh wave magnitude formula applied to the data in this study corresponds within less than 0.1 of a magnitude unit to their formulation. Thus, no adjustment to our estimate was needed. The exceptions to the above statements were the NORSAR M_s values determined for near events and the m_b values resulting from only NORSAR detecting. No adjustments were made to the NORSAR M_s or m_b data since no information is available regarding regional m_b corrections.

We examined all of the Eurasian events in the magnitude range $4.2 \leq m_b \leq 5.5$ which were reported by Marshall and Basham (1972) and whose magnitudes were estimated from a network of 42 WWSS Eurasian stations. Subsequently, we determined their center of mass to be $M_s \approx 4.18$, $m_b \approx 4.73$. However, these M_s values had been adjusted for depth: $M_s + 0.008 h$. By assuming an average depth (h) of 33 kilometers we recomputed the center of mass to be $M_s \approx 3.92$ ($= M_s - 0.26$) and $m_b \approx 4.73$. The difference, $m_b - M_s = 0.81$, corresponds closely to that determined for the VLPE. This point is shown in Figure III-19 and numbered 2.

Basham (1969) gives the following M_s versus m_b relationship for south-western North American earthquakes recorded by the Canadian network of seismographs:

$$M_s \text{ (Canadian)} = 1.36 m_b \text{ (Canadian)} - 1.44.$$

Converting this equation to the standardized body- and surface-wave magnitude scale yields:

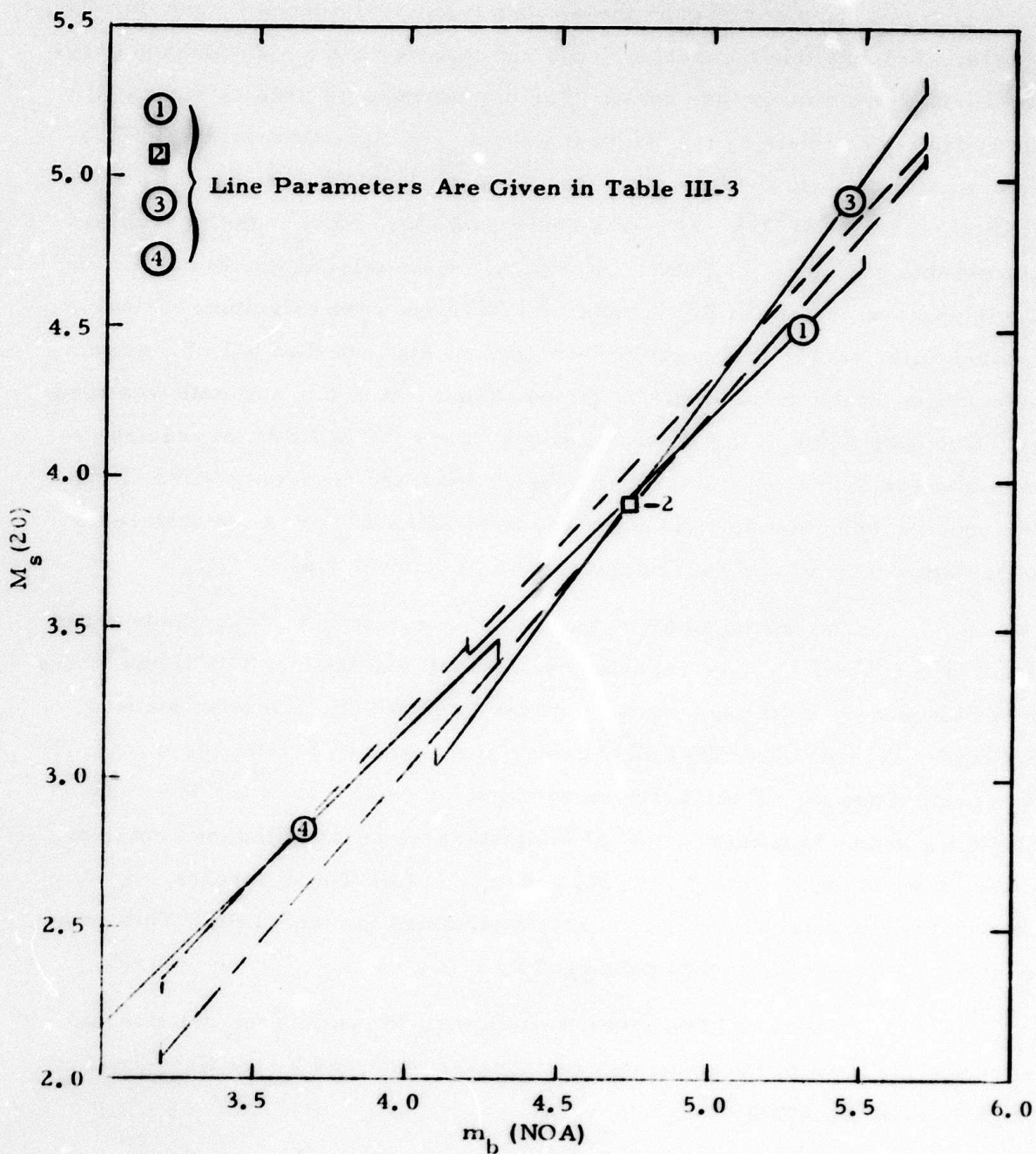


FIGURE III-19
 COMPARISON OF NETWORK MEAN $M_s - m_b$
 RELATIONSHIPS TO THOSE OF OTHERS

TABLE III-3
SUMMARY OF REDUCED M_s - m_b RELATIONSHIPS

Figure III-19 Line	Reduced Equation	Centers of Mass		m_b Range	Earthquakes	Stations
		$M_s(20)$	$m_b(NO A)$			
1	$M_s(20) = m_b(NO A) - 0.80$	3.92	4.71	$4.2 \leq m_b \leq 5.5$	Eurasian	VLPE, ALPA & NORSAR
2	Not Determined	$\approx 3.92^*$	$\approx 4.73^*$	$4.2 \leq m_b \leq 5.5$	Eurasian	WWSSN
3	$M_s(20) = 1.36(NO A) - 2.53$	3.96	4.77	$4.1 \leq m_b \leq 5.7$	South West N. America	Canadian
4	$M_s(20) = m_b(NO A) - 0.83$	2.81	3.64	$3.0 \leq m_b \leq 4.3$	Nevada	LRSM

Reference Source

- 1 This Study
- 2 Marshall & Basham (1972)
- 3 Basham (1969)
- 4 Lambert & Alexander (1971)

*

Estimated for this study

$$M_s = 1.36 m_b - 2.53$$

for the magnitude range $4.1 \leq m_b \leq 5.7$ (Figure III-19, line 3). This conversion is described in detail in Appendix III-B. Again the difference between m_b and M_s at the center of mass is 0.81.

Lambert and Alexander (1971) gave the following M_s versus m_b relationship for a swarm of Nevada earthquakes recorded by LRSM stations:

$$M_s \text{ (Geotech)} = m_b \text{ (Evernden)} + 0.06.$$

Converting this equation to the standardized body- and surface-wave magnitude scale yields:

$$M_s = m_b - 0.83$$

for the magnitude range $3.0 \leq m_b \leq 4.3$ (Figure III-19, line 4). This conversion is described in detail in Appendix III-B.

Figure III-19 also shows the same data given in Figure III-18 for the VLPE and Combined networks. Line 1 represents the $M_s = m_b - 0.80$ for the magnitude range $4.2 \leq m_b \leq 5.5$, and the dashed lines represent the extended m_b range for the two networks.

The many uncertainties in the M_s and m_b formulations and conversion factors to the so-called standardized magnitude scales have not been investigated by us. In spite of these uncertainties the correspondence among these sets of data is remarkable.

The results of this analysis show the following:

- Distinct separation is present between Eurasian earthquakes and presumed eastern Kazakh and Novaya Zemlya explosions. With the noted exceptions (Events 626 and 797) these results are consistent with those published by Marshall and Basham (1972).

- Marginal separation is present between Eurasian earthquakes and presumed Ural explosions. This is also consistent with the results published by Marshall and Basham (1972).
- The VLPE network and the VLPE-ALPA-NORSAR combined network M_s versus m_b relationships can be compared directly to that reported by Marshall and Basham (1972) for a network of 42 WWSS Eurasian stations.

We have not discussed discrimination thresholds in this section because of the limited amount of presumed explosion data. However, because of the similarities shown between the VLPE network and the 42 Eurasian WWSS station network, we would expect the VLPE network discrimination threshold to be equivalent to the 90% threshold of the WWSSN or $M_s = 3.2$ (Marshall and Basham, 1972).

The large variance (σ^2) associated with the $M_s - m_b$ line fits to stations and networks clearly indicated the need for station and path M_s corrections. Considerable time and effort was expended in attempting to determine these corrections. However, we are unable to do so with a sufficient degree of confidence at some stations, due to the problems discussed in the introduction to this section.

D. LOVE TO RAYLEIGH WAVE AMPLITUDE RATIOS (LQ/LR)

A potential measure of the discrimination capability of the VLPE is the LQ/LR amplitude ratio. Previous work by Lambert, et al., (1973) compiled average LQ/LR values ($T = 30$ seconds) as functions of network and total Eurasian seismic region, network and sub-regions, and station and sub-region. In this report, we again compiled statistics (LQ/LR ratios) for the network with the currently expanded data base. These results support the previous conclusions.

- The arithmetic mean LQ/LR ratio for earthquakes within each Eurasian region, except the south Kamchatka region is greater than 1.0 (Table III-4). In particular, the overall arithmetic mean is 1.56 with a standard deviation of 1.51. The low values observed from south Kamchatka suggest that this region does not contain as wide a variety of source mechanisms as do the other regions.
- There does not appear to be any obvious correlation between the mean ratios obtained from a given region. This suggests that earthquake source parameters vary significantly within each region, and thus, produce a wide variety of radiation patterns.
- The overall arithmetic mean LQ/LR ratio for presumed explosions from the east Kazakh region is 0.77 with a standard deviation of 0.26. This average is comprised of six values from five events. The standard deviation of 0.26 is significantly smaller than those observed for the earthquakes.

The complete statistics for the LQ/LR ratios are shown in Table III-4.

Figure III-20 presents the frequency distribution of the log (LQ/LR) values obtained for all Eurasian regions excluding the six values from east Kazakh. This distribution appears to be normal. We obtained a mean value for the log (LQ/LR) of 0.04 with a standard deviation of 0.36. Approximately 450 values are within one standard deviation of the mean. These statistics are in agreement with the theoretical results predicted by Turnbull (1974).

Briefly, he examined the expected behavior of LQ/LR ratios as a function of period for various source parameters: dip (δ) = 10° , 30° ,

TABLE III-4
LQ/LR STATISTICS

Statistics Over All Eurasian Regions						
Station	Mean	σ	Mean (log)	Antilog	log σ	Number of Values
CTA	1.44	1.45	-0.01	0.98	0.39	48
CHG	1.57	1.54	0.04	1.10	0.36	106
FBK	1.31	1.09	0.03	1.07	0.27	50
TLO	1.62	1.18	0.11	1.29	0.30	54
EIL	1.69	1.72	0.01	1.03	0.46	26
KON	1.67	1.66	0.08	1.19	0.35	138
OGD	2.14	3.08	0.05	1.12	0.17	28
KIP	1.30	1.14	-0.03	0.94	0.37	80
ALQ	1.80	1.56	0.09	1.22	0.45	36
ZLP	0.79	0.39	-0.13	0.74	0.18	8
MAT	1.46	0.99	0.05	1.12	0.38	61
Statistics Over All Stations						
Region	Mean	σ	Mean (log)	Antilog	log σ	Number of Values
SKAM	0.94	0.78	-0.14	0.73	0.33	90
NKAM	1.46	1.39	0.01	1.02	0.41	61
KURS	1.34	1.40	-0.01	0.97	0.34	95
TWAN	1.58	1.34	0.07	1.18	0.34	69
CENA	1.65	1.45	0.09	1.23	0.33	116
CASP	2.16	2.45	0.15	1.43	0.41	17
SIRA	2.14	1.76	0.22	1.65	0.33	29
GTUR	1.96	2.11	0.10	1.26	0.43	56
EKAZ	0.77	0.26	-0.13	0.74	0.14	6
Other	1.80	1.60	0.11	1.28	0.37	96
Earthquake Statistics Over All Regions and Stations						
	Mean	σ	Mean (log)	Antilog	log σ	Number of Values
	1.56	1.51	0.04	1.10	0.36	635

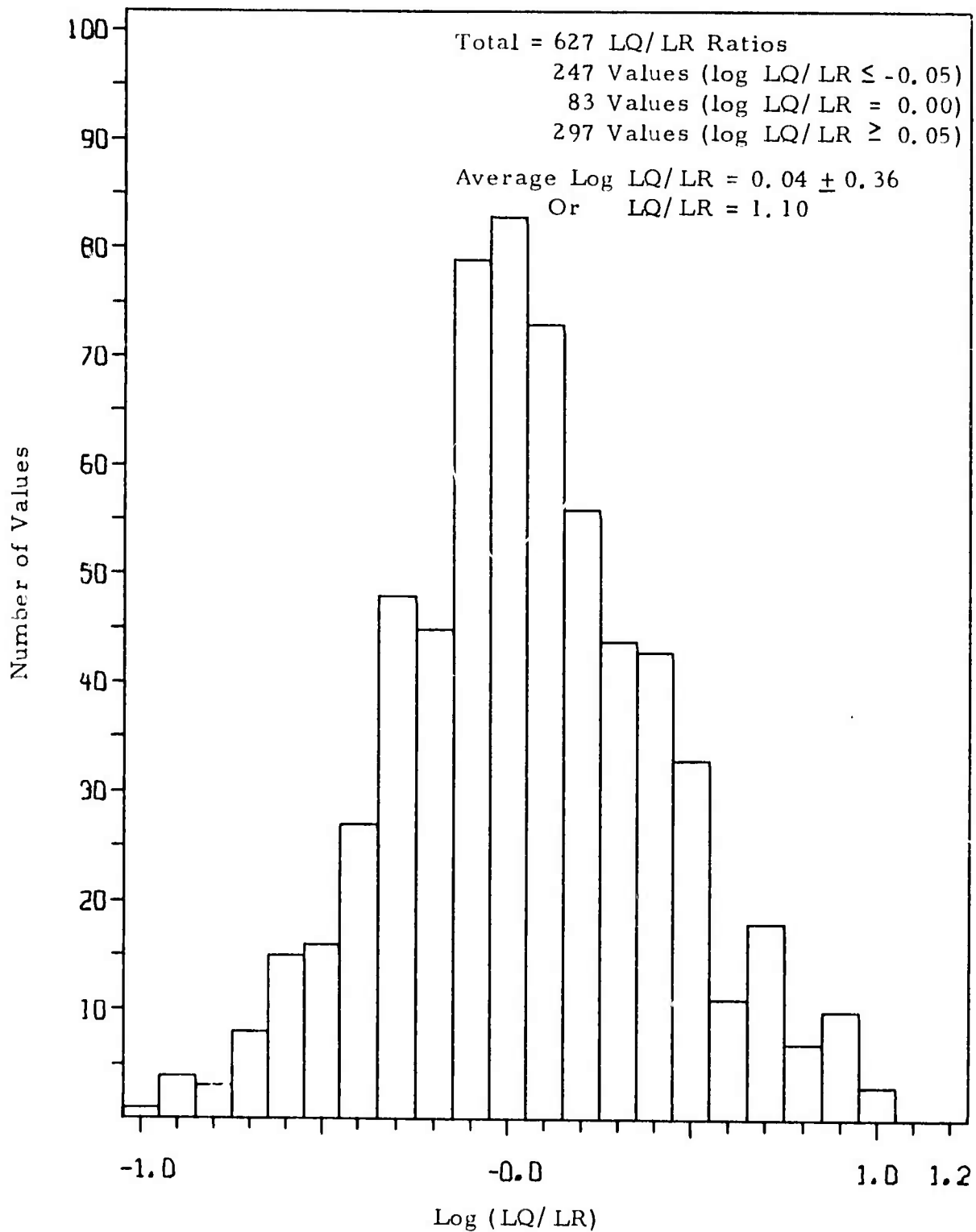


FIGURE III-20

LOVE TO RAYLEIGH WAVE AMPLITUDE RATIOS OF
 EURASIAN EVENTS SEEN BY VLPE STATIONS

60°; slip (λ) = 10°, 30°, 60°, 90°; and depth (h) = 5, 30, and 50 kilometers. At each 5 second increment in period and for a given combination of δ and λ 's, at a fixed h, Turnbull (1974) averaged the LQ/LR ratios over 22° azimuthal increments (Figure III-21). For T = 30 seconds we determined a theoretical mean value of 1.38 ± 0.59 at h = 30 kilometers. Thus, the observed arithmetic average of LQ/LR of 1.56 at T = 30 seconds closely compares to the unweighted theoretical mean value for h = 30 kilometers with the various fault orientations observed over many azimuths.

We note that the majority of the observed VLPE LQ/LR ratios were for T = 30 seconds since higher frequency Love waves were mostly indistinguishable from the Rayleigh wave data remaining on the horizontal components even after rotation. The large standard deviations obtained from the VLPE data may be accounted for by the following:

- The periods can vary from 20 to 40 seconds.
- The depths are not uniformly 30 kilometers.
- The quality of the data is sometimes questionable.

We can observe from Figure III-21 that depth and period variations have a considerable effect on the range (i. e., standard deviation) for the values considered.

We next chose to examine all events from central Asia with three or more stations observing LQ and LR. Central Asia was chosen primarily because it is closest to east Kazakh, our area of interest. By requiring three or more VLPE stations reporting LQ and LR we obtain wide azimuthal coverage (Table III-5). With this azimuthal coverage, all of the mean LQ/LR ratios for shallow earthquakes are significantly greater than the overall arithmetic mean value of 0.77 for the presumed east Kazakh explosions.

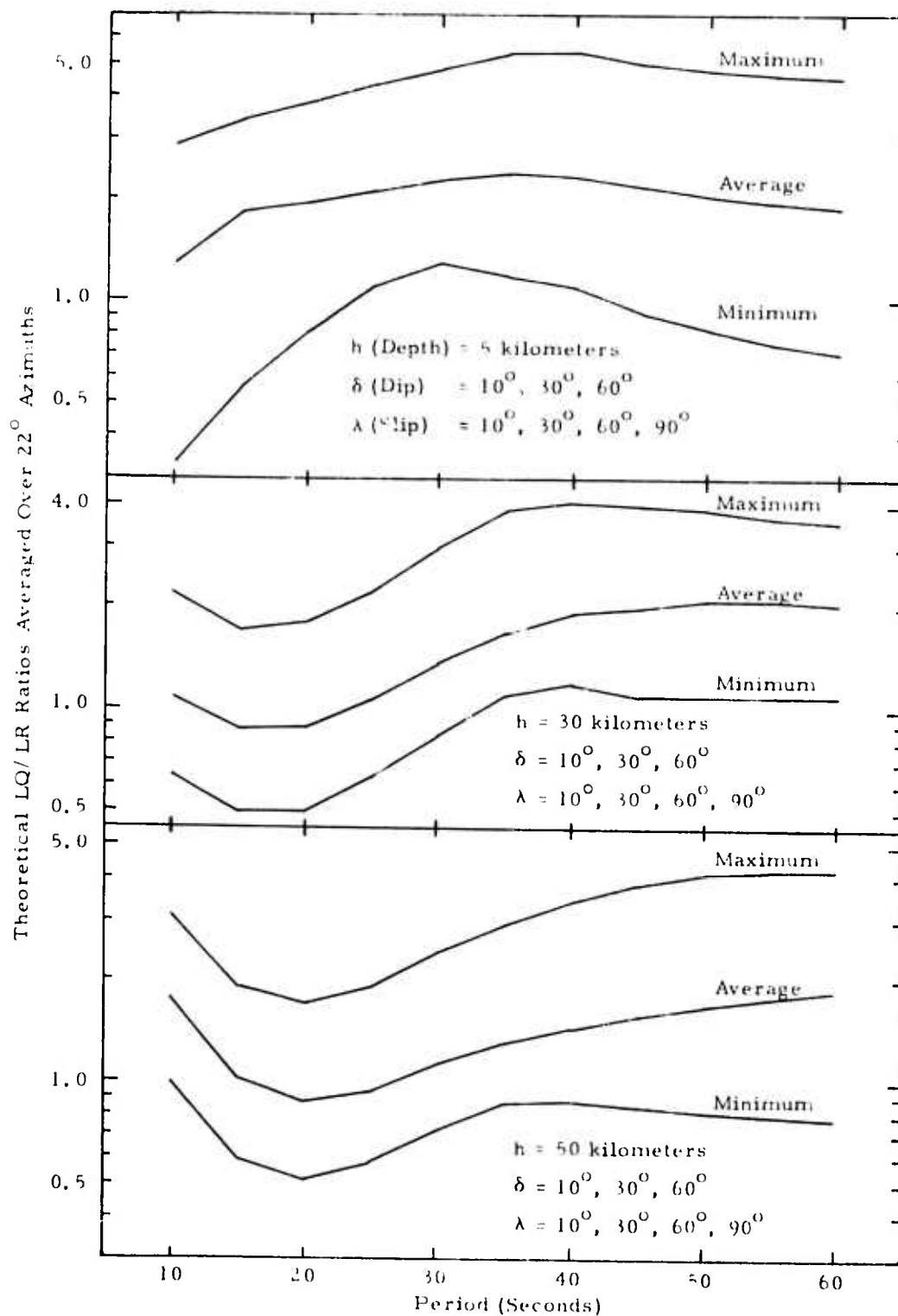


FIGURE III-21

THEORETICAL LQ/LR RATIOS AVERAGED OVER 22° AZIMUTHAL INCREMENTS AS A FUNCTION OF PERIOD

TABLE III-5
 TABLE OF MEAN LQ/LR RATIOS (WITH 3 OR MORE
 VALUES PER EVENT) FOR CENTRAL ASIA

Event Number	m_b	Mean (LQ/LR)	Number of Values	σ	Event to Station Azimuth in Degrees
95	5.2	1.11	5	0.53	146, 22, 302, 320, 345
294	5.2	0.88	4	0.70	146, 22, 302, 320
656	4.8	2.79	3	1.56	124, 272, 56
881	5.2	1.36	3	0.74	320, 56, 77
918	5.0	1.56	6	1.50	146, 320, 56, 10, 307, 77
929	5.1	0.93	4	0.62	146, 320, 56, 77
946	4.3	1.82	3	0.68	146, 56, 77
950	4.9	1.22	3	0.46	320, 56, 10
965	4.8	1.54	4	0.97	320, 56, 10, 77
1112	5.2	2.23	3	0.91	124, 146, 10
1227	4.7	1.58	3	1.33	272, 320, 77

Based on these data, determined from three or more VLPE stations, we have clear discrimination between shallow earthquakes in central Asia and presumed east Kazakh explosions. Further, theoretically and experimentally, over 80 percent of all $\log (LQ/LR)$ ratios ($T = 30$ seconds) will be greater than the mean $\log (LQ/LR)$ value for east Kazakh regardless of the region or path. This conclusion is based on the theoretical results by Turnbull (1974) and on the normal distribution of observed ratios shown in Figure III-20. In particular, the antilog (0.74) of the mean $\log (LQ/LR)$ for east Kazakh is one standard deviation (0.36) from the antilog (1.10) of the mean $\log (LQ/LR)$ for Eurasia. The remaining 20 percent are the result of both the low values obtained from the south Kamchatka region and dubious data quality.

E. NEGATIVE DISCRIMINATION

Any negative discriminate is at best, only an aid to the problem of distinguishing between earthquakes and explosions. Negative discriminants based on the presence or absence of a particular phase, relative to the detection of the P phase, can be of importance if sufficient m_b separation exists between the zero percent detectability level for explosions and the 100 percent detectability level for earthquakes.

We use as an example, the presence or absence of Rayleigh waves at ALPA for earthquakes from central Asia and presumed explosions from east Kazakh. We apply the maximum likelihood detection procedure by Ringdal (1974). Figures III-22 and III-23 show the detection probabilities of surface-waves as a function of bodywave magnitude (m_b) for central Asian earthquakes and presumed east Kazakh explosions, respectively. Comparing these figures we observe that no presumed explosion surface-waves were detected at ALPA below an m_b of 5.0; whereas, all earthquakes were detected for $m_b \geq 4.5$ and the maximum likelihood 90 percent detection level is

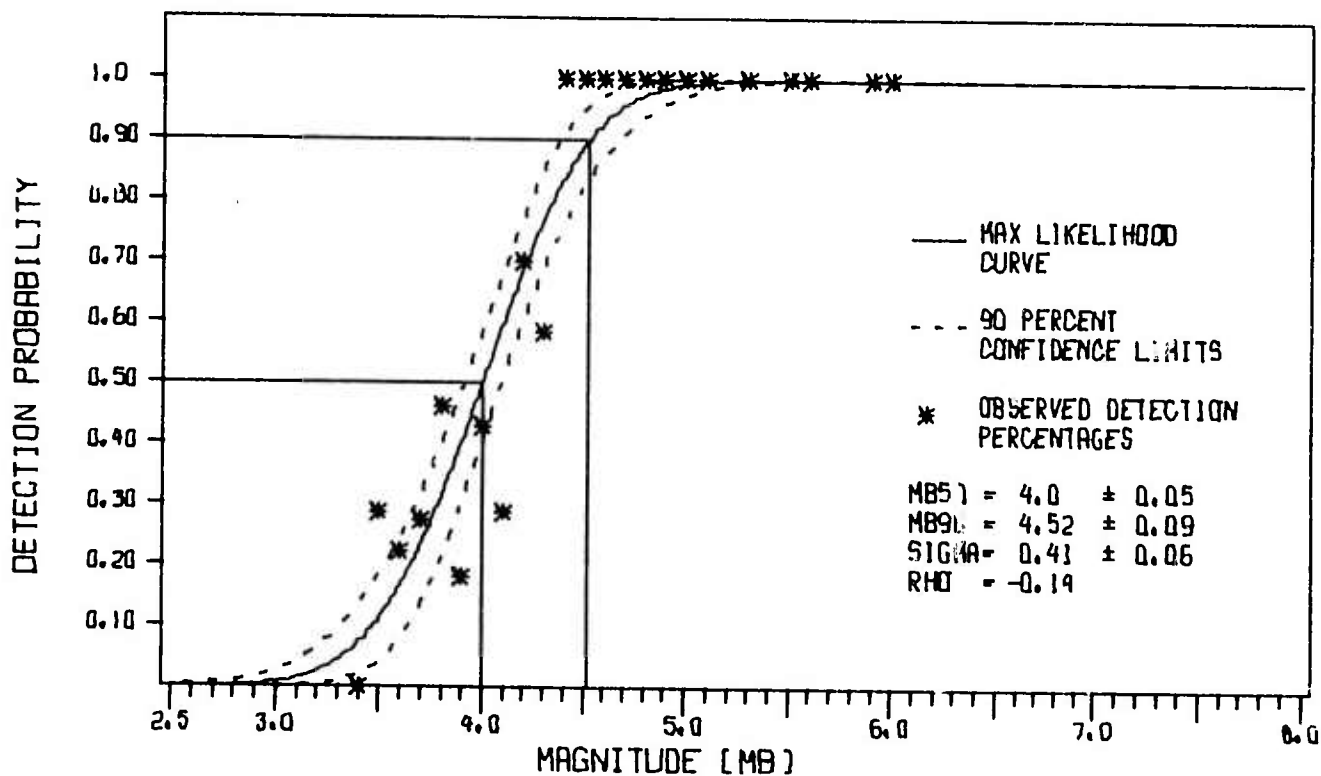
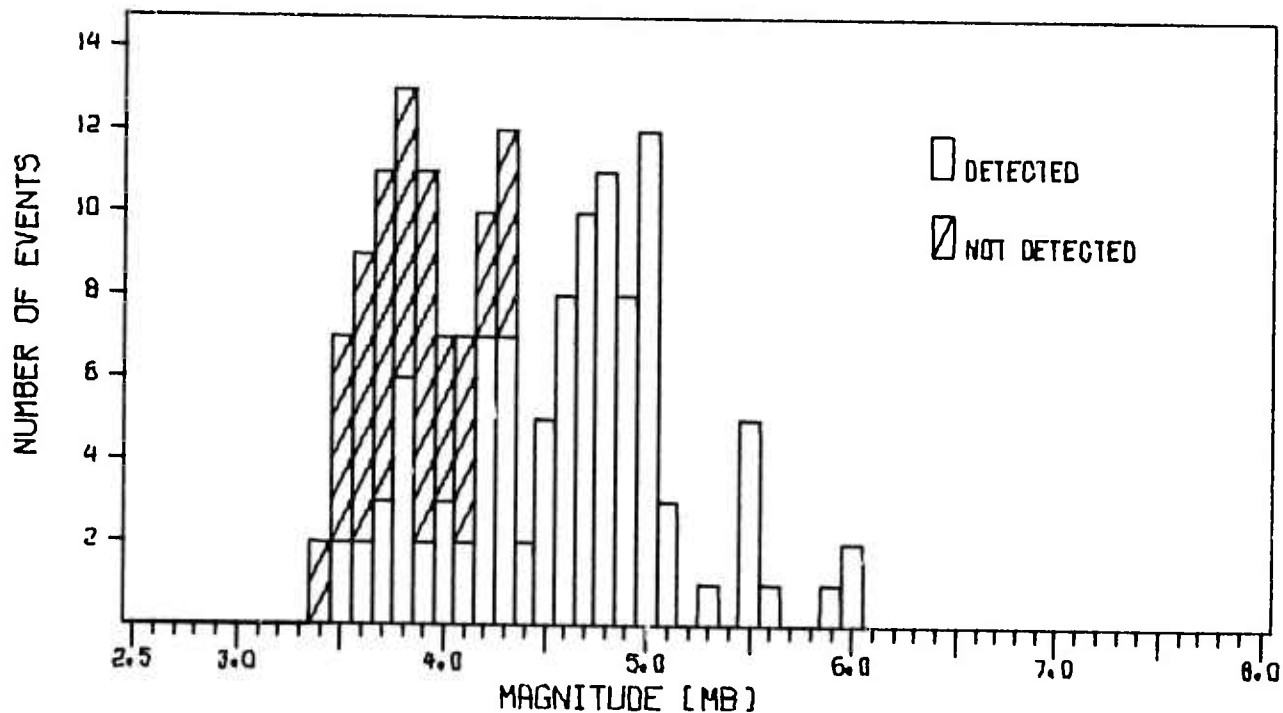


FIGURE III-22
DETECTION STATISTICS AT ALPHA FOR
CENTRAL ASIAN EARTHQUAKES

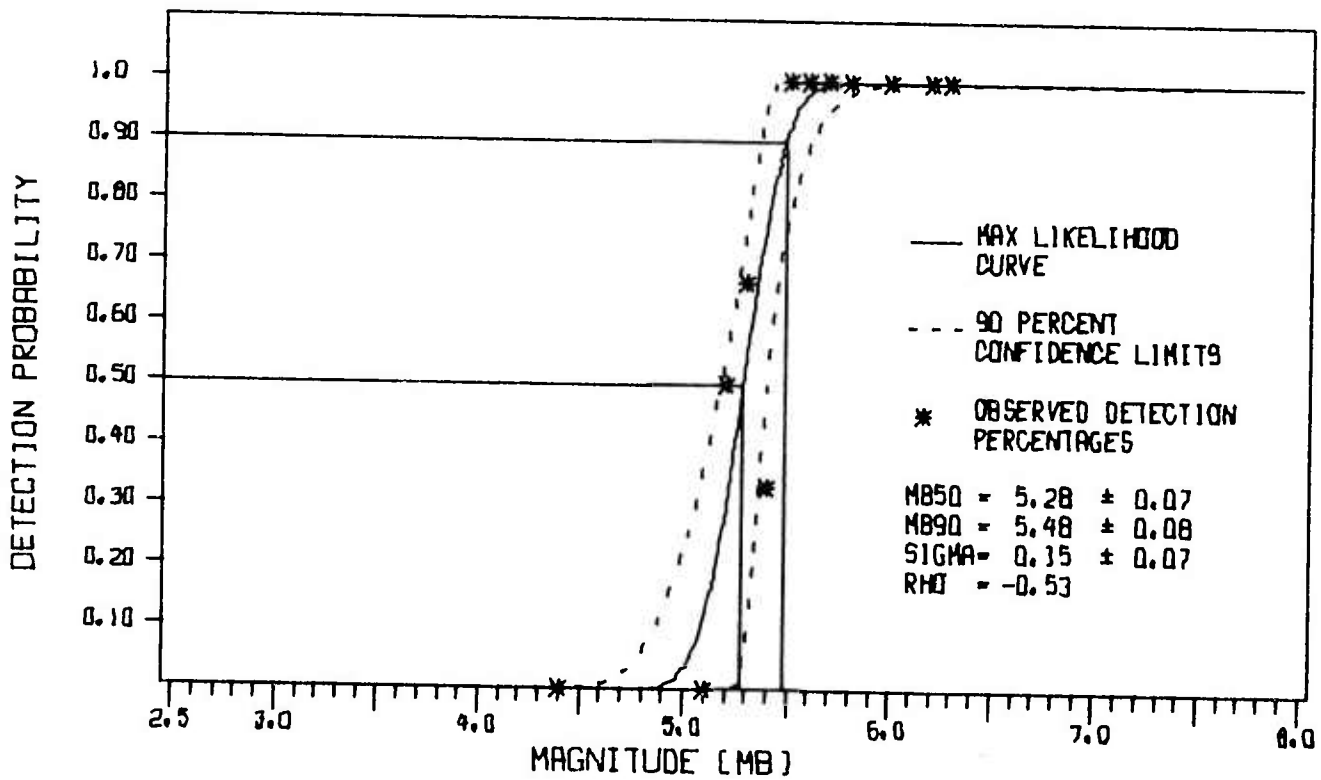
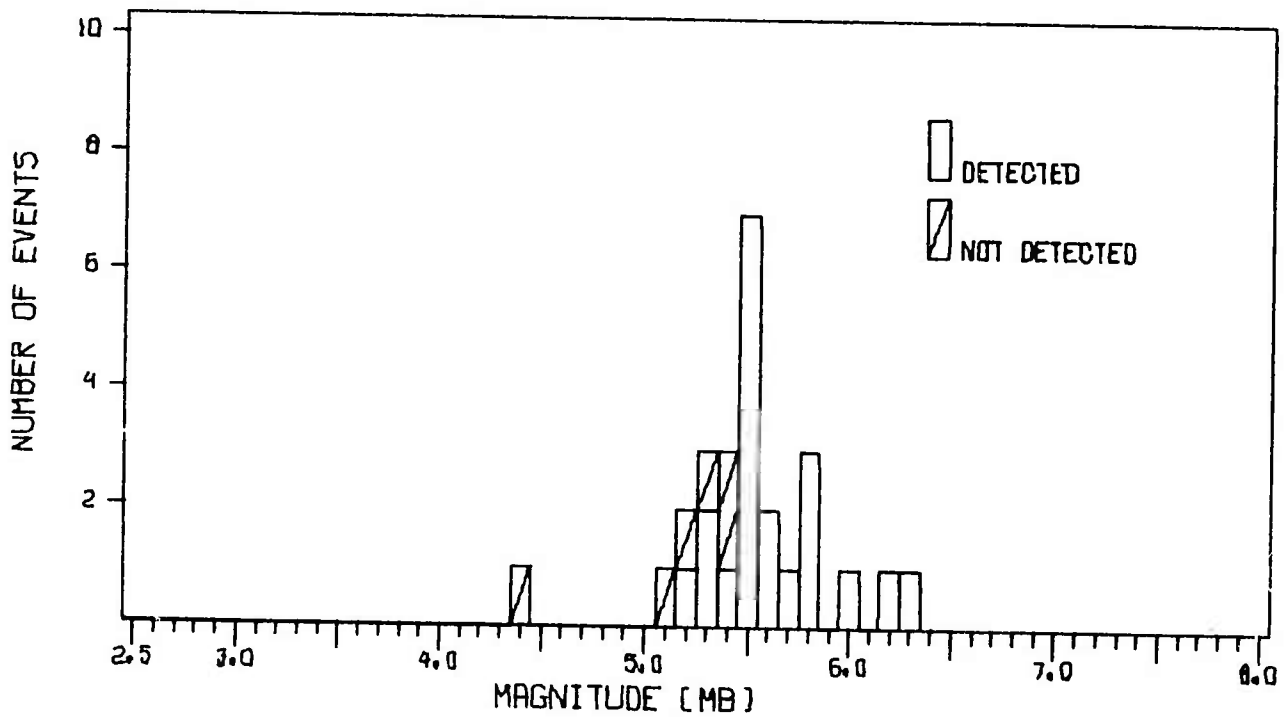


FIGURE III-23
DETECTION STATISTICS AT ALPA FOR PRESUMED
EAST KAZAKH EXPLOSIONS

$m_b = 4.52$. It should be noted that the explosion population is small and there is only one explosion below an $m_b = 5.0$. These data demonstrate the negative discriminant concept. That is, events in the magnitude range $4.5 \leq m_b \leq 5.0$ having no Rayleigh waves can be classified as explosions.

This type of negative discriminant can be extended to other phases, such as long-period P and S for a given station-region combination.

F. SUMMARY

- At single VLPE stations, separation between presumed explosions and earthquakes was not clear due to possible instrumental gain variations causing undue scatter in the M_s estimates. However, separation of the presumed explosions relative to the means (best fit straight lines) of the earthquake population was generally consistent with that observed by others.
- For the networks requiring two or more station estimates of M_s , distinct separation is achieved for presumed eastern Kazakh and Novaya Zemlya explosions except for the previously noted eastern Kazakh events 626 and 797. Marginal separation is present for presumed Ural explosions. These results are consistent with those published by Marshall and Basham (1972).
- The VLPE network and the VLPE-ALPA-NORSAR combined network $M_s - m_b$ relationships (best fit straight lines) for Eurasian earthquakes agree closely to those determined by others.
- We show that theoretically and experimentally over 80 percent of all log (LQ/LR) ratios ($T = 30$ seconds) will be greater than the 0.74 observed for presumed explosions from east Kazakh.

- Using average LQ/LR ratios determined from three or more values, the VLPE network clearly discriminates between shallow earthquakes in central Asia and presumed east Kazakh explosions.

SECTION IV

VLPE DETECTION CAPABILITY

A. INTRODUCTION

In this section we present the detection capability of the VLPE stations. The opening statements of the previous section (Section III) adequately describe the experimental limitations associated with these data. In particular, these conditions prevented the assessment of specific station-region detection capabilities. Thus, in lieu of station-region capabilities, we present the detection capabilities over all distances, distances less than 50 degrees, and distances greater than 50 degrees when possible.

The method of estimating detection capabilities utilized here is based on a maximum likelihood procedure. This method assumes that the probability of detecting an event of a given magnitude may be described as a cumulative Gaussian probability integral. The procedure is to find the mean and standard deviation values which maximize the probability of the observed pattern of detection versus no detection decisions for an ensemble of events of various magnitudes. The accuracy of the method is limited by the quality and quantity of the observed data. A discussion of the assumptions and limitations to the method is given by Ringdal (1974).

We can apply the above model to estimating detectability in terms of both bodywave and surface-wave magnitudes. Lambert, et al. (1973) applied this model in terms of bodywave magnitude to eleven VLPE sites and various VLPE networks. Extrapolation to detectability values in

terms of M_s was accomplished indirectly by a linear $M_s - m_b$ relationship determined for the VLPE network. However, Ringdal (1974), Harley and Heiting (1972), and Lacoss (1971) have shown that scattering of the $M_s - m_b$ relationship must be taken into account. Thus, it is desirable to express the detection threshold directly in terms of M_s .

Detection thresholds estimated by the direct method require a common ensemble of events detected on the basis of surface-wave magnitude at stations or arrays having lower thresholds than the stations in question. For this purpose we used all events where surface-waves were detected by ALPA and NORSAR from our data base of 1253 Eurasian earthquakes. These two arrays have significantly lower detection thresholds than the individual VLPE stations. That is, for the 90 percent detection threshold; $m_b \approx 4.3$ for ALPA (Strauss, 1973) and 4.5 for NORSAR (Laun, et al., 1973) versus $m_b \approx 5.4$ for the VLPE (Lambert, et al., 1973).

A total of 1105 earthquakes were detected by either ALPA or NORSAR of which 261 were detected by both arrays. This ensemble of 1105 events forms the basis for directly estimating the M_s detection thresholds of the individual VLPE stations.

Maximum Likelihood detection threshold estimation based on both bodywave and surface-wave magnitudes was performed for each of the eleven single VLPE stations. For each station, all events were included for which a decision detection versus no detection could be made. We deleted events occurring during any period of malfunctioning hardware, and we did not consider presumed explosions or events where interfering signals were present.

B. SINGLE STATION DETECTION THRESHOLDS

1. Bodywave Estimates

The results for estimations based on bodywaves are presented in Appendix IV-A and summarized in Table IV-1. Fifty percent detection estimates are estimated with reasonably good confidence ($\sigma < 0.1 m_b$ units). Separate estimates were computed for all events within 50 degrees epicentral distance as well as for events of greater distance than 50 degrees since the distribution of station-events shows two distinct groupings (Figure II-2). It is seen that the difference in 50 percent detectability for these two subsets is an average of 0.43 m_b units. The average 50 percent m_b threshold of all stations is 4.59. These results agree closely to those reported by Lambert, et al. (1973).

2. Surface-Wave Estimates

The results for estimations based on surface-waves detected by ALPA and NORSAR are presented in Figures IV-1 through IV-11 and summarized in Table IV-1.

The 50 percent detection estimates are given with reasonably good confidence ($\sigma < 0.1 M_s$ units) with the exception of stations FBK, OGD ZLP and MAT where $0.10 < \sigma < 0.15 M_s$ units is observed. The average 50 percent M_s threshold estimate of 3.53 is 0.20 M_s units lower than the average determined indirectly by extrapolation and reported by Lambert, et al (1973).

Separate estimates were computed for all events within 50 degrees epicentral distances as well as for events of greater distances than 50 degrees. The difference in the 50 percent detectability for these two subsets is an average of 0.51 M_s units.

TABLE IV-1
SUMMARY OF DETECTION STATISTICS FOR THE VLPE STATIONS

Station	$\bar{\Lambda}$	m_b			M_s			M_s Corrected for Station-Path			Unger** (1974)		
		50%	90%	σ	50%	90%	σ	50%	90%	σ	T=20	T=30	
1. CTA All Λ	82	4.75	5.48	0.57	3.81	4.56	0.58	4.01	4.78	0.60	4.22	3.64	
2. CHG	All Λ	44	4.39	5.18	0.62	3.33	3.99	0.52	3.50	4.14	0.49	3.66	3.34
	< 50°	33	4.23	5.06	0.64	3.20	3.93	0.57	3.38	3.97	0.47	3.54	3.22
	> 50°	61	4.58	5.26	0.53	3.44	4.08	0.50	3.55	4.33	0.53	3.80	3.48
3. FBK	All Λ	48	4.74	5.77	0.60	3.63	4.66	0.80	3.77	4.80	0.80		
	< 50°	31	4.65	5.67	0.80	3.44	4.46	0.80	3.65	4.67	0.80		
	> 50°	74	4.84	5.86	0.80	3.80	4.83	0.80	3.87	4.90	0.80		
4. TLO	All Λ	58	4.55	5.44	0.69	3.45	4.48	0.80	3.59	4.61	0.80		
	< 50°	27	4.17	5.01	0.65	3.00	3.79	0.61	3.12	3.96	0.66		
	> 50°	78	4.70	5.52	0.64	3.71	4.61	0.70	3.85	4.73	0.69		
5. EIL	All Λ	39	4.58	5.61	0.80	3.60	4.62	0.80	3.74	4.76	0.80		
	< 50°	20	4.41	5.43	0.80	3.42	4.41	0.77	3.53	4.47	0.73		
	> 50°	79	4.80	5.56	0.59	3.83	4.81	0.77	4.03	5.05	0.80		
6. KON	All Λ	47	4.47	5.24	0.60	3.36	4.29	0.73	3.53	4.51	0.77	3.61	3.43
	< 50°	32	4.30	5.25	0.74	3.02	4.05	0.80	3.14	4.16	0.80	3.45	3.27
	> 50°	65	4.58	5.19	0.48	3.59	4.27	0.53	3.79	4.44	0.51	3.75	3.58
7. OGD All Λ	82	4.58	5.31	0.57	3.49	4.46	0.75	3.62	4.35	0.58			
8. KIP	All Λ	74	4.54	5.22	0.53	3.53	4.50	0.76	3.66	4.56	0.70	3.78	3.41
	< 50°	46	4.37	4.91	0.42	3.10	3.71	0.48	3.35	3.85	0.39	3.57	3.22
	> 50°	101	4.62	5.33	0.56	3.79	4.74	0.74	3.90	4.85	0.74	3.91	3.50
9. ALQ All Λ	85	4.77	5.33	0.44	3.72	4.24	0.40	3.92	4.33	0.32	3.86	3.47	
10. ZLP * All Λ	129	4.86	5.44	0.46	3.87	4.65	0.61	4.06	4.70	0.49	4.01	3.75	
11. MAT *	All Λ	35	4.21	5.24	0.80	3.07	4.09	0.80	3.32	4.34	0.80		
	< 50°	28	3.91	4.94	0.80	2.61	3.64	0.80	2.92	3.95	0.80		
	> 50°	74	4.89	5.47	0.45	3.81	4.25	0.34	3.97	4.35	0.54		
Averages	All Λ		4.58	5.39	0.61	3.53	4.41	0.69	3.70	4.54	0.67		
	< 50°		4.29	5.18	0.69	3.11	4.00	0.69	3.30	4.15	0.66		
	> 50°		4.72	5.46	0.58	3.71	4.51	0.63	3.87	4.66	0.66		

* Insufficient Data

** 50 percent Detection Level

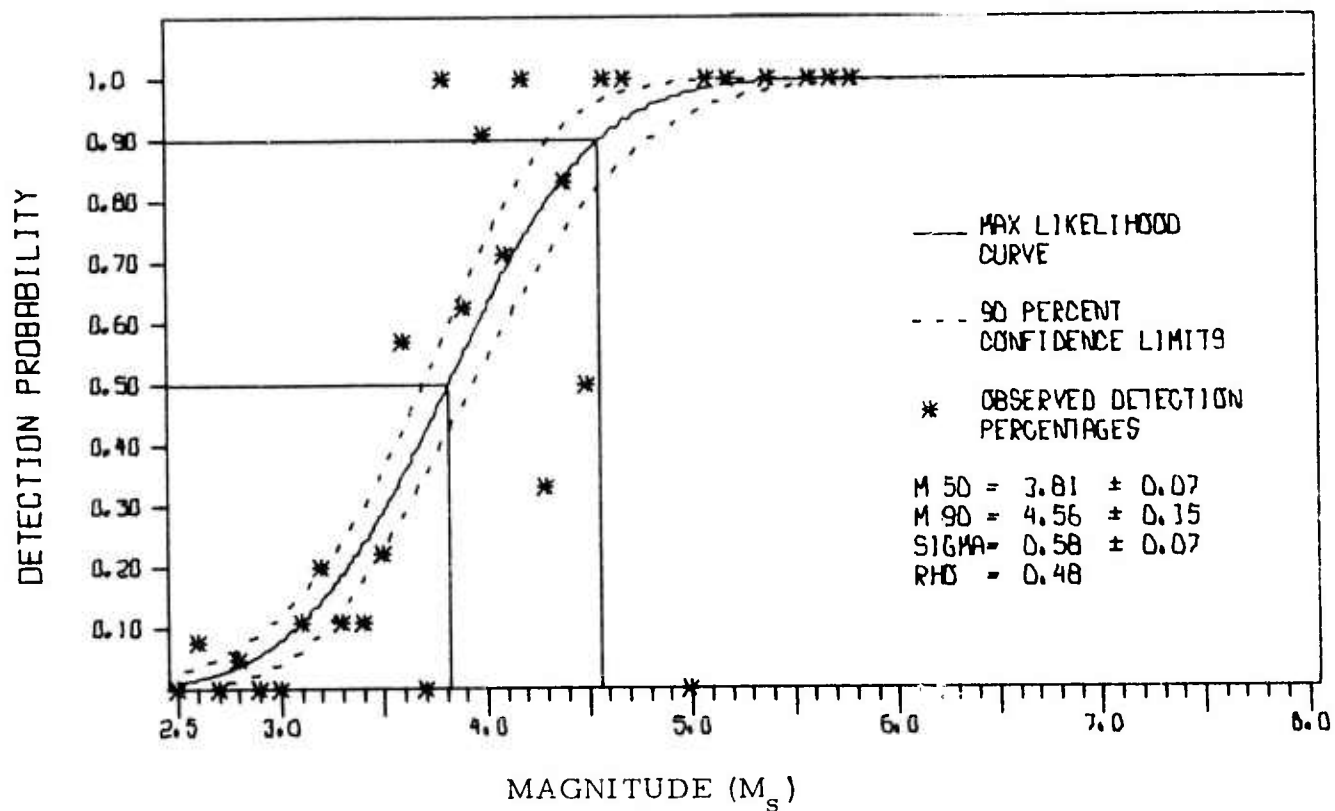
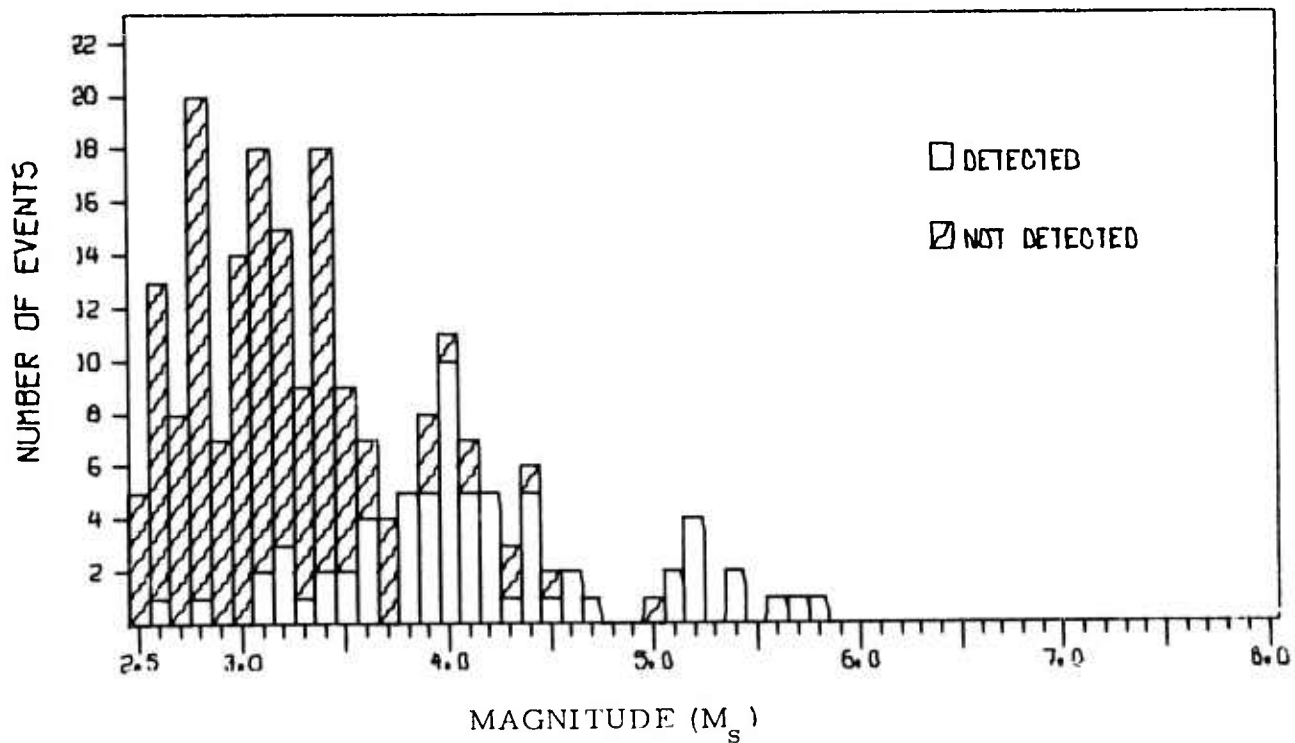


FIGURE IV-1
 DETECTION STATISTICS FOR CTA RELATIVE TO
 ALPA AND NORSAR M_s VALUES

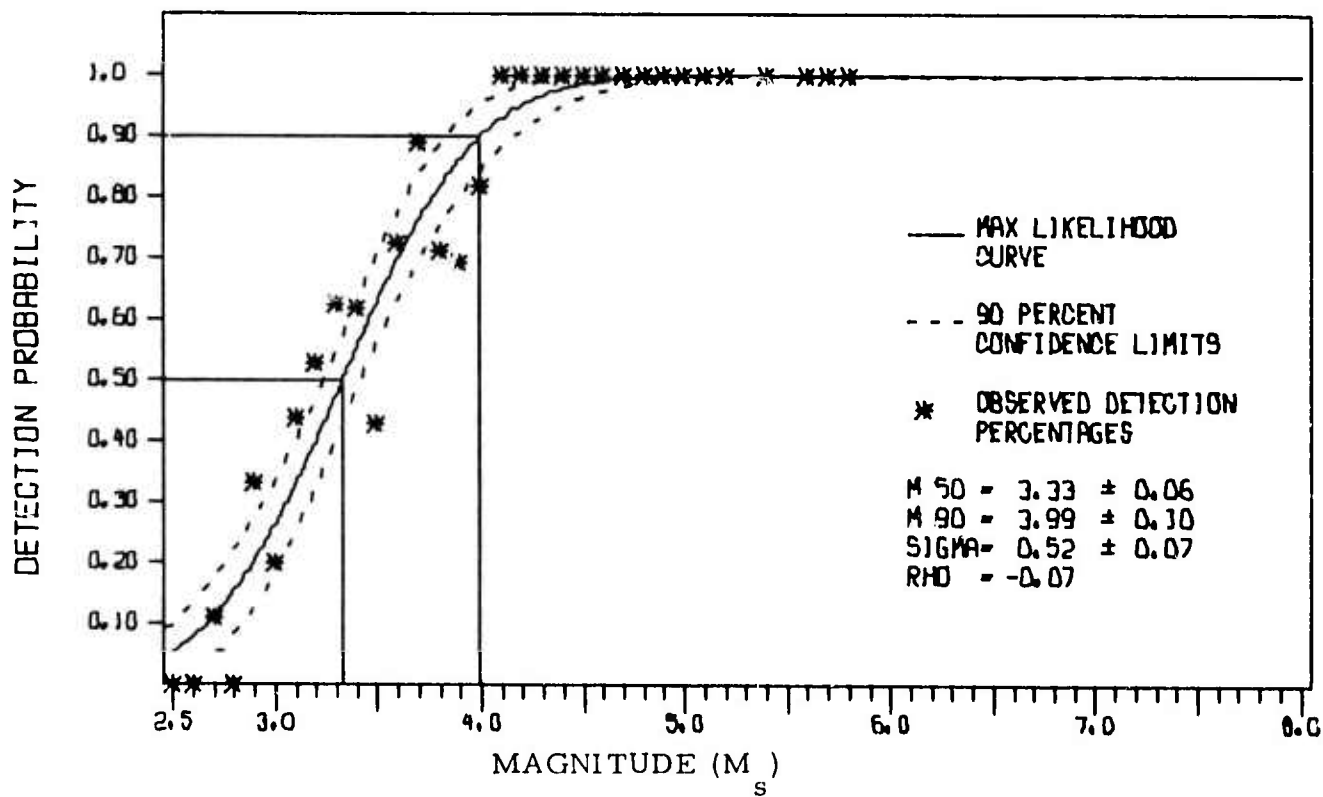
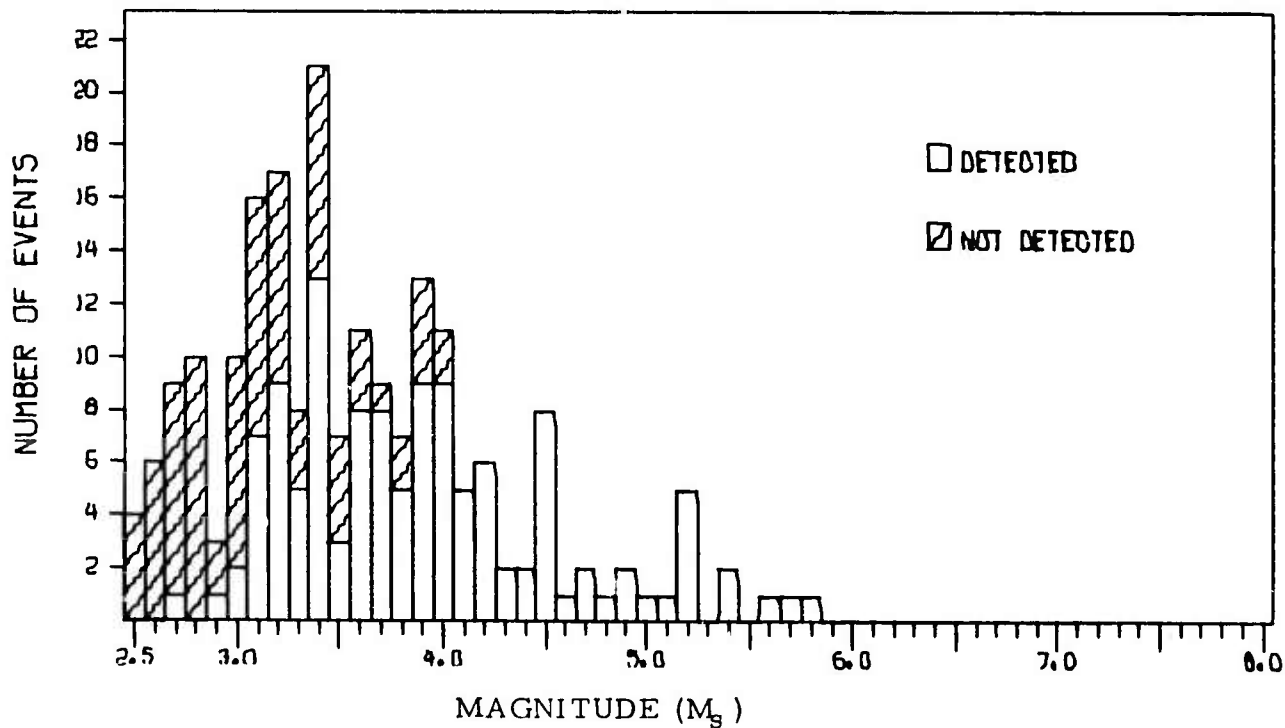


FIGURE IV-2
 DETECTION STATISTICS FOR CHG RELATIVE TO
 ALPA AND NORSAR M_s VALUES

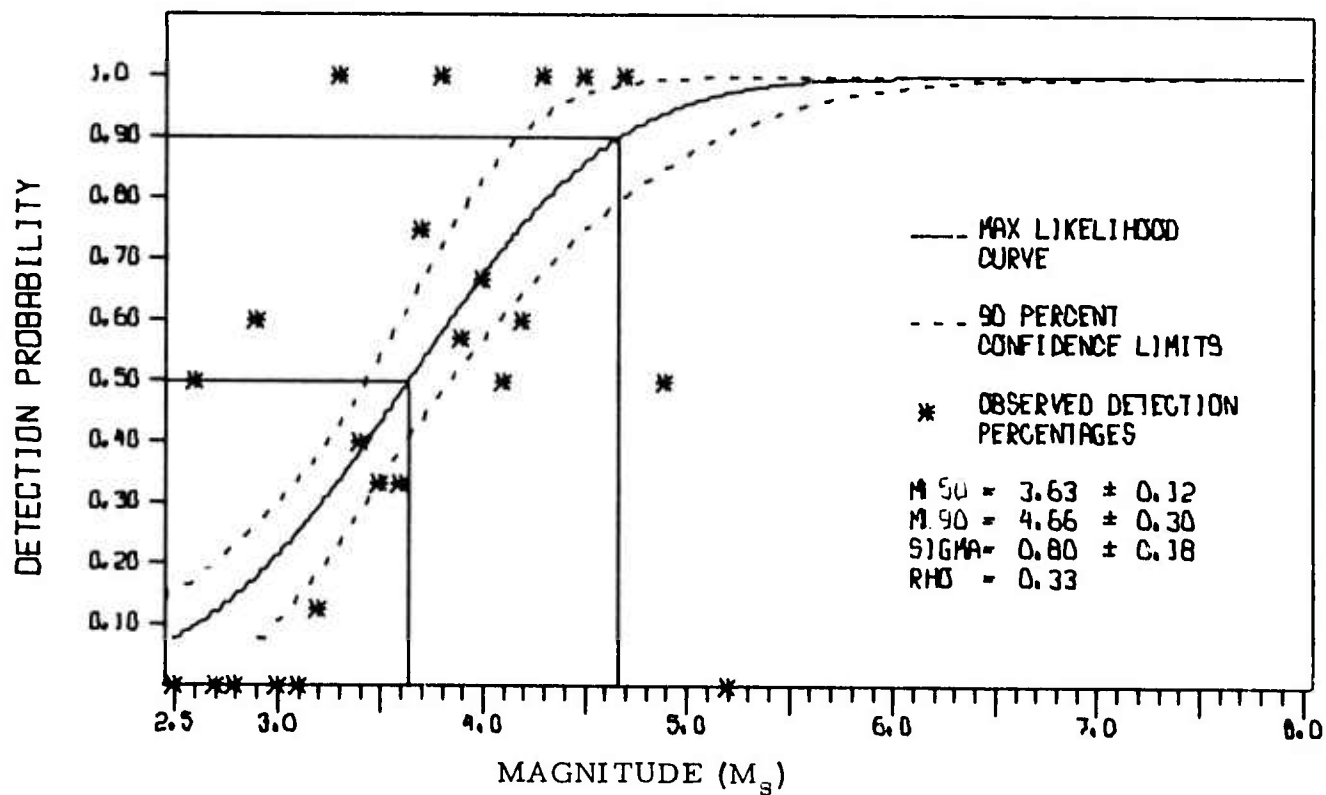
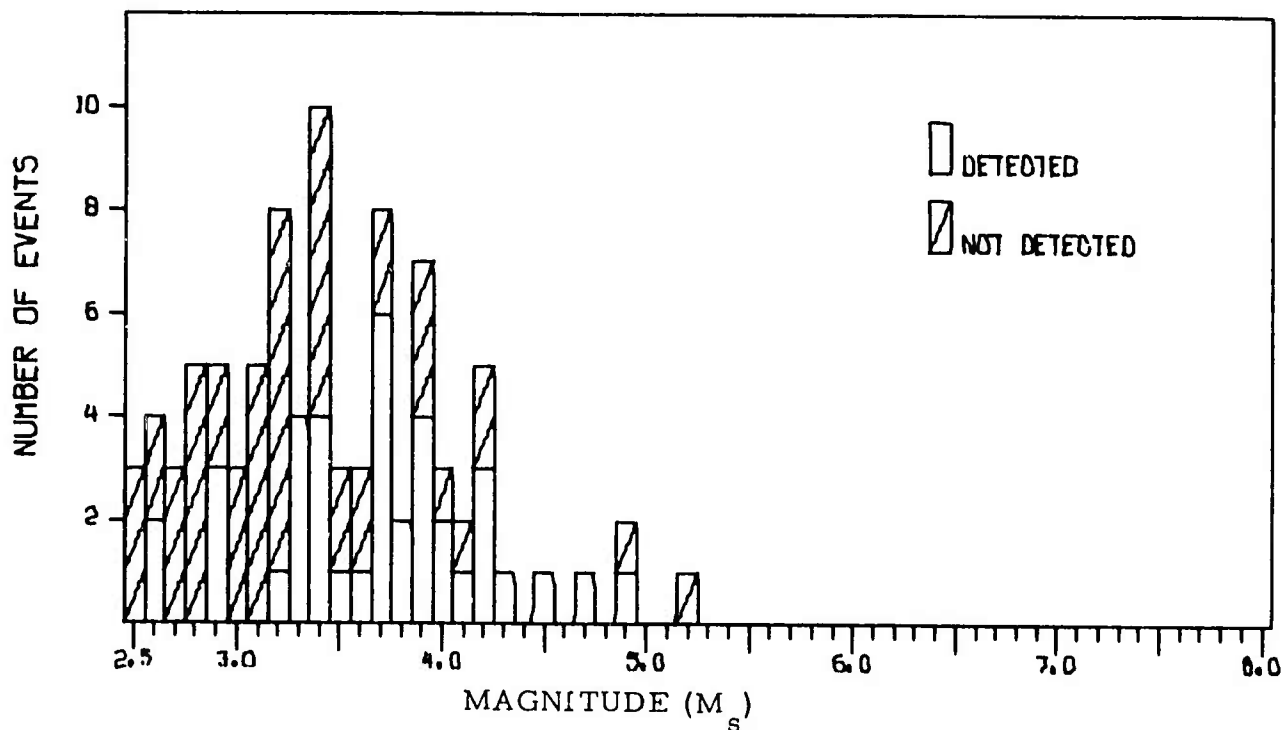


FIGURE IV-3
 DETECTION STATISTICS FOR FBK RELATIVE TO
 ALPA AND NORSAR M_s VALUES

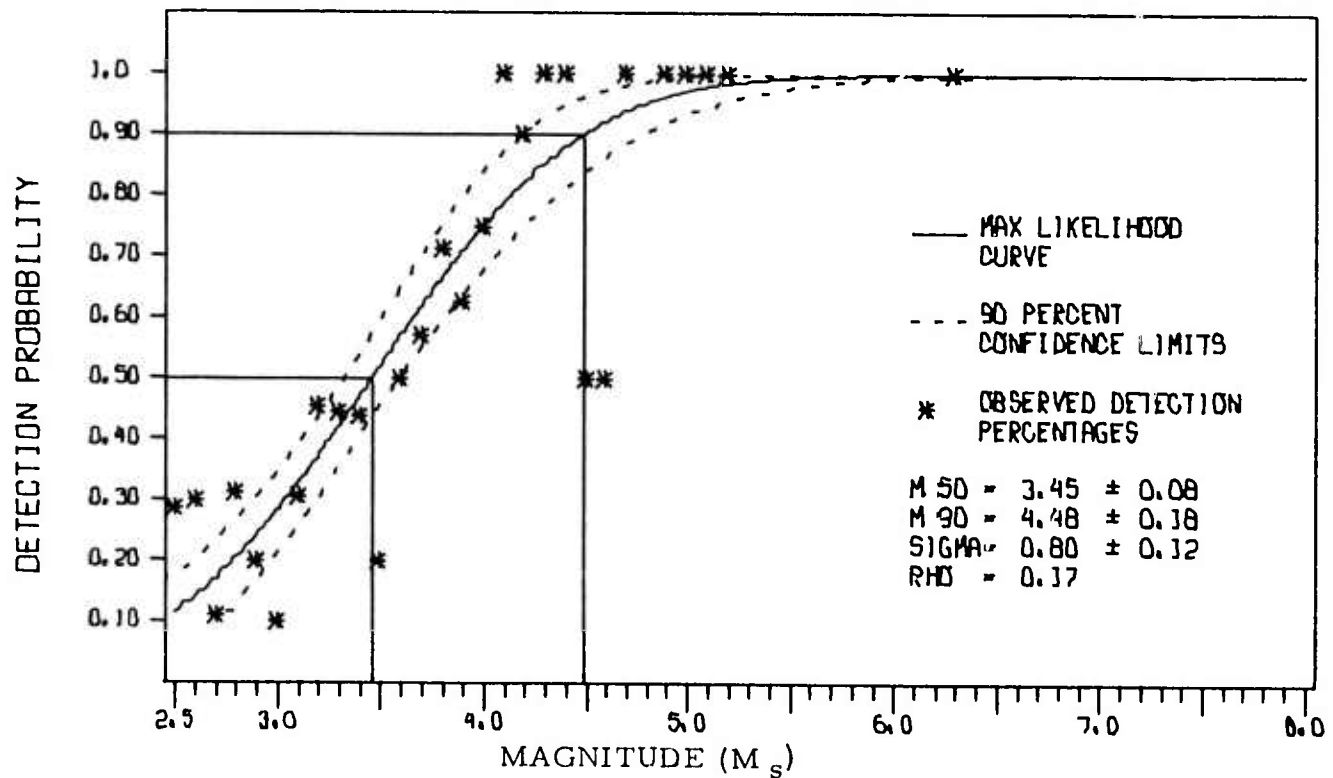
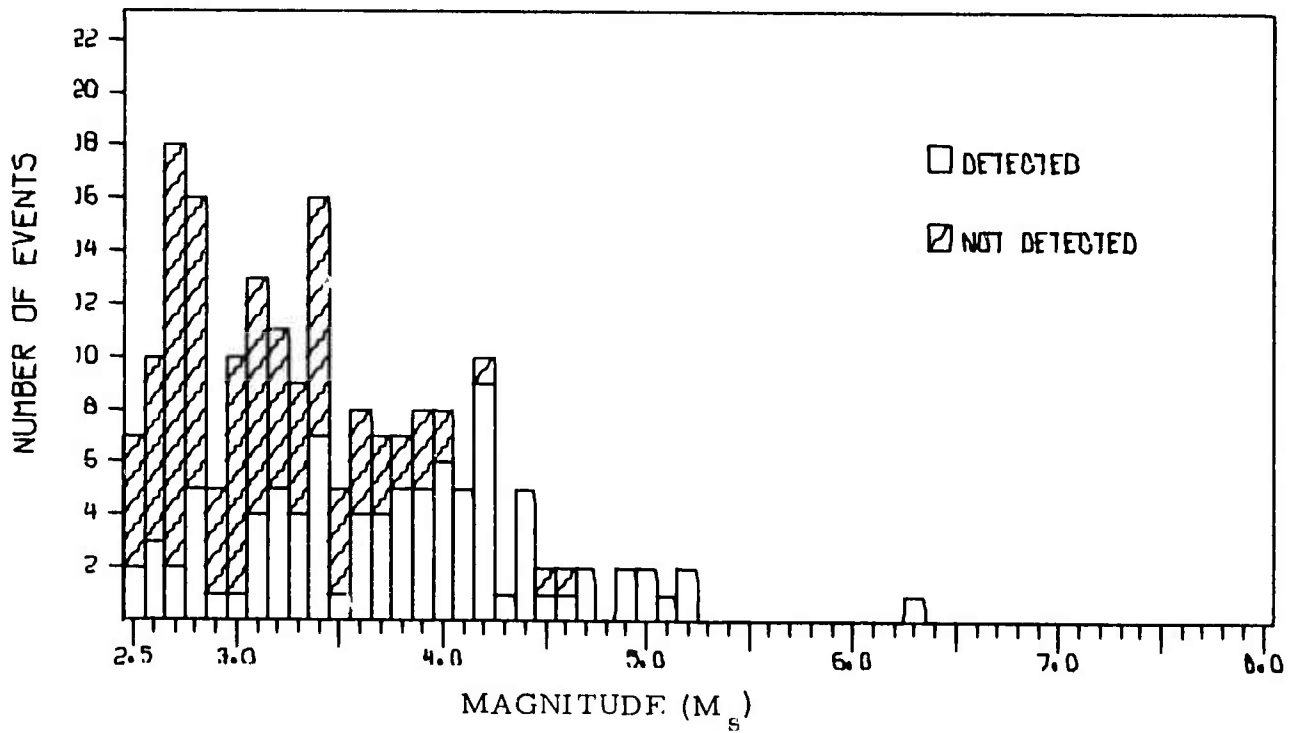


FIGURE IV-4
 DETECTION STATISTICS FOR TLO RELATIVE TO
 ALPA AND NORSAR M_s VALUES

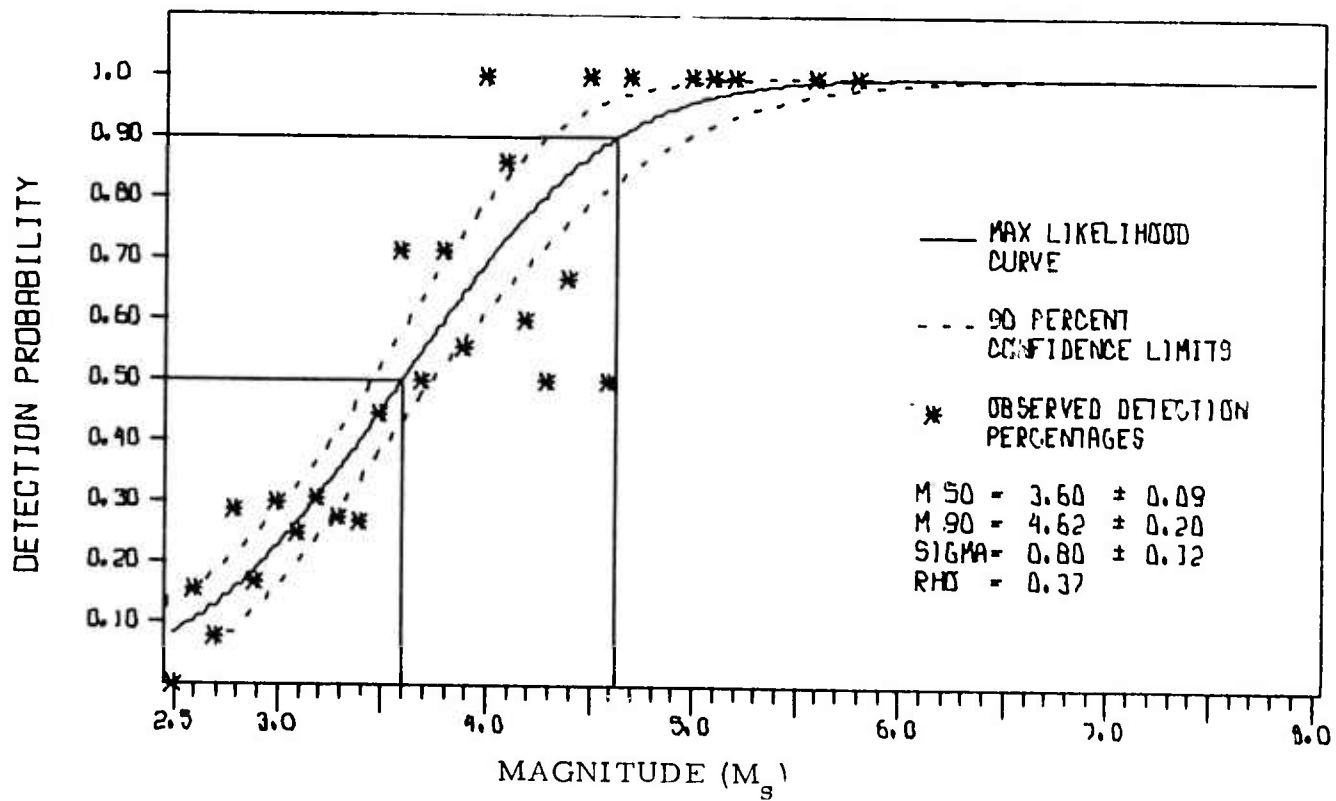
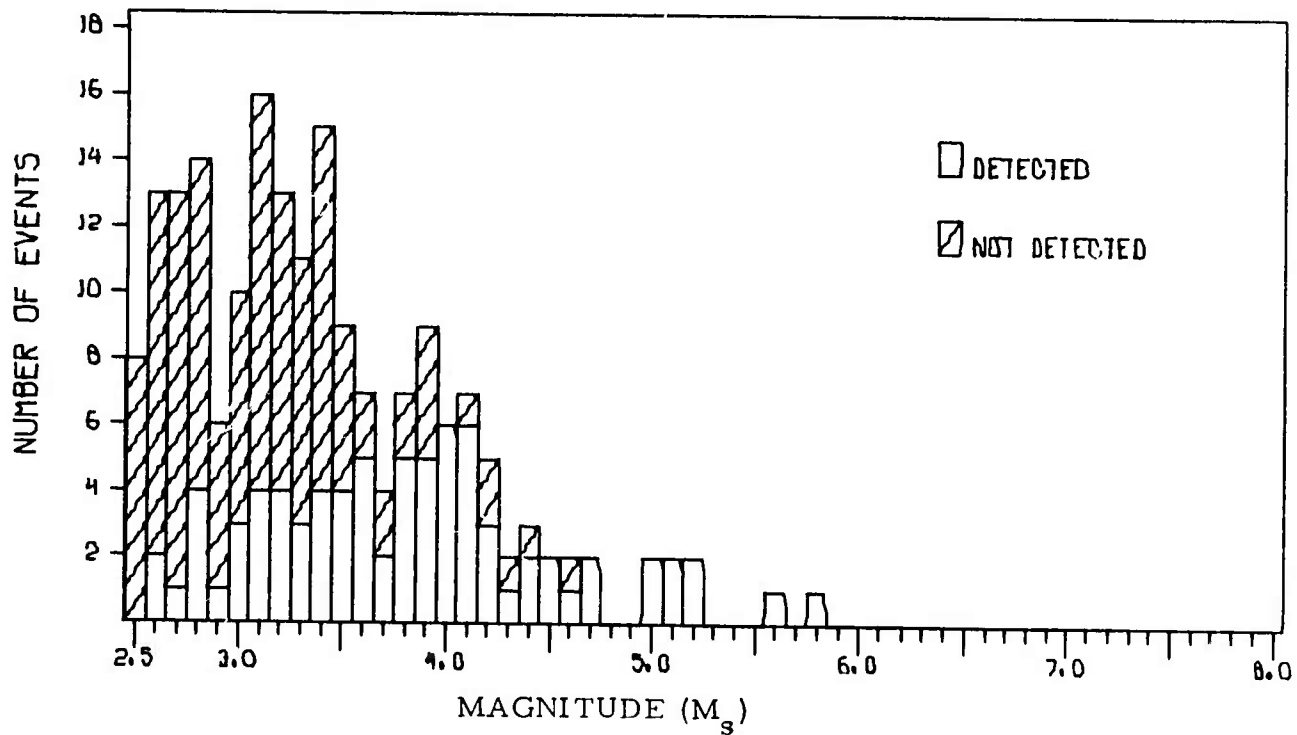


FIGURE IV-5
 DETECTION STATISTICS FOR EIL RELATIVE TO
 ALPA AND NORSAR M_s VALUES

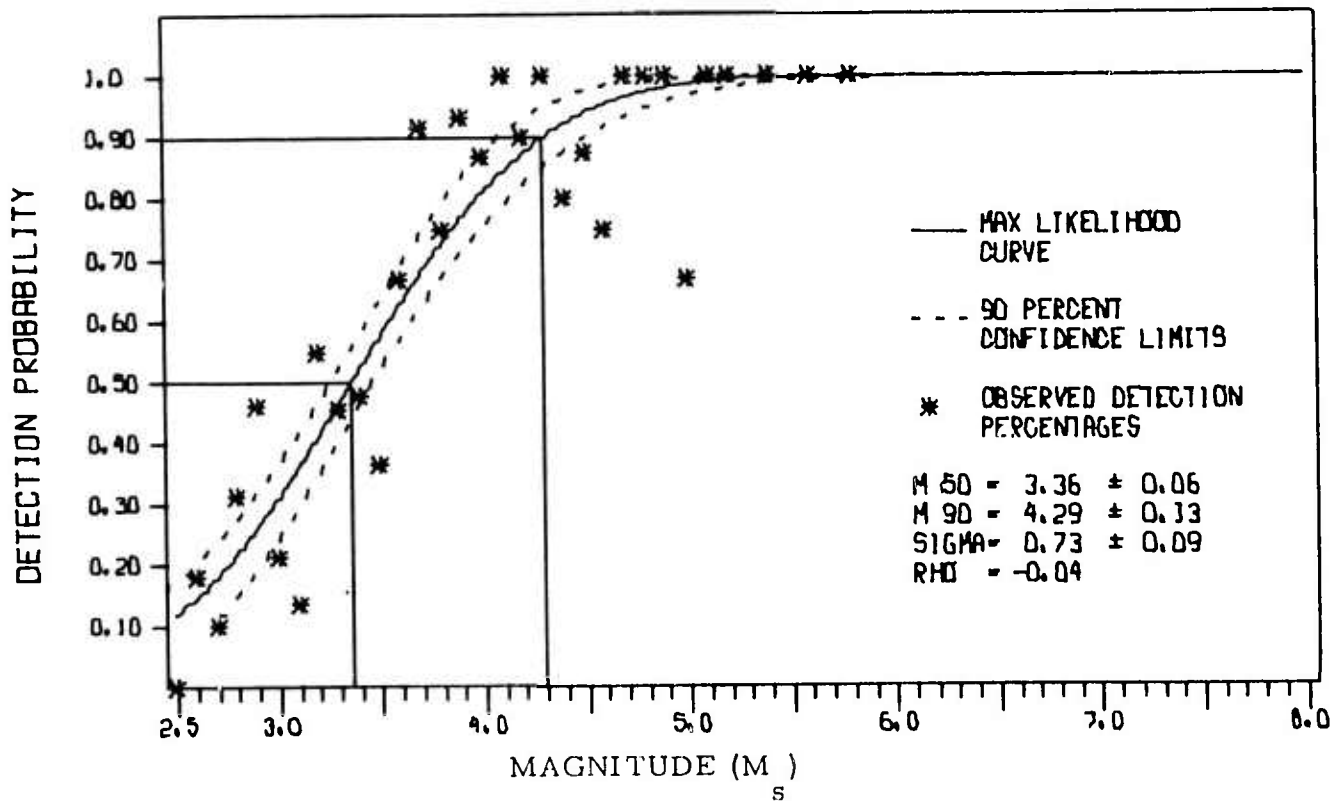
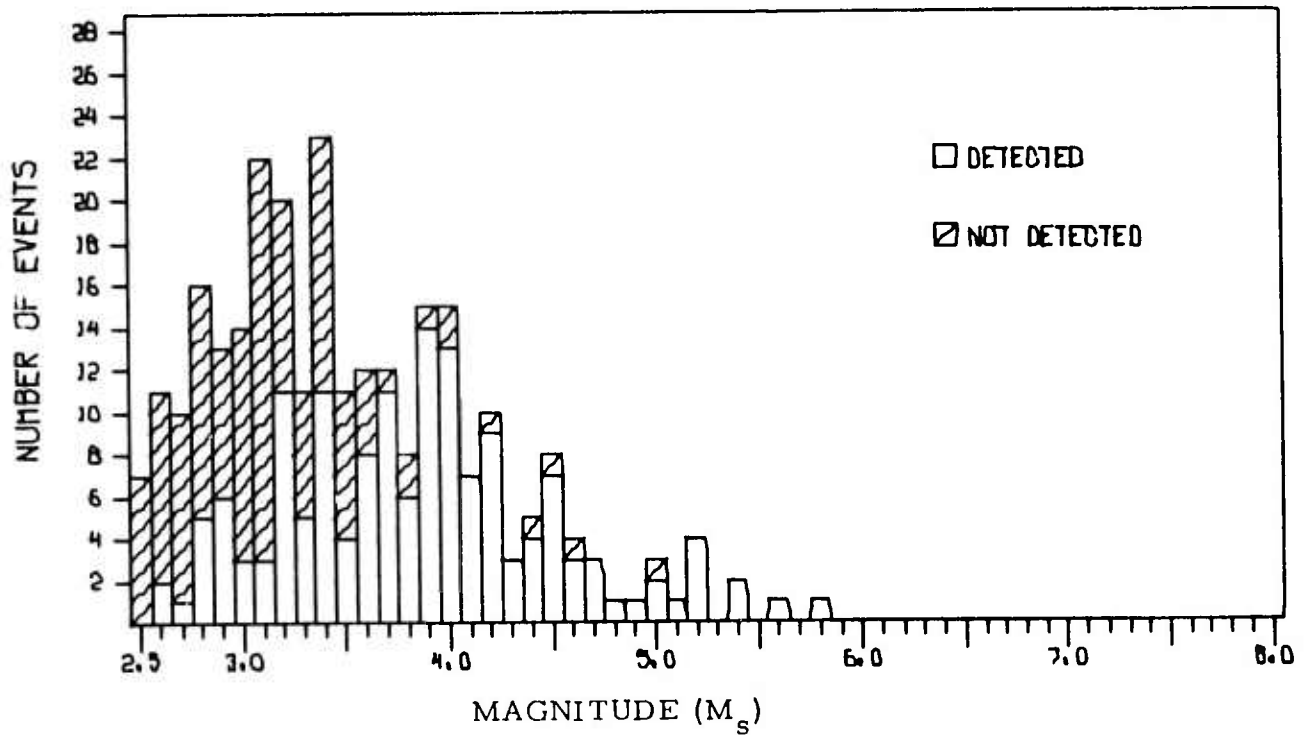


FIGURE IV-6

DETECTION STATISTICS FOR KON RELATIVE TO
ALPA AND NORSAR M_s VALUES

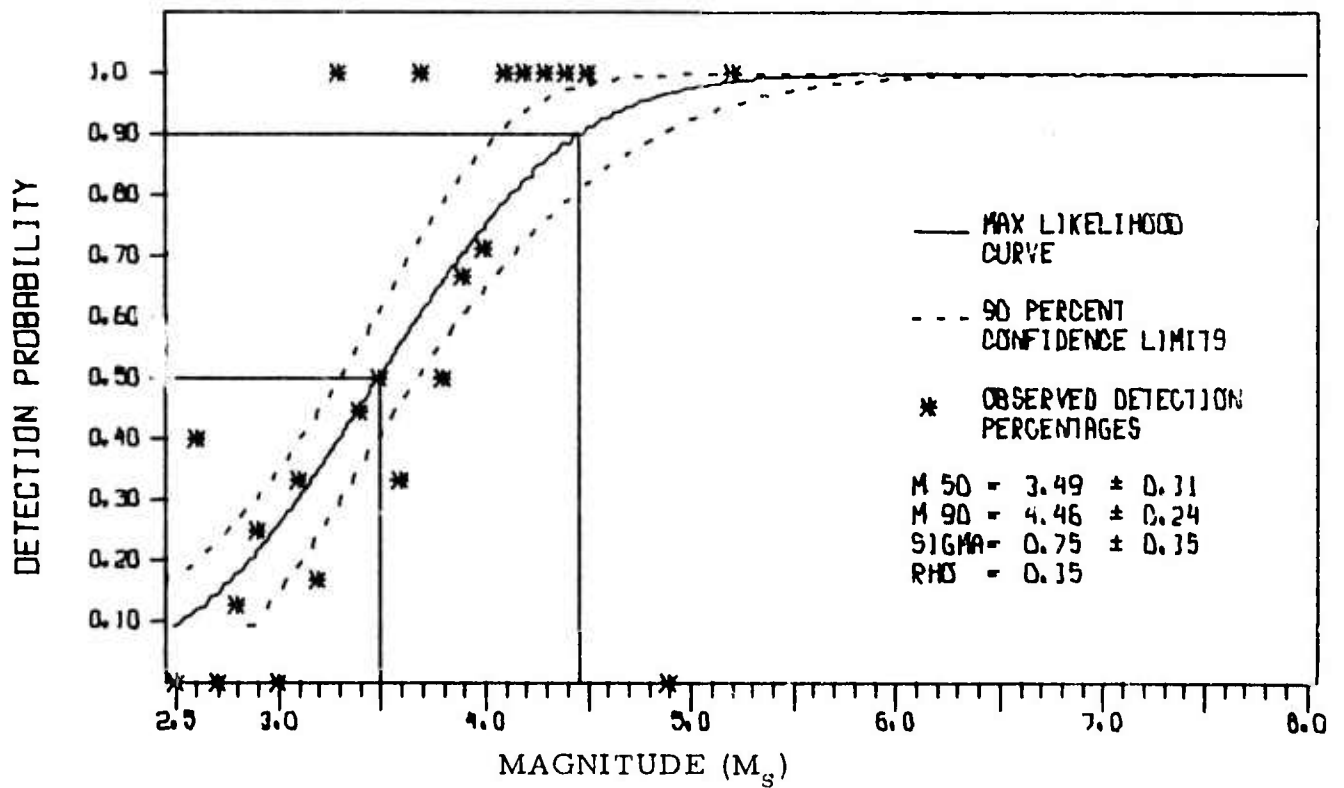
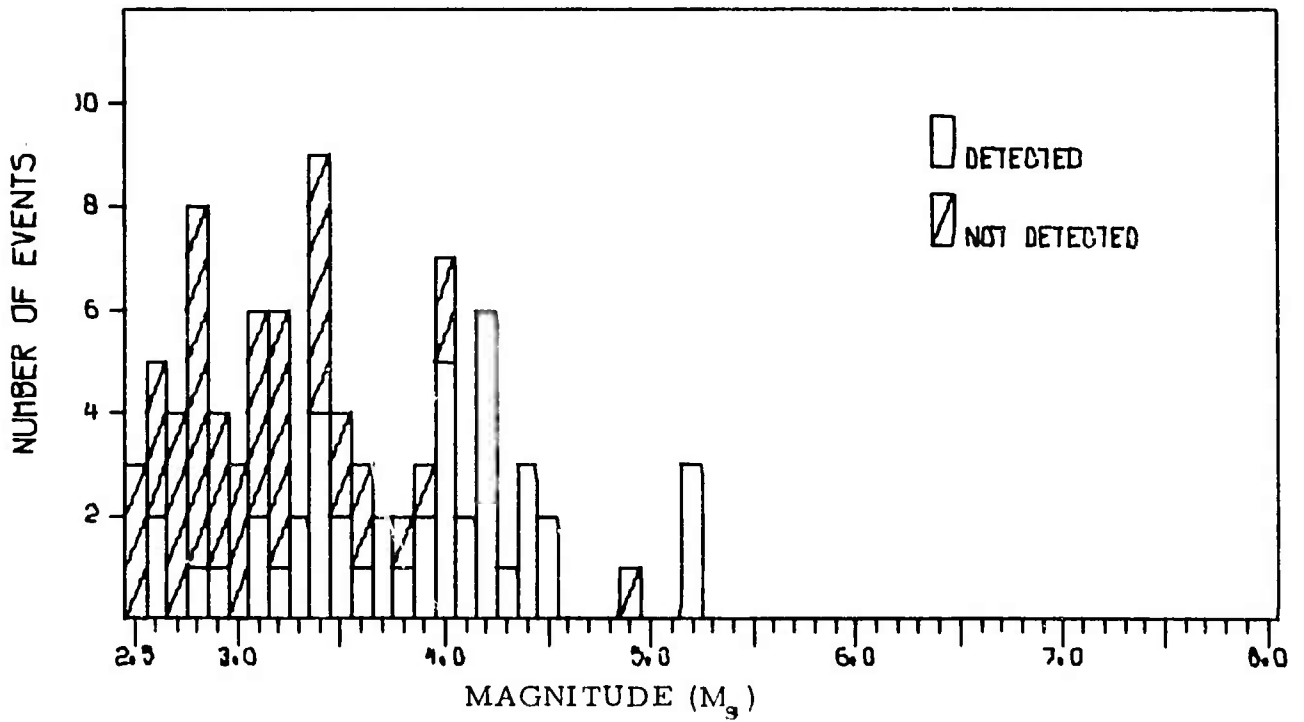


FIGURE IV-7

DETECTION STATISTICS FOR OGD RELATIVE TO
ALPHA AND NORSAR M_s VALUES

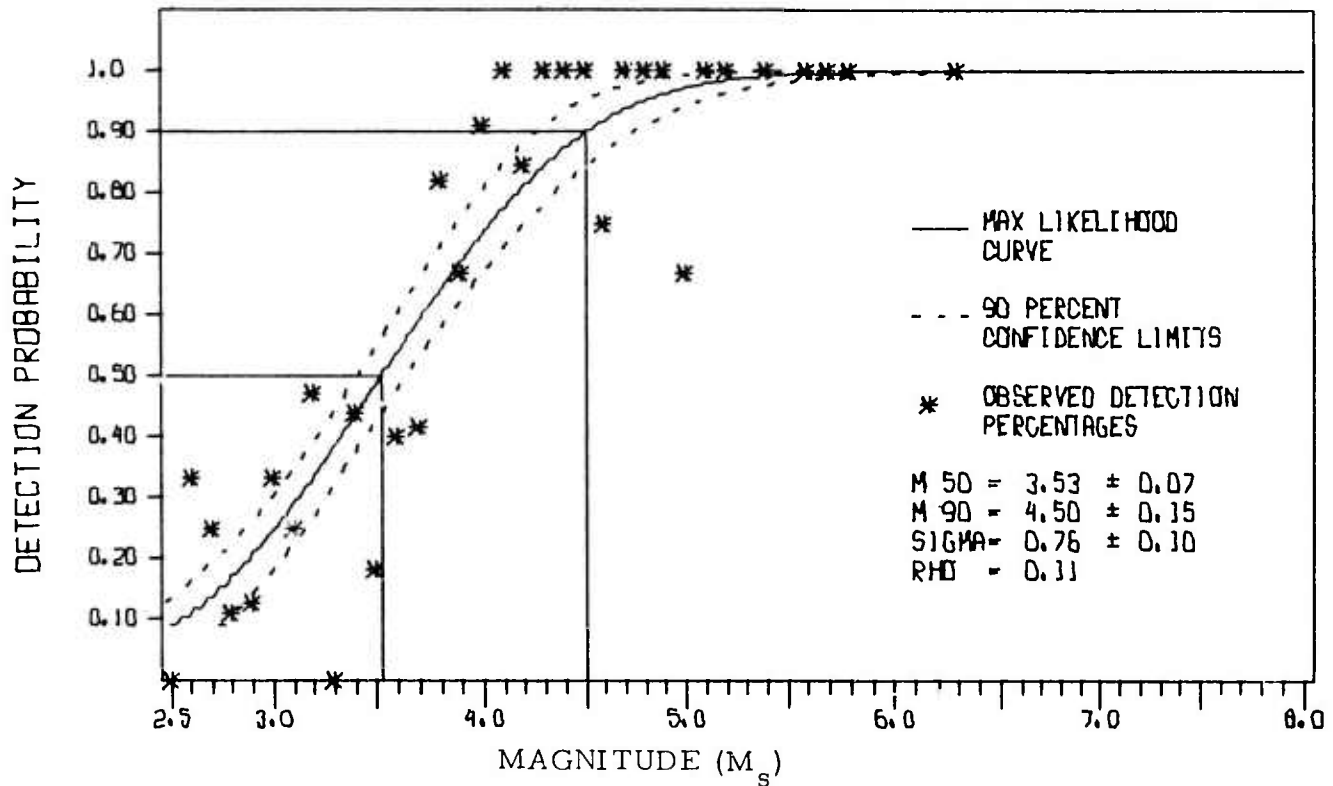
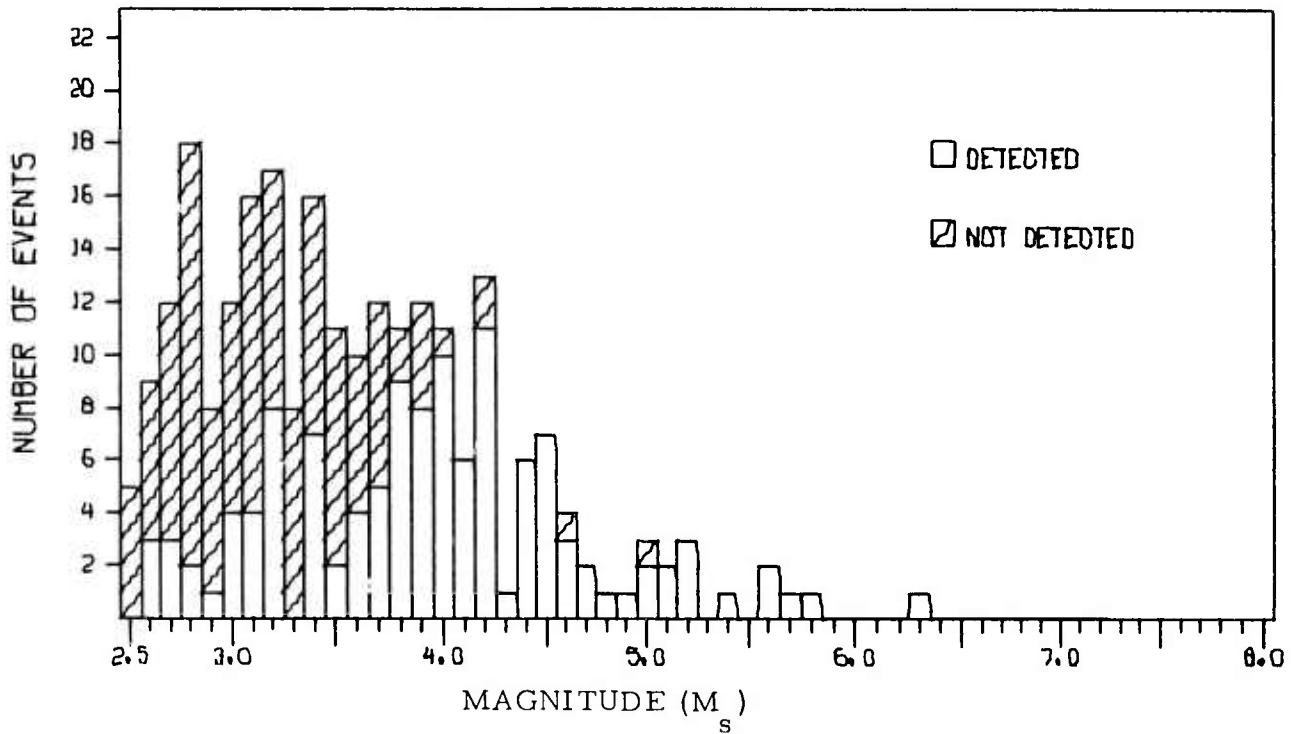


FIGURE IV-8
 DETECTION STATISTICS FOR KIP RELATIVE TO
 ALPA AND NORSAR M_s VALUES

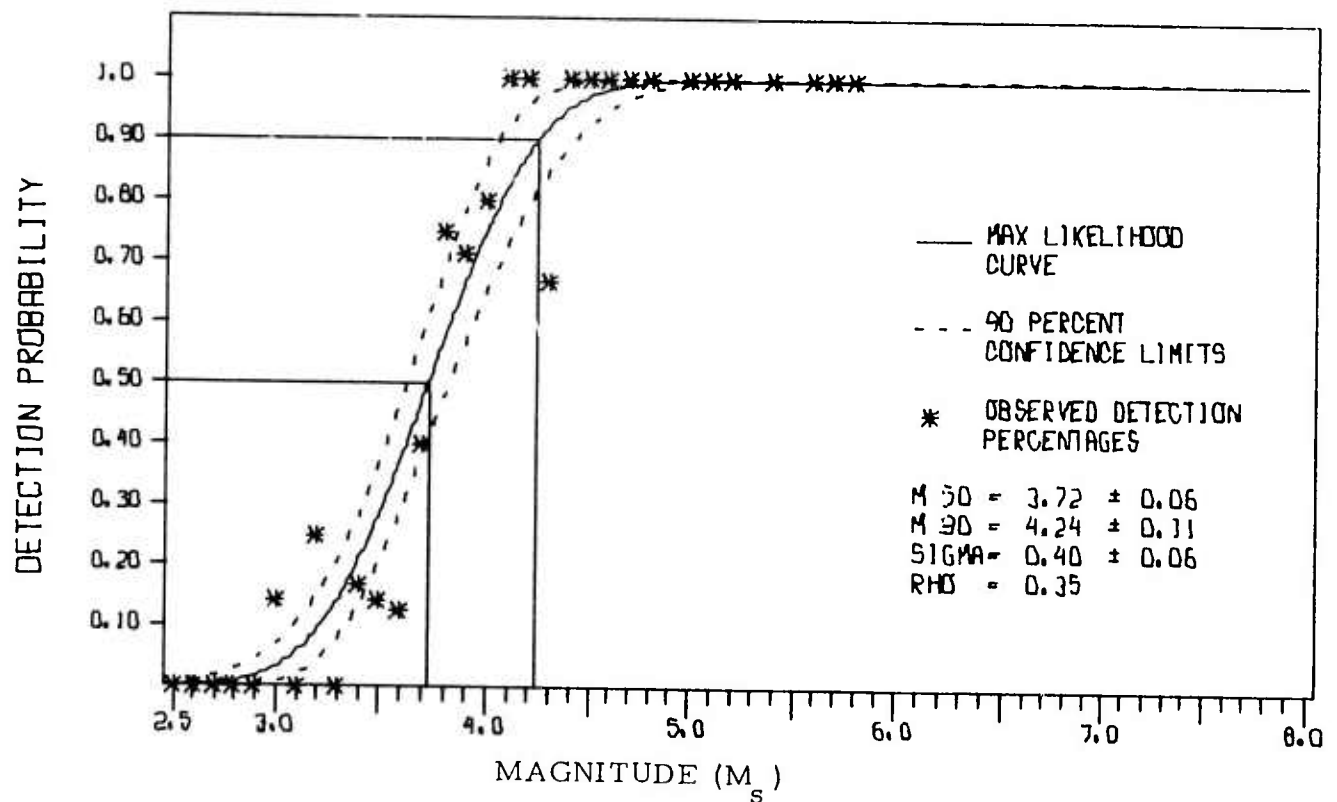
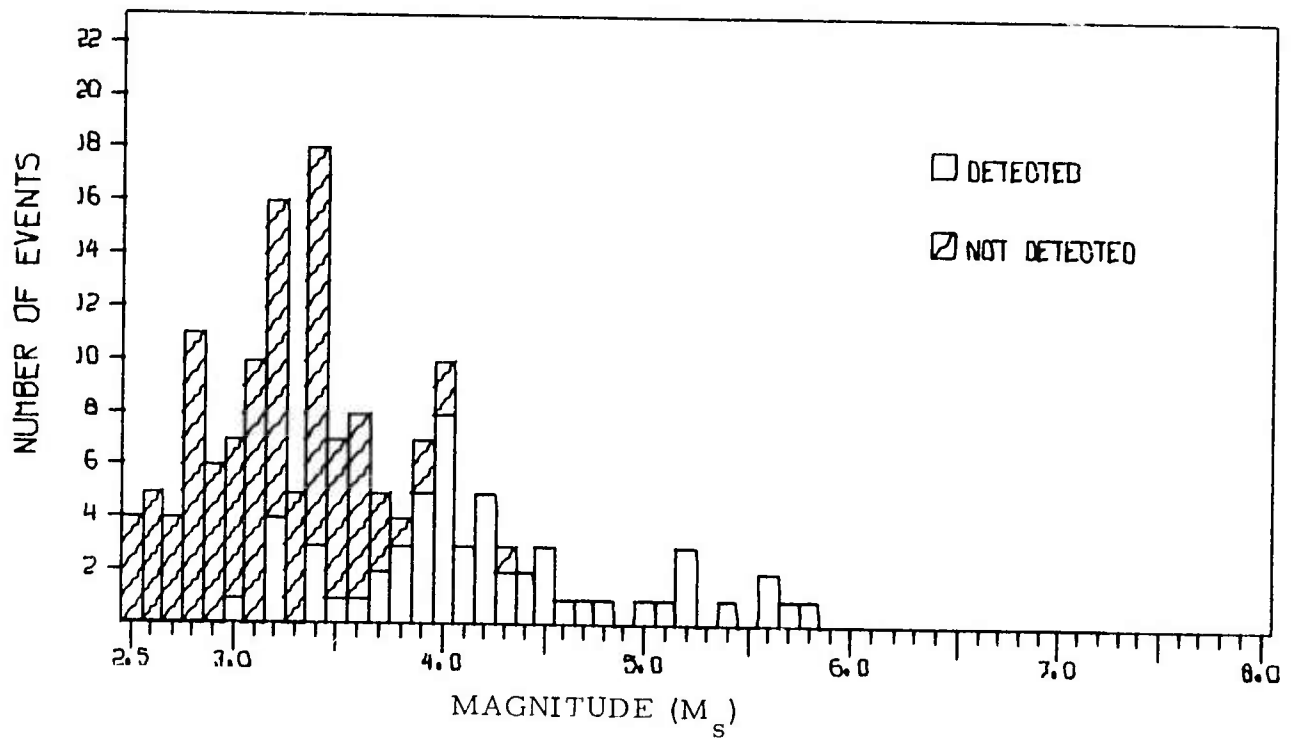


FIGURE IV-9
 DETECTION STATISTICS FOR ALQ RELATIVE TO
 ALPA AND NORSAR M_s VALUES

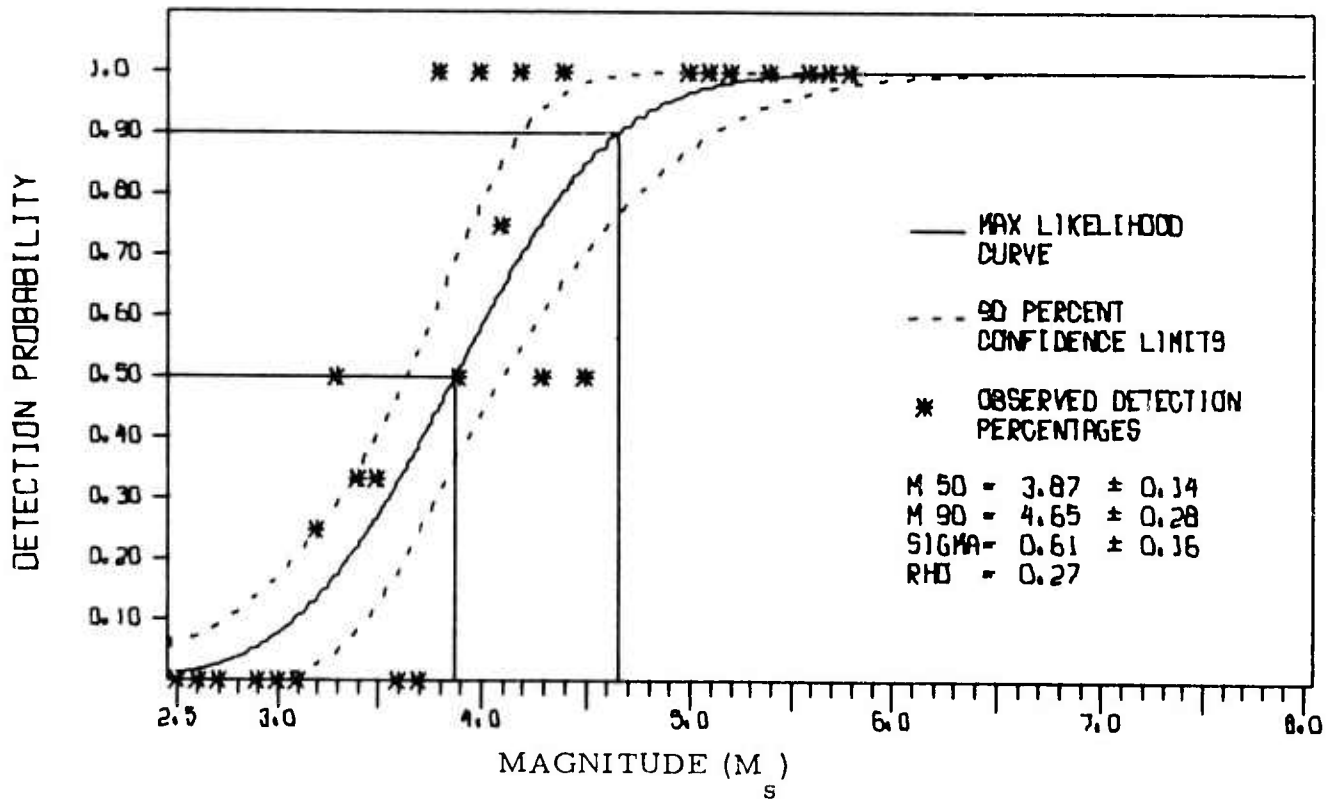
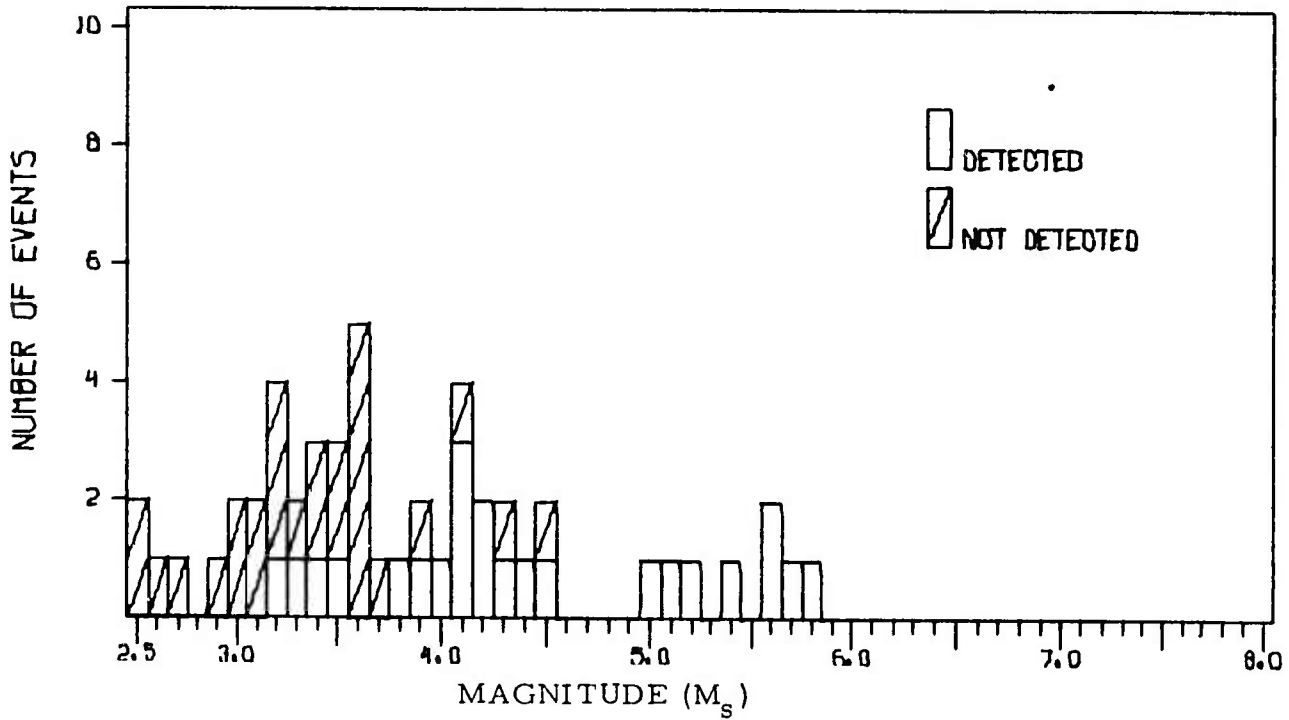


FIGURE IV-10
 DETECTION STATISTICS FOR ZLP RELATIVE TO
 ALPA AND NORSAR M_s VALUES

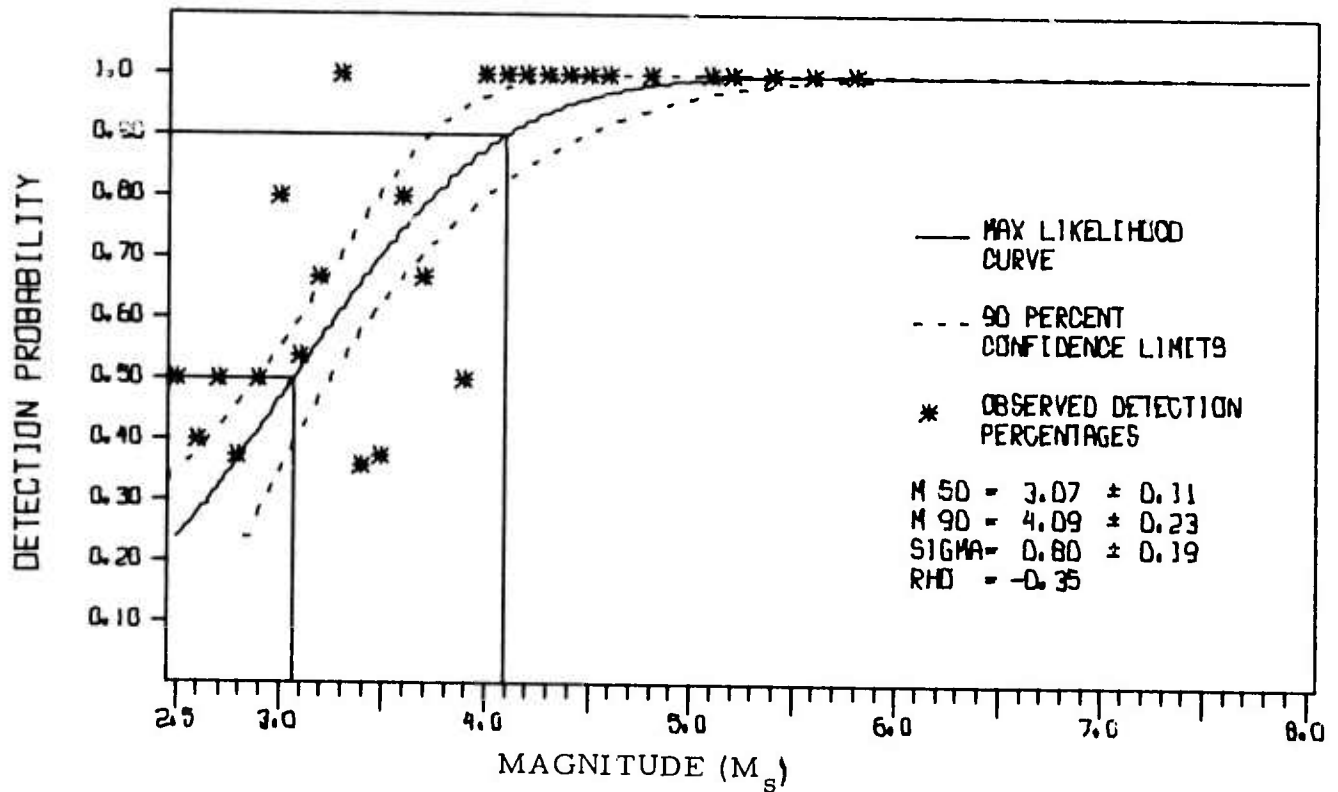
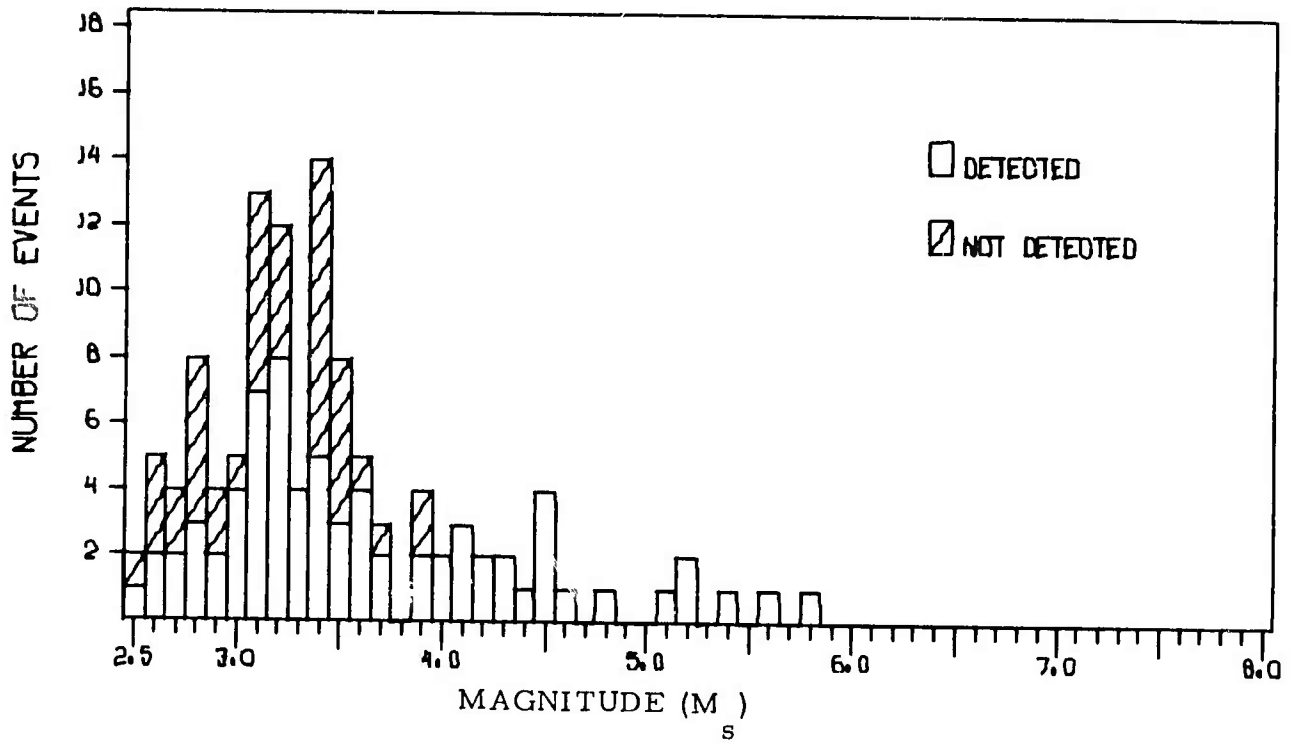


FIGURE IV-11
 DETECTION STATISTICS FOR MAT RELATIVE TO
 ALPA AND NORSAR M_s VALUES

It should be noted that the ALPA and NORSAR M_s estimates can not be considered as "true" event surface-wave magnitudes (i. e., "true" event magnitudes, most generally, are averages over many stations) and as such, all source, path, and station effects are present. Therefore, these direct detectability estimates do not and should not necessarily compare to those derived indirectly by extrapolation.

In this regard, we show M_s (20) NORSAR versus M_s (20) ALPA (Figure IV-12). These data indicate that M_s (20) NORSAR is on the average 0.28 magnitude units greater than M_s (20) ALPA (i. e., Table IV-2, the difference between centers of mass = 0.28). Further, at low magnitudes we observed that the data points (Figure IV-12) indicate a steeper slope than that for higher magnitudes. Clearly, the calculation and application of simple station corrections will not adequately compensate or correct these data to form a base of "true" surface-wave magnitudes.

In order to approximate a base of "true" surface-wave magnitudes, we determined station-path corrections for ALPA and NORSAR relative to the mean network relationship of $M_s = 0.97 m_b - 0.65$ (see Section III, Table III-2). We selected this $M_s - m_b$ relationship for the following reasons:

- It is the mean $M_s - m_b$ relationship for the VLPE network determined with two or more station M_s values. Thus, after forming the corrected base of M_s values, the corrected detectability values can be compared with the indirect detectability estimates (i. e., extrapolation from m_b detectability curves).

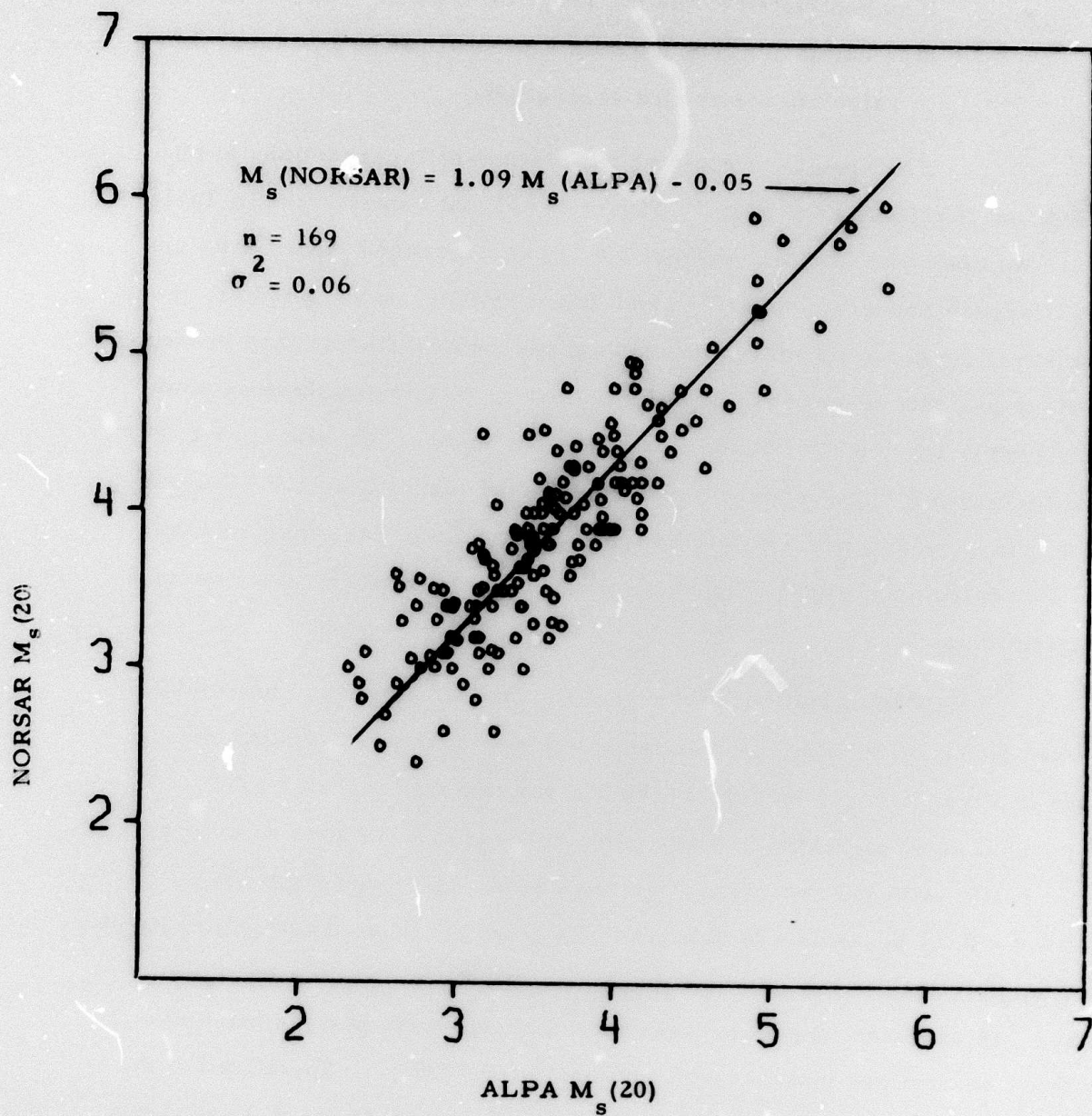


FIGURE IV-12

M_s (NORSAR) VERSUS M_s (ALPA)

- It is restricted to the m_b range of $4.2 \leq m_b \leq 5.5$ to minimize bias due to noise and still allow a sufficient amount of data to calculate the needed corrections.

The results of applying the station-path corrections to M_s (ALPA and NORSAR) are shown in Figure IV-13 and summarized in Table IV-2. We observed that the variance (σ^2) has decreased significantly and the difference between centers of mass is essentially zero. Further, the data points appear to lie more uniformly along the best fit line than in the previous example (Figure IV-12). Comparative distribution histograms are shown in Section V. Figure V-2 shows the number of events per 0.1 magnitude unit for the uncorrected surface-wave magnitudes and Figure V-3 shows the same information for the corrected surface-wave magnitudes. The corrected magnitudes (Figure V-3) do yield a smoother, more normal distribution picture.

The results of applying the maximum likelihood detectability method to the VLPE stations relative to the new base of M_s values are given in Figures IV-14 through IV-24 and summarized in Table IV-1. The 50 percent detection estimates are given with reasonably good confidence ($\sigma < 0.10$), with the exception of stations FBK, ZLP, and MAT where $0.10 < \sigma < 0.13$ M_s units are observed. In general, these detectability results have slightly less error than the previous estimates using the uncorrected M_s base. As expected, the 50 percent detectability levels now compare closely to those determined indirectly by Lambert, et al (1973). Specifically, the average 50 percent level of 3.70 is in close agreement to the 3.73 reported by Lambert, et al. (1973).

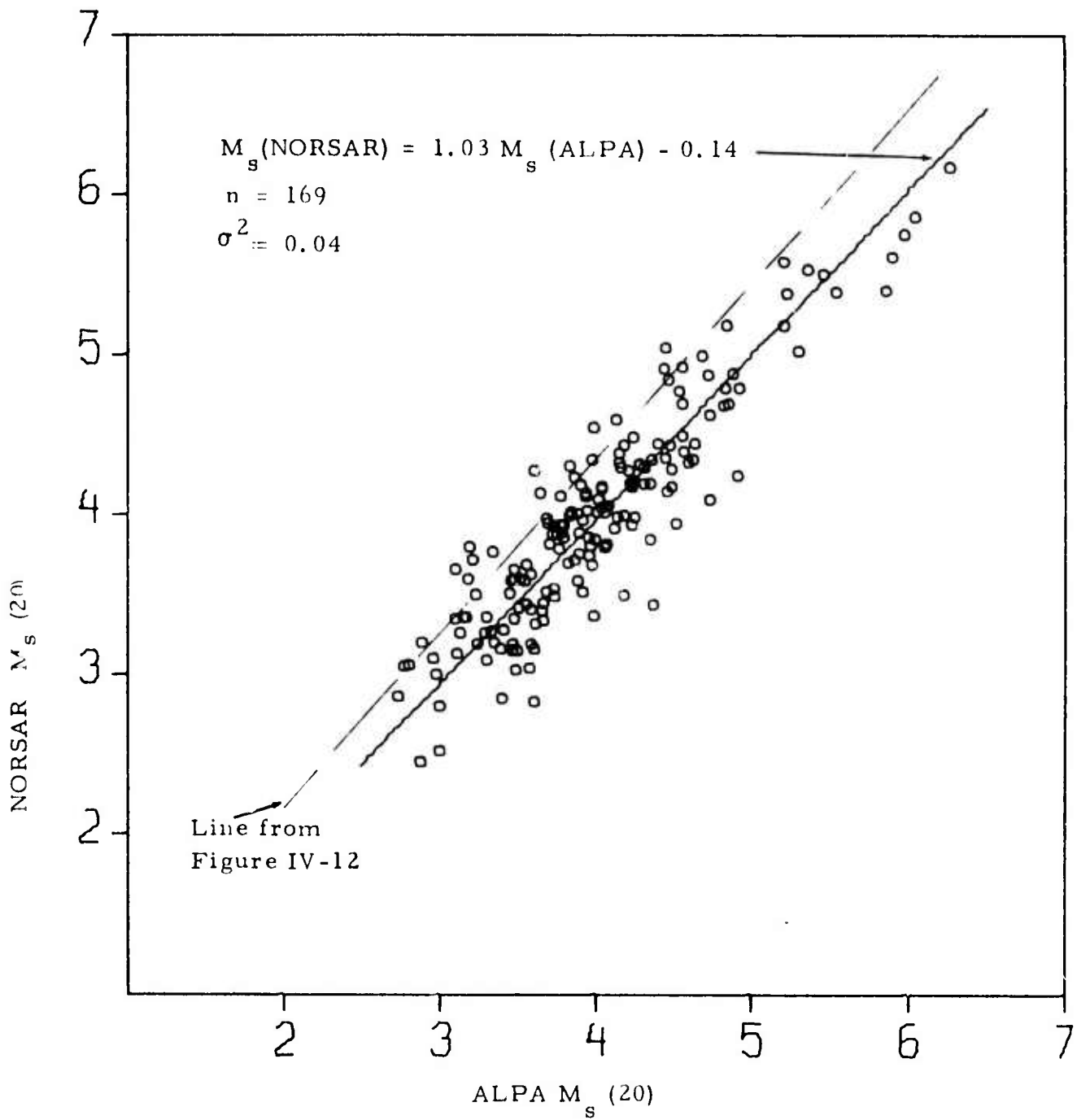


FIGURE IV-13
 M_s (NORSAR) VERSUS M_s (ALPA)
 WITH STATION-PATH CORRECTIONS

TABLE IV-2
BEST FIT LINE PARAMETERS FOR M_s (NORSAR) VERSUS M_s (ALPA)
WITH AND WITHOUT STATION-PATH M_s CORRECTIONS

M_s (NORSAR) VERSUS M_s (ALPA) AT T = 20 SECONDS

Number	Center of Mass		SLP	B	σ^2
	M_s (A)	M_s (N)			
169	3.62	3.90	1.09	-0.05	0.06

M_s (NORSAR) + STATION PATH CORRECTION VERSUS
 M_s (ALPA) + STATION PATH CORRECTION AT
T = 20 SECONDS

Number	M_s (A)	M_s (N)	SLP	B	σ^2
169	4.00	3.98	1.03	-0.14	0.04

M_s (A) = M_s at ALPA

M_s (N) = M_s at NORSAR

SLP = Slope

B = Intercept

σ^2 = Variance

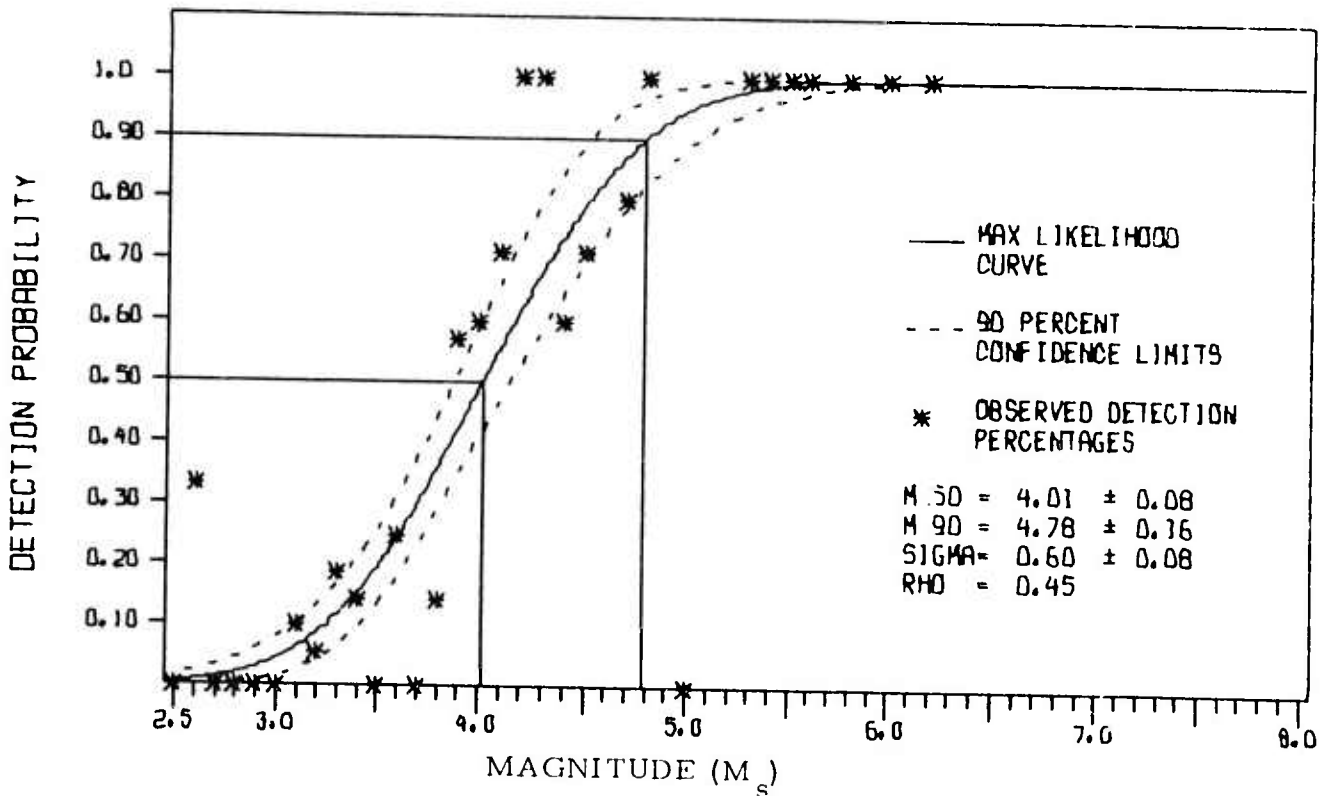
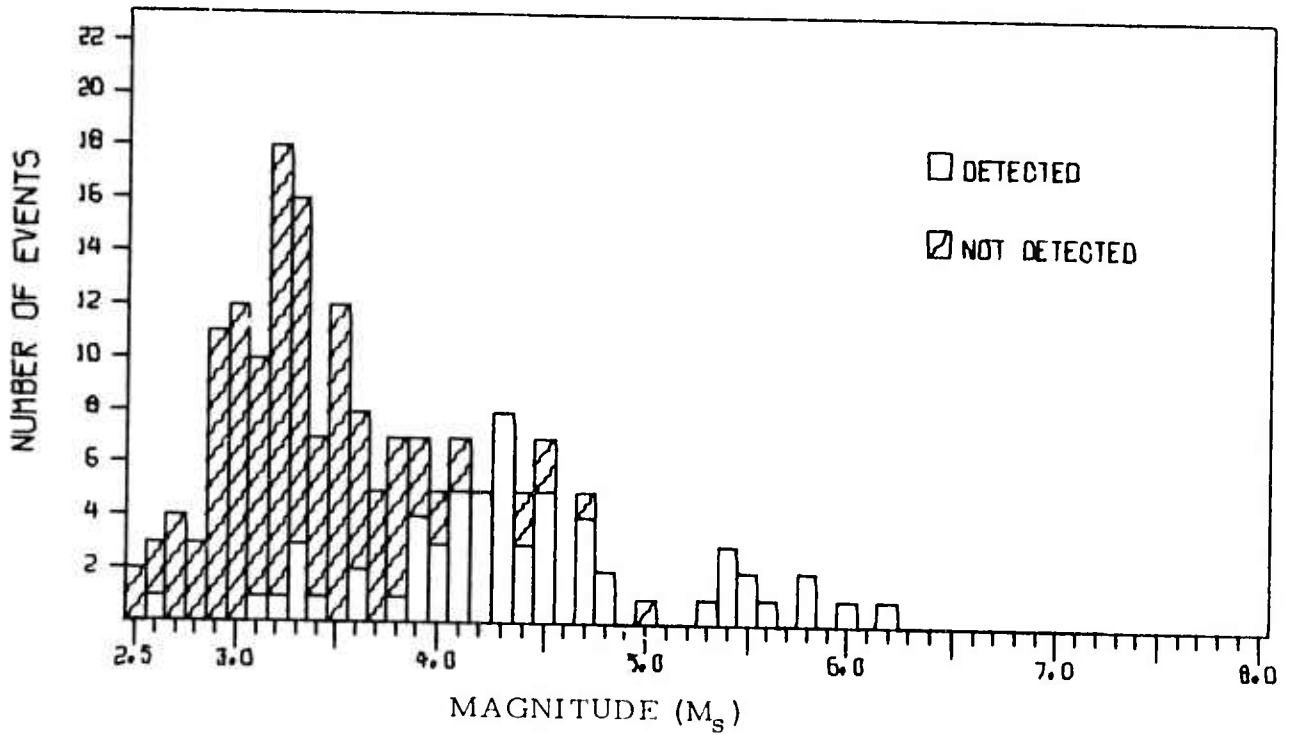


FIGURE IV-14

DETECTION STATISTICS FOR CTA RELATIVE
TO CORRECTED ALPHA AND NORSAR M_s VALUES

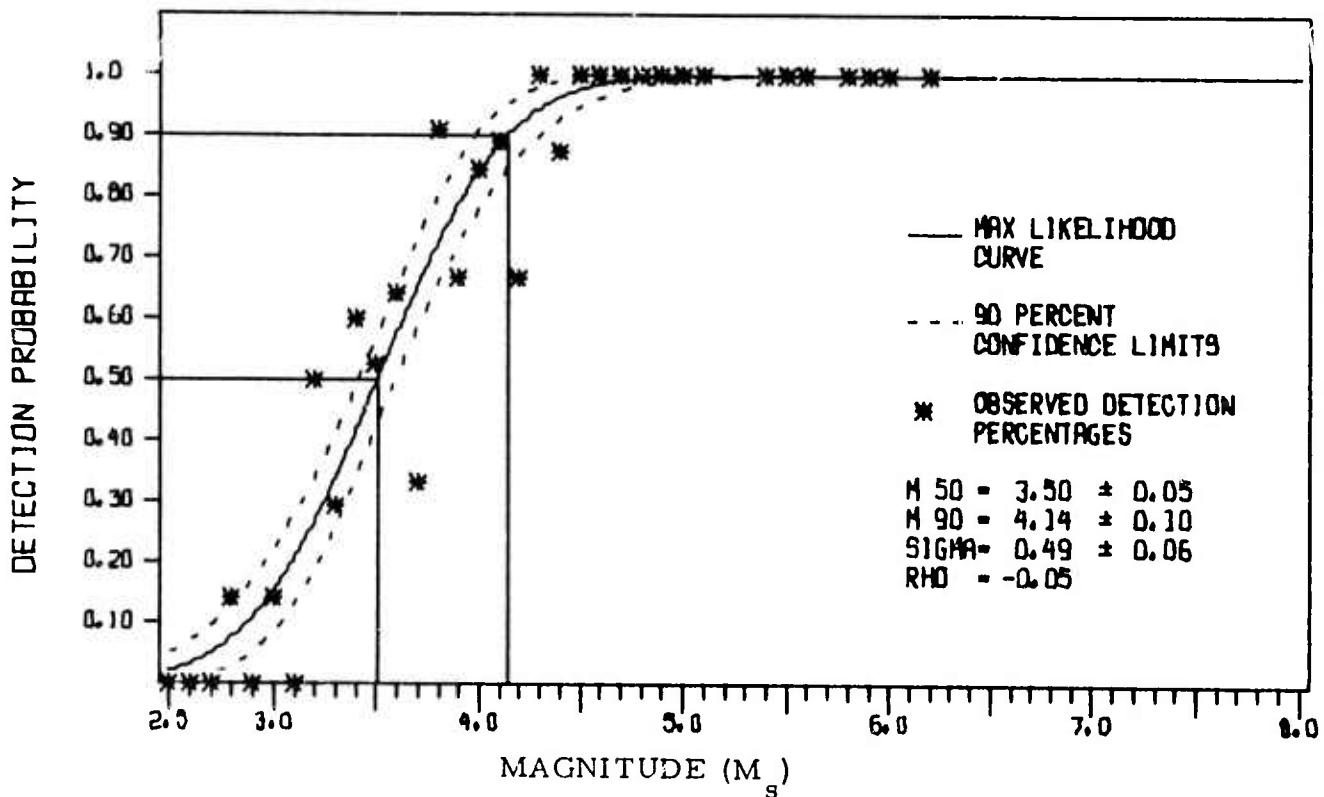
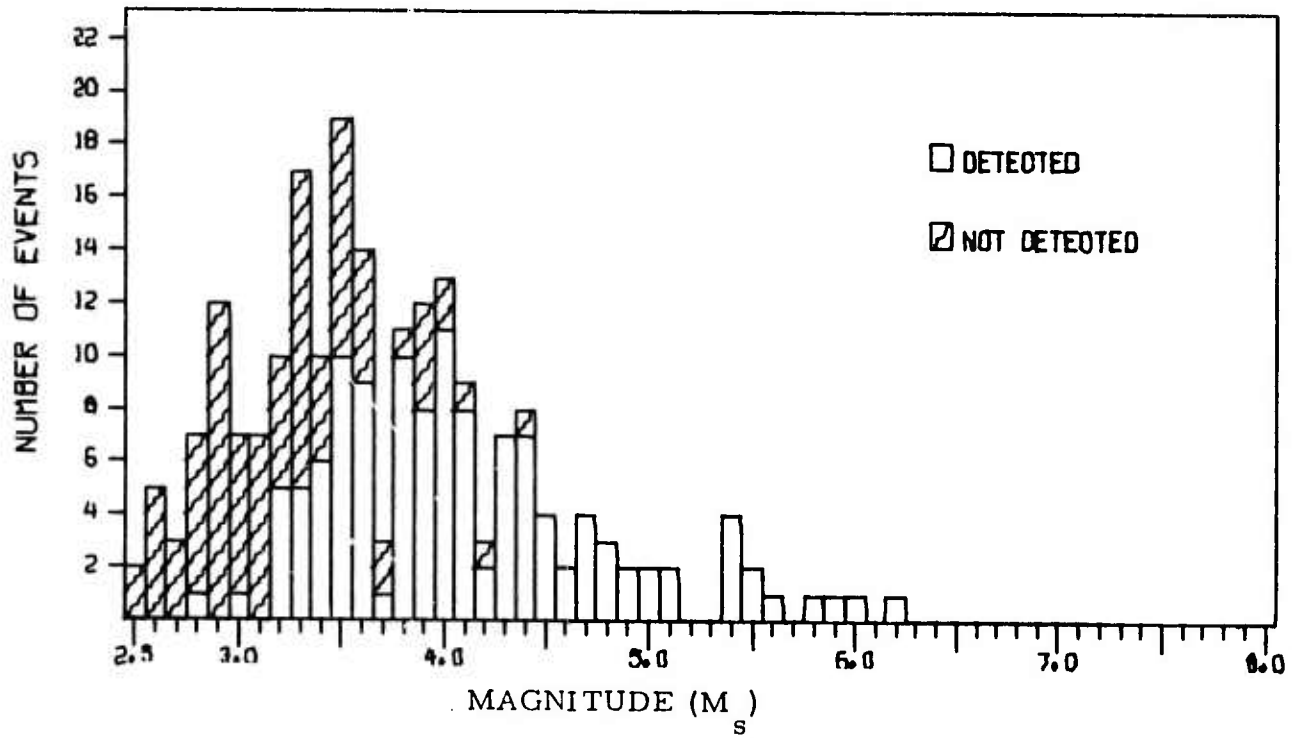


FIGURE IV-15

DETECTION STATISTICS FOR CHG RELATIVE TO CORRECTED ALPHA AND NORSAR M_s VALUES

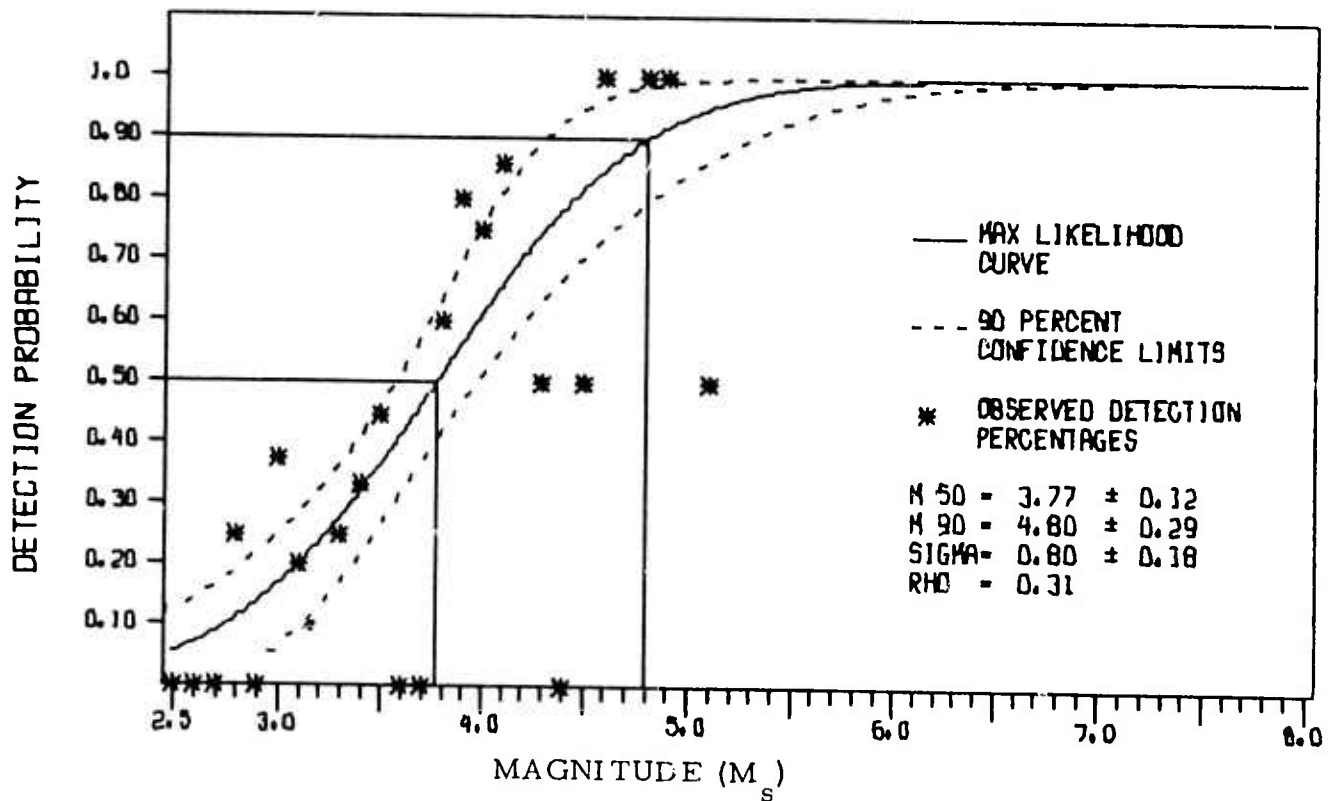
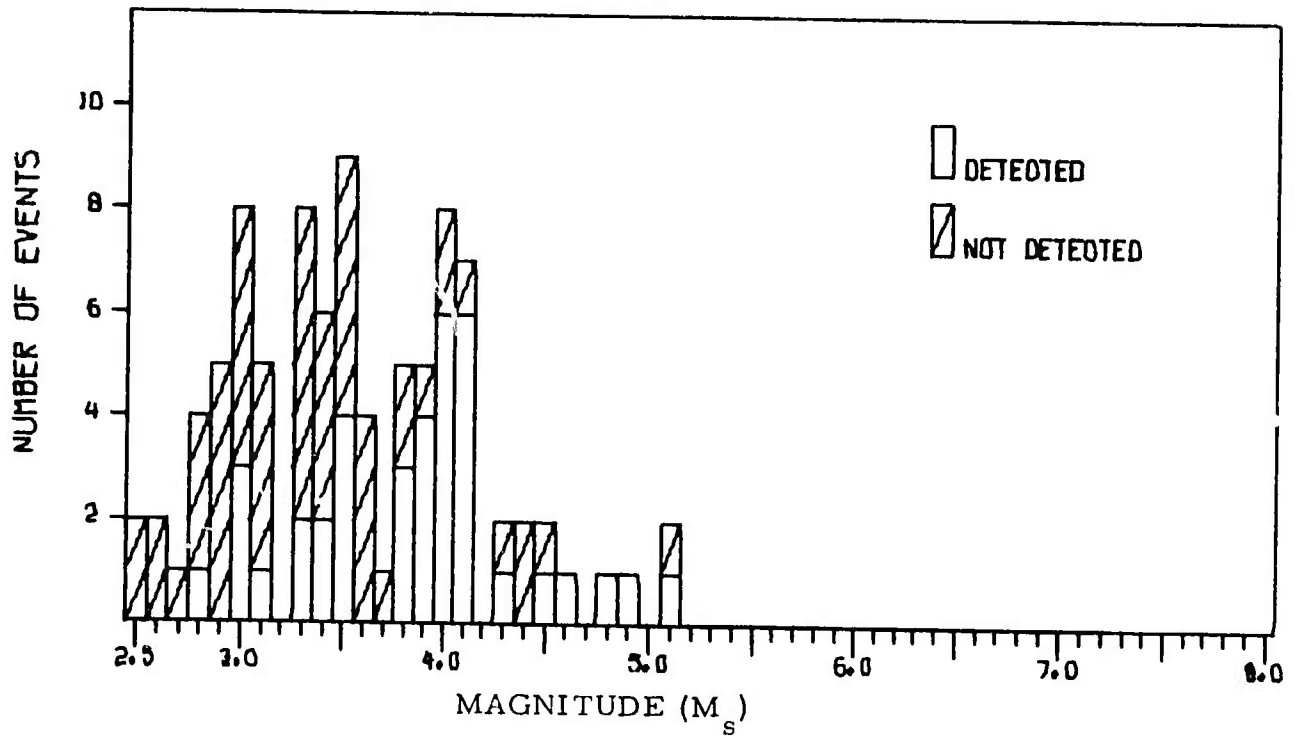


FIGURE IV-16

DETECTION STATISTICS FOR FBK RELATIVE TO CORRECTED ALPHA AND NORSAR M_s VALUES

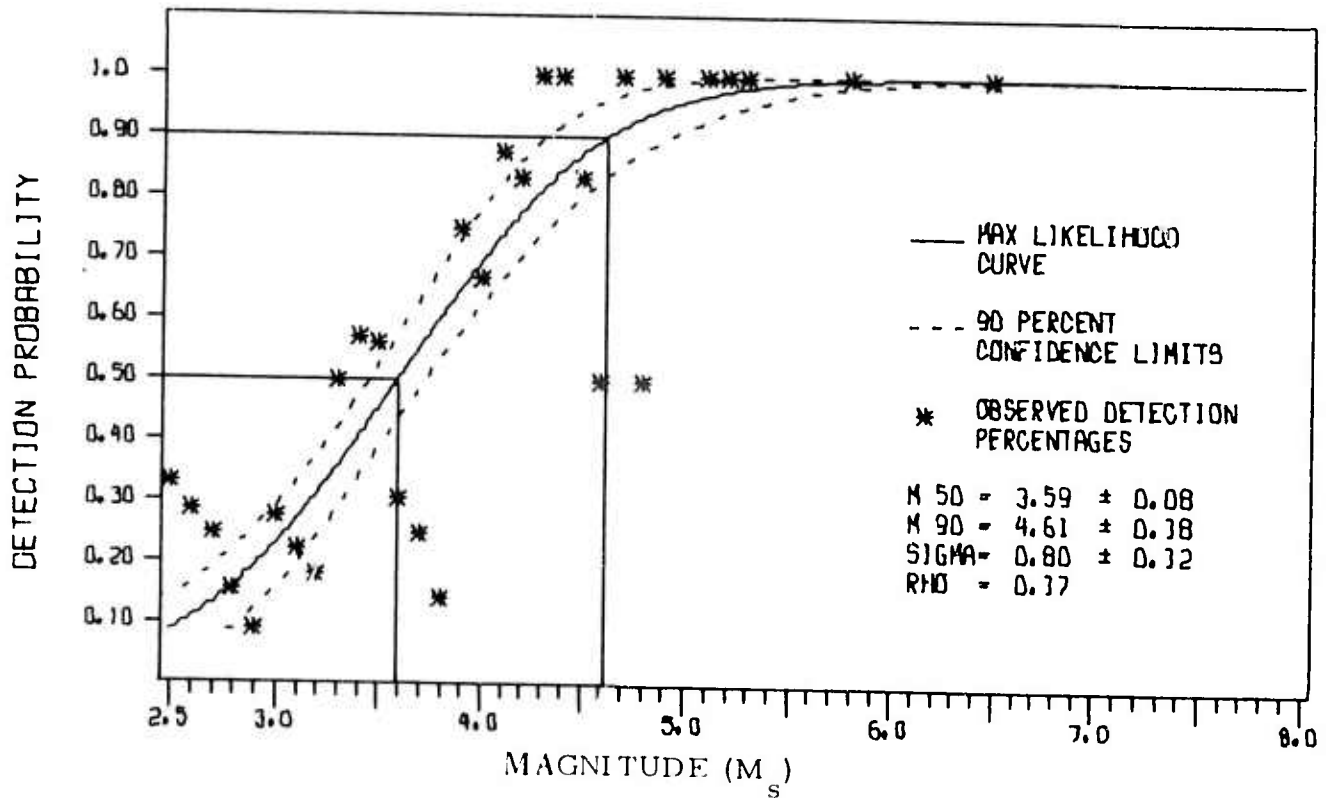
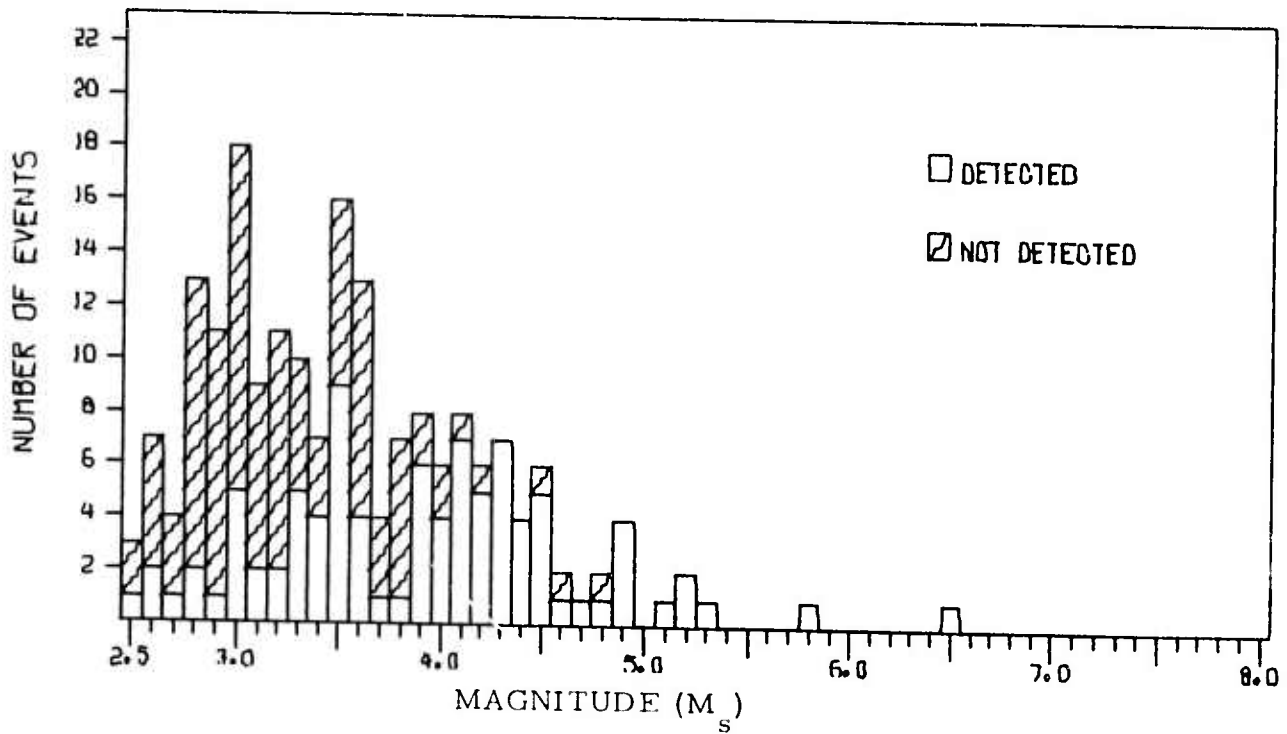


FIGURE IV-17

DETECTION STATISTICS FOR TLO RELATIVE TO CORRECTED ALPHA AND NORSAR M_s VALUES

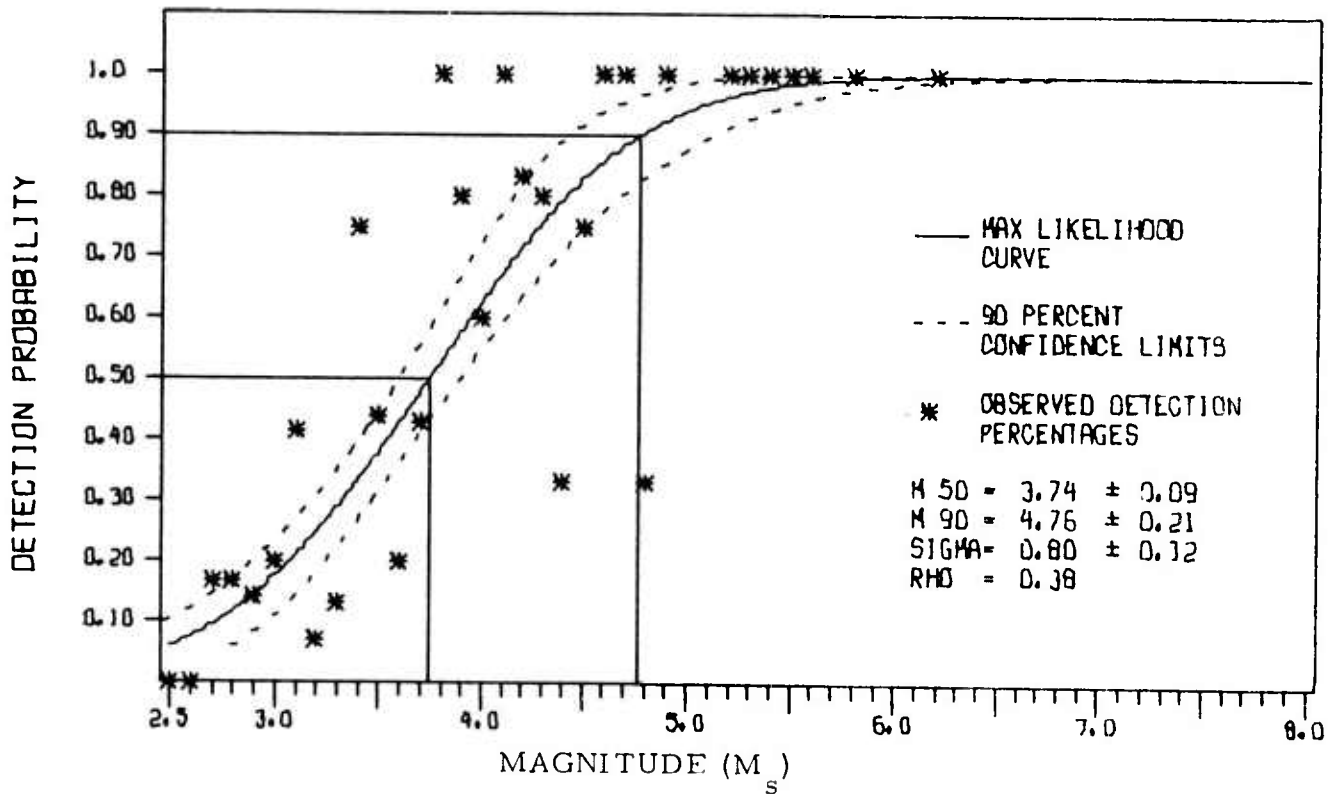
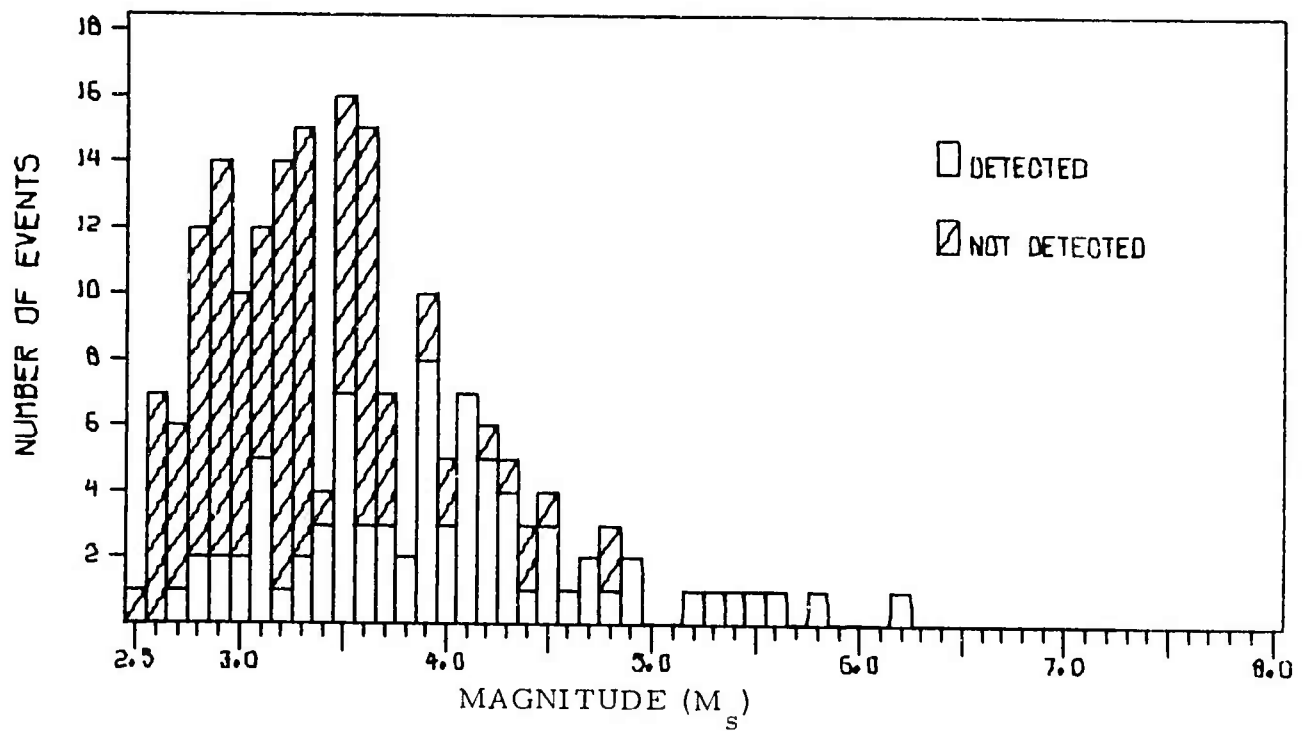


FIGURE IV-18
 DETECTION STATISTICS FOR EIL RELATIVE
 TO CORRECTED ALPA AND NORSAR M_s VALUES

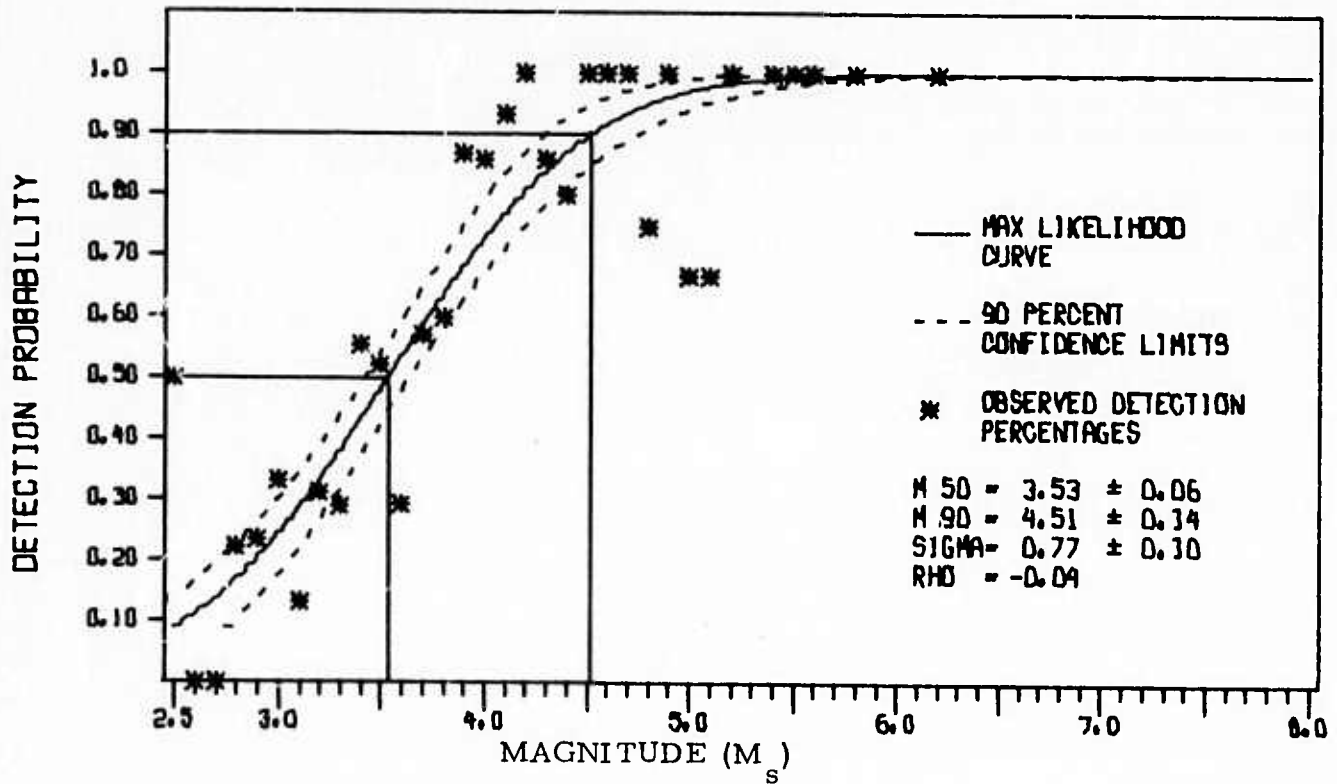
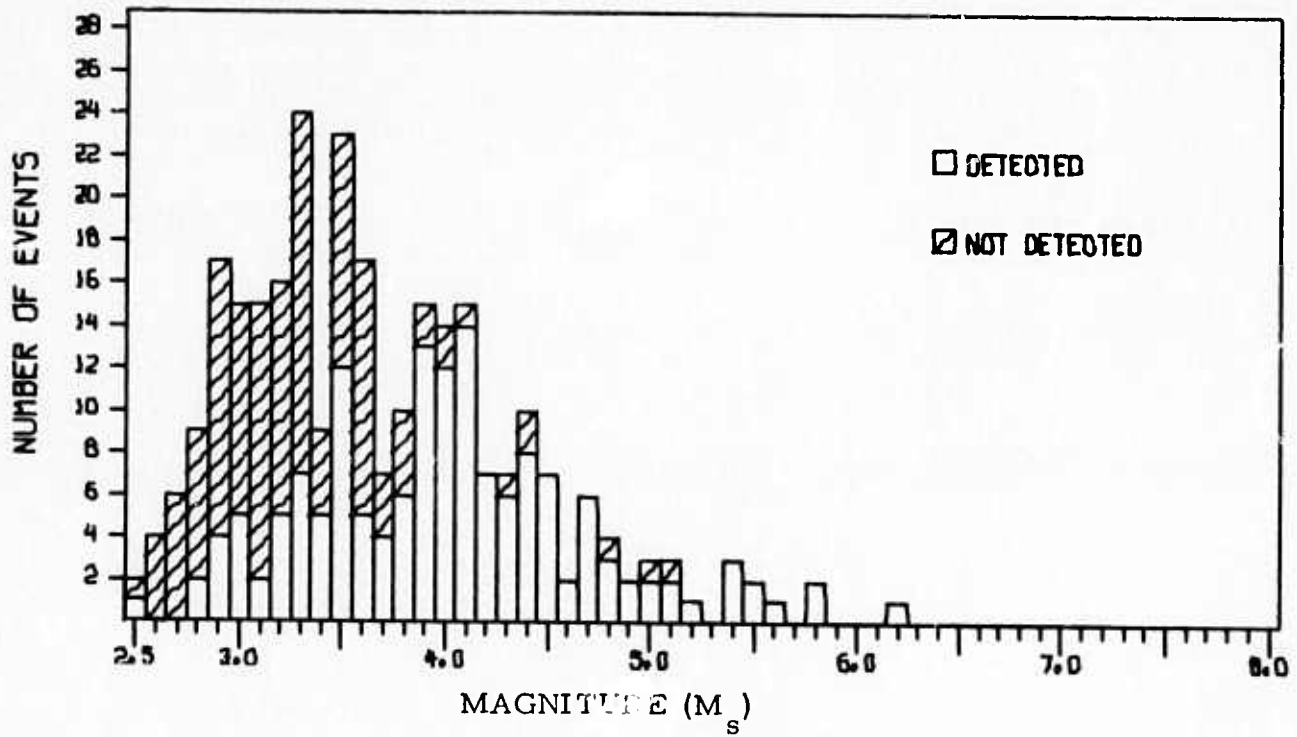


FIGURE IV-19

DETECTION STATISTICS FOR KON RELATIVE
 TO CORRECTED ALPHA AND NORSAR M_s VALUES

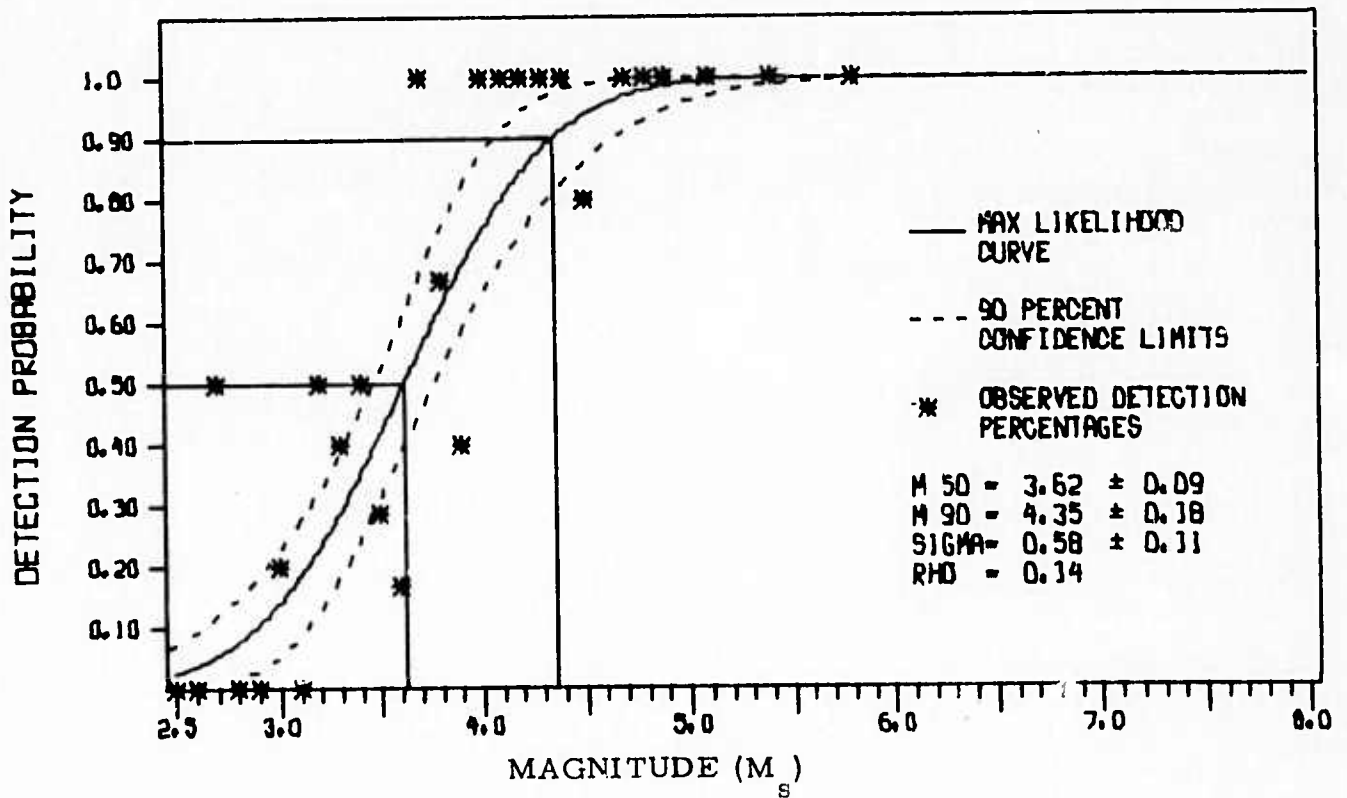
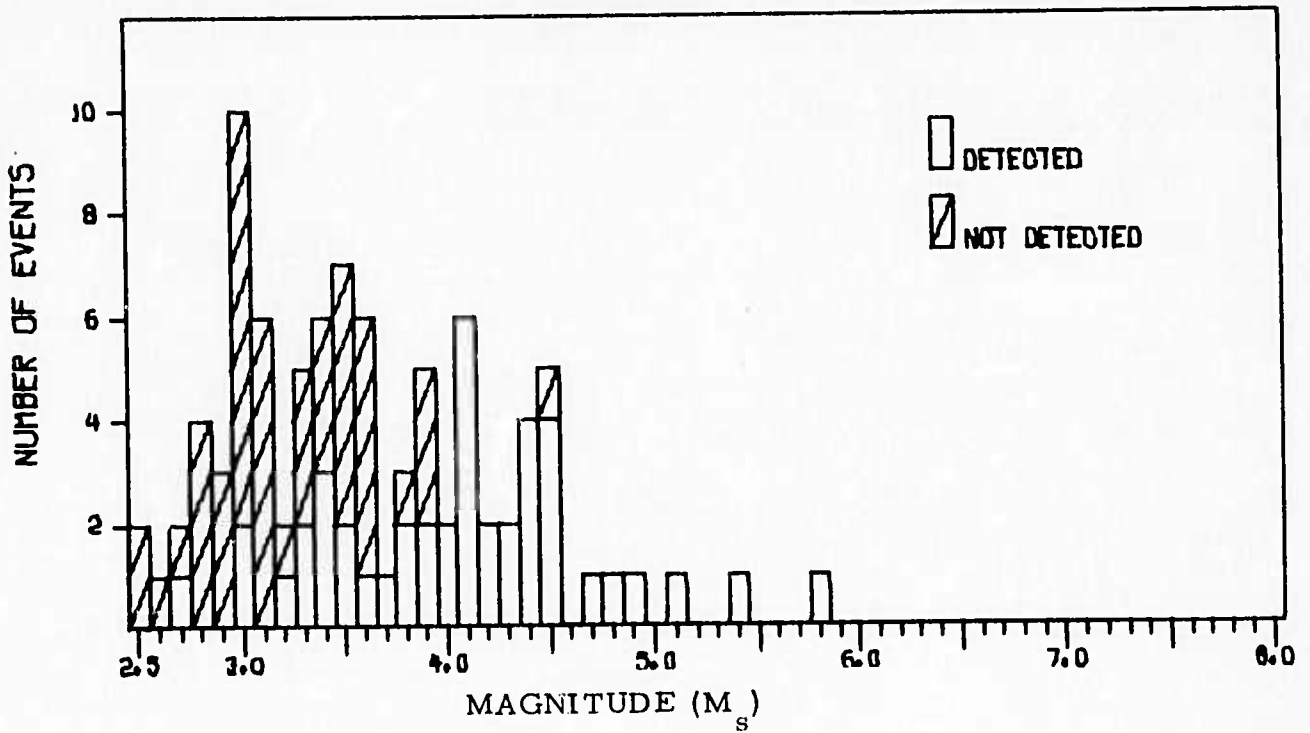


FIGURE IV-20

DETECTION STATISTICS FOR OGD RELATIVE TO CORRECTED ALPHA AND NORSAR M_s VALUES

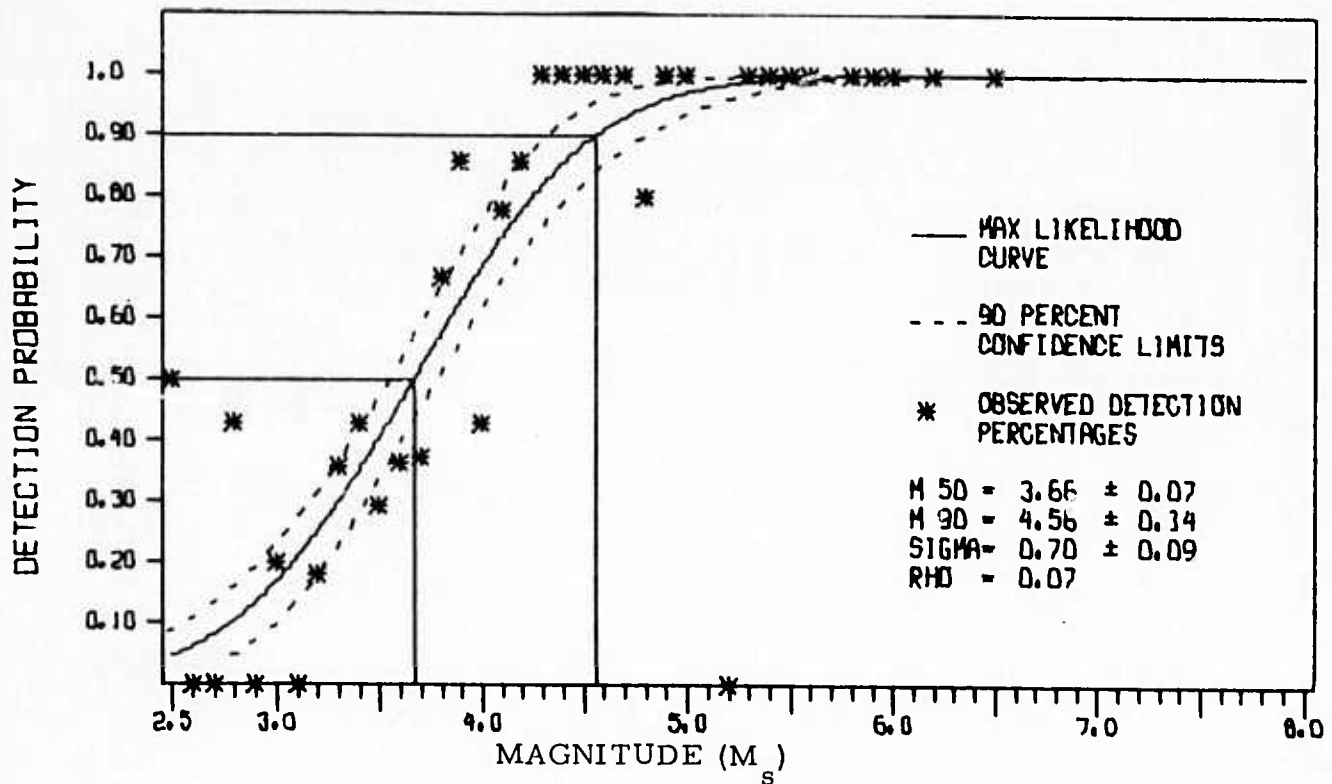
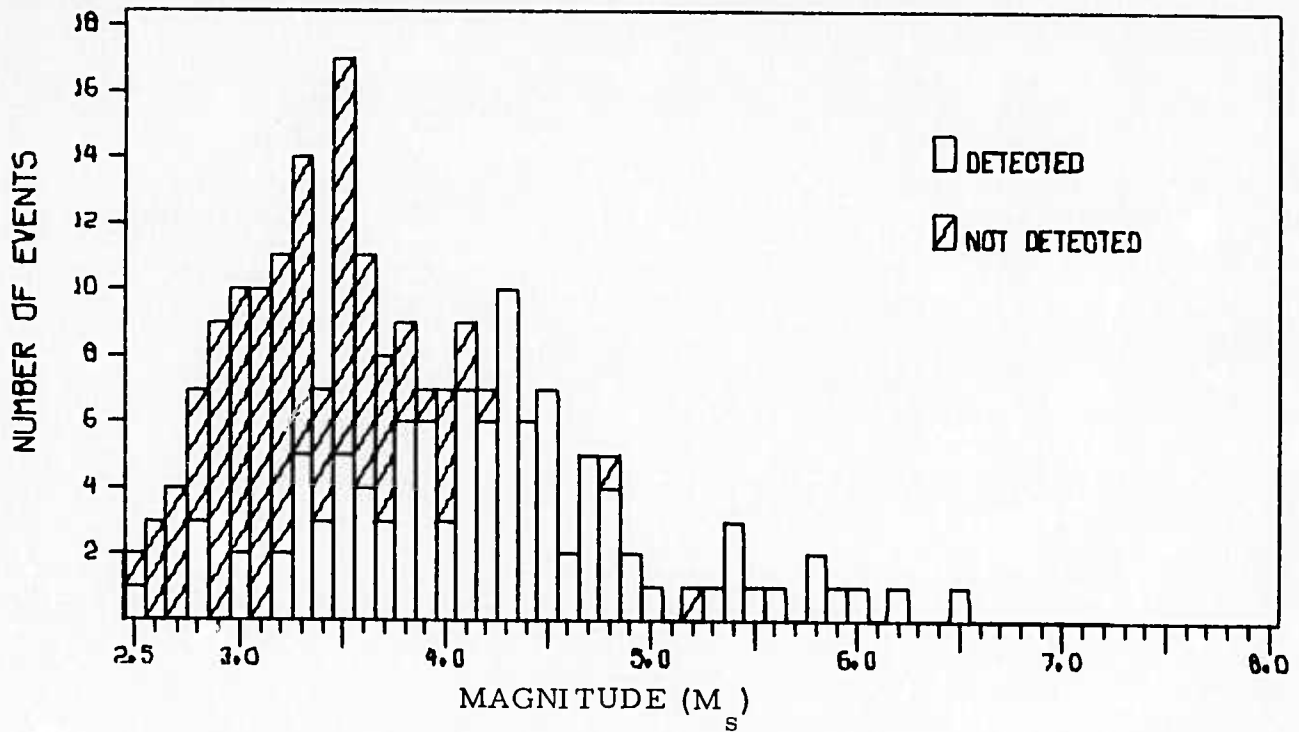


FIGURE IV-21
 DETECTION STATISTICS FOR KIP RELATIVE
 TO CORRECTED ALPHA AND NORSAR M_s VALUES

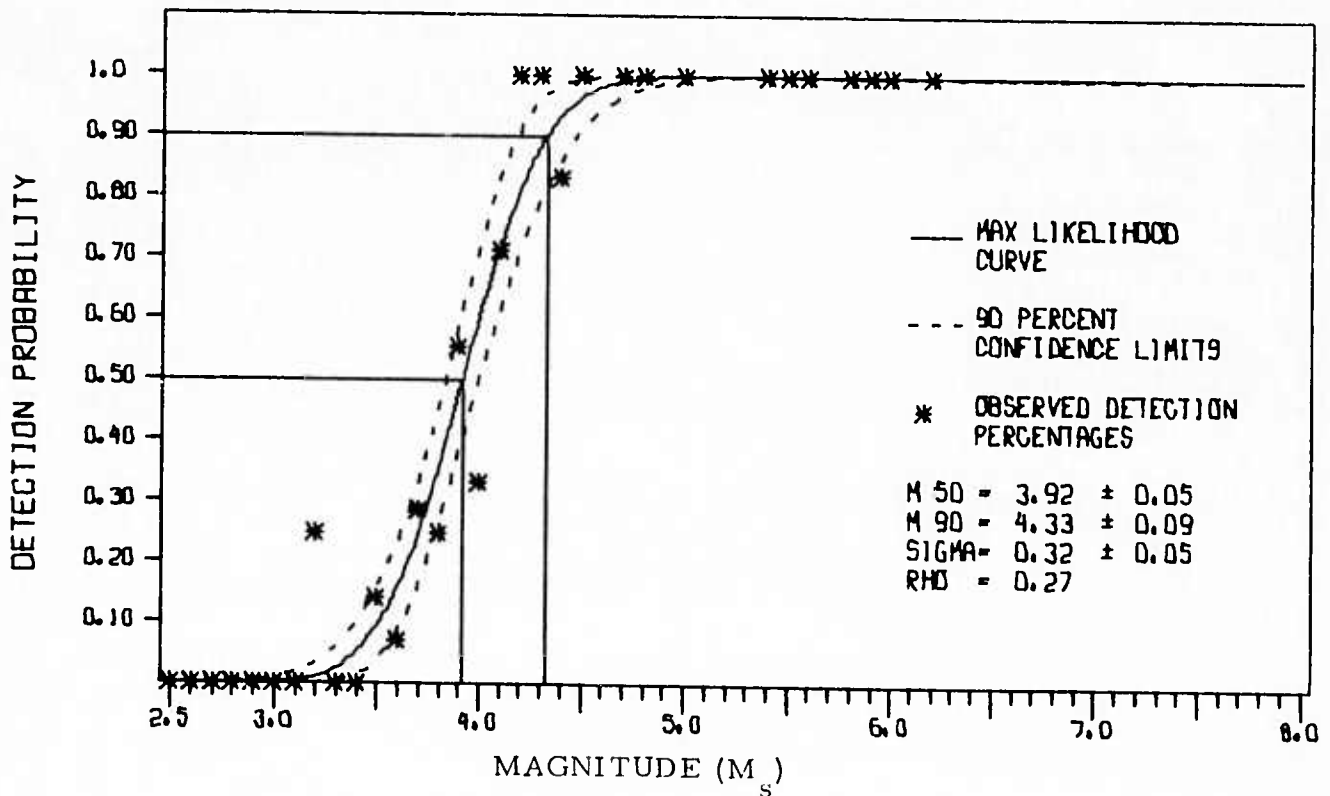
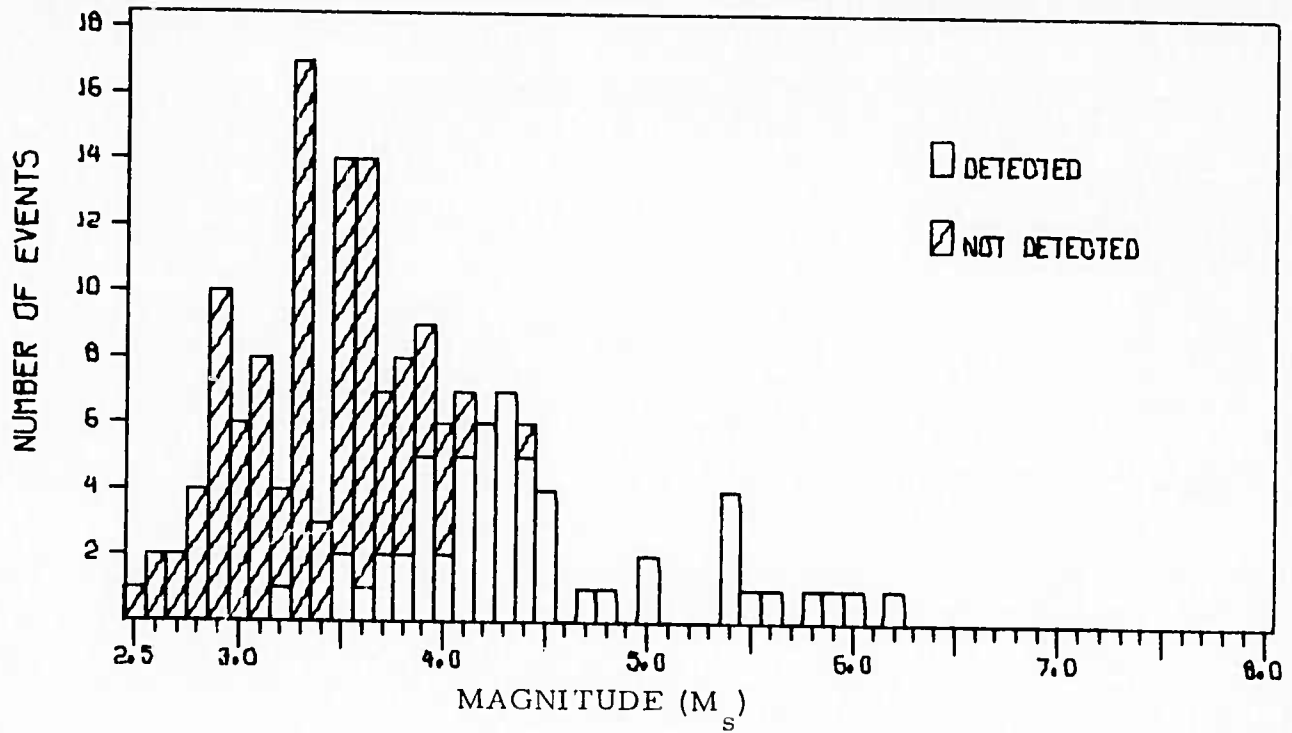


FIGURE IV-22
 DETECTION STATISTICS FOR ALQ RELATIVE
 TO CORRECTED ALPHA AND NORSAR M_s VALUES

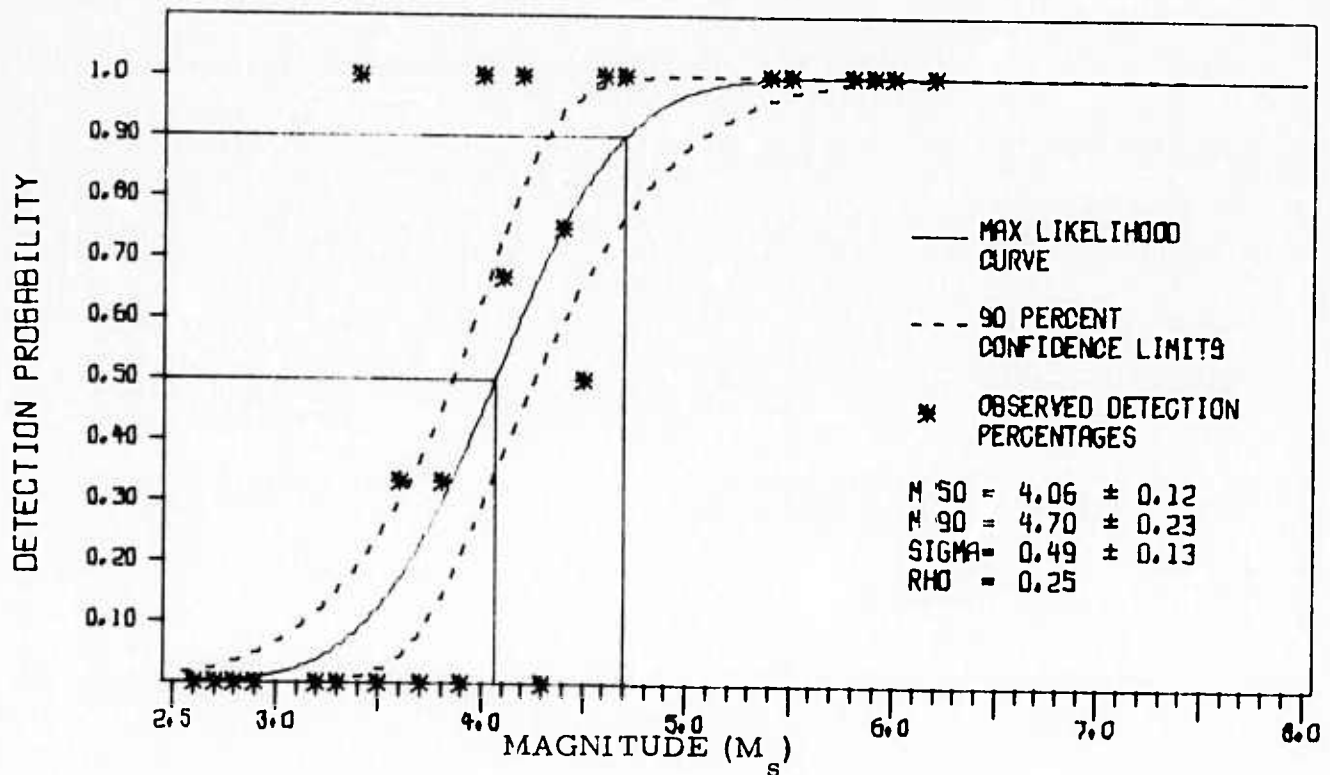
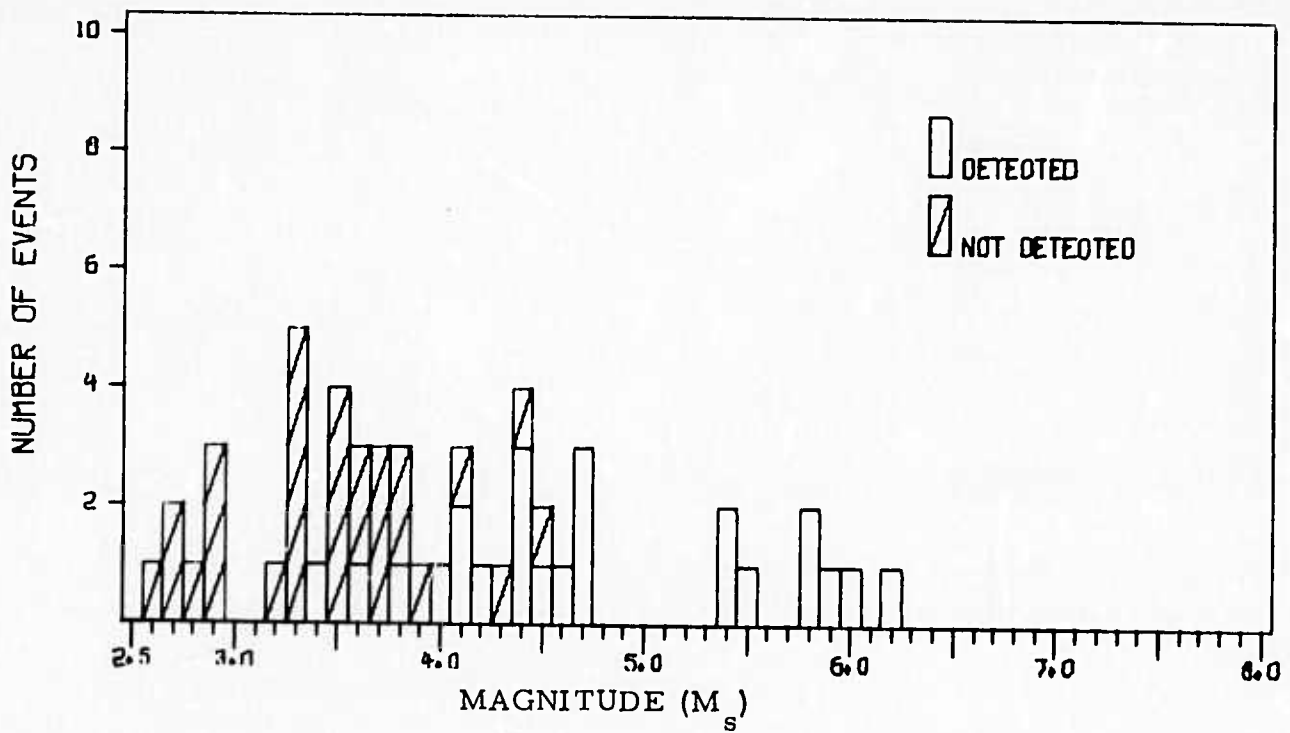


FIGURE IV-23
 DETECTION STATISTICS FOR ZLP RELATIVE
 TO CORRECTED ALPA AND NORSAR M_s VALUES

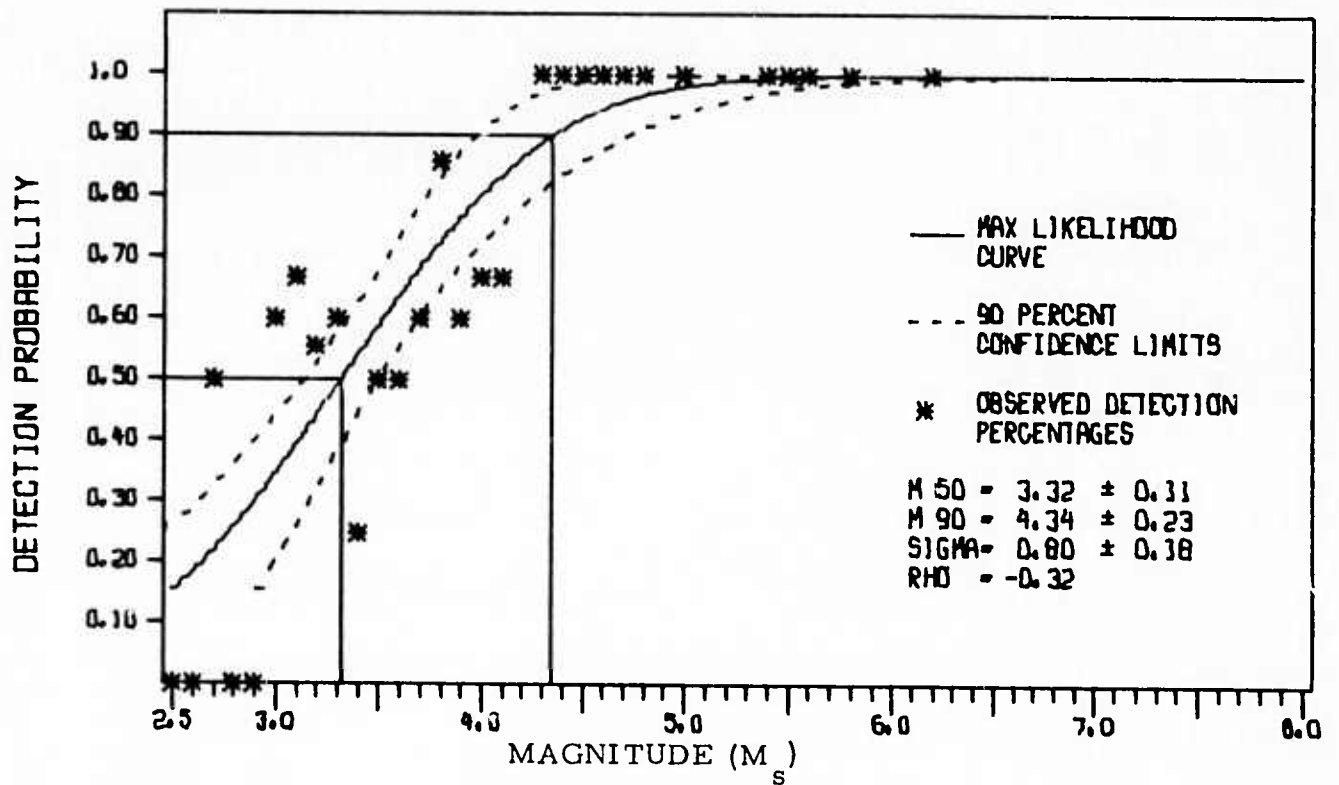
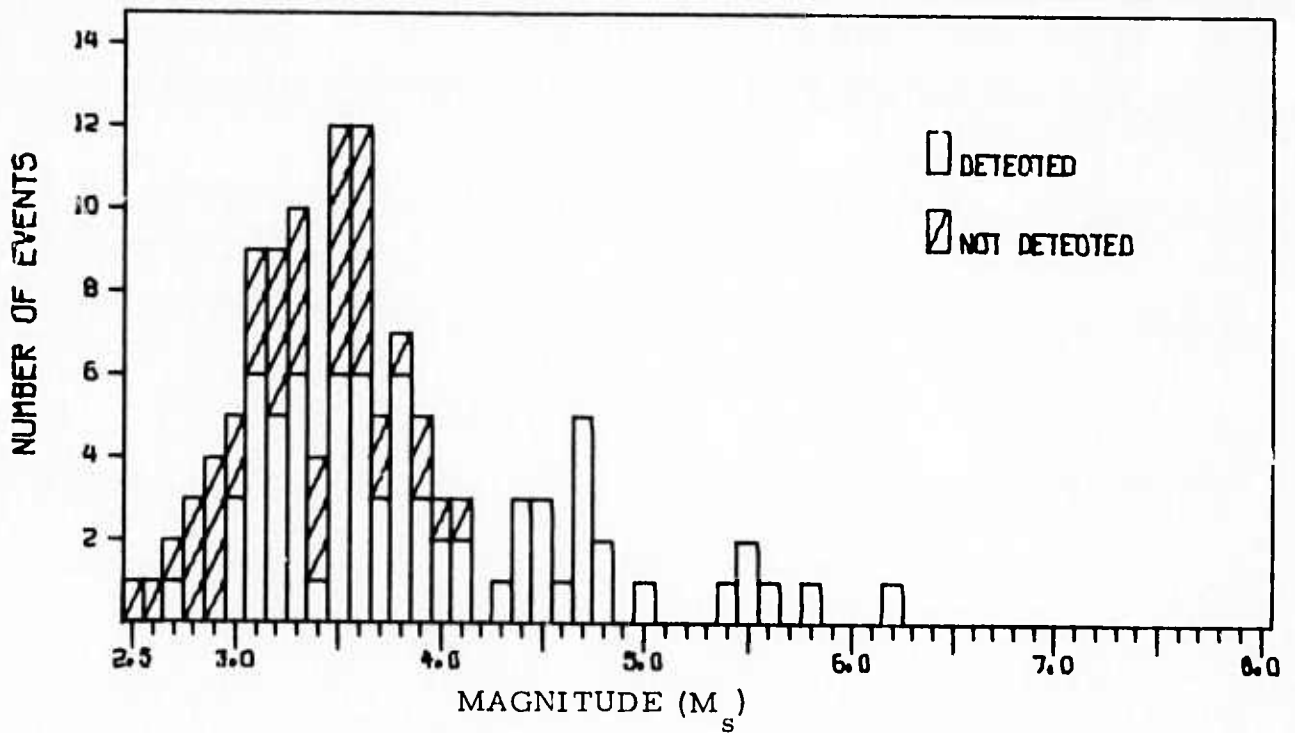


FIGURE IV-24

DETECTION STATISTICS FOR MAT RELATIVE TO CORRECTED ALPHA AND NORSAR M_s VALUES

Unger (1974), from VLPE noise measurements, estimated the 50 percent detection thresholds for several VLPE sites. Briefly, he developed and applied the method of estimating detection capabilities based on the ambient noise levels at a station (Lacoss, 1969; Harley, 1971; Harley and Heiting, 1972). These estimates also compare well with those determined directly (Table IV-1).

C. DISCUSSION AND SUMMARY

We find the 50 percent Gaussian probabilities (x_{50}) of detection in good agreement with those estimated from ambient noise (Unger, 1974). The 90 percent Gaussian probability (x_{90}) of detection (i. e., $x_{90} = x_{50} + 1.28 \sigma$) is difficult to estimate since σ is influenced by many factors. These factors include such items as:

- epicentral distance variance
- signal period variance
- noise amplitude variance
- station magnitude variance
- propagation path variance
- and instrumental response variations (especially important here due to possible VLPE response variations).

The 90 percent M_s detection thresholds estimated directly (from corrected ALPA and NORSAR M_s values) and reported here, are on the average 0.31 M_s units greater than those reported by Lambert, et al. (1973). We believe these direct detectability values and corresponding σ 's to be too large for the following reasons:

- Unger (1974) considered all of the listed variances that effect σ and estimated that $0.39 \leq \sigma \leq 0.55$.
- Lambert, et al. (1973) determined an average σ of about 0.40 between stations for various events. It should be emphasized that this value ($\bar{\sigma} = 0.40$) is the standard deviation of the estimated "true" event M_s rather than the standard deviation among various equal sized events observed at one station. However, we believe that $\bar{\sigma} = 0.40$ is a reasonable estimate since all of the parameter variances affecting this estimate will affect the latter one.
- In many examples (Figure IV-14 through IV-24) the distribution of detection versus no detection decisions, does not appear to approximate normality. That is, there are too few low and high magnitude events as well as scatter to clearly define the Gaussian curve fit in these magnitude ranges. The exceptions to this statement occur at CHG and ALQ (Figures IV-15 and IV-22). Here, the σ 's are 0.49 and 0.32, respectively, and the 90 percent detection threshold standard deviation is less than 0.10.

All of the single station detectability results are summarized in Table IV-1. The 50 percent detection threshold for the eleven VLPE stations is on the average $m_b = 4.58$ and $M_s = 3.70$. Strauss (1975) indicates that the 50 percent detection threshold for ALPA is $m_b = 3.93$ with an average of 14 operational seismometers. Assuming the \sqrt{n} improvement (n =number of seismometers) concept, the 50 percent detection threshold for a single instrument at ALPA is $m_b = 4.50$ (i. e. $3.93 + \log\sqrt{14} = 4.50$). Thus, these results are closely comparable to each other. A similar comparison can be made for NORSAR. Here, the 50 percent level is $m_b = 3.76$ (Laun, et al., 1973) having on the average 18 sites operational. Again, assuming the \sqrt{n} improve-

ment concept, the 50 percent level for a single site at NORSAR is $m_b=4.39$. Although this value doesn't compare as closely to the average of the VLPE stations, it does compare closely to that of KON ($m_b=4.47$, Table IV-1) a VLPE station located near the NORSAR complex.

SECTION V
VLPE AND VLPE-ALPA-NORSAR COMBINED NETWORK
DETECTION CAPABILITIES

A. INTRODUCTION

This section presents the detection capabilities of the VLPE network, the VLPE-ALPA-NORSAR combined network, and the network mixed event probabilities.

For the network detection thresholds, we utilized the same detection concepts given in Section IV. That is, the method used for estimating detection capabilities is the maximum likelihood procedure which was briefly described in the previous section and in detail by Ringdal (1974). We estimated the surface-wave VLPE network detection capabilities on the basis of both m_b and M_s where the M_s base values were those observed at ALPA and NORSAR. However, for the VLPE-ALPA-NORSAR combined network, we estimated the detection probabilities in terms of m_b only, since no other base of common event M_s values were available having a lower detection threshold than the combined network.

Finally, in part C of this section we present the VLPE network mixed event probabilities.

B. RESULTS OF DETECTABILITY ESTIMATES

1. VLPE Networks

Detection statistics for the VLPE network were computed in terms of m_b and M_s and are summarized in Table V-1. The results are presented in Figures V-1 through V-3 for those events where at least one

TABLE V-1
 NETWORK DETECTION THRESHOLDS
 IN TERMS OF m_b AND M_s

NETWORK*	m_b			M_s			M_s Corrected for Station-Path		
	50%	90%	σ	50%	90%	σ	50%	90%	σ
NET 1 All Δ < 50° > 50°	4.17	5.15	0.76	3.00	4.03	0.80	3.18	4.21	0.80
	4.18	5.21	0.80	2.98	4.01	0.80	3.16	4.18	0.80
	4.55	5.32	0.60	3.48	4.32	0.65	3.64	4.44	0.62
NET 2 All Δ < 50° > 50°	4.55	5.23	0.53	3.47	4.29	0.64	3.62	4.37	0.58
	4.45	5.11	0.51	3.33	4.36	0.80	3.45	4.09	0.50
	4.76	5.40	0.50	3.78	4.46	0.53	3.96	4.64	0.53
TNET 1 All Δ < 50° > 50°	3.62	4.65	0.80						
	3.63	4.66	0.80						
	3.79	4.77	0.76						
TNET 2 All Δ < 50° > 50°	4.11	4.97	0.67						
	4.07	5.10	0.80						
	4.25	5.16	0.71						

- * NET 1 = VLPE, 1 or more stations operational and 1 station required for detection.
- NET 2 = VLPE, 2 or more stations operational and 2 stations required for detection.
- TNET = VLPE, ALPA and NORSAR combined network.
- TNET 1 = 1 or more stations operational and 1 station required for detection.
- TNET 2 = 2 or more stations operational and 2 stations required for detection.

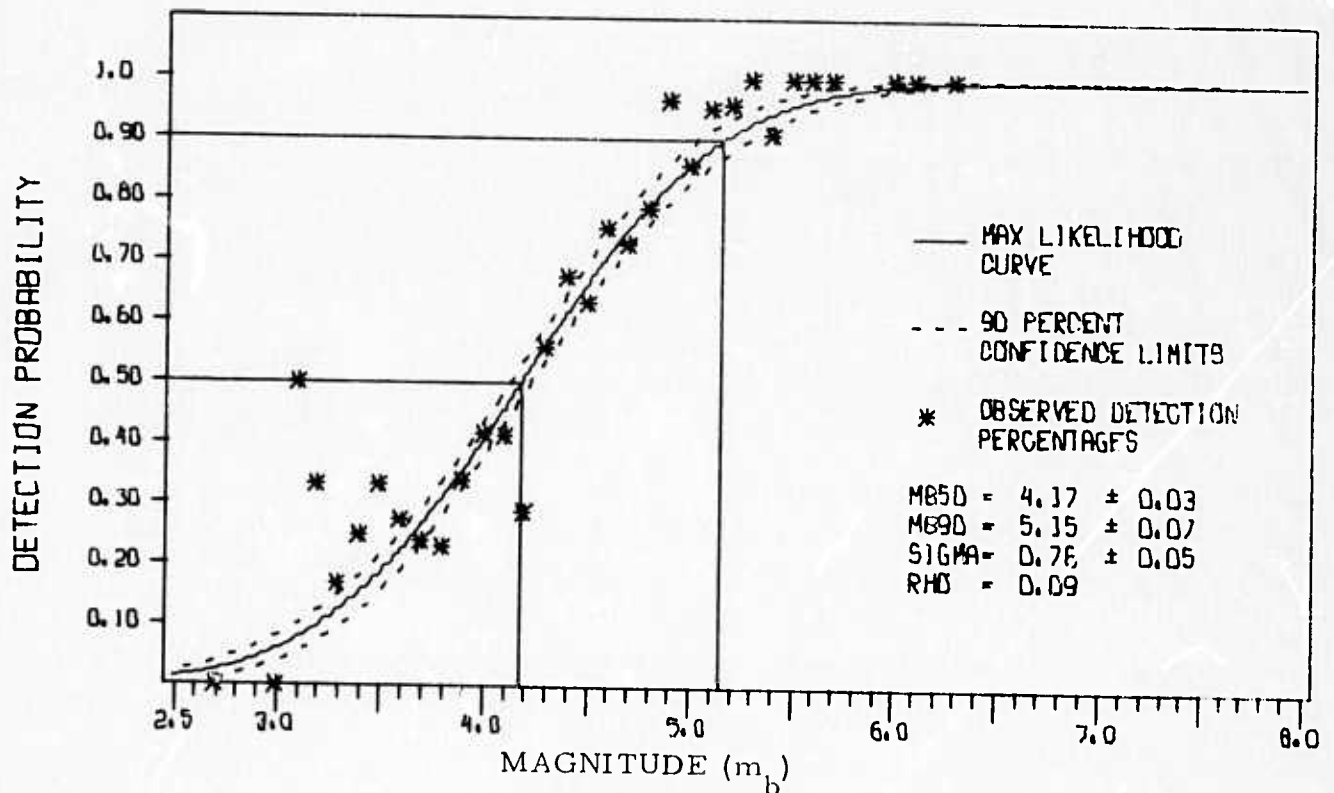
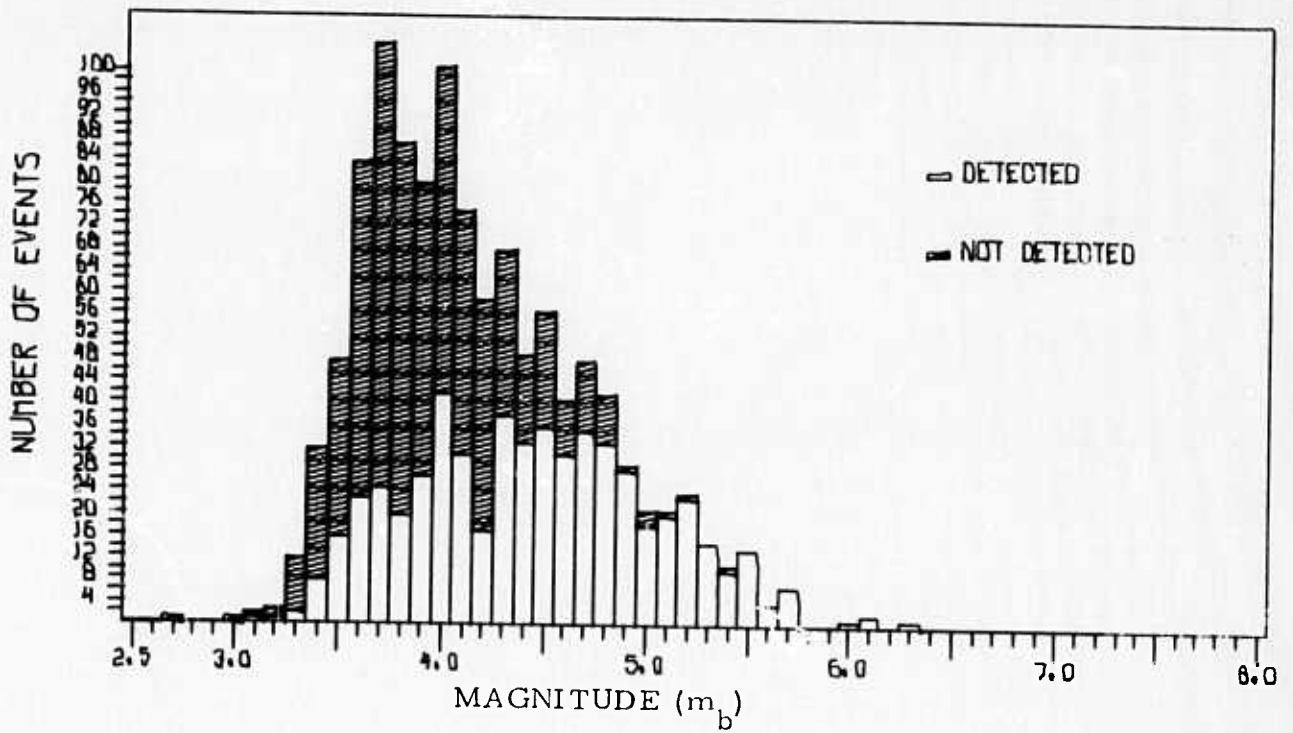


FIGURE V-1

DETECTION STATISTICS FOR THE VLPE NETWORK WITH AT LEAST ONE OPERATIONAL STATION AND IN TERMS OF m_b

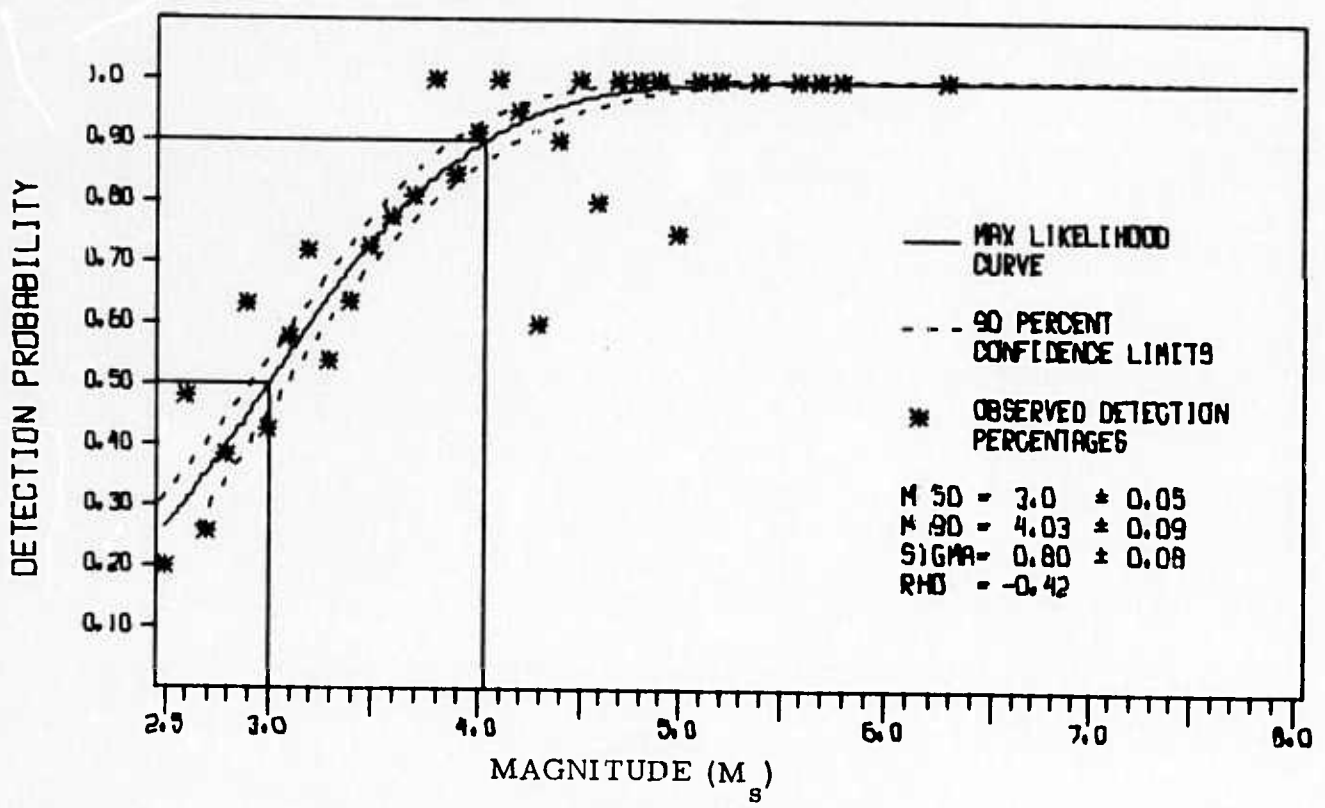
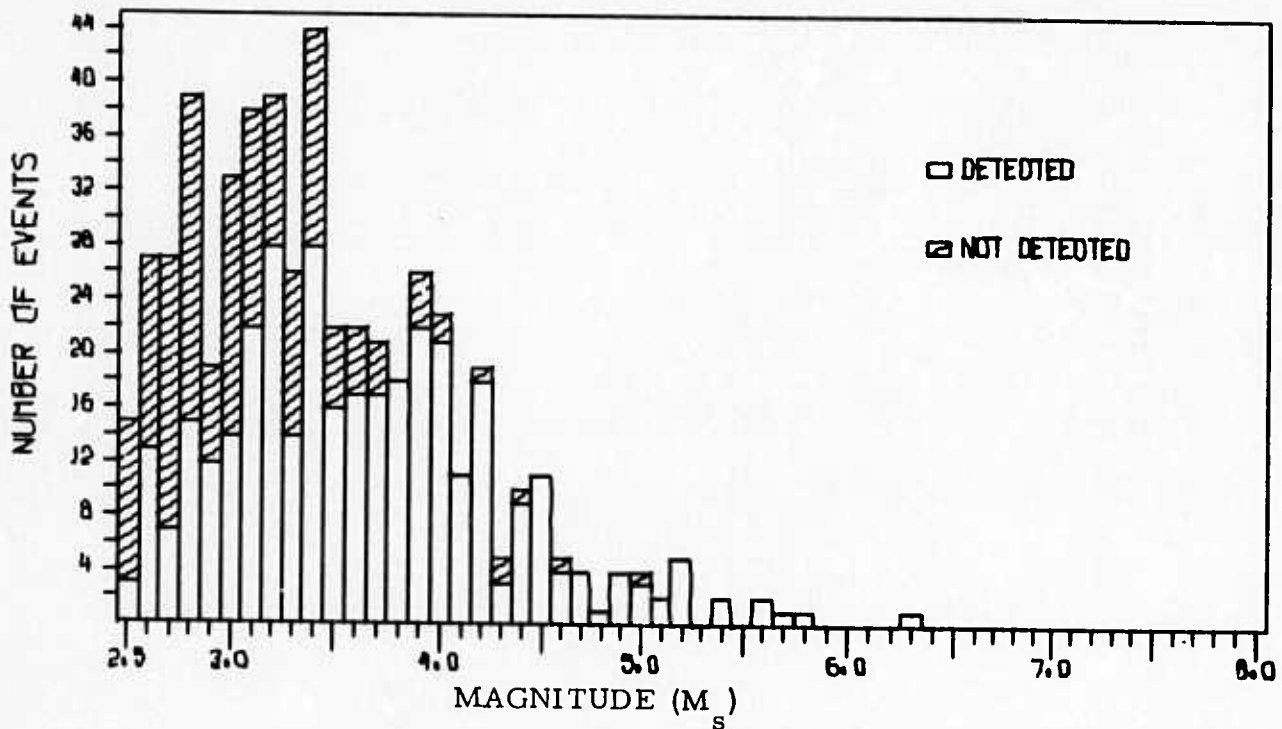


FIGURE V-2

DETECTION STATISTICS FOR THE VLPE NETWORK WITH AT LEAST ONE OPERATIONAL STATION AND IN TERMS OF ALPHA AND NORSAR M_s VALUES

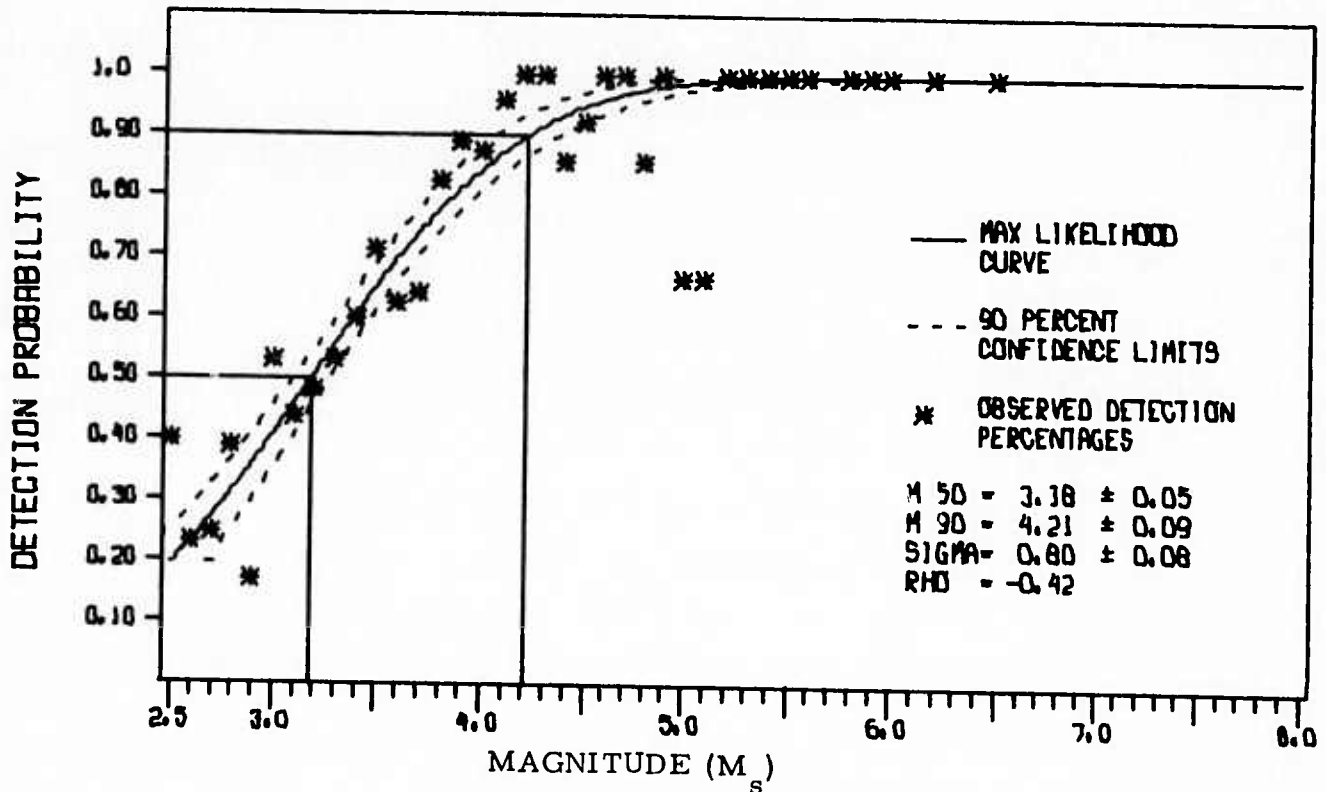
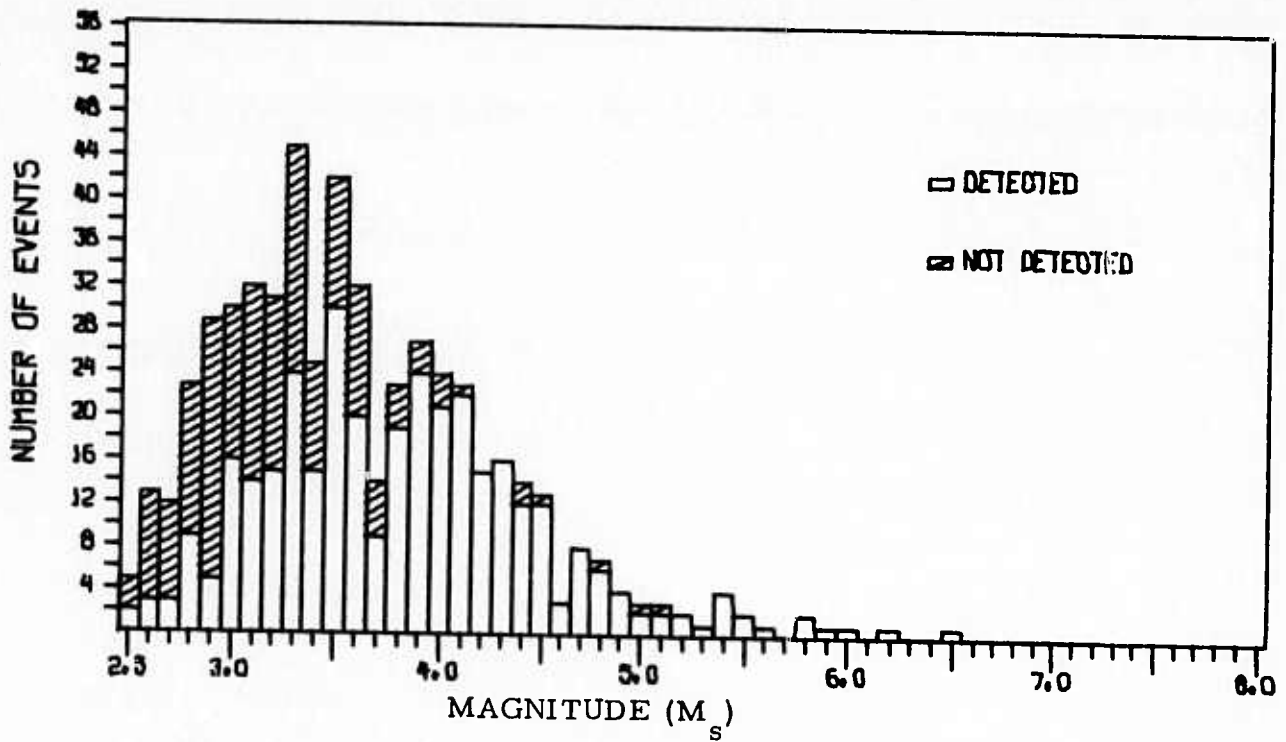


FIGURE V-3
 DETECTION STATISTICS FOR THE VLPE NETWORK WITH AT LEAST ONE
 OPERATIONAL STATION AND IN TERMS OF CORRECTED ALPHA AND NORSAR
 M_s VALUES

station in the network was operational (i. e. , events were deleted where all channels were malfunctioning or contained mixed signals).

Figure V-1 shows the network statistics in terms of m_b . The 50 and 90 percent detection estimates of 4.17 and 5.15 compare closely ($\pm 0.07 m_b$ units) to the average of those previously determined for three VLPE networks (Lambert, et al. , 1973).

Figure V-2 shows the network statistics in terms of M_s (i. e. , the VLPE network relative to ALPA-NORSAR M_s values). The network detectabilities estimated here are about 0.30 M_s units lower than those reported by Lambert, et al. We previously indicated in Section IV that these ALPA and NORSAR M_s base values could not be considered as "true" event magnitudes and as such these direct detectability estimates should not necessarily compare to those derived indirectly by extrapolation.

Figure V-3 shows the network statistics in terms of corrected M_s (i. e. , relative to the ALPA-NORSAR M_s values corrected for station-path effects as described in Section IV). The 50 percent M_s detection estimate of 3.18 compares closely to that estimated indirectly (extrapolated from m_b detectability estimates) by Lambert, et al. , and similar to the previously observed results for the single station 90 percent estimates (Section IV), the network 90 percent estimate of 4.03 is also greater (0.24 M_s units) than that reported by Lambert, et al. We discussed the difficulty of estimating the 90 percent threshold in the previous section (Section IV). However, both the 50 and 90 percent detectability estimates are given with good confidence since the standard deviation of these estimates was less than 0.10 M_s units. Separate statistics were computed for all events within 50 degrees epicentral distance as well as for events at greater than 50 degrees distance. These results are summarized in Table V-1.

Figures V-4 through V-6 show the VLPE network detectability

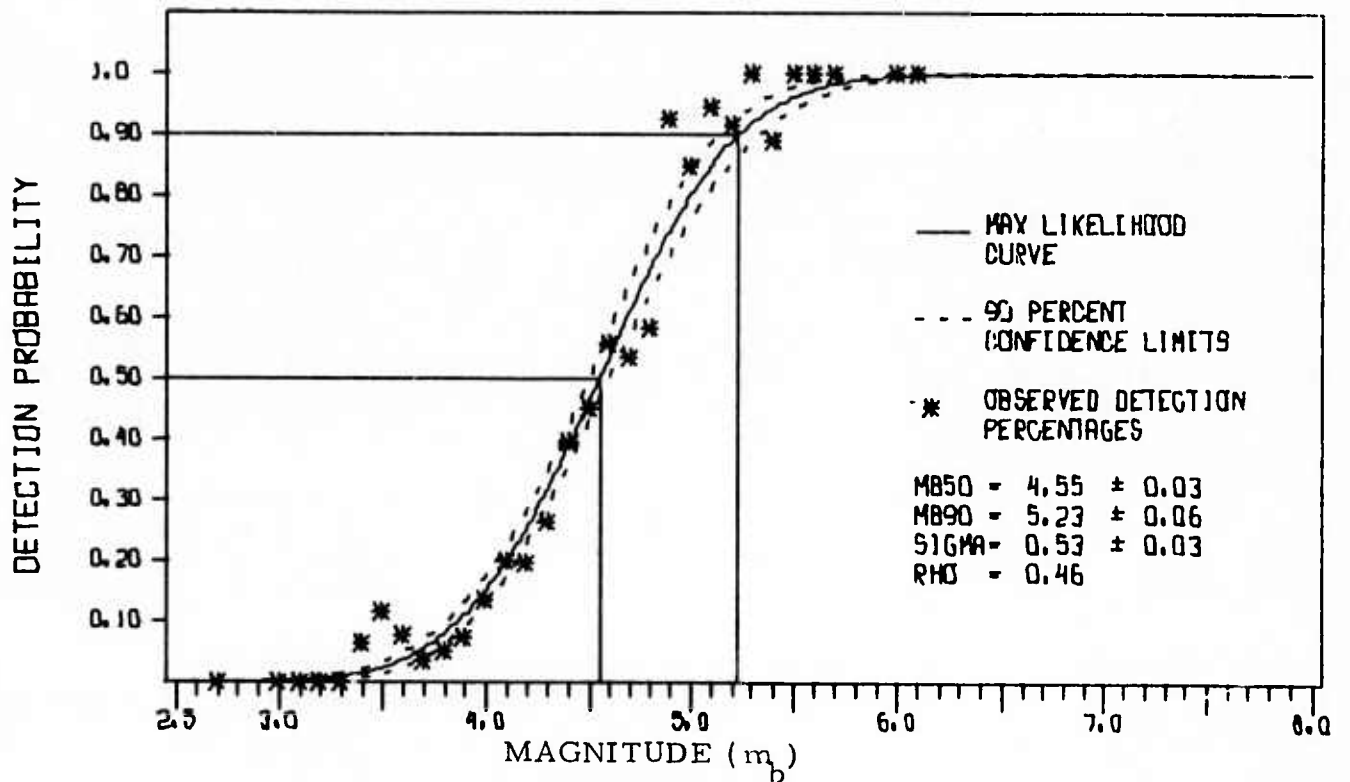
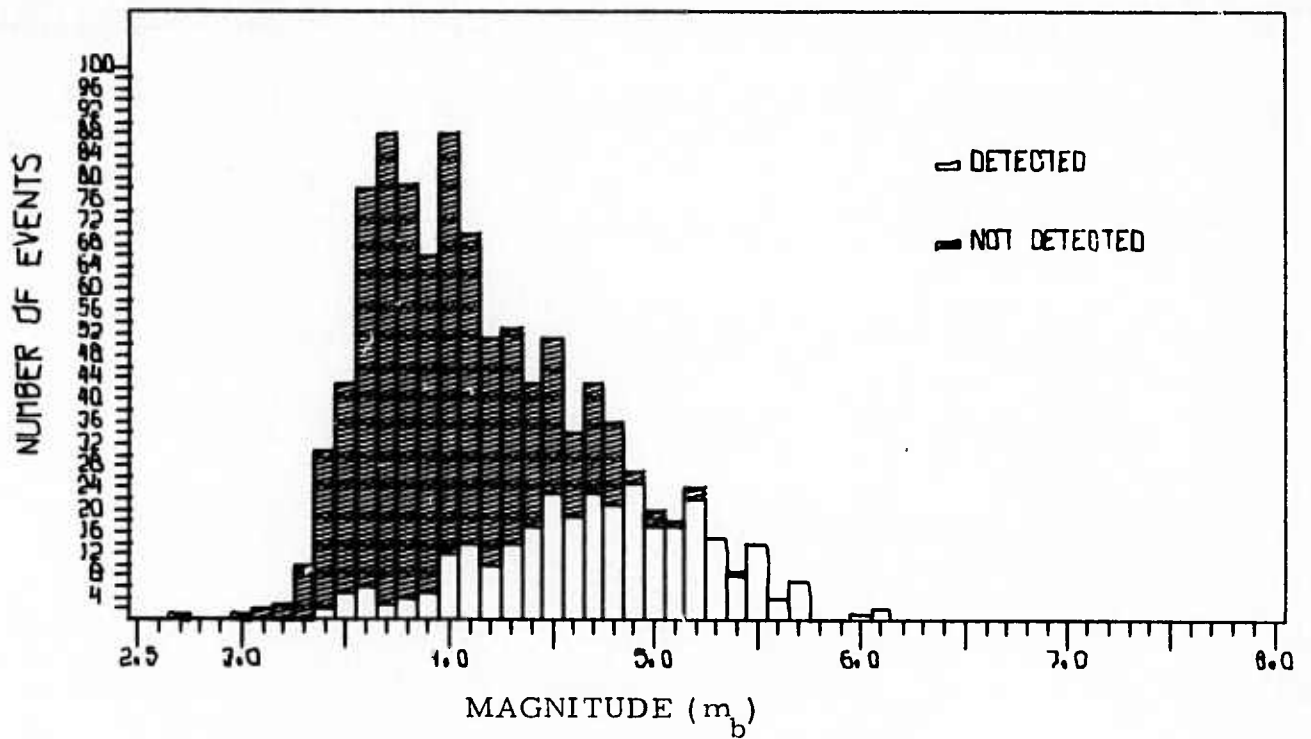


FIGURE V-4
 DETECTION STATISTICS FOR THE VLPE NETWORK
 WITH AT LEAST TWO OPERATIONAL STATIONS AND IN TERMS OF m_b

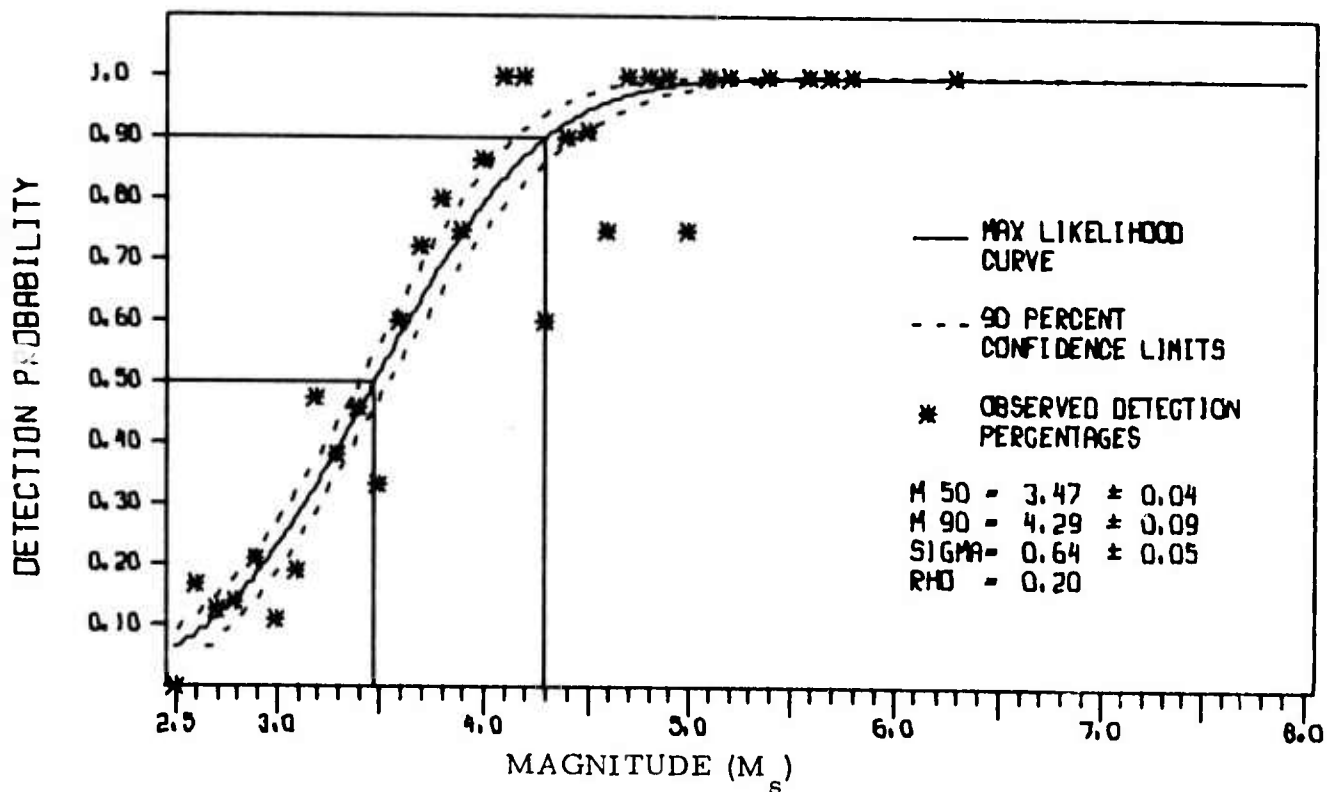
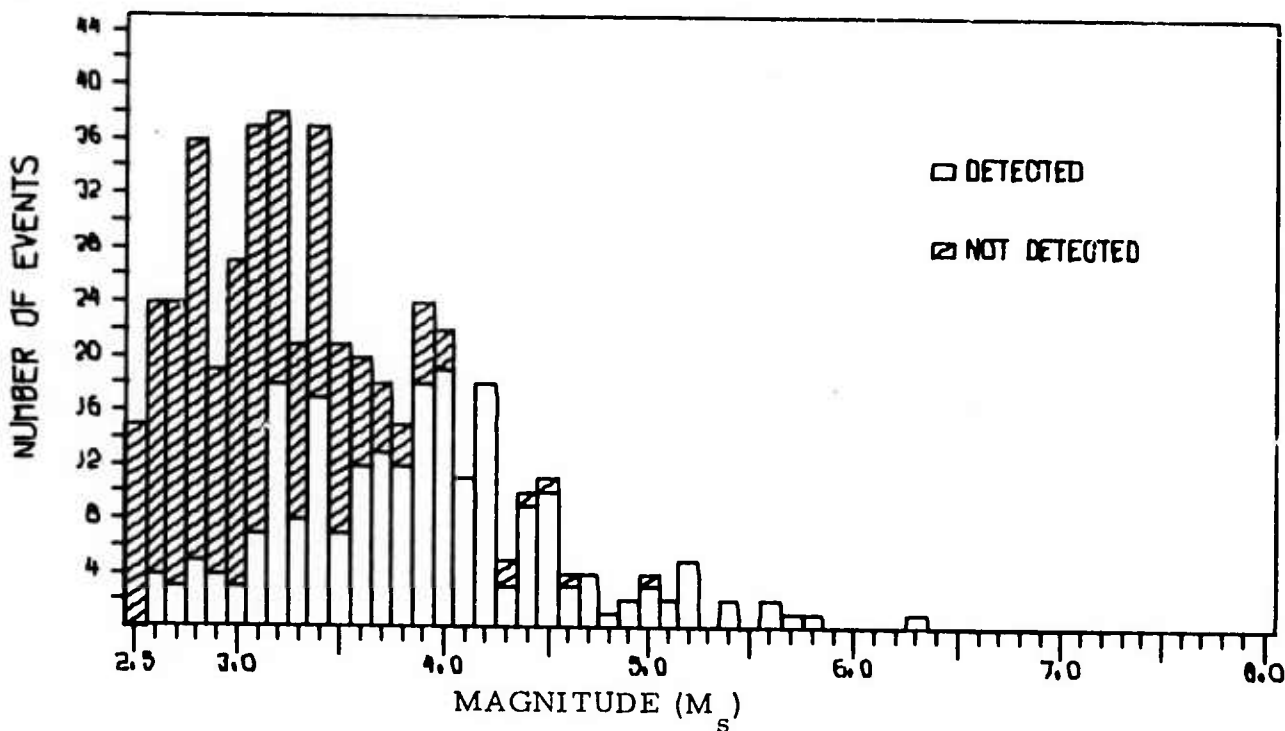


FIGURE V-5

DETECTION STATISTICS FOR VLPE NETWORK WITH AT LEAST TWO OPERATIONAL STATIONS AND IN TERMS OF ALPHA AND NORSAR M_s VALUES

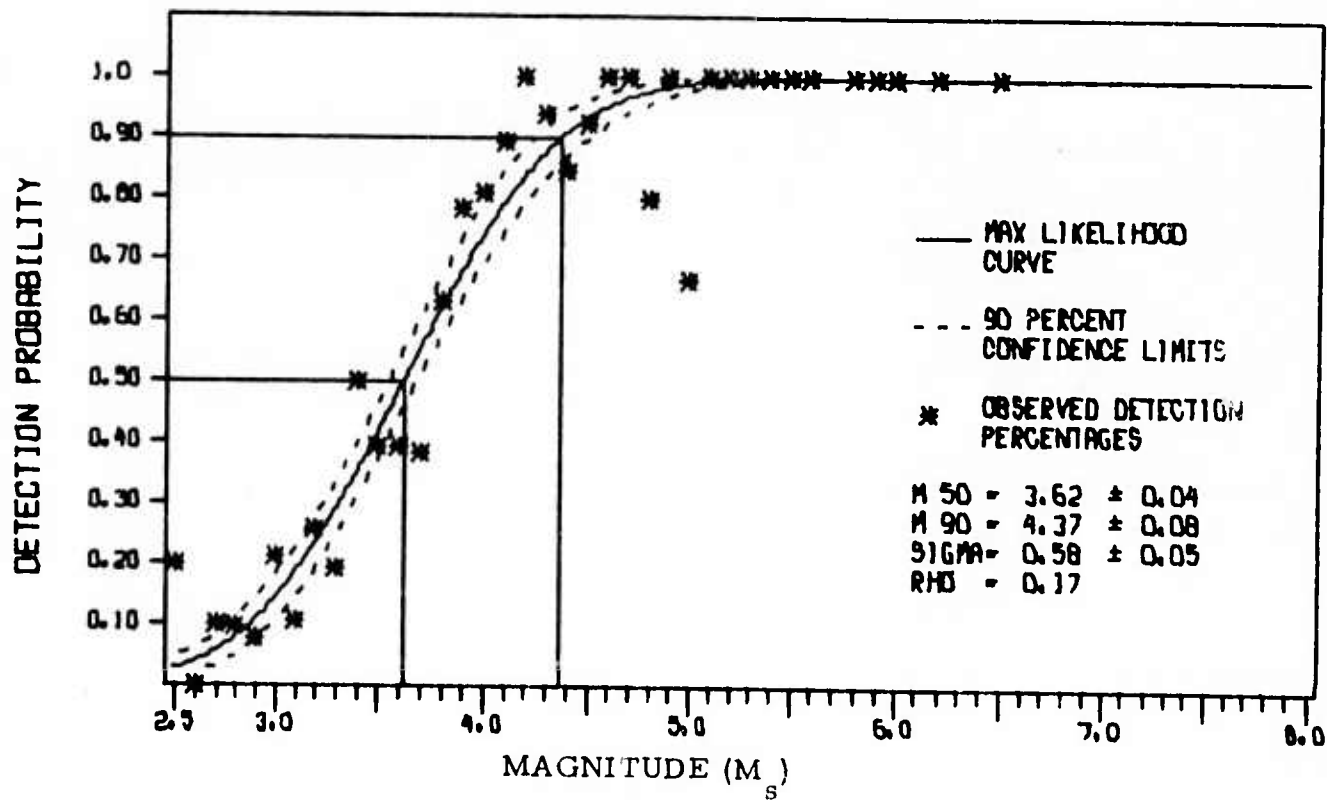
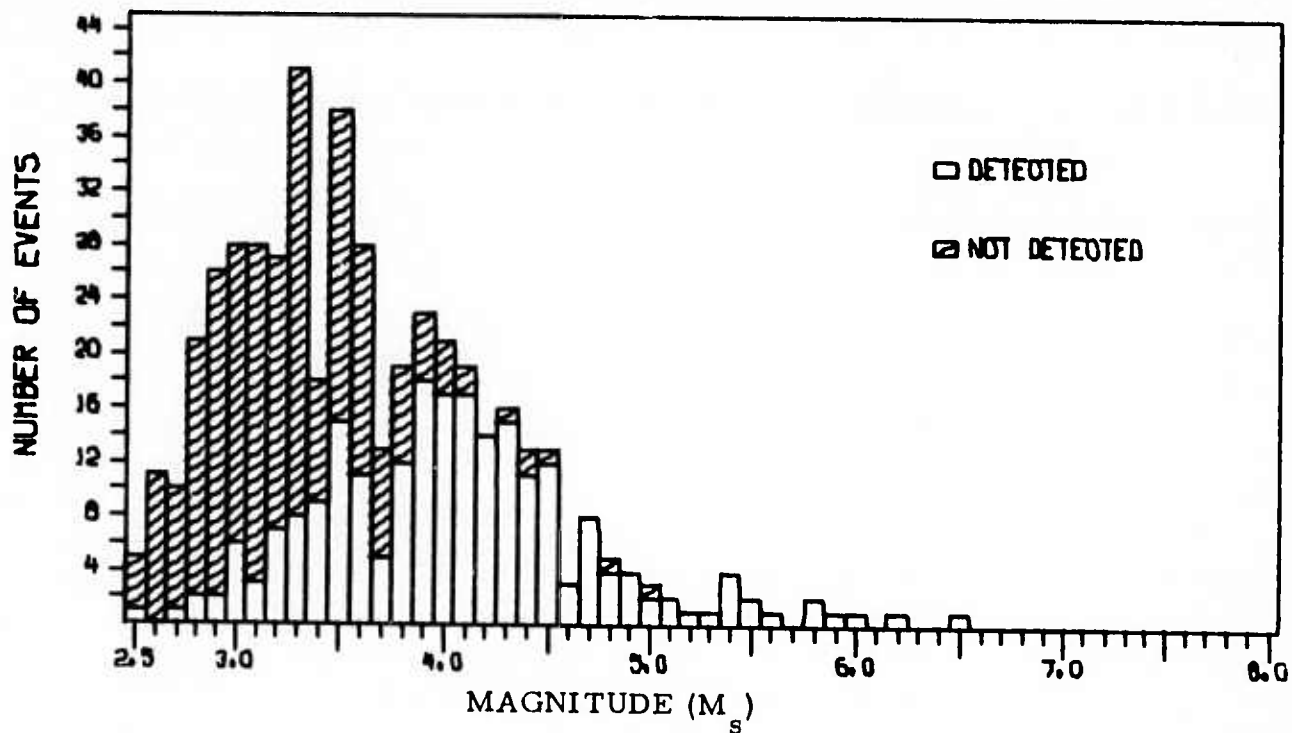


FIGURE V-6
 DETECTION STATISTICS FOR THE VLPE NETWORK WITH AT LEAST
 TWO OPERATIONAL STATIONS AND IN TERMS OF CORRECTED
 ALPHA AND NORSAR M_s VALUES

estimates where we required at least two operational stations and two stations detecting for a detection decision. From Wirth (1971) we expect a significant increase in the 50 percent detection threshold and a comparatively smaller increase in the 90 percent detection threshold, relative to the detectability of networks requiring at least one operational station. The 50 and 90 percent thresholds are about 0.48 and 0.11 greater respectively, than those for the one station network and thus are as expected.

Separate statistics were also computed for epicentral distances within 50 degrees as well as for distances greater than 50 degrees. All results are given with good confidence ($0.10 < \sigma$) and summarized in Table V-1.

2. VLPE-ALPA-NORSAR Combined Networks

Figures V-7 and V-8 show the maximum likelihood detectability estimates for the VLPE-ALPA-NORSAR combined network in terms of m_b . The addition of ALPA and NORSAR detection statistics to the VLPE network statistics to form the combined network lowers the detection thresholds significantly ($\approx 0.50 m_b$ units). When compared to ALPA and NORSAR alone, the 50 percent detection level of the combined network is decreased by about $0.40 m_b$ units.

Separate detection statistics were computed for epicentral distances at less than 50 degrees as well as for distances greater than 50 degrees. All results are given with good confidence ($0.07 < \sigma$) and summarized in Table V-1.

It should be noted that all curves fit the data closely and the 90 percent confidence intervals are very small. We conclude that these detectability estimates are good estimates.

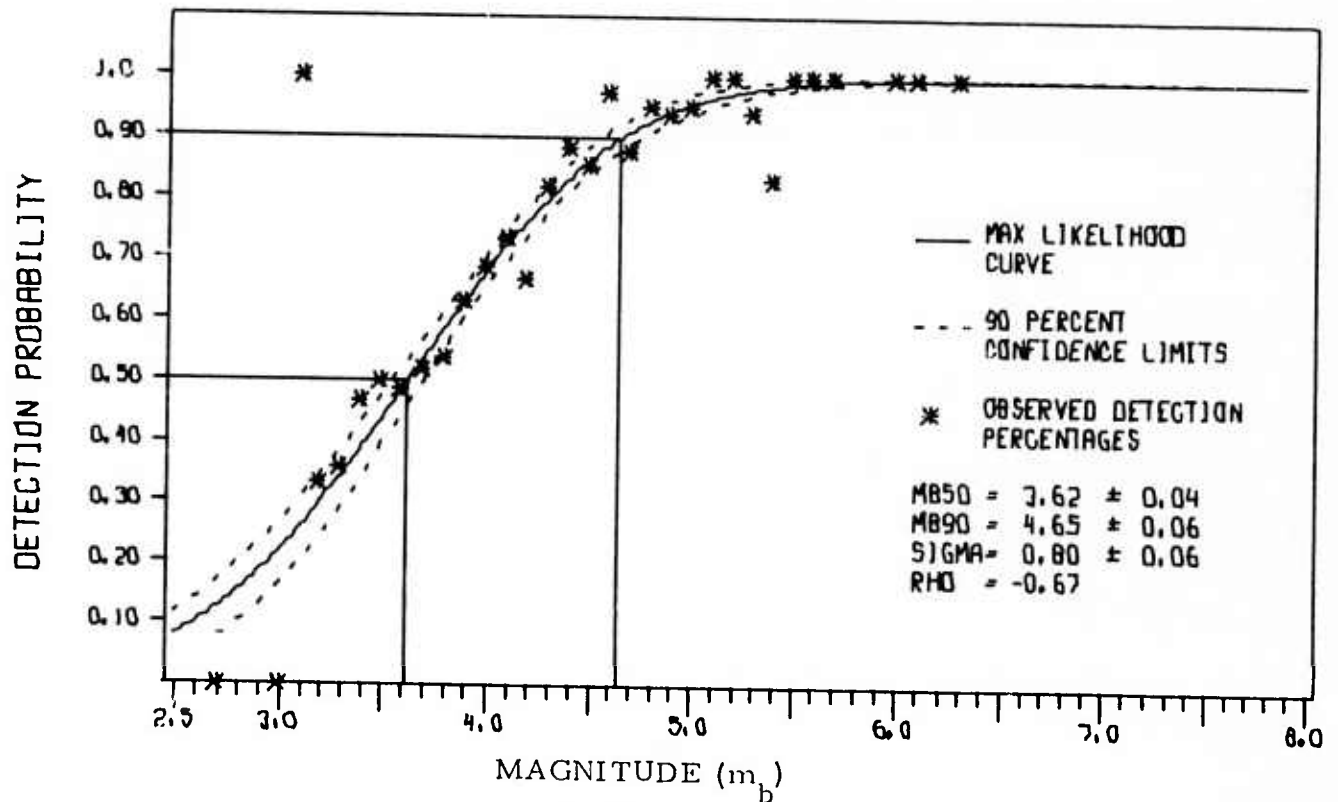
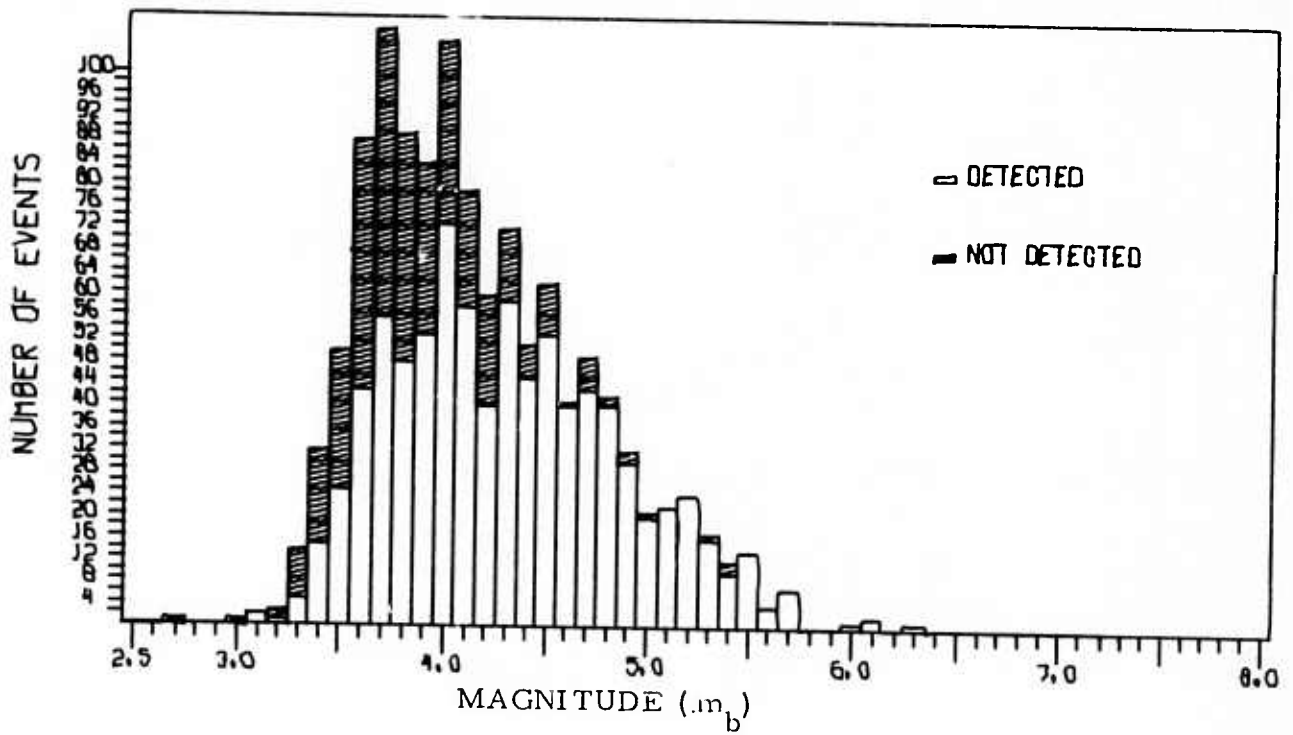


FIGURE V-7

DETECTION STATISTICS FOR THE VLPE-ALPA-NORSAR
COMBINED NETWORK WITH AT LEAST ONE OPERATIONAL STATION

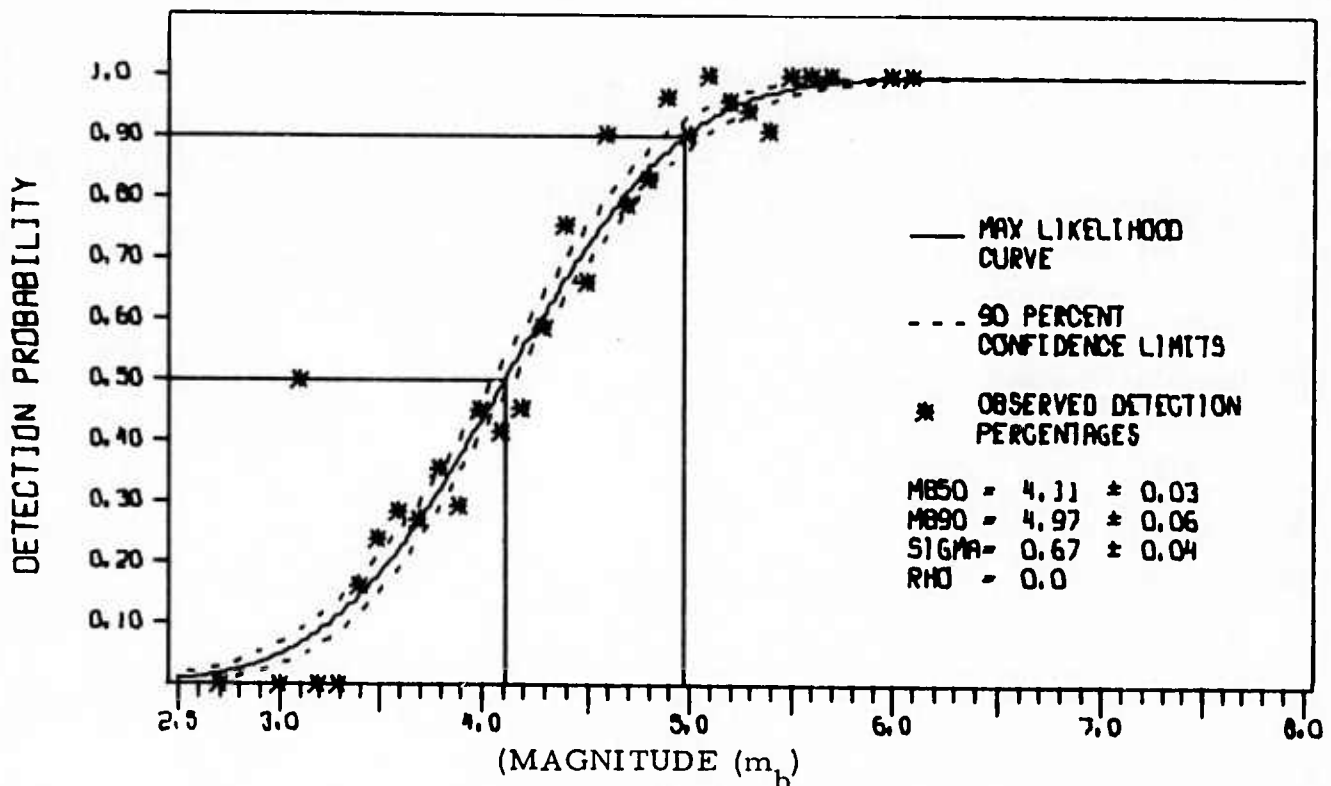
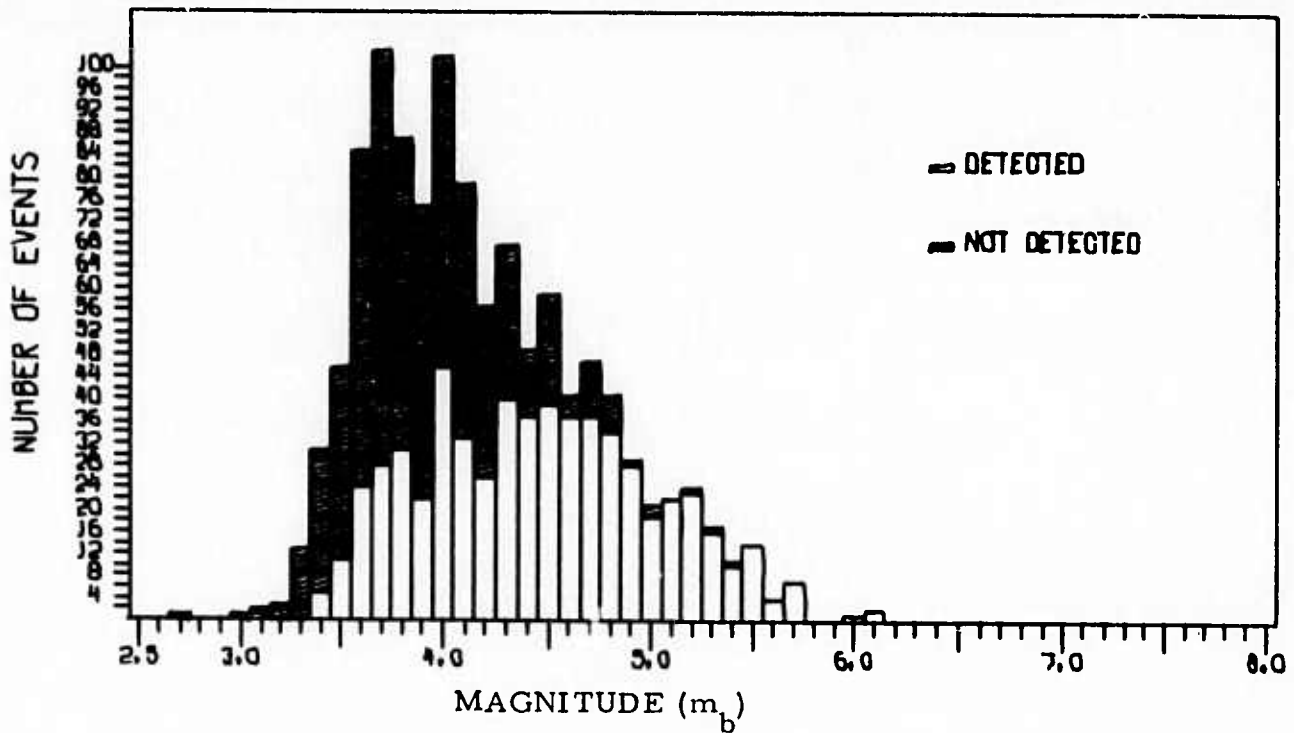


FIGURE V-8

DETECTION STATISTICS FOR THE VLPE-ALPA-NORSAR
COMBINED NETWORK WITH AT LEAST TWO OPERATIONAL STATIONS

C. MIXED EVENT PROBABILITIES

An event signal is first considered to be mixed when one or more dispersed signals overlap the desired event velocity window. If it is not possible to resolve which signal corresponds to the desired event, then the event is classified and recorded as mixed.

Table V-2 displays the VLPE mixed event results. We note that for $N = 0$ the values indicated for $i = 1, 2, \dots, 7$ are to be interpreted as the probabilities that i stations will not perceive a given event to be mixed. For example, when $i = 3$ we have the value 0.57 (with $N = 0$). This declares that 57% of the events with 3 operational stations will not be mixed on the same 3 stations. To convert percentages to probabilities we assume a uniform random distribution. Also, only stations having signal detections, non-detections or mixed signal detections are regarded as operational. Examining the table further we conclude the following:

- Based on 1252 events with at least one operational station, the probability is 0.22 that a given event appears as a mixed signal at some station. Conversely, the probability that it is not mixed is 0.78.
- 132 events had 6 operational stations (as compared to 40 events for the previous data base). The probability that 6 of these stations will perceive a given event as mixed is 0.07.

The number of events which were regarded as mixed by all operational stations in the network was 74. Since there was a total of 1252 events examined, we conclude that the probability of an event being mixed at all stations is 0.06.

TABLE V-2
 VLPE NETWORK MIXED EVENT PROBABILITIES

		Number of Events with i Operational Stations						
		1252	1216	1099	772	424	132	37
N = Number of Stations Perceiving the Event as Mixed	N_i	1	2	3	4	5	6	7
	0	0.78	0.73	0.57	0.53	0.58	0.58	0.59
	1	0.22	0.19	0.27	0.22	0.17	0.11	0.10
	2		0.08	0.08	0.12	0.10	0.09	0.03
	3			0.08	0.08	0.07	0.05	0.03
	4				0.05	0.06	0.08	0.07
	5					0.02	0.02	0.00
	6						0.07	0.10
7							0.07	

The probability values shown under columns 6 and 7 begin to misbehave. This is the result of the small number of events with 6 or more operational stations. Previously, this point of discontinuity appeared for only 5 or more operational stations (Lambert et al., 1973). The shift results from the increase in the average number of operational stations from 3.8 to 4.0.

SECTION VI SUMMARY AND CONCLUSIONS

A. INTRODUCTION

To provide an overview of the detection and discrimination capabilities of the VLPE stations and networks, we summarize from this and other reports the important results pertaining to the following subjects:

- Experimental problems and limitations.
- Long-period earth noise.
- Discrimination and detection capabilities of the VLPE single stations, VLPE network, and the VLPE-ALPA-NORSAR combined network.
- Evaluation of the chirp filter, the reference waveform matched filter, and the three-component-adaptive processor as applied to VLPE data.

B. EXPERIMENTAL PROBLEMS AND LIMITATIONS

We encountered several important experimental problems throughout this evaluation. These are as follows:

- Unreliable VLPE station data limited the quantity and quality of the long-period data from any given station. Specifically, only about 55 percent of the available digital data tapes had usable vertical component data while only about 30 percent had usable three component data. These statistics were compiled for the period 1 January 1972 through March 1973

by Prael (1974). This condition prevented a conclusive assessment of long-term noise trends and the detection and discrimination capabilities for specific station-source region combinations.

- A fixed set of VLPE stations recording reliable seismic data was not available for the network evaluation studies. For example, the Fairbanks station (FBK) discontinued operation sometime in April 1972, La Paz (ZLP) and Matsushiro (MAT) became operational in November and December 1972. Further, virtually all of the other stations were having intermittent operational problems during the time frame 1 January 1972 through April 1973. Tables II-1, and II-3a, II-3b summarize these statistics.
- At some stations there are indicated large instrumental gain and system response variations. Initially the system response data was supplied by the Lamont Doherty Geological Observatory and, from about mid-year 1972 to the present time, by the Albuquerque Seismological Center (ASC), Environmental Research Laboratories of the National Oceanic and Atmospheric Administration. These data are shown in Appendix II-B. Many stations show large static gain and instrumental response changes. We do not know whether these changes were made immediately before calibration by ASC personnel or whether they occurred because of natural instrumental characteristics. From our data observations and measurements we believe the latter reason to be the case.

C. LONG PERIOD EARTH NOISE

Recently, Prael (1974) studied the long-period earth noise utilizing VLPE data, and included in his report is an appropriate bibliography of previous work. The data base used for analysis consisted of a total of 1503 one hour noise samples from the vertical components and 846 one hour noise samples with three component data. The important results of the study are as follows:

1. Vertical Component Noise Analysis
 - At each of the VLPE stations, minimum RMS amplitudes of earth noise were observed in a 22 to 42 second period band and within this band the lowest noise values occurred between 25 and 35 seconds periods.
 - The approximate order of the quietest to the noisiest VLPE station was: ZLP, CHG, KIP, ALQ, FBK, TLO, EIL, MAT, KON, OGD, and CTA.
 - The intermittent distribution in time of the vertical component data prevented conclusive statements concerning long-term (seasonal) variations of earth noise. The exception was station KON. Here, there was a significant increase in earth noise during the winter months. Similar increases in earth noise were observed at NORSAR, (Laun, et al., 1973).
 - RMS amplitudes in three period bands (17-25, 20-40, and 30-40 seconds) were highly correlated. Thus, appropriate noise sources excite seismic noise in at least the entire 17 to 40 second period band.
2. Three Component Noise Analysis
 - Horizontal RMS amplitudes were generally one to four times larger than the vertical RMS amplitudes. However, within the

average minimum noise band of 22-42 seconds, the horizontal component spectra were remarkably similar to vertical component spectra in amplitude, variability, and spectral shape.

- For all stations, the noise among components was only weakly coherent. This suggests that the average noise field is comprised of mainly isotropic and nonpropagating noise.

D. DISCRIMINATION AND DETECTION CAPABILITIES OF THE VLPE, THE VLPE NETWORK, AND THE VLPE-ALPA-NORSAR COMBINED NETWORK

In this current report, we attempted to overcome the experimental difficulties discussed above, primarily by expanding the data base for the purpose of obtaining average capability estimates.

Attempts were made to analyze all available data. In order to evaluate the individual stations and network discrimination and detection capabilities by surface waves, the horizontal instruments were rotated analytically to form vertical, transverse and radial components. The seismograms were filtered in the frequency domain with a filter having a bandpass of 18 to 42 seconds and then transformed to the time domain for visual analysis that included detection of surface phases and amplitude and period measurements.

1. Discrimination Capabilities

Within this experimental and analytical framework, we obtained the following discrimination capabilities:

- Instrumental gain variations caused undue scatter in the M_s estimates; and thus, separation between presumed explosions and earthquakes in terms of M_s versus m_b was not clear at single stations. However, separation of the presumed explosions relative to the means (best fit straight lines) of the earthquake was consistent with that observed by others.

- With the networks having two or more station estimates of M_s clear separation is achieved between eastern Kazakh and Novaya Zemlya presumed explosions and earthquakes except for two eastern Kazakh events 626 and 797. Marginal separation is present for presumed Ural explosions. These results are consistent with those published by Marshall and Basham (1972).
- The VLPE network and VLPE-ALPA-NORSAR combined network M_s - m_b relationships (best fit straight lines) for Eurasian earthquakes agree closely to those determined by others.
- Average LQ/LR amplitude ratios ($T \approx 30$ seconds) determined from three or more values for shallow central Asian earthquakes were generally greater than 1.00. Six LQ/LR values from five eastern Kazakh presumed explosions yielded an average of 0.77. All earthquake values were greater than the 0.77 for the presumed explosions.
- We show theoretically and experimentally that over 80 percent of all LQ/LR ratios ($T = 30$ seconds) will be greater than those observed for the presumed explosions from east Kazakh.

2. Detection Capabilities

We used the maximum likelihood procedure for estimating detection capabilities of the individual VLPE station and networks. We applied the model in terms of both bodywave and surface-wave magnitudes. Detectability estimates are given relative to M_s estimated from 1105 earthquakes detected at ALPA and NORSAR. In addition, these ALPA and NORSAR M_s values have been corrected for station-path effects to form a base of approximately "true" M_s values. The results are as follows:

- The direct single station detectability estimates for m_b and M_s are listed in Table IV-1. We find the 50 percent probability of detection for the single stations in good agreement to that of Lambert, et al. (1973) and that determined from ambient noise by Unger (1974). The average 50 percent detection threshold for eleven VLPE stations is $m_b = 4.58$ and $M_s = 3.70$.
- We believe that the estimated single station 90 percent detection thresholds are too high due to large σ 's ($M_s(90) = M_s(50) + 1.28 \sigma$). σ is affected by such variables as: epicentral distances, signal periods, noise amplitudes, propagation paths and instrumental responses.
- The VLPE network and the VLPE-ALPA-NORSAR combined network detectability estimates are listed in Table V-1. The VLPE network 50 and 90 percent detection estimates in terms of m_b of 4.17 and 5.15 compare closely (± 0.07) to the average of those previously determined for three VLPE networks (Lambert, et al., 1973).
- The VLPE network 50 percent detection threshold of 3.18 in terms of "true" M_s compares closely to that estimated indirectly (extrapolated from m_b detectability estimates) by Lambert, et al. (1973).
- The VLPE network 90 percent detection estimate of $M_s = 4.21$ is greater (+0.39) than that previously reported by Lambert, et al.
- We observe for the VLPE-ALPA-NORSAR combined network that the 50 and 90 percent detectability estimates in terms of m_b are 3.62 and 4.65. The 50 percent level of 3.62 is about 0.3 m_b units lower than that observed for ALPA alone. While the 90 percent level is about the same.
- Separate network detectability estimates are determined where

we require at least two operational stations and two stations detecting for a detection decision. These statistics are also summarized in Table V-1.

- The probabilities of mixed events occurring at VLPE networks are displayed in Table V-2. Based on 1252 events with at least one operational station we classified 22 percent of the events as mixed events.
- The actual number of events that remained as mixed events for the total network was 74 and since there was a total of 1252 events examined, we conclude that the probability of an event being mixed at all stations is 0.06.

E. EVALUATION OF THE CHIRP FILTER, THE REFERENCE WAVEFORM MATCHED FILTER AND THE THREE-COMPONENT ADAPTIVE PROCESSOR AS APPLIED TO VLPE DATA

Recently, Strauss and Tolstoy (1974), applied matched filters (chirp and reference waveform) and the Three-Component Adaptive processor to VLPE data for an event ensemble of 53 earthquakes from central Asia and 28 earthquakes from Greece - Turkey.

The important results of this study are as follows:

- For the two seismic regions considered, the chirp filter technique outperformed the other two techniques in terms of mean signal-to-noise improvements. However, the authors indicated it was not meaningful to quantify the relative performance since the standard deviations were large.
- Even though the overall mean signal-to-noise improvement may be low, the improvement in detection was good. Specifically, each of the matched filter techniques increased the number of events detected by 130 to 140 percent over those detected by the simple bandpass filter. This gives a factor of about 2.4 and

implies a reduction of 0.4 m_b units in the 50% detection level.

- The use of the Three-Component Adaptive processor resulted in only a 10 percent increase in the number of events detected. However, this poor performance of the processor is not due to some intrinsic flaw in the method but to the unmatched instrumental phase responses between the horizontal and vertical components of the VLPE stations.
- Determination of detection thresholds using the maximum likelihood method for either of the matched filter applications, yielded a 0.7 m_b unit reduction in the network 50 percent detection level and a 0.3 m_b unit reduction in the 90 percent detection level. It should be noted that for this network, it was required that at least two stations be operational and two stations detecting for a detection decision.

F. DISCUSSION

During the analysis of the bandpass filtered VLPE records, it was observed that for Eurasian events the largest Rayleigh wave amplitudes occurred at periods of about 20 and 30 seconds. Forty second waves were observed for some events and measured when possible. However, detection of small events was principally due to the relatively larger amplitudes at either 20 or 30 second periods. A stable earth noise minimum is present at all stations between 22 and 42 second periods. For the purpose of improving the detection capabilities of the VLPE stations, the VLPE instrumental amplitude response which now peaks at 35 to 40 second periods should be reset to peak at periods from 25 to 30 seconds.

The discrimination capabilities of the VLPE have been evaluated in terms of Love wave to Rayleigh wave amplitude ratios, surface-wave radiation patterns, and the important M_s versus m_b criterion. In general

these results were as expected and are consistent with theoretical and experimental studies by us and others.

Detection levels for single stations and various networks were determined. Single station 50 percent detectabilities are on the average $m_b = 4.58$ and $M_s = 3.70$. The VLPE network 50 percent detectabilities are $m_b = 4.17$ and $M_s = 3.18$ where one station detection is required, and for the two station detection requirement, $m_b = 4.55$ and $M_s = 3.62$. Combining ALPA and NORSAR with the VLPE network reduces the 50 percent m_b detectabilities to 3.62 for one station detection and 4.11 for two station detection. If either of the matched filter techniques were routinely applied to the VLPE data, we would expect a further reduction in the network 50 percent detectability of 0.4 to 0.7 m_b units.

For the VLPE-ALPA-NORSAR combined network with two station detection required and with routine application of either of the matched filters to the VLPE, we would expect a 50 percent detection level of $m_b \approx 3.7$. Extrapolation to M_s using the relationship: $M_s = 1.18 m_b - 1.66$ (Table III-2) yields a 50 percent level of $M_s \approx 2.7$. Estimation of the 90 percent detectability level yields $M_s \approx 3.5$ (i. e. $M_s(90) = M_s(50) + 1.28\sigma$, $\sigma = 0.67$, Table V-1).

Thus, for such a network, we could expect discrimination with good confidence between Eurasian earthquakes and explosions utilizing the important M_s versus m_b criterion down to an $M_s \approx 3.5$.

The VLPE networks in this study had on the average four operational stations per event. If instead of single instruments, there had been four small arrays consisting of nine instruments, the single site 50 percent detection levels could be decreased by about 0.5 magnitude units (i. e., $\log \sqrt{9} = 0.48$), or $m_b \approx 4.1$ and $M_s \approx 3.2$. Forming a network of these

small arrays and requiring two of the four for a detection decision would yield approximately the same detectability levels as for the single arrays (i. e., $m_b \approx 4.1$ and $M_s \approx 3.2$). Application of either of the matched filters to the VLPE decreased the m_b 50 percent detection level by 0.4 to 0.7 units. Application of matched filters to ALPA and NORSAR decreased the fifty percent detection levels by about 0.2 m_b units. We believe this small gain relative to the VLPE to be due to the lack of a complete and accurate measure of the seismicity for Eurasia. That is, for ALPA and NORSAR, the number of undetected events after beamforming is much smaller than the number of undetected events of equivalent magnitudes for the VLPE bandpassed results. In other words, the number of detected events with matched filters at ALPA and NORSAR is constrained or controlled by the data base. Conversely, the detection capability of the bandpassed VLPE data is so poor that there is no constraint imposed by the data base on the number of undetected events that could possibly be detected by matched filtering. Conservatively then, we can assume that matched filters will yield a further reduction in the 50 percent detection level of about 0.4 m_b units. Converting to the M_s 90 percent detection level in a manner similar to that discussed above for the combined VLPE-ALPA-NORSAR network, yields an $M_s \approx 3.5$. Therefore, four small arrays strategically located in Eurasia could be expected to have a 90 percent M_s detection level equivalent to that of the VLPE-ALPA-NORSAR combined network.

Although superficially, this hypothetical network appears no better than the VLPE-ALPA-NORSAR combined network, there would be several important advantages:

- Each of the small arrays could be located within 50 degrees epicentral distances to several seismic and aseismic regions of interest in Eurasia (Figure II-1). This could yield an additional decrease of 0.2 to 0.4 magnitude units in the detection levels at the appropriate sites.
- Small arrays would also provide opportunities to apply more sophisticated signal enhancement techniques such as: Wiener type multichannel filters, f-k spectra, and time varying adaptive filters.
- Mixed event probabilities are the same for arrays as for the single VLPE sites; and for four sites, the probability of the same event being mixed at all four stations is 0.05 (Table V-2). Thus, over a long time period, a significant number of events would appear mixed at all stations. Additional array processing such as the Adaptive Beam Forming (ABF) techniques could be applied to reduce this number.

In conclusion, we believe that a number of small arrays strategically located throughout the world would prove to be the best possible basis for a seismic surveillance system. The number and size of these arrays would, of course, be dependent upon predetermined standards and requirements.

SECTION VII
ACKNOWLEDGEMENTS

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APPENDIX II-A
EVENT LIST

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB		SEISMIC AREA
			LAT	LONG			
0001	01/01	15.04.19	59.7	153.8	4.1	L	E SIBERIA
0002	01/01	16.55.06	50.7	155.8	4.6	L	KURIL IS
0003	01/01	18.13.54	49.4	156.5	4.0	L	KURIL IS
0004	01/02	05.37.25	46.1	146.2	4.0	L	N W OP KURIL IS
0005	01/02	09.17.53	37.9	20.7	4.2	P	IONIAN SEA
0006	01/02	10.27.35	41.8	84.5	5.2	P	S SINKIANG PROV.
0007	01/03	06.36.38	51.6	159.4	4.8	P	OFF E COAST KAMCHATKA
0008	01/03	19.26.43	52.0	159.0	4.5	N	NEAR E COAST KAMCHATKA
0009	01/03	23.40.37	58.8	130.8	3.4	L	E RUSSIA
0010	01/04	02.29.18	55.6	161.2	4.3	L	NEAR E COAST KAMCHATKA
0011	01/04	05.08.48	22.4	122.0	4.8	P	TAIWAN REGION
0012	01/04	10.42.31	55.6	163.8	4.4	L	OFF E COAST KAMCHATKA
0013	01/04	12.15.17	22.4	122.2	4.8	P	TAIWAN
0014	01/04	12.16.39	37.4	129.2	3.9	L	S KOREA
0015	01/04	13.13.01	60.0	101.7	3.8	L	CENTRAL RUSSIA
0016	01/05	02.16.10	43.8	147.2	4.5	P	KURIL IS
0017	01/05	04.57.41	47.8	16.2	4.0	P	AUSTRIA
0018	01/05	12.02.54	37.8	73.1	4.5	L	TADZHIK SSR
0019	01/05	14.26.48	56.6	169.4	4.0	L	KOMANDORSKY IS
0020	01/05	16.09.50	57.3	160.5	3.9	L	KAMCHATKA
0021	01/06	06.30.36	40.7	72.4	4.7	P	KIRGIZ SSR
0022	01/06	06.33.34	23.3	123.4	4.7	P	TAIWAN
0023	01/06	09.41.33	30.3	50.5	5.2	P	IRAN
0024	01/07	08.04.05	37.0	72.0	3.9	N	AFGHANISTAN USSR BORDER
0025	01/07	20.37.32	44.1	45.1	4.2	L	SW RUSSIA
0026	01/08	05.35.42	22.0	119.0	4.7	N	TAIWAN REGION
0027	01/08	14.32.27	23.0	119.0	4.6	N	TAIWAN REGION
0028	01/09	03.23.06	54.4	164.4	3.6	L	KOMANDORSKY
0029	01/09	14.00.59	55.7	163.6	4.3	L	OFF E COAST KAMCHATKA
0030	01/09	14.47.46	45.1	148.4	3.8	L	KURIL IS
0031	01/10	05.23.52	20.9	120.4	5.0	P	PHILIPINE ISLANDS
0032	01/10	13.56.55	55.7	163.7	4.4	P	OFF E COAST KAMCHATKA
0033	01/11	08.54.34	54.7	168.2	3.9	L	KOMANDORSKY
0034	01/11	15.46.45	43.4	147.8	4.0	L	KURIL IS
0035	01/12	06.36.28	37.7	30.0	4.4	L	TURKEY
0036	01/12	13.51.20	35.0	23.5	4.9	P	CRETE
0037	01/12	20.20.15	55.6	163.9	4.8	P	OFF E COAST KAMCHATKA
0038	01/12	20.27.39	55.5	163.6	4.0	L	OFF E COAST KAMCHATKA
0039	01/13	17.24.07	61.9	147.1	5.3	P	E SIBERIA
0040	01/14	03.20.20	67.5	171.5	3.9	P	CHUKCHI SEA
0041	01/14	22.10.04	32.8	46.9	5.1	P	IRAN-IRAQ BORDER REGION
0042	01/15	00.58.33	49.6	155.0	3.9	L	KURIL IS
0043	01/15	18.07.58	57.4	120.7	4.7	P	E RUSSIA
0044	01/15	20.21.50	40.3	79.0	5.4	P	S. SINKIANG PROVINCE
0045	01/15	20.45.22	39.3	79.9	4.6	L	S SINKIANG PROV
0046	01/16	04.38.16	55.6	162.5	3.8	L	NEAR E COAST KAMCHATKA
0047	01/16	11.00.49	55.6	163.2	3.9	L	OFF E COAST KAMCHATKA
0048	01/17	05.54.20	34.5	26.5	4.1	L	CRETE

SOURCE INFORMATION

EVENT			COORDINATES			MB	SEISMIC AREA
NO.	DATE	O.T.	LAT	LONG			
0049	01/18	14.02.01	44.6	149.1	4.8	P	KURIL IS REGION
0050	01/18	21.12.02	37.5	48.7	4.9	P	NW IRAN
0051	01/18	23.26.12	44.2	8.2	4.1	P	N ITALY
0052	01/20	02.15.07	36.6	27.1	4.8	P	DODECANESE ISLANDS
0053	01/21	23.30.46	43.2	45.3	3.8	L	E CAUCASUS
0054	01/22	01.41.24	50.0	152.0	4.2	N	NW KURIL IS
0055	01/22	17.17.31	37.6	29.9	4.4	P	TURKEY
0056	01/23	08.30.47	52.0	158.0	4.2	N	NE COAST KAMCHATKA
0057	01/24	05.00.37	55.8	162.6	4.0	L	NEAR E COAST KAMCHATKA
0058	01/24	12.39.29	51.7	158.0	4.0	L	NEAR E COAST KAMCHATKA
0059	01/25	10.02.40	53.9	160.9	4.6	P	NEAR E COAST KAMCHATKA
0060	01/25	20.24.39	43.8	13.4	4.5	P	CENTRAL ITALY
0061	01/25	21.03.00	22.5	122.2	4.8	P	TAIWAN
0062	01/25	23.00.39	22.3	122.4	4.6	P	TAIWAN REGION
0063	01/25	23.22.17	43.8	13.4	4.8	P	CENTRAL ITALY
0064	01/26	04.34.27	54.0	156.9	4.1	L	KAMCHATKA
0065	01/26	09.14.16	55.8	164.7	3.8	L	KOMANDORSKY
0066	01/26	09.20.17	48.9	155.9	4.1	L	KURILE IS
0067	01/26	12.11.11	47.1	141.5	3.2	L	SAKHALIN
0068	01/26	12.54.39	34.5	25.5	4.0	L	CRETE
0069	01/26	15.56.27	48.9	155.9	4.8	L	KURILE IS
0070	01/27	14.06.46	55.4	163.6	3.8	L	OFF E COAST KAMCHATKA
0071	01/27	20.37.28	55.7	162.3	3.8	L	NEAR E COAST KAMCHATKA
0072	01/28	04.22.28	27.5	126.5	4.4	L	E CHINA SEA
0073	01/28	10.26.54	26.6	66.3	5.9	P	WEST PAKISTAN
0074	01/28	13.37.28	15.0	47.0	4.0	N	W ARABIAN PENINSULA
0075	01/28	20.29.09	40.8	81.4	4.5	L	S SINKIANG PROV
0076	01/28	20.29.19	43.0	78.0	4.4	N	KIRGIZ PROV
0077	01/28	21.54.04	45.0	136.0	4.0	N	NEAR E COAST OF E RUSSIA
0078	01/28	23.42.51	49.3	157.3	3.8	L	KURIL IS REGION
0079	01/29	06.49.11	32.9	76.0	4.7	P	KASHMIR-INDIA REGION
0080	01/29	09.50.58	29.0	62.0	3.9	N	S. IRAN
0081	01/30	03.56.41	40.9	120.2	3.9	L	NE CHINA
0082	02/01	10.16.09	55.8	162.8	4.1	L	E. COAST KAMCHATKA
0083	02/01	17.06.25	59.3	155.7	3.6	L	EASTERN SIBERIA
0084	02/02	04.26.59	55.7	162.0	3.7	L	EAST COAST OF KAMCHATKA
0085	02/02	09.58.51	46.8	146.4	3.6	L	NW KURIL IS
0086	02/02	17.56.39	50.7	160.1	3.6	I	KURIL IS
0087	02/02	21.19.49	38.9	21.2	4.6	P	GREECE
0088	02/03	02.29.22	40.7	48.4	5.1	P	E CAUCASUS
0089	02/03	07.22.49	23.4	102.4	4.5	P	YUANNAN PROVINCE CHINA
0090	02/04	02.42.19	43.8	13.3	4.8	P	CENTRAL ITALY
0091	02/04	03.34.56	51.4	118.0	4.2	L	E LAKE BAIKAL
0092	02/04	04.40.50	43.9	13.2	4.8	P	CENTRAL ITALY
0093	02/04	07.51.14	48.3	154.2	4.8	L	KURIL IS
0094	02/04	09.18.32	43.9	13.2	4.4	P	CENTRAL ITALY
0095	02/04	14.08.22	30.4	84.6	5.2	P	TIBET
0096	02/04	16.33.24	14.0	51.0	4.5	N	EAST ARABIAN PENINSULA

SOURCE INFORMATION

EVENT		O. T.	COORDINATES		MR	SEISMIC AREA	
NO.	DATE		LAT	LONG			
0097	02/04	17.19.52	43.8	13.3	4.4	P	CENTRAL ITALY
0098	02/04	18.17.30	43.8	13.4	4.8	P	CENTRAL ITALY
0099	02/04	19.02.56	43.8	13.3	4.8	P	CENTRAL ITALY
0100	02/04	19.03.08	45.1	13.2	3.6	I	NORTHERN ITALY
0101	02/05	01.26.23	43.8	13.3	4.8	P	CENTRAL ITALY
0102	02/05	03.49.45	43.2	13.7	4.4	P	CENTRAL ITALY
0103	02/05	05.05.51	43.7	13.5	4.6	P	CENTRAL ITALY
0104	02/05	07.08.13	43.9	13.3	4.7	P	CENTRAL ITALY
0105	02/05	15.14.48	43.7	13.4	4.7	P	CENTRAL ITALY
0106	02/06	01.34.22	44.0	13.2	4.9	P	ADRIATIC SPA
0107	02/06	04.29.05	29.0	89.0	4.1	N	TIBET
0108	02/06	07.30.11	41.6	82.2	4.7	P	S SINKIANG PROV. CHINA
0109	02/06	08.03.43	46.0	80.0	4.3	N	EASTERN KAZKH
0110	02/06	21.44.29	43.8	13.2	4.4	P	CENTRAL ITALY
0111	02/07	07.49.48	52.3	160.1	4.8	P	OFF E COAST OF KAMCHATKA
0112	02/08	03.37.52	19.3	122.0	5.7	P	PHILIPPINE ISLANDS
0113	02/08	12.19.15	43.8	13.3	4.6	P	CENTRAL ITALY
0114	02/08	15.42.55	22.7	122.6	4.8	P	TAIWAN REGION
0115	02/09	14.21.51	29.4	50.8	4.3	P	SOUTHERN IRAN
0116	02/10	05.02.57	50.0	78.9	5.5	P	EASTERN KAZAKH SSR
0117	02/10	06.49.16	29.7	50.9	4.5	P	SOUTHERN IRAN
0118	02/10	09.04.09	29.6	50.9	3.9	P	SOUTHERN IRAN
0119	02/10	16.40.16	29.5	50.9	4.1	P	SOUTHERN IRAN
0120	02/11	05.55.46	39.9	77.4	4.9	P	SOUTHERN SINKIANG PROV CHINA
0121	02/11	12.20.43	29.0	87.0	4.3	N	TIBET
0122	02/11	13.58.49	55.5	165.2	3.9	L	KORHANDORSKY
0123	02/11	21.36.17	56.1	162.9	4.6	P	NEAR E COAST OF KAMCHATKA
0124	02/13	05.24.57	43.5	147.0	3.8	L	KURIL IS
0125	02/13	13.07.11	37.1	24.0	4.5	P	SOUTHERN GREECE
0126	02/13	22.36.54	55.2	165.5	3.9	I	KORHANDORSKY
0127	02/15	16.45.22	45.0	153.0	4.1	I	KURIL IS
0128	02/16	09.42.24	36.9	24.2	4.5	P	SOUTHERN GREECE
0129	02/16	23.19.20	41.7	80.7	4.8	P	SOUTHERN SINKIANG PROV. CHINA
0130	02/18	14.30.23	46.6	151.0	3.7	L	KURIL IS
0131	02/19	18.02.34	43.6	147.8	4.7	P	KURIL IS
0132	02/19	06.48.12	55.1	161.5	4.0	L	NEAR EAST COAST KAMCHATKA
0133	02/19	13.19.25	44.4	149.1	5.2	P	KURIL IS.
0134	02/19	13.54.46	44.6	149.1	5.4	P	KURIL IS.
0135	02/20	05.09.15	30.7	73.1	3.9	I	INDIA WEST PAKISTAN BORDER
0136	02/20	10.08.47	47.9	145.9	4.2	I	SEA OF OKHOTSK (D=397 KM)
0137	02/20	10.22.46	38.5	90.5	3.9	I	S. SINKIANG PROV. (D=16KM)
0138	02/20	20.06.11	50.8	141.5	4.1	T	SAKHALIN ISLAND
0139	02/21	22.09.59	54.4	161.3	4.8	I	NEAR E COAST KAMCHATKA
0140	02/21	23.02.56	41.0	22.3	4.0	T	YUGOSLAVIA
0141	02/22	01.14.48	36.4	70.6	5.3	I	HINDU KUSH REGION (D=212 KM)
0142	02/22	01.53.36	49.0	115.0	4.1	T	USSR MONGOLIA BORDER
0143	02/22	03.38.29	56.0	156.0	3.4	I	KAMCHATKA
0144	02/22	08.14.26	36.6	68.6	4.0	I	HINDU KUSH REGION

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MR	SEISMIC AREA	
			LAT	LONG			
0145	02/23	03.07.04	43.7	148.4	4.8	I	KURILE IS REGION (D=41 KM)
0146	02/23	03.21.31	44.2	148.4	4.7	T	KURILE ISLANDS (D=40 KM)
0147	02/23	03.42.41	43.9	148.3	4.9	I	KURILE IS REGION (D=39 KM)
0148	02/23	05.11.09	45.0	150.0	3.7	T	KURILE IS
0149	02/23	09.46.50	86.0	139.0	3.7	I	LOMONOSOV RIDGE
0150	02/23	12.55.32	36.8	71.5	3.8	T	AFGHAN-USSR BORDER (D=177 KM)
0151	02/23	14.00.49	38.1	71.7	4.3	I	AFGHAN-USSR BORDER
0152	02/23	19.37.29	55.0	163.0	3.7	T	OFF E COAST KAMCHATKA
0153	02/24	00.38.00	54.0	156.0	4.5	I	KAMCHATKA
0154	02/24	01.50.05	52.0	139.0	3.7	T	NEAR EAST COAST OF SIBERIA
0155	02/24	10.14.02	46.9	153.8	3.7	I	KURILE ISLANDS
0156	02/24	10.19.37	48.8	155.7	5.0	I	KURILE ISLANDS
0157	02/24	10.26.51	49.0	155.0	3.6	I	KURILE IS
0158	02/24	10.39.23	52.3	161.9	4.3	T	NEC KAMCHATKA
0159	02/24	12.17.39	52.0	150.0	3.8	I	SEA OF OKHOTSK
0160	02/24	12.24.54	49.0	155.0	3.7	T	KURILE IS
0161	02/24	18.17.34	49.0	158.0	3.5	T	KURILE IS REGION
0162	02/25	19.59.29	46.0	147.0	3.8	T	NW OF KURILE IS
0163	02/25	22.34.49	50.0	38.0	3.7	I	W RUSSIA
0164	02/25	22.43.07	49.2	156.0	4.0	T	KURILE ISLANDS
0165	02/26	02.12.57	49.2	156.2	4.9	I	KURILE ISLANDS
0166	02/26	02.11.46	31.2	69.2	3.8	T	WEST PAKISTAN
0167	02/26	05.58.22	46.8	152.6	4.9	I	KURILE ISLANDS
0168	02/26	09.04.32	55.0	162.0	3.3	T	NEAR E COAST KAMCHATKA
0169	02/26	15.06.42	53.3	138.7	3.8	I	NEAR EAST COAST OF SIBERIA
0170	02/26	18.32.26	51.0	149.0	4.0	T	SEA OF OKHOTSK
0171	02/26	18.56.13	27.1	100.9	4.7	I	YUNNAN PROV., CHINA
0172	02/26	23.31.10	50.6	97.3	5.3	T	USSR-MONGOLIA BORDER
0173	02/27	08.42.59	88.0	-74.0	3.3	I	LOMONOSOV RIDGE
0174	02/27	08.48.08	89.0	15.0	3.3	T	LOMONOSOV RIDGE
0175	02/27	10.03.03	87.0	53.5	4.9	I	N. OF FRANZ JOSEF LAND
0176	02/27	10.08.16	76.0	119.0	4.1	T	LAPTEV SEA
0177	02/27	11.03.19	90.0	-95.0	3.5	I	LOMONOSOV RIDGE
0178	02/27	14.58.33	52.0	156.7	4.5	I	KAMCHATKA (D=66 KM)
0179	02/27	17.50.25	86.2	77.2	4.4	I	N. OF SEVERNAYA ZEMIYA
0180	02/27	19.57.43	26.3	121.0	4.0	I	TAWTAN REGION
0181	02/27	22.15.03	55.0	93.2	4.5	I	CENTRAL RUSSIA
0182	02/28	01.04.22	46.0	148.0	4.2	T	NW OF KURILE IS
0183	02/28	05.18.56	35.7	71.4	4.2	I	AFGHAN-USSR BORDER
0184	02/28	11.35.31	56.0	163.0	4.1	T	NEAR EAST COAST OF KAMCHATKA
0185	02/28	14.49.55	54.1	160.7	3.3	I	NFC KAMCHATKA
0186	02/28	15.44.20	51.8	90.2	3.9	T	CENTRAL RUSSIA
0187	02/28	16.24.08	31.8	50.1	3.6	I	TRAN
0188	02/28	16.26.57	31.8	50.1	3.7	I	TRAN
0189	02/28	16.44.58	29.5	50.7	4.4	I	SOUTHERN IRAN (D=55 KM)
0190	02/28	17.22.55	31.2	50.1	4.2	I	TRAN
0191	02/28	17.32.29	43.4	132.2	4.5	I	NEC EASTERN RUSSIA (D=457 KM)
0192	02/28	18.08.52	31.2	48.6	3.8	T	W TRAN

SOURCE INFORMATION

EVENT		O.T.	COORDINATES		MR		SEISMIC AREA
NO.	DATE		LAT	LONG			
0193	02/28	18.12.35	36.0	68.7	4.4	I	HINDU KUSH
0194	02/28	18.44.54	29.8	50.7	4.7	I	SOUTHERN IRAN (D=25 KM)
0195	02/28	18.47.45	27.2	53.5	3.9	I	S IRAN
0196	02/28	18.59.55	30.3	50.1	3.7	I	IRAN
0197	02/28	19.02.50	34.2	47.4	3.9	I	W IRAN
0198	02/28	19.04.08	32.3	50.4	3.4	I	IRAN
0199	02/28	19.04.57	32.3	50.4	3.3	I	IRAN
0200	02/28	19.06.57	28.2	51.2	4.4	I	SOUTHERN IRAN
0201	02/28	19.22.14	31.9	50.4	3.6	I	IRAN
0202	02/28	19.28.48	31.2	51.1	3.7	I	IRAN
0203	02/28	19.29.00	33.7	48.4	3.8	I	WESTERN IRAN
0204	02/28	19.32.19	31.3	49.7	4.2	I	WESTERN IRAN
0205	02/28	20.04.00	56.1	164.2	3.6	I	KOMANDORSKY ISLANDS
0206	02/28	23.01.26	29.8	50.4	4.2	I	SOUTHERN IRAN
0207	02/28	23.06.24	30.0	52.2	4.0	I	IRAN
0208	02/28	23.30.24	29.2	50.5	4.1	I	SOUTHERN IRAN
0209	02/28	23.38.33	27.9	56.8	3.7	I	SOUTHERN IRAN
0210	02/29	08.02.51	32.8	46.6	4.0	I	IRAN-IRAQ BORDER
0211	02/29	08.07.20	89.0	-51.0	3.4	I	LOMONOSOV RIDGE
0212	02/29	10.47.19	56.0	164.0	4.2	I	KOMANDORSKY IS REGION
0213	02/29	11.22.49	29.1	49.7	4.0	I	PERSIAN GULF
0214	02/29	19.47.58	39.0	74.0	4.0	I	S SINKIANG PROV
0215	02/29	23.42.40	55.6	163.2	4.1	I	OEC KAMCHATKA
0216	03/01	04.26.46	53.0	160.0	3.7	I	NEAR E COAST KAMCHATKA
0217	03/01	05.06.22	27.0	89.0	3.9	I	BHUTAN
0218	03/01	09.51.19	87.0	99.0	3.7	I	N OF SEVERNAYA ZEMLYA
0219	03/01	10.25.19	55.0	163.0	3.4	I	OFF EAST COAST OF KAMCHATKA
0220	03/01	16.58.59	51.0	162.0	3.5	I	OFF EAST COAST OF KAMCHATKA
0221	03/01	22.30.03	41.6	23.7	3.6	I	GREECE-BULGARIA BORDER
0222	03/02	06.17.29	53.0	167.0	3.6	I	KOMANDORSKY IS REGION
0223	03/02	12.48.48	72.4	3.3	4.5	I	NORWEGIAN SEA
0224	03/02	14.10.13	31.6	42.1	4.0	I	IRAQ
0225	03/02	19.57.42	43.0	76.0	3.5	I	ALMA ATA REGION
0226	03/02	23.09.10	44.9	148.1	4.6	I	KURILE ISLANDS (D=150 KM)
0227	03/03	00.39.23	53.0	159.2	4.1	I	NEC KAMCHATKA
0228	03/03	02.13.11	46.6	150.6	4.6	I	KURILE ISLANDS (D=136 KM)
0229	03/03	05.26.53	77.8	116.7	3.8	I	LAPTEV SEA
0230	03/03	08.13.55	55.8	163.9	4.1	I	OEC KAMCHATKA
0231	03/03	20.39.57	45.4	147.2	4.2	I	KURILE ISLANDS
0232	03/03	21.26.51	44.7	18.4	4.9	I	YUGOSLAVIA (D=32 KM)
0233	03/03	23.10.41	50.2	155.7	4.5	I	KURILE ISLANDS
0234	03/04	02.53.56	45.9	153.3	4.3	I	KURILE ISLANDS
0235	03/04	04.00.09	40.2	79.0	4.5	I	SOUTHERN SINKIANG PROV.
0236	03/04	08.22.16	42.1	83.3	4.4	I	N. SINKIANG PROV.
0237	03/04	14.42.05	41.0	21.0	3.6	I	YUGOSLAVIA
0238	03/04	18.24.11	38.3	74.0	5.1	I	S. SINKIANG PROV. (D=130 KM)
0239	03/04	19.27.57	36.8	71.4	4.0	I	AFGHAN-USSR BORDER (D=227 KM)
0240	03/05	19.07.43	21.0	73.0	4.0	I	INDIA

SOURCE INFORMATION

EVENT		G.T.	COORDINATES		MR		SEISMIC AREA
NO.	DATE		LAT	LONG			
0241	03/06	06.05.08	53.5	160.9	3.9	I	KAMCHATKA
0242	03/06	09.59.09	45.0	150.0	3.7	I	KURILE ISLANDS
0243	03/06	18.50.18	50.2	148.8	5.4	I	SPA OF OKHOTSK (D=592 KM)
0244	03/06	19.13.25	56.0	140.0	4.2	I	SEA OF OKHOTSK
0245	03/06	23.17.53	40.0	103.0	4.5	I	NORTHERN CHINA
0246	03/07	01.14.04	35.0	69.0	4.0	I	HINDU KUSH REGION (D=200 KM)
0247	03/07	05.21.21	43.0	21.0	2.7	I	YUGOSLAVIA
0248	03/07	07.09.49	28.0	56.0	4.0	I	SOUTHERN IRAN
0249	03/07	12.03.00	21.0	90.0	0.0	I	EAST PAKISTAN
0250	03/07	16.46.25	23.3	94.9	4.3	I	BURMA-INDIA BORDER (D=140 KM)
0251	03/08	02.38.11	51.2	151.9	4.2	I	SEA OF OKHOTSK
0252	03/08	03.51.24	49.0	157.0	4.0	I	KURILE IS REGION
0253	03/08	03.55.22	34.0	83.0	3.8	I	TIBET
0254	03/08	15.55.14	48.2	148.2	4.2	I	NW OF KURILE IS. (D=334 KM)
0255	03/08	21.49.11	27.6	56.7	4.9	I	SOUTHERN IRAN (D=45 KM)
0256	03/08	22.04.02	40.8	22.8	3.5	I	BULGARIA
0257	03/09	09.13.56	51.0	157.0	3.3	I	NEAR E COAST OF KAMCHATKA
0258	03/09	23.24.05	47.0	151.0	3.0	I	KURILE IS
0259	03/09	23.46.18	53.0	162.0	3.6	I	OFF E COAST OF KAMCHATKA
0260	03/10	04.56.57	49.8	78.2	5.5	I	EASTERN KAZAKH SSR (D=0KM)
0261	03/10	06.50.18	45.1	149.5	3.7	I	KURILE ISLANDS
0262	03/10	14.36.17	33.8	72.7	4.9	I	WEST PAKISTAN (D=45 KM)
0263	03/10	15.07.30	50.0	11.0	3.8	I	GERMANY
0264	03/10	17.44.32	55.4	164.2	3.8	I	KOMANDORSKY ISLANDS
0265	03/11	03.28.59	38.0	70.0	4.2	I	AFGHANISTAN-USSR BORDER
0266	03/11	06.47.07	82.7	143.3	3.6	I	LOMONOSOV RIDGE
0267	03/11	13.31.39	35.0	76.0	4.1	I	EASTERN KASHMIR
0268	03/12	02.04.21	45.0	155.0	4.1	I	KURILE IS REGION
0269	03/12	02.10.50	56.0	155.0	3.8	I	KAMCHATKA
0270	03/12	17.31.12	27.9	53.4	4.1	I	SOUTHERN IRAN
0271	03/13	02.11.05	49.0	158.0	3.8	I	KURILE IS REGION
0272	03/13	05.49.13	37.0	70.0	4.0	I	AFGHANISTAN USSR BORDER
0273	03/13	09.23.29	39.3	25.6	3.8	I	AEGEAN SEA (D=49 KM)
0274	03/13	13.28.33	54.9	165.6	4.0	I	KOMANDORSKY ISLANDS
0275	03/13	18.27.07	34.0	83.0	4.1	I	TIBET
0276	03/14	00.40.23	17.0	94.0	3.7	I	BURMA
0277	03/14	02.43.37	44.0	*****	3.7	I	WESTERN IDAHO
0278	03/14	14.05.46	39.3	29.4	5.4	I	TURKEY
0279	03/14	15.47.51	39.0	126.0	3.7	I	N KOREA
0280	03/15	00.21.25	38.5	72.3	3.7	I	TADZHIK (D=140 KM)
0281	03/15	06.00.33	30.4	84.5	5.3	I	TIBET
0282	03/15	12.08.01	39.0	30.0	3.7	I	TURKEY
0283	03/16	00.04.32	39.0	105.0	3.7	I	NORTHERN CHINA
0284	03/16	00.48.05	25.7	55.7	3.6	I	EASTERN ARABIAN PENINSULA
0285	03/16	02.59.06	33.2	71.0	3.5	I	WEST PAKISTAN
0286	03/16	05.22.59	52.2	152.2	4.5	I	NW OF KURILE IS. (D=435 KM)
0287	03/16	06.35.40	27.2	57.9	3.8	I	SOUTHERN IRAN
0288	03/16	07.52.51	36.4	82.5	3.4	I	SOUTHERN SINKIANG PROV

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB	SEISMIC AREA
			LAT	LONG		
0290	03/16	12.00.08	28.0	96.0	3.6	T INDIA-CHINA BORDER REGION
0290	03/16	21.11.35	38.0	82.0	3.5	I SOUTHERN SINKIANG PROV
0291	03/17	00.29.01	32.3	*****	4.1	I CALIF-MEXICO BORDER (D=8 KM)
0292	03/17	07.49.02	49.0	156.2	5.2	J KURILE ISLANDS
0293	03/17	07.52.33	27.9	54.3	4.0	I SOUTHERN IRAN
0294	03/17	09.17.11	40.1	69.7	5.2	T TADZHIK SSR (D=26 KM)
0295	03/17	17.11.28	28.0	54.0	3.9	I SOUTHERN IRAN
0296	03/17	23.33.37	32.0	75.0	3.5	T KASHMIR-INDIA BORDER
0297	03/18	00.41.48	46.9	143.7	5.0	I SAKHALIN ISLAND (D=405 KM)
0298	03/18	07.11.55	47.0	81.0	3.6	I EASTERN KAZAKH SSR
0299	03/18	13.52.14	57.0	163.0	3.6	I NEAR E COAST OF KAMCHATKA
0300	03/18	18.29.33	50.6	156.7	4.7	J KURILE ISLANDS
0301	03/18	19.17.25	54.0	150.0	3.7	I SEA OF OKHOTSK
0302	03/18	19.54.18	41.0	72.0	3.2	I KIRGIZ SSR
0303	03/19	03.34.31	42.7	38.1	3.9	T BLACK SEA
0304	03/19	06.03.23	49.0	159.0	3.6	I KURILE ISLANDS REGION
0305	03/20	08.04.48	44.0	147.0	4.4	I KURILE IS
0306	03/20	10.54.35	38.0	73.0	3.9	I TADZHIK SINKIANG BORDER
0307	03/20	14.08.12	47.0	154.0	4.0	I KURILE IS
0308	03/20	20.08.31	30.0	61.0	3.4	I SW AFGHANISTAN
0309	03/20	21.47.55	40.0	80.0	3.4	I SOUTHERN SINKIANG PROV
0310	06/01	00.18.13	48.0	154.0	3.9	L KURILE ISLANDS
0311	06/01	01.23.26	52.0	70.0	3.6	L CENTRAL KAZAKH SSR
0312	06/01	11.22.15	44.0	103.0	3.7	N MONGOLIA
0313	06/01	13.44.11	39.0	24.0	4.1	L GREECE
0314	06/01	21.43.49	55.0	164.0	3.8	L KOMANDORSKY ISLANDS
0315	06/02	00.12.13	30.0	53.0	4.1	N SOUTHERN IRAN
0316	06/02	01.53.07	50.0	152.0	3.8	L NW OF KURILE ISLANDS
0317	06/02	04.21.49	42.0	82.0	3.8	N SOUTHERN SINKIANG
0318	06/02	04.22.16	42.0	82.0	3.7	N SOUTHERN SINKIANG
0319	06/02	05.11.13	43.0	81.0	3.5	N KAZAKH-SINKIANG BORDER
0320	06/02	06.30.49	42.0	81.0	3.9	N SOUTHERN SINKIANG
0321	06/02	15.49.22	36.0	92.0	3.7	N TSINGHAI PROV., CHINA
0322	06/02	20.32.55	28.4	95.9	4.3	P CHINA-INDIA BORDER
0323	06/03	02.16.51	23.5	125.5	5.2	P SW RYUKYU ISLANDS
0324	06/03	08.21.30	29.0	53.0	4.2	N SOUTHERN IRAN
0325	06/04	03.37.49	30.0	54.0	4.2	N SOUTHERN IRAN
0326	06/04	07.52.38	53.0	158.0	4.0	L NEAR E COAST KAMCHATKA
0327	06/04	12.57.33	53.0	169.0	3.4	L KOMANDORSKY ISLANDS
0328	06/04	13.02.07	54.0	165.0	3.5	L KOMANDORSKY ISLANDS
0329	06/04	16.29.34	39.4	26.2	4.1	P TURKEY
0330	06/04	23.22.18	33.0	97.0	3.5	N TSINGHAI PROV, CHINA
0331	06/05	04.12.54	56.2	163.1	4.3	P NEAR E COAST KAMCHATKA
0332	06/05	10.44.59	37.8	21.4	4.2	P SOUTHERN GREECE
0333	06/05	11.17.57	34.0	46.0	3.9	N IRAN-IRAQ BORDER
0334	06/05	11.52.53	29.8	70.3	4.8	P PAKISTAN
0335	06/05	19.09.12	36.5	38.9	4.5	L N. OF FRANZ JOSEF LAND
0336	06/06	02.04.44	44.0	148.0	3.4	L KURILE ISLANDS

SOURCE INFORMATION

EVENT		COORDINATES				SEISMIC AREA	
NO.	DATE	O.T.	LAT	LONG	MR		
0337	06/06	06.32.10	49.0	155.0	3.6	L	KURILE ISLANDS
0338	06/06	10.43.33	55.9	163.8	4.7	P	OFF E COAST KAMCHATKA
0339	06/07	01.27.57	49.8	78.2	5.5	P	EAST KAZAKH SSR
0340	06/07	06.00.20	56.0	166.0	3.8	L	KOMANDORSKY ISLANDS
0341	06/08	09.14.08	21.1	120.2	5.4	P	TAIWAN
0342	06/08	09.39.21	34.1	46.2	4.9	P	WESTERN IRAN
0343	06/08	10.17.44	21.0	120.2	4.9	P	TAIWAN
0344	06/08	12.46.15	41.0	44.0	4.1	L	TURKEY-USSR BORDER
0345	06/08	16.08.06	19.0	94.0	4.3	N	BURMA
0346	06/08	16.44.24	21.0	120.3	4.7	P	TAIWAN
0347	06/08	17.25.52	43.2	47.2	4.5	P	EASTERN CAUCASUS
0348	06/08	23.10.12	29.5	92.3	4.7	P	TIBET
0349	06/09	00.16.42	47.0	153.0	4.4	L	KURILE ISLANDS
0350	06/09	07.42.20	34.8	26.5	4.9	P	CRETE
0351	06/09	09.45.09	-8.8	****	4.9	P	N. OF EASTER IS. CORDILLERA
0352	06/09	19.42.27	37.0	44.0	4.0	N	TURKEY
0353	06/10	03.39.33	31.0	51.0	3.6	N	IRAN
0354	06/10	11.29.11	28.2	66.5	4.5	P	PAKISTAN
0355	06/10	19.21.53	43.0	150.0	3.7	L	KURILE ISLANDS
0356	06/10	19.31.42	32.9	46.3	4.0	P	IRAN-IRAQ BORDER
0357	06/11	14.14.01	53.0	160.0	3.3	L	NEAR E COAST KAMCHATKA
0358	06/11	23.23.04	48.0	152.0	4.0	L	KURILE ISLANDS
0359	06/11	23.33.44	47.0	152.0	4.3	L	KURILE ISLANDS
0360	06/12	00.19.16	44.0	148.0	3.7	I	KURILE ISLANDS
0361	06/12	13.34.01	33.1	46.3	5.4	P	IRAN-IRAQ BORDER
0362	06/12	13.39.59	33.1	46.2	5.1	P	IRAN-IRAQ BORDER
0363	06/12	22.37.38	53.0	162.0	3.7	L	OFF E COAST KAMCHATKA
0364	06/13	00.55.37	33.1	46.3	5.1	P	IRAN-IRAQ BORDER
0365	06/13	04.53.30	55.0	162.0	3.8	L	NEAR E COAST KAMCHATKA
0366	06/14	00.49.54	40.1	51.9	4.7	P	CASPIAN SEA
0367	06/14	04.34.28	33.0	46.1	5.3	P	IRAN-IRAQ BORDER
0368	06/14	10.27.50	57.0	164.0	3.6	I	KOMANDORSKY ISLANDS
0369	06/14	12.11.28	31.0	52.0	3.5	N	IRAN
0370	06/14	12.35.05	27.0	56.0	3.6	N	SOUTHERN IRAN
0371	06/14	18.55.53	43.7	13.4	4.9	P	CENTRAL ITALY
0372	06/14	21.01.00	43.7	13.5	4.7	P	CENTRAL ITALY
0373	06/15	00.33.24	38.3	22.2	4.9	P	GREECE
0374	06/15	13.49.13	54.0	169.0	3.5	L	KOMANDORSKY ISLANDS
0375	06/15	14.19.02	38.0	28.0	3.3	N	TURKEY
0376	06/16	09.54.41	56.0	161.0	4.1	L	KAMCHATKA
0377	06/16	18.57.52	36.0	69.2	4.5	P	HINDU KUSH
0378	06/16	22.12.12	53.0	157.0	3.6	I	KAMCHATKA
0379	06/16	23.22.27	34.0	46.0	3.7	N	IRAN-IRAQ BORDER
0380	06/17	09.02.48	48.3	14.5	4.6	P	AUSTRALIA
0381	06/17	19.18.21	44.2	149.1	4.6	P	KURILE ISLANDS
0382	06/18	04.30.47	33.0	83.0	4.3	N	TIBET
0383	06/18	09.10.54	48.0	154.0	3.9	L	KURILE ISLANDS
0384	06/18	09.18.49	40.0	73.0	4.3	L	TADZHIK-SINKIANG BORDER

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB	SEISMIC AREA	
			LAT	LONG			
0385	06/18	22.32.52	39.0	31.0	4.4	L	TURKEY
0386	06/19	01.43.48	54.4	168.6	5.0	P	KOMANDORSKY ISLANDS
0387	06/19	18.02.29	44.0	147.0	4.0	L	KURILE ISLANDS
0388	06/19	18.07.53	43.8	151.5	4.5	P	KURILE ISLANDS
0389	06/19	22.41.42	48.0	157.0	4.1	L	KURILE ISLANDS
0390	06/20	05.17.42	29.0	52.0	4.0	N	SOUTHERN IRAN
0391	06/20	09.18.09	52.0	131.0	3.7	L	EASTERN RUSSIA
0392	06/20	15.34.37	32.0	75.0	3.6	N	KASHMIR-INDIA BORDER
0393	06/21	00.12.58	53.0	161.0	4.3	N	NEAR E COAST KAMCHATKA
0394	06/21	00.19.02	54.0	159.0	3.7	N	NEAR E COAST KAMCHATKA
0395	06/21	05.06.17	40.2	30.0	4.1	P	TURKEY
0396	06/21	10.42.45	54.0	161.0	4.3	L	NEAR E COAST KAMCHATKA
0397	06/21	14.53.09	37.0	41.0	3.8	N	TURKEY
0398	06/21	15.06.53	43.8	13.3	4.4	P	CENTRAL ITALY
0399	06/22	02.35.51	49.0	154.0	4.5	N	KURILE ISLANDS
0400	06/23	04.25.27	41.0	30.0	3.7	L	TURKEY
0401	06/23	07.18.14	37.0	21.0	3.4	N	SOUTHERN GREECE
0402	06/23	08.39.36	32.9	46.2	4.6	P	IRAN-IRAQ BORDER
0403	06/23	16.59.48	37.0	75.0	3.7	N	TADZHIK-SINKIANG
0404	06/24	06.57.02	28.0	54.0	3.5	N	SOUTHERN IRAN
0405	06/24	07.17.56	43.7	16.9	5.3	P	YUGOSLAVIA
0406	06/24	15.29.22	36.2	69.7	6.0	P	HINDU KUSH
0407	06/24	16.14.54	36.0	69.0	3.8	N	HINDU KUSH
0408	06/24	18.53.10	39.0	74.0	3.4	N	TADZHIK-SINKIANG
0409	06/25	04.59.19	44.0	15.8	4.4	P	YUGOSLAVIA
0410	06/25	07.55.45	36.3	69.6	4.7	P	HINDU KUSH
0411	06/25	17.35.50	54.0	160.0	4.1	L	NEAR E COAST KAMCHATKA
0412	06/26	08.08.25	21.1	120.3	5.0	P	TAIWAN
0413	06/26	17.32.32	56.0	158.0	3.6	L	KAMCHATKA
0414	06/26	20.59.03	36.0	69.0	3.7	N	HINDU KUSH
0415	06/27	05.07.42	38.0	65.0	4.0	N	AFGHANISTAN-USSR BORDER
0416	06/27	06.39.44	29.7	70.3	5.5	P	PAKISTAN
0417	06/27	06.49.03	54.0	159.0	3.8	L	NEAR E COAST KAMCHATKA
0418	06/27	09.05.53	26.2	96.6	4.4	P	BURMA
0419	06/27	10.48.56	29.7	70.3	5.4	P	PAKISTAN
0420	06/27	12.20.36	51.0	47.0	3.5	L	WESTERN RUSSIA
0421	06/27	15.59.35	36.3	69.5	5.1	P	HINDU KUSH
0422	06/28	01.43.56	43.0	20.5	4.9	P	YUGOSLAVIA
0423	06/28	03.09.59	33.0	91.0	3.6	N	TSINGHAI PROV., CHINA
0424	06/28	04.48.22	56.0	165.0	4.2	L	KOMANDORSKY ISLANDS
0425	06/28	06.00.22	55.0	164.0	3.4	L	KOMANDORSKY ISLANDS
0426	06/28	08.16.55	35.0	32.0	4.3	N	CYPRUS
0427	06/28	09.49.35	27.6	33.8	5.6	P	UNITED ARAB REPUBLIC
0428	06/28	14.58.49	53.0	161.0	3.9	L	OFF E COAST KAMCHATKA
0429	06/28	20.57.40	30.0	53.0	3.9	N	SOUTHERN IRAN
0430	06/29	00.41.02	54.0	69.0	3.7	L	CENTRAL KAZAKH SSR
0431	06/29	03.32.11	38.9	71.4	4.9	P	AFGHANISTAN-USSR BORDER
0432	06/30	17.49.33	27.2	56.8	4.6	P	SOUTHERN IRAN

SOURCE INFORMATION

EVENT		O.T.	COORDINATES		MB	SEISMIC AREA	
NO.	DATE		LAT	LONG			
0433	06/30	18.57.43	24.3	121.1	4.9	P	TAIWAN
0434	06/30	20.31.33	30.0	53.0	4.0	N	SOUTHERN IRAN
0435	07/01	02.10.18	54.0	166.0	3.4	L	KOMANDORSKY ISLANDS
0436	07/02	12.56.07	30.1	50.8	5.4	P	IRAN (D=31 KM)
0437	07/02	14.05.06	30.0	50.8	4.6	P	IRAN (D=31 KM)
0438	07/03	02.10.00	30.1	50.8	5.0	P	IRAN (D=38 KM)
0439	07/03	03.32.50	36.2	71.1	4.3	P	AFGHAN-USSR BORDER (D=128 KM)
0440	07/03	12.31.05	30.0	53.0	4.0	N	SOUTHERN IRAN (Q=3)
0441	07/03	19.26.22	32.0	48.0	4.0	N	IRAN-IRAQ BORDER (Q=3)
0442	07/03	21.38.22	30.0	51.0	5.1	P	IRAN (D=43 KM)
0443	07/04	04.42.34	49.0	156.0	3.7	L	KURILE ISLANDS
0444	07/04	06.17.25	41.0	33.0	3.4	L	TURKEY
0445	07/04	09.28.07	28.0	54.0	3.9	N	SOUTHERN IRAN (Q=2)
0446	07/04	13.52.19	55.0	163.0	4.4	L	NEC KAMCHATKA
0447	07/04	21.47.57	49.0	151.0	3.6	L	KURILE ISLANDS
0448	07/05	01.04.44	28.0	54.0	3.8	N	SOUTHERN IRAN (Q=3)
0449	07/05	01.09.53	44.6	81.1	4.6	P	NORTHERN SINKIANG (D=N)
0450	07/05	02.41.54	44.0	86.0	3.5	N	NORTHERN SINKIANG (Q=3)
0451	07/05	04.09.49	43.6	87.9	4.3	P	NORTHERN SINKIANG (D=N)
0452	07/05	09.59.09	33.0	50.0	3.4	N	IRAN (Q=3)
0453	07/05	16.29.27	31.0	52.0	4.0	N	IRAN (Q=2)
0454	07/05	18.04.54	36.9	21.5	4.7	P	SOUTHERN GREECE (D=17 KM)
0455	07/05	21.41.08	30.0	54.0	4.1	N	SOUTHERN IRAN (Q=2)
0456	07/06	01.02.58	49.7	78.0	4.4	P	E. KAZAKH SSR (D=0 KM)
0457	07/06	05.41.43	27.0	55.0	3.1	N	SOUTHERN IRAN (Q=3)
0458	07/06	16.05.32	30.2	69.7	4.3	P	WEST PAKISTAN (D=53 KM)
0459	07/06	19.02.20	44.0	146.0	3.9	N	KURILE ISLANDS (Q=2)
0460	07/07	05.13.06	56.0	163.0	3.7	L	NEC KAMCHATKA
0461	07/07	12.04.12	20.5	98.1	5.0	P	BURMA (D=27 KM)
0462	07/07	23.43.41	32.0	102.0	3.7	N	SZECWAN PROV. (Q=3)
0463	07/08	05.46.14	41.6	23.6	4.7	P	GREECE-BULGARIA BOR. (D=28)
0464	07/08	08.29.27	46.1	154.6	4.9	P	KURILE ISLANDS (D=N)
0465	07/08	21.07.27	48.0	151.0	4.2	L	KURILE ISLANDS
0466	07/09	13.21.22	36.0	19.0	4.0	L	MEDITERRANEAN SEA
0467	07/10	00.41.23	28.0	130.6	4.1	P	RYUKYU IS. REG. (D=30 KM)
0468	07/10	03.02.02	30.0	129.0	3.8	N	RYUKYU ISLANDS (Q=3)
0469	07/10	12.26.31	53.6	161.7	4.1	P	OEC KAMCHATKA (D=N)
0470	07/10	19.03.33	43.4	88.6	4.7	P	NORTHERN SINKIANG (D=N)
0471	07/11	04.20.41	37.0	72.0	4.2	L	AFGHANISTAN-USSR BORDER
0472	07/11	06.58.21	48.4	154.5	5.2	P	KURILE ISLANDS (D=62 KM)
0473	07/11	08.53.49	55.0	163.0	3.6	L	NEC KAMCHATKA
0474	07/11	15.33.48	32.0	60.0	3.7	N	IRAN (Q=3)
0475	07/11	22.49.02	36.1	45.7	4.7	P	IRAN-IRAQ BORDER (D=N)
0476	07/12	00.14.27	49.3	155.4	5.2	P	KURILE ISLANDS (D=N)
0477	07/12	01.21.18	33.0	73.0	3.5	N	PAKISTAN (Q=3)
0478	07/12	14.25.30	55.0	168.0	4.0	N	KOMANDORSKY ISLANDS (Q=2)
0479	07/12	19.41.48	37.3	21.9	4.1	P	SOUTHERN GREECE (D=92 KM)
0480	07/12	20.14.51	49.0	154.0	3.7	L	KURILE ISLANDS

SOURCE INFORMATION

EVENT			COORDINATES			MB	SEISMIC AREA
NO.	DATE	O.T.	LAT	LONG			
0481	07/13	05.27.44	31.0	89.0	3.9	N	TIBET (Q=2)
0482	07/13	15.05.44	44.0	150.0	4.2	N	KURILE ISLANDS REGION (Q=2)
0483	07/13	18.50.53	28.0	63.0	3.7	N	WEST PAKISTAN (Q=2)
0484	07/13	22.21.17	43.8	13.3	4.4	P	CENTRAL ITALY (D=N)
0485	07/13	23.02.25	22.0	123.0	3.8	N	TAIWAN REGION (Q=3)
0486	07/14	04.33.45	36.0	31.0	3.9	N	TURKEY (Q=2)
0487	07/14	13.04.12	30.1	50.8	4.4	P	TRAN (D=34 KM)
0488	07/14	13.18.11	30.0	51.0	3.9	N	TRAN (Q=2)
0489	07/14	17.49.13	30.0	51.0	3.4	N	TRAN (Q=2)
0490	07/14	18.50.33	30.0	132.0	3.9	L	RYUKYU ISLANDS REGION
0491	07/15	00.35.52	43.0	78.0	3.8	N	KIRGIZ SSR (Q=2)
0492	07/15	02.15.42	24.2	125.1	5.1	P	SW RYUKYU ISLANDS (D=29 KM)
0493	07/15	09.51.51	47.0	152.0	4.4	L	KURILE ISLANDS
0494	07/15	13.50.04	53.0	157.0	3.7	L	KAMCHATKA
0495	07/15	17.25.37	46.0	149.0	3.5	I	KURILE ISLANDS
0496	07/16	02.20.24	32.5	95.9	5.2	P	TIBET (D=N)
0497	07/16	02.46.51	38.3	43.3	4.9	P	TURKEY (D=40 KM)
0498	07/16	03.40.00	32.6	95.8	4.7	P	TIBET (D=N)
0499	07/16	13.48.05	23.7	121.3	4.6	P	TAIWAN (D=N)
0500	07/16	17.28.03	44.0	150.0	3.7	L	KURILE ISLANDS
0501	07/16	20.04.04	54.4	162.9	4.2	P	NEC KAMCHATKA (D=N)
0502	07/16	22.41.59	27.0	101.0	3.9	N	YUNNAN PROV. (Q=2)
0503	07/17	01.17.26	51.0	158.0	4.2	L	NEC KAMCHATKA
0504	07/17	03.14.05	34.0	30.0	3.9	I	EASTERN MEDITERRANEAN SEA
0505	07/17	08.28.52	55.0	159.6	5.3	P	KAMCHATKA (D=N)
0506	07/17	11.11.46	57.0	162.0	3.3	I	NEC KAMCHATKA
0507	07/17	16.15.28	35.0	22.0	3.4	N	MEDITERRANEAN SEA (Q=3)
0508	07/17	17.02.48	43.0	149.0	4.1	L	KURILE ISLANDS REGION
0509	07/17	20.50.54	55.1	159.5	4.5	P	KAMCHATKA (D=N)
0510	07/18	03.27.07	39.0	77.0	4.0	N	SOUTH SINKIANG (Q=1)
0511	07/18	06.04.53	51.0	66.0	3.7	L	CENTRAL KAZAKH SSR
0512	07/18	13.45.48	41.6	23.8	4.0	P	GREECE-BULGARIA BORDER (D=N)
0513	07/18	22.06.50	45.0	148.0	5.0	P	KURILE ISLANDS
0514	07/19	10.26.48	52.0	162.0	4.2	L	NEC KAMCHATKA
0515	07/19	12.02.50	56.0	157.0	4.3	L	KAMCHATKA
0516	07/19	19.43.40	38.0	70.0	3.6	N	AFGHAN.-USSR BORDER (Q=3)
0517	07/20	10.04.18	28.0	91.0	3.9	N	TIBET (Q=2)
0518	07/20	13.58.43	36.0	55.0	4.3	N	TRAN (Q=2)
0519	07/21	14.07.08	37.5	73.0	4.1	P	TADZHIK SSR (D=197 KM)
0520	07/21	16.11.33	28.8	102.3	4.8	P	SZECHWAN PROV., CHINA (D=N)
0521	07/22	05.10.40	44.9	36.9	4.6	P	CRIMEA (D=N)
0522	07/22	16.41.04	31.4	91.5	5.5	P	TIBET (D=N)
0523	07/22	21.00.09	31.4	91.4	4.7	P	TIBET (D=N)
0524	07/23	18.17.25	33.0	24.0	3.9	L	MEDITERRANEAN SEA
0525	07/23	23.41.55	31.0	91.0	3.6	N	TIBET (Q=2)
0526	07/24	10.14.35	58.0	159.0	3.7	L	KAMCHATKA
0527	07/24	10.22.23	39.4	40.1	4.4	P	TURKEY (D=N)
0528	07/24	13.09.26	58.0	162.0	4.0	L	KAMCHATKA

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MR		SEISMIC AREA
			LAT	LONG			
0529	07/24	14.58.14	35.8	80.6	4.8	P	KASHMIR-TIBET BORDER (D=N)
0530	07/25	01.56.07	38.7	21.4	4.5	P	GREECE (D=45 KM)
0531	07/26	02.26.08	45.2	150.7	4.3	P	KURILE ISLANDS (D=89 KM)
0532	07/26	18.57.25	40.0	47.0	4.0	N	EASTERN CAUCASUS (Q=3)
0533	07/27	00.08.46	43.6	13.4	4.4	P	CENTRAL ITALY (D=N)
0534	07/27	00.20.55	50.0	159.1	5.1	P	KURILE ISLANDS (D=N)
0535	07/27	16.43.30	25.4	130.5	5.1	P	RYUKYU IS. REG. (D=N)
0536	07/28	05.50.29	42.0	81.0	4.3	L	SOUTHERN SHIKANG PROV.
0537	07/29	08.22.17	37.0	29.0	3.8	L	DODECANESE ISLANDS
0538	07/29	17.10.35	32.0	68.0	3.8	N	AFGHANISTAN (Q=2)
0539	07/29	21.07.16	49.2	156.2	4.8	P	KURILE ISLANDS (D=N)
0540	07/30	01.30.09	39.9	24.2	4.4	P	AEGEAN SEA (D=N)
0541	07/30	03.01.07	49.2	156.2	5.1	P	KURILE ISLANDS (D=45 KM)
0542	07/30	11.41.01	41.0	70.0	4.0	N	TADZHIK SSR (Q=2)
0543	07/30	16.00.03	21.2	121.3	4.9	P	TAIWAN REGION (D=N)
0544	07/30	19.00.54	30.0	101.0	3.5	N	SZECHWAN PROV. (Q=2)
0545	07/30	19.46.24	41.0	27.0	3.6	I	TURKEY
0546	07/31	06.40.28	56.2	162.9	4.8	P	NFC KAMCHATKA (D=N)
0547	07/31	17.04.47	23.7	121.6	4.6	P	TAIWAN (D=24 KM)
0548	07/31	21.01.25	31.0	52.0	3.6	N	IRAN (Q=3)
0549	08/01	05.33.41	30.0	131.0	3.7	L	RYUKYU ISL
0550	08/01	09.44.47	36.0	72.0	4.1	N	PAKISTAN
0551	08/01	11.03.49	33.0	32.0	3.7	N	MEDITER SEA
0552	08/02	10.52.27	39.0	73.0	3.7	N	KIRGIZ USSR
0553	08/02	12.56.19	36.0	72.0	3.8	N	AFGHAN-USSR
0554	08/02	15.11.59	35.0	35.0	4.5	L	CYPRUS
0555	08/02	15.47.37	35.0	24.0	3.4	N	CRETE
0556	08/02	18.42.20	43.2	146.5	4.0	P	KURIL ISL
0557	08/02	21.33.06	28.2	57.0	4.7	P	S IRAN
0558	08/02	21.38.50	56.1	163.2	5.6	P	NFC KAMCHATKA
0559	08/02	23.03.29	28.1	56.9	5.0	P	S IRAN
0560	08/02	23.12.13	28.0	57.0	4.2	N	S IRAN
0561	08/03	02.04.26	37.8	32.5	4.3	P	TURKEY
0562	08/03	02.25.23	46.9	152.6	4.5	P	KURIL ISL
0563	08/03	03.57.16	56.0	162.0	4.0	L	NFC KAMCHATKA
0564	08/03	05.51.44	40.0	32.0	3.9	L	TURKEY
0565	08/03	12.36.47	59.5	163.2	5.3	P	KAMCHATKA
0566	08/03	21.39.26	37.7	32.7	4.5	P	TURKEY
0567	08/03	22.47.46	28.2	57.0	4.8	P	S IRAN
0568	08/03	22.57.22	28.0	133.0	4.0	N	E RYUKYU ISL
0569	08/04	04.30.30	47.0	151.0	4.0	L	KURIL ISL
0570	08/04	05.30.00	37.9	32.9	4.3	P	TURKEY
0571	08/04	09.19.21	28.0	57.0	4.0	N	S IRAN
0572	08/04	17.09.20	48.0	155.0	3.9	L	KURIL ISL
0573	08/04	17.51.13	49.2	156.1	5.7	P	KURIL ISL
0574	08/04	18.26.11	49.0	156.2	4.4	P	KURIL ISL
0575	08/05	00.49.03	49.0	157.0	3.8	L	KURIL ISL
0576	08/05	04.08.14	28.2	53.0	4.3	P	S IRAN

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB	SEISMIC AREA	
			LAT	LONG			
0577	08/05	04.16.37	49.0	157.0	4.1	L	KURIL ISL
0578	08/05	04.52.03	49.0	156.3	4.7	P	KURIL ISL
0579	08/05	05.46.29	49.0	156.2	4.9	P	KURIL ISL
0580	08/05	05.52.01	49.0	156.0	4.3	L	KURIL ISL
0581	08/05	22.11.52	49.0	155.0	3.8	L	KURIL ISL
0582	08/06	00.53.12	44.7	32.6	4.5	P	BLACK SEA
0583	08/06	01.12.50	25.1	61.2	5.5	P	S IRAN
0584	08/06	01.32.16	25.7	60.9	5.0	P	S IRAN
0585	08/06	03.45.07	34.0	29.0	4.0	L	MEDITER SEA
0586	08/06	07.00.56	31.8	50.1	5.0	P	IRAN
0587	08/06	10.08.59	36.0	27.0	4.0	L	DODECANESE ISL
0588	08/06	10.59.17	49.0	157.0	4.2	L	KURIL ISL
0589	08/06	11.07.30	49.0	156.4	4.2	P	KURIL ISL
0590	08/06	14.17.30	55.0	164.0	3.7	L	KOMANDORSKY ISL
0591	08/06	18.22.25	55.3	166.1	4.5	P	KOMANDORSKY ISL
0592	08/07	05.42.48	38.0	32.0	4.0	L	TURKEY
0593	08/07	10.05.58	53.0	168.0	3.9	L	KOMANDORSKY ISL
0594	08/08	00.44.55	36.3	52.6	4.7	P	IRAN
0595	08/08	14.24.18	26.0	63.0	4.2	N	W PAKISTAN
0596	08/08	09.45.49	48.1	157.1	5.1	P	KURIL ISL
0597	08/08	17.19.42	55.0	158.0	3.8	L	KAMCHATKA
0598	08/08	19.09.34	25.0	61.1	5.5	P	S IRAN
0599	08/09	01.28.15	56.0	166.0	3.7	L	KOMANDORSKY ISL
0600	08/09	04.02.05	39.5	20.7	4.5	P	GREECE-ALBANIA
0601	08/09	09.40.46	39.0	33.0	4.4	L	TURKEY
0602	08/09	10.34.54	49.0	153.0	4.1	L	KURIL ISL
0603	08/09	14.43.39	50.0	119.0	3.8	L	USSR-CHINA BORDER
0604	08/09	16.28.14	41.0	72.0	4.5	L	TADZHIK USSR
0605	08/09	19.42.17	53.0	107.5	5.1	P	LAKE BAIKAL REG
0606	08/09	20.51.51	56.8	127.2	4.8	P	E RUSSIA
0607	08/09	21.09.10	47.0	153.0	4.1	L	KURIL ISL
0608	08/10	01.05.40	36.0	67.0	4.5	L	HINDU KUSH
0609	08/10	14.07.13	55.0	166.0	3.5	L	KOMANDORSKY ISL
0610	08/10	21.06.40	32.4	93.5	5.2	P	TIBET
0611	08/11	02.22.14	44.7	102.0	5.0	P	MONGOLIA
0612	08/11	06.49.05	41.0	14.0	4.0	L	S ITALY
0613	08/11	08.50.34	56.0	164.0	3.3	L	KOMANDORSKY ISL
0614	08/11	13.24.44	54.6	161.6	5.3	P	NEC KAMCHATKA
0615	08/11	16.52.32	31.0	52.0	3.5	N	IRAN
0616	08/12	02.42.24	36.0	69.0	3.9	N	HINDU KUSH
0617	08/12	23.47.57	41.1	22.7	4.9	P	YUGOSLAVIA
0618	08/13	02.16.28	33.0	93.0	4.1	N	TSINGHAI
0619	08/13	09.04.48	36.9	71.4	4.7	P	AFGANISTAN-USSR
0620	08/13	10.43.57	49.0	157.0	3.6	L	KURIL ISL
0621	08/13	11.32.30	49.0	154.0	3.6	L	KURIL ISL
0622	08/13	12.15.47	47.0	152.0	3.6	L	KURIL ISL
0623	08/13	18.21.56	54.0	160.0	3.6	L	NEC KAMCHATKA
0624	08/15	22.51.37	47.0	151.0	4.1	L	KURIL ISL

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MR		SEISMIC AREA
			LAT	LONG			
0625	08/16	01.44.47	55.0	164.0	3.4	L	OEC KAMCHATKA
0626	08/16	03.16.57	49.8	78.1	5.2	P	E KAZAKH
0627	08/16	05.42.23	36.0	49.0	3.5	N	NW IRAN
0628	08/16	08.21.14	55.0	164.0	3.6	L	KOMANDORSKY ISL
0629	08/16	10.15.32	38.0	71.0	3.6	N	AFGHANISTAN-USSR
0630	08/16	10.26.58	55.0	165.5	4.3	P	KOMANDORSKY ISL
0631	08/16	12.08.56	49.0	154.0	3.5	L	KURIL ISL
0632	08/16	19.27.10	45.0	149.0	4.5	L	KURIL ISL
0633	08/16	21.37.19	56.0	163.0	3.6	L	NEC KAMCHATKA
0634	08/17	22.34.32	44.0	149.0	4.5	L	KURIL ISL
0635	08/17	18.14.22	30.0	78.0	5.0	N	N INDIA
0636	08/18	00.42.22	45.0	150.0	3.5	L	KURIL ISL
0637	08/18	01.18.30	53.0	160.0	3.6	L	NEC KAMCHATKA
0638	08/18	02.49.15	52.0	158.0	3.5	L	NEC KAMCHATKA
0639	08/18	08.10.18	40.0	22.0	3.6	L	GREECE
0640	08/18	10.03.07	25.0	64.0	3.9	N	W PAKISTAN
0641	08/18	12.12.08	48.0	100.0	4.0	L	MONGOLIA
0642	08/18	18.42.19	23.8	126.6	4.8	P	RYUKYU ISL
0643	08/18	18.50.18	55.0	163.0	4.0	L	OEC KAMCHATKA
0644	08/18	19.02.01	53.0	159.9	5.1	P	NEC KAMCHATKA
0645	08/18	21.23.12	50.0	153.0	5.1	L	NW KURIL ISL
0646	08/18	23.23.18	50.0	153.0	3.7	L	NW KURIL ISL
0647	08/19	04.20.41	22.0	94.0	3.9	N	BURMA-INDIA
0648	08/19	06.46.56	38.0	23.0	3.6	L	GREECE
0649	08/19	17.54.24	43.2	146.8	4.3	P	KURIL ISL
0650	08/19	21.56.10	45.0	149.0	3.5	L	KURIL ISL
0651	08/19	23.20.48	43.5	148.4	4.9	P	KURIL ISL
0652	08/20	02.59.58	49.5	48.2	5.7	P	W KAZAKH
0653	08/20	08.10.08	51.3	161.6	5.2	P	OEC KAMCHATKA
0654	08/21	10.15.44	55.7	161.3	4.5	P	NEC KAMCHATKA
0655	08/21	13.45.49	47.0	151.0	4.0	L	KURIL ISL
0656	08/21	14.04.34	27.2	88.0	4.8	P	SIKKIM
0657	08/21	14.24.07	22.0	94.0	4.3	N	BURMA-INDIA
0658	08/21	18.55.07	27.2	88.0	5.1	P	SIKKIM
0659	08/22	02.44.10	35.0	25.0	4.0	L	CRETE
0660	08/22	03.37.00	47.0	153.0	4.1	L	KURIL ISL
0661	08/22	14.20.19	50.2	156.7	5.2	P	KURIL ISL
0662	08/22	16.34.56	40.0	79.0	4.6	L	S SINKIANG
0663	08/22	21.54.53	23.0	121.0	4.2	N	TAIWAN
0664	08/23	10.38.08	49.0	156.0	3.7	L	KURIL ISL
0665	08/23	21.14.16	39.0	29.0	4.0	L	TURKEY
0666	08/24	10.44.01	51.0	157.0	3.3	L	KURIL ISL
0667	08/24	15.32.39	50.0	159.0	3.8	L	KURIL ISL
0668	08/24	17.05.56	53.0	160.0	3.8	L	OEC KAMCHATKA
0669	08/24	22.54.19	48.0	147.0	3.8	L	NW KURIL ISL
0670	08/25	04.11.20	71.0	138.0	4.0	L	NE SIBERIA
0671	08/25	10.19.34	47.0	152.0	3.6	L	KURIL ISL
0672	08/26	03.46.57	50.0	77.8	5.5	P	E KAZAKH

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB	SEISMIC AREA	
			LAT	LONG			
0673	08/26	11.21.08	32.0	101.0	3.8	N	SZECHWAN
0674	08/27	01.14.57	38.0	30.0	3.6	N	TURKEY
0675	08/27	14.42.46	23.0	102.0	4.0	N	BURMA-INDIA
0676	08/27	14.49.32	22.6	100.7	4.8	P	BURMA-INDIA
0677	08/27	16.54.01	36.0	70.0	3.6	N	HINDU KUSH
0678	08/28	02.39.06	56.0	163.0	4.2	L	OEC KAMCHATKA
0679	08/28	05.59.56	73.3	55.1	6.3	P	NOVAYA ZEMLYA
0680	08/28	06.33.40	36.0	64.0	5.2	I	TURK-APGAN BOR
0681	08/28	09.00.22	49.0	155.0	3.7	L	KURIL ISL
0682	08/28	15.27.10	33.0	48.0	3.7	N	W IRAN
0683	08/29	21.59.23	33.0	27.0	4.4	L	MEDITER SEA
0684	08/29	22.17.52	36.0	26.0	3.6	N	CRETE
0685	08/29	23.00.21	34.0	82.0	3.7	N	TIRET
0686	08/30	00.08.23	44.0	16.2	4.5	P	YUGOSLAVIA
0687	08/30	15.14.10	36.7	96.5	5.5	P	TSINGHAI
0688	08/30	17.52.23	40.0	94.0	4.2	N	S SINKIANG
0689	08/30	18.47.43	36.6	96.4	5.5	P	TSINGHAI
0690	08/30	18.51.35	36.7	96.3	5.5	P	TSINGHAI
0691	08/30	20.06.50	53.0	160.0	4.6	L	OEC KAMCHATKA
0692	08/30	20.42.46	38.0	96.0	4.3	N	TSINGHAI
0693	08/31	14.03.16	52.3	95.4	5.5	P	C RUSSIA
0694	08/31	17.22.47	49.0	106.0	3.7	I	MONGOLIA
0695	08/31	18.12.08	55.0	163.0	3.5	L	NFC KAMCHATKA
0696	11/01	04.06.45	38.5	65.2	4.4	P	S E UZBEK
0697	11/01	06.22.29	36.7	141.5	4.4	P	P C HONSHU
0698	11/01	16.39.51	43.4	146.3	4.8	P	KURIL ISL
0699	11/02	01.26.58	49.4	78.4	6.2	P	P KAZAKH
0700	11/02	12.52.23	39.4	73.2	4.7	P	TADZHIK-SINK
0701	11/03	09.41.33	31.0	52.0	4.0	N	IRAN
0702	11/03	23.58.09	35.0	69.5	5.5	L	AFGHANISTAN
0703	11/05	14.06.59	36.0	72.0	3.8	N	AFGHAN-USSR
0704	11/05	19.25.42	35.1	24.9	5.2	P	CRETE
0705	11/06	06.15.06	36.9	70.8	4.2	L	HINDU KUSH
0706	11/06	07.07.10	34.1	33.3	3.7	L	CYPRUS
0707	11/06	09.31.56	34.6	25.1	4.3	L	CRETE
0708	11/06	10.56.09	27.0	88.7	4.8	P	SIKKIM
0709	11/06	12.18.30	38.2	69.0	4.1	P	TADZHIK
0710	11/06	16.22.20	44.0	148.8	4.3	L	KURIL ISL
0711	11/07	06.40.36	22.7	120.7	5.4	P	TAIWAN
0712	11/07	15.12.34	37.0	73.0	4.3	N	AFGHAN-USSR
0713	11/07	18.36.29	53.3	160.0	4.5	I	NFC KAMCHATKA
0714	11/07	22.41.33	34.9	24.8	4.6	P	CRETE
0715	11/08	11.11.47	47.3	151.0	3.7	L	KURIL ISL
0716	11/08	14.25.43	23.9	121.6	5.5	P	TAIWAN
0717	11/09	16.45.10	38.0	20.5	4.2	L	IONIAN SEA
0718	11/10	04.45.12	30.3	57.6	4.7	P	IRAN
0719	11/10	09.52.19	39.8	28.3	3.6	L	TURKEY
0720	11/10	18.22.39	50.1	154.3	3.6	L	KURIL ISL

SOURCE INFORMATION

EVENT NO.	EVENT DATE	O. T.	COORDINATES		MP		SEISMIC AREA
			LAT	LONG			
0721	11/11	13.57.23	49.9	129.6	3.8	I	E CHINA-USSR BOR
0722	11/11	14.08.58	41.0	77.0	3.8	N	KIRGIZ-SINK BOR
0723	11/12	02.46.34	55.5	162.0	4.8	P	NFC KAMCHATKA
0724	11/13	01.56.51	45.7	149.0	3.7	L	KURIL ISL
0725	11/14	18.27.04	14.0	52.0	3.9	N	E GULF OF ADEN
0726	11/15	03.36.28	22.0	123.0	4.1	N	TAIWAN
0727	11/15	18.15.07	29.0	53.0	3.9	N	S TRAN
0728	11/15	12.21.41	32.2	28.0	4.5	I	E MEDITER SEA
0729	11/15	14.56.53	37.0	73.0	3.9	N	AFGHAN-USSR
0730	11/16	03.13.06	35.0	24.0	3.8	L	CRETE
0731	11/16	10.10.47	34.0	46.0	3.9	N	TRAN-IRAQ BOR
0732	11/16	11.24.12	24.0	96.0	4.4	N	BURMA
0733	11/17	02.13.07	35.0	24.0	3.7	N	CRETE
0734	11/17	02.42.36	37.4	20.3	4.3	P	IONIAN SEA
0735	11/17	15.58.47	44.0	152.0	4.0	N	KURIL ISL
0736	11/17	17.12.02	44.4	148.6	3.7	L	KURIL ISL
0737	11/18	08.31.16	52.7	160.2	4.6	P	OFC KAMCHATKA
0738	11/18	12.52.53	44.8	148.5	3.9	L	KURIL ISL
0739	11/18	17.53.59	46.4	154.2	4.0	I	KURIL ISL
0740	11/19	20.53.01	43.0	82.0	4.0	N	N SINKIANG
0741	11/20	03.30.28	39.4	21.8	4.9	P	GREECE
0742	11/20	03.34.34	31.0	51.0	4.0	N	TRAN
0743	11/20	05.37.12	43.0	84.0	4.0	N	N SINKIANG
0744	11/21	02.47.14	23.8	121.6	5.7	P	TAIWAN
0745	11/21	02.51.25	23.0	121.0	4.4	N	TAIWAN
0746	11/21	11.51.50	58.2	63.0	3.6	I	C RUSSIA
0747	11/21	18.16.17	34.2	30.3	4.1	I	E MEDITER SEA
0748	11/21	19.12.58	37.0	73.0	4.0	N	AFGHAN-USSR
0749	11/22	03.01.53	37.0	76.0	4.0	N	S SINKIANG
0750	11/22	18.05.51	35.9	77.4	4.9	P	E KASHMIR
0751	11/24	01.35.27	38.8	22.3	4.3	P	GREECE
0752	11/24	03.48.38	40.1	21.6	5.4	L	GREECE
0753	11/24	09.00.08	52.8	51.1	4.7	P	W RUSSIA
0754	11/24	09.40.56	31.0	52.0	3.7	N	TRAN
0755	11/24	09.59.58	51.8	64.2	5.2	P	W KAZAKH
0756	11/25	02.11.39	52.3	158.9	3.4	I	NFC KAMCHATKA
0757	11/25	12.18.24	33.0	97.0	3.9	N	TSINGHAI CHINA
0758	11/25	13.42.34	56.3	123.3	5.1	P	E RUSSIA
0759	11/25	15.20.48	38.4	22.3	4.0	P	GREECE
0760	11/25	22.43.30	28.4	53.7	5.6	P	S TRAN
0761	11/26	14.52.31	52.1	158.8	5.2	P	NFC KAMCHATKA
0762	11/26	16.03.12	43.0	13.4	4.9	P	C ITALY
0763	11/27	05.11.11	52.8	62.1	3.9	L	W KAZAKH
0764	11/27	21.37.47	53.4	161.3	4.7	P	OFC KAMCHATKA
0765	11/28	13.25.15	33.8	27.9	4.8	P	E MEDITER SEA
0766	11/28	18.42.47	55.4	162.1	3.6	I	NFC KAMCHATKA
0767	11/29	01.57.57	32.2	26.5	4.4	L	E MEDITER SEA
0768	11/29	03.19.19	36.0	72.0	3.6	N	AFGHAN-USSR

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB		SEISMIC AREA
			LAT	LONG			
0769	11/29	16.49.36	36.0	72.0	4.1	N	AFGHAN-USSR
0770	11/30	07.34.16	73.3	144.9	3.6	L	SIBERIAN ISL
0771	11/30	11.25.32	44.1	13.0	4.6	P	ADRIATIC SEA
0772	11/30	18.31.19	52.8	160.7	3.9	L	OEC KAMCHATKA
0773	12/01	07.24.53	42.7	13.3	3.9	P	C ITALY
0774	12/01	07.32.01	29.0	52.0	4.7	N	S IRAN
0775	12/01	11.39.04	35.4	57.9	5.4	P	IRAN
0776	12/01	21.15.52	54.9	162.0	4.8	P	NEC KAMCHATKA
0777	12/02	03.57.54	33.5	141.0	4.1	P	OEC HONSHU
0778	12/02	13.28.24	35.4	27.1	5.1	P	DODECANESE ISL
0779	12/02	20.33.00	33.2	141.0	3.6	P	OEC HONSHU
0780	12/03	03.18.48	46.0	144.0	3.9	L	SAKHALIN ISL
0781	12/03	08.54.47	39.4	75.3	5.0	P	S SINKIANG
0782	12/03	10.07.57	46.0	145.0	4.0	L	SEA OF OKHOTSK
0783	12/03	13.13.13	53.8	160.6	4.4	P	NEC KAMCHATKA
0784	12/03	15.35.14	45.0	148.0	4.1	L	KURIL ISL
0785	12/03	22.08.32	31.9	131.5	5.3	P	KYUSHU
0786	12/04	03.24.55	35.2	27.2	4.3	P	DODECANESE ISL
0787	12/04	05.19.32	33.2	140.9	3.7	P	S OF HONSHU
0788	12/04	22.58.21	35.0	72.0	3.9	N	PAKISTAN
0789	12/05	03.02.13	33.3	141.0	4.2	P	OEC HONSHU
0790	12/05	04.11.07	33.3	140.8	4.7	P	S OF HONSHU
0791	12/07	02.10.47	42.0	119.0	3.7	L	NF CHINA
0792	12/08	04.39.46	85.3	91.2	4.5	P	N OF SEV ZEMLY
0793	12/08	05.36.45	37.0	69.0	4.1	N	AFG-USSR BOR
0794	12/08	20.16.05	24.0	121.0	4.0	N	TAIWAN
0795	12/09	12.21.27	50.0	157.0	3.8	L	KURIL ISL
0796	12/09	14.04.49	54.0	169.0	3.5	L	KOMANDORSKY ISL
0797	12/10	04.26.58	49.8	78.1	5.7	P	E KAZAKH
0798	12/10	04.27.08	50.1	78.8	0.0	P	E KAZAKH
0799	12/10	18.26.07	44.8	149.4	6.0	P	KURIL ISL
0800	12/10	18.39.37	45.0	151.0	4.2	L	KURIL ISL
0801	12/10	23.55.03	44.0	149.0	3.5	L	KURIL ISL
0802	12/11	00.22.20	44.8	149.2	4.8	P	KURIL ISL
0803	12/11	00.44.11	45.0	148.0	3.6	L	KURIL ISL
0804	12/10	01.13.27	44.0	150.0	3.7	L	KURIL ISL
0805	12/11	01.30.11	38.0	22.0	3.7	L	GREECE
0806	12/11	01.36.59	46.0	151.0	4.3	L	KURIL ISL
0807	12/11	02.05.20	44.7	149.4	4.3	P	KURIL ISL
0808	12/11	02.26.46	45.0	148.0	3.9	L	KURIL ISL
0809	12/11	05.52.00	46.0	151.0	3.6	L	KURIL ISL
0810	12/11	07.59.03	46.0	151.0	3.6	L	KURIL ISL
0811	12/11	11.10.27	44.0	153.0	3.6	L	KURIL ISL REG
0812	12/11	16.14.46	44.8	149.3	4.3	P	KURIL ISL
0813	12/11	19.32.52	44.7	149.3	4.8	P	KURIL ISL
0814	12/12	00.08.00	45.0	149.0	4.1	L	KURIL ISL
0815	12/12	00.36.04	53.1	160.0	4.7	P	NEC KAMCHATKA
0816	12/12	02.32.53	38.9	21.9	3.9	P	GREECE

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB	SEISMIC AREA	
			LAT	LONG			
0817	12/12	05.17.02	47.0	143.0	3.6	L	SAKHALIN ISL
0818	12/12	09.03.56	44.1	151.0	5.7	P	KURIL ISL REG
0819	12/13	01.19.28	34.0	69.0	3.6	N	AFGANISTAN
0820	12/13	02.58.52	41.6	24.0	4.5	P	GREECE-BULGAR
0821	12/13	04.29.53	46.0	151.0	4.6	L	KURIL ISL
0822	12/13	23.48.33	45.0	150.0	4.1	L	KURIL ISL
0823	12/14	17.50.22	38.2	20.2	4.7	P	GREECE
0824	12/15	02.44.29	44.0	148.0	3.4	L	KURIL ISL REG
0825	12/15	14.41.32	44.6	149.4	4.7	P	KURIL ISL
0826	12/15	17.55.56	35.2	27.2	4.7	P	DODECANESE ISL
0827	12/16	23.00.00	85.6	85.1	4.4	P	N OF SEV ZEMLY
0828	12/17	00.18.34	44.7	149.2	5.7	P	KURIL ISL
0829	12/17	00.32.23	44.7	149.3	4.8	P	KURIL ISL
0830	12/17	00.41.33	46.0	150.0	4.3	L	KURIL ISL
0831	12/17	00.52.13	45.0	150.0	3.8	L	KURIL ISL
0832	12/17	01.18.17	44.8	149.2	4.7	P	KURIL ISL
0833	12/17	01.22.32	45.0	149.0	4.1	L	KURIL ISL
0834	12/17	01.26.04	44.7	149.4	4.8	P	KURIL ISL
0835	12/17	02.14.21	44.0	148.0	3.7	L	KURIL ISL
0836	12/17	05.45.58	44.7	149.3	4.6	P	KURIL ISL
0837	12/17	06.24.52	44.6	149.4	4.9	P	KURIL ISL
0838	12/17	06.54.07	38.0	69.0	3.4	N	TADZHIK USSR
0839	12/17	07.35.31	87.0	96.0	4.0	L	N OF SEV ZEMLY
0840	12/17	09.38.51	43.0	150.0	3.8	L	KURIL ISL REG
0841	12/17	12.38.12	46.0	151.0	3.7	L	KURIL ISL
0842	12/17	12.44.30	34.3	26.2	4.7	P	CRETE
0843	12/17	20.48.20	49.0	160.0	3.8	L	KURIL ISL REG
0844	12/19	19.34.31	35.5	27.8	4.6	P	DODECANESE ISL
0845	12/20	04.15.29	31.0	67.0	4.3	N	AFGANISTAN
0846	12/20	11.09.02	50.0	159.0	4.1	L	KURIL ISL REG
0847	12/20	13.09.46	32.0	72.0	3.7	N	PAKISTAN
0848	12/21	12.31.05	54.0	162.0	4.2	L	OEC KAMCHATKA
0849	12/22	00.34.25	42.0	15.0	3.7	L	CENTRAL ITALY
0850	12/22	03.01.20	56.0	164.0	4.1	L	KOMONDORSKY ISL
0851	12/22	03.13.44	55.0	164.0	4.1	L	OEC KAMCHATKA
0852	12/22	07.33.07	49.0	156.0	4.1	L	KURIL ISL
0853	12/22	18.42.39	24.0	94.0	3.9	N	BURMA-INDIA
0854	12/22	23.20.33	36.0	85.0	3.8	N	S SYNKIANG
0855	12/24	19.11.28	35.0	72.0	4.0	N	PAKISTAN
0856	12/25	09.14.04	40.6	27.4	3.7	P	TURKEY
0857	12/25	12.30.53	53.1	162.9	4.8	P	OEC KAMCHATKA
0858	12/25	12.55.52	45.5	149.8	4.7	P	KURIL ISL
0859	12/25	18.55.58	53.0	159.4	5.7	P	NEC KAMCHATKA
0860	12/25	20.54.27	53.0	162.0	3.5	L	OEC KAMCHATKA
0861	12/26	06.13.50	24.0	67.0	3.6	N	PAKISTAN
0862	12/26	18.35.23	28.4	52.7	4.6	P	S IRAN
0863	12/27	08.15.11	39.0	25.0	3.6	N	AEGEAN SEA
0864	12/28	02.59.18	46.0	151.0	4.0	L	KURIL ISL

SOURCE INFORMATION

EVPNT NO.	DATE	O.T.	COORDINATES		MR		SEISMIC AREA
			LAT	LONG			
0865	12/28	04.26.59	50.0	78.0	4.5	I	F KAZAKH
0866	12/28	05.24.44	40.8	20.6	3.5	P	GRFCE-ALBANIA
0867	12/28	21.52.19	49.0	157.0	4.1	L	KURL ISL REG
0868	12/29	05.02.44	56.0	163.0	4.3	L	OEC KAMCHATKA
0869	12/29	11.26.29	53.8	169.0	4.3	P	KOMANDORSKY
0870	12/30	05.25.49	30.0	85.0	4.1	N	TIBET
0871	12/30	07.45.43	44.0	149.0	3.8	L	KURIL ISL
0872	12/30	09.08.08	32.0	48.0	3.8	N	IRAN-IRAQ BOR
0873	12/30	13.29.36	33.7	87.6	4.5	P	TIBET
0874	12/30	15.21.07	40.4	25.8	4.4	P	AEGEAN SEA
0875	12/30	23.54.06	33.6	87.7	4.9	P	TIBET
0876	12/31	00.56.53	33.0	88.0	4.1	N	TIBET
0877	12/31	02.49.24	36.0	85.0	3.8	N	S SINKIANG
0878	01/01	03.13.12	54.0	161.0	3.5	L	NKAM
0879	01/01	08.17.36	55.0	166.0	3.6	L	NKAM
0880	01/02	01.50.28	38.2	20.2	4.3	P	GTUR
0881	01/02	22.25.57	31.2	88.1	5.2	P	CENA
0882	01/03	06.17.10	51.0	157.0	4.1	L	SKAM
0883	01/03	14.22.48	35.0	85.0	3.7	N	CENA
0884	01/03	14.31.04	39.1	71.9	5.5	P	CENA
0885	01/03	15.05.16	39.1	72.1	4.8	P	CENA
0886	01/03	17.04.43	34.0	72.0	3.8	N	CENA
0887	01/03	20.36.06	39.0	72.6	4.7	P	CENA
0888	01/04	13.35.56	51.0	158.0	3.5	L	SKAM
0889	01/05	00.29.25	56.0	162.0	3.4	L	NKAM
0890	01/05	05.49.17	35.8	21.8	5.3	P	GTUR
0891	01/05	07.28.23	35.0	22.0	4.0	L	GTUR
0892	01/05	19.12.12	35.6	21.9	4.3	P	GTUR
0893	01/06	15.05.38	49.3	155.5	4.7	P	SKAM
0894	01/08	23.17.30	52.0	159.0	3.9	L	SKAM
0895	01/09	16.17.55	39.5	73.7	4.9	P	CENA
0896	01/10	03.02.32	32.6	68.3	4.8	P	CENA
0897	01/10	03.24.11	37.8	21.3	5.0	P	GTUR
0898	01/10	17.02.56	31.2	51.3	4.4	R	STRA
0899	01/11	02.57.55	56.1	164.1	4.3	P	NKAM
0900	01/11	04.04.41	37.0	70.0	3.9	N	CENA
0901	01/12	08.15.05	53.0	163.0	3.8	L	NKAM
0902	01/12	17.35.49	38.0	70.0	3.7	N	CENA
0903	01/12	19.10.24	30.0	52.0	3.9	N	SIRA
0904	01/12	22.10.48	54.0	161.0	3.9	L	NKAM
0905	01/13	01.53.36	34.0	74.0	3.8	N	CENA
0906	01/14	01.46.49	30.0	51.0	3.6	N	STRA
0907	01/14	23.03.24	30.0	51.0	4.2	N	SIRA
0908	01/15	12.55.44	40.4	91.1	5.1	P	CENA
0909	01/15	14.42.07	40.4	91.1	4.7	P	CENA
0910	01/15	18.48.43	36.1	73.4	3.8	P	CENA
0911	01/16	21.31.26	33.2	75.7	5.1	P	CENA
0912	01/16	22.45.16	35.1	22.6	4.5	P	GTUR

SOURCE INFORMATION

EVENT		COORDINATES		MP	SEISMIC AREA		
NO.	DATE	O.T.	LAT			LONG	
0913	01/16	23.38.39	33.0	76.0	3.7	N	CENA
0914	01/18	06.47.28	34.9	99.6	4.6	P	CENA
0915	01/18	11.08.11	32.7	68.4	4.8	P	CENA
0916	01/19	03.15.39	32.7	68.4	4.5	P	CENA
0917	01/19	05.49.34	36.7	57.5	3.8	P	CASP
0918	01/19	15.10.02	32.7	68.3	5.0	P	CENA
0919	01/19	18.42.41	35.0	71.0	3.6	N	CENA
0920	01/20	01.50.51	45.0	96.0	3.7	N	CENA
0921	01/20	12.56.59	31.0	67.0	3.9	N	CENA
0922	01/20	14.31.54	31.0	67.0	4.0	N	CENA
0923	01/20	22.40.47	45.0	149.0	3.9	L	KURS
0924	01/21	03.23.53	41.0	71.0	4.3	L	CPNA
0925	01/21	07.36.03	49.0	155.0	4.0	L	SKAM
0926	01/23	11.31.48	40.4	91.0	4.9	P	CENA
0927	01/23	11.46.42	34.3	25.1	4.6	P	GTUR
0928	01/23	16.47.38	45.0	150.0	3.4	L	KUPS
0929	01/24	03.20.20	41.0	82.2	5.1	P	CENA
0930	01/24	03.29.52	41.0	84.0	4.5	L	CENA
0931	01/24	15.33.28	32.0	76.0	3.7	N	CENA
0932	01/25	18.32.27	54.6	161.6	5.3	P	NKAM
0933	01/26	07.50.18	37.0	19.0	4.7	L	GTUR
0934	01/26	12.23.04	35.0	24.0	3.7	L	GTUR
0935	01/26	22.02.11	44.0	149.0	4.0	L	KURS
0936	01/27	01.45.44	45.0	150.0	3.8	L	KURS
0937	01/27	04.04.41	50.4	156.8	5.2	P	SKAM
0938	01/27	08.57.54	36.0	74.0	4.0	N	CENA
0939	01/28	20.35.55	38.2	19.5	4.3	P	GTUR
0940	01/29	04.32.06	35.8	73.3	5.0	P	CENA
0941	01/29	06.02.32	38.2	19.9	4.3	P	GTUR
0942	01/29	13.24.50	35.0	54.0	4.5	L	CASP
0943	01/30	04.00.46	55.0	162.0	4.5	L	NKAM
0944	01/30	05.41.44	38.7	26.2	3.9	P	GTUR
0945	01/30	05.50.39	38.0	23.0	3.6	L	GTUR
0946	01/30	11.10.12	42.7	94.3	4.3	P	CENA
0947	01/30	12.01.09	39.6	23.8	3.3	P	GTUR
0948	01/30	22.47.12	41.1	20.1	3.8	P	GTUR
0949	02/16	05.02.58	49.8	78.2	5.6	P	EKAZ
0950	02/16	07.29.47	31.7	100.0	4.9	P	CENA
0951	02/16	13.15.13	45.0	148.0	3.7	L	KURS
0952	02/17	04.21.25	33.0	96.0	3.7	N	CENA
0953	02/17	06.15.48	27.0	95.0	3.6	N	CENA
0954	02/18	21.39.02	40.8	74.1	4.9	P	CENA
0955	02/19	17.34.45	32.0	88.0	4.2	N	CENA
0956	02/19	18.10.00	40.2	33.9	4.5	P	GTUR
0957	02/20	05.55.14	34.4	23.8	4.5	P	GTUR
0958	02/20	14.31.41	35.0	72.0	3.9	N	CENA
0959	02/20	20.02.39	53.6	169.6	4.6	P	NKAM
0960	02/21	11.37.31	45.0	147.0	3.7	L	KURS

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB		SEISMIC AREA
			LAT	LONG			
0961	02/22	18.18.05	38.7	98.7	4.3	P	CENA
0962	02/22	18.58.09	43.0	149.0	4.1	L	KURS
0963	02/22	22.43.17	31.0	57.0	4.0	N	SIRA
0964	02/23	07.02.15	46.0	153.0	3.8	L	KURS
0965	02/23	10.45.06	37.6	86.4	4.8	P	CENA
0966	02/24	00.02.40	28.6	52.6	5.2	P	SIRA
0967	02/24	06.39.23	55.0	166.0	3.8	L	NKAM
0968	02/24	23.54.03	35.0	24.5	4.1	P	GTUR
0969	02/25	03.54.13	44.8	148.2	4.3	P	KURS
0970	02/25	04.40.36	56.0	164.0	3.5	L	NKAM
0971	02/25	12.55.21	37.7	21.0	3.5	P	GTUR
0972	02/25	14.55.21	38.8	29.4	4.1	P	GTUR
0973	02/26	02.57.54	56.0	162.0	4.2	L	NKAM
0974	02/26	08.16.58	49.4	155.6	5.0	P	SKAM
0975	02/26	15.56.43	45.0	147.0	3.6	L	KURS
0976	02/26	18.00.17	51.0	160.0	3.8	L	SKAM
0977	02/26	18.34.34	34.0	67.0	3.5	N	CENA
0978	02/26	20.11.04	33.0	91.0	4.2	N	CENA
0979	02/26	20.22.28	36.0	74.0	3.8	N	CENA
0980	02/26	22.23.12	40.0	20.1	4.6	P	GTUR
0981	02/27	04.58.09	54.0	170.0	4.0	L	NKAM
0982	02/27	07.31.59	44.0	145.0	3.4	L	KURS
0983	02/27	17.10.11	38.9	29.9	4.2	P	GTUR
0984	02/28	06.37.50	50.5	156.6	6.3	P	SKAM
0985	02/28	06.49.31	50.4	157.2	4.9	P	SKAM
0986	02/28	06.50.40	50.1	156.9	5.3	P	SKAM
0987	02/28	06.55.39	50.1	156.9	5.5	P	SKAM
0988	02/28	07.00.35	49.0	156.0	4.2	N	SKAM
0989	02/28	07.21.45	51.0	159.0	3.8	L	SKAM
0990	02/28	07.47.09	34.0	67.0	4.2	N	CENA
0991	02/28	08.05.45	50.0	157.0	4.0	L	SKAM
0992	02/28	08.07.45	51.0	158.0	4.3	L	SKAM
0993	02/28	08.14.24	51.0	158.0	4.1	L	SKAM
0994	02/28	08.23.11	50.0	156.0	3.6	L	SKAM
0995	02/28	08.31.37	51.0	158.0	4.0	L	SKAM
0996	02/28	08.47.16	50.0	157.0	3.5	L	SKAM
0997	02/28	10.18.41	50.2	156.7	4.9	P	SKAM
0998	02/28	10.55.53	51.0	156.0	4.2	L	SKAM
0999	02/28	11.06.00	50.0	157.0	3.7	L	SKAM
1000	02/28	11.32.43	50.1	156.9	5.2	P	SKAM
1001	02/28	11.45.16	50.0	158.0	4.1	L	SKAM
1002	02/28	11.53.39	50.0	158.0	3.9	L	SKAM
1003	02/28	14.04.00	51.0	155.0	3.9	N	SKAM
1004	02/28	15.08.11	51.0	157.0	4.5	L	SKAM
1005	02/28	17.58.20	51.0	157.0	3.9	L	SKAM
1006	02/28	20.16.19	50.0	158.0	3.9	L	SKAM
1007	02/28	21.01.03	51.0	158.0	4.6	L	SKAM
1008	03/01	02.19.03	49.8	157.2	5.5	P	SKAM

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB	SEISMIC AREA
			LAT	LONG		
1009	03/01	04.10.31	50.0	158.0	4.2	L SKAM
1010	03/01	04.22.06	50.0	157.0	4.0	L SKAM
1011	03/01	04.30.02	51.0	158.0	3.9	L SKAM
1012	03/01	04.48.48	49.8	157.2	4.5	P SKAM
1013	03/01	09.33.16	51.0	158.0	4.4	L SKAM
1014	03/01	10.14.44	52.0	158.0	3.9	L SKAM
1015	03/01	10.31.20	50.0	155.0	3.4	L SKAM
1016	03/01	10.36.13	51.0	157.0	4.6	L SKAM
1017	03/01	12.59.42	42.0	97.0	4.2	L CENA
1018	03/01	13.26.35	49.0	155.0	4.7	L SKAM
1019	03/01	13.46.27	51.0	157.0	4.0	L SKAM
1020	03/01	16.30.12	51.0	158.0	3.8	L SKAM
1021	03/02	02.45.21	34.0	25.0	3.9	L GTUR
1022	03/02	06.32.39	51.0	157.0	4.1	L SKAM
1023	03/02	08.07.52	51.0	158.0	3.7	L SKAM
1024	03/02	10.24.45	50.0	158.0	4.1	L SKAM
1025	03/02	11.11.37	51.0	158.0	4.2	L SKAM
1026	03/02	12.00.18	39.0	73.0	3.7	N CENA
1027	03/02	13.57.02	51.0	158.0	3.5	L SKAM
1028	03/02	19.30.01	39.3	27.6	3.6	P GTUR
1029	03/03	02.42.09	50.4	156.2	5.5	P SKAM
1030	03/03	02.46.25	29.5	51.1	4.6	P STRA
1031	03/03	08.21.10	46.0	151.0	3.5	L KURS
1032	03/03	09.12.11	51.0	158.0	4.6	L SKAM
1033	03/03	10.22.46	40.2	78.8	4.6	P CENA
1034	03/03	23.47.18	34.0	74.0	3.7	N CENA
1035	03/04	08.28.36	50.7	157.0	4.6	P SKAM
1036	03/04	09.29.10	51.0	157.0	4.4	L SKAM
1037	03/04	11.24.52	51.0	159.0	3.7	L SKAM
1038	03/04	16.10.13	56.0	164.0	3.9	L NKAM
1039	03/04	17.57.43	54.8	161.5	6.1	P NKAM
1040	03/04	22.53.07	48.0	155.0	4.2	I SKAM
1041	03/05	06.15.54	51.0	158.0	4.0	L SKAM
1042	03/05	15.40.33	38.7	20.2	3.7	P GTUR
1043	03/05	19.48.58	51.0	158.0	3.9	N SKAM
1044	03/05	21.21.17	40.0	76.0	3.4	N CENA
1045	03/05	23.44.14	56.0	163.0	3.7	L NKAM
1046	03/06	02.19.08	50.0	158.0	3.6	L SKAM
1047	03/06	03.30.41	36.0	73.0	3.6	N CENA
1048	03/06	12.21.33	38.7	23.6	4.0	P GTUR
1049	03/06	18.09.52	35.0	72.0	3.6	N CENA
1050	03/06	18.32.05	49.9	156.7	5.0	P SKAM
1051	03/06	19.11.24	36.0	78.0	3.6	N CENA
1052	03/07	06.35.10	41.7	20.0	4.0	P GTUR
1053	03/07	07.07.38	36.4	71.5	5.0	P CENA
1054	03/07	16.11.45	44.0	148.0	4.1	L KURS
1055	03/07	17.04.08	31.0	50.0	3.6	N STRA
1056	03/08	05.33.22	50.0	157.0	3.5	L SKAM

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MR		SEISMIC AREA
			LAT	LONG			
1057	03/08	11.26.44	54.0	163.0	3.7	L	NKAM
1058	03/08	14.44.08	50.0	157.0	3.5	L	SKAM
1059	03/08	15.02.39	43.0	149.0	3.9	N	KURS
1060	03/08	15.03.24	51.0	158.0	4.2	L	SKAM
1061	03/08	20.12.27	51.0	158.0	4.5	L	SKAM
1062	03/08	23.13.58	51.0	159.0	3.8	L	SKAM
1063	03/09	06.09.17	34.0	68.0	4.0	N	CENA
1064	03/09	11.45.00	48.0	97.0	3.8	N	CENA
1065	03/09	13.58.41	49.9	157.0	4.6	P	SKAM
1066	03/09	14.46.42	51.0	159.0	4.0	L	SKAM
1067	03/09	16.51.35	36.0	71.0	3.5	N	CENA
1068	03/09	19.41.34	49.0	155.0	4.2	L	SKAM
1069	03/09	21.35.08	25.0	92.0	3.8	N	CENA
1070	03/09	22.29.23	50.0	156.0	4.4	L	SKAM
1071	03/10	04.44.41	50.7	156.7	4.7	P	SKAM
1072	03/10	09.35.43	38.7	21.0	3.1	P	GTUR
1073	03/10	11.30.06	35.0	23.0	3.7	L	GTUR
1074	03/10	15.33.03	49.0	155.0	4.4	L	SKAM
1075	03/10	16.07.45	49.0	156.0	3.9	L	SKAM
1076	03/10	18.56.34	30.0	51.0	3.5	N	SIRA
1077	03/10	22.34.09	51.0	158.0	4.1	L	SKAM
1078	03/10	23.21.29	44.0	147.0	4.1	L	KURS
1079	03/11	13.35.03	25.0	93.0	3.6	N	CENA
1080	03/11	14.53.07	21.0	120.1	4.8	P	TWAN
1081	03/12	08.31.14	37.5	29.9	4.4	P	GTUR
1082	03/12	10.04.34	43.6	147.8	4.3	P	KURS
1083	03/12	11.14.23	50.1	156.7	5.7	P	SKAM
1084	03/12	14.21.29	38.4	93.5	4.5	P	CENA
1085	03/12	19.39.21	50.8	157.1	6.1	P	SKAM
1086	03/12	20.30.43	35.9	21.7	4.7	P	GTUR
1087	03/13	22.10.13	34.0	24.0	4.0	L	GTUR
1088	03/14	04.04.18	49.0	158.0	3.9	L	SKAM
1089	03/14	05.32.28	47.0	150.0	3.7	L	KURS
1090	03/15	00.19.31	52.0	160.0	4.0	L	SKAM
1091	03/15	21.12.26	28.0	93.0	3.7	N	CENA
1092	03/15	23.24.32	38.0	77.0	4.2	N	CENA
1093	03/17	00.13.19	46.2	153.3	4.3	P	KURS
1094	03/17	10.52.53	50.0	158.0	3.9	L	SKAM
1095	03/17	19.09.21	23.0	92.0	4.1	N	CENA
1096	03/18	08.47.35	54.0	160.0	3.5	L	SKAM
1097	03/18	09.15.40	31.0	51.0	3.6	N	SIRA
1098	03/18	18.08.48	39.3	29.2	3.9	P	GTUR
1099	03/19	04.43.49	56.0	165.0	3.6	L	NKAM
1100	03/19	22.13.09	26.8	53.4	4.4	P	SIRA
1101	03/20	00.57.51	55.0	163.0	3.7	L	NKAM
1102	03/20	02.46.37	51.0	158.0	3.7	L	SKAM
1103	03/20	08.54.47	32.0	50.0	3.8	N	SIRA
1104	03/20	14.27.57	49.0	155.0	4.5	N	SKAM

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB		SEISMIC AREA
			LAT	LONG			
1105	03/20	20.24.34	30.0	51.0	3.6	N	STRA
1106	03/21	02.24.21	50.8	157.2	5.2	P	SKAM
1107	03/21	08.16.23	37.1	30.2	4.3	P	GTUR
1108	03/21	11.25.50	37.6	23.6	4.2	P	GTUR
1109	03/21	12.29.49	35.0	24.0	3.9	N	GTUR
1110	03/21	13.31.18	55.0	163.0	3.5	L	NKAM
1111	03/21	18.51.52	31.0	50.0	4.0	N	STRA
1112	03/22	01.06.57	28.1	87.0	5.2	P	CENA
1113	03/22	10.10.41	31.0	99.0	4.0	N	CENA
1114	03/22	10.41.02	53.0	160.0	4.2	L	SKAM
1115	03/22	15.27.52	44.0	148.0	4.3	L	KURS
1116	03/22	17.14.40	44.0	149.0	3.8	L	KURS
1117	03/22	23.44.31	53.3	169.9	4.7	P	NKAM
1118	03/23	00.11.36	53.4	169.8	4.6	P	NKAM
1119	03/23	02.08.30	35.9	21.8	4.0	P	GTUR
1120	03/23	03.59.13	51.0	157.0	4.4	I	SKAM
1121	03/24	02.50.57	51.0	158.0	4.5	L	SKAM
1122	03/24	05.22.56	46.0	152.0	3.9	L	KURS
1123	03/24	07.14.26	51.6	161.6	4.8	P	SKAM
1124	03/24	14.36.58	56.0	162.0	3.7	I	NKAM
1125	03/25	08.56.15	50.2	156.9	5.3	P	SKAM
1126	03/25	14.28.00	45.0	147.0	3.4	I	KURS
1127	03/25	21.11.05	51.0	158.0	4.7	L	SKAM
1128	03/25	22.55.54	38.5	20.4	3.5	P	GTUR
1129	03/25	23.28.07	55.0	166.0	3.7	L	NKAMI
1130	03/26	02.16.31	24.0	123.0	3.9	N	TWAN
1131	03/26	02.29.05	21.6	126.3	4.8	P	TWAN
1132	03/26	02.37.21	23.4	123.0	5.5	P	TWAN
1133	03/26	03.21.12	33.0	94.0	4.1	N	CENA
1134	03/26	06.51.59	55.0	162.0	3.6	L	NKAM
1135	03/26	08.44.26	37.0	74.0	3.8	N	CENA
1136	03/26	11.44.01	53.0	160.0	3.9	L	SKAM
1137	03/27	03.11.33	35.0	27.0	3.8	N	GTUR
1138	03/27	06.46.31	46.0	149.0	4.0	L	KURS
1139	03/27	15.38.24	38.4	21.1	4.1	P	GTUR
1140	03/27	16.56.30	51.0	158.0	4.1	L	SKAM
1141	03/28	03.36.38	28.6	52.7	5.2	P	SIPA
1142	03/28	08.58.33	45.0	149.0	4.0	L	KURS
1143	03/28	23.55.47	23.3	123.8	5.3	P	TWAN
1144	03/29	00.19.19	24.0	124.0	4.3	N	TWAN
1145	03/29	15.22.06	23.9	123.4	4.4	P	TWAN
1146	03/29	18.06.36	49.0	97.0	3.8	N	CENA
1147	03/30	02.16.16	26.0	125.0	4.5	L	TWNI
1148	03/31	08.21.01	27.0	56.0	3.6	N	STRA
1149	03/31	14.00.52	47.0	152.0	4.6	L	KURS
1150	03/31	19.13.55	32.0	79.0	3.9	N	CENA
1151	03/31	20.45.31	50.2	157.1	4.8	P	SKAM
1152	04/01	08.45.31	55.0	161.6	4.7	P	NKAM

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB	SEISMIC AREA
			LAT	LONG		
1153	04/01	09.45.21	41.0	72.0	3.8	N CENA
1154	04/01	14.30.50	41.0	70.0	3.8	N CENA
1155	04/02	02.43.24	37.7	69.0	4.4	P CENA
1156	04/02	04.04.33	38.1	70.0	3.8	P CENA
1157	04/03	05.50.32	38.0	69.0	3.7	N CENA
1158	04/03	10.50.26	45.9	151.1	5.0	P KURS
1159	04/03	14.57.52	31.0	51.0	3.8	N SIRA
1160	04/03	22.19.43	38.0	69.0	4.0	N CENA
1161	04/04	05.59.08	41.0	88.0	4.3	L CENA
1162	04/04	10.12.52	44.4	148.0	4.2	P KURS
1163	04/04	16.07.58	45.0	149.0	3.8	L KURS
1164	04/04	17.53.08	30.5	83.7	4.8	P CENA
1165	04/04	21.31.33	44.2	146.0	4.3	P KURS
1166	04/04	21.50.53	43.4	147.7	5.2	P KURS
1167	04/04	22.10.16	39.7	75.0	3.7	P CENA
1168	04/04	23.56.43	43.3	147.8	5.3	P KURS
1169	04/05	01.01.52	43.0	147.0	3.6	L KURS
1170	04/05	12.14.44	43.6	146.4	4.1	P KURS
1171	04/05	19.24.01	30.9	50.5	4.0	P SIRA
1172	04/05	22.16.59	43.6	147.7	5.4	P KURS
1173	04/05	22.26.16	44.0	147.0	3.9	L KURS
1174	04/05	22.35.28	43.7	147.7	4.7	P KURS
1175	04/05	22.41.56	43.5	147.7	4.1	P KURS
1176	04/05	23.06.51	43.5	147.8	4.5	P KURS
1177	04/05	23.32.22	43.6	147.7	4.2	P KURS
1178	04/05	23.33.57	43.2	147.8	4.6	P KURS
1179	04/06	00.00.43	43.6	147.7	4.7	P KURS
1180	04/06	00.01.56	43.7	147.6	5.3	P KURS
1181	04/06	00.37.44	45.0	148.0	3.4	L KURS
1182	04/06	01.48.00	43.7	147.8	5.4	P KURS
1183	04/06	01.57.10	43.5	147.6	4.5	P KURS
1184	04/06	02.13.15	45.0	150.0	3.6	L KURS
1185	04/06	03.04.26	43.8	147.7	4.2	P KURS
1186	04/06	03.51.48	44.0	148.0	3.5	L KURS
1187	04/06	05.40.52	43.4	147.7	4.1	P KURS
1188	04/06	05.44.29	44.0	148.0	3.7	L KURS
1189	04/06	06.40.16	44.0	148.0	3.3	L KURS
1190	04/06	07.09.19	43.6	147.6	4.4	P KURS
1191	04/06	07.12.08	43.5	147.7	4.1	P KURS
1192	04/06	07.32.11	43.9	147.7	4.1	P KURS
1193	04/06	09.21.51	43.0	147.0	3.6	L KURS
1194	04/06	10.44.04	43.7	147.6	4.2	P KURS
1195	04/06	12.28.31	43.0	147.0	3.7	L KURS
1196	04/06	14.45.53	43.8	147.6	4.3	P KURS
1197	04/06	14.56.37	44.0	148.0	3.6	L KURS
1198	04/06	14.58.01	43.5	147.6	4.9	P KURS
1199	04/06	15.09.04	43.5	147.7	4.5	P KURS
1200	04/06	15.59.51	18.0	121.0	4.2	N TWAN

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MB		SEISMIC AREA
			LAT	LONG			
1201	04/06	19.05.08	44.0	148.0	4.2	N	KURS
1202	04/06	19.07.45	44.0	148.0	4.2	N	KURS
1203	04/07	04.42.39	45.0	149.0	3.4	L	KURS
1204	04/07	07.24.09	47.0	153.0	3.7	L	KURS
1205	04/07	10.49.27	27.9	52.5	4.3	P	SIRA
1206	04/07	12.56.38	38.0	78.0	3.9	N	CENA
1207	04/07	15.33.28	50.0	158.0	3.6	L	SKAM
1208	04/07	16.04.14	43.6	147.8	4.1	P	KURS
1209	04/07	17.37.19	43.0	148.0	3.7	L	KURS
1210	04/07	23.34.10	44.0	148.0	3.6	L	KURSI.
1211	04/08	03.52.17	38.0	75.0	3.8	N	CENA
1212	04/08	06.39.25	52.1	158.6	4.3	P	SKAM
1213	04/08	06.55.59	45.0	150.0	3.7	L	KURS
1214	04/08	12.23.33	52.0	159.0	3.4	L	SKAM
1215	04/08	15.53.46	34.0	72.0	3.6	N	CENA
1216	04/09	03.08.00	36.0	94.0	3.8	N	CENA
1217	04/12	06.35.37	43.0	147.0	3.8	N	KURS
1218	04/12	14.32.31	51.0	158.0	4.2	L	SKAM
1219	04/13	06.40.13	36.0	73.0	3.7	N	CENA
1220	04/13	10.47.39	33.0	86.0	3.9	N	CENA
1221	04/13	11.18.04	27.0	90.0	3.8	N	CENA
1222	04/13	18.17.40	45.0	148.0	3.7	N	KURS
1223	04/13	19.16.24	53.0	161.7	5.1	P	SKAM
1224	04/14	10.41.44	36.0	73.0	3.8	N	CENA
1225	04/14	12.17.16	31.0	51.0	3.6	N	STRA
1226	04/14	13.46.11	53.0	163.0	3.7	L	NKAM
1227	04/14	19.49.45	41.8	77.5	4.7	P	CENA
1228	04/14	20.01.46	35.0	72.0	3.7	N	CENA
1229	04/15	03.13.11	51.0	158.0	4.1	L	SKAM
1230	04/16	06.11.18	45.0	148.0	3.5	L	KURS
1231	04/17	03.37.48	33.3	68.1	5.1	P	CENA
1232	04/17	22.09.49	50.8	157.5	5.6	P	SKAM
1233	04/18	09.30.54	45.0	145.0	3.2	L	KURS
1234	04/18	10.25.55	56.0	170.0	3.4	L	NKAM
1235	04/18	13.17.22	45.0	145.0	3.6	L	KURS
1236	04/19	04.32.57	50.0	77.7	5.4	P	EKAZ
1237	04/19	15.25.16	43.0	148.0	4.2	N	KURS
1238	04/19	22.04.24	39.0	82.0	3.4	N	CENA
1239	04/19	23.04.34	28.2	53.5	4.4	P	STRA
1240	04/20	21.12.33	35.0	72.0	4.0	N	CENA
1241	04/21	00.27.54	36.0	77.0	3.4	N	CENA
1242	04/21	12.54.38	45.0	149.0	4.0	L	KURS
1243	04/21	13.25.03	41.0	73.0	4.2	N	CENA
1244	04/21	18.09.03	46.0	149.0	3.5	N	KURS
1245	04/21	19.33.56	56.0	162.0	3.7	N	NKAM
1246	04/23	16.18.42	28.0	93.0	3.6	N	CENA
1247	04/23	18.31.46	54.0	163.0	4.0	L	NKAM
1248	04/24	03.35.36	51.0	158.0	3.9	L	SKAM

SOURCE INFORMATION

EVENT NO.	DATE	O.T.	COORDINATES		MP	SEISMIC AREA
			LAT	LONG		
1249	04/24	05.20.20	46.0	149.0	4.0	I KURS
1250	04/24	20.15.37	49.0	155.0	4.1	I SKAM
1251	04/24	20.43.33	54.0	160.0	3.9	L SKAM
1252	04/25	00.00.26	50.0	158.0	3.4	L SKAM
1253	04/25	02.11.13	43.0	149.0	3.8	L KURS
1254	04/25	08.35.37	26.8	55.4	4.6	P SIRA
1255	04/26	09.32.30	56.0	161.0	3.6	L NKAM
1256	04/26	09.41.24	56.0	163.0	3.3	L NKAM
1257	04/27	12.39.48	55.0	164.0	3.9	L NKAM
1258	04/27	15.18.40	43.0	146.0	3.9	N KURS
1259	04/27	19.13.10	48.0	156.0	4.0	I SKAM
1260	04/29	21.36.19	56.8	161.7	4.8	P NKAM
1261	04/29	21.40.58	57.0	162.0	3.5	L NKAM
1262	04/30	06.00.19	56.0	161.0	3.7	L NKAM
1263	04/30	07.29.48	50.0	89.7	4.6	P CENAP
1264	04/30	09.20.36	56.0	162.0	3.8	L NKAML
1265	04/30	14.45.33	54.0	160.0	3.7	I SKAML
1266	07/10	01.26.58	49.8	78.1	5.4	P FKAZ
1267	07/23	01.22.58	50.0	78.9	6.3	P EKAZ
1268	08/15	01.59.58	49.8	67.4	5.3	P CKAZ
1269	08/28	02.59.58	50.5	68.4	5.3	P CKAZ
1270	09/12	06.59.54	73.3	55.2	6.8	P NVZ
1271	09/19	02.59.57	45.6	67.8	5.2	P CKAZ
1272	09/27	06.59.58	70.8	53.9	6.0	P NVZ
1273	09/30	04.59.58	51.6	54.6	5.2	P WRS
1274	10/26	04.26.58	49.8	78.2	5.3	P FKAZ
1275	10/26	05.59.58	53.7	55.4	4.8	P URAIS
1276	10/27	06.59.57	70.8	54.2	6.9	P NVZ
1277	10/27	08.03.56	70.8	53.2	4.2	P NVZ
1278	10/27	08.21.21	70.9	52.9	4.4	P NVZ
1279	10/27	09.13.51	71.3	51.9	4.8	P NVZ
1280	12/14	07.46.57	50.0	79.0	6.0	P FKAZ

Abbreviations:

I = ISM

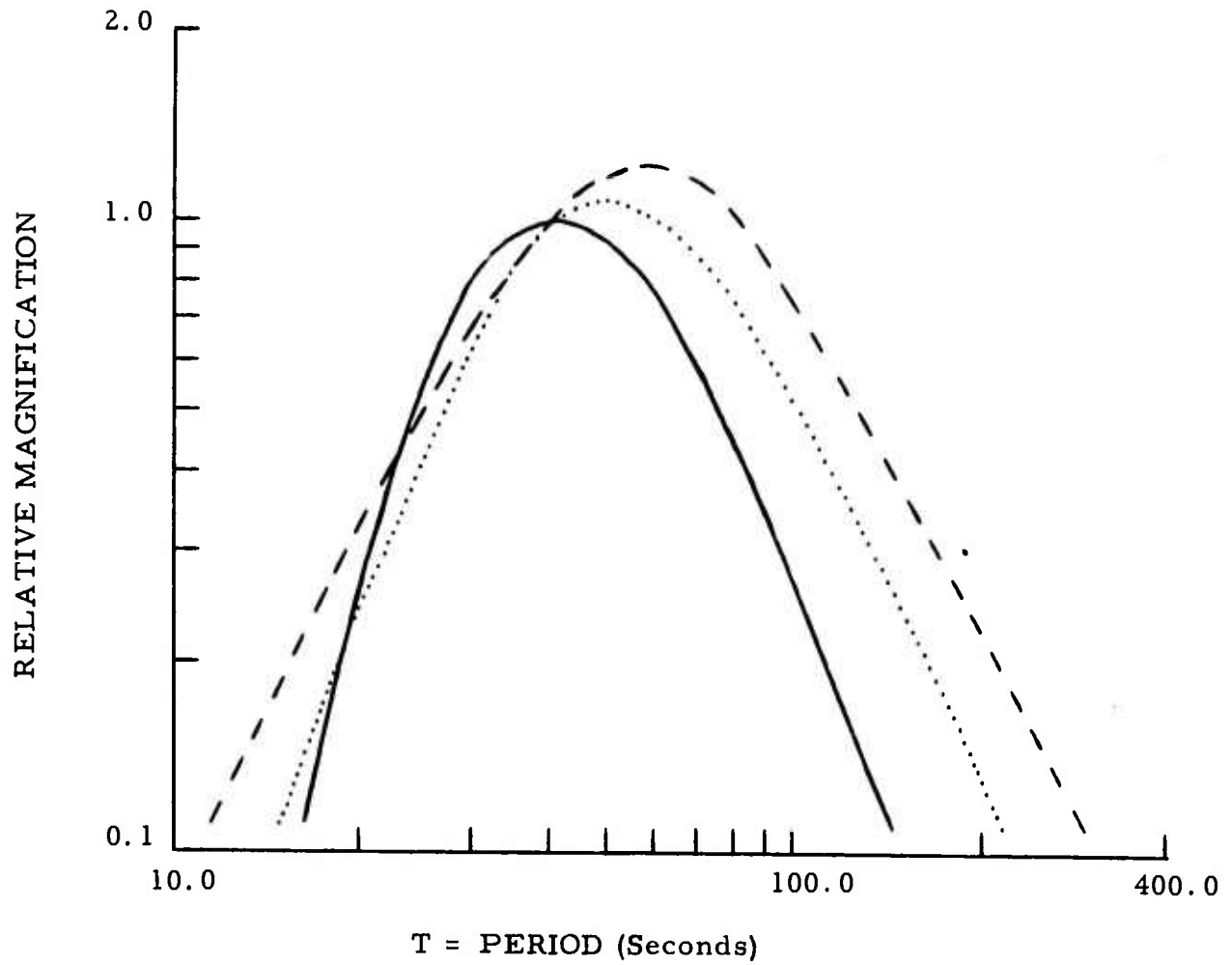
L = LASA

N = NORSAR

P = PDE

APPENDIX II-B
VLPE SYSTEM RESPONSE CURVES

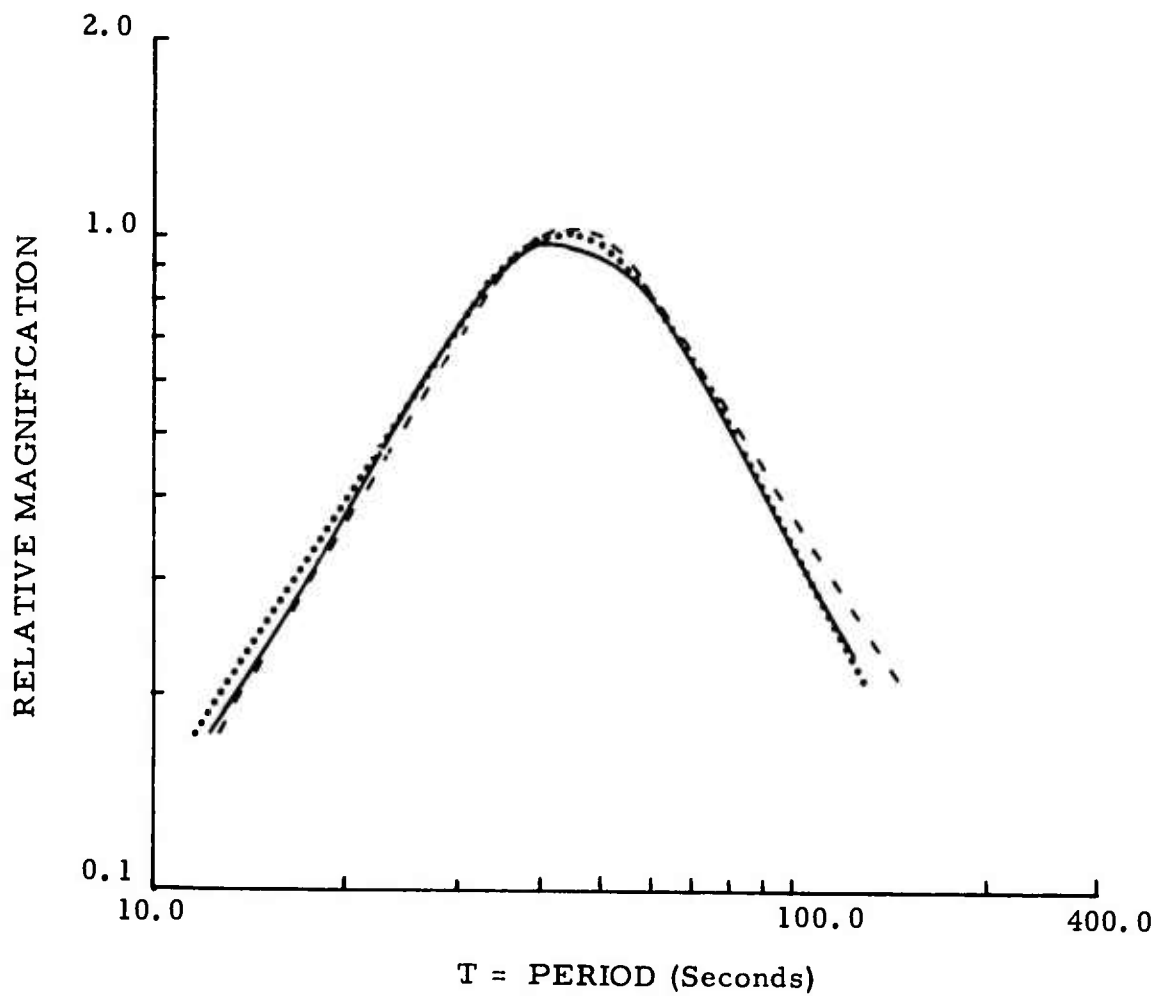
SYSTEM RESPONSE FOR CTA
PRIOR TO FEBRUARY 1, 1973



Gain at T = 40.0 Sec.

—	Z	0.721 $m\mu$ /count
- - -	N	1.48 $m\mu$ /count
.....	E	1.28 $m\mu$ /count

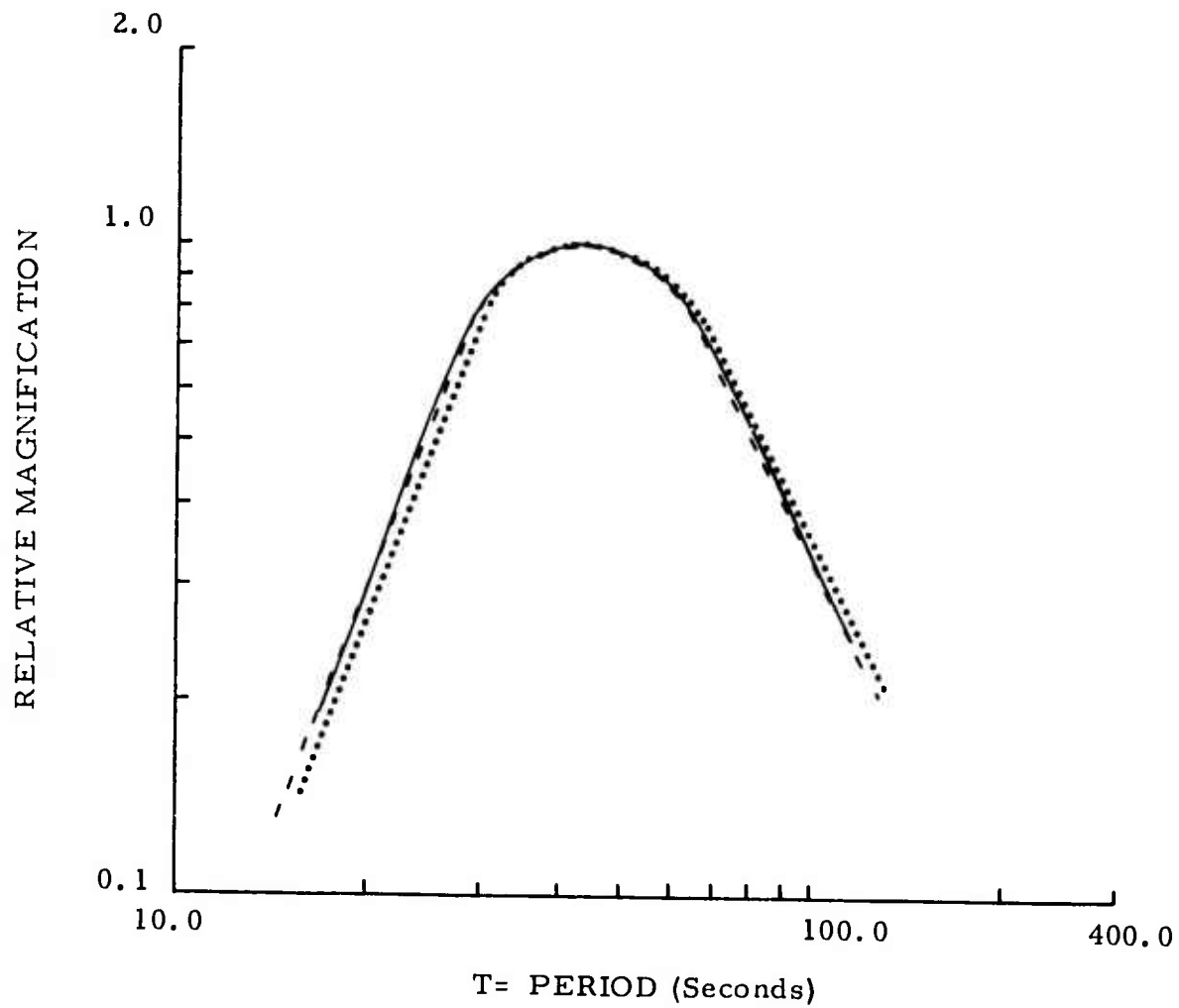
SYSTEM RESPONSE FOR CTA
FEBRUARY 1, 1973 TO APRIL 4, 1973



Gain at T = 40.0 Sec.

—	Z	1.07 m μ /count
---	N	0.555 m μ /count
.....	E	0.694 m μ /count

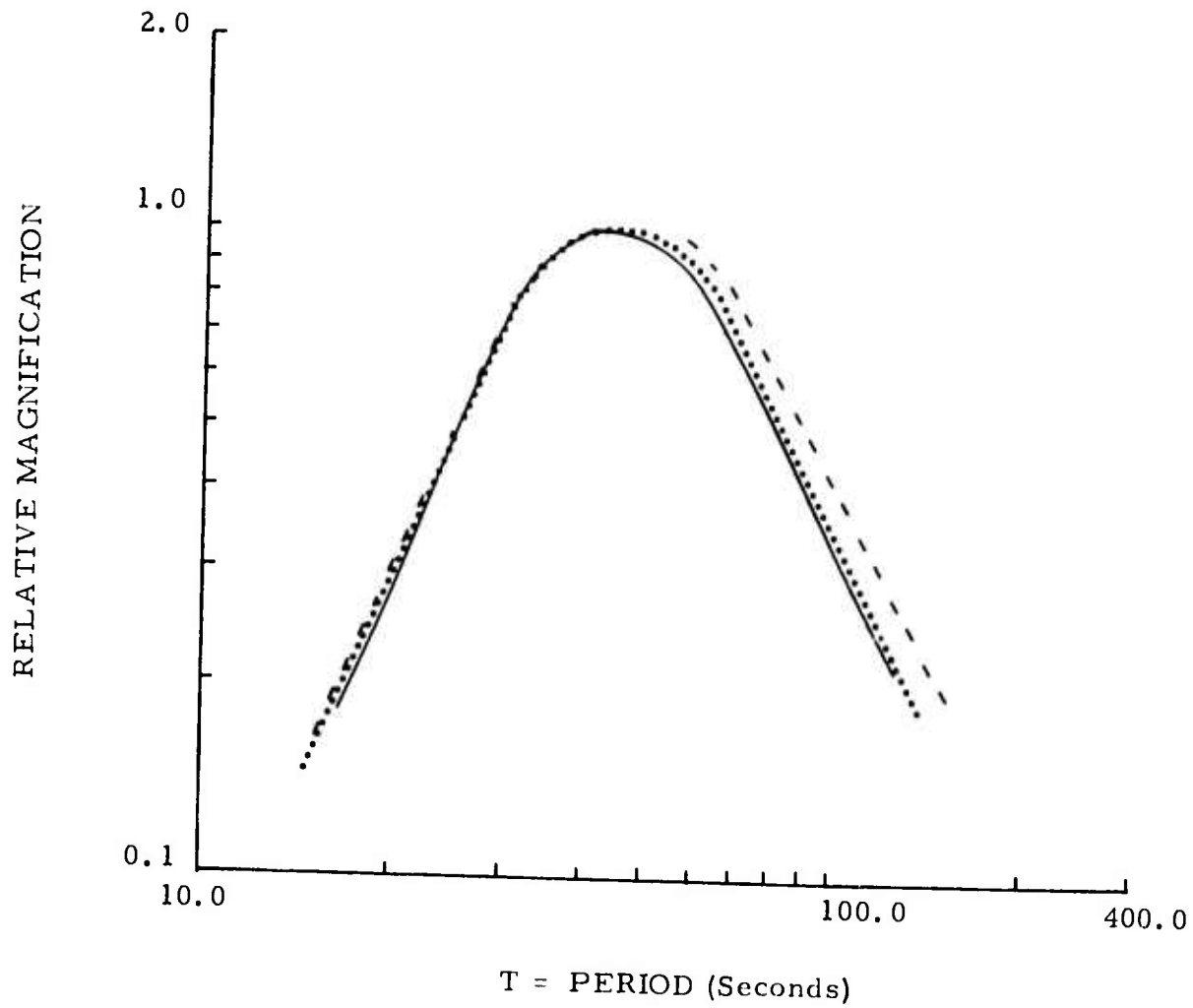
SYSTEM RESPONSE FOR CTA
APRIL 4, 1973 TO APRIL 27, 1973



Gain at T = 40.0 Sec.

—	Z	1.163 m μ /count
- - -	N	0.667 m μ /count
.....	E	0.775 m μ /count

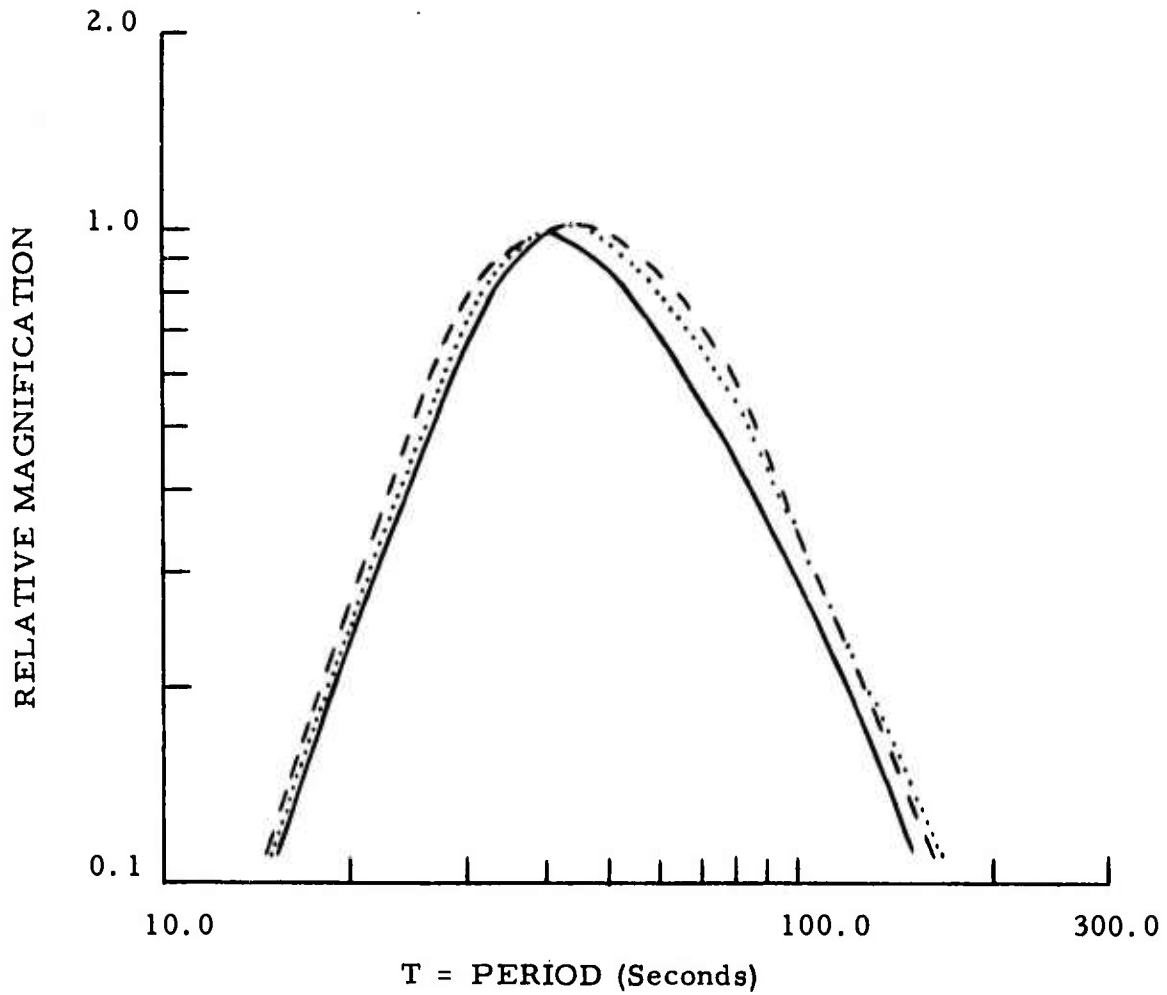
SYSTEM RESPONSE FOR CTA
APRIL 27, 1973 TO JUNE 19, 1973



Gain at T = 40.0 Sec.

—	Z	1.190 m μ /count
- - -	N	0.662 m μ /count
....	E	0.690 m μ /count

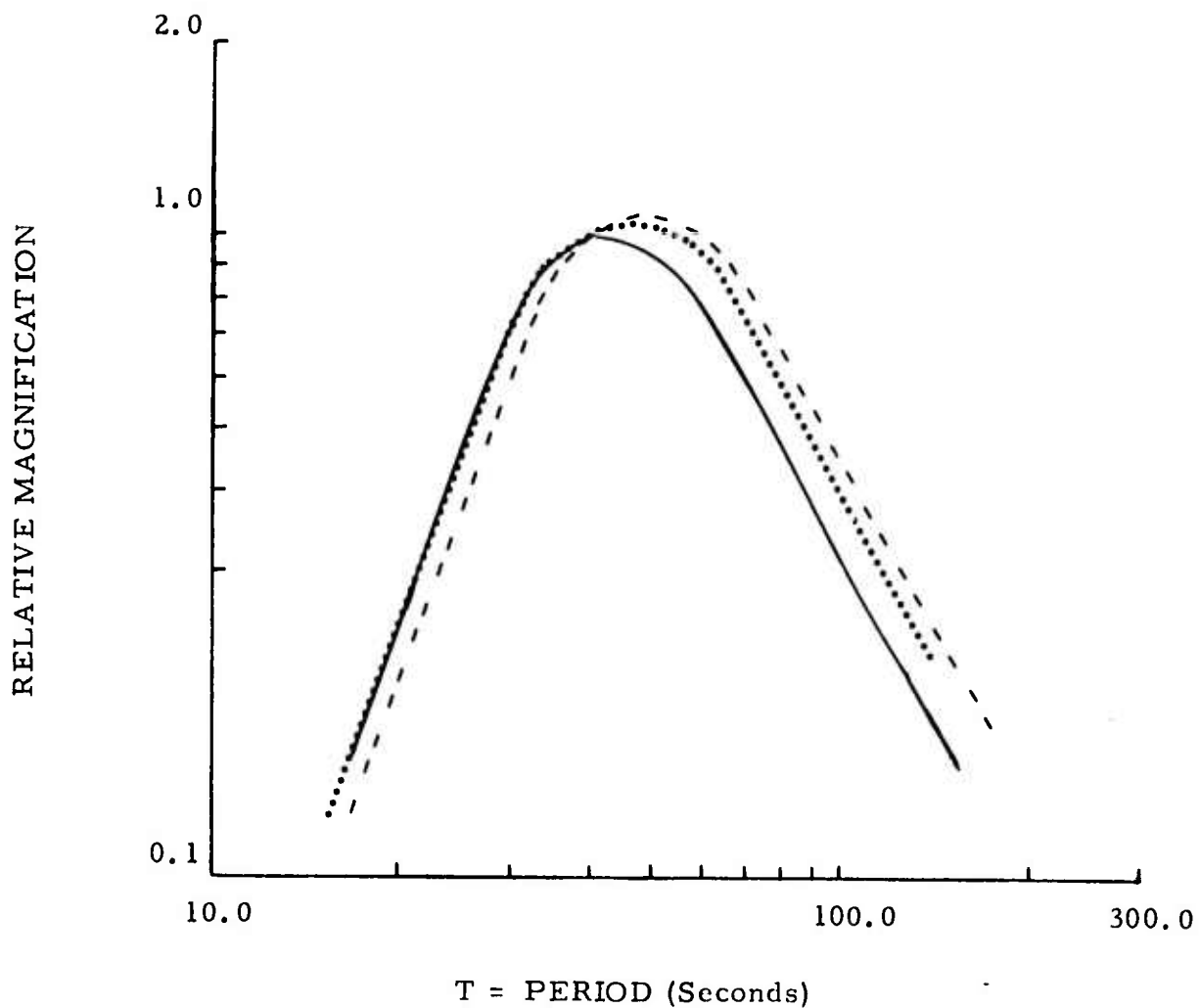
SYSTEM RESPONSE FOR CHG
PRIOR TO MARCH 6, 1973



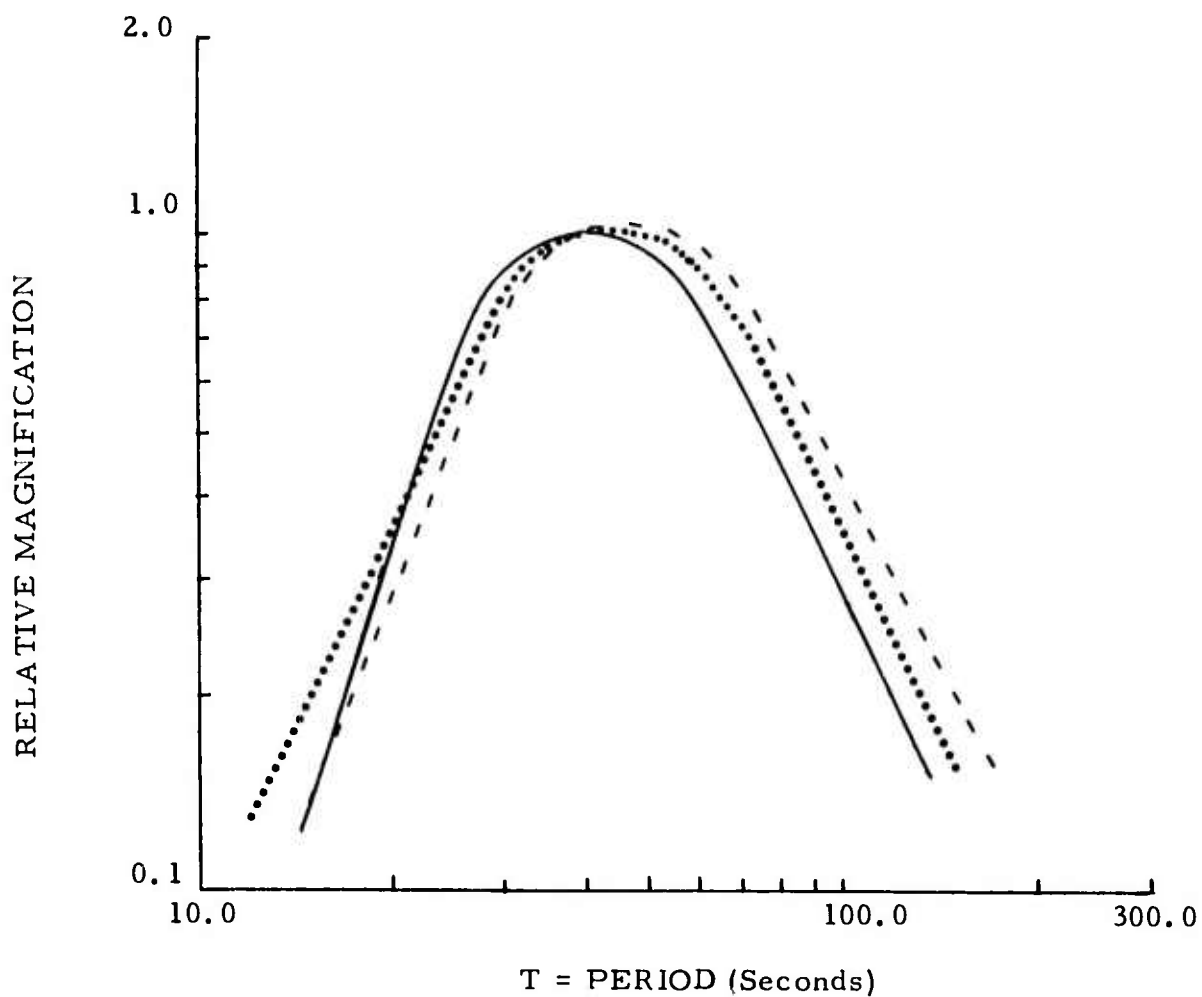
Gain at T = 40.0 Sec.

- Z 0.806 mμ/count
- - - N 1.14 mμ/count
- E 0.806 mμ/count

SYSTEM RESPONSE FOR CHG
MARCH 6, 1973 TO APRIL 1, 1973



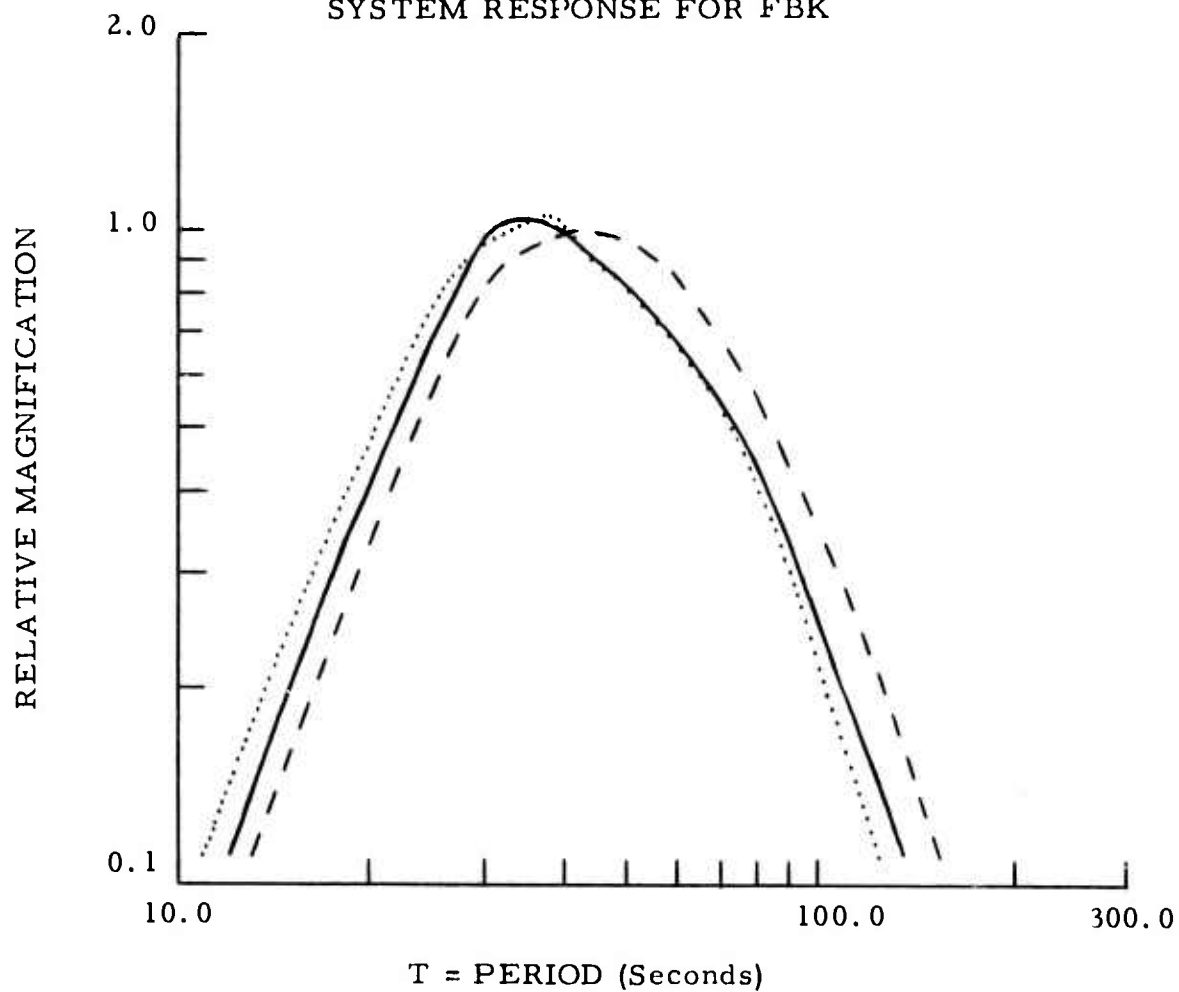
SYSTEM RESPONSE FOR CHG
APRIL 1, 1973 TO AUGUST 16, 1973



Gain at T = 40.0 Sec.

— Z 1.075 $m\mu$ /count
--- N 0.921 $m\mu$ /count
.... E 0.779 $m\mu$ /count

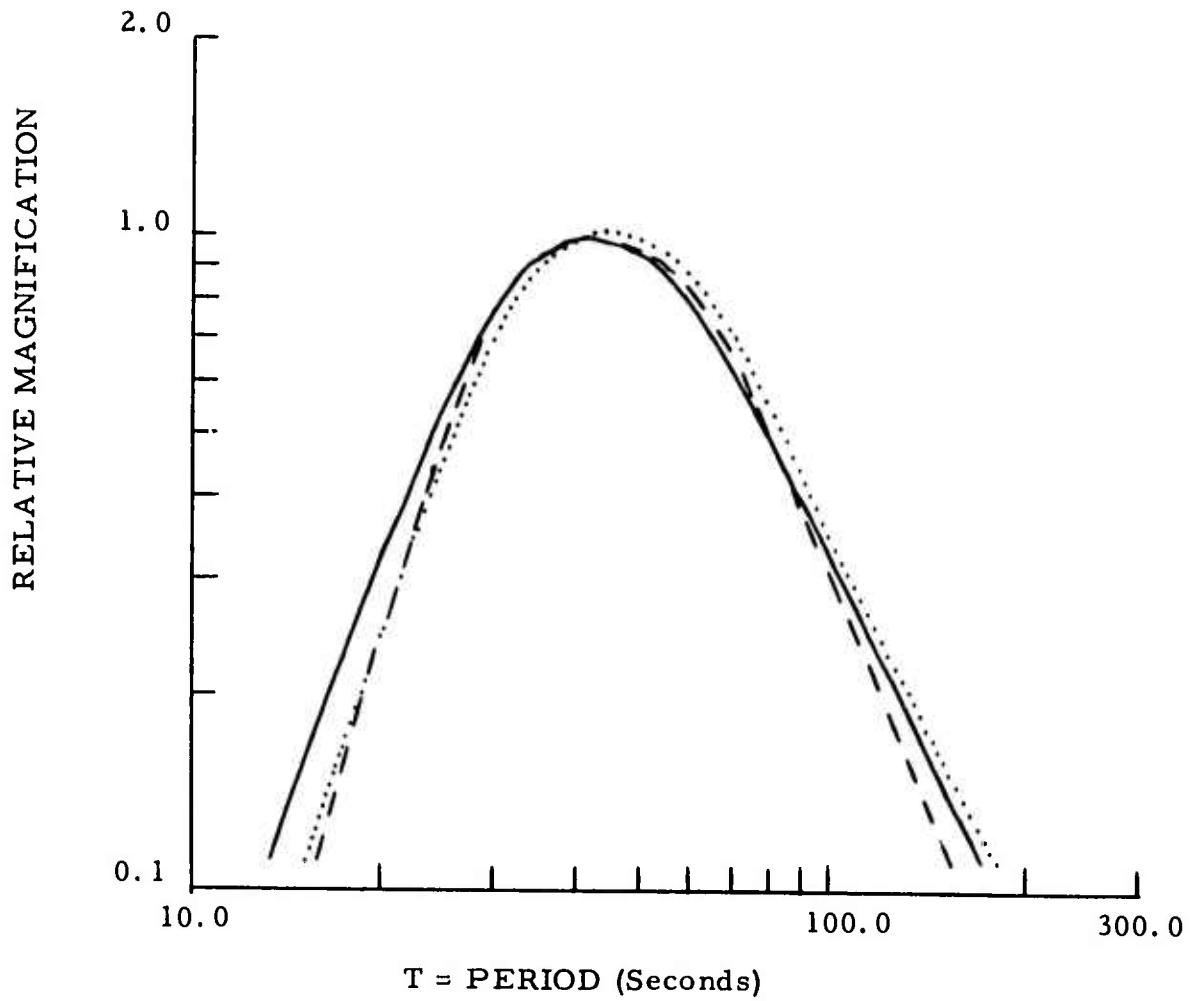
SYSTEM RESPONSE FOR FBK



Gain at T = 40.0 Sec.

—	Z	1.33 $m\mu$ /count
- - -	N	1.64 $m\mu$ /count
.....	E	1.26 $m\mu$ /count

SYSTEM RESPONSE FOR TLO
PRIOR TO MARCH 1, 1973

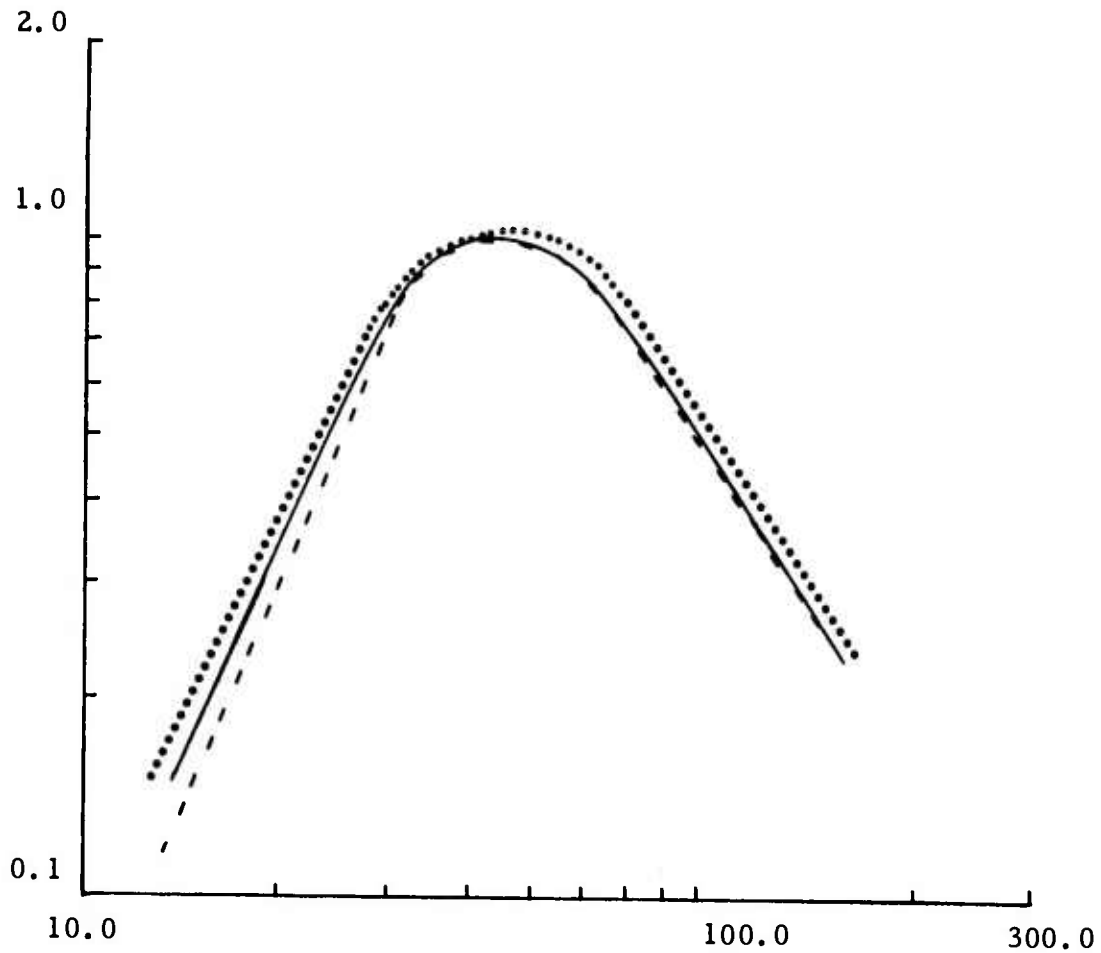


Gain at T = 40.0 Sec.

—	Z	0.708 $m\mu$ /count
- - -	N	0.625 $m\mu$ /count
.....	E	0.584 $m\mu$ /count

SYSTEM RESPONSE FOR TLO
MARCH 1, 1973 TO MARCH 31, 1973

RELATIVE MAGNIFICATION

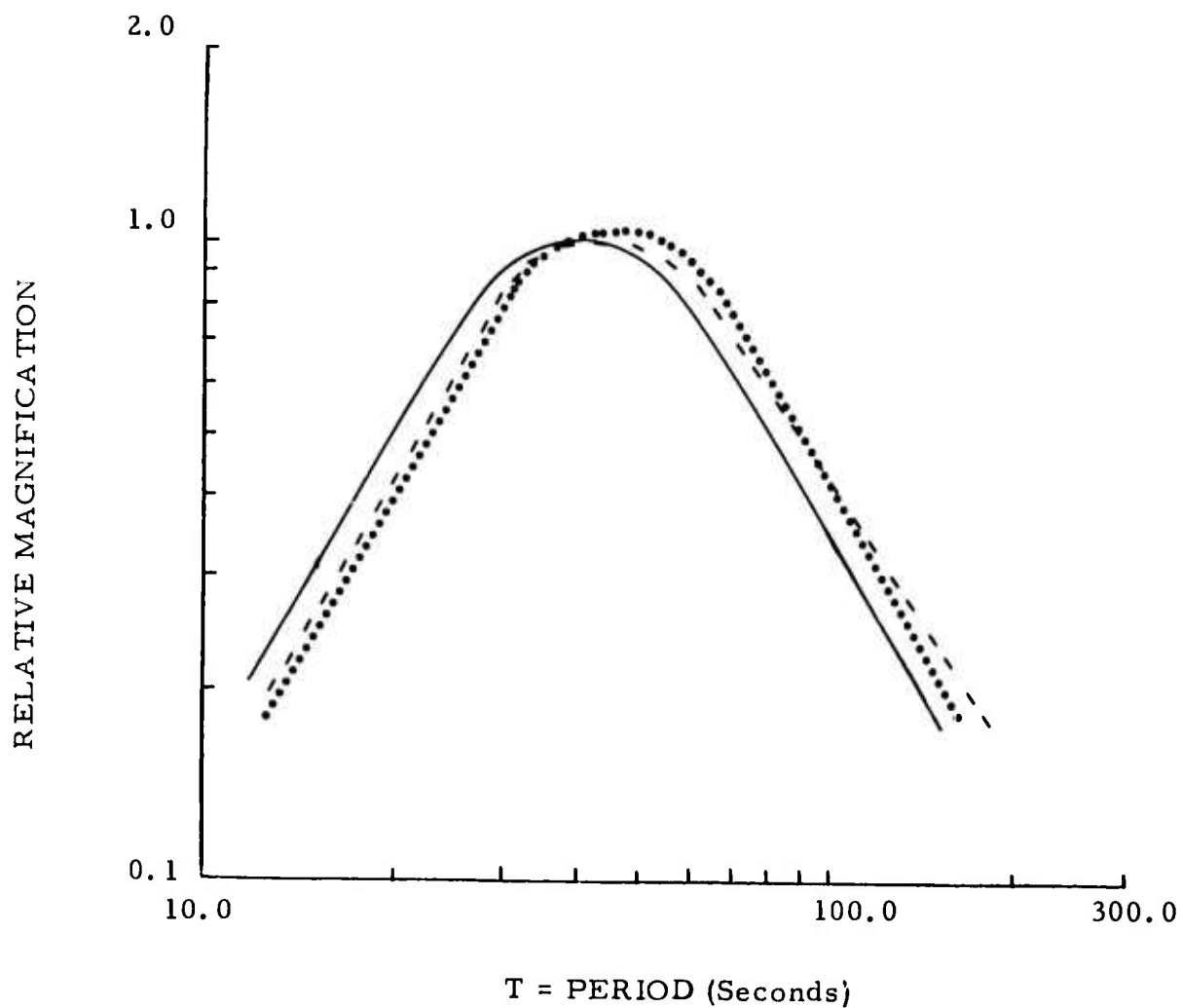


T = PERIOD (Seconds)

Gain at T = 40.0 Sec.

—	Z	1.176 $m\mu$ /count
---	N	0.752 $m\mu$ /count
....	E	0.855 $m\mu$ /count

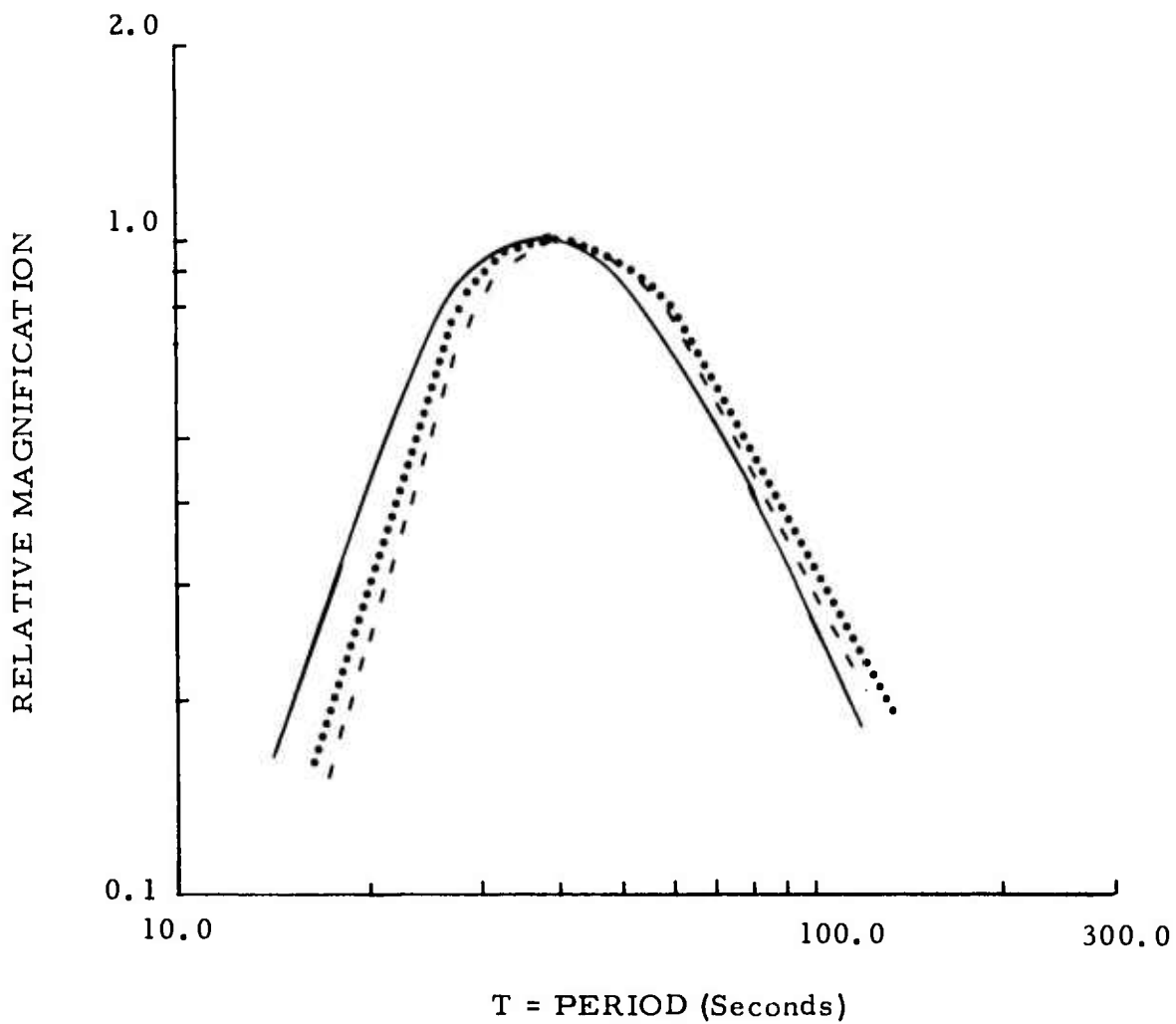
SYSTEM RESPONSE FOR TLO
MARCH 31, 1973 TO APRIL 28, 1973



Gain at T = 40.0 Sec.

—	Z	1.205 $m\mu$ /count
- - -	N	0.690 $m\mu$ /count
....	E	0.847 $m\mu$ /count

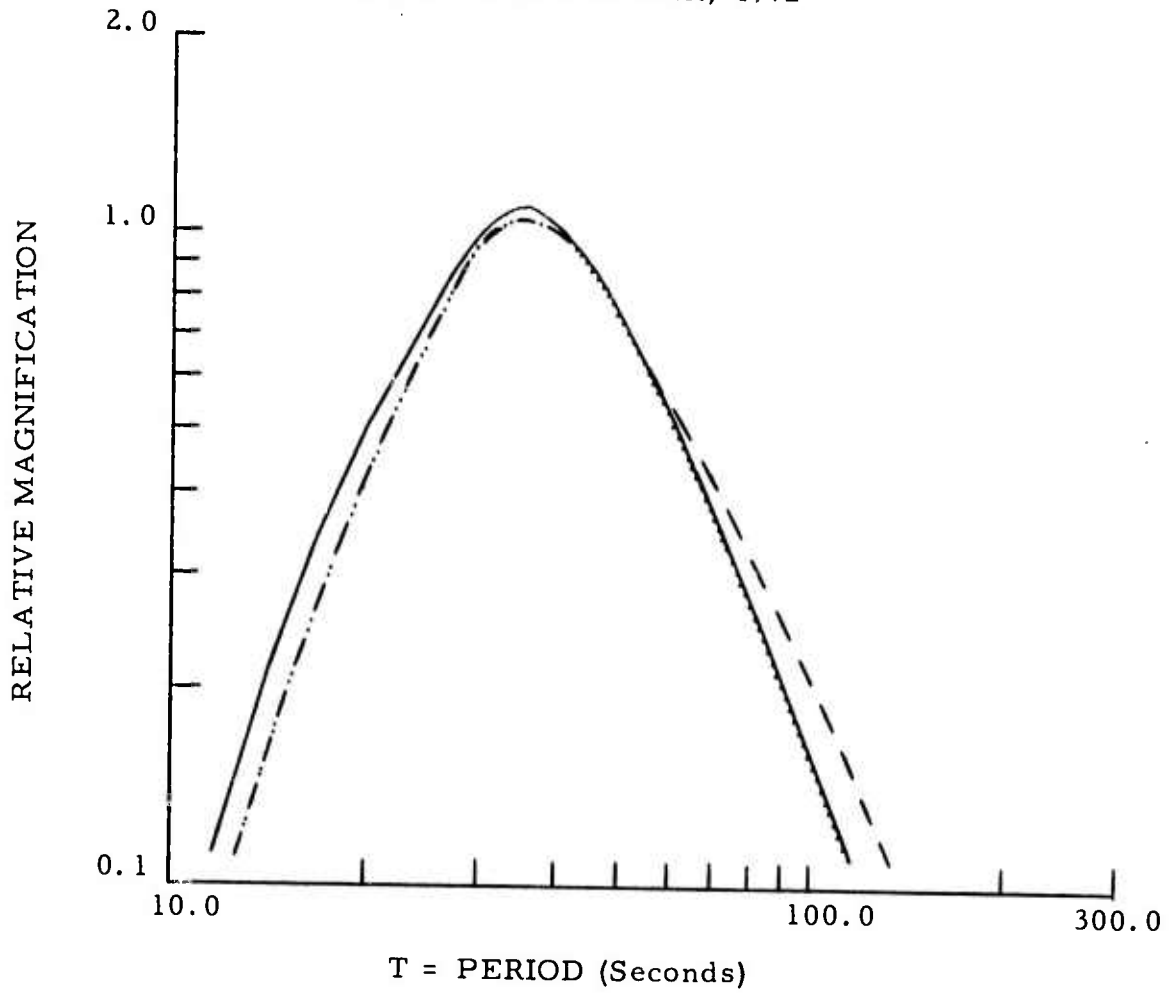
SYSTEM RESPONSE FOR TLO
APRIL 28, 1973 TO DECEMBER 5, 1973



Gain at T = 40.0 Sec.

- Z 1.005 $m\mu$ /count
- N 0.549 $m\mu$ /count
- E 0.769 $m\mu$ /count

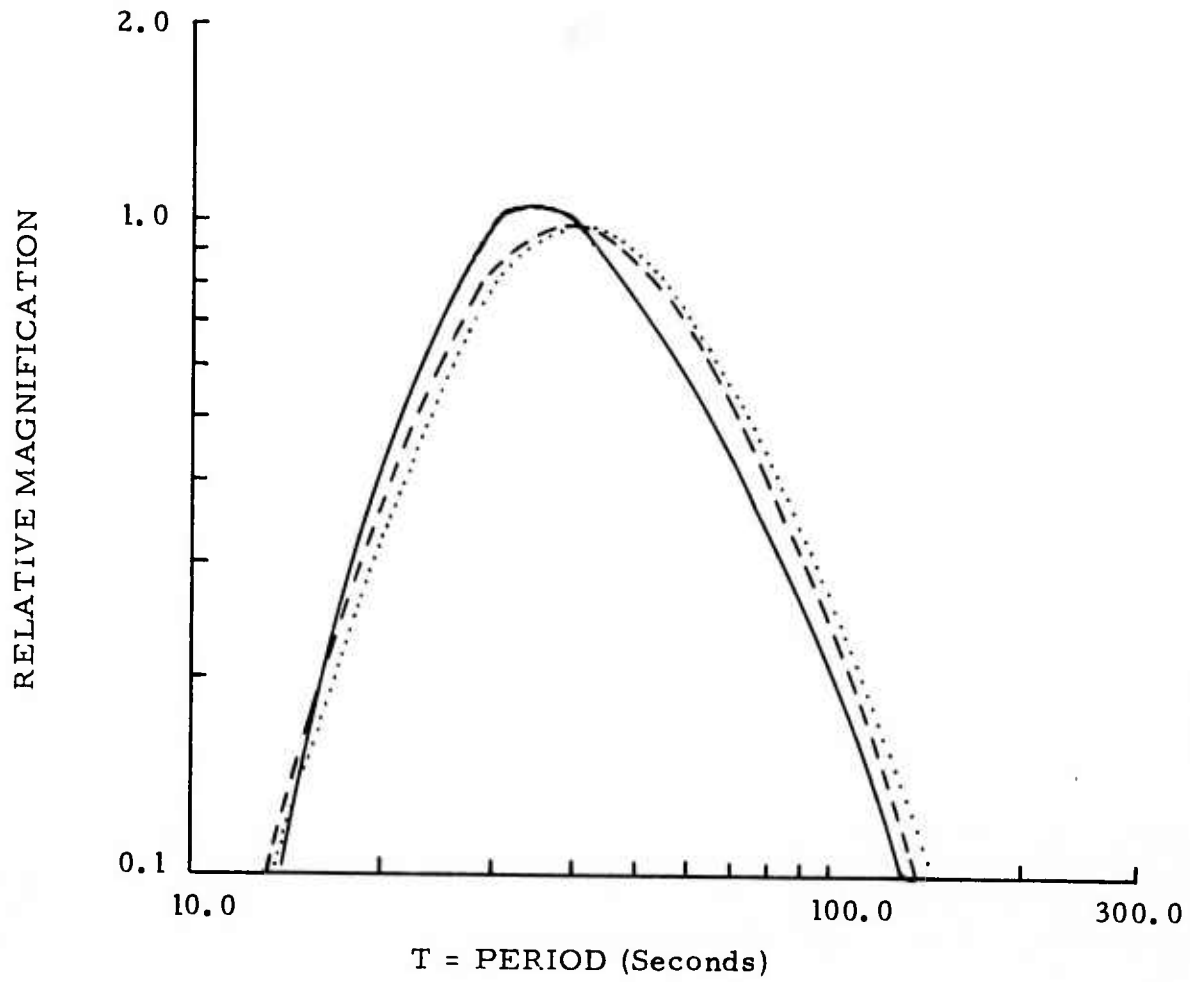
SYSTEM RESPONSE FOR EIL
PRIOR TO NOVEMBER, 1972



Gain at T = 40.0 Sec.

—	Z	0.794 $m\mu$ /count
- - -	N	1.34 $m\mu$ /count
.....	E	1.75 $m\mu$ /count

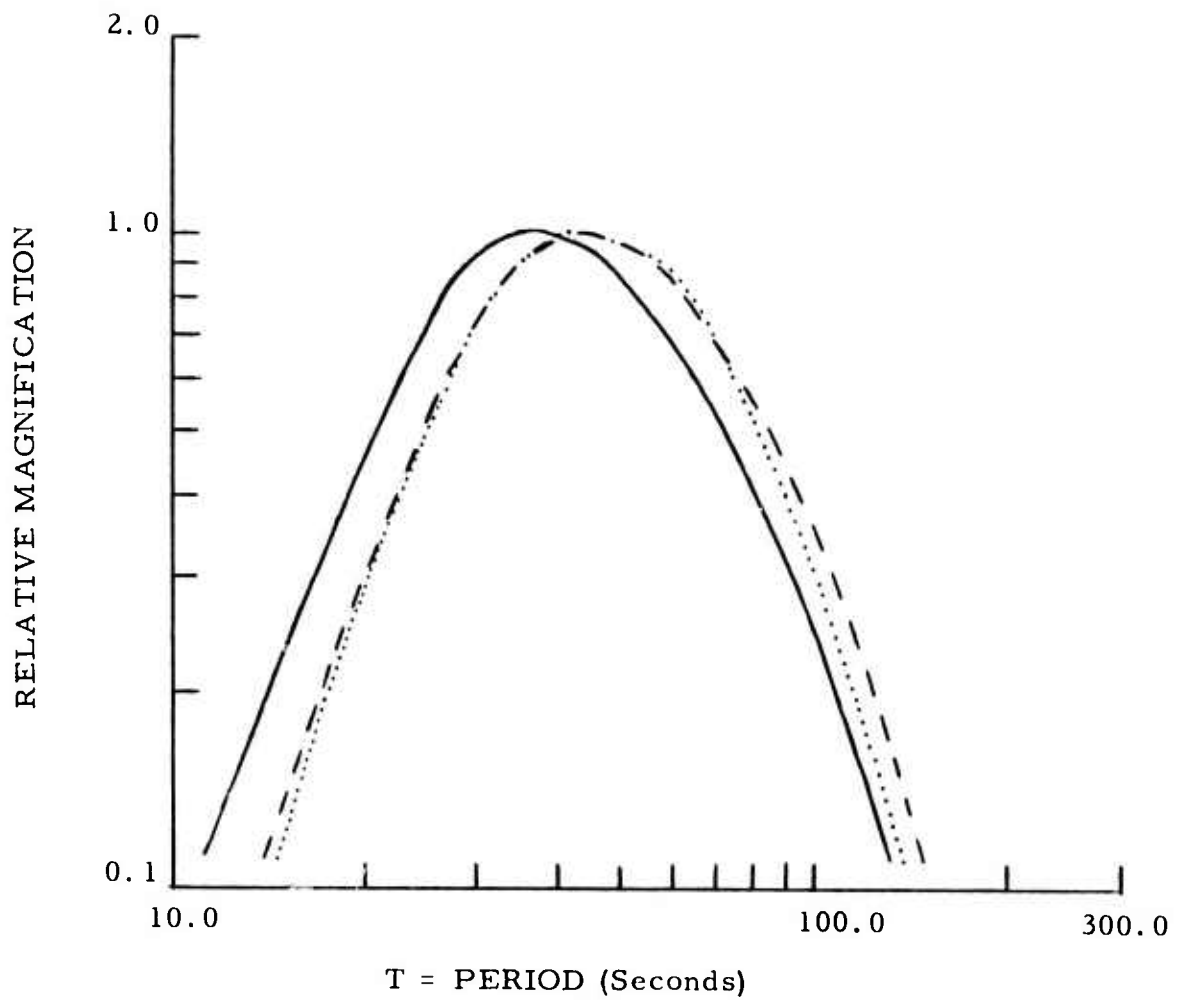
SYSTEM RESPONSE FOR EIL
NOVEMBER 1972 TO PRESENT



Gain at T = 40.0 Sec.

—	Z	1.701 m μ / count
- - -	N	1.441 m μ / count
. . . .	E	1.774 m μ / count

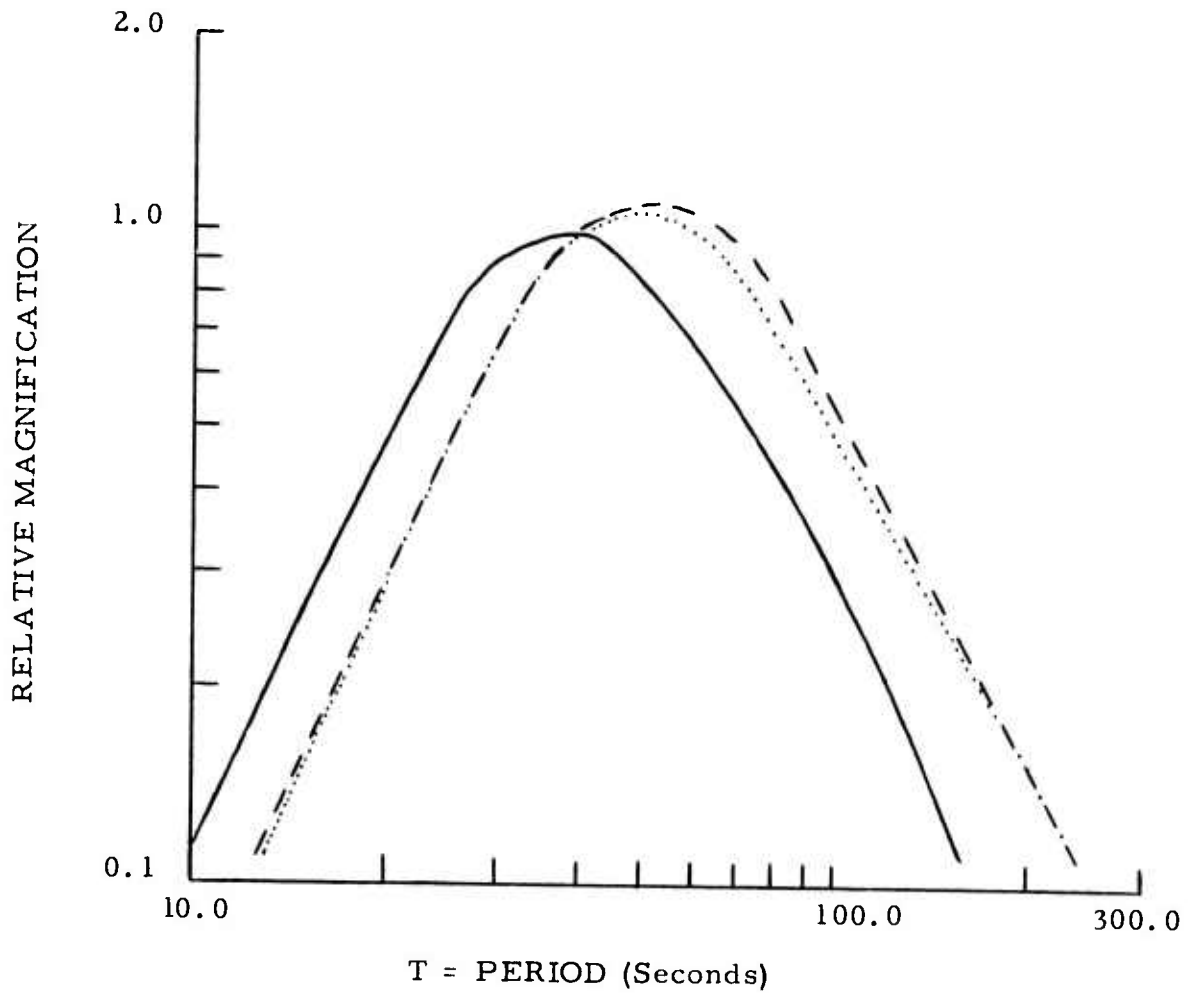
SYSTEM RESPONSE FOR KON



Gain at T = 40.0 Sec.

—	Z	0.656 $m\mu$ /count
- - -	N	0.530 $m\mu$ /count
.....	E	0.470 $m\mu$ /count

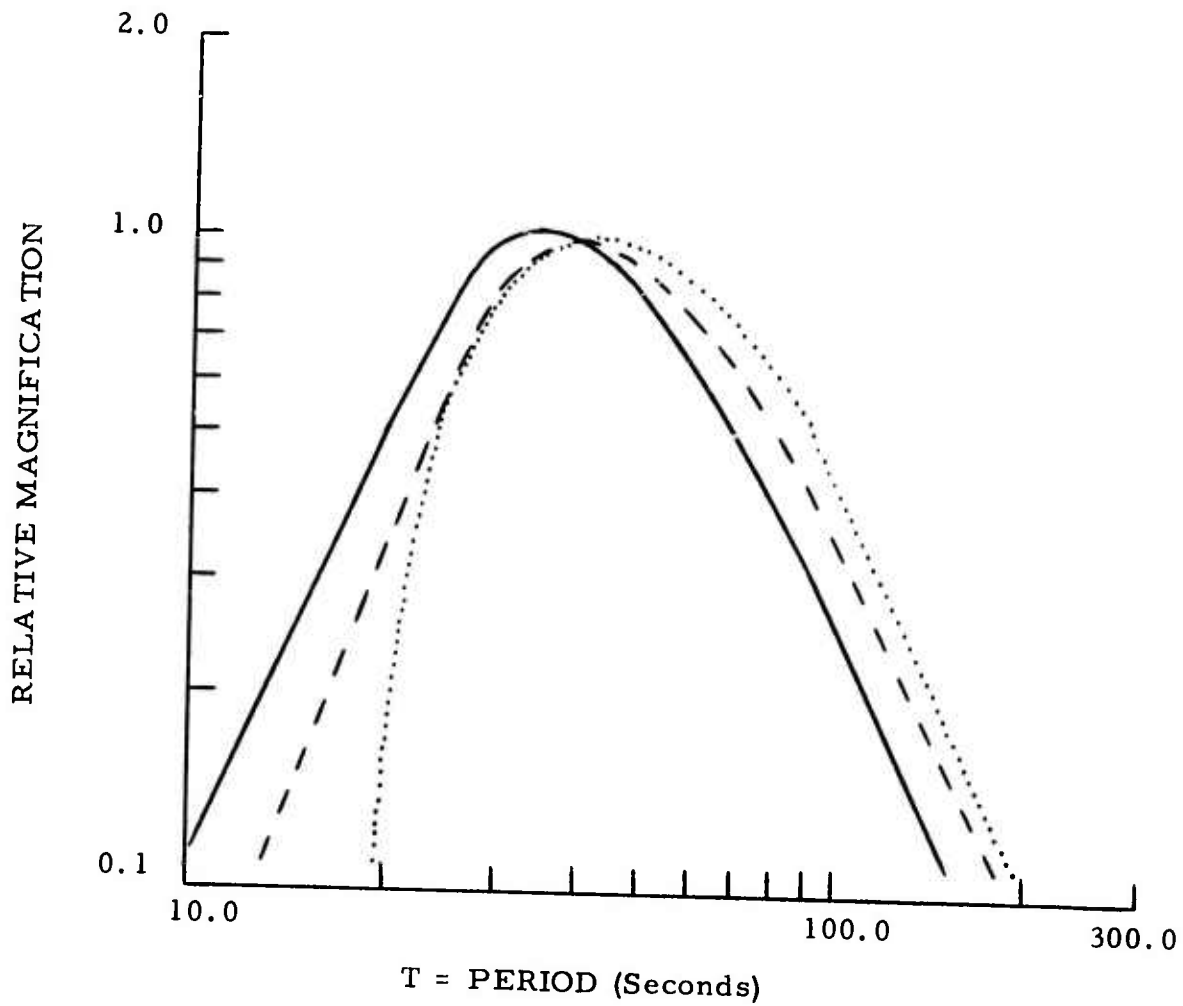
SYSTEM RESPONSE FOR OGD



Gain at T = 40.0 Sec.

—	Z	0.927 $m\mu$ /count
- - -	N	0.355 $m\mu$ /count
.....	E	0.397 $m\mu$ /count

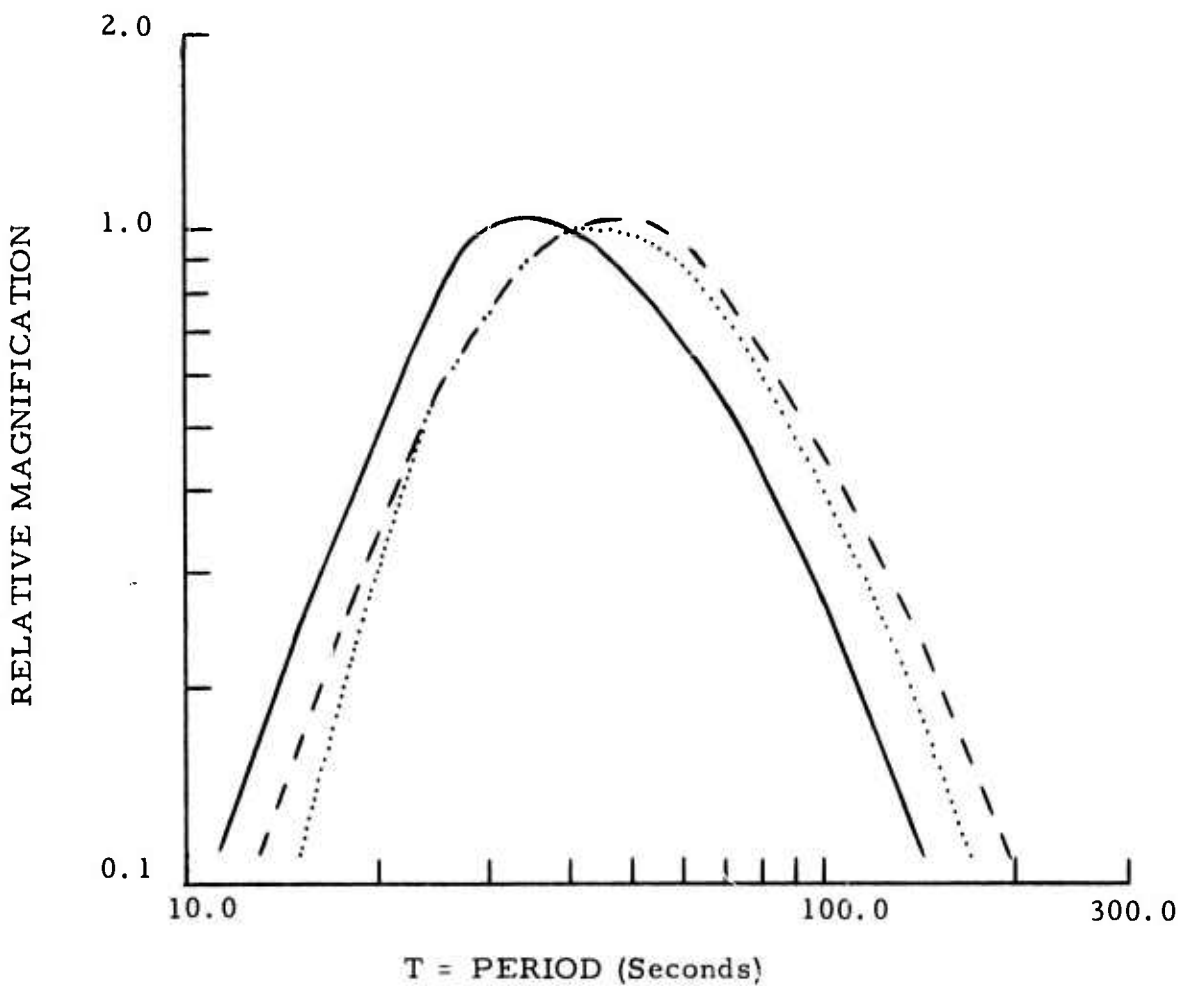
SYSTEM RESPONSE FOR KIP



Gain at T = 40.0 Sec.

—	Z	1.15 m μ /count
- - -	N	1.41 m μ /count
.....	E	1.14 m μ /count

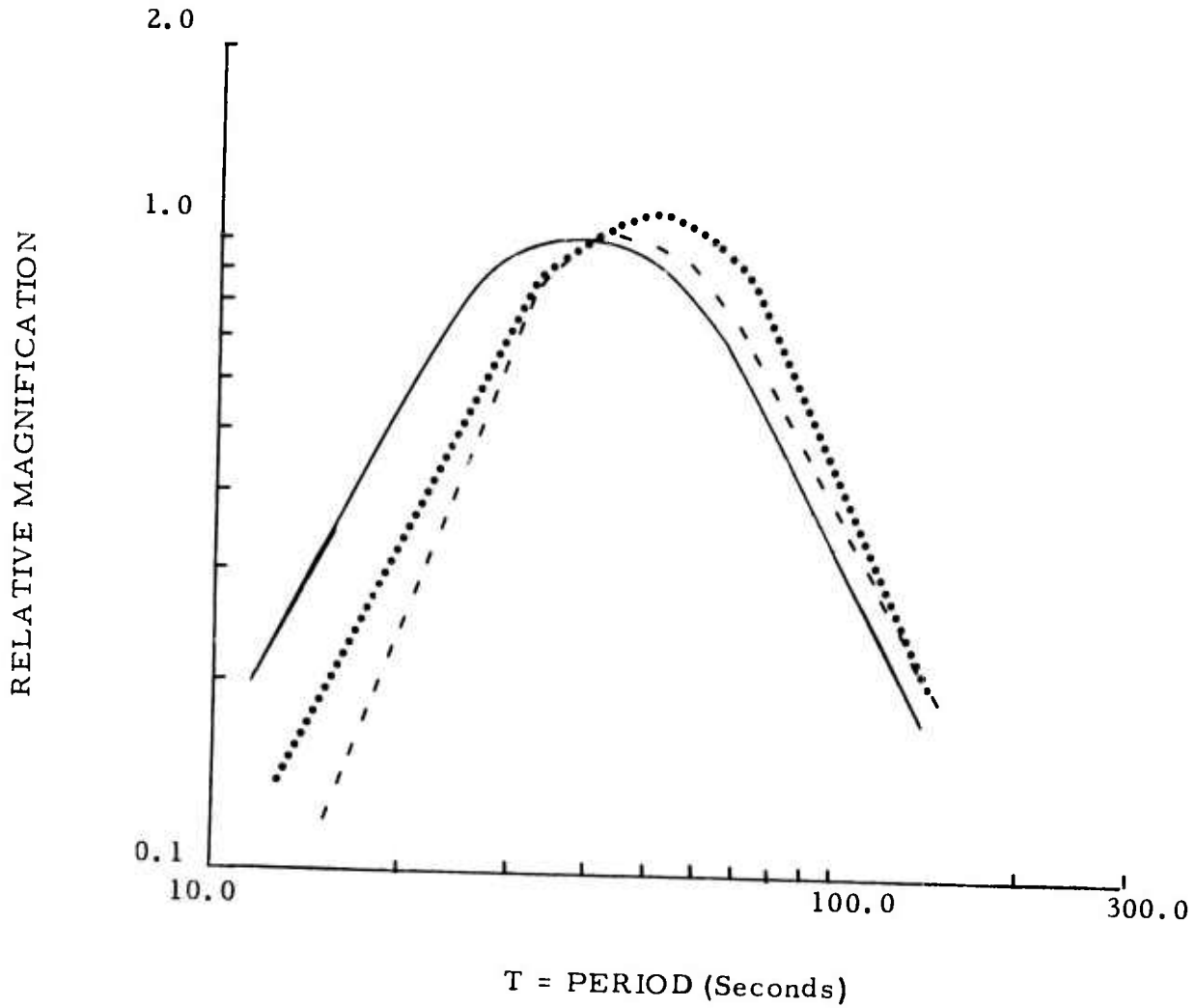
SYSTEM RESPONSE FOR ALQ
PRIOR TO MARCH 1, 1973



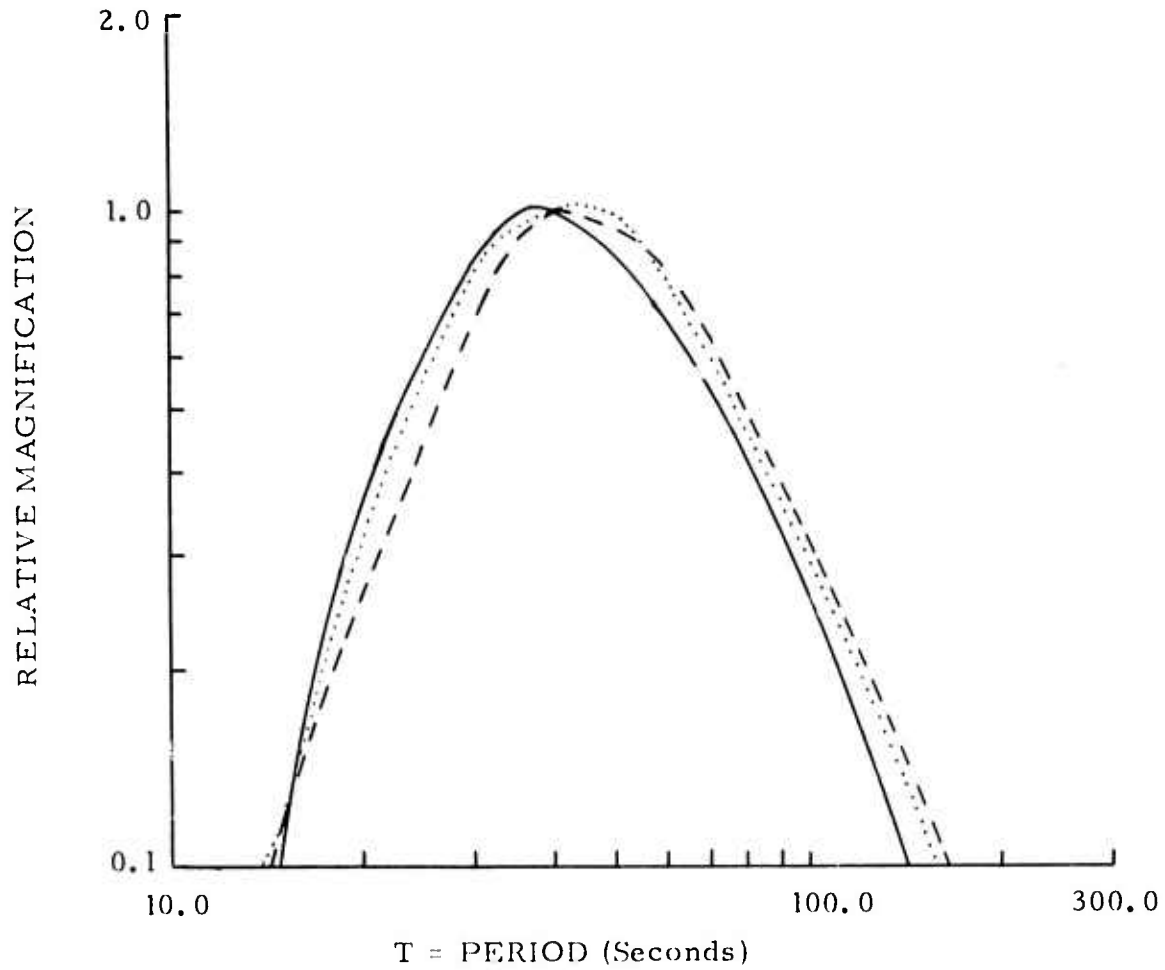
Gain at T = 40.0 Sec.

—	Z	1.12 $m\mu$ /count
- - -	N	0.697 $m\mu$ /count
.....	E	0.819 $m\mu$ /count

SYSTEM RESPONSE FOR ALQ
MARCH 1, 1973 TO APRIL 28, 1973



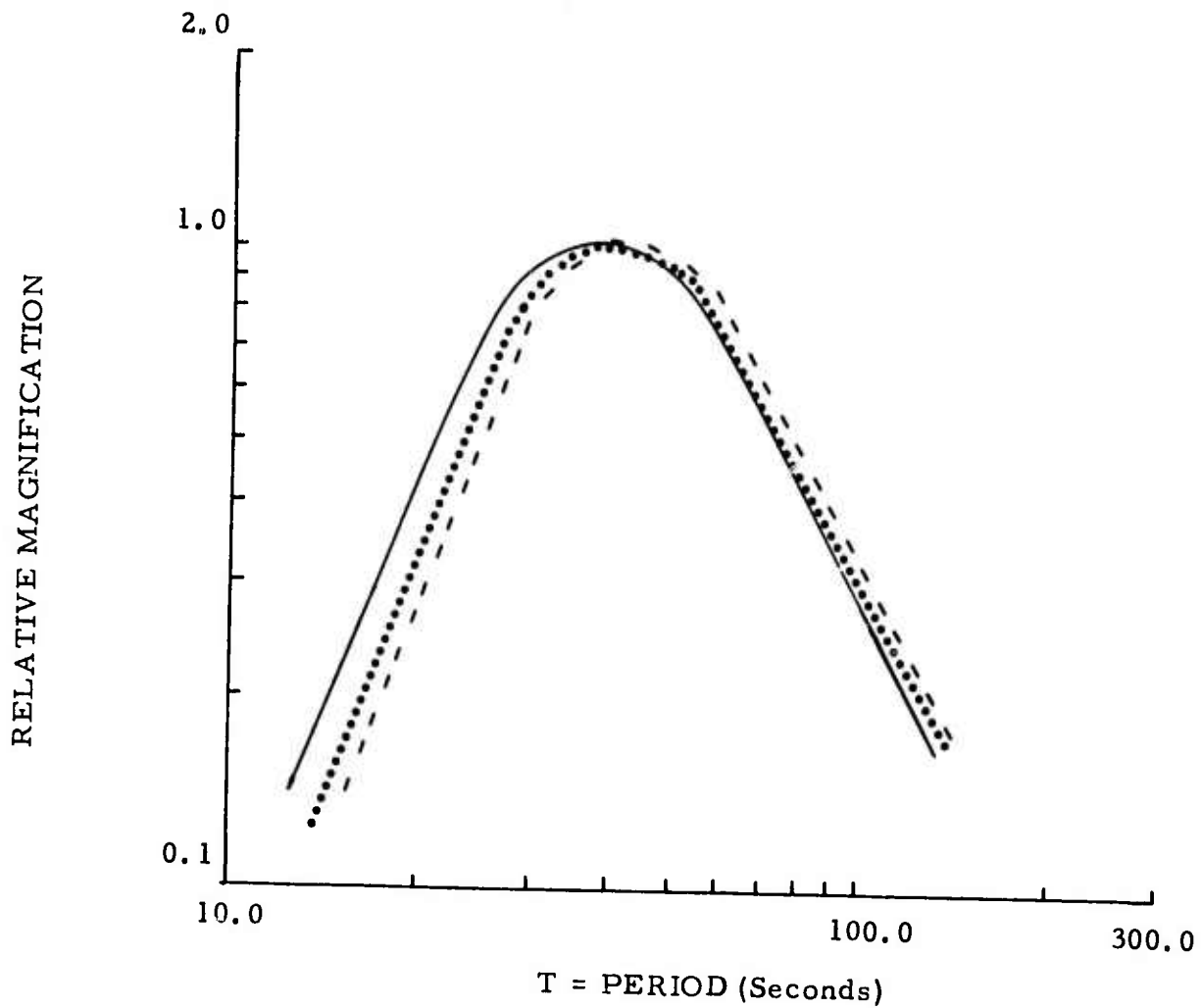
SYSTEM RESPONSE FOR ZLP
PRIOR TO FEBRUARY 1, 1973



Gain at T = 40.0 Sec.

—	Z	1.354 m μ /count
- - -	N	1.372 m μ /count
. . . .	E	1.187 m μ /count

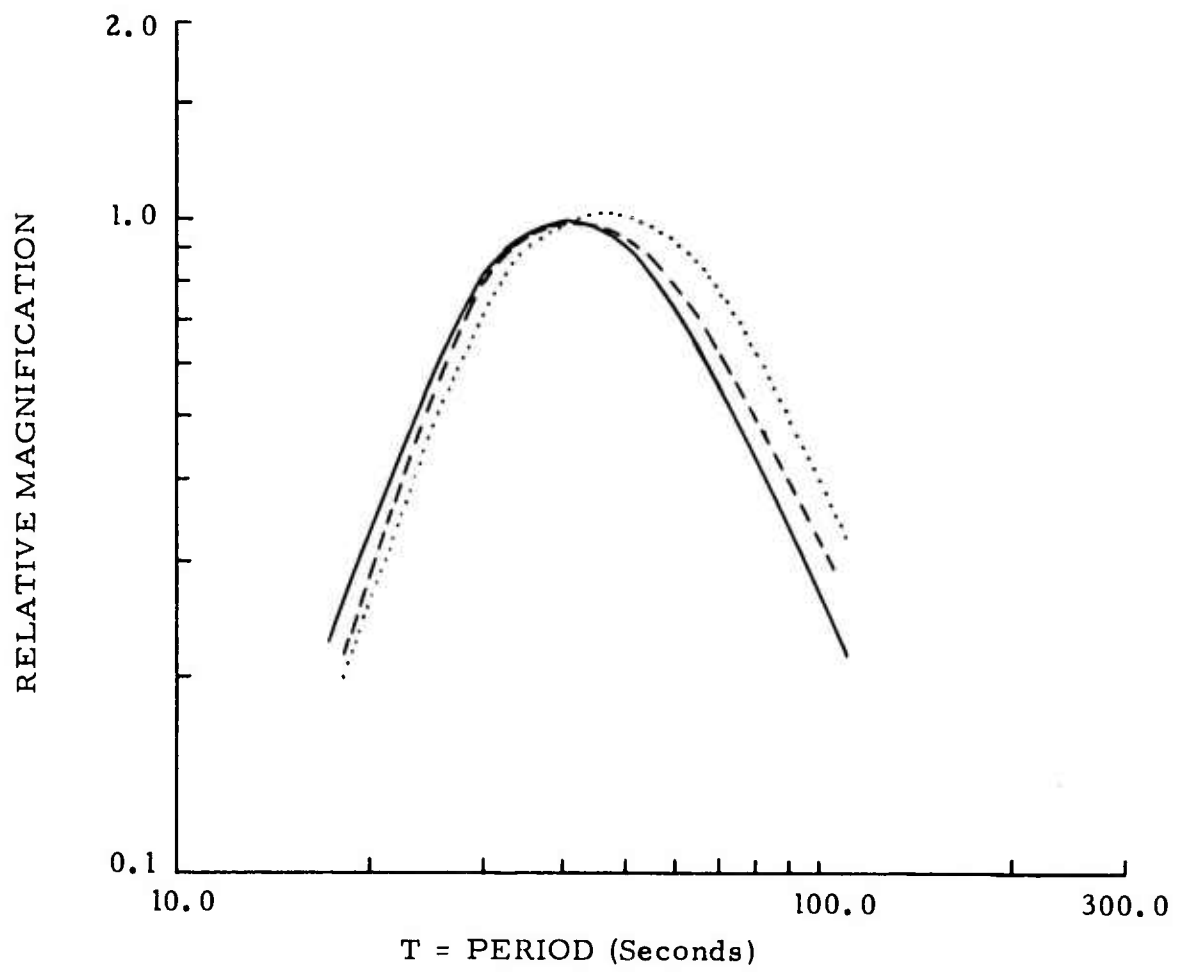
SYSTEM RESPONSE FOR ZLP
FEBRUARY 1, 1973 TO PRESENT



Gain at T = 40.0 Sec.

— Z 0.662 mμ/count
---- N 0.488 mμ/count
.... E 0.488 mμ/count

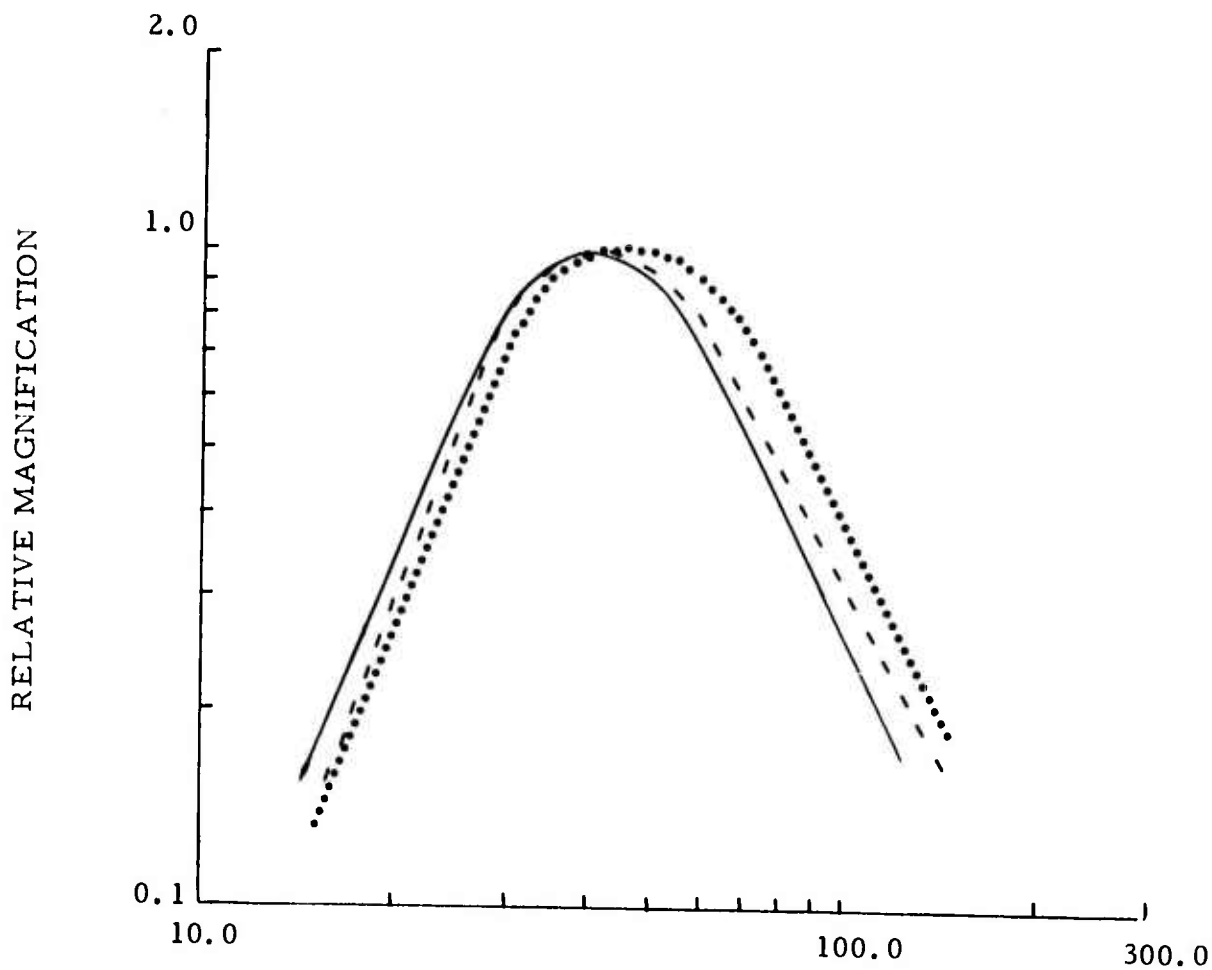
SYSTEM RESPONSE FOR MAT
PRIOR TO FEBRUARY 15, 1973



Gain at T = 40. J Sec.

—	Z	1.460 m μ /count
- - -	N	0.786 m μ /count
. . . .	E	1.120 m μ /count

SYSTEM RESPONSE FOR MAT
FEBRUARY 15, 1973 TO SEPTEMBER 10, 1973



Gain at T = 40.0 Sec.

- Z 0.685 m μ /count
- - - N 1.272 m μ /count
- E 0.893 m μ /count

APPENDIX II-C
BASIC DATA FOR
CHARTERS TOWERS, AUSTRALIA (CTA)

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
310	68.4	3.90	0.0	0.0	0.0	0.0	20 1
311	97.7	3.60	4.15	3.93	0.0	1.25	10 1
312	75.3	3.70	0.0	0.0	0.0	0.0	20 1
313	127.3	4.10	0.0	0.0	0.0	0.0	20 1
314	76.6	3.80	0.0	0.0	0.0	0.0	20 1
315	102.6	4.10	0.0	0.0	0.0	0.0	20 1
316	70.3	3.80	4.18	3.80	3.11	0.34	10 1
317	85.8	3.80	0.0	0.0	0.0	0.0	20 1
318	85.8	3.70	0.0	0.0	0.0	0.0	20 1
319	86.9	3.50	0.0	0.0	0.0	0.0	20 1
320	86.4	3.90	4.27	3.76	0.0	0.0	20 1
321	76.0	3.70	3.77	3.28	0.0	0.0	60 1
322	68.7	4.30	0.0	3.56	0.0	0.0	10 1
323	48.1	*5.00	4.24	4.03	3.36	0.94	30 1
324	102.3	4.20	0.0	0.0	0.0	0.0	10 1
326	73.8	4.00	0.0	0.0	0.0	0.0	20 1
327	75.7	3.40	3.38	0.0	0.0	0.0	20 1
328	75.8	3.50	3.49	0.0	0.0	0.83	10 1
329	114.7	4.10	0.0	0.0	0.0	0.84	10 1
330	70.9	3.50	0.0	0.0	0.0	0.0	30 1
331	77.6	4.00	0.0	0.0	0.0	0.0	20 1
332	129.4	4.20	0.0	0.0	0.0	0.0	30 1
333	109.3	3.90	0.0	3.59	0.0	0.0	10 1
334	88.4	4.80	0.0	0.0	0.0	0.0	20 1
335	111.1	4.00	0.0	0.0	0.0	0.0	20 1
336	64.1	3.40	0.0	0.0	0.0	0.0	30 1
337	69.5	3.60	0.0	0.0	0.0	0.0	30 1
338	77.4	4.70	0.0	0.0	0.0	0.0	30 1
339	92.0	5.50	0.0	0.0	0.0	0.0	30 1
340	77.9	3.80	0.0	0.0	0.0	0.0	30 1
341	48.4	5.40	5.08	4.61	4.23	3.21	20 1
342	109.2	4.90	4.37	4.00	0.0	1.00	10 1
343	48.3	4.90	0.0	0.0	0.0	0.0	10 1
344	112.1	4.10	0.0	0.0	0.0	0.0	30 1
345	64.4	4.30	0.0	0.0	0.0	0.0	20 1
346	48.3	4.70	3.74	3.33	0.0	0.0	30 1
347	110.0	4.50	0.0	0.0	0.0	3.10	10 1
348	71.8	4.70	0.0	0.0	0.0	0.0	30 1
349	67.4	4.40	0.0	0.0	0.0	0.0	10 1
350	125.4	4.90	0.0	3.47	0.0	0.0	20 1
351	101.2	4.90	4.61	4.43	3.14	2.68	10 1
352	111.5	4.00	0.0	0.0	3.80	2.22	10 1
353	104.5	3.60	0.0	0.0	0.0	0.0	20 1
354	90.9	4.50	0.0	0.0	0.0	0.0	30 1
355	63.2	3.70	0.0	0.0	0.0	0.0	30 1
356	108.8	4.00	0.0	0.0	0.0	0.0	30 1
357	74.1	3.30	0.0	0.0	0.0	0.0	30 1
358	68.3	4.00	0.0	0.0	0.0	0.0	30 1
359	67.3	4.30	0.0	0.0	0.0	0.0	50 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MP	MS			LO/LR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
360	64.1	3.70	0.0	0.0	0.0	0.0	50 1
361	108.9	5.40	0.0	0.0	0.0	0.0	50 1
362	109.0	5.10	4.98	4.56	3.99	4.72	10 1
363	74.3	3.70	0.0	0.0	0.0	0.0	20 1
365	76.3	3.80	0.0	0.0	0.0	0.0	30 1
366	106.0	4.70	0.0	0.0	0.0	0.0	30 1
367	109.0	5.30	0.0	4.01	0.0	0.81	10 1
369	103.7	3.50	3.85	3.41	2.85	0.0	10 1
370	99.2	3.60	0.0	0.0	0.0	0.0	30 1
371	134.4	*4.50	4.04	3.93	3.49	0.69	10 1
415	95.7	4.00	0.0	0.0	0.0	0.0	20 1
416	88.4	5.50	0.0	0.0	0.0	0.0	50 1
417	74.9	3.80	0.0	0.0	0.0	0.0	20 1
418	66.8	4.40	0.0	0.0	0.0	0.0	20 1
419	88.4	*5.20	0.0	0.0	0.0	0.0	30 1
420	111.2	3.50	0.0	0.0	0.0	0.0	50 1
421	91.7	5.10	4.01	3.61	0.0	0.0	10 1
422	129.5	*4.60	0.0	0.0	0.0	0.0	20 1
423	74.8	3.60	0.0	0.0	0.0	0.0	20 1
424	77.7	4.20	0.0	0.0	0.0	0.0	30 1
425	76.6	3.40	0.0	0.0	0.0	0.0	20 1
426	120.9	4.30	0.0	0.0	0.0	0.0	20 1
427	118.5	5.60	4.92	4.63	4.28	2.06	10 1
428	74.2	3.90	0.0	0.0	0.0	0.0	20 1
429	102.6	3.90	0.0	0.0	0.0	0.0	30 1
430	99.0	3.70	0.0	0.0	0.0	0.0	20 1
431	91.4	*4.60	0.0	0.0	0.0	0.0	30 1
463	127.4	4.70	0.0	0.0	0.0	0.0	30 1
464	66.6	4.90	0.0	0.0	0.0	0.0	30 1
465	68.2	4.20	0.0	0.0	0.0	0.0	20 1
466	131.4	4.00	0.0	0.0	0.0	0.0	30 1
467	50.4	4.10	3.80	3.44	2.95	0.0	10 1
468	52.8	3.80	0.0	0.0	0.0	0.0	20 1
469	74.9	4.10	0.0	0.0	0.0	0.0	20 1
470	82.6	4.70	0.0	3.42	0.0	0.0	13 1
471	90.2	4.20	0.0	0.0	0.0	0.0	30 1
472	68.9	5.20	3.79	3.56	0.0	1.25	10 1
473	76.4	3.60	0.0	0.0	0.0	0.0	20 1
474	97.5	3.70	0.0	0.0	0.0	0.0	20 1
475	110.0	4.70	0.0	0.0	0.0	0.0	50 1
476	69.9	5.20	3.84	3.80	3.24	0.0	10 1
477	87.7	3.50	0.0	0.0	0.0	0.0	20 1
478	77.3	4.00	0.0	0.0	0.0	0.0	20 1
479	129.0	4.10	0.0	0.0	0.0	0.0	20 1
480	69.4	3.70	0.0	0.0	0.0	0.0	20 1
481	75.0	3.90	0.0	0.0	0.0	0.0	20 1
482	64.2	4.20	0.0	0.0	0.0	0.0	20 1
483	93.7	3.70	0.0	0.0	0.0	0.0	20 1
484	134.4	4.40	0.0	0.0	0.0	0.0	20 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MR	MS	MS	MS	LQ/LR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
485	47.8	3.80	0.0	0.0	0.0	0.0	20 1
486	121.7	3.90	0.0	0.0	0.0	0.0	20 1
487	104.4	4.40	0.0	0.0	0.0	0.0	20 1
488	104.3	3.90	0.0	0.0	0.0	0.0	20 1
489	104.3	3.40	0.0	0.0	0.0	0.0	20 1
490	51.9	3.90	0.0	0.0	0.0	0.0	20 1
491	88.8	3.80	0.0	0.0	0.0	0.0	20 1
492	49.8	5.10	4.52	3.94	3.38	0.0	10 1
493	67.3	4.40	0.0	0.0	0.0	0.0	20 1
494	73.7	3.70	0.0	0.0	0.0	0.0	20 1
495	66.1	3.50	0.0	0.0	0.0	0.0	30 1
496	71.3	5.20	3.87	3.73	3.43	0.0	10 1
498	71.4	4.70	0.0	0.0	0.0	0.0	20 1
499	50.1	4.60	3.93	3.69	3.21	0.93	10 1
500	64.2	3.70	0.0	0.0	0.0	0.0	20 1
501	75.8	4.20	0.0	0.0	0.0	0.0	20 1
502	64.3	3.90	0.0	0.0	0.0	0.0	30 1
503	71.8	4.20	3.94	3.28	0.0	0.0	10 1
504	122.4	3.90	0.0	0.0	0.0	0.0	30 1
505	75.9	5.30	3.95	4.01	3.64	0.0	10 1
506	78.2	3.30	0.0	0.0	0.0	0.0	20 1
507	129.0	3.40	0.0	0.0	0.0	0.0	20 1
508	63.1	4.10	0.0	0.0	0.0	0.0	30 1
509	76.0	4.50	0.0	0.0	0.0	0.0	20 1
510	87.6	4.00	0.0	0.0	0.0	0.0	20 1
511	99.6	3.70	0.0	0.0	0.0	0.0	20 1
512	127.2	4.00	0.0	0.0	0.0	0.0	20 1
513	65.1	5.00	0.0	0.0	0.0	0.0	30 1
514	73.4	4.20	0.0	0.0	0.0	0.0	20 1
515	76.6	4.30	0.0	0.0	0.0	0.0	20 1
517	71.9	3.90	0.0	0.0	0.0	0.0	20 1
518	102.6	4.30	0.0	0.0	0.0	0.0	20 1
521	117.6	4.60	0.0	0.0	0.0	0.0	30 1
522	73.5	5.50	4.91	4.69	4.29	1.00	10 1
523	73.6	4.70	0.0	0.0	0.0	0.0	20 1
524	127.4	3.90	0.0	0.0	0.0	0.0	20 1
525	73.6	3.60	0.0	0.0	0.0	0.0	20 1
526	78.8	3.70	0.0	0.0	0.0	0.0	30 1
527	114.8	4.40	0.0	0.0	0.0	0.0	20 1
528	79.2	4.00	0.0	0.0	0.0	0.0	20 1
529	43.5	4.80	0.0	0.0	0.0	0.0	20 1
530	129.3	4.50	0.0	0.0	0.0	0.0	30 1
531	65.4	4.30	0.0	0.0	0.0	0.0	20 1
532	109.7	4.00	0.0	0.0	0.0	0.0	20 1
533	134.4	4.40	0.0	0.0	0.0	0.0	30 1
534	71.0	5.10	4.15	3.88	0.0	1.43	10 1
535	48.0	5.10	4.13	3.98	3.24	0.0	10 1
536	86.4	4.30	0.0	0.0	0.0	0.0	20 1
541	69.8	5.10	4.06	3.78	3.72	0.0	10 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
542	93.3	4.00	0.0	0.0	0.0	0.0	30 1
543	48.0	4.90	3.72	3.86	0.0	0.76	10 1
544	66.4	3.50	0.0	0.0	0.0	0.0	30 1
546	77.6	4.80	0.0	0.0	0.0	0.0	20 1
547	49.9	4.60	4.44	3.69	3.35	0.0	10 1
548	103.7	3.60	0.0	0.0	0.0	0.0	20 1
549	52.2	3.70	0.0	0.0	0.0	0.0	30 1
550	89.8	4.10	0.0	0.0	0.0	0.0	50 1
551	120.9	3.70	0.0	0.0	0.0	0.0	20 1
552	90.3	3.70	0.0	0.0	0.0	0.0	23 1
553	89.9	3.80	0.0	0.0	0.0	0.0	20 1
554	118.4	4.50	0.0	0.0	0.0	0.0	30 1
555	127.4	3.40	0.0	0.0	0.0	0.0	23 1
556	63.3	4.00	0.0	0.0	0.0	0.0	20 1
557	98.7	4.70	0.0	0.0	0.0	0.0	30 1
558	77.5	5.60	5.10	4.57	4.49	1.11	10 1
559	77.5	5.00	4.46	4.66	4.16	0.85	10 1
560	98.7	4.20	0.0	0.0	0.0	0.0	30 1
561	120.6	4.30	0.0	0.0	0.0	0.0	20 1
562	67.2	4.50	0.0	0.0	0.0	0.0	20 1
563	77.2	4.00	3.86	3.22	0.0	0.0	13 1
564	121.1	3.90	0.0	0.0	0.0	0.0	30 1
565	80.8	5.30	4.31	4.08	0.0	0.0	10 1
566	120.5	4.50	0.0	0.0	0.0	0.0	30 1
567	98.7	4.80	0.0	0.0	0.0	0.0	30 1
568	49.8	4.80	0.0	0.0	0.0	0.0	30 1
624	67.2	4.10	0.0	0.0	0.0	0.0	30 1
626	92.1	5.20	0.0	0.0	0.0	0.0	30 1
635	64.1	4.50	0.0	0.0	0.0	0.0	50 1
636	65.2	3.50	0.0	0.0	0.0	0.0	50 1
637	74.1	3.60	0.0	0.0	0.0	0.0	50 1
638	72.8	3.50	0.0	0.0	0.0	0.0	50 1
650	65.1	3.50	0.0	0.0	0.0	0.0	50 1
651	63.6	4.90	0.0	0.0	4.05	0.0	13 1
652	110.3	5.70	0.0	0.0	0.0	0.0	20 1
653	72.6	5.20	4.16	3.69	0.0	4.67	10 1
654	76.9	4.50	0.0	0.0	0.0	0.0	30 1
655	67.2	4.00	3.33	3.09	2.82	0.0	10 1
656	73.6	4.80	3.39	3.23	0.0	1.37	10 1
657	66.1	4.30	0.0	0.0	0.0	0.0	30 1
658	73.6	*4.50	0.0	0.0	0.0	0.0	30 1
659	126.6	4.00	0.0	0.0	0.0	0.0	32 1
660	67.4	4.10	3.34	2.73	0.0	0.0	13 1
661	70.9	5.20	0.0	3.81	3.41	0.0	10 1
662	86.7	4.60	0.0	0.0	0.0	0.0	32 1
663	49.6	4.20	0.0	0.0	0.0	0.0	30 1
664	69.6	3.70	0.0	0.0	0.0	0.0	30 1
665	123.4	4.00	0.0	0.0	0.0	0.0	20 1
666	71.7	3.30	0.0	0.0	0.0	0.0	20 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
667	71.0	3.80	0.0	0.0	0.0	0.0	32 1
668	74.1	3.80	0.0	0.0	0.0	0.0	30 1
669	68.1	3.80	0.0	0.0	0.0	0.0	23 1
696	95.7	4.40	0.0	0.0	0.0	0.0	30 1
697	57.0	4.40	5.04	4.73	4.24	0.0	10 1
698	63.5	4.80	3.93	3.80	3.13	0.0	10 1
699	91.8	6.20	0.0	0.0	0.0	0.0	50 1
700	90.4	4.30	0.0	0.0	0.0	0.0	50 1
701	103.7	4.00	0.0	0.0	0.0	0.0	30 1
702	91.2	5.50	4.88	4.32	4.32	0.80	10 1
730	127.4	3.80	0.0	0.0	0.0	0.0	20 1
731	109.3	3.90	0.0	0.0	0.0	0.0	23 1
732	65.9	4.40	3.30	3.41	0.0	1.35	10 1
733	127.4	3.70	0.0	0.0	0.0	0.0	23 1
734	130.3	4.30	0.0	0.0	0.0	0.0	20 1
735	64.3	4.00	0.0	2.86	3.03	0.0	16 1
736	64.5	3.70	0.0	0.0	0.0	0.0	20 1
737	73.8	4.60	0.0	0.0	0.0	0.0	23 1
738	64.9	3.90	0.0	0.0	0.0	0.0	25 1
739	66.9	4.00	0.0	0.0	0.0	0.0	23 1
741	128.9	*4.80	0.0	0.0	0.0	0.0	30 1
742	104.5	4.00	0.0	0.0	0.0	0.0	30 1
743	85.1	4.00	4.39	3.69	3.27	0.0	10 1
744	50.0	5.70	5.71	5.45	4.82	0.27	10 1
745	49.6	4.40	0.0	0.0	0.0	0.0	30 1
746	103.5	3.60	0.0	0.0	0.0	0.0	20 1
747	122.2	4.10	4.29	4.14	3.57	0.0	16 1
748	89.5	4.00	3.82	0.0	0.0	0.0	10 1
749	87.3	4.00	0.0	0.0	0.0	0.0	30 1
750	85.8	4.90	0.0	0.0	0.0	0.0	30 1
751	128.6	4.30	3.97	3.39	0.0	0.0	13 1
752	129.0	5.40	0.0	0.0	0.0	0.0	10 1
753	108.9	4.70	0.0	0.0	0.0	0.0	30 1
754	103.4	3.70	0.0	0.0	0.0	0.0	20 1
755	100.9	5.20	3.52	3.36	0.0	3.24	13 1
756	73.2	3.40	0.0	0.0	0.0	0.0	20 1
757	70.9	3.90	0.0	0.0	0.0	0.0	20 1
758	78.8	5.10	3.99	3.87	0.0	1.52	10 1
759	128.6	4.00	0.0	0.0	0.0	0.0	20 1
760	101.5	5.60	0.0	0.0	0.0	0.0	23 1
761	73.0	5.20	3.62	3.44	0.0	0.0	10 1
762	134.5	4.90	4.08	3.72	3.52	0.0	13 1
763	102.5	3.90	0.0	0.0	0.0	0.0	23 1
764	74.6	4.70	3.48	2.75	0.0	0.0	13 1
765	124.2	4.80	0.0	0.0	0.0	0.0	50 1
766	76.7	3.60	0.0	0.0	0.0	0.0	50 1
767	125.3	4.40	0.0	0.0	0.0	0.0	50 1
768	89.8	3.60	0.0	0.0	0.0	0.0	50 1
769	89.3	4.10	0.0	0.0	0.0	0.0	50 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
770	93.4	3.60	0.0	0.0	0.0	0.0	50 1
771	134.5	*4.40	0.0	0.0	0.0	0.0	50 1
772	74.0	3.90	0.0	0.0	0.0	0.0	50 1
809	66.2	3.60	0.0	0.0	0.0	0.0	50 1
810	66.2	3.60	0.0	0.0	0.0	0.0	50 1
811	64.6	3.60	0.0	0.0	0.0	0.0	20 1
812	64.9	4.30	0.0	0.0	0.0	0.0	30 1
813	64.8	4.80	4.00	3.66	3.40	0.0	30 1
814	65.1	4.10	3.42	3.02	0.0	0.0	10 1
815	74.1	4.70	0.0	0.0	0.0	0.0	10 1
816	128.9	3.90	0.0	0.0	0.0	0.0	20 1
817	67.1	3.60	0.0	0.0	0.0	0.0	20 1
818	64.3	5.70	0.0	4.38	4.03	0.0	20 1
819	91.2	3.60	0.0	0.0	0.0	1.10	10 1
820	127.1	*4.20	0.0	0.0	0.0	0.0	20 1
821	66.2	4.60	0.0	0.0	0.0	0.0	20 1
822	65.2	4.10	0.0	0.0	0.0	0.0	20 1
823	130.3	*4.30	0.0	0.0	0.0	0.0	20 1
824	64.1	3.40	0.0	0.0	0.0	0.0	20 1
825	65.0	4.70	4.22	3.66	0.0	0.0	20 1
826	124.8	4.70	0.0	3.51	0.0	2.63	10 1
827	107.9	4.40	0.0	0.0	0.0	0.0	13 1
828	64.8	5.70	5.33	5.28	5.02	0.0	20 1
829	64.8	4.80	0.0	0.0	0.0	2.55	10 1
830	66.2	4.30	0.0	0.0	0.0	0.0	30 1
831	65.2	3.80	0.0	0.0	0.0	0.0	20 1
832	64.9	4.70	0.0	0.0	0.0	0.0	20 1
833	65.1	4.10	0.0	0.0	0.0	0.0	20 1
834	64.8	4.80	0.0	0.0	0.0	0.0	20 1
835	64.1	3.70	0.0	0.0	0.0	0.0	20 1
836	64.8	4.60	0.0	0.0	0.0	0.0	20 1
837	64.7	4.90	3.76	3.16	0.0	0.0	50 1
838	92.8	3.40	0.0	0.0	0.0	4.02	10 1
839	108.1	4.00	0.0	0.0	0.0	0.0	20 1
840	63.2	3.80	0.0	0.0	0.0	0.0	20 1
841	66.2	3.70	0.0	0.0	0.0	0.0	30 1
842	125.6	4.70	0.0	0.0	0.0	0.0	20 1
843	70.2	3.80	0.0	0.0	0.0	0.0	20 1
844	124.3	4.60	4.31	4.19	3.21	0.0	20 1
845	91.5	4.30	0.0	0.0	0.0	0.21	10 1
846	71.0	4.10	0.0	0.0	0.0	0.0	20 1
847	88.0	3.70	0.0	0.0	0.0	0.0	30 1
848	75.3	4.20	0.0	0.0	0.0	0.0	20 1
849	133.6	3.70	0.0	0.0	0.0	0.0	20 1
850	77.6	4.10	0.0	0.0	0.0	0.0	30 1
851	76.6	4.10	0.0	0.0	0.0	0.0	20 1
852	69.6	4.10	0.0	3.44	0.0	0.0	20 1
853	67.3	3.90	0.0	0.0	0.0	0.0	16 1
854	80.6	3.80	0.0	0.0	0.0	0.0	20 1

CHARTER TOWERS, AUSTRALIA

FVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
855	89.3	4.00	0.0	0.0	0.0	0.0	20 1
856	124.6	3.70	0.0	0.0	0.0	0.0	50 1
857	74.6	4.80	0.0	0.0	0.0	0.0	20 1
858	65.7	4.70	3.56	3.44	2.88	0.0	10 1
859	74.0	5.70	5.04	5.19	4.62	0.90	10 1
860	74.3	3.50	0.0	0.0	0.0	0.0	30 1
861	88.8	3.60	0.0	0.0	0.0	0.0	50 1
862	102.4	4.60	0.0	0.0	0.0	0.0	20 1
863	126.5	3.60	0.0	0.0	0.0	0.0	20 1
864	66.2	4.00	0.0	0.0	0.0	0.0	20 1
865	92.3	4.50	0.0	0.0	0.0	0.0	20 1
866	129.7	3.50	0.0	0.0	0.0	0.0	20 1
867	69.7	4.10	0.0	0.0	0.0	0.0	20 1
868	77.4	4.30	0.0	0.0	0.0	0.0	50 1
869	76.4	4.30	0.0	0.0	0.0	0.0	20 1
870	77.3	4.10	0.0	0.0	0.0	0.0	50 1
871	64.1	3.80	0.0	0.0	0.0	0.0	50 1
872	107.2	3.80	0.0	0.0	0.0	0.0	50 1
873	77.5	4.50	0.0	0.0	0.0	0.0	50 1
874	125.8	4.40	0.0	0.0	0.0	0.0	50 1
875	77.4	4.90	0.0	0.0	0.0	0.0	50 1
961	73.7	4.30	0.0	0.0	0.0	0.0	20 1
962	63.1	4.10	0.0	0.0	0.0	0.0	20 1
963	99.6	4.00	0.0	0.0	0.0	0.0	20 1
964	66.4	3.80	0.0	0.0	0.0	0.0	20 1
965	80.6	4.80	0.0	0.0	0.0	0.0	20 1
966	102.5	5.20	0.0	0.0	0.0	0.0	20 1
967	77.0	3.80	0.0	0.0	0.0	0.0	20 1
968	127.0	4.10	0.0	0.0	0.0	0.0	20 1
969	64.9	4.30	0.0	0.0	0.0	0.0	20 1
970	77.6	3.50	0.0	0.0	0.0	0.0	20 1
971	129.7	3.50	0.0	0.0	0.0	0.0	20 1
972	123.1	4.10	0.0	0.0	0.0	0.0	20 1
973	77.2	4.20	0.0	0.0	0.0	0.0	20 1
974	70.0	5.00	0.0	3.49	0.0	0.0	10 1
975	65.1	3.60	0.0	0.0	0.0	0.0	20 1
976	72.1	3.80	0.0	0.0	0.0	0.0	20 1
977	92.7	3.50	0.0	0.0	0.0	0.0	20 1
978	74.8	4.20	0.0	3.23	2.97	0.0	10 1
979	88.3	3.80	0.0	0.0	0.0	0.0	20 1
980	130.2	*4.40	0.0	0.0	0.0	0.0	20 1
981	76.9	4.00	0.0	0.0	0.0	0.0	20 1
982	64.1	3.40	0.0	0.0	0.0	0.0	20 1
983	122.7	4.20	0.0	0.0	0.0	0.0	20 1
984	71.2	6.30	0.0	0.0	0.0	0.0	30 1
985	71.1	4.90	0.0	0.0	0.0	0.0	50 1
986	70.8	5.30	0.0	0.0	0.0	0.0	30 1
987	70.8	5.50	0.0	0.0	0.0	0.0	30 1
988	69.6	4.20	0.0	0.0	0.0	0.0	30 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
989	72.0	3.80	0.0	0.0	0.0	0.0	50 1
990	92.7	4.20	0.0	0.0	0.0	0.0	30 1
991	70.7	4.00	0.0	0.0	0.0	0.0	30 1
992	71.8	4.30	0.0	0.0	0.0	0.0	50 1
993	71.8	4.10	0.0	0.0	0.0	0.0	30 1
994	70.6	3.60	0.0	0.0	0.0	0.0	30 1
995	71.8	4.00	0.0	0.0	0.0	0.0	30 1
996	70.7	3.50	0.0	0.0	0.0	0.0	30 1
997	70.9	4.90	0.0	0.0	0.0	0.0	20 1
998	71.6	4.20	0.0	0.0	0.0	0.0	20 1
999	70.7	3.70	0.0	0.0	0.0	0.0	20 1
1000	70.8	5.20	0.0	0.0	0.0	0.0	20 1
1001	70.9	4.10	0.0	0.0	0.0	0.0	20 1
1002	70.9	3.90	0.0	0.0	0.0	0.0	50 1
1003	71.5	3.90	0.0	0.0	0.0	0.0	20 1
1004	71.7	4.50	0.0	0.0	0.0	0.0	20 1
1005	71.7	3.90	0.0	0.0	0.0	0.0	20 1
1006	70.9	3.90	0.0	0.0	0.0	0.0	20 1
1007	71.8	4.60	0.0	0.0	0.0	0.0	50 1
1008	70.6	5.50	3.87	3.38	0.0	0.0	10 1
1009	70.9	4.20	3.20	0.0	0.0	0.0	20 1
1010	70.7	4.00	3.20	0.0	0.0	0.0	20 1
1011	71.8	3.90	3.29	0.0	0.0	0.0	20 1
1012	70.6	4.50	3.31	0.0	0.0	0.0	20 1
1013	71.8	4.40	0.0	0.0	0.0	0.0	30 1
1014	72.8	3.90	3.21	0.0	0.0	0.0	20 1
1015	70.5	3.40	0.0	0.0	0.0	0.0	30 1
1016	71.7	4.60	4.42	4.05	0.0	0.73	10 1
1017	77.0	4.20	3.27	0.0	0.0	0.0	20 1
1018	69.5	4.70	3.06	0.0	0.0	0.0	20 1
1019	71.7	4.00	0.0	0.0	0.0	0.0	30 1
1020	71.8	3.80	0.0	0.0	0.0	0.0	30 1
1021	126.6	3.90	3.63	0.0	0.0	0.0	20 1
1022	71.7	4.10	3.32	0.0	0.0	0.0	20 1
1023	71.8	3.70	3.49	0.0	0.0	0.0	20 1
1024	70.9	4.10	3.58	0.0	0.0	0.0	20 1
1025	71.8	4.20	3.22	0.0	0.0	0.0	20 1
1026	90.3	3.70	3.42	0.0	0.0	0.0	20 1
1027	71.8	3.50	0.0	0.0	0.0	0.0	50 1
1028	124.5	3.60	0.0	0.0	0.0	0.0	50 1
1029	71.0	5.50	0.0	0.0	0.0	0.0	10 1
1030	104.0	4.60	3.44	0.0	0.0	0.0	20 1
1031	66.2	3.50	3.15	0.0	0.0	0.0	20 1
1032	71.8	4.60	0.0	0.0	0.0	0.0	50 1
1033	86.9	4.60	0.0	0.0	0.0	0.0	50 1
1034	87.4	3.70	0.0	0.0	0.0	0.0	50 1
1035	71.4	4.60	3.54	0.0	0.0	0.0	20 1
1036	71.7	4.40	3.83	0.0	0.0	0.0	20 1
1037	72.0	3.70	3.42	0.0	0.0	0.0	20 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1038	77.6	3.90	3.86	0.0	0.0	0.0	20 1
1039	76.0	6.10	5.50	5.32	5.17	0.30	10 1
1040	68.5	4.20	3.22	0.0	0.0	0.0	20 1
1041	71.8	4.00	3.43	0.0	0.0	0.0	20 1
1042	130.3	3.70	3.49	0.0	0.0	0.0	20 1
1043	71.8	3.90	3.28	0.0	0.0	0.0	20 1
1044	88.7	3.40	0.0	0.0	0.0	0.0	50 1
1045	77.4	3.70	0.0	0.0	0.0	0.0	50 1
1046	70.9	3.60	3.60	0.0	0.0	0.0	20 1
1047	89.0	3.60	0.0	0.0	0.0	0.0	30 1
1048	127.6	4.00	3.65	0.0	0.0	0.0	20 1
1049	89.3	3.60	3.39	0.0	0.0	0.0	20 1
1050	70.6	5.00	3.37	0.0	0.0	0.0	20 1
1051	85.4	3.60	3.42	0.0	0.0	0.0	20 1
1052	130.0	*3.60	3.66	0.0	0.0	0.0	20 1
1053	90.3	5.00	3.51	0.0	0.0	0.0	20 1
1054	64.1	4.10	3.50	0.0	0.0	0.0	20 1
1055	105.3	3.60	3.78	0.0	0.0	0.0	20 1
1056	70.7	3.50	3.58	0.0	0.0	0.0	20 1
1057	75.5	3.70	3.58	0.0	0.0	0.0	20 1
1058	70.7	3.50	0.0	0.0	0.0	0.0	30 1
1059	63.1	3.90	0.0	0.0	0.0	0.0	30 1
1060	71.8	4.20	3.98	0.0	0.0	0.0	20 1
1061	71.8	4.50	3.47	0.0	0.0	0.0	20 1
1062	72.0	3.80	3.37	0.0	0.0	0.0	20 1
1063	91.9	4.00	0.0	0.0	0.0	0.0	30 1
1064	81.1	3.80	4.71	0.0	0.0	0.0	20 1
1065	70.6	4.60	3.65	0.0	0.0	0.0	20 1
1066	72.0	4.00	0.0	0.0	0.0	0.0	30 1
1067	90.5	3.50	3.60	0.0	0.0	0.0	20 1
1068	69.5	4.20	3.75	0.0	0.0	0.0	20 1
1069	69.4	3.80	3.47	0.0	0.0	0.0	20 1
1070	70.6	4.40	3.39	0.0	0.0	0.0	20 1
1071	71.4	4.70	0.0	0.0	0.0	0.0	30 1
1072	129.6	3.10	3.82	0.0	0.0	0.0	20 1
1073	128.2	3.70	0.0	0.0	0.0	0.0	30 1
1074	69.5	4.40	3.49	0.0	0.0	0.0	20 1
1075	69.6	3.90	3.30	0.0	0.0	0.0	20 1
1076	104.3	3.50	0.0	0.0	0.0	0.0	30 1
1077	71.8	4.10	3.32	0.0	0.0	0.0	20 1
1078	64.1	4.10	3.25	0.0	0.0	0.0	20 1
1079	68.7	3.60	0.0	0.0	0.0	0.0	30 1
1080	48.4	4.80	3.89	3.91	3.29	1.71	10 1
1081	122.7	4.40	4.01	0.0	0.0	0.0	20 1
1082	63.7	4.30	3.68	0.0	0.0	0.0	20 1
1083	70.8	5.70	4.84	4.65	4.44	0.27	10 1
1084	76.6	4.50	0.0	0.0	0.0	0.0	30 1
1085	71.5	6.10	5.45	5.56	5.35	0.13	10 1
1086	129.3	4.70	4.72	0.0	0.0	0.0	20 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1087	127.4	4.00	4.12	0.0	0.0	0.0	20 1
1088	69.9	3.90	0.0	0.0	0.0	0.0	50 1
1089	67.2	3.70	3.83	0.0	0.0	0.0	20 1
1090	73.1	4.00	3.83	0.0	0.0	0.0	20 1
1091	70.4	3.70	3.65	3.42	0.0	0.0	60 1
1092	87.1	4.20	0.0	0.0	0.0	0.0	50 1
1093	66.6	4.30	3.49	0.0	0.0	0.0	20 1
1094	70.9	3.90	0.0	0.0	0.0	0.0	30 1
1095	68.2	4.10	3.51	0.0	0.0	0.0	20 1
1096	75.0	3.50	3.99	0.0	0.0	0.0	20 1
1097	104.5	3.60	4.09	0.0	0.0	0.0	20 1
1098	123.2	3.80	4.06	0.0	0.0	0.0	20 1
1099	77.7	3.60	3.80	0.0	0.0	0.0	20 1
1100	101.3	*4.40	3.66	0.0	0.0	0.0	20 1
1101	76.4	3.70	0.0	0.0	0.0	0.0	30 1
1102	71.8	3.70	3.53	0.0	0.0	0.0	20 1
1103	105.6	3.80	3.64	0.0	0.0	0.0	20 1
1104	69.5	4.50	3.49	0.0	0.0	0.0	20 1
1105	104.3	3.60	3.88	0.0	0.0	0.0	20 1
1106	71.5	5.20	3.47	0.0	0.0	0.0	20 1
1107	122.4	4.30	3.43	0.0	0.0	0.0	20 1
1108	127.7	4.20	3.78	0.0	0.0	0.0	20 1
1109	127.4	3.90	3.80	0.0	0.0	0.0	20 1
1110	76.4	3.50	3.53	0.0	0.0	0.0	20 1
1111	105.3	4.00	3.77	0.0	0.0	0.0	20 1
1112	74.8	5.20	3.84	3.71	3.57	1.59	10 1
1113	68.3	4.00	3.45	0.0	0.0	0.0	20 1
1114	74.1	4.20	0.0	0.0	0.0	0.0	50 1
1115	64.1	4.30	3.52	0.0	0.0	0.0	20 1
1116	64.1	3.80	3.42	0.0	0.0	0.0	20 1
1117	76.2	4.70	3.50	0.0	0.0	0.0	20 1
1118	76.3	4.60	3.45	0.0	0.0	0.0	20 1
1119	129.2	4.00	3.76	0.0	0.0	0.0	20 1
1120	71.7	4.40	3.59	0.0	0.0	0.0	20 1
1121	71.8	4.50	0.0	0.0	0.0	0.0	30 1
1122	66.3	3.90	0.0	0.0	0.0	0.0	30 1
1123	72.9	4.80	3.57	3.27	2.79	0.0	10 1
1124	77.2	3.70	3.50	0.0	0.0	0.0	20 1
1125	70.9	*5.30	4.44	4.33	4.17	0.28	10 1
1126	65.1	3.40	3.29	0.0	0.0	0.0	20 1
1127	71.8	4.70	0.0	0.0	0.0	0.0	30 1
1128	130.1	3.50	0.0	0.0	0.0	0.0	30 1
1130	49.6	3.90	0.0	0.0	0.0	0.0	30 1
1131	46.0	4.80	4.02	4.29	0.0	0.0	10 1
1132	49.0	5.50	5.55	5.49	5.27	0.34	10 1
1133	72.8	4.10	4.02	0.0	0.0	0.0	20 1
1134	76.3	3.60	3.51	0.0	0.0	0.0	20 1
1135	88.7	3.80	3.61	0.0	0.0	0.0	20 1
1136	74.1	3.90	0.0	0.0	0.0	0.0	30 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
1137	125.0	3.80	0.0	0.0	0.0	0.0	30 1
1138	66.1	4.00	3.35	0.0	0.0	0.0	20 1
1139	129.6	4.10	0.0	0.0	0.0	0.0	30 1
1140	71.8	4.10	3.52	0.0	0.0	0.0	20 1
1141	102.5	5.20	3.99	3.68	0.0	1.03	10 1
1142	65.1	4.00	3.49	0.0	0.0	0.0	20 1
1143	48.6	5.30	5.25	5.20	4.97	0.36	10 1
1144	49.1	4.30	0.0	0.0	0.0	0.0	30 1
1145	49.3	4.40	3.24	3.17	0.0	0.0	10 1
1146	81.8	3.80	3.39	0.0	0.0	0.0	20 1
1148	99.2	3.60	3.70	0.0	0.0	0.0	20 1
1149	67.3	4.60	3.38	0.0	0.0	0.0	20 1
1150	82.8	3.90	3.42	0.0	0.0	0.0	20 1
1151	70.9	4.80	3.22	3.36	0.0	0.0	60 1
1152	76.2	4.70	4.71	3.99	0.0	0.0	10 1
1153	91.9	3.80	4.06	0.0	0.0	0.0	20 1
1154	93.3	3.80	3.88	0.0	0.0	0.0	20 1
1155	92.6	4.40	0.0	0.0	0.0	0.0	20 1
1156	92.1	3.80	3.19	0.0	0.0	0.0	20 1
1157	92.8	3.70	3.78	0.0	0.0	0.0	20 1
1158	66.1	5.00	0.0	0.0	0.0	0.0	10 1
1159	104.5	3.80	4.62	0.0	0.0	0.0	20 1
1160	92.8	4.00	3.93	3.67	0.0	0.0	60 1
1161	81.5	4.30	3.57	0.0	0.0	0.0	20 1
1162	64.5	4.20	3.65	0.0	0.0	0.0	20 1
1163	65.1	3.80	3.88	3.46	0.0	0.75	60 1
1164	78.5	4.80	0.0	0.0	0.0	0.0	50 1
1165	64.3	4.30	0.0	0.0	0.0	0.0	20 1
1166	63.5	5.20	4.23	3.85	3.56	1.01	10 1
1167	89.3	3.70	0.0	0.0	0.0	0.0	30 1
1168	63.4	5.30	0.0	0.0	0.0	0.0	50 1
1169	63.1	3.60	3.39	0.0	0.0	0.0	20 1
1170	63.7	4.10	3.18	0.0	0.0	0.0	20 1
1171	104.9	4.00	3.52	0.0	0.0	0.0	20 1
1172	63.7	5.40	3.36	2.89	0.0	7.63	10 1
1173	64.1	3.90	0.0	0.0	0.0	0.0	30 1
1174	63.8	4.70	0.0	0.0	0.0	0.0	30 1
1175	63.6	4.10	0.0	0.0	0.0	0.0	30 1
1176	63.6	4.50	4.57	0.0	0.0	0.0	20 1
1177	63.7	4.20	0.0	0.0	0.0	0.0	50 1
1178	63.3	4.60	0.0	0.0	0.0	0.0	50 1
1185	63.9	4.20	0.0	0.0	0.0	0.0	50 1
1203	65.1	3.40	4.76	0.0	0.0	0.0	20 1
1204	67.4	3.70	3.79	0.0	0.0	0.0	20 1
1205	102.4	4.30	3.60	0.0	0.0	0.0	20 1
1206	86.4	3.90	0.0	0.0	0.0	0.0	30 1
1207	70.9	3.60	4.04	0.0	0.0	0.0	20 1
1208	63.7	4.10	4.12	0.0	0.0	0.0	20 1
1209	63.1	3.70	3.44	0.0	0.0	0.0	20 1

CHAPTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
1211	88.5	3.80	3.82	0.0	0.0	0.0	20 1
1212	73.0	4.30	3.37	0.0	0.0	0.0	20 1
1213	65.2	3.70	3.48	0.0	0.0	0.0	20 1
1214	72.9	3.40	0.0	0.0	0.0	0.0	30 1
1215	88.9	3.60	0.0	0.0	0.0	0.0	20 1
1216	74.7	3.80	3.44	0.0	0.0	0.0	20 1
1217	63.1	3.80	3.44	0.0	0.0	0.0	20 1
1218	71.8	4.20	0.0	0.0	0.0	0.0	30 1
1219	89.0	3.70	3.56	0.0	0.0	0.0	20 1
1220	78.3	3.90	3.53	0.0	0.0	0.0	20 1
1221	72.0	3.80	3.62	0.0	0.0	0.0	20 1
1222	65.1	3.70	3.54	0.0	0.0	0.0	20 1
1223	74.3	5.10	3.69	3.52	0.0	0.97	10 1
1224	89.0	3.80	0.0	0.0	0.0	0.0	30 1
1225	104.5	3.60	4.13	0.0	0.0	0.0	20 1
1226	74.5	3.70	3.56	0.0	0.0	0.0	20 1
1227	88.6	4.70	0.0	0.0	0.0	0.0	30 1
1228	89.3	3.70	0.0	0.0	0.0	0.0	30 1
1229	71.8	4.10	0.0	0.0	0.0	0.0	30 1
1230	65.1	3.50	3.54	0.0	0.0	0.0	20 1
1231	91.6	5.10	0.0	0.0	0.0	0.0	50 1
1232	71.6	5.60	5.07	4.82	0.0	0.43	10 1
1233	65.1	3.20	3.33	0.0	0.0	0.0	20 1
1234	78.7	3.40	3.19	0.0	0.0	0.0	20 1
1235	65.1	3.60	0.0	0.0	0.0	0.0	20 1
1236	92.4	5.40	4.03	0.0	3.31	0.68	50 1
1237	63.1	4.20	0.0	0.0	0.0	0.0	20 1
1238	84.2	3.40	0.0	0.0	0.0	0.0	20 1
1239	101.7	4.40	0.0	0.0	0.0	0.0	50 1
1240	89.3	4.00	3.30	0.0	0.0	0.0	20 1
1241	86.1	3.40	3.04	0.0	0.0	0.0	20 1
1242	65.1	4.00	3.01	0.0	0.0	0.0	20 1
1243	91.2	4.20	0.0	0.0	0.0	0.0	30 1
1244	66.1	3.50	3.58	0.0	0.0	0.0	20 1
1245	77.2	3.70	0.0	0.0	0.0	0.0	30 1
1246	70.4	3.60	3.52	0.0	0.0	0.0	20 1
1247	75.5	4.00	0.0	0.0	0.0	0.0	20 1
1248	71.8	3.90	0.0	0.0	0.0	0.0	30 1
1249	66.1	4.00	5.38	0.0	0.0	0.0	20 1
1250	69.5	4.10	3.70	0.0	0.0	0.0	20 1
1251	75.0	3.90	3.36	0.0	0.0	0.0	20 1
1252	70.9	3.40	4.60	0.0	0.0	0.0	20 1
1253	63.1	3.80	4.23	0.0	0.0	0.0	20 1
1254	99.6	4.60	3.84	0.0	0.0	0.0	20 1
1255	77.1	3.60	3.63	0.0	0.0	0.0	20 1
1256	77.4	3.30	3.56	0.0	0.0	0.0	20 1
1258	63.1	3.90	3.51	0.0	0.0	0.0	20 1
1259	68.6	4.00	3.75	0.0	0.0	0.0	20 1
1260	78.0	4.80	3.90	3.65	3.37	0.31	60 1

CHARTER TOWERS, AUSTRALIA

EVENT NO.	DISTANCE (DEGREES)	MP	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1261	78.2	3.50	0.0	0.0	0.0	0.0	30 1
1262	77.1	3.70	3.43	0.0	0.0	0.0	20 1
1267	91.8	6.30	0.0	0.0	0.0	0.0	20 1
1268	95.7	5.30	0.0	0.0	0.0	0.0	20 1
1270	109.5	6.80	0.0	4.50	4.28	1.11	10 1
1280	91.7	6.00	0.0	0.0	0.0	0.0	50 1

APPENDIX II-D
BASIC DATA FOR
CHIANG MAI, THAILAND (CHG)

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1	56.5	4.10	3.85	3.55	2.81	2.90	10 2
2	54.7	4.60	0.0	0.0	0.0	0.0	20 2
3	54.9	4.00	0.0	0.0	0.0	0.0	20 2
4	47.3	4.00	0.0	0.0	0.0	0.0	20 2
5	69.5	4.20	0.0	0.0	0.0	0.0	20 2
6	26.1	5.20	4.23	3.32	3.05	4.47	10 2
7	57.1	4.80	3.84	0.0	0.0	0.43	10 2
8	57.0	4.50	0.0	0.0	0.0	0.0	30 2
9	46.2	3.40	0.0	0.0	0.0	0.0	50 2
10	59.0	4.30	0.0	0.0	0.0	0.0	50 2
11	21.8	4.80	0.0	0.0	0.0	0.0	20 2
12	60.5	4.40	0.0	0.0	0.0	0.0	20 2
13	22.0	*4.60	4.60	3.27	2.98	1.34	10 2
14	32.3	3.90	4.23	4.38	3.40	0.78	10 2
15	41.3	3.80	0.0	0.0	0.0	0.0	20 2
16	47.3	4.50	0.0	0.0	0.0	0.0	20 2
17	71.4	4.00	0.0	0.0	0.0	0.0	20 2
18	29.5	4.50	0.0	0.0	0.0	0.0	20 2
19	63.7	4.00	3.89	3.39	0.0	1.50	10 2
20	59.0	3.90	0.0	0.0	0.0	0.0	20 2
21	31.6	4.70	3.51	0.0	0.0	3.98	10 2
22	23.2	4.70	3.65	3.18	0.0	4.72	10 2
23	45.2	5.20	3.14	0.0	0.0	3.97	10 2
24	29.8	3.90	0.0	0.0	0.0	0.0	20 2
25	51.3	4.20	2.81	0.0	0.0	0.0	60 2
26	19.0	4.70	5.46	3.93	0.0	1.24	10 2
27	19.2	4.60	4.76	4.09	4.11	1.05	10 2
28	60.6	3.60	0.0	0.0	0.0	0.0	30 2
29	60.4	4.30	3.56	0.0	0.0	2.86	10 2
30	48.5	3.80	0.0	0.0	0.0	0.0	20 2
31	20.3	5.00	4.16	4.16	3.78	1.00	10 2
32	60.4	4.40	0.0	0.0	0.0	0.0	20 2
33	62.8	3.90	0.0	0.0	0.0	0.0	20 2
34	47.6	4.00	3.93	0.0	0.0	0.0	10 2
35	62.2	4.40	0.0	2.65	0.0	0.0	10 2
36	67.7	4.90	3.93	4.14	3.93	2.32	10 2
37	60.5	4.80	4.10	0.0	3.58	0.60	10 2
38	60.3	4.00	4.23	0.0	3.56	0.98	10 2
39	54.4	5.30	5.05	4.68	4.17	6.40	10 2
40	66.0	3.90	3.43	0.0	0.0	5.99	30 2
41	48.4	5.10	0.0	3.59	2.90	2.44	10 2
42	54.0	3.90	0.0	0.0	0.0	0.0	20 2
43	41.9	4.70	3.19	0.0	0.0	5.06	10 2
44	27.5	5.40	0.0	0.0	0.0	0.0	30 2
45	26.3	4.60	0.0	0.0	0.0	0.0	30 2
46	59.7	3.80	0.0	0.0	0.0	0.0	20 2
47	60.1	3.90	0.0	0.0	0.0	0.0	20 2
48	65.3	4.10	0.0	0.0	0.0	0.0	20 2
49	48.8	4.80	0.0	0.0	0.0	0.0	20 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
50	47.9	4.90	3.89	0.0	2.95	0.0	10 2
51	77.6	4.10	0.0	0.0	0.0	0.0	20 2
52	64.6	4.80	0.0	0.0	0.0	0.0	20 2
53	51.1	3.80	0.0	0.0	0.0	0.0	20 2
54	52.2	4.20	0.0	0.0	0.0	0.0	20 2
55	62.3	4.40	0.0	0.0	0.0	0.0	20 2
56	56.4	4.20	0.0	0.0	0.0	0.0	20 2
57	59.8	4.00	0.0	0.0	0.0	0.0	30 2
58	56.3	4.00	0.0	0.0	0.0	0.0	30 2
59	58.5	4.60	0.0	3.67	0.0	1.33	10 2
60	74.0	*4.20	0.0	0.0	0.0	0.0	20 2
61	22.0	4.80	4.03	0.0	3.20	0.61	10 2
62	22.2	4.60	3.96	3.91	0.0	0.57	10 2
63	74.0	*3.70	0.0	0.0	0.0	0.0	50 2
65	61.0	3.80	0.0	0.0	0.0	0.0	30 2
66	54.4	4.10	0.0	0.0	0.0	0.0	20 2
67	44.7	3.20	0.0	0.0	0.0	0.0	20 2
68	54.4	4.00	3.18	0.0	0.0	4.01	10 2
69	54.4	4.80	0.0	0.0	0.0	0.0	20 2
70	60.3	3.80	0.0	0.0	0.0	0.0	20 2
71	25.6	3.80	0.0	2.54	0.0	4.17	10 2
72	26.7	4.40	0.0	0.0	0.0	0.0	20 2
73	31.0	*4.10	4.17	2.80	0.0	1.69	10 2
74	49.7	4.00	0.0	0.0	0.0	0.0	30 2
75	26.7	4.50	0.0	0.0	0.0	0.0	20 2
76	30.0	4.40	0.0	0.0	0.0	0.0	30 2
77	40.4	4.00	0.0	0.0	0.0	0.0	20 2
78	55.4	3.80	0.0	0.0	0.0	0.0	20 2
79	27.9	4.40	0.0	0.0	0.0	0.0	20 2
80	35.1	3.90	0.0	0.0	0.0	0.0	20 2
83	57.2	3.60	0.0	0.0	0.0	0.0	20 2
84	59.5	3.70	0.0	0.0	0.0	0.0	20 2
85	47.7	3.60	0.0	0.0	0.0	0.0	20 2
87	69.0	4.60	3.40	2.52	0.0	1.55	10 2
88	48.2	5.10	0.0	3.93	0.0	0.0	10 2
89	5.6	4.50	3.52	3.07	0.0	0.0	10 2
90	74.1	*4.50	4.68	4.57	0.0	1.41	10 2
91	35.9	4.20	0.0	0.0	0.0	0.0	20 2
92	74.1	4.80	3.33	0.0	0.0	1.54	10 2
93	53.2	4.80	0.0	0.0	0.0	0.0	20 2
94	74.1	4.40	3.27	3.27	0.0	1.07	10 2
95	17.4	5.20	3.87	3.64	0.0	0.96	10 2
96	46.1	4.50	3.02	2.88	0.0	0.78	10 2
97	74.1	*4.10	3.24	3.10	0.0	1.87	10 2
98	74.0	*4.30	0.0	0.0	0.0	0.0	30 2
99	74.1	*4.10	0.0	0.0	0.0	0.0	20 2
100	73.9	3.60	0.0	0.0	0.0	0.0	10 2
101	74.1	*4.30	0.0	0.0	0.0	0.0	30 2
102	73.9	*3.70	0.0	0.0	0.0	0.0	10 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
103	73.9	*4.00	0.0	0.0	0.0	0.0	30 2
104	74.0	*4.30	3.30	2.98	0.0	2.12	10 2
105	74.0	*4.20	3.43	3.13	0.0	2.39	10 2
106	74.1	*4.40	3.29	3.27	0.0	1.99	10 2
107	13.7	4.10	0.0	0.0	0.0	0.0	20 2
108	26.9	4.70	0.0	0.0	0.0	0.0	30 2
109	31.4	4.30	0.0	0.0	0.0	0.0	20 2
110	74.1	*3.80	0.0	0.0	0.0	0.0	30 2
111	75.3	4.80	0.0	0.0	0.0	0.0	20 2
112	21.8	5.70	4.42	0.0	4.19	3.52	10 2
113	74.1	*4.30	0.0	0.0	0.0	0.0	30 2
114	22.4	4.80	3.93	3.61	3.56	1.41	10 2
115	44.9	4.30	0.0	0.0	0.0	0.0	20 2
116	35.1	5.50	0.0	0.0	0.0	0.0	20 2
117	44.8	4.50	3.72	3.31	0.0	1.81	10 2
118	44.8	3.90	0.0	0.0	0.0	0.0	30 2
119	44.8	4.10	0.0	0.0	0.0	0.0	50 2
120	28.1	4.90	0.0	0.0	0.0	0.0	30 2
121	14.9	4.30	2.63	2.42	0.0	0.0	10 2
122	61.2	3.90	0.0	0.0	0.0	0.0	30 2
123	60.0	4.60	4.04	0.0	3.30	0.76	10 2
145	48.1	4.80	0.0	0.0	0.0	0.0	30 2
146	48.6	4.70	0.0	0.0	0.0	0.0	30 2
147	48.1	4.90	3.11	2.49	0.0	0.0	10 2
148	49.6	3.70	0.0	0.0	0.0	0.0	20 2
149	68.2	3.70	0.0	0.0	0.0	0.0	20 2
150	31.8	3.80	0.0	0.0	0.0	0.0	20 2
151	27.9	4.30	0.0	0.0	0.0	0.0	50 2
152	59.9	3.70	0.0	0.0	0.0	0.0	50 2
153	55.7	4.50	0.0	0.0	0.0	0.0	30 2
154	45.6	3.70	0.0	0.0	0.0	0.0	30 2
155	55.1	3.70	0.0	0.0	0.0	0.0	50 2
156	53.8	5.00	4.01	3.51	2.63	0.0	10 2
157	53.8	3.60	0.0	0.0	0.0	0.0	50 2
158	54.5	4.30	0.0	0.0	0.0	0.0	30 2
159	51.7	3.80	0.0	0.0	0.0	0.0	50 2
160	53.8	3.70	0.0	0.0	0.0	0.0	20 2
161	55.8	3.50	0.0	0.0	0.0	0.0	20 2
162	47.8	3.80	0.0	0.0	0.0	0.0	20 2
165	47.5	4.90	3.79	2.66	2.29	0.83	10 2
168	59.3	3.30	0.0	0.0	0.0	0.0	20 2
169	46.1	3.80	0.0	0.0	0.0	0.0	30 2
170	50.7	4.00	0.0	0.0	0.0	0.0	30 2
171	6.8	4.70	2.55	1.66	0.0	0.0	10 2
172	30.6	5.30	3.82	3.90	3.00	0.0	10 2
173	73.2	3.30	0.0	0.0	0.0	0.0	20 2
174	71.1	3.30	0.0	0.0	0.0	0.0	20 2
175	69.1	4.90	3.79	3.30	3.02	0.0	10 2
177	71.3	3.50	0.0	0.0	0.0	0.0	30 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
178	56.4	4.50	0.0	0.0	0.0	0.0	50 2
179	71.3	4.40	0.0	0.0	0.0	0.0	50 2
180	21.7	4.00	0.0	0.0	0.0	0.0	30 2
181	33.7	4.50	0.0	0.0	0.0	0.0	20 2
182	48.5	4.20	0.0	0.0	0.0	0.0	50 2
183	29.7	4.20	0.0	0.0	0.0	0.0	20 2
184	60.1	4.10	0.0	0.0	0.0	0.0	50 2
186	31.2	3.90	2.36	1.59	0.0	0.0	10 2
187	45.6	3.60	0.0	0.0	0.0	0.0	50 2
188	45.6	3.70	0.0	0.0	0.0	0.0	50 2
189	45.0	4.40	0.0	0.0	0.0	0.0	20 2
190	45.6	4.20	0.0	0.0	0.0	0.0	20 2
191	36.9	4.50	0.0	0.0	0.0	0.0	20 2
192	46.9	3.80	3.03	2.46	0.0	0.0	10 2
193	31.1	4.40	2.77	2.13	0.0	0.0	10 2
194	46.0	4.70	0.0	0.0	0.0	0.0	30 2
195	42.5	3.90	0.0	0.0	0.0	0.0	30 2
196	45.6	3.70	0.0	0.0	0.0	0.0	30 2
197	48.1	3.90	0.0	0.0	0.0	0.0	30 2
198	45.4	3.40	0.0	0.0	0.0	0.0	30 2
199	45.4	3.30	0.0	0.0	0.0	0.0	30 2
200	45.8	4.40	4.11	3.74	3.08	0.0	10 2
201	45.2	3.60	0.0	0.0	0.0	0.0	30 2
202	44.8	3.70	0.0	0.0	0.0	0.0	30 2
203	47.2	3.80	0.0	0.0	0.0	0.0	30 2
204	46.0	4.20	0.0	0.0	0.0	0.0	30 2
205	58.4	3.60	0.0	0.0	0.0	0.0	30 2
206	47.4	4.20	0.0	0.0	0.0	0.0	20 2
207	43.7	4.00	0.0	0.0	0.0	0.0	30 2
208	44.9	4.10	0.0	0.0	0.0	0.0	50 2
209	39.6	3.70	0.0	0.0	0.0	0.0	20 2
210	51.8	4.00	0.0	0.0	0.0	0.0	20 2
211	72.1	3.40	0.0	0.0	0.0	0.0	20 2
212	60.6	4.20	0.0	0.0	0.0	0.0	20 2
213	45.7	4.00	0.0	0.0	0.0	0.0	30 2
214	29.6	4.00	0.0	0.0	0.0	0.0	20 2
216	59.9	3.70	0.0	0.0	0.0	0.0	50 2
218	68.2	3.70	0.0	0.0	0.0	0.0	50 2
219	59.9	3.40	0.0	0.0	0.0	0.0	50 2
220	58.6	3.50	0.0	0.0	0.0	0.0	20 2
231	49.6	4.20	0.0	0.0	0.0	0.0	20 2
232	69.9	*4.40	2.68	2.17	0.0	0.0	10 2
283	20.9	3.70	0.0	0.0	0.0	0.0	50 2
284	41.1	3.60	0.0	0.0	0.0	0.0	20 2
285	31.7	3.50	0.0	0.0	0.0	0.0	50 2
286	50.7	4.50	0.0	0.0	0.0	0.0	30 2
287	37.7	3.80	0.0	0.0	0.0	0.0	30 2
288	25.3	3.40	0.0	0.0	0.0	0.0	50 2
289	9.6	3.60	0.0	2.42	1.95	0.0	10 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
290	24.2	3.50	0.0	0.0	0.0	0.0	20 2
292	54.5	5.20	0.0	0.0	0.0	0.0	15 2
293	45.7	4.00	0.0	0.0	0.0	0.0	30 2
294	32.4	5.20	4.06	3.48	0.0	1.90	10 2
295	42.0	3.90	0.0	0.0	0.0	0.0	20 2
296	25.3	3.50	2.54	0.0	0.0	0.0	10 2
297	47.2	5.00	0.0	0.0	0.0	0.0	15 2
298	31.8	3.60	0.0	0.0	0.0	0.0	30 2
299	60.3	3.60	0.0	0.0	0.0	0.0	20 2
300	57.0	4.70	2.97	0.0	0.0	0.0	10 2
301	52.4	3.70	0.0	0.0	0.0	0.0	20 2
302	32.0	3.20	0.0	0.0	0.0	0.0	20 2
303	56.3	3.90	0.0	0.0	0.0	0.0	20 2
304	56.4	3.60	0.0	0.0	0.0	0.0	20 2
308	36.2	3.40	2.86	2.28	1.70	0.0	10 2
309	26.8	3.40	0.0	0.0	0.0	0.0	50 2
670	57.0	4.00	0.0	0.0	0.0	0.0	20 2
671	51.4	3.60	0.0	0.0	0.0	0.0	30 2
672	35.5	5.50	0.0	0.0	0.0	0.0	20 2
673	13.3	3.80	2.67	2.18	0.0	0.0	10 2
674	62.6	3.60	0.0	0.0	0.0	0.0	50 2
675	5.1	4.00	0.0	0.0	0.0	0.0	30 2
676	4.1	4.80	0.0	0.0	0.0	0.0	30 2
677	30.7	3.60	0.0	0.0	0.0	0.0	20 2
678	60.1	4.20	0.0	0.0	0.0	0.0	30 2
679	59.7	6.30	4.53	4.07	3.65	0.78	10 2
680	35.2	5.20	4.12	3.63	3.25	0.59	13 2
681	53.8	3.70	3.23	2.86	0.0	0.0	10 2
682	47.5	3.70	0.0	2.89	0.0	0.0	13 2
683	65.1	4.40	0.0	0.0	0.0	0.0	50 2
684	65.6	3.60	0.0	0.0	0.0	0.0	30 2
685	21.4	3.70	3.12	2.75	0.0	0.0	10 2
686	72.0	*4.30	0.0	0.0	0.0	0.0	20 2
701	44.0	4.00	0.0	0.0	0.0	0.0	30 2
702	30.7	5.50	5.16	5.04	4.61	0.0	10 2
703	29.3	3.80	0.0	2.65	0.0	0.0	13 2
704	66.6	5.20	4.82	4.46	4.58	0.80	10 2
705	30.6	4.20	0.0	0.0	0.0	0.0	30 2
706	59.8	3.70	0.0	0.0	0.0	0.0	30 2
707	66.5	4.30	0.0	0.0	0.0	0.0	23 2
708	12.5	*4.50	3.95	3.86	3.97	0.0	10 2
709	32.5	4.10	0.0	0.0	0.0	0.0	30 2
710	47.9	4.30	3.94	3.30	2.64	0.0	10 2
711	20.7	*5.30	4.59	4.45	3.69	2.78	10 2
712	29.1	4.30	3.50	0.0	0.0	0.0	10 2
713	57.1	4.50	0.0	0.0	0.0	0.0	20 2
714	66.7	4.60	0.0	0.0	0.0	0.0	30 2
715	50.8	3.70	0.0	0.0	0.0	0.0	20 2
716	21.7	5.50	4.62	4.56	3.76	0.45	10 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
717	69.7	4.20	0.0	0.0	0.0	0.0	30 2
718	39.1	4.70	4.46	4.07	3.72	0.76	13 2
719	63.4	3.60	0.0	0.0	0.0	0.0	30 2
720	53.7	3.60	0.0	0.0	0.0	0.0	30 2
721	39.6	3.80	0.0	0.0	0.0	0.0	32 2
722	29.1	3.80	0.0	0.0	0.0	0.0	20 2
723	59.4	4.80	0.0	0.0	0.0	0.0	30 2
724	49.1	3.70	0.0	0.0	0.0	0.0	23 2
725	45.2	3.90	0.0	3.08	2.69	0.0	10 2
726	22.7	4.10	3.73	3.34	0.0	0.0	10 2
727	43.0	3.90	0.0	0.0	0.0	0.0	20 2
728	64.3	4.50	0.0	0.0	0.0	0.0	30 2
729	29.1	3.90	0.0	0.0	0.0	0.0	30 2
730	67.3	3.80	0.0	0.0	0.0	0.0	30 2
731	49.2	3.90	0.0	0.0	0.0	0.0	20 2
732	5.9	4.40	4.0	3.47	0.0	0.0	10 2
733	67.3	3.70	0.0	0.0	0.0	0.0	20 2
734	69.9	4.30	0.0	0.0	0.0	0.0	30 2
735	50.7	4.00	0.0	0.0	0.0	0.0	30 2
736	48.4	3.70	0.0	0.0	0.0	0.0	30 2
737	57.8	4.60	3.8	0.0	3.02	0.0	10 2
738	48.5	3.90	0.0	0.0	0.0	0.0	30 2
739	52.7	4.00	0.0	3.09	0.0	0.26	13 2
741	68.5	*4.80	0.0	3.17	2.40	0.0	13 2
742	44.8	4.00	0.0	0.0	0.0	0.0	10 2
743	27.3	4.00	3.17	2.78	0.0	0.77	10 2
744	21.7	5.70	5.56	5.11	0.0	0.44	10 2
745	21.0	4.40	0.0	0.0	0.0	0.0	30 2
746	47.3	3.60	0.0	0.0	0.0	0.0	23 2
747	62.2	4.10	0.0	0.0	0.0	0.0	20 2
748	29.1	4.00	2.99	2.73	0.0	0.0	10 2
749	27.1	4.00	0.0	3.16	2.50	0.0	10 2
750	25.6	4.90	3.72	0.0	3.26	0.0	10 2
751	68.2	4.30	0.0	0.0	0.0	0.0	30 2
753	50.2	4.70	0.0	0.0	0.0	0.0	50 2
754	44.0	3.70	0.0	0.0	0.0	0.0	50 2
755	42.8	5.20	0.0	0.0	0.0	0.0	23 2
756	57.0	3.40	0.0	0.0	0.0	0.0	20 2
757	14.3	3.90	0.0	3.26	2.36	0.0	10 2
758	41.7	5.10	4.19	3.56	0.0	0.0	10 2
759	68.2	4.00	0.0	0.0	0.0	0.0	30 2
760	42.3	5.60	3.95	3.35	2.94	0.0	10 2
761	56.9	5.20	3.68	3.50	3.34	0.0	10 2
762	74.1	4.90	0.0	3.94	0.0	0.0	10 2
763	44.4	3.90	0.0	0.0	0.0	0.0	30 2
764	58.6	4.70	0.0	0.0	0.0	0.0	20 2
765	64.2	4.80	4.05	3.56	2.75	0.0	10 2
766	59.5	3.60	0.0	0.0	0.0	0.0	20 2
767	65.6	4.40	0.0	0.0	0.0	0.0	20 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
768	29.3	3.60	0.0	0.0	0.0	0.0	30 2
769	29.3	4.10	0.0	0.0	0.0	0.0	20 2
770	60.2	3.60	0.0	0.0	0.0	0.0	20 2
771	74.2	*4.40	0.0	0.0	0.0	0.0	30 2
772	58.2	3.90	0.0	0.0	0.0	0.0	20 2
773	74.3	3.90	0.0	0.0	0.0	0.0	20 2
774	43.8	4.70	0.0	0.0	0.0	0.0	10 2
775	39.8	5.40	5.25	4.75	4.38	0.40	10 2
776	59.3	4.80	3.82	3.27	3.09	0.59	10 2
777	40.2	4.10	0.0	0.0	0.0	0.0	20 2
778	64.7	5.10	4.04	3.96	3.27	0.0	10 2
779	40.1	3.60	0.0	0.0	0.0	0.0	20 2
780	45.9	3.90	0.0	0.0	0.0	0.0	30 2
781	29.0	5.00	3.85	3.50	2.96	0.99	10 2
782	46.5	4.00	0.0	0.0	0.0	0.0	20 2
783	58.3	4.40	0.0	0.0	0.0	0.0	30 2
784	48.2	4.10	0.0	0.0	0.0	0.0	20 2
785	32.0	5.30	4.92	4.11	0.0	0.0	10 2
786	64.7	4.30	0.0	0.0	0.0	0.0	20 2
787	40.0	3.70	0.0	3.14	2.84	0.82	10 2
788	28.8	3.90	0.0	0.0	0.0	0.0	50 2
789	40.1	4.20	0.0	0.0	0.0	0.0	30 2
790	40.0	4.70	3.54	3.54	0.0	0.0	10 2
791	28.8	3.70	0.0	3.16	0.0	0.89	13 2
792	84.6	4.50	0.0	0.0	0.0	0.0	20 2
793	31.9	4.10	0.0	0.0	0.0	0.0	30 2
794	21.1	4.00	0.0	0.0	0.0	0.0	30 2
795	55.3	3.80	0.0	0.0	0.0	0.0	20 2
796	63.2	3.50	0.0	0.0	0.0	0.0	20 2
797	35.2	5.70	3.51	3.81	3.01	0.83	10 2
799	49.1	6.00	6.02	5.34	4.73	0.85	10 2
800	50.2	4.20	0.0	0.0	0.0	0.0	30 2
801	48.6	3.50	0.0	0.0	0.0	0.0	50 2
802	49.0	4.80	0.0	0.0	0.0	0.0	50 2
803	48.2	3.60	0.0	0.0	0.0	0.0	20 2
804	49.3	3.70	0.0	0.0	0.0	0.0	30 2
805	68.5	3.70	0.0	0.0	0.0	0.0	20 2
806	50.5	4.30	0.0	0.0	0.0	0.0	20 2
807	49.1	4.30	0.0	0.0	0.0	0.0	30 2
808	48.2	3.90	0.0	0.0	0.0	0.0	20 2
809	50.5	3.60	0.0	0.0	0.0	0.0	30 2
810	50.2	3.60	0.0	0.0	0.0	0.0	20 2
811	51.4	3.60	0.0	0.0	0.0	0.0	30 2
812	49.0	4.30	0.0	0.0	0.0	0.0	50 2
813	49.0	4.80	4.22	3.41	0.0	0.41	10 2
814	48.9	4.10	0.0	0.0	0.0	0.0	50 2
815	57.8	4.70	0.0	0.0	0.0	0.0	20 2
816	68.5	3.90	0.0	0.0	0.0	0.0	20 2
817	45.6	3.60	0.0	0.0	0.0	0.0	20 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
818	50.0	5.70	4.54	3.75	3.41	0.74	10 2
819	30.7	3.60	0.0	0.0	0.0	0.0	50 2
820	66.6	*4.20	0.0	0.0	0.0	0.0	50 2
821	50.5	4.60	0.0	0.0	0.0	0.0	20 2
822	49.6	4.10	0.0	0.0	0.0	0.0	20 2
823	69.9	*4.30	0.0	0.0	0.0	0.0	20 2
824	47.9	3.40	0.0	0.0	0.0	0.0	20 2
825	49.0	4.70	4.41	3.95	3.24	1.33	10 2
826	64.7	4.70	0.0	0.0	0.0	0.0	20 2
827	66.9	4.40	0.0	0.0	0.0	0.0	50 2
828	48.9	5.70	6.08	5.40	0.0	0.0	10 2
829	49.0	4.80	0.0	0.0	0.0	0.0	30 2
830	49.8	4.30	0.0	0.0	0.0	0.0	20 2
831	49.6	3.80	0.0	0.0	0.0	0.0	20 2
832	49.0	4.70	0.0	0.0	0.0	0.0	20 2
833	48.9	4.10	0.0	0.0	0.0	0.0	20 2
834	49.1	4.80	0.0	0.0	0.0	0.0	20 2
835	47.9	3.70	0.0	0.0	0.0	0.0	20 2
836	49.0	4.60	3.71	3.54	0.0	0.96	10 2
837	49.0	4.90	3.14	3.50	4.12	1.63	10 2
838	32.4	3.40	0.0	0.0	0.0	0.0	20 2
839	68.2	4.00	3.81	3.34	3.05	1.42	10 2
840	49.1	3.80	0.0	0.0	0.0	0.0	20 2
841	50.5	3.70	0.0	0.0	0.0	0.0	20 2
842	65.6	4.70	3.81	3.47	3.15	0.25	10 2
843	57.1	3.80	0.0	0.0	0.0	0.0	20 2
844	64.2	4.60	4.40	4.22	3.89	0.0	10 2
845	31.3	4.30	0.0	0.0	0.0	0.0	50 2
846	56.6	4.10	0.0	0.0	0.0	0.0	50 2
847	27.6	3.70	0.0	0.0	0.0	0.0	20 2
848	59.1	4.20	0.0	0.0	0.0	0.0	20 2
849	73.2	3.70	0.0	0.0	0.0	0.0	30 2
850	60.6	4.10	0.0	0.0	0.0	0.0	20 2
851	60.5	4.10	0.0	0.0	0.0	0.0	20 2
852	54.5	4.10	0.0	0.0	0.0	0.0	20 2
853	7.0	3.90	0.0	0.0	0.0	0.0	20 2
854	21.2	3.80	0.0	0.0	0.0	0.0	50 2
855	28.8	4.00	0.0	0.0	0.0	0.0	50 2
856	64.1	3.70	0.0	0.0	0.0	0.0	20 2
857	59.5	4.80	0.0	0.0	0.0	0.0	20 2
858	49.6	4.70	0.0	0.0	0.0	0.0	60 2
859	57.4	5.70	5.37	5.07	4.70	0.51	10 2
860	59.0	3.50	0.0	0.0	0.0	0.0	50 2
881	15.8	5.20	3.65	3.85	3.02	0.0	10 2
882	55.5	4.10	0.0	0.0	0.0	0.0	20 2
883	20.4	3.70	0.0	0.0	0.0	0.0	30 2
884	31.0	5.50	4.64	3.81	0.0	0.48	10 2
885	30.9	4.80	0.0	0.0	0.0	0.0	20 2
886	28.4	3.80	0.0	0.0	0.0	0.0	20 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/IR RATIO	COMMENT
887	30.5	4.70	0.0	0.0	0.0	0.0	20 2
888	56.2	3.50	0.0	0.0	0.0	0.0	20 2
889	59.5	3.40	0.0	0.0	0.0	0.0	20 2
890	69.0	5.30	4.80	4.27	4.02	0.0	10 2
891	68.9	4.00	0.0	0.0	0.0	0.0	20 2
892	68.9	4.30	0.0	0.0	0.0	0.0	20 2
893	54.2	4.70	0.0	0.0	0.0	0.0	30 2
894	57.0	3.90	0.0	0.0	0.0	0.0	50 2
895	30.1	4.90	0.0	3.51	3.08	0.62	10 2
896	30.7	4.80	0.0	0.0	0.0	0.0	20 2
897	69.1	5.00	0.0	0.0	0.0	0.0	20 2
898	44.6	4.40	3.61	3.32	2.81	0.0	10 2
899	60.7	4.30	0.0	0.0	0.0	0.0	30 2
900	31.2	3.90	0.0	0.0	0.0	0.0	20 2
902	31.7	3.70	0.0	0.0	0.0	0.0	20 2
903	43.9	3.90	0.0	0.0	0.0	0.0	20 2
904	58.6	3.90	3.37	3.05	0.0	1.34	10 2
905	26.9	3.80	0.0	0.0	0.0	0.0	50 2
906	44.8	3.60	0.0	0.0	0.0	0.0	20 2
907	44.8	4.20	0.0	0.0	0.0	0.0	20 2
908	22.6	5.10	0.0	3.49	3.06	0.0	10 2
909	22.6	4.70	3.03	2.80	0.0	0.0	10 2
910	28.4	3.80	0.0	0.0	0.0	0.0	20 2
911	25.3	5.10	3.93	3.93	3.20	0.0	10 2
912	68.4	4.50	0.0	0.0	0.0	0.0	20 2
913	25.0	3.70	0.0	0.0	0.0	0.0	20 2
914	16.1	4.60	0.0	3.18	0.0	0.0	10 2
915	30.7	4.80	0.0	4.15	3.95	0.55	10 2
916	30.7	4.50	0.0	2.89	2.72	0.0	10 2
917	40.4	3.80	3.22	3.22	0.0	0.39	60 2
918	30.8	5.00	3.81	3.01	0.0	0.75	10 2
919	29.6	3.60	0.0	0.0	0.0	0.0	20 2
920	26.3	3.70	0.0	0.0	0.0	0.0	20 2
921	31.3	3.90	0.0	0.0	0.0	0.0	30 2
922	31.3	4.00	0.0	0.0	0.0	0.0	20 2
923	48.9	3.90	0.0	0.0	0.0	0.0	20 2
924	32.6	4.30	0.0	0.0	0.0	0.0	20 2
925	53.8	4.00	0.0	0.0	0.0	0.0	20 2
926	22.7	4.90	0.0	0.0	2.72	0.0	10 2
927	66.5	4.60	0.0	0.0	0.0	0.0	20 2
928	49.5	3.40	0.0	0.0	0.0	0.0	20 2
929	26.4	5.10	4.21	3.91	3.45	0.23	10 2
930	25.6	4.50	0.0	0.0	0.0	0.0	30 2
931	24.5	3.70	0.0	0.0	0.0	0.0	20 2
932	59.0	5.30	4.66	4.09	0.0	0.0	10 2
933	71.0	4.70	0.0	3.37	0.0	0.0	10 2
934	67.3	3.70	0.0	0.0	0.0	0.0	20 2
935	48.6	4.00	0.0	0.0	0.0	0.0	20 2
936	49.5	3.80	3.40	3.11	0.0	0.93	10 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MR	MS			LO/LR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
937	55.3	5.20	4.30	3.57	2.97	0.0	10 2
938	27.9	4.00	0.0	0.0	0.0	0.0	20 2
939	70.4	4.30	0.0	0.0	0.0	0.0	20 2
940	28.3	5.00	0.0	0.0	0.0	0.0	20 2
941	70.1	4.30	0.0	0.0	0.0	0.0	20 2
942	42.8	4.50	3.72	3.23	2.98	0.31	10 2
943	59.3	4.50	0.0	0.0	0.0	0.0	20 2
944	65.2	3.90	0.0	0.0	0.0	0.0	20 2
945	67.7	3.60	0.0	0.0	0.0	0.0	20 2
946	24.2	4.30	0.0	3.28	0.0	2.60	10 2
947	66.9	3.30	0.0	0.0	0.0	0.0	20 2
948	69.6	3.80	0.0	0.0	0.0	0.0	50 2
1057	59.7	3.70	3.54	0.0	0.0	0.0	20 2
1058	55.3	3.50	0.0	0.0	0.0	0.0	30 2
1059	48.4	3.90	0.0	0.0	0.0	0.0	30 2
1060	56.2	4.20	0.0	0.0	0.0	0.0	30 2
1061	56.2	4.50	0.0	0.0	0.0	0.0	50 2
1062	56.8	3.80	3.14	0.0	0.0	0.0	20 2
1063	31.5	4.00	2.81	0.0	0.0	0.0	20 2
1064	29.3	3.80	4.24	0.0	0.0	0.0	20 2
1065	55.3	4.60	4.11	3.54	0.0	0.69	10 2
1066	56.8	4.00	4.03	3.87	0.0	0.0	10 2
1067	30.0	3.50	2.85	0.0	0.0	0.0	20 2
1068	53.8	4.20	0.0	0.0	0.0	0.0	30 2
1069	9.0	3.80	3.16	3.08	0.0	0.0	10 2
1070	54.7	4.40	3.10	0.0	0.0	0.0	20 2
1071	55.3	4.70	3.27	3.14	2.78	0.0	60 2
1072	69.2	3.10	3.34	0.0	0.0	0.0	20 2
1073	68.1	3.70	3.53	0.0	0.0	0.0	20 2
1074	53.8	4.40	3.49	0.0	0.0	0.0	20 2
1075	54.5	3.90	3.22	0.0	0.0	0.0	20 2
1076	44.8	3.50	0.0	0.0	0.0	0.0	30 2
1077	56.2	4.10	3.14	0.0	0.0	0.0	20 2
1078	47.2	4.10	3.39	2.88	0.0	1.24	10 2
1079	8.3	3.60	2.30	2.38	0.0	1.71	10 2
1080	20.0	4.80	4.24	4.29	3.94	2.64	10 2
1081	62.3	4.40	3.44	0.0	0.0	0.0	20 2
1082	47.7	4.30	3.68	3.20	0.0	1.51	10 2
1083	55.2	5.70	5.27	5.05	4.27	0.26	10 2
1084	20.2	4.50	3.17	0.0	0.0	0.0	20 2
1085	55.6	6.10	5.83	5.44	5.23	1.06	10 2
1086	69.0	4.70	4.73	0.0	0.0	0.0	20 2
1087	67.4	4.00	3.51	0.0	0.0	0.0	20 2
1088	55.9	3.90	0.0	0.0	0.0	0.0	50 2
1089	50.1	3.70	3.41	0.0	0.0	0.0	20 2
1090	57.6	4.00	0.0	0.0	0.0	0.0	50 2
1091	10.7	3.70	2.78	2.27	0.0	7.93	10 2
1092	27.1	4.20	3.00	0.0	0.0	0.0	20 2
1093	52.1	4.30	3.61	3.08	0.0	0.0	10 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	NB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1094	55.9	3.90	0.0	0.0	0.0	0.0	50 2
1095	7.8	4.10	3.26	2.60	0.0	0.0	10 2
1096	58.0	3.50	3.55	0.0	0.0	0.0	20 2
1097	44.8	3.60	3.45	0.0	0.0	0.0	20 2
1098	62.8	3.80	3.45	0.0	0.0	0.0	20 2
1099	61.2	3.60	3.59	0.0	0.0	0.0	20 2
1100	42.6	*4.40	3.56	0.0	0.0	0.0	20 2
1101	59.9	3.70	3.73	0.0	0.0	0.0	20 2
1102	56.2	3.70	3.55	0.0	0.0	0.0	20 2
1103	45.8	3.80	3.45	0.0	0.0	0.0	20 2
1104	53.8	4.50	3.60	0.0	0.0	0.0	60 2
1105	44.8	3.60	0.0	0.0	0.0	0.0	30 2
1106	55.6	5.20	3.61	3.31	3.16	0.0	10 2
1107	62.1	4.30	3.40	0.0	0.0	0.0	20 2
1108	67.3	4.20	3.46	0.0	0.0	0.0	20 2
1109	67.3	3.90	3.43	0.0	0.0	0.0	20 2
1110	59.9	3.50	3.15	0.0	0.0	0.0	20 2
1111	45.7	4.00	3.12	0.0	0.0	0.0	20 2
1112	14.4	5.20	4.50	4.13	3.60	3.27	10 2
1113	12.2	4.00	0.0	2.58	2.00	7.45	10 2
1114	57.8	4.20	3.56	3.20	2.77	0.0	10 2
1115	47.9	4.30	3.12	0.0	0.0	0.0	20 2
1116	48.6	3.80	0.0	0.0	0.0	0.0	30 2
1117	63.7	4.70	0.0	0.0	0.0	0.0	50 2
1118	63.6	4.60	3.64	0.0	0.0	0.0	20 2
1119	69.0	4.00	3.53	0.0	0.0	0.0	20 2
1120	55.5	4.40	3.73	3.54	0.0	1.09	60 2
1121	56.2	4.50	0.0	0.0	0.0	0.0	30 2
1122	51.1	3.90	0.0	3.36	0.0	0.0	60 2
1123	58.5	4.80	3.67	3.06	0.0	0.0	60 2
1124	59.5	3.70	3.42	0.0	0.0	0.0	20 2
1125	55.3	*5.30	4.92	4.05	3.82	0.58	10 2
1126	47.5	3.40	3.27	0.0	0.0	0.0	20 2
1127	56.2	4.70	0.0	0.0	0.0	0.0	30 2
1128	69.7	3.50	0.0	0.0	0.0	0.0	30 2
1130	22.9	3.90	3.16	2.68	0.0	1.38	10 2
1131	25.8	4.80	0.0	0.0	0.0	0.0	30 2
1132	22.8	5.50	5.29	5.13	4.69	2.80	10 2
1133	14.9	4.10	3.15	0.0	0.0	0.0	20 2
1134	59.3	3.60	3.47	3.24	0.0	1.81	60 2
1135	28.5	3.80	3.27	0.0	0.0	0.0	20 2
1136	57.8	3.90	0.0	0.0	0.0	0.0	30 2
1137	64.9	3.80	0.0	0.0	0.0	0.0	30 2
1138	49.1	4.00	3.23	3.00	0.0	0.0	10 2
1139	69.2	4.10	3.48	0.0	0.0	0.0	20 2
1140	56.2	4.10	3.19	0.0	0.0	0.0	20 2
1141	43.2	5.20	4.04	0.0	0.0	1.08	10 2
1142	48.9	4.00	3.26	0.0	0.0	0.0	20 2
1143	23.6	5.30	5.41	5.00	4.55	0.53	10 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1144	23.8	4.30	4.51	0.0	0.0	0.0	20 2
1145	23.3	4.40	3.48	3.18	2.91	0.52	10 2
1146	30.3	3.80	0.0	0.0	0.0	0.0	30 2
1152	59.1	4.70	4.45	0.0	0.0	0.0	20 2
1153	32.0	3.80	3.80	0.0	0.0	0.0	20 2
1154	33.2	3.80	0.0	0.0	0.0	0.0	30 2
1155	32.2	4.40	4.26	3.78	0.0	1.14	10 2
1156	31.7	3.80	0.0	0.0	0.0	0.0	20 2
1161	24.1	4.30	0.0	2.40	0.0	0.0	10 2
1162	48.0	4.20	0.0	0.0	0.0	0.0	50 2
1163	48.9	3.80	3.19	0.0	0.0	0.0	20 2
1164	18.1	4.80	3.77	3.46	0.0	1.83	10 2
1165	46.6	4.30	4.08	3.51	0.0	0.84	10 2
1166	47.5	5.20	4.94	4.14	0.0	0.93	10 2
1167	29.4	3.70	0.0	0.0	0.0	0.0	30 2
1168	47.6	5.30	0.0	0.0	0.0	0.0	50 2
1169	46.9	3.60	3.16	0.0	0.0	0.0	20 2
1170	46.7	4.10	3.26	0.0	0.0	0.0	20 2
1171	45.3	4.00	0.0	3.27	0.0	0.78	60 2
1172	47.6	5.40	4.74	3.94	0.0	0.40	10 2
1173	47.2	3.90	0.0	0.0	0.0	0.0	30 2
1174	47.6	4.70	0.0	0.0	0.0	0.0	30 2
1175	47.6	4.10	0.0	0.0	0.0	0.0	30 2
1176	47.6	4.50	4.57	0.0	0.0	0.0	20 2
1177	47.6	4.20	0.0	0.0	0.0	0.0	30 2
1178	47.6	4.60	4.65	4.18	0.0	0.81	10 2
1179	47.6	4.70	0.0	0.0	0.0	0.0	30 2
1180	47.5	5.30	4.99	3.96	0.0	0.57	10 2
1181	48.2	3.40	3.96	0.0	0.0	0.0	20 2
1182	47.7	5.40	5.53	4.73	0.0	0.96	10 2
1183	47.5	4.50	0.0	0.0	0.0	0.0	30 2
1184	49.5	3.60	0.0	0.0	0.0	0.0	30 2
1186	47.9	3.50	3.38	0.0	0.0	0.0	20 2
1187	47.5	4.10	3.97	0.0	0.0	0.23	10 2
1188	47.9	3.70	0.0	0.0	0.0	0.0	30 2
1189	47.9	3.30	2.89	0.0	0.0	0.0	20 2
1190	47.5	4.40	4.02	3.60	0.0	0.0	10 2
1191	47.6	4.10	0.0	0.0	0.0	0.0	30 2
1192	47.7	4.10	0.0	0.0	0.0	0.0	30 2
1193	46.9	3.60	2.87	0.0	0.0	0.0	20 2
1194	47.5	4.20	3.72	3.10	0.0	0.55	10 2
1195	46.9	3.70	0.0	0.0	0.0	0.0	30 2
1196	47.6	4.30	0.0	0.0	0.0	0.0	30 2
1197	47.9	3.60	0.0	0.0	0.0	0.0	30 2
1198	47.5	4.90	4.14	3.40	0.0	1.44	10 2
1199	47.6	4.50	0.0	0.0	0.0	0.0	30 2
1200	20.9	4.20	3.64	2.98	0.0	0.60	10 2
1201	47.9	4.20	0.0	0.0	0.0	0.0	30 2
1202	47.9	4.20	0.0	0.0	0.0	0.0	30 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1203	48.9	3.40	0.0	0.0	0.0	0.0	30 2
1204	52.1	3.70	3.45	0.0	0.0	0.0	20 2
1205	43.4	4.30	0.0	3.25	2.95	2.75	10 2
1206	26.5	3.90	0.0	0.0	0.0	0.0	30 2
1207	55.9	3.60	0.0	0.0	0.0	0.0	20 2
1208	47.7	4.10	3.56	0.0	0.0	0.0	20 2
1209	47.6	3.70	0.0	0.0	0.0	0.0	30 2
1211	28.4	3.80	0.0	0.0	0.0	0.0	50 2
1212	56.9	4.30	3.48	0.0	0.0	0.0	20 2
1213	49.5	3.70	3.45	0.0	0.0	0.0	20 2
1214	57.0	3.40	0.0	0.0	0.0	0.0	30 2
1215	28.4	3.60	3.95	0.0	0.0	0.0	20 2
1216	17.8	3.80	3.05	0.0	0.0	0.0	20 2
1217	46.9	3.80	3.11	0.0	0.0	0.0	20 2
1218	56.2	4.20	0.0	0.0	0.0	0.0	20 2
1219	28.6	3.70	0.0	3.42	0.0	0.74	30 2
1220	18.4	3.90	0.0	0.0	0.0	0.0	60 2
1221	11.6	3.80	0.0	0.0	0.0	0.0	50 2
1222	48.2	3.70	0.0	0.0	0.0	0.0	50 2
1223	58.8	5.10	4.41	3.85	3.55	0.41	20 2
1224	28.6	3.80	0.0	0.0	0.0	0.0	10 2
1225	44.8	3.60	0.0	0.0	0.0	0.0	30 2
1226	59.5	3.70	3.38	0.0	0.0	0.0	50 2
1227	29.4	4.70	0.0	3.12	0.0	0.0	20 2
1228	28.9	3.70	0.0	0.0	0.0	0.0	10 2
1229	56.2	4.10	0.0	0.0	0.0	0.0	30 2
1230	48.2	3.50	2.95	0.0	0.0	0.0	30 2
1231	31.1	5.10	3.38	0.0	0.0	0.0	20 2
1232	55.8	5.60	5.21	5.22	0.0	0.0	10 2
1233	46.2	3.20	2.85	0.0	0.0	0.0	10 2
1234	63.9	3.40	2.96	0.0	0.0	0.0	20 2
1235	46.2	3.60	2.92	0.0	0.0	0.0	20 2
1236	35.5	5.40	3.18	3.10	0.0	0.0	20 2
1237	47.6	4.20	0.0	0.0	0.0	0.0	60 2
1238	25.0	3.40	0.0	0.0	0.0	0.0	20 2
1239	42.5	4.40	0.0	0.0	0.0	0.0	30 2
1240	28.9	4.00	2.54	0.0	0.0	0.0	50 2
1241	25.9	3.40	0.0	0.0	0.0	0.0	20 2
1242	48.9	4.00	0.0	2.98	2.59	0.71	20 2
1243	31.4	4.20	2.90	2.50	0.0	2.97	60 2
1244	49.1	3.50	3.13	0.0	0.0	0.0	10 2
1245	59.5	3.70	3.27	0.0	0.0	0.0	20 2
1246	10.7	3.60	0.0	2.01	0.0	2.17	20 2
1247	59.7	4.00	3.49	2.74	0.0	2.06	10 2
1248	56.2	3.90	0.0	0.0	0.0	0.0	60 2
1249	49.1	4.00	3.34	0.0	0.0	0.0	30 2
1250	53.8	4.10	0.0	0.0	0.0	0.0	20 2
1251	58.0	3.90	0.0	0.0	0.0	0.0	30 2
1252	55.9	3.40	0.0	0.0	0.0	0.0	20 2

CHIANG MAI, THAILAND

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LP RATIO	COMMENT
1253	48.4	3.80	0.0	0.0	0.0	0.0	20 2
1254	40.8	4.60	3.54	0.0	0.0	0.0	20 2
1255	59.0	3.60	0.0	0.0	0.0	0.0	30 2
1256	60.1	3.30	3.22	0.0	0.0	0.0	20 2
1258	46.2	3.90	3.23	0.0	0.0	0.0	20 2
1259	54.3	4.00	3.72	0.0	0.0	0.0	20 2
1260	59.5	4.80	3.87	0.0	0.0	0.56	60 2
1261	59.7	3.50	3.87	3.45	0.0	0.43	60 2
1262	59.0	3.70	3.18	0.0	0.0	0.0	20 2
1263	35.8	5.30	3.02	2.54	0.0	0.0	60 2
1269	39.9	5.30	0.0	0.0	0.0	0.0	20 2
1270	59.7	6.80	4.67	4.24	0.0	1.14	10 2
1277	58.6	4.20	0.0	0.0	0.0	0.0	20 2
1278	58.7	4.40	0.0	0.0	0.0	0.0	20 2
1279	59.2	4.80	0.0	0.0	0.0	0.0	20 2
1280	35.1	6.00	3.30	2.86	0.0	0.0	10 2

**APPENDIX II-E
BASIC DATA FOR
FAIRBANKS, ALASKA (FBK)**

FAIRBANKS, ALASKA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
3	32.4	4.00	0.0	0.0	0.0	0.0	20 3
4	39.4	4.00	0.0	0.0	0.0	0.0	30 3
5	76.8	4.20	0.0	0.0	0.0	0.0	20 3
6	65.7	5.20	0.0	0.0	0.0	0.0	20 3
7	29.6	4.80	0.0	0.0	0.0	0.0	20 3
8	29.4	4.50	0.0	0.0	0.0	0.0	20 3
9	36.1	3.40	0.0	0.0	0.0	0.0	20 3
10	26.0	4.30	0.0	0.0	0.0	0.0	20 3
11	69.8	4.80	0.0	0.0	0.0	0.0	20 3
12	24.9	4.40	0.0	0.0	0.0	0.0	20 3
13	69.7	*4.60	0.0	0.0	0.0	0.0	20 3
14	53.7	3.90	0.0	0.0	0.0	0.0	20 3
15	44.7	3.80	0.0	0.0	0.0	0.0	20 3
16	40.8	4.50	0.0	0.0	0.0	0.0	20 3
17	66.6	4.00	0.0	0.0	0.0	0.0	20 3
18	72.4	4.50	0.0	0.0	0.0	0.0	20 3
19	21.9	4.00	0.0	0.0	0.0	0.0	60 3
20	25.2	3.90	0.0	0.0	0.0	0.0	20 3
21	69.8	4.70	0.0	0.0	0.0	0.0	20 3
22	68.4	4.70	0.0	0.0	0.0	0.0	30 3
23	83.7	5.20	0.0	0.0	0.0	0.0	20 3
24	73.4	3.90	0.0	0.0	0.0	0.0	20 3
25	70.5	4.20	0.0	0.0	0.0	0.0	50 3
26	71.4	4.70	6.17	3.84	0.0	0.35	10 3
27	70.5	4.60	0.0	0.0	0.0	0.0	30 3
28	25.5	3.60	0.0	0.0	0.0	0.0	20 3
29	24.9	4.30	0.0	0.0	0.0	0.0	20 3
30	39.2	3.80	3.69	0.0	0.0	0.0	10 3
31	71.8	5.00	5.90	4.64	6.11	1.43	10 3
32	24.9	4.40	0.0	0.0	0.0	0.0	20 3
33	23.7	3.90	0.0	0.0	0.0	0.0	20 3
34	41.0	4.00	0.0	0.0	0.0	0.0	20 3
35	77.4	4.40	0.0	0.0	0.0	0.0	50 3
36	79.4	4.90	0.0	0.0	0.0	0.0	20 3
37	24.9	4.80	0.0	0.0	0.0	0.0	20 3
38	25.1	4.00	3.48	0.0	0.0	0.50	10 3
39	27.9	5.30	0.0	0.0	0.0	0.0	20 3
40	16.2	3.90	0.0	0.0	0.0	0.0	20 3
41	81.6	5.10	0.0	0.0	0.0	0.0	20 3
42	32.9	3.90	0.0	0.0	0.0	0.0	20 3
43	40.7	4.70	3.58	0.0	0.0	0.0	20 3
44	68.6	5.40	0.0	0.0	0.0	1.31	10 3
45	69.3	4.60	0.0	0.0	0.0	0.0	30 3
46	25.5	3.80	0.0	0.0	0.0	0.0	20 3
47	25.2	3.90	0.0	0.0	0.0	0.0	20 3
48	80.5	4.10	0.0	0.0	0.0	0.0	20 3
49	39.3	4.80	0.0	0.0	0.0	0.0	20 3
50	76.8	4.90	0.0	0.0	0.0	0.0	20 3
51	69.3	4.10	0.0	0.0	0.0	0.0	20 3

FAIRBANKS, ALASKA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LP RATIO	COMMENT
52	78.4	4.80	0.0	0.0	0.0	0.0	30 3
53	71.4	3.80	0.0	0.0	0.0	0.0	20 3
54	33.9	4.20	0.0	0.0	0.0	0.0	30 3
55	77.5	4.40	0.0	0.0	0.0	0.0	30 3
56	29.9	4.20	0.0	0.0	0.0	0.0	50 3
57	25.3	4.00	0.0	0.0	0.0	0.0	30 3
58	30.1	4.00	0.0	0.0	0.0	0.0	30 3
59	27.3	4.60	0.0	0.0	0.0	0.0	20 3
60	70.3	*4.20	0.0	0.0	0.0	0.0	20 3
61	69.6	4.80	0.0	0.0	0.0	0.0	20 3
62	69.7	4.60	0.0	0.0	0.0	0.0	20 3
63	70.3	*3.70	0.0	0.0	0.0	0.0	20 3
65	24.4	3.80	0.0	0.0	0.0	0.0	20 3
66	33.1	4.10	0.0	0.0	0.0	0.0	20 3
67	40.6	3.20	0.0	0.0	0.0	0.0	20 3
68	80.5	4.00	0.0	0.0	0.0	0.0	20 3
69	33.1	4.80	0.0	0.0	0.0	0.0	20 3
70	25.1	3.80	0.0	0.0	0.0	0.0	20 3
71	25.5	3.80	0.0	0.0	0.0	0.0	20 3
72	63.4	4.40	0.0	0.0	0.0	0.0	20 3
73	84.7	*4.10	0.0	3.92	0.0	0.72	10 3
74	99.3	4.00	0.0	0.0	0.0	0.0	20 3
75	67.5	4.50	0.0	0.0	0.0	0.0	20 3
76	66.3	4.40	0.0	0.0	0.0	0.0	20 3
77	44.5	4.00	0.0	0.0	0.0	0.0	20 3
78	32.2	3.80	3.19	0.0	0.0	0.89	10 3
80	83.2	3.90	0.0	0.0	0.0	0.0	20 3
81	54.3	3.90	0.0	3.37	0.0	2.44	10 3
82	25.2	4.10	0.0	0.0	0.0	0.0	20 3
83	26.0	3.60	0.0	0.0	0.0	0.0	20 3
84	25.6	3.70	0.0	0.0	0.0	0.0	20 3
85	38.7	3.60	0.0	0.0	0.0	0.0	20 3
87	75.9	4.60	0.0	3.54	0.0	0.67	10 3
88	73.6	5.10	0.0	0.0	4.40	0.0	10 3
89	76.8	4.50	4.38	0.0	0.0	1.82	10 3
90	70.3	*4.50	0.0	3.66	0.0	0.50	10 3
92	70.2	4.80	0.0	0.0	0.0	0.0	20 3
93	34.3	4.80	3.53	0.0	0.0	0.93	10 3
94	70.2	4.40	0.0	0.0	0.0	0.0	20 3
95	76.3	5.20	0.0	4.81	3.95	0.87	10 3
96	99.8	4.50	0.0	3.65	0.0	0.0	10 3
97	70.3	*4.10	3.37	3.11	0.0	0.78	10 3
98	70.3	*4.30	0.0	0.0	0.0	0.0	20 3
99	70.3	*4.10	0.0	0.0	0.0	0.0	20 3
100	69.0	3.60	0.0	0.0	0.0	0.0	20 3
101	70.3	*4.30	0.0	0.0	0.0	0.0	20 3
102	71.0	*3.70	0.0	0.0	0.0	0.0	20 3
103	70.9	*4.00	0.0	0.0	0.0	0.0	20 3
104	70.2	*4.30	0.0	0.0	0.0	0.0	20 3

FAIRBANKS, ALASKA

EVENT NO.	DISTANCE (DEGREES)	NB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
105	70.4	*4.10	3.72	0.0	0.0	0.0	10 3
106	70.1	*4.40	0.0	0.0	0.0	0.0	20 3
107	76.3	4.10	0.0	0.0	0.0	0.0	20 3
108	66.5	4.70	0.0	0.0	0.0	0.0	20 3
109	63.0	4.30	0.0	0.0	0.0	0.0	20 3
110	70.3	*3.80	0.0	0.0	0.0	0.0	20 3
111	28.8	4.80	3.50	0.0	0.0	0.0	20 3
112	72.6	5.70	5.12	0.0	0.0	1.64	10 3
113	70.3	*4.30	0.0	0.0	4.39	2.41	10 3
114	69.3	4.80	0.0	0.0	0.0	0.0	20 3
115	84.6	4.30	0.0	3.56	0.0	0.84	10 3
116	59.5	5.50	0.0	0.0	0.0	0.0	20 3
117	84.3	4.50	0.0	0.0	0.0	0.0	20 3
118	84.4	3.90	0.0	0.0	0.0	0.0	30 3
119	84.5	4.10	0.0	0.0	0.0	0.0	20 3
120	69.4	4.90	0.0	3.37	0.0	2.11	10 3
122	28.8	3.90	4.30	4.04	3.73	0.47	10 3
123	25.0	4.60	0.0	0.0	0.0	0.0	20 3
124	41.1	3.80	0.0	3.61	0.0	0.63	10 3
125	77.8	4.50	0.0	0.0	0.0	0.0	20 3
126	24.5	3.90	3.82	0.0	0.0	0.0	30 3
127	37.4	4.10	0.0	0.0	0.0	0.0	10 3
128	78.0	4.50	0.0	0.0	0.0	0.0	20 3
129	66.8	4.80	0.0	0.0	0.0	0.0	50 3
130	36.9	3.70	0.0	3.37	0.0	0.39	10 3
131	40.7	4.70	0.0	0.0	0.0	0.0	20 3
132	26.2	4.00	0.0	3.15	0.0	1.43	10 3
133	39.5	5.20	0.0	0.0	0.0	0.0	20 3
134	39.3	5.40	4.73	3.50	0.0	1.40	10 3
135	79.2	3.90	0.0	0.0	4.17	1.05	10 3
136	38.1	4.20	0.0	0.0	0.0	0.0	20 3
137	67.0	3.90	0.0	0.0	0.0	0.0	20 3
138	37.7	4.10	0.0	0.0	0.0	0.0	20 3
139	26.8	4.80	4.02	3.80	0.0	0.0	20 3
140	67.9	4.00	0.0	0.0	0.0	1.37	10 3
141	74.3	5.30	0.0	0.0	0.0	0.0	20 3
142	32.9	4.10	0.0	3.86	4.25	0.83	30 3
143	27.9	3.40	3.21	0.0	0.0	0.0	20 3
144	74.5	4.00	0.0	0.0	0.0	0.99	10 3
145	40.4	4.80	0.0	0.0	0.0	0.0	20 3
146	39.9	4.70	3.46	3.50	0.0	2.59	10 3
147	40.2	4.90	3.52	0.0	0.0	0.92	10 3
148	38.6	3.70	0.0	0.0	0.0	1.28	10 3
149	24.2	3.70	0.0	0.0	0.0	0.0	20 3
150	73.7	4.10	0.0	0.0	0.0	0.0	20 3
151	72.4	4.30	0.0	0.0	0.0	0.0	20 3
152	25.7	3.70	0.0	3.10	0.0	1.22	10 3
153	29.3	4.50	0.0	0.0	0.0	0.0	60 3
154	37.8	3.70	0.0	0.0	0.0	0.0	20 3

FAIRBANKS, ALASKA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
155	35.5	3.70	0.0	0.0	0.0	0.0	20 3
156	33.2	5.00	4.33	0.0	0.0	0.95	10 3
157	33.4	3.60	0.0	0.0	0.0	0.0	30 3
158	28.0	4.30	0.0	0.0	0.0	0.0	30 3
159	33.3	3.80	0.0	0.0	0.0	0.0	20 3
160	33.4	3.70	0.0	0.0	0.0	0.0	20 3
161	33.1	3.50	0.0	0.0	0.0	0.0	20 3
162	39.1	3.80	0.0	0.0	0.0	0.0	20 3
163	65.0	3.70	0.0	0.0	0.0	0.0	20 3
164	32.8	4.00	0.0	0.0	0.0	0.0	20 3
165	32.7	4.90	4.23	0.0	0.0	1.64	10 3
166	79.6	3.80	0.0	0.0	0.0	0.0	20 3
167	36.1	4.90	0.0	0.0	0.0	0.0	20 3
168	26.1	3.30	0.0	0.0	0.0	0.0	20 3
169	37.0	3.80	3.13	0.0	0.0	0.85	10 3
170	34.4	4.00	0.0	0.0	0.0	0.0	20 3
171	73.9	4.70	3.93	0.0	0.0	1.93	10 3
172	54.7	5.30	4.82	0.0	4.36	0.63	10 3
173	24.6	3.30	0.0	0.0	0.0	0.0	20 3
174	26.1	3.30	0.0	0.0	0.0	0.0	20 3
175	27.9	4.90	4.26	0.0	4.37	0.66	10 3
176	29.2	4.10	0.0	0.0	0.0	0.0	30 3
177	25.0	3.50	0.0	0.0	0.0	0.0	20 3
178	30.4	4.50	0.0	0.0	0.0	0.0	20 3
179	27.9	4.40	3.24	3.14	0.0	0.0	10 3
180	66.8	4.00	0.0	0.0	0.0	0.0	20 3
181	51.3	4.50	0.0	0.0	0.0	0.0	30 3
182	38.7	4.20	0.0	0.0	0.0	0.0	20 3
183	73.8	4.20	0.0	0.0	0.0	0.0	20 3
184	25.0	4.10	0.0	0.0	0.0	0.0	20 3
185	27.2	3.30	0.0	0.0	0.0	0.0	20 3
186	55.0	3.90	3.14	0.0	0.0	0.97	10 3
187	82.3	3.60	0.0	0.0	0.0	0.0	20 3
188	82.3	3.70	0.0	0.0	0.0	0.0	30 3
189	84.5	4.30	0.0	0.0	0.0	0.0	20 3
190	82.9	4.20	0.0	0.0	0.0	0.0	20 3
191	47.1	4.50	0.0	0.0	0.0	0.0	20 3
192	83.0	3.80	0.0	0.0	0.0	0.0	20 3
193	75.1	4.40	0.0	0.0	0.0	0.0	30 3
194	84.2	4.70	0.0	0.0	0.0	0.0	30 3
195	86.4	3.90	0.0	0.0	0.0	0.0	30 3
196	83.8	3.70	0.0	0.0	0.0	0.0	30 3
197	80.2	3.90	0.0	0.0	0.0	0.0	30 3
198	81.7	3.40	0.0	0.0	0.0	0.0	30 3
199	81.7	3.30	0.0	0.0	0.0	0.0	30 3
200	85.7	4.40	0.0	0.0	0.0	0.0	30 3
201	82.1	3.60	0.0	0.0	0.0	0.0	20 3
202	82.7	3.70	0.0	0.0	0.0	0.0	20 3
203	80.6	3.80	0.0	0.0	0.0	0.0	20 3

FAIRBANKS, ALASKA

EVENT NO.	DISTANCE (DEGREES)	MP	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
204	82.8	4.20	0.0	0.0	0.0	0.0	30 3
205	24.4	3.60	3.26	0.0	0.0	7.47	10 3
206	84.2	4.20	0.0	0.0	0.0	0.0	20 3
207	83.8	4.00	0.0	0.0	0.0	0.0	20 3
208	84.5	4.10	0.0	0.0	0.0	0.0	20 3
209	85.2	3.70	0.0	0.0	0.0	0.0	20 3
210	81.6	4.00	0.0	0.0	0.0	0.0	20 3
211	25.2	3.40	0.0	0.0	0.0	0.0	20 3
212	24.6	4.20	0.0	0.0	0.0	0.0	20 3
213	85.0	4.00	0.0	0.0	0.0	0.0	30 3
214	71.0	4.00	3.76	0.0	0.0	0.0	30 3
216	28.3	3.70	0.0	0.0	0.0	0.0	10 3
217	78.2	3.90	0.0	0.0	0.0	0.0	20 3
218	26.4	3.70	0.0	0.0	0.0	0.0	20 3
219	25.7	3.40	0.0	0.0	0.0	0.0	30 3
220	28.9	3.50	0.0	0.0	0.0	0.0	30 3
221	73.3	3.60	0.0	0.0	0.0	0.0	20 3
222	25.3	3.60	0.0	0.0	0.0	0.0	20 3
223	41.4	*4.30	0.0	0.0	0.0	0.0	20 3
224	83.2	4.00	0.0	0.0	0.0	0.0	20 3
225	66.8	3.50	0.0	0.0	0.0	0.0	20 3
226	39.5	4.60	0.0	0.0	0.0	0.0	30 3
227	28.6	4.10	0.0	0.0	0.0	0.0	30 3
228	37.1	4.60	0.0	0.0	0.0	0.0	20 3
229	28.7	3.80	0.0	0.0	0.0	0.0	20 3
230	24.7	4.10	0.0	0.0	0.0	0.0	20 3
231	39.5	4.20	0.0	0.0	0.0	0.0	20 3
232	69.9	*4.40	0.0	3.18	0.0	1.73	20 3
233	32.2	4.50	0.0	3.42	0.0	0.81	10 3
234	36.5	4.30	0.0	0.0	0.0	0.0	60 3
235	68.6	4.50	0.0	0.0	0.0	0.0	20 3
236	65.8	4.40	0.0	0.0	0.0	0.0	20 3
237	73.8	3.60	3.14	0.0	0.0	1.14	10 3
238	71.7	5.10	0.0	0.0	0.0	0.0	20 3
239	73.7	*3.70	0.0	0.0	0.0	0.0	20 3
240	88.5	4.00	0.0	0.0	0.0	0.0	20 3
241	27.5	3.90	2.93	2.73	0.0	0.78	10 3
242	38.6	3.70	0.0	0.0	0.0	0.0	20 3
243	35.1	5.40	0.0	4.17	0.0	1.15	10 3
245	61.6	4.50	0.0	0.0	0.0	0.0	20 3
247	71.8	2.70	0.0	0.0	0.0	0.0	20 3
248	85.2	4.00	0.0	0.0	0.0	0.0	20 3
249	83.4	0.0	0.0	0.0	0.0	0.0	20 3
250	79.6	4.30	0.0	0.0	0.0	0.0	20 3
251	33.9	4.20	0.0	0.0	0.0	0.0	20 3
252	32.6	4.00	0.0	0.0	0.0	0.0	20 3
253	73.4	3.80	0.0	0.0	0.0	0.0	20 3
254	38.3	4.20	0.0	3.18	0.0	0.68	10 3
255	85.5	*4.60	0.0	3.49	0.0	1.87	10 3

FAIRBANKS, ALASKA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
256	74.1	3.50	3.43	0.0	0.0	2.93	10 3
257	31.0	3.30	0.0	0.0	0.0	0.0	20 3
258	36.6	3.00	0.0	0.0	0.0	0.0	20 3
259	27.5	3.60	0.0	0.0	0.0	0.0	20 3
260	59.9	5.50	3.54	3.41	0.0	0.0	10 3
261	38.8	3.70	0.0	0.0	0.0	0.0	20 3
262	76.3	4.90	4.30	0.0	0.0	0.31	10 3
263	64.0	3.80	0.0	0.0	0.0	0.0	30 3
264	24.9	3.80	3.25	0.0	0.0	0.0	10 3
265	72.9	4.20	0.0	0.0	0.0	0.0	30 3
266	23.4	3.60	3.31	3.42	0.0	0.68	10 3
267	74.4	4.10	0.0	0.0	0.0	0.0	20 3
268	36.5	4.10	0.0	0.0	0.0	0.0	20 3
269	28.4	3.80	0.0	0.0	0.0	0.0	20 3
270	85.7	4.10	0.0	0.0	0.0	0.0	20 3
271	32.1	3.80	0.0	0.0	0.0	0.0	20 3
272	73.9	4.00	0.0	0.0	0.0	0.0	20 3
273	75.7	3.80	0.0	0.0	0.0	0.0	20 3
274	24.6	4.00	0.0	0.0	0.0	0.0	20 3
275	73.4	4.10	0.0	0.0	0.0	0.0	20 3
276	85.7	3.70	0.0	0.0	0.0	0.0	20 3
277	27.4	3.70	0.0	0.0	0.0	0.0	20 3
278	75.8	5.40	0.0	0.0	0.0	0.0	30 3
279	53.6	3.70	0.0	0.0	0.0	0.0	20 3
280	71.9	3.70	0.0	0.0	0.0	0.0	20 3
281	76.4	5.30	0.0	0.0	0.0	0.0	20 3
282	76.1	3.70	0.0	0.0	0.0	0.0	30 3
283	61.7	3.70	0.0	0.0	0.0	0.0	20 3
284	87.3	3.60	0.0	0.0	0.0	0.0	20 3
285	77.3	3.50	0.0	0.0	0.0	0.0	20 3
286	32.2	4.50	3.67	3.80	0.0	1.66	10 3
287	86.7	3.80	0.0	0.0	0.0	0.0	20 3
288	71.3	3.40	0.0	0.0	0.0	0.0	20 3
289	74.9	3.60	0.0	0.0	0.0	0.0	20 3
290	70.0	3.50	0.0	0.0	0.0	0.0	20 3
291	38.1	4.10	0.0	0.0	0.0	0.0	30 3
292	32.9	5.20	4.00	3.39	0.0	1.67	10 3
293	85.6	4.00	0.0	0.0	0.0	0.0	30 3
294	70.9	5.20	4.51	0.0	4.12	0.74	10 3
295	85.5	3.90	0.0	0.0	0.0	0.0	20 3
296	77.5	3.50	0.0	0.0	0.0	0.0	20 3
297	39.8	5.00	0.0	3.92	0.0	0.90	10 3
298	61.8	3.60	3.71	0.0	0.0	0.0	10 3
299	24.3	3.60	3.20	2.53	0.0	0.0	10 3
300	31.5	4.70	3.48	3.28	0.0	0.29	10 3
301	31.8	3.70	0.0	0.0	0.0	0.0	20 3
302	69.9	3.20	0.0	0.0	0.0	0.0	20 3
303	72.3	3.90	0.0	0.0	0.0	0.0	50 3
304	31.7	3.60	0.0	0.0	0.0	0.0	20 3

FAIRBANKS, ALASKA

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
305	40.7	4.40	0.0	0.0	0.0	0.0	30 3
307	35.4	4.00	0.0	0.0	0.0	0.0	20 3
308	82.4	3.40	0.0	3.90	0.0	0.92	10 3
309	68.6	3.40	0.0	0.0	0.0	0.0	20 3

APPENDIX II-F
BASIC DATA FOR
TOLEDO, SPAIN (TLO)

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LP RATIO	COMMENT
2	87.7	4.60	0.0	0.0	0.0	0.0	50 4
3	89.1	4.00	0.0	0.0	0.0	0.0	20 4
4	90.0	4.00	0.0	0.0	0.0	0.0	50 4
5	19.3	4.20	0.0	0.0	0.0	0.0	20 4
6	63.8	5.20	4.13	3.53	3.38	1.83	10 4
7	87.4	4.80	3.64	0.0	0.0	0.58	10 4
8	87.0	4.50	0.0	0.0	0.0	0.0	20 4
9	74.5	3.40	0.0	0.0	0.0	0.0	20 4
10	83.7	4.30	0.0	0.0	0.0	0.0	20 4
11	100.0	4.80	0.0	0.0	0.0	0.0	20 4
12	84.0	4.40	0.0	0.0	0.0	0.0	20 4
13	100.1	*4.60	4.10	3.72	3.69	2.56	10 4
14	91.6	3.90	4.08	3.64	0.0	1.09	10 4
15	63.2	3.80	0.0	0.0	0.0	0.0	20 4
16	92.4	4.50	0.0	0.0	0.0	0.0	20 4
17	16.5	4.00	3.17	2.97	0.0	1.24	10 4
18	58.1	4.50	0.0	0.0	0.0	0.0	20 4
19	83.4	4.00	4.05	0.0	0.0	0.37	10 4
20	82.0	3.90	0.0	0.0	0.0	0.0	20 4
21	56.3	4.70	3.23	0.0	0.0	2.54	10 4
22	100.1	4.70	0.0	0.0	0.0	0.0	20 4
23	44.9	5.20	3.42	0.0	0.0	0.0	10 4
24	57.7	3.90	0.0	0.0	0.0	0.0	30 4
25	36.2	4.20	0.0	0.0	0.0	0.0	20 4
26	98.5	4.70	6.31	0.0	0.0	2.01	30 4
27	97.7	4.60	0.0	0.0	0.0	0.0	30 4
28	85.2	3.60	0.0	0.0	0.0	0.0	20 4
29	83.9	4.30	0.0	0.0	0.0	0.0	20 4
30	91.5	3.80	0.0	0.0	0.0	0.0	20 4
31	100.2	5.00	4.11	0.0	0.0	0.87	10 4
32	83.9	4.40	0.0	0.0	0.0	0.0	20 4
33	85.2	3.90	0.0	0.0	0.0	0.0	20 4
34	93.1	4.00	0.0	0.0	0.0	0.0	20 4
35	26.4	4.40	4.12	4.26	4.09	0.94	10 4
36	22.3	4.90	0.0	3.33	0.0	0.83	10 4
37	84.0	4.80	4.46	3.78	0.0	0.49	10 4
38	84.1	4.00	4.25	0.0	3.55	1.00	10 4
39	75.6	5.30	4.89	0.0	4.78	0.0	10 4
40	72.6	3.90	0.0	0.0	0.0	0.0	20 4
41	41.1	5.10	0.0	0.0	0.0	0.0	20 4
42	88.7	3.90	0.0	0.0	0.0	0.0	20 4
43	72.3	4.70	0.0	3.68	0.0	1.29	10 4
44	60.9	5.40	0.0	0.0	0.0	0.0	20 4
45	62.0	4.60	0.0	0.0	0.0	0.0	20 4
46	83.9	3.80	0.0	0.0	0.0	0.0	20 4
47	83.9	3.90	0.0	0.0	0.0	0.0	20 4
48	24.8	4.10	0.0	0.0	0.0	0.0	50 4
49	92.1	4.80	0.0	0.0	0.0	0.0	20 4
50	40.6	4.90	0.0	3.26	3.73	1.75	10 4

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
51	10.0	4.10	0.0	0.0	0.0	0.0	20 u
52	24.5	4.80	3.35	3.41	0.0	0.0	10 u
53	36.5	3.80	0.0	0.0	0.0	0.0	20 u
54	87.7	4.20	0.0	0.0	0.0	0.0	20 u
55	26.4	4.40	0.0	0.0	0.0	0.0	20 u
56	86.8	4.20	0.0	0.0	0.0	0.0	20 u
57	83.7	4.00	0.0	0.0	0.0	0.0	30 u
58	87.1	4.00	0.0	0.0	0.0	0.0	30 u
59	85.3	4.60	0.0	0.0	0.0	0.0	20 u
60	13.5	*4.20	0.0	0.0	0.0	0.0	20 u
61	100.0	4.80	0.0	0.0	0.0	0.0	20 u
62	100.3	4.60	0.0	0.0	0.0	0.0	20 u
63	13.5	*3.70	0.0	0.0	0.0	0.0	30 u
65	83.4	3.80	0.0	0.0	0.0	0.0	20 u
66	89.5	4.10	0.0	0.0	0.0	0.0	20 u
67	87.8	3.20	0.0	0.0	0.0	0.0	20 u
68	24.0	4.00	0.0	0.0	0.0	0.0	20 u
69	89.5	4.80	0.0	0.0	0.0	0.0	20 u
70	84.2	3.80	0.0	0.0	0.0	0.0	20 u
71	83.7	3.80	0.0	3.15	0.0	1.6 ⁹	10 u
72	98.4	4.40	0.0	0.0	0.0	0.0	20 u
73	58.8	*4.10	0.0	3.7 ⁹	0.0	0.0	10 u
74	50.8	4.00	0.0	0.0	0.0	0.0	20 u
75	62.3	4.50	0.0	0.0	0.0	0.0	20 u
76	59.0	4.40	0.0	3.1 ⁹	0.0	0.0	10 u
77	87.9	4.00	0.0	0.0	0.0	0.0	20 u
78	89.3	3.80	0.0	0.0	0.0	0.0	20 u
79	62.6	4.70	0.0	0.0	0.0	0.0	20 u
80	54.3	3.90	0.0	0.0	0.0	0.0	20 u
81	84.6	3.90	3.71	3.27	0.0	4.31	10 u
82	83.7	4.10	0.0	0.0	0.0	0.0	20 u
83	79.4	1.60	0.0	0.0	0.0	0.0	20 u
84	83.7	3.70	0.0	0.0	0.0	0.0	20 u
85	89.4	3.60	0.0	0.0	0.0	0.0	20 u
86	88.4	3.60	0.0	0.0	0.0	0.0	20 u
87	19.5	4.60	3.61	3.45	0.0	1.00	10 u
88	39.4	5.10	4.42	0.0	3.72	0.87	10 u
89	86.8	4.50	0.0	4.32	0.0	0.71	10 u
90	13.5	*4.50	3.17	0.0	0.0	6.58	10 u
92	13.4	4.80	0.0	0.0	0.0	0.0	20 u
93	89.8	4.80	0.0	0.0	0.0	0.0	20 u
94	13.4	4.40	3.7 ⁹	3.00	2.90	1.27	10 u
95	70.1	5.20	3.56	0.0	0.0	1.95	60 u
96	54.4	4.50	0.0	0.0	0.0	0.0	20 u
97	13.5	*4.10	2.82	0.0	0.0	6.38	10 u
98	13.5	*4.30	0.0	0.0	0.0	0.0	30 u
99	13.5	*4.10	0.0	0.0	0.0	0.0	30 u
100	13.7	3.60	2.78	0.0	0.0	2.86	10 u
101	13.5	*4.30	0.0	0.0	0.0	0.0	30 u

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DFGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
102	13.7	*3.70	0.0	0.0	0.0	0.0	20 4
103	13.6	*4.00	0.0	0.0	0.0	0.0	20 4
104	13.5	*4.30	3.76	2.85	0.0	0.50	10 4
105	13.5	*4.30	3.87	0.0	0.0	1.24	10 4
106	13.4	*4.40	3.40	0.0	0.0	2.41	10 4
107	74.0	4.10	0.0	0.0	0.0	0.0	20 4
108	62.4	4.70	0.0	0.0	0.0	0.0	20 4
109	58.9	4.30	0.0	0.0	0.0	0.0	20 4
110	13.4	*3.80	0.0	0.0	0.0	0.0	30 4
111	86.8	4.80	0.0	0.0	0.0	0.0	20 4
112	102.4	5.70	5.14	0.0	4.43	1.28	10 4
113	13.5	*4.30	0.0	0.0	0.0	0.0	50 4
114	100.1	4.80	0.0	3.80	0.0	0.99	10 4
115	45.6	4.30	0.0	0.0	0.0	0.0	20 4
116	56.5	5.50	0.0	0.0	0.0	0.0	50 4
117	45.5	4.50	0.0	0.0	0.0	0.0	30 4
118	45.6	3.90	0.0	0.0	0.0	0.0	20 4
119	45.6	4.10	0.0	3.62	0.0	0.51	10 4
120	60.1	4.90	0.0	0.0	0.0	0.0	50 4
122	86.8	3.90	0.0	0.0	0.0	0.0	20 4
123	83.4	4.60	0.0	4.09	0.0	0.93	10 4
124	92.6	3.80	0.0	0.0	0.0	0.0	20 4
125	22.0	4.50	3.44	3.23	0.0	3.12	10 4
126	84.5	3.90	0.0	0.0	0.0	0.0	20 4
278	25.6	5.40	4.71	4.39	0.0	0.52	10 4
279	88.9	3.70	0.0	0.0	0.0	0.0	20 4
280	57.2	3.70	0.0	0.0	0.0	0.0	20 4
281	70.0	5.30	0.0	3.25	0.0	0.0	10 4
282	26.1	3.70	0.0	0.0	0.0	0.0	30 4
283	77.9	3.70	0.0	0.0	0.0	0.0	20 4
284	54.2	3.60	0.0	0.0	0.0	0.0	20 4
285	58.9	3.50	0.0	0.0	0.0	0.0	20 4
286	85.6	4.50	0.0	4.45	0.0	1.27	10 4
287	52.1	3.80	0.0	0.0	0.0	0.0	20 4
288	65.3	3.40	0.0	0.0	0.0	0.0	50 4
289	79.5	3.60	0.0	0.0	0.0	0.0	20 4
290	64.1	3.50	0.0	0.0	0.0	0.0	30 4
291	84.0	4.10	0.0	0.0	0.0	0.0	30 4
292	89.4	5.20	0.0	0.0	0.0	0.0	20 4
293	49.0	4.00	0.0	0.0	0.0	0.0	30 4
294	54.7	5.20	4.21	0.0	3.45	0.37	10 4
295	48.7	3.90	0.0	0.0	0.0	0.0	20 4
296	62.4	3.50	0.0	0.0	0.0	0.0	20 4
297	88.6	5.00	0.0	0.0	0.0	0.0	30 4
298	59.1	3.60	0.0	0.0	0.0	0.0	20 4
299	82.5	3.60	0.0	0.0	0.0	0.0	20 4
300	88.0	4.70	0.0	0.0	0.0	0.0	20 4
301	83.5	3.70	0.0	0.0	0.0	0.0	20 4
302	55.9	3.20	0.0	0.0	0.0	0.0	20 4

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
303	31.5	3.90	0.0	0.0	0.0	0.0	20 4
304	89.9	3.60	0.0	0.0	0.0	0.0	20 4
305	92.2	4.40	0.0	0.0	0.0	0.0	30 4
306	55.9	3.90	0.0	0.0	0.0	0.0	20 4
307	91.0	4.00	0.0	0.0	0.0	0.0	20 4
308	53.0	3.40	3.32	0.0	0.0	2.46	10 4
309	61.8	3.40	0.0	0.0	0.0	0.0	20 4
354	58.1	4.50	3.56	3.29	3.06	0.0	10 4
355	93.9	3.70	0.0	0.0	0.0	0.0	20 4
356	40.6	4.00	0.0	0.0	0.0	0.0	20 4
357	86.1	3.30	0.0	0.0	0.0	0.0	30 4
358	89.6	4.00	0.0	0.0	0.0	0.0	20 4
359	90.5	4.30	0.0	0.0	0.0	0.0	50 4
360	92.4	3.70	0.0	0.0	0.0	0.0	20 4
361	40.5	5.40	4.42	4.35	3.68	3.67	10 4
362	40.4	5.10	0.0	0.0	0.0	0.0	30 4
363	86.4	3.70	0.0	0.0	0.0	0.0	30 4
364	40.5	5.10	3.81	3.70	3.12	0.0	30 4
365	84.4	3.80	0.0	0.0	0.0	0.0	20 4
366	42.1	4.70	3.41	3.38	2.74	0.0	30 4
369	45.7	3.50	0.0	2.66	2.19	0.0	10 4
370	50.7	3.60	0.0	0.0	0.0	0.0	30 4
372	13.5	*4.30	3.01	2.97	0.0	0.0	10 4
373	20.3	4.90	3.66	3.67	0.0	0.0	10 4
374	85.9	3.50	3.50	3.49	2.03	0.0	10 4
375	24.8	3.30	2.93	2.98	2.52	0.0	10 4
376	83.3	4.10	0.0	0.0	0.0	0.0	20 4
377	56.2	4.50	0.0	0.0	0.0	0.0	30 4
378	85.7	3.60	0.0	0.0	0.0	0.0	20 4
379	39.9	3.70	0.0	0.0	0.0	0.0	30 4
380	15.7	*4.30	2.78	0.0	0.0	0.0	10 4
381	92.5	4.60	0.0	3.54	0.0	0.0	30 4
382	67.5	4.30	3.44	3.36	2.68	0.0	10 4
383	90.0	3.90	0.0	0.0	0.0	0.0	30 4
384	57.0	4.30	0.0	0.0	0.0	0.0	20 4
385	26.9	4.40	2.60	2.54	0.0	0.0	10 4
386	85.5	5.00	0.0	0.0	0.0	0.0	30 4
387	93.5	4.00	0.0	0.0	0.0	0.0	20 4
388	93.5	4.50	3.54	3.13	2.90	3.34	10 4
389	90.5	4.10	0.0	0.0	0.0	0.0	20 4
403	59.8	3.70	0.0	0.0	0.0	0.0	20 4
404	48.7	3.50	0.0	0.0	0.0	0.0	30 4
405	16.0	*4.50	3.28	2.63	2.38	5.49	10 4
408	58.2	3.40	0.0	0.0	0.0	0.0	20 4
409	15.3	*3.70	0.0	0.0	0.0	0.0	20 4
410	56.4	4.70	3.60	3.49	3.21	0.0	10 4
411	85.1	4.10	0.0	0.0	0.0	0.0	20 4
412	100.0	5.00	4.00	3.80	3.16	0.0	10 4
413	82.9	3.60	0.0	0.0	0.0	0.0	30 4

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
414	56.1	3.70	0.0	0.0	0.0	0.0	20 4
415	52.3	4.00	3.03	3.08	2.68	0.0	30 4
416	60.1	5.50	3.66	3.40	3.32	0.0	30 4
417	85.0	3.80	0.0	0.0	0.0	0.0	30 4
418	81.0	4.40	0.0	0.0	0.0	0.0	20 4
419	60.1	*5.20	3.27	3.18	2.73	0.0	10 4
420	36.7	3.50	0.0	0.0	0.0	0.0	20 4
424	83.7	4.20	0.0	0.0	0.0	0.0	20 4
425	84.6	3.40	0.0	0.0	0.0	0.0	30 4
426	28.8	4.30	0.0	0.0	0.0	0.0	20 4
428	86.2	3.90	0.0	0.0	0.0	0.0	20 4
429	47.0	3.90	0.0	0.0	0.0	0.0	30 4
430	49.4	3.70	0.0	0.0	0.0	0.0	20 4
431	56.4	*4.60	0.0	0.0	0.0	0.0	20 4
432	51.3	4.40	0.0	0.0	0.0	0.0	30 4
433	98.0	4.90	4.38	4.00	3.42	1.03	10 4
435	85.7	3.40	0.0	0.0	0.0	0.0	20 4
436	45.2	5.40	4.83	4.42	4.06	1.22	10 4
437	45.3	4.60	0.0	0.0	0.0	0.0	30 4
438	45.2	5.00	3.67	3.33	3.00	0.0	10 4
439	57.5	4.30	0.0	0.0	0.0	0.0	30 4
440	47.0	4.00	0.0	0.0	0.0	0.0	20 4
441	42.2	4.00	0.0	0.0	0.0	0.0	30 4
442	45.4	5.10	0.0	0.0	0.0	0.0	30 4
443	89.4	4.00	0.0	0.0	0.0	0.0	20 4
444	28.0	3.40	0.0	0.0	0.0	0.0	20 4
445	48.7	3.90	0.0	0.0	0.0	0.0	30 4
446	44.5	4.40	0.0	0.0	0.0	0.0	50 4
447	88.4	3.60	0.0	0.0	0.0	0.0	20 4
448	48.7	3.80	0.0	0.0	0.0	0.0	20 4
449	60.2	4.60	3.94	3.60	2.91	0.64	10 4
450	63.6	3.50	0.0	0.0	0.0	0.0	30 4
451	65.0	4.30	0.0	0.0	0.0	0.0	30 4
452	43.3	3.40	0.0	0.0	0.0	0.0	30 4
453	45.7	4.00	0.0	0.0	0.0	0.0	20 4
454	20.2	4.70	0.0	0.0	0.0	0.0	30 4
455	47.7	4.10	0.0	0.0	0.0	0.0	30 4
456	56.1	4.40	3.17	2.99	0.0	0.0	10 4
457	50.0	3.10	0.0	0.0	0.0	0.0	20 4
458	59.4	4.30	0.0	0.0	0.0	0.0	30 4
459	91.9	3.90	0.0	0.0	0.0	0.0	30 4
460	83.5	3.70	0.0	0.0	0.0	0.0	30 4
461	85.8	5.00	4.67	4.45	3.81	0.0	10 4
462	80.8	3.70	0.0	0.0	0.0	0.0	20 4
463	20.0	4.70	0.0	0.0	0.0	0.0	20 4
464	91.9	4.90	4.07	0.0	0.0	0.0	10 4
465	49.4	4.20	0.0	0.0	0.0	0.0	20 4
466	18.5	4.00	0.0	2.55	0.0	0.0	10 4
467	100.1	4.10	0.0	0.0	0.0	0.0	20 4

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/I.R RATIO	COMMENT
468	97.6	3.80	0.0	0.0	0.0	0.0	20 4
469	85.7	4.10	0.0	0.0	0.0	0.0	20 4
470	65.5	4.70	0.0	0.0	0.0	0.0	50 4
471	57.7	4.20	0.0	0.0	0.0	0.0	30 4
472	89.7	5.20	3.96	3.88	3.33	1.53	10 4
473	84.5	3.60	0.0	0.0	0.0	0.0	20 4
474	51.3	3.70	0.0	0.0	0.0	0.0	20 4
475	38.4	4.70	3.91	3.23	2.67	3.00	10 4
476	89.0	5.20	4.12	3.78	3.20	0.0	10 4
477	60.4	3.50	0.0	0.0	0.0	0.0	20 4
478	84.9	4.00	0.0	0.0	0.0	0.0	20 4
479	20.4	4.10	3.29	2.59	0.0	0.0	10 4
480	89.0	3.70	0.0	0.0	0.0	0.0	20 4
481	72.8	3.90	0.0	0.0	0.0	0.0	20 4
482	92.9	4.20	0.0	0.0	0.0	0.0	20 4
483	55.6	3.70	0.0	0.0	0.0	0.0	20 4
484	13.5	4.40	0.0	0.0	0.0	0.0	20 4
485	100.9	3.80	0.0	0.0	0.0	0.0	20 4
486	27.7	3.90	0.0	0.0	0.0	0.0	20 4
487	45.2	4.40	0.0	0.0	0.0	0.0	20 4
488	45.4	3.90	0.0	0.0	0.0	0.0	20 4
489	45.4	3.40	0.0	0.0	0.0	0.0	20 4
490	99.1	3.90	0.0	0.0	0.0	0.0	20 4
491	59.0	3.80	0.0	0.0	0.0	0.0	20 4
492	100.3	5.10	4.09	3.77	3.19	1.37	10 4
493	90.5	4.40	3.12	3.03	2.79	0.0	10 4
494	85.7	3.70	0.0	0.0	0.0	0.0	20 4
495	90.8	3.50	0.0	0.0	0.0	0.0	20 4
496	76.5	5.20	4.75	4.21	3.80	0.0	10 4
497	36.3	4.90	4.43	4.31	3.97	2.05	10 4
498	76.4	4.70	0.0	0.0	0.0	0.0	20 4
499	98.6	4.60	3.57	3.43	2.75	0.93	10 4
500	92.9	3.70	0.0	0.0	0.0	0.0	20 4
501	85.1	4.20	0.0	0.0	0.0	0.0	20 4
502	83.5	3.90	0.0	0.0	0.0	0.0	30 4
503	87.8	4.20	0.0	3.13	0.0	0.0	10 4
504	27.6	3.90	0.0	0.0	0.0	0.0	20 4
505	84.1	5.30	0.0	3.74	3.16	2.26	10 4
506	82.4	3.30	0.0	0.0	0.0	0.0	20 4
508	93.6	4.10	3.87	3.67	2.73	0.0	10 4
509	84.0	4.50	0.0	0.0	0.0	0.0	20 4
510	60.2	4.00	0.0	0.0	0.0	0.0	30 4
511	48.5	3.70	0.0	0.0	0.0	0.0	20 4
513	91.5	5.00	4.07	3.82	3.15	0.0	10 4
514	87.3	4.20	0.0	0.0	0.0	0.0	20 4
515	82.8	4.30	0.0	0.0	0.0	0.0	20 4
516	55.9	3.60	0.0	0.0	0.0	0.0	30 4
517	76.0	3.90	0.0	0.0	0.0	0.0	20 4
518	45.9	4.30	0.0	0.0	0.0	0.0	30 4

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
521	30.3	4.60	0.0	3.39	2.98	0.0	10 4
522	74.3	5.50	5.11	4.86	3.87	0.0	10 4
523	72.4	4.70	0.0	0.0	0.0	0.0	20 4
524	23.5	3.90	0.0	0.0	0.0	0.0	20 4
525	74.2	3.60	0.0	0.0	0.0	0.0	20 4
526	81.1	3.70	0.0	0.0	0.0	0.0	20 4
527	33.6	4.40	2.99	3.09	0.0	0.0	30 4
528	81.4	4.00	0.0	0.0	0.0	0.0	10 4
529	64.3	4.80	0.0	0.0	0.0	0.0	20 4
530	19.6	4.50	3.55	3.24	0.0	0.0	20 4
537	25.9	3.80	0.0	0.0	0.0	0.0	10 4
538	57.3	3.80	0.0	0.0	0.0	0.0	20 4
539	89.2	4.80	0.0	0.0	0.0	0.0	20 4
540	21.6	4.40	0.0	0.0	0.0	0.0	20 4
541	89.2	5.10	0.0	0.0	0.0	0.0	30 4
542	54.6	4.00	0.0	0.0	0.0	0.0	30 4
543	100.5	4.90	0.0	0.0	0.0	0.0	20 4
544	81.5	3.50	0.0	0.0	0.0	0.0	30 4
545	23.5	3.60	0.0	0.0	0.0	0.0	20 4
546	83.3	4.80	0.0	0.0	0.0	0.0	20 4
547	98.7	4.60	0.0	0.0	0.0	0.0	20 4
548	45.7	3.60	0.0	0.0	0.0	0.0	20 4
549	98.6	3.70	0.0	0.0	0.0	0.0	20 4
550	105.6	4.10	0.0	0.0	0.0	0.0	30 4
551	29.6	3.70	0.0	0.0	0.0	0.0	23 4
552	57.5	3.70	0.0	0.0	0.0	0.0	20 4
553	58.2	3.80	0.0	0.0	0.0	0.0	20 4
554	31.1	4.50	0.0	3.05	3.06	1.25	20 4
555	22.7	0.0	0.0	0.0	0.0	0.0	10 4
556	92.8	4.00	0.0	0.0	0.0	0.0	10 4
557	50.9	4.70	0.0	3.84	0.0	0.0	20 4
558	83.4	5.60	5.11	4.63	4.12	0.0	13 4
559	83.4	5.00	5.41	4.88	0.0	0.0	10 4
560	51.0	4.20	0.0	0.0	0.0	0.0	13 4
561	28.3	4.30	3.41	3.04	0.0	2.32	23 4
562	90.8	4.50	0.0	0.0	0.0	0.0	10 4
563	83.4	4.00	0.0	0.0	0.0	0.0	20 4
564	27.4	3.90	0.0	0.0	0.0	0.0	30 4
565	80.1	5.30	4.22	3.84	3.90	0.0	10 4
566	28.5	4.50	4.13	3.59	0.0	0.0	10 4
567	101.2	4.80	0.0	0.0	0.0	0.0	20 4
568	101.2	4.00	0.0	0.0	0.0	0.0	20 4
569	90.3	4.00	0.0	0.0	0.0	0.0	20 4
570	28.6	4.30	0.0	3.06	2.67	0.0	20 4
571	51.0	4.00	3.01	2.63	0.0	0.0	10 4
572	90.2	3.90	0.0	0.0	0.0	0.0	10 4
573	89.2	5.70	6.24	5.44	5.42	0.73	30 4
574	89.4	4.40	0.0	0.0	0.0	0.0	10 4
575	89.6	3.80	0.0	0.0	0.0	0.0	30 4

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
576	47.8	4.30	0.0	0.0	0.0	0.0	30 4
577	89.6	4.10	0.0	0.0	0.0	0.0	30 4
578	89.5	4.70	0.0	0.0	0.0	0.0	20 4
579	89.4	4.90	0.0	0.0	0.0	0.0	30 4
580	89.4	4.30	0.0	0.0	0.0	0.0	30 4
581	33.4	3.80	0.0	0.0	0.0	0.0	20 4
582	22.3	4.50	3.17	2.88	2.70	0.0	10 4
583	55.7	5.50	0.0	4.19	4.18	0.90	10 4
584	55.2	5.00	0.0	0.0	0.0	0.0	20 4
585	26.9	4.00	0.0	0.0	0.0	0.0	23 4
586	43.9	5.00	0.0	0.0	0.0	0.0	30 4
587	24.6	4.00	0.0	0.0	0.0	0.0	20 4
588	89.6	4.20	0.0	0.0	0.0	0.0	23 4
589	89.5	4.20	0.0	0.0	0.0	0.0	30 4
590	84.6	3.70	0.0	0.0	0.0	0.0	20 4
591	84.5	4.50	0.0	0.0	0.0	0.0	20 4
592	27.9	4.00	2.97	2.50	0.0	0.0	10 4
593	86.9	3.90	0.0	0.0	0.0	0.0	30 4
594	44.0	4.70	0.0	0.0	0.0	0.0	30 4
595	56.6	4.20	0.0	0.0	0.0	0.0	20 4
596	90.5	5.10	0.0	3.77	3.23	0.0	10 4
597	83.9	3.80	0.0	0.0	0.0	0.0	20 4
598	55.7	5.50	0.0	4.04	3.58	1.00	10 4
599	83.8	3.70	0.0	0.0	0.0	0.0	20 4
600	19.0	4.30	0.0	0.0	2.63	0.0	13 4
601	28.4	4.40	3.07	0.0	2.38	0.0	10 4
602	88.8	4.10	0.0	0.0	0.0	0.0	20 4
603	77.2	3.80	0.0	0.0	0.0	0.0	20 4
604	55.9	4.50	0.0	0.0	0.0	0.0	30 4
605	70.0	5.10	4.26	3.60	3.11	0.85	10 4
606	75.0	4.80	4.48	0.0	3.44	0.0	10 4
607	90.8	4.10	0.0	0.0	0.0	0.0	20 4
608	108.5	4.50	4.31	4.16	3.99	0.0	10 4
609	84.8	3.50	0.0	0.0	0.0	0.0	20 4
610	75.0	5.20	4.07	4.02	0.0	0.0	10 4
611	72.5	5.00	4.37	3.90	3.64	0.66	10 4
612	13.7	4.00	3.01	2.55	0.0	0.0	10 4
613	83.6	3.30	0.0	0.0	0.0	0.0	20 4
614	84.7	5.30	4.18	4.25	3.57	2.84	10 4
615	45.7	3.50	0.0	0.0	0.0	0.0	23 4
616	56.1	3.90	0.0	0.0	0.0	0.0	20 4
617	20.3	*4.40	0.0	3.10	0.0	0.0	15 4
618	74.3	4.10	0.0	0.0	0.0	0.0	20 4
619	57.4	4.70	0.0	0.0	0.0	0.0	20 4
620	89.6	3.60	0.0	0.0	0.0	0.0	32 4
621	89.0	3.60	0.0	0.0	0.0	0.0	30 4
622	90.5	3.60	0.0	0.0	0.0	0.0	30 4
623	85.1	3.60	0.0	0.0	0.0	0.0	20 4
624	90.3	4.10	0.0	0.0	0.0	0.0	30 4

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MP	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
625	84.6	3.40	0.0	0.0	0.0	0.0	20 4
626	56.1	5.20	3.35	2.93	0.0	0.0	10 4
627	41.4	3.50	2.99	2.70	0.0	0.0	10 4
628	84.6	3.60	0.0	0.0	0.0	0.0	23 4
629	56.6	3.60	0.0	0.0	0.0	0.0	30 4
630	84.7	4.30	0.0	0.0	0.0	0.0	20 4
631	89.0	3.50	0.0	0.0	0.0	0.0	30 4
632	91.7	4.50	0.0	0.0	0.0	0.0	20 4
633	83.5	3.60	0.0	0.0	0.0	0.0	20 4
634	65.6	5.00	0.0	0.0	0.0	0.0	30 4
635	92.1	4.50	0.0	0.0	0.0	0.0	20 4
636	92.0	3.50	0.0	0.0	0.0	0.0	30 4
637	86.1	3.60	0.0	0.0	0.0	0.0	20 4
638	86.8	3.50	0.0	0.0	0.0	0.0	20 4
639	19.9	3.60	0.0	0.0	0.0	0.0	20 4
640	57.9	3.90	0.0	0.0	0.0	0.0	30 4
641	57.9	3.90	0.0	0.0	0.0	0.0	30 4
642	69.4	4.00	0.0	0.0	0.0	0.0	30 4
643	84.5	4.00	3.39	3.25	0.0	0.79	10 4
644	86.1	5.10	0.0	0.0	0.0	0.0	30 4
645	87.0	5.10	0.0	3.30	3.15	0.0	10 4
646	87.9	3.70	0.0	0.0	0.0	0.0	20 4
647	81.9	3.90	0.0	0.0	0.0	0.0	20 4
648	21.0	3.60	0.0	0.0	0.0	0.0	20 4
649	92.9	4.30	3.59	3.34	0.0	0.0	10 4
650	91.7	3.50	0.0	0.0	0.0	0.0	20 4
651	93.0	4.90	4.33	3.57	3.31	0.0	10 4
652	37.6	5.70	2.81	2.58	0.0	0.0	10 4
653	88.0	5.20	3.90	3.59	0.0	3.14	10 4
654	83.6	4.50	0.0	0.0	0.0	0.0	30 4
655	90.3	4.00	0.0	3.08	0.0	0.0	13 4
656	46.7	4.80	3.20	3.10	0.0	0.0	10 4
657	81.9	4.30	0.0	0.0	0.0	0.0	30 4
658	74.4	*4.50	0.0	0.0	0.0	0.0	30 4
659	23.4	4.00	2.55	2.47	0.0	0.0	10 4
660	90.8	4.10	0.0	0.0	0.0	0.0	20 4
661	88.4	5.20	4.59	4.00	3.85	0.0	10 4
662	61.6	4.60	0.0	0.0	0.0	0.0	32 4
663	98.9	4.20	0.0	0.0	0.0	0.0	30 4
664	99.4	3.70	0.0	0.0	0.0	0.0	20 4
665	25.4	4.00	0.0	0.0	0.0	0.0	20 4
666	87.6	3.30	0.0	0.0	0.0	0.0	20 4
667	88.9	3.80	0.0	0.0	0.0	0.0	32 4
668	86.1	3.80	0.0	0.0	0.0	0.0	20 4
669	88.5	3.80	0.0	0.0	0.0	0.0	23 4
670	65.9	4.00	0.0	0.0	0.0	0.0	20 4
671	90.5	3.60	0.0	0.0	0.0	0.0	20 4
672	55.9	5.50	0.0	0.0	0.0	0.0	20 4
673	80.2	3.80	0.0	0.0	0.0	0.0	20 4

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
674	26.4	3.60	0.0	0.0	0.0	0.0	20 u
675	86.8	4.00	0.0	0.0	0.0	0.0	30 u
676	86.2	4.80	0.0	0.0	0.0	0.0	30 u
677	56.8	3.60	0.0	3.16	0.0	0.0	16 u
678	83.5	4.20	0.0	0.0	3.12	0.0	16 u
679	43.4	6.30	5.22	4.23	3.61	0.0	10 u
680	52.5	5.20	0.0	0.0	0.0	0.0	30 u
681	89.2	3.70	0.0	2.91	0.0	4.86	10 u
682	41.8	3.70	0.0	0.0	0.0	0.0	20 u
683	25.7	4.40	3.18	2.81	2.50	0.0	10 u
684	23.9	3.60	3.64	3.43	2.72	0.0	10 u
685	66.3	3.70	0.0	0.0	0.0	0.0	20 u
686	15.6	*4.30	0.0	0.0	0.0	0.0	20 u
687	74.3	5.50	4.59	4.28	3.65	0.0	10 u
688	70.7	4.20	0.0	0.0	0.0	0.0	20 u
689	74.3	5.50	4.54	4.16	3.55	0.0	10 u
690	74.2	5.50	4.39	4.23	3.79	0.0	10 u
691	86.1	4.60	0.0	0.0	0.0	0.0	50 u
692	64.5	5.50	4.50	4.08	3.62	0.0	10 u
693	71.9	3.70	0.0	0.0	0.0	0.0	20 u
694	84.5	3.50	0.0	0.0	0.0	0.0	20 u
909	68.7	4.70	0.0	0.0	0.0	0.0	50 u
910	59.2	3.80	0.0	0.0	0.0	0.0	20 u
911	62.3	5.10	0.0	0.0	0.0	0.0	20 u
912	21.6	4.50	0.0	0.0	0.0	0.0	20 u
913	62.6	3.70	0.0	0.0	0.0	0.0	20 u
946	69.3	4.30	0.0	0.0	0.0	0.0	20 u
947	21.3	3.30	0.0	0.0	0.0	0.0	20 u
948	18.3	3.80	0.0	0.0	0.0	0.0	50 u
1149	90.5	4.60	4.10	0.0	0.0	0.0	20 u
1150	65.2	3.90	0.0	0.0	0.0	0.0	50 u
1151	88.4	4.80	4.10	3.72	3.10	0.0	60 u
1152	84.3	4.70	0.0	0.0	0.0	0.0	30 u
1153	55.9	3.80	4.06	0.0	0.0	0.0	20 u
1155	55.3	4.40	0.0	0.0	0.0	0.0	50 u
1156	55.8	3.80	0.0	0.0	0.0	0.0	50 u
1157	55.2	3.70	0.0	0.0	0.0	0.0	50 u
1158	91.4	5.00	0.0	3.40	0.0	0.0	50 u
1159	45.0	3.80	4.00	0.0	0.0	0.0	20 u
1160	55.2	4.00	0.0	0.0	0.0	0.0	50 u
1161	66.4	4.30	0.0	0.0	0.0	0.0	50 u
1162	92.1	4.20	0.0	0.0	0.0	0.0	50 u
1163	91.7	3.80	0.0	0.0	0.0	0.0	50 u
1164	69.4	4.80	0.0	0.0	0.0	0.0	50 u
1165	91.7	4.30	3.67	3.64	3.83	0.0	10 u
1166	92.9	5.20	4.72	4.02	0.0	0.0	10 u
1167	58.5	3.70	0.0	0.0	0.0	0.0	50 u
1168	93.0	5.30	0.0	0.0	0.0	0.0	50 u
1169	93.1	3.60	0.0	0.0	0.0	0.0	50 u

TOLEDO, SPAIN

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1170	92.4	4.10	0.0	0.0	0.0	0.0	50 4
1171	44.6	4.00	0.0	0.0	0.0	0.0	50 4
1172	92.7	5.40	5.00	4.37	0.0	0.0	10 4
1173	92.2	3.90	0.0	0.0	0.0	0.0	30 4
1174	92.6	4.70	0.0	0.0	0.0	0.0	30 4
1175	92.8	4.10	0.0	0.0	0.0	0.0	30 4
1176	92.8	4.50	0.0	0.0	0.0	0.0	20 4
1177	92.7	4.20	0.0	0.0	0.0	0.0	30 4
1178	93.1	4.60	4.65	0.0	0.0	0.0	20 4
1179	92.7	4.70	0.0	0.0	0.0	0.0	30 4
1180	92.6	5.30	4.81	4.38	0.0	0.0	10 4
1181	91.5	3.40	0.0	0.0	0.0	0.0	30 4
1182	92.7	5.40	5.32	5.19	0.0	0.0	10 4
1183	92.8	4.50	0.0	0.0	0.0	0.29	30 4
1184	92.0	3.60	0.0	0.0	0.0	0.0	30 4
1185	92.5	4.20	4.21	0.0	0.0	0.0	20 4
1186	92.4	3.50	0.0	0.0	0.0	0.0	50 4
1187	92.9	4.10	0.0	0.0	0.0	0.0	50 4
1188	92.4	3.70	0.0	0.0	0.0	0.0	50 4
1189	92.4	3.30	0.0	0.0	0.0	0.0	50 4
1190	92.7	4.40	0.0	0.0	0.0	0.0	50 4
1191	92.8	4.10	0.0	0.0	0.0	0.0	50 4
1192	92.4	4.10	0.0	0.0	0.0	0.0	50 4
1193	93.1	3.60	0.0	0.0	0.0	0.0	50 4
1194	92.6	4.20	0.0	0.0	0.0	0.0	50 4
1195	93.1	3.70	0.0	0.0	0.0	0.0	50 4
1196	92.5	4.30	0.0	0.0	0.0	0.0	50 4
1197	92.4	3.60	0.0	0.0	0.0	0.0	30 4
1198	92.8	4.90	0.0	0.0	0.0	0.0	50 4
1199	92.8	4.50	0.0	0.0	0.0	0.0	30 4
1200	102.8	4.20	0.0	0.0	0.0	0.0	50 4
1201	92.4	4.20	0.0	0.0	0.0	0.0	50 4
1202	92.4	4.20	0.0	0.0	0.0	0.0	50 4
1203	91.7	3.40	0.0	0.0	0.0	0.0	30 4
1204	90.8	3.70	0.0	0.0	0.0	0.0	50 4
1205	47.6	4.30	0.0	0.0	0.0	0.0	50 4
1206	61.4	3.90	0.0	0.0	0.0	0.0	30 4
1207	88.8	3.60	0.0	0.0	0.0	0.0	20 4
1268	52.1	5.30	0.0	0.0	0.0	0.0	50 4
1269	50.1	5.30	0.0	0.0	0.0	0.0	20 4
1270	43.4	6.80	5.73	4.59	0.0	2.14	10 4
1272	42.3	6.00	0.0	0.0	0.0	0.0	50 4
1273	41.4	5.20	0.0	0.0	0.0	0.0	20 4
1274	56.2	5.30	0.0	0.0	0.0	0.0	50 4
1275	41.6	4.80	0.0	0.0	0.0	0.0	20 4
1276	42.4	6.90	5.69	5.08	0.0	0.75	10 4
1277	42.1	4.20	0.0	0.0	0.0	0.0	20 4
1278	42.0	4.40	0.0	0.0	0.0	0.0	20 4
1279	41.8	4.80	0.0	0.0	0.0	0.0	20 4

APPENDIX II-G
BASIC DATA FOR
EILAT, ISRAEL (EIL)

FILAT, ISRAEL

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
262	32.6	4.90	0.0	0.0	0.0	0.0	50 5
263	27.3	3.80	0.0	0.0	0.0	0.0	50 5
264	85.0	3.80	0.0	0.0	0.0	0.0	50 5
265	30.6	4.20	0.0	0.0	0.0	0.0	50 5
266	63.2	3.60	0.0	0.0	0.0	0.0	50 5
267	35.3	4.10	0.0	0.0	0.0	0.0	50 5
268	88.1	4.10	0.0	0.0	0.0	0.0	50 5
269	80.9	3.80	0.0	0.0	0.0	0.0	50 5
270	19.0	4.10	1.83	1.61	0.0	0.0	15 5
271	86.9	3.80	0.0	0.0	0.0	0.0	20 5
272	30.5	4.00	0.0	0.0	0.0	0.0	30 5
273	12.4	3.80	1.33	1.13	0.0	0.0	15 5
274	85.9	4.00	0.0	0.0	0.0	0.0	50 5
275	41.1	4.10	0.0	0.0	0.0	0.0	50 5
276	55.5	3.70	0.0	0.0	0.0	0.0	30 5
277	67.2	3.70	0.0	0.0	0.0	0.0	20 5
278	10.8	5.40	1.63	1.63	0.0	0.0	15 5
279	73.1	3.70	0.0	0.0	0.0	0.0	20 5
280	32.4	3.70	0.0	2.35	0.0	0.0	15 5
281	43.0	5.30	0.0	0.0	0.0	0.0	20 5
282	10.4	3.70	1.61	1.64	0.0	0.0	15 5
283	57.7	3.70	0.0	0.0	0.0	0.0	20 5
284	19.1	3.60	2.61	2.80	0.0	0.0	15 5
285	31.3	3.50	2.29	2.01	0.0	0.0	15 5
286	82.0	4.50	3.07	2.64	0.0	0.0	15 5
287	20.7	3.80	1.95	2.02	0.0	0.0	15 5
288	40.5	3.40	0.0	0.0	0.0	0.0	20 5
289	53.2	3.60	0.0	0.0	0.0	0.0	20 5
290	40.0	3.50	3.74	3.55	0.0	0.0	15 5
291	112.2	4.10	0.0	0.0	0.0	0.0	30 5
294	30.6	5.20	3.36	3.21	0.0	0.0	15 5
295	17.1	3.90	2.19	1.54	0.0	0.0	15 5
296	34.7	3.50	2.23	2.27	0.0	0.0	15 5
297	80.7	5.00	0.0	0.0	0.0	0.0	30 5
298	39.8	3.60	0.0	0.0	0.0	0.0	20 5
299	83.4	3.60	0.0	0.0	0.0	0.0	20 5
300	95.7	4.70	0.0	0.0	0.0	0.0	20 5
301	79.9	3.70	0.0	0.0	0.0	0.0	20 5
302	32.5	3.20	0.0	0.0	0.0	0.0	20 5
310	85.6	3.90	0.0	0.0	0.0	0.0	20 5
311	34.6	3.60	3.65	0.0	0.0	0.0	10 5
312	55.2	3.70	3.62	0.0	3.28	0.0	10 5
313	13.0	4.10	0.0	0.0	0.0	0.0	20 5
314	85.1	3.80	0.0	0.0	0.0	0.0	30 5
315	16.0	4.10	3.03	2.70	0.0	0.0	10 5
316	83.3	3.80	0.0	0.0	0.0	0.0	50 5
317	40.0	3.80	0.0	0.0	0.0	0.0	30 5
318	40.0	3.70	0.0	0.0	0.0	0.0	20 5
319	39.4	3.50	0.0	3.64	3.29	0.0	10 5

EILAT, ISRAEL

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/IR RATIO	COMMENT
320	39.3	3.90	0.0	0.0	0.0	0.0	20 5
321	48.1	3.70	0.0	0.0	0.0	0.0	50 5
322	53.1	4.30	0.0	0.0	0.0	0.0	50 5
323	79.5	*5.00	0.0	0.0	0.0	0.0	50 5
324	16.1	4.20	0.0	0.0	0.0	0.0	50 5
325	16.9	4.20	0.0	0.0	0.0	0.0	20 5
326	84.2	4.00	0.0	0.0	0.0	0.0	20 5
327	88.6	3.40	0.0	0.0	0.0	0.0	20 5
328	86.3	3.50	0.0	0.0	0.0	0.0	20 5
330	52.8	3.50	3.83	3.21	0.0	0.0	10 5
331	84.0	4.00	0.0	0.0	0.0	0.0	30 5
332	13.8	4.20	0.0	0.0	0.0	0.0	20 5
333	10.8	3.90	0.0	2.60	0.0	0.0	10 5
334	31.0	4.80	0.0	0.0	0.0	0.0	20 5
335	57.2	4.00	0.0	0.0	0.0	0.0	50 5
336	84.8	3.40	0.0	0.0	0.0	0.0	50 5
337	85.4	3.60	0.0	0.0	0.0	0.0	30 5
338	84.5	4.70	0.0	0.0	0.0	0.0	30 5
339	38.6	5.50	0.0	0.0	0.0	0.0	20 5
340	85.2	3.80	0.0	0.0	0.0	0.0	20 5
341	76.2	5.50	0.0	0.0	0.0	0.0	20 5
343	76.3	4.90	4.26	4.00	3.91	0.0	10 5
344	14.0	4.10	0.0	0.0	0.0	0.0	20 5
345	54.7	4.30	0.0	0.0	0.0	0.0	30 5
346	76.4	4.70	3.24	3.16	0.0	0.0	10 5
347	17.2	4.50	0.0	0.0	0.0	0.0	30 5
348	49.8	4.70	0.0	0.0	0.0	0.0	20 5
349	85.7	4.40	0.0	0.0	0.0	0.0	20 5
350	8.7	4.90	2.66	0.0	1.75	0.0	10 5
351	139.6	4.90	0.0	0.0	0.0	0.0	20 5
352	11.0	4.00	0.0	0.0	0.0	0.0	20 5
353	14.3	3.60	0.0	0.0	0.0	0.0	20 5
354	28.0	4.50	0.0	0.0	0.0	0.0	20 5
355	86.6	3.70	0.0	0.0	0.0	0.0	20 5
356	10.7	4.00	0.0	0.0	0.0	0.0	30 5
361	10.7	5.40	5.03	4.47	4.30	0.0	10 5
362	10.7	5.10	0.0	0.0	0.0	0.0	30 5
363	85.9	3.70	0.0	0.0	0.0	0.0	20 5
365	84.4	3.80	0.0	0.0	0.0	0.0	20 5
428	85.4	3.90	0.0	0.0	0.0	0.0	20 5
432	19.7	4.40	3.94	3.28	2.71	0.0	10 5
433	75.6	4.90	3.87	3.87	3.10	0.0	10 5
435	86.7	3.40	0.0	0.0	0.0	0.0	20 5
437	14.1	4.60	3.62	3.19	2.77	0.0	10 5
438	14.1	5.00	3.74	3.37	3.02	0.0	10 5
439	31.3	4.30	0.0	0.0	0.0	0.0	20 5
441	11.9	4.00	3.48	2.72	2.49	0.0	10 5
442	14.3	5.10	3.86	3.71	3.36	0.0	10 5
443	85.9	4.00	0.0	0.0	0.0	0.0	20 5

EILAT, ISRAEL

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
444	11.7	3.40	0.0	0.0	0.0	0.0	20 5
445	17.1	3.90	0.0	0.0	0.0	0.0	30 5
446	84.8	4.40	0.0	0.0	0.0	0.0	20 5
447	83.4	3.60	0.0	0.0	0.0	0.0	20 5
449	39.6	4.60	3.57	3.13	0.0	0.0	10 5
450	43.0	3.50	0.0	0.0	0.0	0.0	20 5
451	44.4	4.30	0.0	0.0	0.0	0.0	30 5
452	13.7	3.40	3.67	2.97	0.0	0.0	10 5
453	15.2	4.00	3.27	2.91	0.0	0.0	10 5
454	13.3	4.70	3.10	2.54	2.02	0.0	10 5
455	16.9	4.10	0.0	0.0	0.0	0.0	30 5
456	38.5	4.40	0.0	0.0	0.0	0.0	30 5
457	18.2	3.10	2.70	2.52	0.0	0.0	10 5
458	49.3	4.30	3.67	3.37	0.0	0.0	10 5
459	83.6	3.90	0.0	0.0	0.0	0.0	30 5
460	84.1	3.70	0.0	0.0	0.0	0.0	20 5
461	57.6	5.00	4.59	4.56	3.83	0.0	10 5
462	57.1	3.70	0.0	0.0	0.0	0.0	20 5
463	15.1	4.70	0.0	0.0	0.0	0.0	20 5
464	87.1	4.90	3.96	3.58	0.0	0.0	10 5
465	84.0	4.20	0.0	0.0	0.0	0.0	20 5
466	14.7	4.00	0.0	0.0	0.0	0.0	20 5
467	81.5	4.10	0.0	0.0	0.0	0.0	20 5
469	85.3	4.10	0.0	0.0	0.0	0.0	30 5
470	44.9	4.70	0.0	0.0	0.0	0.0	30 5
471	32.1	4.20	0.0	0.0	0.0	0.0	30 5
472	85.6	5.20	0.0	0.0	0.0	0.0	30 5
473	84.8	3.60	0.0	0.0	0.0	0.0	30 5
474	22.0	3.70	0.0	0.0	0.0	0.0	50 5
475	11.6	4.70	0.0	0.0	0.0	0.0	20 5
476	85.4	5.20	0.0	0.0	0.0	0.0	20 5
477	32.9	3.50	0.0	0.0	0.0	0.0	20 5
478	86.7	4.00	0.0	0.0	0.0	0.0	30 5
479	13.2	4.10	0.0	0.0	0.0	0.0	20 5
481	46.6	3.90	0.0	0.0	0.0	0.0	20 5
482	85.9	4.20	0.0	0.0	0.0	0.0	20 5
483	24.9	3.70	0.0	0.0	0.0	0.0	20 5
484	22.2	4.40	0.0	0.0	0.0	0.0	20 5
485	78.2	3.80	0.0	0.0	0.0	0.0	20 5
486	7.3	3.90	0.0	0.0	0.0	0.0	20 5
487	14.1	4.40	0.0	0.0	0.0	0.0	20 5
488	14.3	3.90	0.0	0.0	0.0	0.0	20 5
489	14.3	3.40	0.0	0.0	0.0	0.0	20 5
490	81.6	3.90	0.0	0.0	0.0	0.0	30 5
491	37.2	3.80	0.0	0.0	0.0	0.0	20 5
492	78.9	5.10	0.0	0.0	0.0	0.0	50 5
499	76.0	4.60	3.74	3.28	2.80	0.0	10 5
500	85.9	3.70	0.0	0.0	0.0	0.0	20 5
501	85.2	4.20	0.0	0.0	0.0	0.0	20 5

EILAT, ISRAEL

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
502	57.8	3.90	0.0	0.0	0.0	0.0	50 5
503	85.5	4.20	0.0	0.0	0.0	0.0	30 5
504	6.1	3.90	0.0	0.0	0.0	0.0	20 5
505	83.5	5.30	4.70	4.10	3.93	0.0	10 5
506	83.0	3.30	0.0	0.0	0.0	0.0	20 5
508	86.0	4.10	0.0	0.0	0.0	0.0	30 5
509	83.3	4.50	0.0	0.0	0.0	0.0	30 5
510	36.1	4.00	0.0	0.0	0.0	0.0	20 5
511	31.9	3.70	0.0	0.0	0.0	0.0	20 5
512	21.1	4.00	0.0	0.0	0.0	0.0	20 5
513	84.2	5.00	0.0	0.0	0.0	0.0	30 5
514	86.6	4.20	0.0	0.0	0.0	0.0	20 5
515	81.7	4.30	0.0	0.0	0.0	0.0	50 5
516	30.6	3.60	0.0	0.0	0.0	0.0	20 5
517	49.1	3.90	3.83	3.40	0.0	0.0	10 5
518	18.4	4.30	0.0	0.0	0.0	0.0	20 5
521	15.7	4.60	3.42	3.06	0.0	0.0	10 5
522	48.6	5.50	4.79	4.50	3.87	0.0	10 5
523	48.5	4.70	0.0	0.0	0.0	0.0	20 5
524	9.7	3.90	0.0	0.0	0.0	0.0	20 5
525	48.3	3.60	0.0	0.0	0.0	0.0	20 5
526	81.1	3.70	0.0	0.0	0.0	0.0	20 5
527	11.1	4.40	0.0	0.0	0.0	0.0	20 5
528	82.3	4.00	0.0	0.0	0.0	0.0	20 5
529	39.0	4.80	0.0	0.0	0.0	0.0	20 5
530	14.3	4.50	0.0	0.0	0.0	0.0	20 5
531	85.6	4.30	0.0	0.0	0.0	0.0	20 5
532	14.8	4.00	0.0	0.0	0.0	0.0	20 5
533	22.1	4.40	0.0	0.0	0.0	0.0	50 5
534	86.7	5.10	0.0	0.0	0.0	0.0	30 5
535	82.6	5.10	0.0	0.0	0.0	0.0	20 5
536	39.3	4.30	0.0	0.0	0.0	0.0	50 5
542	31.0	4.00	0.0	0.0	0.0	0.0	50 5
543	77.1	4.90	0.0	0.0	0.0	0.0	20 5
544	56.9	3.50	0.0	0.0	0.0	0.0	30 5
545	13.2	3.60	0.0	0.0	0.0	0.0	30 5
546	83.9	4.80	0.0	0.0	0.0	0.0	20 5
547	76.2	4.60	0.0	0.0	0.0	0.0	50 5
548	15.2	3.60	0.0	0.0	0.0	0.0	20 5
549	80.8	3.70	0.0	0.0	0.0	0.0	20 5
551	4.3	3.70	0.0	0.0	0.0	0.0	30 5
553	32.0	3.80	0.0	0.0	0.0	0.0	23 5
554	5.7	3.80	0.0	2.71	0.0	3.98	10 5
555	5.7	4.50	3.66	3.56	2.97	0.0	10 5
556	10.6	3.40	3.44	3.10	0.0	0.0	10 5
557	84.4	4.00	0.0	0.0	0.0	0.0	20 5
558	19.7	4.70	0.0	4.00	0.0	0.0	10 5
559	84.1	5.60	4.64	0.0	4.74	0.0	10 5
559	84.1	5.00	5.37	4.57	0.0	0.0	10 5
560	19.7	4.20	0.0	0.0	0.0	0.0	30 5

FILAT, TSRAEL

EVENT NO.	DISTANCE (DEGREES)	MR	MS			LQ/IR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
561	8.6	4.30	3.57	0.0	0.0	0.0	10 5
562	85.6	4.50	0.0	3.69	0.0	0.0	10 5
563	83.7	4.00	0.0	0.0	0.0	0.0	20 5
564	10.9	3.90	3.51	0.0	0.0	0.0	10 5
565	81.6	5.30	4.99	4.74	4.05	0.17	10 5
566	8.5	4.50	3.32	0.0	0.0	0.0	10 5
567	19.7	4.80	0.0	0.0	0.0	0.0	50 5
568	83.3	4.00	0.0	0.0	0.0	0.0	20 5
569	84.6	4.00	0.0	0.0	0.0	0.0	20 5
570	8.7	4.30	0.0	3.80	3.06	0.0	10 5
571	19.7	4.00	0.0	0.0	0.0	0.0	50 5
572	86.1	3.90	0.0	0.0	0.0	0.0	30 5
573	85.8	5.70	0.0	0.0	0.0	0.0	50 5
574	86.0	4.40	0.0	0.0	0.0	0.0	30 5
575	86.4	3.80	0.0	0.0	0.0	0.0	20 5
576	16.2	4.30	0.0	0.0	0.0	0.0	20 5
577	86.4	4.10	0.0	0.0	0.0	0.0	20 5
578	86.1	4.70	0.0	0.0	0.0	0.0	20 5
579	86.0	4.90	0.0	0.0	0.0	0.0	30 5
580	85.9	4.30	0.0	0.0	0.0	0.0	30 5
581	89.2	3.80	0.0	0.0	0.0	0.0	20 5
582	15.4	4.50	0.0	3.56	3.15	0.0	10 5
583	24.0	5.50	3.89	3.73	3.13	0.0	10 5
584	23.6	5.00	0.0	0.0	0.0	0.0	20 5
585	6.6	4.00	0.0	2.91	0.0	0.0	10 5
586	13.6	5.00	3.81	3.31	3.04	1.29	10 5
587	9.2	4.00	0.0	0.0	0.0	0.0	20 5
588	86.4	4.20	0.0	0.0	0.0	0.0	20 5
589	86.1	4.20	4.70	3.97	0.0	0.0	13 5
590	85.2	3.70	0.0	0.0	0.0	0.0	20 5
591	85.8	4.50	3.99	3.82	3.66	0.0	10 5
592	8.9	4.00	0.0	2.40	2.72	0.0	10 5
593	88.3	3.90	0.0	0.0	0.0	0.0	30 5
594	16.7	4.70	3.88	3.72	0.0	0.49	10 5
595	25.4	4.20	0.0	0.0	0.0	0.0	20 5
596	87.1	5.10	0.0	0.0	0.0	0.0	20 5
597	82.8	3.80	0.0	0.0	0.0	0.0	20 5
598	24.0	5.50	0.0	3.54	3.26	2.03	10 5
599	85.2	3.70	0.0	0.0	0.0	0.0	20 5
600	15.3	4.30	0.0	0.0	0.0	0.0	30 5
601	9.8	4.40	4.15	0.0	3.15	0.0	10 5
602	84.8	4.10	0.0	0.0	0.0	0.0	20 5
603	64.6	3.80	0.0	0.0	0.0	0.0	20 5
604	32.5	4.50	0.0	0.0	0.0	0.0	23 5
605	57.0	5.10	4.27	4.14	0.0	0.22	10 5
606	67.2	4.90	5.15	0.0	4.47	0.18	10 5
607	85.7	4.10	0.0	0.0	0.0	0.0	20 5
608	54.6	4.50	0.0	0.0	0.0	0.0	20 5
609	86.0	3.50	0.0	0.0	0.0	0.0	20 5

EILAT, ISRAEL

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
610	50.1	5.20	4.03	3.88	3.51	1.10	10 5
611	54.4	5.00	4.24	4.20	3.84	0.46	10 5
612	20.4	4.00	0.0	0.0	0.0	0.0	20 5
613	84.5	3.30	0.0	0.0	0.0	0.0	20 5
614	84.6	5.30	4.27	3.79	0.0	0.0	13 5
615	15.2	3.50	0.0	0.0	0.0	0.0	20 5
616	29.6	3.90	0.0	0.0	0.0	0.0	20 5
617	15.2	*4.40	0.0	3.85	0.0	0.0	10 5
618	49.5	4.10	0.0	0.0	0.0	0.0	20 5
619	31.6	4.70	0.0	0.0	0.0	0.0	20 5
620	86.4	3.60	0.0	0.0	0.0	0.0	20 5
621	84.9	3.60	0.0	0.0	0.0	0.0	20 5
622	85.2	3.60	0.0	0.0	0.0	0.0	30 5
623	84.3	3.60	0.0	0.0	0.0	0.0	30 5
624	84.6	4.10	0.0	0.0	0.0	0.0	20 5
625	85.2	3.40	0.0	0.0	0.0	0.0	20 5
626	38.6	5.20	0.0	0.0	0.0	0.0	23 5
627	13.9	3.50	3.47	2.79	0.0	0.0	10 5
628	85.2	3.60	0.0	0.0	0.0	0.0	20 5
629	31.3	3.60	3.15	2.59	0.0	0.0	10 5
630	85.8	4.30	0.0	3.86	3.78	0.0	10 5
631	84.9	3.50	0.0	0.0	0.0	0.0	30 5
632	84.8	4.50	0.0	0.0	0.0	0.0	20 5
633	84.1	3.60	0.0	0.0	0.0	0.0	20 5
634	37.5	5.00	0.0	0.0	0.0	0.0	30 5
635	85.4	4.50	0.0	0.0	0.0	0.0	20 5
636	85.3	3.50	0.0	0.0	0.0	0.0	30 5
637	85.0	3.60	0.0	0.0	0.0	0.0	20 5
638	84.8	3.50	0.0	0.0	0.0	0.0	20 5
639	14.8	3.60	0.0	0.0	0.0	0.0	20 5
640	26.5	3.90	0.0	0.0	0.0	0.0	10 5
641	26.5	3.90	3.55	3.27	0.0	0.0	10 5
642	52.7	4.00	0.0	0.0	0.0	0.0	50 5
643	84.8	4.00	0.0	3.76	0.0	0.0	10 5
644	85.0	5.10	0.0	0.0	4.16	0.0	15 5
645	83.8	5.10	0.0	0.0	0.0	0.0	20 5
646	83.8	3.70	0.0	0.0	0.0	0.0	20 5
647	53.5	3.90	0.0	0.0	0.0	0.0	50 5
648	12.9	3.60	0.0	0.0	0.0	0.0	20 5
649	84.6	4.30	0.0	3.85	0.0	1.03	10 5
650	84.8	3.50	0.0	0.0	0.0	0.0	23 5
651	85.3	4.90	0.0	0.0	0.0	0.0	30 5
652	22.7	5.70	0.0	0.0	3.55	0.0	17 5
653	86.9	5.20	4.28	4.53	4.35	0.0	10 5
654	83.6	4.50	0.0	0.0	0.0	0.0	30 5
655	84.6	4.00	0.0	4.07	3.98	0.0	17 5
656	61.0	4.80	0.0	3.22	0.0	4.46	10 5
657	53.5	4.30	0.0	0.0	0.0	0.0	20 5
658	46.7	*4.50	0.0	0.0	0.0	0.0	20 5

EVLAT, ISRAEL

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
659	9.9	4.00	0.0	0.0	0.0	0.0	20 5
660	85.7	4.10	0.0	0.0	0.0	0.0	20 5
661	85.5	5.20	4.30	4.43	3.91	0.0	10 5
662	37.7	4.60	0.0	0.0	0.0	0.0	20 5
663	76.1	4.20	0.0	0.0	0.0	0.0	30 5
664	85.9	3.70	0.0	0.0	0.0	0.0	30 5
665	10.7	4.00	0.0	2.68	0.0	0.0	10 5
666	85.1	3.30	0.0	0.0	0.0	0.0	20 5
667	86.7	3.80	0.0	0.0	0.0	0.0	20 5
668	85.0	3.80	0.0	0.0	0.0	0.0	20 5
669	81.9	3.80	0.0	0.0	0.0	0.0	20 5
670	66.6	4.00	0.0	0.0	0.0	0.0	23 5
671	85.2	3.60	0.0	0.0	0.0	0.0	20 5
672	38.4	5.50	0.0	0.0	0.0	0.0	20 5
673	56.3	3.80	0.0	0.0	0.0	0.0	20 5
674	9.2	3.60	0.0	0.0	0.0	0.0	20 5
675	60.1	4.00	0.0	0.0	0.0	0.0	20 5
676	59.1	4.80	0.0	0.0	0.0	0.0	30 5
677	30.4	3.60	0.0	0.0	0.0	0.0	30 5
678	84.7	4.20	4.17	0.0	0.0	0.0	20 5
679	45.3	6.30	4.48	4.15	3.77	0.0	16 5
680	25.6	5.20	0.0	0.0	0.0	0.0	10 5
681	85.4	3.70	0.0	0.0	0.0	0.0	20 5
682	12.1	3.70	0.0	2.75	0.0	0.0	20 5
683	7.4	4.40	0.0	0.0	0.0	0.0	10 5
684	9.8	3.60	0.0	0.0	0.0	0.0	20 5
685	40.3	3.70	0.0	0.0	0.0	0.0	20 5
686	20.7	*4.30	0.0	0.0	0.0	0.0	20 5
687	51.6	5.50	4.87	4.26	3.98	0.78	13 5
688	49.1	4.20	0.0	0.0	0.0	0.0	20 5
689	51.5	5.50	4.37	3.70	3.78	0.0	13 5
690	51.4	5.50	4.49	3.93	0.0	0.0	16 5
691	85.0	4.60	0.0	0.0	0.0	0.0	20 5
692	49.7	5.50	4.70	4.48	3.85	0.51	10 5
693	56.5	3.70	0.0	0.0	0.0	0.0	20 5
694	84.8	3.50	0.0	0.0	0.0	0.0	20 5
844	8.5	4.60	0.0	4.24	0.0	0.0	10 5
845	28.0	4.30	0.0	0.0	0.0	0.0	20 5
846	86.7	4.10	0.0	0.0	0.0	0.0	50 5
847	32.2	3.70	0.0	0.0	0.0	0.0	20 5
848	85.1	4.20	0.0	0.0	0.0	0.0	20 5
849	20.2	3.70	0.0	0.0	0.0	0.0	20 5
850	84.5	4.10	0.0	0.0	0.0	0.0	20 5
851	85.2	4.10	0.0	0.0	0.0	0.0	20 5
852	85.9	4.10	0.0	0.0	0.0	0.0	20 5
853	52.9	3.90	0.0	0.0	0.0	0.0	20 5
854	42.5	3.80	0.0	0.0	0.0	0.0	20 5
855	32.0	4.00	0.0	0.0	0.0	0.0	20 5
856	12.7	3.70	2.98	0.0	2.27	0.0	10 5

EILAT, ISRAEL

EVENT NO.	DISTANCE (DEGREES)	MR	MS			LQ/LR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
857	86.2	4.80	0.0	0.0	0.0	0.0	50 5
858	84.9	4.70	0.0	0.0	0.0	0.0	50 5
859	84.8	5.70	5.12	4.78	4.61	0.71	10 5
860	85.9	3.50	0.0	0.0	0.0	0.0	50 5
861	29.4	3.60	0.0	0.0	0.0	0.0	50 5
862	15.9	4.60	2.94	2.35	0.0	0.0	10 5
863	12.5	3.60	0.0	0.0	0.0	0.0	50 5
864	85.3	4.00	0.0	0.0	0.0	0.0	50 5
865	38.6	4.50	0.0	0.0	0.0	0.0	50 5
866	16.1	3.50	0.0	0.0	0.0	0.0	50 5
867	86.4	4.10	0.0	0.0	0.0	0.0	50 5
868	84.1	4.30	3.53	3.99	3.59	0.55	13 5
869	88.0	4.30	0.0	0.0	0.0	0.0	20 5
870	43.5	4.10	0.0	3.10	0.0	0.0	10 5
871	85.4	3.80	0.0	0.0	0.0	0.0	50 5
872	11.9	3.80	0.0	0.0	0.0	0.0	50 5
873	45.0	4.50	3.52	0.0	0.0	0.0	10 5
874	13.2	4.40	3.27	2.72	3.06	0.0	10 5
875	45.1	4.90	4.26	3.53	0.0	0.42	10 5
878	84.4	3.50	0.0	0.0	0.0	0.0	20 5
879	85.6	3.60	0.0	0.0	0.0	0.0	20 5
880	15.0	4.30	0.0	0.0	0.0	0.0	20 5
881	45.4	5.20	3.62	2.93	0.0	0.0	30 5
882	84.7	4.10	0.0	0.0	0.0	0.0	10 5
883	42.2	3.70	0.0	0.0	0.0	0.0	20 5
884	31.7	5.50	4.27	3.36	0.0	0.0	30 5
885	31.9	4.80	0.0	0.0	0.0	0.0	10 5
886	31.6	3.80	0.0	0.0	0.0	0.0	20 5
887	32.3	4.70	0.0	0.0	0.0	0.0	20 5
888	85.1	3.50	0.0	0.0	0.0	0.0	20 5
889	83.4	3.40	0.0	0.0	0.0	0.0	20 5
890	12.7	5.30	4.58	0.0	0.0	4.70	20 5
891	12.2	4.00	0.0	0.0	0.0	0.0	30 5
892	12.5	4.30	0.0	0.0	0.0	0.0	20 5
893	85.1	4.70	0.0	0.0	0.0	0.0	20 5
894	84.9	3.90	0.0	0.0	0.0	0.0	30 5
895	33.2	4.90	0.0	0.0	0.0	0.0	20 5
896	28.6	4.80	0.0	0.0	0.0	0.0	20 5
897	14.0	5.00	2.64	1.91	0.0	0.69	20 5
898	14.2	4.40	2.31	1.62	0.0	2.89	10 5
899	84.1	4.30	0.0	0.0	0.0	0.0	20 5
900	30.1	3.90	0.0	0.0	0.0	0.0	20 5
901	85.9	3.80	0.0	0.0	0.0	0.0	20 5
902	30.1	3.70	0.0	0.0	0.0	0.0	20 5
903	14.8	3.90	0.0	0.0	0.0	0.0	50 5
904	84.4	3.90	0.0	0.0	0.0	0.0	20 5
905	33.3	3.80	0.0	0.0	0.0	0.0	20 5
906	13.9	3.60	0.0	2.38	0.0	0.0	50 5
911	34.8	5.10	0.0	0.0	0.0	0.0	10 5

PLAT, ISRAPL

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
912	11.8	4.50	0.0	0.0	0.0	0.0	50 5
913	35.0	3.70	0.0	0.0	0.0	0.0	20 5
914	54.0	4.60	0.0	0.0	0.0	0.0	50 5
915	28.7	4.80	0.0	0.0	0.0	0.0	50 5
916	28.7	4.50	0.0	0.0	0.0	0.0	20 5
917	20.1	3.80	0.0	0.0	0.0	0.0	20 5
918	28.6	5.00	0.0	4.01	3.68	0.0	10 5
919	30.8	3.60	0.0	0.0	0.0	0.0	20 5
920	49.7	3.70	0.0	0.0	0.0	0.0	20 5
921	27.6	3.90	0.0	0.0	0.0	0.0	30 5
922	27.6	4.00	0.0	0.0	0.0	0.0	20 5
923	84.4	3.90	0.0	0.0	0.0	0.0	20 5
924	31.3	4.30	0.0	0.0	0.0	0.0	20 5
925	85.0	4.00	0.0	0.0	0.0	0.0	20 5
931	35.1	3.70	0.0	0.0	0.0	0.0	20 5
932	84.2	5.30	0.0	0.0	0.0	0.0	20 5
933	15.2	4.70	0.0	2.33	2.18	0.0	20 5
934	10.7	3.70	0.0	2.54	0.0	0.0	10 5
935	85.0	4.00	0.0	0.0	0.0	0.0	10 5
936	84.0	3.80	0.0	0.0	0.0	0.0	20 5
937	85.0	5.20	0.0	0.0	0.0	0.0	20 5
938	33.2	4.00	0.0	0.0	0.0	0.0	20 5
939	15.4	4.30	0.0	0.0	0.0	0.0	20 5
940	32.7	5.00	0.0	0.0	0.0	0.0	50 5
941	15.2	4.30	0.0	0.0	0.0	0.0	20 5
942	17.0	4.50	0.0	2.54	0.0	0.0	20 5
943	84.1	4.50	0.0	0.0	0.0	0.0	10 5
944	11.7	3.90	0.0	0.0	0.0	0.0	20 5
945	13.0	3.60	2.14	0.0	0.0	0.0	50 5
946	48.7	4.30	0.0	0.0	0.0	0.0	60 5
947	13.6	3.30	0.0	0.0	0.0	0.0	20 5
948	16.7	3.80	0.0	0.0	0.0	0.0	50 5
949	88.0	4.60	0.0	0.0	0.0	0.0	50 5
960	83.2	3.70	0.0	0.0	0.0	0.0	50 5
961	52.5	4.30	0.0	0.0	0.0	0.0	50 5
962	85.6	4.10	0.0	0.0	0.0	0.0	50 5
963	19.1	4.00	2.37	2.17	1.91	5.43	60 5
964	86.0	3.80	0.0	0.0	0.0	0.0	50 5
965	43.1	4.80	0.0	0.0	0.0	0.0	50 5
966	15.4	5.20	3.82	3.21	0.0	1.93	10 5
967	85.6	3.80	0.0	0.0	0.0	0.0	50 5
968	10.4	4.10	0.0	0.0	0.0	0.0	50 5
969	84.0	4.30	0.0	0.0	0.0	0.0	50 5
970	84.1	3.50	0.0	0.0	0.0	0.0	50 5
971	14.2	3.50	3.52	3.47	0.0	0.0	10 5
972	10.3	4.10	0.0	2.76	2.47	0.0	10 5
973	83.4	4.20	0.0	0.0	0.0	0.0	50 5
974	85.1	5.00	3.65	3.49	3.28	1.17	10 5
975	83.2	3.60	0.0	0.0	0.0	0.0	50 5

EILAT, ISRAEL

EVENT NO.	DISTANCE (DEGREES)	MP	MS T=20SEC	MS T=30SEC	MS T=40SEC	I.O/I.R RATIO	COMMENT
976	86.1	3.80	0.0	0.0	0.0	0.0	50 5
977	27.5	3.50	0.0	0.0	0.0	0.0	50 5
978	47.5	4.20	3.61	3.38	3.28	0.0	10 5
979	33.2	3.80	0.0	3.31	0.0	0.0	10 5
980	16.0	*4.40	0.0	0.0	0.0	0.0	50 5
981	87.9	4.00	0.0	0.0	0.0	0.0	50 5
982	82.6	3.40	0.0	0.0	0.0	0.0	50 5
983	10.2	4.20	3.11	3.34	3.12	0.0	10 5
984	84.8	6.30	6.01	5.82	5.90	1.22	10 5
985	85.2	4.90	0.0	0.0	0.0	0.0	50 5
986	85.2	5.30	0.0	0.0	0.0	0.0	50 5
987	85.2	5.50	0.0	0.0	0.0	0.0	50 5
988	85.5	4.20	0.0	0.0	0.0	0.0	50 5
989	85.6	3.80	0.0	0.0	0.0	0.0	50 5
990	27.5	4.20	0.0	0.0	0.0	0.0	50 5
991	85.3	4.00	0.0	0.0	0.0	0.0	50 5
992	85.1	4.30	0.0	0.0	0.0	0.0	50 5
993	85.1	4.10	0.0	0.0	0.0	0.0	50 5
994	84.9	3.60	0.0	0.0	0.0	0.0	50 5
995	85.1	4.00	0.0	0.0	0.0	0.0	50 5
996	85.3	3.50	0.0	0.0	0.0	0.0	50 5
997	85.1	4.90	0.0	0.0	0.0	0.0	50 5
998	84.2	4.20	0.0	0.0	0.0	0.0	50 5
999	85.3	3.70	0.0	0.0	0.0	0.0	50 5
1000	85.2	5.20	0.0	0.0	0.0	0.0	50 5
1001	85.8	4.10	0.0	0.0	0.0	0.0	50 5
1002	85.8	3.90	0.0	0.0	0.0	0.0	50 5
1003	83.7	3.90	0.0	0.0	0.0	0.0	50 5
1004	84.7	4.50	0.0	0.0	0.0	0.0	50 5
1005	84.7	3.90	0.0	0.0	0.0	0.0	50 5
1006	85.8	3.90	0.0	0.0	0.0	0.0	50 5
1007	87.8	4.60	0.0	0.0	0.0	0.0	50 5
1013	85.1	4.40	0.0	0.0	0.0	0.0	50 5
1014	84.5	3.90	0.0	0.0	0.0	0.0	50 5
1015	84.4	3.40	0.0	0.0	0.0	0.0	50 5
1016	84.7	4.60	0.0	0.0	0.0	0.0	50 5
1017	50.7	4.20	0.0	0.0	0.0	0.0	50 5
1018	85.0	4.70	0.0	0.0	0.0	0.0	50 5
1019	84.7	4.00	3.01	0.0	0.0	0.0	20 5
1020	85.1	3.80	3.02	0.0	0.0	0.0	20 5
1021	9.6	3.90	1.12	0.0	0.0	0.0	20 5
1026	32.6	3.70	0.0	0.0	0.0	0.0	50 5
1027	85.1	3.50	2.13	0.0	0.0	0.0	20 5
1028	11.5	3.60	1.13	0.0	0.0	0.0	20 5
1029	84.7	5.50	4.20	4.13	3.81	0.0	10 5
1030	14.0	4.60	3.83	3.36	3.07	0.0	10 5
1031	84.9	3.50	2.35	0.0	0.0	0.0	20 5
1032	85.1	4.60	1.87	0.0	0.0	0.0	20 5
1033	37.1	4.60	0.0	2.77	0.0	0.0	20 5

EILAT, ISRAEL

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1034	33.3	3.70	2.92	0.0	0.0	0.0	20 5
1035	84.9	4.60	3.84	0.0	0.0	0.0	20 5
1036	84.7	4.40	2.77	0.0	0.0	0.0	20 5
1037	85.6	3.70	3.18	0.0	0.0	0.0	20 5
1038	84.1	3.90	2.71	0.0	0.0	0.0	20 5
1039	84.0	6.10	5.68	5.56	5.06	0.0	20 5
1040	85.7	4.20	3.23	0.0	0.0	0.0	10 5
1041	85.1	4.00	2.72	0.0	0.0	0.0	20 5
1042	15.2	3.70	2.38	0.0	0.0	0.0	20 5
1043	85.1	3.90	3.00	0.0	0.0	0.0	20 5
1044	35.0	3.40	2.69	0.0	0.0	0.0	20 5
1045	83.7	3.70	2.76	0.0	0.0	0.0	20 5
1046	85.8	3.60	2.62	0.0	0.0	0.0	20 5
1047	32.4	3.60	2.24	0.0	0.0	0.0	20 5
1048	13.1	4.00	1.65	0.0	0.0	0.0	20 5
1049	31.6	3.60	2.62	0.0	0.0	0.0	20 5
1050	85.3	5.00	3.43	3.46	2.80	0.0	20 5
1051	36.5	3.60	0.0	0.0	0.0	0.0	10 5
1052	17.1	*3.60	2.34	0.0	0.0	0.0	30 5
1053	31.2	5.00	0.0	0.0	0.0	0.0	20 5
1054	84.4	4.10	3.22	0.0	0.0	0.0	50 5
1055	13.1	3.60	0.0	0.0	0.0	0.0	20 5
1056	85.3	3.50	2.65	0.0	0.0	0.0	30 5
1057	85.2	3.70	0.0	0.0	0.0	0.0	20 5
1058	85.3	3.50	0.0	0.0	0.0	0.0	50 5
1059	85.6	3.90	3.58	0.0	0.0	0.0	50 5
1060	85.1	4.20	3.48	0.0	0.0	0.0	20 5
1061	85.1	4.50	2.59	0.0	0.0	0.0	20 5
1062	85.6	3.80	2.63	0.0	0.0	0.0	20 5
1063	28.3	4.00	2.15	0.0	0.0	0.0	20 5
1064	50.3	3.80	0.0	0.0	0.0	0.0	20 5
1065	85.4	4.60	3.45	3.33	0.0	0.0	50 5
1066	85.6	4.00	1.46	0.0	0.0	0.0	10 5
1067	30.8	3.50	1.97	0.0	0.0	0.0	20 5
1068	85.0	4.20	0.0	0.0	0.0	0.0	20 5
1069	50.4	3.80	0.0	0.0	0.0	0.0	30 5
1070	84.9	4.40	3.05	0.0	0.0	0.0	50 5
1071	84.7	4.70	2.63	0.0	0.0	0.0	20 5
1072	14.7	3.10	1.39	0.0	0.0	0.0	20 5
1073	11.5	3.70	1.85	0.0	0.0	0.0	20 5
1074	85.0	4.40	2.84	0.0	0.0	0.0	20 5
1075	85.5	3.90	2.55	0.0	0.0	0.0	20 5
1076	13.9	3.50	3.91	0.0	0.0	0.0	20 5
1077	85.1	4.10	3.71	0.0	0.0	0.0	20 5
1078	83.8	4.10	3.71	0.0	0.0	0.0	20 5
1079	51.3	3.60	0.0	0.0	0.0	0.0	20 5
1080	75.8	4.80	3.84	3.86	3.22	0.0	30 5
1081	9.0	4.40	0.0	2.74	0.0	0.0	10 5
1082	84.5	4.30	2.82	0.0	0.0	0.0	20 5

EILAT, ISRAEL.

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
1083	85.1	5.70	3.85	3.74	0.0	0.0	10 5
1084	48.5	4.50	3.71	0.0	0.0	0.0	20 5
1085	84.9	6.10	4.58	4.33	3.94	0.0	10 5
1086	12.8	4.70	0.0	0.0	0.0	0.0	30 5
1087	10.3	4.00	1.80	0.0	0.0	0.0	20 5
1088	86.5	3.90	0.0	0.0	0.0	0.0	50 5
1089	83.7	3.70	3.05	0.0	0.0	0.0	20 5
1090	85.4	4.00	3.58	0.0	0.0	0.0	20 5
1091	50.4	3.70	0.0	0.0	0.0	0.0	50 5
1092	35.6	4.20	0.0	0.0	0.0	0.0	30 5
1224	32.4	3.80	0.0	0.0	0.0	0.0	50 5
1225	13.9	3.60	0.0	2.85	0.0	0.0	10 5
1226	85.9	3.70	3.28	0.0	0.0	0.0	20 5
1227	36.2	4.70	3.53	3.01	0.0	0.37	10 5
1228	31.6	3.70	0.0	0.0	0.0	0.0	30 5
1229	85.1	4.10	0.0	0.0	0.0	0.0	30 5
1230	83.8	3.50	0.0	0.0	0.0	0.0	50 5
1231	28.4	5.10	3.89	3.16	3.04	1.72	10 5
1232	85.0	5.60	6.64	6.18	5.60	0.0	10 5
1233	82.1	3.20	0.0	0.0	0.0	0.0	50 5
1234	86.3	3.40	0.0	0.0	0.0	0.0	50 5
1235	82.1	3.60	0.0	0.0	0.0	0.0	50 5
1236	38.0	5.40	0.0	0.0	0.0	0.0	50 5
1237	85.0	4.20	0.0	0.0	0.0	0.0	50 5
1238	39.6	3.40	0.0	0.0	0.0	0.0	20 5
1239	16.3	4.40	3.93	3.28	0.0	5.36	10 5
1240	31.6	4.00	0.0	0.0	0.0	0.0	50 5
1241	35.7	3.40	2.70	0.0	0.0	0.0	20 5
1242	84.4	4.00	0.0	0.0	0.0	0.0	50 5
1243	32.8	4.20	0.0	2.53	0.0	0.0	60 5
1244	83.8	3.50	0.0	0.0	0.0	0.0	30 5
1245	83.4	3.70	3.45	0.0	0.0	0.0	20 5
1246	50.4	3.60	0.0	0.0	0.0	0.0	50 5
1247	85.2	4.00	0.0	0.0	0.0	0.0	50 5
1248	85.1	3.90	0.0	0.0	0.0	0.0	30 5
1249	83.8	4.00	0.0	0.0	0.0	0.0	50 5
1250	85.0	4.10	3.21	0.0	0.0	0.0	20 5
1251	84.0	3.90	0.0	0.0	0.0	0.0	50 5
1252	85.8	3.40	4.26	0.0	0.0	0.0	20 5
1253	85.6	3.80	3.72	0.0	0.0	0.0	20 5
1254	18.2	4.60	0.0	0.0	0.0	0.0	50 5
1255	83.0	3.60	0.0	0.0	0.0	0.0	50 5
1256	83.7	3.30	0.0	0.0	0.0	0.0	50 5
1258	83.8	3.90	0.0	0.0	0.0	0.0	50 5
1259	86.2	4.00	3.83	0.0	0.0	0.0	20 5
1268	29.1	5.30	0.0	0.0	0.0	0.0	50 5

APPENDIX II-H
BASIC DATA FOR
KONGSBERG, NORWAY (KON)

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1	57.4	4.10	0.0	0.0	0.0	0.0	20 6
2	66.3	4.60	0.0	0.0	0.0	0.0	20 6
3	67.7	4.00	0.0	0.0	0.0	0.0	20 6
24	45.1	3.90	0.0	4.24	0.0	0.0	10 6
25	26.4	4.20	0.0	0.0	0.0	0.0	20 6
26	80.3	4.70	6.27	5.60	0.0	0.0	30 6
27	79.5	4.60	0.0	0.0	0.0	0.0	30 6
28	64.2	3.60	0.0	0.0	0.0	0.0	20 6
29	62.8	4.30	0.0	0.0	0.0	0.0	20 6
30	69.9	3.80	0.0	0.0	0.0	0.0	20 6
31	81.9	5.00	4.77	4.77	4.39	1.26	10 6
32	62.8	4.40	0.0	0.0	0.0	0.0	20 6
33	64.4	3.90	0.0	0.0	0.0	0.0	20 6
34	71.6	4.00	0.0	0.0	0.0	0.0	20 6
35	25.5	4.40	4.26	4.05	4.07	0.62	10 6
36	26.3	4.90	3.52	3.73	3.41	0.48	10 6
37	62.9	4.80	4.27	0.0	3.62	1.23	10 6
38	63.0	4.00	4.24	0.0	3.64	1.09	10 6
39	54.1	5.30	5.40	0.0	4.68	0.34	10 6
40	52.2	3.90	3.75	3.12	0.0	0.72	10 6
41	36.3	5.10	0.0	3.57	0.0	0.85	10 6
42	67.2	3.90	0.0	0.0	0.0	0.0	20 6
43	51.0	4.70	0.0	3.37	0.0	2.07	10 6
44	46.1	5.40	0.0	0.0	0.0	0.0	20 6
45	47.3	4.60	0.0	0.0	0.0	0.0	20 6
46	62.7	3.80	0.0	0.0	0.0	0.0	20 6
47	62.8	3.90	0.0	0.0	0.0	0.0	20 6
48	27.5	4.10	0.0	0.0	0.0	0.0	20 6
49	70.6	4.80	0.0	0.0	0.0	0.0	20 6
50	33.2	4.90	4.11	3.61	0.0	0.47	10 6
51	15.5	4.10	0.0	0.0	0.0	0.0	20 6
53	27.1	3.80	0.0	0.0	0.0	0.0	20 6
54	66.2	4.20	0.0	0.0	0.0	0.0	20 6
55	25.6	4.40	0.0	0.0	0.0	0.0	20 6
56	65.5	4.20	0.0	0.0	0.0	0.0	30 6
57	62.6	4.00	0.0	0.0	0.0	0.0	30 6
58	65.8	4.00	0.0	0.0	0.0	0.0	30 6
59	64.1	4.60	0.0	0.0	0.0	0.0	20 6
60	16.0	*4.20	3.37	3.32	2.84	2.70	10 6
61	81.3	4.80	0.0	3.63	0.0	1.31	10 6
62	81.6	4.60	0.0	0.0	3.79	2.81	10 6
63	16.0	*3.70	0.0	0.0	0.0	0.0	30 6
65	62.9	3.80	0.0	0.0	0.0	0.0	20 6
66	68.0	4.10	0.0	0.0	0.0	0.0	20 6
67	66.3	3.20	0.0	0.0	0.0	0.0	20 6
68	27.2	4.00	0.0	0.0	0.0	0.0	30 6
69	68.0	4.80	0.0	0.0	0.0	0.0	30 6
70	63.1	3.80	0.0	0.0	0.0	0.0	20 6
71	62.6	3.80	0.0	0.0	0.0	0.0	20 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
72	78.7	4.40	0.0	0.0	0.0	0.0	
73	50.6	*4.10	0.0	4.04	0.0	0.0	20 6
74	52.3	4.00	0.0	0.0	0.0	0.72	10 6
75	46.9	4.50	0.0	2.77	0.0	0.0	20 6
76	43.6	4.40	0.0	0.0	0.0	2.28	10 6
77	66.5	4.00	0.0	0.0	0.0	0.0	20 6
78	67.9	3.80	0.0	0.0	0.0	0.0	20 6
79	50.3	4.70	0.0	0.0	0.0	0.0	20 6
80	46.5	3.90	0.0	0.0	0.0	0.0	20 6
81	64.5	3.90	3.96	0.0	0.0	0.0	20 6
82	62.6	4.10	0.0	3.74	0.0	0.94	10 6
83	58.1	3.60	0.0	0.0	0.0	0.0	20 6
84	62.6	3.70	0.0	0.0	0.0	0.0	20 6
85	67.8	3.60	0.0	0.0	0.0	0.0	20 6
86	67.1	3.60	0.0	4.42	0.0	0.0	30 6
87	14.6	4.60	0.0	0.0	0.0	0.0	20 6
88	30.5	5.10	3.60	3.45	0.0	1.71	10 6
89	71.3	4.50	4.47	0.0	4.07	0.86	10 6
90	16.0	4.50	4.00	0.0	0.0	1.95	10 6
92	16.0	*4.50	3.91	3.90	0.0	1.43	10 6
93	68.3	4.80	0.0	0.0	0.0	0.0	20 6
94	68.3	4.80	0.0	0.0	0.0	0.0	30 6
95	15.9	4.40	3.32	3.44	0.0	5.06	10 6
96	56.7	5.20	4.15	3.89	3.38	1.26	10 6
97	54.8	4.50	3.60	0.0	0.0	0.78	10 6
98	16.0	*4.10	3.49	3.45	2.97	2.04	10 6
99	16.0	*4.30	3.17	3.18	2.77	1.88	10 6
100	16.0	*4.10	2.89	2.64	0.0	3.02	10 6
101	14.7	3.60	2.76	2.59	0.0	3.12	10 6
102	16.0	*4.30	0.0	0.0	0.0	0.0	30 6
103	16.6	*3.70	0.0	0.0	0.0	0.0	30 6
104	16.1	*4.00	3.20	3.01	0.0	2.05	10 6
105	15.9	*4.30	3.45	3.40	0.0	2.58	10 6
106	16.1	*4.20	3.58	3.59	0.0	1.58	10 6
107	15.8	*4.40	3.14	3.24	0.0	3.27	10 6
108	60.0	4.10	0.0	0.0	0.0	0.0	20 6
109	46.7	4.70	0.0	0.0	0.0	0.0	20 6
110	42.4	4.30	0.0	0.0	0.0	0.0	20 6
111	16.0	*3.80	0.0	0.0	0.0	0.0	20 6
112	65.6	4.80	4.31	4.10	0.0	1.80	30 6
113	84.0	5.70	4.80	0.0	4.45	0.93	10 6
114	16.0	*4.30	0.0	0.0	0.0	0.0	10 6
115	81.3	4.80	0.0	3.70	0.0	0.0	20 6
116	41.0	4.30	0.0	0.0	0.0	0.0	10 6
117	39.1	5.50	0.0	0.0	0.0	0.0	20 6
118	40.8	4.50	3.69	0.0	0.0	0.0	20 6
119	40.8	3.90	0.0	0.0	0.0	3.46	10 6
120	40.9	4.10	0.0	0.0	0.0	0.0	20 6
121	45.6	4.90	4.52	0.0	0.0	0.0	50 6
122	65.6	3.90	0.0	3.69	3.31	0.89	10 6
					0.0	2.40	10 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MD	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
123	62.3	4.60	0.0	3.84	0.0	0.71	10 6
124	71.1	3.80	0.0	0.0	0.0	0.0	20 6
125	24.4	4.50	0.0	3.25	0.0	2.02	10 6
126	63.5	3.90	0.0	0.0	0.0	0.0	20 6
129	45.9	4.80	3.72	0.0	0.0	0.64	10 6
130	69.2	3.70	0.0	0.0	0.0	0.0	20 6
131	71.2	4.70	0.0	0.0	0.0	0.0	20 6
132	63.1	4.00	0.0	0.0	0.0	0.0	20 6
133	70.8	5.20	4.12	0.0	0.0	0.59	10 6
134	70.6	5.40	4.79	0.0	0.0	0.78	10 6
135	50.6	3.90	0.0	0.0	0.0	0.0	20 6
136	66.7	4.20	0.0	0.0	0.0	0.0	20 6
137	53.1	3.90	0.0	0.0	0.0	0.0	20 6
138	62.3	4.10	0.0	0.0	0.0	0.0	20 6
139	63.7	4.80	0.0	3.49	0.0	0.96	10 6
140	20.2	3.50	3.64	0.0	0.0	0.0	30 6
141	44.8	5.30	3.83	3.66	0.0	0.58	30 6
142	55.7	4.10	0.0	0.0	0.0	0.0	20 6
143	61.3	3.40	0.0	0.0	0.0	0.0	20 6
144	43.6	4.00	3.30	0.0	0.0	0.49	10 6
145	71.2	4.80	3.77	3.44	0.0	1.84	10 6
146	70.8	4.70	3.71	0.0	0.0	1.83	10 6
147	71.0	4.90	3.95	0.0	0.0	1.33	10 6
148	70.4	3.70	0.0	0.0	0.0	0.0	20 6
149	31.0	3.70	0.0	0.0	0.0	0.0	20 6
150	45.0	3.80	0.0	0.0	0.0	0.0	20 6
151	44.1	4.30	0.0	0.0	0.0	0.0	20 6
152	63.4	3.70	0.0	0.0	0.0	0.0	20 6
153	63.2	4.50	0.0	0.0	0.0	0.0	20 6
154	61.1	3.70	0.0	0.0	0.0	0.0	30 6
155	69.5	3.70	0.0	0.0	0.0	0.0	30 6
156	69.1	5.00	4.84	0.0	4.28	0.12	10 6
157	67.8	3.60	0.0	0.0	0.0	0.0	30 6
158	65.8	4.30	0.0	0.0	0.0	0.0	30 6
159	63.9	3.80	0.0	0.0	0.0	0.0	20 6
160	67.9	3.70	0.0	0.0	0.0	0.0	20 6
161	68.3	3.50	0.0	0.0	0.0	0.0	20 6
162	68.7	3.80	0.0	0.0	0.0	0.0	20 6
163	13.8	3.70	0.0	0.0	0.0	0.0	20 6
164	67.8	4.00	0.0	0.0	0.0	0.0	20 6
165	67.9	4.90	4.48	3.94	0.0	0.92	10 6
166	49.2	3.80	0.0	0.0	0.0	0.0	30 6
167	69.3	4.90	0.0	3.27	0.0	0.80	10 6
168	63.2	3.30	0.0	0.0	0.0	0.0	20 6
169	59.9	3.80	0.0	3.43	0.0	0.85	10 6
170	64.6	4.00	0.0	0.0	0.0	0.0	20 6
171	67.5	4.70	0.0	0.0	0.0	0.0	50 6
172	47.2	5.30	5.51	0.0	4.34	0.64	10 6
173	30.2	3.30	0.0	0.0	0.0	0.0	20 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	I.O./I.P. RATIO	COMMENT
174	29.4	3.30	0.0	0.0	0.0	0.0	20 6
175	28.3	4.90	4.20	4.00	0.0	0.58	10 6
176	37.2	4.10	0.0	0.0	0.0	0.0	30 6
177	30.4	3.50	0.0	0.0	0.0	0.0	20 6
178	65.2	4.50	0.0	0.0	0.0	0.0	20 6
179	29.1	4.40	3.14	2.93	0.0	1.00	10 6
180	77.5	4.00	0.0	0.0	0.0	0.0	20 6
181	42.3	4.50	0.0	0.0	0.0	0.0	20 6
182	69.0	4.20	0.0	0.0	0.0	0.0	20 6
183	45.0	4.20	0.0	0.0	0.0	0.0	20 6
184	62.4	4.10	0.0	0.0	0.0	0.0	20 6
185	63.9	3.30	0.0	0.0	0.0	0.0	30 6
186	43.2	3.90	0.0	0.0	0.0	0.0	20 6
187	38.6	3.60	0.0	0.0	0.0	0.0	20 6
188	38.6	3.70	0.0	0.0	0.0	0.0	20 6
189	40.8	4.40	0.0	3.11	0.0	2.10	10 6
190	39.1	4.20	0.0	0.0	0.0	0.0	20 6
191	66.7	4.50	0.0	0.0	0.0	0.0	20 6
192	38.5	3.80	0.0	0.0	0.0	0.0	20 6
193	44.2	4.40	3.90	0.0	0.0	0.54	10 6
194	40.6	4.70	0.0	0.0	0.0	0.0	30 6
195	44.1	3.90	0.0	0.0	0.0	0.0	30 6
196	39.9	3.70	0.0	0.0	0.0	0.0	30 6
197	35.4	3.90	0.0	0.0	0.0	0.0	30 6
198	38.3	3.40	0.0	0.0	0.0	0.0	30 6
199	38.3	3.30	0.0	0.0	0.0	0.0	30 6
200	42.2	4.40	0.0	0.0	0.0	0.0	30 6
201	38.7	3.60	0.0	0.0	0.0	0.0	20 6
202	39.6	3.70	0.0	0.0	0.0	0.0	30 6
203	36.2	3.80	0.0	0.0	0.0	0.0	20 6
204	38.9	4.20	0.0	0.0	0.0	0.0	20 6
205	62.5	3.50	4.00	0.0	0.0	0.30	10 6
206	40.5	4.20	0.0	0.0	0.0	0.0	20 6
207	41.1	4.60	0.0	0.0	0.0	0.0	20 6
208	40.9	4.10	3.32	0.0	0.0	0.0	60 6
209	45.0	3.70	0.0	0.0	0.0	0.0	20 6
210	36.2	4.00	0.0	0.0	0.0	0.0	20 6
211	29.9	3.40	0.0	0.0	0.0	0.0	20 6
212	62.6	4.20	0.0	0.0	0.0	0.0	20 6
213	40.8	4.00	0.0	0.0	0.0	0.0	30 6
214	44.5	4.00	0.0	0.0	0.0	0.0	20 6
216	64.9	3.70	0.0	0.0	0.0	0.0	20 6
217	61.7	3.90	0.0	0.0	0.0	0.0	20 6
218	30.5	3.70	3.26	0.0	0.0	1.18	10 6
219	63.4	3.40	0.0	0.0	0.0	0.0	30 6
220	67.1	3.50	0.0	0.0	0.0	0.0	20 6
221	20.0	3.60	0.0	0.0	0.0	0.0	30 6
222	65.9	3.60	0.0	0.0	0.0	0.0	20 6
223	13.0	*4.30	3.58	3.44	0.0	0.62	10 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
224	35.4	4.00	3.32	0.0	0.0	1.13	10 6
225	42.6	3.50	0.0	0.0	0.0	0.0	20 6
226	69.9	4.20	0.0	0.0	0.0	0.0	30 6
227	64.7	4.10	0.0	0.0	0.0	0.0	20 6
228	69.1	4.60	0.0	0.0	0.0	0.0	20 6
229	35.7	3.80	0.0	0.0	0.0	0.0	20 6
230	62.8	4.10	0.0	0.0	0.0	0.0	20 6
231	69.4	4.20	0.0	0.0	0.0	0.0	50 6
245	57.9	4.50	0.0	0.0	0.0	0.0	20 6
247	18.0	2.70	0.0	0.0	0.0	0.0	20 6
248	44.5	4.00	0.0	0.0	0.0	0.0	20 6
249	67.2	0.0	0.0	0.0	0.0	0.0	30 6
250	67.4	4.30	0.0	0.0	0.0	0.0	20 6
251	65.0	4.20	0.0	0.0	0.0	0.0	20 6
252	68.2	4.00	0.0	0.0	0.0	0.0	30 6
253	53.0	3.80	0.0	0.0	0.0	0.0	30 6
254	67.0	4.20	0.0	0.0	0.0	0.0	20 6
255	45.2	*4.60	3.77	0.0	0.0	0.0	30 6
256	20.6	3.50	3.34	3.20	0.0	0.40	10 6
257	66.2	3.30	0.0	0.0	0.0	0.21	10 6
258	68.8	3.00	0.0	0.0	0.0	0.0	20 6
259	65.2	3.60	0.0	0.0	0.0	0.0	20 6
260	38.9	5.50	3.43	3.33	0.0	0.0	20 6
261	70.2	3.70	0.0	0.0	0.0	0.56	10 6
262	47.9	4.90	3.92	0.0	0.0	0.0	20 6
263	9.7	3.80	0.0	0.0	0.0	0.45	10 6
264	63.2	3.80	0.0	0.0	0.0	0.0	30 6
265	43.3	4.20	0.0	0.0	0.0	0.0	20 6
266	35.7	3.60	0.0	0.0	0.0	0.0	30 6
267	48.6	4.10	0.0	0.0	0.0	0.0	20 6
268	71.6	4.10	0.0	0.0	0.0	0.0	20 6
269	61.1	3.80	0.0	0.0	0.0	0.0	20 6
270	43.4	4.10	0.0	0.0	0.0	0.0	20 6
271	68.3	3.80	0.0	0.0	0.0	0.0	30 6
272	44.0	4.00	0.0	0.0	0.0	0.0	30 6
273	22.7	3.80	0.0	0.0	0.0	0.0	20 6
274	63.9	4.00	0.0	0.0	0.0	0.0	30 6
275	53.0	4.10	0.0	0.0	0.0	0.0	20 6
276	72.6	3.70	0.0	0.0	0.0	0.0	20 6
277	101.9	3.70	0.0	0.0	0.0	0.0	20 6
278	23.9	5.40	4.76	4.51	0.0	0.0	30 6
279	68.4	3.70	0.0	0.0	0.0	2.22	10 6
280	44.0	3.70	0.0	0.0	0.0	0.0	20 6
281	56.6	5.30	3.64	3.38	0.0	0.0	20 6
282	24.3	3.70	0.0	0.0	0.0	1.55	10 6
283	59.6	3.70	0.0	0.0	0.0	0.0	30 6
284	46.4	3.60	0.0	0.0	0.0	0.0	20 6
285	46.5	3.50	0.0	0.0	0.0	0.0	20 6
286	64.2	4.50	5.02	0.0	0.0	0.0	20 6
						1.39	10 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
287	46.1	3.80	0.0	0.0	0.0	0.0	20 6
288	50.8	3.40	0.0	2.98	0.0	0.63	10 6
289	64.3	3.60	3.42	3.73	0.0	0.43	10 6
290	49.3	3.50	3.83	3.64	0.0	2.04	10 6
291	77.6	4.10	0.0	0.0	0.0	0.0	30 6
292	68.0	5.20	3.67	4.02	0.0	0.68	10 6
293	43.8	4.00	0.0	0.0	0.0	0.0	30 6
294	41.5	5.20	5.05	0.0	3.74	0.51	10 6
295	43.6	3.90	0.0	0.0	0.0	0.0	20 6
296	50.5	3.50	0.0	0.0	0.0	0.0	20 6
297	67.0	5.00	0.0	0.0	0.0	0.0	30 6
298	42.2	3.60	0.0	0.0	0.0	0.0	20 6
299	61.5	3.60	0.0	0.0	0.0	0.0	20 6
300	66.6	4.70	0.0	4.46	3.97	0.45	10 6
301	62.0	3.70	0.0	0.0	0.0	0.0	20 6
302	42.0	3.20	0.0	0.0	0.0	0.0	20 6
304	68.5	3.60	0.0	0.0	0.0	0.0	20 6
305	70.6	4.40	0.0	0.0	0.0	0.0	30 6
306	44.8	3.90	0.0	0.0	0.0	0.0	20 6
307	69.4	4.00	0.0	0.0	0.0	0.0	20 6
308	45.2	3.40	3.28	2.94	0.0	0.42	10 6
309	46.8	3.40	0.0	0.0	0.0	0.0	20 6
310	68.5	3.90	0.0	0.0	0.0	0.0	20 6
311	33.5	3.60	3.11	2.58	0.0	0.0	10 6
312	54.7	3.70	0.0	0.0	0.0	0.0	20 6
313	22.6	4.10	0.0	0.0	0.0	0.0	20 6
314	63.5	3.80	0.0	0.0	0.0	0.0	20 6
315	41.4	4.10	0.0	0.0	0.0	0.0	30 6
316	66.2	3.80	0.0	0.0	0.0	0.0	30 6
317	46.3	3.80	0.0	0.0	0.0	0.0	20 6
318	46.3	3.70	0.0	0.0	0.0	0.0	20 6
319	45.0	3.50	0.0	0.0	0.0	0.0	20 6
320	45.8	3.90	0.0	0.0	0.0	0.0	20 6
321	55.8	3.70	0.0	0.0	0.0	0.0	16 6
322	63.9	4.30	0.0	0.0	0.0	0.0	20 6
323	81.8	*5.00	4.42	3.78	2.96	0.0	30 6
324	42.3	4.20	0.0	0.0	0.0	7.14	10 6
325	41.9	4.20	0.0	0.0	0.0	0.0	30 6
326	64.5	4.00	0.0	0.0	0.0	0.0	20 6
327	66.1	3.40	0.0	0.0	0.0	0.0	20 6
328	64.6	3.50	0.0	0.0	0.0	0.0	20 6
330	60.7	3.50	0.0	0.0	0.0	0.0	20 6
331	62.6	4.00	0.0	0.0	0.0	0.0	20 6
332	23.1	4.20	3.96	4.18	0.0	0.0	30 6
333	30.9	3.90	0.0	2.64	0.0	8.00	10 6
334	49.9	4.80	3.27	2.93	0.0	0.0	10 6
335	27.3	4.00	3.29	3.12	2.57	1.69	10 6
336	70.9	3.40	0.0	0.0	0.0	0.62	10 6
337	67.8	3.60	0.0	0.0	0.0	0.0	20 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
338	62.6	4.70	3.50	3.05	0.0	0.0	30 6
339	38.9	5.50	0.0	0.0	0.0	0.0	30 6
340	62.8	3.80	0.0	0.0	0.0	0.0	30 6
341	81.7	5.40	5.30	4.88	4.46	0.0	10 6
343	81.7	4.90	0.0	0.0	0.0	0.0	30 6
344	28.2	4.10	0.0	0.0	0.0	0.0	20 6
345	70.2	4.30	0.0	0.0	0.0	0.0	30 6
346	81.8	4.70	3.91	3.16	0.0	0.0	10 6
347	28.0	4.50	4.22	3.92	3.52	0.0	10 6
348	61.2	4.70	0.0	4.78	0.0	0.0	10 6
349	69.2	4.40	0.0	0.0	0.0	0.0	20 6
350	27.2	4.90	4.43	4.02	3.42	0.0	10 6
351	111.5	4.90	4.27	4.40	4.25	0.91	10 6
352	31.5	4.00	0.0	0.0	0.0	0.0	30 6
412	81.7	5.00	4.42	3.70	0.0	2.68	10 6
413	61.7	3.60	0.0	0.0	0.0	0.0	10 6
414	44.3	3.70	3.29	0.0	0.0	0.0	10 6
415	40.8	4.00	0.0	0.0	0.0	0.0	20 6
416	50.0	5.50	4.56	4.08	3.52	7.08	10 6
417	63.7	3.80	0.0	0.0	0.0	0.0	30 6
418	66.1	4.40	0.0	0.0	0.0	0.0	20 6
419	50.0	5.40	4.36	3.68	3.15	5.18	10 6
420	22.6	3.50	0.0	0.0	0.0	0.0	20 6
421	44.3	5.10	4.65	3.86	3.47	0.0	10 6
422	17.9	*4.60	3.01	2.72	2.43	0.77	10 6
423	57.8	3.60	0.0	0.0	0.0	0.0	20 6
424	62.7	4.20	0.0	0.0	0.0	0.0	20 6
425	63.5	3.40	0.0	0.0	0.0	0.0	20 6
426	28.6	4.30	0.0	0.0	0.0	0.0	20 6
427	36.1	5.60	4.70	4.57	4.41	2.60	10 6
428	65.0	3.90	0.0	0.0	0.0	0.0	20 6
429	41.4	3.90	0.0	0.0	0.0	0.0	30 6
430	31.8	3.70	0.0	0.0	0.0	0.0	20 6
431	43.3	*4.60	3.73	3.28	2.89	0.0	10 6
467	79.9	4.10	0.0	0.0	0.0	0.0	30 6
469	64.6	4.10	0.0	0.0	0.0	0.0	20 6
470	48.5	4.70	0.0	0.0	0.0	0.0	30 6
471	45.1	4.20	0.0	0.0	0.0	0.0	20 6
472	68.2	5.20	3.96	3.94	3.63	1.63	10 6
473	63.4	3.60	0.0	0.0	0.0	0.0	20 6
474	43.1	3.70	0.0	0.0	0.0	0.0	20 6
475	33.0	4.70	3.84	3.33	2.89	0.0	10 6
476	67.6	5.20	4.35	3.93	3.52	0.54	10 6
477	48.7	3.50	0.0	0.0	0.0	0.0	20 6
478	64.1	4.00	0.0	0.0	0.0	0.0	20 6
479	23.7	4.10	3.38	3.47	0.0	0.22	10 6
481	58.4	3.90	0.0	0.0	0.0	0.0	30 6
482	71.4	4.20	3.65	0.0	0.0	0.44	10 6
483	47.8	3.70	0.0	0.0	0.0	0.0	30 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
484	16.0	4.40	0.0	0.0	0.0	0.0	20 6
485	82.1	3.80	0.0	0.0	0.0	0.0	30 6
486	27.4	3.90	0.0	0.0	0.0	0.0	20 6
487	40.4	4.40	0.0	0.0	0.0	0.0	20 6
488	40.5	3.90	0.0	0.0	0.0	0.0	20 6
489	40.5	3.40	0.0	0.0	0.0	0.0	20 6
490	78.6	3.90	0.0	0.0	0.0	0.0	20 6
512	15.0	4.00	2.63	3.19	2.68	0.0	10 6
683	29.0	4.40	3.14	3.10	0.0	0.94	10 6
684	25.9	3.60	3.45	3.10	2.70	0.79	10 6
685	52.5	3.70	0.0	0.0	0.0	0.0	20 6
686	16.1	*4.30	0.0	0.0	0.0	0.0	20 6
687	57.5	5.50	4.99	4.67	3.86	3.40	10 6
688	53.7	4.20	0.0	0.0	0.0	0.0	20 6
689	57.5	5.50	4.79	3.96	0.0	0.57	10 6
690	57.4	5.50	4.61	3.67	0.0	7.71	10 6
691	64.9	4.60	3.39	3.34	3.00	0.0	16 6
692	45.1	5.50	4.24	4.17	0.0	0.51	10 6
693	52.1	3.70	0.0	0.0	0.0	0.0	20 6
694	63.4	3.50	0.0	0.0	0.0	0.0	20 6
696	40.5	4.40	0.0	0.0	0.0	0.0	20 6
697	75.8	4.40	3.88	3.26	0.0	0.0	10 6
698	71.0	4.80	0.0	3.88	0.0	0.0	30 6
699	39.1	6.20	3.78	3.11	0.0	0.0	10 6
700	43.6	4.30	0.0	0.0	0.0	0.0	30 6
701	40.1	4.00	0.0	0.0	0.0	0.0	53 6
702	45.4	5.50	5.50	4.87	4.41	0.0	10 6
703	45.8	3.80	2.79	2.78	0.0	0.0	13 6
704	26.5	5.20	4.15	0.0	0.0	0.77	10 6
705	44.5	4.20	0.0	0.0	0.0	0.0	30 6
706	29.9	3.70	0.0	0.0	0.0	0.0	30 6
707	27.0	4.30	0.0	0.0	0.0	0.0	20 6
708	61.5	*4.50	3.70	3.74	0.0	1.08	10 6
709	42.6	4.10	0.0	0.0	0.0	0.0	23 6
710	70.9	4.30	4.23	3.37	0.0	1.09	10 6
711	80.5	*5.30	4.72	4.37	0.0	2.76	10 6
712	45.6	4.30	0.0	0.0	0.0	0.0	30 6
713	64.6	4.50	4.61	0.0	0.0	0.0	13 6
714	26.7	4.60	0.0	0.0	0.0	0.0	30 6
715	68.5	3.70	0.0	0.0	0.0	0.0	20 6
716	79.8	5.50	5.73	4.83	0.0	1.19	10 6
717	22.7	4.20	0.0	0.0	0.0	0.0	20 6
718	43.3	4.70	0.0	3.56	0.0	0.0	13 6
720	66.6	3.60	0.0	0.0	0.0	0.0	30 6
721	60.2	3.80	0.0	0.0	0.0	0.0	32 6
722	44.5	3.80	0.0	0.0	0.0	0.0	20 6
723	62.8	4.80	4.84	3.87	0.0	6.28	10 6
724	69.5	3.70	0.0	0.0	0.0	0.0	23 6
725	55.2	3.90	0.0	0.0	0.0	0.0	30 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
726	82.1	4.10	4.37	4.00	0.0	0.63	10 6
727	42.3	3.90	0.0	0.0	0.0	0.0	20 6
728	30.0	4.50	2.64	2.58	0.0	4.88	13 6
729	45.6	3.90	0.0	0.0	0.0	0.0	30 6
730	26.3	3.80	0.0	0.0	0.0	0.0	30 6
731	34.9	3.90	0.0	0.0	0.0	0.0	30 6
732	67.7	4.40	3.91	3.53	0.0	2.99	10 6
733	26.4	3.70	0.0	0.0	0.0	0.0	20 6
734	23.3	4.30	3.52	2.68	0.0	8.19	10 6
735	71.8	4.00	0.0	0.0	0.0	0.0	50 6
736	70.6	3.70	0.0	0.0	0.0	0.0	20 6
737	65.2	4.60	3.62	3.62	0.0	0.0	10 6
738	70.2	3.90	0.0	0.0	0.0	0.0	30 6
739	70.1	4.00	0.0	3.00	0.0	0.0	13 6
741	21.7	*4.80	3.46	3.29	2.92	0.0	10 6
742	39.7	4.00	0.0	0.0	0.0	0.0	10 6
743	46.5	4.00	0.0	0.0	0.0	0.0	30 6
744	79.9	5.70	5.51	5.44	4.73	0.72	10 6
745	80.6	4.40	0.0	0.0	0.0	0.0	30 6
746	26.8	3.60	0.0	0.0	0.0	0.0	23 6
747	28.8	4.10	0.0	0.0	0.0	0.0	30 6
748	45.6	4.00	0.0	0.0	0.0	0.0	30 6
749	47.1	4.00	0.0	0.0	0.0	0.0	30 6
751	22.3	4.30	3.55	3.36	2.86	0.92	10 6
752	20.9	5.40	4.23	3.83	3.34	1.14	20 6
753	23.6	4.70	0.0	0.0	0.0	0.0	20 6
754	40.1	3.70	0.0	0.0	0.0	0.0	30 6
755	30.8	5.20	0.0	0.0	0.0	0.0	23 6
756	65.3	3.40	0.0	0.0	0.0	0.0	20 6
757	60.7	3.90	0.0	0.0	0.0	0.0	30 6
758	52.7	5.10	4.52	3.70	3.55	0.0	10 6
759	22.7	4.00	0.0	0.0	0.0	0.0	30 6
760	43.1	5.60	3.77	3.31	0.0	8.04	13 6
761	65.6	5.20	3.82	3.88	3.24	0.39	10 6
762	16.8	4.90	3.78	3.58	3.13	2.61	10 6
763	29.1	3.90	0.0	0.0	0.0	0.0	30 6
764	64.7	4.70	0.0	0.0	0.0	0.0	30 6
765	28.5	4.80	0.0	0.0	0.0	0.0	30 6
766	62.9	3.60	0.0	0.0	0.0	0.0	20 6
767	29.7	4.40	0.0	0.0	0.0	0.0	23 6
768	45.8	3.60	0.0	0.0	0.0	0.0	30 6
769	45.8	4.10	0.0	0.0	0.0	0.0	30 6
770	43.7	3.60	0.0	0.0	0.0	0.0	20 6
771	15.7	*4.40	3.29	2.78	0.0	2.17	10 6
772	65.2	3.90	0.0	0.0	0.0	0.0	30 6
773	17.1	3.90	2.98	0.0	0.0	2.45	13 6
774	41.9	4.70	0.0	2.74	0.0	0.0	20 6
775	39.3	5.40	4.92	4.31	3.97	1.20	10 6
776	63.3	4.80	3.94	0.0	0.0	1.38	13 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
777	78.6	4.10	0.0	0.0	0.0	0.0	20 6
778	26.8	5.10	3.73	3.59	2.87	0.0	10 6
779	78.9	3.60	0.0	0.0	0.0	0.0	20 6
780	68.0	3.90	0.0	0.0	0.0	0.0	20 6
781	44.9	5.00	0.0	3.81	3.75	0.0	10 6
782	68.2	4.00	0.0	0.0	0.0	0.0	20 6
783	64.2	4.40	0.0	0.0	0.0	0.0	20 6
784	69.9	4.10	0.0	0.0	0.0	0.0	23 6
785	76.7	5.30	4.55	4.21	3.66	1.10	10 6
786	27.0	4.30	0.0	3.03	0.0	2.17	10 6
787	78.8	3.70	0.0	0.0	0.0	0.0	20 6
788	46.6	3.90	0.0	0.0	0.0	0.0	20 6
789	78.8	4.20	0.0	0.0	0.0	0.0	30 6
790	78.7	4.70	4.33	3.89	0.0	2.12	10 6
791	63.1	3.70	0.0	0.0	0.0	0.0	20 6
793	43.5	4.10	0.0	0.0	0.0	0.0	20 6
849	18.0	3.70	0.0	0.0	0.0	0.0	20 6
850	62.6	4.10	0.0	0.0	0.0	0.0	20 6
851	63.5	4.10	0.0	0.0	0.0	0.0	20 6
852	68.0	4.10	0.0	0.0	0.0	0.0	20 6
853	66.7	3.90	0.0	0.0	0.0	0.0	20 6
854	52.4	3.80	0.0	0.0	0.0	0.0	20 6
855	46.6	4.00	0.0	0.0	0.0	0.0	20 6
856	22.0	3.70	2.94	2.88	0.0	0.0	10 6
857	65.2	4.80	3.87	3.30	3.09	0.88	10 6
858	69.9	4.70	4.10	0.0	0.0	0.0	16 6
859	64.8	5.70	5.24	5.30	4.88	0.24	10 6
860	65.2	3.50	0.0	0.0	0.0	0.0	30 6
861	53.1	3.60	0.0	0.0	0.0	0.0	20 6
862	42.7	4.60	0.0	0.0	0.0	0.0	20 6
863	22.8	3.60	3.61	0.0	0.0	0.0	10 6
864	69.7	4.00	0.0	0.0	0.0	0.0	30 6
865	38.7	4.50	0.0	0.0	0.0	0.0	30 6
866	20.1	3.50	0.0	0.0	0.0	0.0	20 6
867	68.2	4.10	3.36	0.0	0.0	0.0	16 6
868	62.4	4.30	0.0	0.0	0.0	0.0	30 6
869	65.3	4.30	0.0	0.0	0.0	0.0	20 6
870	57.2	4.10	0.0	0.0	0.0	0.0	20 6
871	71.1	3.80	0.0	0.0	0.0	0.0	30 6
872	37.5	3.80	0.0	0.0	0.0	0.0	20 6
873	55.5	4.50	0.0	0.0	0.0	0.0	23 6
874	21.7	4.40	0.0	0.0	0.0	0.0	20 6
875	55.6	4.90	4.89	4.12	0.0	0.0	10 6
878	64.1	3.50	0.0	0.0	0.0	0.0	20 6
879	63.8	3.60	0.0	0.0	0.0	0.0	20 6
880	22.5	4.30	0.0	0.0	0.0	0.0	30 6
881	57.8	5.20	3.78	3.79	0.0	2.21	10 6
882	66.2	4.10	0.0	0.0	0.0	0.0	20 6
883	53.2	3.70	0.0	0.0	0.0	0.0	30 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/IR RATIO	COMMENT
884	43.4	5.50	4.44	3.87	3.72	0.0	10 6
885	43.5	4.80	0.0	0.0	0.0	0.0	20 6
886	47.4	3.80	0.0	0.0	0.0	0.0	20 6
887	43.3	4.70	0.0	0.0	0.0	0.0	30 6
888	66.4	3.50	0.0	0.0	0.0	0.0	20 6
889	62.3	3.40	0.0	0.0	0.0	0.0	20 6
890	25.1	5.30	5.19	4.59	0.0	1.41	10 6
891	25.2	4.00	0.0	0.0	0.0	0.0	20 6
893	67.6	4.70	0.0	0.0	0.0	0.0	30 6
894	65.7	3.90	0.0	0.0	0.0	0.0	20 6
895	44.0	4.90	4.06	3.43	3.07	1.02	10 6
896	46.7	4.80	0.0	0.0	0.0	0.0	30 6
897	23.1	5.00	4.27	3.84	3.36	1.50	10 6
898	39.7	4.40	0.0	3.59	0.0	2.20	10 6
899	62.5	4.30	0.0	0.0	0.0	0.0	20 6
900	44.1	3.90	0.0	0.0	0.0	0.0	20 6
901	65.3	3.80	0.0	0.0	0.0	0.0	50 6
902	43.3	3.70	0.0	0.0	0.0	0.0	20 6
903	41.0	3.90	3.12	0.0	0.0	0.0	10 6
904	64.1	3.90	0.0	0.0	0.0	0.0	20 6
905	48.4	3.80	0.0	0.0	0.0	0.0	20 6
906	40.6	3.60	0.0	0.0	0.0	0.0	20 6
907	40.6	4.20	0.0	0.0	0.0	0.0	20 6
908	52.0	5.10	0.0	0.0	0.0	0.0	20 6
909	52.0	4.70	0.0	0.0	0.0	0.0	20 6
910	46.5	3.80	0.0	0.0	0.0	0.0	20 6
911	49.9	5.10	4.46	3.85	0.0	1.81	10 6
912	26.0	4.50	0.0	0.0	0.0	0.0	20 6
913	50.2	3.70	0.0	0.0	0.0	0.0	20 6
914	50.4	4.60	0.0	0.0	0.0	0.0	20 6
915	46.6	4.80	0.0	0.0	0.0	0.0	50 6
916	46.6	4.50	0.0	3.41	3.03	3.25	17 6
917	38.1	3.80	0.0	0.0	0.0	0.0	20 6
918	46.6	5.00	4.36	3.84	3.31	1.01	10 6
919	46.1	3.60	0.0	0.0	0.0	0.0	50 6
926	51.0	4.90	4.15	3.40	0.0	0.0	10 6
927	27.3	4.60	3.83	3.12	0.0	3.05	10 6
928	70.4	3.40	0.0	0.0	0.0	0.0	20 6
929	47.1	5.10	4.59	3.76	0.0	1.19	10 6
930	48.0	4.50	0.0	0.0	0.0	0.0	30 6
931	51.0	3.70	0.0	0.0	0.0	0.0	20 6
932	63.6	5.30	0.0	4.13	3.55	0.50	10 6
933	23.4	4.70	3.72	3.02	0.0	0.0	10 6
934	26.4	3.70	0.0	0.0	0.0	0.0	50 6
935	71.1	4.00	0.0	0.0	0.0	0.0	20 6
936	70.4	3.90	0.0	0.0	0.0	0.0	20 6
937	66.8	5.20	0.0	3.98	3.54	0.85	10 6
938	46.0	4.90	0.0	0.0	0.0	0.0	20 6
939	22.4	4.30	3.01	2.85	0.0	0.0	10 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	NR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LP RATIO	COMMENT
940	46.7	5.00	0.0	0.0	0.0	0.0	20 6
941	22.4	4.30	3.25	2.78	0.0	0.0	10 6
942	37.7	4.50	3.92	3.20	0.0	2.47	10 6
943	63.3	4.50	0.0	0.0	0.0	0.0	20 6
944	23.4	3.90	0.0	0.0	0.0	0.0	20 6
945	23.3	3.60	0.0	0.0	0.0	0.0	20 6
946	51.7	4.30	0.0	0.0	0.0	0.0	20 6
947	22.0	3.30	0.0	0.0	0.0	0.0	20 6
948	19.7	3.80	0.0	0.0	0.0	0.0	50 6
949	38.9	5.60	0.0	0.0	0.0	0.0	30 6
950	63.2	4.90	4.09	3.56	3.06	0.87	10 6
951	69.9	3.70	0.0	0.0	0.0	0.0	20 6
952	60.2	3.70	3.20	2.98	2.54	1.93	10 6
953	64.7	3.60	0.0	0.0	0.0	0.0	20 6
954	43.2	4.90	3.86	3.46	0.0	3.59	10 6
955	57.1	4.20	0.0	0.0	0.0	0.0	20 6
956	24.7	4.50	4.37	3.98	0.0	1.56	10 6
957	26.9	4.50	3.80	3.88	3.22	1.22	10 6
958	46.6	3.90	0.0	0.0	0.0	0.0	20 6
959	65.6	4.60	0.0	0.0	0.0	0.0	50 6
961	56.9	4.30	0.0	0.0	0.0	0.0	20 6
962	72.1	4.10	0.0	0.0	0.0	0.0	20 6
963	42.5	4.00	0.0	0.0	0.0	0.0	20 6
964	70.2	3.80	0.0	0.0	0.0	0.0	20 6
965	51.8	4.80	3.94	3.14	0.0	1.60	10 6
966	42.5	5.20	4.14	4.34	0.0	1.69	10 6
967	63.8	3.80	0.0	0.0	0.0	0.0	20 6
968	26.5	4.10	3.22	2.89	0.0	1.07	10 6
969	70.2	4.30	0.0	0.0	0.0	0.0	30 6
970	62.6	3.50	0.0	0.0	0.0	0.0	20 6
971	23.1	3.50	0.0	0.0	0.0	0.0	30 6
972	24.3	4.10	3.41	3.06	2.69	0.43	10 6
973	62.3	4.20	0.0	0.0	0.0	0.0	20 6
974	67.5	5.00	4.20	3.65	3.50	0.0	10 6
975	69.7	3.60	0.0	0.0	0.0	0.0	20 6
976	66.8	3.80	0.0	0.0	0.0	0.0	20 6
977	44.9	3.50	0.0	0.0	0.0	0.0	20 6
978	57.8	4.20	3.69	2.99	0.0	3.34	10 6
979	46.9	3.80	0.0	0.0	0.0	0.0	30 6
980	20.7	*4.40	0.0	0.0	0.0	0.0	30 6
981	65.3	4.00	0.0	0.0	0.0	0.0	20 6
982	70.1	3.40	0.0	0.0	0.0	0.0	20 6
983	24.4	4.20	4.04	3.82	3.47	1.00	10 6
984	66.7	6.30	0.0	0.0	0.0	0.0	50 6
985	66.9	4.90	0.0	0.0	0.0	0.0	30 6
986	67.1	5.30	0.0	0.0	0.0	0.0	30 6
987	67.1	5.50	0.0	0.0	0.0	0.0	30 6
988	68.0	4.20	0.0	0.0	0.0	0.0	30 6
989	66.6	3.80	0.0	0.0	0.0	0.0	50 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
990	44.9	4.20	0.0	0.0	0.0	0.0	50 6
991	67.2	4.00	0.0	0.0	0.0	0.0	50 6
992	66.4	4.30	0.0	0.0	0.0	0.0	50 6
993	66.4	4.10	0.0	0.0	0.0	0.0	30 6
994	67.0	3.60	0.0	0.0	0.0	0.0	30 6
995	66.4	4.00	0.0	0.0	0.0	0.0	20 6
996	67.2	3.50	0.0	0.0	0.0	0.0	20 6
997	67.0	4.90	0.0	0.0	0.0	0.0	20 6
998	66.1	4.20	0.0	0.0	0.0	0.0	20 6
999	67.2	3.70	0.0	0.0	0.0	0.0	20 6
1000	67.1	5.20	0.0	0.0	0.0	0.0	20 6
1001	67.4	4.10	0.0	0.0	0.0	0.0	20 6
1002	67.4	3.90	0.0	0.0	0.0	0.0	20 6
1003	65.9	3.90	0.0	0.0	0.0	0.0	20 6
1004	66.2	4.50	0.0	3.39	3.22	0.0	10 6
1005	66.2	3.90	0.0	0.0	0.0	0.0	20 6
1006	67.4	3.90	0.0	0.0	0.0	0.0	20 6
1007	85.1	4.60	0.0	0.0	0.0	0.0	50 6
1008	67.4	5.50	3.89	3.55	3.04	0.0	10 6
1009	67.4	4.20	3.71	0.0	0.0	0.0	20 6
1010	67.2	4.00	3.39	0.0	0.0	0.0	20 6
1011	66.4	3.90	3.41	0.0	0.0	0.0	20 6
1012	67.4	4.50	3.58	0.0	0.0	0.0	20 6
1013	66.4	4.40	3.16	0.0	0.0	0.0	20 6
1014	65.5	3.90	3.11	0.0	0.0	0.0	20 6
1015	66.8	3.40	2.98	0.0	0.0	0.0	20 6
1016	66.2	4.60	2.83	0.0	0.0	0.0	20 6
1017	53.5	4.20	2.99	0.0	0.0	0.0	20 6
1018	67.8	4.70	3.52	0.0	0.0	0.0	20 6
1019	66.2	4.00	3.47	0.0	0.0	0.0	20 6
1020	66.4	3.80	0.0	0.0	0.0	0.0	50 6
1021	27.6	3.90	2.38	0.0	0.0	0.0	20 6
1022	66.2	4.10	3.20	0.0	0.0	0.0	20 6
1023	66.4	3.70	1.16	0.0	0.0	0.0	20 6
1024	67.4	4.10	3.13	0.0	0.0	0.0	20 6
1025	66.4	4.20	3.38	0.0	0.0	0.0	20 6
1026	44.0	3.70	3.31	0.0	0.0	0.0	20 6
1027	66.4	3.50	3.28	0.0	0.0	0.0	20 6
1028	23.3	3.60	2.51	0.0	0.0	0.0	20 6
1029	66.7	5.50	3.91	4.10	4.09	1.21	10 6
1030	41.0	4.60	0.0	0.0	0.0	0.0	30 6
1031	69.7	3.50	3.17	0.0	0.0	0.0	20 6
1032	66.4	4.60	3.43	0.0	0.0	0.0	20 6
1033	46.0	4.60	3.37	0.0	0.0	0.0	20 6
1034	48.4	3.70	3.40	0.0	0.0	0.0	20 6
1035	66.5	4.60	2.93	0.0	0.0	0.0	20 6
1036	66.2	4.40	3.12	0.0	0.0	0.0	20 6
1037	66.6	3.70	3.84	0.0	0.0	0.0	20 6
1038	62.6	3.90	3.29	0.0	0.0	0.0	20 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1039	63.4	6.10	5.30	5.27	4.84	1.08	10 6
1040	68.7	4.20	3.33	0.0	0.0	0.0	20 6
1041	66.4	4.00	3.18	0.0	0.0	0.0	20 6
1042	22.0	3.70	2.45	0.0	0.0	0.0	20 6
1043	66.4	3.90	2.47	0.0	0.0	0.0	20 6
1044	44.8	3.40	2.34	0.0	0.0	0.0	20 6
1045	62.4	3.70	0.0	0.0	0.0	0.0	20 6
1049	46.6	3.60	3.06	0.0	0.0	0.0	50 6
1050	67.2	5.00	3.39	3.18	2.70	0.0	20 6
1051	48.9	3.60	3.18	0.0	0.0	0.0	10 6
1052	19.1	*3.60	2.90	2.73	0.0	0.0	20 6
1053	45.3	5.00	3.27	0.0	0.0	0.0	10 6
1054	70.9	4.10	3.34	0.0	0.0	0.0	20 6
1055	39.3	3.60	3.16	0.0	0.0	0.0	20 6
1056	67.2	3.50	3.37	0.0	0.0	0.0	20 6
1057	64.4	3.70	3.31	0.0	0.0	0.0	20 6
1058	67.2	3.50	0.0	0.0	0.0	0.0	20 6
1059	72.1	3.90	0.0	0.0	0.0	0.0	30 6
1060	66.4	4.20	0.0	0.0	0.0	0.0	30 6
1061	66.4	4.50	0.0	0.0	0.0	0.0	30 6
1062	66.6	3.80	3.37	0.0	0.0	0.0	50 6
1063	45.4	4.00	3.01	0.0	0.0	0.0	20 6
1064	49.0	3.80	4.62	0.0	0.0	0.0	20 6
1065	67.3	4.60	4.27	3.65	0.0	0.38	10 6
1066	66.6	4.00	3.51	0.0	0.0	0.0	20 6
1067	45.3	3.50	3.43	0.0	0.0	0.0	20 6
1068	67.8	4.20	0.0	0.0	0.0	0.0	20 6
1069	64.8	3.80	3.21	0.0	0.0	0.0	30 6
1070	67.0	4.40	3.35	0.0	0.0	0.0	20 6
1071	66.5	4.70	3.35	3.39	2.95	0.0	10 6
1072	22.2	3.10	2.76	2.74	0.0	0.0	60 6
1073	26.2	3.70	3.12	0.0	0.0	0.0	20 6
1074	67.8	4.40	3.45	0.0	0.0	0.0	20 6
1075	68.0	3.90	3.32	0.0	0.0	0.0	20 6
1076	40.6	3.50	0.0	0.0	0.0	0.0	30 6
1077	66.4	4.10	3.38	0.0	0.0	0.0	20 6
1078	70.6	4.10	3.24	0.0	0.0	0.0	20 6
1079	65.3	3.60	0.0	0.0	0.0	0.0	30 6
1080	81.7	4.80	4.23	3.99	3.23	2.28	10 6
1081	25.7	4.40	0.0	0.0	0.0	0.0	50 6
1082	71.2	4.30	3.34	3.28	0.0	0.0	60 6
1083	67.1	5.70	5.35	4.76	4.63	0.64	10 6
1084	54.7	4.50	3.96	3.77	0.0	0.0	10 6
1085	66.5	6.10	5.91	5.83	5.70	1.29	10 6
1086	25.0	4.70	0.0	0.0	0.0	0.0	30 6
1087	27.3	4.00	2.90	0.0	0.0	0.0	20 6
1088	68.3	3.90	3.27	0.0	0.0	0.0	20 6
1089	68.6	3.70	3.55	0.0	0.0	0.0	20 6
1090	65.8	4.00	0.0	0.0	0.0	0.0	30 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
1091	62.8	3.70	3.21	0.0	0.0	0.0	
1092	46.8	4.20	0.0	0.0	0.0	0.0	20 6
1114	64.9	4.20	0.0	0.0	0.0	0.0	50 6
1117	65.9	4.70	3.14	0.0	0.0	0.0	50 6
1118	65.8	4.60	3.38	0.0	0.0	0.0	20 6
1119	25.0	4.00	3.03	0.0	0.0	0.0	20 6
1120	66.2	4.40	3.31	0.0	0.0	0.0	20 6
1121	66.4	4.50	3.55	0.0	0.0	0.0	20 6
1122	70.0	3.90	3.42	0.0	0.0	0.0	20 6
1123	66.5	4.80	0.0	0.0	0.0	0.0	20 6
1124	62.3	3.70	3.57	0.0	0.0	0.0	30 6
1125	67.0	*5.30	4.80	4.59	4.46	0.87	20 6
1126	69.7	3.40	3.62	0.0	0.0	0.0	10 6
1127	66.4	4.70	3.34	0.0	0.0	0.0	20 6
1128	22.2	3.50	0.0	0.0	3.96	0.0	20 6
1130	80.3	3.90	0.0	0.0	0.0	0.0	10 6
1131	83.9	4.80	0.0	0.0	0.0	0.0	30 6
1132	80.9	5.50	5.95	5.34	5.15	1.52	30 6
1133	59.2	4.10	0.0	0.0	0.0	0.0	10 6
1134	63.3	3.60	3.43	0.0	0.0	0.0	30 6
1135	46.1	3.80	3.15	0.0	0.0	0.0	20 6
1136	64.9	3.90	0.0	0.0	0.0	0.0	20 6
1137	27.1	3.80	2.67	0.0	0.0	0.0	30 6
1138	69.3	4.00	3.37	3.23	0.0	0.85	20 6
1139	22.5	4.10	2.85	2.79	0.0	3.21	10 6
1140	66.4	4.10	0.0	0.0	0.0	0.0	10 6
1141	42.5	5.20	4.41	4.42	0.0	0.80	30 6
1142	70.2	4.00	3.34	0.0	0.0	0.0	10 6
1143	81.3	5.30	5.84	4.95	4.92	2.27	20 6
1144	80.8	4.30	0.0	0.0	0.0	0.0	10 6
1145	80.6	4.40	0.0	0.0	0.0	0.0	30 6
1146	48.2	3.80	0.0	0.0	0.0	0.0	30 6
1148	45.4	3.60	0.0	0.0	0.0	0.0	30 6
1149	69.0	4.60	4.08	0.0	0.0	0.0	50 6
1150	52.6	3.90	3.74	0.0	0.0	0.0	20 6
1151	67.0	4.80	3.84	3.29	3.30	0.0	20 6
1152	63.2	4.70	0.0	0.0	0.0	0.0	60 6
1153	42.0	3.80	3.82	0.0	0.0	0.0	50 6
1154	41.0	3.80	3.17	0.0	0.0	0.0	20 6
1155	43.0	4.40	0.0	0.0	0.0	0.0	20 6
1156	43.2	3.90	3.35	0.0	0.0	0.0	50 6
1157	42.8	3.70	0.0	0.0	0.0	0.0	20 6
1158	69.8	5.00	0.0	0.0	0.0	0.0	50 6
1172	71.2	5.40	4.31	4.41	0.0	0.0	50 6
1173	70.6	3.90	0.0	0.0	0.0	0.0	10 6
1174	71.1	4.70	0.0	0.0	0.0	0.0	30 6
1175	71.3	4.10	0.0	0.0	0.0	0.0	30 6
1176	71.3	4.50	0.0	0.0	0.0	0.0	30 6
1177	71.2	4.20	0.0	0.0	0.0	0.0	20 6

KONGSRBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
1178	71.6	4.60	4.39	4.29	0.0	0.69	10 6
1179	71.2	4.70	0.0	0.0	0.0	0.0	30 6
1180	71.1	5.30	4.78	3.90	0.0	4.78	10 6
1181	69.9	3.40	0.0	0.0	0.0	0.0	30 6
1182	71.1	5.40	5.32	4.97	0.0	0.0	10 6
1183	71.2	4.50	0.0	0.0	0.0	0.0	30 6
1184	70.4	3.60	0.0	0.0	0.0	0.0	30 6
1185	71.0	4.20	3.85	0.0	0.0	0.0	20 6
1186	70.9	3.50	0.0	0.0	0.0	0.0	50 6
1187	71.4	4.10	0.0	0.0	0.0	0.0	50 6
1188	70.9	3.70	0.0	0.0	0.0	0.0	30 6
1189	70.9	3.30	0.0	0.0	0.0	0.0	50 6
1190	71.1	4.40	0.0	0.0	0.0	0.0	50 6
1191	71.3	4.10	0.0	0.0	0.0	0.0	30 6
1192	70.9	4.10	3.56	0.0	0.0	0.0	20 6
1193	71.5	3.60	3.38	0.0	0.0	0.0	20 6
1194	71.1	4.20	3.31	0.0	0.0	0.0	20 6
1195	71.5	3.70	3.38	0.0	0.0	0.0	20 6
1196	71.0	4.30	0.0	0.0	0.0	0.0	50 6
1197	70.9	3.60	0.0	0.0	0.0	0.0	30 6
1198	71.2	4.90	4.28	4.03	0.0	0.0	10 6
1199	71.3	4.50	0.0	0.0	0.0	0.0	30 6
1200	84.8	4.20	3.74	0.0	0.0	0.0	20 6
1201	70.9	4.20	3.50	0.0	0.0	0.0	20 6
1202	70.9	4.20	0.0	0.0	0.0	0.0	50 6
1203	70.2	3.40	0.0	0.0	0.0	0.0	30 6
1204	69.2	3.70	3.90	0.0	0.0	0.0	20 6
1205	43.0	4.30	0.0	3.29	0.0	1.54	10 6
1207	67.4	3.60	0.0	0.0	0.0	0.0	20 6
1208	71.2	4.10	3.59	0.0	0.0	0.0	20 6
1209	71.8	3.70	0.0	0.0	0.0	0.0	30 6
1211	45.8	3.80	0.0	0.0	0.0	0.0	50 6
1212	65.5	4.30	0.0	0.0	0.0	0.0	50 6
1213	70.4	3.70	0.0	0.0	0.0	0.0	50 6
1214	65.7	3.40	0.0	0.0	0.0	0.0	20 6
1215	47.4	3.60	3.78	0.0	0.0	0.0	20 6
1216	56.8	3.80	3.23	0.0	0.0	0.0	20 6
1217	71.5	3.80	0.0	0.0	0.0	0.0	50 6
1218	66.4	4.20	0.0	0.0	0.0	0.0	30 6
1219	46.3	3.70	0.0	0.0	0.0	0.0	50 6
1220	55.3	3.90	0.0	0.0	0.0	0.0	50 6
1221	62.2	3.80	0.0	0.0	0.0	0.0	50 6
1222	69.9	3.70	0.0	0.0	0.0	0.0	50 6
1223	65.1	5.10	4.00	3.33	0.0	0.0	10 6
1224	46.3	3.80	0.0	0.0	0.0	0.0	30 6
1225	39.7	3.60	3.86	0.0	0.0	0.0	20 6
1226	65.3	3.70	0.0	0.0	0.0	0.0	50 6
1227	44.2	4.70	3.85	3.15	0.0	1.38	10 6
1228	46.6	3.70	0.0	0.0	0.0	0.0	30 6

KONGSBERG, NORWAY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
1229	66.4	4.10	0.0	0.0	0.0	0.0	
1230	69.9	3.50	0.0	0.0	0.0	0.0	30 6
1231	46.0	5.10	0.0	0.0	0.0	0.0	50 6
1232	66.5	5.60	0.0	0.0	0.0	0.0	50 6
1233	69.2	3.20	0.0	0.0	0.0	0.0	50 6
1234	63.3	3.40	0.0	0.0	0.0	0.0	50 6
1235	69.2	3.60	0.0	0.0	0.0	0.0	50 6
1236	38.5	5.40	0.0	0.0	0.0	0.0	50 6
1237	71.8	4.20	0.0	0.0	0.0	0.0	50 6
1240	46.6	4.00	0.0	0.0	0.0	0.0	50 6
1241	48.4	3.40	0.0	0.0	0.0	0.0	50 6
1242	70.2	4.00	0.0	0.0	0.0	0.0	20 6
1243	42.5	4.20	0.0	0.0	0.0	0.0	50 6
1244	69.3	3.50	3.52	0.0	0.0	0.0	50 6
1245	62.3	3.70	0.0	0.0	0.0	0.0	20 6
1246	62.8	3.60	0.0	0.0	0.0	0.0	50 6
1247	64.4	4.00	0.0	0.0	0.0	0.0	50 6
1248	66.4	3.90	0.0	0.0	0.0	0.0	50 6
1249	69.3	4.00	0.0	0.0	0.0	0.0	50 6
1250	67.8	4.10	0.0	0.0	0.0	0.0	50 6
1251	63.9	3.90	0.0	0.0	0.0	0.0	50 6
1252	67.4	3.40	0.0	0.0	0.0	0.0	50 6
1253	72.1	3.80	0.0	0.0	0.0	0.0	30 6
1254	45.3	4.60	4.23	0.0	0.0	0.0	20 6
1255	62.1	3.60	0.0	0.0	0.0	0.0	20 6
1256	62.4	3.30	0.0	0.0	0.0	0.0	50 6
1258	71.3	3.90	0.0	0.0	0.0	0.0	50 6
1259	68.9	4.00	0.0	0.0	0.0	0.0	50 6
1260	61.5	4.80	0.0	0.0	0.0	0.0	30 6
1261	61.3	3.50	0.0	0.0	0.0	0.0	50 6
1262	62.1	3.70	0.0	0.0	0.0	0.0	50 6
1272	21.0	6.00	4.18	3.70	3.01	0.0	50 6
1273	26.1	5.20	0.0	0.0	0.0	0.0	10 6
1280	39.2	6.00	0.0	0.0	0.0	0.0	20 6 50 6

APPENDIX II-I
BASIC DATA FOR
OGDENSBURG, NEW JERSEY (OGD)

OGDENSBURG, NEW JERSEY

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1	71.6	4.10	0.0	4.71	0.0	0.0	
2	78.2	4.60	0.0	0.0	0.0	0.0	10 7
3	79.0	4.00	0.0	0.0	0.0	0.0	20 7
4	85.5	4.00	0.0	0.0	0.0	0.0	20 7
5	69.0	4.20	0.0	0.0	0.0	0.0	20 7
6	95.0	5.20	0.0	0.0	0.0	0.0	20 7
7	76.1	4.80	0.0	4.34	0.0	0.0	30 7
8	76.0	4.50	0.0	0.0	0.0	0.0	10 7
9	77.9	3.40	0.0	0.0	0.0	0.0	20 7
10	72.4	4.30	0.0	0.0	0.0	0.0	50 7
11	114.7	4.80	0.0	0.0	0.0	0.0	20 7
12	71.4	4.40	0.0	0.0	0.0	0.0	20 7
13	114.6	*4.60	0.0	0.0	0.0	0.0	20 7
14	98.6	3.90	0.0	0.0	0.0	0.0	20 7
15	78.0	3.80	0.0	0.0	0.0	0.0	20 7
16	87.2	4.50	0.0	0.0	0.0	0.0	20 7
17	61.4	4.00	0.0	0.0	0.0	0.0	20 7
18	95.8	4.50	0.0	0.0	0.0	0.0	20 7
19	68.5	4.00	0.0	0.0	0.0	0.0	20 7
20	71.1	3.90	0.0	0.0	0.0	0.0	50 7
21	92.0	4.70	0.0	0.0	0.0	0.0	20 7
22	113.5	4.70	0.0	0.0	0.0	0.0	20 7
23	95.2	5.20	0.0	0.0	0.0	0.0	20 7
24	95.2	3.90	0.0	0.0	0.0	0.0	20 7
25	79.1	4.20	0.0	0.0	0.0	0.0	20 7
26	115.7	4.70	6.13	0.0	0.0	0.0	20 7
27	114.7	4.60	0.0	6.10	0.0	1.61	10 7
28	72.0	3.60	0.0	4.39	3.73	1.07	10 7
29	71.4	4.30	0.0	0.0	0.0	0.0	20 7
30	85.6	3.80	0.0	0.0	0.0	0.0	20 7
31	116.5	5.00	4.07	0.0	0.0	0.0	20 7
32	71.4	4.40	0.0	4.05	3.65	0.0	10 7
33	70.3	3.90	0.0	0.0	0.0	0.0	20 7
34	87.5	4.00	0.0	0.0	0.0	0.0	20 7
35	75.5	4.40	0.0	0.0	0.0	0.0	20 7
36	73.2	4.90	4.08	0.0	0.0	0.0	20 7
37	71.4	4.80	4.23	0.0	3.27	0.30	10 7
38	71.6	4.00	4.23	0.0	3.25	1.33	10 7
39	71.7	5.30	5.10	4.94	4.49	1.55	10 7
40	60.7	3.90	3.66	0.0	0.0	2.02	10 7
41	88.6	5.10	0.0	0.0	0.0	1.27	30 7
42	79.4	3.90	0.0	0.0	0.0	0.0	30 7
43	80.7	4.70	0.0	0.0	0.0	0.0	20 7
44	95.2	5.40	0.0	0.0	0.0	0.0	20 7
45	96.3	4.60	0.0	0.0	0.0	0.0	30 7
46	71.9	3.80	0.0	0.0	0.0	0.0	30 7
47	71.6	3.90	0.0	0.0	0.0	0.0	20 7
48	75.4	4.10	0.0	0.0	0.0	0.0	20 7
49	85.9	4.80	0.0	0.0	0.0	0.0	20 7
							30 7

OGDENSBURG, NEW JERSEY

EVENT NO.	DISTANCE (DEGREES)	MP	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR PATTO	COMMENT
50	85.9	4.90	0.0	0.0	0.0	0.0	20 7
51	58.3	4.10	0.0	0.0	0.0	0.0	20 7
52	74.4	4.80	0.0	0.0	0.0	0.0	20 7
55	75.5	4.40	0.0	0.0	0.0	0.0	20 7
56	76.4	4.20	0.0	0.0	0.0	0.0	30 7
57	71.7	4.00	0.0	0.0	0.0	0.0	20 7
58	76.6	4.00	0.0	0.0	0.0	0.0	20 7
59	73.8	4.60	0.0	0.0	0.0	0.0	50 7
60	61.7	*4.20	0.0	0.0	0.0	0.0	20 7
61	114.5	4.80	0.0	0.0	0.0	0.0	50 7
62	114.7	4.60	0.0	4.02	0.0	0.90	10 7
63	61.7	*3.70	0.0	0.0	0.0	0.0	30 7
65	70.9	3.80	0.0	4.00	0.0	0.0	10 7
66	79.6	4.10	0.0	0.0	0.0	0.0	30 7
67	86.2	3.20	0.0	0.0	0.0	0.0	20 7
68	74.8	4.00	0.0	0.0	0.0	0.0	30 7
69	79.6	4.80	0.0	0.0	0.0	0.0	30 7
70	71.6	3.80	0.0	0.0	0.0	0.0	20 7
71	71.9	3.80	0.0	3.41	0.0	1.09	10 7
72	108.7	4.40	0.0	0.0	0.0	0.0	20 7
73	103.2	*4.10	0.0	4.06	0.0	0.0	10 7
74	102.2	4.00	0.0	0.0	0.0	0.0	20 7
75	95.3	4.50	0.0	0.0	0.0	0.0	20 7
76	92.4	4.40	0.0	0.0	0.0	0.0	20 7
77	99.7	4.00	0.0	0.0	0.0	0.0	20 7
78	78.8	3.80	0.0	0.0	0.0	0.0	20 7
79	101.2	4.70	0.0	0.0	0.0	0.0	20 7
80	99.3	3.90	0.0	0.0	0.0	0.0	20 7
81	96.9	3.90	0.0	3.88	0.0	0.76	10 7
82	71.6	4.10	0.0	0.0	0.0	0.0	20 7
83	71.4	3.60	0.0	0.0	0.0	0.0	20 7
84	72.0	3.70	0.0	0.0	0.0	0.0	20 7
85	84.9	3.60	0.0	0.0	0.0	0.0	20 7
86	76.6	3.60	0.0	0.0	0.0	0.0	20 7
87	69.3	4.60	0.0	3.38	0.0	0.71	10 7
88	83.3	5.10	4.93	4.72	0.0	0.72	10 7
89	115.5	4.50	0.0	4.27	0.0	0.47	10 7
90	61.7	*4.50	4.05	3.79	0.0	0.88	10 7
92	80.8	4.80	0.0	0.0	0.0	0.0	20 7
93	80.8	4.80	0.0	0.0	0.0	0.0	20 7
94	61.6	4.40	3.87	0.0	0.0	0.92	10 7
95	106.0	5.20	0.0	3.92	0.0	0.53	10 7
96	105.5	4.50	0.0	0.0	0.0	0.0	20 7
97	61.7	*4.10	3.96	3.34	0.0	0.54	10 7
98	61.7	*4.30	3.60	0.0	0.0	0.46	10 7
99	61.7	*4.10	0.0	0.0	0.0	0.0	20 7
100	60.9	3.60	0.0	0.0	0.0	0.0	20 7
101	61.7	*4.30	0.0	0.0	0.0	0.0	30 7
102	62.2	*3.70	0.0	0.0	0.0	0.0	20 7

OGDENSBURG, NEW JERSEY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
103	61.9	*4.00	0.0	0.0	0.0	0.0	20 7
104	61.6	*4.30	3.71	0.0	0.0	0.68	10 7
105	61.8	*4.20	3.82	0.0	0.0	0.78	10 7
106	61.5	*4.40	0.0	3.50	0.0	0.72	10 7
107	108.3	4.10	0.0	0.0	0.0	0.0	20 7
108	94.7	4.70	0.0	0.0	0.0	0.0	20 7
109	90.0	4.30	0.0	0.0	0.0	0.0	20 7
110	61.6	*3.80	0.0	0.0	0.0	0.0	20 7
111	75.3	4.80	0.0	0.0	0.0	0.0	20 7
112	117.7	5.70	5.27	0.0	4.69	1.20	10 7
113	61.7	*4.30	0.0	0.0	0.0	0.0	20 7
114	114.3	4.80	0.0	0.0	0.0	0.0	50 7
122	75.3	3.90	0.0	3.58	0.0	0.0	10 7
127	84.0	4.10	0.0	0.0	0.0	0.0	20 7
128	72.4	4.50	0.0	0.0	0.0	0.0	50 7
129	94.3	4.80	0.0	0.0	0.0	0.0	30 7
130	83.4	3.70	0.0	0.0	0.0	0.0	20 7
131	87.1	4.70	3.81	0.0	0.0	0.32	10 7
132	72.6	4.00	0.0	0.0	0.0	0.0	20 7
133	86.0	5.20	0.0	4.20	0.0	0.28	10 7
134	85.8	5.40	4.98	0.0	4.15	0.26	10 7
135	102.3	3.90	0.0	0.0	0.0	0.0	20 7
136	84.1	4.20	0.0	0.0	0.0	0.0	20 7
137	99.3	3.90	0.0	0.0	0.0	0.0	20 7
138	82.9	4.10	0.0	0.0	0.0	0.0	20 7
139	73.2	4.80	0.0	0.0	0.0	0.0	30 7
140	68.7	4.00	0.0	0.0	0.0	0.0	20 7
141	96.2	5.30	4.14	4.03	0.0	0.60	30 7
142	89.5	4.10	0.0	0.0	0.0	0.0	20 7
143	73.9	3.40	3.84	0.0	0.0	0.0	10 7
144	95.3	4.00	0.0	0.0	0.0	0.0	20 7
214	95.0	4.00	0.0	0.0	0.0	0.0	20 7
216	74.8	3.70	0.0	0.0	0.0	0.0	20 7
217	110.3	3.90	0.0	0.0	0.0	0.0	20 7
218	51.9	3.70	0.0	0.0	0.0	0.0	30 7
219	72.2	3.40	0.0	0.0	0.0	0.0	30 7
220	75.6	3.50	0.0	0.0	0.0	0.0	20 7
221	69.2	3.60	0.0	0.0	0.0	0.0	20 7
222	72.0	3.60	0.0	0.0	0.0	0.0	20 7
223	47.6	*4.30	0.0	3.87	0.0	0.40	10 7
224	86.8	4.00	0.0	0.0	0.0	0.0	20 7
225	91.9	3.50	0.0	0.0	0.0	0.0	20 7
226	85.9	4.60	0.0	0.0	0.0	0.0	20 7
227	75.1	4.10	0.0	0.0	0.0	0.0	20 7
228	83.5	4.60	0.0	0.0	0.0	0.0	20 7
229	60.9	3.80	0.0	0.0	0.0	0.0	50 7
230	71.2	4.10	0.0	0.0	0.0	0.0	50 7
231	85.8	4.20	0.0	0.0	0.0	0.0	50 7
232	64.3	*4.40	0.0	0.0	0.0	0.0	50 7

OGDENSBURG, NEW JERSEY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
233	78.7	4.50	0.0	0.0	0.0	0.0	60 7
234	83.1	4.30	0.0	0.0	0.0	0.0	50 7
235	95.3	4.50	0.0	0.0	0.0	0.0	30 7
236	94.5	4.40	0.0	0.0	0.0	0.0	50 7
237	68.0	3.60	0.0	0.0	0.0	0.0	50 7
238	95.6	5.10	0.0	0.0	0.0	0.0	30 7
239	96.1	*3.70	0.0	0.0	0.0	0.0	50 7
240	111.0	4.00	0.0	0.0	0.0	0.0	50 7
241	74.1	3.90	0.0	0.0	0.0	0.0	50 7
242	85.1	3.70	0.0	0.0	0.0	0.0	50 7
243	81.1	5.40	0.0	0.0	0.0	0.0	50 7
245	98.9	4.50	0.0	0.0	0.0	0.0	50 7
247	66.8	2.70	0.0	0.0	0.0	0.0	50 7
248	97.2	4.00	0.0	0.0	0.0	0.0	50 7
249	116.3	0.0	0.0	0.0	0.0	0.0	50 7
250	114.9	4.30	0.0	0.0	0.0	0.0	20 7
251	79.2	4.20	0.0	0.0	0.0	0.0	50 7
252	79.1	4.00	0.0	0.0	0.0	0.0	30 7
253	102.3	3.80	0.0	0.0	0.0	0.0	30 7
254	83.0	4.20	0.0	0.0	0.0	0.0	50 7
255	97.9	*4.60	0.0	0.0	0.0	0.0	50 7
256	69.2	3.50	0.0	0.0	0.0	0.0	50 7
257	77.5	3.30	0.0	0.0	0.0	0.0	50 7
258	83.1	3.00	0.0	0.0	0.0	0.0	50 7
259	74.0	3.60	0.0	0.0	0.0	0.0	50 7
260	86.1	5.50	0.0	0.0	0.0	0.0	50 7
261	85.2	3.70	0.0	0.0	0.0	0.0	50 7
262	99.3	4.90	0.0	0.0	0.0	0.0	60 7
263	57.3	3.80	0.0	0.0	0.0	0.0	50 7
264	71.4	3.80	0.0	0.0	0.0	0.0	50 7
265	94.6	4.20	0.0	0.0	0.0	0.0	50 7
266	54.8	3.60	0.0	0.0	0.0	0.0	50 7
267	99.3	4.10	0.0	0.0	0.0	0.0	50 7
268	83.2	4.10	0.0	0.0	0.0	0.0	50 7
269	74.2	3.80	0.0	0.0	0.0	0.0	50 7
270	95.9	4.10	0.0	0.0	0.0	0.0	50 7
271	78.7	3.80	0.0	0.0	0.0	0.0	50 7
272	95.5	4.00	0.0	0.0	0.0	0.0	50 7
273	71.8	3.80	0.0	0.0	0.0	0.0	50 7
274	71.2	4.00	0.0	0.0	0.0	0.0	50 7
275	102.2	4.10	0.0	0.0	0.0	0.0	50 7
285	99.3	3.50	0.0	0.0	0.0	0.0	20 7
310	81.1	3.90	0.0	0.0	0.0	0.0	50 7
321	102.0	3.70	0.0	0.0	0.0	0.0	20 7
339	86.1	5.50	0.0	0.0	0.0	0.0	30 7
340	70.3	3.80	0.0	0.0	0.0	0.0	30 7
341	116.3	5.40	0.0	0.0	0.0	0.0	50 7
342	87.2	4.90	0.0	0.0	0.0	0.0	50 7
343	116.4	4.90	0.0	0.0	0.0	0.0	50 7

OGDENSBURG, NEW JERSEY

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
348	108.4	4.70	0.0	0.0	0.0	0.0	50 7
349	82.3	4.40	0.0	0.0	0.0	0.0	50 7
350	75.2	4.90	3.47	3.10	2.46	10.80	10 7
351	58.7	4.90	4.07	3.69	3.48	0.0	10 7
352	83.9	4.00	0.0	0.0	0.0	0.0	30 7
353	92.2	3.60	0.0	0.0	0.0	0.0	20 7
354	101.9	4.50	3.39	2.96	2.51	6.57	10 7
355	86.8	3.70	0.0	0.0	0.0	0.0	20 7
356	88.2	4.00	0.0	0.0	0.0	0.0	30 7
357	74.8	3.30	0.0	0.0	0.0	0.0	50 7
358	81.9	4.00	0.0	0.0	0.0	0.0	50 7
359	82.7	4.30	0.0	0.0	0.0	0.0	50 7
360	86.7	3.70	0.0	0.0	0.0	0.0	20 7
361	88.0	5.40	0.0	0.0	0.0	0.0	30 7
362	88.0	5.10	4.10	3.98	3.36	10.00	10 7
363	74.0	3.70	0.0	0.0	0.0	0.0	30 7
365	72.5	3.80	0.0	0.0	0.0	0.0	50 7
366	85.4	4.70	0.0	0.0	0.0	0.0	30 7
367	88.0	5.30	0.0	0.0	0.0	0.0	50 7
369	92.7	3.50	0.0	0.0	0.0	0.0	50 7
370	98.0	3.60	0.0	0.0	0.0	0.0	20 7
371	61.8	*4.50	4.18	4.13	3.95	0.17	10 7
373	70.3	4.90	4.27	4.20	3.75	0.0	10 7
374	70.5	3.50	0.0	0.0	0.0	0.0	50 7
375	74.1	3.30	0.0	0.0	0.0	0.0	50 7
376	72.1	4.10	0.0	0.0	0.0	0.0	20 7
377	96.1	4.50	0.0	0.0	0.0	0.0	20 7
378	75.9	3.60	0.0	0.0	0.0	0.0	20 7
379	87.2	3.70	0.0	0.0	0.0	0.0	50 7
380	60.1	*4.30	0.0	0.0	0.0	0.0	20 7
381	86.1	4.60	0.0	3.43	0.0	0.0	10 7
383	81.1	3.90	0.0	0.0	0.0	0.0	50 7
384	93.8	4.30	0.0	0.0	0.0	0.0	15 7
385	75.2	4.40	3.01	2.50	2.36	0.0	10 7
386	70.3	5.00	0.0	0.0	0.0	0.0	15 7
388	85.6	4.50	0.0	0.0	0.0	0.0	30 7
399	79.9	4.10	0.0	0.0	0.0	0.0	20 7
390	94.3	4.00	0.0	0.0	0.0	0.0	20 7
391	84.2	3.70	0.0	0.0	0.0	0.0	50 7
392	101.7	3.60	0.0	0.0	0.0	0.0	50 7
402	88.1	4.60	2.83	0.0	0.0	0.0	30 7
403	97.1	3.70	0.0	0.0	0.0	0.0	50 7
404	96.1	3.50	0.0	0.0	0.0	0.0	30 7
405	63.9	*4.50	3.41	3.04	0.0	0.0	10 7
407	96.0	3.80	0.0	0.0	0.0	0.0	20 7
408	95.8	3.40	0.0	0.0	0.0	0.0	20 7
409	63.1	*3.70	0.0	0.0	0.0	0.0	50 7
410	96.1	4.70	4.38	3.93	3.33	3.07	10 7
411	74.0	4.10	4.13	3.53	3.42	0.52	10 7

OGDENSBURG, NEW JERSEY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/IF RATIO	COMMENT
412	116.3	5.00	4.60	4.29	3.98	0.0	10 7
413	73.2	3.60	0.0	0.0	0.0	0.0	30 7
414	96.0	3.70	0.0	0.0	0.0	0.0	20 7
415	92.8	4.00	0.0	0.0	0.0	0.0	20 7
416	102.1	5.50	4.63	4.27	4.13	0.0	10 7
417	74.4	3.80	0.0	0.0	0.0	0.0	20 7
418	112.2	4.40	3.93	3.61	0.0	0.0	10 7
419	102.1	*5.20	4.31	3.79	3.54	0.0	10 7
420	74.8	3.50	0.0	0.0	0.0	0.0	20 7
421	95.5	5.10	4.26	3.98	3.66	0.0	10 7
422	66.5	*4.60	0.0	0.0	0.0	0.0	30 7
423	104.8	3.60	0.0	0.0	0.0	0.0	20 7
424	70.6	4.20	0.0	0.0	0.0	0.0	20 7
425	71.8	3.40	0.0	0.0	0.0	0.0	20 7
428	74.4	3.90	0.0	0.0	0.0	0.0	20 7
429	94.0	3.90	0.0	0.0	0.0	0.0	50 7
430	74.9	3.70	0.0	0.0	0.0	0.0	20 7
431	94.2	*4.60	0.0	0.0	0.0	0.0	30 7
1152	72.7	4.70	0.0	0.0	0.0	0.0	50 7
1153	92.5	3.80	0.0	0.0	0.0	0.0	50 7
1154	91.9	3.80	0.0	0.0	0.0	0.0	50 7
1155	94.5	4.40	0.0	0.0	0.0	0.0	50 7
1156	94.5	3.80	3.37	0.0	0.0	0.0	20 7
1157	94.2	3.70	0.0	0.0	0.0	0.0	50 7
1158	83.7	5.00	0.0	3.21	0.0	0.0	10 7
1159	92.2	3.80	0.0	0.0	0.0	0.0	20 7
1160	94.2	4.00	0.0	0.0	0.0	0.0	50 7
1161	96.4	4.30	0.0	0.0	0.0	0.0	50 7
1162	86.4	4.20	0.0	0.0	0.0	0.0	50 7
1163	85.5	3.80	0.0	0.0	0.0	0.0	50 7
1164	105.7	4.80	0.0	0.0	0.0	0.0	50 7
1165	87.3	4.30	0.0	0.0	0.0	0.0	50 7
1166	87.3	5.20	3.31	3.27	0.0	9.04	10 7
1167	94.6	3.70	0.0	0.0	0.0	0.0	30 7
1168	87.4	5.30	4.37	3.88	0.0	1.10	10 7
1169	87.9	3.60	0.0	0.0	0.0	0.0	50 7
1170	87.6	4.10	0.0	0.0	0.0	0.0	50 7
1171	92.0	4.00	0.0	0.0	0.0	0.0	50 7
1172	87.2	5.40	4.46	4.53	0.0	1.50	10 7
1173	87.1	3.90	0.0	0.0	0.0	0.0	30 7
1174	87.1	4.70	0.0	0.0	0.0	0.0	30 7
1175	87.3	4.10	0.0	0.0	0.0	0.0	30 7
1176	87.2	4.50	0.0	0.0	0.0	0.0	50 7
1177	87.2	4.20	0.0	0.0	0.0	0.0	30 7
1178	87.5	4.60	0.0	0.0	0.0	0.0	50 7
1179	87.2	4.70	0.0	0.0	0.0	0.0	30 7
1180	87.1	5.30	4.33	4.54	0.0	0.35	10 7
1181	85.9	3.40	0.0	0.0	0.0	0.0	50 7
1182	87.0	5.40	4.77	4.95	0.0	0.0	10 7

OGDENSBURG, NEW JERSEY

EVENT NO.	DISTANCE (DEGREES)	MP	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1183	87.3	4.50	0.0	0.0	0.0	0.0	30 7
1184	85.1	3.60	0.0	0.0	0.0	0.0	30 7
1185	87.0	4.20	4.12	0.0	0.0	0.0	20 7
1186	86.7	3.50	0.0	0.0	0.0	0.0	50 7
1187	87.3	4.10	0.0	0.0	0.0	0.0	20 7
1188	86.7	3.70	0.0	0.0	0.0	0.0	30 7
1189	86.7	3.30	0.0	0.0	0.0	0.0	50 7
1190	87.2	4.40	0.0	0.0	0.0	0.0	50 7
1191	87.3	4.10	0.0	0.0	0.0	0.0	30 7
1192	86.9	4.10	0.0	0.0	0.0	0.0	50 7
1193	87.9	3.60	0.0	0.0	0.0	0.0	50 7
1194	87.1	4.20	3.38	0.0	0.0	0.0	20 7
1195	87.9	3.70	0.0	0.0	0.0	0.0	50 7
1196	87.0	4.30	0.0	0.0	0.0	0.0	50 7
1197	86.7	3.60	0.0	0.0	0.0	0.0	30 7
1198	87.3	4.90	4.17	3.72	0.0	0.0	10 7
1199	87.3	4.50	0.0	0.0	0.0	0.0	50 7
1200	119.2	4.20	0.0	0.0	0.0	0.0	50 7
1201	86.7	4.20	0.0	0.0	0.0	0.0	50 7
1202	86.7	4.20	0.0	0.0	0.0	0.0	50 7
1203	85.5	3.40	0.0	0.0	0.0	0.0	50 7
1204	82.3	3.70	0.0	0.0	0.0	0.0	50 7
1205	95.4	4.30	0.0	0.0	0.0	0.0	50 7
1206	97.1	3.90	0.0	0.0	0.0	0.0	30 7
1207	77.9	3.60	4.31	0.0	0.0	0.0	20 7
1208	87.1	4.10	0.0	0.0	0.0	0.0	50 7
1209	87.6	3.70	0.0	0.0	0.0	0.0	30 7
1211	96.2	3.80	0.0	0.0	0.0	0.0	50 7
1212	76.0	4.30	0.0	0.0	0.0	0.0	50 7
1213	85.1	3.70	0.0	0.0	0.0	0.0	50 7
1214	76.0	3.40	0.0	0.0	0.0	0.0	20 7
1215	98.9	3.60	0.0	0.0	0.0	0.0	50 7
1216	102.2	3.80	0.0	0.0	0.0	0.0	50 7
1217	87.9	3.80	0.0	0.0	0.0	0.0	50 7
1218	77.1	4.20	0.0	0.0	0.0	0.0	30 7
1219	97.4	3.70	0.0	0.0	0.0	0.0	50 7
1220	103.8	3.90	0.0	0.0	0.0	0.0	20 7
1221	110.5	3.80	0.0	0.0	0.0	0.0	50 7
1222	85.9	3.70	0.0	0.0	0.0	0.0	50 7
1223	74.2	5.10	4.23	3.42	0.0	0.0	10 7
1224	97.4	3.80	0.0	0.0	0.0	0.0	50 7
1225	92.2	3.60	0.0	0.0	0.0	0.0	20 7
1226	73.6	3.70	0.0	0.0	0.0	0.0	50 7
1227	93.4	4.70	0.0	0.0	0.0	0.0	50 7
1228	98.0	3.70	0.0	0.0	0.0	0.0	50 7
1229	77.1	4.10	0.0	0.0	0.0	0.0	50 7
1230	85.9	3.50	0.0	0.0	0.0	0.0	50 7
1231	98.1	5.10	0.0	0.0	0.0	0.0	50 7
1232	77.5	5.60	0.0	4.73	0.0	0.0	10 7

OGDENSBURG, NEW JERSEY

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1233	86.9	3.20	0.0	0.0	0.0	0.0	50 7
1234	68.7	3.40	0.0	0.0	0.0	0.0	50 7
1235	86.9	3.60	0.0	0.0	0.0	0.0	50 7
1236	85.7	5.40	0.0	0.0	0.0	0.0	50 7
1237	87.6	4.20	0.0	0.0	0.0	0.0	50 7
1238	97.1	3.40	0.0	0.0	0.0	0.0	50 7
1239	95.7	4.40	3.79	3.47	3.14	0.0	10 7
1240	98.0	4.00	0.0	0.0	0.0	0.0	50 7
1255	72.1	3.60	0.0	0.0	0.0	0.0	50 7
1256	71.4	3.30	0.0	0.0	0.0	0.0	50 7
1258	88.3	3.90	0.0	0.0	0.0	0.0	50 7
1259	80.3	4.00	0.0	0.0	0.0	0.0	30 7
1260	71.3	4.80	0.0	0.0	0.0	0.0	50 7
1261	71.0	3.50	0.0	0.0	0.0	0.0	50 7
1262	72.1	3.70	0.0	0.0	0.0	0.0	50 7
1266	86.0	5.40	0.0	0.0	0.0	0.0	20 7
1267	86.0	6.30	3.87	3.17	2.83	0.0	10 7
1268	89.1	5.30	0.0	0.0	0.0	0.0	50 7
1269	82.9	5.30	0.0	0.0	0.0	0.0	50 7
1270	60.6	6.80	3.75	3.04	3.07	16.14	10 7
1271	87.1	5.20	0.0	0.0	0.0	0.0	50 7
1272	62.2	6.00	4.12	4.05	0.0	0.06	10 7
1273	77.4	5.20	4.16	3.68	3.63	0.24	10 7
1274	86.0	5.30	0.0	0.0	0.0	0.0	20 7
1275	76.0	4.80	0.0	0.0	0.0	0.0	50 7
1276	62.3	6.90	4.95	4.92	0.0	0.54	10 7
1277	62.1	4.20	0.0	0.0	0.0	0.0	20 7
1278	61.9	4.40	3.71	3.57	0.0	1.37	60 7
1279	61.4	4.80	0.0	3.50	3.37	0.0	60 7

APPENDIX II-J
BASIC DATA FOR
KIPAPA, HAWAII (KIP)

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
310	46.5	3.90	0.0	0.0	0.0	0.0	20 8
311	95.5	3.60	0.0	0.0	0.0	0.0	50 8
312	81.4	3.70	0.0	0.0	0.0	0.0	50 8
313	119.5	4.10	0.0	0.0	0.0	0.0	50 8
314	43.9	3.80	0.0	0.0	0.0	0.0	50 8
315	120.6	4.10	0.0	0.0	0.0	0.0	50 8
316	48.4	3.80	0.0	0.0	0.0	0.0	50 8
317	95.8	3.80	0.0	0.0	0.0	0.0	50 8
318	95.8	3.70	0.0	0.0	0.0	0.0	50 8
319	95.8	3.50	0.0	0.0	0.0	0.0	50 8
320	96.4	3.90	0.0	0.0	0.0	0.0	50 8
321	92.4	3.70	0.0	0.0	0.0	0.0	50 8
323	69.8	*5.30	4.37	4.04	0.0	0.0	10 8
324	121.4	4.20	3.81	0.0	0.0	0.0	10 8
326	46.0	4.00	0.0	0.0	0.0	0.0	50 8
327	40.4	3.40	0.0	0.0	0.0	0.0	50 8
328	42.9	3.50	0.0	0.0	0.0	0.0	50 8
329	122.3	4.10	0.0	0.0	0.0	0.0	50 8
330	90.2	3.50	0.0	0.0	0.0	0.0	50 8
331	45.0	4.00	0.0	0.0	0.0	0.0	50 8
332	120.8	4.20	3.81	3.50	0.0	0.0	50 8
333	120.0	3.90	0.0	0.0	0.0	0.0	10 8
334	110.8	4.80	0.0	0.0	0.0	0.0	50 8
335	71.9	4.00	3.61	3.55	0.0	0.0	50 8
336	49.6	3.40	0.0	0.0	0.0	0.0	10 8
337	46.2	3.60	0.0	0.0	0.0	0.0	20 8
338	44.5	4.70	3.49	3.71	0.0	0.0	50 8
339	93.2	5.50	0.0	0.0	0.0	0.0	10 8
340	43.6	3.80	0.0	0.0	0.0	0.0	30 8
341	75.2	5.40	5.64	5.28	0.0	0.22	30 8
342	119.9	4.90	4.63	0.0	0.0	0.0	10 8
343	75.2	4.90	0.0	0.0	0.0	0.0	10 8
344	114.3	4.10	0.0	0.0	0.0	0.0	30 8
345	98.8	4.30	0.0	0.0	0.0	0.0	20 8
346	75.1	4.70	0.0	0.0	0.0	0.0	20 8
347	111.3	4.50	0.0	0.0	0.0	0.0	30 8
348	95.3	4.70	0.0	0.0	0.0	0.0	30 8
349	46.9	4.40	4.05	0.0	0.0	0.0	20 8
350	123.6	4.90	0.0	3.68	0.0	0.0	10 8
351	57.4	4.90	5.17	5.08	4.49	4.38	10 8
352	118.0	4.00	3.88	3.57	3.66	0.0	10 8
353	120.6	3.60	0.0	0.0	0.0	0.0	20 8
354	114.4	4.50	3.77	3.51	3.14	5.77	20 8
355	48.1	3.70	0.0	0.0	0.0	0.0	10 8
356	120.9	4.00	0.0	0.0	0.0	0.0	20 8
357	44.9	3.30	0.0	0.0	0.0	0.0	30 8
358	47.8	4.00	0.0	0.0	0.0	0.0	10 8
359	47.5	4.30	0.0	0.0	0.0	0.0	50 8
360	49.6	3.70	0.0	0.0	0.0	0.0	20 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
361	120.7	5.40	0.0	0.0	0.0	0.0	30 R
362	120.8	5.10	5.00	4.74	4.32	0.0	10 R
363	43.9	3.70	0.0	0.0	0.0	0.0	30 R
365	44.9	3.80	3.29	3.13	2.82	0.0	10 R
366	112.5	4.70	0.0	3.96	0.0	0.0	10 R
367	120.9	5.30	0.0	0.0	0.0	0.0	15 R
369	120.2	3.50	0.0	0.0	0.0	0.0	20 R
370	121.4	3.60	0.0	0.0	0.0	0.0	20 R
371	114.4	*4.50	4.20	3.65	3.51	0.0	10 R
373	120.3	4.90	0.0	0.0	0.0	0.0	15 R
374	41.0	3.50	0.0	0.0	0.0	0.0	20 R
375	120.3	3.30	0.0	0.0	0.0	0.0	30 R
376	45.9	4.10	0.0	0.0	0.0	0.0	20 R
377	107.3	4.50	0.0	0.0	0.0	0.0	20 R
378	46.5	3.60	0.0	0.0	0.0	0.0	20 R
379	120.0	3.70	0.0	0.0	0.0	0.0	20 R
380	110.0	*4.30	0.0	0.0	0.0	0.0	20 R
381	48.9	4.60	0.0	0.0	0.0	0.0	50 R
383	46.5	3.90	0.0	0.0	0.0	0.0	20 R
384	120.3	4.30	0.0	0.0	0.0	0.0	30 R
385	119.0	4.40	0.0	0.0	0.0	0.0	20 R
386	41.5	5.00	4.57	4.18	0.0	1.92	10 R
388	47.1	4.50	2.94	2.76	2.54	5.18	10 R
389	44.6	4.10	0.0	0.0	0.0	0.0	20 R
390	121.9	4.00	3.46	3.36	3.23	1.68	10 R
391	61.7	3.70	0.0	0.0	0.0	0.0	20 R
392	106.3	3.60	3.85	3.32	0.0	0.0	10 R
393	44.4	4.30	3.37	2.99	2.74	0.0	10 R
394	45.9	3.70	0.0	0.0	0.0	0.0	30 R
395	73.8	4.10	0.0	0.0	0.0	0.0	20 R
396	44.9	4.30	3.03	2.75	2.46	3.98	10 R
397	118.9	3.80	0.0	0.0	0.0	0.0	30 R
398	114.3	*3.80	0.0	0.0	0.0	0.0	30 R
399	46.8	4.50	3.93	3.48	3.05	0.0	10 R
402	121.0	4.60	3.73	3.45	0.0	1.25	10 R
403	103.1	3.70	0.0	0.0	0.0	0.0	20 R
404	121.7	3.50	0.0	0.0	0.0	0.0	20 R
405	114.7	*4.50	0.0	0.0	0.0	0.0	30 R
407	107.4	3.80	0.0	0.0	0.0	0.0	50 R
408	102.4	3.40	0.0	0.0	0.0	0.0	20 R
409	114.3	*3.70	0.0	0.0	0.0	0.0	20 R
410	106.8	4.70	4.05	3.45	3.01	4.63	10 R
411	45.4	4.10	3.50	3.46	0.0	0.0	10 R
412	75.1	5.00	4.40	4.32	0.0	0.0	10 R
413	47.4	3.60	0.0	0.0	0.0	0.0	50 R
414	107.4	3.70	0.0	0.0	0.0	0.0	30 R
415	108.1	4.00	0.0	0.0	0.0	0.0	20 R
416	110.9	5.50	3.94	3.62	0.0	0.0	10 R
417	45.9	3.80	0.0	0.0	0.0	0.0	30 R

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS			LQ/LR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
418	93.5	4.40	0.0	0.0	0.0	0.0	20 8
419	110.9	*5.20	0.0	0.0	0.0	0.0	30 8
420	104.3	3.50	0.0	0.0	0.0	0.0	20 8
421	106.9	5.10	0.0	0.0	0.0	0.0	30 8
422	115.6	*4.60	3.92	3.92	3.59	0.0	10 8
423	94.6	3.60	0.0	0.0	0.0	0.0	20 8
424	44.1	4.20	0.0	0.0	0.0	0.0	20 8
425	43.9	3.40	0.0	0.0	0.0	0.0	20 8
426	122.8	4.30	0.0	0.0	0.0	0.0	20 8
427	129.7	5.60	5.06	5.14	5.11	0.26	10 8
429	120.6	3.90	4.08	3.79	3.52	2.68	10 8
430	94.4	3.70	0.0	0.0	0.0	0.0	20 8
431	104.0	*4.60	0.0	0.0	0.0	0.0	30 8
432	120.9	4.40	0.0	0.0	0.0	0.0	20 8
433	73.5	4.90	4.43	4.06	0.0	1.45	10 8
435	42.4	3.40	0.0	0.0	0.0	0.0	20 8
436	121.5	5.40	0.0	0.0	0.0	0.0	50 8
437	121.6	4.60	0.0	0.0	0.0	0.0	30 8
438	121.5	5.00	4.19	3.66	3.42	0.0	10 8
439	106.0	4.30	0.0	0.0	0.0	0.0	20 8
440	120.6	4.00	0.0	0.0	0.0	0.0	20 8
441	121.1	4.00	0.0	0.0	0.0	0.0	20 8
442	121.5	5.10	0.0	0.0	0.0	0.0	30 8
443	45.6	4.00	0.0	0.0	0.0	0.0	30 8
444	116.7	3.40	0.0	0.0	0.0	0.0	20 8
445	121.7	3.90	0.0	0.0	0.0	0.0	30 8
446	44.8	4.40	3.40	3.16	0.0	0.0	10 8
447	48.7	3.60	0.0	0.0	0.0	0.0	30 8
448	48.7	3.80	0.0	0.0	0.0	0.0	20 8
449	94.8	4.60	4.00	3.49	3.30	0.0	10 8
450	92.3	3.50	0.0	0.0	0.0	0.0	20 8
451	91.3	4.30	3.70	3.24	2.88	0.0	10 8
452	119.4	3.40	0.0	0.0	0.0	0.0	20 8
453	120.2	4.00	0.0	0.0	0.0	0.0	50 8
454	121.7	4.70	0.0	0.0	0.0	0.0	20 8
455	120.1	4.10	0.0	0.0	0.0	0.0	30 8
456	93.3	4.40	0.0	0.0	0.0	0.0	20 8
457	122.0	3.10	0.0	0.0	0.0	0.0	20 8
458	111.0	4.30	0.0	0.0	0.0	0.0	30 8
459	51.1	3.90	0.0	0.0	0.0	0.0	20 8
460	45.0	3.70	0.0	0.0	0.0	0.0	30 8
461	94.7	5.00	4.50	4.62	3.93	1.25	10 8
462	86.8	3.70	0.0	0.0	0.0	0.0	20 8
463	117.0	4.70	0.0	0.0	0.0	0.0	30 8
464	45.6	4.90	4.03	3.95	3.35	0.25	10 8
465	48.4	4.20	0.0	0.0	0.0	0.0	20 8
466	122.5	4.00	0.0	0.0	0.0	0.0	30 8
467	64.3	4.10	3.63	3.27	0.0	0.0	10 8
469	44.3	4.10	0.0	0.0	0.0	0.0	50 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
470	91.0	4.70	0.0	0.0	0.0	0.0	30 R
471	104.9	4.20	0.0	0.0	0.0	0.0	20 R
472	46.3	5.20	4.11	4.30	3.62	0.0	10 R
473	44.4	3.60	0.0	0.0	0.0	0.0	20 R
474	115.4	3.70	0.0	0.0	0.0	0.0	20 R
475	118.3	4.70	0.0	0.0	0.0	0.0	50 R
476	46.0	5.20	3.89	4.05	3.32	0.50	10 R
477	107.0	3.50	0.0	0.0	0.0	0.0	20 R
478	42.1	4.00	0.0	0.0	0.0	0.0	20 R
479	121.3	4.10	0.0	0.0	0.0	0.0	20 R
482	48.2	4.20	3.70	3.10	0.0	0.0	10 R
483	116.7	3.70	0.0	0.0	0.0	0.0	20 R
484	114.3	4.40	0.0	0.0	0.0	0.0	20 R
485	72.4	3.80	0.0	0.0	0.0	0.0	20 R
486	121.9	3.90	0.0	0.0	0.0	0.0	20 R
487	121.5	4.40	0.0	0.0	0.0	0.0	20 R
488	121.5	3.90	0.0	0.0	0.0	0.0	20 R
489	121.5	3.40	0.0	0.0	0.0	0.0	20 R
490	62.7	3.90	0.0	0.0	0.0	0.0	20 R
491	97.6	3.80	0.0	0.0	0.0	0.0	20 R
492	70.0	5.10	4.11	3.78	0.0	0.0	20 R
493	47.5	4.40	0.0	0.0	0.0	0.0	10 R
494	46.5	3.70	0.0	0.0	0.0	0.0	20 R
495	49.3	3.50	0.0	0.0	0.0	0.0	20 R
496	91.2	5.20	3.98	3.57	0.0	0.0	20 R
497	117.0	4.90	4.44	4.34	3.76	1.82	10 R
498	91.2	4.70	0.0	0.0	0.0	0.0	50 R
499	73.5	4.60	4.06	3.78	3.21	0.0	10 R
500	48.2	3.70	0.0	0.0	0.0	0.0	30 R
501	44.1	4.20	0.0	0.0	0.0	0.0	20 R
502	89.6	3.90	3.62	3.39	2.96	0.0	10 R
503	45.1	4.20	0.0	0.0	0.0	0.0	20 R
504	124.1	3.90	0.0	0.0	0.0	0.0	20 R
505	46.1	5.30	4.56	4.33	3.90	2.16	10 R
506	46.0	3.30	0.0	0.0	0.0	0.0	20 R
508	48.8	4.10	0.0	0.0	0.0	0.0	20 R
509	46.2	4.50	0.0	0.0	0.0	0.0	30 R
510	100.7	4.00	0.0	0.0	0.0	0.0	20 R
511	97.9	3.70	0.0	0.0	0.0	0.0	20 R
512	117.0	4.00	0.0	0.0	0.0	0.0	20 R
513	49.8	5.00	3.97	4.06	0.0	0.0	10 R
514	43.4	4.20	0.0	0.0	0.0	0.0	20 R
515	47.9	4.30	0.0	0.0	0.0	0.0	20 R
516	105.4	3.60	0.0	0.0	0.0	0.0	20 R
517	97.1	3.90	0.0	0.0	0.0	0.0	20 R
518	114.6	4.30	0.0	0.0	0.0	0.0	20 R
520	87.8	4.80	0.0	0.0	0.0	0.0	20 R
521	112.3	4.60	0.0	0.0	0.0	0.0	20 R
522	95.0	5.50	5.03	4.69	4.32	2.56	10 R

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
523	95.1	4.70	0.0	0.0	0.0	0.0	20 8
524	125.5	3.90	0.0	0.0	0.0	0.0	20 8
525	95.6	3.60	0.0	0.0	0.0	0.0	20 8
526	47.9	3.70	0.0	0.0	0.0	0.0	20 8
527	116.9	4.40	0.0	0.0	0.0	0.0	30 8
528	46.5	4.00	0.0	0.0	0.0	0.0	20 8
529	100.3	4.80	0.0	0.0	0.0	0.0	20 8
530	119.9	4.50	0.0	0.0	0.0	0.0	20 8
531	48.0	4.30	0.0	0.0	0.0	0.0	30 8
532	114.3	4.00	0.0	0.0	0.0	0.0	20 8
533	114.5	4.40	0.0	0.0	0.0	0.0	30 8
534	44.1	5.10	4.49	3.94	3.57	0.0	10 8
535	64.9	5.10	4.49	4.23	0.0	0.0	10 8
537	121.4	3.80	0.0	0.0	0.0	0.0	20 8
538	110.8	3.80	0.0	0.0	0.0	0.0	30 8
539	45.5	4.80	3.95	3.78	3.18	0.0	10 8
540	118.6	4.40	0.0	0.0	0.0	0.0	20 8
541	45.5	5.10	4.77	4.63	0.0	0.50	10 8
542	103.3	4.00	0.0	0.0	0.0	0.0	20 8
543	74.2	4.90	0.0	0.0	0.0	0.0	50 8
544	88.3	3.50	0.0	0.0	0.0	0.0	20 8
545	117.4	3.60	0.0	0.0	0.0	0.0	30 8
546	45.1	4.80	3.61	3.47	3.21	0.0	10 8
547	73.2	4.60	0.0	0.0	0.0	0.0	50 8
548	120.2	3.60	0.0	0.0	0.0	0.0	20 8
549	63.6	3.70	3.27	2.92	0.0	0.0	10 8
550	105.6	4.10	0.0	0.0	0.0	0.0	50 8
551	124.7	3.70	0.0	0.0	0.0	0.0	20 8
552	103.0	3.70	0.0	0.0	0.0	0.0	20 8
553	105.6	3.80	0.0	0.0	0.0	0.0	30 8
554	122.2	4.50	0.0	3.33	0.0	0.0	15 8
555	123.5	3.40	0.0	0.0	0.0	0.0	23 8
556	50.6	4.00	0.0	0.0	0.0	0.0	50 8
557	120.0	4.70	0.0	0.0	0.0	0.0	30 8
558	44.9	5.60	5.47	5.29	4.89	0.52	10 8
559	44.9	5.00	5.31	5.28	0.0	0.50	10 8
560	120.1	4.20	0.0	0.0	0.0	0.0	20 8
561	120.0	4.30	0.0	0.0	0.0	0.0	50 8
562	47.1	4.50	3.40	3.32	0.0	0.0	10 8
563	45.4	4.00	0.0	0.0	0.0	0.0	30 8
564	117.9	3.90	0.0	0.0	0.0	0.0	30 8
565	46.9	5.30	0.0	0.0	0.0	0.0	50 8
566	120.0	4.50	3.75	3.57	3.72	0.0	10 8
567	120.0	4.80	0.0	0.0	0.0	0.0	35 8
568	62.2	4.00	0.0	0.0	0.0	0.0	20 8
569	48.2	4.00	0.0	0.0	0.0	0.0	20 8
570	119.8	4.30	0.0	0.0	0.0	0.0	50 8
571	120.1	4.00	0.0	0.0	0.0	0.0	30 8
572	45.9	3.90	0.0	0.0	0.0	0.0	30 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
573	45.6	5.70	7.15	5.88	5.25	0.63	10 8
574	45.4	4.40	0.0	0.0	0.0	0.0	30 8
575	45.0	3.80	0.0	0.0	0.0	0.0	30 8
576	122.0	4.30	0.0	0.0	0.0	0.0	30 8
577	45.0	4.10	0.0	0.0	0.0	0.0	20 8
578	45.4	4.70	3.77	3.51	0.0	0.0	10 8
579	45.4	4.90	4.57	0.0	0.0	0.0	10 8
580	45.6	4.30	0.0	0.0	0.0	0.0	30 8
581	46.2	3.80	0.0	0.0	0.0	0.0	30 8
582	113.2	4.50	0.0	4.21	0.0	0.0	16 8
583	119.9	5.50	0.0	0.0	0.0	0.0	30 8
584	119.6	5.00	0.0	0.0	0.0	0.0	30 8
585	124.2	4.00	0.0	0.0	0.0	0.0	30 8
586	120.4	5.00	0.0	0.0	0.0	0.0	30 8
587	122.4	4.00	0.0	0.0	0.0	0.0	20 8
588	45.0	4.20	0.0	0.0	0.0	0.0	30 8
589	45.3	4.20	0.0	0.0	0.0	0.0	23 8
590	43.9	3.70	0.0	0.0	0.0	0.0	35 8
591	43.1	4.50	3.56	3.56	3.08	1.13	10 8
592	119.8	4.00	0.0	0.0	0.0	0.0	30 8
593	40.9	3.90	0.0	0.0	0.0	0.0	30 8
594	115.4	4.70	4.01	3.61	0.0	1.65	10 8
595	118.1	4.20	0.0	0.0	0.0	0.0	20 8
596	44.6	5.10	4.11	4.00	0.0	1.59	10 8
597	46.9	3.80	0.0	0.0	0.0	0.0	20 8
598	120.0	5.50	4.44	4.02	0.0	2.76	10 8
599	43.6	3.70	0.0	0.0	0.0	0.0	23 8
600	119.1	4.30	0.0	4.45	0.0	0.0	17 8
601	118.7	4.40	0.0	0.0	0.0	0.0	20 8
602	47.4	4.10	0.0	0.0	0.0	0.0	20 8
603	69.3	3.80	0.0	0.0	0.0	0.0	20 8
604	102.2	4.50	0.0	0.0	0.0	0.0	23 8
605	75.6	5.10	4.26	3.53	0.0	2.13	10 8
606	63.9	4.80	3.92	3.35	0.0	3.11	10 8
607	46.9	4.10	0.0	0.0	0.0	0.0	30 8
608	28.0	4.50	0.0	0.0	0.0	0.0	20 8
609	43.0	3.50	0.0	0.0	0.0	0.0	20 8
610	93.1	5.20	4.20	3.66	3.43	0.0	10 8
611	81.1	5.00	4.20	3.78	0.0	3.12	10 8
612	117.1	4.00	0.0	0.0	0.0	0.0	30 8
613	44.5	3.30	0.0	0.0	0.0	0.0	20 8
614	44.9	5.30	5.13	5.02	4.51	0.20	10 8
615	120.2	3.50	0.0	0.0	0.0	0.0	50 8
618	93.2	4.10	0.0	0.0	0.0	0.0	20 8
619	105.4	4.70	0.0	0.0	0.0	0.0	30 8
620	45.0	3.60	0.0	0.0	0.0	0.0	32 8
621	46.8	3.60	0.0	0.0	0.0	0.0	20 8
622	47.5	3.60	0.0	0.0	0.0	0.0	30 8
623	45.4	3.60	0.0	0.0	0.0	0.0	20 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
624	48.2	4.10	0.0	0.0	0.0	0.0	30 8
625	43.9	3.40	0.0	0.0	0.0	0.0	50 8
626	93.2	5.20	0.0	0.0	0.0	0.0	25 8
627	117.1	3.50	0.0	0.0	0.0	0.0	23 8
628	43.9	3.60	0.0	0.0	0.0	0.0	20 8
629	104.8	3.60	0.0	0.0	0.0	0.0	53 8
630	43.2	4.30	3.60	3.20	0.0	2.64	10 8
631	46.8	3.50	0.0	0.0	0.0	0.0	30 8
632	49.1	4.50	0.0	0.0	0.0	0.0	53 8
633	45.0	3.60	0.0	0.0	0.0	0.0	30 8
634	105.6	5.00	0.0	0.0	0.0	0.0	30 8
635	48.9	4.50	0.0	0.0	0.0	0.0	30 8
636	48.4	3.50	0.0	0.0	0.0	0.0	30 8
637	44.9	3.60	0.0	0.0	0.0	0.0	20 8
638	45.6	3.50	0.0	0.0	0.0	0.0	20 8
639	118.6	3.60	0.0	0.0	0.0	0.0	20 8
640	118.2	3.90	0.0	0.0	0.0	0.0	20 8
641	118.2	3.90	0.0	0.0	0.0	0.0	20 8
642	81.8	4.00	3.83	3.99	3.26	0.0	10 8
643	44.4	4.00	3.75	3.27	0.0	0.0	10 8
644	45.0	5.10	0.0	0.0	0.0	0.0	10 8
645	47.7	5.10	0.0	0.0	0.0	0.0	30 8
646	47.7	3.70	0.0	0.0	0.0	0.0	20 8
647	97.5	3.90	0.0	0.0	0.0	0.0	20 8
648	120.6	3.60	0.0	0.0	0.0	0.0	30 8
649	50.4	4.30	3.46	3.61	3.09	2.30	10 8
650	49.1	3.50	3.16	2.80	0.0	0.0	13 8
651	49.3	4.90	4.00	3.79	3.39	1.14	10 8
652	105.3	5.70	0.0	0.0	0.0	0.0	20 8
653	43.2	5.20	4.11	4.18	0.0	0.45	10 8
654	45.6	4.50	0.0	0.0	0.0	0.0	20 8
655	48.2	4.00	0.0	0.0	0.0	0.0	30 8
656	99.8	4.80	3.47	3.00	3.00	2.55	16 8
657	97.5	4.30	0.0	0.0	0.0	0.0	30 8
658	99.8	*4.50	0.0	0.0	3.39	0.0	13 8
659	123.5	4.00	0.0	0.0	0.0	0.0	30 8
660	46.9	4.10	0.0	0.0	0.0	0.0	20 8
661	45.5	5.20	4.31	4.20	0.0	0.0	10 8
662	98.8	4.60	0.0	0.0	0.0	0.0	50 8
663	73.9	4.20	0.0	0.0	0.0	0.0	30 8
664	45.6	3.70	0.0	2.89	0.0	0.0	15 8
665	119.2	4.00	0.0	0.0	0.0	0.0	32 8
666	45.7	3.30	0.0	0.0	0.0	0.0	20 8
667	44.1	3.80	0.0	0.0	0.0	0.0	30 8
668	44.9	3.80	0.0	0.0	0.0	0.0	50 8
669	51.0	3.80	0.0	0.0	0.0	0.0	20 8
670	61.4	4.00	0.0	0.0	0.0	0.0	20 8
671	47.5	3.60	3.68	3.13	2.78	0.0	10 8
672	93.2	5.50	0.0	0.0	0.0	0.0	30 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
673	87.5	3.80	0.0	0.0	0.0	0.0	23 8
674	120.1	3.60	0.0	0.0	0.0	0.0	30 8
675	90.3	4.00	0.0	0.0	0.0	0.0	23 8
676	91.6	4.80	4.47	3.93	3.64	0.0	10 8
677	106.8	3.60	3.39	3.21	0.0	0.78	16 8
678	45.0	4.20	4.66	4.26	3.73	0.0	10 8
679	82.8	6.30	0.0	0.0	0.0	0.0	30 8
680	110.2	5.20	0.0	0.0	0.0	0.0	20 8
681	46.2	3.70	0.0	0.0	0.0	0.0	16 8
682	120.2	3.70	0.0	0.0	0.0	0.0	20 8
683	125.4	4.40	3.86	3.56	3.45	0.0	10 8
684	122.5	3.60	0.0	0.0	0.0	0.0	30 8
685	100.5	3.70	0.0	0.0	0.0	0.0	30 8
686	114.4	*4.30	0.0	0.0	0.0	0.0	20 8
687	88.9	5.50	0.0	0.0	0.0	0.0	23 8
688	89.2	4.20	0.0	0.0	0.0	0.0	32 8
689	89.0	5.50	0.0	0.0	0.0	0.0	30 8
690	89.1	5.50	4.31	4.23	0.0	0.65	10 8
691	44.9	4.60	0.0	0.0	0.0	0.0	30 8
692	82.7	5.50	0.0	4.37	0.0	0.0	13 8
693	77.8	3.70	0.0	0.0	0.0	0.0	25 8
694	44.4	3.50	0.0	0.0	0.0	0.0	20 8
696	107.7	4.40	0.0	0.0	0.0	0.0	30 8
697	54.2	4.40	0.0	0.0	0.0	0.0	50 8
698	50.8	4.80	0.0	0.0	0.0	0.0	50 8
699	92.8	6.20	3.61	3.67	3.26	0.0	10 8
700	102.8	4.30	0.0	0.0	0.0	0.0	30 8
701	120.2	4.00	0.0	0.0	0.0	0.0	50 8
702	107.8	5.50	5.31	4.82	4.47	0.0	10 8
703	105.6	3.80	0.0	0.0	0.0	0.0	30 8
704	123.4	5.20	5.10	5.16	0.0	0.0	10 8
705	105.7	4.20	0.0	0.0	0.0	0.0	20 8
706	123.4	3.70	0.0	0.0	0.0	0.0	20 8
707	123.9	4.30	0.0	0.0	0.0	0.0	20 8
708	99.3	*4.50	0.0	0.0	0.0	0.0	20 8
709	105.8	4.10	0.0	0.0	0.0	0.0	23 8
710	49.6	4.30	3.74	3.62	2.90	0.45	10 8
711	74.3	*5.30	4.25	4.11	3.73	1.11	10 8
712	104.4	4.30	0.0	0.0	0.0	0.0	20 8
713	45.1	4.50	3.63	3.02	0.0	0.0	13 8
714	123.6	4.60	0.0	0.0	0.0	0.0	30 8
715	48.3	3.70	0.0	0.0	0.0	0.0	20 8
716	73.1	5.50	5.02	4.64	0.0	0.60	10 8
717	120.6	4.20	0.0	0.0	0.0	0.0	50 8
718	118.0	4.70	4.08	3.99	3.57	0.0	13 8
719	118.5	3.60	0.0	0.0	0.0	0.0	20 8
720	47.0	3.60	0.0	0.0	0.0	0.0	30 8
721	62.6	3.80	0.0	0.0	0.0	0.0	32 8
722	99.4	3.80	0.0	0.0	0.0	0.0	20 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MR	MS			LQ/LR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
723	45.2	4.80	0.0	0.0	0.0	0.0	30 8
724	49.2	3.70	0.0	0.0	0.0	0.0	23 8
725	133.9	3.90	0.0	0.0	0.0	0.0	20 8
726	72.4	4.10	0.0	0.0	0.0	0.0	30 8
727	121.4	3.90	0.0	0.0	0.0	0.0	30 8
728	126.1	4.50	0.0	0.0	0.0	0.0	20 8
729	104.4	3.90	0.0	0.0	0.0	0.0	30 8
730	123.5	3.80	0.0	0.0	0.0	0.0	30 8
731	120.0	3.90	0.0	0.0	0.0	0.0	23 8
732	94.9	4.40	3.50	3.39	3.19	0.0	10 8
733	123.5	3.70	0.0	0.0	0.0	0.0	23 8
734	92.4	4.30	0.0	0.0	0.0	0.0	30 8
735	46.8	4.00	0.0	0.0	0.0	0.0	20 8
736	49.3	3.70	0.0	0.0	0.0	0.0	50 8
737	44.7	4.60	3.86	3.43	2.98	0.91	10 8
738	49.4	3.90	0.0	0.0	0.0	0.0	30 8
739	45.9	4.00	0.0	0.0	0.0	0.0	30 8
741	119.2	*4.80	0.0	0.0	0.0	0.0	30 8
742	120.6	4.00	0.0	0.0	0.0	0.0	30 8
743	94.0	4.00	0.0	0.0	0.0	0.0	30 8
744	73.2	5.70	5.47	5.18	0.0	1.19	10 8
745	73.9	4.40	0.0	0.0	0.0	0.0	30 8
746	93.4	3.60	0.0	0.0	0.0	0.0	20 8
747	123.8	4.10	0.0	0.0	0.0	0.0	30 8
748	104.4	4.00	0.0	0.0	0.0	0.0	20 8
749	102.5	4.00	0.0	0.0	0.0	0.0	30 8
750	102.3	4.90	0.0	0.0	0.0	0.0	30 8
751	119.8	4.30	0.0	0.0	0.0	0.0	30 8
752	118.5	5.40	3.77	3.63	0.0	0.0	10 8
753	101.6	4.70	0.0	0.0	0.0	0.0	35 8
754	120.2	3.70	0.0	0.0	0.0	0.0	20 8
755	98.0	5.20	0.0	0.0	0.0	0.0	30 8
756	45.2	3.40	0.0	0.0	0.0	0.0	25 8
757	90.2	3.90	0.0	0.0	0.0	0.0	20 8
758	66.1	5.10	0.0	0.0	0.0	0.0	30 8
759	120.2	4.00	0.0	0.0	0.0	0.0	23 8
760	121.5	5.60	0.0	0.0	0.0	0.0	23 8
761	45.2	5.20	3.86	3.79	3.46	0.0	10 8
762	115.1	4.90	0.0	0.0	0.0	0.0	50 8
763	98.0	3.90	0.0	0.0	0.0	0.0	20 8
764	44.4	4.70	3.77	3.62	3.24	1.14	10 8
765	124.5	4.80	0.0	0.0	0.0	0.0	20 8
766	45.1	3.60	0.0	0.0	0.0	0.0	20 8
767	126.2	4.40	0.0	0.0	0.0	0.0	20 8
768	105.6	3.60	0.0	0.0	0.0	0.0	23 8
769	105.6	4.10	0.0	0.0	0.0	0.0	50 8
770	60.8	3.60	0.0	0.0	0.0	0.0	20 8
771	114.0	*4.40	0.0	0.0	0.0	0.0	30 8
772	44.4	3.90	0.0	0.0	0.0	0.0	30 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
773	84.9	3.90	0.0	0.0	0.0	0.0	20 8
774	121.9	4.70	2.86	0.0	0.0	0.0	30 8
775	113.8	5.40	4.92	4.79	0.0	0.73	10 8
776	44.8	4.80	3.75	3.73	3.11	0.0	10 8
777	54.7	4.10	0.0	0.0	0.0	0.0	20 8
778	123.0	5.10	0.0	0.0	0.0	0.0	20 8
779	54.7	3.60	0.0	0.0	0.0	0.0	20 8
780	52.7	3.90	0.0	0.0	0.0	0.0	30 8
781	101.4	5.00	0.0	0.0	0.0	0.0	20 8
782	52.0	4.00	0.0	0.0	0.0	0.0	20 8
783	45.0	4.40	3.59	3.17	0.0	0.0	13 8
784	49.8	4.10	0.0	0.0	0.0	0.0	30 8
785	62.8	5.30	4.43	4.13	0.0	0.0	10 8
786	123.2	4.30	0.0	0.0	0.0	0.0	20 8
787	54.8	3.70	0.0	0.0	0.0	0.0	50 8
788	106.3	3.90	0.0	0.0	0.0	0.0	20 8
789	54.7	4.20	0.0	0.0	0.0	0.0	30 8
790	54.9	4.70	3.99	3.43	0.0	1.25	10 8
791	70.8	3.70	0.0	0.0	0.0	0.0	30 8
792	145.8	4.50	0.0	0.0	0.0	0.0	10 8
793	106.7	4.10	0.0	0.0	0.0	0.0	20 8
794	73.6	4.00	0.0	0.0	0.0	0.0	30 8
795	45.3	3.80	0.0	0.0	0.0	0.0	20 8
796	41.0	3.50	0.0	0.0	0.0	0.0	20 8
797	93.2	5.70	4.11	3.88	3.23	0.52	10 8
799	48.8	6.00	5.77	5.70	0.0	0.86	10 8
800	47.7	4.20	0.0	0.0	0.0	0.0	30 8
801	48.9	3.50	0.0	0.0	0.0	0.0	20 8
802	48.9	4.80	4.74	4.60	4.30	0.90	10 8
803	49.8	3.60	0.0	0.0	0.0	0.0	20 8
804	48.2	3.70	0.0	0.0	0.0	0.0	30 8
805	120.6	3.70	0.0	0.0	0.0	0.0	30 8
806	47.9	4.30	0.0	0.0	0.0	0.0	20 8
807	48.8	4.30	0.0	0.0	0.0	0.0	30 8
808	49.8	3.90	0.0	0.0	0.0	0.0	20 8
809	47.9	3.60	0.0	0.0	0.0	0.0	30 8
810	47.9	3.60	0.0	0.0	0.0	0.0	20 8
811	46.1	3.60	0.0	0.0	0.0	0.0	20 8
812	48.9	4.30	0.0	0.0	0.0	0.0	20 8
813	48.9	4.80	4.31	4.07	0.0	0.36	10 8
814	49.1	4.10	0.0	0.0	0.0	0.0	30 8
815	45.0	4.70	0.0	0.0	0.0	0.0	30 8
816	119.7	3.90	0.0	0.0	0.0	0.0	20 8
817	53.5	3.60	0.0	0.0	0.0	0.0	20 8
818	47.5	5.70	4.77	4.66	0.0	2.80	10 8
819	108.8	3.60	0.0	0.0	0.0	0.0	20 8
820	116.9	*4.20	0.0	0.0	0.0	0.0	20 8
821	47.9	4.60	3.29	3.25	2.88	0.0	16 8
822	48.4	4.10	0.0	0.0	0.0	0.0	20 8

KIPAPA, HAWAII

PVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
823	120.4	*4.30	0.0	0.0	0.0	0.0	20 8
824	49.6	3.40	0.0	0.0	0.0	0.0	20 8
825	48.8	4.70	4.42	4.18	3.77	0.0	10 8
827	70.6	4.40	0.0	0.0	0.0	0.0	20 8
828	48.9	5.70	5.81	5.75	0.0	0.53	10 8
829	48.9	4.80	0.0	0.0	0.0	0.0	30 8
830	48.6	4.30	0.0	0.0	0.0	0.0	20 8
831	48.4	3.80	0.0	0.0	0.0	0.0	20 8
832	48.9	4.70	0.0	0.0	0.0	0.0	20 8
833	49.1	4.10	0.0	0.0	0.0	0.0	20 8
834	48.8	4.80	0.0	0.0	0.0	0.0	20 8
835	49.6	3.70	0.0	0.0	0.0	0.0	20 8
836	48.9	4.60	3.42	3.69	0.0	0.70	10 8
837	48.8	4.90	3.93	3.93	0.0	0.95	10 8
838	106.0	3.40	0.0	0.0	0.0	0.0	20 8
839	69.4	4.00	3.57	3.27	3.10	0.92	10 8
840	48.1	3.80	3.99	0.0	0.0	0.0	10 8
841	47.9	3.70	0.0	0.0	0.0	0.0	20 8
842	124.1	4.70	0.0	3.73	3.30	0.0	10 8
843	43.1	3.80	0.0	0.0	0.0	0.0	20 8
844	122.8	4.60	4.01	3.70	0.0	0.0	10 8
845	112.1	4.30	0.0	0.0	0.0	0.0	20 8
846	44.1	4.10	0.0	0.0	0.0	0.0	20 8
847	108.3	3.70	0.0	0.0	0.0	0.0	20 8
848	44.4	4.20	3.07	0.0	0.0	0.0	20 8
849	116.2	3.70	0.0	0.0	0.0	0.0	30 8
850	44.5	4.10	0.0	0.0	0.0	0.0	20 8
851	43.9	4.10	0.0	0.0	0.0	0.0	20 8
852	45.6	4.10	0.0	0.0	0.0	0.0	26 8
853	96.5	3.90	0.0	0.0	0.0	0.0	20 8
854	97.3	3.80	0.0	0.0	0.0	0.0	20 8
855	106.3	4.00	0.0	0.0	0.0	0.0	20 8
856	117.8	3.70	0.0	0.0	0.0	0.0	20 8
857	43.5	4.80	3.68	3.59	3.19	0.16	10 8
858	48.7	4.70	3.62	3.52	3.26	0.0	10 8
859	45.2	5.70	5.23	5.30	4.84	0.54	10 8
860	43.9	3.50	0.0	0.0	0.0	0.0	20 8
861	116.9	3.60	0.0	0.0	0.0	0.0	20 8
862	122.0	4.60	0.0	0.0	0.0	0.0	20 8
863	119.5	3.60	0.0	0.0	0.0	0.0	30 8
864	47.9	4.00	0.0	0.0	0.0	0.0	20 8
865	93.1	4.50	0.0	0.0	0.0	0.0	20 8
866	117.8	3.50	0.0	0.0	0.0	0.0	30 8
867	45.0	4.10	0.0	0.0	0.0	0.0	20 8
868	45.0	4.30	0.0	0.0	0.0	0.0	30 8
869	40.9	4.30	0.0	0.0	0.0	0.0	20 8
870	100.6	4.10	4.27	3.72	0.0	0.0	10 8
871	48.9	3.80	0.0	0.0	0.0	0.0	20 8
872	121.1	3.80	0.0	0.0	0.0	0.0	20 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
873	96.7	4.50	0.0	0.0	0.0	0.0	20 8
874	118.1	4.40	0.0	0.0	0.0	0.0	20 8
875	96.7	4.90	4.18	3.80	3.60	1.58	10 8
878	44.9	3.50	0.0	0.0	0.0	0.0	20 8
879	43.0	3.60	0.0	0.0	0.0	0.0	20 8
880	120.4	4.30	0.0	0.0	0.0	0.0	30 8
881	97.7	5.20	3.78	3.80	0.0	0.82	10 8
882	45.7	4.10	0.0	0.0	0.0	0.0	20 8
883	97.8	3.70	0.0	0.0	0.0	0.0	30 8
884	103.6	5.50	4.31	3.72	3.63	1.25	10 8
885	103.5	4.80	0.0	0.0	0.0	0.0	20 8
886	107.0	3.80	0.0	0.0	0.0	0.0	20 8
887	103.2	4.70	0.0	0.0	0.0	0.0	30 8
888	45.1	3.50	0.0	0.0	0.0	0.0	20 8
889	45.4	3.40	0.0	0.0	0.0	0.0	20 8
890	122.8	5.30	4.71	4.39	3.88	0.0	10 8
891	123.6	4.00	0.0	0.0	0.0	0.0	20 8
892	123.0	4.30	0.0	0.0	0.0	0.0	20 8
893	46.0	4.70	3.77	3.68	3.30	0.0	10 8
894	45.0	3.90	0.0	0.0	0.0	0.0	20 8
895	102.3	4.90	0.0	0.0	0.0	0.0	30 8
896	110.2	4.80	0.0	0.0	0.0	0.0	20 8
897	120.8	5.00	3.93	3.79	0.0	0.53	10 8
898	120.3	4.40	0.0	0.0	0.0	0.0	50 8
899	44.5	4.30	0.0	0.0	0.0	0.0	30 8
900	106.1	3.90	0.0	0.0	0.0	0.0	20 8
901	43.3	3.80	0.0	0.0	0.0	0.0	20 8
902	105.4	3.70	0.0	0.0	0.0	0.0	50 8
903	121.0	3.90	0.0	0.0	0.0	0.0	50 8
904	44.9	3.90	0.0	0.0	0.0	0.0	50 8
905	105.7	3.80	0.0	0.0	0.0	0.0	50 8
906	121.5	3.60	0.0	0.0	0.0	0.0	20 8
907	121.5	4.20	0.0	0.0	0.0	0.0	20 8
908	90.9	5.10	4.02	3.50	0.0	0.65	10 8
909	90.9	4.70	0.0	0.0	0.0	0.0	20 8
910	104.7	3.80	0.0	0.0	0.0	0.0	20 8
911	105.1	5.10	4.10	3.85	0.0	0.0	10 8
912	123.5	4.50	0.0	0.0	0.0	0.0	20 8
913	105.1	3.70	0.0	0.0	0.0	0.0	20 8
914	87.4	4.60	0.0	0.0	0.0	0.0	20 8
915	110.0	4.80	0.0	0.0	0.0	0.0	20 8
916	110.0	4.50	0.0	0.0	0.0	0.0	20 8
917	112.9	3.80	0.0	0.0	0.0	0.0	20 8
918	110.1	5.00	4.05	3.85	3.24	0.94	10 8
919	106.9	3.60	0.0	0.0	0.0	0.0	20 8
920	85.6	3.70	0.0	0.0	0.0	0.0	20 8
921	112.1	3.90	0.0	0.0	0.0	0.0	30 8
922	112.1	4.00	0.0	0.0	0.0	0.0	20 8
923	49.1	3.90	0.0	0.0	0.0	0.0	20 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
924	102.8	4.30	0.0	0.0	0.0	0.0	20 8
925	46.2	4.00	0.0	0.0	0.0	0.0	20 8
926	91.0	4.90	0.0	0.0	0.0	0.0	20 8
927	124.2	4.60	0.0	0.0	0.0	0.0	20 8
928	48.4	3.40	0.0	0.0	0.0	0.0	20 8
929	96.3	5.10	3.98	3.78	0.0	0.65	10 8
930	95.2	4.50	0.0	0.0	0.0	0.0	30 8
931	105.7	3.70	0.0	0.0	0.0	0.0	20 8
932	44.9	5.30	4.95	4.26	0.0	0.36	10 8
933	121.5	4.70	0.0	0.0	0.0	0.0	20 8
934	123.5	3.70	0.0	0.0	0.0	0.0	30 8
935	48.9	4.00	0.0	0.0	0.0	0.0	20 8
936	48.4	3.80	0.0	0.0	0.0	0.0	20 8
937	45.6	5.20	3.88	3.90	3.42	0.98	10 8
938	104.4	4.00	0.0	0.0	0.0	0.0	20 8
939	120.3	4.30	0.0	0.0	0.0	0.0	50 8
940	105.0	5.00	0.0	0.0	0.0	0.0	20 8
941	120.3	4.30	0.0	0.0	0.0	0.0	50 8
942	115.9	4.50	0.0	0.0	0.0	0.0	20 8
943	44.9	4.50	0.0	0.0	0.0	0.0	20 8
944	119.7	3.90	0.0	0.0	0.0	0.0	20 8
945	120.6	3.60	0.0	0.0	0.0	0.0	20 8
946	87.7	4.30	0.0	3.41	0.0	1.39	60 8
947	119.0	3.30	0.0	0.0	0.0	0.0	20 8
948	117.5	3.80	0.0	0.0	0.0	0.0	50 8
949	93.2	5.60	0.0	0.0	0.0	0.0	20 8
950	88.4	4.90	3.77	3.33	0.0	1.74	10 8
951	49.8	3.70	0.0	0.0	0.0	0.0	20 8
952	90.9	3.70	0.0	0.0	0.0	0.0	20 8
953	94.4	3.60	0.0	0.0	0.0	0.0	20 8
954	101.2	4.90	0.0	0.0	0.0	0.0	30 8
955	97.3	4.20	0.0	0.0	0.0	0.0	20 8
956	117.4	4.50	4.53	3.88	4.11	0.12	10 8
957	124.2	4.50	0.0	0.0	0.0	0.0	30 8
958	106.3	3.90	0.0	0.0	0.0	0.0	20 8
959	40.5	4.60	3.34	3.23	0.0	1.85	60 8
961	86.5	4.30	0.0	0.0	0.0	0.0	20 8
962	48.8	4.10	0.0	0.0	0.0	0.0	20 8
963	117.7	4.00	0.0	0.0	0.0	0.0	20 8
964	46.6	3.80	0.0	0.0	0.0	0.0	20 8
965	95.5	4.80	4.06	4.04	0.0	0.27	10 8
966	121.9	5.20	4.19	4.13	3.51	1.45	10 8
967	43.0	3.80	0.0	0.0	0.0	0.0	20 8
968	123.5	4.10	0.0	0.0	0.0	0.0	20 8
969	49.6	4.30	0.0	0.0	0.0	0.0	30 8
970	44.5	3.50	0.0	0.0	0.0	0.0	20 8
971	120.9	3.50	0.0	0.0	0.0	0.0	20 8
972	119.4	4.10	0.0	0.0	0.0	0.0	20 8
1008	45.1	5.50	4.36	3.80	0.0	1.40	10 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1009	44.7	4.20	3.63	0.0	0.0	0.0	20 8
1010	45.3	4.00	3.63	0.0	0.0	0.0	20 8
1011	45.1	3.90	3.19	0.0	0.0	0.0	20 8
1012	45.1	4.50	3.40	3.08	0.0	0.0	10 8
1013	45.1	4.40	3.48	0.0	0.0	0.0	20 8
1014	45.6	3.90	3.35	0.0	0.0	0.0	20 8
1015	46.5	3.40	0.0	0.0	0.0	0.0	30 8
1016	45.7	4.60	3.23	0.0	0.0	0.0	20 8
1017	86.2	4.20	0.0	0.0	0.0	0.0	30 8
1018	46.2	4.70	3.37	3.07	0.0	0.0	60 8
1019	45.7	4.00	3.49	0.0	0.0	0.0	20 8
1020	45.1	3.80	3.24	0.0	0.0	0.0	20 8
1021	124.5	3.90	0.0	0.0	0.0	0.0	50 8
1022	45.7	4.10	3.13	0.0	0.0	0.0	20 8
1023	45.1	3.70	0.0	0.0	0.0	0.0	30 8
1024	44.7	4.10	3.24	0.0	0.0	0.0	20 8
1025	45.1	4.20	3.50	3.38	0.0	0.0	60 8
1026	103.0	3.70	3.38	0.0	0.0	0.0	20 8
1027	45.1	3.50	3.04	0.0	0.0	0.0	20 8
1028	119.1	3.60	3.45	0.0	0.0	0.0	20 8
1029	46.0	5.50	4.13	4.14	3.74	0.0	10 8
1030	121.9	4.60	0.0	0.0	0.0	0.0	30 8
1031	47.9	3.50	3.23	0.0	0.0	0.0	20 8
1032	45.1	4.60	3.28	3.29	0.0	0.0	10 8
1033	98.8	4.60	3.45	0.0	0.0	0.0	20 8
1034	105.7	3.70	3.53	0.0	0.0	0.0	20 8
1035	45.6	4.60	3.56	3.32	0.0	0.0	10 8
1036	45.7	4.40	3.06	0.0	0.0	0.0	20 8
1037	44.6	3.70	0.0	0.0	0.0	0.0	50 8
1038	44.5	3.90	0.0	0.0	0.0	0.0	50 8
1039	45.0	6.10	5.91	0.0	0.0	0.0	10 8
1077	45.1	4.10	0.0	0.0	0.0	0.0	50 8
1078	50.4	4.10	3.33	0.0	0.0	0.0	20 8
1079	96.9	3.60	0.0	0.0	0.0	0.0	30 8
1080	75.3	4.80	4.30	4.27	0.0	0.19	10 8
1081	120.6	4.40	3.93	0.0	0.0	0.0	20 8
1082	49.7	4.30	3.56	0.0	0.0	0.0	20 8
1083	45.5	5.70	4.99	4.93	0.0	0.45	10 8
1084	90.3	4.50	3.99	3.91	0.0	0.0	10 8
1085	45.6	6.10	5.86	5.66	5.20	0.99	10 8
1086	122.7	4.70	4.54	0.0	0.0	0.0	20 8
1087	124.5	4.00	3.86	0.0	0.0	0.0	20 8
1088	44.3	3.90	3.52	0.0	0.0	0.0	20 8
1089	48.8	3.70	3.58	0.0	0.0	0.0	20 8
1152	45.1	4.70	0.0	0.0	0.0	0.0	50 8
1153	102.2	3.80	0.0	0.0	0.0	0.0	50 8
1154	103.3	3.80	0.0	0.0	0.0	0.0	20 8
1155	106.2	4.40	0.0	0.0	0.0	0.0	50 8
1156	105.3	3.80	0.0	0.0	0.0	0.0	50 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LR RATIO	COMMENT
1157	106.0	3.70	0.0	0.0	0.0	0.0	50 8
1158	47.9	5.00	3.88	3.87	0.0	0.31	10 8
1159	120.6	3.80	4.25	0.0	0.0	0.0	20 8
1160	106.0	4.00	0.0	0.0	0.0	0.0	50 8
1161	92.6	4.30	0.0	0.0	0.0	0.0	50 8
1162	49.7	4.20	0.0	0.0	0.0	0.0	50 8
1163	49.1	3.80	0.0	0.0	0.0	0.0	50 8
1164	101.2	4.80	0.0	0.0	0.0	0.0	50 8
1165	51.1	4.30	3.90	3.45	0.0	0.0	60 8
1166	49.8	5.20	4.67	4.07	0.0	0.74	10 8
1167	101.4	3.70	0.0	0.0	0.0	0.0	30 8
1168	49.7	5.30	4.39	4.14	0.0	0.0	10 8
1169	50.2	3.60	3.69	0.0	0.0	0.0	20 8
1170	50.7	4.10	3.52	0.0	0.0	0.0	20 8
1171	121.0	4.00	3.46	0.0	0.0	0.0	20 8
1172	49.8	5.40	4.73	4.40	0.0	1.20	10 8
1173	50.4	3.90	0.0	0.0	0.0	0.0	30 8
1174	49.8	4.70	0.0	0.0	0.0	0.0	20 8
1175	49.8	4.10	0.0	0.0	0.0	0.0	50 8
1176	49.7	4.50	4.33	0.0	0.0	0.0	20 8
1177	49.8	4.20	0.0	0.0	0.0	0.0	30 8
1178	49.7	4.60	4.31	3.99	0.0	1.15	10 8
1179	49.8	4.70	0.0	0.0	0.0	0.0	30 8
1180	49.9	5.30	4.69	4.39	0.0	0.70	10 8
1181	49.8	3.40	3.68	0.0	0.0	0.0	20 8
1182	49.7	5.40	5.32	4.89	0.0	0.0	10 8
1183	49.9	4.50	0.0	0.0	0.0	0.0	30 8
1184	48.4	3.60	0.0	0.0	0.0	0.0	30 8
1185	49.8	4.20	3.76	0.0	0.0	0.0	20 8
1186	49.6	3.50	3.35	0.0	0.0	0.0	20 8
1187	49.8	4.10	3.87	3.58	0.0	0.58	10 8
1188	49.6	3.70	0.0	0.0	0.0	0.0	30 8
1189	49.6	3.30	0.0	0.0	0.0	0.0	50 8
1190	49.9	4.40	3.60	0.0	0.0	0.0	10 8
1191	49.8	4.10	0.0	0.0	0.0	0.0	30 8
1192	49.8	4.10	3.35	0.0	0.0	0.0	20 8
1193	50.2	3.60	3.12	0.0	0.0	0.0	20 8
1194	49.9	4.20	0.0	0.0	0.0	0.0	50 8
1195	50.2	3.70	0.0	0.0	0.0	0.0	50 8
1196	49.9	4.30	0.0	0.0	0.0	0.0	50 8
1197	49.6	3.60	0.0	0.0	0.0	0.0	30 8
1198	49.9	4.90	0.0	0.0	0.0	0.0	50 8
1199	49.8	4.50	0.0	0.0	0.0	0.0	50 8
1200	75.4	4.20	3.51	0.0	0.0	0.0	20 8
1201	49.6	4.20	3.31	0.0	0.0	0.0	20 8
1202	49.6	4.20	0.0	0.0	0.0	0.0	30 8
1203	49.1	3.40	0.0	0.0	0.0	0.0	30 8
1204	46.9	3.70	0.0	0.0	0.0	0.0	50 8
1205	122.5	4.30	0.0	0.0	0.0	0.0	50 8

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1206	100.7	3.90	0.0	0.0	0.0	0.0	30 R
1207	44.7	3.60	3.78	0.0	0.0	0.0	20 R
1208	49.7	4.10	0.0	0.0	0.0	0.0	50 R
1209	49.5	3.70	3.13	0.0	0.0	0.0	20 R
1211	102.5	3.80	0.0	0.0	0.0	0.0	50 R
1212	45.3	4.30	0.0	0.0	0.0	0.0	50 R
1213	48.4	3.70	0.0	0.0	0.0	0.0	50 R
1214	45.0	3.40	0.0	0.0	0.0	0.0	50 R
1215	107.0	3.60	0.0	0.0	0.0	0.0	50 R
1216	91.0	3.80	0.0	0.0	0.0	0.0	50 R
1217	50.2	3.80	0.0	0.0	0.0	0.0	50 R
1218	45.1	4.20	0.0	0.0	0.0	0.0	30 R
1219	105.0	3.70	0.0	0.0	0.0	0.0	50 R
1220	98.2	3.90	0.0	0.0	0.0	0.0	50 R
1221	98.3	3.80	0.0	0.0	0.0	0.0	50 R
1222	49.8	3.70	0.0	0.0	0.0	0.0	50 R
1223	44.0	5.10	4.52	4.18	0.0	0.38	10 R
1224	105.0	3.80	0.0	0.0	0.0	0.0	50 R
1225	120.6	3.60	0.0	0.0	0.0	0.0	50 R
1226	43.3	3.70	0.0	0.0	0.0	0.0	50 R
1227	98.6	4.70	0.0	0.0	0.0	0.0	50 R
1228	106.3	3.70	0.0	0.0	0.0	0.0	50 R
1229	45.1	4.10	0.0	0.0	0.0	0.0	50 R
1230	49.8	3.50	0.0	0.0	0.0	0.0	50 R
1231	109.8	5.10	0.0	0.0	0.0	0.0	50 R
1232	45.3	5.60	0.0	0.0	0.0	0.0	50 R
1233	51.9	3.20	0.0	0.0	0.0	0.0	50 R
1234	41.9	3.40	0.0	0.0	0.0	0.0	50 R
1235	51.9	3.60	0.0	0.0	0.0	0.0	50 R
1236	93.3	5.40	0.0	0.0	0.0	0.0	50 R
1237	49.5	4.20	0.0	0.0	0.0	0.0	50 R
1238	97.6	3.40	0.0	0.0	0.0	0.0	30 R
1239	121.8	4.40	0.0	0.0	0.0	0.0	50 R
1240	106.3	4.00	0.0	0.0	0.0	0.0	50 R
1241	102.5	3.40	0.0	0.0	0.0	0.0	50 R
1242	49.1	4.00	0.0	0.0	0.0	0.0	50 R
1243	101.7	4.20	0.0	0.0	0.0	0.0	30 R
1244	49.3	3.50	0.0	0.0	0.0	0.0	50 R
1245	45.4	3.70	0.0	0.0	0.0	0.0	30 R
1246	95.5	3.60	0.0	0.0	0.0	0.0	50 R
1247	43.9	4.00	0.0	0.0	0.0	0.0	50 R
1248	45.1	3.90	0.0	0.0	0.0	0.0	50 R
1249	49.3	4.00	0.0	0.0	0.0	0.0	50 R
1250	46.2	4.10	0.0	0.0	0.0	0.0	50 R
1251	45.4	3.90	0.0	0.0	0.0	0.0	50 R
1252	44.7	3.40	5.69	0.0	0.0	0.0	20 R
1253	48.8	3.80	3.43	0.0	0.0	0.0	20 R
1254	121.9	4.60	0.0	0.0	0.0	0.0	50 R
1255	45.9	3.60	0.0	0.0	0.0	0.0	50 R

KIPAPA, HAWAII

EVENT NO.	DISTANCE (DEGREES)	MR	MS			LQ/LR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
1256	45.0	3.30	0.0	0.0	0.0	0.0	50 8
1258	51.0	3.90	0.0	0.0	0.0	0.0	50 8
1259	45.2	4.00	0.0	0.0	0.0	0.0	50 8
1260	46.0	4.80	0.0	0.0	0.0	0.0	30 8
1261	46.0	3.50	0.0	0.0	0.0	0.0	50 8
1262	45.9	3.70	0.0	0.0	0.0	0.0	50 8
1266	93.2	5.40	0.0	0.0	0.0	0.0	50 8
1267	92.7	6.30	0.0	0.0	0.0	0.0	50 8
1268	103.4	5.30	0.0	0.0	0.0	0.0	50 8
1269	97.3	5.30	0.0	0.0	0.0	0.0	50 8
1270	82.8	6.80	5.24	5.09	4.66	0.0	50 8
1271	101.1	5.20	0.0	0.0	0.0	0.0	10 8
1273	101.6	5.20	0.0	0.0	0.0	0.0	50 8
1274	93.2	5.30	0.0	0.0	0.0	0.0	50 8
1275	99.5	4.80	0.0	0.0	0.0	0.0	50 8
1276	85.1	6.90	5.34	5.28	4.67	0.0	50 8
1277	85.2	4.20	0.0	0.0	0.0	0.12	10 8
1278	85.2	4.40	0.0	0.0	0.0	0.0	20 8
1279	85.0	4.80	0.0	0.0	0.0	0.0	50 8
1280	92.6	6.00	0.0	3.58	3.34	0.0	50 8
						0.0	10 8

APPENDIX II-K
BASIC DATA FOR
ALBUQUERQUE, NEW MEXICO (ALQ)

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
310	70.4	3.90	0.0	0.0	0.0	0.0	50 9
311	93.0	3.60	0.0	0.0	0.0	0.0	50 9
312	96.6	3.70	0.0	0.0	0.0	0.0	50 9
313	93.0	4.10	0.0	0.0	0.0	0.0	50 9
314	61.8	3.80	0.0	0.0	0.0	0.0	50 9
315	112.2	4.10	0.0	0.0	0.0	0.0	50 9
316	70.5	3.80	0.0	0.0	0.0	0.0	50 9
317	102.7	3.80	0.0	0.0	0.0	0.0	50 9
318	102.7	3.70	0.0	0.0	0.0	0.0	50 9
319	101.8	3.50	0.0	0.0	0.0	0.0	50 9
320	102.8	3.90	0.0	0.0	0.0	0.0	50 9
321	107.0	3.70	0.0	0.0	0.0	0.0	50 9
323	103.6	*5.00	0.0	0.0	0.0	0.0	50 9
324	113.2	4.20	0.0	0.0	0.0	0.0	53 9
326	65.8	4.00	0.0	0.0	0.0	0.0	50 9
327	59.7	3.40	0.0	0.0	0.0	0.0	50 9
328	61.6	3.50	0.0	0.0	0.0	0.0	50 9
329	104.2	4.10	0.0	0.0	0.0	0.0	50 9
330	108.6	3.50	0.0	0.0	0.0	0.0	50 9
331	61.8	4.00	0.0	0.0	0.0	0.0	50 9
332	92.7	4.20	0.0	0.0	0.0	0.0	50 9
333	106.4	3.90	0.0	0.0	0.0	0.0	50 9
334	115.2	4.80	0.0	0.0	0.0	0.0	50 9
335	58.0	4.00	3.21	3.03	2.78	0.46	10 9
336	76.1	3.40	0.0	0.0	0.0	0.0	20 9
337	69.4	3.60	0.0	0.0	0.0	0.0	20 9
338	51.6	4.70	0.0	0.0	0.0	0.0	50 9
339	95.2	5.50	0.0	0.0	0.0	0.0	50 9
340	60.4	3.80	0.0	0.0	0.0	0.0	30 9
341	108.6	5.40	4.37	4.27	4.05	1.16	10 9
342	106.4	4.90	0.0	0.0	0.0	0.0	20 9
343	108.7	4.90	3.61	3.36	0.0	0.58	10 9
344	99.4	4.10	0.0	0.0	0.0	0.0	50 9
345	122.7	4.30	0.0	0.0	0.0	0.0	50 9
346	108.6	4.70	0.0	0.0	0.0	0.0	50 9
347	98.2	4.50	0.0	0.0	0.0	0.0	30 9
348	113.2	4.70	0.0	0.0	0.0	0.0	20 9
349	71.5	4.40	0.0	0.0	0.0	0.0	30 9
350	97.6	4.90	3.87	3.58	2.91	4.60	10 9
351	43.8	4.90	4.31	4.01	0.0	0.0	10 9
381	75.4	4.60	0.0	0.0	0.0	0.0	30 9
383	70.4	3.90	0.0	0.0	0.0	0.0	50 9
384	105.1	4.30	0.0	0.0	0.0	0.0	50 9
385	96.3	4.40	0.0	0.0	0.0	0.0	50 9
386	59.5	5.00	3.73	3.67	3.41	0.0	10 9
388	74.2	4.50	0.0	0.0	0.0	0.0	50 9
389	68.7	4.10	0.0	0.0	0.0	0.0	20 9
390	112.4	4.00	0.0	0.0	0.0	0.0	30 9
391	79.6	3.70	0.0	0.0	0.0	0.0	50 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SPC	MS T=40SEC	LQ/LR RATIO	COMMENT
392	113.0	3.60	0.0	0.0	0.0	0.0	50 9
393	64.2	4.30	0.0	0.0	0.0	0.0	51 9
394	64.8	3.70	0.0	0.0	0.0	0.0	30 9
395	117.9	4.10	0.0	0.0	0.0	0.0	50 9
396	63.8	4.30	0.0	0.0	0.0	0.0	50 9
397	102.0	3.80	0.0	0.0	0.0	0.0	50 9
398	84.1	*3.80	0.0	0.0	0.0	0.0	30 9
399	69.9	4.50	0.0	0.0	0.0	0.0	50 9
402	107.5	4.60	0.0	0.0	0.0	0.0	30 9
403	108.0	3.70	0.0	0.0	0.0	0.0	50 9
404	114.4	3.50	0.0	0.0	0.0	0.0	30 9
405	86.0	*4.50	0.0	0.0	0.0	0.0	50 9
407	108.9	3.80	0.0	0.0	0.0	0.0	20 9
408	106.1	3.40	0.0	0.0	0.0	0.0	20 9
409	85.2	*3.70	0.0	0.0	0.0	0.0	30 9
410	108.7	4.70	3.67	3.50	3.09	0.0	10 9
411	64.3	4.10	0.0	0.0	0.0	0.0	50 9
453	111.0	4.00	0.0	0.0	0.0	0.0	20 9
454	93.4	4.70	0.0	0.0	0.0	0.0	50 9
455	112.5	4.10	0.0	0.0	0.0	0.0	30 9
470	100.5	4.70	0.0	0.0	0.0	0.0	30 9
471	108.0	4.20	0.0	0.0	0.0	0.0	20 9
472	70.0	5.20	0.0	0.0	0.0	0.0	30 9
473	62.3	3.60	0.0	0.0	0.0	0.0	50 9
474	111.9	3.70	0.0	0.0	0.0	0.0	50 9
475	104.4	4.70	0.0	0.0	0.0	0.0	50 9
476	69.0	5.20	0.0	0.0	0.0	0.0	50 9
477	112.1	3.50	0.0	0.0	0.0	0.0	20 9
478	59.6	4.00	0.0	0.0	0.0	0.0	20 9
479	93.3	4.10	0.0	0.0	0.0	0.0	20 9
482	74.9	4.20	0.0	0.0	0.0	0.0	20 9
483	116.3	3.70	0.0	0.0	0.0	0.0	30 9
484	84.1	4.40	0.0	0.0	0.0	0.0	20 9
485	106.2	3.80	0.0	0.0	0.0	0.0	20 9
486	98.7	3.90	0.0	0.0	0.0	0.0	20 9
487	111.5	4.40	0.0	0.0	0.0	0.0	20 9
488	111.7	3.90	0.0	0.0	0.0	0.0	20 9
489	111.7	3.40	0.0	0.0	0.0	0.0	20 9
490	94.9	3.90	0.0	0.0	0.0	0.0	20 9
491	102.0	3.80	0.0	0.0	0.0	0.0	50 9
492	103.0	5.10	3.01	2.83	0.0	0.0	50 9
493	72.1	4.40	0.0	0.0	0.0	0.0	50 9
494	66.3	3.70	0.0	0.0	0.0	0.0	50 9
495	74.4	3.50	0.0	0.0	0.0	0.0	50 9
496	109.4	5.20	0.0	0.0	0.0	0.0	30 9
497	101.6	4.90	4.06	3.77	3.35	0.0	10 9
498	109.3	4.70	0.0	0.0	0.0	0.0	30 9
499	105.9	4.60	3.04	2.73	0.0	0.0	50 9
500	74.9	3.70	0.0	0.0	0.0	0.0	30 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MB	MS			LO/LR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
501	62.6	4.20	0.0	0.0	0.0	0.0	20 9
502	112.8	3.90	3.08	2.67	0.0	0.0	50 9
503	66.7	4.20	0.0	0.0	0.0	0.0	50 9
504	99.9	3.90	0.0	0.0	0.0	0.0	30 9
505	64.1	5.30	3.31	3.04	2.56	2.87	10 9
506	62.1	3.30	0.0	0.0	0.0	0.0	20 9
507	95.1	3.40	0.0	0.0	0.0	0.0	20 9
508	76.1	4.10	0.0	0.0	0.0	0.0	20 9
509	64.1	4.50	0.0	0.0	0.0	0.0	50 9
510	106.0	4.00	0.0	0.0	0.0	0.0	20 9
511	93.8	3.70	0.0	0.0	0.0	0.0	20 9
512	90.9	4.00	0.0	0.0	0.0	0.0	20 9
513	75.5	5.00	0.0	0.0	0.0	0.0	20 9
514	64.0	4.20	0.0	0.0	0.0	0.0	50 9
515	65.0	4.30	0.0	0.0	0.0	0.0	50 9
516	107.0	3.60	0.0	0.0	0.0	0.0	50 9
517	114.9	3.90	0.0	0.0	0.0	0.0	50 9
518	107.0	4.30	0.0	0.0	0.0	0.0	50 9
538	112.9	3.80	0.0	0.0	0.0	0.0	50 9
539	68.6	4.80	3.18	3.06	2.77	0.0	20 9
540	92.4	4.40	0.0	0.0	0.0	0.0	10 9
541	68.6	5.10	3.81	3.75	3.28	0.0	50 9
542	104.0	4.00	0.0	0.0	0.0	0.0	10 9
543	107.9	4.90	2.99	2.69	2.67	0.0	50 9
544	110.1	3.50	0.0	0.0	0.0	0.0	50 9
545	92.9	3.60	0.0	0.0	0.0	0.0	30 9
546	61.9	4.80	0.0	0.0	0.0	0.0	20 9
547	105.8	4.60	0.0	0.0	0.0	0.0	20 9
548	111.0	3.60	0.0	0.0	0.0	0.0	20 9
550	109.0	4.10	0.0	0.0	0.0	0.0	50 9
551	101.7	3.70	0.0	0.0	0.0	0.0	20 9
552	106.1	3.70	0.0	0.0	0.0	0.0	50 9
553	109.0	3.80	0.0	0.0	0.0	0.0	30 9
554	101.3	4.50	0.0	0.0	0.0	0.0	30 9
555	96.2	3.40	0.0	0.0	0.0	0.0	50 9
556	77.5	4.00	0.0	0.0	0.0	0.0	35 9
557	115.0	4.70	0.0	0.0	0.0	0.0	50 9
558	61.8	5.60	4.29	4.02	0.0	0.0	30 9
559	61.8	5.00	4.62	4.01	0.0	0.0	10 9
560	115.1	4.20	0.0	3.10	0.0	0.0	13 9
561	97.0	4.30	2.70	2.48	2.56	0.0	15 9
563	62.5	4.00	0.0	0.0	0.0	0.0	17 9
564	95.8	3.90	0.0	0.0	0.0	0.0	20 9
565	60.6	5.30	3.96	3.40	0.0	0.0	30 9
566	98.1	4.50	0.0	0.0	0.0	0.0	10 9
567	115.0	4.80	0.0	0.0	0.0	0.0	50 9
568	95.7	4.00	0.0	0.0	0.0	0.0	20 9
569	72.7	4.00	0.0	0.0	0.0	0.0	20 9
570	98.0	4.30	0.0	0.0	0.0	0.0	20 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
571	115.1	4.00	0.0	0.0	0.0	0.0	30 9
572	69.9	3.90	0.0	0.0	0.0	0.0	30 9
573	68.6	5.70	0.0	0.0	0.0	0.0	40 9
574	68.7	4.40	0.0	0.0	0.0	0.0	20 9
575	68.2	3.80	0.0	0.0	0.0	0.0	30 9
576	113.9	4.30	0.0	0.0	0.0	0.0	20 9
577	63.2	4.10	0.0	0.0	0.0	0.0	20 9
578	68.6	4.70	0.0	0.0	0.0	0.0	30 9
579	68.7	4.90	4.10	4.11	3.69	0.0	10 9
580	68.6	4.30	0.0	0.0	0.0	0.0	30 9
581	69.4	3.80	0.0	0.0	0.0	0.0	50 9
592	97.5	4.00	0.0	0.0	0.0	0.0	50 9
593	60.3	3.90	0.0	0.0	0.0	0.0	50 9
696	106.2	4.40	0.0	0.0	0.0	0.0	30 9
697	86.2	4.40	4.76	4.30	0.0	0.0	10 9
698	77.5	4.80	0.0	3.62	3.25	0.0	10 9
699	95.0	6.20	3.89	3.33	0.0	0.86	10 9
700	105.9	4.30	0.0	0.0	0.0	0.0	30 9
701	111.0	4.00	0.0	0.0	0.0	0.0	30 9
702	110.0	5.50	5.33	5.14	4.41	0.0	10 9
703	109.0	3.80	0.0	0.0	0.0	0.0	30 9
705	108.1	4.20	0.0	0.0	0.0	0.0	30 9
706	101.4	3.70	0.0	0.0	0.0	0.0	23 9
707	97.0	4.30	0.0	0.0	0.0	0.0	20 9
708	116.4	*4.50	0.0	0.0	0.0	0.0	20 9
709	106.9	4.10	0.0	0.0	0.0	0.0	23 9
710	76.1	4.30	3.79	2.93	0.0	3.18	13 9
711	107.0	*5.30	0.0	0.0	0.0	0.0	13 9
712	108.1	4.30	0.0	0.0	0.0	0.0	30 9
713	64.6	4.50	0.0	0.0	0.0	0.0	20 9
714	96.6	4.60	0.0	0.0	0.0	0.0	20 9
715	72.5	3.70	0.0	0.0	0.0	0.0	20 9
716	105.6	5.50	4.20	4.34	3.84	2.44	10 9
717	92.0	4.20	0.0	0.0	0.0	0.0	23 9
718	113.1	4.70	0.0	3.65	0.0	0.0	13 9
719	94.4	3.60	0.0	0.0	0.0	0.0	20 9
720	69.2	3.60	0.0	0.0	0.0	0.0	30 9
721	81.8	3.80	0.0	0.0	0.0	0.0	32 9
722	104.0	3.80	0.0	0.0	0.0	0.0	20 9
723	62.6	4.80	0.0	0.0	0.0	0.0	30 9
724	74.6	3.70	0.0	0.0	0.0	0.0	23 9
725	127.0	3.90	0.0	0.0	0.0	0.0	20 9
726	106.2	4.10	0.0	0.0	0.0	0.0	30 9
727	113.2	3.90	0.0	0.0	0.0	0.0	20 9
728	100.4	4.50	0.0	0.0	0.0	0.0	20 9
729	108.1	3.90	0.0	0.0	0.0	0.0	30 9
730	96.2	3.80	0.0	0.0	0.0	0.0	30 9
731	106.4	3.90	0.0	0.0	0.0	0.0	23 9
732	117.3	4.40	0.0	0.0	0.0	0.0	30 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
733	96.2	3.70	0.0	0.0	0.0	0.0	23 9
734	121.2	4.30	0.0	0.0	0.0	0.0	20 9
735	73.7	4.00	0.0	0.0	0.0	0.0	20 9
736	75.5	3.70	0.0	0.0	0.0	0.0	20 9
737	64.7	4.60	3.50	3.45	0.0	0.91	10 9
738	75.4	3.90	0.0	0.0	0.0	0.0	30 9
741	91.6	*4.80	0.0	0.0	0.0	0.0	30 9
742	110.7	4.00	0.0	0.0	0.0	0.0	30 9
743	101.5	4.00	0.0	0.0	0.0	0.0	30 9
744	105.7	5.70	5.00	4.70	0.0	6.86	10 9
745	106.6	4.40	0.0	0.0	0.0	0.0	30 9
746	86.4	3.60	0.0	0.0	0.0	0.0	23 9
747	99.9	4.10	0.0	0.0	0.0	0.0	30 9
748	108.1	4.00	0.0	0.0	0.0	0.0	23 9
749	108.0	4.00	0.0	0.0	0.0	0.0	20 9
750	109.1	4.90	0.0	0.0	0.0	0.0	30 9
751	92.4	4.30	0.0	0.0	0.0	0.0	50 9
752	91.0	5.40	0.0	0.0	0.0	0.0	50 9
753	90.1	4.70	0.0	0.0	0.0	0.0	35 9
754	111.0	3.70	0.0	0.0	0.0	0.0	50 9
755	92.9	5.20	0.0	0.0	0.0	0.0	50 9
756	65.6	3.40	0.0	0.0	0.0	0.0	50 9
757	108.6	3.90	0.0	0.0	0.0	0.0	20 9
758	79.5	5.10	0.0	0.0	0.0	0.0	50 9
759	92.7	4.00	0.0	0.0	0.0	0.0	50 9
760	113.9	5.60	0.0	0.0	0.0	0.0	23 9
761	65.8	5.20	3.72	3.69	0.0	0.0	10 9
762	84.7	4.90	4.48	3.61	0.0	12.81	10 9
763	91.7	3.90	0.0	0.0	0.0	0.0	23 9
764	63.9	4.70	0.0	0.0	0.0	0.0	50 9
766	62.6	3.60	0.0	0.0	0.0	0.0	50 9
767	99.6	4.40	0.0	0.0	0.0	0.0	40 9
771	83.7	*4.40	0.0	0.0	0.0	0.0	40 9
772	64.4	3.90	0.0	0.0	0.0	0.0	30 9
773	15.4	3.90	0.0	0.0	0.0	0.0	20 9
774	112.9	4.70	0.0	0.0	0.0	0.0	20 9
775	108.2	5.40	5.27	4.73	5.03	1.97	10 9
776	62.9	4.80	3.38	3.29	0.0	1.09	10 9
777	86.9	4.10	0.0	0.0	0.0	0.0	20 9
778	97.4	5.10	4.45	4.21	3.63	1.77	10 9
779	87.1	3.60	0.0	0.0	0.0	0.0	20 9
780	77.2	3.90	0.0	0.0	0.0	0.0	30 9
781	105.6	5.00	4.18	3.96	3.48	0.0	10 9
782	76.6	4.00	0.0	0.0	0.0	0.0	20 9
783	64.1	4.40	0.0	0.0	0.0	0.0	30 9
784	75.5	4.10	0.0	0.0	0.0	0.0	20 9
785	93.8	5.30	0.0	0.0	0.0	0.0	00 9
786	97.6	4.30	0.0	0.0	0.0	0.0	20 9
787	87.2	3.70	0.0	0.0	0.0	0.0	20 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
788	110.0	3.90	0.0	0.0	0.0	0.0	20 9
789	87.0	4.20	0.0	0.0	0.0	0.0	30 9
790	87.2	4.70	0.0	0.0	0.0	0.0	00 9
791	92.5	3.70	0.0	0.0	0.0	0.0	30 9
792	105.2	4.50	0.0	0.0	0.0	0.0	30 9
793	107.9	4.10	0.0	0.0	0.0	0.0	20 9
794	105.9	4.00	0.0	0.0	0.0	0.0	30 9
795	67.7	3.80	0.0	0.0	0.0	0.0	00 9
796	59.4	3.50	0.0	0.0	0.0	0.0	00 9
797	95.2	5.70	4.29	3.68	0.0	0.0	10 9
799	74.8	6.00	5.64	5.19	0.0	0.92	10 9
800	73.8	4.20	0.0	0.0	0.0	0.0	30 9
801	75.5	3.50	0.0	0.0	0.0	0.0	20 9
802	75.0	4.80	0.0	0.0	0.0	0.0	30 9
803	75.5	3.60	0.0	0.0	0.0	0.0	30 9
804	74.9	3.70	0.0	0.0	0.0	0.0	30 9
805	92.8	3.70	0.0	0.0	0.0	0.0	30 9
806	73.2	4.30	0.0	0.0	0.0	0.0	30 9
807	74.9	4.30	0.0	0.0	0.0	0.0	20 9
808	75.5	3.90	0.0	0.0	0.0	0.0	30 9
809	73.2	3.60	0.0	0.0	0.0	0.0	30 9
810	73.2	3.60	0.0	0.0	0.0	0.0	20 9
811	73.1	3.60	0.0	0.0	0.0	0.0	20 9
812	74.9	4.30	0.0	0.0	0.0	0.0	20 9
813	75.0	4.80	3.84	3.41	0.0	0.0	10 9
814	75.0	4.10	0.0	0.0	0.0	0.0	30 9
815	64.7	4.70	0.0	0.0	0.0	0.0	20 9
816	92.1	3.90	0.0	0.0	0.0	0.0	20 9
817	77.1	3.60	0.0	0.0	0.0	0.0	20 9
818	74.3	5.70	4.30	3.65	0.0	1.31	10 9
819	110.9	3.60	0.0	0.0	0.0	0.0	20 9
820	91.0	*4.20	0.0	0.0	0.0	0.0	30 9
821	73.2	4.60	0.0	0.0	0.0	0.0	20 9
822	74.4	4.10	0.0	0.0	0.0	0.0	20 9
823	91.7	*4.30	3.94	3.42	0.0	4.85	10 9
824	76.1	3.40	0.0	0.0	0.0	0.0	20 9
825	75.0	4.70	3.88	3.65	0.0	0.50	10 9
826	97.6	4.70	0.0	0.0	0.0	0.0	20 9
827	59.4	4.40	4.05	3.82	0.0	0.0	10 9
828	75.0	5.70	5.77	5.25	0.0	0.89	10 9
829	75.0	4.80	0.0	0.0	0.0	0.0	30 9
830	73.8	4.30	0.0	0.0	0.0	0.0	23 9
831	74.4	3.80	0.0	0.0	0.0	0.0	20 9
832	75.0	4.70	0.0	0.0	0.0	0.0	20 9
833	75.0	4.10	0.0	0.0	0.0	0.0	20 9
834	74.9	4.80	0.0	0.0	0.0	0.0	23 9
835	76.1	3.70	0.0	0.0	0.0	0.0	20 9
836	75.0	4.60	0.0	0.0	0.0	0.0	20 9
837	75.0	4.90	3.74	3.04	0.0	0.0	10 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
838	106.9	3.40	0.0	0.0	0.0	0.0	20 9
839	57.8	4.00	4.11	3.80	3.37	0.53	10 9
840	75.5	3.80	0.0	0.0	0.0	0.0	20 9
841	73.2	3.70	0.0	0.0	0.0	0.0	20 9
842	97.8	4.70	4.10	3.69	0.0	0.0	10 9
843	66.5	3.80	0.0	0.0	0.0	0.0	20 9
844	97.7	4.60	4.37	3.82	3.39	0.65	10 9
845	113.8	4.30	0.0	0.0	0.0	0.0	20 9
846	66.6	4.10	0.0	0.0	0.0	0.0	20 9
847	113.0	3.70	0.0	0.0	0.0	0.0	20 9
848	63.2	4.20	0.0	0.0	0.0	0.0	20 9
849	86.3	3.70	0.0	0.0	0.0	0.0	20 9
850	61.4	4.10	0.0	0.0	0.0	0.0	20 9
851	61.8	4.10	0.0	0.0	0.0	0.0	20 9
852	68.8	4.10	0.0	0.0	0.0	0.0	20 9
853	117.9	3.90	0.0	0.0	0.0	0.0	20 9
854	108.3	3.80	0.0	0.0	0.0	0.0	20 9
855	110.0	4.00	0.0	0.0	0.0	0.0	20 9
856	93.4	3.70	0.0	0.0	0.0	0.0	20 9
857	63.1	4.80	0.0	0.0	0.0	0.0	20 9
858	74.2	4.70	0.0	0.0	0.0	0.0	20 9
859	65.1	5.70	0.0	5.07	4.61	0.54	10 9
860	63.6	3.50	0.0	3.63	0.0	0.0	16 9
862	113.7	4.60	0.0	0.0	0.0	0.0	20 9
863	93.5	3.60	0.0	0.0	0.0	0.0	30 9
864	73.2	4.00	0.0	0.0	0.0	0.0	30 9
865	95.0	4.50	0.0	0.0	0.0	0.0	30 9
866	90.0	3.50	0.0	0.0	0.0	0.0	30 9
867	68.2	4.10	3.39	2.93	0.0	0.0	10 9
868	61.9	4.30	0.0	0.0	0.0	0.0	30 9
869	59.5	4.30	0.0	0.0	0.0	0.0	20 9
870	114.2	4.10	0.0	0.0	0.0	0.0	20 9
871	75.5	3.80	0.0	0.0	0.0	0.0	20 9
872	108.9	3.80	0.0	0.0	0.0	0.0	20 9
873	110.1	4.50	0.0	0.0	0.0	0.0	20 9
874	92.8	4.40	0.0	0.0	0.0	0.0	20 9
875	110.2	4.90	0.0	0.0	0.0	0.0	30 9
878	63.8	3.50	0.0	0.0	0.0	0.0	20 9
879	60.7	3.60	0.0	0.0	0.0	0.0	20 9
880	91.7	4.30	0.0	0.0	0.0	0.0	20 9
881	112.5	5.20	0.0	0.0	0.0	0.0	50 9
882	67.3	4.10	0.0	0.0	0.0	0.0	20 9
883	109.2	3.70	0.0	0.0	0.0	0.0	30 9
884	105.9	5.50	4.81	4.36	4.16	0.0	10 9
885	105.9	4.80	0.0	0.0	0.0	0.0	20 9
886	111.0	3.80	0.0	0.0	0.0	0.0	20 9
887	106.1	4.70	0.0	0.0	0.0	0.0	30 9
888	66.7	3.50	0.0	0.0	0.0	0.0	20 9
889	62.5	3.40	0.0	0.0	0.0	0.0	50 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
890	94.4	5.30	5.15	4.48	0.0	3.44	10 9
891	95.1	4.00	0.0	0.0	0.0	0.0	20 9
892	94.6	4.30	0.0	0.0	0.0	0.0	20 9
893	68.9	4.70	3.35	3.53	0.0	0.82	10 9
894	65.7	3.90	0.0	0.0	0.0	0.0	20 9
895	105.6	4.90	0.0	0.0	0.0	0.0	30 9
896	112.3	4.80	0.0	0.0	0.0	0.0	30 9
897	92.6	5.00	4.03	0.0	3.99	0.0	10 9
898	110.6	4.40	0.0	0.0	0.0	0.0	20 9
899	61.3	4.30	0.0	0.0	0.0	0.0	20 9
900	108.0	3.90	0.0	0.0	0.0	0.0	30 9
901	63.1	3.80	0.0	0.0	0.0	0.0	20 9
902	107.0	3.70	0.0	0.0	0.0	0.0	20 9
903	112.0	3.90	0.0	0.0	0.0	0.0	20 9
904	63.8	3.90	0.0	0.0	0.0	0.0	20 9
905	111.1	3.80	0.0	0.0	0.0	0.0	20 9
906	111.7	3.60	0.0	0.0	0.0	0.0	20 9
907	111.7	4.20	0.0	0.0	0.0	0.0	20 9
908	102.9	5.10	3.81	3.74	0.0	0.0	10 9
909	102.9	4.70	0.0	0.0	0.0	0.0	20 9
910	109.0	3.80	0.0	0.0	0.0	0.0	20 9
911	111.8	5.10	4.50	4.13	4.03	2.49	10 9
912	95.4	4.50	0.0	0.0	0.0	0.0	20 9
913	112.0	3.70	0.0	0.0	0.0	0.0	20 9
914	106.0	4.60	0.0	0.0	0.0	0.0	20 9
915	112.2	4.80	0.0	0.0	0.0	0.0	20 9
916	112.2	4.50	0.0	3.55	3.19	2.12	10 9
917	106.8	3.80	0.0	0.0	0.0	0.0	20 9
918	112.2	5.00	4.19	3.93	3.71	4.60	10 9
919	110.0	3.60	0.0	0.0	0.0	0.0	20 9
920	97.5	3.70	0.0	0.0	0.0	0.0	20 9
921	113.8	3.90	0.0	0.0	0.0	0.0	30 9
922	113.8	4.00	0.0	0.0	0.0	0.0	20 9
923	75.0	3.90	0.0	0.0	0.0	0.0	20 9
924	104.0	4.30	0.0	0.0	0.0	0.0	20 9
925	69.4	4.00	0.0	0.0	0.0	0.0	20 9
926	103.0	4.90	0.0	0.0	0.0	0.0	50 9
927	97.3	4.60	0.0	0.0	0.0	0.0	50 9
928	74.4	3.40	0.0	0.0	0.0	0.0	50 9
949	95.2	5.60	0.0	0.0	0.0	0.0	20 9
950	108.9	4.90	4.12	3.82	3.64	1.06	10 9
951	75.5	3.70	0.0	0.0	0.0	0.0	20 9
952	108.9	3.70	0.0	0.0	0.0	0.0	20 9
953	114.8	3.60	0.0	0.0	0.0	0.0	20 9
954	104.3	4.90	3.81	3.94	3.59	1.53	10 9
955	111.7	4.20	0.0	0.0	0.0	0.0	20 9
956	96.5	4.50	4.20	4.01	0.0	2.48	10 9
957	96.5	4.50	0.0	0.0	0.0	0.0	30 9
958	110.0	3.90	0.0	0.0	0.0	0.0	20 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
959	59.2	4.60	0.0	0.0	0.0	0.0	20 9
960	76.1	3.70	0.0	0.0	0.0	0.0	20 9
961	102.8	4.30	0.0	0.0	0.0	0.0	20 9
962	76.1	4.10	0.0	0.0	0.0	0.0	30 9
963	112.2	4.00	0.0	0.0	0.0	0.0	20 9
964	72.1	3.80	0.0	0.0	0.0	0.0	20 9
965	106.5	4.80	3.48	3.50	3.16	2.62	10 9
973	62.5	4.20	0.0	0.0	0.0	0.0	20 9
974	68.8	5.00	3.21	3.67	3.47	0.0	10 9
975	76.1	3.60	0.0	0.0	0.0	0.0	20 9
976	65.6	3.80	0.0	0.0	0.0	0.0	20 9
977	110.8	3.50	0.0	0.0	0.0	0.0	30 9
978	110.1	4.20	3.50	3.30	0.0	0.0	60 9
979	109.1	3.80	0.0	0.0	0.0	0.0	30 9
980	90.3	*4.40	0.0	0.0	0.0	0.0	30 9
981	58.8	4.00	0.0	0.0	0.0	0.0	20 9
982	77.9	3.40	0.0	0.0	0.0	0.0	20 9
983	95.9	4.20	3.90	3.85	3.67	1.28	10 9
984	67.7	6.30	0.0	0.0	0.0	0.0	30 9
985	67.4	4.90	0.0	0.0	0.0	0.0	50 9
986	67.8	5.30	0.0	0.0	0.0	0.0	50 9
987	67.8	5.50	0.0	0.0	0.0	0.0	50 9
988	68.8	4.20	0.0	0.0	0.0	0.0	50 9
989	66.2	3.80	0.0	0.0	0.0	0.0	50 9
990	110.8	4.20	0.0	0.0	0.0	0.0	50 9
991	67.7	4.00	0.0	0.0	0.0	0.0	50 9
992	66.7	4.30	0.0	0.0	0.0	0.0	50 9
993	66.7	4.10	0.0	0.0	0.0	0.0	50 9
994	68.3	3.60	0.0	0.0	0.0	0.0	50 9
995	66.7	4.00	0.0	0.0	0.0	0.0	50 9
996	67.7	3.50	0.0	0.0	0.0	0.0	50 9
997	67.8	4.90	0.0	0.0	0.0	0.0	50 9
998	67.8	4.20	0.0	0.0	0.0	0.0	50 9
999	67.7	3.70	0.0	0.0	0.0	0.0	50 9
1000	67.8	5.20	0.0	0.0	0.0	0.0	50 9
1001	67.2	4.10	0.0	0.0	0.0	0.0	50 9
1002	67.2	3.90	0.0	0.0	0.0	0.0	50 9
1003	68.4	3.90	0.0	0.0	0.0	0.0	50 9
1004	67.3	4.50	0.0	0.0	0.0	0.0	50 9
1005	67.3	3.90	0.0	0.0	0.0	0.0	50 9
1006	67.2	3.90	0.0	0.0	0.0	0.0	50 9
1007	66.7	4.60	0.0	0.0	0.0	0.0	50 9
1008	67.7	5.50	4.15	3.88	0.0	0.58	10 9
1009	67.2	4.20	3.62	0.0	0.0	0.0	20 9
1010	67.7	4.00	3.67	0.0	0.0	0.0	20 9
1011	66.7	3.90	3.80	0.0	0.0	0.0	20 9
1012	67.7	4.50	3.68	0.0	0.0	0.0	20 9
1013	66.7	4.40	3.66	0.0	0.0	0.0	20 9
1014	66.3	3.90	3.46	0.0	0.0	0.0	20 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	NB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1015	68.9	3.40	3.37	0.0	0.0	0.0	20 9
1016	67.3	4.60	3.37	0.0	0.0	0.0	20 9
1017	100.1	4.20	3.70	0.0	0.0	0.0	20 9
1018	69.4	4.70	3.39	0.0	0.0	0.0	20 9
1019	67.3	4.00	3.77	0.0	0.0	0.0	20 9
1020	66.7	3.80	3.34	0.0	0.0	0.0	20 9
1021	97.5	3.90	3.74	0.0	0.0	0.0	20 9
1022	67.3	4.10	3.63	0.0	0.0	0.0	20 9
1023	66.7	3.70	0.0	0.0	0.0	0.0	30 9
1024	67.2	4.10	3.40	0.0	0.0	0.0	20 9
1025	66.7	4.20	3.51	3.37	0.0	0.0	10 9
1026	106.1	3.70	3.32	0.0	0.0	0.0	20 9
1027	66.7	3.50	3.33	0.0	0.0	0.0	20 9
1028	94.5	3.60	3.58	0.0	0.0	0.0	20 9
1029	68.0	5.50	4.55	4.70	4.55	0.0	10 9
1030	112.2	4.60	4.08	0.0	0.0	0.0	20 9
1031	73.2	3.50	3.59	0.0	0.0	0.0	20 9
1032	66.7	4.60	3.37	0.0	0.0	0.0	20 9
1033	104.7	4.60	3.77	0.0	0.0	0.0	20 9
1034	111.1	3.70	3.76	0.0	0.0	0.0	20 9
1035	67.4	4.60	3.09	3.16	2.98	0.0	10 9
1036	67.3	4.40	3.24	0.0	0.0	0.0	20 9
1037	66.2	3.70	3.25	0.0	0.0	0.0	20 9
1038	61.4	3.90	3.27	0.0	0.0	0.0	20 9
1039	63.2	6.10	5.62	5.43	5.07	1.04	10 9
1040	69.9	4.20	2.83	0.0	0.0	0.0	20 9
1041	66.7	4.00	2.73	0.0	0.0	0.0	20 9
1042	91.4	3.70	0.0	0.0	0.0	0.0	50 9
1043	66.7	3.90	3.49	0.0	0.0	0.0	20 9
1044	105.0	3.40	3.50	0.0	0.0	0.0	20 9
1045	61.9	3.70	0.0	0.0	0.0	0.0	30 9
1046	67.2	3.60	3.46	0.0	0.0	0.0	20 9
1047	109.1	3.60	3.67	0.0	0.0	0.0	20 9
1048	93.1	4.00	3.55	0.0	0.0	0.0	20 9
1049	110.0	3.60	0.0	0.0	0.0	0.0	50 9
1050	68.0	5.00	0.0	0.0	0.0	0.0	50 9
1051	108.9	3.60	0.0	0.0	0.0	0.0	50 9
1052	89.0	*3.60	3.43	0.0	0.0	0.0	20 9
1053	108.6	5.00	3.40	0.0	0.0	0.0	20 9
1054	76.1	4.10	0.0	0.0	0.0	0.0	50 9
1055	110.4	3.60	3.93	0.0	0.0	0.0	20 9
1056	67.7	3.50	3.79	0.0	0.0	0.0	20 9
1057	62.7	3.70	3.80	0.0	0.0	0.0	20 9
1058	67.7	3.50	0.0	0.0	0.0	0.0	30 9
1059	76.1	3.90	0.0	0.0	0.0	0.0	30 9
1060	66.7	4.20	0.0	0.0	0.0	0.0	30 9
1061	66.7	4.50	3.76	0.0	0.0	0.0	20 9
1062	66.2	3.80	3.73	0.0	0.0	0.0	20 9
1063	110.9	4.00	3.93	0.0	0.0	0.0	20 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1064	94.4	3.80	4.82	0.0	0.0	0.0	
1065	67.8	4.60	3.93	3.76	0.0	0.0	20 9
1066	66.2	4.00	3.71	0.0	0.0	0.57	10 9
1067	109.0	3.50	3.76	0.0	0.0	0.0	20 9
1068	69.4	4.20	0.0	0.0	0.0	0.0	20 9
1069	117.6	3.80	3.90	0.0	0.0	0.0	30 9
1070	68.3	4.40	3.46	0.0	0.0	0.0	20 9
1071	67.6	4.70	3.86	0.0	0.0	0.0	20 9
1072	91.8	3.10	0.0	0.0	0.0	0.0	20 9
1073	95.6	3.70	3.95	0.0	0.0	0.0	30 9
1074	69.4	4.40	3.59	0.0	0.0	0.0	20 9
1075	68.8	3.90	3.62	0.0	0.0	0.0	20 9
1076	111.7	3.50	0.0	0.0	0.0	0.0	20 9
1077	66.7	4.10	3.46	0.0	0.0	0.0	30 9
1078	76.7	4.10	0.0	0.0	0.0	0.0	20 9
1079	117.3	3.60	0.0	0.0	0.0	0.0	30 9
1080	108.7	4.80	3.89	0.0	0.0	0.0	30 9
1081	97.0	4.40	3.80	0.0	0.0	0.0	20 9
1082	76.5	4.30	3.68	0.0	0.0	0.0	20 9
1083	67.9	5.70	5.07	5.12	0.0	0.0	20 9
1084	104.4	4.50	4.12	0.0	4.87	0.17	10 9
1085	67.3	6.10	5.69	5.82	0.0	0.0	20 9
1086	94.3	4.70	4.89	0.0	5.65	0.27	10 9
1087	96.9	4.00	3.65	0.0	0.0	0.0	20 9
1088	67.6	3.90	3.60	0.0	0.0	0.0	20 9
1089	73.3	3.70	3.94	0.0	0.0	0.0	20 9
1090	65.2	4.00	0.0	0.0	0.0	0.0	20 9
1091	114.4	3.70	3.85	0.0	0.0	0.0	30 9
1092	107.0	4.20	3.87	0.0	0.0	0.0	20 9
1093	71.8	4.30	3.67	0.0	0.0	0.0	20 9
1094	67.2	3.90	0.0	0.0	0.0	0.0	20 9
1095	119.5	4.10	0.0	0.0	0.0	0.0	30 9
1096	64.3	3.50	3.30	0.0	0.0	0.0	30 9
1097	110.7	3.60	3.66	0.0	0.0	0.0	20 9
1098	95.2	3.80	3.45	0.0	0.0	0.0	20 9
1099	60.9	3.60	3.44	0.0	0.0	0.0	20 9
1100	115.4	*4.40	3.75	0.0	0.0	0.0	20 9
1101	62.3	3.70	0.0	0.0	0.0	0.0	20 9
1102	66.7	3.70	3.56	0.0	0.0	0.0	30 9
1103	109.5	3.80	0.0	0.0	0.0	0.0	20 9
1104	69.4	4.50	3.49	0.0	0.0	0.0	30 9
1105	111.7	3.60	0.0	0.0	0.0	0.0	20 9
1106	67.3	5.20	3.58	3.39	0.0	0.0	50 9
1107	97.5	4.30	0.0	0.0	3.34	0.0	10 9
1108	43.9	4.20	0.0	0.0	0.0	0.0	50 9
1109	96.2	3.90	0.0	0.0	0.0	0.0	50 9
1110	62.3	3.50	0.0	0.0	0.0	0.0	50 9
1111	110.4	4.00	0.0	0.0	0.0	0.0	50 9
1112	115.7	5.20	4.10	3.96	3.57	1.84	50 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1113	109.8	4.00	0.0	0.0	0.0	0.0	30 9
1114	64.7	4.20	3.72	0.0	0.0	0.0	20 9
1115	76.1	4.30	0.0	0.0	0.0	0.0	50 9
1217	77.3	3.80	3.02	0.0	0.0	0.0	20 9
1218	66.7	4.20	0.0	0.0	0.0	0.0	30 9
1219	109.1	3.70	3.04	0.0	0.0	0.0	20 9
1220	111.1	3.90	3.05	0.0	0.0	0.0	20 9
1221	116.1	3.80	3.36	0.0	0.0	0.0	20 9
1222	75.5	3.70	3.40	0.0	0.0	0.0	20 9
1223	63.8	5.10	4.23	4.07	0.0	0.0	20 9
1224	109.1	3.80	0.0	0.0	0.0	0.0	10 9
1225	110.7	3.60	0.0	0.0	0.0	0.0	30 9
1226	63.1	3.70	2.96	0.0	0.0	0.0	50 9
1227	103.2	4.70	3.43	0.0	0.0	0.0	20 9
1228	110.0	3.70	0.0	0.0	0.0	0.0	20 9
1229	66.7	4.10	3.11	0.0	0.0	0.0	30 9
1230	75.5	3.50	3.40	0.0	0.0	0.0	20 9
1231	111.6	5.10	0.0	0.0	0.0	0.0	20 9
1232	67.1	5.60	0.0	6.17	5.80	0.04	80 9
1233	77.3	3.20	3.11	0.0	0.0	0.0	10 9
1234	58.2	3.40	0.0	0.0	0.0	0.0	20 9
1235	77.3	3.60	3.45	0.0	0.0	0.0	20 9
1236	95.0	5.40	0.0	0.0	0.0	0.0	20 9
1237	76.7	4.20	3.32	0.0	0.0	0.0	50 9
1238	105.6	3.40	0.0	0.0	0.0	0.0	20 9
1239	114.1	4.40	3.64	0.0	0.0	0.0	30 9
1240	110.0	4.00	3.16	0.0	0.0	0.0	20 9
1241	109.0	3.40	3.25	0.0	0.0	0.0	20 9
1242	75.0	4.00	3.10	0.0	0.0	0.0	20 9
1243	104.1	4.20	0.0	0.0	0.0	0.0	20 9
1244	74.4	3.50	3.18	0.0	0.0	0.0	30 9
1245	62.5	3.70	0.0	0.0	0.0	0.0	20 9
1246	114.4	3.60	3.58	0.0	0.0	0.0	30 9
1248	66.7	3.90	0.0	0.0	0.0	0.0	20 9
1249	74.4	4.00	3.58	0.0	0.0	0.0	30 9
1250	69.4	4.10	3.19	0.0	0.0	0.0	20 9
1251	64.3	3.90	0.0	0.0	0.0	0.0	20 9
1252	67.2	3.40	0.0	0.0	0.0	0.0	50 9
1253	76.1	3.80	3.79	0.0	0.0	0.0	30 9
1254	115.9	4.60	0.0	0.0	0.0	0.0	20 9
1255	63.0	3.60	3.32	0.0	0.0	0.0	50 9
1256	61.9	3.30	3.31	0.0	0.0	0.0	20 9
1258	77.9	3.90	0.0	0.0	0.0	0.0	20 9
1259	69.3	4.00	0.0	0.0	0.0	0.0	50 9
1260	62.3	4.80	0.0	0.0	0.0	0.0	30 9
1261	62.1	3.50	3.20	0.0	0.0	0.0	50 9
1262	63.0	3.70	3.15	0.0	0.0	0.0	20 9
1266	95.2	5.40	0.0	0.0	0.0	0.0	20 9
1267	94.9	6.30	0.0	3.51	0.0	0.0	20 9

ALBUQUERQUE, NEW MEXICO

EVENT NO.	DISTANCE (DEGREES)	MP	MS	MS	MS	LQ/LR RATIO	COMMENT
			T=20SEC	T=30SEC	T=40SEC		
1268	102.2	5.30	0.0	0.0	0.0	0.0	20 9
1269	94.4	5.30	0.0	0.0	0.0	0.0	20 9
1270	71.0	6.80	5.44	4.46	0.0	0.43	10 9
1271	99.4	5.20	0.0	2.24	0.0	0.0	10 9
1272	73.3	5.00	3.63	3.14	3.13	0.0	10 9
1273	91.9	5.20	0.0	0.0	0.0	0.0	50 9
1280	94.9	6.00	0.0	0.0	0.0	0.0	50 9

APPENDIX II-L
BASIC DATA FOR
LA PAZ, BOLIVIA (ZLP)

LA PAZ, BOLIVIA

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
739	134.0	4.00	0.0	0.0	0.0	0.0	2010
742	123.1	4.00	0.0	0.0	0.0	0.0	3010
743	144.4	4.00	0.0	0.0	0.0	0.0	3010
744	168.3	5.70	0.0	4.94	4.53	0.0	1010
745	169.2	4.40	0.0	0.0	0.0	0.0	3010
746	125.0	3.60	0.0	0.0	0.0	0.0	2010
747	106.0	4.10	0.0	0.0	0.0	0.0	3010
748	140.1	4.00	0.0	0.0	0.0	0.0	5010
749	142.3	4.00	0.0	0.0	0.0	0.0	2010
750	143.8	4.90	0.0	0.0	0.0	0.0	3010
751	100.6	4.30	0.0	3.41	2.07	0.0	1310
752	100.3	5.40	0.0	0.0	0.0	0.0	3010
753	120.6	4.70	0.0	0.0	0.0	0.0	5010
755	128.5	5.20	0.0	0.0	0.0	0.0	5010
763	126.9	3.90	0.0	0.0	0.0	0.0	2010
764	126.9	4.70	0.0	3.67	0.0	0.59	1610
765	104.0	4.80	3.66	3.58	0.0	0.0	1310
767	102.5	4.40	0.0	0.0	0.0	0.0	2010
768	139.7	3.60	0.0	0.0	0.0	0.0	2310
769	139.7	4.10	0.0	0.0	0.0	0.0	2310
770	120.2	3.60	0.0	0.0	0.0	0.0	2310
771	95.2	*4.40	0.0	0.0	0.0	0.0	2310
772	127.4	3.90	0.0	0.0	0.0	0.0	2010
773	95.0	3.90	0.0	0.0	0.0	0.0	5010
774	124.0	4.70	0.0	0.0	0.0	0.0	5010
775	128.6	5.40	5.39	4.89	5.21	0.80	5010
776	125.9	4.80	0.0	0.0	0.0	0.0	1010
777	148.8	4.10	0.0	0.0	0.0	0.0	2010
778	103.6	5.10	0.0	4.16	0.0	0.0	2010
779	148.9	3.60	0.0	0.0	0.0	1.58	1010
780	140.2	3.90	0.0	0.0	0.0	0.0	2010
781	140.8	5.00	0.0	0.0	0.0	0.0	5010
782	139.6	4.00	0.0	0.0	0.0	0.0	5010
783	127.1	4.40	0.0	0.0	0.0	0.0	5010
784	138.5	4.10	0.0	0.0	0.0	0.0	5010
785	156.5	5.30	0.0	0.0	0.0	0.0	5010
786	103.7	4.30	0.0	0.0	0.0	0.0	0010
787	149.0	3.70	0.0	0.0	0.0	0.0	2010
788	140.0	3.90	0.0	0.0	0.0	0.0	2010
789	148.9	4.20	0.0	0.0	0.0	0.0	2010
790	149.0	4.70	0.0	0.0	0.0	0.0	3010
791	153.8	3.70	0.0	0.0	0.0	0.0	0010
792	82.9	4.50	0.0	0.0	0.0	0.0	3010
793	137.1	4.10	0.0	0.0	0.0	0.0	2010
794	168.6	4.00	0.0	0.0	0.0	0.0	3010
795	130.7	3.80	0.0	0.0	0.0	0.0	0010
796	122.4	3.50	0.0	0.0	0.0	0.0	0010
797	137.0	5.70	4.10	3.65	0.0	0.0	1010
799	137.7	6.00	5.83	5.63	5.24	0.97	1010

LA PAZ, BOLIVIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
800	136.6	4.20	0.0	0.0	0.0	0.0	3010
801	138.3	3.50	0.0	0.0	0.0	0.0	2010
802	137.8	4.80	4.79	4.11	3.97	0.51	1010
803	138.5	3.60	0.0	0.0	0.0	0.0	3010
804	137.7	3.70	0.0	0.0	0.0	0.0	3010
805	100.2	3.70	0.0	0.0	0.0	0.0	3010
806	136.1	4.30	0.0	0.0	0.0	0.0	3010
807	137.8	4.30	0.0	0.0	0.0	0.0	2010
808	138.5	3.90	0.0	0.0	0.0	0.0	3010
809	136.1	3.60	0.0	0.0	0.0	0.0	3010
810	136.1	3.60	0.0	0.0	0.0	0.0	3010
811	135.8	3.60	0.0	0.0	0.0	0.0	2010
812	137.8	4.30	0.0	0.0	0.0	0.0	3010
813	137.8	4.80	0.0	0.0	0.0	0.0	5010
814	137.8	4.10	0.0	0.0	0.0	0.0	3010
815	127.7	4.70	0.0	0.0	0.0	0.0	3010
816	100.3	3.90	0.0	0.0	0.0	0.0	2010
817	140.1	3.60	0.0	0.0	0.0	0.0	2010
818	137.0	5.70	0.0	0.0	0.0	0.0	2610
819	137.9	3.60	0.0	0.0	0.0	0.0	2010
820	102.4	*4.20	0.0	0.0	0.0	0.0	2010
821	136.1	4.60	0.0	0.0	0.0	0.0	2010
822	137.2	4.10	0.0	0.0	0.0	0.0	2010
823	98.8	*4.30	0.0	0.0	0.0	0.0	5010
824	139.0	3.40	0.0	0.0	0.0	0.0	2010
825	137.8	4.70	4.12	3.91	3.34	0.68	1010
826	103.7	4.70	0.0	0.0	0.0	0.0	2010
827	110.4	4.40	0.0	0.0	0.0	0.0	5010
828	137.9	5.70	5.77	5.64	5.01	0.46	1010
829	137.8	4.80	0.0	0.0	0.0	0.0	3010
830	136.7	4.30	0.0	0.0	0.0	0.0	2310
831	137.2	3.80	0.0	0.0	0.0	0.0	3010
832	137.8	4.70	0.0	0.0	0.0	0.0	3010
833	137.8	4.10	0.0	0.0	0.0	0.0	2310
834	137.8	4.80	0.0	0.0	0.0	0.0	2310
835	139.0	3.70	0.0	0.0	0.0	0.0	2010
836	137.8	4.60	0.0	0.0	0.0	0.0	2010
837	137.8	4.90	4.05	3.42	0.0	0.0	1010
838	136.8	3.40	0.0	0.0	0.0	0.0	2010
839	109.4	4.00	3.74	3.59	3.26	1.60	1010
840	138.2	3.80	0.0	0.0	0.0	0.0	3010
841	136.1	3.70	0.0	0.0	0.0	0.0	3010
842	102.7	4.70	3.83	3.58	3.29	0.0	1010
843	129.4	3.80	0.0	0.0	0.0	0.0	2010
844	104.2	4.60	0.0	0.0	0.0	0.0	2010
845	136.8	4.30	0.0	0.0	0.0	0.0	2610
846	129.6	4.10	0.0	0.0	0.0	0.0	2010
847	140.8	3.70	0.0	0.0	0.0	0.0	2010
848	126.2	4.20	0.0	0.0	0.0	0.0	2010

LA PAZ, BOLIVIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
849	96.0	3.70	0.0	0.0	0.0	0.0	2010
850	124.4	4.10	0.0	0.0	0.0	0.0	2010
851	124.8	4.10	0.0	0.0	0.0	0.0	2010
852	131.7	4.10	0.0	0.0	0.0	0.0	2010
853	161.7	3.90	0.0	0.0	0.0	0.0	2010
854	149.2	3.80	0.0	0.0	0.0	0.0	2010
855	140.0	4.00	0.0	0.0	0.0	0.0	2010
856	104.8	3.70	0.0	0.0	0.0	0.0	5010
896	137.6	4.80	0.0	0.0	0.0	0.0	3010
897	99.6	5.00	3.96	0.0	3.38	0.0	1010
898	123.4	4.40	0.0	0.0	0.0	0.0	2010
899	124.3	4.30	0.0	0.0	0.0	0.0	2010
900	137.8	3.90	0.0	0.0	0.0	0.0	5010
901	126.1	3.80	0.0	0.0	0.0	0.0	5010
902	137.5	3.70	0.0	0.0	0.0	0.0	5010
903	124.0	3.90	0.0	0.0	0.0	0.0	2010
904	126.8	3.90	0.0	0.0	0.0	0.0	5010
905	141.8	3.80	0.0	0.0	0.0	0.0	2010
906	123.1	3.60	0.0	0.0	0.0	0.0	5010
910	140.7	3.80	0.0	0.0	0.0	0.0	5010
911	143.4	5.10	0.0	0.0	0.0	0.0	2010
912	100.0	4.50	0.0	0.0	0.0	0.0	2010
913	143.7	3.70	0.0	0.0	0.0	0.0	2010
914	158.6	4.60	0.0	0.0	0.0	0.0	5010
915	137.6	4.80	0.0	0.0	0.0	0.0	2010
916	137.6	4.50	0.0	0.0	0.0	0.0	2010
917	128.1	3.80	0.0	0.0	0.0	0.0	2010
918	137.6	5.00	4.11	3.84	3.62	0.77	1010
919	139.2	3.60	0.0	0.0	0.0	0.0	2010
920	148.5	3.70	0.0	0.0	0.0	0.0	5010
921	136.8	3.90	0.0	0.0	0.0	0.0	3010
922	136.8	4.00	0.0	0.0	0.0	0.0	5010
923	137.8	3.90	0.0	0.0	0.0	0.0	2010
924	137.2	4.30	0.0	0.0	0.0	0.0	5010
925	132.3	4.00	0.0	0.0	0.0	0.0	2010
926	150.0	4.90	0.0	0.0	0.0	0.0	2010
927	101.8	4.60	0.0	0.0	0.0	0.0	2010
928	137.2	3.40	0.0	0.0	0.0	0.0	5010
929	144.6	5.10	3.93	0.0	3.69	0.0	1010
930	145.7	4.50	0.0	0.0	0.0	0.0	2010
931	144.0	3.70	0.0	0.0	0.0	0.0	5010
932	126.2	5.30	0.0	0.0	0.0	0.0	5010
949	137.1	5.60	0.0	0.0	0.0	0.0	2010
950	161.4	4.90	3.87	3.57	0.0	0.0	1010
951	138.5	3.70	0.0	0.0	0.0	0.0	5010
952	158.2	3.70	0.0	0.0	0.0	0.0	2010
953	161.2	3.60	0.0	0.0	0.0	0.0	2010
954	139.4	4.90	0.0	0.0	0.0	0.0	3010
955	153.4	4.20	0.0	0.0	0.0	0.0	3010

LA PAZ, BOLIVIA

EVENT NO.	DISTANCE (DEGREES)	MP	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
956	109.6	4.50	0.0	4.08	3.59	0.0	1010
957	100.8	4.50	0.0	0.0	0.0	0.0	3010
958	140.0	3.90	0.0	0.0	0.0	0.0	5010
959	122.2	4.60	0.0	0.0	0.0	0.0	5010
960	139.1	3.70	0.0	0.0	0.0	0.0	2010
961	155.0	4.30	0.0	0.0	0.0	0.0	2010
962	138.8	4.10	0.0	0.0	0.0	0.0	5010
963	128.3	4.00	0.0	0.0	0.0	0.0	5010
964	134.9	3.80	0.0	0.0	0.0	0.0	5010
965	149.2	4.80	0.0	0.0	0.0	0.0	2010
966	124.5	5.20	4.31	4.09	0.0	0.0	1010
967	123.7	3.80	0.0	0.0	0.0	0.0	5010
968	101.5	4.10	0.0	0.0	0.0	0.0	5010
969	138.4	4.30	0.0	0.0	0.0	0.0	2010
970	124.4	3.50	0.0	0.0	0.0	0.0	2010
971	99.3	3.50	0.0	0.0	0.0	0.0	2010
972	106.0	4.10	0.0	0.0	0.0	0.0	5010
1006	130.1	3.90	0.0	0.0	0.0	0.0	5010
1007	129.7	4.60	0.0	0.0	0.0	0.0	5010
1008	130.7	5.50	3.41	0.0	0.0	0.0	1010
1009	130.1	4.20	0.0	0.0	0.0	0.0	5010
1010	130.7	4.00	0.0	0.0	0.0	0.0	5010
1011	129.7	3.90	0.0	0.0	0.0	0.0	5010
1012	130.7	4.50	0.0	0.0	0.0	0.0	5010
1013	129.7	4.40	0.0	0.0	0.0	0.0	5010
1014	129.3	3.90	0.0	0.0	0.0	0.0	5010
1015	131.9	3.40	0.0	0.0	0.0	0.0	5010
1016	130.3	4.60	0.0	0.0	0.0	0.0	5010
1017	151.5	4.20	0.0	0.0	0.0	0.0	5010
1018	132.3	4.70	0.0	0.0	0.0	0.0	5010
1019	130.3	4.00	0.0	0.0	0.0	0.0	5010
1020	129.7	3.80	0.0	0.0	0.0	0.0	5010
1021	101.7	3.90	0.0	0.0	0.0	0.0	5010
1022	130.3	4.10	0.0	0.0	0.0	0.0	5010
1023	129.7	3.70	0.0	0.0	0.0	0.0	5010
1024	130.1	4.10	0.0	0.0	0.0	0.0	5010
1025	129.7	4.20	0.0	0.0	0.0	0.0	5010
1026	139.4	3.70	0.0	0.0	0.0	0.0	3010
1027	129.7	3.50	0.0	0.0	0.0	0.0	5010
1028	104.7	3.60	0.0	0.0	0.0	0.0	5010
1029	131.0	5.50	0.0	3.53	0.0	0.0	1010
1030	123.2	4.60	0.0	0.0	0.0	0.0	5010
1031	136.1	3.50	0.0	0.0	0.0	0.0	5010
1032	129.7	4.60	0.0	0.0	0.0	0.0	5010
1033	142.8	4.60	0.0	0.0	0.0	0.0	5010
1034	141.8	3.70	0.0	0.0	0.0	0.0	5010
1035	130.4	4.60	0.0	0.0	0.0	0.0	5010
1036	130.3	4.40	0.0	0.0	0.0	0.0	5010
1037	129.1	3.70	0.0	0.0	0.0	0.0	5010

LA PAZ, BOLIVIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1038	124.4	3.90	0.0	0.0	0.0	0.0	5010
1039	126.2	6.10	5.03	4.81	0.0	0.0	1010
1040	132.8	4.20	0.0	0.0	0.0	0.0	5010
1041	129.7	4.00	0.0	0.0	0.0	0.0	5010
1042	99.0	3.70	0.0	0.0	0.0	0.0	5010
1043	129.7	3.90	0.0	0.0	0.0	0.0	5010
1044	141.1	3.40	0.0	0.0	0.0	0.0	5010
1045	124.9	3.70	0.0	0.0	0.0	0.0	5010
1046	130.1	3.60	0.0	0.0	0.0	0.0	5010
1047	140.4	3.60	0.0	0.0	0.0	0.0	5010
1048	101.5	4.00	0.0	0.0	0.0	0.0	5010
1049	140.0	3.60	0.0	0.0	0.0	0.0	5010
1050	130.9	5.00	0.0	0.0	0.0	0.0	5010
1051	144.2	3.60	0.0	0.0	0.0	0.0	5010
1052	99.5	*3.60	0.0	0.0	0.0	0.0	5010
1053	139.2	5.00	0.0	0.0	0.0	0.0	5010
1054	139.0	4.10	0.0	0.0	0.0	0.0	5010
1055	122.3	3.60	0.0	0.0	0.0	0.0	5010
1056	130.7	3.50	0.0	0.0	0.0	0.0	5010
1057	125.7	3.70	0.0	0.0	0.0	0.0	5010
1058	130.7	3.50	0.0	0.0	0.0	0.0	5010
1059	138.8	3.90	0.0	0.0	0.0	0.0	5010
1060	129.7	4.20	0.0	0.0	0.0	0.0	5010
1061	129.7	4.50	0.0	0.0	0.0	0.0	5010
1062	129.1	3.80	0.0	0.0	0.0	0.0	5010
1063	137.0	4.00	0.0	0.0	0.0	0.0	5010
1064	146.2	3.80	4.06	0.0	0.0	0.0	5010
1065	130.8	4.60	0.0	0.0	0.0	0.0	2010
1066	129.1	4.00	0.0	0.0	0.0	0.0	5010
1067	138.9	3.50	0.0	0.0	0.0	0.0	5010
1068	132.3	4.20	0.0	0.0	0.0	0.0	5010
1069	159.6	3.80	0.0	0.0	0.0	0.0	5010
1070	131.3	4.40	0.0	0.0	0.0	0.0	5010
1071	130.6	4.70	0.0	0.0	0.0	0.0	5010
1076	123.1	3.50	0.0	0.0	0.0	0.0	5010
1077	129.7	4.10	0.0	0.0	0.0	0.0	5010
1078	139.6	4.10	0.0	0.0	0.0	0.0	5010
1079	160.4	3.60	0.0	0.0	0.0	0.0	5010
1080	171.0	4.80	0.0	0.0	0.0	0.0	3010
1081	106.2	4.40	0.0	0.0	0.0	0.0	5010
1082	139.3	4.30	0.0	0.0	0.0	0.0	5010
1083	130.8	5.70	4.33	4.24	4.04	0.0	1010
1084	152.8	4.50	0.0	0.0	0.0	0.0	5010
1085	130.3	6.10	4.78	4.89	4.53	0.0	1010
1086	99.5	4.70	0.0	0.0	0.0	0.0	5010
1087	100.9	4.00	0.0	0.0	0.0	0.0	5010
1088	130.6	3.90	0.0	0.0	0.0	0.0	5010
1089	136.2	3.70	0.0	0.0	0.0	0.0	5010
1090	128.2	4.00	0.0	0.0	0.0	0.0	5010

LA PAZ, BOLIVIA

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LP RATIO	COMMENT
1091	159.1	3.70	0.0	0.0	0.0	0.0	5010
1092	142.6	4.20	0.0	0.0	0.0	0.0	5010
1093	134.6	4.30	0.0	0.0	0.0	0.0	5010
1094	130.1	3.90	0.0	0.0	0.0	0.0	5010
1095	160.2	4.10	0.0	0.0	0.0	0.0	5010
1096	127.3	3.50	0.0	0.0	0.0	0.0	5010
1097	123.1	3.60	0.0	0.0	0.0	0.0	5010
1098	105.9	3.80	0.0	0.0	0.0	0.0	5010
1099	123.9	3.60	0.0	0.0	0.0	0.0	5010
1100	125.1	*4.40	0.0	0.0	0.0	0.0	5010
1101	125.3	3.70	0.0	0.0	0.0	0.0	5010
1102	129.7	3.70	0.0	0.0	0.0	0.0	5010
1103	122.3	3.80	0.0	0.0	0.0	0.0	5010
1104	132.3	4.50	0.0	0.0	0.0	0.0	5010
1105	123.1	3.60	0.0	0.0	0.0	0.0	5010
1106	130.3	5.20	0.0	0.0	0.0	0.0	5010
1107	106.4	4.30	0.0	0.0	0.0	0.0	5010
1108	101.3	4.20	0.0	0.0	0.0	0.0	5010
1109	101.1	3.90	0.0	0.0	0.0	0.0	5010
1110	125.3	3.50	0.0	0.0	0.0	0.0	5010
1111	122.3	4.00	0.0	0.0	0.0	0.0	5010
1112	154.3	5.20	0.0	0.0	0.0	0.0	5010
1113	161.4	4.00	0.0	0.0	0.0	0.0	5010
1114	127.7	4.20	0.0	0.0	0.0	0.0	5010
1115	139.0	4.30	0.0	0.0	0.0	0.0	5010
1116	138.3	3.80	0.0	0.0	0.0	0.0	5010
1117	122.1	4.70	0.0	0.0	0.0	0.0	5010
1118	122.1	4.60	0.0	0.0	0.0	0.0	5010
1119	99.5	4.00	3.26	0.0	0.0	0.0	2010
1120	130.3	4.40	0.0	0.0	0.0	0.0	3010
1121	129.7	4.50	0.0	0.0	0.0	0.0	5010
1122	135.5	3.90	0.0	0.0	0.0	0.0	5010
1123	127.4	4.80	0.0	0.0	0.0	0.0	5010
1124	125.4	3.70	0.0	0.0	0.0	0.0	5010
1125	130.7	*5.30	4.02	3.81	3.47	0.0	1010
1126	139.1	3.40	0.0	0.0	0.0	0.0	5010
1127	129.7	4.70	0.0	0.0	0.0	0.0	5010
1128	99.1	3.50	0.0	0.0	0.0	0.0	3010
1130	167.2	3.90	0.0	0.0	0.0	0.0	3010
1131	165.4	4.80	0.0	0.0	0.0	0.0	3010
1132	167.5	5.50	4.85	4.68	4.57	0.0	1010
1133	156.9	4.10	0.0	0.0	0.0	0.0	3010
1134	125.8	3.60	0.0	0.0	0.0	0.0	5010
1135	140.8	3.80	0.0	0.0	0.0	0.0	5010
1136	127.7	3.90	0.0	0.0	0.0	0.0	5010
1137	103.5	3.80	0.0	0.0	0.0	0.0	5010
1138	137.3	4.00	0.0	0.0	0.0	0.0	5010
1139	99.6	4.10	0.0	0.0	0.0	0.0	5010
1140	129.7	4.10	0.0	0.0	0.0	0.0	5010

LA PAZ, BOLIVIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1141	124.6	5.20	4.07	3.67	0.0	0.0	1010
1142	137.8	4.00	0.0	0.0	0.0	0.0	5010
1143	166.9	5.30	0.0	0.0	0.0	0.0	5010
1144	166.4	4.30	0.0	0.0	0.0	0.0	3010
1145	166.9	4.40	0.0	0.0	0.0	0.0	5010
1146	145.3	3.80	0.0	0.0	0.0	0.0	5010
1148	127.5	3.60	0.0	0.0	0.0	0.0	5010
1149	135.0	4.60	0.0	0.0	0.0	0.0	5010
1150	146.5	3.90	0.0	0.0	0.0	0.0	5010
1151	130.6	4.80	0.0	0.0	0.0	0.0	5010
1152	126.0	4.70	0.0	0.0	0.0	0.0	5010
1153	137.9	3.80	0.0	0.0	0.0	0.0	5010
1154	136.5	3.80	0.0	0.0	0.0	0.0	5010
1155	136.9	4.40	0.0	0.0	0.0	0.0	5010
1156	137.5	3.80	0.0	0.0	0.0	0.0	5010
1157	136.8	3.70	0.0	0.0	0.0	0.0	5010
1158	136.1	5.00	0.0	0.0	0.0	0.0	5010
1159	123.1	3.80	0.0	0.0	0.0	0.0	2010
1160	136.8	4.00	0.0	0.0	0.0	0.0	5010
1161	148.0	4.30	0.0	0.0	0.0	0.0	5010
1162	138.8	4.20	0.0	0.0	0.0	0.0	5010
1163	137.8	3.80	0.0	0.0	0.0	0.0	5010
1164	150.7	4.80	0.0	0.0	0.0	0.0	5010
1165	140.1	4.30	0.0	0.0	0.0	0.0	5010
1166	139.5	5.20	0.0	0.0	0.0	0.0	5010
1167	140.5	3.70	0.0	0.0	0.0	0.0	5010
1168	139.4	5.30	0.0	0.0	0.0	0.0	5010
1169	140.1	3.60	0.0	0.0	0.0	0.0	5010
1170	140.2	4.10	0.0	0.0	0.0	0.0	5010
1171	122.7	4.00	0.0	0.0	0.0	0.0	5010
1172	139.4	5.40	0.0	4.17	0.0	0.0	1010
1173	139.6	3.90	0.0	0.0	0.0	0.0	3010
1174	139.3	4.70	0.0	0.0	0.0	0.0	3010
1175	139.4	4.10	0.0	0.0	0.0	0.0	3010
1176	139.3	4.50	0.0	0.0	0.0	0.0	3010
1177	139.4	4.20	0.0	0.0	0.0	0.0	5010
1178	139.5	4.60	4.02	0.0	0.0	0.0	2010
1179	139.4	4.70	0.0	0.0	0.0	0.0	5010
1180	139.4	5.30	0.0	0.0	0.0	0.0	5010
1181	138.5	3.40	0.0	0.0	0.0	0.0	5010
1182	139.2	5.40	0.0	0.0	0.0	0.0	5010
1183	139.5	4.50	0.0	0.0	0.0	0.0	5010
1184	137.2	3.60	0.0	0.0	0.0	0.0	3010
1185	139.3	4.20	0.0	0.0	0.0	0.0	5010
1186	139.0	3.50	0.0	0.0	0.0	0.0	5010
1187	139.5	4.10	0.0	0.0	0.0	0.0	5010
1188	139.0	3.70	0.0	0.0	0.0	0.0	5010
1189	139.0	3.30	0.0	0.0	0.0	0.0	5010
1190	139.4	4.40	0.0	0.0	0.0	0.0	5010

LA PAZ, BOLIVIA

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/IR RATIO	COMMENT
1191	139.4	4.10	0.0	0.0	0.0	0.0	5010
1192	139.2	4.10	0.0	0.0	0.0	0.0	5010
1193	140.1	3.60	0.0	0.0	0.0	0.0	5010
1194	139.4	4.20	0.0	0.0	0.0	0.0	5010
1195	140.1	3.70	0.0	0.0	0.0	0.0	5010
1196	139.3	4.30	0.0	0.0	0.0	0.0	5010
1197	139.0	3.60	0.0	0.0	0.0	0.0	5010
1198	139.5	4.90	0.0	0.0	0.0	0.0	5010
1199	139.4	4.50	0.0	0.0	0.0	0.0	5010
1200	171.2	4.20	0.0	0.0	0.0	0.0	5010
1201	139.0	4.20	0.0	0.0	0.0	0.0	5010
1202	139.0	4.20	0.0	0.0	0.0	0.0	5010
1203	137.8	3.40	4.40	0.0	0.0	0.0	2010
1204	134.4	3.70	0.0	0.0	0.0	0.0	5010
1205	124.4	4.30	0.0	0.0	0.0	0.0	5010
1206	143.3	3.90	4.36	0.0	0.0	0.0	2010
1207	130.1	3.60	0.0	0.0	0.0	0.0	5010
1208	139.3	4.10	0.0	0.0	0.0	0.0	5010
1209	139.5	3.70	0.0	0.0	0.0	0.0	3010
1211	141.2	3.80	0.0	0.0	0.0	0.0	5010
1212	128.9	4.30	0.0	0.0	0.0	0.0	5010
1213	137.2	3.70	0.0	0.0	0.0	0.0	5010
1214	128.7	3.40	0.0	0.0	0.0	0.0	3010
1215	140.3	3.60	0.0	0.0	0.0	0.0	5010
1216	154.9	3.80	0.0	0.0	0.0	0.0	5010
1223	126.8	5.10	0.0	0.0	0.0	0.0	5010
1224	140.4	3.80	0.0	0.0	0.0	0.0	5010
1225	123.1	3.60	0.0	0.0	0.0	0.0	5010
1226	126.1	3.70	0.0	0.0	0.0	0.0	5010
1227	141.2	4.70	0.0	0.0	0.0	0.0	5010
1228	140.0	3.70	0.0	0.0	0.0	0.0	5010
1232	130.1	5.60	0.0	0.0	0.0	0.0	5010
1233	140.2	3.20	0.0	0.0	0.0	0.0	5010
1234	121.2	3.40	0.0	0.0	0.0	0.0	5010
1235	140.2	3.60	0.0	0.0	0.0	0.0	5010
1238	145.6	3.40	0.0	0.0	0.0	0.0	5010
1239	125.3	4.40	0.0	0.0	0.0	0.0	5010
1240	140.0	4.00	0.0	0.0	0.0	0.0	5010
1242	137.8	4.00	0.0	0.0	0.0	0.0	5010
1243	138.6	4.20	0.0	0.0	0.0	0.0	5010
1244	137.3	3.50	0.0	0.0	0.0	0.0	5010
1245	125.4	3.70	0.0	0.0	0.0	0.0	5010
1246	159.1	3.60	0.0	0.0	0.0	0.0	5010
1255	125.9	3.60	3.71	0.0	0.0	0.0	2010
1256	124.9	3.30	0.0	0.0	0.0	0.0	5010
1266	137.0	5.40	0.0	0.0	0.0	0.0	5010
1268	134.1	5.30	0.0	0.0	0.0	0.0	5010
1269	131.4	5.30	0.0	0.0	0.0	0.0	5010
1272	115.8	6.00	0.0	0.0	0.0	0.0	5010

LA PAZ, BOLIVIA

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1273	123.0	5.20	0.0	0.0	0.0	0.0	5010
1274	137.1	5.30	0.0	0.0	0.0	0.0	5010
1275	122.8	4.80	0.0	0.0	0.0	0.0	5010
1276	115.9	6.90	0.0	0.0	0.0	0.0	5010
1277	115.6	4.20	0.0	0.0	0.0	0.0	5010
1278	115.5	4.40	0.0	0.0	0.0	0.0	2010
1279	115.0	4.80	0.0	0.0	0.0	0.0	5010
1280	137.3	6.00	0.0	0.0	0.0	0.0	5010

APPENDIX II-M
BASIC DATA FOR
MAT SUSHIRO, JAPAN (MAT)

MATSUSHIRO, JAPAN

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LO/LP RATIO	COMMENT
852	18.0	4.10	0.0	0.0	0.0	0.0	2011
853	39.8	3.90	0.0	0.0	0.0	0.0	5011
854	42.3	3.80	0.0	0.0	0.0	0.0	2011
855	52.6	4.00	0.0	0.0	0.0	0.0	3011
856	80.2	3.70	0.0	0.0	0.0	0.0	5011
857	23.9	4.80	0.0	3.32	0.0	0.0	1011
858	12.5	4.70	3.35	5.12	0.0	0.0	1011
859	22.1	5.70	5.31	5.25	0.0	0.72	1011
860	23.4	3.50	0.0	0.0	0.0	0.0	2011
861	61.4	3.60	0.0	0.0	0.0	0.0	2011
862	70.7	4.60	0.0	0.0	0.0	0.0	2011
863	82.6	3.60	0.0	0.0	0.0	0.0	2011
864	13.5	4.00	0.0	0.0	0.0	0.0	3011
865	44.5	4.50	0.0	0.0	0.0	0.0	2011
866	83.8	3.50	0.0	0.0	0.0	0.0	3011
867	18.5	4.10	3.55	0.0	0.0	0.0	1011
868	25.6	4.30	0.0	0.0	0.0	0.0	5011
869	27.4	4.30	0.0	0.0	0.0	0.0	2011
870	44.4	4.10	0.0	0.0	0.0	0.0	2011
871	11.1	3.80	0.0	0.0	0.0	0.0	5011
872	71.8	3.80	0.0	0.0	0.0	0.0	5011
873	41.0	4.50	3.71	0.0	0.0	0.0	1011
874	81.2	4.40	0.0	0.0	0.0	0.0	2011
875	41.0	4.90	3.55	3.36	3.12	0.0	1011
878	23.5	3.50	0.0	0.0	0.0	0.0	6011
879	26.4	3.60	0.0	0.0	0.0	0.0	2011
880	85.9	4.30	0.0	0.0	0.0	0.0	3011
881	41.5	5.20	4.17	4.13	0.0	1.06	1011
882	19.7	4.10	0.0	0.0	0.0	0.0	2011
883	42.6	3.70	0.0	0.0	0.0	0.0	3011
884	51.2	5.50	4.53	3.85	3.65	0.0	1011
885	51.1	4.80	0.0	0.0	0.0	0.0	2011
886	53.0	3.80	0.0	0.0	0.0	0.0	2011
887	50.8	4.70	0.0	0.0	0.0	0.0	2011
888	20.2	3.50	0.0	0.0	0.0	0.0	2011
889	25.2	3.40	0.0	4.32	3.61	0.03	6011
890	86.7	5.30	5.46	4.66	0.0	0.99	1011
891	87.1	4.00	0.0	0.0	0.0	0.0	2011
892	86.7	4.30	0.0	0.0	0.0	0.0	2011
893	17.9	4.70	3.53	0.0	0.0	0.0	1011
901	23.9	3.80	0.0	0.0	0.0	0.0	2011
902	53.0	3.70	0.0	0.0	0.0	0.0	2011
903	69.9	3.90	0.0	0.0	0.0	0.0	2011
904	23.5	3.90	0.0	0.0	0.0	0.0	2011
905	51.5	3.80	0.0	0.0	0.0	0.0	2011
906	70.6	3.60	0.0	0.0	0.0	0.0	2011
914	31.2	4.60	0.0	3.45	2.83	2.24	1011
915	56.3	4.80	0.0	0.0	0.0	0.0	2011
916	56.3	4.50	0.0	0.0	0.0	0.0	2011

MATSUSHIRO, JAPAN

EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
917	62.6	3.80	0.0	0.0	0.0	0.0	2011
918	56.4	5.00	0.0	3.76	0.0	1.29	1711
919	53.4	3.60	0.0	0.0	0.0	0.0	2011
920	32.7	3.70	0.0	0.0	0.0	0.0	5011
921	58.1	3.90	0.0	0.0	0.0	0.0	3011
922	58.1	4.00	0.0	0.0	0.0	0.0	5011
923	11.7	3.90	0.0	0.0	0.0	0.0	2011
924	51.3	4.30	0.0	0.0	0.0	0.0	2011
925	17.5	4.00	2.75	0.0	2.28	0.0	1011
926	36.7	4.90	3.29	2.82	2.64	1.05	1011
927	85.7	4.60	0.0	0.0	0.0	0.0	2011
928	12.3	3.40	0.0	3.36	2.86	0.11	1011
929	43.1	5.10	0.0	3.47	3.06	1.66	1011
930	41.8	4.50	0.0	0.0	0.0	0.0	2011
931	50.7	3.70	0.0	0.0	0.0	0.0	2011
932	24.1	5.30	0.0	4.33	0.0	0.0	1011
933	87.4	4.70	0.0	0.0	0.0	0.0	5011
934	85.9	3.70	0.0	0.0	0.0	0.0	2011
935	11.1	4.00	0.0	3.55	0.0	0.12	1011
936	12.3	3.80	0.0	0.0	0.0	0.0	2011
937	19.2	5.20	4.48	4.14	0.0	0.29	1011
938	50.7	4.00	0.0	0.0	0.0	0.0	2011
939	86.3	4.30	0.0	0.0	0.0	0.0	2011
940	51.3	5.00	0.0	0.0	0.0	0.0	2011
941	86.1	4.30	0.0	0.0	0.0	0.0	5011
942	65.9	4.50	3.52	3.44	0.0	0.0	1011
943	24.6	4.50	0.0	3.24	3.01	2.59	1011
944	82.1	3.90	0.0	0.0	0.0	0.0	2011
945	84.4	3.60	0.0	0.0	0.0	0.0	2011
946	34.0	4.30	3.50	3.03	0.0	1.47	6011
947	82.9	3.30	0.0	0.0	0.0	0.0	2011
948	83.9	3.80	0.0	0.0	0.0	0.0	5011
957	86.4	4.50	0.0	0.0	0.0	0.0	2011
958	52.6	3.90	0.0	0.0	0.0	0.0	2011
959	27.6	4.60	3.17	3.11	0.0	3.47	6011
960	10.8	3.70	0.0	0.0	0.0	0.0	2011
961	31.1	4.30	3.68	3.16	0.0	0.38	1011
962	10.5	4.10	2.71	2.79	2.10	1.65	1011
963	65.7	4.00	0.0	0.0	0.0	0.0	2011
964	14.6	3.80	0.0	0.0	0.0	0.0	2011
965	40.8	4.80	0.0	3.25	3.09	1.68	1011
966	70.2	5.20	4.29	4.11	3.86	0.0	1011
967	26.4	3.80	0.0	0.0	0.0	0.0	2011
984	19.2	6.30	0.0	0.0	0.0	0.0	5011
985	19.4	4.90	0.0	0.0	0.0	0.0	5011
986	19.1	5.30	0.0	0.0	0.0	0.0	3011
987	19.1	5.50	0.0	0.0	0.0	0.0	3011
988	18.0	4.20	0.0	0.0	0.0	0.0	3011
989	20.7	3.80	0.0	0.0	0.0	0.0	5011

MATSUSHIRO, JAPAN

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
990	56.8	4.20	0.0	0.0	0.0	0.0	5011
991	19.1	4.00	0.0	0.0	0.0	0.0	5011
992	20.2	4.30	0.0	0.0	0.0	0.0	5011
993	20.2	4.10	0.0	0.0	0.0	0.0	5011
994	18.6	3.60	0.0	0.0	0.0	0.0	5011
995	20.2	4.00	0.0	0.0	0.0	0.0	5011
996	19.1	3.50	0.0	0.0	0.0	0.0	5011
997	19.1	4.90	0.0	0.0	0.0	0.0	5011
998	19.2	4.20	0.0	0.0	0.0	0.0	5011
999	19.1	3.70	0.0	0.0	0.0	0.0	5011
1000	19.1	5.20	0.0	0.0	0.0	0.0	5011
1001	19.6	4.10	0.0	0.0	0.0	0.0	5011
1002	19.6	3.90	0.0	0.0	0.0	0.0	2011
1003	18.8	3.90	0.0	0.0	0.0	0.0	5011
1005	19.7	3.90	0.0	0.0	0.0	0.0	5011
1006	19.6	3.90	0.0	0.0	0.0	0.0	5011
1007	20.2	4.60	0.0	0.0	0.0	0.0	5011
1008	19.1	5.50	4.64	3.55	0.0	1.66	1011
1009	19.6	4.20	3.44	0.0	0.0	0.0	2011
1010	19.1	4.00	3.00	0.0	0.0	0.0	2011
1011	20.2	3.90	2.97	2.81	2.48	0.0	1011
1012	19.1	4.50	3.12	3.04	0.0	0.0	1011
1013	20.2	4.40	2.93	0.0	0.0	0.0	2011
1014	20.8	3.90	2.99	0.0	0.0	0.0	2011
1015	18.1	3.40	2.50	0.0	0.0	0.0	2011
1016	19.7	4.60	2.93	2.90	2.34	0.0	1011
1017	32.1	4.20	3.40	0.0	0.0	0.0	2011
1018	17.5	4.70	2.91	2.79	0.0	0.0	6011
1019	19.7	4.00	0.0	3.77	3.61	0.50	1011
1023	20.2	3.70	0.0	0.0	0.0	0.0	5011
1024	19.6	4.10	2.62	0.0	0.0	0.0	2011
1025	20.2	4.20	3.56	2.87	0.0	1.41	1011
1026	50.5	3.70	0.0	0.0	0.0	0.0	3011
1027	20.2	3.50	2.37	0.0	0.0	0.0	2011
1028	80.9	3.60	0.0	0.0	0.0	0.0	5011
1029	18.9	5.50	4.31	4.16	3.78	0.75	1011
1030	70.8	4.60	3.63	3.42	3.34	0.0	1011
1031	13.5	3.50	0.0	2.80	0.0	0.0	1011
1032	20.2	4.60	3.18	0.0	0.0	0.0	2011
1033	45.8	4.60	3.84	0.0	0.0	0.0	2011
1034	51.5	3.70	3.12	0.0	0.0	0.0	2011
1035	19.5	4.60	3.70	3.28	0.0	0.50	1011
1036	19.7	4.40	2.88	2.81	0.0	0.0	6011
1037	20.7	3.70	3.35	2.87	0.0	1.71	1011
1038	26.1	3.90	3.33	3.26	0.0	0.0	1011
1039	24.2	6.10	5.66	5.59	5.08	1.26	1011
1040	16.8	4.20	2.47	0.0	0.0	0.0	2011
1041	20.2	4.00	3.43	3.00	0.0	0.92	1011
1042	85.5	3.70	3.44	0.0	0.0	0.0	2011

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EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1043	20.2	3.90	3.09	3.06	2.72	1.24	1011
1044	48.0	3.40	3.77	3.55	0.0	0.0	1011
1045	25.6	3.70	3.71	0.0	0.0	0.0	2011
1046	19.6	3.60	2.89	0.0	0.0	0.0	2011
1047	51.5	3.60	3.22	0.0	0.0	0.0	2011
1048	83.6	4.00	3.58	0.0	0.0	0.0	2011
1049	52.6	3.60	0.0	0.0	0.0	0.0	3011
1050	18.9	5.00	3.72	3.16	0.0	1.30	1011
1051	47.7	3.60	3.37	0.0	0.0	0.0	2011
1052	83.5	*3.60	3.74	0.0	0.0	0.0	2011
1053	52.5	5.00	3.63	0.0	0.0	0.0	2011
1054	10.5	4.10	2.83	2.52	0.0	0.0	1011
1055	70.8	3.60	3.61	0.0	0.0	0.0	2011
1056	19.1	3.50	0.0	0.0	0.0	0.0	5011
1057	24.4	3.70	3.01	0.0	0.0	0.0	2011
1058	19.1	3.50	3.45	3.33	0.0	0.0	1011
1059	10.5	3.90	0.0	0.0	0.0	0.0	3011
1060	20.2	4.20	0.0	0.0	0.0	0.0	3011
1061	20.2	4.50	3.25	0.0	0.0	0.0	2011
1062	20.7	3.80	3.02	0.0	0.0	0.0	2011
1063	56.1	4.00	3.16	0.0	0.0	0.0	2011
1064	32.1	3.80	4.59	0.0	0.0	0.0	2011
1065	19.0	4.60	4.04	3.66	0.0	0.0	1011
1066	20.7	4.00	2.77	0.0	0.0	0.0	2011
1067	53.0	3.50	3.28	0.0	0.0	0.0	2011
1068	17.5	4.20	0.0	0.0	0.0	0.0	3011
1069	40.9	3.80	3.17	3.06	0.0	0.0	1011
1070	18.6	4.40	2.76	0.0	0.0	0.0	2011
1071	19.4	4.70	3.47	3.26	0.0	0.0	1011
1072	85.1	3.10	0.0	0.0	0.0	0.0	3011
1073	86.5	3.70	3.52	0.0	0.0	0.0	2011
1074	17.5	4.40	3.17	2.73	0.0	0.0	1011
1075	18.0	3.90	2.83	0.0	0.0	0.0	2011
1076	70.6	3.50	3.64	0.0	0.0	0.0	2011
1077	20.2	4.10	2.84	0.0	0.0	0.0	2011
1078	10.0	4.10	3.07	0.0	0.0	0.0	2011
1081	80.7	4.40	3.36	0.0	0.0	1.61	1011
1082	10.2	4.30	3.27	2.87	0.0	1.07	1011
1083	19.0	5.70	5.20	4.73	0.0	1.66	1011
1084	35.2	4.50	3.68	0.0	0.0	0.0	2011
1085	19.6	6.10	5.62	5.48	0.0	0.68	1011
1086	86.6	4.70	4.92	0.0	0.0	0.0	2011
1087	86.6	4.00	3.45	0.0	0.0	0.0	2011
1088	19.0	3.90	2.78	0.0	0.0	0.0	2011
1089	13.6	3.70	2.73	0.0	0.0	0.0	2011
1090	21.8	4.00	0.0	0.0	0.0	0.0	5011
1091	38.8	3.70	3.13	0.0	0.0	0.0	2011
1092	47.8	4.20	3.41	0.0	0.0	0.0	2011
1093	14.8	4.30	2.97	2.73	2.53	2.87	1011

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EVENT NO.	DISTANCE (DEGREES)	MP	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1094	19.6	3.90	0.0	0.0	0.0	0.0	5011
1095	41.9	4.10	3.32	3.23	2.90	0.0	1011
1096	23.0	3.50	2.90	0.0	0.0	0.0	2011
1097	70.1	3.60	3.11	0.0	0.0	0.0	2011
1098	79.9	3.80	3.26	0.0	0.0	0.0	2011
1099	26.5	3.60	2.99	0.0	0.0	0.0	2011
1100	70.5	*4.40	3.39	0.0	0.0	0.0	2011
1101	25.0	3.70	2.89	2.92	0.0	0.0	1011
1113	32.8	4.00	2.75	0.0	0.0	0.0	2011
1114	22.4	4.20	3.60	3.49	0.0	1.50	1011
1115	10.5	4.30	2.78	2.60	0.0	0.0	1011
1116	11.1	3.80	0.0	0.0	0.0	0.0	3011
1117	27.6	4.70	3.31	2.87	0.0	0.0	1011
1118	27.6	4.60	2.78	0.0	0.0	0.0	2011
1119	86.6	4.00	3.39	0.0	0.0	0.0	2011
1120	19.7	4.40	0.0	3.27	0.0	0.38	1011
1121	20.2	4.50	3.02	0.0	0.0	0.0	2011
1122	14.0	3.90	2.95	2.79	0.0	0.0	1011
1123	22.4	4.80	3.37	0.0	0.0	0.0	2011
1124	25.2	3.70	2.72	0.0	0.0	0.0	2011
1125	19.2	*5.30	4.73	4.36	3.83	1.77	1011
1126	10.8	3.40	2.47	0.0	0.0	0.0	2011
1127	20.2	4.70	3.02	2.91	0.0	0.0	1011
1128	85.6	3.50	0.0	0.0	0.0	0.0	3011
1130	18.1	3.90	0.0	3.11	0.0	0.0	6011
1131	18.2	4.80	0.0	0.0	0.0	0.0	3011
1132	18.6	5.50	5.36	5.50	5.12	0.85	1011
1133	36.2	4.10	4.21	0.0	0.0	0.0	2011
1134	24.6	3.60	3.46	3.25	0.0	3.03	1011
1135	50.4	3.80	3.38	0.0	0.0	0.0	2011
1136	22.4	3.90	0.0	0.0	0.0	0.0	3011
1137	84.1	3.80	0.0	0.0	0.0	0.0	3011
1138	12.4	4.00	2.71	0.0	0.0	0.0	2011
1139	85.2	4.10	0.0	0.0	0.0	0.0	3011
1140	20.2	4.10	0.0	3.00	3.04	0.0	1011
1141	70.1	5.20	4.27	4.06	0.0	0.0	1011
1142	11.7	4.00	2.63	0.0	0.0	0.0	2011
1143	18.2	5.30	5.30	5.46	4.60	3.31	1011
1144	17.5	4.30	0.0	0.0	0.0	0.0	5011
1145	17.9	4.40	3.42	2.97	0.0	1.26	1011
1146	32.2	3.80	2.92	0.0	0.0	0.0	2011
1148	68.4	3.60	3.96	0.0	0.0	0.0	2011
1149	14.6	4.60	3.01	2.90	0.0	0.56	1011
1150	48.4	3.90	3.17	0.0	0.0	0.0	2011
1151	19.3	4.80	3.47	3.19	0.0	0.71	1011
1152	24.4	4.70	0.0	0.0	0.0	0.0	3011
1153	50.6	3.80	3.89	0.0	0.0	0.0	2011
1154	52.0	3.80	0.0	0.0	0.0	0.0	5011
1155	53.9	4.40	4.32	0.0	0.0	1.38	1011

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EVENT NO.	DISTANCE (DEGREES)	MR	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LF RATIO	COMMENT
1156	53.0	3.80	0.0	0.0	0.0	0.0	2011
1157	53.8	3.70	0.0	0.0	0.0	0.0	5011
1158	13.4	5.00	4.14	3.92	3.46	0.45	1011
1159	70.1	3.80	0.0	0.0	0.0	0.0	5011
1160	53.8	4.00	0.0	0.0	0.0	0.0	5011
1161	38.9	4.30	0.0	0.0	0.0	0.0	5011
1162	10.8	4.20	0.0	0.0	0.0	0.0	3011
1163	11.7	3.80	2.97	2.55	2.19	1.01	1011
1164	45.2	4.80	0.0	3.37	2.91	2.07	1011
1165	9.7	4.30	3.90	4.40	0.0	1.12	1011
1166	10.0	5.20	0.0	4.43	0.0	0.85	1011
1167	48.8	3.70	4.03	0.0	0.0	0.0	2011
1168	10.0	5.30	3.77	3.55	0.0	2.15	1011
1169	9.3	3.60	0.0	2.77	0.0	1.32	1011
1170	9.4	4.10	2.82	2.31	0.0	2.39	1011
1187	10.0	4.10	0.0	0.0	0.0	0.0	5011
1188	10.5	3.70	0.0	0.0	0.0	0.0	5011
1189	10.5	3.30	0.0	2.61	0.0	5.69	1011
1190	10.1	4.40	3.55	3.24	0.0	0.93	1011
1191	10.1	4.10	0.0	0.0	0.0	0.0	3011
1192	10.3	4.10	3.26	2.64	0.0	0.0	1011
1193	9.3	3.60	0.0	2.64	0.0	2.44	1011
1194	10.1	4.20	3.43	2.85	0.0	1.86	1011
1195	9.3	3.70	2.82	0.0	0.0	0.0	1011
1196	10.2	4.30	3.80	0.0	0.0	0.0	1011
1197	10.5	3.60	0.0	0.0	0.0	0.0	3011
1198	10.0	4.90	0.0	4.05	0.0	0.71	1011
1199	10.1	4.50	3.88	0.0	0.0	2.54	1011
1200	24.0	4.20	0.0	0.0	0.0	0.0	5011
1201	10.5	4.20	0.0	0.0	0.0	0.0	3011
1202	10.5	4.20	0.0	0.0	0.0	0.0	3011
1203	11.7	3.40	4.24	0.0	0.0	0.0	1011
1204	15.2	3.70	0.0	3.59	0.0	0.0	1011
1205	70.6	4.30	3.30	3.27	0.0	0.0	1011
1206	47.1	3.90	0.0	0.0	0.0	0.0	3011
1207	19.6	3.60	0.0	0.0	0.0	0.0	2 11
1208	10.2	4.10	3.27	2.94	0.0	1.62	1 11
1209	9.9	3.70	2.83	0.0	0.0	0.0	10 11
1211	49.3	3.80	0.0	0.0	0.0	0.0	5011
1212	21.2	4.30	0.0	3.27	2.66	0.0	1011
1213	12.3	3.70	2.83	0.0	0.0	0.0	1011
1214	21.3	3.40	0.0	0.0	0.0	0.0	5011
1215	53.0	3.60	4.09	0.0	0.0	0.0	2011
1216	35.3	3.80	0.0	0.0	0.0	0.0	5011
1217	9.3	3.80	0.0	2.36	0.0	0.0	1011
1218	20.2	4.20	0.0	0.0	0.0	0.0	3011
1219	51.5	3.70	3.10	0.0	0.0	0.0	2011
1220	42.5	3.90	0.0	0.0	0.0	0.0	5011
1221	41.6	3.80	0.0	0.0	0.0	0.0	5011

MATSUSHIRO, JAPAN

EVENT NO.	DISTANCE (DEGREES)	MB	MS T=20SEC	MS T=30SEC	MS T=40SEC	LQ/LR RATIO	COMMENT
1222	11.2	3.70	2.65	2.35	0.0	1.05	1011
1223	23.2	5.10	0.0	0.0	3.14	0.0	1011
1224	51.5	3.80	0.0	0.0	0.0	0.0	3011
1225	70.1	3.60	3.73	0.0	0.0	0.0	2011
1226	23.9	3.70	3.19	2.58	0.0	0.0	1011
1227	46.4	4.70	3.60	2.73	0.0	3.00	1011
1228	52.6	3.70	0.0	0.0	0.0	0.0	3011
1229	20.2	4.10	2.72	2.39	0.0	0.0	1011
1230	11.2	3.50	0.0	0.0	0.0	0.0	5011
1231	56.3	5.10	0.0	0.0	0.0	0.0	5011
1232	19.8	5.60	0.0	3.88	0.0	0.0	1011
1233	9.9	3.20	0.0	2.31	0.0	0.0	1011
1234	28.9	3.40	0.0	0.0	0.0	0.0	2011
1235	9.9	3.60	0.0	0.0	0.0	0.0	2011
1258	8.8	3.90	0.0	0.0	0.0	0.0	5011
1259	17.4	4.00	0.0	3.20	2.56	0.0	1011
1260	25.6	4.80	0.0	3.83	3.54	2.26	1011
1261	25.9	3.50	0.0	0.0	0.0	0.0	3011
1262	24.8	3.70	0.0	0.0	0.0	0.0	5011
1268	53.3	5.30	0.0	0.0	0.0	0.0	2011
1269	50.5	5.30	0.0	0.0	0.0	0.0	4011
1270	53.2	6.80	5.59	0.0	0.0	0.23	1011
1275	57.4	4.80	0.0	0.0	0.0	0.0	5011
1276	53.9	6.90	5.84	5.29	0.0	2.37	1011
1277	54.2	4.20	0.0	0.0	0.0	0.0	2011
1278	54.3	4.40	0.0	0.0	0.0	0.0	5011
1279	54.5	4.80	3.94	3.48	0.0	0.0	1011
1280	43.9	6.00	0.0	3.84	0.0	1.15	1011

APPENDIX III-A
NETWORK RAYLEIGH WAVE MAGNITUDES (M_s)

EV. NO.	MB	N	VLPE		VLPE, NCF SAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
1	4.1	1	3.85	0.0	1	3.85	0.0
3	4.0				2	3.11	0.49
5	4.2				1	2.50	0.0
6	5.2	2	4.18	0.05	4	4.18	0.04
7	4.8	2	3.74	0.10	4	3.71	0.20
10	4.3				2	3.21	0.29
11	4.8				1	3.90	0.0
13	4.6	2	4.35	0.25	3	4.53	0.40
14	3.9	2	4.15	0.07	2	4.15	0.07
16	4.5				1	3.40	0.0
17	4.0	1	3.17	0.0	2	2.88	0.28
18	4.5				1	3.00	0.0
19	4.0	2	3.97	0.08	2	3.97	0.08
20	3.9				1	3.20	0.0
21	4.7	2	3.37	0.14	3	3.38	0.14
22	4.7	1	3.65	0.0	2	3.82	0.18
23	5.2	2	3.28	0.14	3	3.39	0.23
25	4.2	1	2.81	0.0	1	2.81	0.0
26	4.7	5	6.07	0.35	5	6.07	0.35
27	4.6	1	4.76	0.0	1	4.76	0.0
29	4.3	1	3.56	0.0	2	3.50	0.06
30	3.8	1	3.69	0.0	1	3.69	0.0
31	5.0	5	4.60	0.78	7	4.44	0.72
34	4.0	1	3.93	0.0	1	3.93	0.0
35	4.4	2	4.19	0.07	2	4.19	0.07
36	4.9	3	3.84	0.29	5	3.95	0.26
37	4.8	4	4.26	0.15	6	4.25	0.12
38	4.0	5	4.09	0.34	5	4.09	0.34
39	5.3	4	5.11	0.21	5	5.13	0.19
40	3.9	3	3.63	0.14	5	3.44	0.29
41	5.1				1	3.70	0.0
43	4.7	2	3.38	0.19	3	3.46	0.23
46	3.8				1	2.74	0.0
48	4.1				1	2.80	0.0
50	4.9	2	4.00	0.11	3	3.80	0.36
52	4.8	1	3.35	0.0	3	3.63	0.33
54	4.2				1	3.00	0.0
55	4.4				1	2.70	0.0
58	4.0				1	2.73	0.0
59	4.6				1	3.62	0.0
60	4.2	1	3.37	0.0	2	3.43	0.06
61	4.8	1	4.03	0.0	1	4.03	0.0
62	4.5	1	3.96	0.0	1	3.96	0.0
68	4.0	1	3.18	0.0	2	2.94	0.24
71	3.8				1	3.09	0.0

PV. NO.	MP	N	VLPP		VLPP, NOBSAR & ALPA		
			AVE MS	SIG	N	AVF MS	SIG
72	4.4				1	4.00	0.0
73	4.1	1	4.17	0.0	3	4.02	0.14
76	4.4				1	2.90	0.0
78	3.8	1	3.19	0.0	1	3.19	0.0
80	3.9				1	3.10	0.0
81	3.9	2	3.93	0.13	3	3.96	0.25
87	4.6	3	3.54	0.12	4	3.48	0.15
88	5.1	3	4.61	0.28	4	4.54	0.27
89	4.5	3	3.97	0.43	4	4.00	0.36
90	4.5	4	3.95	0.62	5	3.90	0.55
91	4.2				2	3.26	0.14
92	4.8	1	3.33	0.0	1	3.33	0.0
93	4.8	1	3.53	0.0	1	3.53	0.0
94	4.4	4	3.56	0.31	5	3.53	0.28
95	5.2	3	3.86	0.30	3	3.86	0.30
96	4.5	2	3.31	0.29	2	3.31	0.29
97	4.1	5	3.38	0.41	6	3.36	0.37
98	4.3	2	3.38	0.22	3	3.24	0.34
99	4.1	1	2.89	0.0	3	2.81	0.18
100	3.6	2	2.77	0.01	2	2.77	0.01
102	3.7				1	2.30	0.0
103	4.0	1	3.20	0.0	2	3.00	0.20
104	4.3	4	3.55	0.22	5	3.48	0.25
105	4.2	5	3.68	0.18	7	3.60	0.20
106	4.4	3	3.28	0.13	4	3.23	0.14
111	4.8	2	3.90	0.40	3	3.73	0.51
112	5.7	5	4.95	0.34	5	4.95	0.34
113	4.3				1	2.50	0.0
114	4.8	1	3.93	0.0	1	3.93	0.0
117	4.5	2	3.70	0.02	2	3.70	0.02
118	3.9				1	3.10	0.0
119	4.1				1	3.20	0.0
120	4.9	2	4.41	0.11	3	4.34	0.16
121	4.3	1	2.63	0.0	2	2.83	0.20
123	4.6	1	4.04	0.0	3	3.95	0.08
125	4.5	1	3.44	0.0	2	3.32	0.12
126	3.9	1	3.82	0.0	2	3.81	0.01
127	4.1				1	3.00	0.0
128	4.5				1	2.90	0.0
129	4.8	1	3.72	0.0	2	3.86	0.14
130	3.7				1	2.54	0.0
131	4.7	1	3.81	0.0	3	3.58	0.38
132	4.0				1	2.60	0.0
133	5.2	1	4.12	0.0	1	4.12	0.0
134	5.4	3	4.83	0.13	3	4.83	0.13
137	3.9				1	3.20	0.0

EV. NO.	MB	N	VLPE		VLPE, NOHSAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
138	4.1				1	3.20	0.0
139	4.8	1	4.02	0.0	3	3.83	0.17
140	4.0	1	3.64	0.0	1	3.64	0.0
141	5.3	2	3.98	0.15	2	3.98	0.15
143	3.4	2	3.52	0.31	3	3.22	0.62
144	4.0	1	3.30	0.0	2	3.25	0.05
145	4.8	1	3.77	0.0	3	3.75	0.26
146	4.7	2	3.58	0.13	4	3.65	0.19
147	4.9	3	3.53	0.42	5	3.60	0.37
148	3.7				1	2.37	0.0
156	5.0	3	4.39	0.42	4	4.52	0.43
164	4.0				2	2.98	0.32
165	4.9	3	4.17	0.35	5	4.28	0.38
167	4.9				1	3.50	0.0
169	3.8	1	3.13	0.0	2	2.88	0.24
171	4.7	2	3.24	0.69	3	3.46	0.79
172	5.3	3	4.72	0.85	3	4.72	0.85
175	4.9	3	4.08	0.26	4	4.04	0.23
179	4.4	2	3.19	0.05	3	3.09	0.17
181	4.5				1	3.10	0.0
183	4.2				1	2.80	0.0
186	3.9	2	2.75	0.39	2	2.75	0.39
192	3.8	1	3.03	0.0	1	3.03	0.0
193	4.4	2	3.33	0.56	3	3.52	0.65
200	4.4	1	4.11	0.0	1	4.11	0.0
205	3.6	2	3.67	0.41	3	3.56	0.46
208	4.1	1	3.32	0.0	1	3.32	0.0
210	4.0				1	2.70	0.0
214	4.0	1	3.76	0.0	1	3.76	0.0
218	3.7	1	3.26	0.0	1	3.26	0.0
223	4.3	1	3.58	0.0	1	3.58	0.0
224	4.0	1	3.32	0.0	1	3.32	0.0
232	4.4	1	2.68	0.0	2	3.04	0.36
233	4.5				1	3.80	0.0
235	4.5				1	3.90	0.0
236	4.4				1	3.43	0.0
237	3.6	1	3.14	0.0	1	3.14	0.0
241	3.9	1	2.93	0.0	1	2.93	0.0
255	4.6	1	3.77	0.0	2	3.73	0.03
256	3.5	2	3.38	0.05	3	3.22	0.28
261	3.7				1	2.80	0.0
262	4.9	2	4.11	0.19	2	4.11	0.19
264	3.8	1	3.25	0.0	1	3.25	0.0
266	3.6	1	3.31	0.0	2	3.29	0.02
278	5.4	2	4.73	0.02	2	4.73	0.02
281	5.3	1	3.64	0.0	2	3.77	0.13

EV. NO.	MB	N	VLPE		VLPE, NORSAR 6		ALPA
			AVE MS	SIG	N	AVE MS	
286	4.5	2	4.34	0.68	2	4.34	0.68
289	3.6	1	3.42	0.0	1	3.42	0.0
290	3.5	1	3.83	0.0	1	3.83	0.0
292	5.2	2	3.83	0.17	4	4.04	0.34
294	5.2	4	4.46	0.44	6	4.53	0.37
296	3.5	1	2.54	0.0	1	2.54	0.0
298	3.6	1	3.71	0.0	2	3.30	0.40
299	3.6	1	3.20	0.0	1	3.20	0.0
300	4.7	2	3.22	0.26	4	3.30	0.25
303	3.9				1	2.70	0.0
308	3.4	3	3.15	0.25	3	3.15	0.25
310	3.9				1	3.30	0.0
311	3.6	3	3.64	0.52	3	3.64	0.52
312	3.7	1	3.62	0.0	3	3.19	0.38
314	3.8				2	3.09	0.10
315	4.1	1	3.03	0.0	1	3.03	0.0
316	3.8	1	4.18	0.0	1	4.18	0.0
320	3.9	1	4.27	0.0	3	3.42	0.74
321	3.7	1	3.77	0.0	2	3.63	0.14
322	4.3				1	3.20	0.0
323	5.0	3	4.34	0.09	4	4.43	0.19
324	4.2	1	3.81	0.0	3	3.22	0.61
325	4.2				1	2.60	0.0
326	4.0				2	2.89	0.11
327	3.4	1	3.38	0.0	1	3.38	0.0
328	3.5	1	3.49	0.0	1	3.49	0.0
329	4.1				1	2.50	0.0
330	3.5	1	3.83	0.0	2	3.46	0.37
331	4.3				2	3.02	0.07
332	4.2	2	3.88	0.07	3	3.79	0.18
333	3.9				1	2.80	0.0
334	4.8	1	3.27	0.0	2	3.38	0.11
335	4.5	3	3.37	0.21	4	3.28	0.25
338	4.7	2	3.49	0.01	3	3.63	0.23
341	5.4	4	5.10	0.54	4	5.10	0.54
342	4.9	2	4.50	0.13	2	4.50	0.13
343	4.9	2	3.93	0.32	3	4.12	0.46
344	4.1				1	2.50	0.0
345	4.3				1	3.70	0.0
346	4.7	3	3.63	0.35	3	3.63	0.35
347	4.5	1	4.22	0.0	1	4.22	0.0
348	4.7				1	3.90	0.0
349	4.4	1	4.05	0.0	1	4.05	0.0
350	4.9	4	3.61	0.74	5	3.69	0.67
351	4.9	5	4.49	0.43	5	4.49	0.43
352	4.0	1	3.88	0.0	1	3.88	0.0

EV. NO.	MB	N	VLPE		VLPE, NORSAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
354	4.5	3	3.57	0.19	4	3.63	0.19
355	3.7				1	2.80	0.0
356	4.0				1	3.00	0.0
357	3.3				1	2.70	0.0
361	5.4	2	4.72	0.31	4	4.72	0.25
362	5.1	3	4.69	0.51	3	4.69	0.51
364	5.1	1	3.81	0.0	3	4.02	0.18
365	3.8	1	3.29	0.0	2	2.95	0.34
366	4.7	1	3.41	0.0	2	3.55	0.14
367	5.3				2	3.93	0.03
369	3.5	1	3.85	0.0	1	3.85	0.0
371	4.5	3	4.14	0.09	4	4.10	0.10
372	4.3	1	3.01	0.0	2	2.90	0.11
373	4.9	2	3.96	0.30	3	4.04	0.33
374	3.5	1	3.50	0.0	1	3.50	0.0
375	3.3	1	2.93	0.0	1	2.93	0.0
376	4.1				1	2.67	0.0
379	3.7				1	3.00	0.0
380	4.3	1	2.78	0.0	2	2.79	0.01
381	4.6				1	3.40	0.0
382	4.3	1	3.44	0.0	3	3.61	0.18
385	4.4	2	2.80	0.20	3	2.74	0.24
386	5.0	2	4.15	0.42	3	4.18	0.42
388	4.5	2	3.24	0.30	3	3.39	0.40
389	4.1				1	2.90	0.0
390	4.0	1	3.46	0.0	1	3.46	0.0
391	3.7				1	2.70	0.0
392	3.6	1	3.85	0.0	2	3.42	0.43
393	4.3	1	3.37	0.0	2	3.10	0.27
395	4.1				1	3.30	0.0
396	4.3	1	3.03	0.0	3	2.76	0.24
399	4.5	1	3.93	0.0	1	3.93	0.0
400	3.7				1	2.80	0.0
401	3.4				1	2.40	0.0
402	4.6	2	3.28	0.45	4	3.23	0.37
405	4.5	2	3.34	0.06	3	3.17	0.31
409	3.7				1	2.50	0.0
410	4.7	4	3.92	0.36	6	4.00	0.34
411	4.1	2	3.81	0.31	4	3.63	0.35
412	5.0	4	4.35	0.25	6	4.37	0.32
414	3.7	1	3.29	0.0	2	3.09	0.20
415	4.0	1	3.03	0.0	1	3.03	0.0
416	5.5	4	4.20	0.47	6	4.30	0.47
417	3.8				1	2.81	0.0
418	4.4	1	3.93	0.0	3	3.88	0.06
419	5.2	3	3.98	0.62	5	3.99	0.51

EV. NO.	MB	N	VLPF		VLPF, NOBSAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
421	5.1	3	4.31	0.32	4	4.33	0.27
422	4.6	2	3.46	0.45	3	3.18	0.68
423	3.6				1	3.00	0.0
424	4.2				1	2.80	0.0
427	5.6	3	4.89	0.18	4	4.82	0.21
428	3.9				2	2.60	0.19
429	3.9	1	4.08	0.0	1	4.08	0.0
430	3.7				1	2.40	0.0
431	4.6	1	3.73	0.0	2	3.81	0.09
432	4.6	1	3.94	0.0	1	3.94	0.0
433	4.9	3	4.23	0.31	5	4.23	0.45
434	4.0				1	2.80	0.0
435	3.4				1	2.74	0.0
436	5.4	1	4.83	0.0	3	4.86	0.07
437	4.6	1	3.62	0.0	2	3.46	0.16
438	5.0	3	3.87	0.28	4	3.90	0.24
440	4.0				1	2.80	0.0
441	4.0	1	3.48	0.0	1	3.48	0.0
442	5.1	1	3.86	0.0	2	3.83	0.03
444	3.4				1	2.80	0.0
446	4.4	1	3.40	0.0	3	3.19	0.22
447	3.6				1	2.70	0.0
449	4.6	3	3.84	0.23	5	3.87	0.17
451	4.3	1	3.70	0.0	3	3.32	0.33
452	3.4	1	3.67	0.0	1	3.67	0.0
453	4.0	1	3.27	0.0	3	3.30	0.09
454	4.7	1	3.10	0.0	2	2.98	0.11
455	4.1				1	2.80	0.0
457	3.1	1	2.70	0.0	2	2.75	0.05
458	4.3	1	3.67	0.0	1	3.67	0.0
460	3.7				1	2.70	0.0
461	5.0	3	4.59	0.09	3	4.59	0.09
462	3.7				1	3.70	0.0
463	4.7				1	2.70	0.0
464	4.9	3	4.02	0.06	3	4.02	0.06
465	4.2				1	3.10	0.0
466	4.0				1	2.50	0.0
467	4.1	2	3.71	0.09	2	3.71	0.09
469	4.1				1	3.03	0.0
470	4.7				2	3.57	0.15
472	5.2	4	3.95	0.13	5	3.96	0.12
473	3.6				1	2.75	0.0
474	3.7				1	2.80	0.0
475	4.7	2	3.87	0.04	3	3.85	0.06
476	5.2	4	4.05	0.23	5	4.08	0.21
479	4.1	2	3.33	0.04	2	3.33	0.04

EV. NO.	MB	N	VLPE AVE MS	SIG	VLPE, NORSAR & N	AVE MS	ALPA SIG
482	4.2	2	3.67	0.02	4	3.55	0.16
483	3.7				1	3.30	0.0
485	3.8				2	3.44	0.26
487	4.4				2	2.96	0.16
488	3.9				1	2.70	0.0
490	3.9				1	3.10	0.0
491	3.8				1	2.90	0.0
492	5.1	4	3.93	0.65	5	4.07	0.63
493	4.4	1	3.12	0.0	2	2.87	0.25
494	3.7				2	2.64	0.26
496	5.2	3	4.20	0.48	5	4.15	0.38
497	4.9	3	4.31	0.22	5	4.34	0.16
498	4.7				2	3.63	0.16
499	4.6	5	3.67	0.40	7	3.71	0.51
501	4.2				2	3.16	0.04
502	3.9	2	3.35	0.27	2	3.35	0.27
503	4.2	1	3.94	0.0	1	3.94	0.0
504	3.9				1	2.70	0.0
505	5.3	4	4.13	0.64	6	4.14	0.49
507	3.4				1	3.00	0.0
508	4.1	1	3.87	0.0	1	3.87	0.0
509	4.5				1	2.82	0.0
510	4.0				1	2.80	0.0
511	3.7				1	2.60	0.0
512	4.0	1	2.63	0.0	2	2.71	0.09
513	5.0	2	4.02	0.05	2	4.02	0.05
517	3.9	1	3.83	0.0	2	3.48	0.35
518	4.3				1	3.25	0.0
520	4.8				1	4.20	0.0
521	4.6	1	3.42	0.0	3	3.74	0.34
522	5.5	4	4.96	0.14	6	5.01	0.18
523	4.7				2	3.01	0.09
524	3.9				1	2.80	0.0
527	4.4	1	2.99	0.0	2	3.04	0.05
528	4.0				1	3.30	0.0
529	4.8				2	3.53	0.03
530	4.5	1	3.55	0.0	1	3.55	0.0
532	4.0				1	3.20	0.0
534	5.1	2	4.32	0.17	4	4.38	0.20
535	5.1	2	4.31	0.18	4	4.35	0.18
538	3.8				2	3.42	0.18
539	4.8	2	3.56	0.39	4	3.70	0.41
541	5.1	3	4.21	0.50	3	4.21	0.50
543	4.9	2	3.35	0.36	3	3.43	0.39
546	4.8	1	3.61	0.0	3	3.64	0.07
547	4.6	1	4.44	0.0	1	4.44	0.0

EV. NO.	MB	N	VLPE		VLPE, NORSAR 6		
			AVE MS	SIG	N	AVE MS	SIG
548	3.6				1	2.70	0.0
549	3.7	1	3.27	0.0	2	3.16	0.11
553	3.8				1	2.70	0.0
554	4.5	1	3.66	0.0	2	3.43	0.23
555	3.4	1	3.44	0.0	1	3.44	0.0
558	5.6	5	4.92	0.46	5	4.92	0.46
559	5.0	5	5.03	0.46	5	5.03	0.46
561	4.3	3	3.23	0.46	4	3.27	0.39
562	4.5	1	3.40	0.0	3	3.25	0.27
563	4.0	1	3.86	0.0	3	3.36	0.45
564	3.9	1	3.51	0.0	1	3.51	0.0
565	5.3	4	4.37	0.44	5	4.38	0.38
566	4.5	3	3.73	0.41	5	3.74	0.30
567	4.8				1	3.60	0.0
570	4.3				1	3.30	0.0
571	4.0	1	3.01	0.0	2	3.15	0.14
573	5.7	2	6.69	0.45	3	6.56	0.51
578	4.7	1	3.77	0.0	1	3.77	0.0
579	4.9	2	4.33	0.24	2	4.33	0.24
581	3.8				1	2.66	0.0
582	4.5	1	3.17	0.0	1	3.17	0.0
583	5.5	1	3.89	0.0	1	3.89	0.0
585	4.0				1	3.00	0.0
586	5.0	1	3.81	0.0	2	3.90	0.10
587	4.0				1	3.10	0.0
589	4.2	1	4.70	0.0	1	4.70	0.0
591	4.5	2	3.77	0.22	2	3.77	0.22
592	4.0	1	2.97	0.0	2	2.88	0.09
594	4.7	2	3.94	0.06	2	3.94	0.06
596	5.1	1	4.11	0.0	1	4.11	0.0
598	5.5	1	4.44	0.0	3	4.44	0.14
601	4.4	2	3.61	0.54	2	3.61	0.54
605	5.1	3	4.26	0.01	4	4.45	0.37
606	4.8	3	4.52	0.62	5	4.34	0.50
608	4.5	1	4.31	0.0	2	3.75	0.56
610	5.2	3	4.10	0.09	3	4.10	0.09
611	5.0	3	4.27	0.09	3	4.27	0.09
612	4.0	1	3.01	0.0	1	3.01	0.0
614	5.3	3	4.53	0.52	3	4.53	0.52
617	4.4				1	3.50	0.0
618	4.1				1	3.50	0.0
619	4.7				1	3.00	0.0
621	3.6				1	3.30	0.0
625	3.4				1	2.46	0.0
627	3.5	2	3.23	0.24	3	3.15	0.27
628	3.6				2	2.76	0.14

EV. NO.	MR	N	VLPE		VLPE, NORSAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
629	3.6	1	3.15	0.0	1	3.15	0.0
630	4.3	1	3.60	0.0	3	3.34	0.31
632	4.5				1	3.30	0.0
633	3.6				1	2.47	0.0
639	3.6				1	3.00	0.0
640	3.9				1	3.80	0.0
641	4.0	1	3.55	0.0	1	3.55	0.0
642	4.8	1	3.83	0.0	3	3.84	0.04
643	4.0	2	3.57	0.18	3	3.31	0.48
644	5.1				2	3.54	0.05
645	5.1				1	3.60	0.0
646	3.7				1	2.61	0.0
648	3.6				1	2.60	0.0
649	4.3	2	3.52	0.07	3	3.55	0.08
650	3.5	1	3.16	0.0	1	3.16	0.0
651	4.9	2	4.16	0.16	4	4.08	0.29
653	5.2	4	4.11	0.16	6	4.11	0.14
655	4.0	1	3.33	0.0	1	3.33	0.0
656	4.3	3	3.35	0.14	4	3.51	0.34
658	4.5				1	3.40	0.0
659	4.0	1	2.55	0.0	2	2.52	0.02
660	4.1	1	3.34	0.0	2	3.22	0.12
661	5.2	3	4.40	0.16	4	4.34	0.17
662	4.6				1	3.00	0.0
664	3.7				2	2.66	0.34
665	4.0				2	2.58	0.18
670	4.0				2	2.51	0.02
671	3.6	1	3.68	0.0	1	3.68	0.0
673	3.8	1	2.67	0.0	1	2.67	0.0
676	4.8	1	4.47	0.0	2	4.68	0.22
677	3.6	1	3.39	0.0	2	3.04	0.35
678	4.2	2	4.41	0.24	3	3.97	0.81
680	5.2	1	4.12	0.0	1	4.12	0.0
681	3.7	1	3.23	0.0	1	3.23	0.0
683	4.4	3	3.39	0.40	4	3.39	0.33
684	3.6	2	3.54	0.10	3	3.26	0.50
685	3.7	1	3.12	0.0	2	3.11	0.01
686	4.3				1	2.00	0.0
687	5.5	3	4.82	0.21	5	4.89	0.19
688	4.2				2	3.32	0.18
689	5.5	3	4.57	0.21	3	4.57	0.21
690	5.5	4	4.45	0.13	4	4.45	0.13
691	4.6	1	3.39	0.0	1	3.39	0.0
692	4.3	3	4.48	0.23	3	4.48	0.23
693	5.5				2	4.55	0.05
696	4.4				1	2.80	0.0

RV. NO.	MR	N	VLPE		VLPE, NORSAR		ALPA
			AVE MS	SIG	N	AVE MS	
697	4.4	3	4.56	0.61	4	4.42	0.57
698	4.8	1	3.93	0.0	3	3.93	0.27
700	4.7				1	2.80	0.0
702	5.5	5	5.24	0.23	7	5.22	0.26
703	3.8	1	2.79	0.0	1	2.79	0.0
704	5.2	3	4.69	0.49	4	4.49	0.56
707	4.3				1	2.50	0.0
708	4.5	2	3.82	0.13	4	3.83	0.23
709	4.1				1	3.40	0.0
710	4.3	4	3.92	0.22	6	3.83	0.24
711	5.3	3	4.52	0.24	4	4.56	0.22
712	4.3	1	3.50	0.0	1	3.50	0.0
713	4.5	2	4.12	0.49	2	4.12	0.49
716	5.5	4	4.89	0.65	5	4.81	0.59
718	4.7	2	4.27	0.19	2	4.27	0.19
721	3.8				2	2.76	0.34
722	3.8				1	3.00	0.0
723	4.8	1	4.84	0.0	2	4.72	0.12
724	3.7				1	3.30	0.0
725	3.9				1	3.40	0.0
726	4.1	2	4.05	0.32	4	4.01	0.50
728	4.5	1	2.64	0.0	2	2.77	0.13
729	3.9				1	2.60	0.0
730	3.8				1	2.30	0.0
731	3.9				1	2.80	0.0
732	4.4	4	3.68	0.34	5	3.71	0.30
734	4.3	1	3.52	0.0	1	3.52	0.0
736	3.7				1	3.30	0.0
737	4.6	4	3.70	0.17	5	3.61	0.25
739	4.0				2	3.07	0.32
741	4.8	1	3.46	0.0	3	3.35	0.13
742	4.0				1	3.00	0.0
743	4.0	2	3.78	0.61	4	3.48	0.61
744	5.7	5	5.45	0.27	7	5.43	0.37
747	4.1	1	4.29	0.0	1	4.29	0.0
748	4.0	2	3.40	0.41	2	3.40	0.41
750	4.9	1	3.72	0.0	1	3.72	0.0
751	4.3	2	3.76	0.21	3	3.61	0.34
752	5.4	1	3.77	0.0	2	3.98	0.22
758	5.1	3	4.23	0.27	5	4.22	0.23
759	4.0				1	2.70	0.0
760	5.6	2	3.86	0.09	4	3.78	0.15
761	5.2	5	3.74	0.10	7	3.78	0.13
762	4.9	3	4.11	0.35	5	3.98	0.31
763	3.9				1	2.40	0.0
764	4.7	2	3.62	0.14	4	3.72	0.22

EV. NO.	MB	N	VLPE		VLPE, NORSAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
765	4.8	2	3.85	0.19	3	3.74	0.28
767	4.4				1	3.00	0.0
771	4.4	1	3.29	0.0	1	3.29	0.0
773	3.9	1	2.98	0.0	1	2.98	0.0
774	4.7	1	2.86	0.0	1	2.86	0.0
775	5.4	5	5.15	0.22	6	5.13	0.20
776	4.8	4	3.72	0.24	5	3.71	0.21
778	5.1	3	4.07	0.36	5	4.12	0.34
779	3.6				1	3.56	0.0
781	5.0	2	4.01	0.16	4	4.03	0.18
783	4.4	1	3.59	0.0	2	3.35	0.24
785	5.3	3	4.63	0.26	5	4.59	0.36
786	4.3				1	3.18	0.0
790	4.7	3	3.95	0.40	5	3.89	0.35
791	3.7				1	4.48	0.0
792	4.5				1	3.55	0.0
799	6.0	4	5.81	0.16	6	5.73	0.20
802	4.8	2	4.76	0.02	3	4.26	0.88
807	4.3				1	4.34	0.0
812	4.3				1	2.76	0.0
813	4.8	4	4.09	0.21	6	4.06	0.24
814	4.1	1	3.42	0.0	2	3.02	0.40
815	4.7				1	2.97	0.0
818	5.7	3	4.54	0.24	3	4.54	0.24
820	4.2				1	3.60	0.0
821	4.6	1	3.29	0.0	2	3.13	0.16
823	4.3	1	3.94	0.0	3	3.79	0.13
825	4.7	5	4.21	0.22	5	4.21	0.22
826	4.7				1	3.19	0.0
827	4.4	1	4.05	0.0	3	3.61	0.43
828	5.7	5	5.75	0.27	7	5.73	0.25
836	4.6	2	3.56	0.15	2	3.56	0.15
837	4.9	5	3.72	0.35	6	3.67	0.34
839	4.0	4	3.81	0.23	4	3.81	0.23
840	3.8	1	3.99	0.0	1	3.99	0.0
842	4.7	3	3.91	0.16	3	3.91	0.16
843	3.8				1	2.34	0.0
844	4.6	4	4.27	0.18	6	4.21	0.27
845	4.3				2	3.09	0.09
846	4.1				2	2.89	0.17
850	4.1				1	2.59	0.0
851	4.1				1	2.73	0.0
852	4.1				1	2.01	0.0
854	3.8				1	3.48	0.0
856	3.7	2	2.96	0.02	3	3.04	0.15
857	4.8	2	3.77	0.10	3	3.64	0.25

EV. NO.	MB	N	VLPE		VLPE, NOR SAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
858	4.7	4	3.66	0.32	5	3.64	0.28
859	5.7	6	5.22	0.12	8	5.23	0.11
861	3.6				1	3.47	0.0
862	4.6	1	2.94	0.0	1	2.94	0.0
863	3.6	1	3.61	0.0	2	3.52	0.09
866	3.5				1	4.99	0.0
867	4.1	3	3.43	0.10	4	3.37	0.15
868	4.3	1	3.53	0.0	1	3.53	0.0
869	4.3				1	3.38	0.0
870	4.1	1	4.27	0.0	2	3.84	0.43
873	4.5	2	3.61	0.09	3	3.44	0.32
874	4.4	1	3.27	0.0	2	3.32	0.05
875	4.9	4	4.22	0.55	6	4.33	0.53
876	4.1				1	4.10	0.0
878	3.5				1	3.40	0.0
881	5.2	5	3.80	0.22	7	3.76	0.22
882	4.1				1	2.41	0.0
884	5.5	6	4.50	0.20	8	4.52	0.21
885	4.8				1	3.51	0.0
887	4.7				1	3.43	0.0
890	5.3	6	4.98	0.34	8	4.95	0.32
893	4.7	3	3.55	0.21	4	3.46	0.25
895	4.9	1	4.06	0.0	2	4.09	0.03
896	4.8				1	3.89	0.0
897	5.0	5	3.77	0.64	7	3.80	0.55
898	4.4	2	2.96	0.65	4	3.30	0.74
899	4.3				1	3.40	0.0
903	3.9	1	3.12	0.0	1	3.12	0.0
904	3.9	1	3.37	0.0	2	3.24	0.13
908	5.1	2	3.91	0.11	4	3.87	0.20
909	4.7	1	3.03	0.0	3	3.13	0.34
911	5.1	4	4.25	0.28	5	4.29	0.26
912	4.5				1	3.56	0.0
913	3.7				1	3.37	0.0
914	4.6				2	3.59	0.04
917	3.8	1	3.22	0.0	1	3.22	0.0
918	5.0	5	4.10	0.20	5	4.10	0.20
924	4.3				1	3.10	0.0
925	4.0	1	2.75	0.0	1	2.75	0.0
926	4.9	2	3.72	0.43	3	3.55	0.52
927	4.6	1	3.83	0.0	3	3.69	0.18
929	5.1	4	4.18	0.30	5	4.25	0.30
932	5.3	2	4.80	0.14	3	4.62	0.36
933	4.7	1	3.72	0.0	2	3.66	0.06
934	3.7				1	2.57	0.0
936	3.8	1	3.40	0.0	1	3.40	0.0

RV. NO.	MR	N	VLPE		VLPE, NOFSAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
937	5.2	3	4.22	0.31	5	4.11	0.26
939	4.3	1	3.01	0.0	1	3.01	0.0
940	5.0				1	3.11	0.0
941	4.3	1	3.25	0.0	2	3.23	0.02
942	4.5	3	3.72	0.20	4	3.72	0.16
943	4.5				1	2.90	0.0
944	3.9				1	3.36	0.0
945	3.6	1	2.14	0.0	1	2.14	0.0
946	4.3	1	3.50	0.0	3	3.44	0.05
947	3.3				1	2.68	0.0
950	4.9	4	3.96	0.17	5	3.98	0.15
952	3.7	1	3.20	0.0	1	3.20	0.0
954	4.9	2	3.83	0.03	4	3.92	0.12
955	4.2				1	3.50	0.0
956	4.5	3	4.37	0.17	5	4.32	0.15
957	4.5	1	3.80	0.0	3	3.89	0.15
959	4.6	2	3.25	0.09	4	3.33	0.14
961	4.3	1	3.68	0.0	3	3.54	0.23
962	4.1	1	2.71	0.0	2	2.89	0.19
963	4.0	1	2.37	0.0	1	2.37	0.0
965	4.9	3	3.83	0.31	5	3.84	0.33
966	5.2	5	4.15	0.20	6	4.14	0.18
968	4.1	1	3.22	0.0	2	3.14	0.08
969	4.3				1	3.32	0.0
970	3.5				1	2.51	0.0
971	3.5	1	3.52	0.0	1	3.52	0.0
972	4.1	1	3.41	0.0	2	3.40	0.01
973	4.2				2	3.17	0.06
974	5.0	3	3.64	0.50	5	3.75	0.41
977	3.5				1	2.79	0.0
978	4.2	3	3.60	0.10	4	3.65	0.13
980	4.4				1	3.39	0.0
983	4.2	3	3.68	0.50	4	3.79	0.46
984	6.3	1	6.01	0.0	1	6.01	0.0
1000	5.2				1	4.43	0.0
1006	3.9				1	2.45	0.0
1008	5.5	6	4.05	0.43	8	4.11	0.41
1011	3.9	1	2.97	0.0	1	2.97	0.0
1012	4.5	2	3.26	0.14	3	3.07	0.36
1013	4.4				2	3.08	0.44
1016	4.6	2	3.67	0.74	3	3.38	0.91
1017	4.2				1	3.36	0.0
1018	4.7	2	3.14	0.23	2	3.14	0.23
1021	3.9				1	2.94	0.0
1024	4.1				1	2.92	0.0
1025	4.2	3	3.52	0.03	5	3.38	0.34

EV. NO.	MR	N	VLPE		VLPE, NOBSAR &		ALPA
			AVE MS	SIG	N	AVE MS	
1029	5.5	5	4.23	0.24	7	4.20	0.20
1030	4.6	2	3.73	0.10	4	3.63	0.15
1032	4.6	1	3.28	0.0	3	3.21	0.23
1033	4.6				2	3.66	0.18
1035	4.6	3	3.45	0.32	3	3.45	0.32
1036	4.4	1	2.88	0.0	1	2.88	0.0
1037	3.7	1	3.35	0.0	1	3.35	0.0
1038	3.9	1	3.33	0.0	2	2.93	0.40
1039	6.1	7	5.53	0.29	9	5.54	0.26
1041	4.0	1	3.43	0.0	3	3.21	0.29
1042	3.7				1	3.03	0.0
1043	3.9	1	3.09	0.0	2	2.86	0.23
1044	3.4	1	3.77	0.0	1	3.77	0.0
1048	4.0				1	2.65	0.0
1050	5.0	3	3.51	0.18	5	3.53	0.20
1052	3.6	1	2.90	0.0	2	2.85	0.05
1053	5.0				1	2.83	0.0
1054	4.1	1	2.83	0.0	1	2.83	0.0
1055	3.6				1	2.64	0.0
1058	3.5	1	3.95	0.0	1	3.95	0.0
1061	4.5				2	3.18	0.20
1063	4.0				1	3.20	0.0
1065	4.6	5	3.96	0.31	6	4.02	0.31
1066	4.0	1	4.03	0.0	1	4.03	0.0
1069	3.8	2	3.16	0.00	3	3.07	0.17
1070	4.4				1	2.47	0.0
1071	4.7	3	3.36	0.10	5	3.31	0.13
1072	3.1	1	2.76	0.0	2	2.67	0.09
1073	3.7				1	3.18	0.0
1074	4.4	1	3.17	0.0	2	3.27	0.10
1078	4.1	2	3.23	0.16	3	3.22	0.16
1079	3.6	1	2.30	0.0	1	2.30	0.0
1080	4.8	5	4.10	0.22	7	4.08	0.34
1081	4.4				1	3.54	0.0
1082	4.3	3	3.43	0.22	5	3.40	0.20
1083	5.7	8	4.86	0.52	10	4.91	0.48
1084	4.5	2	3.97	0.02	2	3.97	0.02
1085	6.1	8	5.46	0.51	10	5.54	0.48
1087	4.0				1	2.78	0.0
1090	4.0				1	4.34	0.0
1091	3.7	2	3.21	0.44	2	3.21	0.44
1093	4.3	2	3.29	0.32	4	3.25	0.32
1095	4.1	2	3.29	0.03	3	3.22	0.13
1097	3.6				1	3.13	0.0
1098	3.8				1	3.93	0.0
1100	4.4				1	2.84	0.0

EV. NO.	MB	N	VLPE		VLPE, NOR SAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
1101	3.7	1	2.89	0.0	2	3.01	0.12
1103	3.8				1	3.18	0.0
1104	4.5	1	3.60	0.0	3	3.50	0.23
1106	5.2	2	3.59	0.02	4	3.53	0.10
1107	4.3				1	2.78	0.0
1108	4.2				1	2.65	0.0
1109	3.9				1	3.11	0.0
1111	4.0				1	2.79	0.0
1112	5.2	3	4.15	0.33	4	4.11	0.28
1114	4.2	2	3.58	0.02	3	3.49	0.16
1115	4.3	1	2.78	0.0	1	2.78	0.0
1117	4.7	1	3.31	0.0	1	3.31	0.0
1118	4.6				2	3.39	0.10
1120	4.4	1	3.73	0.0	2	3.35	0.38
1121	4.5				1	2.73	0.0
1122	3.9	1	2.95	0.0	2	3.03	0.09
1123	4.8	2	3.62	0.05	4	3.58	0.11
1124	3.7				1	2.37	0.0
1125	5.3	5	4.58	0.36	6	4.51	0.37
1127	4.7	1	3.02	0.0	2	2.80	0.22
1130	3.9	1	3.16	0.0	1	3.16	0.0
1131	4.8	1	4.02	0.0	1	4.02	0.0
1132	5.5	5	5.40	0.40	5	5.40	0.40
1134	3.6	2	3.46	0.01	3	3.30	0.29
1137	3.8				1	2.63	0.0
1138	4.0	2	3.30	0.07	3	3.32	0.08
1139	4.1	1	2.85	0.0	3	2.91	0.09
1140	4.1				1	2.75	0.0
1141	5.2	5	4.16	0.18	7	4.24	0.25
1143	5.3	4	5.45	0.27	6	5.43	0.31
1145	4.4	3	3.38	0.12	5	3.33	0.16
1147	4.5				2	3.43	0.34
1148	3.6				1	2.89	0.0
1149	4.6	1	3.01	0.0	2	2.84	0.17
1151	4.8	4	3.66	0.39	6	3.59	0.37
1152	4.7	1	4.71	0.0	1	4.71	0.0
1155	4.4	2	4.29	0.03	4	4.38	0.12
1156	3.8				1	3.07	0.0
1158	5.0	2	4.01	0.13	3	3.82	0.36
1160	4.0	1	3.93	0.0	1	3.93	0.0
1161	4.3				1	3.16	0.0
1162	4.2				1	3.42	0.0
1163	3.8	2	3.42	0.45	2	3.42	0.45
1164	4.8	1	3.77	0.0	3	3.68	0.27
1165	4.3	4	3.89	0.17	5	3.79	0.27
1166	5.2	5	4.37	0.65	7	4.41	0.54

EV. NO.	MB	N	VLPE		VLPE, NCRSAR & ALPA		
			AVE MS	SIG	N	AVE MS	SIG
1168	5.3	3	4.18	0.35	5	4.17	0.27
1170	4.1	1	2.82	0.0	1	2.82	0.0
1171	4.0				1	3.72	0.0
1172	5.4	6	4.43	0.58	7	4.54	0.60
1178	4.6	3	4.45	0.18	3	4.45	0.18
1180	5.3	5	4.72	0.24	6	4.66	0.26
1182	5.4	5	5.25	0.28	5	5.25	0.28
1187	4.1	2	3.92	0.05	2	3.92	0.05
1190	4.4	3	3.72	0.26	3	3.72	0.26
1192	4.1	1	3.26	0.0	1	3.26	0.0
1194	4.2	2	3.57	0.15	3	3.40	0.33
1195	3.7	1	2.82	0.0	1	2.82	0.0
1196	4.3	1	3.80	0.0	1	3.80	0.0
1198	4.9	3	4.20	0.07	3	4.20	0.07
1199	4.5	1	3.88	0.0	1	3.88	0.0
1200	4.2	1	3.64	0.0	1	3.64	0.0
1203	3.4	1	4.24	0.0	1	4.24	0.0
1205	4.3	1	3.30	0.0	3	3.45	0.18
1208	4.1	1	3.27	0.0	2	3.27	0.0
1209	3.7	1	2.83	0.0	1	2.83	0.0
1212	4.3				2	2.96	0.12
1213	3.7	1	2.83	0.0	2	2.94	0.11
1217	3.8				1	2.45	0.0
1219	3.7				1	2.76	0.0
1221	3.8				1	2.98	0.0
1222	3.7	1	2.65	0.0	1	2.65	0.0
1223	5.1	6	4.18	0.30	8	4.14	0.27
1226	3.7	1	3.19	0.0	2	2.99	0.20
1227	4.7	3	3.66	0.17	4	3.74	0.21
1229	4.1	1	2.72	0.0	1	2.72	0.0
1231	5.1	2	3.63	0.26	3	3.73	0.30
1232	5.6	3	5.64	0.87	4	5.53	0.74
1237	4.2				1	2.69	0.0
1239	4.4	2	3.86	0.07	3	3.76	0.19
1242	4.0				1	3.07	0.0
1243	4.2	1	2.90	0.0	2	3.15	0.25
1245	3.7				1	2.58	0.0
1247	4.0	1	3.49	0.0	2	2.96	0.53
1248	3.9				1	3.07	0.0
1254	4.6				1	4.02	0.0
1255	3.6				1	2.48	0.0
1260	4.8	2	3.88	0.02	3	3.70	0.32
1261	3.5	1	3.87	0.0	1	3.87	0.0
1263	4.6				2	3.62	0.24

APPENDIX III-B
CONVERSIONS OF VARIOUS m_b , M_s ESTIMATES
TO m_b (NOA) AND M_s (MARSHALL AND BASHAM, 1972)

Let

m_n = bodywave magnitude (m_b) reported by NOA

m_c = m_b computed for Canadian network

m_e = m_b determined by method of Evernden, 1967

$M_s(20)$ = 20 second-period surface wave magnitude (M_s) given by $\left\{ \log A/T + 1.66 \log \Delta^0 \right\}$

$M_s(12)$ = 12 second period M_s

$M_s^G(12)$ = 12 second period M_s determined by Gectech

Then,

$$m_c = m_n - 0.25 \quad 1$$

$$m_e = m_c - 0.21 \quad 2$$

$$m_e = m_n - 0.46$$

$$M_s(12) = M_s^G(12) + 0.18 \quad 4$$

$$M_s(12) = M_s(20) + 0.61 \quad 3$$

$$M_s^G(12) = M_s(20) + 0.43$$

$$M_s^G(12) = m_e + 0.06 \quad 4$$

$$m_e = M_s(20) + 0.37$$

$$M_s(20) = m_n - 0.83$$

III-B-2

- 1 Basham, 1969
- 2 Computed from Basham, 1969 and Lambert and Alexander, 1971
- 3 Marshall and Basham, 1972
- 4 Lambert and Alexander, 1971

Alternately, we have

$$m_c = m_n - 0.25$$

$$M_s(10) = 1.36 m_c - 1.44 \quad 5$$

$$M_s(10) = M_s(20) + 0.75 \quad 6$$

$$M_s(20) = 1.36 m_c - 2.19$$

$$M_s(20) = 1.36 m_n - 2.53$$

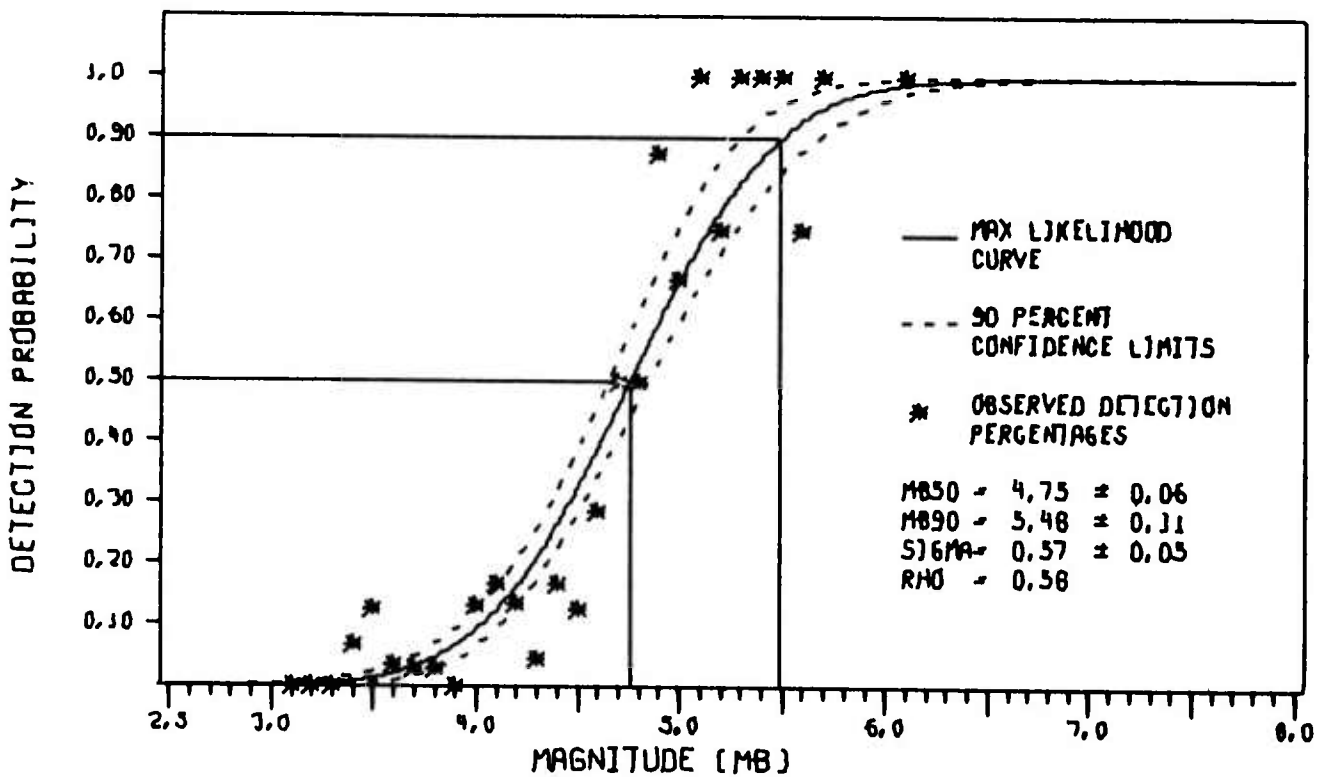
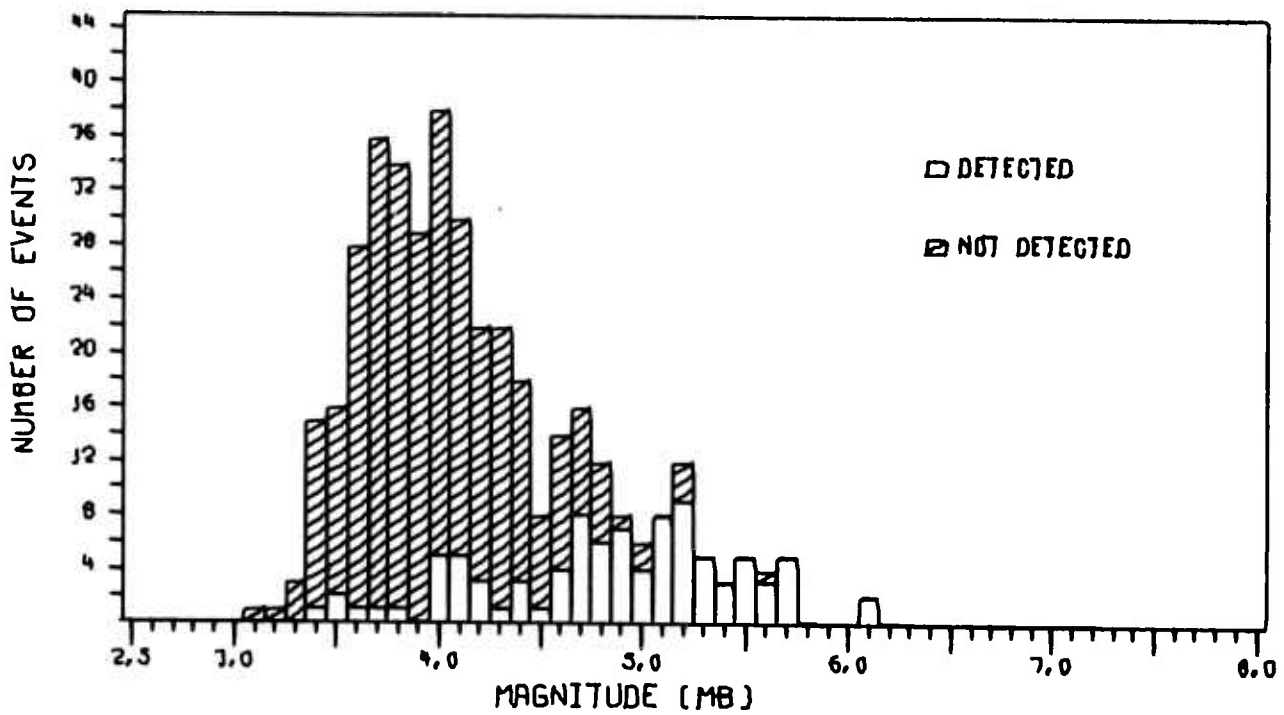
where

$$M_s(10) = 10 \text{ second period } M_s$$

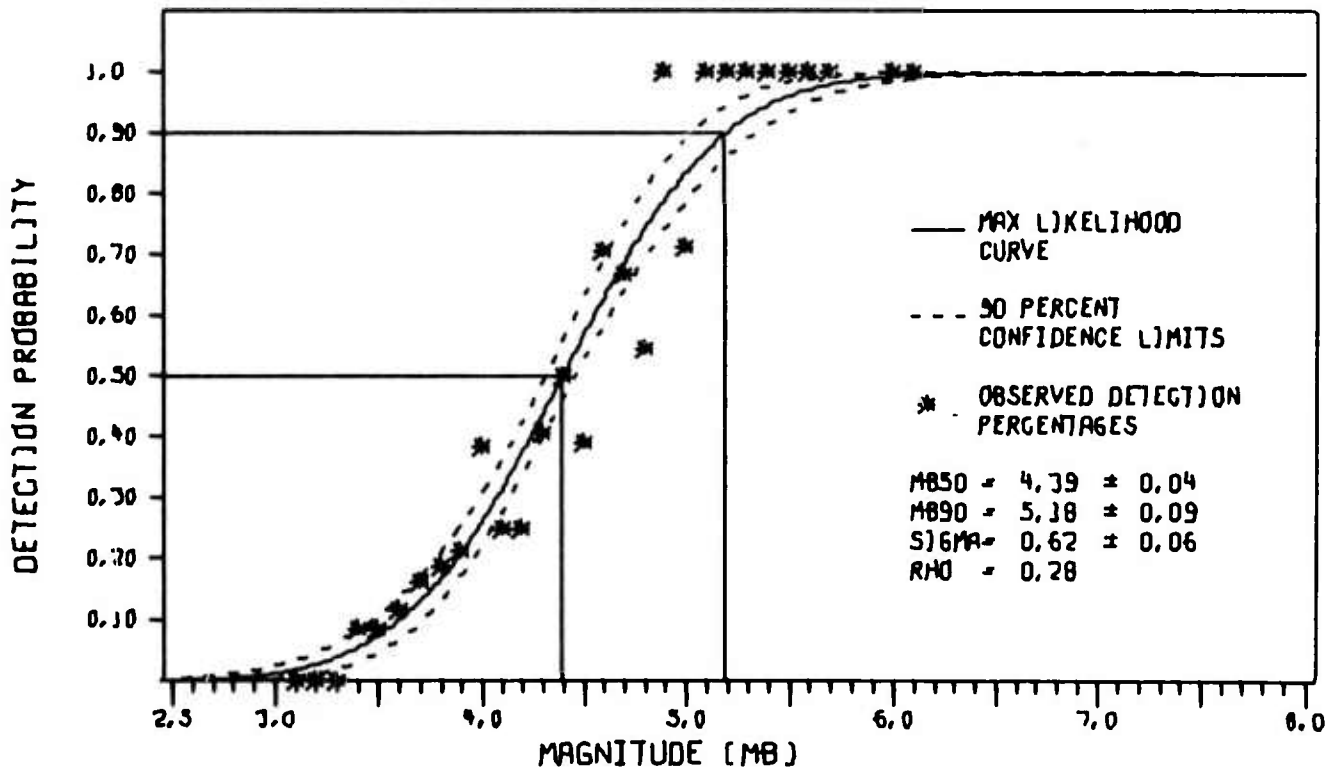
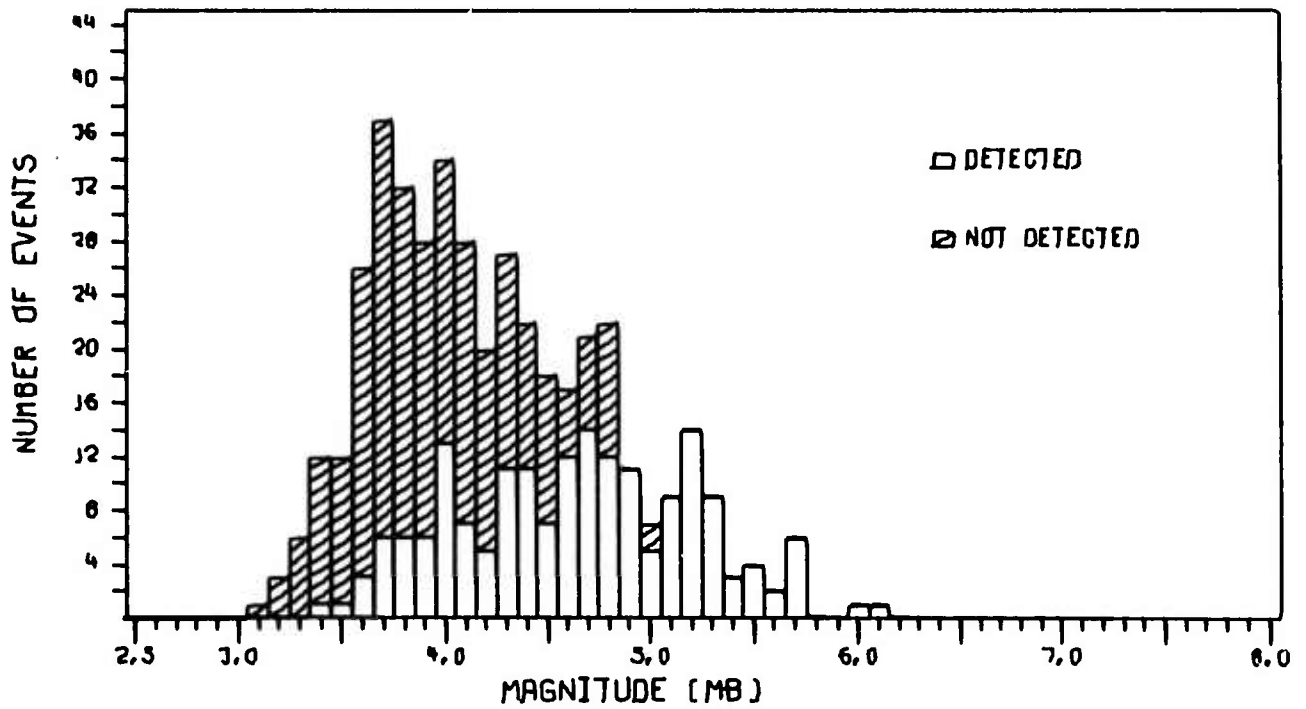
5 Basham, 1969

6 Marshall and Basham, 1972

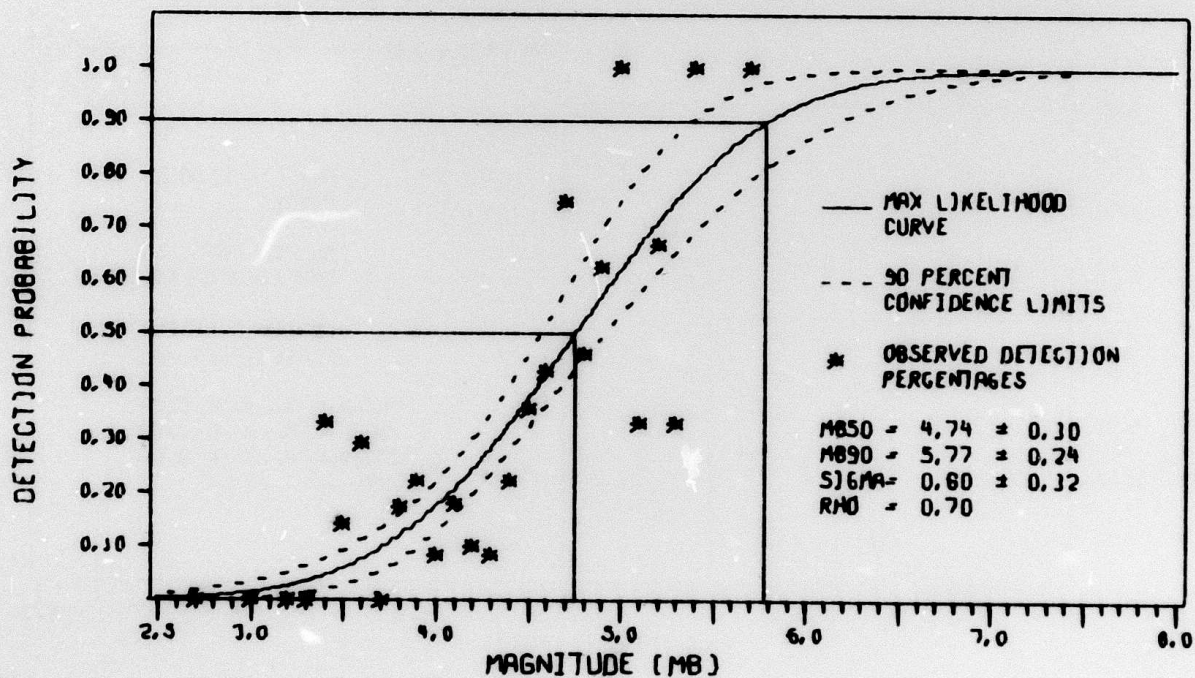
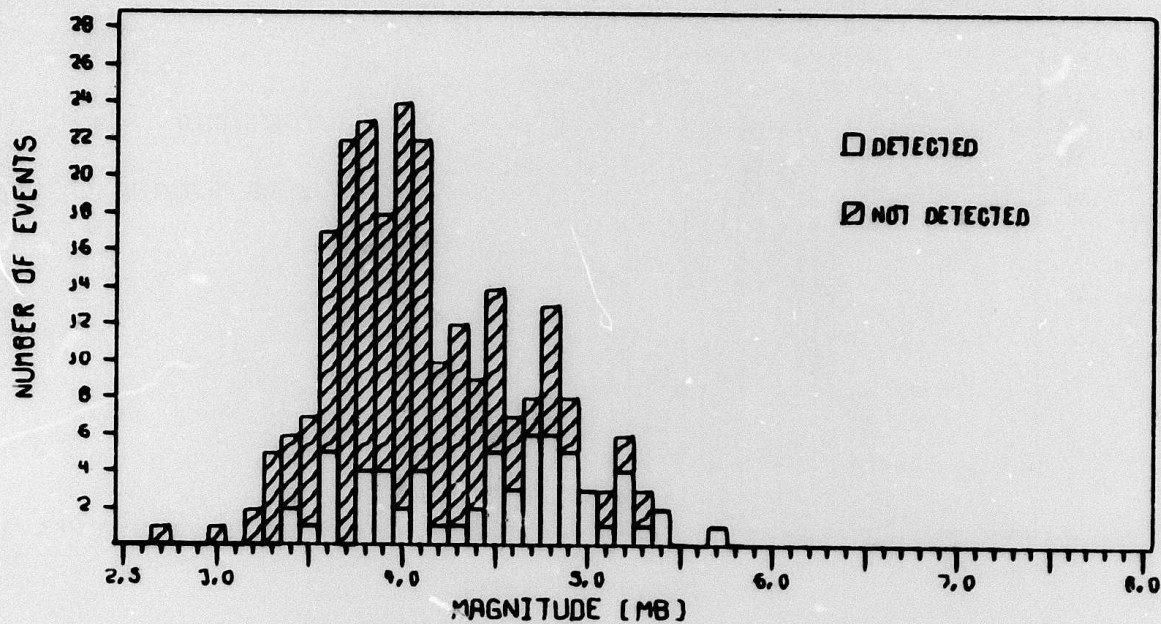
APPENDIX IV-A
MAXIMUM LIKELIHOOD DETECTION
THRESHOLDS BASED ON m_b FOR
ELEVEN VLPE STATIONS



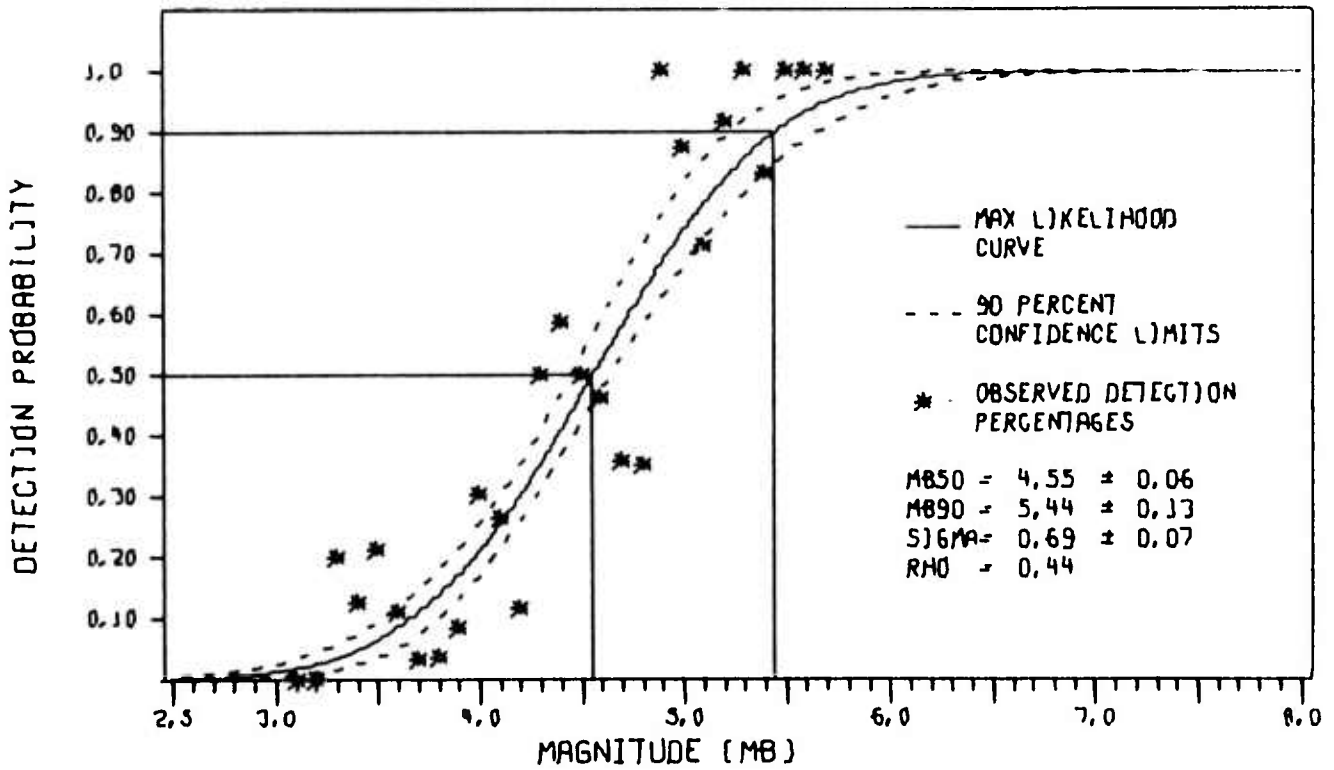
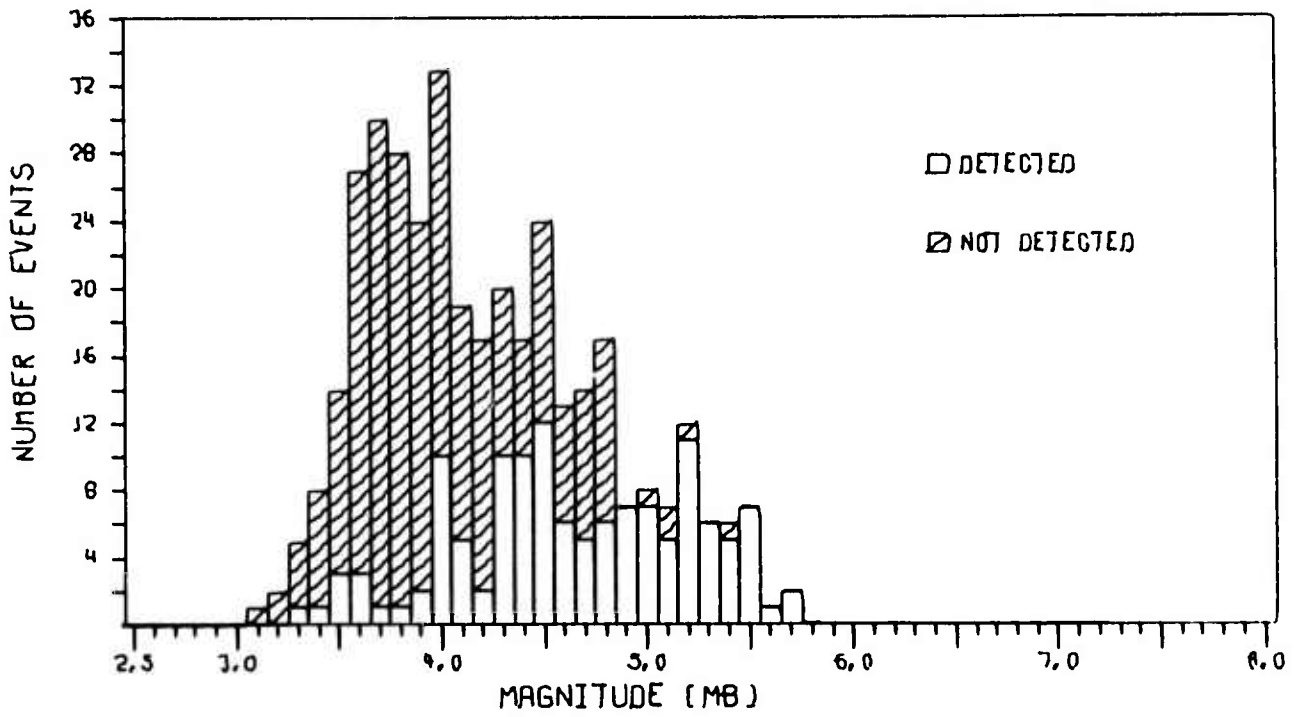
DETECTION STATISTICS FOR VLPE STATION 1 (CTA)



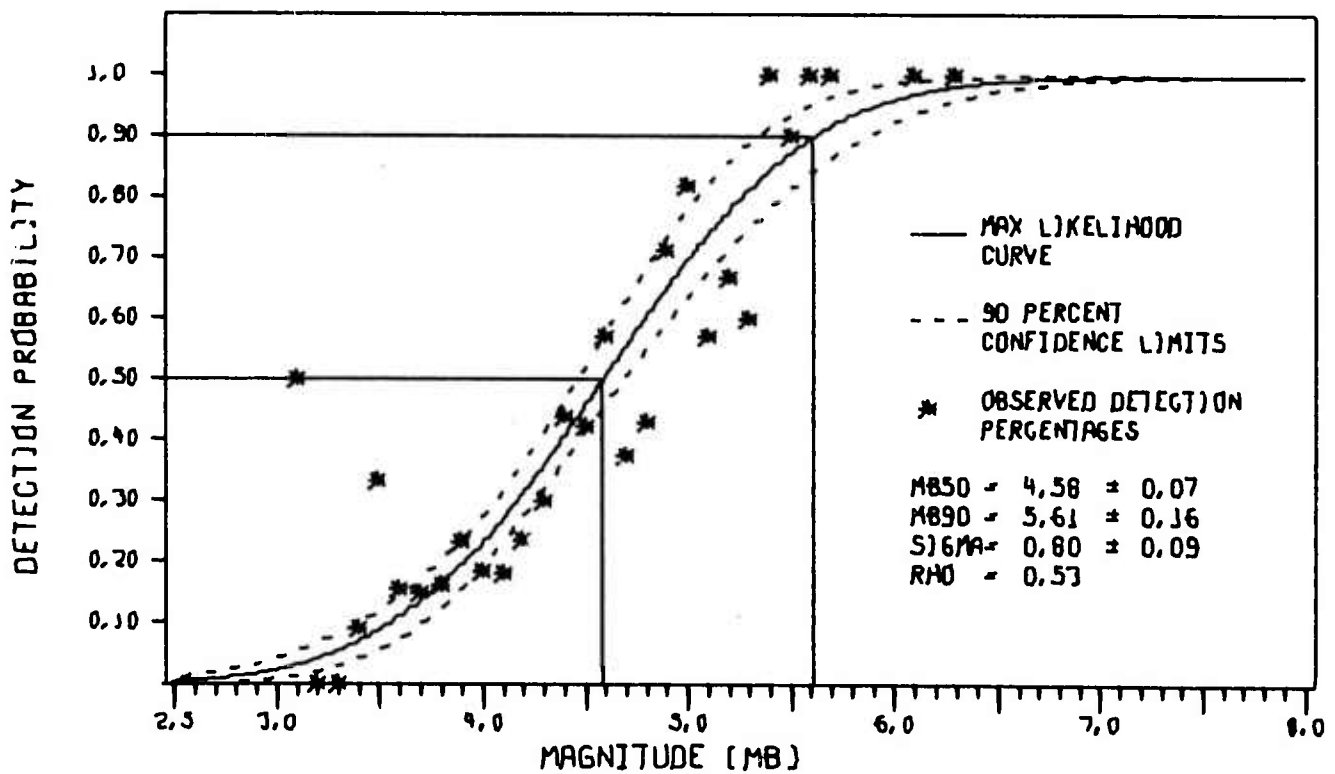
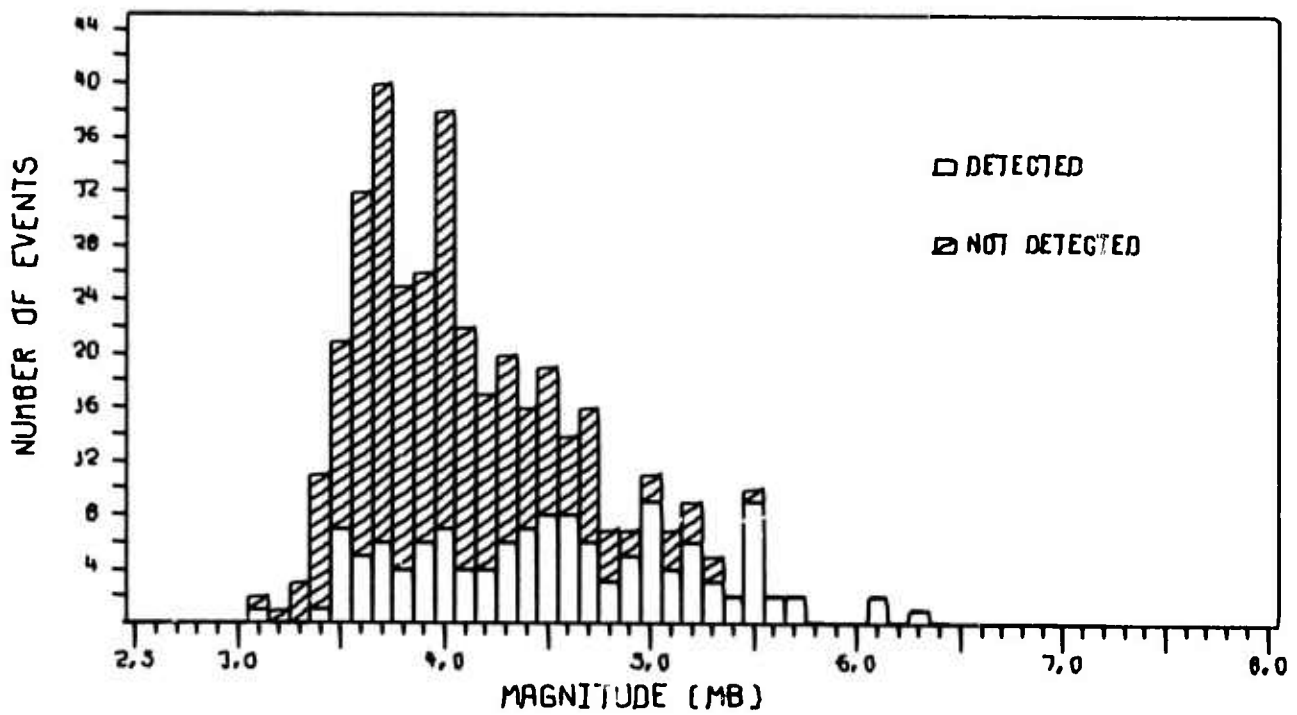
DETECTION STATISTICS FOR VLPE STATION 2 (CHG)



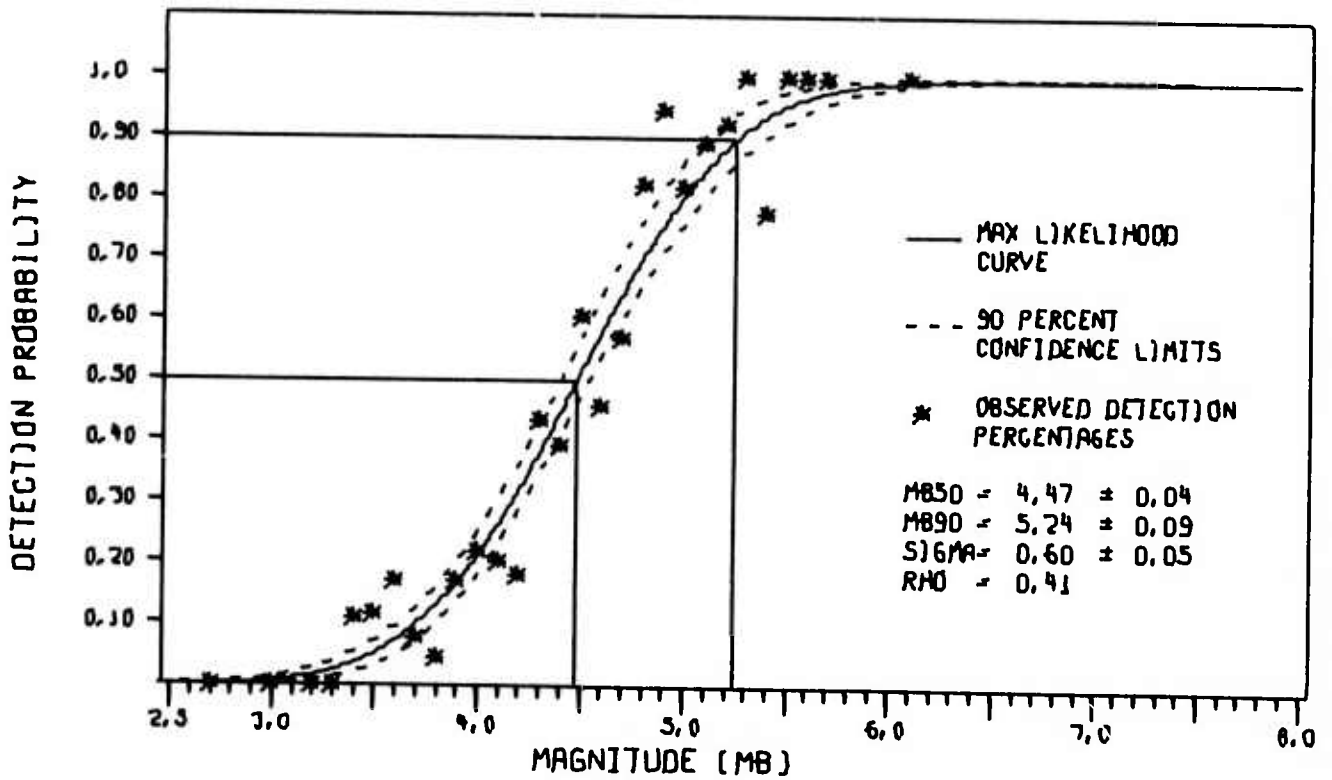
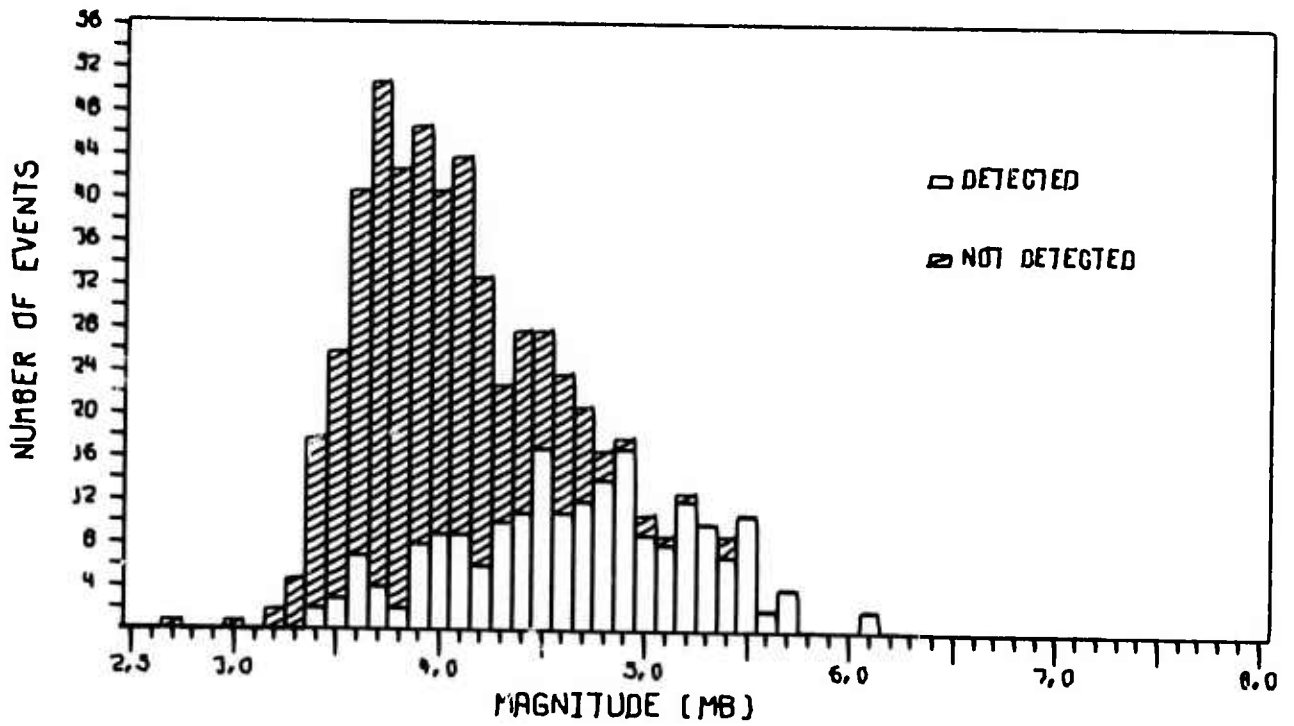
DETECTION STATISTICS FOR VLPE STATION 5 (FBK)



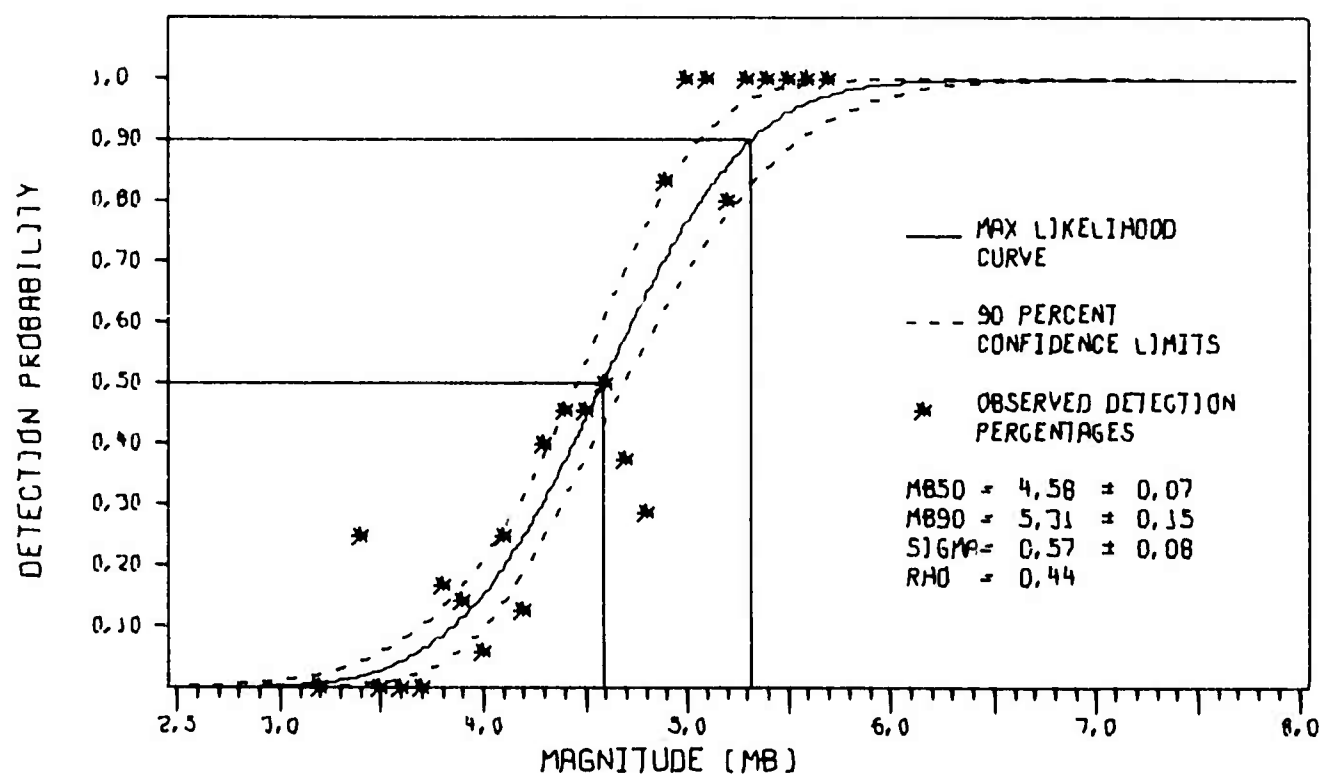
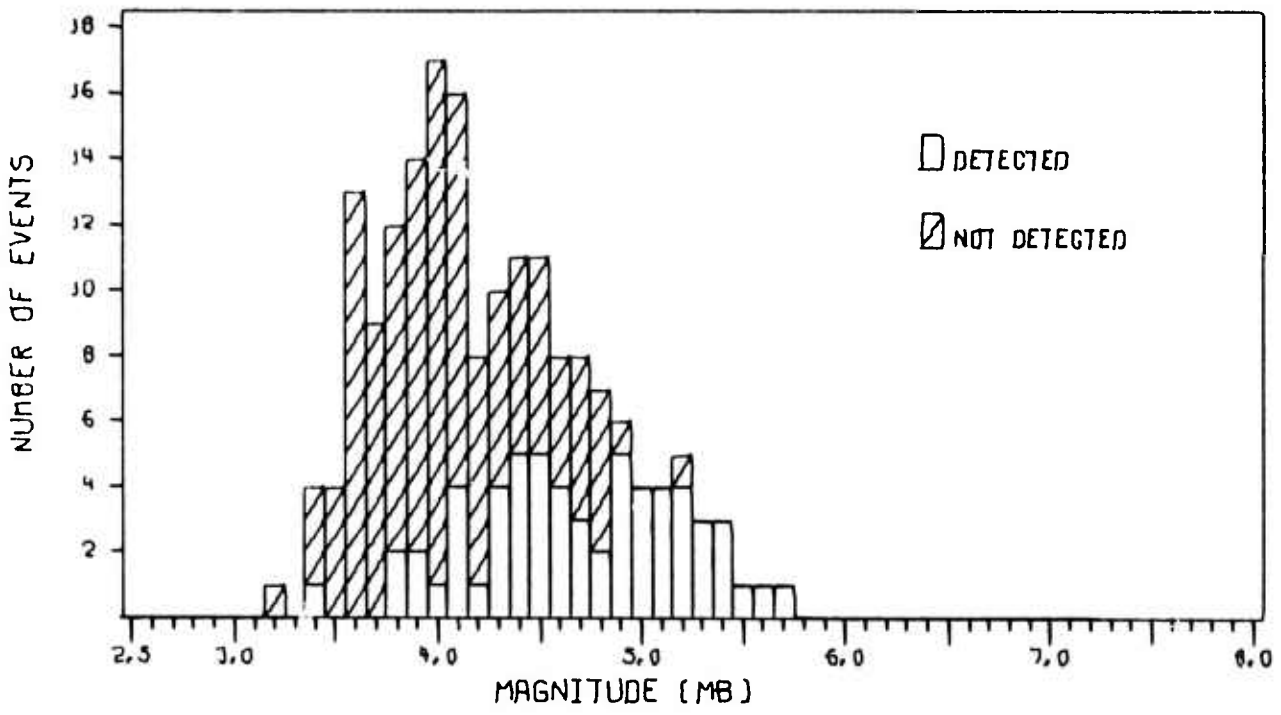
DETECTION STATISTICS FOR VLPE STATION 4 (TLO)



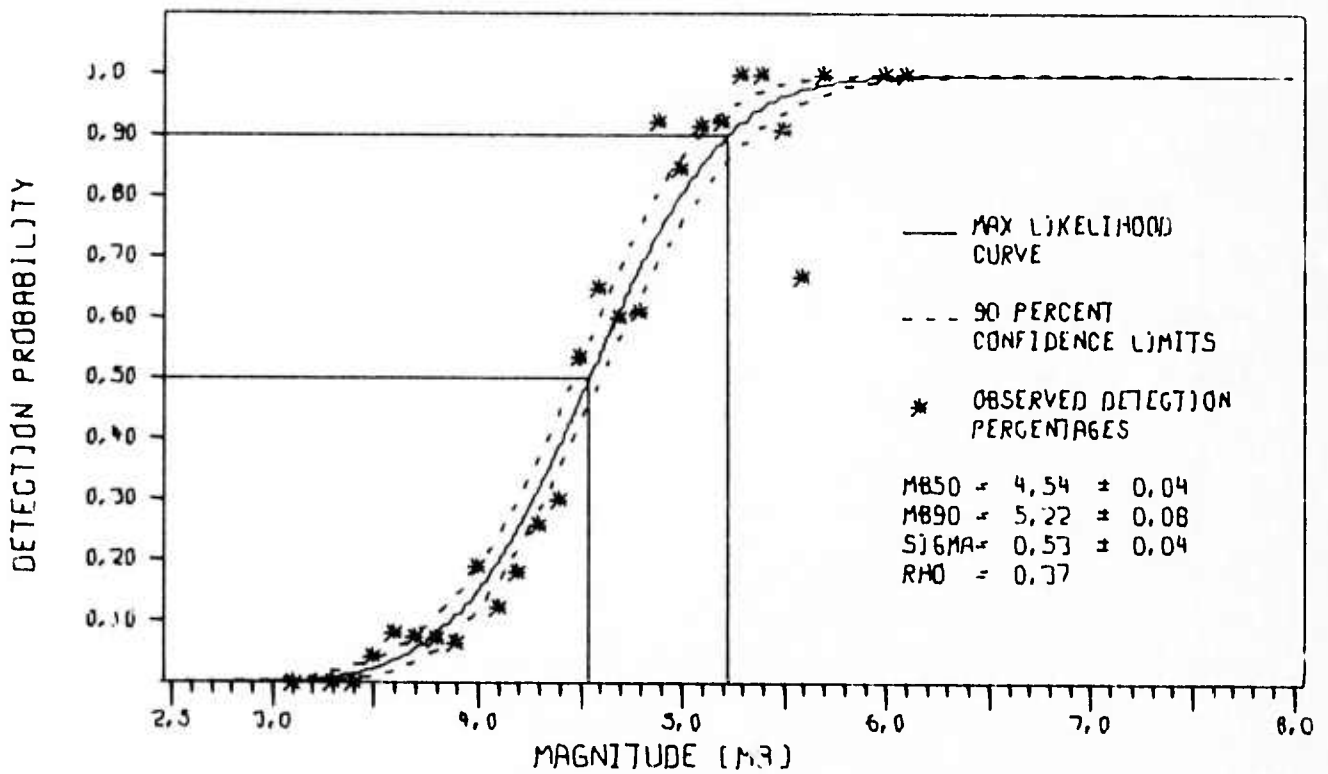
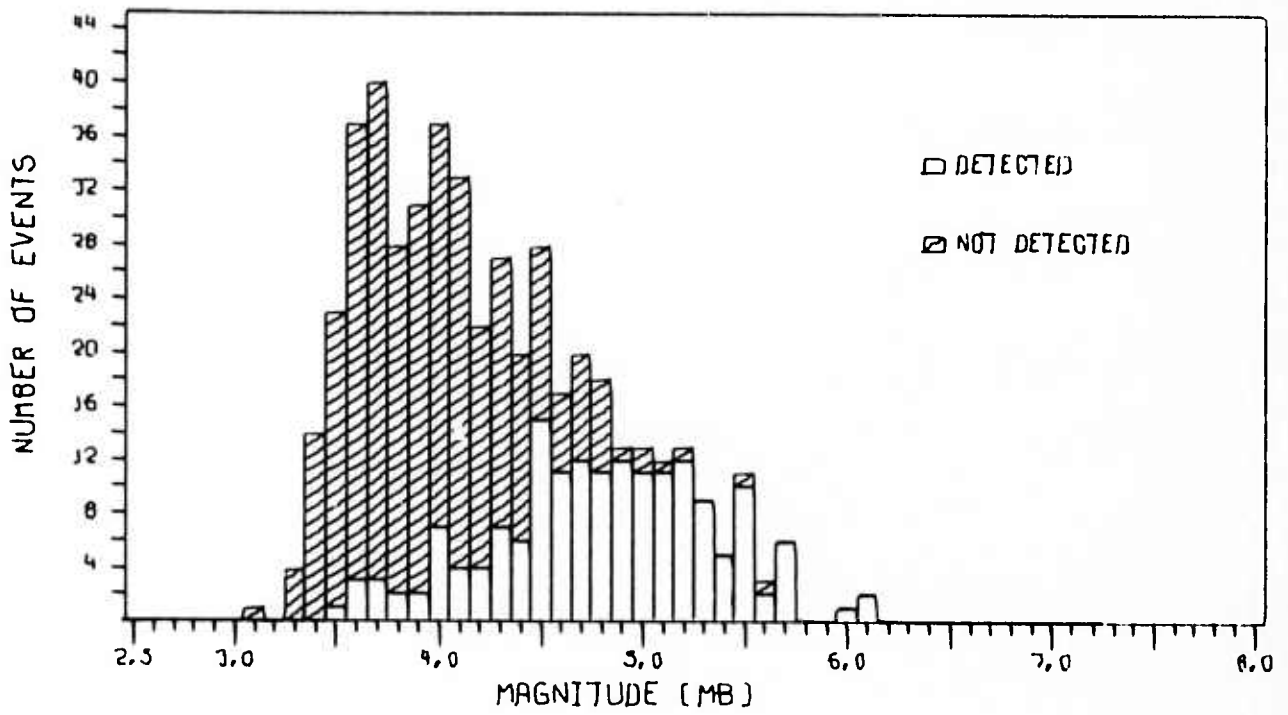
DETECTION STATISTICS FOR VLPE STATION 5 (EIL)



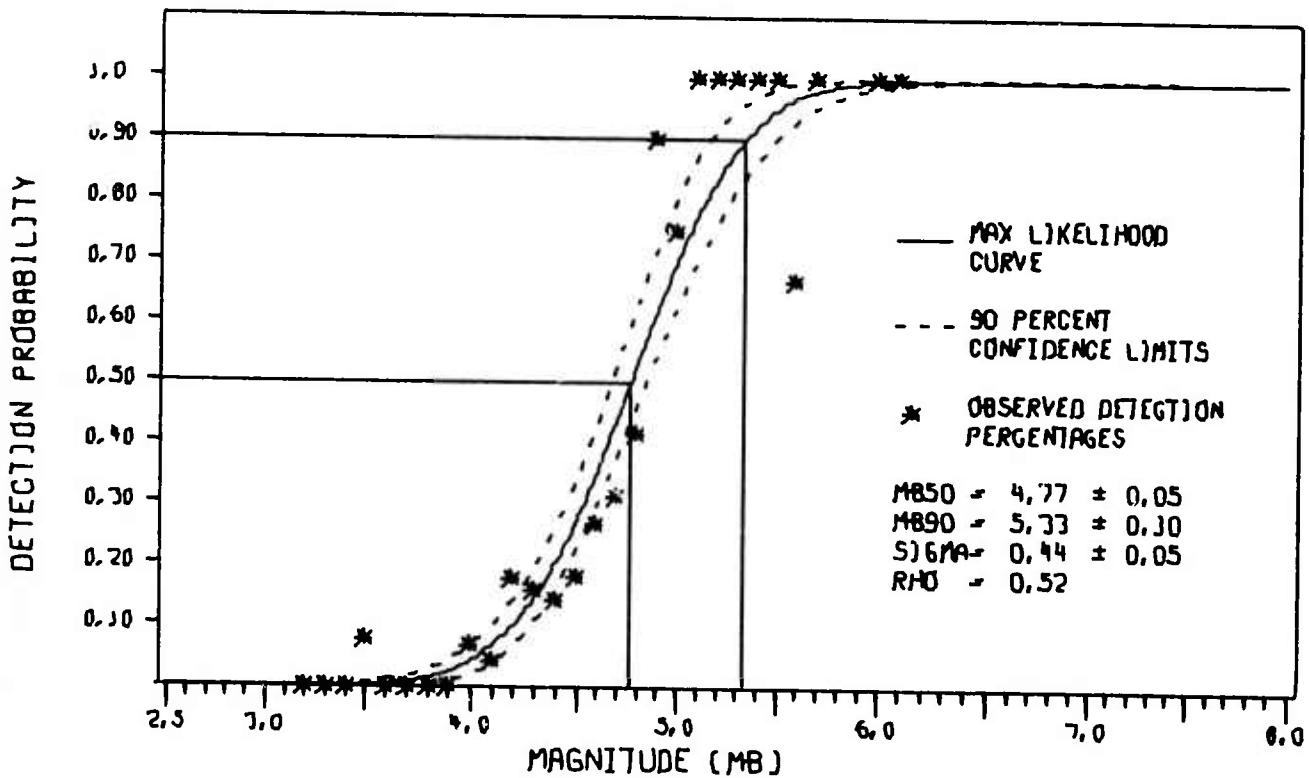
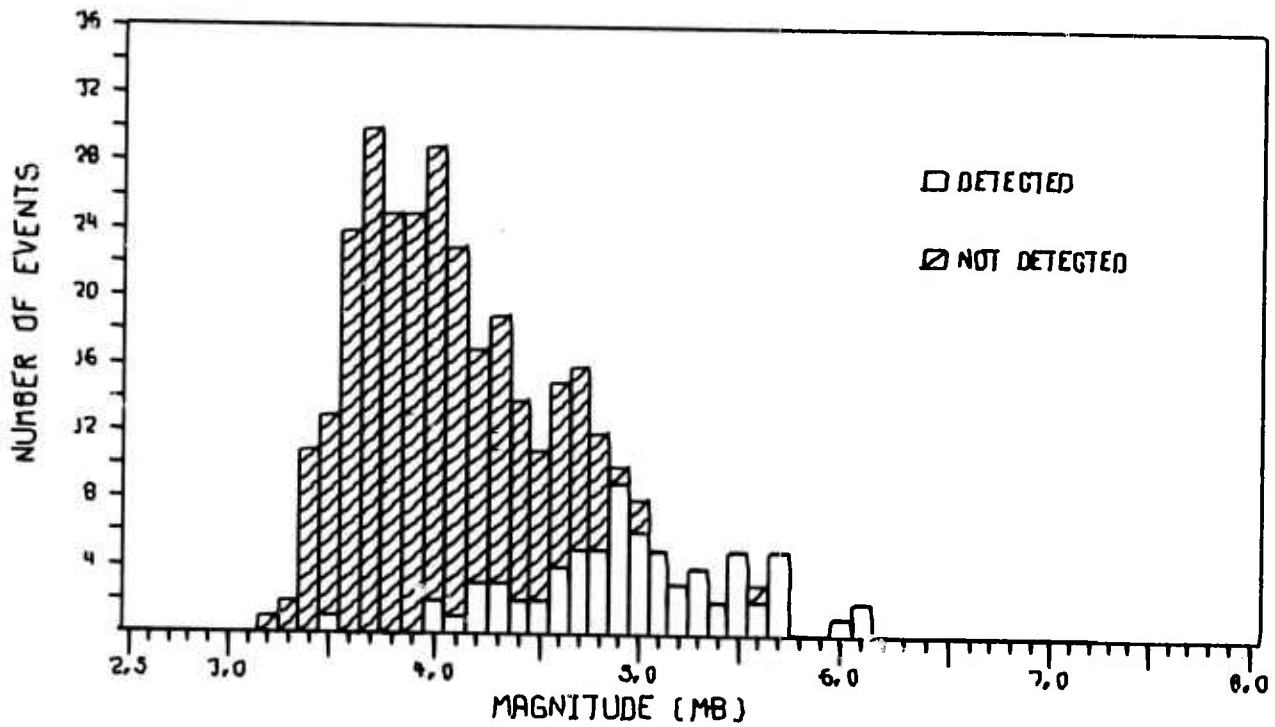
DETECTION STATISTICS FOR VLPF STATION 6 (KON)



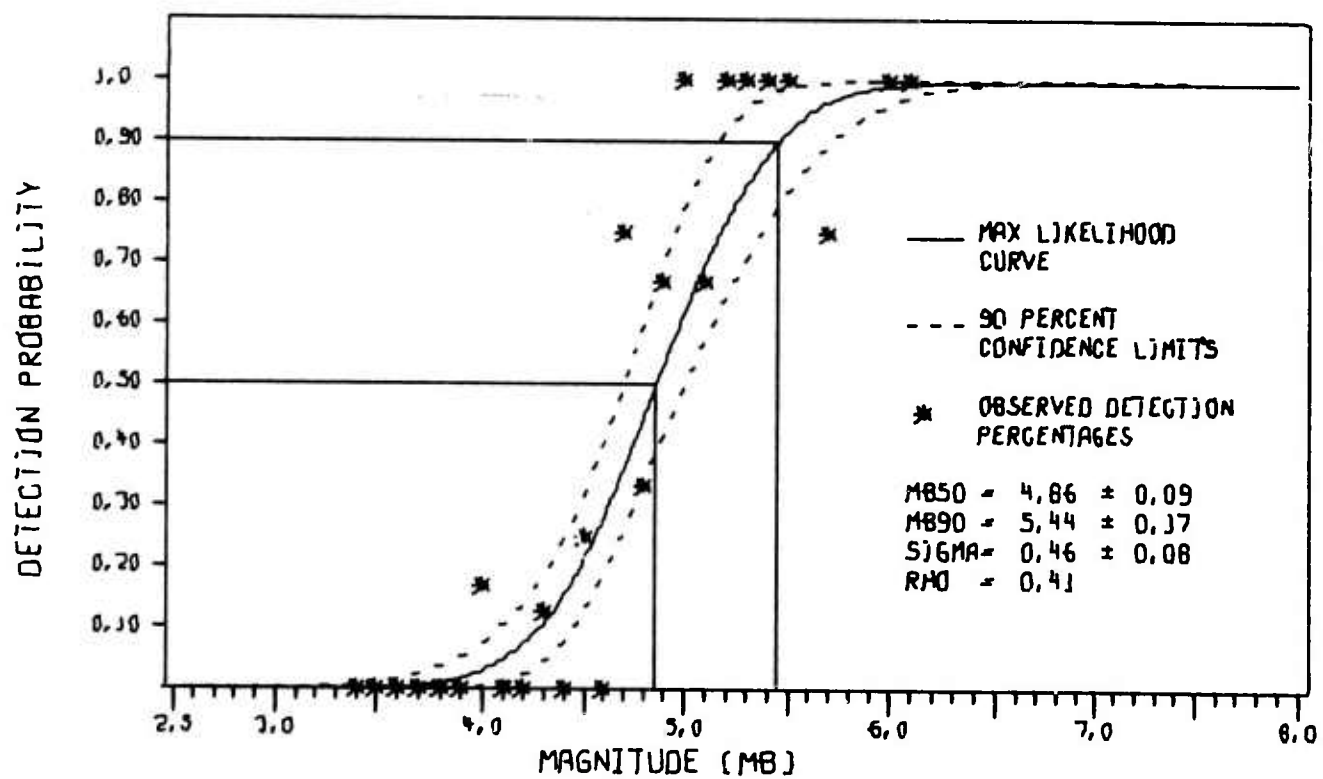
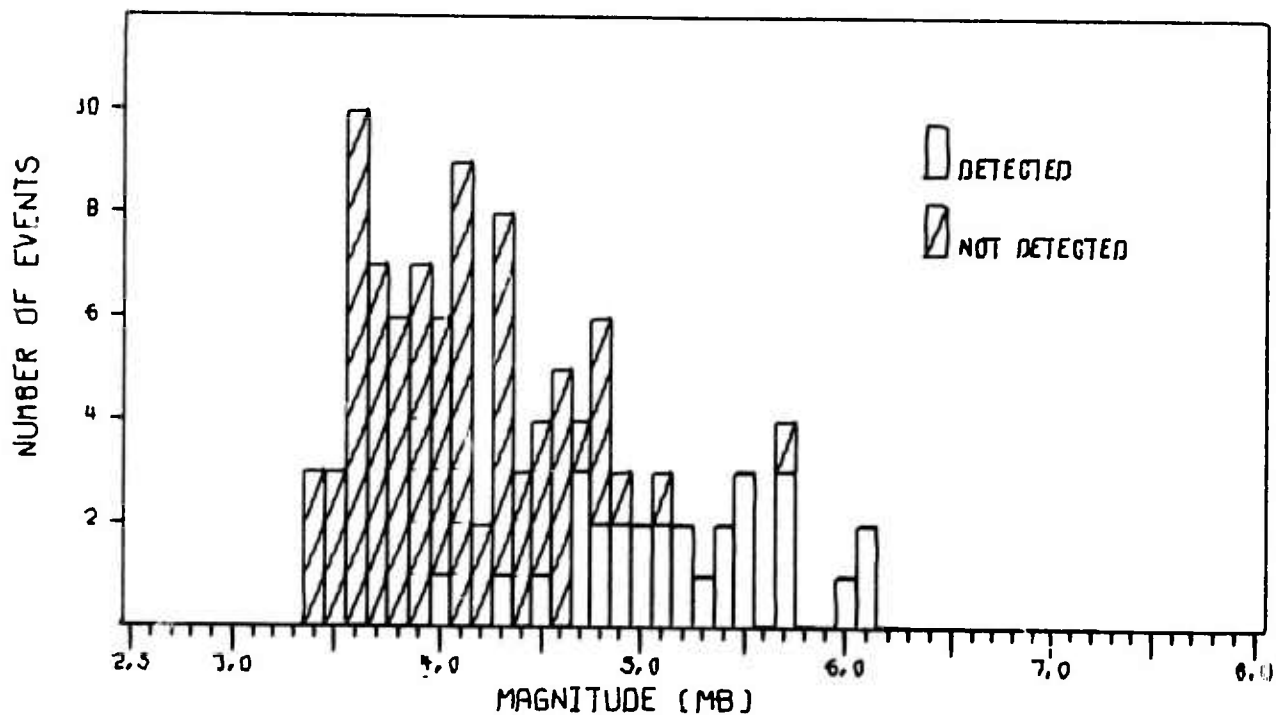
DETECTION STATISTICS FOR VLPE STATION 7 (OGD)



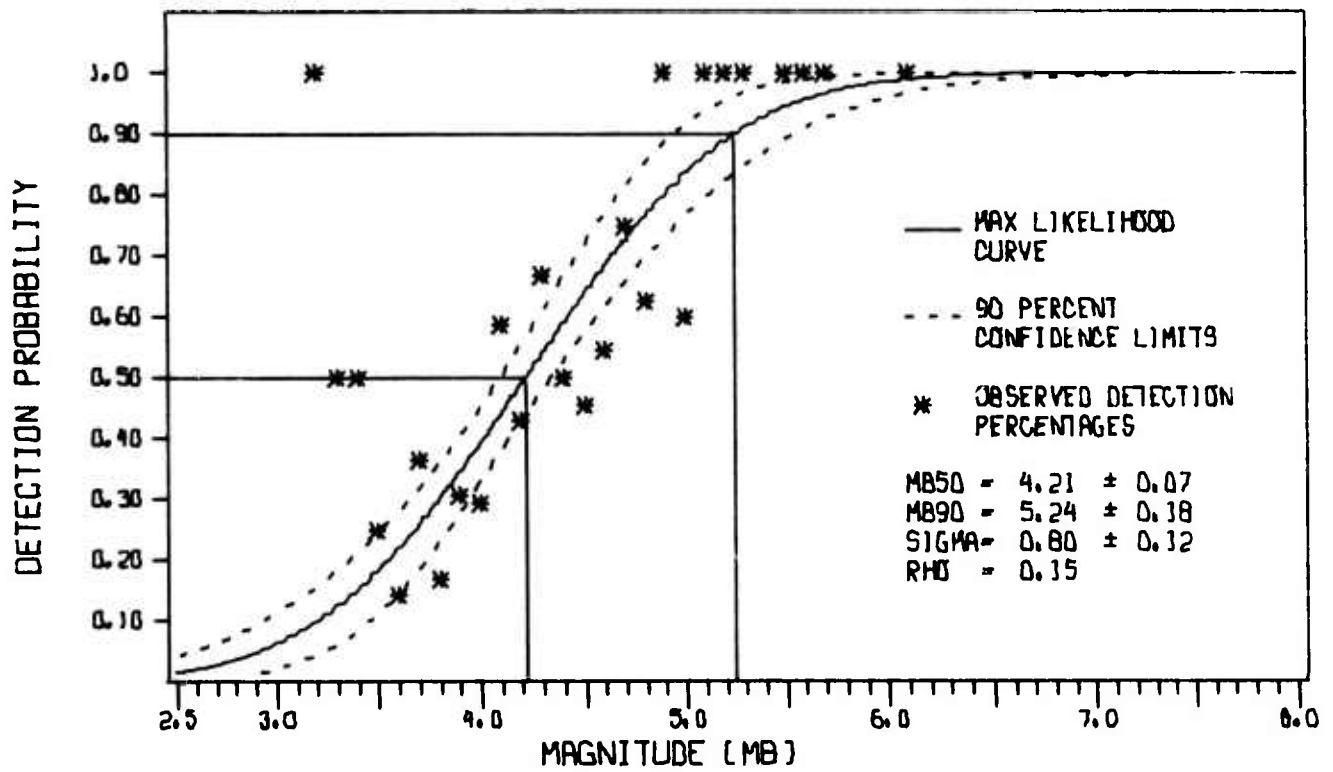
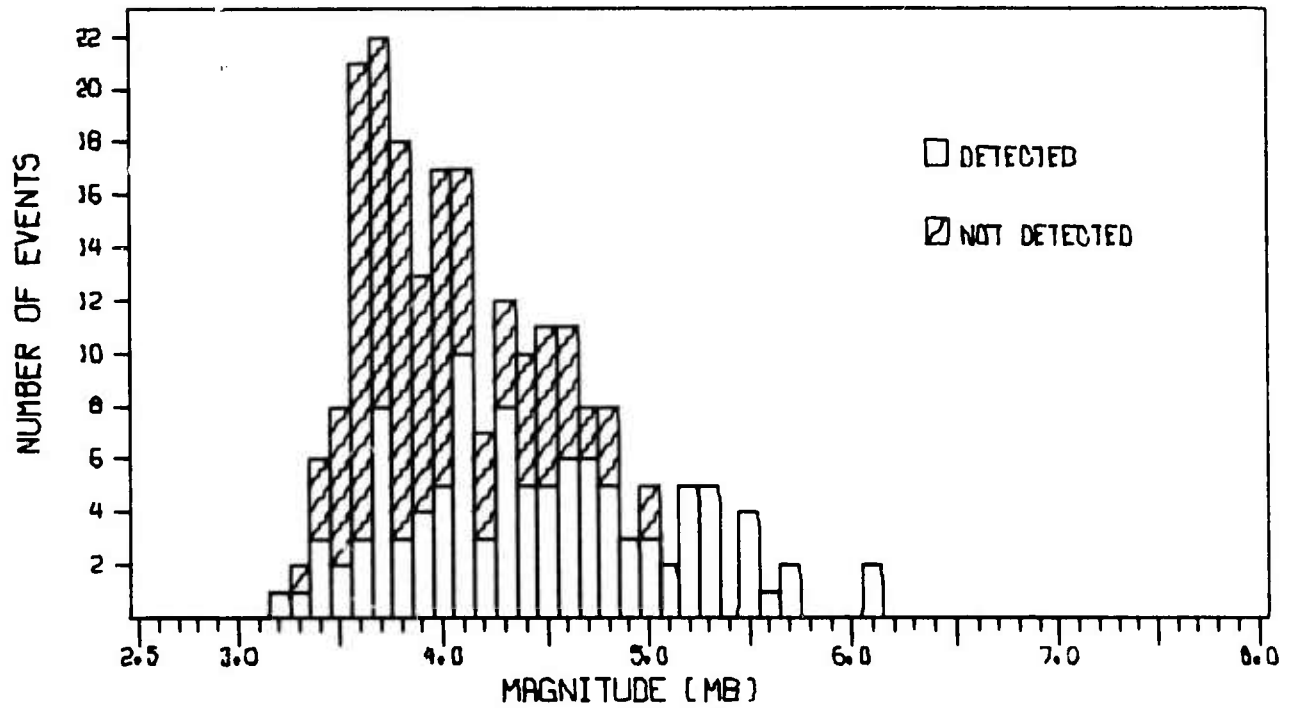
DETECTION STATISTICS FOR VLPE STATION 8 (KIP)



DETECTION STATISTICS FOR VLPE STATION 9 (ALQ)



DETECTION STATISTICS FOR VLPE STATION 10 (ZLP)



DETECTION STATISTICS FOR VLPE STATION 11 (MAT)